

**Radiofrequency Radiation Versus Distance**

**One Smart Meter**

Table D1	60% Reflection	(1%-100% duty cycles in each table)
Table D2	100% Reflection	(1%-100% duty cycles in each table)
Table D3	1000% Reflection*	(1%-100% duty cycles in each table)
Table D4	2000% Reflection*	(1%-100% duty cycles in each table)

**Multiple Smart Meters (Four\*\*)**

Table D5	60% Reflection	(1%-100% duty cycles in each table)
Table D6	100% Reflection	(1%-100% duty cycles in each table)
Table D7	1000% Reflection	(1%-100% duty cycles in each table)
Table D8	2000% Reflection	(1%-100% duty cycles in each table)

**Nursery Tables (Crib at 11’')**

**One Smart Meter**

Table D9	60% Reflection	(1%-100% duty cycles in each table)
Table D10	100% Reflection	(1%-100% duty cycles in each table)
Table D11	1000% Reflection	(1%-100% duty cycles in each table)
Table D12	2000% Reflection	(1%-100% duty cycles in each table)

**Four Smart Meters**

Table D13	60% Reflection	(1%-100% duty cycles in each table)
Table D14	100% Reflection	(1%-100% duty cycles in each table)
Table D15	1000% Reflection	(1%-100% duty cycles in each table)
Table D16	2000% Reflection	(1%-100% duty cycles in each table)

**Kitchen Tables (Work Space at 28’)**

**One Smart Meter**

Table D17	60% Reflection	(1%-100% duty cycles in each table)
Table D18	100% Reflection	(1%-100% duty cycles in each table)
Table D19	1000% Reflection	(1%-100% duty cycles in each table)
Table D20	2000% Reflection	(1%-100% duty cycles in each table)

**Four Smart Meters**

Table D21	60% Reflection	(1%-100% duty cycles in each table)
Table D22	100% Reflection	(1%-100% duty cycles in each table)
Table D23	1000% Reflection	(1%-100% duty cycles in each table)
Table D24	2000% Reflection	(1%-100% duty cycles in each table)

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

## Meters & Electric Meters

Time Avg: 1%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.10 1.2 Inches

BioInitiative ft. 7.56 90.7 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	91.83	10.25	0.05	20.25	0.01	30.25	0.01
0.50	22.96	10.50	0.05	20.50	0.01	30.50	0.01
0.75	10.20	10.75	0.05	20.75	0.01	30.75	0.01
1.00	5.74	11.00	0.05	21.00	0.01	31.00	0.01
1.25	3.67	11.25	0.05	21.25	0.01	31.25	0.01
1.50	2.55	11.50	0.04	21.50	0.01	31.50	0.01
1.75	1.87	11.75	0.04	21.75	0.01	31.75	0.01
2.00	1.43	12.00	0.04	22.00	0.01	32.00	0.01
2.25	1.13	12.25	0.04	22.25	0.01	32.25	0.01
2.50	0.92	12.50	0.04	22.50	0.01	32.50	0.01
2.75	0.76	12.75	0.04	22.75	0.01	32.75	0.01
3.00	0.64	13.00	0.03	23.00	0.01	33.00	0.01
3.25	0.54	13.25	0.03	23.25	0.01	33.25	0.01
3.50	0.47	13.50	0.03	23.50	0.01	33.50	0.01
3.75	0.41	13.75	0.03	23.75	0.01	33.75	0.01
4.00	0.36	14.00	0.03	24.00	0.01	34.00	0.00
4.25	0.32	14.25	0.03	24.25	0.01	34.25	0.00
4.50	0.28	14.50	0.03	24.50	0.01	34.50	0.00
4.75	0.25	14.75	0.03	24.75	0.01	34.75	0.00
5.00	0.23	15.00	0.03	25.00	0.01	35.00	0.00
5.25	0.21	15.25	0.02	25.25	0.01	35.25	0.00
5.50	0.19	15.50	0.02	25.50	0.01	35.50	0.00
5.75	0.17	15.75	0.02	25.75	0.01	35.75	0.00
6.00	0.16	16.00	0.02	26.00	0.01	36.00	0.00
6.25	0.15	16.25	0.02	26.25	0.01	36.25	0.00
6.50	0.14	16.50	0.02	26.50	0.01	36.50	0.00
6.75	0.13	16.75	0.02	26.75	0.01	36.75	0.00
7.00	0.12	17.00	0.02	27.00	0.01	37.00	0.00
7.25	0.11	17.25	0.02	27.25	0.01	37.25	0.00
7.50	0.10	17.50	0.02	27.50	0.01	37.50	0.00
7.75	0.10	17.75	0.02	27.75	0.01	37.75	0.00
8.00	0.09	18.00	0.02	28.00	0.01	38.00	0.00
8.25	0.08	18.25	0.02	28.25	0.01	38.25	0.00
8.50	0.08	18.50	0.02	28.50	0.01	38.50	0.00
8.75	0.07	18.75	0.02	28.75	0.01	38.75	0.00
9.00	0.07	19.00	0.02	29.00	0.01	39.00	0.00
9.25	0.07	19.25	0.02	29.25	0.01	39.25	0.00
9.50	0.06	19.50	0.02	29.50	0.01	39.50	0.00
9.75	0.06	19.75	0.01	29.75	0.01	39.75	0.00
10.00	0.06	20.00	0.01	30.00	0.01	40.00	0.00

### Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(R)^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 1%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.10

1.16 Inches

BioInitiative ft. 7.56

90.70 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.00	54.25	0.00	68.25	0.00	82.25	0.00
40.50	0.00	54.50	0.00	68.50	0.00	82.50	0.00
40.75	0.00	54.75	0.00	68.75	0.00	82.75	0.00
41.00	0.00	55.00	0.00	69.00	0.00	83.00	0.00
41.25	0.00	55.25	0.00	69.25	0.00	83.25	0.00
41.50	0.00	55.50	0.00	69.50	0.00	83.50	0.00
41.75	0.00	55.75	0.00	69.75	0.00	83.75	0.00
42.00	0.00	56.00	0.00	70.00	0.00	84.00	0.00
42.25	0.00	56.25	0.00	70.25	0.00	84.25	0.00
42.50	0.00	56.50	0.00	70.50	0.00	84.50	0.00
42.75	0.00	56.75	0.00	70.75	0.00	84.75	0.00
43.00	0.00	57.00	0.00	71.00	0.00	85.00	0.00
43.25	0.00	57.25	0.00	71.25	0.00	85.25	0.00
43.50	0.00	57.50	0.00	71.50	0.00	85.50	0.00
43.75	0.00	57.75	0.00	71.75	0.00	85.75	0.00
44.00	0.00	58.00	0.00	72.00	0.00	86.00	0.00
44.25	0.00	58.25	0.00	72.25	0.00	86.25	0.00
44.50	0.00	58.50	0.00	72.50	0.00	86.50	0.00
44.75	0.00	58.75	0.00	72.75	0.00	86.75	0.00
45.00	0.00	59.00	0.00	73.00	0.00	87.00	0.00
45.25	0.00	59.25	0.00	73.25	0.00	87.25	0.00
45.50	0.00	59.50	0.00	73.50	0.00	87.50	0.00
45.75	0.00	59.75	0.00	73.75	0.00	87.75	0.00
46.00	0.00	60.00	0.00	74.00	0.00	88.00	0.00
46.25	0.00	60.25	0.00	74.25	0.00	88.25	0.00
46.50	0.00	60.50	0.00	74.50	0.00	88.50	0.00
46.75	0.00	60.75	0.00	74.75	0.00	88.75	0.00
47.00	0.00	61.00	0.00	75.00	0.00	89.00	0.00
47.25	0.00	61.25	0.00	75.25	0.00	89.25	0.00
47.50	0.00	61.50	0.00	75.50	0.00	89.50	0.00
47.75	0.00	61.75	0.00	75.75	0.00	89.75	0.00
48.00	0.00	62.00	0.00	76.00	0.00	90.00	0.00
48.25	0.00	62.25	0.00	76.25	0.00	90.25	0.00
48.50	0.00	62.50	0.00	76.50	0.00	90.50	0.00
48.75	0.00	62.75	0.00	76.75	0.00	90.75	0.00
49.00	0.00	63.00	0.00	77.00	0.00	91.00	0.00
49.25	0.00	63.25	0.00	77.25	0.00	91.25	0.00
49.50	0.00	63.50	0.00	77.50	0.00	91.50	0.00
49.75	0.00	63.75	0.00	77.75	0.00	91.75	0.00
50.00	0.00	64.00	0.00	78.00	0.00	92.00	0.00
50.25	0.00	64.25	0.00	78.25	0.00	92.25	0.00
50.50	0.00	64.50	0.00	78.50	0.00	92.50	0.00
50.75	0.00	64.75	0.00	78.75	0.00	92.75	0.00
51.00	0.00	65.00	0.00	79.00	0.00	93.00	0.00
51.25	0.00	65.25	0.00	79.25	0.00	93.25	0.00
51.50	0.00	65.50	0.00	79.50	0.00	93.50	0.00
51.75	0.00	65.75	0.00	79.75	0.00	93.75	0.00
52.00	0.00	66.00	0.00	80.00	0.00	94.00	0.00
52.25	0.00	66.25	0.00	80.25	0.00	94.25	0.00
52.50	0.00	66.50	0.00	80.50	0.00	94.50	0.00
52.75	0.00	66.75	0.00	80.75	0.00	94.75	0.00
53.00	0.00	67.00	0.00	81.00	0.00	95.00	0.00
53.25	0.00	67.25	0.00	81.25	0.00	95.25	0.00
53.50	0.00	67.50	0.00	81.50	0.00	95.50	0.00
53.75	0.00	67.75	0.00	81.75	0.00	95.75	0.00
54.00	0.00	68.00	0.00	82.00	0.00	96.00	0.00

Table 1 – 1%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 10%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.30 3.7 Inches

BioInitiative ft. 24.00 288.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	918.34	10.25	0.55	20.25	0.14	30.25	0.06
0.50	229.58	10.50	0.52	20.50	0.14	30.50	0.06
0.75	102.04	10.75	0.50	20.75	0.13	30.75	0.06
1.00	57.40	11.00	0.47	21.00	0.13	31.00	0.06
1.25	36.73	11.25	0.45	21.25	0.13	31.25	0.06
1.50	25.51	11.50	0.43	21.50	0.12	31.50	0.06
1.75	18.74	11.75	0.42	21.75	0.12	31.75	0.06
2.00	14.35	12.00	0.40	22.00	0.12	32.00	0.06
2.25	11.34	12.25	0.38	22.25	0.12	32.25	0.06
2.50	9.18	12.50	0.37	22.50	0.11	32.50	0.05
2.75	7.59	12.75	0.35	22.75	0.11	32.75	0.05
3.00	6.38	13.00	0.34	23.00	0.11	33.00	0.05
3.25	5.43	13.25	0.33	23.25	0.11	33.25	0.05
3.50	4.69	13.50	0.31	23.50	0.10	33.50	0.05
3.75	4.08	13.75	0.30	23.75	0.10	33.75	0.05
4.00	3.59	14.00	0.29	24.00	0.10	34.00	0.05
4.25	3.18	14.25	0.28	24.25	0.10	34.25	0.05
4.50	2.83	14.50	0.27	24.50	0.10	34.50	0.05
4.75	2.54	14.75	0.26	24.75	0.09	34.75	0.05
5.00	2.30	15.00	0.26	25.00	0.09	35.00	0.05
5.25	2.08	15.25	0.25	25.25	0.09	35.25	0.05
5.50	1.90	15.50	0.24	25.50	0.09	35.50	0.05
5.75	1.74	15.75	0.23	25.75	0.09	35.75	0.04
6.00	1.59	16.00	0.22	26.00	0.08	36.00	0.04
6.25	1.47	16.25	0.22	26.25	0.08	36.25	0.04
6.50	1.36	16.50	0.21	26.50	0.08	36.50	0.04
6.75	1.26	16.75	0.20	26.75	0.08	36.75	0.04
7.00	1.17	17.00	0.20	27.00	0.08	37.00	0.04
7.25	1.09	17.25	0.19	27.25	0.08	37.25	0.04
7.50	1.02	17.50	0.19	27.50	0.08	37.50	0.04
7.75	0.96	17.75	0.18	27.75	0.07	37.75	0.04
8.00	0.90	18.00	0.18	28.00	0.07	38.00	0.04
8.25	0.84	18.25	0.17	28.25	0.07	38.25	0.04
8.50	0.79	18.50	0.17	28.50	0.07	38.50	0.04
8.75	0.75	18.75	0.16	28.75	0.07	38.75	0.04
9.00	0.71	19.00	0.16	29.00	0.07	39.00	0.04
9.25	0.67	19.25	0.15	29.25	0.07	39.25	0.04
9.50	0.64	19.50	0.15	29.50	0.07	39.50	0.04
9.75	0.60	19.75	0.15	29.75	0.06	39.75	0.04
10.00	0.57	20.00	0.14	30.00	0.06	40.00	0.04

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi)(R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 10%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.30

3.66 Inches

BioInitiative ft. 24.00

288.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.04	54.25	0.02	68.25	0.01	82.25	0.01
40.50	0.03	54.50	0.02	68.50	0.01	82.50	0.01
40.75	0.03	54.75	0.02	68.75	0.01	82.75	0.01
41.00	0.03	55.00	0.02	69.00	0.01	83.00	0.01
41.25	0.03	55.25	0.02	69.25	0.01	83.25	0.01
41.50	0.03	55.50	0.02	69.50	0.01	83.50	0.01
41.75	0.03	55.75	0.02	69.75	0.01	83.75	0.01
42.00	0.03	56.00	0.02	70.00	0.01	84.00	0.01
42.25	0.03	56.25	0.02	70.25	0.01	84.25	0.01
42.50	0.03	56.50	0.02	70.50	0.01	84.50	0.01
42.75	0.03	56.75	0.02	70.75	0.01	84.75	0.01
43.00	0.03	57.00	0.02	71.00	0.01	85.00	0.01
43.25	0.03	57.25	0.02	71.25	0.01	85.25	0.01
43.50	0.03	57.50	0.02	71.50	0.01	85.50	0.01
43.75	0.03	57.75	0.02	71.75	0.01	85.75	0.01
44.00	0.03	58.00	0.02	72.00	0.01	86.00	0.01
44.25	0.03	58.25	0.02	72.25	0.01	86.25	0.01
44.50	0.03	58.50	0.02	72.50	0.01	86.50	0.01
44.75	0.03	58.75	0.02	72.75	0.01	86.75	0.01
45.00	0.03	59.00	0.02	73.00	0.01	87.00	0.01
45.25	0.03	59.25	0.02	73.25	0.01	87.25	0.01
45.50	0.03	59.50	0.02	73.50	0.01	87.50	0.01
45.75	0.03	59.75	0.02	73.75	0.01	87.75	0.01
46.00	0.03	60.00	0.02	74.00	0.01	88.00	0.01
46.25	0.03	60.25	0.02	74.25	0.01	88.25	0.01
46.50	0.03	60.50	0.02	74.50	0.01	88.50	0.01
46.75	0.03	60.75	0.02	74.75	0.01	88.75	0.01
47.00	0.03	61.00	0.02	75.00	0.01	89.00	0.01
47.25	0.03	61.25	0.02	75.25	0.01	89.25	0.01
47.50	0.03	61.50	0.02	75.50	0.01	89.50	0.01
47.75	0.03	61.75	0.02	75.75	0.01	89.75	0.01
48.00	0.02	62.00	0.01	76.00	0.01	90.00	0.01
48.25	0.02	62.25	0.01	76.25	0.01	90.25	0.01
48.50	0.02	62.50	0.01	76.50	0.01	90.50	0.01
48.75	0.02	62.75	0.01	76.75	0.01	90.75	0.01
49.00	0.02	63.00	0.01	77.00	0.01	91.00	0.01
49.25	0.02	63.25	0.01	77.25	0.01	91.25	0.01
49.50	0.02	63.50	0.01	77.50	0.01	91.50	0.01
49.75	0.02	63.75	0.01	77.75	0.01	91.75	0.01
50.00	0.02	64.00	0.01	78.00	0.01	92.00	0.01
50.25	0.02	64.25	0.01	78.25	0.01	92.25	0.01
50.50	0.02	64.50	0.01	78.50	0.01	92.50	0.01
50.75	0.02	64.75	0.01	78.75	0.01	92.75	0.01
51.00	0.02	65.00	0.01	79.00	0.01	93.00	0.01
51.25	0.02	65.25	0.01	79.25	0.01	93.25	0.01
51.50	0.02	65.50	0.01	79.50	0.01	93.50	0.01
51.75	0.02	65.75	0.01	79.75	0.01	93.75	0.01
52.00	0.02	66.00	0.01	80.00	0.01	94.00	0.01
52.25	0.02	66.25	0.01	80.25	0.01	94.25	0.01
52.50	0.02	66.50	0.01	80.50	0.01	94.50	0.01
52.75	0.02	66.75	0.01	80.75	0.01	94.75	0.01
53.00	0.02	67.00	0.01	81.00	0.01	95.00	0.01
53.25	0.02	67.25	0.01	81.25	0.01	95.25	0.01
53.50	0.02	67.50	0.01	81.50	0.01	95.50	0.01
53.75	0.02	67.75	0.01	81.75	0.01	95.75	0.01
54.00	0.02	68.00	0.01	82.00	0.01	96.00	0.01

Table 1 – 10%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 20%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.43                      5.2 Inches

BioInitiative ft. 33.80                      405.6 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	1836.67	10.25	1.09	20.25	0.28	30.25	0.13
0.50	459.17	10.50	1.04	20.50	0.27	30.50	0.12
0.75	204.07	10.75	0.99	20.75	0.27	30.75	0.12
1.00	114.79	11.00	0.95	21.00	0.26	31.00	0.12
1.25	73.47	11.25	0.91	21.25	0.25	31.25	0.12
1.50	51.02	11.50	0.87	21.50	0.25	31.50	0.12
1.75	37.48	11.75	0.83	21.75	0.24	31.75	0.11
2.00	28.70	12.00	0.80	22.00	0.24	32.00	0.11
2.25	22.67	12.25	0.76	22.25	0.23	32.25	0.11
2.50	18.37	12.50	0.73	22.50	0.23	32.50	0.11
2.75	15.18	12.75	0.71	22.75	0.22	32.75	0.11
3.00	12.75	13.00	0.68	23.00	0.22	33.00	0.11
3.25	10.87	13.25	0.65	23.25	0.21	33.25	0.10
3.50	9.37	13.50	0.63	23.50	0.21	33.50	0.10
3.75	8.16	13.75	0.61	23.75	0.20	33.75	0.10
4.00	7.17	14.00	0.59	24.00	0.20	34.00	0.10
4.25	6.36	14.25	0.57	24.25	0.20	34.25	0.10
4.50	5.67	14.50	0.55	24.50	0.19	34.50	0.10
4.75	5.09	14.75	0.53	24.75	0.19	34.75	0.10
5.00	4.59	15.00	0.51	25.00	0.18	35.00	0.09
5.25	4.16	15.25	0.49	25.25	0.18	35.25	0.09
5.50	3.79	15.50	0.48	25.50	0.18	35.50	0.09
5.75	3.47	15.75	0.46	25.75	0.17	35.75	0.09
6.00	3.19	16.00	0.45	26.00	0.17	36.00	0.09
6.25	2.94	16.25	0.43	26.25	0.17	36.25	0.09
6.50	2.72	16.50	0.42	26.50	0.16	36.50	0.09
6.75	2.52	16.75	0.41	26.75	0.16	36.75	0.08
7.00	2.34	17.00	0.40	27.00	0.16	37.00	0.08
7.25	2.18	17.25	0.39	27.25	0.15	37.25	0.08
7.50	2.04	17.50	0.37	27.50	0.15	37.50	0.08
7.75	1.91	17.75	0.36	27.75	0.15	37.75	0.08
8.00	1.79	18.00	0.35	28.00	0.15	38.00	0.08
8.25	1.69	18.25	0.34	28.25	0.14	38.25	0.08
8.50	1.59	18.50	0.34	28.50	0.14	38.50	0.08
8.75	1.50	18.75	0.33	28.75	0.14	38.75	0.08
9.00	1.42	19.00	0.32	29.00	0.14	39.00	0.08
9.25	1.34	19.25	0.31	29.25	0.13	39.25	0.07
9.50	1.27	19.50	0.30	29.50	0.13	39.50	0.07
9.75	1.21	19.75	0.29	29.75	0.13	39.75	0.07
10.00	1.15	20.00	0.29	30.00	0.13	40.00	0.07

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 20%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.43

5.17 Inches

BioInitiative ft. 33.80

405.60 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.07	54.25	0.04	68.25	0.02	82.25	0.02
40.50	0.07	54.50	0.04	68.50	0.02	82.50	0.02
40.75	0.07	54.75	0.04	68.75	0.02	82.75	0.02
41.00	0.07	55.00	0.04	69.00	0.02	83.00	0.02
41.25	0.07	55.25	0.04	69.25	0.02	83.25	0.02
41.50	0.07	55.50	0.04	69.50	0.02	83.50	0.02
41.75	0.07	55.75	0.04	69.75	0.02	83.75	0.02
42.00	0.07	56.00	0.04	70.00	0.02	84.00	0.02
42.25	0.06	56.25	0.04	70.25	0.02	84.25	0.02
42.50	0.06	56.50	0.04	70.50	0.02	84.50	0.02
42.75	0.06	56.75	0.04	70.75	0.02	84.75	0.02
43.00	0.06	57.00	0.04	71.00	0.02	85.00	0.02
43.25	0.06	57.25	0.04	71.25	0.02	85.25	0.02
43.50	0.06	57.50	0.03	71.50	0.02	85.50	0.02
43.75	0.06	57.75	0.03	71.75	0.02	85.75	0.02
44.00	0.06	58.00	0.03	72.00	0.02	86.00	0.02
44.25	0.06	58.25	0.03	72.25	0.02	86.25	0.02
44.50	0.06	58.50	0.03	72.50	0.02	86.50	0.02
44.75	0.06	58.75	0.03	72.75	0.02	86.75	0.02
45.00	0.06	59.00	0.03	73.00	0.02	87.00	0.02
45.25	0.06	59.25	0.03	73.25	0.02	87.25	0.02
45.50	0.06	59.50	0.03	73.50	0.02	87.50	0.01
45.75	0.05	59.75	0.03	73.75	0.02	87.75	0.01
46.00	0.05	60.00	0.03	74.00	0.02	88.00	0.01
46.25	0.05	60.25	0.03	74.25	0.02	88.25	0.01
46.50	0.05	60.50	0.03	74.50	0.02	88.50	0.01
46.75	0.05	60.75	0.03	74.75	0.02	88.75	0.01
47.00	0.05	61.00	0.03	75.00	0.02	89.00	0.01
47.25	0.05	61.25	0.03	75.25	0.02	89.25	0.01
47.50	0.05	61.50	0.03	75.50	0.02	89.50	0.01
47.75	0.05	61.75	0.03	75.75	0.02	89.75	0.01
48.00	0.05	62.00	0.03	76.00	0.02	90.00	0.01
48.25	0.05	62.25	0.03	76.25	0.02	90.25	0.01
48.50	0.05	62.50	0.03	76.50	0.02	90.50	0.01
48.75	0.05	62.75	0.03	76.75	0.02	90.75	0.01
49.00	0.05	63.00	0.03	77.00	0.02	91.00	0.01
49.25	0.05	63.25	0.03	77.25	0.02	91.25	0.01
49.50	0.05	63.50	0.03	77.50	0.02	91.50	0.01
49.75	0.05	63.75	0.03	77.75	0.02	91.75	0.01
50.00	0.05	64.00	0.03	78.00	0.02	92.00	0.01
50.25	0.05	64.25	0.03	78.25	0.02	92.25	0.01
50.50	0.05	64.50	0.03	78.50	0.02	92.50	0.01
50.75	0.04	64.75	0.03	78.75	0.02	92.75	0.01
51.00	0.04	65.00	0.03	79.00	0.02	93.00	0.01
51.25	0.04	65.25	0.03	79.25	0.02	93.25	0.01
51.50	0.04	65.50	0.03	79.50	0.02	93.50	0.01
51.75	0.04	65.75	0.03	79.75	0.02	93.75	0.01
52.00	0.04	66.00	0.03	80.00	0.02	94.00	0.01
52.25	0.04	66.25	0.03	80.25	0.02	94.25	0.01
52.50	0.04	66.50	0.03	80.50	0.02	94.50	0.01
52.75	0.04	66.75	0.03	80.75	0.02	94.75	0.01
53.00	0.04	67.00	0.03	81.00	0.02	95.00	0.01
53.25	0.04	67.25	0.03	81.25	0.02	95.25	0.01
53.50	0.04	67.50	0.03	81.50	0.02	95.50	0.01
53.75	0.04	67.75	0.03	81.75	0.02	95.75	0.01
54.00	0.04	68.00	0.02	82.00	0.02	96.00	0.01

Table 1 – 20%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 30%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.53                      6.3 Inches

BioInitiative ft. 41.50                      498.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	2755.01	10.25	1.64	20.25	0.42	30.25	0.19
0.50	688.75	10.50	1.56	20.50	0.41	30.50	0.19
0.75	306.11	10.75	1.49	20.75	0.40	30.75	0.18
1.00	172.19	11.00	1.42	21.00	0.39	31.00	0.18
1.25	110.20	11.25	1.36	21.25	0.38	31.25	0.18
1.50	76.53	11.50	1.30	21.50	0.37	31.50	0.17
1.75	56.22	11.75	1.25	21.75	0.36	31.75	0.17
2.00	43.05	12.00	1.20	22.00	0.36	32.00	0.17
2.25	34.01	12.25	1.15	22.25	0.35	32.25	0.17
2.50	27.55	12.50	1.10	22.50	0.34	32.50	0.16
2.75	22.77	12.75	1.06	22.75	0.33	32.75	0.16
3.00	19.13	13.00	1.02	23.00	0.33	33.00	0.16
3.25	16.30	13.25	0.98	23.25	0.32	33.25	0.16
3.50	14.06	13.50	0.94	23.50	0.31	33.50	0.15
3.75	12.24	13.75	0.91	23.75	0.31	33.75	0.15
4.00	10.76	14.00	0.88	24.00	0.30	34.00	0.15
4.25	9.53	14.25	0.85	24.25	0.29	34.25	0.15
4.50	8.50	14.50	0.82	24.50	0.29	34.50	0.14
4.75	7.63	14.75	0.79	24.75	0.28	34.75	0.14
5.00	6.89	15.00	0.77	25.00	0.28	35.00	0.14
5.25	6.25	15.25	0.74	25.25	0.27	35.25	0.14
5.50	5.69	15.50	0.72	25.50	0.26	35.50	0.14
5.75	5.21	15.75	0.69	25.75	0.26	35.75	0.13
6.00	4.78	16.00	0.67	26.00	0.25	36.00	0.13
6.25	4.41	16.25	0.65	26.25	0.25	36.25	0.13
6.50	4.08	16.50	0.63	26.50	0.25	36.50	0.13
6.75	3.78	16.75	0.61	26.75	0.24	36.75	0.13
7.00	3.51	17.00	0.60	27.00	0.24	37.00	0.13
7.25	3.28	17.25	0.58	27.25	0.23	37.25	0.12
7.50	3.06	17.50	0.56	27.50	0.23	37.50	0.12
7.75	2.87	17.75	0.55	27.75	0.22	37.75	0.12
8.00	2.69	18.00	0.53	28.00	0.22	38.00	0.12
8.25	2.53	18.25	0.52	28.25	0.22	38.25	0.12
8.50	2.38	18.50	0.50	28.50	0.21	38.50	0.12
8.75	2.25	18.75	0.49	28.75	0.21	38.75	0.11
9.00	2.13	19.00	0.48	29.00	0.20	39.00	0.11
9.25	2.01	19.25	0.46	29.25	0.20	39.25	0.11
9.50	1.91	19.50	0.45	29.50	0.20	39.50	0.11
9.75	1.81	19.75	0.44	29.75	0.19	39.75	0.11
10.00	1.72	20.00	0.43	30.00	0.19	40.00	0.11

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi)(R)^2$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 30%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.53

6.34 Inches

BioInitiative ft. 41.50

498.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.11	54.25	0.06	68.25	0.04	82.25	0.03
40.50	0.10	54.50	0.06	68.50	0.04	82.50	0.03
40.75	0.10	54.75	0.06	68.75	0.04	82.75	0.03
41.00	0.10	55.00	0.06	69.00	0.04	83.00	0.02
41.25	0.10	55.25	0.06	69.25	0.04	83.25	0.02
41.50	0.10	55.50	0.06	69.50	0.04	83.50	0.02
41.75	0.10	55.75	0.06	69.75	0.04	83.75	0.02
42.00	0.10	56.00	0.05	70.00	0.04	84.00	0.02
42.25	0.10	56.25	0.05	70.25	0.03	84.25	0.02
42.50	0.10	56.50	0.05	70.50	0.03	84.50	0.02
42.75	0.09	56.75	0.05	70.75	0.03	84.75	0.02
43.00	0.09	57.00	0.05	71.00	0.03	85.00	0.02
43.25	0.09	57.25	0.05	71.25	0.03	85.25	0.02
43.50	0.09	57.50	0.05	71.50	0.03	85.50	0.02
43.75	0.09	57.75	0.05	71.75	0.03	85.75	0.02
44.00	0.09	58.00	0.05	72.00	0.03	86.00	0.02
44.25	0.09	58.25	0.05	72.25	0.03	86.25	0.02
44.50	0.09	58.50	0.05	72.50	0.03	86.50	0.02
44.75	0.09	58.75	0.05	72.75	0.03	86.75	0.02
45.00	0.09	59.00	0.05	73.00	0.03	87.00	0.02
45.25	0.08	59.25	0.05	73.25	0.03	87.25	0.02
45.50	0.08	59.50	0.05	73.50	0.03	87.50	0.02
45.75	0.08	59.75	0.05	73.75	0.03	87.75	0.02
46.00	0.08	60.00	0.05	74.00	0.03	88.00	0.02
46.25	0.08	60.25	0.05	74.25	0.03	88.25	0.02
46.50	0.08	60.50	0.05	74.50	0.03	88.50	0.02
46.75	0.08	60.75	0.05	74.75	0.03	88.75	0.02
47.00	0.08	61.00	0.05	75.00	0.03	89.00	0.02
47.25	0.08	61.25	0.05	75.25	0.03	89.25	0.02
47.50	0.08	61.50	0.05	75.50	0.03	89.50	0.02
47.75	0.08	61.75	0.05	75.75	0.03	89.75	0.02
48.00	0.07	62.00	0.04	76.00	0.03	90.00	0.02
48.25	0.07	62.25	0.04	76.25	0.03	90.25	0.02
48.50	0.07	62.50	0.04	76.50	0.03	90.50	0.02
48.75	0.07	62.75	0.04	76.75	0.03	90.75	0.02
49.00	0.07	63.00	0.04	77.00	0.03	91.00	0.02
49.25	0.07	63.25	0.04	77.25	0.03	91.25	0.02
49.50	0.07	63.50	0.04	77.50	0.03	91.50	0.02
49.75	0.07	63.75	0.04	77.75	0.03	91.75	0.02
50.00	0.07	64.00	0.04	78.00	0.03	92.00	0.02
50.25	0.07	64.25	0.04	78.25	0.03	92.25	0.02
50.50	0.07	64.50	0.04	78.50	0.03	92.50	0.02
50.75	0.07	64.75	0.04	78.75	0.03	92.75	0.02
51.00	0.07	65.00	0.04	79.00	0.03	93.00	0.02
51.25	0.07	65.25	0.04	79.25	0.03	93.25	0.02
51.50	0.06	65.50	0.04	79.50	0.03	93.50	0.02
51.75	0.06	65.75	0.04	79.75	0.03	93.75	0.02
52.00	0.06	66.00	0.04	80.00	0.03	94.00	0.02
52.25	0.06	66.25	0.04	80.25	0.03	94.25	0.02
52.50	0.06	66.50	0.04	80.50	0.03	94.50	0.02
52.75	0.06	66.75	0.04	80.75	0.03	94.75	0.02
53.00	0.06	67.00	0.04	81.00	0.03	95.00	0.02
53.25	0.06	67.25	0.04	81.25	0.03	95.25	0.02
53.50	0.06	67.50	0.04	81.50	0.03	95.50	0.02
53.75	0.06	67.75	0.04	81.75	0.03	95.75	0.02
54.00	0.06	68.00	0.04	82.00	0.03	96.00	0.02

Table 1 – 30%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 40%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.61                      7.3 Inches

BioInitiative ft. 48.00                      576.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	3673.35	10.25	2.19	20.25	0.56	30.25	0.25
0.50	918.34	10.50	2.08	20.50	0.55	30.50	0.25
0.75	408.15	10.75	1.99	20.75	0.53	30.75	0.24
1.00	229.58	11.00	1.90	21.00	0.52	31.00	0.24
1.25	146.93	11.25	1.81	21.25	0.51	31.25	0.24
1.50	102.04	11.50	1.74	21.50	0.50	31.50	0.23
1.75	74.97	11.75	1.66	21.75	0.49	31.75	0.23
2.00	57.40	12.00	1.59	22.00	0.47	32.00	0.22
2.25	45.35	12.25	1.53	22.25	0.46	32.25	0.22
2.50	36.73	12.50	1.47	22.50	0.45	32.50	0.22
2.75	30.36	12.75	1.41	22.75	0.44	32.75	0.21
3.00	25.51	13.00	1.36	23.00	0.43	33.00	0.21
3.25	21.74	13.25	1.31	23.25	0.42	33.25	0.21
3.50	18.74	13.50	1.26	23.50	0.42	33.50	0.20
3.75	16.33	13.75	1.21	23.75	0.41	33.75	0.20
4.00	14.35	14.00	1.17	24.00	0.40	34.00	0.20
4.25	12.71	14.25	1.13	24.25	0.39	34.25	0.20
4.50	11.34	14.50	1.09	24.50	0.38	34.50	0.19
4.75	10.18	14.75	1.06	24.75	0.37	34.75	0.19
5.00	9.18	15.00	1.02	25.00	0.37	35.00	0.19
5.25	8.33	15.25	0.99	25.25	0.36	35.25	0.18
5.50	7.59	15.50	0.96	25.50	0.35	35.50	0.18
5.75	6.94	15.75	0.93	25.75	0.35	35.75	0.18
6.00	6.38	16.00	0.90	26.00	0.34	36.00	0.18
6.25	5.88	16.25	0.87	26.25	0.33	36.25	0.17
6.50	5.43	16.50	0.84	26.50	0.33	36.50	0.17
6.75	5.04	16.75	0.82	26.75	0.32	36.75	0.17
7.00	4.69	17.00	0.79	27.00	0.31	37.00	0.17
7.25	4.37	17.25	0.77	27.25	0.31	37.25	0.17
7.50	4.08	17.50	0.75	27.50	0.30	37.50	0.16
7.75	3.82	17.75	0.73	27.75	0.30	37.75	0.16
8.00	3.59	18.00	0.71	28.00	0.29	38.00	0.16
8.25	3.37	18.25	0.69	28.25	0.29	38.25	0.16
8.50	3.18	18.50	0.67	28.50	0.28	38.50	0.15
8.75	3.00	18.75	0.65	28.75	0.28	38.75	0.15
9.00	2.83	19.00	0.64	29.00	0.27	39.00	0.15
9.25	2.68	19.25	0.62	29.25	0.27	39.25	0.15
9.50	2.54	19.50	0.60	29.50	0.26	39.50	0.15
9.75	2.42	19.75	0.59	29.75	0.26	39.75	0.15
10.00	2.30	20.00	0.57	30.00	0.26	40.00	0.14

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  
 $S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi)(R^2)$   
 S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64 \* ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 40%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.61

7.32 Inches

BioInitiative ft. 48.00

576.00 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	0.14	54.25	0.08	68.25	0.05	82.25	0.03
40.50	0.14	54.50	0.08	68.50	0.05	82.50	0.03
40.75	0.14	54.75	0.08	68.75	0.05	82.75	0.03
41.00	0.14	55.00	0.08	69.00	0.05	83.00	0.03
41.25	0.13	55.25	0.08	69.25	0.05	83.25	0.03
41.50	0.13	55.50	0.07	69.50	0.05	83.50	0.03
41.75	0.13	55.75	0.07	69.75	0.05	83.75	0.03
42.00	0.13	56.00	0.07	70.00	0.05	84.00	0.03
42.25	0.13	56.25	0.07	70.25	0.05	84.25	0.03
42.50	0.13	56.50	0.07	70.50	0.05	84.50	0.03
42.75	0.13	56.75	0.07	70.75	0.05	84.75	0.03
43.00	0.12	57.00	0.07	71.00	0.05	85.00	0.03
43.25	0.12	57.25	0.07	71.25	0.05	85.25	0.03
43.50	0.12	57.50	0.07	71.50	0.04	85.50	0.03
43.75	0.12	57.75	0.07	71.75	0.04	85.75	0.03
44.00	0.12	58.00	0.07	72.00	0.04	86.00	0.03
44.25	0.12	58.25	0.07	72.25	0.04	86.25	0.03
44.50	0.12	58.50	0.07	72.50	0.04	86.50	0.03
44.75	0.11	58.75	0.07	72.75	0.04	86.75	0.03
45.00	0.11	59.00	0.07	73.00	0.04	87.00	0.03
45.25	0.11	59.25	0.07	73.25	0.04	87.25	0.03
45.50	0.11	59.50	0.06	73.50	0.04	87.50	0.03
45.75	0.11	59.75	0.06	73.75	0.04	87.75	0.03
46.00	0.11	60.00	0.06	74.00	0.04	88.00	0.03
46.25	0.11	60.25	0.06	74.25	0.04	88.25	0.03
46.50	0.11	60.50	0.06	74.50	0.04	88.50	0.03
46.75	0.11	60.75	0.06	74.75	0.04	88.75	0.03
47.00	0.10	61.00	0.06	75.00	0.04	89.00	0.03
47.25	0.10	61.25	0.06	75.25	0.04	89.25	0.03
47.50	0.10	61.50	0.06	75.50	0.04	89.50	0.03
47.75	0.10	61.75	0.06	75.75	0.04	89.75	0.03
48.00	0.10	62.00	0.06	76.00	0.04	90.00	0.03
48.25	0.10	62.25	0.06	76.25	0.04	90.25	0.03
48.50	0.10	62.50	0.06	76.50	0.04	90.50	0.03
48.75	0.10	62.75	0.06	76.75	0.04	90.75	0.03
49.00	0.10	63.00	0.06	77.00	0.04	91.00	0.03
49.25	0.09	63.25	0.06	77.25	0.04	91.25	0.03
49.50	0.09	63.50	0.06	77.50	0.04	91.50	0.03
49.75	0.09	63.75	0.06	77.75	0.04	91.75	0.03
50.00	0.09	64.00	0.06	78.00	0.04	92.00	0.03
50.25	0.09	64.25	0.06	78.25	0.04	92.25	0.03
50.50	0.09	64.50	0.06	78.50	0.04	92.50	0.03
50.75	0.09	64.75	0.05	78.75	0.04	92.75	0.03
51.00	0.09	65.00	0.05	79.00	0.04	93.00	0.03
51.25	0.09	65.25	0.05	79.25	0.04	93.25	0.03
51.50	0.09	65.50	0.05	79.50	0.04	93.50	0.03
51.75	0.09	65.75	0.05	79.75	0.04	93.75	0.03
52.00	0.08	66.00	0.05	80.00	0.04	94.00	0.03
52.25	0.08	66.25	0.05	80.25	0.04	94.25	0.03
52.50	0.08	66.50	0.05	80.50	0.04	94.50	0.03
52.75	0.08	66.75	0.05	80.75	0.04	94.75	0.03
53.00	0.08	67.00	0.05	81.00	0.03	95.00	0.03
53.25	0.08	67.25	0.05	81.25	0.03	95.25	0.03
53.50	0.08	67.50	0.05	81.50	0.03	95.50	0.03
53.75	0.08	67.75	0.05	81.75	0.03	95.75	0.03
54.00	0.08	68.00	0.05	82.00	0.03	96.00	0.02

Table 1 – 40%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 50%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.68                      8.2 Inches

BioInitiative ft. 53.50                      642.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	4591.69	10.25	2.73	20.25	0.70	30.25	0.31
0.50	1147.92	10.50	2.60	20.50	0.68	30.50	0.31
0.75	510.19	10.75	2.48	20.75	0.67	30.75	0.30
1.00	286.98	11.00	2.37	21.00	0.65	31.00	0.30
1.25	183.67	11.25	2.27	21.25	0.64	31.25	0.29
1.50	127.55	11.50	2.17	21.50	0.62	31.50	0.29
1.75	93.71	11.75	2.08	21.75	0.61	31.75	0.28
2.00	71.75	12.00	1.99	22.00	0.59	32.00	0.28
2.25	56.69	12.25	1.91	22.25	0.58	32.25	0.28
2.50	45.92	12.50	1.84	22.50	0.57	32.50	0.27
2.75	37.95	12.75	1.77	22.75	0.55	32.75	0.27
3.00	31.89	13.00	1.70	23.00	0.54	33.00	0.26
3.25	27.17	13.25	1.63	23.25	0.53	33.25	0.26
3.50	23.43	13.50	1.57	23.50	0.52	33.50	0.26
3.75	20.41	13.75	1.52	23.75	0.51	33.75	0.25
4.00	17.94	14.00	1.46	24.00	0.50	34.00	0.25
4.25	15.89	14.25	1.41	24.25	0.49	34.25	0.24
4.50	14.17	14.50	1.36	24.50	0.48	34.50	0.24
4.75	12.72	14.75	1.32	24.75	0.47	34.75	0.24
5.00	11.48	15.00	1.28	25.00	0.46	35.00	0.23
5.25	10.41	15.25	1.23	25.25	0.45	35.25	0.23
5.50	9.49	15.50	1.19	25.50	0.44	35.50	0.23
5.75	8.68	15.75	1.16	25.75	0.43	35.75	0.22
6.00	7.97	16.00	1.12	26.00	0.42	36.00	0.22
6.25	7.35	16.25	1.09	26.25	0.42	36.25	0.22
6.50	6.79	16.50	1.05	26.50	0.41	36.50	0.22
6.75	6.30	16.75	1.02	26.75	0.40	36.75	0.21
7.00	5.86	17.00	0.99	27.00	0.39	37.00	0.21
7.25	5.46	17.25	0.96	27.25	0.39	37.25	0.21
7.50	5.10	17.50	0.94	27.50	0.38	37.50	0.20
7.75	4.78	17.75	0.91	27.75	0.37	37.75	0.20
8.00	4.48	18.00	0.89	28.00	0.37	38.00	0.20
8.25	4.22	18.25	0.86	28.25	0.36	38.25	0.20
8.50	3.97	18.50	0.84	28.50	0.35	38.50	0.19
8.75	3.75	18.75	0.82	28.75	0.35	38.75	0.19
9.00	3.54	19.00	0.79	29.00	0.34	39.00	0.19
9.25	3.35	19.25	0.77	29.25	0.34	39.25	0.19
9.50	3.18	19.50	0.75	29.50	0.33	39.50	0.18
9.75	3.02	19.75	0.74	29.75	0.32	39.75	0.18
10.00	2.87	20.00	0.72	30.00	0.32	40.00	0.18

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  
 $S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi)(R^2)$   
 S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64 \* ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 50%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.68

8.18 Inches

BioInitiative ft. 53.50

642.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.18	54.25	0.10	68.25	0.06	82.25	0.04
40.50	0.17	54.50	0.10	68.50	0.06	82.50	0.04
40.75	0.17	54.75	0.10	68.75	0.06	82.75	0.04
41.00	0.17	55.00	0.09	69.00	0.06	83.00	0.04
41.25	0.17	55.25	0.09	69.25	0.06	83.25	0.04
41.50	0.17	55.50	0.09	69.50	0.06	83.50	0.04
41.75	0.16	55.75	0.09	69.75	0.06	83.75	0.04
42.00	0.16	56.00	0.09	70.00	0.06	84.00	0.04
42.25	0.16	56.25	0.09	70.25	0.06	84.25	0.04
42.50	0.16	56.50	0.09	70.50	0.06	84.50	0.04
42.75	0.16	56.75	0.09	70.75	0.06	84.75	0.04
43.00	0.16	57.00	0.09	71.00	0.06	85.00	0.04
43.25	0.15	57.25	0.09	71.25	0.06	85.25	0.04
43.50	0.15	57.50	0.09	71.50	0.06	85.50	0.04
43.75	0.15	57.75	0.09	71.75	0.06	85.75	0.04
44.00	0.15	58.00	0.09	72.00	0.06	86.00	0.04
44.25	0.15	58.25	0.08	72.25	0.05	86.25	0.04
44.50	0.14	58.50	0.08	72.50	0.05	86.50	0.04
44.75	0.14	58.75	0.08	72.75	0.05	86.75	0.04
45.00	0.14	59.00	0.08	73.00	0.05	87.00	0.04
45.25	0.14	59.25	0.08	73.25	0.05	87.25	0.04
45.50	0.14	59.50	0.08	73.50	0.05	87.50	0.04
45.75	0.14	59.75	0.08	73.75	0.05	87.75	0.04
46.00	0.14	60.00	0.08	74.00	0.05	88.00	0.04
46.25	0.13	60.25	0.08	74.25	0.05	88.25	0.04
46.50	0.13	60.50	0.08	74.50	0.05	88.50	0.04
46.75	0.13	60.75	0.08	74.75	0.05	88.75	0.04
47.00	0.13	61.00	0.08	75.00	0.05	89.00	0.04
47.25	0.13	61.25	0.08	75.25	0.05	89.25	0.04
47.50	0.13	61.50	0.08	75.50	0.05	89.50	0.04
47.75	0.13	61.75	0.08	75.75	0.05	89.75	0.04
48.00	0.12	62.00	0.07	76.00	0.05	90.00	0.04
48.25	0.12	62.25	0.07	76.25	0.05	90.25	0.04
48.50	0.12	62.50	0.07	76.50	0.05	90.50	0.04
48.75	0.12	62.75	0.07	76.75	0.05	90.75	0.03
49.00	0.12	63.00	0.07	77.00	0.05	91.00	0.03
49.25	0.12	63.25	0.07	77.25	0.05	91.25	0.03
49.50	0.12	63.50	0.07	77.50	0.05	91.50	0.03
49.75	0.12	63.75	0.07	77.75	0.05	91.75	0.03
50.00	0.11	64.00	0.07	78.00	0.05	92.00	0.03
50.25	0.11	64.25	0.07	78.25	0.05	92.25	0.03
50.50	0.11	64.50	0.07	78.50	0.05	92.50	0.03
50.75	0.11	64.75	0.07	78.75	0.05	92.75	0.03
51.00	0.11	65.00	0.07	79.00	0.05	93.00	0.03
51.25	0.11	65.25	0.07	79.25	0.05	93.25	0.03
51.50	0.11	65.50	0.07	79.50	0.05	93.50	0.03
51.75	0.11	65.75	0.07	79.75	0.05	93.75	0.03
52.00	0.11	66.00	0.07	80.00	0.04	94.00	0.03
52.25	0.11	66.25	0.07	80.25	0.04	94.25	0.03
52.50	0.10	66.50	0.06	80.50	0.04	94.50	0.03
52.75	0.10	66.75	0.06	80.75	0.04	94.75	0.03
53.00	0.10	67.00	0.06	81.00	0.04	95.00	0.03
53.25	0.10	67.25	0.06	81.25	0.04	95.25	0.03
53.50	0.10	67.50	0.06	81.50	0.04	95.50	0.03
53.75	0.10	67.75	0.06	81.75	0.04	95.75	0.03
54.00	0.10	68.00	0.06	82.00	0.04	96.00	0.03

Table 1 – 50%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 60%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.75                      9.0 Inches

BioInitiative ft. 58.70                      704.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	5510.02	10.25	3.28	20.25	0.84	30.25	0.38
0.50	1377.51	10.50	3.12	20.50	0.82	30.50	0.37
0.75	612.22	10.75	2.98	20.75	0.80	30.75	0.36
1.00	344.38	11.00	2.85	21.00	0.78	31.00	0.36
1.25	220.40	11.25	2.72	21.25	0.76	31.25	0.35
1.50	153.06	11.50	2.60	21.50	0.75	31.50	0.35
1.75	112.45	11.75	2.49	21.75	0.73	31.75	0.34
2.00	86.09	12.00	2.39	22.00	0.71	32.00	0.34
2.25	68.02	12.25	2.29	22.25	0.70	32.25	0.33
2.50	55.10	12.50	2.20	22.50	0.68	32.50	0.33
2.75	45.54	12.75	2.12	22.75	0.67	32.75	0.32
3.00	38.26	13.00	2.04	23.00	0.65	33.00	0.32
3.25	32.60	13.25	1.96	23.25	0.64	33.25	0.31
3.50	28.11	13.50	1.89	23.50	0.62	33.50	0.31
3.75	24.49	13.75	1.82	23.75	0.61	33.75	0.30
4.00	21.52	14.00	1.76	24.00	0.60	34.00	0.30
4.25	19.07	14.25	1.70	24.25	0.59	34.25	0.29
4.50	17.01	14.50	1.64	24.50	0.57	34.50	0.29
4.75	15.26	14.75	1.58	24.75	0.56	34.75	0.29
5.00	13.78	15.00	1.53	25.00	0.55	35.00	0.28
5.25	12.49	15.25	1.48	25.25	0.54	35.25	0.28
5.50	11.38	15.50	1.43	25.50	0.53	35.50	0.27
5.75	10.42	15.75	1.39	25.75	0.52	35.75	0.27
6.00	9.57	16.00	1.35	26.00	0.51	36.00	0.27
6.25	8.82	16.25	1.30	26.25	0.50	36.25	0.26
6.50	8.15	16.50	1.26	26.50	0.49	36.50	0.26
6.75	7.56	16.75	1.23	26.75	0.48	36.75	0.25
7.00	7.03	17.00	1.19	27.00	0.47	37.00	0.25
7.25	6.55	17.25	1.16	27.25	0.46	37.25	0.25
7.50	6.12	17.50	1.12	27.50	0.46	37.50	0.24
7.75	5.73	17.75	1.09	27.75	0.45	37.75	0.24
8.00	5.38	18.00	1.06	28.00	0.44	38.00	0.24
8.25	5.06	18.25	1.03	28.25	0.43	38.25	0.24
8.50	4.77	18.50	1.01	28.50	0.42	38.50	0.23
8.75	4.50	18.75	0.98	28.75	0.42	38.75	0.23
9.00	4.25	19.00	0.95	29.00	0.41	39.00	0.23
9.25	4.02	19.25	0.93	29.25	0.40	39.25	0.22
9.50	3.82	19.50	0.91	29.50	0.40	39.50	0.22
9.75	3.62	19.75	0.88	29.75	0.39	39.75	0.22
10.00	3.44	20.00	0.86	30.00	0.38	40.00	0.22

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 60%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.75

8.96 Inches

BioInitiative ft. 58.70

704.40 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	0.21	54.25	0.12	68.25	0.07	82.25	0.05
40.50	0.21	54.50	0.12	68.50	0.07	82.50	0.05
40.75	0.21	54.75	0.11	68.75	0.07	82.75	0.05
41.00	0.20	55.00	0.11	69.00	0.07	83.00	0.05
41.25	0.20	55.25	0.11	69.25	0.07	83.25	0.05
41.50	0.20	55.50	0.11	69.50	0.07	83.50	0.05
41.75	0.20	55.75	0.11	69.75	0.07	83.75	0.05
42.00	0.20	56.00	0.11	70.00	0.07	84.00	0.05
42.25	0.19	56.25	0.11	70.25	0.07	84.25	0.05
42.50	0.19	56.50	0.11	70.50	0.07	84.50	0.05
42.75	0.19	56.75	0.11	70.75	0.07	84.75	0.05
43.00	0.19	57.00	0.11	71.00	0.07	85.00	0.05
43.25	0.18	57.25	0.11	71.25	0.07	85.25	0.05
43.50	0.18	57.50	0.10	71.50	0.07	85.50	0.05
43.75	0.18	57.75	0.10	71.75	0.07	85.75	0.05
44.00	0.18	58.00	0.10	72.00	0.07	86.00	0.05
44.25	0.18	58.25	0.10	72.25	0.07	86.25	0.05
44.50	0.17	58.50	0.10	72.50	0.07	86.50	0.05
44.75	0.17	58.75	0.10	72.75	0.07	86.75	0.05
45.00	0.17	59.00	0.10	73.00	0.06	87.00	0.05
45.25	0.17	59.25	0.10	73.25	0.06	87.25	0.05
45.50	0.17	59.50	0.10	73.50	0.06	87.50	0.04
45.75	0.16	59.75	0.10	73.75	0.06	87.75	0.04
46.00	0.16	60.00	0.10	74.00	0.06	88.00	0.04
46.25	0.16	60.25	0.09	74.25	0.06	88.25	0.04
46.50	0.16	60.50	0.09	74.50	0.06	88.50	0.04
46.75	0.16	60.75	0.09	74.75	0.06	88.75	0.04
47.00	0.16	61.00	0.09	75.00	0.06	89.00	0.04
47.25	0.15	61.25	0.09	75.25	0.06	89.25	0.04
47.50	0.15	61.50	0.09	75.50	0.06	89.50	0.04
47.75	0.15	61.75	0.09	75.75	0.06	89.75	0.04
48.00	0.15	62.00	0.09	76.00	0.06	90.00	0.04
48.25	0.15	62.25	0.09	76.25	0.06	90.25	0.04
48.50	0.15	62.50	0.09	76.50	0.06	90.50	0.04
48.75	0.14	62.75	0.09	76.75	0.06	90.75	0.04
49.00	0.14	63.00	0.09	77.00	0.06	91.00	0.04
49.25	0.14	63.25	0.09	77.25	0.06	91.25	0.04
49.50	0.14	63.50	0.09	77.50	0.06	91.50	0.04
49.75	0.14	63.75	0.08	77.75	0.06	91.75	0.04
50.00	0.14	64.00	0.08	78.00	0.06	92.00	0.04
50.25	0.14	64.25	0.08	78.25	0.06	92.25	0.04
50.50	0.14	64.50	0.08	78.50	0.06	92.50	0.04
50.75	0.13	64.75	0.08	78.75	0.06	92.75	0.04
51.00	0.13	65.00	0.08	79.00	0.06	93.00	0.04
51.25	0.13	65.25	0.08	79.25	0.05	93.25	0.04
51.50	0.13	65.50	0.08	79.50	0.05	93.50	0.04
51.75	0.13	65.75	0.08	79.75	0.05	93.75	0.04
52.00	0.13	66.00	0.08	80.00	0.05	94.00	0.04
52.25	0.13	66.25	0.08	80.25	0.05	94.25	0.04
52.50	0.12	66.50	0.08	80.50	0.05	94.50	0.04
52.75	0.12	66.75	0.08	80.75	0.05	94.75	0.04
53.00	0.12	67.00	0.08	81.00	0.05	95.00	0.04
53.25	0.12	67.25	0.08	81.25	0.05	95.25	0.04
53.50	0.12	67.50	0.08	81.50	0.05	95.50	0.04
53.75	0.12	67.75	0.08	81.75	0.05	95.75	0.04
54.00	0.12	68.00	0.07	82.00	0.05	96.00	0.04

Table 1 – 60%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 70%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.81                      9.7 Inches

BioInitiative ft. 63.50                      762.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	6428.36	10.25	3.82	20.25	0.98	30.25	0.44
0.50	1607.09	10.50	3.64	20.50	0.96	30.50	0.43
0.75	714.26	10.75	3.48	20.75	0.93	30.75	0.42
1.00	401.77	11.00	3.32	21.00	0.91	31.00	0.42
1.25	257.13	11.25	3.17	21.25	0.89	31.25	0.41
1.50	178.57	11.50	3.04	21.50	0.87	31.50	0.40
1.75	131.19	11.75	2.91	21.75	0.85	31.75	0.40
2.00	100.44	12.00	2.79	22.00	0.83	32.00	0.39
2.25	79.36	12.25	2.68	22.25	0.81	32.25	0.39
2.50	64.28	12.50	2.57	22.50	0.79	32.50	0.38
2.75	53.13	12.75	2.47	22.75	0.78	32.75	0.37
3.00	44.64	13.00	2.38	23.00	0.76	33.00	0.37
3.25	38.04	13.25	2.29	23.25	0.74	33.25	0.36
3.50	32.80	13.50	2.20	23.50	0.73	33.50	0.36
3.75	28.57	13.75	2.13	23.75	0.71	33.75	0.35
4.00	25.11	14.00	2.05	24.00	0.70	34.00	0.35
4.25	22.24	14.25	1.98	24.25	0.68	34.25	0.34
4.50	19.84	14.50	1.91	24.50	0.67	34.50	0.34
4.75	17.81	14.75	1.85	24.75	0.66	34.75	0.33
5.00	16.07	15.00	1.79	25.00	0.64	35.00	0.33
5.25	14.58	15.25	1.73	25.25	0.63	35.25	0.32
5.50	13.28	15.50	1.67	25.50	0.62	35.50	0.32
5.75	12.15	15.75	1.62	25.75	0.61	35.75	0.31
6.00	11.16	16.00	1.57	26.00	0.59	36.00	0.31
6.25	10.29	16.25	1.52	26.25	0.58	36.25	0.31
6.50	9.51	16.50	1.48	26.50	0.57	36.50	0.30
6.75	8.82	16.75	1.43	26.75	0.56	36.75	0.30
7.00	8.20	17.00	1.39	27.00	0.55	37.00	0.29
7.25	7.64	17.25	1.35	27.25	0.54	37.25	0.29
7.50	7.14	17.50	1.31	27.50	0.53	37.50	0.29
7.75	6.69	17.75	1.28	27.75	0.52	37.75	0.28
8.00	6.28	18.00	1.24	28.00	0.51	38.00	0.28
8.25	5.90	18.25	1.21	28.25	0.50	38.25	0.27
8.50	5.56	18.50	1.17	28.50	0.49	38.50	0.27
8.75	5.25	18.75	1.14	28.75	0.49	38.75	0.27
9.00	4.96	19.00	1.11	29.00	0.48	39.00	0.26
9.25	4.70	19.25	1.08	29.25	0.47	39.25	0.26
9.50	4.45	19.50	1.06	29.50	0.46	39.50	0.26
9.75	4.23	19.75	1.03	29.75	0.45	39.75	0.25
10.00	4.02	20.00	1.00	30.00	0.45	40.00	0.25

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 70%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.81                      9.68 Inches

BioInitiative ft. 63.50                      762.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.25	54.25	0.14	68.25	0.09	82.25	0.06
40.50	0.24	54.50	0.14	68.50	0.09	82.50	0.06
40.75	0.24	54.75	0.13	68.75	0.09	82.75	0.06
41.00	0.24	55.00	0.13	69.00	0.08	83.00	0.06
41.25	0.24	55.25	0.13	69.25	0.08	83.25	0.06
41.50	0.23	55.50	0.13	69.50	0.08	83.50	0.06
41.75	0.23	55.75	0.13	69.75	0.08	83.75	0.06
42.00	0.23	56.00	0.13	70.00	0.08	84.00	0.06
42.25	0.23	56.25	0.13	70.25	0.08	84.25	0.06
42.50	0.22	56.50	0.13	70.50	0.08	84.50	0.06
42.75	0.22	56.75	0.12	70.75	0.08	84.75	0.06
43.00	0.22	57.00	0.12	71.00	0.08	85.00	0.06
43.25	0.21	57.25	0.12	71.25	0.08	85.25	0.06
43.50	0.21	57.50	0.12	71.50	0.08	85.50	0.05
43.75	0.21	57.75	0.12	71.75	0.08	85.75	0.05
44.00	0.21	58.00	0.12	72.00	0.08	86.00	0.05
44.25	0.21	58.25	0.12	72.25	0.08	86.25	0.05
44.50	0.20	58.50	0.12	72.50	0.08	86.50	0.05
44.75	0.20	58.75	0.12	72.75	0.08	86.75	0.05
45.00	0.20	59.00	0.12	73.00	0.08	87.00	0.05
45.25	0.20	59.25	0.11	73.25	0.07	87.25	0.05
45.50	0.19	59.50	0.11	73.50	0.07	87.50	0.05
45.75	0.19	59.75	0.11	73.75	0.07	87.75	0.05
46.00	0.19	60.00	0.11	74.00	0.07	88.00	0.05
46.25	0.19	60.25	0.11	74.25	0.07	88.25	0.05
46.50	0.19	60.50	0.11	74.50	0.07	88.50	0.05
46.75	0.18	60.75	0.11	74.75	0.07	88.75	0.05
47.00	0.18	61.00	0.11	75.00	0.07	89.00	0.05
47.25	0.18	61.25	0.11	75.25	0.07	89.25	0.05
47.50	0.18	61.50	0.11	75.50	0.07	89.50	0.05
47.75	0.18	61.75	0.11	75.75	0.07	89.75	0.05
48.00	0.17	62.00	0.10	76.00	0.07	90.00	0.05
48.25	0.17	62.25	0.10	76.25	0.07	90.25	0.05
48.50	0.17	62.50	0.10	76.50	0.07	90.50	0.05
48.75	0.17	62.75	0.10	76.75	0.07	90.75	0.05
49.00	0.17	63.00	0.10	77.00	0.07	91.00	0.05
49.25	0.17	63.25	0.10	77.25	0.07	91.25	0.05
49.50	0.16	63.50	0.10	77.50	0.07	91.50	0.05
49.75	0.16	63.75	0.10	77.75	0.07	91.75	0.05
50.00	0.16	64.00	0.10	78.00	0.07	92.00	0.05
50.25	0.16	64.25	0.10	78.25	0.07	92.25	0.05
50.50	0.16	64.50	0.10	78.50	0.07	92.50	0.05
50.75	0.16	64.75	0.10	78.75	0.06	92.75	0.05
51.00	0.15	65.00	0.10	79.00	0.06	93.00	0.05
51.25	0.15	65.25	0.09	79.25	0.06	93.25	0.05
51.50	0.15	65.50	0.09	79.50	0.06	93.50	0.05
51.75	0.15	65.75	0.09	79.75	0.06	93.75	0.05
52.00	0.15	66.00	0.09	80.00	0.06	94.00	0.05
52.25	0.15	66.25	0.09	80.25	0.06	94.25	0.05
52.50	0.15	66.50	0.09	80.50	0.06	94.50	0.04
52.75	0.14	66.75	0.09	80.75	0.06	94.75	0.04
53.00	0.14	67.00	0.09	81.00	0.06	95.00	0.04
53.25	0.14	67.25	0.09	81.25	0.06	95.25	0.04
53.50	0.14	67.50	0.09	81.50	0.06	95.50	0.04
53.75	0.14	67.75	0.09	81.75	0.06	95.75	0.04
54.00	0.14	68.00	0.09	82.00	0.06	96.00	0.04

Table 1 – 70%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 80%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.86                      10.3 Inches

BioInitiative ft. 67.70                      812.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	7346.70	10.25	4.37	20.25	1.12	30.25	0.50
0.50	1836.67	10.50	4.16	20.50	1.09	30.50	0.49
0.75	816.30	10.75	3.97	20.75	1.07	30.75	0.49
1.00	459.17	11.00	3.79	21.00	1.04	31.00	0.48
1.25	293.87	11.25	3.63	21.25	1.02	31.25	0.47
1.50	204.07	11.50	3.47	21.50	0.99	31.50	0.46
1.75	149.93	11.75	3.33	21.75	0.97	31.75	0.46
2.00	114.79	12.00	3.19	22.00	0.95	32.00	0.45
2.25	90.70	12.25	3.06	22.25	0.93	32.25	0.44
2.50	73.47	12.50	2.94	22.50	0.91	32.50	0.43
2.75	60.72	12.75	2.82	22.75	0.89	32.75	0.43
3.00	51.02	13.00	2.72	23.00	0.87	33.00	0.42
3.25	43.47	13.25	2.62	23.25	0.85	33.25	0.42
3.50	37.48	13.50	2.52	23.50	0.83	33.50	0.41
3.75	32.65	13.75	2.43	23.75	0.81	33.75	0.40
4.00	28.70	14.00	2.34	24.00	0.80	34.00	0.40
4.25	25.42	14.25	2.26	24.25	0.78	34.25	0.39
4.50	22.67	14.50	2.18	24.50	0.76	34.50	0.39
4.75	20.35	14.75	2.11	24.75	0.75	34.75	0.38
5.00	18.37	15.00	2.04	25.00	0.73	35.00	0.37
5.25	16.66	15.25	1.97	25.25	0.72	35.25	0.37
5.50	15.18	15.50	1.91	25.50	0.71	35.50	0.36
5.75	13.89	15.75	1.85	25.75	0.69	35.75	0.36
6.00	12.75	16.00	1.79	26.00	0.68	36.00	0.35
6.25	11.75	16.25	1.74	26.25	0.67	36.25	0.35
6.50	10.87	16.50	1.69	26.50	0.65	36.50	0.34
6.75	10.08	16.75	1.64	26.75	0.64	36.75	0.34
7.00	9.37	17.00	1.59	27.00	0.63	37.00	0.34
7.25	8.74	17.25	1.54	27.25	0.62	37.25	0.33
7.50	8.16	17.50	1.50	27.50	0.61	37.50	0.33
7.75	7.64	17.75	1.46	27.75	0.60	37.75	0.32
8.00	7.17	18.00	1.42	28.00	0.59	38.00	0.32
8.25	6.75	18.25	1.38	28.25	0.58	38.25	0.31
8.50	6.36	18.50	1.34	28.50	0.57	38.50	0.31
8.75	6.00	18.75	1.31	28.75	0.56	38.75	0.31
9.00	5.67	19.00	1.27	29.00	0.55	39.00	0.30
9.25	5.37	19.25	1.24	29.25	0.54	39.25	0.30
9.50	5.09	19.50	1.21	29.50	0.53	39.50	0.29
9.75	4.83	19.75	1.18	29.75	0.52	39.75	0.29
10.00	4.59	20.00	1.15	30.00	0.51	40.00	0.29

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 80%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.86

10.35 Inches

BioInitiative ft. 67.70

812.40 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	0.28	54.25	0.16	68.25	0.10	82.25	0.07
40.50	0.28	54.50	0.15	68.50	0.10	82.50	0.07
40.75	0.28	54.75	0.15	68.75	0.10	82.75	0.07
41.00	0.27	55.00	0.15	69.00	0.10	83.00	0.07
41.25	0.27	55.25	0.15	69.25	0.10	83.25	0.07
41.50	0.27	55.50	0.15	69.50	0.10	83.50	0.07
41.75	0.26	55.75	0.15	69.75	0.09	83.75	0.07
42.00	0.26	56.00	0.15	70.00	0.09	84.00	0.07
42.25	0.26	56.25	0.15	70.25	0.09	84.25	0.06
42.50	0.25	56.50	0.14	70.50	0.09	84.50	0.06
42.75	0.25	56.75	0.14	70.75	0.09	84.75	0.06
43.00	0.25	57.00	0.14	71.00	0.09	85.00	0.06
43.25	0.25	57.25	0.14	71.25	0.09	85.25	0.06
43.50	0.24	57.50	0.14	71.50	0.09	85.50	0.06
43.75	0.24	57.75	0.14	71.75	0.09	85.75	0.06
44.00	0.24	58.00	0.14	72.00	0.09	86.00	0.06
44.25	0.23	58.25	0.14	72.25	0.09	86.25	0.06
44.50	0.23	58.50	0.13	72.50	0.09	86.50	0.06
44.75	0.23	58.75	0.13	72.75	0.09	86.75	0.06
45.00	0.23	59.00	0.13	73.00	0.09	87.00	0.06
45.25	0.22	59.25	0.13	73.25	0.09	87.25	0.06
45.50	0.22	59.50	0.13	73.50	0.08	87.50	0.06
45.75	0.22	59.75	0.13	73.75	0.08	87.75	0.06
46.00	0.22	60.00	0.13	74.00	0.08	88.00	0.06
46.25	0.21	60.25	0.13	74.25	0.08	88.25	0.06
46.50	0.21	60.50	0.13	74.50	0.08	88.50	0.06
46.75	0.21	60.75	0.12	74.75	0.08	88.75	0.06
47.00	0.21	61.00	0.12	75.00	0.08	89.00	0.06
47.25	0.21	61.25	0.12	75.25	0.08	89.25	0.06
47.50	0.20	61.50	0.12	75.50	0.08	89.50	0.06
47.75	0.20	61.75	0.12	75.75	0.08	89.75	0.06
48.00	0.20	62.00	0.12	76.00	0.08	90.00	0.06
48.25	0.20	62.25	0.12	76.25	0.08	90.25	0.06
48.50	0.20	62.50	0.12	76.50	0.08	90.50	0.06
48.75	0.19	62.75	0.12	76.75	0.08	90.75	0.06
49.00	0.19	63.00	0.12	77.00	0.08	91.00	0.06
49.25	0.19	63.25	0.11	77.25	0.08	91.25	0.06
49.50	0.19	63.50	0.11	77.50	0.08	91.50	0.05
49.75	0.19	63.75	0.11	77.75	0.08	91.75	0.05
50.00	0.18	64.00	0.11	78.00	0.08	92.00	0.05
50.25	0.18	64.25	0.11	78.25	0.07	92.25	0.05
50.50	0.18	64.50	0.11	78.50	0.07	92.50	0.05
50.75	0.18	64.75	0.11	78.75	0.07	92.75	0.05
51.00	0.18	65.00	0.11	79.00	0.07	93.00	0.05
51.25	0.17	65.25	0.11	79.25	0.07	93.25	0.05
51.50	0.17	65.50	0.11	79.50	0.07	93.50	0.05
51.75	0.17	65.75	0.11	79.75	0.07	93.75	0.05
52.00	0.17	66.00	0.11	80.00	0.07	94.00	0.05
52.25	0.17	66.25	0.10	80.25	0.07	94.25	0.05
52.50	0.17	66.50	0.10	80.50	0.07	94.50	0.05
52.75	0.17	66.75	0.10	80.75	0.07	94.75	0.05
53.00	0.16	67.00	0.10	81.00	0.07	95.00	0.05
53.25	0.16	67.25	0.10	81.25	0.07	95.25	0.05
53.50	0.16	67.50	0.10	81.50	0.07	95.50	0.05
53.75	0.16	67.75	0.10	81.75	0.07	95.75	0.05
54.00	0.16	68.00	0.10	82.00	0.07	96.00	0.05

Table 1 – 80%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 90%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.91                      11.0 Inches

BioInitiative ft. 71.70                      860.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	8265.03	10.25	4.92	20.25	1.26	30.25	0.56
0.50	2066.26	10.50	4.69	20.50	1.23	30.50	0.56
0.75	918.34	10.75	4.47	20.75	1.20	30.75	0.55
1.00	516.56	11.00	4.27	21.00	1.17	31.00	0.54
1.25	330.60	11.25	4.08	21.25	1.14	31.25	0.53
1.50	229.58	11.50	3.91	21.50	1.12	31.50	0.52
1.75	168.67	11.75	3.74	21.75	1.09	31.75	0.51
2.00	129.14	12.00	3.59	22.00	1.07	32.00	0.50
2.25	102.04	12.25	3.44	22.25	1.04	32.25	0.50
2.50	82.65	12.50	3.31	22.50	1.02	32.50	0.49
2.75	68.31	12.75	3.18	22.75	1.00	32.75	0.48
3.00	57.40	13.00	3.06	23.00	0.98	33.00	0.47
3.25	48.91	13.25	2.94	23.25	0.96	33.25	0.47
3.50	42.17	13.50	2.83	23.50	0.94	33.50	0.46
3.75	36.73	13.75	2.73	23.75	0.92	33.75	0.45
4.00	32.29	14.00	2.64	24.00	0.90	34.00	0.45
4.25	28.60	14.25	2.54	24.25	0.88	34.25	0.44
4.50	25.51	14.50	2.46	24.50	0.86	34.50	0.43
4.75	22.89	14.75	2.37	24.75	0.84	34.75	0.43
5.00	20.66	15.00	2.30	25.00	0.83	35.00	0.42
5.25	18.74	15.25	2.22	25.25	0.81	35.25	0.42
5.50	17.08	15.50	2.15	25.50	0.79	35.50	0.41
5.75	15.62	15.75	2.08	25.75	0.78	35.75	0.40
6.00	14.35	16.00	2.02	26.00	0.76	36.00	0.40
6.25	13.22	16.25	1.96	26.25	0.75	36.25	0.39
6.50	12.23	16.50	1.90	26.50	0.74	36.50	0.39
6.75	11.34	16.75	1.84	26.75	0.72	36.75	0.38
7.00	10.54	17.00	1.79	27.00	0.71	37.00	0.38
7.25	9.83	17.25	1.74	27.25	0.70	37.25	0.37
7.50	9.18	17.50	1.69	27.50	0.68	37.50	0.37
7.75	8.60	17.75	1.64	27.75	0.67	37.75	0.36
8.00	8.07	18.00	1.59	28.00	0.66	38.00	0.36
8.25	7.59	18.25	1.55	28.25	0.65	38.25	0.35
8.50	7.15	18.50	1.51	28.50	0.64	38.50	0.35
8.75	6.75	18.75	1.47	28.75	0.62	38.75	0.34
9.00	6.38	19.00	1.43	29.00	0.61	39.00	0.34
9.25	6.04	19.25	1.39	29.25	0.60	39.25	0.34
9.50	5.72	19.50	1.36	29.50	0.59	39.50	0.33
9.75	5.43	19.75	1.32	29.75	0.58	39.75	0.33
10.00	5.17	20.00	1.29	30.00	0.57	40.00	0.32

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 90%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.91                      10.97 Inches

BioInitiative ft. 71.70                      860.40 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.32	54.25	0.18	68.25	0.11	82.25	0.08
40.50	0.31	54.50	0.17	68.50	0.11	82.50	0.08
40.75	0.31	54.75	0.17	68.75	0.11	82.75	0.08
41.00	0.31	55.00	0.17	69.00	0.11	83.00	0.07
41.25	0.30	55.25	0.17	69.25	0.11	83.25	0.07
41.50	0.30	55.50	0.17	69.50	0.11	83.50	0.07
41.75	0.30	55.75	0.17	69.75	0.11	83.75	0.07
42.00	0.29	56.00	0.16	70.00	0.11	84.00	0.07
42.25	0.29	56.25	0.16	70.25	0.10	84.25	0.07
42.50	0.29	56.50	0.16	70.50	0.10	84.50	0.07
42.75	0.28	56.75	0.16	70.75	0.10	84.75	0.07
43.00	0.28	57.00	0.16	71.00	0.10	85.00	0.07
43.25	0.28	57.25	0.16	71.25	0.10	85.25	0.07
43.50	0.27	57.50	0.16	71.50	0.10	85.50	0.07
43.75	0.27	57.75	0.15	71.75	0.10	85.75	0.07
44.00	0.27	58.00	0.15	72.00	0.10	86.00	0.07
44.25	0.26	58.25	0.15	72.25	0.10	86.25	0.07
44.50	0.26	58.50	0.15	72.50	0.10	86.50	0.07
44.75	0.26	58.75	0.15	72.75	0.10	86.75	0.07
45.00	0.26	59.00	0.15	73.00	0.10	87.00	0.07
45.25	0.25	59.25	0.15	73.25	0.10	87.25	0.07
45.50	0.25	59.50	0.15	73.50	0.10	87.50	0.07
45.75	0.25	59.75	0.14	73.75	0.09	87.75	0.07
46.00	0.24	60.00	0.14	74.00	0.09	88.00	0.07
46.25	0.24	60.25	0.14	74.25	0.09	88.25	0.07
46.50	0.24	60.50	0.14	74.50	0.09	88.50	0.07
46.75	0.24	60.75	0.14	74.75	0.09	88.75	0.07
47.00	0.23	61.00	0.14	75.00	0.09	89.00	0.07
47.25	0.23	61.25	0.14	75.25	0.09	89.25	0.06
47.50	0.23	61.50	0.14	75.50	0.09	89.50	0.06
47.75	0.23	61.75	0.14	75.75	0.09	89.75	0.06
48.00	0.22	62.00	0.13	76.00	0.09	90.00	0.06
48.25	0.22	62.25	0.13	76.25	0.09	90.25	0.06
48.50	0.22	62.50	0.13	76.50	0.09	90.50	0.06
48.75	0.22	62.75	0.13	76.75	0.09	90.75	0.06
49.00	0.22	63.00	0.13	77.00	0.09	91.00	0.06
49.25	0.21	63.25	0.13	77.25	0.09	91.25	0.06
49.50	0.21	63.50	0.13	77.50	0.09	91.50	0.06
49.75	0.21	63.75	0.13	77.75	0.09	91.75	0.06
50.00	0.21	64.00	0.13	78.00	0.08	92.00	0.06
50.25	0.20	64.25	0.13	78.25	0.08	92.25	0.06
50.50	0.20	64.50	0.12	78.50	0.08	92.50	0.06
50.75	0.20	64.75	0.12	78.75	0.08	92.75	0.06
51.00	0.20	65.00	0.12	79.00	0.08	93.00	0.06
51.25	0.20	65.25	0.12	79.25	0.08	93.25	0.06
51.50	0.19	65.50	0.12	79.50	0.08	93.50	0.06
51.75	0.19	65.75	0.12	79.75	0.08	93.75	0.06
52.00	0.19	66.00	0.12	80.00	0.08	94.00	0.06
52.25	0.19	66.25	0.12	80.25	0.08	94.25	0.06
52.50	0.19	66.50	0.12	80.50	0.08	94.50	0.06
52.75	0.19	66.75	0.12	80.75	0.08	94.75	0.06
53.00	0.18	67.00	0.12	81.00	0.08	95.00	0.06
53.25	0.18	67.25	0.11	81.25	0.08	95.25	0.06
53.50	0.18	67.50	0.11	81.50	0.08	95.50	0.06
53.75	0.18	67.75	0.11	81.75	0.08	95.75	0.06
54.00	0.18	68.00	0.11	82.00	0.08	96.00	0.06

Table 1 – 90%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 100%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.96                      11.5 Inches

BioInitiative ft. 75.76                      909.1 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	9183.37	10.25	5.46	20.25	1.40	30.25	0.63
0.50	2295.84	10.50	5.21	20.50	1.37	30.50	0.62
0.75	1020.37	10.75	4.97	20.75	1.33	30.75	0.61
1.00	573.96	11.00	4.74	21.00	1.30	31.00	0.60
1.25	367.33	11.25	4.53	21.25	1.27	31.25	0.59
1.50	255.09	11.50	4.34	21.50	1.24	31.50	0.58
1.75	187.42	11.75	4.16	21.75	1.21	31.75	0.57
2.00	143.49	12.00	3.99	22.00	1.19	32.00	0.56
2.25	113.37	12.25	3.82	22.25	1.16	32.25	0.55
2.50	91.83	12.50	3.67	22.50	1.13	32.50	0.54
2.75	75.90	12.75	3.53	22.75	1.11	32.75	0.54
3.00	63.77	13.00	3.40	23.00	1.08	33.00	0.53
3.25	54.34	13.25	3.27	23.25	1.06	33.25	0.52
3.50	46.85	13.50	3.15	23.50	1.04	33.50	0.51
3.75	40.81	13.75	3.04	23.75	1.02	33.75	0.50
4.00	35.87	14.00	2.93	24.00	1.00	34.00	0.50
4.25	31.78	14.25	2.83	24.25	0.98	34.25	0.49
4.50	28.34	14.50	2.73	24.50	0.96	34.50	0.48
4.75	25.44	14.75	2.64	24.75	0.94	34.75	0.48
5.00	22.96	15.00	2.55	25.00	0.92	35.00	0.47
5.25	20.82	15.25	2.47	25.25	0.90	35.25	0.46
5.50	18.97	15.50	2.39	25.50	0.88	35.50	0.46
5.75	17.36	15.75	2.31	25.75	0.87	35.75	0.45
6.00	15.94	16.00	2.24	26.00	0.85	36.00	0.44
6.25	14.69	16.25	2.17	26.25	0.83	36.25	0.44
6.50	13.58	16.50	2.11	26.50	0.82	36.50	0.43
6.75	12.60	16.75	2.05	26.75	0.80	36.75	0.42
7.00	11.71	17.00	1.99	27.00	0.79	37.00	0.42
7.25	10.92	17.25	1.93	27.25	0.77	37.25	0.41
7.50	10.20	17.50	1.87	27.50	0.76	37.50	0.41
7.75	9.56	17.75	1.82	27.75	0.75	37.75	0.40
8.00	8.97	18.00	1.77	28.00	0.73	38.00	0.40
8.25	8.43	18.25	1.72	28.25	0.72	38.25	0.39
8.50	7.94	18.50	1.68	28.50	0.71	38.50	0.39
8.75	7.50	18.75	1.63	28.75	0.69	38.75	0.38
9.00	7.09	19.00	1.59	29.00	0.68	39.00	0.38
9.25	6.71	19.25	1.55	29.25	0.67	39.25	0.37
9.50	6.36	19.50	1.51	29.50	0.66	39.50	0.37
9.75	6.04	19.75	1.47	29.75	0.65	39.75	0.36
10.00	5.74	20.00	1.43	30.00	0.64	40.00	0.36

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 1 Electric Meter

Time Avg: 100%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.96

11.48 Inches

BioInitiative ft. 75.76

909.12 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.35	54.25	0.20	68.25	0.12	82.25	0.08
40.50	0.35	54.50	0.19	68.50	0.12	82.50	0.08
40.75	0.35	54.75	0.19	68.75	0.12	82.75	0.08
41.00	0.34	55.00	0.19	69.00	0.12	83.00	0.08
41.25	0.34	55.25	0.19	69.25	0.12	83.25	0.08
41.50	0.33	55.50	0.19	69.50	0.12	83.50	0.08
41.75	0.33	55.75	0.18	69.75	0.12	83.75	0.08
42.00	0.33	56.00	0.18	70.00	0.12	84.00	0.08
42.25	0.32	56.25	0.18	70.25	0.12	84.25	0.08
42.50	0.32	56.50	0.18	70.50	0.12	84.50	0.08
42.75	0.31	56.75	0.18	70.75	0.11	84.75	0.08
43.00	0.31	57.00	0.18	71.00	0.11	85.00	0.08
43.25	0.31	57.25	0.18	71.25	0.11	85.25	0.08
43.50	0.30	57.50	0.17	71.50	0.11	85.50	0.08
43.75	0.30	57.75	0.17	71.75	0.11	85.75	0.08
44.00	0.30	58.00	0.17	72.00	0.11	86.00	0.08
44.25	0.29	58.25	0.17	72.25	0.11	86.25	0.08
44.50	0.29	58.50	0.17	72.50	0.11	86.50	0.08
44.75	0.29	58.75	0.17	72.75	0.11	86.75	0.08
45.00	0.28	59.00	0.16	73.00	0.11	87.00	0.08
45.25	0.28	59.25	0.16	73.25	0.11	87.25	0.08
45.50	0.28	59.50	0.16	73.50	0.11	87.50	0.07
45.75	0.27	59.75	0.16	73.75	0.11	87.75	0.07
46.00	0.27	60.00	0.16	74.00	0.10	88.00	0.07
46.25	0.27	60.25	0.16	74.25	0.10	88.25	0.07
46.50	0.27	60.50	0.16	74.50	0.10	88.50	0.07
46.75	0.26	60.75	0.16	74.75	0.10	88.75	0.07
47.00	0.26	61.00	0.15	75.00	0.10	89.00	0.07
47.25	0.26	61.25	0.15	75.25	0.10	89.25	0.07
47.50	0.25	61.50	0.15	75.50	0.10	89.50	0.07
47.75	0.25	61.75	0.15	75.75	0.10	89.75	0.07
48.00	0.25	62.00	0.15	76.00	0.10	90.00	0.07
48.25	0.25	62.25	0.15	76.25	0.10	90.25	0.07
48.50	0.24	62.50	0.15	76.50	0.10	90.50	0.07
48.75	0.24	62.75	0.15	76.75	0.10	90.75	0.07
49.00	0.24	63.00	0.14	77.00	0.10	91.00	0.07
49.25	0.24	63.25	0.14	77.25	0.10	91.25	0.07
49.50	0.23	63.50	0.14	77.50	0.10	91.50	0.07
49.75	0.23	63.75	0.14	77.75	0.09	91.75	0.07
50.00	0.23	64.00	0.14	78.00	0.09	92.00	0.07
50.25	0.23	64.25	0.14	78.25	0.09	92.25	0.07
50.50	0.23	64.50	0.14	78.50	0.09	92.50	0.07
50.75	0.22	64.75	0.14	78.75	0.09	92.75	0.07
51.00	0.22	65.00	0.14	79.00	0.09	93.00	0.07
51.25	0.22	65.25	0.13	79.25	0.09	93.25	0.07
51.50	0.22	65.50	0.13	79.50	0.09	93.50	0.07
51.75	0.21	65.75	0.13	79.75	0.09	93.75	0.07
52.00	0.21	66.00	0.13	80.00	0.09	94.00	0.06
52.25	0.21	66.25	0.13	80.25	0.09	94.25	0.06
52.50	0.21	66.50	0.13	80.50	0.09	94.50	0.06
52.75	0.21	66.75	0.13	80.75	0.09	94.75	0.06
53.00	0.20	67.00	0.13	81.00	0.09	95.00	0.06
53.25	0.20	67.25	0.13	81.25	0.09	95.25	0.06
53.50	0.20	67.50	0.13	81.50	0.09	95.50	0.06
53.75	0.20	67.75	0.13	81.75	0.09	95.75	0.06
54.00	0.20	68.00	0.12	82.00	0.09	96.00	0.06

Table 1 – 100%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 1%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.12 1.4 Inches

BioInitiative ft. 9.47 113.6 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	143.49	10.25	0.09	20.25	0.02	30.25	0.01
0.50	35.87	10.50	0.08	20.50	0.02	30.50	0.01
0.75	15.94	10.75	0.08	20.75	0.02	30.75	0.01
1.00	8.97	11.00	0.07	21.00	0.02	31.00	0.01
1.25	5.74	11.25	0.07	21.25	0.02	31.25	0.01
1.50	3.99	11.50	0.07	21.50	0.02	31.50	0.01
1.75	2.93	11.75	0.06	21.75	0.02	31.75	0.01
2.00	2.24	12.00	0.06	22.00	0.02	32.00	0.01
2.25	1.77	12.25	0.06	22.25	0.02	32.25	0.01
2.50	1.43	12.50	0.06	22.50	0.02	32.50	0.01
2.75	1.19	12.75	0.06	22.75	0.02	32.75	0.01
3.00	1.00	13.00	0.05	23.00	0.02	33.00	0.01
3.25	0.85	13.25	0.05	23.25	0.02	33.25	0.01
3.50	0.73	13.50	0.05	23.50	0.02	33.50	0.01
3.75	0.64	13.75	0.05	23.75	0.02	33.75	0.01
4.00	0.56	14.00	0.05	24.00	0.02	34.00	0.01
4.25	0.50	14.25	0.04	24.25	0.02	34.25	0.01
4.50	0.44	14.50	0.04	24.50	0.01	34.50	0.01
4.75	0.40	14.75	0.04	24.75	0.01	34.75	0.01
5.00	0.36	15.00	0.04	25.00	0.01	35.00	0.01
5.25	0.33	15.25	0.04	25.25	0.01	35.25	0.01
5.50	0.30	15.50	0.04	25.50	0.01	35.50	0.01
5.75	0.27	15.75	0.04	25.75	0.01	35.75	0.01
6.00	0.25	16.00	0.04	26.00	0.01	36.00	0.01
6.25	0.23	16.25	0.03	26.25	0.01	36.25	0.01
6.50	0.21	16.50	0.03	26.50	0.01	36.50	0.01
6.75	0.20	16.75	0.03	26.75	0.01	36.75	0.01
7.00	0.18	17.00	0.03	27.00	0.01	37.00	0.01
7.25	0.17	17.25	0.03	27.25	0.01	37.25	0.01
7.50	0.16	17.50	0.03	27.50	0.01	37.50	0.01
7.75	0.15	17.75	0.03	27.75	0.01	37.75	0.01
8.00	0.14	18.00	0.03	28.00	0.01	38.00	0.01
8.25	0.13	18.25	0.03	28.25	0.01	38.25	0.01
8.50	0.12	18.50	0.03	28.50	0.01	38.50	0.01
8.75	0.12	18.75	0.03	28.75	0.01	38.75	0.01
9.00	0.11	19.00	0.02	29.00	0.01	39.00	0.01
9.25	0.10	19.25	0.02	29.25	0.01	39.25	0.01
9.50	0.10	19.50	0.02	29.50	0.01	39.50	0.01
9.75	0.09	19.75	0.02	29.75	0.01	39.75	0.01
10.00	0.09	20.00	0.02	30.00	0.01	40.00	0.01

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi)(R)^2$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 1%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.12

1.43 Inches

BioInitiative ft. 9.47

113.64 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.01	54.25	0.00	68.25	0.00	82.25	0.00
40.50	0.01	54.50	0.00	68.50	0.00	82.50	0.00
40.75	0.01	54.75	0.00	68.75	0.00	82.75	0.00
41.00	0.01	55.00	0.00	69.00	0.00	83.00	0.00
41.25	0.01	55.25	0.00	69.25	0.00	83.25	0.00
41.50	0.01	55.50	0.00	69.50	0.00	83.50	0.00
41.75	0.01	55.75	0.00	69.75	0.00	83.75	0.00
42.00	0.01	56.00	0.00	70.00	0.00	84.00	0.00
42.25	0.01	56.25	0.00	70.25	0.00	84.25	0.00
42.50	0.00	56.50	0.00	70.50	0.00	84.50	0.00
42.75	0.00	56.75	0.00	70.75	0.00	84.75	0.00
43.00	0.00	57.00	0.00	71.00	0.00	85.00	0.00
43.25	0.00	57.25	0.00	71.25	0.00	85.25	0.00
43.50	0.00	57.50	0.00	71.50	0.00	85.50	0.00
43.75	0.00	57.75	0.00	71.75	0.00	85.75	0.00
44.00	0.00	58.00	0.00	72.00	0.00	86.00	0.00
44.25	0.00	58.25	0.00	72.25	0.00	86.25	0.00
44.50	0.00	58.50	0.00	72.50	0.00	86.50	0.00
44.75	0.00	58.75	0.00	72.75	0.00	86.75	0.00
45.00	0.00	59.00	0.00	73.00	0.00	87.00	0.00
45.25	0.00	59.25	0.00	73.25	0.00	87.25	0.00
45.50	0.00	59.50	0.00	73.50	0.00	87.50	0.00
45.75	0.00	59.75	0.00	73.75	0.00	87.75	0.00
46.00	0.00	60.00	0.00	74.00	0.00	88.00	0.00
46.25	0.00	60.25	0.00	74.25	0.00	88.25	0.00
46.50	0.00	60.50	0.00	74.50	0.00	88.50	0.00
46.75	0.00	60.75	0.00	74.75	0.00	88.75	0.00
47.00	0.00	61.00	0.00	75.00	0.00	89.00	0.00
47.25	0.00	61.25	0.00	75.25	0.00	89.25	0.00
47.50	0.00	61.50	0.00	75.50	0.00	89.50	0.00
47.75	0.00	61.75	0.00	75.75	0.00	89.75	0.00
48.00	0.00	62.00	0.00	76.00	0.00	90.00	0.00
48.25	0.00	62.25	0.00	76.25	0.00	90.25	0.00
48.50	0.00	62.50	0.00	76.50	0.00	90.50	0.00
48.75	0.00	62.75	0.00	76.75	0.00	90.75	0.00
49.00	0.00	63.00	0.00	77.00	0.00	91.00	0.00
49.25	0.00	63.25	0.00	77.25	0.00	91.25	0.00
49.50	0.00	63.50	0.00	77.50	0.00	91.50	0.00
49.75	0.00	63.75	0.00	77.75	0.00	91.75	0.00
50.00	0.00	64.00	0.00	78.00	0.00	92.00	0.00
50.25	0.00	64.25	0.00	78.25	0.00	92.25	0.00
50.50	0.00	64.50	0.00	78.50	0.00	92.50	0.00
50.75	0.00	64.75	0.00	78.75	0.00	92.75	0.00
51.00	0.00	65.00	0.00	79.00	0.00	93.00	0.00
51.25	0.00	65.25	0.00	79.25	0.00	93.25	0.00
51.50	0.00	65.50	0.00	79.50	0.00	93.50	0.00
51.75	0.00	65.75	0.00	79.75	0.00	93.75	0.00
52.00	0.00	66.00	0.00	80.00	0.00	94.00	0.00
52.25	0.00	66.25	0.00	80.25	0.00	94.25	0.00
52.50	0.00	66.50	0.00	80.50	0.00	94.50	0.00
52.75	0.00	66.75	0.00	80.75	0.00	94.75	0.00
53.00	0.00	67.00	0.00	81.00	0.00	95.00	0.00
53.25	0.00	67.25	0.00	81.25	0.00	95.25	0.00
53.50	0.00	67.50	0.00	81.50	0.00	95.50	0.00
53.75	0.00	67.75	0.00	81.75	0.00	95.75	0.00
54.00	0.00	68.00	0.00	82.00	0.00	96.00	0.00

Table 2 – 1%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 10%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.38 4.5 Inches

BioInitiative ft. 29.95 359.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	1434.90	10.25	0.85	20.25	0.22	30.25	0.10
0.50	358.73	10.50	0.81	20.50	0.21	30.50	0.10
0.75	159.43	10.75	0.78	20.75	0.21	30.75	0.09
1.00	89.68	11.00	0.74	21.00	0.20	31.00	0.09
1.25	57.40	11.25	0.71	21.25	0.20	31.25	0.09
1.50	39.86	11.50	0.68	21.50	0.19	31.50	0.09
1.75	29.28	11.75	0.65	21.75	0.19	31.75	0.09
2.00	22.42	12.00	0.62	22.00	0.19	32.00	0.09
2.25	17.71	12.25	0.60	22.25	0.18	32.25	0.09
2.50	14.35	12.50	0.57	22.50	0.18	32.50	0.08
2.75	11.86	12.75	0.55	22.75	0.17	32.75	0.08
3.00	9.96	13.00	0.53	23.00	0.17	33.00	0.08
3.25	8.49	13.25	0.51	23.25	0.17	33.25	0.08
3.50	7.32	13.50	0.49	23.50	0.16	33.50	0.08
3.75	6.38	13.75	0.47	23.75	0.16	33.75	0.08
4.00	5.61	14.00	0.46	24.00	0.16	34.00	0.08
4.25	4.97	14.25	0.44	24.25	0.15	34.25	0.08
4.50	4.43	14.50	0.43	24.50	0.15	34.50	0.08
4.75	3.97	14.75	0.41	24.75	0.15	34.75	0.07
5.00	3.59	15.00	0.40	25.00	0.14	35.00	0.07
5.25	3.25	15.25	0.39	25.25	0.14	35.25	0.07
5.50	2.96	15.50	0.37	25.50	0.14	35.50	0.07
5.75	2.71	15.75	0.36	25.75	0.14	35.75	0.07
6.00	2.49	16.00	0.35	26.00	0.13	36.00	0.07
6.25	2.30	16.25	0.34	26.25	0.13	36.25	0.07
6.50	2.12	16.50	0.33	26.50	0.13	36.50	0.07
6.75	1.97	16.75	0.32	26.75	0.13	36.75	0.07
7.00	1.83	17.00	0.31	27.00	0.12	37.00	0.07
7.25	1.71	17.25	0.30	27.25	0.12	37.25	0.06
7.50	1.59	17.50	0.29	27.50	0.12	37.50	0.06
7.75	1.49	17.75	0.28	27.75	0.12	37.75	0.06
8.00	1.40	18.00	0.28	28.00	0.11	38.00	0.06
8.25	1.32	18.25	0.27	28.25	0.11	38.25	0.06
8.50	1.24	18.50	0.26	28.50	0.11	38.50	0.06
8.75	1.17	18.75	0.26	28.75	0.11	38.75	0.06
9.00	1.11	19.00	0.25	29.00	0.11	39.00	0.06
9.25	1.05	19.25	0.24	29.25	0.10	39.25	0.06
9.50	0.99	19.50	0.24	29.50	0.10	39.50	0.06
9.75	0.94	19.75	0.23	29.75	0.10	39.75	0.06
10.00	0.90	20.00	0.22	30.00	0.10	40.00	0.06

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi)(R)^2$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 10%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.38

4.54 Inches

BioInitiative ft. 29.95

359.36 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	0.06	54.25	0.03	68.25	0.02	82.25	0.01
40.50	0.05	54.50	0.03	68.50	0.02	82.50	0.01
40.75	0.05	54.75	0.03	68.75	0.02	82.75	0.01
41.00	0.05	55.00	0.03	69.00	0.02	83.00	0.01
41.25	0.05	55.25	0.03	69.25	0.02	83.25	0.01
41.50	0.05	55.50	0.03	69.50	0.02	83.50	0.01
41.75	0.05	55.75	0.03	69.75	0.02	83.75	0.01
42.00	0.05	56.00	0.03	70.00	0.02	84.00	0.01
42.25	0.05	56.25	0.03	70.25	0.02	84.25	0.01
42.50	0.05	56.50	0.03	70.50	0.02	84.50	0.01
42.75	0.05	56.75	0.03	70.75	0.02	84.75	0.01
43.00	0.05	57.00	0.03	71.00	0.02	85.00	0.01
43.25	0.05	57.25	0.03	71.25	0.02	85.25	0.01
43.50	0.05	57.50	0.03	71.50	0.02	85.50	0.01
43.75	0.05	57.75	0.03	71.75	0.02	85.75	0.01
44.00	0.05	58.00	0.03	72.00	0.02	86.00	0.01
44.25	0.05	58.25	0.03	72.25	0.02	86.25	0.01
44.50	0.05	58.50	0.03	72.50	0.02	86.50	0.01
44.75	0.04	58.75	0.03	72.75	0.02	86.75	0.01
45.00	0.04	59.00	0.03	73.00	0.02	87.00	0.01
45.25	0.04	59.25	0.03	73.25	0.02	87.25	0.01
45.50	0.04	59.50	0.03	73.50	0.02	87.50	0.01
45.75	0.04	59.75	0.03	73.75	0.02	87.75	0.01
46.00	0.04	60.00	0.02	74.00	0.02	88.00	0.01
46.25	0.04	60.25	0.02	74.25	0.02	88.25	0.01
46.50	0.04	60.50	0.02	74.50	0.02	88.50	0.01
46.75	0.04	60.75	0.02	74.75	0.02	88.75	0.01
47.00	0.04	61.00	0.02	75.00	0.02	89.00	0.01
47.25	0.04	61.25	0.02	75.25	0.02	89.25	0.01
47.50	0.04	61.50	0.02	75.50	0.02	89.50	0.01
47.75	0.04	61.75	0.02	75.75	0.02	89.75	0.01
48.00	0.04	62.00	0.02	76.00	0.02	90.00	0.01
48.25	0.04	62.25	0.02	76.25	0.02	90.25	0.01
48.50	0.04	62.50	0.02	76.50	0.02	90.50	0.01
48.75	0.04	62.75	0.02	76.75	0.02	90.75	0.01
49.00	0.04	63.00	0.02	77.00	0.02	91.00	0.01
49.25	0.04	63.25	0.02	77.25	0.02	91.25	0.01
49.50	0.04	63.50	0.02	77.50	0.01	91.50	0.01
49.75	0.04	63.75	0.02	77.75	0.01	91.75	0.01
50.00	0.04	64.00	0.02	78.00	0.01	92.00	0.01
50.25	0.04	64.25	0.02	78.25	0.01	92.25	0.01
50.50	0.04	64.50	0.02	78.50	0.01	92.50	0.01
50.75	0.03	64.75	0.02	78.75	0.01	92.75	0.01
51.00	0.03	65.00	0.02	79.00	0.01	93.00	0.01
51.25	0.03	65.25	0.02	79.25	0.01	93.25	0.01
51.50	0.03	65.50	0.02	79.50	0.01	93.50	0.01
51.75	0.03	65.75	0.02	79.75	0.01	93.75	0.01
52.00	0.03	66.00	0.02	80.00	0.01	94.00	0.01
52.25	0.03	66.25	0.02	80.25	0.01	94.25	0.01
52.50	0.03	66.50	0.02	80.50	0.01	94.50	0.01
52.75	0.03	66.75	0.02	80.75	0.01	94.75	0.01
53.00	0.03	67.00	0.02	81.00	0.01	95.00	0.01
53.25	0.03	67.25	0.02	81.25	0.01	95.25	0.01
53.50	0.03	67.50	0.02	81.50	0.01	95.50	0.01
53.75	0.03	67.75	0.02	81.75	0.01	95.75	0.01
54.00	0.03	68.00	0.02	82.00	0.01	96.00	0.01

Table 2 – 10%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 20%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.53                      6.4 Inches

BioInitiative ft. 42.35                      508.2 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	2869.80	10.25	1.71	20.25	0.44	30.25	0.20
0.50	717.45	10.50	1.63	20.50	0.43	30.50	0.19
0.75	318.87	10.75	1.55	20.75	0.42	30.75	0.19
1.00	179.36	11.00	1.48	21.00	0.41	31.00	0.19
1.25	114.79	11.25	1.42	21.25	0.40	31.25	0.18
1.50	79.72	11.50	1.36	21.50	0.39	31.50	0.18
1.75	58.57	11.75	1.30	21.75	0.38	31.75	0.18
2.00	44.84	12.00	1.25	22.00	0.37	32.00	0.18
2.25	35.43	12.25	1.20	22.25	0.36	32.25	0.17
2.50	28.70	12.50	1.15	22.50	0.35	32.50	0.17
2.75	23.72	12.75	1.10	22.75	0.35	32.75	0.17
3.00	19.93	13.00	1.06	23.00	0.34	33.00	0.16
3.25	16.98	13.25	1.02	23.25	0.33	33.25	0.16
3.50	14.64	13.50	0.98	23.50	0.32	33.50	0.16
3.75	12.75	13.75	0.95	23.75	0.32	33.75	0.16
4.00	11.21	14.00	0.92	24.00	0.31	34.00	0.16
4.25	9.93	14.25	0.88	24.25	0.31	34.25	0.15
4.50	8.86	14.50	0.85	24.50	0.30	34.50	0.15
4.75	7.95	14.75	0.82	24.75	0.29	34.75	0.15
5.00	7.17	15.00	0.80	25.00	0.29	35.00	0.15
5.25	6.51	15.25	0.77	25.25	0.28	35.25	0.14
5.50	5.93	15.50	0.75	25.50	0.28	35.50	0.14
5.75	5.42	15.75	0.72	25.75	0.27	35.75	0.14
6.00	4.98	16.00	0.70	26.00	0.27	36.00	0.14
6.25	4.59	16.25	0.68	26.25	0.26	36.25	0.14
6.50	4.25	16.50	0.66	26.50	0.26	36.50	0.13
6.75	3.94	16.75	0.64	26.75	0.25	36.75	0.13
7.00	3.66	17.00	0.62	27.00	0.25	37.00	0.13
7.25	3.41	17.25	0.60	27.25	0.24	37.25	0.13
7.50	3.19	17.50	0.59	27.50	0.24	37.50	0.13
7.75	2.99	17.75	0.57	27.75	0.23	37.75	0.13
8.00	2.80	18.00	0.55	28.00	0.23	38.00	0.12
8.25	2.64	18.25	0.54	28.25	0.22	38.25	0.12
8.50	2.48	18.50	0.52	28.50	0.22	38.50	0.12
8.75	2.34	18.75	0.51	28.75	0.22	38.75	0.12
9.00	2.21	19.00	0.50	29.00	0.21	39.00	0.12
9.25	2.10	19.25	0.48	29.25	0.21	39.25	0.12
9.50	1.99	19.50	0.47	29.50	0.21	39.50	0.11
9.75	1.89	19.75	0.46	29.75	0.20	39.75	0.11
10.00	1.79	20.00	0.45	30.00	0.20	40.00	0.11

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi)(R)^2$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 20%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.53

6.42 Inches

BioInitiative ft. 42.35

508.21 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	0.11	54.25	0.06	68.25	0.04	82.25	0.03
40.50	0.11	54.50	0.06	68.50	0.04	82.50	0.03
40.75	0.11	54.75	0.06	68.75	0.04	82.75	0.03
41.00	0.11	55.00	0.06	69.00	0.04	83.00	0.03
41.25	0.11	55.25	0.06	69.25	0.04	83.25	0.03
41.50	0.10	55.50	0.06	69.50	0.04	83.50	0.03
41.75	0.10	55.75	0.06	69.75	0.04	83.75	0.03
42.00	0.10	56.00	0.06	70.00	0.04	84.00	0.03
42.25	0.10	56.25	0.06	70.25	0.04	84.25	0.03
42.50	0.10	56.50	0.06	70.50	0.04	84.50	0.03
42.75	0.10	56.75	0.06	70.75	0.04	84.75	0.02
43.00	0.10	57.00	0.06	71.00	0.04	85.00	0.02
43.25	0.10	57.25	0.05	71.25	0.04	85.25	0.02
43.50	0.09	57.50	0.05	71.50	0.04	85.50	0.02
43.75	0.09	57.75	0.05	71.75	0.03	85.75	0.02
44.00	0.09	58.00	0.05	72.00	0.03	86.00	0.02
44.25	0.09	58.25	0.05	72.25	0.03	86.25	0.02
44.50	0.09	58.50	0.05	72.50	0.03	86.50	0.02
44.75	0.09	58.75	0.05	72.75	0.03	86.75	0.02
45.00	0.09	59.00	0.05	73.00	0.03	87.00	0.02
45.25	0.09	59.25	0.05	73.25	0.03	87.25	0.02
45.50	0.09	59.50	0.05	73.50	0.03	87.50	0.02
45.75	0.09	59.75	0.05	73.75	0.03	87.75	0.02
46.00	0.08	60.00	0.05	74.00	0.03	88.00	0.02
46.25	0.08	60.25	0.05	74.25	0.03	88.25	0.02
46.50	0.08	60.50	0.05	74.50	0.03	88.50	0.02
46.75	0.08	60.75	0.05	74.75	0.03	88.75	0.02
47.00	0.08	61.00	0.05	75.00	0.03	89.00	0.02
47.25	0.08	61.25	0.05	75.25	0.03	89.25	0.02
47.50	0.08	61.50	0.05	75.50	0.03	89.50	0.02
47.75	0.08	61.75	0.05	75.75	0.03	89.75	0.02
48.00	0.08	62.00	0.05	76.00	0.03	90.00	0.02
48.25	0.08	62.25	0.05	76.25	0.03	90.25	0.02
48.50	0.08	62.50	0.05	76.50	0.03	90.50	0.02
48.75	0.08	62.75	0.05	76.75	0.03	90.75	0.02
49.00	0.07	63.00	0.05	77.00	0.03	91.00	0.02
49.25	0.07	63.25	0.04	77.25	0.03	91.25	0.02
49.50	0.07	63.50	0.04	77.50	0.03	91.50	0.02
49.75	0.07	63.75	0.04	77.75	0.03	91.75	0.02
50.00	0.07	64.00	0.04	78.00	0.03	92.00	0.02
50.25	0.07	64.25	0.04	78.25	0.03	92.25	0.02
50.50	0.07	64.50	0.04	78.50	0.03	92.50	0.02
50.75	0.07	64.75	0.04	78.75	0.03	92.75	0.02
51.00	0.07	65.00	0.04	79.00	0.03	93.00	0.02
51.25	0.07	65.25	0.04	79.25	0.03	93.25	0.02
51.50	0.07	65.50	0.04	79.50	0.03	93.50	0.02
51.75	0.07	65.75	0.04	79.75	0.03	93.75	0.02
52.00	0.07	66.00	0.04	80.00	0.03	94.00	0.02
52.25	0.07	66.25	0.04	80.25	0.03	94.25	0.02
52.50	0.07	66.50	0.04	80.50	0.03	94.50	0.02
52.75	0.06	66.75	0.04	80.75	0.03	94.75	0.02
53.00	0.06	67.00	0.04	81.00	0.03	95.00	0.02
53.25	0.06	67.25	0.04	81.25	0.03	95.25	0.02
53.50	0.06	67.50	0.04	81.50	0.03	95.50	0.02
53.75	0.06	67.75	0.04	81.75	0.03	95.75	0.02
54.00	0.06	68.00	0.04	82.00	0.03	96.00	0.02

Table 2 – 20%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 30%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.65                      7.9 Inches

BioInitiative ft. 51.87                      622.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	4304.70	10.25	2.56	20.25	0.66	30.25	0.29
0.50	1076.18	10.50	2.44	20.50	0.64	30.50	0.29
0.75	478.30	10.75	2.33	20.75	0.62	30.75	0.28
1.00	269.04	11.00	2.22	21.00	0.61	31.00	0.28
1.25	172.19	11.25	2.13	21.25	0.60	31.25	0.28
1.50	119.58	11.50	2.03	21.50	0.58	31.50	0.27
1.75	87.85	11.75	1.95	21.75	0.57	31.75	0.27
2.00	67.26	12.00	1.87	22.00	0.56	32.00	0.26
2.25	53.14	12.25	1.79	22.25	0.54	32.25	0.26
2.50	43.05	12.50	1.72	22.50	0.53	32.50	0.25
2.75	35.58	12.75	1.66	22.75	0.52	32.75	0.25
3.00	29.89	13.00	1.59	23.00	0.51	33.00	0.25
3.25	25.47	13.25	1.53	23.25	0.50	33.25	0.24
3.50	21.96	13.50	1.48	23.50	0.49	33.50	0.24
3.75	19.13	13.75	1.42	23.75	0.48	33.75	0.24
4.00	16.82	14.00	1.37	24.00	0.47	34.00	0.23
4.25	14.90	14.25	1.32	24.25	0.46	34.25	0.23
4.50	13.29	14.50	1.28	24.50	0.45	34.50	0.23
4.75	11.92	14.75	1.24	24.75	0.44	34.75	0.22
5.00	10.76	15.00	1.20	25.00	0.43	35.00	0.22
5.25	9.76	15.25	1.16	25.25	0.42	35.25	0.22
5.50	8.89	15.50	1.12	25.50	0.41	35.50	0.21
5.75	8.14	15.75	1.08	25.75	0.41	35.75	0.21
6.00	7.47	16.00	1.05	26.00	0.40	36.00	0.21
6.25	6.89	16.25	1.02	26.25	0.39	36.25	0.20
6.50	6.37	16.50	0.99	26.50	0.38	36.50	0.20
6.75	5.90	16.75	0.96	26.75	0.38	36.75	0.20
7.00	5.49	17.00	0.93	27.00	0.37	37.00	0.20
7.25	5.12	17.25	0.90	27.25	0.36	37.25	0.19
7.50	4.78	17.50	0.88	27.50	0.36	37.50	0.19
7.75	4.48	17.75	0.85	27.75	0.35	37.75	0.19
8.00	4.20	18.00	0.83	28.00	0.34	38.00	0.19
8.25	3.95	18.25	0.81	28.25	0.34	38.25	0.18
8.50	3.72	18.50	0.79	28.50	0.33	38.50	0.18
8.75	3.51	18.75	0.77	28.75	0.33	38.75	0.18
9.00	3.32	19.00	0.75	29.00	0.32	39.00	0.18
9.25	3.14	19.25	0.73	29.25	0.31	39.25	0.17
9.50	2.98	19.50	0.71	29.50	0.31	39.50	0.17
9.75	2.83	19.75	0.69	29.75	0.30	39.75	0.17
10.00	2.69	20.00	0.67	30.00	0.30	40.00	0.17

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 30%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.65

7.86 Inches

BioInitiative ft. 51.87

622.43 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	0.17	54.25	0.09	68.25	0.06	82.25	0.04
40.50	0.16	54.50	0.09	68.50	0.06	82.50	0.04
40.75	0.16	54.75	0.09	68.75	0.06	82.75	0.04
41.00	0.16	55.00	0.09	69.00	0.06	83.00	0.04
41.25	0.16	55.25	0.09	69.25	0.06	83.25	0.04
41.50	0.16	55.50	0.09	69.50	0.06	83.50	0.04
41.75	0.15	55.75	0.09	69.75	0.06	83.75	0.04
42.00	0.15	56.00	0.09	70.00	0.05	84.00	0.04
42.25	0.15	56.25	0.09	70.25	0.05	84.25	0.04
42.50	0.15	56.50	0.08	70.50	0.05	84.50	0.04
42.75	0.15	56.75	0.08	70.75	0.05	84.75	0.04
43.00	0.15	57.00	0.08	71.00	0.05	85.00	0.04
43.25	0.14	57.25	0.08	71.25	0.05	85.25	0.04
43.50	0.14	57.50	0.08	71.50	0.05	85.50	0.04
43.75	0.14	57.75	0.08	71.75	0.05	85.75	0.04
44.00	0.14	58.00	0.08	72.00	0.05	86.00	0.04
44.25	0.14	58.25	0.08	72.25	0.05	86.25	0.04
44.50	0.14	58.50	0.08	72.50	0.05	86.50	0.04
44.75	0.13	58.75	0.08	72.75	0.05	86.75	0.04
45.00	0.13	59.00	0.08	73.00	0.05	87.00	0.04
45.25	0.13	59.25	0.08	73.25	0.05	87.25	0.04
45.50	0.13	59.50	0.08	73.50	0.05	87.50	0.04
45.75	0.13	59.75	0.08	73.75	0.05	87.75	0.03
46.00	0.13	60.00	0.07	74.00	0.05	88.00	0.03
46.25	0.13	60.25	0.07	74.25	0.05	88.25	0.03
46.50	0.12	60.50	0.07	74.50	0.05	88.50	0.03
46.75	0.12	60.75	0.07	74.75	0.05	88.75	0.03
47.00	0.12	61.00	0.07	75.00	0.05	89.00	0.03
47.25	0.12	61.25	0.07	75.25	0.05	89.25	0.03
47.50	0.12	61.50	0.07	75.50	0.05	89.50	0.03
47.75	0.12	61.75	0.07	75.75	0.05	89.75	0.03
48.00	0.12	62.00	0.07	76.00	0.05	90.00	0.03
48.25	0.12	62.25	0.07	76.25	0.05	90.25	0.03
48.50	0.11	62.50	0.07	76.50	0.05	90.50	0.03
48.75	0.11	62.75	0.07	76.75	0.05	90.75	0.03
49.00	0.11	63.00	0.07	77.00	0.05	91.00	0.03
49.25	0.11	63.25	0.07	77.25	0.05	91.25	0.03
49.50	0.11	63.50	0.07	77.50	0.04	91.50	0.03
49.75	0.11	63.75	0.07	77.75	0.04	91.75	0.03
50.00	0.11	64.00	0.07	78.00	0.04	92.00	0.03
50.25	0.11	64.25	0.07	78.25	0.04	92.25	0.03
50.50	0.11	64.50	0.06	78.50	0.04	92.50	0.03
50.75	0.10	64.75	0.06	78.75	0.04	92.75	0.03
51.00	0.10	65.00	0.06	79.00	0.04	93.00	0.03
51.25	0.10	65.25	0.06	79.25	0.04	93.25	0.03
51.50	0.10	65.50	0.06	79.50	0.04	93.50	0.03
51.75	0.10	65.75	0.06	79.75	0.04	93.75	0.03
52.00	0.10	66.00	0.06	80.00	0.04	94.00	0.03
52.25	0.10	66.25	0.06	80.25	0.04	94.25	0.03
52.50	0.10	66.50	0.06	80.50	0.04	94.50	0.03
52.75	0.10	66.75	0.06	80.75	0.04	94.75	0.03
53.00	0.10	67.00	0.06	81.00	0.04	95.00	0.03
53.25	0.09	67.25	0.06	81.25	0.04	95.25	0.03
53.50	0.09	67.50	0.06	81.50	0.04	95.50	0.03
53.75	0.09	67.75	0.06	81.75	0.04	95.75	0.03
54.00	0.09	68.00	0.06	82.00	0.04	96.00	0.03

Table 2 – 30%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 40%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.76 9.1 Inches

BioInitiative ft. 59.89 718.7 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	5739.61	10.25	3.41	20.25	0.87	30.25	0.39
0.50	1434.90	10.50	3.25	20.50	0.85	30.50	0.39
0.75	637.73	10.75	3.10	20.75	0.83	30.75	0.38
1.00	358.73	11.00	2.96	21.00	0.81	31.00	0.37
1.25	229.58	11.25	2.83	21.25	0.79	31.25	0.37
1.50	159.43	11.50	2.71	21.50	0.78	31.50	0.36
1.75	117.13	11.75	2.60	21.75	0.76	31.75	0.36
2.00	89.68	12.00	2.49	22.00	0.74	32.00	0.35
2.25	70.86	12.25	2.39	22.25	0.72	32.25	0.34
2.50	57.40	12.50	2.30	22.50	0.71	32.50	0.34
2.75	47.43	12.75	2.21	22.75	0.69	32.75	0.33
3.00	39.86	13.00	2.12	23.00	0.68	33.00	0.33
3.25	33.96	13.25	2.04	23.25	0.66	33.25	0.32
3.50	29.28	13.50	1.97	23.50	0.65	33.50	0.32
3.75	25.51	13.75	1.90	23.75	0.64	33.75	0.31
4.00	22.42	14.00	1.83	24.00	0.62	34.00	0.31
4.25	19.86	14.25	1.77	24.25	0.61	34.25	0.31
4.50	17.71	14.50	1.71	24.50	0.60	34.50	0.30
4.75	15.90	14.75	1.65	24.75	0.59	34.75	0.30
5.00	14.35	15.00	1.59	25.00	0.57	35.00	0.29
5.25	13.01	15.25	1.54	25.25	0.56	35.25	0.29
5.50	11.86	15.50	1.49	25.50	0.55	35.50	0.28
5.75	10.85	15.75	1.45	25.75	0.54	35.75	0.28
6.00	9.96	16.00	1.40	26.00	0.53	36.00	0.28
6.25	9.18	16.25	1.36	26.25	0.52	36.25	0.27
6.50	8.49	16.50	1.32	26.50	0.51	36.50	0.27
6.75	7.87	16.75	1.28	26.75	0.50	36.75	0.27
7.00	7.32	17.00	1.24	27.00	0.49	37.00	0.26
7.25	6.82	17.25	1.21	27.25	0.48	37.25	0.26
7.50	6.38	17.50	1.17	27.50	0.47	37.50	0.26
7.75	5.97	17.75	1.14	27.75	0.47	37.75	0.25
8.00	5.61	18.00	1.11	28.00	0.46	38.00	0.25
8.25	5.27	18.25	1.08	28.25	0.45	38.25	0.25
8.50	4.97	18.50	1.05	28.50	0.44	38.50	0.24
8.75	4.69	18.75	1.02	28.75	0.43	38.75	0.24
9.00	4.43	19.00	0.99	29.00	0.43	39.00	0.24
9.25	4.19	19.25	0.97	29.25	0.42	39.25	0.23
9.50	3.97	19.50	0.94	29.50	0.41	39.50	0.23
9.75	3.77	19.75	0.92	29.75	0.41	39.75	0.23
10.00	3.59	20.00	0.90	30.00	0.40	40.00	0.22

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 40%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.76

9.07 Inches

BioInitiative ft. 59.89

718.72 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.22	54.25	0.12	68.25	0.08	82.25	0.05
40.50	0.22	54.50	0.12	68.50	0.08	82.50	0.05
40.75	0.22	54.75	0.12	68.75	0.08	82.75	0.05
41.00	0.21	55.00	0.12	69.00	0.08	83.00	0.05
41.25	0.21	55.25	0.12	69.25	0.07	83.25	0.05
41.50	0.21	55.50	0.12	69.50	0.07	83.50	0.05
41.75	0.21	55.75	0.12	69.75	0.07	83.75	0.05
42.00	0.20	56.00	0.11	70.00	0.07	84.00	0.05
42.25	0.20	56.25	0.11	70.25	0.07	84.25	0.05
42.50	0.20	56.50	0.11	70.50	0.07	84.50	0.05
42.75	0.20	56.75	0.11	70.75	0.07	84.75	0.05
43.00	0.19	57.00	0.11	71.00	0.07	85.00	0.05
43.25	0.19	57.25	0.11	71.25	0.07	85.25	0.05
43.50	0.19	57.50	0.11	71.50	0.07	85.50	0.05
43.75	0.19	57.75	0.11	71.75	0.07	85.75	0.05
44.00	0.19	58.00	0.11	72.00	0.07	86.00	0.05
44.25	0.18	58.25	0.11	72.25	0.07	86.25	0.05
44.50	0.18	58.50	0.10	72.50	0.07	86.50	0.05
44.75	0.18	58.75	0.10	72.75	0.07	86.75	0.05
45.00	0.18	59.00	0.10	73.00	0.07	87.00	0.05
45.25	0.18	59.25	0.10	73.25	0.07	87.25	0.05
45.50	0.17	59.50	0.10	73.50	0.07	87.50	0.05
45.75	0.17	59.75	0.10	73.75	0.07	87.75	0.05
46.00	0.17	60.00	0.10	74.00	0.07	88.00	0.05
46.25	0.17	60.25	0.10	74.25	0.07	88.25	0.05
46.50	0.17	60.50	0.10	74.50	0.06	88.50	0.05
46.75	0.16	60.75	0.10	74.75	0.06	88.75	0.05
47.00	0.16	61.00	0.10	75.00	0.06	89.00	0.05
47.25	0.16	61.25	0.10	75.25	0.06	89.25	0.05
47.50	0.16	61.50	0.09	75.50	0.06	89.50	0.04
47.75	0.16	61.75	0.09	75.75	0.06	89.75	0.04
48.00	0.16	62.00	0.09	76.00	0.06	90.00	0.04
48.25	0.15	62.25	0.09	76.25	0.06	90.25	0.04
48.50	0.15	62.50	0.09	76.50	0.06	90.50	0.04
48.75	0.15	62.75	0.09	76.75	0.06	90.75	0.04
49.00	0.15	63.00	0.09	77.00	0.06	91.00	0.04
49.25	0.15	63.25	0.09	77.25	0.06	91.25	0.04
49.50	0.15	63.50	0.09	77.50	0.06	91.50	0.04
49.75	0.14	63.75	0.09	77.75	0.06	91.75	0.04
50.00	0.14	64.00	0.09	78.00	0.06	92.00	0.04
50.25	0.14	64.25	0.09	78.25	0.06	92.25	0.04
50.50	0.14	64.50	0.09	78.50	0.06	92.50	0.04
50.75	0.14	64.75	0.09	78.75	0.06	92.75	0.04
51.00	0.14	65.00	0.08	79.00	0.06	93.00	0.04
51.25	0.14	65.25	0.08	79.25	0.06	93.25	0.04
51.50	0.14	65.50	0.08	79.50	0.06	93.50	0.04
51.75	0.13	65.75	0.08	79.75	0.06	93.75	0.04
52.00	0.13	66.00	0.08	80.00	0.06	94.00	0.04
52.25	0.13	66.25	0.08	80.25	0.06	94.25	0.04
52.50	0.13	66.50	0.08	80.50	0.06	94.50	0.04
52.75	0.13	66.75	0.08	80.75	0.06	94.75	0.04
53.00	0.13	67.00	0.08	81.00	0.05	95.00	0.04
53.25	0.13	67.25	0.08	81.25	0.05	95.25	0.04
53.50	0.13	67.50	0.08	81.50	0.05	95.50	0.04
53.75	0.12	67.75	0.08	81.75	0.05	95.75	0.04
54.00	0.12	68.00	0.08	82.00	0.05	96.00	0.04

Table 2 – 40%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 50%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.85                      10.1 Inches

BioInitiative ft. 66.96                      803.6 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	7174.51	10.25	4.27	20.25	1.09	30.25	0.49
0.50	1793.63	10.50	4.07	20.50	1.07	30.50	0.48
0.75	797.17	10.75	3.88	20.75	1.04	30.75	0.47
1.00	448.41	11.00	3.71	21.00	1.02	31.00	0.47
1.25	286.98	11.25	3.54	21.25	0.99	31.25	0.46
1.50	199.29	11.50	3.39	21.50	0.97	31.50	0.45
1.75	146.42	11.75	3.25	21.75	0.95	31.75	0.44
2.00	112.10	12.00	3.11	22.00	0.93	32.00	0.44
2.25	88.57	12.25	2.99	22.25	0.91	32.25	0.43
2.50	71.75	12.50	2.87	22.50	0.89	32.50	0.42
2.75	59.29	12.75	2.76	22.75	0.87	32.75	0.42
3.00	49.82	13.00	2.65	23.00	0.85	33.00	0.41
3.25	42.45	13.25	2.55	23.25	0.83	33.25	0.41
3.50	36.60	13.50	2.46	23.50	0.81	33.50	0.40
3.75	31.89	13.75	2.37	23.75	0.79	33.75	0.39
4.00	28.03	14.00	2.29	24.00	0.78	34.00	0.39
4.25	24.83	14.25	2.21	24.25	0.76	34.25	0.38
4.50	22.14	14.50	2.13	24.50	0.75	34.50	0.38
4.75	19.87	14.75	2.06	24.75	0.73	34.75	0.37
5.00	17.94	15.00	1.99	25.00	0.72	35.00	0.37
5.25	16.27	15.25	1.93	25.25	0.70	35.25	0.36
5.50	14.82	15.50	1.87	25.50	0.69	35.50	0.36
5.75	13.56	15.75	1.81	25.75	0.68	35.75	0.35
6.00	12.46	16.00	1.75	26.00	0.66	36.00	0.35
6.25	11.48	16.25	1.70	26.25	0.65	36.25	0.34
6.50	10.61	16.50	1.65	26.50	0.64	36.50	0.34
6.75	9.84	16.75	1.60	26.75	0.63	36.75	0.33
7.00	9.15	17.00	1.55	27.00	0.62	37.00	0.33
7.25	8.53	17.25	1.51	27.25	0.60	37.25	0.32
7.50	7.97	17.50	1.46	27.50	0.59	37.50	0.32
7.75	7.47	17.75	1.42	27.75	0.58	37.75	0.31
8.00	7.01	18.00	1.38	28.00	0.57	38.00	0.31
8.25	6.59	18.25	1.35	28.25	0.56	38.25	0.31
8.50	6.21	18.50	1.31	28.50	0.55	38.50	0.30
8.75	5.86	18.75	1.28	28.75	0.54	38.75	0.30
9.00	5.54	19.00	1.24	29.00	0.53	39.00	0.29
9.25	5.24	19.25	1.21	29.25	0.52	39.25	0.29
9.50	4.97	19.50	1.18	29.50	0.52	39.50	0.29
9.75	4.72	19.75	1.15	29.75	0.51	39.75	0.28
10.00	4.48	20.00	1.12	30.00	0.50	40.00	0.28

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  
 $S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$   
 S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64 \* ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 50%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.85                      10.14 Inches

BioInitiative ft. 66.96                      803.56 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.28	54.25	0.15	68.25	0.10	82.25	0.07
40.50	0.27	54.50	0.15	68.50	0.10	82.50	0.07
40.75	0.27	54.75	0.15	68.75	0.09	82.75	0.07
41.00	0.27	55.00	0.15	69.00	0.09	83.00	0.07
41.25	0.26	55.25	0.15	69.25	0.09	83.25	0.06
41.50	0.26	55.50	0.15	69.50	0.09	83.50	0.06
41.75	0.26	55.75	0.14	69.75	0.09	83.75	0.06
42.00	0.25	56.00	0.14	70.00	0.09	84.00	0.06
42.25	0.25	56.25	0.14	70.25	0.09	84.25	0.06
42.50	0.25	56.50	0.14	70.50	0.09	84.50	0.06
42.75	0.25	56.75	0.14	70.75	0.09	84.75	0.06
43.00	0.24	57.00	0.14	71.00	0.09	85.00	0.06
43.25	0.24	57.25	0.14	71.25	0.09	85.25	0.06
43.50	0.24	57.50	0.14	71.50	0.09	85.50	0.06
43.75	0.23	57.75	0.13	71.75	0.09	85.75	0.06
44.00	0.23	58.00	0.13	72.00	0.09	86.00	0.06
44.25	0.23	58.25	0.13	72.25	0.09	86.25	0.06
44.50	0.23	58.50	0.13	72.50	0.09	86.50	0.06
44.75	0.22	58.75	0.13	72.75	0.08	86.75	0.06
45.00	0.22	59.00	0.13	73.00	0.08	87.00	0.06
45.25	0.22	59.25	0.13	73.25	0.08	87.25	0.06
45.50	0.22	59.50	0.13	73.50	0.08	87.50	0.06
45.75	0.21	59.75	0.13	73.75	0.08	87.75	0.06
46.00	0.21	60.00	0.12	74.00	0.08	88.00	0.06
46.25	0.21	60.25	0.12	74.25	0.08	88.25	0.06
46.50	0.21	60.50	0.12	74.50	0.08	88.50	0.06
46.75	0.21	60.75	0.12	74.75	0.08	88.75	0.06
47.00	0.20	61.00	0.12	75.00	0.08	89.00	0.06
47.25	0.20	61.25	0.12	75.25	0.08	89.25	0.06
47.50	0.20	61.50	0.12	75.50	0.08	89.50	0.06
47.75	0.20	61.75	0.12	75.75	0.08	89.75	0.06
48.00	0.19	62.00	0.12	76.00	0.08	90.00	0.06
48.25	0.19	62.25	0.12	76.25	0.08	90.25	0.06
48.50	0.19	62.50	0.11	76.50	0.08	90.50	0.05
48.75	0.19	62.75	0.11	76.75	0.08	90.75	0.05
49.00	0.19	63.00	0.11	77.00	0.08	91.00	0.05
49.25	0.18	63.25	0.11	77.25	0.08	91.25	0.05
49.50	0.18	63.50	0.11	77.50	0.07	91.50	0.05
49.75	0.18	63.75	0.11	77.75	0.07	91.75	0.05
50.00	0.18	64.00	0.11	78.00	0.07	92.00	0.05
50.25	0.18	64.25	0.11	78.25	0.07	92.25	0.05
50.50	0.18	64.50	0.11	78.50	0.07	92.50	0.05
50.75	0.17	64.75	0.11	78.75	0.07	92.75	0.05
51.00	0.17	65.00	0.11	79.00	0.07	93.00	0.05
51.25	0.17	65.25	0.11	79.25	0.07	93.25	0.05
51.50	0.17	65.50	0.10	79.50	0.07	93.50	0.05
51.75	0.17	65.75	0.10	79.75	0.07	93.75	0.05
52.00	0.17	66.00	0.10	80.00	0.07	94.00	0.05
52.25	0.16	66.25	0.10	80.25	0.07	94.25	0.05
52.50	0.16	66.50	0.10	80.50	0.07	94.50	0.05
52.75	0.16	66.75	0.10	80.75	0.07	94.75	0.05
53.00	0.16	67.00	0.10	81.00	0.07	95.00	0.05
53.25	0.16	67.25	0.10	81.25	0.07	95.25	0.05
53.50	0.16	67.50	0.10	81.50	0.07	95.50	0.05
53.75	0.16	67.75	0.10	81.75	0.07	95.75	0.05
54.00	0.15	68.00	0.10	82.00	0.07	96.00	0.05

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 60%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.93 11.1 Inches

BioInitiative ft. 73.35 880.3 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	8609.41	10.25	5.12	20.25	1.31	30.25	0.59
0.50	2152.35	10.50	4.88	20.50	1.28	30.50	0.58
0.75	956.60	10.75	4.66	20.75	1.25	30.75	0.57
1.00	538.09	11.00	4.45	21.00	1.22	31.00	0.56
1.25	344.38	11.25	4.25	21.25	1.19	31.25	0.55
1.50	239.15	11.50	4.07	21.50	1.16	31.50	0.54
1.75	175.70	11.75	3.90	21.75	1.14	31.75	0.53
2.00	134.52	12.00	3.74	22.00	1.11	32.00	0.53
2.25	106.29	12.25	3.59	22.25	1.09	32.25	0.52
2.50	86.09	12.50	3.44	22.50	1.06	32.50	0.51
2.75	71.15	12.75	3.31	22.75	1.04	32.75	0.50
3.00	59.79	13.00	3.18	23.00	1.02	33.00	0.49
3.25	50.94	13.25	3.06	23.25	1.00	33.25	0.49
3.50	43.93	13.50	2.95	23.50	0.97	33.50	0.48
3.75	38.26	13.75	2.85	23.75	0.95	33.75	0.47
4.00	33.63	14.00	2.75	24.00	0.93	34.00	0.47
4.25	29.79	14.25	2.65	24.25	0.92	34.25	0.46
4.50	26.57	14.50	2.56	24.50	0.90	34.50	0.45
4.75	23.85	14.75	2.47	24.75	0.88	34.75	0.45
5.00	21.52	15.00	2.39	25.00	0.86	35.00	0.44
5.25	19.52	15.25	2.31	25.25	0.84	35.25	0.43
5.50	17.79	15.50	2.24	25.50	0.83	35.50	0.43
5.75	16.27	15.75	2.17	25.75	0.81	35.75	0.42
6.00	14.95	16.00	2.10	26.00	0.80	36.00	0.42
6.25	13.78	16.25	2.04	26.25	0.78	36.25	0.41
6.50	12.74	16.50	1.98	26.50	0.77	36.50	0.40
6.75	11.81	16.75	1.92	26.75	0.75	36.75	0.40
7.00	10.98	17.00	1.86	27.00	0.74	37.00	0.39
7.25	10.24	17.25	1.81	27.25	0.72	37.25	0.39
7.50	9.57	17.50	1.76	27.50	0.71	37.50	0.38
7.75	8.96	17.75	1.71	27.75	0.70	37.75	0.38
8.00	8.41	18.00	1.66	28.00	0.69	38.00	0.37
8.25	7.91	18.25	1.62	28.25	0.67	38.25	0.37
8.50	7.45	18.50	1.57	28.50	0.66	38.50	0.36
8.75	7.03	18.75	1.53	28.75	0.65	38.75	0.36
9.00	6.64	19.00	1.49	29.00	0.64	39.00	0.35
9.25	6.29	19.25	1.45	29.25	0.63	39.25	0.35
9.50	5.96	19.50	1.42	29.50	0.62	39.50	0.34
9.75	5.66	19.75	1.38	29.75	0.61	39.75	0.34
10.00	5.38	20.00	1.35	30.00	0.60	40.00	0.34

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 60%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.93

11.11 Inches

BioInitiative ft. 73.35

880.25 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.33	54.25	0.18	68.25	0.12	82.25	0.08
40.50	0.33	54.50	0.18	68.50	0.11	82.50	0.08
40.75	0.32	54.75	0.18	68.75	0.11	82.75	0.08
41.00	0.32	55.00	0.18	69.00	0.11	83.00	0.08
41.25	0.32	55.25	0.18	69.25	0.11	83.25	0.08
41.50	0.31	55.50	0.17	69.50	0.11	83.50	0.08
41.75	0.31	55.75	0.17	69.75	0.11	83.75	0.08
42.00	0.31	56.00	0.17	70.00	0.11	84.00	0.08
42.25	0.30	56.25	0.17	70.25	0.11	84.25	0.08
42.50	0.30	56.50	0.17	70.50	0.11	84.50	0.08
42.75	0.29	56.75	0.17	70.75	0.11	84.75	0.07
43.00	0.29	57.00	0.17	71.00	0.11	85.00	0.07
43.25	0.29	57.25	0.16	71.25	0.11	85.25	0.07
43.50	0.28	57.50	0.16	71.50	0.11	85.50	0.07
43.75	0.28	57.75	0.16	71.75	0.10	85.75	0.07
44.00	0.28	58.00	0.16	72.00	0.10	86.00	0.07
44.25	0.27	58.25	0.16	72.25	0.10	86.25	0.07
44.50	0.27	58.50	0.16	72.50	0.10	86.50	0.07
44.75	0.27	58.75	0.16	72.75	0.10	86.75	0.07
45.00	0.27	59.00	0.15	73.00	0.10	87.00	0.07
45.25	0.26	59.25	0.15	73.25	0.10	87.25	0.07
45.50	0.26	59.50	0.15	73.50	0.10	87.50	0.07
45.75	0.26	59.75	0.15	73.75	0.10	87.75	0.07
46.00	0.25	60.00	0.15	74.00	0.10	88.00	0.07
46.25	0.25	60.25	0.15	74.25	0.10	88.25	0.07
46.50	0.25	60.50	0.15	74.50	0.10	88.50	0.07
46.75	0.25	60.75	0.15	74.75	0.10	88.75	0.07
47.00	0.24	61.00	0.14	75.00	0.10	89.00	0.07
47.25	0.24	61.25	0.14	75.25	0.10	89.25	0.07
47.50	0.24	61.50	0.14	75.50	0.09	89.50	0.07
47.75	0.24	61.75	0.14	75.75	0.09	89.75	0.07
48.00	0.23	62.00	0.14	76.00	0.09	90.00	0.07
48.25	0.23	62.25	0.14	76.25	0.09	90.25	0.07
48.50	0.23	62.50	0.14	76.50	0.09	90.50	0.07
48.75	0.23	62.75	0.14	76.75	0.09	90.75	0.07
49.00	0.22	63.00	0.14	77.00	0.09	91.00	0.06
49.25	0.22	63.25	0.13	77.25	0.09	91.25	0.06
49.50	0.22	63.50	0.13	77.50	0.09	91.50	0.06
49.75	0.22	63.75	0.13	77.75	0.09	91.75	0.06
50.00	0.22	64.00	0.13	78.00	0.09	92.00	0.06
50.25	0.21	64.25	0.13	78.25	0.09	92.25	0.06
50.50	0.21	64.50	0.13	78.50	0.09	92.50	0.06
50.75	0.21	64.75	0.13	78.75	0.09	92.75	0.06
51.00	0.21	65.00	0.13	79.00	0.09	93.00	0.06
51.25	0.20	65.25	0.13	79.25	0.09	93.25	0.06
51.50	0.20	65.50	0.13	79.50	0.09	93.50	0.06
51.75	0.20	65.75	0.12	79.75	0.08	93.75	0.06
52.00	0.20	66.00	0.12	80.00	0.08	94.00	0.06
52.25	0.20	66.25	0.12	80.25	0.08	94.25	0.06
52.50	0.20	66.50	0.12	80.50	0.08	94.50	0.06
52.75	0.19	66.75	0.12	80.75	0.08	94.75	0.06
53.00	0.19	67.00	0.12	81.00	0.08	95.00	0.06
53.25	0.19	67.25	0.12	81.25	0.08	95.25	0.06
53.50	0.19	67.50	0.12	81.50	0.08	95.50	0.06
53.75	0.19	67.75	0.12	81.75	0.08	95.75	0.06
54.00	0.18	68.00	0.12	82.00	0.08	96.00	0.06

Table 2 – 60%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 70%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.00                      12.0 Inches

BioInitiative ft. 79.23                      950.8 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	10044.31	10.25	5.98	20.25	1.53	30.25	0.69
0.50	2511.08	10.50	5.69	20.50	1.49	30.50	0.67
0.75	1116.03	10.75	5.43	20.75	1.46	30.75	0.66
1.00	627.77	11.00	5.19	21.00	1.42	31.00	0.65
1.25	401.77	11.25	4.96	21.25	1.39	31.25	0.64
1.50	279.01	11.50	4.75	21.50	1.36	31.50	0.63
1.75	204.99	11.75	4.55	21.75	1.33	31.75	0.62
2.00	156.94	12.00	4.36	22.00	1.30	32.00	0.61
2.25	124.00	12.25	4.18	22.25	1.27	32.25	0.60
2.50	100.44	12.50	4.02	22.50	1.24	32.50	0.59
2.75	83.01	12.75	3.86	22.75	1.21	32.75	0.59
3.00	69.75	13.00	3.71	23.00	1.19	33.00	0.58
3.25	59.43	13.25	3.58	23.25	1.16	33.25	0.57
3.50	51.25	13.50	3.44	23.50	1.14	33.50	0.56
3.75	44.64	13.75	3.32	23.75	1.11	33.75	0.55
4.00	39.24	14.00	3.20	24.00	1.09	34.00	0.54
4.25	34.76	14.25	3.09	24.25	1.07	34.25	0.54
4.50	31.00	14.50	2.99	24.50	1.05	34.50	0.53
4.75	27.82	14.75	2.89	24.75	1.02	34.75	0.52
5.00	25.11	15.00	2.79	25.00	1.00	35.00	0.51
5.25	22.78	15.25	2.70	25.25	0.98	35.25	0.51
5.50	20.75	15.50	2.61	25.50	0.97	35.50	0.50
5.75	18.99	15.75	2.53	25.75	0.95	35.75	0.49
6.00	17.44	16.00	2.45	26.00	0.93	36.00	0.48
6.25	16.07	16.25	2.38	26.25	0.91	36.25	0.48
6.50	14.86	16.50	2.31	26.50	0.89	36.50	0.47
6.75	13.78	16.75	2.24	26.75	0.88	36.75	0.46
7.00	12.81	17.00	2.17	27.00	0.86	37.00	0.46
7.25	11.94	17.25	2.11	27.25	0.85	37.25	0.45
7.50	11.16	17.50	2.05	27.50	0.83	37.50	0.45
7.75	10.45	17.75	1.99	27.75	0.82	37.75	0.44
8.00	9.81	18.00	1.94	28.00	0.80	38.00	0.43
8.25	9.22	18.25	1.88	28.25	0.79	38.25	0.43
8.50	8.69	18.50	1.83	28.50	0.77	38.50	0.42
8.75	8.20	18.75	1.79	28.75	0.76	38.75	0.42
9.00	7.75	19.00	1.74	29.00	0.75	39.00	0.41
9.25	7.34	19.25	1.69	29.25	0.73	39.25	0.41
9.50	6.96	19.50	1.65	29.50	0.72	39.50	0.40
9.75	6.60	19.75	1.61	29.75	0.71	39.75	0.40
10.00	6.28	20.00	1.57	30.00	0.70	40.00	0.39

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 70%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.00

12.00 Inches

BioInitiative ft. 79.23

950.78 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.39	54.25	0.21	68.25	0.13	82.25	0.09
40.50	0.38	54.50	0.21	68.50	0.13	82.50	0.09
40.75	0.38	54.75	0.21	68.75	0.13	82.75	0.09
41.00	0.37	55.00	0.21	69.00	0.13	83.00	0.09
41.25	0.37	55.25	0.21	69.25	0.13	83.25	0.09
41.50	0.36	55.50	0.20	69.50	0.13	83.50	0.09
41.75	0.36	55.75	0.20	69.75	0.13	83.75	0.09
42.00	0.36	56.00	0.20	70.00	0.13	84.00	0.09
42.25	0.35	56.25	0.20	70.25	0.13	84.25	0.09
42.50	0.35	56.50	0.20	70.50	0.13	84.50	0.09
42.75	0.34	56.75	0.19	70.75	0.13	84.75	0.09
43.00	0.34	57.00	0.19	71.00	0.12	85.00	0.09
43.25	0.34	57.25	0.19	71.25	0.12	85.25	0.09
43.50	0.33	57.50	0.19	71.50	0.12	85.50	0.09
43.75	0.33	57.75	0.19	71.75	0.12	85.75	0.09
44.00	0.32	58.00	0.19	72.00	0.12	86.00	0.08
44.25	0.32	58.25	0.19	72.25	0.12	86.25	0.08
44.50	0.32	58.50	0.18	72.50	0.12	86.50	0.08
44.75	0.31	58.75	0.18	72.75	0.12	86.75	0.08
45.00	0.31	59.00	0.18	73.00	0.12	87.00	0.08
45.25	0.31	59.25	0.18	73.25	0.12	87.25	0.08
45.50	0.30	59.50	0.18	73.50	0.12	87.50	0.08
45.75	0.30	59.75	0.18	73.75	0.12	87.75	0.08
46.00	0.30	60.00	0.17	74.00	0.11	88.00	0.08
46.25	0.29	60.25	0.17	74.25	0.11	88.25	0.08
46.50	0.29	60.50	0.17	74.50	0.11	88.50	0.08
46.75	0.29	60.75	0.17	74.75	0.11	88.75	0.08
47.00	0.28	61.00	0.17	75.00	0.11	89.00	0.08
47.25	0.28	61.25	0.17	75.25	0.11	89.25	0.08
47.50	0.28	61.50	0.17	75.50	0.11	89.50	0.08
47.75	0.28	61.75	0.16	75.75	0.11	89.75	0.08
48.00	0.27	62.00	0.16	76.00	0.11	90.00	0.08
48.25	0.27	62.25	0.16	76.25	0.11	90.25	0.08
48.50	0.27	62.50	0.16	76.50	0.11	90.50	0.08
48.75	0.26	62.75	0.16	76.75	0.11	90.75	0.08
49.00	0.26	63.00	0.16	77.00	0.11	91.00	0.08
49.25	0.26	63.25	0.16	77.25	0.11	91.25	0.08
49.50	0.26	63.50	0.16	77.50	0.10	91.50	0.07
49.75	0.25	63.75	0.15	77.75	0.10	91.75	0.07
50.00	0.25	64.00	0.15	78.00	0.10	92.00	0.07
50.25	0.25	64.25	0.15	78.25	0.10	92.25	0.07
50.50	0.25	64.50	0.15	78.50	0.10	92.50	0.07
50.75	0.24	64.75	0.15	78.75	0.10	92.75	0.07
51.00	0.24	65.00	0.15	79.00	0.10	93.00	0.07
51.25	0.24	65.25	0.15	79.25	0.10	93.25	0.07
51.50	0.24	65.50	0.15	79.50	0.10	93.50	0.07
51.75	0.23	65.75	0.15	79.75	0.10	93.75	0.07
52.00	0.23	66.00	0.14	80.00	0.10	94.00	0.07
52.25	0.23	66.25	0.14	80.25	0.10	94.25	0.07
52.50	0.23	66.50	0.14	80.50	0.10	94.50	0.07
52.75	0.23	66.75	0.14	80.75	0.10	94.75	0.07
53.00	0.22	67.00	0.14	81.00	0.10	95.00	0.07
53.25	0.22	67.25	0.14	81.25	0.10	95.25	0.07
53.50	0.22	67.50	0.14	81.50	0.09	95.50	0.07
53.75	0.22	67.75	0.14	81.75	0.09	95.75	0.07
54.00	0.22	68.00	0.14	82.00	0.09	96.00	0.07

Table 2 – 70%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 80%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.07                      12.8 Inches

BioInitiative ft. 84.70                      1016.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	11479.21	10.25	6.83	20.25	1.75	30.25	0.78
0.50	2869.80	10.50	6.51	20.50	1.71	30.50	0.77
0.75	1275.47	10.75	6.21	20.75	1.67	30.75	0.76
1.00	717.45	11.00	5.93	21.00	1.63	31.00	0.75
1.25	459.17	11.25	5.67	21.25	1.59	31.25	0.73
1.50	318.87	11.50	5.42	21.50	1.55	31.50	0.72
1.75	234.27	11.75	5.20	21.75	1.52	31.75	0.71
2.00	179.36	12.00	4.98	22.00	1.48	32.00	0.70
2.25	141.72	12.25	4.78	22.25	1.45	32.25	0.69
2.50	114.79	12.50	4.59	22.50	1.42	32.50	0.68
2.75	94.87	12.75	4.41	22.75	1.39	32.75	0.67
3.00	79.72	13.00	4.25	23.00	1.36	33.00	0.66
3.25	67.92	13.25	4.09	23.25	1.33	33.25	0.65
3.50	58.57	13.50	3.94	23.50	1.30	33.50	0.64
3.75	51.02	13.75	3.79	23.75	1.27	33.75	0.63
4.00	44.84	14.00	3.66	24.00	1.25	34.00	0.62
4.25	39.72	14.25	3.53	24.25	1.22	34.25	0.61
4.50	35.43	14.50	3.41	24.50	1.20	34.50	0.60
4.75	31.80	14.75	3.30	24.75	1.17	34.75	0.59
5.00	28.70	15.00	3.19	25.00	1.15	35.00	0.59
5.25	26.03	15.25	3.08	25.25	1.13	35.25	0.58
5.50	23.72	15.50	2.99	25.50	1.10	35.50	0.57
5.75	21.70	15.75	2.89	25.75	1.08	35.75	0.56
6.00	19.93	16.00	2.80	26.00	1.06	36.00	0.55
6.25	18.37	16.25	2.72	26.25	1.04	36.25	0.55
6.50	16.98	16.50	2.64	26.50	1.02	36.50	0.54
6.75	15.75	16.75	2.56	26.75	1.00	36.75	0.53
7.00	14.64	17.00	2.48	27.00	0.98	37.00	0.52
7.25	13.65	17.25	2.41	27.25	0.97	37.25	0.52
7.50	12.75	17.50	2.34	27.50	0.95	37.50	0.51
7.75	11.95	17.75	2.28	27.75	0.93	37.75	0.50
8.00	11.21	18.00	2.21	28.00	0.92	38.00	0.50
8.25	10.54	18.25	2.15	28.25	0.90	38.25	0.49
8.50	9.93	18.50	2.10	28.50	0.88	38.50	0.48
8.75	9.37	18.75	2.04	28.75	0.87	38.75	0.48
9.00	8.86	19.00	1.99	29.00	0.85	39.00	0.47
9.25	8.39	19.25	1.94	29.25	0.84	39.25	0.47
9.50	7.95	19.50	1.89	29.50	0.82	39.50	0.46
9.75	7.55	19.75	1.84	29.75	0.81	39.75	0.45
10.00	7.17	20.00	1.79	30.00	0.80	40.00	0.45

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 80%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.07

12.83 Inches

BioInitiative ft. 84.70

1016.43 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.44	54.25	0.24	68.25	0.15	82.25	0.11
40.50	0.44	54.50	0.24	68.50	0.15	82.50	0.11
40.75	0.43	54.75	0.24	68.75	0.15	82.75	0.10
41.00	0.43	55.00	0.24	69.00	0.15	83.00	0.10
41.25	0.42	55.25	0.24	69.25	0.15	83.25	0.10
41.50	0.42	55.50	0.23	69.50	0.15	83.50	0.10
41.75	0.41	55.75	0.23	69.75	0.15	83.75	0.10
42.00	0.41	56.00	0.23	70.00	0.15	84.00	0.10
42.25	0.40	56.25	0.23	70.25	0.15	84.25	0.10
42.50	0.40	56.50	0.22	70.50	0.14	84.50	0.10
42.75	0.39	56.75	0.22	70.75	0.14	84.75	0.10
43.00	0.39	57.00	0.22	71.00	0.14	85.00	0.10
43.25	0.38	57.25	0.22	71.25	0.14	85.25	0.10
43.50	0.38	57.50	0.22	71.50	0.14	85.50	0.10
43.75	0.37	57.75	0.22	71.75	0.14	85.75	0.10
44.00	0.37	58.00	0.21	72.00	0.14	86.00	0.10
44.25	0.37	58.25	0.21	72.25	0.14	86.25	0.10
44.50	0.36	58.50	0.21	72.50	0.14	86.50	0.10
44.75	0.36	58.75	0.21	72.75	0.14	86.75	0.10
45.00	0.35	59.00	0.21	73.00	0.13	87.00	0.09
45.25	0.35	59.25	0.20	73.25	0.13	87.25	0.09
45.50	0.35	59.50	0.20	73.50	0.13	87.50	0.09
45.75	0.34	59.75	0.20	73.75	0.13	87.75	0.09
46.00	0.34	60.00	0.20	74.00	0.13	88.00	0.09
46.25	0.34	60.25	0.20	74.25	0.13	88.25	0.09
46.50	0.33	60.50	0.20	74.50	0.13	88.50	0.09
46.75	0.33	60.75	0.19	74.75	0.13	88.75	0.09
47.00	0.32	61.00	0.19	75.00	0.13	89.00	0.09
47.25	0.32	61.25	0.19	75.25	0.13	89.25	0.09
47.50	0.32	61.50	0.19	75.50	0.13	89.50	0.09
47.75	0.31	61.75	0.19	75.75	0.13	89.75	0.09
48.00	0.31	62.00	0.19	76.00	0.12	90.00	0.09
48.25	0.31	62.25	0.19	76.25	0.12	90.25	0.09
48.50	0.31	62.50	0.18	76.50	0.12	90.50	0.09
48.75	0.30	62.75	0.18	76.75	0.12	90.75	0.09
49.00	0.30	63.00	0.18	77.00	0.12	91.00	0.09
49.25	0.30	63.25	0.18	77.25	0.12	91.25	0.09
49.50	0.29	63.50	0.18	77.50	0.12	91.50	0.09
49.75	0.29	63.75	0.18	77.75	0.12	91.75	0.09
50.00	0.29	64.00	0.18	78.00	0.12	92.00	0.08
50.25	0.28	64.25	0.17	78.25	0.12	92.25	0.08
50.50	0.28	64.50	0.17	78.50	0.12	92.50	0.08
50.75	0.28	64.75	0.17	78.75	0.12	92.75	0.08
51.00	0.28	65.00	0.17	79.00	0.11	93.00	0.08
51.25	0.27	65.25	0.17	79.25	0.11	93.25	0.08
51.50	0.27	65.50	0.17	79.50	0.11	93.50	0.08
51.75	0.27	65.75	0.17	79.75	0.11	93.75	0.08
52.00	0.27	66.00	0.16	80.00	0.11	94.00	0.08
52.25	0.26	66.25	0.16	80.25	0.11	94.25	0.08
52.50	0.26	66.50	0.16	80.50	0.11	94.50	0.08
52.75	0.26	66.75	0.16	80.75	0.11	94.75	0.08
53.00	0.26	67.00	0.16	81.00	0.11	95.00	0.08
53.25	0.25	67.25	0.16	81.25	0.11	95.25	0.08
53.50	0.25	67.50	0.16	81.50	0.11	95.50	0.08
53.75	0.25	67.75	0.16	81.75	0.11	95.75	0.08
54.00	0.25	68.00	0.16	82.00	0.11	96.00	0.08

Table 2 – 80%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 90%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.13                      13.6 Inches

BioInitiative ft. 89.84                      1078.1 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	12914.11	10.25	7.68	20.25	1.97	30.25	0.88
0.50	3228.53	10.50	7.32	20.50	1.92	30.50	0.87
0.75	1434.90	10.75	6.98	20.75	1.87	30.75	0.85
1.00	807.13	11.00	6.67	21.00	1.83	31.00	0.84
1.25	516.56	11.25	6.38	21.25	1.79	31.25	0.83
1.50	358.73	11.50	6.10	21.50	1.75	31.50	0.81
1.75	263.55	11.75	5.85	21.75	1.71	31.75	0.80
2.00	201.78	12.00	5.61	22.00	1.67	32.00	0.79
2.25	159.43	12.25	5.38	22.25	1.63	32.25	0.78
2.50	129.14	12.50	5.17	22.50	1.59	32.50	0.76
2.75	106.73	12.75	4.97	22.75	1.56	32.75	0.75
3.00	89.68	13.00	4.78	23.00	1.53	33.00	0.74
3.25	76.41	13.25	4.60	23.25	1.49	33.25	0.73
3.50	65.89	13.50	4.43	23.50	1.46	33.50	0.72
3.75	57.40	13.75	4.27	23.75	1.43	33.75	0.71
4.00	50.45	14.00	4.12	24.00	1.40	34.00	0.70
4.25	44.69	14.25	3.97	24.25	1.37	34.25	0.69
4.50	39.86	14.50	3.84	24.50	1.34	34.50	0.68
4.75	35.77	14.75	3.71	24.75	1.32	34.75	0.67
5.00	32.29	15.00	3.59	25.00	1.29	35.00	0.66
5.25	29.28	15.25	3.47	25.25	1.27	35.25	0.65
5.50	26.68	15.50	3.36	25.50	1.24	35.50	0.64
5.75	24.41	15.75	3.25	25.75	1.22	35.75	0.63
6.00	22.42	16.00	3.15	26.00	1.19	36.00	0.62
6.25	20.66	16.25	3.06	26.25	1.17	36.25	0.61
6.50	19.10	16.50	2.96	26.50	1.15	36.50	0.61
6.75	17.71	16.75	2.88	26.75	1.13	36.75	0.60
7.00	16.47	17.00	2.79	27.00	1.11	37.00	0.59
7.25	15.36	17.25	2.71	27.25	1.09	37.25	0.58
7.50	14.35	17.50	2.64	27.50	1.07	37.50	0.57
7.75	13.44	17.75	2.56	27.75	1.05	37.75	0.57
8.00	12.61	18.00	2.49	28.00	1.03	38.00	0.56
8.25	11.86	18.25	2.42	28.25	1.01	38.25	0.55
8.50	11.17	18.50	2.36	28.50	0.99	38.50	0.54
8.75	10.54	18.75	2.30	28.75	0.98	38.75	0.54
9.00	9.96	19.00	2.24	29.00	0.96	39.00	0.53
9.25	9.43	19.25	2.18	29.25	0.94	39.25	0.52
9.50	8.94	19.50	2.12	29.50	0.93	39.50	0.52
9.75	8.49	19.75	2.07	29.75	0.91	39.75	0.51
10.00	8.07	20.00	2.02	30.00	0.90	40.00	0.50

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 90%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.13

13.61 Inches

BioInitiative ft. 89.84

1078.09 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.50	54.25	0.27	68.25	0.17	82.25	0.12
40.50	0.49	54.50	0.27	68.50	0.17	82.50	0.12
40.75	0.49	54.75	0.27	68.75	0.17	82.75	0.12
41.00	0.48	55.00	0.27	69.00	0.17	83.00	0.12
41.25	0.47	55.25	0.26	69.25	0.17	83.25	0.12
41.50	0.47	55.50	0.26	69.50	0.17	83.50	0.12
41.75	0.46	55.75	0.26	69.75	0.17	83.75	0.12
42.00	0.46	56.00	0.26	70.00	0.16	84.00	0.11
42.25	0.45	56.25	0.26	70.25	0.16	84.25	0.11
42.50	0.45	56.50	0.25	70.50	0.16	84.50	0.11
42.75	0.44	56.75	0.25	70.75	0.16	84.75	0.11
43.00	0.44	57.00	0.25	71.00	0.16	85.00	0.11
43.25	0.43	57.25	0.25	71.25	0.16	85.25	0.11
43.50	0.43	57.50	0.24	71.50	0.16	85.50	0.11
43.75	0.42	57.75	0.24	71.75	0.16	85.75	0.11
44.00	0.42	58.00	0.24	72.00	0.16	86.00	0.11
44.25	0.41	58.25	0.24	72.25	0.15	86.25	0.11
44.50	0.41	58.50	0.24	72.50	0.15	86.50	0.11
44.75	0.40	58.75	0.23	72.75	0.15	86.75	0.11
45.00	0.40	59.00	0.23	73.00	0.15	87.00	0.11
45.25	0.39	59.25	0.23	73.25	0.15	87.25	0.11
45.50	0.39	59.50	0.23	73.50	0.15	87.50	0.11
45.75	0.39	59.75	0.23	73.75	0.15	87.75	0.10
46.00	0.38	60.00	0.22	74.00	0.15	88.00	0.10
46.25	0.38	60.25	0.22	74.25	0.15	88.25	0.10
46.50	0.37	60.50	0.22	74.50	0.15	88.50	0.10
46.75	0.37	60.75	0.22	74.75	0.14	88.75	0.10
47.00	0.37	61.00	0.22	75.00	0.14	89.00	0.10
47.25	0.36	61.25	0.22	75.25	0.14	89.25	0.10
47.50	0.36	61.50	0.21	75.50	0.14	89.50	0.10
47.75	0.35	61.75	0.21	75.75	0.14	89.75	0.10
48.00	0.35	62.00	0.21	76.00	0.14	90.00	0.10
48.25	0.35	62.25	0.21	76.25	0.14	90.25	0.10
48.50	0.34	62.50	0.21	76.50	0.14	90.50	0.10
48.75	0.34	62.75	0.20	76.75	0.14	90.75	0.10
49.00	0.34	63.00	0.20	77.00	0.14	91.00	0.10
49.25	0.33	63.25	0.20	77.25	0.14	91.25	0.10
49.50	0.33	63.50	0.20	77.50	0.13	91.50	0.10
49.75	0.33	63.75	0.20	77.75	0.13	91.75	0.10
50.00	0.32	64.00	0.20	78.00	0.13	92.00	0.10
50.25	0.32	64.25	0.20	78.25	0.13	92.25	0.09
50.50	0.32	64.50	0.19	78.50	0.13	92.50	0.09
50.75	0.31	64.75	0.19	78.75	0.13	92.75	0.09
51.00	0.31	65.00	0.19	79.00	0.13	93.00	0.09
51.25	0.31	65.25	0.19	79.25	0.13	93.25	0.09
51.50	0.30	65.50	0.19	79.50	0.13	93.50	0.09
51.75	0.30	65.75	0.19	79.75	0.13	93.75	0.09
52.00	0.30	66.00	0.19	80.00	0.13	94.00	0.09
52.25	0.30	66.25	0.18	80.25	0.13	94.25	0.09
52.50	0.29	66.50	0.18	80.50	0.12	94.50	0.09
52.75	0.29	66.75	0.18	80.75	0.12	94.75	0.09
53.00	0.29	67.00	0.18	81.00	0.12	95.00	0.09
53.25	0.28	67.25	0.18	81.25	0.12	95.25	0.09
53.50	0.28	67.50	0.18	81.50	0.12	95.50	0.09
53.75	0.28	67.75	0.18	81.75	0.12	95.75	0.09
54.00	0.28	68.00	0.17	82.00	0.12	96.00	0.09

Table 2 – 90%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 100%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.20 14.3 Inches

BioInitiative ft. 94.70 1136.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	14349.02	10.25	8.54	20.25	2.19	30.25	0.98
0.50	3587.25	10.50	8.13	20.50	2.13	30.50	0.96
0.75	1594.34	10.75	7.76	20.75	2.08	30.75	0.95
1.00	896.81	11.00	7.41	21.00	2.03	31.00	0.93
1.25	573.96	11.25	7.09	21.25	1.99	31.25	0.92
1.50	398.58	11.50	6.78	21.50	1.94	31.50	0.90
1.75	292.84	11.75	6.50	21.75	1.90	31.75	0.89
2.00	224.20	12.00	6.23	22.00	1.85	32.00	0.88
2.25	177.15	12.25	5.98	22.25	1.81	32.25	0.86
2.50	143.49	12.50	5.74	22.50	1.77	32.50	0.85
2.75	118.59	12.75	5.52	22.75	1.73	32.75	0.84
3.00	99.65	13.00	5.31	23.00	1.70	33.00	0.82
3.25	84.91	13.25	5.11	23.25	1.66	33.25	0.81
3.50	73.21	13.50	4.92	23.50	1.62	33.50	0.80
3.75	63.77	13.75	4.74	23.75	1.59	33.75	0.79
4.00	56.05	14.00	4.58	24.00	1.56	34.00	0.78
4.25	49.65	14.25	4.42	24.25	1.53	34.25	0.76
4.50	44.29	14.50	4.27	24.50	1.49	34.50	0.75
4.75	39.75	14.75	4.12	24.75	1.46	34.75	0.74
5.00	35.87	15.00	3.99	25.00	1.43	35.00	0.73
5.25	32.54	15.25	3.86	25.25	1.41	35.25	0.72
5.50	29.65	15.50	3.73	25.50	1.38	35.50	0.71
5.75	27.12	15.75	3.62	25.75	1.35	35.75	0.70
6.00	24.91	16.00	3.50	26.00	1.33	36.00	0.69
6.25	22.96	16.25	3.40	26.25	1.30	36.25	0.68
6.50	21.23	16.50	3.29	26.50	1.28	36.50	0.67
6.75	19.68	16.75	3.20	26.75	1.25	36.75	0.66
7.00	18.30	17.00	3.10	27.00	1.23	37.00	0.66
7.25	17.06	17.25	3.01	27.25	1.21	37.25	0.65
7.50	15.94	17.50	2.93	27.50	1.19	37.50	0.64
7.75	14.93	17.75	2.85	27.75	1.16	37.75	0.63
8.00	14.01	18.00	2.77	28.00	1.14	38.00	0.62
8.25	13.18	18.25	2.69	28.25	1.12	38.25	0.61
8.50	12.41	18.50	2.62	28.50	1.10	38.50	0.61
8.75	11.71	18.75	2.55	28.75	1.08	38.75	0.60
9.00	11.07	19.00	2.48	29.00	1.07	39.00	0.59
9.25	10.48	19.25	2.42	29.25	1.05	39.25	0.58
9.50	9.94	19.50	2.36	29.50	1.03	39.50	0.57
9.75	9.43	19.75	2.30	29.75	1.01	39.75	0.57
10.00	8.97	20.00	2.24	30.00	1.00	40.00	0.56

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 100%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.20

14.35 Inches

BioInitiative ft. 94.70

1136.40 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.55	54.25	0.30	68.25	0.19	82.25	0.13
40.50	0.55	54.50	0.30	68.50	0.19	82.50	0.13
40.75	0.54	54.75	0.30	68.75	0.19	82.75	0.13
41.00	0.53	55.00	0.30	69.00	0.19	83.00	0.13
41.25	0.53	55.25	0.29	69.25	0.19	83.25	0.13
41.50	0.52	55.50	0.29	69.50	0.19	83.50	0.13
41.75	0.51	55.75	0.29	69.75	0.18	83.75	0.13
42.00	0.51	56.00	0.29	70.00	0.18	84.00	0.13
42.25	0.50	56.25	0.28	70.25	0.18	84.25	0.13
42.50	0.50	56.50	0.28	70.50	0.18	84.50	0.13
42.75	0.49	56.75	0.28	70.75	0.18	84.75	0.12
43.00	0.49	57.00	0.28	71.00	0.18	85.00	0.12
43.25	0.48	57.25	0.27	71.25	0.18	85.25	0.12
43.50	0.47	57.50	0.27	71.50	0.18	85.50	0.12
43.75	0.47	57.75	0.27	71.75	0.17	85.75	0.12
44.00	0.46	58.00	0.27	72.00	0.17	86.00	0.12
44.25	0.46	58.25	0.26	72.25	0.17	86.25	0.12
44.50	0.45	58.50	0.26	72.50	0.17	86.50	0.12
44.75	0.45	58.75	0.26	72.75	0.17	86.75	0.12
45.00	0.44	59.00	0.26	73.00	0.17	87.00	0.12
45.25	0.44	59.25	0.26	73.25	0.17	87.25	0.12
45.50	0.43	59.50	0.25	73.50	0.17	87.50	0.12
45.75	0.43	59.75	0.25	73.75	0.16	87.75	0.12
46.00	0.42	60.00	0.25	74.00	0.16	88.00	0.12
46.25	0.42	60.25	0.25	74.25	0.16	88.25	0.12
46.50	0.41	60.50	0.25	74.50	0.16	88.50	0.11
46.75	0.41	60.75	0.24	74.75	0.16	88.75	0.11
47.00	0.41	61.00	0.24	75.00	0.16	89.00	0.11
47.25	0.40	61.25	0.24	75.25	0.16	89.25	0.11
47.50	0.40	61.50	0.24	75.50	0.16	89.50	0.11
47.75	0.39	61.75	0.24	75.75	0.16	89.75	0.11
48.00	0.39	62.00	0.23	76.00	0.16	90.00	0.11
48.25	0.39	62.25	0.23	76.25	0.15	90.25	0.11
48.50	0.38	62.50	0.23	76.50	0.15	90.50	0.11
48.75	0.38	62.75	0.23	76.75	0.15	90.75	0.11
49.00	0.37	63.00	0.23	77.00	0.15	91.00	0.11
49.25	0.37	63.25	0.22	77.25	0.15	91.25	0.11
49.50	0.37	63.50	0.22	77.50	0.15	91.50	0.11
49.75	0.36	63.75	0.22	77.75	0.15	91.75	0.11
50.00	0.36	64.00	0.22	78.00	0.15	92.00	0.11
50.25	0.36	64.25	0.22	78.25	0.15	92.25	0.11
50.50	0.35	64.50	0.22	78.50	0.15	92.50	0.10
50.75	0.35	64.75	0.21	78.75	0.14	92.75	0.10
51.00	0.34	65.00	0.21	79.00	0.14	93.00	0.10
51.25	0.34	65.25	0.21	79.25	0.14	93.25	0.10
51.50	0.34	65.50	0.21	79.50	0.14	93.50	0.10
51.75	0.33	65.75	0.21	79.75	0.14	93.75	0.10
52.00	0.33	66.00	0.21	80.00	0.14	94.00	0.10
52.25	0.33	66.25	0.20	80.25	0.14	94.25	0.10
52.50	0.33	66.50	0.20	80.50	0.14	94.50	0.10
52.75	0.32	66.75	0.20	80.75	0.14	94.75	0.10
53.00	0.32	67.00	0.20	81.00	0.14	95.00	0.10
53.25	0.32	67.25	0.20	81.25	0.14	95.25	0.10
53.50	0.31	67.50	0.20	81.50	0.14	95.50	0.10
53.75	0.31	67.75	0.20	81.75	0.13	95.75	0.10
54.00	0.31	68.00	0.19	82.00	0.13	96.00	0.10

Table 2 – 100%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 1%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 0.66                      7.9 Inches

BioInitiative ft. 52.09                      625.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	4340.58	10.25	2.58	20.25	0.66	30.25	0.30
0.50	1085.14	10.50	2.46	20.50	0.65	30.50	0.29
0.75	482.29	10.75	2.35	20.75	0.63	30.75	0.29
1.00	271.29	11.00	2.24	21.00	0.62	31.00	0.28
1.25	173.62	11.25	2.14	21.25	0.60	31.25	0.28
1.50	120.57	11.50	2.05	21.50	0.59	31.50	0.27
1.75	88.58	11.75	1.96	21.75	0.57	31.75	0.27
2.00	67.82	12.00	1.88	22.00	0.56	32.00	0.26
2.25	53.59	12.25	1.81	22.25	0.55	32.25	0.26
2.50	43.41	12.50	1.74	22.50	0.54	32.50	0.26
2.75	35.87	12.75	1.67	22.75	0.52	32.75	0.25
3.00	30.14	13.00	1.61	23.00	0.51	33.00	0.25
3.25	25.68	13.25	1.55	23.25	0.50	33.25	0.25
3.50	22.15	13.50	1.49	23.50	0.49	33.50	0.24
3.75	19.29	13.75	1.43	23.75	0.48	33.75	0.24
4.00	16.96	14.00	1.38	24.00	0.47	34.00	0.23
4.25	15.02	14.25	1.34	24.25	0.46	34.25	0.23
4.50	13.40	14.50	1.29	24.50	0.45	34.50	0.23
4.75	12.02	14.75	1.25	24.75	0.44	34.75	0.22
5.00	10.85	15.00	1.21	25.00	0.43	35.00	0.22
5.25	9.84	15.25	1.17	25.25	0.43	35.25	0.22
5.50	8.97	15.50	1.13	25.50	0.42	35.50	0.22
5.75	8.21	15.75	1.09	25.75	0.41	35.75	0.21
6.00	7.54	16.00	1.06	26.00	0.40	36.00	0.21
6.25	6.94	16.25	1.03	26.25	0.39	36.25	0.21
6.50	6.42	16.50	1.00	26.50	0.39	36.50	0.20
6.75	5.95	16.75	0.97	26.75	0.38	36.75	0.20
7.00	5.54	17.00	0.94	27.00	0.37	37.00	0.20
7.25	5.16	17.25	0.91	27.25	0.37	37.25	0.20
7.50	4.82	17.50	0.89	27.50	0.36	37.50	0.19
7.75	4.52	17.75	0.86	27.75	0.35	37.75	0.19
8.00	4.24	18.00	0.84	28.00	0.35	38.00	0.19
8.25	3.99	18.25	0.81	28.25	0.34	38.25	0.19
8.50	3.75	18.50	0.79	28.50	0.33	38.50	0.18
8.75	3.54	18.75	0.77	28.75	0.33	38.75	0.18
9.00	3.35	19.00	0.75	29.00	0.32	39.00	0.18
9.25	3.17	19.25	0.73	29.25	0.32	39.25	0.18
9.50	3.01	19.50	0.71	29.50	0.31	39.50	0.17
9.75	2.85	19.75	0.70	29.75	0.31	39.75	0.17
10.00	2.71	20.00	0.68	30.00	0.30	40.00	0.17

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 1%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 0.66

7.89 Inches

BioInitiative ft. 52.09

625.02 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.17	54.25	0.09	68.25	0.06	82.25	0.04
40.50	0.17	54.50	0.09	68.50	0.06	82.50	0.04
40.75	0.16	54.75	0.09	68.75	0.06	82.75	0.04
41.00	0.16	55.00	0.09	69.00	0.06	83.00	0.04
41.25	0.16	55.25	0.09	69.25	0.06	83.25	0.04
41.50	0.16	55.50	0.09	69.50	0.06	83.50	0.04
41.75	0.16	55.75	0.09	69.75	0.06	83.75	0.04
42.00	0.15	56.00	0.09	70.00	0.06	84.00	0.04
42.25	0.15	56.25	0.09	70.25	0.05	84.25	0.04
42.50	0.15	56.50	0.08	70.50	0.05	84.50	0.04
42.75	0.15	56.75	0.08	70.75	0.05	84.75	0.04
43.00	0.15	57.00	0.08	71.00	0.05	85.00	0.04
43.25	0.15	57.25	0.08	71.25	0.05	85.25	0.04
43.50	0.14	57.50	0.08	71.50	0.05	85.50	0.04
43.75	0.14	57.75	0.08	71.75	0.05	85.75	0.04
44.00	0.14	58.00	0.08	72.00	0.05	86.00	0.04
44.25	0.14	58.25	0.08	72.25	0.05	86.25	0.04
44.50	0.14	58.50	0.08	72.50	0.05	86.50	0.04
44.75	0.14	58.75	0.08	72.75	0.05	86.75	0.04
45.00	0.13	59.00	0.08	73.00	0.05	87.00	0.04
45.25	0.13	59.25	0.08	73.25	0.05	87.25	0.04
45.50	0.13	59.50	0.08	73.50	0.05	87.50	0.04
45.75	0.13	59.75	0.08	73.75	0.05	87.75	0.04
46.00	0.13	60.00	0.08	74.00	0.05	88.00	0.04
46.25	0.13	60.25	0.07	74.25	0.05	88.25	0.03
46.50	0.13	60.50	0.07	74.50	0.05	88.50	0.03
46.75	0.12	60.75	0.07	74.75	0.05	88.75	0.03
47.00	0.12	61.00	0.07	75.00	0.05	89.00	0.03
47.25	0.12	61.25	0.07	75.25	0.05	89.25	0.03
47.50	0.12	61.50	0.07	75.50	0.05	89.50	0.03
47.75	0.12	61.75	0.07	75.75	0.05	89.75	0.03
48.00	0.12	62.00	0.07	76.00	0.05	90.00	0.03
48.25	0.12	62.25	0.07	76.25	0.05	90.25	0.03
48.50	0.12	62.50	0.07	76.50	0.05	90.50	0.03
48.75	0.11	62.75	0.07	76.75	0.05	90.75	0.03
49.00	0.11	63.00	0.07	77.00	0.05	91.00	0.03
49.25	0.11	63.25	0.07	77.25	0.05	91.25	0.03
49.50	0.11	63.50	0.07	77.50	0.05	91.50	0.03
49.75	0.11	63.75	0.07	77.75	0.04	91.75	0.03
50.00	0.11	64.00	0.07	78.00	0.04	92.00	0.03
50.25	0.11	64.25	0.07	78.25	0.04	92.25	0.03
50.50	0.11	64.50	0.07	78.50	0.04	92.50	0.03
50.75	0.11	64.75	0.06	78.75	0.04	92.75	0.03
51.00	0.10	65.00	0.06	79.00	0.04	93.00	0.03
51.25	0.10	65.25	0.06	79.25	0.04	93.25	0.03
51.50	0.10	65.50	0.06	79.50	0.04	93.50	0.03
51.75	0.10	65.75	0.06	79.75	0.04	93.75	0.03
52.00	0.10	66.00	0.06	80.00	0.04	94.00	0.03
52.25	0.10	66.25	0.06	80.25	0.04	94.25	0.03
52.50	0.10	66.50	0.06	80.50	0.04	94.50	0.03
52.75	0.10	66.75	0.06	80.75	0.04	94.75	0.03
53.00	0.10	67.00	0.06	81.00	0.04	95.00	0.03
53.25	0.10	67.25	0.06	81.25	0.04	95.25	0.03
53.50	0.09	67.50	0.06	81.50	0.04	95.50	0.03
53.75	0.09	67.75	0.06	81.75	0.04	95.75	0.03
54.00	0.09	68.00	0.06	82.00	0.04	96.00	0.03

Table 3 – 1%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 10%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.08                      25.0 Inches

BioInitiative ft. 164.71                      1976.5 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	43405.77	10.25	25.82	20.25	6.62	30.25	2.96
0.50	10851.44	10.50	24.61	20.50	6.46	30.50	2.92
0.75	4822.86	10.75	23.48	20.75	6.30	30.75	2.87
1.00	2712.86	11.00	22.42	21.00	6.15	31.00	2.82
1.25	1736.23	11.25	21.43	21.25	6.01	31.25	2.78
1.50	1205.72	11.50	20.51	21.50	5.87	31.50	2.73
1.75	885.83	11.75	19.65	21.75	5.73	31.75	2.69
2.00	678.22	12.00	18.84	22.00	5.61	32.00	2.65
2.25	535.87	12.25	18.08	22.25	5.48	32.25	2.61
2.50	434.06	12.50	17.36	22.50	5.36	32.50	2.57
2.75	358.73	12.75	16.69	22.75	5.24	32.75	2.53
3.00	301.43	13.00	16.05	23.00	5.13	33.00	2.49
3.25	256.84	13.25	15.45	23.25	5.02	33.25	2.45
3.50	221.46	13.50	14.89	23.50	4.91	33.50	2.42
3.75	192.91	13.75	14.35	23.75	4.81	33.75	2.38
4.00	169.55	14.00	13.84	24.00	4.71	34.00	2.35
4.25	150.19	14.25	13.36	24.25	4.61	34.25	2.31
4.50	133.97	14.50	12.90	24.50	4.52	34.50	2.28
4.75	120.24	14.75	12.47	24.75	4.43	34.75	2.25
5.00	108.51	15.00	12.06	25.00	4.34	35.00	2.21
5.25	98.43	15.25	11.67	25.25	4.26	35.25	2.18
5.50	89.68	15.50	11.29	25.50	4.17	35.50	2.15
5.75	82.05	15.75	10.94	25.75	4.09	35.75	2.12
6.00	75.36	16.00	10.60	26.00	4.01	36.00	2.09
6.25	69.45	16.25	10.27	26.25	3.94	36.25	2.06
6.50	64.21	16.50	9.96	26.50	3.86	36.50	2.04
6.75	59.54	16.75	9.67	26.75	3.79	36.75	2.01
7.00	55.36	17.00	9.39	27.00	3.72	37.00	1.98
7.25	51.61	17.25	9.12	27.25	3.65	37.25	1.96
7.50	48.23	17.50	8.86	27.50	3.59	37.50	1.93
7.75	45.17	17.75	8.61	27.75	3.52	37.75	1.90
8.00	42.39	18.00	8.37	28.00	3.46	38.00	1.88
8.25	39.86	18.25	8.15	28.25	3.40	38.25	1.85
8.50	37.55	18.50	7.93	28.50	3.34	38.50	1.83
8.75	35.43	18.75	7.72	28.75	3.28	38.75	1.81
9.00	33.49	19.00	7.51	29.00	3.23	39.00	1.78
9.25	31.71	19.25	7.32	29.25	3.17	39.25	1.76
9.50	30.06	19.50	7.13	29.50	3.12	39.50	1.74
9.75	28.54	19.75	6.95	29.75	3.07	39.75	1.72
10.00	27.13	20.00	6.78	30.00	3.01	40.00	1.70

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 10%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.08

24.95 Inches

BioInitiative ft. 164.71

1976.49 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	1.67	54.25	0.92	68.25	0.58	82.25	0.40
40.50	1.65	54.50	0.91	68.50	0.58	82.50	0.40
40.75	1.63	54.75	0.91	68.75	0.57	82.75	0.40
41.00	1.61	55.00	0.90	69.00	0.57	83.00	0.39
41.25	1.59	55.25	0.89	69.25	0.57	83.25	0.39
41.50	1.58	55.50	0.88	69.50	0.56	83.50	0.39
41.75	1.56	55.75	0.87	69.75	0.56	83.75	0.39
42.00	1.54	56.00	0.87	70.00	0.55	84.00	0.38
42.25	1.52	56.25	0.86	70.25	0.55	84.25	0.38
42.50	1.50	56.50	0.85	70.50	0.55	84.50	0.38
42.75	1.48	56.75	0.84	70.75	0.54	84.75	0.38
43.00	1.47	57.00	0.83	71.00	0.54	85.00	0.38
43.25	1.45	57.25	0.83	71.25	0.53	85.25	0.37
43.50	1.43	57.50	0.82	71.50	0.53	85.50	0.37
43.75	1.42	57.75	0.81	71.75	0.53	85.75	0.37
44.00	1.40	58.00	0.81	72.00	0.52	86.00	0.37
44.25	1.39	58.25	0.80	72.25	0.52	86.25	0.36
44.50	1.37	58.50	0.79	72.50	0.52	86.50	0.36
44.75	1.35	58.75	0.79	72.75	0.51	86.75	0.36
45.00	1.34	59.00	0.78	73.00	0.51	87.00	0.36
45.25	1.32	59.25	0.77	73.25	0.51	87.25	0.36
45.50	1.31	59.50	0.77	73.50	0.50	87.50	0.35
45.75	1.30	59.75	0.76	73.75	0.50	87.75	0.35
46.00	1.28	60.00	0.75	74.00	0.50	88.00	0.35
46.25	1.27	60.25	0.75	74.25	0.49	88.25	0.35
46.50	1.25	60.50	0.74	74.50	0.49	88.50	0.35
46.75	1.24	60.75	0.74	74.75	0.49	88.75	0.34
47.00	1.23	61.00	0.73	75.00	0.48	89.00	0.34
47.25	1.22	61.25	0.72	75.25	0.48	89.25	0.34
47.50	1.20	61.50	0.72	75.50	0.48	89.50	0.34
47.75	1.19	61.75	0.71	75.75	0.47	89.75	0.34
48.00	1.18	62.00	0.71	76.00	0.47	90.00	0.33
48.25	1.17	62.25	0.70	76.25	0.47	90.25	0.33
48.50	1.15	62.50	0.69	76.50	0.46	90.50	0.33
48.75	1.14	62.75	0.69	76.75	0.46	90.75	0.33
49.00	1.13	63.00	0.68	77.00	0.46	91.00	0.33
49.25	1.12	63.25	0.68	77.25	0.45	91.25	0.33
49.50	1.11	63.50	0.67	77.50	0.45	91.50	0.32
49.75	1.10	63.75	0.67	77.75	0.45	91.75	0.32
50.00	1.09	64.00	0.66	78.00	0.45	92.00	0.32
50.25	1.07	64.25	0.66	78.25	0.44	92.25	0.32
50.50	1.06	64.50	0.65	78.50	0.44	92.50	0.32
50.75	1.05	64.75	0.65	78.75	0.44	92.75	0.32
51.00	1.04	65.00	0.64	79.00	0.43	93.00	0.31
51.25	1.03	65.25	0.64	79.25	0.43	93.25	0.31
51.50	1.02	65.50	0.63	79.50	0.43	93.50	0.31
51.75	1.01	65.75	0.63	79.75	0.43	93.75	0.31
52.00	1.00	66.00	0.62	80.00	0.42	94.00	0.31
52.25	0.99	66.25	0.62	80.25	0.42	94.25	0.31
52.50	0.98	66.50	0.61	80.50	0.42	94.50	0.30
52.75	0.97	66.75	0.61	80.75	0.42	94.75	0.30
53.00	0.97	67.00	0.60	81.00	0.41	95.00	0.30
53.25	0.96	67.25	0.60	81.25	0.41	95.25	0.30
53.50	0.95	67.50	0.60	81.50	0.41	95.50	0.30
53.75	0.94	67.75	0.59	81.75	0.41	95.75	0.30
54.00	0.93	68.00	0.59	82.00	0.40	96.00	0.29

Table 3 – 10%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 20%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.94                      35.3 Inches

BioInitiative ft. 232.93                      2795.2 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	86811.55	10.25	51.64	20.25	13.23	30.25	5.93
0.50	21702.89	10.50	49.21	20.50	12.91	30.50	5.83
0.75	9645.73	10.75	46.95	20.75	12.60	30.75	5.74
1.00	5425.72	11.00	44.84	21.00	12.30	31.00	5.65
1.25	3472.46	11.25	42.87	21.25	12.02	31.25	5.56
1.50	2411.43	11.50	41.03	21.50	11.74	31.50	5.47
1.75	1771.66	11.75	39.30	21.75	11.47	31.75	5.38
2.00	1356.43	12.00	37.68	22.00	11.21	32.00	5.30
2.25	1071.75	12.25	36.16	22.25	10.96	32.25	5.22
2.50	868.12	12.50	34.72	22.50	10.72	32.50	5.14
2.75	717.45	12.75	33.38	22.75	10.48	32.75	5.06
3.00	602.86	13.00	32.10	23.00	10.26	33.00	4.98
3.25	513.68	13.25	30.90	23.25	10.04	33.25	4.91
3.50	442.92	13.50	29.77	23.50	9.82	33.50	4.83
3.75	385.83	13.75	28.70	23.75	9.62	33.75	4.76
4.00	339.11	14.00	27.68	24.00	9.42	34.00	4.69
4.25	300.39	14.25	26.72	24.25	9.23	34.25	4.63
4.50	267.94	14.50	25.81	24.50	9.04	34.50	4.56
4.75	240.48	14.75	24.94	24.75	8.86	34.75	4.49
5.00	217.03	15.00	24.11	25.00	8.68	35.00	4.43
5.25	196.85	15.25	23.33	25.25	8.51	35.25	4.37
5.50	179.36	15.50	22.58	25.50	8.34	35.50	4.31
5.75	164.11	15.75	21.87	25.75	8.18	35.75	4.25
6.00	150.71	16.00	21.19	26.00	8.03	36.00	4.19
6.25	138.90	16.25	20.55	26.25	7.87	36.25	4.13
6.50	128.42	16.50	19.93	26.50	7.73	36.50	4.07
6.75	119.08	16.75	19.34	26.75	7.58	36.75	4.02
7.00	110.73	17.00	18.77	27.00	7.44	37.00	3.96
7.25	103.22	17.25	18.23	27.25	7.31	37.25	3.91
7.50	96.46	17.50	17.72	27.50	7.17	37.50	3.86
7.75	90.33	17.75	17.22	27.75	7.05	37.75	3.81
8.00	84.78	18.00	16.75	28.00	6.92	38.00	3.76
8.25	79.72	18.25	16.29	28.25	6.80	38.25	3.71
8.50	75.10	18.50	15.85	28.50	6.68	38.50	3.66
8.75	70.87	18.75	15.43	28.75	6.56	38.75	3.61
9.00	66.98	19.00	15.03	29.00	6.45	39.00	3.57
9.25	63.41	19.25	14.64	29.25	6.34	39.25	3.52
9.50	60.12	19.50	14.27	29.50	6.23	39.50	3.48
9.75	57.08	19.75	13.91	29.75	6.13	39.75	3.43
10.00	54.26	20.00	13.56	30.00	6.03	40.00	3.39

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 20%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.94

35.29 Inches

BioInitiative ft. 232.93

2795.18 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	3.35	54.25	1.84	68.25	1.16	82.25	0.80
40.50	3.31	54.50	1.83	68.50	1.16	82.50	0.80
40.75	3.27	54.75	1.81	68.75	1.15	82.75	0.79
41.00	3.23	55.00	1.79	69.00	1.14	83.00	0.79
41.25	3.19	55.25	1.78	69.25	1.13	83.25	0.78
41.50	3.15	55.50	1.76	69.50	1.12	83.50	0.78
41.75	3.11	55.75	1.75	69.75	1.12	83.75	0.77
42.00	3.08	56.00	1.73	70.00	1.11	84.00	0.77
42.25	3.04	56.25	1.71	70.25	1.10	84.25	0.76
42.50	3.00	56.50	1.70	70.50	1.09	84.50	0.76
42.75	2.97	56.75	1.68	70.75	1.08	84.75	0.76
43.00	2.93	57.00	1.67	71.00	1.08	85.00	0.75
43.25	2.90	57.25	1.66	71.25	1.07	85.25	0.75
43.50	2.87	57.50	1.64	71.50	1.06	85.50	0.74
43.75	2.83	57.75	1.63	71.75	1.05	85.75	0.74
44.00	2.80	58.00	1.61	72.00	1.05	86.00	0.73
44.25	2.77	58.25	1.60	72.25	1.04	86.25	0.73
44.50	2.74	58.50	1.59	72.50	1.03	86.50	0.73
44.75	2.71	58.75	1.57	72.75	1.03	86.75	0.72
45.00	2.68	59.00	1.56	73.00	1.02	87.00	0.72
45.25	2.65	59.25	1.55	73.25	1.01	87.25	0.71
45.50	2.62	59.50	1.53	73.50	1.00	87.50	0.71
45.75	2.59	59.75	1.52	73.75	1.00	87.75	0.70
46.00	2.56	60.00	1.51	74.00	0.99	88.00	0.70
46.25	2.54	60.25	1.49	74.25	0.98	88.25	0.70
46.50	2.51	60.50	1.48	74.50	0.98	88.50	0.69
46.75	2.48	60.75	1.47	74.75	0.97	88.75	0.69
47.00	2.46	61.00	1.46	75.00	0.96	89.00	0.68
47.25	2.43	61.25	1.45	75.25	0.96	89.25	0.68
47.50	2.40	61.50	1.43	75.50	0.95	89.50	0.68
47.75	2.38	61.75	1.42	75.75	0.95	89.75	0.67
48.00	2.35	62.00	1.41	76.00	0.94	90.00	0.67
48.25	2.33	62.25	1.40	76.25	0.93	90.25	0.67
48.50	2.31	62.50	1.39	76.50	0.93	90.50	0.66
48.75	2.28	62.75	1.38	76.75	0.92	90.75	0.66
49.00	2.26	63.00	1.37	77.00	0.92	91.00	0.66
49.25	2.24	63.25	1.36	77.25	0.91	91.25	0.65
49.50	2.21	63.50	1.35	77.50	0.90	91.50	0.65
49.75	2.19	63.75	1.34	77.75	0.90	91.75	0.64
50.00	2.17	64.00	1.32	78.00	0.89	92.00	0.64
50.25	2.15	64.25	1.31	78.25	0.89	92.25	0.64
50.50	2.13	64.50	1.30	78.50	0.88	92.50	0.63
50.75	2.11	64.75	1.29	78.75	0.87	92.75	0.63
51.00	2.09	65.00	1.28	79.00	0.87	93.00	0.63
51.25	2.07	65.25	1.27	79.25	0.86	93.25	0.62
51.50	2.05	65.50	1.26	79.50	0.86	93.50	0.62
51.75	2.03	65.75	1.26	79.75	0.85	93.75	0.62
52.00	2.01	66.00	1.25	80.00	0.85	94.00	0.61
52.25	1.99	66.25	1.24	80.25	0.84	94.25	0.61
52.50	1.97	66.50	1.23	80.50	0.84	94.50	0.61
52.75	1.95	66.75	1.22	80.75	0.83	94.75	0.60
53.00	1.93	67.00	1.21	81.00	0.83	95.00	0.60
53.25	1.91	67.25	1.20	81.25	0.82	95.25	0.60
53.50	1.90	67.50	1.19	81.50	0.82	95.50	0.59
53.75	1.88	67.75	1.18	81.75	0.81	95.75	0.59
54.00	1.86	68.00	1.17	82.00	0.81	96.00	0.59

Table 3 – 20%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

## Meters 1 Electric Meter

Time Avg: 30%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 3.60 43.2 Inches

BioInitiative ft. 285.28 3423.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	130217.32	10.25	77.46	20.25	19.85	30.25	8.89
0.50	32554.33	10.50	73.82	20.50	19.37	30.50	8.75
0.75	14468.59	10.75	70.43	20.75	18.90	30.75	8.61
1.00	8138.58	11.00	67.26	21.00	18.45	31.00	8.47
1.25	5208.69	11.25	64.30	21.25	18.02	31.25	8.33
1.50	3617.15	11.50	61.54	21.50	17.61	31.50	8.20
1.75	2657.50	11.75	58.95	21.75	17.20	31.75	8.07
2.00	2034.65	12.00	56.52	22.00	16.82	32.00	7.95
2.25	1607.62	12.25	54.23	22.25	16.44	32.25	7.83
2.50	1302.17	12.50	52.09	22.50	16.08	32.50	7.71
2.75	1076.18	12.75	50.06	22.75	15.72	32.75	7.59
3.00	904.29	13.00	48.16	23.00	15.38	33.00	7.47
3.25	770.52	13.25	46.36	23.25	15.06	33.25	7.36
3.50	664.37	13.50	44.66	23.50	14.74	33.50	7.25
3.75	578.74	13.75	43.05	23.75	14.43	33.75	7.14
4.00	508.66	14.00	41.52	24.00	14.13	34.00	7.04
4.25	450.58	14.25	40.08	24.25	13.84	34.25	6.94
4.50	401.91	14.50	38.71	24.50	13.56	34.50	6.84
4.75	360.71	14.75	37.41	24.75	13.29	34.75	6.74
5.00	325.54	15.00	36.17	25.00	13.02	35.00	6.64
5.25	295.28	15.25	35.00	25.25	12.77	35.25	6.55
5.50	269.04	15.50	33.88	25.50	12.52	35.50	6.46
5.75	246.16	15.75	32.81	25.75	12.27	35.75	6.37
6.00	226.07	16.00	31.79	26.00	12.04	36.00	6.28
6.25	208.35	16.25	30.82	26.25	11.81	36.25	6.19
6.50	192.63	16.50	29.89	26.50	11.59	36.50	6.11
6.75	178.62	16.75	29.01	26.75	11.37	36.75	6.03
7.00	166.09	17.00	28.16	27.00	11.16	37.00	5.94
7.25	154.84	17.25	27.35	27.25	10.96	37.25	5.87
7.50	144.69	17.50	26.57	27.50	10.76	37.50	5.79
7.75	135.50	17.75	25.83	27.75	10.57	37.75	5.71
8.00	127.17	18.00	25.12	28.00	10.38	38.00	5.64
8.25	119.58	18.25	24.44	28.25	10.20	38.25	5.56
8.50	112.64	18.50	23.78	28.50	10.02	38.50	5.49
8.75	106.30	18.75	23.15	28.75	9.85	38.75	5.42
9.00	100.48	19.00	22.54	29.00	9.68	39.00	5.35
9.25	95.12	19.25	21.96	29.25	9.51	39.25	5.28
9.50	90.18	19.50	21.40	29.50	9.35	39.50	5.22
9.75	85.61	19.75	20.86	29.75	9.20	39.75	5.15
10.00	81.39	20.00	20.35	30.00	9.04	40.00	5.09

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 30%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 3.60

43.22 Inches

BioInitiative ft. 285.28

3423.38 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	5.02	54.25	2.77	68.25	1.75	82.25	1.20
40.50	4.96	54.50	2.74	68.50	1.73	82.50	1.20
40.75	4.90	54.75	2.72	68.75	1.72	82.75	1.19
41.00	4.84	55.00	2.69	69.00	1.71	83.00	1.18
41.25	4.78	55.25	2.67	69.25	1.70	83.25	1.17
41.50	4.73	55.50	2.64	69.50	1.68	83.50	1.17
41.75	4.67	55.75	2.62	69.75	1.67	83.75	1.16
42.00	4.61	56.00	2.60	70.00	1.66	84.00	1.15
42.25	4.56	56.25	2.57	70.25	1.65	84.25	1.15
42.50	4.51	56.50	2.55	70.50	1.64	84.50	1.14
42.75	4.45	56.75	2.53	70.75	1.63	84.75	1.13
43.00	4.40	57.00	2.50	71.00	1.61	85.00	1.13
43.25	4.35	57.25	2.48	71.25	1.60	85.25	1.12
43.50	4.30	57.50	2.46	71.50	1.59	85.50	1.11
43.75	4.25	57.75	2.44	71.75	1.58	85.75	1.11
44.00	4.20	58.00	2.42	72.00	1.57	86.00	1.10
44.25	4.16	58.25	2.40	72.25	1.56	86.25	1.09
44.50	4.11	58.50	2.38	72.50	1.55	86.50	1.09
44.75	4.06	58.75	2.36	72.75	1.54	86.75	1.08
45.00	4.02	59.00	2.34	73.00	1.53	87.00	1.08
45.25	3.97	59.25	2.32	73.25	1.52	87.25	1.07
45.50	3.93	59.50	2.30	73.50	1.51	87.50	1.06
45.75	3.89	59.75	2.28	73.75	1.50	87.75	1.06
46.00	3.85	60.00	2.26	74.00	1.49	88.00	1.05
46.25	3.80	60.25	2.24	74.25	1.48	88.25	1.05
46.50	3.76	60.50	2.22	74.50	1.47	88.50	1.04
46.75	3.72	60.75	2.21	74.75	1.46	88.75	1.03
47.00	3.68	61.00	2.19	75.00	1.45	89.00	1.03
47.25	3.65	61.25	2.17	75.25	1.44	89.25	1.02
47.50	3.61	61.50	2.15	75.50	1.43	89.50	1.02
47.75	3.57	61.75	2.13	75.75	1.42	89.75	1.01
48.00	3.53	62.00	2.12	76.00	1.41	90.00	1.00
48.25	3.50	62.25	2.10	76.25	1.40	90.25	1.00
48.50	3.46	62.50	2.08	76.50	1.39	90.50	0.99
48.75	3.42	62.75	2.07	76.75	1.38	90.75	0.99
49.00	3.39	63.00	2.05	77.00	1.37	91.00	0.98
49.25	3.36	63.25	2.03	77.25	1.36	91.25	0.98
49.50	3.32	63.50	2.02	77.50	1.36	91.50	0.97
49.75	3.29	63.75	2.00	77.75	1.35	91.75	0.97
50.00	3.26	64.00	1.99	78.00	1.34	92.00	0.96
50.25	3.22	64.25	1.97	78.25	1.33	92.25	0.96
50.50	3.19	64.50	1.96	78.50	1.32	92.50	0.95
50.75	3.16	64.75	1.94	78.75	1.31	92.75	0.95
51.00	3.13	65.00	1.93	79.00	1.30	93.00	0.94
51.25	3.10	65.25	1.91	79.25	1.30	93.25	0.94
51.50	3.07	65.50	1.90	79.50	1.29	93.50	0.93
51.75	3.04	65.75	1.88	79.75	1.28	93.75	0.93
52.00	3.01	66.00	1.87	80.00	1.27	94.00	0.92
52.25	2.98	66.25	1.85	80.25	1.26	94.25	0.92
52.50	2.95	66.50	1.84	80.50	1.26	94.50	0.91
52.75	2.92	66.75	1.83	80.75	1.25	94.75	0.91
53.00	2.90	67.00	1.81	81.00	1.24	95.00	0.90
53.25	2.87	67.25	1.80	81.25	1.23	95.25	0.90
53.50	2.84	67.50	1.79	81.50	1.23	95.50	0.89
53.75	2.82	67.75	1.77	81.75	1.22	95.75	0.89
54.00	2.79	68.00	1.76	82.00	1.21	96.00	0.88

Table 3 – 30%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 40%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 4.16 49.9 Inches

BioInitiative ft. 329.42 3953.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	173623.10	10.25	103.29	20.25	26.46	30.25	11.86
0.50	43405.77	10.50	98.43	20.50	25.82	30.50	11.67
0.75	19291.46	10.75	93.90	20.75	25.20	30.75	11.48
1.00	10851.44	11.00	89.68	21.00	24.61	31.00	11.29
1.25	6944.92	11.25	85.74	21.25	24.03	31.25	11.11
1.50	4822.86	11.50	82.05	21.50	23.48	31.50	10.94
1.75	3543.33	11.75	78.60	21.75	22.94	31.75	10.76
2.00	2712.86	12.00	75.36	22.00	22.42	32.00	10.60
2.25	2143.50	12.25	72.31	22.25	21.92	32.25	10.43
2.50	1736.23	12.50	69.45	22.50	21.43	32.50	10.27
2.75	1434.90	12.75	66.75	22.75	20.97	32.75	10.12
3.00	1205.72	13.00	64.21	23.00	20.51	33.00	9.96
3.25	1027.36	13.25	61.81	23.25	20.07	33.25	9.82
3.50	885.83	13.50	59.54	23.50	19.65	33.50	9.67
3.75	771.66	13.75	57.40	23.75	19.24	33.75	9.53
4.00	678.22	14.00	55.36	24.00	18.84	34.00	9.39
4.25	600.77	14.25	53.44	24.25	18.45	34.25	9.25
4.50	535.87	14.50	51.61	24.50	18.08	34.50	9.12
4.75	480.95	14.75	49.88	24.75	17.71	34.75	8.99
5.00	434.06	15.00	48.23	25.00	17.36	35.00	8.86
5.25	393.70	15.25	46.66	25.25	17.02	35.25	8.73
5.50	358.73	15.50	45.17	25.50	16.69	35.50	8.61
5.75	328.21	15.75	43.74	25.75	16.37	35.75	8.49
6.00	301.43	16.00	42.39	26.00	16.05	36.00	8.37
6.25	277.80	16.25	41.09	26.25	15.75	36.25	8.26
6.50	256.84	16.50	39.86	26.50	15.45	36.50	8.15
6.75	238.17	16.75	38.68	26.75	15.16	36.75	8.03
7.00	221.46	17.00	37.55	27.00	14.89	37.00	7.93
7.25	206.45	17.25	36.47	27.25	14.61	37.25	7.82
7.50	192.91	17.50	35.43	27.50	14.35	37.50	7.72
7.75	180.67	17.75	34.44	27.75	14.09	37.75	7.61
8.00	169.55	18.00	33.49	28.00	13.84	38.00	7.51
8.25	159.43	18.25	32.58	28.25	13.60	38.25	7.42
8.50	150.19	18.50	31.71	28.50	13.36	38.50	7.32
8.75	141.73	18.75	30.87	28.75	13.13	38.75	7.23
9.00	133.97	19.00	30.06	29.00	12.90	39.00	7.13
9.25	126.82	19.25	29.28	29.25	12.68	39.25	7.04
9.50	120.24	19.50	28.54	29.50	12.47	39.50	6.95
9.75	114.15	19.75	27.82	29.75	12.26	39.75	6.87
10.00	108.51	20.00	27.13	30.00	12.06	40.00	6.78

Notes:

1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$

$$S = \text{Power Density uW/cm}^2$$

$$\text{EIRP} = 1.64 \cdot \text{ERP}$$

$$\pi() = 3.1459$$

$$R = \text{Distance to device}$$

$$\text{TA} = \text{Time average}$$

$$\% \text{Ref} = \text{Percent reflections}$$

2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)

3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)

4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304

5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009

6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 40%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 4.16

49.91 Inches

BioInitiative ft. 329.42

3952.98 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	6.70	54.25	3.69	68.25	2.33	82.25	1.60
40.50	6.62	54.50	3.65	68.50	2.31	82.50	1.59
40.75	6.53	54.75	3.62	68.75	2.30	82.75	1.58
41.00	6.46	55.00	3.59	69.00	2.28	83.00	1.58
41.25	6.38	55.25	3.55	69.25	2.26	83.25	1.57
41.50	6.30	55.50	3.52	69.50	2.25	83.50	1.56
41.75	6.23	55.75	3.49	69.75	2.23	83.75	1.55
42.00	6.15	56.00	3.46	70.00	2.21	84.00	1.54
42.25	6.08	56.25	3.43	70.25	2.20	84.25	1.53
42.50	6.01	56.50	3.40	70.50	2.18	84.50	1.52
42.75	5.94	56.75	3.37	70.75	2.17	84.75	1.51
43.00	5.87	57.00	3.34	71.00	2.15	85.00	1.50
43.25	5.80	57.25	3.31	71.25	2.14	85.25	1.49
43.50	5.73	57.50	3.28	71.50	2.12	85.50	1.48
43.75	5.67	57.75	3.25	71.75	2.11	85.75	1.48
44.00	5.61	58.00	3.23	72.00	2.09	86.00	1.47
44.25	5.54	58.25	3.20	72.25	2.08	86.25	1.46
44.50	5.48	58.50	3.17	72.50	2.06	86.50	1.45
44.75	5.42	58.75	3.14	72.75	2.05	86.75	1.44
45.00	5.36	59.00	3.12	73.00	2.04	87.00	1.43
45.25	5.30	59.25	3.09	73.25	2.02	87.25	1.43
45.50	5.24	59.50	3.07	73.50	2.01	87.50	1.42
45.75	5.18	59.75	3.04	73.75	2.00	87.75	1.41
46.00	5.13	60.00	3.01	74.00	1.98	88.00	1.40
46.25	5.07	60.25	2.99	74.25	1.97	88.25	1.39
46.50	5.02	60.50	2.96	74.50	1.96	88.50	1.39
46.75	4.97	60.75	2.94	74.75	1.94	88.75	1.38
47.00	4.91	61.00	2.92	75.00	1.93	89.00	1.37
47.25	4.86	61.25	2.89	75.25	1.92	89.25	1.36
47.50	4.81	61.50	2.87	75.50	1.90	89.50	1.35
47.75	4.76	61.75	2.85	75.75	1.89	89.75	1.35
48.00	4.71	62.00	2.82	76.00	1.88	90.00	1.34
48.25	4.66	62.25	2.80	76.25	1.87	90.25	1.33
48.50	4.61	62.50	2.78	76.50	1.85	90.50	1.32
48.75	4.57	62.75	2.76	76.75	1.84	90.75	1.32
49.00	4.52	63.00	2.73	77.00	1.83	91.00	1.31
49.25	4.47	63.25	2.71	77.25	1.82	91.25	1.30
49.50	4.43	63.50	2.69	77.50	1.81	91.50	1.30
49.75	4.38	63.75	2.67	77.75	1.80	91.75	1.29
50.00	4.34	64.00	2.65	78.00	1.78	92.00	1.28
50.25	4.30	64.25	2.63	78.25	1.77	92.25	1.28
50.50	4.26	64.50	2.61	78.50	1.76	92.50	1.27
50.75	4.21	64.75	2.59	78.75	1.75	92.75	1.26
51.00	4.17	65.00	2.57	79.00	1.74	93.00	1.25
51.25	4.13	65.25	2.55	79.25	1.73	93.25	1.25
51.50	4.09	65.50	2.53	79.50	1.72	93.50	1.24
51.75	4.05	65.75	2.51	79.75	1.71	93.75	1.23
52.00	4.01	66.00	2.49	80.00	1.70	94.00	1.23
52.25	3.97	66.25	2.47	80.25	1.68	94.25	1.22
52.50	3.94	66.50	2.45	80.50	1.67	94.50	1.22
52.75	3.90	66.75	2.44	80.75	1.66	94.75	1.21
53.00	3.86	67.00	2.42	81.00	1.65	95.00	1.20
53.25	3.83	67.25	2.40	81.25	1.64	95.25	1.20
53.50	3.79	67.50	2.38	81.50	1.63	95.50	1.19
53.75	3.76	67.75	2.36	81.75	1.62	95.75	1.18
54.00	3.72	68.00	2.35	82.00	1.61	96.00	1.18

Table 3 – 40%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

## Meters 1 Electric Meter

Time Avg: 50%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 4.65 55.8 Inches

BioInitiative ft. 368.30 4419.6 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	217028.87	10.25	129.11	20.25	33.08	30.25	14.82
0.50	54257.22	10.50	123.03	20.50	32.28	30.50	14.58
0.75	24114.32	10.75	117.38	20.75	31.50	30.75	14.35
1.00	13564.30	11.00	112.10	21.00	30.76	31.00	14.11
1.25	8681.15	11.25	107.17	21.25	30.04	31.25	13.89
1.50	6028.58	11.50	102.57	21.50	29.34	31.50	13.67
1.75	4429.16	11.75	98.25	21.75	28.67	31.75	13.46
2.00	3391.08	12.00	94.20	22.00	28.03	32.00	13.25
2.25	2679.37	12.25	90.39	22.25	27.40	32.25	13.04
2.50	2170.29	12.50	86.81	22.50	26.79	32.50	12.84
2.75	1793.63	12.75	83.44	22.75	26.21	32.75	12.65
3.00	1507.14	13.00	80.26	23.00	25.64	33.00	12.46
3.25	1284.19	13.25	77.26	23.25	25.09	33.25	12.27
3.50	1107.29	13.50	74.43	23.50	24.56	33.50	12.09
3.75	964.57	13.75	71.75	23.75	24.05	33.75	11.91
4.00	847.77	14.00	69.21	24.00	23.55	34.00	11.73
4.25	750.96	14.25	66.80	24.25	23.07	34.25	11.56
4.50	669.84	14.50	64.52	24.50	22.60	34.50	11.40
4.75	601.19	14.75	62.35	24.75	22.14	34.75	11.23
5.00	542.57	15.00	60.29	25.00	21.70	35.00	11.07
5.25	492.13	15.25	58.33	25.25	21.28	35.25	10.92
5.50	448.41	15.50	56.46	25.50	20.86	35.50	10.76
5.75	410.26	15.75	54.68	25.75	20.46	35.75	10.61
6.00	376.79	16.00	52.99	26.00	20.07	36.00	10.47
6.25	347.25	16.25	51.37	26.25	19.69	36.25	10.32
6.50	321.05	16.50	49.82	26.50	19.32	36.50	10.18
6.75	297.71	16.75	48.35	26.75	18.96	36.75	10.04
7.00	276.82	17.00	46.94	27.00	18.61	37.00	9.91
7.25	258.06	17.25	45.58	27.25	18.27	37.25	9.78
7.50	241.14	17.50	44.29	27.50	17.94	37.50	9.65
7.75	225.84	17.75	43.05	27.75	17.61	37.75	9.52
8.00	211.94	18.00	41.87	28.00	17.30	38.00	9.39
8.25	199.29	18.25	40.73	28.25	17.00	38.25	9.27
8.50	187.74	18.50	39.63	28.50	16.70	38.50	9.15
8.75	177.17	18.75	38.58	28.75	16.41	38.75	9.03
9.00	167.46	19.00	37.57	29.00	16.13	39.00	8.92
9.25	158.53	19.25	36.60	29.25	15.85	39.25	8.80
9.50	150.30	19.50	35.67	29.50	15.59	39.50	8.69
9.75	142.69	19.75	34.77	29.75	15.33	39.75	8.58
10.00	135.64	20.00	33.91	30.00	15.07	40.00	8.48

### Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 50%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 4.65

55.80 Inches

BioInitiative ft. 368.30

4419.57 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	8.37	54.25	4.61	68.25	2.91	82.25	2.01
40.50	8.27	54.50	4.57	68.50	2.89	82.50	1.99
40.75	8.17	54.75	4.53	68.75	2.87	82.75	1.98
41.00	8.07	55.00	4.48	69.00	2.85	83.00	1.97
41.25	7.97	55.25	4.44	69.25	2.83	83.25	1.96
41.50	7.88	55.50	4.40	69.50	2.81	83.50	1.95
41.75	7.78	55.75	4.36	69.75	2.79	83.75	1.93
42.00	7.69	56.00	4.33	70.00	2.77	84.00	1.92
42.25	7.60	56.25	4.29	70.25	2.75	84.25	1.91
42.50	7.51	56.50	4.25	70.50	2.73	84.50	1.90
42.75	7.42	56.75	4.21	70.75	2.71	84.75	1.89
43.00	7.34	57.00	4.17	71.00	2.69	85.00	1.88
43.25	7.25	57.25	4.14	71.25	2.67	85.25	1.87
43.50	7.17	57.50	4.10	71.50	2.65	85.50	1.86
43.75	7.09	57.75	4.07	71.75	2.63	85.75	1.84
44.00	7.01	58.00	4.03	72.00	2.62	86.00	1.83
44.25	6.93	58.25	4.00	72.25	2.60	86.25	1.82
44.50	6.85	58.50	3.96	72.50	2.58	86.50	1.81
44.75	6.77	58.75	3.93	72.75	2.56	86.75	1.80
45.00	6.70	59.00	3.90	73.00	2.55	87.00	1.79
45.25	6.62	59.25	3.86	73.25	2.53	87.25	1.78
45.50	6.55	59.50	3.83	73.50	2.51	87.50	1.77
45.75	6.48	59.75	3.80	73.75	2.49	87.75	1.76
46.00	6.41	60.00	3.77	74.00	2.48	88.00	1.75
46.25	6.34	60.25	3.74	74.25	2.46	88.25	1.74
46.50	6.27	60.50	3.71	74.50	2.44	88.50	1.73
46.75	6.21	60.75	3.68	74.75	2.43	88.75	1.72
47.00	6.14	61.00	3.65	75.00	2.41	89.00	1.71
47.25	6.08	61.25	3.62	75.25	2.40	89.25	1.70
47.50	6.01	61.50	3.59	75.50	2.38	89.50	1.69
47.75	5.95	61.75	3.56	75.75	2.36	89.75	1.68
48.00	5.89	62.00	3.53	76.00	2.35	90.00	1.67
48.25	5.83	62.25	3.50	76.25	2.33	90.25	1.67
48.50	5.77	62.50	3.47	76.50	2.32	90.50	1.66
48.75	5.71	62.75	3.44	76.75	2.30	90.75	1.65
49.00	5.65	63.00	3.42	77.00	2.29	91.00	1.64
49.25	5.59	63.25	3.39	77.25	2.27	91.25	1.63
49.50	5.54	63.50	3.36	77.50	2.26	91.50	1.62
49.75	5.48	63.75	3.34	77.75	2.24	91.75	1.61
50.00	5.43	64.00	3.31	78.00	2.23	92.00	1.60
50.25	5.37	64.25	3.29	78.25	2.22	92.25	1.59
50.50	5.32	64.50	3.26	78.50	2.20	92.50	1.59
50.75	5.27	64.75	3.24	78.75	2.19	92.75	1.58
51.00	5.22	65.00	3.21	79.00	2.17	93.00	1.57
51.25	5.16	65.25	3.19	79.25	2.16	93.25	1.56
51.50	5.11	65.50	3.16	79.50	2.15	93.50	1.55
51.75	5.06	65.75	3.14	79.75	2.13	93.75	1.54
52.00	5.02	66.00	3.11	80.00	2.12	94.00	1.54
52.25	4.97	66.25	3.09	80.25	2.11	94.25	1.53
52.50	4.92	66.50	3.07	80.50	2.09	94.50	1.52
52.75	4.87	66.75	3.04	80.75	2.08	94.75	1.51
53.00	4.83	67.00	3.02	81.00	2.07	95.00	1.50
53.25	4.78	67.25	3.00	81.25	2.05	95.25	1.50
53.50	4.74	67.50	2.98	81.50	2.04	95.50	1.49
53.75	4.70	67.75	2.96	81.75	2.03	95.75	1.48
54.00	4.65	68.00	2.93	82.00	2.02	96.00	1.47

Table 3 – 50%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 60%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 5.09                      61.1 Inches

BioInitiative ft. 403.45                      4841.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	260434.65	10.25	154.93	20.25	39.69	30.25	17.79
0.50	65108.66	10.50	147.64	20.50	38.73	30.50	17.50
0.75	28937.18	10.75	140.85	20.75	37.80	30.75	17.21
1.00	16277.17	11.00	134.52	21.00	36.91	31.00	16.94
1.25	10417.39	11.25	128.61	21.25	36.05	31.25	16.67
1.50	7234.30	11.50	123.08	21.50	35.21	31.50	16.40
1.75	5314.99	11.75	117.90	21.75	34.41	31.75	16.15
2.00	4069.29	12.00	113.04	22.00	33.63	32.00	15.90
2.25	3215.24	12.25	108.47	22.25	32.88	32.25	15.65
2.50	2604.35	12.50	104.17	22.50	32.15	32.50	15.41
2.75	2152.35	12.75	100.13	22.75	31.45	32.75	15.18
3.00	1808.57	13.00	96.31	23.00	30.77	33.00	14.95
3.25	1541.03	13.25	92.71	23.25	30.11	33.25	14.72
3.50	1328.75	13.50	89.31	23.50	29.47	33.50	14.50
3.75	1157.49	13.75	86.09	23.75	28.86	33.75	14.29
4.00	1017.32	14.00	83.05	24.00	28.26	34.00	14.08
4.25	901.16	14.25	80.16	24.25	27.68	34.25	13.88
4.50	803.81	14.50	77.42	24.50	27.12	34.50	13.68
4.75	721.43	14.75	74.82	24.75	26.57	34.75	13.48
5.00	651.09	15.00	72.34	25.00	26.04	35.00	13.29
5.25	590.55	15.25	69.99	25.25	25.53	35.25	13.10
5.50	538.09	15.50	67.75	25.50	25.03	35.50	12.92
5.75	492.32	15.75	65.62	25.75	24.55	35.75	12.74
6.00	452.14	16.00	63.58	26.00	24.08	36.00	12.56
6.25	416.70	16.25	61.64	26.25	23.62	36.25	12.39
6.50	385.26	16.50	59.79	26.50	23.18	36.50	12.22
6.75	357.25	16.75	58.02	26.75	22.75	36.75	12.05
7.00	332.19	17.00	56.32	27.00	22.33	37.00	11.89
7.25	309.67	17.25	54.70	27.25	21.92	37.25	11.73
7.50	289.37	17.50	53.15	27.50	21.52	37.50	11.57
7.75	271.00	17.75	51.66	27.75	21.14	37.75	11.42
8.00	254.33	18.00	50.24	28.00	20.76	38.00	11.27
8.25	239.15	18.25	48.87	28.25	20.40	38.25	11.13
8.50	225.29	18.50	47.56	28.50	20.04	38.50	10.98
8.75	212.60	18.75	46.30	28.75	19.69	38.75	10.84
9.00	200.95	19.00	45.09	29.00	19.35	39.00	10.70
9.25	190.24	19.25	43.93	29.25	19.03	39.25	10.57
9.50	180.36	19.50	42.81	29.50	18.70	39.50	10.43
9.75	171.23	19.75	41.73	29.75	18.39	39.75	10.30
10.00	162.77	20.00	40.69	30.00	18.09	40.00	10.17

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 60%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 5.09

61.12 Inches

BioInitiative ft. 403.45

4841.40 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	10.05	54.25	5.53	68.25	3.49	82.25	2.41
40.50	9.92	54.50	5.48	68.50	3.47	82.50	2.39
40.75	9.80	54.75	5.43	68.75	3.44	82.75	2.38
41.00	9.68	55.00	5.38	69.00	3.42	83.00	2.36
41.25	9.57	55.25	5.33	69.25	3.39	83.25	2.35
41.50	9.45	55.50	5.28	69.50	3.37	83.50	2.33
41.75	9.34	55.75	5.24	69.75	3.35	83.75	2.32
42.00	9.23	56.00	5.19	70.00	3.32	84.00	2.31
42.25	9.12	56.25	5.14	70.25	3.30	84.25	2.29
42.50	9.01	56.50	5.10	70.50	3.27	84.50	2.28
42.75	8.91	56.75	5.05	70.75	3.25	84.75	2.27
43.00	8.80	57.00	5.01	71.00	3.23	85.00	2.25
43.25	8.70	57.25	4.97	71.25	3.21	85.25	2.24
43.50	8.60	57.50	4.92	71.50	3.18	85.50	2.23
43.75	8.50	57.75	4.88	71.75	3.16	85.75	2.21
44.00	8.41	58.00	4.84	72.00	3.14	86.00	2.20
44.25	8.31	58.25	4.80	72.25	3.12	86.25	2.19
44.50	8.22	58.50	4.76	72.50	3.10	86.50	2.18
44.75	8.13	58.75	4.72	72.75	3.08	86.75	2.16
45.00	8.04	59.00	4.68	73.00	3.05	87.00	2.15
45.25	7.95	59.25	4.64	73.25	3.03	87.25	2.14
45.50	7.86	59.50	4.60	73.50	3.01	87.50	2.13
45.75	7.78	59.75	4.56	73.75	2.99	87.75	2.11
46.00	7.69	60.00	4.52	74.00	2.97	88.00	2.10
46.25	7.61	60.25	4.48	74.25	2.95	88.25	2.09
46.50	7.53	60.50	4.45	74.50	2.93	88.50	2.08
46.75	7.45	60.75	4.41	74.75	2.91	88.75	2.07
47.00	7.37	61.00	4.37	75.00	2.89	89.00	2.05
47.25	7.29	61.25	4.34	75.25	2.87	89.25	2.04
47.50	7.21	61.50	4.30	75.50	2.86	89.50	2.03
47.75	7.14	61.75	4.27	75.75	2.84	89.75	2.02
48.00	7.06	62.00	4.23	76.00	2.82	90.00	2.01
48.25	6.99	62.25	4.20	76.25	2.80	90.25	2.00
48.50	6.92	62.50	4.17	76.50	2.78	90.50	1.99
48.75	6.85	62.75	4.13	76.75	2.76	90.75	1.98
49.00	6.78	63.00	4.10	77.00	2.75	91.00	1.97
49.25	6.71	63.25	4.07	77.25	2.73	91.25	1.95
49.50	6.64	63.50	4.04	77.50	2.71	91.50	1.94
49.75	6.58	63.75	4.01	77.75	2.69	91.75	1.93
50.00	6.51	64.00	3.97	78.00	2.68	92.00	1.92
50.25	6.45	64.25	3.94	78.25	2.66	92.25	1.91
50.50	6.38	64.50	3.91	78.50	2.64	92.50	1.90
50.75	6.32	64.75	3.88	78.75	2.62	92.75	1.89
51.00	6.26	65.00	3.85	79.00	2.61	93.00	1.88
51.25	6.20	65.25	3.82	79.25	2.59	93.25	1.87
51.50	6.14	65.50	3.79	79.50	2.58	93.50	1.86
51.75	6.08	65.75	3.77	79.75	2.56	93.75	1.85
52.00	6.02	66.00	3.74	80.00	2.54	94.00	1.84
52.25	5.96	66.25	3.71	80.25	2.53	94.25	1.83
52.50	5.91	66.50	3.68	80.50	2.51	94.50	1.82
52.75	5.85	66.75	3.65	80.75	2.50	94.75	1.81
53.00	5.79	67.00	3.63	81.00	2.48	95.00	1.80
53.25	5.74	67.25	3.60	81.25	2.47	95.25	1.79
53.50	5.69	67.50	3.57	81.50	2.45	95.50	1.78
53.75	5.63	67.75	3.55	81.75	2.44	95.75	1.78
54.00	5.58	68.00	3.52	82.00	2.42	96.00	1.77

Table 3 – 60%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 70%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 5.50                      66.0 Inches

BioInitiative ft. 435.78                      5229.3 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	303840.42	10.25	180.75	20.25	46.31	30.25	20.75
0.50	75960.11	10.50	172.25	20.50	45.19	30.50	20.41
0.75	33760.05	10.75	164.33	20.75	44.11	30.75	20.08
1.00	18990.03	11.00	156.94	21.00	43.06	31.00	19.76
1.25	12153.62	11.25	150.04	21.25	42.05	31.25	19.45
1.50	8440.01	11.50	143.59	21.50	41.08	31.50	19.14
1.75	6200.82	11.75	137.55	21.75	40.14	31.75	18.84
2.00	4747.51	12.00	131.88	22.00	39.24	32.00	18.54
2.25	3751.12	12.25	126.55	22.25	38.36	32.25	18.26
2.50	3038.40	12.50	121.54	22.50	37.51	32.50	17.98
2.75	2511.08	12.75	116.82	22.75	36.69	32.75	17.71
3.00	2110.00	13.00	112.37	23.00	35.90	33.00	17.44
3.25	1797.87	13.25	108.17	23.25	35.13	33.25	17.18
3.50	1550.21	13.50	104.20	23.50	34.39	33.50	16.92
3.75	1350.40	13.75	100.44	23.75	33.67	33.75	16.67
4.00	1186.88	14.00	96.89	24.00	32.97	34.00	16.43
4.25	1051.35	14.25	93.52	24.25	32.29	34.25	16.19
4.50	937.78	14.50	90.32	24.50	31.64	34.50	15.95
4.75	841.66	14.75	87.29	24.75	31.00	34.75	15.73
5.00	759.60	15.00	84.40	25.00	30.38	35.00	15.50
5.25	688.98	15.25	81.66	25.25	29.79	35.25	15.28
5.50	627.77	15.50	79.04	25.50	29.20	35.50	15.07
5.75	574.37	15.75	76.55	25.75	28.64	35.75	14.86
6.00	527.50	16.00	74.18	26.00	28.09	36.00	14.65
6.25	486.14	16.25	71.91	26.25	27.56	36.25	14.45
6.50	449.47	16.50	69.75	26.50	27.04	36.50	14.25
6.75	416.79	16.75	67.69	26.75	26.54	36.75	14.06
7.00	387.55	17.00	65.71	27.00	26.05	37.00	13.87
7.25	361.28	17.25	63.82	27.25	25.57	37.25	13.69
7.50	337.60	17.50	62.01	27.50	25.11	37.50	13.50
7.75	316.17	17.75	60.27	27.75	24.66	37.75	13.33
8.00	296.72	18.00	58.61	28.00	24.22	38.00	13.15
8.25	279.01	18.25	57.02	28.25	23.80	38.25	12.98
8.50	262.84	18.50	55.49	28.50	23.38	38.50	12.81
8.75	248.03	18.75	54.02	28.75	22.97	38.75	12.65
9.00	234.44	19.00	52.60	29.00	22.58	39.00	12.49
9.25	221.94	19.25	51.25	29.25	22.20	39.25	12.33
9.50	210.42	19.50	49.94	29.50	21.82	39.50	12.17
9.75	199.76	19.75	48.68	29.75	21.46	39.75	12.02
10.00	189.90	20.00	47.48	30.00	21.10	40.00	11.87

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 70%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 5.50

66.02 Inches

BioInitiative ft. 435.78

5229.31 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	11.72	54.25	6.45	68.25	4.08	82.25	2.81
40.50	11.58	54.50	6.39	68.50	4.05	82.50	2.79
40.75	11.44	54.75	6.34	68.75	4.02	82.75	2.77
41.00	11.30	55.00	6.28	69.00	3.99	83.00	2.76
41.25	11.16	55.25	6.22	69.25	3.96	83.25	2.74
41.50	11.03	55.50	6.17	69.50	3.93	83.50	2.72
41.75	10.89	55.75	6.11	69.75	3.90	83.75	2.71
42.00	10.77	56.00	6.06	70.00	3.88	84.00	2.69
42.25	10.64	56.25	6.00	70.25	3.85	84.25	2.68
42.50	10.51	56.50	5.95	70.50	3.82	84.50	2.66
42.75	10.39	56.75	5.90	70.75	3.79	84.75	2.64
43.00	10.27	57.00	5.84	71.00	3.77	85.00	2.63
43.25	10.15	57.25	5.79	71.25	3.74	85.25	2.61
43.50	10.04	57.50	5.74	71.50	3.71	85.50	2.60
43.75	9.92	57.75	5.69	71.75	3.69	85.75	2.58
44.00	9.81	58.00	5.65	72.00	3.66	86.00	2.57
44.25	9.70	58.25	5.60	72.25	3.64	86.25	2.55
44.50	9.59	58.50	5.55	72.50	3.61	86.50	2.54
44.75	9.48	58.75	5.50	72.75	3.59	86.75	2.52
45.00	9.38	59.00	5.46	73.00	3.56	87.00	2.51
45.25	9.27	59.25	5.41	73.25	3.54	87.25	2.49
45.50	9.17	59.50	5.36	73.50	3.52	87.50	2.48
45.75	9.07	59.75	5.32	73.75	3.49	87.75	2.47
46.00	8.97	60.00	5.28	74.00	3.47	88.00	2.45
46.25	8.88	60.25	5.23	74.25	3.44	88.25	2.44
46.50	8.78	60.50	5.19	74.50	3.42	88.50	2.42
46.75	8.69	60.75	5.15	74.75	3.40	88.75	2.41
47.00	8.60	61.00	5.10	75.00	3.38	89.00	2.40
47.25	8.51	61.25	5.06	75.25	3.35	89.25	2.38
47.50	8.42	61.50	5.02	75.50	3.33	89.50	2.37
47.75	8.33	61.75	4.98	75.75	3.31	89.75	2.36
48.00	8.24	62.00	4.94	76.00	3.29	90.00	2.34
48.25	8.16	62.25	4.90	76.25	3.27	90.25	2.33
48.50	8.07	62.50	4.86	76.50	3.24	90.50	2.32
48.75	7.99	62.75	4.82	76.75	3.22	90.75	2.31
49.00	7.91	63.00	4.78	77.00	3.20	91.00	2.29
49.25	7.83	63.25	4.75	77.25	3.18	91.25	2.28
49.50	7.75	63.50	4.71	77.50	3.16	91.50	2.27
49.75	7.67	63.75	4.67	77.75	3.14	91.75	2.26
50.00	7.60	64.00	4.64	78.00	3.12	92.00	2.24
50.25	7.52	64.25	4.60	78.25	3.10	92.25	2.23
50.50	7.45	64.50	4.56	78.50	3.08	92.50	2.22
50.75	7.37	64.75	4.53	78.75	3.06	92.75	2.21
51.00	7.30	65.00	4.49	79.00	3.04	93.00	2.20
51.25	7.23	65.25	4.46	79.25	3.02	93.25	2.18
51.50	7.16	65.50	4.43	79.50	3.00	93.50	2.17
51.75	7.09	65.75	4.39	79.75	2.99	93.75	2.16
52.00	7.02	66.00	4.36	80.00	2.97	94.00	2.15
52.25	6.96	66.25	4.33	80.25	2.95	94.25	2.14
52.50	6.89	66.50	4.29	80.50	2.93	94.50	2.13
52.75	6.82	66.75	4.26	80.75	2.91	94.75	2.12
53.00	6.76	67.00	4.23	81.00	2.89	95.00	2.10
53.25	6.70	67.25	4.20	81.25	2.88	95.25	2.09
53.50	6.63	67.50	4.17	81.50	2.86	95.50	2.08
53.75	6.57	67.75	4.14	81.75	2.84	95.75	2.07
54.00	6.51	68.00	4.11	82.00	2.82	96.00	2.06

Table 3 – 70%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 80%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 5.88 70.6 Inches

BioInitiative ft. 465.86 5590.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	347246.20	10.25	206.57	20.25	52.93	30.25	23.72
0.50	86811.55	10.50	196.85	20.50	51.64	30.50	23.33
0.75	38582.91	10.75	187.80	20.75	50.41	30.75	22.95
1.00	21702.89	11.00	179.36	21.00	49.21	31.00	22.58
1.25	13889.85	11.25	171.48	21.25	48.06	31.25	22.22
1.50	9645.73	11.50	164.11	21.50	46.95	31.50	21.87
1.75	7086.66	11.75	157.20	21.75	45.88	31.75	21.53
2.00	5425.72	12.00	150.71	22.00	44.84	32.00	21.19
2.25	4286.99	12.25	144.63	22.25	43.84	32.25	20.87
2.50	3472.46	12.50	138.90	22.50	42.87	32.50	20.55
2.75	2869.80	12.75	133.50	22.75	41.93	32.75	20.23
3.00	2411.43	13.00	128.42	23.00	41.03	33.00	19.93
3.25	2054.71	13.25	123.62	23.25	40.15	33.25	19.63
3.50	1771.66	13.50	119.08	23.50	39.30	33.50	19.34
3.75	1543.32	13.75	114.79	23.75	38.48	33.75	19.05
4.00	1356.43	14.00	110.73	24.00	37.68	34.00	18.77
4.25	1201.54	14.25	106.88	24.25	36.91	34.25	18.50
4.50	1071.75	14.50	103.22	24.50	36.16	34.50	18.23
4.75	961.90	14.75	99.75	24.75	35.43	34.75	17.97
5.00	868.12	15.00	96.46	25.00	34.72	35.00	17.72
5.25	787.41	15.25	93.32	25.25	34.04	35.25	17.47
5.50	717.45	15.50	90.33	25.50	33.38	35.50	17.22
5.75	656.42	15.75	87.49	25.75	32.73	35.75	16.98
6.00	602.86	16.00	84.78	26.00	32.10	36.00	16.75
6.25	555.59	16.25	82.19	26.25	31.50	36.25	16.52
6.50	513.68	16.50	79.72	26.50	30.90	36.50	16.29
6.75	476.33	16.75	77.35	26.75	30.33	36.75	16.07
7.00	442.92	17.00	75.10	27.00	29.77	37.00	15.85
7.25	412.90	17.25	72.94	27.25	29.23	37.25	15.64
7.50	385.83	17.50	70.87	27.50	28.70	37.50	15.43
7.75	361.34	17.75	68.88	27.75	28.18	37.75	15.23
8.00	339.11	18.00	66.98	28.00	27.68	38.00	15.03
8.25	318.87	18.25	65.16	28.25	27.19	38.25	14.83
8.50	300.39	18.50	63.41	28.50	26.72	38.50	14.64
8.75	283.47	18.75	61.73	28.75	26.26	38.75	14.45
9.00	267.94	19.00	60.12	29.00	25.81	39.00	14.27
9.25	253.65	19.25	58.57	29.25	25.37	39.25	14.09
9.50	240.48	19.50	57.08	29.50	24.94	39.50	13.91
9.75	228.30	19.75	55.64	29.75	24.52	39.75	13.74
10.00	217.03	20.00	54.26	30.00	24.11	40.00	13.56

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 80%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 5.88

70.58 Inches

BioInitiative ft. 465.86

5590.36 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	13.40	54.25	7.37	68.25	4.66	82.25	3.21
40.50	13.23	54.50	7.31	68.50	4.63	82.50	3.19
40.75	13.07	54.75	7.24	68.75	4.59	82.75	3.17
41.00	12.91	55.00	7.17	69.00	4.56	83.00	3.15
41.25	12.75	55.25	7.11	69.25	4.53	83.25	3.13
41.50	12.60	55.50	7.05	69.50	4.49	83.50	3.11
41.75	12.45	55.75	6.98	69.75	4.46	83.75	3.09
42.00	12.30	56.00	6.92	70.00	4.43	84.00	3.08
42.25	12.16	56.25	6.86	70.25	4.40	84.25	3.06
42.50	12.02	56.50	6.80	70.50	4.37	84.50	3.04
42.75	11.88	56.75	6.74	70.75	4.34	84.75	3.02
43.00	11.74	57.00	6.68	71.00	4.31	85.00	3.00
43.25	11.60	57.25	6.62	71.25	4.28	85.25	2.99
43.50	11.47	57.50	6.56	71.50	4.25	85.50	2.97
43.75	11.34	57.75	6.51	71.75	4.22	85.75	2.95
44.00	11.21	58.00	6.45	72.00	4.19	86.00	2.93
44.25	11.08	58.25	6.40	72.25	4.16	86.25	2.92
44.50	10.96	58.50	6.34	72.50	4.13	86.50	2.90
44.75	10.84	58.75	6.29	72.75	4.10	86.75	2.88
45.00	10.72	59.00	6.23	73.00	4.07	87.00	2.87
45.25	10.60	59.25	6.18	73.25	4.04	87.25	2.85
45.50	10.48	59.50	6.13	73.50	4.02	87.50	2.83
45.75	10.37	59.75	6.08	73.75	3.99	87.75	2.82
46.00	10.26	60.00	6.03	74.00	3.96	88.00	2.80
46.25	10.15	60.25	5.98	74.25	3.94	88.25	2.79
46.50	10.04	60.50	5.93	74.50	3.91	88.50	2.77
46.75	9.93	60.75	5.88	74.75	3.88	88.75	2.76
47.00	9.82	61.00	5.83	75.00	3.86	89.00	2.74
47.25	9.72	61.25	5.79	75.25	3.83	89.25	2.72
47.50	9.62	61.50	5.74	75.50	3.81	89.50	2.71
47.75	9.52	61.75	5.69	75.75	3.78	89.75	2.69
48.00	9.42	62.00	5.65	76.00	3.76	90.00	2.68
48.25	9.32	62.25	5.60	76.25	3.73	90.25	2.66
48.50	9.23	62.50	5.56	76.50	3.71	90.50	2.65
48.75	9.13	62.75	5.51	76.75	3.68	90.75	2.64
49.00	9.04	63.00	5.47	77.00	3.66	91.00	2.62
49.25	8.95	63.25	5.42	77.25	3.64	91.25	2.61
49.50	8.86	63.50	5.38	77.50	3.61	91.50	2.59
49.75	8.77	63.75	5.34	77.75	3.59	91.75	2.58
50.00	8.68	64.00	5.30	78.00	3.57	92.00	2.56
50.25	8.59	64.25	5.26	78.25	3.54	92.25	2.55
50.50	8.51	64.50	5.22	78.50	3.52	92.50	2.54
50.75	8.43	64.75	5.18	78.75	3.50	92.75	2.52
51.00	8.34	65.00	5.14	79.00	3.48	93.00	2.51
51.25	8.26	65.25	5.10	79.25	3.46	93.25	2.50
51.50	8.18	65.50	5.06	79.50	3.43	93.50	2.48
51.75	8.10	65.75	5.02	79.75	3.41	93.75	2.47
52.00	8.03	66.00	4.98	80.00	3.39	94.00	2.46
52.25	7.95	66.25	4.94	80.25	3.37	94.25	2.44
52.50	7.87	66.50	4.91	80.50	3.35	94.50	2.43
52.75	7.80	66.75	4.87	80.75	3.33	94.75	2.42
53.00	7.73	67.00	4.83	81.00	3.31	95.00	2.40
53.25	7.65	67.25	4.80	81.25	3.29	95.25	2.39
53.50	7.58	67.50	4.76	81.50	3.27	95.50	2.38
53.75	7.51	67.75	4.73	81.75	3.25	95.75	2.37
54.00	7.44	68.00	4.69	82.00	3.23	96.00	2.35

Table 3 – 80%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 90%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 6.24                      74.9 Inches

BioInitiative ft. 494.12                      5929.5 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	390651.97	10.25	232.39	20.25	59.54	30.25	26.68
0.50	97662.99	10.50	221.46	20.50	58.10	30.50	26.25
0.75	43405.77	10.75	211.28	20.75	56.71	30.75	25.82
1.00	24415.75	11.00	201.78	21.00	55.36	31.00	25.41
1.25	15626.08	11.25	192.91	21.25	54.07	31.25	25.00
1.50	10851.44	11.50	184.62	21.50	52.82	31.50	24.61
1.75	7972.49	11.75	176.85	21.75	51.61	31.75	24.22
2.00	6103.94	12.00	169.55	22.00	50.45	32.00	23.84
2.25	4822.86	12.25	162.70	22.25	49.32	32.25	23.48
2.50	3906.52	12.50	156.26	22.50	48.23	32.50	23.12
2.75	3228.53	12.75	150.19	22.75	47.17	32.75	22.76
3.00	2712.86	13.00	144.47	23.00	46.15	33.00	22.42
3.25	2311.55	13.25	139.07	23.25	45.17	33.25	22.08
3.50	1993.12	13.50	133.97	23.50	44.21	33.50	21.76
3.75	1736.23	13.75	129.14	23.75	43.29	33.75	21.43
4.00	1525.98	14.00	124.57	24.00	42.39	34.00	21.12
4.25	1351.74	14.25	120.24	24.25	41.52	34.25	20.81
4.50	1205.72	14.50	116.13	24.50	40.68	34.50	20.51
4.75	1082.14	14.75	112.22	24.75	39.86	34.75	20.22
5.00	976.63	15.00	108.51	25.00	39.07	35.00	19.93
5.25	885.83	15.25	104.99	25.25	38.30	35.25	19.65
5.50	807.13	15.50	101.63	25.50	37.55	35.50	19.37
5.75	738.47	15.75	98.43	25.75	36.82	35.75	19.10
6.00	678.22	16.00	95.37	26.00	36.12	36.00	18.84
6.25	625.04	16.25	92.46	26.25	35.43	36.25	18.58
6.50	577.89	16.50	89.68	26.50	34.77	36.50	18.33
6.75	535.87	16.75	87.02	26.75	34.12	36.75	18.08
7.00	498.28	17.00	84.48	27.00	33.49	37.00	17.83
7.25	464.51	17.25	82.05	27.25	32.88	37.25	17.60
7.50	434.06	17.50	79.72	27.50	32.29	37.50	17.36
7.75	406.51	17.75	77.49	27.75	31.71	37.75	17.13
8.00	381.50	18.00	75.36	28.00	31.14	38.00	16.91
8.25	358.73	18.25	73.31	28.25	30.59	38.25	16.69
8.50	337.93	18.50	71.34	28.50	30.06	38.50	16.47
8.75	318.90	18.75	69.45	28.75	29.54	38.75	16.26
9.00	301.43	19.00	67.63	29.00	29.03	39.00	16.05
9.25	285.36	19.25	65.89	29.25	28.54	39.25	15.85
9.50	270.53	19.50	64.21	29.50	28.06	39.50	15.65
9.75	256.84	19.75	62.59	29.75	27.59	39.75	15.45
10.00	244.16	20.00	61.04	30.00	27.13	40.00	15.26

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 90%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 6.24

74.86 Inches

BioInitiative ft. 494.12

5929.48 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	15.07	54.25	8.30	68.25	5.24	82.25	3.61
40.50	14.89	54.50	8.22	68.50	5.20	82.50	3.59
40.75	14.70	54.75	8.15	68.75	5.17	82.75	3.57
41.00	14.52	55.00	8.07	69.00	5.13	83.00	3.54
41.25	14.35	55.25	8.00	69.25	5.09	83.25	3.52
41.50	14.18	55.50	7.93	69.50	5.05	83.50	3.50
41.75	14.01	55.75	7.86	69.75	5.02	83.75	3.48
42.00	13.84	56.00	7.79	70.00	4.98	84.00	3.46
42.25	13.68	56.25	7.72	70.25	4.95	84.25	3.44
42.50	13.52	56.50	7.65	70.50	4.91	84.50	3.42
42.75	13.36	56.75	7.58	70.75	4.88	84.75	3.40
43.00	13.20	57.00	7.51	71.00	4.84	85.00	3.38
43.25	13.05	57.25	7.45	71.25	4.81	85.25	3.36
43.50	12.90	57.50	7.38	71.50	4.78	85.50	3.34
43.75	12.76	57.75	7.32	71.75	4.74	85.75	3.32
44.00	12.61	58.00	7.26	72.00	4.71	86.00	3.30
44.25	12.47	58.25	7.20	72.25	4.68	86.25	3.28
44.50	12.33	58.50	7.13	72.50	4.65	86.50	3.26
44.75	12.19	58.75	7.07	72.75	4.61	86.75	3.24
45.00	12.06	59.00	7.01	73.00	4.58	87.00	3.23
45.25	11.92	59.25	6.95	73.25	4.55	87.25	3.21
45.50	11.79	59.50	6.90	73.50	4.52	87.50	3.19
45.75	11.67	59.75	6.84	73.75	4.49	87.75	3.17
46.00	11.54	60.00	6.78	74.00	4.46	88.00	3.15
46.25	11.41	60.25	6.73	74.25	4.43	88.25	3.14
46.50	11.29	60.50	6.67	74.50	4.40	88.50	3.12
46.75	11.17	60.75	6.62	74.75	4.37	88.75	3.10
47.00	11.05	61.00	6.56	75.00	4.34	89.00	3.08
47.25	10.94	61.25	6.51	75.25	4.31	89.25	3.07
47.50	10.82	61.50	6.46	75.50	4.28	89.50	3.05
47.75	10.71	61.75	6.40	75.75	4.26	89.75	3.03
48.00	10.60	62.00	6.35	76.00	4.23	90.00	3.01
48.25	10.49	62.25	6.30	76.25	4.20	90.25	3.00
48.50	10.38	62.50	6.25	76.50	4.17	90.50	2.98
48.75	10.27	62.75	6.20	76.75	4.14	90.75	2.96
49.00	10.17	63.00	6.15	77.00	4.12	91.00	2.95
49.25	10.07	63.25	6.10	77.25	4.09	91.25	2.93
49.50	9.96	63.50	6.06	77.50	4.07	91.50	2.92
49.75	9.86	63.75	6.01	77.75	4.04	91.75	2.90
50.00	9.77	64.00	5.96	78.00	4.01	92.00	2.88
50.25	9.67	64.25	5.91	78.25	3.99	92.25	2.87
50.50	9.57	64.50	5.87	78.50	3.96	92.50	2.85
50.75	9.48	64.75	5.82	78.75	3.94	92.75	2.84
51.00	9.39	65.00	5.78	79.00	3.91	93.00	2.82
51.25	9.30	65.25	5.73	79.25	3.89	93.25	2.81
51.50	9.21	65.50	5.69	79.50	3.86	93.50	2.79
51.75	9.12	65.75	5.65	79.75	3.84	93.75	2.78
52.00	9.03	66.00	5.61	80.00	3.81	94.00	2.76
52.25	8.94	66.25	5.56	80.25	3.79	94.25	2.75
52.50	8.86	66.50	5.52	80.50	3.77	94.50	2.73
52.75	8.77	66.75	5.48	80.75	3.74	94.75	2.72
53.00	8.69	67.00	5.44	81.00	3.72	95.00	2.71
53.25	8.61	67.25	5.40	81.25	3.70	95.25	2.69
53.50	8.53	67.50	5.36	81.50	3.68	95.50	2.68
53.75	8.45	67.75	5.32	81.75	3.65	95.75	2.66
54.00	8.37	68.00	5.28	82.00	3.63	96.00	2.65

Table 3 – 90%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 100%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 6.58                      78.9 Inches

BioInitiative ft. 520.85                      6250.2 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	434057.75	10.25	258.21	20.25	66.16	30.25	29.65
0.50	108514.44	10.50	246.06	20.50	64.55	30.50	29.16
0.75	48228.64	10.75	234.75	20.75	63.01	30.75	28.69
1.00	27128.61	11.00	224.20	21.00	61.52	31.00	28.23
1.25	17362.31	11.25	214.35	21.25	60.08	31.25	27.78
1.50	12057.16	11.50	205.13	21.50	58.69	31.50	27.34
1.75	8858.32	11.75	196.50	21.75	57.35	31.75	26.91
2.00	6782.15	12.00	188.39	22.00	56.05	32.00	26.49
2.25	5358.74	12.25	180.78	22.25	54.80	32.25	26.08
2.50	4340.58	12.50	173.62	22.50	53.59	32.50	25.68
2.75	3587.25	12.75	166.88	22.75	52.42	32.75	25.29
3.00	3014.29	13.00	160.52	23.00	51.28	33.00	24.91
3.25	2568.39	13.25	154.52	23.25	50.19	33.25	24.54
3.50	2214.58	13.50	148.85	23.50	49.12	33.50	24.17
3.75	1929.15	13.75	143.49	23.75	48.10	33.75	23.82
4.00	1695.54	14.00	138.41	24.00	47.10	34.00	23.47
4.25	1501.93	14.25	133.60	24.25	46.13	34.25	23.13
4.50	1339.68	14.50	129.03	24.50	45.20	34.50	22.79
4.75	1202.38	14.75	124.69	24.75	44.29	34.75	22.47
5.00	1085.14	15.00	120.57	25.00	43.41	35.00	22.15
5.25	984.26	15.25	116.65	25.25	42.55	35.25	21.83
5.50	896.81	15.50	112.92	25.50	41.72	35.50	21.53
5.75	820.53	15.75	109.36	25.75	40.91	35.75	21.23
6.00	753.57	16.00	105.97	26.00	40.13	36.00	20.93
6.25	694.49	16.25	102.74	26.25	39.37	36.25	20.64
6.50	642.10	16.50	99.65	26.50	38.63	36.50	20.36
6.75	595.42	16.75	96.69	26.75	37.91	36.75	20.09
7.00	553.65	17.00	93.87	27.00	37.21	37.00	19.82
7.25	516.12	17.25	91.17	27.25	36.53	37.25	19.55
7.50	482.29	17.50	88.58	27.50	35.87	37.50	19.29
7.75	451.67	17.75	86.11	27.75	35.23	37.75	19.04
8.00	423.88	18.00	83.73	28.00	34.60	38.00	18.79
8.25	398.58	18.25	81.45	28.25	33.99	38.25	18.54
8.50	375.48	18.50	79.27	28.50	33.40	38.50	18.30
8.75	354.33	18.75	77.17	28.75	32.82	38.75	18.07
9.00	334.92	19.00	75.15	29.00	32.26	39.00	17.84
9.25	317.06	19.25	73.21	29.25	31.71	39.25	17.61
9.50	300.59	19.50	71.34	29.50	31.17	39.50	17.39
9.75	285.38	19.75	69.55	29.75	30.65	39.75	17.17
10.00	271.29	20.00	67.82	30.00	30.14	40.00	16.96

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 100%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 6.58

78.91 Inches

BioInitiative ft. 520.85

6250.22 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	16.75	54.25	9.22	68.25	5.82	82.25	4.01
40.50	16.54	54.50	9.13	68.50	5.78	82.50	3.99
40.75	16.34	54.75	9.05	68.75	5.74	82.75	3.96
41.00	16.14	55.00	8.97	69.00	5.70	83.00	3.94
41.25	15.94	55.25	8.89	69.25	5.66	83.25	3.91
41.50	15.75	55.50	8.81	69.50	5.62	83.50	3.89
41.75	15.56	55.75	8.73	69.75	5.58	83.75	3.87
42.00	15.38	56.00	8.65	70.00	5.54	84.00	3.84
42.25	15.20	56.25	8.57	70.25	5.50	84.25	3.82
42.50	15.02	56.50	8.50	70.50	5.46	84.50	3.80
42.75	14.84	56.75	8.42	70.75	5.42	84.75	3.78
43.00	14.67	57.00	8.35	71.00	5.38	85.00	3.75
43.25	14.50	57.25	8.28	71.25	5.34	85.25	3.73
43.50	14.34	57.50	8.21	71.50	5.31	85.50	3.71
43.75	14.17	57.75	8.13	71.75	5.27	85.75	3.69
44.00	14.01	58.00	8.06	72.00	5.23	86.00	3.67
44.25	13.85	58.25	8.00	72.25	5.20	86.25	3.65
44.50	13.70	58.50	7.93	72.50	5.16	86.50	3.63
44.75	13.55	58.75	7.86	72.75	5.13	86.75	3.60
45.00	13.40	59.00	7.79	73.00	5.09	87.00	3.58
45.25	13.25	59.25	7.73	73.25	5.06	87.25	3.56
45.50	13.10	59.50	7.66	73.50	5.02	87.50	3.54
45.75	12.96	59.75	7.60	73.75	4.99	87.75	3.52
46.00	12.82	60.00	7.54	74.00	4.95	88.00	3.50
46.25	12.68	60.25	7.47	74.25	4.92	88.25	3.48
46.50	12.55	60.50	7.41	74.50	4.89	88.50	3.46
46.75	12.41	60.75	7.35	74.75	4.86	88.75	3.44
47.00	12.28	61.00	7.29	75.00	4.82	89.00	3.42
47.25	12.15	61.25	7.23	75.25	4.79	89.25	3.41
47.50	12.02	61.50	7.17	75.50	4.76	89.50	3.39
47.75	11.90	61.75	7.11	75.75	4.73	89.75	3.37
48.00	11.77	62.00	7.06	76.00	4.70	90.00	3.35
48.25	11.65	62.25	7.00	76.25	4.67	90.25	3.33
48.50	11.53	62.50	6.94	76.50	4.64	90.50	3.31
48.75	11.42	62.75	6.89	76.75	4.61	90.75	3.29
49.00	11.30	63.00	6.84	77.00	4.58	91.00	3.28
49.25	11.18	63.25	6.78	77.25	4.55	91.25	3.26
49.50	11.07	63.50	6.73	77.50	4.52	91.50	3.24
49.75	10.96	63.75	6.68	77.75	4.49	91.75	3.22
50.00	10.85	64.00	6.62	78.00	4.46	92.00	3.21
50.25	10.74	64.25	6.57	78.25	4.43	92.25	3.19
50.50	10.64	64.50	6.52	78.50	4.40	92.50	3.17
50.75	10.53	64.75	6.47	78.75	4.37	92.75	3.15
51.00	10.43	65.00	6.42	79.00	4.35	93.00	3.14
51.25	10.33	65.25	6.37	79.25	4.32	93.25	3.12
51.50	10.23	65.50	6.32	79.50	4.29	93.50	3.10
51.75	10.13	65.75	6.28	79.75	4.27	93.75	3.09
52.00	10.03	66.00	6.23	80.00	4.24	94.00	3.07
52.25	9.94	66.25	6.18	80.25	4.21	94.25	3.05
52.50	9.84	66.50	6.13	80.50	4.19	94.50	3.04
52.75	9.75	66.75	6.09	80.75	4.16	94.75	3.02
53.00	9.66	67.00	6.04	81.00	4.13	95.00	3.01
53.25	9.57	67.25	6.00	81.25	4.11	95.25	2.99
53.50	9.48	67.50	5.95	81.50	4.08	95.50	2.97
53.75	9.39	67.75	5.91	81.75	4.06	95.75	2.96
54.00	9.30	68.00	5.87	82.00	4.03	96.00	2.94

Table 3 – 100%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

## Meters 1 Electric Meter

Time Avg: 1%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 1.26 15.1 Inches

BioInitiative ft. 99.44 1193.2 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	15819.79	10.25	9.41	20.25	2.41	30.25	1.08
0.50	3954.95	10.50	8.97	20.50	2.35	30.50	1.06
0.75	1757.75	10.75	8.56	20.75	2.30	30.75	1.05
1.00	988.74	11.00	8.17	21.00	2.24	31.00	1.03
1.25	632.79	11.25	7.81	21.25	2.19	31.25	1.01
1.50	439.44	11.50	7.48	21.50	2.14	31.50	1.00
1.75	322.85	11.75	7.16	21.75	2.09	31.75	0.98
2.00	247.18	12.00	6.87	22.00	2.04	32.00	0.97
2.25	195.31	12.25	6.59	22.25	2.00	32.25	0.95
2.50	158.20	12.50	6.33	22.50	1.95	32.50	0.94
2.75	130.74	12.75	6.08	22.75	1.91	32.75	0.92
3.00	109.86	13.00	5.85	23.00	1.87	33.00	0.91
3.25	93.61	13.25	5.63	23.25	1.83	33.25	0.89
3.50	80.71	13.50	5.43	23.50	1.79	33.50	0.88
3.75	70.31	13.75	5.23	23.75	1.75	33.75	0.87
4.00	61.80	14.00	5.04	24.00	1.72	34.00	0.86
4.25	54.74	14.25	4.87	24.25	1.68	34.25	0.84
4.50	48.83	14.50	4.70	24.50	1.65	34.50	0.83
4.75	43.82	14.75	4.54	24.75	1.61	34.75	0.82
5.00	39.55	15.00	4.39	25.00	1.58	35.00	0.81
5.25	35.87	15.25	4.25	25.25	1.55	35.25	0.80
5.50	32.69	15.50	4.12	25.50	1.52	35.50	0.78
5.75	29.91	15.75	3.99	25.75	1.49	35.75	0.77
6.00	27.46	16.00	3.86	26.00	1.46	36.00	0.76
6.25	25.31	16.25	3.74	26.25	1.43	36.25	0.75
6.50	23.40	16.50	3.63	26.50	1.41	36.50	0.74
6.75	21.70	16.75	3.52	26.75	1.38	36.75	0.73
7.00	20.18	17.00	3.42	27.00	1.36	37.00	0.72
7.25	18.81	17.25	3.32	27.25	1.33	37.25	0.71
7.50	17.58	17.50	3.23	27.50	1.31	37.50	0.70
7.75	16.46	17.75	3.14	27.75	1.28	37.75	0.69
8.00	15.45	18.00	3.05	28.00	1.26	38.00	0.68
8.25	14.53	18.25	2.97	28.25	1.24	38.25	0.68
8.50	13.68	18.50	2.89	28.50	1.22	38.50	0.67
8.75	12.91	18.75	2.81	28.75	1.20	38.75	0.66
9.00	12.21	19.00	2.74	29.00	1.18	39.00	0.65
9.25	11.56	19.25	2.67	29.25	1.16	39.25	0.64
9.50	10.96	19.50	2.60	29.50	1.14	39.50	0.63
9.75	10.40	19.75	2.53	29.75	1.12	39.75	0.63
10.00	9.89	20.00	2.47	30.00	1.10	40.00	0.62

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 1%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 1.26

15.06 Inches

BioInitiative ft. 99.44

1193.22 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.61	54.25	0.34	68.25	0.21	82.25	0.15
40.50	0.60	54.50	0.33	68.50	0.21	82.50	0.15
40.75	0.60	54.75	0.33	68.75	0.21	82.75	0.14
41.00	0.59	55.00	0.33	69.00	0.21	83.00	0.14
41.25	0.58	55.25	0.32	69.25	0.21	83.25	0.14
41.50	0.57	55.50	0.32	69.50	0.20	83.50	0.14
41.75	0.57	55.75	0.32	69.75	0.20	83.75	0.14
42.00	0.56	56.00	0.32	70.00	0.20	84.00	0.14
42.25	0.55	56.25	0.31	70.25	0.20	84.25	0.14
42.50	0.55	56.50	0.31	70.50	0.20	84.50	0.14
42.75	0.54	56.75	0.31	70.75	0.20	84.75	0.14
43.00	0.53	57.00	0.30	71.00	0.20	85.00	0.14
43.25	0.53	57.25	0.30	71.25	0.19	85.25	0.14
43.50	0.52	57.50	0.30	71.50	0.19	85.50	0.14
43.75	0.52	57.75	0.30	71.75	0.19	85.75	0.13
44.00	0.51	58.00	0.29	72.00	0.19	86.00	0.13
44.25	0.50	58.25	0.29	72.25	0.19	86.25	0.13
44.50	0.50	58.50	0.29	72.50	0.19	86.50	0.13
44.75	0.49	58.75	0.29	72.75	0.19	86.75	0.13
45.00	0.49	59.00	0.28	73.00	0.19	87.00	0.13
45.25	0.48	59.25	0.28	73.25	0.18	87.25	0.13
45.50	0.48	59.50	0.28	73.50	0.18	87.50	0.13
45.75	0.47	59.75	0.28	73.75	0.18	87.75	0.13
46.00	0.47	60.00	0.27	74.00	0.18	88.00	0.13
46.25	0.46	60.25	0.27	74.25	0.18	88.25	0.13
46.50	0.46	60.50	0.27	74.50	0.18	88.50	0.13
46.75	0.45	60.75	0.27	74.75	0.18	88.75	0.13
47.00	0.45	61.00	0.27	75.00	0.18	89.00	0.12
47.25	0.44	61.25	0.26	75.25	0.17	89.25	0.12
47.50	0.44	61.50	0.26	75.50	0.17	89.50	0.12
47.75	0.43	61.75	0.26	75.75	0.17	89.75	0.12
48.00	0.43	62.00	0.26	76.00	0.17	90.00	0.12
48.25	0.42	62.25	0.26	76.25	0.17	90.25	0.12
48.50	0.42	62.50	0.25	76.50	0.17	90.50	0.12
48.75	0.42	62.75	0.25	76.75	0.17	90.75	0.12
49.00	0.41	63.00	0.25	77.00	0.17	91.00	0.12
49.25	0.41	63.25	0.25	77.25	0.17	91.25	0.12
49.50	0.40	63.50	0.25	77.50	0.16	91.50	0.12
49.75	0.40	63.75	0.24	77.75	0.16	91.75	0.12
50.00	0.40	64.00	0.24	78.00	0.16	92.00	0.12
50.25	0.39	64.25	0.24	78.25	0.16	92.25	0.12
50.50	0.39	64.50	0.24	78.50	0.16	92.50	0.12
50.75	0.38	64.75	0.24	78.75	0.16	92.75	0.11
51.00	0.38	65.00	0.23	79.00	0.16	93.00	0.11
51.25	0.38	65.25	0.23	79.25	0.16	93.25	0.11
51.50	0.37	65.50	0.23	79.50	0.16	93.50	0.11
51.75	0.37	65.75	0.23	79.75	0.16	93.75	0.11
52.00	0.37	66.00	0.23	80.00	0.15	94.00	0.11
52.25	0.36	66.25	0.23	80.25	0.15	94.25	0.11
52.50	0.36	66.50	0.22	80.50	0.15	94.50	0.11
52.75	0.36	66.75	0.22	80.75	0.15	94.75	0.11
53.00	0.35	67.00	0.22	81.00	0.15	95.00	0.11
53.25	0.35	67.25	0.22	81.25	0.15	95.25	0.11
53.50	0.35	67.50	0.22	81.50	0.15	95.50	0.11
53.75	0.34	67.75	0.22	81.75	0.15	95.75	0.11
54.00	0.34	68.00	0.21	82.00	0.15	96.00	0.11

Table 4 – 1%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 10%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 3.97 47.6 Inches

BioInitiative ft. 314.44 3773.3 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	158197.91	10.25	94.11	20.25	24.11	30.25	10.81
0.50	39549.48	10.50	89.68	20.50	23.53	30.50	10.63
0.75	17577.55	10.75	85.56	20.75	22.96	30.75	10.46
1.00	9887.37	11.00	81.71	21.00	22.42	31.00	10.29
1.25	6327.92	11.25	78.12	21.25	21.90	31.25	10.12
1.50	4394.39	11.50	74.76	21.50	21.39	31.50	9.96
1.75	3228.53	11.75	71.62	21.75	20.90	31.75	9.81
2.00	2471.84	12.00	68.66	22.00	20.43	32.00	9.66
2.25	1953.06	12.25	65.89	22.25	19.97	32.25	9.51
2.50	1581.98	12.50	63.28	22.50	19.53	32.50	9.36
2.75	1307.42	12.75	60.82	22.75	19.10	32.75	9.22
3.00	1098.60	13.00	58.51	23.00	18.69	33.00	9.08
3.25	936.08	13.25	56.32	23.25	18.29	33.25	8.94
3.50	807.13	13.50	54.25	23.50	17.90	33.50	8.81
3.75	703.10	13.75	52.30	23.75	17.53	33.75	8.68
4.00	617.96	14.00	50.45	24.00	17.17	34.00	8.55
4.25	547.40	14.25	48.69	24.25	16.81	34.25	8.43
4.50	488.27	14.50	47.03	24.50	16.47	34.50	8.31
4.75	438.22	14.75	45.45	24.75	16.14	34.75	8.19
5.00	395.49	15.00	43.94	25.00	15.82	35.00	8.07
5.25	358.73	15.25	42.51	25.25	15.51	35.25	7.96
5.50	326.86	15.50	41.15	25.50	15.21	35.50	7.85
5.75	299.05	15.75	39.86	25.75	14.91	35.75	7.74
6.00	274.65	16.00	38.62	26.00	14.63	36.00	7.63
6.25	253.12	16.25	37.44	26.25	14.35	36.25	7.52
6.50	234.02	16.50	36.32	26.50	14.08	36.50	7.42
6.75	217.01	16.75	35.24	26.75	13.82	36.75	7.32
7.00	201.78	17.00	34.21	27.00	13.56	37.00	7.22
7.25	188.11	17.25	33.23	27.25	13.32	37.25	7.13
7.50	175.78	17.50	32.29	27.50	13.07	37.50	7.03
7.75	164.62	17.75	31.38	27.75	12.84	37.75	6.94
8.00	154.49	18.00	30.52	28.00	12.61	38.00	6.85
8.25	145.27	18.25	29.69	28.25	12.39	38.25	6.76
8.50	136.85	18.50	28.89	28.50	12.17	38.50	6.67
8.75	129.14	18.75	28.12	28.75	11.96	38.75	6.58
9.00	122.07	19.00	27.39	29.00	11.76	39.00	6.50
9.25	115.56	19.25	26.68	29.25	11.56	39.25	6.42
9.50	109.56	19.50	26.00	29.50	11.36	39.50	6.34
9.75	104.01	19.75	25.35	29.75	11.17	39.75	6.26
10.00	98.87	20.00	24.72	30.00	10.99	40.00	6.18

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 10%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 3.97

47.64 Inches

BioInitiative ft. 314.44

3773.30 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	6.10	54.25	3.36	68.25	2.12	82.25	1.46
40.50	6.03	54.50	3.33	68.50	2.11	82.50	1.45
40.75	5.95	54.75	3.30	68.75	2.09	82.75	1.44
41.00	5.88	55.00	3.27	69.00	2.08	83.00	1.44
41.25	5.81	55.25	3.24	69.25	2.06	83.25	1.43
41.50	5.74	55.50	3.21	69.50	2.05	83.50	1.42
41.75	5.67	55.75	3.18	69.75	2.03	83.75	1.41
42.00	5.61	56.00	3.15	70.00	2.02	84.00	1.40
42.25	5.54	56.25	3.12	70.25	2.00	84.25	1.39
42.50	5.47	56.50	3.10	70.50	1.99	84.50	1.38
42.75	5.41	56.75	3.07	70.75	1.98	84.75	1.38
43.00	5.35	57.00	3.04	71.00	1.96	85.00	1.37
43.25	5.29	57.25	3.02	71.25	1.95	85.25	1.36
43.50	5.23	57.50	2.99	71.50	1.93	85.50	1.35
43.75	5.17	57.75	2.96	71.75	1.92	85.75	1.34
44.00	5.11	58.00	2.94	72.00	1.91	86.00	1.34
44.25	5.05	58.25	2.91	72.25	1.89	86.25	1.33
44.50	4.99	58.50	2.89	72.50	1.88	86.50	1.32
44.75	4.94	58.75	2.86	72.75	1.87	86.75	1.31
45.00	4.88	59.00	2.84	73.00	1.86	87.00	1.31
45.25	4.83	59.25	2.82	73.25	1.84	87.25	1.30
45.50	4.78	59.50	2.79	73.50	1.83	87.50	1.29
45.75	4.72	59.75	2.77	73.75	1.82	87.75	1.28
46.00	4.67	60.00	2.75	74.00	1.81	88.00	1.28
46.25	4.62	60.25	2.72	74.25	1.79	88.25	1.27
46.50	4.57	60.50	2.70	74.50	1.78	88.50	1.26
46.75	4.52	60.75	2.68	74.75	1.77	88.75	1.26
47.00	4.48	61.00	2.66	75.00	1.76	89.00	1.25
47.25	4.43	61.25	2.64	75.25	1.75	89.25	1.24
47.50	4.38	61.50	2.61	75.50	1.73	89.50	1.23
47.75	4.34	61.75	2.59	75.75	1.72	89.75	1.23
48.00	4.29	62.00	2.57	76.00	1.71	90.00	1.22
48.25	4.25	62.25	2.55	76.25	1.70	90.25	1.21
48.50	4.20	62.50	2.53	76.50	1.69	90.50	1.21
48.75	4.16	62.75	2.51	76.75	1.68	90.75	1.20
49.00	4.12	63.00	2.49	77.00	1.67	91.00	1.19
49.25	4.08	63.25	2.47	77.25	1.66	91.25	1.19
49.50	4.04	63.50	2.45	77.50	1.65	91.50	1.18
49.75	3.99	63.75	2.43	77.75	1.64	91.75	1.17
50.00	3.95	64.00	2.41	78.00	1.63	92.00	1.17
50.25	3.92	64.25	2.40	78.25	1.61	92.25	1.16
50.50	3.88	64.50	2.38	78.50	1.60	92.50	1.16
50.75	3.84	64.75	2.36	78.75	1.59	92.75	1.15
51.00	3.80	65.00	2.34	79.00	1.58	93.00	1.14
51.25	3.76	65.25	2.32	79.25	1.57	93.25	1.14
51.50	3.73	65.50	2.30	79.50	1.56	93.50	1.13
51.75	3.69	65.75	2.29	79.75	1.55	93.75	1.12
52.00	3.66	66.00	2.27	80.00	1.54	94.00	1.12
52.25	3.62	66.25	2.25	80.25	1.54	94.25	1.11
52.50	3.59	66.50	2.24	80.50	1.53	94.50	1.11
52.75	3.55	66.75	2.22	80.75	1.52	94.75	1.10
53.00	3.52	67.00	2.20	81.00	1.51	95.00	1.10
53.25	3.49	67.25	2.19	81.25	1.50	95.25	1.09
53.50	3.45	67.50	2.17	81.50	1.49	95.50	1.08
53.75	3.42	67.75	2.15	81.75	1.48	95.75	1.08
54.00	3.39	68.00	2.14	82.00	1.47	96.00	1.07

Table 4 – 10%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 20%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 5.61                      67.4 Inches

BioInitiative ft. 444.69                      5336.3 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	316395.81	10.25	188.22	20.25	48.22	30.25	21.61
0.50	79098.95	10.50	179.36	20.50	47.05	30.50	21.26
0.75	35155.09	10.75	171.12	20.75	45.93	30.75	20.91
1.00	19774.74	11.00	163.43	21.00	44.84	31.00	20.58
1.25	12655.83	11.25	156.24	21.25	43.79	31.25	20.25
1.50	8788.77	11.50	149.53	21.50	42.78	31.50	19.93
1.75	6457.06	11.75	143.23	21.75	41.80	31.75	19.62
2.00	4943.68	12.00	137.32	22.00	40.86	32.00	19.31
2.25	3906.12	12.25	131.78	22.25	39.94	32.25	19.01
2.50	3163.96	12.50	126.56	22.50	39.06	32.50	18.72
2.75	2614.84	12.75	121.64	22.75	38.21	32.75	18.44
3.00	2197.19	13.00	117.01	23.00	37.38	33.00	18.16
3.25	1872.16	13.25	112.64	23.25	36.58	33.25	17.89
3.50	1614.26	13.50	108.50	23.50	35.81	33.50	17.62
3.75	1406.20	13.75	104.59	23.75	35.06	33.75	17.36
4.00	1235.92	14.00	100.89	24.00	34.33	34.00	17.11
4.25	1094.80	14.25	97.38	24.25	33.63	34.25	16.86
4.50	976.53	14.50	94.05	24.50	32.94	34.50	16.61
4.75	876.44	14.75	90.89	24.75	32.28	34.75	16.38
5.00	790.99	15.00	87.89	25.00	31.64	35.00	16.14
5.25	717.45	15.25	85.03	25.25	31.02	35.25	15.91
5.50	653.71	15.50	82.31	25.50	30.41	35.50	15.69
5.75	598.10	15.75	79.72	25.75	29.82	35.75	15.47
6.00	549.30	16.00	77.25	26.00	29.25	36.00	15.26
6.25	506.23	16.25	74.89	26.25	28.70	36.25	15.05
6.50	468.04	16.50	72.63	26.50	28.16	36.50	14.84
6.75	434.01	16.75	70.48	26.75	27.64	36.75	14.64
7.00	403.57	17.00	68.42	27.00	27.13	37.00	14.44
7.25	376.21	17.25	66.46	27.25	26.63	37.25	14.25
7.50	351.55	17.50	64.57	27.50	26.15	37.50	14.06
7.75	329.24	17.75	62.76	27.75	25.68	37.75	13.88
8.00	308.98	18.00	61.03	28.00	25.22	38.00	13.69
8.25	290.54	18.25	59.37	28.25	24.78	38.25	13.52
8.50	273.70	18.50	57.78	28.50	24.35	38.50	13.34
8.75	258.28	18.75	56.25	28.75	23.92	38.75	13.17
9.00	244.13	19.00	54.78	29.00	23.51	39.00	13.00
9.25	231.11	19.25	53.36	29.25	23.11	39.25	12.84
9.50	219.11	19.50	52.00	29.50	22.72	39.50	12.67
9.75	208.02	19.75	50.70	29.75	22.34	39.75	12.52
10.00	197.75	20.00	49.44	30.00	21.97	40.00	12.36

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 20%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 5.61

67.37 Inches

BioInitiative ft. 444.69

5336.26 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	12.21	54.25	6.72	68.25	4.25	82.25	2.92
40.50	12.06	54.50	6.66	68.50	4.21	82.50	2.91
40.75	11.91	54.75	6.60	68.75	4.18	82.75	2.89
41.00	11.76	55.00	6.54	69.00	4.15	83.00	2.87
41.25	11.62	55.25	6.48	69.25	4.12	83.25	2.85
41.50	11.48	55.50	6.42	69.50	4.09	83.50	2.84
41.75	11.34	55.75	6.36	69.75	4.06	83.75	2.82
42.00	11.21	56.00	6.31	70.00	4.04	84.00	2.80
42.25	11.08	56.25	6.25	70.25	4.01	84.25	2.79
42.50	10.95	56.50	6.19	70.50	3.98	84.50	2.77
42.75	10.82	56.75	6.14	70.75	3.95	84.75	2.75
43.00	10.69	57.00	6.09	71.00	3.92	85.00	2.74
43.25	10.57	57.25	6.03	71.25	3.90	85.25	2.72
43.50	10.45	57.50	5.98	71.50	3.87	85.50	2.71
43.75	10.33	57.75	5.93	71.75	3.84	85.75	2.69
44.00	10.21	58.00	5.88	72.00	3.81	86.00	2.67
44.25	10.10	58.25	5.83	72.25	3.79	86.25	2.66
44.50	9.99	58.50	5.78	72.50	3.76	86.50	2.64
44.75	9.87	58.75	5.73	72.75	3.74	86.75	2.63
45.00	9.77	59.00	5.68	73.00	3.71	87.00	2.61
45.25	9.66	59.25	5.63	73.25	3.69	87.25	2.60
45.50	9.55	59.50	5.59	73.50	3.66	87.50	2.58
45.75	9.45	59.75	5.54	73.75	3.64	87.75	2.57
46.00	9.35	60.00	5.49	74.00	3.61	88.00	2.55
46.25	9.24	60.25	5.45	74.25	3.59	88.25	2.54
46.50	9.15	60.50	5.40	74.50	3.56	88.50	2.52
46.75	9.05	60.75	5.36	74.75	3.54	88.75	2.51
47.00	8.95	61.00	5.31	75.00	3.52	89.00	2.50
47.25	8.86	61.25	5.27	75.25	3.49	89.25	2.48
47.50	8.76	61.50	5.23	75.50	3.47	89.50	2.47
47.75	8.67	61.75	5.19	75.75	3.45	89.75	2.45
48.00	8.58	62.00	5.14	76.00	3.42	90.00	2.44
48.25	8.49	62.25	5.10	76.25	3.40	90.25	2.43
48.50	8.41	62.50	5.06	76.50	3.38	90.50	2.41
48.75	8.32	62.75	5.02	76.75	3.36	90.75	2.40
49.00	8.24	63.00	4.98	77.00	3.34	91.00	2.39
49.25	8.15	63.25	4.94	77.25	3.31	91.25	2.37
49.50	8.07	63.50	4.90	77.50	3.29	91.50	2.36
49.75	7.99	63.75	4.87	77.75	3.27	91.75	2.35
50.00	7.91	64.00	4.83	78.00	3.25	92.00	2.34
50.25	7.83	64.25	4.79	78.25	3.23	92.25	2.32
50.50	7.75	64.50	4.75	78.50	3.21	92.50	2.31
50.75	7.68	64.75	4.72	78.75	3.19	92.75	2.30
51.00	7.60	65.00	4.68	79.00	3.17	93.00	2.29
51.25	7.53	65.25	4.64	79.25	3.15	93.25	2.27
51.50	7.46	65.50	4.61	79.50	3.13	93.50	2.26
51.75	7.38	65.75	4.57	79.75	3.11	93.75	2.25
52.00	7.31	66.00	4.54	80.00	3.09	94.00	2.24
52.25	7.24	66.25	4.51	80.25	3.07	94.25	2.23
52.50	7.17	66.50	4.47	80.50	3.05	94.50	2.21
52.75	7.11	66.75	4.44	80.75	3.03	94.75	2.20
53.00	7.04	67.00	4.41	81.00	3.01	95.00	2.19
53.25	6.97	67.25	4.37	81.25	3.00	95.25	2.18
53.50	6.91	67.50	4.34	81.50	2.98	95.50	2.17
53.75	6.84	67.75	4.31	81.75	2.96	95.75	2.16
54.00	6.78	68.00	4.28	82.00	2.94	96.00	2.15

Table 4 – 20%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 30%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 6.88                      82.5 Inches

BioInitiative ft. 544.63                      6535.6 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	474593.72	10.25	282.33	20.25	72.34	30.25	32.42
0.50	118648.43	10.50	269.04	20.50	70.58	30.50	31.89
0.75	52732.64	10.75	256.68	20.75	68.89	30.75	31.37
1.00	29662.11	11.00	245.14	21.00	67.26	31.00	30.87
1.25	18983.75	11.25	234.37	21.25	65.69	31.25	30.37
1.50	13183.16	11.50	224.29	21.50	64.17	31.50	29.89
1.75	9685.59	11.75	214.85	21.75	62.70	31.75	29.42
2.00	7415.53	12.00	205.99	22.00	61.29	32.00	28.97
2.25	5859.18	12.25	197.67	22.25	59.92	32.25	28.52
2.50	4745.94	12.50	189.84	22.50	58.59	32.50	28.08
2.75	3922.26	12.75	182.47	22.75	57.31	32.75	27.66
3.00	3295.79	13.00	175.52	23.00	56.07	33.00	27.24
3.25	2808.25	13.25	168.95	23.25	54.87	33.25	26.83
3.50	2421.40	13.50	162.76	23.50	53.71	33.50	26.43
3.75	2109.31	13.75	156.89	23.75	52.59	33.75	26.04
4.00	1853.88	14.00	151.34	24.00	51.50	34.00	25.66
4.25	1642.19	14.25	146.07	24.25	50.44	34.25	25.29
4.50	1464.80	14.50	141.08	24.50	49.42	34.50	24.92
4.75	1314.66	14.75	136.34	24.75	48.42	34.75	24.56
5.00	1186.48	15.00	131.83	25.00	47.46	35.00	24.21
5.25	1076.18	15.25	127.54	25.25	46.52	35.25	23.87
5.50	980.57	15.50	123.46	25.50	45.62	35.50	23.54
5.75	897.15	15.75	119.58	25.75	44.74	35.75	23.21
6.00	823.95	16.00	115.87	26.00	43.88	36.00	22.89
6.25	759.35	16.25	112.33	26.25	43.05	36.25	22.57
6.50	702.06	16.50	108.95	26.50	42.24	36.50	22.26
6.75	651.02	16.75	105.72	26.75	41.45	36.75	21.96
7.00	605.35	17.00	102.64	27.00	40.69	37.00	21.67
7.25	564.32	17.25	99.68	27.25	39.95	37.25	21.38
7.50	527.33	17.50	96.86	27.50	39.22	37.50	21.09
7.75	493.85	17.75	94.15	27.75	38.52	37.75	20.81
8.00	463.47	18.00	91.55	28.00	37.83	38.00	20.54
8.25	435.81	18.25	89.06	28.25	37.17	38.25	20.27
8.50	410.55	18.50	86.67	28.50	36.52	38.50	20.01
8.75	387.42	18.75	84.37	28.75	35.89	38.75	19.75
9.00	366.20	19.00	82.17	29.00	35.27	39.00	19.50
9.25	346.67	19.25	80.05	29.25	34.67	39.25	19.25
9.50	328.67	19.50	78.01	29.50	34.08	39.50	19.01
9.75	312.03	19.75	76.04	29.75	33.51	39.75	18.77
10.00	296.62	20.00	74.16	30.00	32.96	40.00	18.54

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 30%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 6.88

82.51 Inches

BioInitiative ft. 544.63

6535.55 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	18.31	54.25	10.08	68.25	6.37	82.25	4.38
40.50	18.08	54.50	9.99	68.50	6.32	82.50	4.36
40.75	17.86	54.75	9.90	68.75	6.28	82.75	4.33
41.00	17.65	55.00	9.81	69.00	6.23	83.00	4.31
41.25	17.43	55.25	9.72	69.25	6.19	83.25	4.28
41.50	17.22	55.50	9.63	69.50	6.14	83.50	4.25
41.75	17.02	55.75	9.54	69.75	6.10	83.75	4.23
42.00	16.82	56.00	9.46	70.00	6.05	84.00	4.20
42.25	16.62	56.25	9.37	70.25	6.01	84.25	4.18
42.50	16.42	56.50	9.29	70.50	5.97	84.50	4.15
42.75	16.23	56.75	9.21	70.75	5.93	84.75	4.13
43.00	16.04	57.00	9.13	71.00	5.88	85.00	4.11
43.25	15.86	57.25	9.05	71.25	5.84	85.25	4.08
43.50	15.68	57.50	8.97	71.50	5.80	85.50	4.06
43.75	15.50	57.75	8.89	71.75	5.76	85.75	4.03
44.00	15.32	58.00	8.82	72.00	5.72	86.00	4.01
44.25	15.15	58.25	8.74	72.25	5.68	86.25	3.99
44.50	14.98	58.50	8.67	72.50	5.64	86.50	3.96
44.75	14.81	58.75	8.59	72.75	5.60	86.75	3.94
45.00	14.65	59.00	8.52	73.00	5.57	87.00	3.92
45.25	14.49	59.25	8.45	73.25	5.53	87.25	3.90
45.50	14.33	59.50	8.38	73.50	5.49	87.50	3.87
45.75	14.17	59.75	8.31	73.75	5.45	87.75	3.85
46.00	14.02	60.00	8.24	74.00	5.42	88.00	3.83
46.25	13.87	60.25	8.17	74.25	5.38	88.25	3.81
46.50	13.72	60.50	8.10	74.50	5.34	88.50	3.79
46.75	13.57	60.75	8.04	74.75	5.31	88.75	3.77
47.00	13.43	61.00	7.97	75.00	5.27	89.00	3.74
47.25	13.29	61.25	7.91	75.25	5.24	89.25	3.72
47.50	13.15	61.50	7.84	75.50	5.20	89.50	3.70
47.75	13.01	61.75	7.78	75.75	5.17	89.75	3.68
48.00	12.87	62.00	7.72	76.00	5.14	90.00	3.66
48.25	12.74	62.25	7.65	76.25	5.10	90.25	3.64
48.50	12.61	62.50	7.59	76.50	5.07	90.50	3.62
48.75	12.48	62.75	7.53	76.75	5.04	90.75	3.60
49.00	12.35	63.00	7.47	77.00	5.00	91.00	3.58
49.25	12.23	63.25	7.41	77.25	4.97	91.25	3.56
49.50	12.11	63.50	7.36	77.50	4.94	91.50	3.54
49.75	11.98	63.75	7.30	77.75	4.91	91.75	3.52
50.00	11.86	64.00	7.24	78.00	4.88	92.00	3.50
50.25	11.75	64.25	7.19	78.25	4.84	92.25	3.49
50.50	11.63	64.50	7.13	78.50	4.81	92.50	3.47
50.75	11.52	64.75	7.07	78.75	4.78	92.75	3.45
51.00	11.40	65.00	7.02	79.00	4.75	93.00	3.43
51.25	11.29	65.25	6.97	79.25	4.72	93.25	3.41
51.50	11.18	65.50	6.91	79.50	4.69	93.50	3.39
51.75	11.08	65.75	6.86	79.75	4.66	93.75	3.37
52.00	10.97	66.00	6.81	80.00	4.63	94.00	3.36
52.25	10.86	66.25	6.76	80.25	4.61	94.25	3.34
52.50	10.76	66.50	6.71	80.50	4.58	94.50	3.32
52.75	10.66	66.75	6.66	80.75	4.55	94.75	3.30
53.00	10.56	67.00	6.61	81.00	4.52	95.00	3.29
53.25	10.46	67.25	6.56	81.25	4.49	95.25	3.27
53.50	10.36	67.50	6.51	81.50	4.47	95.50	3.25
53.75	10.27	67.75	6.46	81.75	4.44	95.75	3.24
54.00	10.17	68.00	6.41	82.00	4.41	96.00	3.22

Table 4 – 30%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 40%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 7.94                      95.3 Inches

BioInitiative ft. 628.88                      7546.6 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	632791.63	10.25	376.44	20.25	96.45	30.25	43.22
0.50	158197.91	10.50	358.73	20.50	94.11	30.50	42.51
0.75	70310.18	10.75	342.23	20.75	91.86	30.75	41.83
1.00	39549.48	11.00	326.86	21.00	89.68	31.00	41.15
1.25	25311.67	11.25	312.49	21.25	87.58	31.25	40.50
1.50	17577.55	11.50	299.05	21.50	85.56	31.50	39.86
1.75	12914.11	11.75	286.46	21.75	83.60	31.75	39.23
2.00	9887.37	12.00	274.65	22.00	81.71	32.00	38.62
2.25	7812.24	12.25	263.55	22.25	79.89	32.25	38.03
2.50	6327.92	12.50	253.12	22.50	78.12	32.50	37.44
2.75	5229.68	12.75	243.29	22.75	76.41	32.75	36.87
3.00	4394.39	13.00	234.02	23.00	74.76	33.00	36.32
3.25	3744.33	13.25	225.27	23.25	73.16	33.25	35.77
3.50	3228.53	13.50	217.01	23.50	71.62	33.50	35.24
3.75	2812.41	13.75	209.19	23.75	70.12	33.75	34.72
4.00	2471.84	14.00	201.78	24.00	68.66	34.00	34.21
4.25	2189.59	14.25	194.77	24.25	67.25	34.25	33.71
4.50	1953.06	14.50	188.11	24.50	65.89	34.50	33.23
4.75	1752.89	14.75	181.78	24.75	64.56	34.75	32.75
5.00	1581.98	15.00	175.78	25.00	63.28	35.00	32.29
5.25	1434.90	15.25	170.06	25.25	62.03	35.25	31.83
5.50	1307.42	15.50	164.62	25.50	60.82	35.50	31.38
5.75	1196.20	15.75	159.43	25.75	59.65	35.75	30.94
6.00	1098.60	16.00	154.49	26.00	58.51	36.00	30.52
6.25	1012.47	16.25	149.77	26.25	57.40	36.25	30.10
6.50	936.08	16.50	145.27	26.50	56.32	36.50	29.69
6.75	868.03	16.75	140.96	26.75	55.27	36.75	29.28
7.00	807.13	17.00	136.85	27.00	54.25	37.00	28.89
7.25	752.43	17.25	132.91	27.25	53.26	37.25	28.50
7.50	703.10	17.50	129.14	27.50	52.30	37.50	28.12
7.75	658.47	17.75	125.53	27.75	51.36	37.75	27.75
8.00	617.96	18.00	122.07	28.00	50.45	38.00	27.39
8.25	581.08	18.25	118.74	28.25	49.56	38.25	27.03
8.50	547.40	18.50	115.56	28.50	48.69	38.50	26.68
8.75	516.56	18.75	112.50	28.75	47.85	38.75	26.34
9.00	488.27	19.00	109.56	29.00	47.03	39.00	26.00
9.25	462.23	19.25	106.73	29.25	46.23	39.25	25.67
9.50	438.22	19.50	104.01	29.50	45.45	39.50	25.35
9.75	416.04	19.75	101.39	29.75	44.69	39.75	25.03
10.00	395.49	20.00	98.87	30.00	43.94	40.00	24.72

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 40%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 7.94

95.28 Inches

BioInitiative ft. 628.88

7546.60 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	24.41	54.25	13.44	68.25	8.49	82.25	5.85
40.50	24.11	54.50	13.32	68.50	8.43	82.50	5.81
40.75	23.82	54.75	13.19	68.75	8.37	82.75	5.78
41.00	23.53	55.00	13.07	69.00	8.31	83.00	5.74
41.25	23.24	55.25	12.96	69.25	8.25	83.25	5.71
41.50	22.96	55.50	12.84	69.50	8.19	83.50	5.67
41.75	22.69	55.75	12.72	69.75	8.13	83.75	5.64
42.00	22.42	56.00	12.61	70.00	8.07	84.00	5.61
42.25	22.16	56.25	12.50	70.25	8.01	84.25	5.57
42.50	21.90	56.50	12.39	70.50	7.96	84.50	5.54
42.75	21.64	56.75	12.28	70.75	7.90	84.75	5.51
43.00	21.39	57.00	12.17	71.00	7.85	85.00	5.47
43.25	21.14	57.25	12.07	71.25	7.79	85.25	5.44
43.50	20.90	57.50	11.96	71.50	7.74	85.50	5.41
43.75	20.66	57.75	11.86	71.75	7.68	85.75	5.38
44.00	20.43	58.00	11.76	72.00	7.63	86.00	5.35
44.25	20.20	58.25	11.66	72.25	7.58	86.25	5.32
44.50	19.97	58.50	11.56	72.50	7.52	86.50	5.29
44.75	19.75	58.75	11.46	72.75	7.47	86.75	5.26
45.00	19.53	59.00	11.36	73.00	7.42	87.00	5.23
45.25	19.32	59.25	11.27	73.25	7.37	87.25	5.20
45.50	19.10	59.50	11.17	73.50	7.32	87.50	5.17
45.75	18.90	59.75	11.08	73.75	7.27	87.75	5.14
46.00	18.69	60.00	10.99	74.00	7.22	88.00	5.11
46.25	18.49	60.25	10.89	74.25	7.17	88.25	5.08
46.50	18.29	60.50	10.81	74.50	7.13	88.50	5.05
46.75	18.10	60.75	10.72	74.75	7.08	88.75	5.02
47.00	17.90	61.00	10.63	75.00	7.03	89.00	4.99
47.25	17.71	61.25	10.54	75.25	6.98	89.25	4.97
47.50	17.53	61.50	10.46	75.50	6.94	89.50	4.94
47.75	17.35	61.75	10.37	75.75	6.89	89.75	4.91
48.00	17.17	62.00	10.29	76.00	6.85	90.00	4.88
48.25	16.99	62.25	10.21	76.25	6.80	90.25	4.86
48.50	16.81	62.50	10.12	76.50	6.76	90.50	4.83
48.75	16.64	62.75	10.04	76.75	6.71	90.75	4.80
49.00	16.47	63.00	9.96	77.00	6.67	91.00	4.78
49.25	16.31	63.25	9.89	77.25	6.63	91.25	4.75
49.50	16.14	63.50	9.81	77.50	6.58	91.50	4.72
49.75	15.98	63.75	9.73	77.75	6.54	91.75	4.70
50.00	15.82	64.00	9.66	78.00	6.50	92.00	4.67
50.25	15.66	64.25	9.58	78.25	6.46	92.25	4.65
50.50	15.51	64.50	9.51	78.50	6.42	92.50	4.62
50.75	15.36	64.75	9.43	78.75	6.38	92.75	4.60
51.00	15.21	65.00	9.36	79.00	6.34	93.00	4.57
51.25	15.06	65.25	9.29	79.25	6.30	93.25	4.55
51.50	14.91	65.50	9.22	79.50	6.26	93.50	4.52
51.75	14.77	65.75	9.15	79.75	6.22	93.75	4.50
52.00	14.63	66.00	9.08	80.00	6.18	94.00	4.48
52.25	14.49	66.25	9.01	80.25	6.14	94.25	4.45
52.50	14.35	66.50	8.94	80.50	6.10	94.50	4.43
52.75	14.21	66.75	8.88	80.75	6.07	94.75	4.41
53.00	14.08	67.00	8.81	81.00	6.03	95.00	4.38
53.25	13.95	67.25	8.74	81.25	5.99	95.25	4.36
53.50	13.82	67.50	8.68	81.50	5.95	95.50	4.34
53.75	13.69	67.75	8.62	81.75	5.92	95.75	4.31
54.00	13.56	68.00	8.55	82.00	5.88	96.00	4.29

Table 4 – 40%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 50%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 8.88                      106.5 Inches

BioInitiative ft. 703.11                      8437.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	790989.53	10.25	470.55	20.25	120.56	30.25	54.03
0.50	197747.38	10.50	448.41	20.50	117.64	30.50	53.14
0.75	87887.73	10.75	427.79	20.75	114.82	30.75	52.28
1.00	49436.85	11.00	408.57	21.00	112.10	31.00	51.44
1.25	31639.58	11.25	390.61	21.25	109.48	31.25	50.62
1.50	21971.93	11.50	373.81	21.50	106.95	31.50	49.82
1.75	16142.64	11.75	358.08	21.75	104.50	31.75	49.04
2.00	12359.21	12.00	343.31	22.00	102.14	32.00	48.28
2.25	9765.30	12.25	329.44	22.25	99.86	32.25	47.53
2.50	7909.90	12.50	316.40	22.50	97.65	32.50	46.80
2.75	6537.10	12.75	304.11	22.75	95.52	32.75	46.09
3.00	5492.98	13.00	292.53	23.00	93.45	33.00	45.40
3.25	4680.41	13.25	281.59	23.25	91.45	33.25	44.72
3.50	4035.66	13.50	271.26	23.50	89.52	33.50	44.05
3.75	3515.51	13.75	261.48	23.75	87.64	33.75	43.40
4.00	3089.80	14.00	252.23	24.00	85.83	34.00	42.77
4.25	2736.99	14.25	243.46	24.25	84.07	34.25	42.14
4.50	2441.33	14.50	235.13	24.50	82.36	34.50	41.53
4.75	2191.11	14.75	227.23	24.75	80.70	34.75	40.94
5.00	1977.47	15.00	219.72	25.00	79.10	35.00	40.36
5.25	1793.63	15.25	212.57	25.25	77.54	35.25	39.79
5.50	1634.28	15.50	205.77	25.50	76.03	35.50	39.23
5.75	1495.25	15.75	199.29	25.75	74.56	35.75	38.68
6.00	1373.25	16.00	193.11	26.00	73.13	36.00	38.15
6.25	1265.58	16.25	187.22	26.25	71.75	36.25	37.62
6.50	1170.10	16.50	181.59	26.50	70.40	36.50	37.11
6.75	1085.03	16.75	176.21	26.75	69.09	36.75	36.60
7.00	1008.92	17.00	171.06	27.00	67.81	37.00	36.11
7.25	940.53	17.25	166.14	27.25	66.58	37.25	35.63
7.50	878.88	17.50	161.43	27.50	65.37	37.50	35.16
7.75	823.09	17.75	156.91	27.75	64.20	37.75	34.69
8.00	772.45	18.00	152.58	28.00	63.06	38.00	34.24
8.25	726.34	18.25	148.43	28.25	61.95	38.25	33.79
8.50	684.25	18.50	144.45	28.50	60.86	38.50	33.35
8.75	645.71	18.75	140.62	28.75	59.81	38.75	32.92
9.00	610.33	19.00	136.94	29.00	58.78	39.00	32.50
9.25	577.79	19.25	133.41	29.25	57.78	39.25	32.09
9.50	547.78	19.50	130.01	29.50	56.81	39.50	31.69
9.75	520.05	19.75	126.74	29.75	55.86	39.75	31.29
10.00	494.37	20.00	123.59	30.00	54.93	40.00	30.90

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 50%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 8.88                      106.52 Inches

BioInitiative ft. 703.11                      8437.36 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	30.52	54.25	16.80	68.25	10.61	82.25	7.31
40.50	30.14	54.50	16.64	68.50	10.54	82.50	7.26
40.75	29.77	54.75	16.49	68.75	10.46	82.75	7.22
41.00	29.41	55.00	16.34	69.00	10.38	83.00	7.18
41.25	29.05	55.25	16.20	69.25	10.31	83.25	7.13
41.50	28.70	55.50	16.05	69.50	10.23	83.50	7.09
41.75	28.36	55.75	15.91	69.75	10.16	83.75	7.05
42.00	28.03	56.00	15.76	70.00	10.09	84.00	7.01
42.25	27.69	56.25	15.62	70.25	10.02	84.25	6.96
42.50	27.37	56.50	15.49	70.50	9.95	84.50	6.92
42.75	27.05	56.75	15.35	70.75	9.88	84.75	6.88
43.00	26.74	57.00	15.22	71.00	9.81	85.00	6.84
43.25	26.43	57.25	15.08	71.25	9.74	85.25	6.80
43.50	26.13	57.50	14.95	71.50	9.67	85.50	6.76
43.75	25.83	57.75	14.82	71.75	9.60	85.75	6.72
44.00	25.54	58.00	14.70	72.00	9.54	86.00	6.68
44.25	25.25	58.25	14.57	72.25	9.47	86.25	6.65
44.50	24.96	58.50	14.45	72.50	9.41	86.50	6.61
44.75	24.69	58.75	14.32	72.75	9.34	86.75	6.57
45.00	24.41	59.00	14.20	73.00	9.28	87.00	6.53
45.25	24.14	59.25	14.08	73.25	9.21	87.25	6.49
45.50	23.88	59.50	13.96	73.50	9.15	87.50	6.46
45.75	23.62	59.75	13.85	73.75	9.09	87.75	6.42
46.00	23.36	60.00	13.73	74.00	9.03	88.00	6.38
46.25	23.11	60.25	13.62	74.25	8.97	88.25	6.35
46.50	22.86	60.50	13.51	74.50	8.91	88.50	6.31
46.75	22.62	60.75	13.40	74.75	8.85	88.75	6.28
47.00	22.38	61.00	13.29	75.00	8.79	89.00	6.24
47.25	22.14	61.25	13.18	75.25	8.73	89.25	6.21
47.50	21.91	61.50	13.07	75.50	8.67	89.50	6.17
47.75	21.68	61.75	12.97	75.75	8.62	89.75	6.14
48.00	21.46	62.00	12.86	76.00	8.56	90.00	6.10
48.25	21.24	62.25	12.76	76.25	8.50	90.25	6.07
48.50	21.02	62.50	12.66	76.50	8.45	90.50	6.04
48.75	20.80	62.75	12.56	76.75	8.39	90.75	6.00
49.00	20.59	63.00	12.46	77.00	8.34	91.00	5.97
49.25	20.38	63.25	12.36	77.25	8.28	91.25	5.94
49.50	20.18	63.50	12.26	77.50	8.23	91.50	5.90
49.75	19.97	63.75	12.16	77.75	8.18	91.75	5.87
50.00	19.77	64.00	12.07	78.00	8.13	92.00	5.84
50.25	19.58	64.25	11.98	78.25	8.07	92.25	5.81
50.50	19.39	64.50	11.88	78.50	8.02	92.50	5.78
50.75	19.19	64.75	11.79	78.75	7.97	92.75	5.75
51.00	19.01	65.00	11.70	79.00	7.92	93.00	5.72
51.25	18.82	65.25	11.61	79.25	7.87	93.25	5.69
51.50	18.64	65.50	11.52	79.50	7.82	93.50	5.65
51.75	18.46	65.75	11.44	79.75	7.77	93.75	5.62
52.00	18.28	66.00	11.35	80.00	7.72	94.00	5.59
52.25	18.11	66.25	11.26	80.25	7.68	94.25	5.57
52.50	17.94	66.50	11.18	80.50	7.63	94.50	5.54
52.75	17.77	66.75	11.10	80.75	7.58	94.75	5.51
53.00	17.60	67.00	11.01	81.00	7.53	95.00	5.48
53.25	17.43	67.25	10.93	81.25	7.49	95.25	5.45
53.50	17.27	67.50	10.85	81.50	7.44	95.50	5.42
53.75	17.11	67.75	10.77	81.75	7.40	95.75	5.39
54.00	16.95	68.00	10.69	82.00	7.35	96.00	5.36

Table 4 – 50%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 60%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 9.72                      116.7 Inches

BioInitiative ft. 770.22                      9242.7 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	949187.44	10.25	564.66	20.25	144.67	30.25	64.83
0.50	237296.86	10.50	538.09	20.50	141.16	30.50	63.77
0.75	105465.27	10.75	513.35	20.75	137.78	30.75	62.74
1.00	59324.22	11.00	490.28	21.00	134.52	31.00	61.73
1.25	37967.50	11.25	468.73	21.25	131.38	31.25	60.75
1.50	26366.32	11.50	448.58	21.50	128.34	31.50	59.79
1.75	19371.17	11.75	429.69	21.75	125.40	31.75	58.85
2.00	14831.05	12.00	411.97	22.00	122.57	32.00	57.93
2.25	11718.36	12.25	395.33	22.25	119.83	32.25	57.04
2.50	9491.87	12.50	379.67	22.50	117.18	32.50	56.16
2.75	7844.52	12.75	364.93	22.75	114.62	32.75	55.31
3.00	6591.58	13.00	351.03	23.00	112.14	33.00	54.48
3.25	5616.49	13.25	337.91	23.25	109.75	33.25	53.66
3.50	4842.79	13.50	325.51	23.50	107.42	33.50	52.86
3.75	4218.61	13.75	313.78	23.75	105.17	33.75	52.08
4.00	3707.76	14.00	302.67	24.00	102.99	34.00	51.32
4.25	3284.39	14.25	292.15	24.25	100.88	34.25	50.57
4.50	2929.59	14.50	282.16	24.50	98.83	34.50	49.84
4.75	2629.33	14.75	272.68	24.75	96.85	34.75	49.13
5.00	2372.97	15.00	263.66	25.00	94.92	35.00	48.43
5.25	2152.35	15.25	255.09	25.25	93.05	35.25	47.74
5.50	1961.13	15.50	246.93	25.50	91.23	35.50	47.07
5.75	1794.31	15.75	239.15	25.75	89.47	35.75	46.42
6.00	1647.89	16.00	231.74	26.00	87.76	36.00	45.77
6.25	1518.70	16.25	224.66	26.25	86.09	36.25	45.15
6.50	1404.12	16.50	217.90	26.50	84.48	36.50	44.53
6.75	1302.04	16.75	211.45	26.75	82.91	36.75	43.93
7.00	1210.70	17.00	205.27	27.00	81.38	37.00	43.33
7.25	1128.64	17.25	199.37	27.25	79.89	37.25	42.75
7.50	1054.65	17.50	193.71	27.50	78.45	37.50	42.19
7.75	987.71	17.75	188.29	27.75	77.04	37.75	41.63
8.00	926.94	18.00	183.10	28.00	75.67	38.00	41.08
8.25	871.61	18.25	178.12	28.25	74.34	38.25	40.55
8.50	821.10	18.50	173.34	28.50	73.04	38.50	40.02
8.75	774.85	18.75	168.74	28.75	71.77	38.75	39.51
9.00	732.40	19.00	164.33	29.00	70.54	39.00	39.00
9.25	693.34	19.25	160.09	29.25	69.34	39.25	38.51
9.50	657.33	19.50	156.01	29.50	68.17	39.50	38.02
9.75	624.05	19.75	152.09	29.75	67.03	39.75	37.55
10.00	593.24	20.00	148.31	30.00	65.92	40.00	37.08

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 60%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 9.72

116.69 Inches

BioInitiative ft. 770.22

9242.67 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	36.62	54.25	20.16	68.25	12.74	82.25	8.77
40.50	36.17	54.50	19.97	68.50	12.64	82.50	8.72
40.75	35.73	54.75	19.79	68.75	12.55	82.75	8.66
41.00	35.29	55.00	19.61	69.00	12.46	83.00	8.61
41.25	34.86	55.25	19.43	69.25	12.37	83.25	8.56
41.50	34.45	55.50	19.26	69.50	12.28	83.50	8.51
41.75	34.03	55.75	19.09	69.75	12.19	83.75	8.46
42.00	33.63	56.00	18.92	70.00	12.11	84.00	8.41
42.25	33.23	56.25	18.75	70.25	12.02	84.25	8.36
42.50	32.84	56.50	18.58	70.50	11.94	84.50	8.31
42.75	32.46	56.75	18.42	70.75	11.85	84.75	8.26
43.00	32.08	57.00	18.26	71.00	11.77	85.00	8.21
43.25	31.71	57.25	18.10	71.25	11.69	85.25	8.16
43.50	31.35	57.50	17.94	71.50	11.60	85.50	8.12
43.75	30.99	57.75	17.79	71.75	11.52	85.75	8.07
44.00	30.64	58.00	17.64	72.00	11.44	86.00	8.02
44.25	30.30	58.25	17.48	72.25	11.36	86.25	7.97
44.50	29.96	58.50	17.33	72.50	11.29	86.50	7.93
44.75	29.62	58.75	17.19	72.75	11.21	86.75	7.88
45.00	29.30	59.00	17.04	73.00	11.13	87.00	7.84
45.25	28.97	59.25	16.90	73.25	11.06	87.25	7.79
45.50	28.66	59.50	16.76	73.50	10.98	87.50	7.75
45.75	28.34	59.75	16.62	73.75	10.91	87.75	7.70
46.00	28.04	60.00	16.48	74.00	10.83	88.00	7.66
46.25	27.73	60.25	16.34	74.25	10.76	88.25	7.62
46.50	27.44	60.50	16.21	74.50	10.69	88.50	7.57
46.75	27.14	60.75	16.07	74.75	10.62	88.75	7.53
47.00	26.86	61.00	15.94	75.00	10.55	89.00	7.49
47.25	26.57	61.25	15.81	75.25	10.48	89.25	7.45
47.50	26.29	61.50	15.68	75.50	10.41	89.50	7.41
47.75	26.02	61.75	15.56	75.75	10.34	89.75	7.36
48.00	25.75	62.00	15.43	76.00	10.27	90.00	7.32
48.25	25.48	62.25	15.31	76.25	10.20	90.25	7.28
48.50	25.22	62.50	15.19	76.50	10.14	90.50	7.24
48.75	24.96	62.75	15.07	76.75	10.07	90.75	7.20
49.00	24.71	63.00	14.95	77.00	10.01	91.00	7.16
49.25	24.46	63.25	14.83	77.25	9.94	91.25	7.12
49.50	24.21	63.50	14.71	77.50	9.88	91.50	7.09
49.75	23.97	63.75	14.60	77.75	9.81	91.75	7.05
50.00	23.73	64.00	14.48	78.00	9.75	92.00	7.01
50.25	23.49	64.25	14.37	78.25	9.69	92.25	6.97
50.50	23.26	64.50	14.26	78.50	9.63	92.50	6.93
50.75	23.03	64.75	14.15	78.75	9.57	92.75	6.90
51.00	22.81	65.00	14.04	79.00	9.51	93.00	6.86
51.25	22.59	65.25	13.93	79.25	9.45	93.25	6.82
51.50	22.37	65.50	13.83	79.50	9.39	93.50	6.79
51.75	22.15	65.75	13.72	79.75	9.33	93.75	6.75
52.00	21.94	66.00	13.62	80.00	9.27	94.00	6.71
52.25	21.73	66.25	13.52	80.25	9.21	94.25	6.68
52.50	21.52	66.50	13.41	80.50	9.15	94.50	6.64
52.75	21.32	66.75	13.31	80.75	9.10	94.75	6.61
53.00	21.12	67.00	13.22	81.00	9.04	95.00	6.57
53.25	20.92	67.25	13.12	81.25	8.99	95.25	6.54
53.50	20.73	67.50	13.02	81.50	8.93	95.50	6.50
53.75	20.53	67.75	12.92	81.75	8.88	95.75	6.47
54.00	20.34	68.00	12.83	82.00	8.82	96.00	6.44

Table 4 – 60%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 70%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 10.50                      126.0 Inches

BioInitiative ft. 831.93                      9983.2 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	1107385.35	10.25	658.77	20.25	168.78	30.25	75.64
0.50	276846.34	10.50	627.77	20.50	164.69	30.50	74.40
0.75	123042.82	10.75	598.91	20.75	160.75	30.75	73.20
1.00	69211.58	11.00	572.00	21.00	156.94	31.00	72.02
1.25	44295.41	11.25	546.86	21.25	153.27	31.25	70.87
1.50	30760.70	11.50	523.34	21.50	149.73	31.50	69.75
1.75	22599.70	11.75	501.31	21.75	146.31	31.75	68.66
2.00	17302.90	12.00	480.64	22.00	143.00	32.00	67.59
2.25	13671.42	12.25	461.22	22.25	139.80	32.25	66.55
2.50	11073.85	12.50	442.95	22.50	136.71	32.50	65.53
2.75	9151.95	12.75	425.75	22.75	133.73	32.75	64.53
3.00	7690.18	13.00	409.54	23.00	130.83	33.00	63.56
3.25	6552.58	13.25	394.23	23.25	128.04	33.25	62.60
3.50	5649.93	13.50	379.76	23.50	125.33	33.50	61.67
3.75	4921.71	13.75	366.08	23.75	122.70	33.75	60.76
4.00	4325.72	14.00	353.12	24.00	120.16	34.00	59.87
4.25	3831.78	14.25	340.84	24.25	117.69	34.25	59.00
4.50	3417.86	14.50	329.19	24.50	115.30	34.50	58.15
4.75	3067.55	14.75	318.12	24.75	112.99	34.75	57.32
5.00	2768.46	15.00	307.61	25.00	110.74	35.00	56.50
5.25	2511.08	15.25	297.60	25.25	108.56	35.25	55.70
5.50	2287.99	15.50	288.08	25.50	106.44	35.50	54.92
5.75	2093.36	15.75	279.01	25.75	104.38	35.75	54.15
6.00	1922.54	16.00	270.36	26.00	102.38	36.00	53.40
6.25	1771.82	16.25	262.10	26.25	100.44	36.25	52.67
6.50	1638.14	16.50	254.22	26.50	98.56	36.50	51.95
6.75	1519.05	16.75	246.69	26.75	96.72	36.75	51.25
7.00	1412.48	17.00	239.49	27.00	94.94	37.00	50.56
7.25	1316.75	17.25	232.60	27.25	93.21	37.25	49.88
7.50	1230.43	17.50	226.00	27.50	91.52	37.50	49.22
7.75	1152.33	17.75	219.68	27.75	89.88	37.75	48.57
8.00	1081.43	18.00	213.62	28.00	88.28	38.00	47.93
8.25	1016.88	18.25	207.80	28.25	86.72	38.25	47.31
8.50	957.95	18.50	202.23	28.50	85.21	38.50	46.69
8.75	903.99	18.75	196.87	28.75	83.73	38.75	46.09
9.00	854.46	19.00	191.72	29.00	82.30	39.00	45.50
9.25	808.90	19.25	186.77	29.25	80.90	39.25	44.93
9.50	766.89	19.50	182.02	29.50	79.53	39.50	44.36
9.75	728.06	19.75	177.44	29.75	78.20	39.75	43.80
10.00	692.12	20.00	173.03	30.00	76.90	40.00	43.26

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 70%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 10.50

126.04 Inches

BioInitiative ft. 831.93

9983.22 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	42.72	54.25	23.52	68.25	14.86	82.25	10.23
40.50	42.20	54.50	23.30	68.50	14.75	82.50	10.17
40.75	41.68	54.75	23.09	68.75	14.64	82.75	10.11
41.00	41.17	55.00	22.88	69.00	14.54	83.00	10.05
41.25	40.68	55.25	22.67	69.25	14.43	83.25	9.99
41.50	40.19	55.50	22.47	69.50	14.33	83.50	9.93
41.75	39.71	55.75	22.27	69.75	14.23	83.75	9.87
42.00	39.24	56.00	22.07	70.00	14.12	84.00	9.81
42.25	38.77	56.25	21.87	70.25	14.02	84.25	9.75
42.50	38.32	56.50	21.68	70.50	13.93	84.50	9.69
42.75	37.87	56.75	21.49	70.75	13.83	84.75	9.64
43.00	37.43	57.00	21.30	71.00	13.73	85.00	9.58
43.25	37.00	57.25	21.12	71.25	13.63	85.25	9.52
43.50	36.58	57.50	20.93	71.50	13.54	85.50	9.47
43.75	36.16	57.75	20.75	71.75	13.44	85.75	9.41
44.00	35.75	58.00	20.57	72.00	13.35	86.00	9.36
44.25	35.35	58.25	20.40	72.25	13.26	86.25	9.30
44.50	34.95	58.50	20.22	72.50	13.17	86.50	9.25
44.75	34.56	58.75	20.05	72.75	13.08	86.75	9.20
45.00	34.18	59.00	19.88	73.00	12.99	87.00	9.14
45.25	33.80	59.25	19.72	73.25	12.90	87.25	9.09
45.50	33.43	59.50	19.55	73.50	12.81	87.50	9.04
45.75	33.07	59.75	19.39	73.75	12.72	87.75	8.99
46.00	32.71	60.00	19.23	74.00	12.64	88.00	8.94
46.25	32.36	60.25	19.07	74.25	12.55	88.25	8.89
46.50	32.01	60.50	18.91	74.50	12.47	88.50	8.84
46.75	31.67	60.75	18.75	74.75	12.39	88.75	8.79
47.00	31.33	61.00	18.60	75.00	12.30	89.00	8.74
47.25	31.00	61.25	18.45	75.25	12.22	89.25	8.69
47.50	30.68	61.50	18.30	75.50	12.14	89.50	8.64
47.75	30.36	61.75	18.15	75.75	12.06	89.75	8.59
48.00	30.04	62.00	18.01	76.00	11.98	90.00	8.54
48.25	29.73	62.25	17.86	76.25	11.90	90.25	8.50
48.50	29.42	62.50	17.72	76.50	11.83	90.50	8.45
48.75	29.12	62.75	17.58	76.75	11.75	90.75	8.40
49.00	28.83	63.00	17.44	77.00	11.67	91.00	8.36
49.25	28.53	63.25	17.30	77.25	11.60	91.25	8.31
49.50	28.25	63.50	17.16	77.50	11.52	91.50	8.27
49.75	27.96	63.75	17.03	77.75	11.45	91.75	8.22
50.00	27.68	64.00	16.90	78.00	11.38	92.00	8.18
50.25	27.41	64.25	16.77	78.25	11.30	92.25	8.13
50.50	27.14	64.50	16.64	78.50	11.23	92.50	8.09
50.75	26.87	64.75	16.51	78.75	11.16	92.75	8.05
51.00	26.61	65.00	16.38	79.00	11.09	93.00	8.00
51.25	26.35	65.25	16.26	79.25	11.02	93.25	7.96
51.50	26.10	65.50	16.13	79.50	10.95	93.50	7.92
51.75	25.84	65.75	16.01	79.75	10.88	93.75	7.87
52.00	25.60	66.00	15.89	80.00	10.81	94.00	7.83
52.25	25.35	66.25	15.77	80.25	10.75	94.25	7.79
52.50	25.11	66.50	15.65	80.50	10.68	94.50	7.75
52.75	24.87	66.75	15.53	80.75	10.61	94.75	7.71
53.00	24.64	67.00	15.42	81.00	10.55	95.00	7.67
53.25	24.41	67.25	15.30	81.25	10.48	95.25	7.63
53.50	24.18	67.50	15.19	81.50	10.42	95.50	7.59
53.75	23.96	67.75	15.08	81.75	10.36	95.75	7.55
54.00	23.74	68.00	14.97	82.00	10.29	96.00	7.51

Table 4 – 70%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 80%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 11.23                      134.7 Inches

BioInitiative ft. 889.38                      10672.5 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	1265583.26	10.25	752.88	20.25	192.89	30.25	86.44
0.50	316395.81	10.50	717.45	20.50	188.22	30.50	85.03
0.75	140620.36	10.75	684.47	20.75	183.71	30.75	83.65
1.00	79098.95	11.00	653.71	21.00	179.36	31.00	82.31
1.25	50623.33	11.25	624.98	21.25	175.17	31.25	81.00
1.50	35155.09	11.50	598.10	21.50	171.12	31.50	79.72
1.75	25828.23	11.75	572.92	21.75	167.21	31.75	78.47
2.00	19774.74	12.00	549.30	22.00	163.43	32.00	77.25
2.25	15624.48	12.25	527.11	22.25	159.78	32.25	76.05
2.50	12655.83	12.50	506.23	22.50	156.24	32.50	74.89
2.75	10459.37	12.75	486.58	22.75	152.83	32.75	73.75
3.00	8788.77	13.00	468.04	23.00	149.53	33.00	72.63
3.25	7488.66	13.25	450.55	23.25	146.33	33.25	71.55
3.50	6457.06	13.50	434.01	23.50	143.23	33.50	70.48
3.75	5624.81	13.75	418.37	23.75	140.23	33.75	69.44
4.00	4943.68	14.00	403.57	24.00	137.32	34.00	68.42
4.25	4379.18	14.25	389.53	24.25	134.51	34.25	67.43
4.50	3906.12	14.50	376.21	24.50	131.78	34.50	66.46
4.75	3505.77	14.75	363.57	24.75	129.13	34.75	65.50
5.00	3163.96	15.00	351.55	25.00	126.56	35.00	64.57
5.25	2869.80	15.25	340.12	25.25	124.06	35.25	63.66
5.50	2614.84	15.50	329.24	25.50	121.64	35.50	62.76
5.75	2392.41	15.75	318.87	25.75	119.29	35.75	61.89
6.00	2197.19	16.00	308.98	26.00	117.01	36.00	61.03
6.25	2024.93	16.25	299.55	26.25	114.79	36.25	60.19
6.50	1872.16	16.50	290.54	26.50	112.64	36.50	59.37
6.75	1736.05	16.75	281.93	26.75	110.54	36.75	58.57
7.00	1614.26	17.00	273.70	27.00	108.50	37.00	57.78
7.25	1504.86	17.25	265.82	27.25	106.52	37.25	57.01
7.50	1406.20	17.50	258.28	27.50	104.59	37.50	56.25
7.75	1316.94	17.75	251.06	27.75	102.72	37.75	55.51
8.00	1235.92	18.00	244.13	28.00	100.89	38.00	54.78
8.25	1162.15	18.25	237.49	28.25	99.11	38.25	54.06
8.50	1094.80	18.50	231.11	28.50	97.38	38.50	53.36
8.75	1033.13	18.75	224.99	28.75	95.70	38.75	52.68
9.00	976.53	19.00	219.11	29.00	94.05	39.00	52.00
9.25	924.46	19.25	213.46	29.25	92.45	39.25	51.34
9.50	876.44	19.50	208.02	29.50	90.89	39.50	50.70
9.75	832.07	19.75	202.79	29.75	89.37	39.75	50.06
10.00	790.99	20.00	197.75	30.00	87.89	40.00	49.44

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 80%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 11.23                      134.74 Inches

BioInitiative ft. 889.38                      10672.51 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	48.82	54.25	26.88	68.25	16.98	82.25	11.69
40.50	48.22	54.50	26.63	68.50	16.86	82.50	11.62
40.75	47.63	54.75	26.39	68.75	16.73	82.75	11.55
41.00	47.05	55.00	26.15	69.00	16.61	83.00	11.48
41.25	46.49	55.25	25.91	69.25	16.49	83.25	11.41
41.50	45.93	55.50	25.68	69.50	16.38	83.50	11.34
41.75	45.38	55.75	25.45	69.75	16.26	83.75	11.28
42.00	44.84	56.00	25.22	70.00	16.14	84.00	11.21
42.25	44.31	56.25	25.00	70.25	16.03	84.25	11.14
42.50	43.79	56.50	24.78	70.50	15.91	84.50	11.08
42.75	43.28	56.75	24.56	70.75	15.80	84.75	11.01
43.00	42.78	57.00	24.35	71.00	15.69	85.00	10.95
43.25	42.29	57.25	24.13	71.25	15.58	85.25	10.88
43.50	41.80	57.50	23.92	71.50	15.47	85.50	10.82
43.75	41.33	57.75	23.72	71.75	15.36	85.75	10.76
44.00	40.86	58.00	23.51	72.00	15.26	86.00	10.69
44.25	40.40	58.25	23.31	72.25	15.15	86.25	10.63
44.50	39.94	58.50	23.11	72.50	15.05	86.50	10.57
44.75	39.50	58.75	22.92	72.75	14.95	86.75	10.51
45.00	39.06	59.00	22.72	73.00	14.84	87.00	10.45
45.25	38.63	59.25	22.53	73.25	14.74	87.25	10.39
45.50	38.21	59.50	22.34	73.50	14.64	87.50	10.33
45.75	37.79	59.75	22.16	73.75	14.54	87.75	10.27
46.00	37.38	60.00	21.97	74.00	14.44	88.00	10.21
46.25	36.98	60.25	21.79	74.25	14.35	88.25	10.16
46.50	36.58	60.50	21.61	74.50	14.25	88.50	10.10
46.75	36.19	60.75	21.43	74.75	14.16	88.75	10.04
47.00	35.81	61.00	21.26	75.00	14.06	89.00	9.99
47.25	35.43	61.25	21.08	75.25	13.97	89.25	9.93
47.50	35.06	61.50	20.91	75.50	13.88	89.50	9.87
47.75	34.69	61.75	20.74	75.75	13.78	89.75	9.82
48.00	34.33	62.00	20.58	76.00	13.69	90.00	9.77
48.25	33.98	62.25	20.41	76.25	13.60	90.25	9.71
48.50	33.63	62.50	20.25	76.50	13.52	90.50	9.66
48.75	33.28	62.75	20.09	76.75	13.43	90.75	9.60
49.00	32.94	63.00	19.93	77.00	13.34	91.00	9.55
49.25	32.61	63.25	19.77	77.25	13.25	91.25	9.50
49.50	32.28	63.50	19.62	77.50	13.17	91.50	9.45
49.75	31.96	63.75	19.46	77.75	13.08	91.75	9.40
50.00	31.64	64.00	19.31	78.00	13.00	92.00	9.35
50.25	31.33	64.25	19.16	78.25	12.92	92.25	9.29
50.50	31.02	64.50	19.01	78.50	12.84	92.50	9.24
50.75	30.71	64.75	18.87	78.75	12.75	92.75	9.19
51.00	30.41	65.00	18.72	79.00	12.67	93.00	9.15
51.25	30.12	65.25	18.58	79.25	12.59	93.25	9.10
51.50	29.82	65.50	18.44	79.50	12.52	93.50	9.05
51.75	29.54	65.75	18.30	79.75	12.44	93.75	9.00
52.00	29.25	66.00	18.16	80.00	12.36	94.00	8.95
52.25	28.97	66.25	18.02	80.25	12.28	94.25	8.90
52.50	28.70	66.50	17.89	80.50	12.21	94.50	8.86
52.75	28.43	66.75	17.75	80.75	12.13	94.75	8.81
53.00	28.16	67.00	17.62	81.00	12.06	95.00	8.76
53.25	27.90	67.25	17.49	81.25	11.98	95.25	8.72
53.50	27.64	67.50	17.36	81.50	11.91	95.50	8.67
53.75	27.38	67.75	17.23	81.75	11.84	95.75	8.63
54.00	27.13	68.00	17.11	82.00	11.76	96.00	8.58

Table 4 – 80%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 90%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 11.91                      142.9 Inches

BioInitiative ft. 943.33                      11319.9 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	1423781.16	10.25	846.98	20.25	217.01	30.25	97.25
0.50	355945.29	10.50	807.13	20.50	211.75	30.50	95.66
0.75	158197.91	10.75	770.03	20.75	206.67	30.75	94.11
1.00	88986.32	11.00	735.42	21.00	201.78	31.00	92.60
1.25	56951.25	11.25	703.10	21.25	197.06	31.25	91.12
1.50	39549.48	11.50	672.86	21.50	192.51	31.50	89.68
1.75	29056.76	11.75	644.54	21.75	188.11	31.75	88.27
2.00	22246.58	12.00	617.96	22.00	183.86	32.00	86.90
2.25	17577.55	12.25	593.00	22.25	179.75	32.25	85.56
2.50	14237.81	12.50	569.51	22.50	175.78	32.50	84.25
2.75	11766.79	12.75	547.40	22.75	171.93	32.75	82.97
3.00	9887.37	13.00	526.55	23.00	168.22	33.00	81.71
3.25	8424.74	13.25	506.86	23.25	164.62	33.25	80.49
3.50	7264.19	13.50	488.27	23.50	161.13	33.50	79.29
3.75	6327.92	13.75	470.67	23.75	157.76	33.75	78.12
4.00	5561.65	14.00	454.01	24.00	154.49	34.00	76.98
4.25	4926.58	14.25	438.22	24.25	151.32	34.25	75.86
4.50	4394.39	14.50	423.24	24.50	148.25	34.50	74.76
4.75	3943.99	14.75	409.01	24.75	145.27	34.75	73.69
5.00	3559.45	15.00	395.49	25.00	142.38	35.00	72.64
5.25	3228.53	15.25	382.63	25.25	139.57	35.25	71.62
5.50	2941.70	15.50	370.39	25.50	136.85	35.50	70.61
5.75	2691.46	15.75	358.73	25.75	134.21	35.75	69.63
6.00	2471.84	16.00	347.60	26.00	131.64	36.00	68.66
6.25	2278.05	16.25	336.99	26.25	129.14	36.25	67.72
6.50	2106.19	16.50	326.86	26.50	126.72	36.50	66.79
6.75	1953.06	16.75	317.17	26.75	124.36	36.75	65.89
7.00	1816.05	17.00	307.91	27.00	122.07	37.00	65.00
7.25	1692.96	17.25	299.05	27.25	119.84	37.25	64.13
7.50	1581.98	17.50	290.57	27.50	117.67	37.50	63.28
7.75	1481.56	17.75	282.44	27.75	115.56	37.75	62.44
8.00	1390.41	18.00	274.65	28.00	113.50	38.00	61.62
8.25	1307.42	18.25	267.18	28.25	111.50	38.25	60.82
8.50	1231.64	18.50	260.00	28.50	109.56	38.50	60.03
8.75	1162.27	18.75	253.12	28.75	107.66	38.75	59.26
9.00	1098.60	19.00	246.50	29.00	105.81	39.00	58.51
9.25	1040.02	19.25	240.14	29.25	104.01	39.25	57.76
9.50	986.00	19.50	234.02	29.50	102.25	39.50	57.03
9.75	936.08	19.75	228.13	29.75	100.54	39.75	56.32
10.00	889.86	20.00	222.47	30.00	98.87	40.00	55.62

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 90%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 11.91                      142.91 Inches

BioInitiative ft. 943.33                      11319.91 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	54.93	54.25	30.24	68.25	19.10	82.25	13.15
40.50	54.25	54.50	29.96	68.50	18.96	82.50	13.07
40.75	53.59	54.75	29.69	68.75	18.83	82.75	13.00
41.00	52.94	55.00	29.42	69.00	18.69	83.00	12.92
41.25	52.30	55.25	29.15	69.25	18.56	83.25	12.84
41.50	51.67	55.50	28.89	69.50	18.42	83.50	12.76
41.75	51.05	55.75	28.63	69.75	18.29	83.75	12.69
42.00	50.45	56.00	28.38	70.00	18.16	84.00	12.61
42.25	49.85	56.25	28.12	70.25	18.03	84.25	12.54
42.50	49.27	56.50	27.88	70.50	17.90	84.50	12.46
42.75	48.69	56.75	27.63	70.75	17.78	84.75	12.39
43.00	48.13	57.00	27.39	71.00	17.65	85.00	12.32
43.25	47.57	57.25	27.15	71.25	17.53	85.25	12.24
43.50	47.03	57.50	26.91	71.50	17.41	85.50	12.17
43.75	46.49	57.75	26.68	71.75	17.29	85.75	12.10
44.00	45.96	58.00	26.45	72.00	17.17	86.00	12.03
44.25	45.45	58.25	26.23	72.25	17.05	86.25	11.96
44.50	44.94	58.50	26.00	72.50	16.93	86.50	11.89
44.75	44.44	58.75	25.78	72.75	16.81	86.75	11.82
45.00	43.94	59.00	25.56	73.00	16.70	87.00	11.76
45.25	43.46	59.25	25.35	73.25	16.58	87.25	11.69
45.50	42.98	59.50	25.14	73.50	16.47	87.50	11.62
45.75	42.51	59.75	24.93	73.75	16.36	87.75	11.56
46.00	42.05	60.00	24.72	74.00	16.25	88.00	11.49
46.25	41.60	60.25	24.51	74.25	16.14	88.25	11.43
46.50	41.15	60.50	24.31	74.50	16.03	88.50	11.36
46.75	40.72	60.75	24.11	74.75	15.93	88.75	11.30
47.00	40.28	61.00	23.91	75.00	15.82	89.00	11.23
47.25	39.86	61.25	23.72	75.25	15.71	89.25	11.17
47.50	39.44	61.50	23.53	75.50	15.61	89.50	11.11
47.75	39.03	61.75	23.34	75.75	15.51	89.75	11.05
48.00	38.62	62.00	23.15	76.00	15.41	90.00	10.99
48.25	38.22	62.25	22.96	76.25	15.31	90.25	10.93
48.50	37.83	62.50	22.78	76.50	15.21	90.50	10.86
48.75	37.44	62.75	22.60	76.75	15.11	90.75	10.81
49.00	37.06	63.00	22.42	77.00	15.01	91.00	10.75
49.25	36.69	63.25	22.24	77.25	14.91	91.25	10.69
49.50	36.32	63.50	22.07	77.50	14.82	91.50	10.63
49.75	35.95	63.75	21.90	77.75	14.72	91.75	10.57
50.00	35.59	64.00	21.73	78.00	14.63	92.00	10.51
50.25	35.24	64.25	21.56	78.25	14.53	92.25	10.46
50.50	34.89	64.50	21.39	78.50	14.44	92.50	10.40
50.75	34.55	64.75	21.22	78.75	14.35	92.75	10.34
51.00	34.21	65.00	21.06	79.00	14.26	93.00	10.29
51.25	33.88	65.25	20.90	79.25	14.17	93.25	10.23
51.50	33.55	65.50	20.74	79.50	14.08	93.50	10.18
51.75	33.23	65.75	20.58	79.75	13.99	93.75	10.12
52.00	32.91	66.00	20.43	80.00	13.90	94.00	10.07
52.25	32.59	66.25	20.27	80.25	13.82	94.25	10.02
52.50	32.29	66.50	20.12	80.50	13.73	94.50	9.96
52.75	31.98	66.75	19.97	80.75	13.65	94.75	9.91
53.00	31.68	67.00	19.82	81.00	13.56	95.00	9.86
53.25	31.38	67.25	19.68	81.25	13.48	95.25	9.81
53.50	31.09	67.50	19.53	81.50	13.40	95.50	9.76
53.75	30.80	67.75	19.39	81.75	13.32	95.75	9.71
54.00	30.52	68.00	19.24	82.00	13.23	96.00	9.66

Table 4 – 90%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 100%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 12.55                      150.6 Inches

BioInitiative ft. 994.35                      11932.2 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	1581979.07	10.25	941.09	20.25	241.12	30.25	108.05
0.50	395494.77	10.50	896.81	20.50	235.27	30.50	106.29
0.75	175775.45	10.75	855.59	20.75	229.64	30.75	104.57
1.00	98873.69	11.00	817.14	21.00	224.20	31.00	102.89
1.25	63279.16	11.25	781.22	21.25	218.96	31.25	101.25
1.50	43943.86	11.50	747.63	21.50	213.90	31.50	99.65
1.75	32285.29	11.75	716.15	21.75	209.01	31.75	98.08
2.00	24718.42	12.00	686.62	22.00	204.28	32.00	96.56
2.25	19530.61	12.25	658.88	22.25	199.72	32.25	95.07
2.50	15819.79	12.50	632.79	22.50	195.31	32.50	93.61
2.75	13074.21	12.75	608.22	22.75	191.04	32.75	92.18
3.00	10985.97	13.00	585.05	23.00	186.91	33.00	90.79
3.25	9360.82	13.25	563.18	23.25	182.91	33.25	89.43
3.50	8071.32	13.50	542.52	23.50	179.04	33.50	88.10
3.75	7031.02	13.75	522.97	23.75	175.29	33.75	86.80
4.00	6179.61	14.00	504.46	24.00	171.66	34.00	85.53
4.25	5473.98	14.25	486.91	24.25	168.13	34.25	84.29
4.50	4882.65	14.50	470.27	24.50	164.72	34.50	83.07
4.75	4382.21	14.75	454.46	24.75	161.41	34.75	81.88
5.00	3954.95	15.00	439.44	25.00	158.20	35.00	80.71
5.25	3587.25	15.25	425.15	25.25	155.08	35.25	79.57
5.50	3268.55	15.50	411.55	25.50	152.05	35.50	78.46
5.75	2990.51	15.75	398.58	25.75	149.12	35.75	77.36
6.00	2746.49	16.00	386.23	26.00	146.26	36.00	76.29
6.25	2531.17	16.25	374.43	26.25	143.49	36.25	75.24
6.50	2340.21	16.50	363.17	26.50	140.80	36.50	74.22
6.75	2170.07	16.75	352.41	26.75	138.18	36.75	73.21
7.00	2017.83	17.00	342.12	27.00	135.63	37.00	72.22
7.25	1881.07	17.25	332.28	27.25	133.15	37.25	71.26
7.50	1757.75	17.50	322.85	27.50	130.74	37.50	70.31
7.75	1646.18	17.75	313.82	27.75	128.40	37.75	69.38
8.00	1544.90	18.00	305.17	28.00	126.11	38.00	68.47
8.25	1452.69	18.25	296.86	28.25	123.89	38.25	67.58
8.50	1368.49	18.50	288.89	28.50	121.73	38.50	66.71
8.75	1291.41	18.75	281.24	28.75	119.62	38.75	65.85
9.00	1220.66	19.00	273.89	29.00	117.57	39.00	65.01
9.25	1155.57	19.25	266.82	29.25	115.57	39.25	64.18
9.50	1095.55	19.50	260.02	29.50	113.62	39.50	63.37
9.75	1040.09	19.75	253.48	29.75	111.71	39.75	62.58
10.00	988.74	20.00	247.18	30.00	109.86	40.00	61.80

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(Baseline 1 Meter only – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 1 Electric Meter

Time Avg: 100%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 12.55                      150.64 Inches

BioInitiative ft. 994.35                      11932.23 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	61.03	54.25	33.60	68.25	21.23	82.25	14.62
40.50	60.28	54.50	33.29	68.50	21.07	82.50	14.53
40.75	59.54	54.75	32.98	68.75	20.92	82.75	14.44
41.00	58.82	55.00	32.69	69.00	20.77	83.00	14.35
41.25	58.11	55.25	32.39	69.25	20.62	83.25	14.27
41.50	57.41	55.50	32.10	69.50	20.47	83.50	14.18
41.75	56.72	55.75	31.81	69.75	20.32	83.75	14.10
42.00	56.05	56.00	31.53	70.00	20.18	84.00	14.01
42.25	55.39	56.25	31.25	70.25	20.03	84.25	13.93
42.50	54.74	56.50	30.97	70.50	19.89	84.50	13.85
42.75	54.10	56.75	30.70	70.75	19.75	84.75	13.77
43.00	53.47	57.00	30.43	71.00	19.61	85.00	13.68
43.25	52.86	57.25	30.17	71.25	19.48	85.25	13.60
43.50	52.25	57.50	29.91	71.50	19.34	85.50	13.53
43.75	51.66	57.75	29.65	71.75	19.21	85.75	13.45
44.00	51.07	58.00	29.39	72.00	19.07	86.00	13.37
44.25	50.50	58.25	29.14	72.25	18.94	86.25	13.29
44.50	49.93	58.50	28.89	72.50	18.81	86.50	13.21
44.75	49.37	58.75	28.65	72.75	18.68	86.75	13.14
45.00	48.83	59.00	28.40	73.00	18.55	87.00	13.06
45.25	48.29	59.25	28.16	73.25	18.43	87.25	12.99
45.50	47.76	59.50	27.93	73.50	18.30	87.50	12.91
45.75	47.24	59.75	27.70	73.75	18.18	87.75	12.84
46.00	46.73	60.00	27.46	74.00	18.06	88.00	12.77
46.25	46.22	60.25	27.24	74.25	17.93	88.25	12.70
46.50	45.73	60.50	27.01	74.50	17.81	88.50	12.62
46.75	45.24	60.75	26.79	74.75	17.70	88.75	12.55
47.00	44.76	61.00	26.57	75.00	17.58	89.00	12.48
47.25	44.29	61.25	26.36	75.25	17.46	89.25	12.41
47.50	43.82	61.50	26.14	75.50	17.35	89.50	12.34
47.75	43.36	61.75	25.93	75.75	17.23	89.75	12.27
48.00	42.91	62.00	25.72	76.00	17.12	90.00	12.21
48.25	42.47	62.25	25.52	76.25	17.01	90.25	12.14
48.50	42.03	62.50	25.31	76.50	16.89	90.50	12.07
48.75	41.60	62.75	25.11	76.75	16.79	90.75	12.01
49.00	41.18	63.00	24.91	77.00	16.68	91.00	11.94
49.25	40.76	63.25	24.71	77.25	16.57	91.25	11.87
49.50	40.35	63.50	24.52	77.50	16.46	91.50	11.81
49.75	39.95	63.75	24.33	77.75	16.36	91.75	11.75
50.00	39.55	64.00	24.14	78.00	16.25	92.00	11.68
50.25	39.16	64.25	23.95	78.25	16.15	92.25	11.62
50.50	38.77	64.50	23.77	78.50	16.05	92.50	11.56
50.75	38.39	64.75	23.58	78.75	15.94	92.75	11.49
51.00	38.01	65.00	23.40	79.00	15.84	93.00	11.43
51.25	37.64	65.25	23.22	79.25	15.74	93.25	11.37
51.50	37.28	65.50	23.05	79.50	15.64	93.50	11.31
51.75	36.92	65.75	22.87	79.75	15.55	93.75	11.25
52.00	36.57	66.00	22.70	80.00	15.45	94.00	11.19
52.25	36.22	66.25	22.53	80.25	15.35	94.25	11.13
52.50	35.87	66.50	22.36	80.50	15.26	94.50	11.07
52.75	35.53	66.75	22.19	80.75	15.16	94.75	11.01
53.00	35.20	67.00	22.03	81.00	15.07	95.00	10.96
53.25	34.87	67.25	21.86	81.25	14.98	95.25	10.90
53.50	34.54	67.50	21.70	81.50	14.89	95.50	10.84
53.75	34.22	67.75	21.54	81.75	14.79	95.75	10.78
54.00	33.91	68.00	21.38	82.00	14.70	96.00	10.73

Table 4 – 100%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 1%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.12                      1.4 Inches

BioInitiative ft. 21.43                      257.1 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	393.71	10.25	0.44	20.25	0.11	30.25	0.05
0.50	153.52	10.50	0.42	20.50	0.11	30.50	0.05
0.75	75.28	10.75	0.40	20.75	0.11	30.75	0.05
1.00	43.87	11.00	0.38	21.00	0.10	31.00	0.05
1.25	28.54	11.25	0.36	21.25	0.10	31.25	0.05
1.50	20.00	11.50	0.35	21.50	0.10	31.50	0.05
1.75	14.77	11.75	0.33	21.75	0.10	31.75	0.05
2.00	11.35	12.00	0.32	22.00	0.09	32.00	0.04
2.25	8.99	12.25	0.31	22.25	0.09	32.25	0.04
2.50	7.29	12.50	0.29	22.50	0.09	32.50	0.04
2.75	6.04	12.75	0.28	22.75	0.09	32.75	0.04
3.00	5.08	13.00	0.27	23.00	0.09	33.00	0.04
3.25	4.33	13.25	0.26	23.25	0.08	33.25	0.04
3.50	3.73	13.50	0.25	23.50	0.08	33.50	0.04
3.75	3.25	13.75	0.24	23.75	0.08	33.75	0.04
4.00	2.86	14.00	0.23	24.00	0.08	34.00	0.04
4.25	2.54	14.25	0.23	24.25	0.08	34.25	0.04
4.50	2.26	14.50	0.22	24.50	0.08	34.50	0.04
4.75	2.03	14.75	0.21	24.75	0.07	34.75	0.04
5.00	1.83	15.00	0.20	25.00	0.07	35.00	0.04
5.25	1.66	15.25	0.20	25.25	0.07	35.25	0.04
5.50	1.52	15.50	0.19	25.50	0.07	35.50	0.04
5.75	1.39	15.75	0.19	25.75	0.07	35.75	0.04
6.00	1.27	16.00	0.18	26.00	0.07	36.00	0.04
6.25	1.17	16.25	0.17	26.25	0.07	36.25	0.03
6.50	1.09	16.50	0.17	26.50	0.07	36.50	0.03
6.75	1.01	16.75	0.16	26.75	0.06	36.75	0.03
7.00	0.94	17.00	0.16	27.00	0.06	37.00	0.03
7.25	0.87	17.25	0.15	27.25	0.06	37.25	0.03
7.50	0.82	17.50	0.15	27.50	0.06	37.50	0.03
7.75	0.76	17.75	0.15	27.75	0.06	37.75	0.03
8.00	0.72	18.00	0.14	28.00	0.06	38.00	0.03
8.25	0.67	18.25	0.14	28.25	0.06	38.25	0.03
8.50	0.64	18.50	0.13	28.50	0.06	38.50	0.03
8.75	0.60	18.75	0.13	28.75	0.06	38.75	0.03
9.00	0.57	19.00	0.13	29.00	0.05	39.00	0.03
9.25	0.54	19.25	0.12	29.25	0.05	39.25	0.03
9.50	0.51	19.50	0.12	29.50	0.05	39.50	0.03
9.75	0.48	19.75	0.12	29.75	0.05	39.75	0.03
10.00	0.46	20.00	0.11	30.00	0.05	40.00	0.03

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 1%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.12

1.40 Inches

BioInitiative ft. 21.43

257.11 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.03	54.25	0.02	68.25	0.01	82.25	0.01
40.50	0.03	54.50	0.02	68.50	0.01	82.50	0.01
40.75	0.03	54.75	0.02	68.75	0.01	82.75	0.01
41.00	0.03	55.00	0.02	69.00	0.01	83.00	0.01
41.25	0.03	55.25	0.02	69.25	0.01	83.25	0.01
41.50	0.03	55.50	0.01	69.50	0.01	83.50	0.01
41.75	0.03	55.75	0.01	69.75	0.01	83.75	0.01
42.00	0.03	56.00	0.01	70.00	0.01	84.00	0.01
42.25	0.03	56.25	0.01	70.25	0.01	84.25	0.01
42.50	0.03	56.50	0.01	70.50	0.01	84.50	0.01
42.75	0.03	56.75	0.01	70.75	0.01	84.75	0.01
43.00	0.02	57.00	0.01	71.00	0.01	85.00	0.01
43.25	0.02	57.25	0.01	71.25	0.01	85.25	0.01
43.50	0.02	57.50	0.01	71.50	0.01	85.50	0.01
43.75	0.02	57.75	0.01	71.75	0.01	85.75	0.01
44.00	0.02	58.00	0.01	72.00	0.01	86.00	0.01
44.25	0.02	58.25	0.01	72.25	0.01	86.25	0.01
44.50	0.02	58.50	0.01	72.50	0.01	86.50	0.01
44.75	0.02	58.75	0.01	72.75	0.01	86.75	0.01
45.00	0.02	59.00	0.01	73.00	0.01	87.00	0.01
45.25	0.02	59.25	0.01	73.25	0.01	87.25	0.01
45.50	0.02	59.50	0.01	73.50	0.01	87.50	0.01
45.75	0.02	59.75	0.01	73.75	0.01	87.75	0.01
46.00	0.02	60.00	0.01	74.00	0.01	88.00	0.01
46.25	0.02	60.25	0.01	74.25	0.01	88.25	0.01
46.50	0.02	60.50	0.01	74.50	0.01	88.50	0.01
46.75	0.02	60.75	0.01	74.75	0.01	88.75	0.01
47.00	0.02	61.00	0.01	75.00	0.01	89.00	0.01
47.25	0.02	61.25	0.01	75.25	0.01	89.25	0.01
47.50	0.02	61.50	0.01	75.50	0.01	89.50	0.01
47.75	0.02	61.75	0.01	75.75	0.01	89.75	0.01
48.00	0.02	62.00	0.01	76.00	0.01	90.00	0.01
48.25	0.02	62.25	0.01	76.25	0.01	90.25	0.01
48.50	0.02	62.50	0.01	76.50	0.01	90.50	0.01
48.75	0.02	62.75	0.01	76.75	0.01	90.75	0.01
49.00	0.02	63.00	0.01	77.00	0.01	91.00	0.01
49.25	0.02	63.25	0.01	77.25	0.01	91.25	0.01
49.50	0.02	63.50	0.01	77.50	0.01	91.50	0.01
49.75	0.02	63.75	0.01	77.75	0.01	91.75	0.01
50.00	0.02	64.00	0.01	78.00	0.01	92.00	0.01
50.25	0.02	64.25	0.01	78.25	0.01	92.25	0.01
50.50	0.02	64.50	0.01	78.50	0.01	92.50	0.01
50.75	0.02	64.75	0.01	78.75	0.01	92.75	0.01
51.00	0.02	65.00	0.01	79.00	0.01	93.00	0.01
51.25	0.02	65.25	0.01	79.25	0.01	93.25	0.01
51.50	0.02	65.50	0.01	79.50	0.01	93.50	0.01
51.75	0.02	65.75	0.01	79.75	0.01	93.75	0.01
52.00	0.02	66.00	0.01	80.00	0.01	94.00	0.01
52.25	0.02	66.25	0.01	80.25	0.01	94.25	0.01
52.50	0.02	66.50	0.01	80.50	0.01	94.50	0.01
52.75	0.02	66.75	0.01	80.75	0.01	94.75	0.01
53.00	0.02	67.00	0.01	81.00	0.01	95.00	0.01
53.25	0.02	67.25	0.01	81.25	0.01	95.25	0.01
53.50	0.02	67.50	0.01	81.50	0.01	95.50	0.01
53.75	0.02	67.75	0.01	81.75	0.01	95.75	0.01
54.00	0.02	68.00	0.01	82.00	0.01	96.00	0.00

Table 5 – 1%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 10%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.83                      9.9 Inches

BioInitiative ft. 67.76                      813.1 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	3937.08	10.25	4.37	20.25	1.12	30.25	0.50
0.50	1535.15	10.50	4.16	20.50	1.09	30.50	0.49
0.75	752.82	10.75	3.97	20.75	1.07	30.75	0.49
1.00	438.67	11.00	3.79	21.00	1.04	31.00	0.48
1.25	285.39	11.25	3.63	21.25	1.02	31.25	0.47
1.50	199.97	11.50	3.47	21.50	0.99	31.50	0.46
1.75	147.71	11.75	3.32	21.75	0.97	31.75	0.46
2.00	113.49	12.00	3.19	22.00	0.95	32.00	0.45
2.25	89.88	12.25	3.06	22.25	0.93	32.25	0.44
2.50	72.93	12.50	2.94	22.50	0.91	32.50	0.43
2.75	60.35	12.75	2.82	22.75	0.89	32.75	0.43
3.00	50.76	13.00	2.72	23.00	0.87	33.00	0.42
3.25	43.28	13.25	2.61	23.25	0.85	33.25	0.42
3.50	37.34	13.50	2.52	23.50	0.83	33.50	0.41
3.75	32.55	13.75	2.43	23.75	0.81	33.75	0.40
4.00	28.62	14.00	2.34	24.00	0.80	34.00	0.40
4.25	25.36	14.25	2.26	24.25	0.78	34.25	0.39
4.50	22.62	14.50	2.18	24.50	0.76	34.50	0.39
4.75	20.31	14.75	2.11	24.75	0.75	34.75	0.38
5.00	18.33	15.00	2.04	25.00	0.73	35.00	0.37
5.25	16.63	15.25	1.97	25.25	0.72	35.25	0.37
5.50	15.16	15.50	1.91	25.50	0.71	35.50	0.36
5.75	13.87	15.75	1.85	25.75	0.69	35.75	0.36
6.00	12.74	16.00	1.79	26.00	0.68	36.00	0.35
6.25	11.74	16.25	1.74	26.25	0.67	36.25	0.35
6.50	10.86	16.50	1.69	26.50	0.65	36.50	0.34
6.75	10.07	16.75	1.64	26.75	0.64	36.75	0.34
7.00	9.36	17.00	1.59	27.00	0.63	37.00	0.34
7.25	8.73	17.25	1.54	27.25	0.62	37.25	0.33
7.50	8.16	17.50	1.50	27.50	0.61	37.50	0.33
7.75	7.64	17.75	1.46	27.75	0.60	37.75	0.32
8.00	7.17	18.00	1.42	28.00	0.59	38.00	0.32
8.25	6.74	18.25	1.38	28.25	0.58	38.25	0.31
8.50	6.35	18.50	1.34	28.50	0.57	38.50	0.31
8.75	5.99	18.75	1.31	28.75	0.56	38.75	0.31
9.00	5.67	19.00	1.27	29.00	0.55	39.00	0.30
9.25	5.36	19.25	1.24	29.25	0.54	39.25	0.30
9.50	5.09	19.50	1.21	29.50	0.53	39.50	0.29
9.75	4.83	19.75	1.18	29.75	0.52	39.75	0.29
10.00	4.59	20.00	1.15	30.00	0.51	40.00	0.29

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  
 $S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi)(R^2)$   
 S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64 \* ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 10%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 0.83

9.93 Inches

BioInitiative ft. 67.76

813.13 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	0.28	54.25	0.16	68.25	0.10	82.25	0.07
40.50	0.28	54.50	0.15	68.50	0.10	82.50	0.07
40.75	0.28	54.75	0.15	68.75	0.10	82.75	0.07
41.00	0.27	55.00	0.15	69.00	0.10	83.00	0.07
41.25	0.27	55.25	0.15	69.25	0.10	83.25	0.07
41.50	0.27	55.50	0.15	69.50	0.10	83.50	0.07
41.75	0.26	55.75	0.15	69.75	0.09	83.75	0.07
42.00	0.26	56.00	0.15	70.00	0.09	84.00	0.07
42.25	0.26	56.25	0.15	70.25	0.09	84.25	0.06
42.50	0.25	56.50	0.14	70.50	0.09	84.50	0.06
42.75	0.25	56.75	0.14	70.75	0.09	84.75	0.06
43.00	0.25	57.00	0.14	71.00	0.09	85.00	0.06
43.25	0.25	57.25	0.14	71.25	0.09	85.25	0.06
43.50	0.24	57.50	0.14	71.50	0.09	85.50	0.06
43.75	0.24	57.75	0.14	71.75	0.09	85.75	0.06
44.00	0.24	58.00	0.14	72.00	0.09	86.00	0.06
44.25	0.23	58.25	0.14	72.25	0.09	86.25	0.06
44.50	0.23	58.50	0.13	72.50	0.09	86.50	0.06
44.75	0.23	58.75	0.13	72.75	0.09	86.75	0.06
45.00	0.23	59.00	0.13	73.00	0.09	87.00	0.06
45.25	0.22	59.25	0.13	73.25	0.09	87.25	0.06
45.50	0.22	59.50	0.13	73.50	0.08	87.50	0.06
45.75	0.22	59.75	0.13	73.75	0.08	87.75	0.06
46.00	0.22	60.00	0.13	74.00	0.08	88.00	0.06
46.25	0.21	60.25	0.13	74.25	0.08	88.25	0.06
46.50	0.21	60.50	0.13	74.50	0.08	88.50	0.06
46.75	0.21	60.75	0.12	74.75	0.08	88.75	0.06
47.00	0.21	61.00	0.12	75.00	0.08	89.00	0.06
47.25	0.21	61.25	0.12	75.25	0.08	89.25	0.06
47.50	0.20	61.50	0.12	75.50	0.08	89.50	0.06
47.75	0.20	61.75	0.12	75.75	0.08	89.75	0.06
48.00	0.20	62.00	0.12	76.00	0.08	90.00	0.06
48.25	0.20	62.25	0.12	76.25	0.08	90.25	0.06
48.50	0.20	62.50	0.12	76.50	0.08	90.50	0.06
48.75	0.19	62.75	0.12	76.75	0.08	90.75	0.06
49.00	0.19	63.00	0.12	77.00	0.08	91.00	0.06
49.25	0.19	63.25	0.11	77.25	0.08	91.25	0.06
49.50	0.19	63.50	0.11	77.50	0.08	91.50	0.05
49.75	0.19	63.75	0.11	77.75	0.08	91.75	0.05
50.00	0.18	64.00	0.11	78.00	0.08	92.00	0.05
50.25	0.18	64.25	0.11	78.25	0.07	92.25	0.05
50.50	0.18	64.50	0.11	78.50	0.07	92.50	0.05
50.75	0.18	64.75	0.11	78.75	0.07	92.75	0.05
51.00	0.18	65.00	0.11	79.00	0.07	93.00	0.05
51.25	0.17	65.25	0.11	79.25	0.07	93.25	0.05
51.50	0.17	65.50	0.11	79.50	0.07	93.50	0.05
51.75	0.17	65.75	0.11	79.75	0.07	93.75	0.05
52.00	0.17	66.00	0.11	80.00	0.07	94.00	0.05
52.25	0.17	66.25	0.10	80.25	0.07	94.25	0.05
52.50	0.17	66.50	0.10	80.50	0.07	94.50	0.05
52.75	0.17	66.75	0.10	80.75	0.07	94.75	0.05
53.00	0.16	67.00	0.10	81.00	0.07	95.00	0.05
53.25	0.16	67.25	0.10	81.25	0.07	95.25	0.05
53.50	0.16	67.50	0.10	81.50	0.07	95.50	0.05
53.75	0.16	67.75	0.10	81.75	0.07	95.75	0.05
54.00	0.16	68.00	0.10	82.00	0.07	96.00	0.05

Table 5 – 10%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

## Meters 8 Electric Meters

Time Avg: 20%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 1.19 14.3 Inches

BioInitiative ft. 95.83 1150.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	7874.17	10.25	8.74	20.25	2.24	30.25	1.00
0.50	3070.31	10.50	8.33	20.50	2.18	30.50	0.99
0.75	1505.65	10.75	7.94	20.75	2.13	30.75	0.97
1.00	877.33	11.00	7.59	21.00	2.08	31.00	0.96
1.25	570.79	11.25	7.25	21.25	2.03	31.25	0.94
1.50	399.94	11.50	6.94	21.50	1.99	31.50	0.93
1.75	295.42	11.75	6.65	21.75	1.94	31.75	0.91
2.00	226.97	12.00	6.38	22.00	1.90	32.00	0.90
2.25	179.77	12.25	6.12	22.25	1.85	32.25	0.88
2.50	145.86	12.50	5.88	22.50	1.81	32.50	0.87
2.75	120.70	12.75	5.65	22.75	1.77	32.75	0.86
3.00	101.52	13.00	5.43	23.00	1.74	33.00	0.84
3.25	86.57	13.25	5.23	23.25	1.70	33.25	0.83
3.50	74.69	13.50	5.04	23.50	1.66	33.50	0.82
3.75	65.09	13.75	4.86	23.75	1.63	33.75	0.81
4.00	57.23	14.00	4.68	24.00	1.59	34.00	0.79
4.25	50.71	14.25	4.52	24.25	1.56	34.25	0.78
4.50	45.25	14.50	4.37	24.50	1.53	34.50	0.77
4.75	40.62	14.75	4.22	24.75	1.50	34.75	0.76
5.00	36.67	15.00	4.08	25.00	1.47	35.00	0.75
5.25	33.26	15.25	3.95	25.25	1.44	35.25	0.74
5.50	30.31	15.50	3.82	25.50	1.41	35.50	0.73
5.75	27.74	15.75	3.70	25.75	1.38	35.75	0.72
6.00	25.48	16.00	3.59	26.00	1.36	36.00	0.71
6.25	23.48	16.25	3.48	26.25	1.33	36.25	0.70
6.50	21.71	16.50	3.37	26.50	1.31	36.50	0.69
6.75	20.14	16.75	3.27	26.75	1.28	36.75	0.68
7.00	18.72	17.00	3.18	27.00	1.26	37.00	0.67
7.25	17.46	17.25	3.09	27.25	1.24	37.25	0.66
7.50	16.31	17.50	3.00	27.50	1.21	37.50	0.65
7.75	15.28	17.75	2.91	27.75	1.19	37.75	0.64
8.00	14.34	18.00	2.83	28.00	1.17	38.00	0.64
8.25	13.48	18.25	2.76	28.25	1.15	38.25	0.63
8.50	12.70	18.50	2.68	28.50	1.13	38.50	0.62
8.75	11.99	18.75	2.61	28.75	1.11	38.75	0.61
9.00	11.33	19.00	2.54	29.00	1.09	39.00	0.60
9.25	10.73	19.25	2.48	29.25	1.07	39.25	0.60
9.50	10.17	19.50	2.41	29.50	1.06	39.50	0.59
9.75	9.66	19.75	2.35	29.75	1.04	39.75	0.58
10.00	9.18	20.00	2.30	30.00	1.02	40.00	0.57

### Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi)(R)^2$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 20%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 1.19

14.29 Inches

BioInitiative ft. 95.83

1149.95 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.57	54.25	0.31	68.25	0.20	82.25	0.14
40.50	0.56	54.50	0.31	68.50	0.20	82.50	0.13
40.75	0.55	54.75	0.31	68.75	0.19	82.75	0.13
41.00	0.55	55.00	0.30	69.00	0.19	83.00	0.13
41.25	0.54	55.25	0.30	69.25	0.19	83.25	0.13
41.50	0.53	55.50	0.30	69.50	0.19	83.50	0.13
41.75	0.53	55.75	0.30	69.75	0.19	83.75	0.13
42.00	0.52	56.00	0.29	70.00	0.19	84.00	0.13
42.25	0.51	56.25	0.29	70.25	0.19	84.25	0.13
42.50	0.51	56.50	0.29	70.50	0.18	84.50	0.13
42.75	0.50	56.75	0.29	70.75	0.18	84.75	0.13
43.00	0.50	57.00	0.28	71.00	0.18	85.00	0.13
43.25	0.49	57.25	0.28	71.25	0.18	85.25	0.13
43.50	0.49	57.50	0.28	71.50	0.18	85.50	0.13
43.75	0.48	57.75	0.28	71.75	0.18	85.75	0.12
44.00	0.47	58.00	0.27	72.00	0.18	86.00	0.12
44.25	0.47	58.25	0.27	72.25	0.18	86.25	0.12
44.50	0.46	58.50	0.27	72.50	0.17	86.50	0.12
44.75	0.46	58.75	0.27	72.75	0.17	86.75	0.12
45.00	0.45	59.00	0.26	73.00	0.17	87.00	0.12
45.25	0.45	59.25	0.26	73.25	0.17	87.25	0.12
45.50	0.44	59.50	0.26	73.50	0.17	87.50	0.12
45.75	0.44	59.75	0.26	73.75	0.17	87.75	0.12
46.00	0.43	60.00	0.26	74.00	0.17	88.00	0.12
46.25	0.43	60.25	0.25	74.25	0.17	88.25	0.12
46.50	0.42	60.50	0.25	74.50	0.17	88.50	0.12
46.75	0.42	60.75	0.25	74.75	0.16	88.75	0.12
47.00	0.42	61.00	0.25	75.00	0.16	89.00	0.12
47.25	0.41	61.25	0.24	75.25	0.16	89.25	0.12
47.50	0.41	61.50	0.24	75.50	0.16	89.50	0.11
47.75	0.40	61.75	0.24	75.75	0.16	89.75	0.11
48.00	0.40	62.00	0.24	76.00	0.16	90.00	0.11
48.25	0.39	62.25	0.24	76.25	0.16	90.25	0.11
48.50	0.39	62.50	0.24	76.50	0.16	90.50	0.11
48.75	0.39	62.75	0.23	76.75	0.16	90.75	0.11
49.00	0.38	63.00	0.23	77.00	0.15	91.00	0.11
49.25	0.38	63.25	0.23	77.25	0.15	91.25	0.11
49.50	0.37	63.50	0.23	77.50	0.15	91.50	0.11
49.75	0.37	63.75	0.23	77.75	0.15	91.75	0.11
50.00	0.37	64.00	0.22	78.00	0.15	92.00	0.11
50.25	0.36	64.25	0.22	78.25	0.15	92.25	0.11
50.50	0.36	64.50	0.22	78.50	0.15	92.50	0.11
50.75	0.36	64.75	0.22	78.75	0.15	92.75	0.11
51.00	0.35	65.00	0.22	79.00	0.15	93.00	0.11
51.25	0.35	65.25	0.22	79.25	0.15	93.25	0.11
51.50	0.35	65.50	0.21	79.50	0.15	93.50	0.11
51.75	0.34	65.75	0.21	79.75	0.14	93.75	0.10
52.00	0.34	66.00	0.21	80.00	0.14	94.00	0.10
52.25	0.34	66.25	0.21	80.25	0.14	94.25	0.10
52.50	0.33	66.50	0.21	80.50	0.14	94.50	0.10
52.75	0.33	66.75	0.21	80.75	0.14	94.75	0.10
53.00	0.33	67.00	0.20	81.00	0.14	95.00	0.10
53.25	0.32	67.25	0.20	81.25	0.14	95.25	0.10
53.50	0.32	67.50	0.20	81.50	0.14	95.50	0.10
53.75	0.32	67.75	0.20	81.75	0.14	95.75	0.10
54.00	0.31	68.00	0.20	82.00	0.14	96.00	0.10

Table 5 – 20%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 30%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 1.47                      17.6 Inches

BioInitiative ft. 117.37                      1408.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	11811.25	10.25	13.11	20.25	3.36	30.25	1.51
0.50	4605.46	10.50	12.49	20.50	3.28	30.50	1.48
0.75	2258.47	10.75	11.92	20.75	3.20	30.75	1.46
1.00	1316.00	11.00	11.38	21.00	3.12	31.00	1.43
1.25	856.18	11.25	10.88	21.25	3.05	31.25	1.41
1.50	599.91	11.50	10.41	21.50	2.98	31.50	1.39
1.75	443.13	11.75	9.97	21.75	2.91	31.75	1.37
2.00	340.46	12.00	9.56	22.00	2.85	32.00	1.35
2.25	269.65	12.25	9.18	22.25	2.78	32.25	1.32
2.50	218.79	12.50	8.81	22.50	2.72	32.50	1.30
2.75	181.05	12.75	8.47	22.75	2.66	32.75	1.28
3.00	152.28	13.00	8.15	23.00	2.60	33.00	1.26
3.25	129.85	13.25	7.84	23.25	2.55	33.25	1.25
3.50	112.03	13.50	7.56	23.50	2.49	33.50	1.23
3.75	97.64	13.75	7.28	23.75	2.44	33.75	1.21
4.00	85.85	14.00	7.03	24.00	2.39	34.00	1.19
4.25	76.07	14.25	6.78	24.25	2.34	34.25	1.17
4.50	67.87	14.50	6.55	24.50	2.29	34.50	1.16
4.75	60.93	14.75	6.33	24.75	2.25	34.75	1.14
5.00	55.00	15.00	6.12	25.00	2.20	35.00	1.12
5.25	49.89	15.25	5.92	25.25	2.16	35.25	1.11
5.50	45.47	15.50	5.73	25.50	2.12	35.50	1.09
5.75	41.61	15.75	5.55	25.75	2.08	35.75	1.08
6.00	38.22	16.00	5.38	26.00	2.04	36.00	1.06
6.25	35.22	16.25	5.22	26.25	2.00	36.25	1.05
6.50	32.57	16.50	5.06	26.50	1.96	36.50	1.03
6.75	30.20	16.75	4.91	26.75	1.92	36.75	1.02
7.00	28.09	17.00	4.77	27.00	1.89	37.00	1.01
7.25	26.18	17.25	4.63	27.25	1.85	37.25	0.99
7.50	24.47	17.50	4.50	27.50	1.82	37.50	0.98
7.75	22.92	17.75	4.37	27.75	1.79	37.75	0.97
8.00	21.51	18.00	4.25	28.00	1.76	38.00	0.95
8.25	20.23	18.25	4.14	28.25	1.73	38.25	0.94
8.50	19.05	18.50	4.02	28.50	1.70	38.50	0.93
8.75	17.98	18.75	3.92	28.75	1.67	38.75	0.92
9.00	17.00	19.00	3.82	29.00	1.64	39.00	0.91
9.25	16.09	19.25	3.72	29.25	1.61	39.25	0.89
9.50	15.26	19.50	3.62	29.50	1.58	39.50	0.88
9.75	14.48	19.75	3.53	29.75	1.56	39.75	0.87
10.00	13.77	20.00	3.44	30.00	1.53	40.00	0.86

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 30%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 1.47

17.59 Inches

BioInitiative ft. 117.37

1408.40 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	0.85	54.25	0.47	68.25	0.30	82.25	0.20
40.50	0.84	54.50	0.46	68.50	0.29	82.50	0.20
40.75	0.83	54.75	0.46	68.75	0.29	82.75	0.20
41.00	0.82	55.00	0.46	69.00	0.29	83.00	0.20
41.25	0.81	55.25	0.45	69.25	0.29	83.25	0.20
41.50	0.80	55.50	0.45	69.50	0.29	83.50	0.20
41.75	0.79	55.75	0.44	69.75	0.28	83.75	0.20
42.00	0.78	56.00	0.44	70.00	0.28	84.00	0.20
42.25	0.77	56.25	0.44	70.25	0.28	84.25	0.19
42.50	0.76	56.50	0.43	70.50	0.28	84.50	0.19
42.75	0.75	56.75	0.43	70.75	0.28	84.75	0.19
43.00	0.74	57.00	0.42	71.00	0.27	85.00	0.19
43.25	0.74	57.25	0.42	71.25	0.27	85.25	0.19
43.50	0.73	57.50	0.42	71.50	0.27	85.50	0.19
43.75	0.72	57.75	0.41	71.75	0.27	85.75	0.19
44.00	0.71	58.00	0.41	72.00	0.27	86.00	0.19
44.25	0.70	58.25	0.41	72.25	0.26	86.25	0.19
44.50	0.70	58.50	0.40	72.50	0.26	86.50	0.18
44.75	0.69	58.75	0.40	72.75	0.26	86.75	0.18
45.00	0.68	59.00	0.40	73.00	0.26	87.00	0.18
45.25	0.67	59.25	0.39	73.25	0.26	87.25	0.18
45.50	0.67	59.50	0.39	73.50	0.25	87.50	0.18
45.75	0.66	59.75	0.39	73.75	0.25	87.75	0.18
46.00	0.65	60.00	0.38	74.00	0.25	88.00	0.18
46.25	0.64	60.25	0.38	74.25	0.25	88.25	0.18
46.50	0.64	60.50	0.38	74.50	0.25	88.50	0.18
46.75	0.63	60.75	0.37	74.75	0.25	88.75	0.17
47.00	0.62	61.00	0.37	75.00	0.24	89.00	0.17
47.25	0.62	61.25	0.37	75.25	0.24	89.25	0.17
47.50	0.61	61.50	0.36	75.50	0.24	89.50	0.17
47.75	0.60	61.75	0.36	75.75	0.24	89.75	0.17
48.00	0.60	62.00	0.36	76.00	0.24	90.00	0.17
48.25	0.59	62.25	0.36	76.25	0.24	90.25	0.17
48.50	0.59	62.50	0.35	76.50	0.24	90.50	0.17
48.75	0.58	62.75	0.35	76.75	0.23	90.75	0.17
49.00	0.57	63.00	0.35	77.00	0.23	91.00	0.17
49.25	0.57	63.25	0.34	77.25	0.23	91.25	0.17
49.50	0.56	63.50	0.34	77.50	0.23	91.50	0.16
49.75	0.56	63.75	0.34	77.75	0.23	91.75	0.16
50.00	0.55	64.00	0.34	78.00	0.23	92.00	0.16
50.25	0.55	64.25	0.33	78.25	0.22	92.25	0.16
50.50	0.54	64.50	0.33	78.50	0.22	92.50	0.16
50.75	0.53	64.75	0.33	78.75	0.22	92.75	0.16
51.00	0.53	65.00	0.33	79.00	0.22	93.00	0.16
51.25	0.52	65.25	0.32	79.25	0.22	93.25	0.16
51.50	0.52	65.50	0.32	79.50	0.22	93.50	0.16
51.75	0.51	65.75	0.32	79.75	0.22	93.75	0.16
52.00	0.51	66.00	0.32	80.00	0.22	94.00	0.16
52.25	0.50	66.25	0.31	80.25	0.21	94.25	0.16
52.50	0.50	66.50	0.31	80.50	0.21	94.50	0.15
52.75	0.50	66.75	0.31	80.75	0.21	94.75	0.15
53.00	0.49	67.00	0.31	81.00	0.21	95.00	0.15
53.25	0.49	67.25	0.30	81.25	0.21	95.25	0.15
53.50	0.48	67.50	0.30	81.50	0.21	95.50	0.15
53.75	0.48	67.75	0.30	81.75	0.21	95.75	0.15
54.00	0.47	68.00	0.30	82.00	0.20	96.00	0.15

Table 5 – 30%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 40%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 1.70                      20.4 Inches

BioInitiative ft. 135.52                      1626.3 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	15748.33	10.25	17.47	20.25	4.48	30.25	2.01
0.50	6140.62	10.50	16.65	20.50	4.37	30.50	1.97
0.75	3011.30	10.75	15.89	20.75	4.27	30.75	1.94
1.00	1754.66	11.00	15.17	21.00	4.16	31.00	1.91
1.25	1141.57	11.25	14.51	21.25	4.07	31.25	1.88
1.50	799.87	11.50	13.88	21.50	3.97	31.50	1.85
1.75	590.84	11.75	13.30	21.75	3.88	31.75	1.82
2.00	453.95	12.00	12.75	22.00	3.79	32.00	1.79
2.25	359.54	12.25	12.24	22.25	3.71	32.25	1.77
2.50	291.72	12.50	11.75	22.50	3.63	32.50	1.74
2.75	241.40	12.75	11.30	22.75	3.55	32.75	1.71
3.00	203.04	13.00	10.86	23.00	3.47	33.00	1.69
3.25	173.13	13.25	10.46	23.25	3.40	33.25	1.66
3.50	149.37	13.50	10.08	23.50	3.33	33.50	1.64
3.75	130.18	13.75	9.71	23.75	3.26	33.75	1.61
4.00	114.46	14.00	9.37	24.00	3.19	34.00	1.59
4.25	101.43	14.25	9.04	24.25	3.12	34.25	1.57
4.50	90.50	14.50	8.73	24.50	3.06	34.50	1.54
4.75	81.24	14.75	8.44	24.75	3.00	34.75	1.52
5.00	73.33	15.00	8.16	25.00	2.94	35.00	1.50
5.25	66.53	15.25	7.90	25.25	2.88	35.25	1.48
5.50	60.62	15.50	7.64	25.50	2.82	35.50	1.46
5.75	55.47	15.75	7.40	25.75	2.77	35.75	1.44
6.00	50.95	16.00	7.17	26.00	2.72	36.00	1.42
6.25	46.96	16.25	6.95	26.25	2.67	36.25	1.40
6.50	43.42	16.50	6.75	26.50	2.62	36.50	1.38
6.75	40.27	16.75	6.55	26.75	2.57	36.75	1.36
7.00	37.45	17.00	6.35	27.00	2.52	37.00	1.34
7.25	34.91	17.25	6.17	27.25	2.47	37.25	1.32
7.50	32.63	17.50	6.00	27.50	2.43	37.50	1.31
7.75	30.56	17.75	5.83	27.75	2.38	37.75	1.29
8.00	28.68	18.00	5.67	28.00	2.34	38.00	1.27
8.25	26.97	18.25	5.51	28.25	2.30	38.25	1.26
8.50	25.41	18.50	5.37	28.50	2.26	38.50	1.24
8.75	23.97	18.75	5.22	28.75	2.22	38.75	1.22
9.00	22.66	19.00	5.09	29.00	2.18	39.00	1.21
9.25	21.45	19.25	4.96	29.25	2.15	39.25	1.19
9.50	20.34	19.50	4.83	29.50	2.11	39.50	1.18
9.75	19.31	19.75	4.71	29.75	2.08	39.75	1.16
10.00	18.36	20.00	4.59	30.00	2.04	40.00	1.15

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 40%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 1.70

20.37 Inches

BioInitiative ft. 135.52

1626.28 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	1.13	54.25	0.62	68.25	0.39	82.25	0.27
40.50	1.12	54.50	0.62	68.50	0.39	82.50	0.27
40.75	1.11	54.75	0.61	68.75	0.39	82.75	0.27
41.00	1.09	55.00	0.61	69.00	0.39	83.00	0.27
41.25	1.08	55.25	0.60	69.25	0.38	83.25	0.27
41.50	1.07	55.50	0.60	69.50	0.38	83.50	0.26
41.75	1.05	55.75	0.59	69.75	0.38	83.75	0.26
42.00	1.04	56.00	0.59	70.00	0.37	84.00	0.26
42.25	1.03	56.25	0.58	70.25	0.37	84.25	0.26
42.50	1.02	56.50	0.58	70.50	0.37	84.50	0.26
42.75	1.00	56.75	0.57	70.75	0.37	84.75	0.26
43.00	0.99	57.00	0.57	71.00	0.36	85.00	0.25
43.25	0.98	57.25	0.56	71.25	0.36	85.25	0.25
43.50	0.97	57.50	0.56	71.50	0.36	85.50	0.25
43.75	0.96	57.75	0.55	71.75	0.36	85.75	0.25
44.00	0.95	58.00	0.55	72.00	0.35	86.00	0.25
44.25	0.94	58.25	0.54	72.25	0.35	86.25	0.25
44.50	0.93	58.50	0.54	72.50	0.35	86.50	0.25
44.75	0.92	58.75	0.53	72.75	0.35	86.75	0.24
45.00	0.91	59.00	0.53	73.00	0.34	87.00	0.24
45.25	0.90	59.25	0.52	73.25	0.34	87.25	0.24
45.50	0.89	59.50	0.52	73.50	0.34	87.50	0.24
45.75	0.88	59.75	0.51	73.75	0.34	87.75	0.24
46.00	0.87	60.00	0.51	74.00	0.34	88.00	0.24
46.25	0.86	60.25	0.51	74.25	0.33	88.25	0.24
46.50	0.85	60.50	0.50	74.50	0.33	88.50	0.23
46.75	0.84	60.75	0.50	74.75	0.33	88.75	0.23
47.00	0.83	61.00	0.49	75.00	0.33	89.00	0.23
47.25	0.82	61.25	0.49	75.25	0.32	89.25	0.23
47.50	0.81	61.50	0.49	75.50	0.32	89.50	0.23
47.75	0.81	61.75	0.48	75.75	0.32	89.75	0.23
48.00	0.80	62.00	0.48	76.00	0.32	90.00	0.23
48.25	0.79	62.25	0.47	76.25	0.32	90.25	0.23
48.50	0.78	62.50	0.47	76.50	0.31	90.50	0.22
48.75	0.77	62.75	0.47	76.75	0.31	90.75	0.22
49.00	0.76	63.00	0.46	77.00	0.31	91.00	0.22
49.25	0.76	63.25	0.46	77.25	0.31	91.25	0.22
49.50	0.75	63.50	0.46	77.50	0.31	91.50	0.22
49.75	0.74	63.75	0.45	77.75	0.30	91.75	0.22
50.00	0.73	64.00	0.45	78.00	0.30	92.00	0.22
50.25	0.73	64.25	0.44	78.25	0.30	92.25	0.22
50.50	0.72	64.50	0.44	78.50	0.30	92.50	0.21
50.75	0.71	64.75	0.44	78.75	0.30	92.75	0.21
51.00	0.71	65.00	0.43	79.00	0.29	93.00	0.21
51.25	0.70	65.25	0.43	79.25	0.29	93.25	0.21
51.50	0.69	65.50	0.43	79.50	0.29	93.50	0.21
51.75	0.69	65.75	0.42	79.75	0.29	93.75	0.21
52.00	0.68	66.00	0.42	80.00	0.29	94.00	0.21
52.25	0.67	66.25	0.42	80.25	0.29	94.25	0.21
52.50	0.67	66.50	0.42	80.50	0.28	94.50	0.21
52.75	0.66	66.75	0.41	80.75	0.28	94.75	0.20
53.00	0.65	67.00	0.41	81.00	0.28	95.00	0.20
53.25	0.65	67.25	0.41	81.25	0.28	95.25	0.20
53.50	0.64	67.50	0.40	81.50	0.28	95.50	0.20
53.75	0.64	67.75	0.40	81.75	0.27	95.75	0.20
54.00	0.63	68.00	0.40	82.00	0.27	96.00	0.20

Table 5 – 40%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 50%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 1.90 22.8 Inches

BioInitiative ft. 151.52 1818.2 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	19685.41	10.25	21.84	20.25	5.60	30.25	2.51
0.50	7675.77	10.50	20.82	20.50	5.46	30.50	2.47
0.75	3764.12	10.75	19.86	20.75	5.33	30.75	2.43
1.00	2193.33	11.00	18.97	21.00	5.21	31.00	2.39
1.25	1426.97	11.25	18.13	21.25	5.08	31.25	2.35
1.50	999.84	11.50	17.35	21.50	4.97	31.50	2.31
1.75	738.55	11.75	16.62	21.75	4.85	31.75	2.28
2.00	567.43	12.00	15.94	22.00	4.74	32.00	2.24
2.25	449.42	12.25	15.29	22.25	4.64	32.25	2.21
2.50	364.66	12.50	14.69	22.50	4.53	32.50	2.17
2.75	301.75	12.75	14.12	22.75	4.44	32.75	2.14
3.00	253.80	13.00	13.58	23.00	4.34	33.00	2.11
3.25	216.42	13.25	13.07	23.25	4.25	33.25	2.08
3.50	186.72	13.50	12.59	23.50	4.16	33.50	2.05
3.75	162.73	13.75	12.14	23.75	4.07	33.75	2.02
4.00	143.08	14.00	11.71	24.00	3.99	34.00	1.99
4.25	126.78	14.25	11.30	24.25	3.90	34.25	1.96
4.50	113.12	14.50	10.92	24.50	3.82	34.50	1.93
4.75	101.55	14.75	10.55	24.75	3.75	34.75	1.90
5.00	91.67	15.00	10.20	25.00	3.67	35.00	1.87
5.25	83.16	15.25	9.87	25.25	3.60	35.25	1.85
5.50	75.78	15.50	9.55	25.50	3.53	35.50	1.82
5.75	69.34	15.75	9.25	25.75	3.46	35.75	1.80
6.00	63.69	16.00	8.97	26.00	3.40	36.00	1.77
6.25	58.70	16.25	8.69	26.25	3.33	36.25	1.75
6.50	54.28	16.50	8.43	26.50	3.27	36.50	1.72
6.75	50.34	16.75	8.18	26.75	3.21	36.75	1.70
7.00	46.81	17.00	7.94	27.00	3.15	37.00	1.68
7.25	43.64	17.25	7.71	27.25	3.09	37.25	1.65
7.50	40.78	17.50	7.50	27.50	3.04	37.50	1.63
7.75	38.20	17.75	7.29	27.75	2.98	37.75	1.61
8.00	35.85	18.00	7.08	28.00	2.93	38.00	1.59
8.25	33.71	18.25	6.89	28.25	2.88	38.25	1.57
8.50	31.76	18.50	6.71	28.50	2.83	38.50	1.55
8.75	29.97	18.75	6.53	28.75	2.78	38.75	1.53
9.00	28.33	19.00	6.36	29.00	2.73	39.00	1.51
9.25	26.82	19.25	6.19	29.25	2.68	39.25	1.49
9.50	25.43	19.50	6.04	29.50	2.64	39.50	1.47
9.75	24.14	19.75	5.89	29.75	2.59	39.75	1.45
10.00	22.95	20.00	5.74	30.00	2.55	40.00	1.43

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 50%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 1.90

22.81 Inches

BioInitiative ft. 151.52

1818.24 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	1.42	54.25	0.78	68.25	0.49	82.25	0.34
40.50	1.40	54.50	0.77	68.50	0.49	82.50	0.34
40.75	1.38	54.75	0.77	68.75	0.49	82.75	0.34
41.00	1.37	55.00	0.76	69.00	0.48	83.00	0.33
41.25	1.35	55.25	0.75	69.25	0.48	83.25	0.33
41.50	1.33	55.50	0.75	69.50	0.48	83.50	0.33
41.75	1.32	55.75	0.74	69.75	0.47	83.75	0.33
42.00	1.30	56.00	0.73	70.00	0.47	84.00	0.33
42.25	1.29	56.25	0.73	70.25	0.47	84.25	0.32
42.50	1.27	56.50	0.72	70.50	0.46	84.50	0.32
42.75	1.26	56.75	0.71	70.75	0.46	84.75	0.32
43.00	1.24	57.00	0.71	71.00	0.46	85.00	0.32
43.25	1.23	57.25	0.70	71.25	0.45	85.25	0.32
43.50	1.21	57.50	0.69	71.50	0.45	85.50	0.31
43.75	1.20	57.75	0.69	71.75	0.45	85.75	0.31
44.00	1.19	58.00	0.68	72.00	0.44	86.00	0.31
44.25	1.17	58.25	0.68	72.25	0.44	86.25	0.31
44.50	1.16	58.50	0.67	72.50	0.44	86.50	0.31
44.75	1.15	58.75	0.67	72.75	0.43	86.75	0.31
45.00	1.13	59.00	0.66	73.00	0.43	87.00	0.30
45.25	1.12	59.25	0.65	73.25	0.43	87.25	0.30
45.50	1.11	59.50	0.65	73.50	0.42	87.50	0.30
45.75	1.10	59.75	0.64	73.75	0.42	87.75	0.30
46.00	1.08	60.00	0.64	74.00	0.42	88.00	0.30
46.25	1.07	60.25	0.63	74.25	0.42	88.25	0.29
46.50	1.06	60.50	0.63	74.50	0.41	88.50	0.29
46.75	1.05	60.75	0.62	74.75	0.41	88.75	0.29
47.00	1.04	61.00	0.62	75.00	0.41	89.00	0.29
47.25	1.03	61.25	0.61	75.25	0.41	89.25	0.29
47.50	1.02	61.50	0.61	75.50	0.40	89.50	0.29
47.75	1.01	61.75	0.60	75.75	0.40	89.75	0.29
48.00	1.00	62.00	0.60	76.00	0.40	90.00	0.28
48.25	0.99	62.25	0.59	76.25	0.39	90.25	0.28
48.50	0.98	62.50	0.59	76.50	0.39	90.50	0.28
48.75	0.97	62.75	0.58	76.75	0.39	90.75	0.28
49.00	0.96	63.00	0.58	77.00	0.39	91.00	0.28
49.25	0.95	63.25	0.57	77.25	0.38	91.25	0.28
49.50	0.94	63.50	0.57	77.50	0.38	91.50	0.27
49.75	0.93	63.75	0.56	77.75	0.38	91.75	0.27
50.00	0.92	64.00	0.56	78.00	0.38	92.00	0.27
50.25	0.91	64.25	0.56	78.25	0.37	92.25	0.27
50.50	0.90	64.50	0.55	78.50	0.37	92.50	0.27
50.75	0.89	64.75	0.55	78.75	0.37	92.75	0.27
51.00	0.88	65.00	0.54	79.00	0.37	93.00	0.27
51.25	0.87	65.25	0.54	79.25	0.37	93.25	0.26
51.50	0.87	65.50	0.54	79.50	0.36	93.50	0.26
51.75	0.86	65.75	0.53	79.75	0.36	93.75	0.26
52.00	0.85	66.00	0.53	80.00	0.36	94.00	0.26
52.25	0.84	66.25	0.52	80.25	0.36	94.25	0.26
52.50	0.83	66.50	0.52	80.50	0.35	94.50	0.26
52.75	0.83	66.75	0.52	80.75	0.35	94.75	0.26
53.00	0.82	67.00	0.51	81.00	0.35	95.00	0.25
53.25	0.81	67.25	0.51	81.25	0.35	95.25	0.25
53.50	0.80	67.50	0.50	81.50	0.35	95.50	0.25
53.75	0.79	67.75	0.50	81.75	0.34	95.75	0.25
54.00	0.79	68.00	0.50	82.00	0.34	96.00	0.25

Table 5 – 50%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

## Meters 8 Electric Meters

Time Avg: 60%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 2.08 25.0 Inches

BioInitiative ft. 165.98 1991.8 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	23622.50	10.25	26.21	20.25	6.72	30.25	3.01
0.50	9210.93	10.50	24.98	20.50	6.55	30.50	2.96
0.75	4516.95	10.75	23.83	20.75	6.40	30.75	2.91
1.00	2632.00	11.00	22.76	21.00	6.25	31.00	2.87
1.25	1712.36	11.25	21.76	21.25	6.10	31.25	2.82
1.50	1199.81	11.50	20.82	21.50	5.96	31.50	2.78
1.75	886.26	11.75	19.95	21.75	5.82	31.75	2.73
2.00	680.92	12.00	19.13	22.00	5.69	32.00	2.69
2.25	539.30	12.25	18.35	22.25	5.56	32.25	2.65
2.50	437.59	12.50	17.63	22.50	5.44	32.50	2.61
2.75	362.10	12.75	16.94	22.75	5.32	32.75	2.57
3.00	304.56	13.00	16.30	23.00	5.21	33.00	2.53
3.25	259.70	13.25	15.69	23.25	5.10	33.25	2.49
3.50	224.06	13.50	15.11	23.50	4.99	33.50	2.45
3.75	195.28	13.75	14.57	23.75	4.88	33.75	2.42
4.00	171.70	14.00	14.05	24.00	4.78	34.00	2.38
4.25	152.14	14.25	13.56	24.25	4.68	34.25	2.35
4.50	135.74	14.50	13.10	24.50	4.59	34.50	2.31
4.75	121.86	14.75	12.66	24.75	4.50	34.75	2.28
5.00	110.00	15.00	12.24	25.00	4.41	35.00	2.25
5.25	99.79	15.25	11.84	25.25	4.32	35.25	2.22
5.50	90.94	15.50	11.47	25.50	4.24	35.50	2.19
5.75	83.21	15.75	11.10	25.75	4.15	35.75	2.16
6.00	76.43	16.00	10.76	26.00	4.08	36.00	2.13
6.25	70.45	16.25	10.43	26.25	4.00	36.25	2.10
6.50	65.14	16.50	10.12	26.50	3.92	36.50	2.07
6.75	60.41	16.75	9.82	26.75	3.85	36.75	2.04
7.00	56.17	17.00	9.53	27.00	3.78	37.00	2.01
7.25	52.37	17.25	9.26	27.25	3.71	37.25	1.99
7.50	48.94	17.50	8.99	27.50	3.64	37.50	1.96
7.75	45.83	17.75	8.74	27.75	3.58	37.75	1.93
8.00	43.02	18.00	8.50	28.00	3.51	38.00	1.91
8.25	40.45	18.25	8.27	28.25	3.45	38.25	1.88
8.50	38.11	18.50	8.05	28.50	3.39	38.50	1.86
8.75	35.96	18.75	7.84	28.75	3.33	38.75	1.83
9.00	33.99	19.00	7.63	29.00	3.28	39.00	1.81
9.25	32.18	19.25	7.43	29.25	3.22	39.25	1.79
9.50	30.51	19.50	7.24	29.50	3.17	39.50	1.77
9.75	28.97	19.75	7.06	29.75	3.11	39.75	1.74
10.00	27.54	20.00	6.89	30.00	3.06	40.00	1.72

### Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 60%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 2.08

25.01 Inches

BioInitiative ft. 165.98

1991.78 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	1.70	54.25	0.94	68.25	0.59	82.25	0.41
40.50	1.68	54.50	0.93	68.50	0.59	82.50	0.40
40.75	1.66	54.75	0.92	68.75	0.58	82.75	0.40
41.00	1.64	55.00	0.91	69.00	0.58	83.00	0.40
41.25	1.62	55.25	0.90	69.25	0.57	83.25	0.40
41.50	1.60	55.50	0.89	69.50	0.57	83.50	0.40
41.75	1.58	55.75	0.89	69.75	0.57	83.75	0.39
42.00	1.56	56.00	0.88	70.00	0.56	84.00	0.39
42.25	1.54	56.25	0.87	70.25	0.56	84.25	0.39
42.50	1.53	56.50	0.86	70.50	0.55	84.50	0.39
42.75	1.51	56.75	0.86	70.75	0.55	84.75	0.38
43.00	1.49	57.00	0.85	71.00	0.55	85.00	0.38
43.25	1.47	57.25	0.84	71.25	0.54	85.25	0.38
43.50	1.46	57.50	0.83	71.50	0.54	85.50	0.38
43.75	1.44	57.75	0.83	71.75	0.54	85.75	0.37
44.00	1.42	58.00	0.82	72.00	0.53	86.00	0.37
44.25	1.41	58.25	0.81	72.25	0.53	86.25	0.37
44.50	1.39	58.50	0.81	72.50	0.52	86.50	0.37
44.75	1.38	58.75	0.80	72.75	0.52	86.75	0.37
45.00	1.36	59.00	0.79	73.00	0.52	87.00	0.36
45.25	1.35	59.25	0.78	73.25	0.51	87.25	0.36
45.50	1.33	59.50	0.78	73.50	0.51	87.50	0.36
45.75	1.32	59.75	0.77	73.75	0.51	87.75	0.36
46.00	1.30	60.00	0.77	74.00	0.50	88.00	0.36
46.25	1.29	60.25	0.76	74.25	0.50	88.25	0.35
46.50	1.27	60.50	0.75	74.50	0.50	88.50	0.35
46.75	1.26	60.75	0.75	74.75	0.49	88.75	0.35
47.00	1.25	61.00	0.74	75.00	0.49	89.00	0.35
47.25	1.23	61.25	0.73	75.25	0.49	89.25	0.35
47.50	1.22	61.50	0.73	75.50	0.48	89.50	0.34
47.75	1.21	61.75	0.72	75.75	0.48	89.75	0.34
48.00	1.20	62.00	0.72	76.00	0.48	90.00	0.34
48.25	1.18	62.25	0.71	76.25	0.47	90.25	0.34
48.50	1.17	62.50	0.71	76.50	0.47	90.50	0.34
48.75	1.16	62.75	0.70	76.75	0.47	90.75	0.33
49.00	1.15	63.00	0.69	77.00	0.46	91.00	0.33
49.25	1.14	63.25	0.69	77.25	0.46	91.25	0.33
49.50	1.12	63.50	0.68	77.50	0.46	91.50	0.33
49.75	1.11	63.75	0.68	77.75	0.46	91.75	0.33
50.00	1.10	64.00	0.67	78.00	0.45	92.00	0.33
50.25	1.09	64.25	0.67	78.25	0.45	92.25	0.32
50.50	1.08	64.50	0.66	78.50	0.45	92.50	0.32
50.75	1.07	64.75	0.66	78.75	0.44	92.75	0.32
51.00	1.06	65.00	0.65	79.00	0.44	93.00	0.32
51.25	1.05	65.25	0.65	79.25	0.44	93.25	0.32
51.50	1.04	65.50	0.64	79.50	0.44	93.50	0.32
51.75	1.03	65.75	0.64	79.75	0.43	93.75	0.31
52.00	1.02	66.00	0.63	80.00	0.43	94.00	0.31
52.25	1.01	66.25	0.63	80.25	0.43	94.25	0.31
52.50	1.00	66.50	0.62	80.50	0.43	94.50	0.31
52.75	0.99	66.75	0.62	80.75	0.42	94.75	0.31
53.00	0.98	67.00	0.61	81.00	0.42	95.00	0.31
53.25	0.97	67.25	0.61	81.25	0.42	95.25	0.30
53.50	0.96	67.50	0.60	81.50	0.41	95.50	0.30
53.75	0.95	67.75	0.60	81.75	0.41	95.75	0.30
54.00	0.94	68.00	0.60	82.00	0.41	96.00	0.30

Table 5 – 60%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters 8 Electric Meters**

Time Avg: 70%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 2.25                      27.0 Inches

BioInitiative ft. 179.28                      2151.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	27559.58	10.25	30.58	20.25	7.84	30.25	3.51
0.50	10746.08	10.50	29.14	20.50	7.65	30.50	3.46
0.75	5269.77	10.75	27.80	20.75	7.46	30.75	3.40
1.00	3070.66	11.00	26.55	21.00	7.29	31.00	3.34
1.25	1997.75	11.25	25.39	21.25	7.12	31.25	3.29
1.50	1399.78	11.50	24.30	21.50	6.95	31.50	3.24
1.75	1033.97	11.75	23.27	21.75	6.79	31.75	3.19
2.00	794.41	12.00	22.31	22.00	6.64	32.00	3.14
2.25	629.19	12.25	21.41	22.25	6.49	32.25	3.09
2.50	510.52	12.50	20.56	22.50	6.35	32.50	3.04
2.75	422.45	12.75	19.77	22.75	6.21	32.75	3.00
3.00	355.32	13.00	19.01	23.00	6.08	33.00	2.95
3.25	302.99	13.25	18.30	23.25	5.95	33.25	2.91
3.50	261.40	13.50	17.63	23.50	5.82	33.50	2.86
3.75	227.82	13.75	17.00	23.75	5.70	33.75	2.82
4.00	200.31	14.00	16.40	24.00	5.58	34.00	2.78
4.25	177.50	14.25	15.82	24.25	5.47	34.25	2.74
4.50	158.37	14.50	15.28	24.50	5.35	34.50	2.70
4.75	142.17	14.75	14.77	24.75	5.25	34.75	2.66
5.00	128.33	15.00	14.28	25.00	5.14	35.00	2.62
5.25	116.42	15.25	13.82	25.25	5.04	35.25	2.59
5.50	106.09	15.50	13.38	25.50	4.94	35.50	2.55
5.75	97.08	15.75	12.95	25.75	4.85	35.75	2.51
6.00	89.17	16.00	12.55	26.00	4.75	36.00	2.48
6.25	82.19	16.25	12.17	26.25	4.66	36.25	2.45
6.50	75.99	16.50	11.80	26.50	4.58	36.50	2.41
6.75	70.47	16.75	11.45	26.75	4.49	36.75	2.38
7.00	65.53	17.00	11.12	27.00	4.41	37.00	2.35
7.25	61.10	17.25	10.80	27.25	4.33	37.25	2.32
7.50	57.09	17.50	10.49	27.50	4.25	37.50	2.29
7.75	53.47	17.75	10.20	27.75	4.17	37.75	2.26
8.00	50.19	18.00	9.92	28.00	4.10	38.00	2.23
8.25	47.19	18.25	9.65	28.25	4.03	38.25	2.20
8.50	44.46	18.50	9.39	28.50	3.96	38.50	2.17
8.75	41.96	18.75	9.14	28.75	3.89	38.75	2.14
9.00	39.66	19.00	8.90	29.00	3.82	39.00	2.11
9.25	37.55	19.25	8.67	29.25	3.76	39.25	2.09
9.50	35.60	19.50	8.45	29.50	3.69	39.50	2.06
9.75	33.79	19.75	8.24	29.75	3.63	39.75	2.03
10.00	32.13	20.00	8.03	30.00	3.57	40.00	2.01

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64\*ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 70%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 2.25

27.04 Inches

BioInitiative ft. 179.28

2151.37 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	1.98	54.25	1.09	68.25	0.69	82.25	0.48
40.50	1.96	54.50	1.08	68.50	0.68	82.50	0.47
40.75	1.94	54.75	1.07	68.75	0.68	82.75	0.47
41.00	1.91	55.00	1.06	69.00	0.68	83.00	0.47
41.25	1.89	55.25	1.05	69.25	0.67	83.25	0.46
41.50	1.87	55.50	1.04	69.50	0.67	83.50	0.46
41.75	1.84	55.75	1.03	69.75	0.66	83.75	0.46
42.00	1.82	56.00	1.02	70.00	0.66	84.00	0.46
42.25	1.80	56.25	1.02	70.25	0.65	84.25	0.45
42.50	1.78	56.50	1.01	70.50	0.65	84.50	0.45
42.75	1.76	56.75	1.00	70.75	0.64	84.75	0.45
43.00	1.74	57.00	0.99	71.00	0.64	85.00	0.44
43.25	1.72	57.25	0.98	71.25	0.63	85.25	0.44
43.50	1.70	57.50	0.97	71.50	0.63	85.50	0.44
43.75	1.68	57.75	0.96	71.75	0.62	85.75	0.44
44.00	1.66	58.00	0.96	72.00	0.62	86.00	0.43
44.25	1.64	58.25	0.95	72.25	0.62	86.25	0.43
44.50	1.62	58.50	0.94	72.50	0.61	86.50	0.43
44.75	1.60	58.75	0.93	72.75	0.61	86.75	0.43
45.00	1.59	59.00	0.92	73.00	0.60	87.00	0.42
45.25	1.57	59.25	0.92	73.25	0.60	87.25	0.42
45.50	1.55	59.50	0.91	73.50	0.59	87.50	0.42
45.75	1.54	59.75	0.90	73.75	0.59	87.75	0.42
46.00	1.52	60.00	0.89	74.00	0.59	88.00	0.42
46.25	1.50	60.25	0.89	74.25	0.58	88.25	0.41
46.50	1.49	60.50	0.88	74.50	0.58	88.50	0.41
46.75	1.47	60.75	0.87	74.75	0.58	88.75	0.41
47.00	1.46	61.00	0.86	75.00	0.57	89.00	0.41
47.25	1.44	61.25	0.86	75.25	0.57	89.25	0.40
47.50	1.42	61.50	0.85	75.50	0.56	89.50	0.40
47.75	1.41	61.75	0.84	75.75	0.56	89.75	0.40
48.00	1.40	62.00	0.84	76.00	0.56	90.00	0.40
48.25	1.38	62.25	0.83	76.25	0.55	90.25	0.39
48.50	1.37	62.50	0.82	76.50	0.55	90.50	0.39
48.75	1.35	62.75	0.82	76.75	0.55	90.75	0.39
49.00	1.34	63.00	0.81	77.00	0.54	91.00	0.39
49.25	1.33	63.25	0.80	77.25	0.54	91.25	0.39
49.50	1.31	63.50	0.80	77.50	0.54	91.50	0.38
49.75	1.30	63.75	0.79	77.75	0.53	91.75	0.38
50.00	1.29	64.00	0.78	78.00	0.53	92.00	0.38
50.25	1.27	64.25	0.78	78.25	0.52	92.25	0.38
50.50	1.26	64.50	0.77	78.50	0.52	92.50	0.38
50.75	1.25	64.75	0.77	78.75	0.52	92.75	0.37
51.00	1.24	65.00	0.76	79.00	0.52	93.00	0.37
51.25	1.22	65.25	0.75	79.25	0.51	93.25	0.37
51.50	1.21	65.50	0.75	79.50	0.51	93.50	0.37
51.75	1.20	65.75	0.74	79.75	0.51	93.75	0.37
52.00	1.19	66.00	0.74	80.00	0.50	94.00	0.36
52.25	1.18	66.25	0.73	80.25	0.50	94.25	0.36
52.50	1.17	66.50	0.73	80.50	0.50	94.50	0.36
52.75	1.16	66.75	0.72	80.75	0.49	94.75	0.36
53.00	1.14	67.00	0.72	81.00	0.49	95.00	0.36
53.25	1.13	67.25	0.71	81.25	0.49	95.25	0.35
53.50	1.12	67.50	0.71	81.50	0.48	95.50	0.35
53.75	1.11	67.75	0.70	81.75	0.48	95.75	0.35
54.00	1.10	68.00	0.70	82.00	0.48	96.00	0.35

Table 5 – 70%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 80%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 2.41                      28.9 Inches

BioInitiative ft. 191.66                      2299.9 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	31496.66	10.25	34.95	20.25	8.96	30.25	4.01
0.50	12281.23	10.50	33.30	20.50	8.74	30.50	3.95
0.75	6022.59	10.75	31.77	20.75	8.53	30.75	3.88
1.00	3509.33	11.00	30.35	21.00	8.33	31.00	3.82
1.25	2283.15	11.25	29.01	21.25	8.13	31.25	3.76
1.50	1599.75	11.50	27.77	21.50	7.95	31.50	3.70
1.75	1181.68	11.75	26.60	21.75	7.76	31.75	3.64
2.00	907.89	12.00	25.50	22.00	7.59	32.00	3.59
2.25	719.07	12.25	24.47	22.25	7.42	32.25	3.53
2.50	583.45	12.50	23.50	22.50	7.26	32.50	3.48
2.75	482.80	12.75	22.59	22.75	7.10	32.75	3.42
3.00	406.08	13.00	21.73	23.00	6.94	33.00	3.37
3.25	346.27	13.25	20.92	23.25	6.79	33.25	3.32
3.50	298.75	13.50	20.15	23.50	6.65	33.50	3.27
3.75	260.37	13.75	19.42	23.75	6.51	33.75	3.22
4.00	228.93	14.00	18.74	24.00	6.38	34.00	3.18
4.25	202.85	14.25	18.09	24.25	6.25	34.25	3.13
4.50	180.99	14.50	17.47	24.50	6.12	34.50	3.09
4.75	162.48	14.75	16.88	24.75	6.00	34.75	3.04
5.00	146.67	15.00	16.32	25.00	5.88	35.00	3.00
5.25	133.05	15.25	15.79	25.25	5.76	35.25	2.96
5.50	121.25	15.50	15.29	25.50	5.65	35.50	2.91
5.75	110.95	15.75	14.81	25.75	5.54	35.75	2.87
6.00	101.91	16.00	14.35	26.00	5.43	36.00	2.83
6.25	93.93	16.25	13.91	26.25	5.33	36.25	2.80
6.50	86.85	16.50	13.49	26.50	5.23	36.50	2.76
6.75	80.54	16.75	13.09	26.75	5.13	36.75	2.72
7.00	74.90	17.00	12.71	27.00	5.04	37.00	2.68
7.25	69.82	17.25	12.34	27.25	4.95	37.25	2.65
7.50	65.25	17.50	11.99	27.50	4.86	37.50	2.61
7.75	61.11	17.75	11.66	27.75	4.77	37.75	2.58
8.00	57.36	18.00	11.34	28.00	4.69	38.00	2.54
8.25	53.93	18.25	11.03	28.25	4.60	38.25	2.51
8.50	50.81	18.50	10.73	28.50	4.52	38.50	2.48
8.75	47.95	18.75	10.45	28.75	4.44	38.75	2.45
9.00	45.32	19.00	10.17	29.00	4.37	39.00	2.42
9.25	42.91	19.25	9.91	29.25	4.29	39.25	2.38
9.50	40.68	19.50	9.66	29.50	4.22	39.50	2.35
9.75	38.62	19.75	9.42	29.75	4.15	39.75	2.32
10.00	36.72	20.00	9.18	30.00	4.08	40.00	2.30

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  
 $S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$   
 S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64 \* ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 80%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 2.41

28.92 Inches

BioInitiative ft. 191.66

2299.91 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	2.27	54.25	1.25	68.25	0.79	82.25	0.54
40.50	2.24	54.50	1.24	68.50	0.78	82.50	0.54
40.75	2.21	54.75	1.23	68.75	0.78	82.75	0.54
41.00	2.19	55.00	1.21	69.00	0.77	83.00	0.53
41.25	2.16	55.25	1.20	69.25	0.77	83.25	0.53
41.50	2.13	55.50	1.19	69.50	0.76	83.50	0.53
41.75	2.11	55.75	1.18	69.75	0.76	83.75	0.52
42.00	2.08	56.00	1.17	70.00	0.75	84.00	0.52
42.25	2.06	56.25	1.16	70.25	0.74	84.25	0.52
42.50	2.03	56.50	1.15	70.50	0.74	84.50	0.51
42.75	2.01	56.75	1.14	70.75	0.73	84.75	0.51
43.00	1.99	57.00	1.13	71.00	0.73	85.00	0.51
43.25	1.96	57.25	1.12	71.25	0.72	85.25	0.51
43.50	1.94	57.50	1.11	71.50	0.72	85.50	0.50
43.75	1.92	57.75	1.10	71.75	0.71	85.75	0.50
44.00	1.90	58.00	1.09	72.00	0.71	86.00	0.50
44.25	1.88	58.25	1.08	72.25	0.70	86.25	0.49
44.50	1.85	58.50	1.07	72.50	0.70	86.50	0.49
44.75	1.83	58.75	1.06	72.75	0.69	86.75	0.49
45.00	1.81	59.00	1.06	73.00	0.69	87.00	0.49
45.25	1.79	59.25	1.05	73.25	0.68	87.25	0.48
45.50	1.77	59.50	1.04	73.50	0.68	87.50	0.48
45.75	1.75	59.75	1.03	73.75	0.68	87.75	0.48
46.00	1.74	60.00	1.02	74.00	0.67	88.00	0.47
46.25	1.72	60.25	1.01	74.25	0.67	88.25	0.47
46.50	1.70	60.50	1.00	74.50	0.66	88.50	0.47
46.75	1.68	60.75	1.00	74.75	0.66	88.75	0.47
47.00	1.66	61.00	0.99	75.00	0.65	89.00	0.46
47.25	1.65	61.25	0.98	75.25	0.65	89.25	0.46
47.50	1.63	61.50	0.97	75.50	0.64	89.50	0.46
47.75	1.61	61.75	0.96	75.75	0.64	89.75	0.46
48.00	1.59	62.00	0.96	76.00	0.64	90.00	0.45
48.25	1.58	62.25	0.95	76.25	0.63	90.25	0.45
48.50	1.56	62.50	0.94	76.50	0.63	90.50	0.45
48.75	1.55	62.75	0.93	76.75	0.62	90.75	0.45
49.00	1.53	63.00	0.93	77.00	0.62	91.00	0.44
49.25	1.51	63.25	0.92	77.25	0.62	91.25	0.44
49.50	1.50	63.50	0.91	77.50	0.61	91.50	0.44
49.75	1.48	63.75	0.90	77.75	0.61	91.75	0.44
50.00	1.47	64.00	0.90	78.00	0.60	92.00	0.43
50.25	1.45	64.25	0.89	78.25	0.60	92.25	0.43
50.50	1.44	64.50	0.88	78.50	0.60	92.50	0.43
50.75	1.43	64.75	0.88	78.75	0.59	92.75	0.43
51.00	1.41	65.00	0.87	79.00	0.59	93.00	0.42
51.25	1.40	65.25	0.86	79.25	0.58	93.25	0.42
51.50	1.38	65.50	0.86	79.50	0.58	93.50	0.42
51.75	1.37	65.75	0.85	79.75	0.58	93.75	0.42
52.00	1.36	66.00	0.84	80.00	0.57	94.00	0.42
52.25	1.35	66.25	0.84	80.25	0.57	94.25	0.41
52.50	1.33	66.50	0.83	80.50	0.57	94.50	0.41
52.75	1.32	66.75	0.82	80.75	0.56	94.75	0.41
53.00	1.31	67.00	0.82	81.00	0.56	95.00	0.41
53.25	1.30	67.25	0.81	81.25	0.56	95.25	0.40
53.50	1.28	67.50	0.81	81.50	0.55	95.50	0.40
53.75	1.27	67.75	0.80	81.75	0.55	95.75	0.40
54.00	1.26	68.00	0.79	82.00	0.55	96.00	0.40

Table 5 – 80%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 90%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 2.56                      30.7 Inches

BioInitiative ft. 203.29                      2439.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	35433.74	10.25	39.32	20.25	10.08	30.25	4.52
0.50	13816.39	10.50	37.47	20.50	9.83	30.50	4.44
0.75	6775.42	10.75	35.75	20.75	9.60	30.75	4.37
1.00	3947.99	11.00	34.14	21.00	9.37	31.00	4.30
1.25	2568.54	11.25	32.64	21.25	9.15	31.25	4.23
1.50	1799.72	11.50	31.24	21.50	8.94	31.50	4.16
1.75	1329.39	11.75	29.92	21.75	8.73	31.75	4.10
2.00	1021.38	12.00	28.69	22.00	8.54	32.00	4.04
2.25	808.96	12.25	27.53	22.25	8.35	32.25	3.97
2.50	656.38	12.50	26.44	22.50	8.16	32.50	3.91
2.75	543.15	12.75	25.41	22.75	7.98	32.75	3.85
3.00	456.84	13.00	24.45	23.00	7.81	33.00	3.79
3.25	389.55	13.25	23.53	23.25	7.64	33.25	3.74
3.50	336.09	13.50	22.67	23.50	7.48	33.50	3.68
3.75	292.91	13.75	21.85	23.75	7.33	33.75	3.63
4.00	257.54	14.00	21.08	24.00	7.17	34.00	3.57
4.25	228.21	14.25	20.35	24.25	7.03	34.25	3.52
4.50	203.61	14.50	19.65	24.50	6.88	34.50	3.47
4.75	182.79	14.75	18.99	24.75	6.75	34.75	3.42
5.00	165.00	15.00	18.36	25.00	6.61	35.00	3.37
5.25	149.68	15.25	17.77	25.25	6.48	35.25	3.33
5.50	136.41	15.50	17.20	25.50	6.35	35.50	3.28
5.75	124.82	15.75	16.66	25.75	6.23	35.75	3.23
6.00	114.65	16.00	16.14	26.00	6.11	36.00	3.19
6.25	105.67	16.25	15.65	26.25	6.00	36.25	3.14
6.50	97.71	16.50	15.18	26.50	5.88	36.50	3.10
6.75	90.61	16.75	14.73	26.75	5.77	36.75	3.06
7.00	84.26	17.00	14.30	27.00	5.67	37.00	3.02
7.25	78.55	17.25	13.89	27.25	5.56	37.25	2.98
7.50	73.41	17.50	13.49	27.50	5.46	37.50	2.94
7.75	68.75	17.75	13.11	27.75	5.37	37.75	2.90
8.00	64.52	18.00	12.75	28.00	5.27	38.00	2.86
8.25	60.68	18.25	12.41	28.25	5.18	38.25	2.82
8.50	57.16	18.50	12.07	28.50	5.09	38.50	2.79
8.75	53.94	18.75	11.75	28.75	5.00	38.75	2.75
9.00	50.99	19.00	11.45	29.00	4.91	39.00	2.72
9.25	48.27	19.25	11.15	29.25	4.83	39.25	2.68
9.50	45.77	19.50	10.87	29.50	4.75	39.50	2.65
9.75	43.45	19.75	10.59	29.75	4.67	39.75	2.62
10.00	41.31	20.00	10.33	30.00	4.59	40.00	2.58

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 90%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 2.56

30.69 Inches

BioInitiative ft. 203.29

2439.43 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	2.55	54.25	1.40	68.25	0.89	82.25	0.61
40.50	2.52	54.50	1.39	68.50	0.88	82.50	0.61
40.75	2.49	54.75	1.38	68.75	0.87	82.75	0.60
41.00	2.46	55.00	1.37	69.00	0.87	83.00	0.60
41.25	2.43	55.25	1.35	69.25	0.86	83.25	0.60
41.50	2.40	55.50	1.34	69.50	0.86	83.50	0.59
41.75	2.37	55.75	1.33	69.75	0.85	83.75	0.59
42.00	2.34	56.00	1.32	70.00	0.84	84.00	0.59
42.25	2.31	56.25	1.31	70.25	0.84	84.25	0.58
42.50	2.29	56.50	1.29	70.50	0.83	84.50	0.58
42.75	2.26	56.75	1.28	70.75	0.83	84.75	0.58
43.00	2.23	57.00	1.27	71.00	0.82	85.00	0.57
43.25	2.21	57.25	1.26	71.25	0.81	85.25	0.57
43.50	2.18	57.50	1.25	71.50	0.81	85.50	0.57
43.75	2.16	57.75	1.24	71.75	0.80	85.75	0.56
44.00	2.13	58.00	1.23	72.00	0.80	86.00	0.56
44.25	2.11	58.25	1.22	72.25	0.79	86.25	0.56
44.50	2.09	58.50	1.21	72.50	0.79	86.50	0.55
44.75	2.06	58.75	1.20	72.75	0.78	86.75	0.55
45.00	2.04	59.00	1.19	73.00	0.78	87.00	0.55
45.25	2.02	59.25	1.18	73.25	0.77	87.25	0.54
45.50	2.00	59.50	1.17	73.50	0.76	87.50	0.54
45.75	1.97	59.75	1.16	73.75	0.76	87.75	0.54
46.00	1.95	60.00	1.15	74.00	0.75	88.00	0.53
46.25	1.93	60.25	1.14	74.25	0.75	88.25	0.53
46.50	1.91	60.50	1.13	74.50	0.74	88.50	0.53
46.75	1.89	60.75	1.12	74.75	0.74	88.75	0.52
47.00	1.87	61.00	1.11	75.00	0.73	89.00	0.52
47.25	1.85	61.25	1.10	75.25	0.73	89.25	0.52
47.50	1.83	61.50	1.09	75.50	0.72	89.50	0.52
47.75	1.81	61.75	1.08	75.75	0.72	89.75	0.51
48.00	1.79	62.00	1.08	76.00	0.72	90.00	0.51
48.25	1.78	62.25	1.07	76.25	0.71	90.25	0.51
48.50	1.76	62.50	1.06	76.50	0.71	90.50	0.50
48.75	1.74	62.75	1.05	76.75	0.70	90.75	0.50
49.00	1.72	63.00	1.04	77.00	0.70	91.00	0.50
49.25	1.70	63.25	1.03	77.25	0.69	91.25	0.50
49.50	1.69	63.50	1.02	77.50	0.69	91.50	0.49
49.75	1.67	63.75	1.02	77.75	0.68	91.75	0.49
50.00	1.65	64.00	1.01	78.00	0.68	92.00	0.49
50.25	1.64	64.25	1.00	78.25	0.67	92.25	0.49
50.50	1.62	64.50	0.99	78.50	0.67	92.50	0.48
50.75	1.60	64.75	0.99	78.75	0.67	92.75	0.48
51.00	1.59	65.00	0.98	79.00	0.66	93.00	0.48
51.25	1.57	65.25	0.97	79.25	0.66	93.25	0.48
51.50	1.56	65.50	0.96	79.50	0.65	93.50	0.47
51.75	1.54	65.75	0.96	79.75	0.65	93.75	0.47
52.00	1.53	66.00	0.95	80.00	0.65	94.00	0.47
52.25	1.51	66.25	0.94	80.25	0.64	94.25	0.47
52.50	1.50	66.50	0.93	80.50	0.64	94.50	0.46
52.75	1.49	66.75	0.93	80.75	0.63	94.75	0.46
53.00	1.47	67.00	0.92	81.00	0.63	95.00	0.46
53.25	1.46	67.25	0.91	81.25	0.63	95.25	0.46
53.50	1.44	67.50	0.91	81.50	0.62	95.50	0.45
53.75	1.43	67.75	0.90	81.75	0.62	95.75	0.45
54.00	1.42	68.00	0.89	82.00	0.61	96.00	0.45

Table 5 – 90%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 100%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 2.70                      32.4 Inches

BioInitiative ft. 214.28                      2571.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	39370.83	10.25	43.69	20.25	11.20	30.25	5.02
0.50	15351.54	10.50	41.63	20.50	10.92	30.50	4.94
0.75	7528.24	10.75	39.72	20.75	10.66	30.75	4.86
1.00	4386.66	11.00	37.93	21.00	10.41	31.00	4.78
1.25	2853.93	11.25	36.27	21.25	10.17	31.25	4.70
1.50	1999.68	11.50	34.71	21.50	9.93	31.50	4.63
1.75	1477.10	11.75	33.25	21.75	9.71	31.75	4.55
2.00	1134.87	12.00	31.88	22.00	9.49	32.00	4.48
2.25	898.84	12.25	30.59	22.25	9.27	32.25	4.41
2.50	729.31	12.50	29.38	22.50	9.07	32.50	4.35
2.75	603.50	12.75	28.24	22.75	8.87	32.75	4.28
3.00	507.60	13.00	27.16	23.00	8.68	33.00	4.22
3.25	432.84	13.25	26.15	23.25	8.49	33.25	4.15
3.50	373.43	13.50	25.19	23.50	8.31	33.50	4.09
3.75	325.46	13.75	24.28	23.75	8.14	33.75	4.03
4.00	286.16	14.00	23.42	24.00	7.97	34.00	3.97
4.25	253.57	14.25	22.61	24.25	7.81	34.25	3.91
4.50	226.24	14.50	21.83	24.50	7.65	34.50	3.86
4.75	203.10	14.75	21.10	24.75	7.50	34.75	3.80
5.00	183.33	15.00	20.40	25.00	7.35	35.00	3.75
5.25	166.32	15.25	19.74	25.25	7.20	35.25	3.70
5.50	151.56	15.50	19.11	25.50	7.06	35.50	3.64
5.75	138.69	15.75	18.51	25.75	6.92	35.75	3.59
6.00	127.38	16.00	17.93	26.00	6.79	36.00	3.54
6.25	117.41	16.25	17.39	26.25	6.66	36.25	3.49
6.50	108.56	16.50	16.86	26.50	6.54	36.50	3.45
6.75	100.68	16.75	16.36	26.75	6.42	36.75	3.40
7.00	93.62	17.00	15.89	27.00	6.30	37.00	3.35
7.25	87.28	17.25	15.43	27.25	6.18	37.25	3.31
7.50	81.56	17.50	14.99	27.50	6.07	37.50	3.27
7.75	76.39	17.75	14.57	27.75	5.96	37.75	3.22
8.00	71.69	18.00	14.17	28.00	5.86	38.00	3.18
8.25	67.42	18.25	13.78	28.25	5.75	38.25	3.14
8.50	63.51	18.50	13.41	28.50	5.65	38.50	3.10
8.75	59.94	18.75	13.06	28.75	5.55	38.75	3.06
9.00	56.66	19.00	12.72	29.00	5.46	39.00	3.02
9.25	53.64	19.25	12.39	29.25	5.37	39.25	2.98
9.50	50.85	19.50	12.07	29.50	5.28	39.50	2.94
9.75	48.28	19.75	11.77	29.75	5.19	39.75	2.91
10.00	45.90	20.00	11.48	30.00	5.10	40.00	2.87

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (10) – 60% reflections)

**Meters** 8 Electric Meters

Time Avg: 100%

% Reflection 60%

Distance where limits are exceeded

FCC ft. 2.70

32.36 Inches

BioInitiative ft. 214.28

2571.38 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	2.83	54.25	1.56	68.25	0.99	82.25	0.68
40.50	2.80	54.50	1.55	68.50	0.98	82.50	0.67
40.75	2.77	54.75	1.53	68.75	0.97	82.75	0.67
41.00	2.73	55.00	1.52	69.00	0.96	83.00	0.67
41.25	2.70	55.25	1.50	69.25	0.96	83.25	0.66
41.50	2.67	55.50	1.49	69.50	0.95	83.50	0.66
41.75	2.63	55.75	1.48	69.75	0.94	83.75	0.65
42.00	2.60	56.00	1.46	70.00	0.94	84.00	0.65
42.25	2.57	56.25	1.45	70.25	0.93	84.25	0.65
42.50	2.54	56.50	1.44	70.50	0.92	84.50	0.64
42.75	2.51	56.75	1.43	70.75	0.92	84.75	0.64
43.00	2.48	57.00	1.41	71.00	0.91	85.00	0.64
43.25	2.45	57.25	1.40	71.25	0.90	85.25	0.63
43.50	2.43	57.50	1.39	71.50	0.90	85.50	0.63
43.75	2.40	57.75	1.38	71.75	0.89	85.75	0.62
44.00	2.37	58.00	1.36	72.00	0.89	86.00	0.62
44.25	2.34	58.25	1.35	72.25	0.88	86.25	0.62
44.50	2.32	58.50	1.34	72.50	0.87	86.50	0.61
44.75	2.29	58.75	1.33	72.75	0.87	86.75	0.61
45.00	2.27	59.00	1.32	73.00	0.86	87.00	0.61
45.25	2.24	59.25	1.31	73.25	0.86	87.25	0.60
45.50	2.22	59.50	1.30	73.50	0.85	87.50	0.60
45.75	2.19	59.75	1.29	73.75	0.84	87.75	0.60
46.00	2.17	60.00	1.28	74.00	0.84	88.00	0.59
46.25	2.15	60.25	1.26	74.25	0.83	88.25	0.59
46.50	2.12	60.50	1.25	74.50	0.83	88.50	0.59
46.75	2.10	60.75	1.24	74.75	0.82	88.75	0.58
47.00	2.08	61.00	1.23	75.00	0.82	89.00	0.58
47.25	2.06	61.25	1.22	75.25	0.81	89.25	0.58
47.50	2.04	61.50	1.21	75.50	0.81	89.50	0.57
47.75	2.01	61.75	1.20	75.75	0.80	89.75	0.57
48.00	1.99	62.00	1.19	76.00	0.79	90.00	0.57
48.25	1.97	62.25	1.18	76.25	0.79	90.25	0.56
48.50	1.95	62.50	1.18	76.50	0.78	90.50	0.56
48.75	1.93	62.75	1.17	76.75	0.78	90.75	0.56
49.00	1.91	63.00	1.16	77.00	0.77	91.00	0.55
49.25	1.89	63.25	1.15	77.25	0.77	91.25	0.55
49.50	1.87	63.50	1.14	77.50	0.76	91.50	0.55
49.75	1.86	63.75	1.13	77.75	0.76	91.75	0.55
50.00	1.84	64.00	1.12	78.00	0.75	92.00	0.54
50.25	1.82	64.25	1.11	78.25	0.75	92.25	0.54
50.50	1.80	64.50	1.10	78.50	0.75	92.50	0.54
50.75	1.78	64.75	1.10	78.75	0.74	92.75	0.53
51.00	1.77	65.00	1.09	79.00	0.74	93.00	0.53
51.25	1.75	65.25	1.08	79.25	0.73	93.25	0.53
51.50	1.73	65.50	1.07	79.50	0.73	93.50	0.53
51.75	1.71	65.75	1.06	79.75	0.72	93.75	0.52
52.00	1.70	66.00	1.05	80.00	0.72	94.00	0.52
52.25	1.68	66.25	1.05	80.25	0.71	94.25	0.52
52.50	1.67	66.50	1.04	80.50	0.71	94.50	0.51
52.75	1.65	66.75	1.03	80.75	0.70	94.75	0.51
53.00	1.63	67.00	1.02	81.00	0.70	95.00	0.51
53.25	1.62	67.25	1.02	81.25	0.70	95.25	0.51
53.50	1.60	67.50	1.01	81.50	0.69	95.50	0.50
53.75	1.59	67.75	1.00	81.75	0.69	95.75	0.50
54.00	1.57	68.00	0.99	82.00	0.68	96.00	0.50

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters 8 Electric Meters**

Time Avg: 1%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.25                      2.9 Inches

BioInitiative ft. 26.78                      321.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	615.17	10.25	0.68	20.25	0.17	30.25	0.08
0.50	239.87	10.50	0.65	20.50	0.17	30.50	0.08
0.75	117.63	10.75	0.62	20.75	0.17	30.75	0.08
1.00	68.54	11.00	0.59	21.00	0.16	31.00	0.07
1.25	44.59	11.25	0.57	21.25	0.16	31.25	0.07
1.50	31.25	11.50	0.54	21.50	0.16	31.50	0.07
1.75	23.08	11.75	0.52	21.75	0.15	31.75	0.07
2.00	17.73	12.00	0.50	22.00	0.15	32.00	0.07
2.25	14.04	12.25	0.48	22.25	0.14	32.25	0.07
2.50	11.40	12.50	0.46	22.50	0.14	32.50	0.07
2.75	9.43	12.75	0.44	22.75	0.14	32.75	0.07
3.00	7.93	13.00	0.42	23.00	0.14	33.00	0.07
3.25	6.76	13.25	0.41	23.25	0.13	33.25	0.06
3.50	5.83	13.50	0.39	23.50	0.13	33.50	0.06
3.75	5.09	13.75	0.38	23.75	0.13	33.75	0.06
4.00	4.47	14.00	0.37	24.00	0.12	34.00	0.06
4.25	3.96	14.25	0.35	24.25	0.12	34.25	0.06
4.50	3.53	14.50	0.34	24.50	0.12	34.50	0.06
4.75	3.17	14.75	0.33	24.75	0.12	34.75	0.06
5.00	2.86	15.00	0.32	25.00	0.11	35.00	0.06
5.25	2.60	15.25	0.31	25.25	0.11	35.25	0.06
5.50	2.37	15.50	0.30	25.50	0.11	35.50	0.06
5.75	2.17	15.75	0.29	25.75	0.11	35.75	0.06
6.00	1.99	16.00	0.28	26.00	0.11	36.00	0.06
6.25	1.83	16.25	0.27	26.25	0.10	36.25	0.05
6.50	1.70	16.50	0.26	26.50	0.10	36.50	0.05
6.75	1.57	16.75	0.26	26.75	0.10	36.75	0.05
7.00	1.46	17.00	0.25	27.00	0.10	37.00	0.05
7.25	1.36	17.25	0.24	27.25	0.10	37.25	0.05
7.50	1.27	17.50	0.23	27.50	0.09	37.50	0.05
7.75	1.19	17.75	0.23	27.75	0.09	37.75	0.05
8.00	1.12	18.00	0.22	28.00	0.09	38.00	0.05
8.25	1.05	18.25	0.22	28.25	0.09	38.25	0.05
8.50	0.99	18.50	0.21	28.50	0.09	38.50	0.05
8.75	0.94	18.75	0.20	28.75	0.09	38.75	0.05
9.00	0.89	19.00	0.20	29.00	0.09	39.00	0.05
9.25	0.84	19.25	0.19	29.25	0.08	39.25	0.05
9.50	0.79	19.50	0.19	29.50	0.08	39.50	0.05
9.75	0.75	19.75	0.18	29.75	0.08	39.75	0.05
10.00	0.72	20.00	0.18	30.00	0.08	40.00	0.04

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters 8 Electric Meters**

Time Avg: 1%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.25

2.94 Inches

BioInitiative ft. 26.78

321.40 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.04	54.25	0.02	68.25	0.02	82.25	0.01
40.50	0.04	54.50	0.02	68.50	0.02	82.50	0.01
40.75	0.04	54.75	0.02	68.75	0.02	82.75	0.01
41.00	0.04	55.00	0.02	69.00	0.02	83.00	0.01
41.25	0.04	55.25	0.02	69.25	0.01	83.25	0.01
41.50	0.04	55.50	0.02	69.50	0.01	83.50	0.01
41.75	0.04	55.75	0.02	69.75	0.01	83.75	0.01
42.00	0.04	56.00	0.02	70.00	0.01	84.00	0.01
42.25	0.04	56.25	0.02	70.25	0.01	84.25	0.01
42.50	0.04	56.50	0.02	70.50	0.01	84.50	0.01
42.75	0.04	56.75	0.02	70.75	0.01	84.75	0.01
43.00	0.04	57.00	0.02	71.00	0.01	85.00	0.01
43.25	0.04	57.25	0.02	71.25	0.01	85.25	0.01
43.50	0.04	57.50	0.02	71.50	0.01	85.50	0.01
43.75	0.04	57.75	0.02	71.75	0.01	85.75	0.01
44.00	0.04	58.00	0.02	72.00	0.01	86.00	0.01
44.25	0.04	58.25	0.02	72.25	0.01	86.25	0.01
44.50	0.04	58.50	0.02	72.50	0.01	86.50	0.01
44.75	0.04	58.75	0.02	72.75	0.01	86.75	0.01
45.00	0.04	59.00	0.02	73.00	0.01	87.00	0.01
45.25	0.04	59.25	0.02	73.25	0.01	87.25	0.01
45.50	0.03	59.50	0.02	73.50	0.01	87.50	0.01
45.75	0.03	59.75	0.02	73.75	0.01	87.75	0.01
46.00	0.03	60.00	0.02	74.00	0.01	88.00	0.01
46.25	0.03	60.25	0.02	74.25	0.01	88.25	0.01
46.50	0.03	60.50	0.02	74.50	0.01	88.50	0.01
46.75	0.03	60.75	0.02	74.75	0.01	88.75	0.01
47.00	0.03	61.00	0.02	75.00	0.01	89.00	0.01
47.25	0.03	61.25	0.02	75.25	0.01	89.25	0.01
47.50	0.03	61.50	0.02	75.50	0.01	89.50	0.01
47.75	0.03	61.75	0.02	75.75	0.01	89.75	0.01
48.00	0.03	62.00	0.02	76.00	0.01	90.00	0.01
48.25	0.03	62.25	0.02	76.25	0.01	90.25	0.01
48.50	0.03	62.50	0.02	76.50	0.01	90.50	0.01
48.75	0.03	62.75	0.02	76.75	0.01	90.75	0.01
49.00	0.03	63.00	0.02	77.00	0.01	91.00	0.01
49.25	0.03	63.25	0.02	77.25	0.01	91.25	0.01
49.50	0.03	63.50	0.02	77.50	0.01	91.50	0.01
49.75	0.03	63.75	0.02	77.75	0.01	91.75	0.01
50.00	0.03	64.00	0.02	78.00	0.01	92.00	0.01
50.25	0.03	64.25	0.02	78.25	0.01	92.25	0.01
50.50	0.03	64.50	0.02	78.50	0.01	92.50	0.01
50.75	0.03	64.75	0.02	78.75	0.01	92.75	0.01
51.00	0.03	65.00	0.02	79.00	0.01	93.00	0.01
51.25	0.03	65.25	0.02	79.25	0.01	93.25	0.01
51.50	0.03	65.50	0.02	79.50	0.01	93.50	0.01
51.75	0.03	65.75	0.02	79.75	0.01	93.75	0.01
52.00	0.03	66.00	0.02	80.00	0.01	94.00	0.01
52.25	0.03	66.25	0.02	80.25	0.01	94.25	0.01
52.50	0.03	66.50	0.02	80.50	0.01	94.50	0.01
52.75	0.03	66.75	0.02	80.75	0.01	94.75	0.01
53.00	0.03	67.00	0.02	81.00	0.01	95.00	0.01
53.25	0.03	67.25	0.02	81.25	0.01	95.25	0.01
53.50	0.03	67.50	0.02	81.50	0.01	95.50	0.01
53.75	0.02	67.75	0.02	81.75	0.01	95.75	0.01
54.00	0.02	68.00	0.02	82.00	0.01	96.00	0.01

Table 6 – 1%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters 8 Electric Meters**

Time Avg: 10%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.05                      12.6 Inches

BioInitiative ft. 84.70                      1016.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	6151.69	10.25	6.83	20.25	1.75	30.25	0.78
0.50	2398.68	10.50	6.50	20.50	1.71	30.50	0.77
0.75	1176.29	10.75	6.21	20.75	1.67	30.75	0.76
1.00	685.42	11.00	5.93	21.00	1.63	31.00	0.75
1.25	445.93	11.25	5.67	21.25	1.59	31.25	0.73
1.50	312.45	11.50	5.42	21.50	1.55	31.50	0.72
1.75	230.80	11.75	5.19	21.75	1.52	31.75	0.71
2.00	177.32	12.00	4.98	22.00	1.48	32.00	0.70
2.25	140.44	12.25	4.78	22.25	1.45	32.25	0.69
2.50	113.95	12.50	4.59	22.50	1.42	32.50	0.68
2.75	94.30	12.75	4.41	22.75	1.39	32.75	0.67
3.00	79.31	13.00	4.24	23.00	1.36	33.00	0.66
3.25	67.63	13.25	4.09	23.25	1.33	33.25	0.65
3.50	58.35	13.50	3.94	23.50	1.30	33.50	0.64
3.75	50.85	13.75	3.79	23.75	1.27	33.75	0.63
4.00	44.71	14.00	3.66	24.00	1.25	34.00	0.62
4.25	39.62	14.25	3.53	24.25	1.22	34.25	0.61
4.50	35.35	14.50	3.41	24.50	1.20	34.50	0.60
4.75	31.73	14.75	3.30	24.75	1.17	34.75	0.59
5.00	28.65	15.00	3.19	25.00	1.15	35.00	0.59
5.25	25.99	15.25	3.08	25.25	1.13	35.25	0.58
5.50	23.68	15.50	2.99	25.50	1.10	35.50	0.57
5.75	21.67	15.75	2.89	25.75	1.08	35.75	0.56
6.00	19.90	16.00	2.80	26.00	1.06	36.00	0.55
6.25	18.35	16.25	2.72	26.25	1.04	36.25	0.55
6.50	16.96	16.50	2.63	26.50	1.02	36.50	0.54
6.75	15.73	16.75	2.56	26.75	1.00	36.75	0.53
7.00	14.63	17.00	2.48	27.00	0.98	37.00	0.52
7.25	13.64	17.25	2.41	27.25	0.97	37.25	0.52
7.50	12.74	17.50	2.34	27.50	0.95	37.50	0.51
7.75	11.94	17.75	2.28	27.75	0.93	37.75	0.50
8.00	11.20	18.00	2.21	28.00	0.92	38.00	0.50
8.25	10.53	18.25	2.15	28.25	0.90	38.25	0.49
8.50	9.92	18.50	2.10	28.50	0.88	38.50	0.48
8.75	9.37	18.75	2.04	28.75	0.87	38.75	0.48
9.00	8.85	19.00	1.99	29.00	0.85	39.00	0.47
9.25	8.38	19.25	1.94	29.25	0.84	39.25	0.47
9.50	7.95	19.50	1.89	29.50	0.82	39.50	0.46
9.75	7.54	19.75	1.84	29.75	0.81	39.75	0.45
10.00	7.17	20.00	1.79	30.00	0.80	40.00	0.45

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 10%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.05

12.57 Inches

BioInitiative ft. 84.70

1016.42 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.44	54.25	0.24	68.25	0.15	82.25	0.11
40.50	0.44	54.50	0.24	68.50	0.15	82.50	0.11
40.75	0.43	54.75	0.24	68.75	0.15	82.75	0.10
41.00	0.43	55.00	0.24	69.00	0.15	83.00	0.10
41.25	0.42	55.25	0.24	69.25	0.15	83.25	0.10
41.50	0.42	55.50	0.23	69.50	0.15	83.50	0.10
41.75	0.41	55.75	0.23	69.75	0.15	83.75	0.10
42.00	0.41	56.00	0.23	70.00	0.15	84.00	0.10
42.25	0.40	56.25	0.23	70.25	0.15	84.25	0.10
42.50	0.40	56.50	0.22	70.50	0.14	84.50	0.10
42.75	0.39	56.75	0.22	70.75	0.14	84.75	0.10
43.00	0.39	57.00	0.22	71.00	0.14	85.00	0.10
43.25	0.38	57.25	0.22	71.25	0.14	85.25	0.10
43.50	0.38	57.50	0.22	71.50	0.14	85.50	0.10
43.75	0.37	57.75	0.22	71.75	0.14	85.75	0.10
44.00	0.37	58.00	0.21	72.00	0.14	86.00	0.10
44.25	0.37	58.25	0.21	72.25	0.14	86.25	0.10
44.50	0.36	58.50	0.21	72.50	0.14	86.50	0.10
44.75	0.36	58.75	0.21	72.75	0.14	86.75	0.10
45.00	0.35	59.00	0.21	73.00	0.13	87.00	0.09
45.25	0.35	59.25	0.20	73.25	0.13	87.25	0.09
45.50	0.35	59.50	0.20	73.50	0.13	87.50	0.09
45.75	0.34	59.75	0.20	73.75	0.13	87.75	0.09
46.00	0.34	60.00	0.20	74.00	0.13	88.00	0.09
46.25	0.34	60.25	0.20	74.25	0.13	88.25	0.09
46.50	0.33	60.50	0.20	74.50	0.13	88.50	0.09
46.75	0.33	60.75	0.19	74.75	0.13	88.75	0.09
47.00	0.32	61.00	0.19	75.00	0.13	89.00	0.09
47.25	0.32	61.25	0.19	75.25	0.13	89.25	0.09
47.50	0.32	61.50	0.19	75.50	0.13	89.50	0.09
47.75	0.31	61.75	0.19	75.75	0.13	89.75	0.09
48.00	0.31	62.00	0.19	76.00	0.12	90.00	0.09
48.25	0.31	62.25	0.19	76.25	0.12	90.25	0.09
48.50	0.31	62.50	0.18	76.50	0.12	90.50	0.09
48.75	0.30	62.75	0.18	76.75	0.12	90.75	0.09
49.00	0.30	63.00	0.18	77.00	0.12	91.00	0.09
49.25	0.30	63.25	0.18	77.25	0.12	91.25	0.09
49.50	0.29	63.50	0.18	77.50	0.12	91.50	0.09
49.75	0.29	63.75	0.18	77.75	0.12	91.75	0.09
50.00	0.29	64.00	0.18	78.00	0.12	92.00	0.08
50.25	0.28	64.25	0.17	78.25	0.12	92.25	0.08
50.50	0.28	64.50	0.17	78.50	0.12	92.50	0.08
50.75	0.28	64.75	0.17	78.75	0.12	92.75	0.08
51.00	0.28	65.00	0.17	79.00	0.11	93.00	0.08
51.25	0.27	65.25	0.17	79.25	0.11	93.25	0.08
51.50	0.27	65.50	0.17	79.50	0.11	93.50	0.08
51.75	0.27	65.75	0.17	79.75	0.11	93.75	0.08
52.00	0.27	66.00	0.16	80.00	0.11	94.00	0.08
52.25	0.26	66.25	0.16	80.25	0.11	94.25	0.08
52.50	0.26	66.50	0.16	80.50	0.11	94.50	0.08
52.75	0.26	66.75	0.16	80.75	0.11	94.75	0.08
53.00	0.26	67.00	0.16	81.00	0.11	95.00	0.08
53.25	0.25	67.25	0.16	81.25	0.11	95.25	0.08
53.50	0.25	67.50	0.16	81.50	0.11	95.50	0.08
53.75	0.25	67.75	0.16	81.75	0.11	95.75	0.08
54.00	0.25	68.00	0.16	82.00	0.11	96.00	0.08

Table 6 – 10%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters 8 Electric Meters**

Time Avg: 20%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.50                      18.0 Inches

BioInitiative ft. 119.79                      1437.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	12303.38	10.25	13.65	20.25	3.50	30.25	1.57
0.50	4797.36	10.50	13.01	20.50	3.41	30.50	1.54
0.75	2352.58	10.75	12.41	20.75	3.33	30.75	1.52
1.00	1370.83	11.00	11.85	21.00	3.25	31.00	1.49
1.25	891.85	11.25	11.33	21.25	3.18	31.25	1.47
1.50	624.90	11.50	10.85	21.50	3.10	31.50	1.45
1.75	461.59	11.75	10.39	21.75	3.03	31.75	1.42
2.00	354.65	12.00	9.96	22.00	2.96	32.00	1.40
2.25	280.89	12.25	9.56	22.25	2.90	32.25	1.38
2.50	227.91	12.50	9.18	22.50	2.83	32.50	1.36
2.75	188.59	12.75	8.82	22.75	2.77	32.75	1.34
3.00	158.63	13.00	8.49	23.00	2.71	33.00	1.32
3.25	135.26	13.25	8.17	23.25	2.65	33.25	1.30
3.50	116.70	13.50	7.87	23.50	2.60	33.50	1.28
3.75	101.71	13.75	7.59	23.75	2.54	33.75	1.26
4.00	89.43	14.00	7.32	24.00	2.49	34.00	1.24
4.25	79.24	14.25	7.06	24.25	2.44	34.25	1.22
4.50	70.70	14.50	6.82	24.50	2.39	34.50	1.21
4.75	63.47	14.75	6.59	24.75	2.34	34.75	1.19
5.00	57.29	15.00	6.38	25.00	2.30	35.00	1.17
5.25	51.97	15.25	6.17	25.25	2.25	35.25	1.15
5.50	47.36	15.50	5.97	25.50	2.21	35.50	1.14
5.75	43.34	15.75	5.78	25.75	2.16	35.75	1.12
6.00	39.81	16.00	5.60	26.00	2.12	36.00	1.11
6.25	36.69	16.25	5.43	26.25	2.08	36.25	1.09
6.50	33.93	16.50	5.27	26.50	2.04	36.50	1.08
6.75	31.46	16.75	5.11	26.75	2.01	36.75	1.06
7.00	29.26	17.00	4.96	27.00	1.97	37.00	1.05
7.25	27.28	17.25	4.82	27.25	1.93	37.25	1.03
7.50	25.49	17.50	4.68	27.50	1.90	37.50	1.02
7.75	23.87	17.75	4.55	27.75	1.86	37.75	1.01
8.00	22.40	18.00	4.43	28.00	1.83	38.00	0.99
8.25	21.07	18.25	4.31	28.25	1.80	38.25	0.98
8.50	19.85	18.50	4.19	28.50	1.77	38.50	0.97
8.75	18.73	18.75	4.08	28.75	1.74	38.75	0.96
9.00	17.70	19.00	3.97	29.00	1.71	39.00	0.94
9.25	16.76	19.25	3.87	29.25	1.68	39.25	0.93
9.50	15.89	19.50	3.77	29.50	1.65	39.50	0.92
9.75	15.09	19.75	3.68	29.75	1.62	39.75	0.91
10.00	14.34	20.00	3.59	30.00	1.59	40.00	0.90

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 20%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.50

17.96 Inches

BioInitiative ft. 119.79

1437.44 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	0.89	54.25	0.49	68.25	0.31	82.25	0.21
40.50	0.87	54.50	0.48	68.50	0.31	82.50	0.21
40.75	0.86	54.75	0.48	68.75	0.30	82.75	0.21
41.00	0.85	55.00	0.47	69.00	0.30	83.00	0.21
41.25	0.84	55.25	0.47	69.25	0.30	83.25	0.21
41.50	0.83	55.50	0.47	69.50	0.30	83.50	0.21
41.75	0.82	55.75	0.46	69.75	0.29	83.75	0.20
42.00	0.81	56.00	0.46	70.00	0.29	84.00	0.20
42.25	0.80	56.25	0.45	70.25	0.29	84.25	0.20
42.50	0.79	56.50	0.45	70.50	0.29	84.50	0.20
42.75	0.79	56.75	0.45	70.75	0.29	84.75	0.20
43.00	0.78	57.00	0.44	71.00	0.28	85.00	0.20
43.25	0.77	57.25	0.44	71.25	0.28	85.25	0.20
43.50	0.76	57.50	0.43	71.50	0.28	85.50	0.20
43.75	0.75	57.75	0.43	71.75	0.28	85.75	0.20
44.00	0.74	58.00	0.43	72.00	0.28	86.00	0.19
44.25	0.73	58.25	0.42	72.25	0.27	86.25	0.19
44.50	0.72	58.50	0.42	72.50	0.27	86.50	0.19
44.75	0.72	58.75	0.42	72.75	0.27	86.75	0.19
45.00	0.71	59.00	0.41	73.00	0.27	87.00	0.19
45.25	0.70	59.25	0.41	73.25	0.27	87.25	0.19
45.50	0.69	59.50	0.41	73.50	0.27	87.50	0.19
45.75	0.69	59.75	0.40	73.75	0.26	87.75	0.19
46.00	0.68	60.00	0.40	74.00	0.26	88.00	0.19
46.25	0.67	60.25	0.40	74.25	0.26	88.25	0.18
46.50	0.66	60.50	0.39	74.50	0.26	88.50	0.18
46.75	0.66	60.75	0.39	74.75	0.26	88.75	0.18
47.00	0.65	61.00	0.39	75.00	0.26	89.00	0.18
47.25	0.64	61.25	0.38	75.25	0.25	89.25	0.18
47.50	0.64	61.50	0.38	75.50	0.25	89.50	0.18
47.75	0.63	61.75	0.38	75.75	0.25	89.75	0.18
48.00	0.62	62.00	0.37	76.00	0.25	90.00	0.18
48.25	0.62	62.25	0.37	76.25	0.25	90.25	0.18
48.50	0.61	62.50	0.37	76.50	0.25	90.50	0.18
48.75	0.60	62.75	0.36	76.75	0.24	90.75	0.17
49.00	0.60	63.00	0.36	77.00	0.24	91.00	0.17
49.25	0.59	63.25	0.36	77.25	0.24	91.25	0.17
49.50	0.59	63.50	0.36	77.50	0.24	91.50	0.17
49.75	0.58	63.75	0.35	77.75	0.24	91.75	0.17
50.00	0.57	64.00	0.35	78.00	0.24	92.00	0.17
50.25	0.57	64.25	0.35	78.25	0.23	92.25	0.17
50.50	0.56	64.50	0.34	78.50	0.23	92.50	0.17
50.75	0.56	64.75	0.34	78.75	0.23	92.75	0.17
51.00	0.55	65.00	0.34	79.00	0.23	93.00	0.17
51.25	0.55	65.25	0.34	79.25	0.23	93.25	0.17
51.50	0.54	65.50	0.33	79.50	0.23	93.50	0.16
51.75	0.54	65.75	0.33	79.75	0.23	93.75	0.16
52.00	0.53	66.00	0.33	80.00	0.22	94.00	0.16
52.25	0.53	66.25	0.33	80.25	0.22	94.25	0.16
52.50	0.52	66.50	0.32	80.50	0.22	94.50	0.16
52.75	0.52	66.75	0.32	80.75	0.22	94.75	0.16
53.00	0.51	67.00	0.32	81.00	0.22	95.00	0.16
53.25	0.51	67.25	0.32	81.25	0.22	95.25	0.16
53.50	0.50	67.50	0.31	81.50	0.22	95.50	0.16
53.75	0.50	67.75	0.31	81.75	0.21	95.75	0.16
54.00	0.49	68.00	0.31	82.00	0.21	96.00	0.16

Table 6 – 20%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 30%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.84                      22.1 Inches

BioInitiative ft. 146.71                      1760.5 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	18455.08	10.25	20.48	20.25	5.25	30.25	2.35
0.50	7196.04	10.50	19.51	20.50	5.12	30.50	2.31
0.75	3528.86	10.75	18.62	20.75	5.00	30.75	2.28
1.00	2056.25	11.00	17.78	21.00	4.88	31.00	2.24
1.25	1337.78	11.25	17.00	21.25	4.77	31.25	2.20
1.50	937.35	11.50	16.27	21.50	4.66	31.50	2.17
1.75	692.39	11.75	15.58	21.75	4.55	31.75	2.14
2.00	531.97	12.00	14.94	22.00	4.45	32.00	2.10
2.25	421.33	12.25	14.34	22.25	4.35	32.25	2.07
2.50	341.86	12.50	13.77	22.50	4.25	32.50	2.04
2.75	282.89	12.75	13.24	22.75	4.16	32.75	2.01
3.00	237.94	13.00	12.73	23.00	4.07	33.00	1.98
3.25	202.89	13.25	12.26	23.25	3.98	33.25	1.95
3.50	175.05	13.50	11.81	23.50	3.90	33.50	1.92
3.75	152.56	13.75	11.38	23.75	3.82	33.75	1.89
4.00	134.14	14.00	10.98	24.00	3.74	34.00	1.86
4.25	118.86	14.25	10.60	24.25	3.66	34.25	1.83
4.50	106.05	14.50	10.23	24.50	3.59	34.50	1.81
4.75	95.20	14.75	9.89	24.75	3.51	34.75	1.78
5.00	85.94	15.00	9.56	25.00	3.44	35.00	1.76
5.25	77.96	15.25	9.25	25.25	3.38	35.25	1.73
5.50	71.04	15.50	8.96	25.50	3.31	35.50	1.71
5.75	65.01	15.75	8.68	25.75	3.25	35.75	1.68
6.00	59.71	16.00	8.41	26.00	3.18	36.00	1.66
6.25	55.04	16.25	8.15	26.25	3.12	36.25	1.64
6.50	50.89	16.50	7.90	26.50	3.06	36.50	1.62
6.75	47.19	16.75	7.67	26.75	3.01	36.75	1.59
7.00	43.88	17.00	7.45	27.00	2.95	37.00	1.57
7.25	40.91	17.25	7.23	27.25	2.90	37.25	1.55
7.50	38.23	17.50	7.03	27.50	2.85	37.50	1.53
7.75	35.81	17.75	6.83	27.75	2.79	37.75	1.51
8.00	33.61	18.00	6.64	28.00	2.75	38.00	1.49
8.25	31.60	18.25	6.46	28.25	2.70	38.25	1.47
8.50	29.77	18.50	6.29	28.50	2.65	38.50	1.45
8.75	28.10	18.75	6.12	28.75	2.60	38.75	1.43
9.00	26.56	19.00	5.96	29.00	2.56	39.00	1.42
9.25	25.14	19.25	5.81	29.25	2.52	39.25	1.40
9.50	23.84	19.50	5.66	29.50	2.47	39.50	1.38
9.75	22.63	19.75	5.52	29.75	2.43	39.75	1.36
10.00	21.51	20.00	5.38	30.00	2.39	40.00	1.35

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 30%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 1.84

22.08 Inches

BioInitiative ft. 146.71

1760.50 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	1.33	54.25	0.73	68.25	0.46	82.25	0.32
40.50	1.31	54.50	0.72	68.50	0.46	82.50	0.32
40.75	1.30	54.75	0.72	68.75	0.46	82.75	0.31
41.00	1.28	55.00	0.71	69.00	0.45	83.00	0.31
41.25	1.26	55.25	0.71	69.25	0.45	83.25	0.31
41.50	1.25	55.50	0.70	69.50	0.45	83.50	0.31
41.75	1.23	55.75	0.69	69.75	0.44	83.75	0.31
42.00	1.22	56.00	0.69	70.00	0.44	84.00	0.31
42.25	1.21	56.25	0.68	70.25	0.44	84.25	0.30
42.50	1.19	56.50	0.67	70.50	0.43	84.50	0.30
42.75	1.18	56.75	0.67	70.75	0.43	84.75	0.30
43.00	1.16	57.00	0.66	71.00	0.43	85.00	0.30
43.25	1.15	57.25	0.66	71.25	0.42	85.25	0.30
43.50	1.14	57.50	0.65	71.50	0.42	85.50	0.29
43.75	1.12	57.75	0.65	71.75	0.42	85.75	0.29
44.00	1.11	58.00	0.64	72.00	0.42	86.00	0.29
44.25	1.10	58.25	0.63	72.25	0.41	86.25	0.29
44.50	1.09	58.50	0.63	72.50	0.41	86.50	0.29
44.75	1.07	58.75	0.62	72.75	0.41	86.75	0.29
45.00	1.06	59.00	0.62	73.00	0.40	87.00	0.28
45.25	1.05	59.25	0.61	73.25	0.40	87.25	0.28
45.50	1.04	59.50	0.61	73.50	0.40	87.50	0.28
45.75	1.03	59.75	0.60	73.75	0.40	87.75	0.28
46.00	1.02	60.00	0.60	74.00	0.39	88.00	0.28
46.25	1.01	60.25	0.59	74.25	0.39	88.25	0.28
46.50	1.00	60.50	0.59	74.50	0.39	88.50	0.27
46.75	0.98	60.75	0.58	74.75	0.39	88.75	0.27
47.00	0.97	61.00	0.58	75.00	0.38	89.00	0.27
47.25	0.96	61.25	0.57	75.25	0.38	89.25	0.27
47.50	0.95	61.50	0.57	75.50	0.38	89.50	0.27
47.75	0.94	61.75	0.56	75.75	0.38	89.75	0.27
48.00	0.93	62.00	0.56	76.00	0.37	90.00	0.27
48.25	0.92	62.25	0.56	76.25	0.37	90.25	0.26
48.50	0.92	62.50	0.55	76.50	0.37	90.50	0.26
48.75	0.91	62.75	0.55	76.75	0.37	90.75	0.26
49.00	0.90	63.00	0.54	77.00	0.36	91.00	0.26
49.25	0.89	63.25	0.54	77.25	0.36	91.25	0.26
49.50	0.88	63.50	0.53	77.50	0.36	91.50	0.26
49.75	0.87	63.75	0.53	77.75	0.36	91.75	0.26
50.00	0.86	64.00	0.53	78.00	0.35	92.00	0.25
50.25	0.85	64.25	0.52	78.25	0.35	92.25	0.25
50.50	0.84	64.50	0.52	78.50	0.35	92.50	0.25
50.75	0.84	64.75	0.51	78.75	0.35	92.75	0.25
51.00	0.83	65.00	0.51	79.00	0.34	93.00	0.25
51.25	0.82	65.25	0.51	79.25	0.34	93.25	0.25
51.50	0.81	65.50	0.50	79.50	0.34	93.50	0.25
51.75	0.80	65.75	0.50	79.75	0.34	93.75	0.24
52.00	0.80	66.00	0.49	80.00	0.34	94.00	0.24
52.25	0.79	66.25	0.49	80.25	0.33	94.25	0.24
52.50	0.78	66.50	0.49	80.50	0.33	94.50	0.24
52.75	0.77	66.75	0.48	80.75	0.33	94.75	0.24
53.00	0.77	67.00	0.48	81.00	0.33	95.00	0.24
53.25	0.76	67.25	0.48	81.25	0.33	95.25	0.24
53.50	0.75	67.50	0.47	81.50	0.32	95.50	0.24
53.75	0.74	67.75	0.47	81.75	0.32	95.75	0.23
54.00	0.74	68.00	0.47	82.00	0.32	96.00	0.23

Table 6 – 30%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

## Meters 8 Electric Meters

Time Avg: 40%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 2.13                      25.5 Inches

BioInitiative ft. 169.40                      2032.9 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	24606.77	10.25	27.30	20.25	7.00	30.25	3.14
0.50	9594.71	10.50	26.02	20.50	6.83	30.50	3.08
0.75	4705.15	10.75	24.82	20.75	6.66	30.75	3.03
1.00	2741.66	11.00	23.71	21.00	6.51	31.00	2.99
1.25	1783.71	11.25	22.67	21.25	6.35	31.25	2.94
1.50	1249.80	11.50	21.69	21.50	6.21	31.50	2.89
1.75	923.19	11.75	20.78	21.75	6.07	31.75	2.85
2.00	709.29	12.00	19.92	22.00	5.93	32.00	2.80
2.25	561.77	12.25	19.12	22.25	5.80	32.25	2.76
2.50	455.82	12.50	18.36	22.50	5.67	32.50	2.72
2.75	377.19	12.75	17.65	22.75	5.54	32.75	2.68
3.00	317.25	13.00	16.98	23.00	5.42	33.00	2.64
3.25	270.52	13.25	16.34	23.25	5.31	33.25	2.60
3.50	233.40	13.50	15.74	23.50	5.20	33.50	2.56
3.75	203.41	13.75	15.18	23.75	5.09	33.75	2.52
4.00	178.85	14.00	14.64	24.00	4.98	34.00	2.48
4.25	158.48	14.25	14.13	24.25	4.88	34.25	2.45
4.50	141.40	14.50	13.65	24.50	4.78	34.50	2.41
4.75	126.94	14.75	13.19	24.75	4.68	34.75	2.38
5.00	114.58	15.00	12.75	25.00	4.59	35.00	2.34
5.25	103.95	15.25	12.34	25.25	4.50	35.25	2.31
5.50	94.73	15.50	11.94	25.50	4.41	35.50	2.28
5.75	86.68	15.75	11.57	25.75	4.33	35.75	2.25
6.00	79.62	16.00	11.21	26.00	4.24	36.00	2.21
6.25	73.38	16.25	10.87	26.25	4.16	36.25	2.18
6.50	67.85	16.50	10.54	26.50	4.09	36.50	2.15
6.75	62.92	16.75	10.23	26.75	4.01	36.75	2.12
7.00	58.51	17.00	9.93	27.00	3.94	37.00	2.10
7.25	54.55	17.25	9.64	27.25	3.86	37.25	2.07
7.50	50.98	17.50	9.37	27.50	3.79	37.50	2.04
7.75	47.74	17.75	9.11	27.75	3.73	37.75	2.01
8.00	44.81	18.00	8.86	28.00	3.66	38.00	1.99
8.25	42.14	18.25	8.62	28.25	3.60	38.25	1.96
8.50	39.70	18.50	8.38	28.50	3.53	38.50	1.94
8.75	37.46	18.75	8.16	28.75	3.47	38.75	1.91
9.00	35.41	19.00	7.95	29.00	3.41	39.00	1.89
9.25	33.52	19.25	7.74	29.25	3.35	39.25	1.86
9.50	31.78	19.50	7.55	29.50	3.30	39.50	1.84
9.75	30.17	19.75	7.36	29.75	3.24	39.75	1.82
10.00	28.68	20.00	7.17	30.00	3.19	40.00	1.79

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 40%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 2.13

25.54 Inches

BioInitiative ft. 169.40

2032.86 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	1.77	54.25	0.98	68.25	0.62	82.25	0.42
40.50	1.75	54.50	0.97	68.50	0.61	82.50	0.42
40.75	1.73	54.75	0.96	68.75	0.61	82.75	0.42
41.00	1.71	55.00	0.95	69.00	0.60	83.00	0.42
41.25	1.69	55.25	0.94	69.25	0.60	83.25	0.41
41.50	1.67	55.50	0.93	69.50	0.59	83.50	0.41
41.75	1.65	55.75	0.92	69.75	0.59	83.75	0.41
42.00	1.63	56.00	0.92	70.00	0.59	84.00	0.41
42.25	1.61	56.25	0.91	70.25	0.58	84.25	0.40
42.50	1.59	56.50	0.90	70.50	0.58	84.50	0.40
42.75	1.57	56.75	0.89	70.75	0.57	84.75	0.40
43.00	1.55	57.00	0.88	71.00	0.57	85.00	0.40
43.25	1.53	57.25	0.88	71.25	0.57	85.25	0.39
43.50	1.52	57.50	0.87	71.50	0.56	85.50	0.39
43.75	1.50	57.75	0.86	71.75	0.56	85.75	0.39
44.00	1.48	58.00	0.85	72.00	0.55	86.00	0.39
44.25	1.47	58.25	0.85	72.25	0.55	86.25	0.39
44.50	1.45	58.50	0.84	72.50	0.55	86.50	0.38
44.75	1.43	58.75	0.83	72.75	0.54	86.75	0.38
45.00	1.42	59.00	0.82	73.00	0.54	87.00	0.38
45.25	1.40	59.25	0.82	73.25	0.53	87.25	0.38
45.50	1.39	59.50	0.81	73.50	0.53	87.50	0.37
45.75	1.37	59.75	0.80	73.75	0.53	87.75	0.37
46.00	1.36	60.00	0.80	74.00	0.52	88.00	0.37
46.25	1.34	60.25	0.79	74.25	0.52	88.25	0.37
46.50	1.33	60.50	0.78	74.50	0.52	88.50	0.37
46.75	1.31	60.75	0.78	74.75	0.51	88.75	0.36
47.00	1.30	61.00	0.77	75.00	0.51	89.00	0.36
47.25	1.29	61.25	0.76	75.25	0.51	89.25	0.36
47.50	1.27	61.50	0.76	75.50	0.50	89.50	0.36
47.75	1.26	61.75	0.75	75.75	0.50	89.75	0.36
48.00	1.25	62.00	0.75	76.00	0.50	90.00	0.35
48.25	1.23	62.25	0.74	76.25	0.49	90.25	0.35
48.50	1.22	62.50	0.73	76.50	0.49	90.50	0.35
48.75	1.21	62.75	0.73	76.75	0.49	90.75	0.35
49.00	1.20	63.00	0.72	77.00	0.48	91.00	0.35
49.25	1.18	63.25	0.72	77.25	0.48	91.25	0.34
49.50	1.17	63.50	0.71	77.50	0.48	91.50	0.34
49.75	1.16	63.75	0.71	77.75	0.47	91.75	0.34
50.00	1.15	64.00	0.70	78.00	0.47	92.00	0.34
50.25	1.14	64.25	0.70	78.25	0.47	92.25	0.34
50.50	1.13	64.50	0.69	78.50	0.47	92.50	0.34
50.75	1.11	64.75	0.68	78.75	0.46	92.75	0.33
51.00	1.10	65.00	0.68	79.00	0.46	93.00	0.33
51.25	1.09	65.25	0.67	79.25	0.46	93.25	0.33
51.50	1.08	65.50	0.67	79.50	0.45	93.50	0.33
51.75	1.07	65.75	0.66	79.75	0.45	93.75	0.33
52.00	1.06	66.00	0.66	80.00	0.45	94.00	0.32
52.25	1.05	66.25	0.65	80.25	0.45	94.25	0.32
52.50	1.04	66.50	0.65	80.50	0.44	94.50	0.32
52.75	1.03	66.75	0.64	80.75	0.44	94.75	0.32
53.00	1.02	67.00	0.64	81.00	0.44	95.00	0.32
53.25	1.01	67.25	0.63	81.25	0.43	95.25	0.32
53.50	1.00	67.50	0.63	81.50	0.43	95.50	0.31
53.75	0.99	67.75	0.63	81.75	0.43	95.75	0.31
54.00	0.98	68.00	0.62	82.00	0.43	96.00	0.31

Table 6 – 40%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 50%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 2.38                      28.6 Inches

BioInitiative ft. 189.40                      2272.8 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	30758.46	10.25	34.13	20.25	8.75	30.25	3.92
0.50	11993.39	10.50	32.52	20.50	8.54	30.50	3.86
0.75	5881.44	10.75	31.03	20.75	8.33	30.75	3.79
1.00	3427.08	11.00	29.64	21.00	8.13	31.00	3.73
1.25	2229.64	11.25	28.33	21.25	7.94	31.25	3.67
1.50	1562.25	11.50	27.12	21.50	7.76	31.50	3.62
1.75	1153.98	11.75	25.97	21.75	7.58	31.75	3.56
2.00	886.62	12.00	24.90	22.00	7.41	32.00	3.50
2.25	702.22	12.25	23.90	22.25	7.25	32.25	3.45
2.50	569.77	12.50	22.95	22.50	7.09	32.50	3.40
2.75	471.49	12.75	22.06	22.75	6.93	32.75	3.34
3.00	396.56	13.00	21.22	23.00	6.78	33.00	3.29
3.25	338.15	13.25	20.43	23.25	6.64	33.25	3.24
3.50	291.75	13.50	19.68	23.50	6.50	33.50	3.20
3.75	254.27	13.75	18.97	23.75	6.36	33.75	3.15
4.00	223.56	14.00	18.30	24.00	6.23	34.00	3.10
4.25	198.10	14.25	17.66	24.25	6.10	34.25	3.06
4.50	176.75	14.50	17.06	24.50	5.98	34.50	3.01
4.75	158.67	14.75	16.48	24.75	5.86	34.75	2.97
5.00	143.23	15.00	15.94	25.00	5.74	35.00	2.93
5.25	129.93	15.25	15.42	25.25	5.63	35.25	2.89
5.50	118.41	15.50	14.93	25.50	5.52	35.50	2.85
5.75	108.35	15.75	14.46	25.75	5.41	35.75	2.81
6.00	99.52	16.00	14.01	26.00	5.31	36.00	2.77
6.25	91.73	16.25	13.58	26.25	5.21	36.25	2.73
6.50	84.81	16.50	13.17	26.50	5.11	36.50	2.69
6.75	78.65	16.75	12.78	26.75	5.01	36.75	2.66
7.00	73.14	17.00	12.41	27.00	4.92	37.00	2.62
7.25	68.19	17.25	12.05	27.25	4.83	37.25	2.59
7.50	63.72	17.50	11.71	27.50	4.74	37.50	2.55
7.75	59.68	17.75	11.38	27.75	4.66	37.75	2.52
8.00	56.01	18.00	11.07	28.00	4.58	38.00	2.48
8.25	52.67	18.25	10.77	28.25	4.49	38.25	2.45
8.50	49.62	18.50	10.48	28.50	4.42	38.50	2.42
8.75	46.83	18.75	10.20	28.75	4.34	38.75	2.39
9.00	44.26	19.00	9.94	29.00	4.27	39.00	2.36
9.25	41.90	19.25	9.68	29.25	4.19	39.25	2.33
9.50	39.73	19.50	9.43	29.50	4.12	39.50	2.30
9.75	37.72	19.75	9.20	29.75	4.05	39.75	2.27
10.00	35.86	20.00	8.97	30.00	3.99	40.00	2.24

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 50%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 2.38

28.58 Inches

BioInitiative ft. 189.40

2272.80 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	2.21	54.25	1.22	68.25	0.77	82.25	0.53
40.50	2.19	54.50	1.21	68.50	0.76	82.50	0.53
40.75	2.16	54.75	1.20	68.75	0.76	82.75	0.52
41.00	2.13	55.00	1.19	69.00	0.75	83.00	0.52
41.25	2.11	55.25	1.18	69.25	0.75	83.25	0.52
41.50	2.08	55.50	1.16	69.50	0.74	83.50	0.51
41.75	2.06	55.75	1.15	69.75	0.74	83.75	0.51
42.00	2.03	56.00	1.14	70.00	0.73	84.00	0.51
42.25	2.01	56.25	1.13	70.25	0.73	84.25	0.51
42.50	1.99	56.50	1.12	70.50	0.72	84.50	0.50
42.75	1.96	56.75	1.11	70.75	0.72	84.75	0.50
43.00	1.94	57.00	1.10	71.00	0.71	85.00	0.50
43.25	1.92	57.25	1.09	71.25	0.71	85.25	0.49
43.50	1.90	57.50	1.08	71.50	0.70	85.50	0.49
43.75	1.87	57.75	1.08	71.75	0.70	85.75	0.49
44.00	1.85	58.00	1.07	72.00	0.69	86.00	0.49
44.25	1.83	58.25	1.06	72.25	0.69	86.25	0.48
44.50	1.81	58.50	1.05	72.50	0.68	86.50	0.48
44.75	1.79	58.75	1.04	72.75	0.68	86.75	0.48
45.00	1.77	59.00	1.03	73.00	0.67	87.00	0.47
45.25	1.75	59.25	1.02	73.25	0.67	87.25	0.47
45.50	1.73	59.50	1.01	73.50	0.66	87.50	0.47
45.75	1.71	59.75	1.00	73.75	0.66	87.75	0.47
46.00	1.70	60.00	1.00	74.00	0.66	88.00	0.46
46.25	1.68	60.25	0.99	74.25	0.65	88.25	0.46
46.50	1.66	60.50	0.98	74.50	0.65	88.50	0.46
46.75	1.64	60.75	0.97	74.75	0.64	88.75	0.46
47.00	1.62	61.00	0.96	75.00	0.64	89.00	0.45
47.25	1.61	61.25	0.96	75.25	0.63	89.25	0.45
47.50	1.59	61.50	0.95	75.50	0.63	89.50	0.45
47.75	1.57	61.75	0.94	75.75	0.63	89.75	0.45
48.00	1.56	62.00	0.93	76.00	0.62	90.00	0.44
48.25	1.54	62.25	0.93	76.25	0.62	90.25	0.44
48.50	1.53	62.50	0.92	76.50	0.61	90.50	0.44
48.75	1.51	62.75	0.91	76.75	0.61	90.75	0.44
49.00	1.49	63.00	0.90	77.00	0.61	91.00	0.43
49.25	1.48	63.25	0.90	77.25	0.60	91.25	0.43
49.50	1.46	63.50	0.89	77.50	0.60	91.50	0.43
49.75	1.45	63.75	0.88	77.75	0.59	91.75	0.43
50.00	1.43	64.00	0.88	78.00	0.59	92.00	0.42
50.25	1.42	64.25	0.87	78.25	0.59	92.25	0.42
50.50	1.41	64.50	0.86	78.50	0.58	92.50	0.42
50.75	1.39	64.75	0.86	78.75	0.58	92.75	0.42
51.00	1.38	65.00	0.85	79.00	0.57	93.00	0.41
51.25	1.37	65.25	0.84	79.25	0.57	93.25	0.41
51.50	1.35	65.50	0.84	79.50	0.57	93.50	0.41
51.75	1.34	65.75	0.83	79.75	0.56	93.75	0.41
52.00	1.33	66.00	0.82	80.00	0.56	94.00	0.41
52.25	1.31	66.25	0.82	80.25	0.56	94.25	0.40
52.50	1.30	66.50	0.81	80.50	0.55	94.50	0.40
52.75	1.29	66.75	0.81	80.75	0.55	94.75	0.40
53.00	1.28	67.00	0.80	81.00	0.55	95.00	0.40
53.25	1.27	67.25	0.79	81.25	0.54	95.25	0.40
53.50	1.25	67.50	0.79	81.50	0.54	95.50	0.39
53.75	1.24	67.75	0.78	81.75	0.54	95.75	0.39
54.00	1.23	68.00	0.78	82.00	0.53	96.00	0.39

Table 6 – 50%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters 8 Electric Meters**

Time Avg: 60%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 2.61                      31.3 Inches

BioInitiative ft. 207.48                      2489.7 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	36910.15	10.25	40.95	20.25	10.50	30.25	4.70
0.50	14392.07	10.50	39.03	20.50	10.24	30.50	4.63
0.75	7057.73	10.75	37.24	20.75	10.00	30.75	4.55
1.00	4112.49	11.00	35.56	21.00	9.76	31.00	4.48
1.25	2675.56	11.25	34.00	21.25	9.53	31.25	4.41
1.50	1874.70	11.50	32.54	21.50	9.31	31.50	4.34
1.75	1384.78	11.75	31.17	21.75	9.10	31.75	4.27
2.00	1063.94	12.00	29.88	22.00	8.89	32.00	4.20
2.25	842.66	12.25	28.68	22.25	8.69	32.25	4.14
2.50	683.73	12.50	27.54	22.50	8.50	32.50	4.08
2.75	565.78	12.75	26.47	22.75	8.32	32.75	4.01
3.00	475.88	13.00	25.46	23.00	8.14	33.00	3.95
3.25	405.78	13.25	24.51	23.25	7.96	33.25	3.89
3.50	350.09	13.50	23.61	23.50	7.79	33.50	3.84
3.75	305.12	13.75	22.76	23.75	7.63	33.75	3.78
4.00	268.28	14.00	21.96	24.00	7.47	34.00	3.72
4.25	237.72	14.25	21.19	24.25	7.32	34.25	3.67
4.50	212.10	14.50	20.47	24.50	7.17	34.50	3.62
4.75	190.40	14.75	19.78	24.75	7.03	34.75	3.56
5.00	171.87	15.00	19.13	25.00	6.89	35.00	3.51
5.25	155.92	15.25	18.51	25.25	6.75	35.25	3.46
5.50	142.09	15.50	17.91	25.50	6.62	35.50	3.42
5.75	130.02	15.75	17.35	25.75	6.49	35.75	3.37
6.00	119.42	16.00	16.81	26.00	6.37	36.00	3.32
6.25	110.07	16.25	16.30	26.25	6.25	36.25	3.28
6.50	101.78	16.50	15.81	26.50	6.13	36.50	3.23
6.75	94.38	16.75	15.34	26.75	6.02	36.75	3.19
7.00	87.77	17.00	14.89	27.00	5.90	37.00	3.14
7.25	81.83	17.25	14.46	27.25	5.80	37.25	3.10
7.50	76.47	17.50	14.05	27.50	5.69	37.50	3.06
7.75	71.62	17.75	13.66	27.75	5.59	37.75	3.02
8.00	67.21	18.00	13.28	28.00	5.49	38.00	2.98
8.25	63.20	18.25	12.92	28.25	5.39	38.25	2.94
8.50	59.54	18.50	12.58	28.50	5.30	38.50	2.90
8.75	56.19	18.75	12.24	28.75	5.21	38.75	2.87
9.00	53.11	19.00	11.92	29.00	5.12	39.00	2.83
9.25	50.28	19.25	11.62	29.25	5.03	39.25	2.79
9.50	47.67	19.50	11.32	29.50	4.95	39.50	2.76
9.75	45.26	19.75	11.03	29.75	4.86	39.75	2.72
10.00	43.03	20.00	10.76	30.00	4.78	40.00	2.69

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 60%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 2.61

31.33 Inches

BioInitiative ft. 207.48

2489.73 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	2.66	54.25	1.46	68.25	0.92	82.25	0.64
40.50	2.62	54.50	1.45	68.50	0.92	82.50	0.63
40.75	2.59	54.75	1.44	68.75	0.91	82.75	0.63
41.00	2.56	55.00	1.42	69.00	0.90	83.00	0.62
41.25	2.53	55.25	1.41	69.25	0.90	83.25	0.62
41.50	2.50	55.50	1.40	69.50	0.89	83.50	0.62
41.75	2.47	55.75	1.38	69.75	0.88	83.75	0.61
42.00	2.44	56.00	1.37	70.00	0.88	84.00	0.61
42.25	2.41	56.25	1.36	70.25	0.87	84.25	0.61
42.50	2.38	56.50	1.35	70.50	0.87	84.50	0.60
42.75	2.36	56.75	1.34	70.75	0.86	84.75	0.60
43.00	2.33	57.00	1.32	71.00	0.85	85.00	0.60
43.25	2.30	57.25	1.31	71.25	0.85	85.25	0.59
43.50	2.27	57.50	1.30	71.50	0.84	85.50	0.59
43.75	2.25	57.75	1.29	71.75	0.84	85.75	0.59
44.00	2.22	58.00	1.28	72.00	0.83	86.00	0.58
44.25	2.20	58.25	1.27	72.25	0.82	86.25	0.58
44.50	2.17	58.50	1.26	72.50	0.82	86.50	0.58
44.75	2.15	58.75	1.25	72.75	0.81	86.75	0.57
45.00	2.13	59.00	1.24	73.00	0.81	87.00	0.57
45.25	2.10	59.25	1.23	73.25	0.80	87.25	0.57
45.50	2.08	59.50	1.22	73.50	0.80	87.50	0.56
45.75	2.06	59.75	1.21	73.75	0.79	87.75	0.56
46.00	2.03	60.00	1.20	74.00	0.79	88.00	0.56
46.25	2.01	60.25	1.19	74.25	0.78	88.25	0.55
46.50	1.99	60.50	1.18	74.50	0.78	88.50	0.55
46.75	1.97	60.75	1.17	74.75	0.77	88.75	0.55
47.00	1.95	61.00	1.16	75.00	0.77	89.00	0.54
47.25	1.93	61.25	1.15	75.25	0.76	89.25	0.54
47.50	1.91	61.50	1.14	75.50	0.76	89.50	0.54
47.75	1.89	61.75	1.13	75.75	0.75	89.75	0.53
48.00	1.87	62.00	1.12	76.00	0.75	90.00	0.53
48.25	1.85	62.25	1.11	76.25	0.74	90.25	0.53
48.50	1.83	62.50	1.10	76.50	0.74	90.50	0.53
48.75	1.81	62.75	1.09	76.75	0.73	90.75	0.52
49.00	1.79	63.00	1.08	77.00	0.73	91.00	0.52
49.25	1.77	63.25	1.08	77.25	0.72	91.25	0.52
49.50	1.76	63.50	1.07	77.50	0.72	91.50	0.51
49.75	1.74	63.75	1.06	77.75	0.71	91.75	0.51
50.00	1.72	64.00	1.05	78.00	0.71	92.00	0.51
50.25	1.70	64.25	1.04	78.25	0.70	92.25	0.51
50.50	1.69	64.50	1.03	78.50	0.70	92.50	0.50
50.75	1.67	64.75	1.03	78.75	0.69	92.75	0.50
51.00	1.65	65.00	1.02	79.00	0.69	93.00	0.50
51.25	1.64	65.25	1.01	79.25	0.69	93.25	0.50
51.50	1.62	65.50	1.00	79.50	0.68	93.50	0.49
51.75	1.61	65.75	1.00	79.75	0.68	93.75	0.49
52.00	1.59	66.00	0.99	80.00	0.67	94.00	0.49
52.25	1.58	66.25	0.98	80.25	0.67	94.25	0.48
52.50	1.56	66.50	0.97	80.50	0.66	94.50	0.48
52.75	1.55	66.75	0.97	80.75	0.66	94.75	0.48
53.00	1.53	67.00	0.96	81.00	0.66	95.00	0.48
53.25	1.52	67.25	0.95	81.25	0.65	95.25	0.47
53.50	1.50	67.50	0.94	81.50	0.65	95.50	0.47
53.75	1.49	67.75	0.94	81.75	0.64	95.75	0.47
54.00	1.48	68.00	0.93	82.00	0.64	96.00	0.47

Table 6 – 60%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 70%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 2.82 33.9 Inches

BioInitiative ft. 224.10 2689.2 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	43061.84	10.25	47.78	20.25	12.25	30.25	5.49
0.50	16790.75	10.50	45.53	20.50	11.95	30.50	5.40
0.75	8234.02	10.75	43.44	20.75	11.66	30.75	5.31
1.00	4797.91	11.00	41.49	21.00	11.39	31.00	5.23
1.25	3121.49	11.25	39.67	21.25	11.12	31.25	5.14
1.50	2187.15	11.50	37.96	21.50	10.86	31.50	5.06
1.75	1615.57	11.75	36.36	21.75	10.62	31.75	4.98
2.00	1241.26	12.00	34.87	22.00	10.38	32.00	4.90
2.25	983.11	12.25	33.46	22.25	10.14	32.25	4.83
2.50	797.68	12.50	32.13	22.50	9.92	32.50	4.75
2.75	660.08	12.75	30.88	22.75	9.70	32.75	4.68
3.00	555.19	13.00	29.71	23.00	9.49	33.00	4.61
3.25	473.42	13.25	28.60	23.25	9.29	33.25	4.54
3.50	408.44	13.50	27.55	23.50	9.09	33.50	4.47
3.75	355.97	13.75	26.56	23.75	8.90	33.75	4.41
4.00	312.99	14.00	25.62	24.00	8.72	34.00	4.34
4.25	277.34	14.25	24.73	24.25	8.54	34.25	4.28
4.50	247.45	14.50	23.88	24.50	8.37	34.50	4.22
4.75	222.14	14.75	23.08	24.75	8.20	34.75	4.16
5.00	200.52	15.00	22.32	25.00	8.03	35.00	4.10
5.25	181.91	15.25	21.59	25.25	7.88	35.25	4.04
5.50	165.77	15.50	20.90	25.50	7.72	35.50	3.98
5.75	151.69	15.75	20.24	25.75	7.57	35.75	3.93
6.00	139.33	16.00	19.61	26.00	7.43	36.00	3.87
6.25	128.42	16.25	19.02	26.25	7.29	36.25	3.82
6.50	118.74	16.50	18.44	26.50	7.15	36.50	3.77
6.75	110.12	16.75	17.90	26.75	7.02	36.75	3.72
7.00	102.40	17.00	17.37	27.00	6.89	37.00	3.67
7.25	95.46	17.25	16.88	27.25	6.76	37.25	3.62
7.50	89.21	17.50	16.40	27.50	6.64	37.50	3.57
7.75	83.55	17.75	15.94	27.75	6.52	37.75	3.52
8.00	78.42	18.00	15.50	28.00	6.41	38.00	3.48
8.25	73.74	18.25	15.08	28.25	6.29	38.25	3.43
8.50	69.47	18.50	14.67	28.50	6.18	38.50	3.39
8.75	65.56	18.75	14.28	28.75	6.08	38.75	3.34
9.00	61.97	19.00	13.91	29.00	5.97	39.00	3.30
9.25	58.66	19.25	13.55	29.25	5.87	39.25	3.26
9.50	55.62	19.50	13.21	29.50	5.77	39.50	3.22
9.75	52.80	19.75	12.87	29.75	5.67	39.75	3.18
10.00	50.20	20.00	12.55	30.00	5.58	40.00	3.14

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi)(R)^2$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 70%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 2.82

33.85 Inches

BioInitiative ft. 224.10

2689.22 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	3.10	54.25	1.71	68.25	1.08	82.25	0.74
40.50	3.06	54.50	1.69	68.50	1.07	82.50	0.74
40.75	3.02	54.75	1.68	68.75	1.06	82.75	0.73
41.00	2.99	55.00	1.66	69.00	1.05	83.00	0.73
41.25	2.95	55.25	1.65	69.25	1.05	83.25	0.72
41.50	2.92	55.50	1.63	69.50	1.04	83.50	0.72
41.75	2.88	55.75	1.62	69.75	1.03	83.75	0.72
42.00	2.85	56.00	1.60	70.00	1.02	84.00	0.71
42.25	2.81	56.25	1.59	70.25	1.02	84.25	0.71
42.50	2.78	56.50	1.57	70.50	1.01	84.50	0.70
42.75	2.75	56.75	1.56	70.75	1.00	84.75	0.70
43.00	2.72	57.00	1.55	71.00	1.00	85.00	0.70
43.25	2.68	57.25	1.53	71.25	0.99	85.25	0.69
43.50	2.65	57.50	1.52	71.50	0.98	85.50	0.69
43.75	2.62	57.75	1.51	71.75	0.98	85.75	0.68
44.00	2.59	58.00	1.49	72.00	0.97	86.00	0.68
44.25	2.56	58.25	1.48	72.25	0.96	86.25	0.68
44.50	2.54	58.50	1.47	72.50	0.96	86.50	0.67
44.75	2.51	58.75	1.46	72.75	0.95	86.75	0.67
45.00	2.48	59.00	1.44	73.00	0.94	87.00	0.66
45.25	2.45	59.25	1.43	73.25	0.94	87.25	0.66
45.50	2.43	59.50	1.42	73.50	0.93	87.50	0.66
45.75	2.40	59.75	1.41	73.75	0.92	87.75	0.65
46.00	2.37	60.00	1.40	74.00	0.92	88.00	0.65
46.25	2.35	60.25	1.38	74.25	0.91	88.25	0.64
46.50	2.32	60.50	1.37	74.50	0.90	88.50	0.64
46.75	2.30	60.75	1.36	74.75	0.90	88.75	0.64
47.00	2.27	61.00	1.35	75.00	0.89	89.00	0.63
47.25	2.25	61.25	1.34	75.25	0.89	89.25	0.63
47.50	2.23	61.50	1.33	75.50	0.88	89.50	0.63
47.75	2.20	61.75	1.32	75.75	0.88	89.75	0.62
48.00	2.18	62.00	1.31	76.00	0.87	90.00	0.62
48.25	2.16	62.25	1.30	76.25	0.86	90.25	0.62
48.50	2.14	62.50	1.29	76.50	0.86	90.50	0.61
48.75	2.11	62.75	1.28	76.75	0.85	90.75	0.61
49.00	2.09	63.00	1.27	77.00	0.85	91.00	0.61
49.25	2.07	63.25	1.26	77.25	0.84	91.25	0.60
49.50	2.05	63.50	1.25	77.50	0.84	91.50	0.60
49.75	2.03	63.75	1.24	77.75	0.83	91.75	0.60
50.00	2.01	64.00	1.23	78.00	0.83	92.00	0.59
50.25	1.99	64.25	1.22	78.25	0.82	92.25	0.59
50.50	1.97	64.50	1.21	78.50	0.81	92.50	0.59
50.75	1.95	64.75	1.20	78.75	0.81	92.75	0.58
51.00	1.93	65.00	1.19	79.00	0.80	93.00	0.58
51.25	1.91	65.25	1.18	79.25	0.80	93.25	0.58
51.50	1.89	65.50	1.17	79.50	0.79	93.50	0.57
51.75	1.88	65.75	1.16	79.75	0.79	93.75	0.57
52.00	1.86	66.00	1.15	80.00	0.78	94.00	0.57
52.25	1.84	66.25	1.14	80.25	0.78	94.25	0.57
52.50	1.82	66.50	1.14	80.50	0.77	94.50	0.56
52.75	1.80	66.75	1.13	80.75	0.77	94.75	0.56
53.00	1.79	67.00	1.12	81.00	0.77	95.00	0.56
53.25	1.77	67.25	1.11	81.25	0.76	95.25	0.55
53.50	1.75	67.50	1.10	81.50	0.76	95.50	0.55
53.75	1.74	67.75	1.09	81.75	0.75	95.75	0.55
54.00	1.72	68.00	1.09	82.00	0.75	96.00	0.54

Table 6 – 70%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 80%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 3.02 36.2 Inches

BioInitiative ft. 239.57 2874.9 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	49213.53	10.25	54.61	20.25	14.00	30.25	6.27
0.50	19189.43	10.50	52.04	20.50	13.66	30.50	6.17
0.75	9410.30	10.75	49.65	20.75	13.33	30.75	6.07
1.00	5483.33	11.00	47.42	21.00	13.01	31.00	5.97
1.25	3567.42	11.25	45.33	21.25	12.71	31.25	5.88
1.50	2499.60	11.50	43.38	21.50	12.42	31.50	5.78
1.75	1846.37	11.75	41.56	21.75	12.13	31.75	5.69
2.00	1418.58	12.00	39.85	22.00	11.86	32.00	5.60
2.25	1123.55	12.25	38.24	22.25	11.59	32.25	5.52
2.50	911.64	12.50	36.72	22.50	11.34	32.50	5.43
2.75	754.38	12.75	35.30	22.75	11.09	32.75	5.35
3.00	634.50	13.00	33.95	23.00	10.85	33.00	5.27
3.25	541.05	13.25	32.68	23.25	10.62	33.25	5.19
3.50	466.79	13.50	31.49	23.50	10.39	33.50	5.11
3.75	406.82	13.75	30.35	23.75	10.17	33.75	5.04
4.00	357.70	14.00	29.28	24.00	9.96	34.00	4.96
4.25	316.96	14.25	28.26	24.25	9.76	34.25	4.89
4.50	282.80	14.50	27.29	24.50	9.56	34.50	4.82
4.75	253.87	14.75	26.38	24.75	9.37	34.75	4.75
5.00	229.16	15.00	25.50	25.00	9.18	35.00	4.69
5.25	207.89	15.25	24.67	25.25	9.00	35.25	4.62
5.50	189.45	15.50	23.89	25.50	8.83	35.50	4.55
5.75	173.36	15.75	23.13	25.75	8.66	35.75	4.49
6.00	159.23	16.00	22.42	26.00	8.49	36.00	4.43
6.25	146.76	16.25	21.73	26.25	8.33	36.25	4.37
6.50	135.70	16.50	21.08	26.50	8.17	36.50	4.31
6.75	125.85	16.75	20.45	26.75	8.02	36.75	4.25
7.00	117.03	17.00	19.86	27.00	7.87	37.00	4.19
7.25	109.10	17.25	19.29	27.25	7.73	37.25	4.14
7.50	101.95	17.50	18.74	27.50	7.59	37.50	4.08
7.75	95.49	17.75	18.21	27.75	7.45	37.75	4.03
8.00	89.62	18.00	17.71	28.00	7.32	38.00	3.97
8.25	84.27	18.25	17.23	28.25	7.19	38.25	3.92
8.50	79.39	18.50	16.77	28.50	7.07	38.50	3.87
8.75	74.92	18.75	16.32	28.75	6.94	38.75	3.82
9.00	70.82	19.00	15.90	29.00	6.82	39.00	3.77
9.25	67.05	19.25	15.49	29.25	6.71	39.25	3.73
9.50	63.56	19.50	15.09	29.50	6.60	39.50	3.68
9.75	60.35	19.75	14.71	29.75	6.48	39.75	3.63
10.00	57.37	20.00	14.35	30.00	6.38	40.00	3.59

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  
 $S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$   
 S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64 \* ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 80%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 3.02

36.20 Inches

BioInitiative ft. 239.57

2874.89 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	3.54	54.25	1.95	68.25	1.23	82.25	0.85
40.50	3.50	54.50	1.93	68.50	1.22	82.50	0.84
40.75	3.46	54.75	1.91	68.75	1.21	82.75	0.84
41.00	3.41	55.00	1.90	69.00	1.21	83.00	0.83
41.25	3.37	55.25	1.88	69.25	1.20	83.25	0.83
41.50	3.33	55.50	1.86	69.50	1.19	83.50	0.82
41.75	3.29	55.75	1.85	69.75	1.18	83.75	0.82
42.00	3.25	56.00	1.83	70.00	1.17	84.00	0.81
42.25	3.22	56.25	1.81	70.25	1.16	84.25	0.81
42.50	3.18	56.50	1.80	70.50	1.15	84.50	0.80
42.75	3.14	56.75	1.78	70.75	1.15	84.75	0.80
43.00	3.10	57.00	1.77	71.00	1.14	85.00	0.79
43.25	3.07	57.25	1.75	71.25	1.13	85.25	0.79
43.50	3.03	57.50	1.74	71.50	1.12	85.50	0.79
43.75	3.00	57.75	1.72	71.75	1.11	85.75	0.78
44.00	2.96	58.00	1.71	72.00	1.11	86.00	0.78
44.25	2.93	58.25	1.69	72.25	1.10	86.25	0.77
44.50	2.90	58.50	1.68	72.50	1.09	86.50	0.77
44.75	2.87	58.75	1.66	72.75	1.08	86.75	0.76
45.00	2.83	59.00	1.65	73.00	1.08	87.00	0.76
45.25	2.80	59.25	1.63	73.25	1.07	87.25	0.75
45.50	2.77	59.50	1.62	73.50	1.06	87.50	0.75
45.75	2.74	59.75	1.61	73.75	1.06	87.75	0.75
46.00	2.71	60.00	1.59	74.00	1.05	88.00	0.74
46.25	2.68	60.25	1.58	74.25	1.04	88.25	0.74
46.50	2.65	60.50	1.57	74.50	1.03	88.50	0.73
46.75	2.63	60.75	1.56	74.75	1.03	88.75	0.73
47.00	2.60	61.00	1.54	75.00	1.02	89.00	0.72
47.25	2.57	61.25	1.53	75.25	1.01	89.25	0.72
47.50	2.54	61.50	1.52	75.50	1.01	89.50	0.72
47.75	2.52	61.75	1.51	75.75	1.00	89.75	0.71
48.00	2.49	62.00	1.49	76.00	0.99	90.00	0.71
48.25	2.47	62.25	1.48	76.25	0.99	90.25	0.70
48.50	2.44	62.50	1.47	76.50	0.98	90.50	0.70
48.75	2.42	62.75	1.46	76.75	0.97	90.75	0.70
49.00	2.39	63.00	1.45	77.00	0.97	91.00	0.69
49.25	2.37	63.25	1.43	77.25	0.96	91.25	0.69
49.50	2.34	63.50	1.42	77.50	0.96	91.50	0.69
49.75	2.32	63.75	1.41	77.75	0.95	91.75	0.68
50.00	2.30	64.00	1.40	78.00	0.94	92.00	0.68
50.25	2.27	64.25	1.39	78.25	0.94	92.25	0.67
50.50	2.25	64.50	1.38	78.50	0.93	92.50	0.67
50.75	2.23	64.75	1.37	78.75	0.93	92.75	0.67
51.00	2.21	65.00	1.36	79.00	0.92	93.00	0.66
51.25	2.19	65.25	1.35	79.25	0.91	93.25	0.66
51.50	2.16	65.50	1.34	79.50	0.91	93.50	0.66
51.75	2.14	65.75	1.33	79.75	0.90	93.75	0.65
52.00	2.12	66.00	1.32	80.00	0.90	94.00	0.65
52.25	2.10	66.25	1.31	80.25	0.89	94.25	0.65
52.50	2.08	66.50	1.30	80.50	0.89	94.50	0.64
52.75	2.06	66.75	1.29	80.75	0.88	94.75	0.64
53.00	2.04	67.00	1.28	81.00	0.87	95.00	0.64
53.25	2.02	67.25	1.27	81.25	0.87	95.25	0.63
53.50	2.01	67.50	1.26	81.50	0.86	95.50	0.63
53.75	1.99	67.75	1.25	81.75	0.86	95.75	0.63
54.00	1.97	68.00	1.24	82.00	0.85	96.00	0.62

Table 6 – 80%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 90%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 3.20                      38.4 Inches

BioInitiative ft. 254.11                      3049.3 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	55365.23	10.25	61.43	20.25	15.74	30.25	7.06
0.50	21588.11	10.50	58.54	20.50	15.36	30.50	6.94
0.75	10586.59	10.75	55.85	20.75	15.00	30.75	6.83
1.00	6168.74	11.00	53.34	21.00	14.64	31.00	6.72
1.25	4013.34	11.25	51.00	21.25	14.30	31.25	6.61
1.50	2812.06	11.50	48.81	21.50	13.97	31.50	6.51
1.75	2077.17	11.75	46.75	21.75	13.65	31.75	6.41
2.00	1595.91	12.00	44.83	22.00	13.34	32.00	6.31
2.25	1263.99	12.25	43.02	22.25	13.04	32.25	6.21
2.50	1025.59	12.50	41.31	22.50	12.75	32.50	6.11
2.75	848.68	12.75	39.71	22.75	12.47	32.75	6.02
3.00	713.81	13.00	38.20	23.00	12.21	33.00	5.93
3.25	608.68	13.25	36.77	23.25	11.94	33.25	5.84
3.50	525.14	13.50	35.42	23.50	11.69	33.50	5.75
3.75	457.68	13.75	34.14	23.75	11.45	33.75	5.67
4.00	402.41	14.00	32.94	24.00	11.21	34.00	5.59
4.25	356.58	14.25	31.79	24.25	10.98	34.25	5.50
4.50	318.15	14.50	30.70	24.50	10.76	34.50	5.42
4.75	285.61	14.75	29.67	24.75	10.54	34.75	5.35
5.00	257.81	15.00	28.69	25.00	10.33	35.00	5.27
5.25	233.88	15.25	27.76	25.25	10.13	35.25	5.20
5.50	213.13	15.50	26.87	25.50	9.93	35.50	5.12
5.75	195.03	15.75	26.03	25.75	9.74	35.75	5.05
6.00	179.13	16.00	25.22	26.00	9.55	36.00	4.98
6.25	165.11	16.25	24.45	26.25	9.37	36.25	4.91
6.50	152.66	16.50	23.71	26.50	9.19	36.50	4.85
6.75	141.58	16.75	23.01	26.75	9.02	36.75	4.78
7.00	131.65	17.00	22.34	27.00	8.86	37.00	4.72
7.25	122.74	17.25	21.70	27.25	8.70	37.25	4.65
7.50	114.70	17.50	21.08	27.50	8.54	37.50	4.59
7.75	107.42	17.75	20.49	27.75	8.38	37.75	4.53
8.00	100.82	18.00	19.93	28.00	8.24	38.00	4.47
8.25	94.81	18.25	19.38	28.25	8.09	38.25	4.41
8.50	89.31	18.50	18.86	28.50	7.95	38.50	4.36
8.75	84.29	18.75	18.36	28.75	7.81	38.75	4.30
9.00	79.67	19.00	17.88	29.00	7.68	39.00	4.25
9.25	75.43	19.25	17.42	29.25	7.55	39.25	4.19
9.50	71.51	19.50	16.98	29.50	7.42	39.50	4.14
9.75	67.89	19.75	16.55	29.75	7.30	39.75	4.09
10.00	64.54	20.00	16.14	30.00	7.17	40.00	4.04

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 90%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 3.20

38.41 Inches

BioInitiative ft. 254.11

3049.29 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	3.99	54.25	2.19	68.25	1.39	82.25	0.95
40.50	3.94	54.50	2.17	68.50	1.38	82.50	0.95
40.75	3.89	54.75	2.15	68.75	1.37	82.75	0.94
41.00	3.84	55.00	2.13	69.00	1.36	83.00	0.94
41.25	3.79	55.25	2.12	69.25	1.35	83.25	0.93
41.50	3.75	55.50	2.10	69.50	1.34	83.50	0.93
41.75	3.70	55.75	2.08	69.75	1.33	83.75	0.92
42.00	3.66	56.00	2.06	70.00	1.32	84.00	0.92
42.25	3.62	56.25	2.04	70.25	1.31	84.25	0.91
42.50	3.57	56.50	2.02	70.50	1.30	84.50	0.90
42.75	3.53	56.75	2.00	70.75	1.29	84.75	0.90
43.00	3.49	57.00	1.99	71.00	1.28	85.00	0.89
43.25	3.45	57.25	1.97	71.25	1.27	85.25	0.89
43.50	3.41	57.50	1.95	71.50	1.26	85.50	0.88
43.75	3.37	57.75	1.94	71.75	1.25	85.75	0.88
44.00	3.34	58.00	1.92	72.00	1.25	86.00	0.87
44.25	3.30	58.25	1.90	72.25	1.24	86.25	0.87
44.50	3.26	58.50	1.89	72.50	1.23	86.50	0.86
44.75	3.22	58.75	1.87	72.75	1.22	86.75	0.86
45.00	3.19	59.00	1.85	73.00	1.21	87.00	0.85
45.25	3.15	59.25	1.84	73.25	1.20	87.25	0.85
45.50	3.12	59.50	1.82	73.50	1.20	87.50	0.84
45.75	3.08	59.75	1.81	73.75	1.19	87.75	0.84
46.00	3.05	60.00	1.79	74.00	1.18	88.00	0.83
46.25	3.02	60.25	1.78	74.25	1.17	88.25	0.83
46.50	2.99	60.50	1.76	74.50	1.16	88.50	0.82
46.75	2.95	60.75	1.75	74.75	1.16	88.75	0.82
47.00	2.92	61.00	1.74	75.00	1.15	89.00	0.82
47.25	2.89	61.25	1.72	75.25	1.14	89.25	0.81
47.50	2.86	61.50	1.71	75.50	1.13	89.50	0.81
47.75	2.83	61.75	1.69	75.75	1.13	89.75	0.80
48.00	2.80	62.00	1.68	76.00	1.12	90.00	0.80
48.25	2.77	62.25	1.67	76.25	1.11	90.25	0.79
48.50	2.75	62.50	1.65	76.50	1.10	90.50	0.79
48.75	2.72	62.75	1.64	76.75	1.10	90.75	0.78
49.00	2.69	63.00	1.63	77.00	1.09	91.00	0.78
49.25	2.66	63.25	1.61	77.25	1.08	91.25	0.78
49.50	2.64	63.50	1.60	77.50	1.08	91.50	0.77
49.75	2.61	63.75	1.59	77.75	1.07	91.75	0.77
50.00	2.58	64.00	1.58	78.00	1.06	92.00	0.76
50.25	2.56	64.25	1.56	78.25	1.05	92.25	0.76
50.50	2.53	64.50	1.55	78.50	1.05	92.50	0.75
50.75	2.51	64.75	1.54	78.75	1.04	92.75	0.75
51.00	2.48	65.00	1.53	79.00	1.03	93.00	0.75
51.25	2.46	65.25	1.52	79.25	1.03	93.25	0.74
51.50	2.43	65.50	1.51	79.50	1.02	93.50	0.74
51.75	2.41	65.75	1.49	79.75	1.02	93.75	0.73
52.00	2.39	66.00	1.48	80.00	1.01	94.00	0.73
52.25	2.37	66.25	1.47	80.25	1.00	94.25	0.73
52.50	2.34	66.50	1.46	80.50	1.00	94.50	0.72
52.75	2.32	66.75	1.45	80.75	0.99	94.75	0.72
53.00	2.30	67.00	1.44	81.00	0.98	95.00	0.72
53.25	2.28	67.25	1.43	81.25	0.98	95.25	0.71
53.50	2.26	67.50	1.42	81.50	0.97	95.50	0.71
53.75	2.23	67.75	1.41	81.75	0.97	95.75	0.70
54.00	2.21	68.00	1.40	82.00	0.96	96.00	0.70

Table 6 – 90%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 100%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 3.37                      40.5 Inches

BioInitiative ft. 267.85                      3214.2 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	61516.92	10.25	68.26	20.25	17.49	30.25	7.84
0.50	23986.78	10.50	65.05	20.50	17.07	30.50	7.71
0.75	11762.88	10.75	62.06	20.75	16.66	30.75	7.59
1.00	6854.16	11.00	59.27	21.00	16.27	31.00	7.47
1.25	4459.27	11.25	56.67	21.25	15.89	31.25	7.35
1.50	3124.51	11.50	54.23	21.50	15.52	31.50	7.23
1.75	2307.96	11.75	51.95	21.75	15.16	31.75	7.12
2.00	1773.23	12.00	49.81	22.00	14.82	32.00	7.01
2.25	1404.44	12.25	47.80	22.25	14.49	32.25	6.90
2.50	1139.55	12.50	45.90	22.50	14.17	32.50	6.79
2.75	942.97	12.75	44.12	22.75	13.86	32.75	6.69
3.00	793.13	13.00	42.44	23.00	13.56	33.00	6.59
3.25	676.31	13.25	40.86	23.25	13.27	33.25	6.49
3.50	583.49	13.50	39.36	23.50	12.99	33.50	6.39
3.75	508.53	13.75	37.94	23.75	12.72	33.75	6.30
4.00	447.13	14.00	36.60	24.00	12.45	34.00	6.21
4.25	396.20	14.25	35.32	24.25	12.20	34.25	6.12
4.50	353.50	14.50	34.12	24.50	11.95	34.50	6.03
4.75	317.34	14.75	32.97	24.75	11.71	34.75	5.94
5.00	286.46	15.00	31.88	25.00	11.48	35.00	5.86
5.25	259.87	15.25	30.84	25.25	11.25	35.25	5.77
5.50	236.82	15.50	29.86	25.50	11.03	35.50	5.69
5.75	216.70	15.75	28.92	25.75	10.82	35.75	5.61
6.00	199.04	16.00	28.02	26.00	10.61	36.00	5.54
6.25	183.45	16.25	27.17	26.25	10.41	36.25	5.46
6.50	169.63	16.50	26.35	26.50	10.22	36.50	5.39
6.75	157.31	16.75	25.57	26.75	10.03	36.75	5.31
7.00	146.28	17.00	24.82	27.00	9.84	37.00	5.24
7.25	136.38	17.25	24.11	27.25	9.66	37.25	5.17
7.50	127.44	17.50	23.42	27.50	9.49	37.50	5.10
7.75	119.36	17.75	22.77	27.75	9.32	37.75	5.03
8.00	112.02	18.00	22.14	28.00	9.15	38.00	4.97
8.25	105.34	18.25	21.54	28.25	8.99	38.25	4.90
8.50	99.24	18.50	20.96	28.50	8.83	38.50	4.84
8.75	93.65	18.75	20.40	28.75	8.68	38.75	4.78
9.00	88.52	19.00	19.87	29.00	8.53	39.00	4.72
9.25	83.81	19.25	19.36	29.25	8.39	39.25	4.66
9.50	79.46	19.50	18.87	29.50	8.24	39.50	4.60
9.75	75.44	19.75	18.39	29.75	8.11	39.75	4.54
10.00	71.71	20.00	17.93	30.00	7.97	40.00	4.48

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 100% reflections)

**Meters** 8 Electric Meters

Time Avg: 100%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 3.37

40.50 Inches

BioInitiative ft. 267.85

3214.23 Inches

Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$	Distance (ft)	$\mu\text{W}/\text{cm}^2$
40.25	4.43	54.25	2.44	68.25	1.54	82.25	1.06
40.50	4.37	54.50	2.42	68.50	1.53	82.50	1.05
40.75	4.32	54.75	2.39	68.75	1.52	82.75	1.05
41.00	4.27	55.00	2.37	69.00	1.51	83.00	1.04
41.25	4.22	55.25	2.35	69.25	1.50	83.25	1.04
41.50	4.17	55.50	2.33	69.50	1.49	83.50	1.03
41.75	4.12	55.75	2.31	69.75	1.47	83.75	1.02
42.00	4.07	56.00	2.29	70.00	1.46	84.00	1.02
42.25	4.02	56.25	2.27	70.25	1.45	84.25	1.01
42.50	3.97	56.50	2.25	70.50	1.44	84.50	1.00
42.75	3.93	56.75	2.23	70.75	1.43	84.75	1.00
43.00	3.88	57.00	2.21	71.00	1.42	85.00	0.99
43.25	3.84	57.25	2.19	71.25	1.41	85.25	0.99
43.50	3.79	57.50	2.17	71.50	1.40	85.50	0.98
43.75	3.75	57.75	2.15	71.75	1.39	85.75	0.98
44.00	3.71	58.00	2.13	72.00	1.38	86.00	0.97
44.25	3.66	58.25	2.11	72.25	1.37	86.25	0.96
44.50	3.62	58.50	2.10	72.50	1.36	86.50	0.96
44.75	3.58	58.75	2.08	72.75	1.36	86.75	0.95
45.00	3.54	59.00	2.06	73.00	1.35	87.00	0.95
45.25	3.50	59.25	2.04	73.25	1.34	87.25	0.94
45.50	3.47	59.50	2.03	73.50	1.33	87.50	0.94
45.75	3.43	59.75	2.01	73.75	1.32	87.75	0.93
46.00	3.39	60.00	1.99	74.00	1.31	88.00	0.93
46.25	3.35	60.25	1.98	74.25	1.30	88.25	0.92
46.50	3.32	60.50	1.96	74.50	1.29	88.50	0.92
46.75	3.28	60.75	1.94	74.75	1.28	88.75	0.91
47.00	3.25	61.00	1.93	75.00	1.28	89.00	0.91
47.25	3.21	61.25	1.91	75.25	1.27	89.25	0.90
47.50	3.18	61.50	1.90	75.50	1.26	89.50	0.90
47.75	3.15	61.75	1.88	75.75	1.25	89.75	0.89
48.00	3.11	62.00	1.87	76.00	1.24	90.00	0.89
48.25	3.08	62.25	1.85	76.25	1.23	90.25	0.88
48.50	3.05	62.50	1.84	76.50	1.23	90.50	0.88
48.75	3.02	62.75	1.82	76.75	1.22	90.75	0.87
49.00	2.99	63.00	1.81	77.00	1.21	91.00	0.87
49.25	2.96	63.25	1.79	77.25	1.20	91.25	0.86
49.50	2.93	63.50	1.78	77.50	1.19	91.50	0.86
49.75	2.90	63.75	1.77	77.75	1.19	91.75	0.85
50.00	2.87	64.00	1.75	78.00	1.18	92.00	0.85
50.25	2.84	64.25	1.74	78.25	1.17	92.25	0.84
50.50	2.81	64.50	1.72	78.50	1.16	92.50	0.84
50.75	2.79	64.75	1.71	78.75	1.16	92.75	0.83
51.00	2.76	65.00	1.70	79.00	1.15	93.00	0.83
51.25	2.73	65.25	1.69	79.25	1.14	93.25	0.83
51.50	2.71	65.50	1.67	79.50	1.14	93.50	0.82
51.75	2.68	65.75	1.66	79.75	1.13	93.75	0.82
52.00	2.65	66.00	1.65	80.00	1.12	94.00	0.81
52.25	2.63	66.25	1.63	80.25	1.11	94.25	0.81
52.50	2.60	66.50	1.62	80.50	1.11	94.50	0.80
52.75	2.58	66.75	1.61	80.75	1.10	94.75	0.80
53.00	2.55	67.00	1.60	81.00	1.09	95.00	0.79
53.25	2.53	67.25	1.59	81.25	1.09	95.25	0.79
53.50	2.51	67.50	1.57	81.50	1.08	95.50	0.79
53.75	2.48	67.75	1.56	81.75	1.07	95.75	0.78
54.00	2.46	68.00	1.55	82.00	1.07	96.00	0.78

Table 6 – 100%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 1%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 1.85                      22.2 Inches

BioInitiative ft. 147.32                      1767.8 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	18608.87	10.25	20.65	20.25	5.29	30.25	2.37
0.50	7256.00	10.50	19.68	20.50	5.16	30.50	2.33
0.75	3558.27	10.75	18.77	20.75	5.04	30.75	2.30
1.00	2073.38	11.00	17.93	21.00	4.92	31.00	2.26
1.25	1348.93	11.25	17.14	21.25	4.81	31.25	2.22
1.50	945.16	11.50	16.40	21.50	4.69	31.50	2.19
1.75	698.16	11.75	15.71	21.75	4.59	31.75	2.15
2.00	536.40	12.00	15.07	22.00	4.48	32.00	2.12
2.25	424.84	12.25	14.46	22.25	4.38	32.25	2.09
2.50	344.71	12.50	13.89	22.50	4.29	32.50	2.05
2.75	285.25	12.75	13.35	22.75	4.19	32.75	2.02
3.00	239.92	13.00	12.84	23.00	4.10	33.00	1.99
3.25	204.58	13.25	12.36	23.25	4.01	33.25	1.96
3.50	176.51	13.50	11.91	23.50	3.93	33.50	1.93
3.75	153.83	13.75	11.48	23.75	3.85	33.75	1.91
4.00	135.26	14.00	11.07	24.00	3.77	34.00	1.88
4.25	119.85	14.25	10.69	24.25	3.69	34.25	1.85
4.50	106.93	14.50	10.32	24.50	3.62	34.50	1.82
4.75	96.00	14.75	9.97	24.75	3.54	34.75	1.80
5.00	86.65	15.00	9.64	25.00	3.47	35.00	1.77
5.25	78.61	15.25	9.33	25.25	3.40	35.25	1.75
5.50	71.64	15.50	9.03	25.50	3.34	35.50	1.72
5.75	65.55	15.75	8.75	25.75	3.27	35.75	1.70
6.00	60.21	16.00	8.48	26.00	3.21	36.00	1.67
6.25	55.49	16.25	8.22	26.25	3.15	36.25	1.65
6.50	51.31	16.50	7.97	26.50	3.09	36.50	1.63
6.75	47.59	16.75	7.73	26.75	3.03	36.75	1.61
7.00	44.25	17.00	7.51	27.00	2.98	37.00	1.59
7.25	41.25	17.25	7.29	27.25	2.92	37.25	1.56
7.50	38.55	17.50	7.09	27.50	2.87	37.50	1.54
7.75	36.11	17.75	6.89	27.75	2.82	37.75	1.52
8.00	33.89	18.00	6.70	28.00	2.77	38.00	1.50
8.25	31.87	18.25	6.52	28.25	2.72	38.25	1.48
8.50	30.02	18.50	6.34	28.50	2.67	38.50	1.46
8.75	28.33	18.75	6.17	28.75	2.63	38.75	1.45
9.00	26.78	19.00	6.01	29.00	2.58	39.00	1.43
9.25	25.35	19.25	5.86	29.25	2.54	39.25	1.41
9.50	24.04	19.50	5.71	29.50	2.49	39.50	1.39
9.75	22.82	19.75	5.56	29.75	2.45	39.75	1.37
10.00	21.69	20.00	5.43	30.00	2.41	40.00	1.36

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 1%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 1.85

22.17 Inches

BioInitiative ft. 147.32

1767.82 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	1.34	54.25	0.74	68.25	0.47	82.25	0.32
40.50	1.32	54.50	0.73	68.50	0.46	82.50	0.32
40.75	1.31	54.75	0.72	68.75	0.46	82.75	0.32
41.00	1.29	55.00	0.72	69.00	0.46	83.00	0.32
41.25	1.28	55.25	0.71	69.25	0.45	83.25	0.31
41.50	1.26	55.50	0.70	69.50	0.45	83.50	0.31
41.75	1.25	55.75	0.70	69.75	0.45	83.75	0.31
42.00	1.23	56.00	0.69	70.00	0.44	84.00	0.31
42.25	1.22	56.25	0.69	70.25	0.44	84.25	0.31
42.50	1.20	56.50	0.68	70.50	0.44	84.50	0.30
42.75	1.19	56.75	0.67	70.75	0.43	84.75	0.30
43.00	1.17	57.00	0.67	71.00	0.43	85.00	0.30
43.25	1.16	57.25	0.66	71.25	0.43	85.25	0.30
43.50	1.15	57.50	0.66	71.50	0.42	85.50	0.30
43.75	1.13	57.75	0.65	71.75	0.42	85.75	0.30
44.00	1.12	58.00	0.65	72.00	0.42	86.00	0.29
44.25	1.11	58.25	0.64	72.25	0.42	86.25	0.29
44.50	1.10	58.50	0.63	72.50	0.41	86.50	0.29
44.75	1.08	58.75	0.63	72.75	0.41	86.75	0.29
45.00	1.07	59.00	0.62	73.00	0.41	87.00	0.29
45.25	1.06	59.25	0.62	73.25	0.40	87.25	0.29
45.50	1.05	59.50	0.61	73.50	0.40	87.50	0.28
45.75	1.04	59.75	0.61	73.75	0.40	87.75	0.28
46.00	1.03	60.00	0.60	74.00	0.40	88.00	0.28
46.25	1.01	60.25	0.60	74.25	0.39	88.25	0.28
46.50	1.00	60.50	0.59	74.50	0.39	88.50	0.28
46.75	0.99	60.75	0.59	74.75	0.39	88.75	0.28
47.00	0.98	61.00	0.58	75.00	0.39	89.00	0.27
47.25	0.97	61.25	0.58	75.25	0.38	89.25	0.27
47.50	0.96	61.50	0.57	75.50	0.38	89.50	0.27
47.75	0.95	61.75	0.57	75.75	0.38	89.75	0.27
48.00	0.94	62.00	0.56	76.00	0.38	90.00	0.27
48.25	0.93	62.25	0.56	76.25	0.37	90.25	0.27
48.50	0.92	62.50	0.56	76.50	0.37	90.50	0.26
48.75	0.91	62.75	0.55	76.75	0.37	90.75	0.26
49.00	0.90	63.00	0.55	77.00	0.37	91.00	0.26
49.25	0.89	63.25	0.54	77.25	0.36	91.25	0.26
49.50	0.89	63.50	0.54	77.50	0.36	91.50	0.26
49.75	0.88	63.75	0.53	77.75	0.36	91.75	0.26
50.00	0.87	64.00	0.53	78.00	0.36	92.00	0.26
50.25	0.86	64.25	0.53	78.25	0.35	92.25	0.26
50.50	0.85	64.50	0.52	78.50	0.35	92.50	0.25
50.75	0.84	64.75	0.52	78.75	0.35	92.75	0.25
51.00	0.83	65.00	0.51	79.00	0.35	93.00	0.25
51.25	0.83	65.25	0.51	79.25	0.35	93.25	0.25
51.50	0.82	65.50	0.51	79.50	0.34	93.50	0.25
51.75	0.81	65.75	0.50	79.75	0.34	93.75	0.25
52.00	0.80	66.00	0.50	80.00	0.34	94.00	0.25
52.25	0.79	66.25	0.49	80.25	0.34	94.25	0.24
52.50	0.79	66.50	0.49	80.50	0.33	94.50	0.24
52.75	0.78	66.75	0.49	80.75	0.33	94.75	0.24
53.00	0.77	67.00	0.48	81.00	0.33	95.00	0.24
53.25	0.77	67.25	0.48	81.25	0.33	95.25	0.24
53.50	0.76	67.50	0.48	81.50	0.33	95.50	0.24
53.75	0.75	67.75	0.47	81.75	0.32	95.75	0.24
54.00	0.74	68.00	0.47	82.00	0.32	96.00	0.24

Table 7 – 1%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 10%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 5.88                      70.5 Inches

BioInitiative ft. 465.86                      5590.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	186088.68	10.25	206.48	20.25	52.92	30.25	23.72
0.50	72560.02	10.50	196.77	20.50	51.64	30.50	23.33
0.75	35582.71	10.75	187.73	20.75	50.40	30.75	22.95
1.00	20733.82	11.00	179.29	21.00	49.21	31.00	22.58
1.25	13489.29	11.25	171.42	21.25	48.06	31.25	22.22
1.50	9451.63	11.50	164.05	21.50	46.95	31.50	21.87
1.75	6981.59	11.75	157.14	21.75	45.87	31.75	21.53
2.00	5364.02	12.00	150.67	22.00	44.84	32.00	21.19
2.25	4248.42	12.25	144.58	22.25	43.83	32.25	20.87
2.50	3447.14	12.50	138.86	22.50	42.87	32.50	20.55
2.75	2852.49	12.75	133.47	22.75	41.93	32.75	20.23
3.00	2399.20	13.00	128.38	23.00	41.02	33.00	19.93
3.25	2045.83	13.25	123.59	23.25	40.15	33.25	19.63
3.50	1765.06	13.50	119.05	23.50	39.30	33.50	19.34
3.75	1538.30	13.75	114.76	23.75	38.47	33.75	19.05
4.00	1352.56	14.00	110.70	24.00	37.68	34.00	18.77
4.25	1198.50	14.25	106.85	24.25	36.90	34.25	18.50
4.50	1069.33	14.50	103.20	24.50	36.15	34.50	18.23
4.75	959.95	14.75	99.73	24.75	35.43	34.75	17.97
5.00	866.53	15.00	96.44	25.00	34.72	35.00	17.72
5.25	786.10	15.25	93.30	25.25	34.04	35.25	17.47
5.50	716.37	15.50	90.32	25.50	33.37	35.50	17.22
5.75	655.51	15.75	87.47	25.75	32.73	35.75	16.98
6.00	602.09	16.00	84.76	26.00	32.10	36.00	16.75
6.25	554.94	16.25	82.17	26.25	31.49	36.25	16.52
6.50	513.12	16.50	79.70	26.50	30.90	36.50	16.29
6.75	475.85	16.75	77.34	26.75	30.33	36.75	16.07
7.00	442.50	17.00	75.08	27.00	29.77	37.00	15.85
7.25	412.54	17.25	72.92	27.25	29.23	37.25	15.64
7.50	385.52	17.50	70.86	27.50	28.70	37.50	15.43
7.75	361.06	17.75	68.87	27.75	28.18	37.75	15.23
8.00	338.87	18.00	66.97	28.00	27.68	38.00	15.03
8.25	318.65	18.25	65.15	28.25	27.19	38.25	14.83
8.50	300.20	18.50	63.40	28.50	26.72	38.50	14.64
8.75	283.30	18.75	61.72	28.75	26.26	38.75	14.45
9.00	267.79	19.00	60.11	29.00	25.80	39.00	14.27
9.25	253.51	19.25	58.56	29.25	25.37	39.25	14.09
9.50	240.35	19.50	57.07	29.50	24.94	39.50	13.91
9.75	228.19	19.75	55.63	29.75	24.52	39.75	13.74
10.00	216.93	20.00	54.25	30.00	24.11	40.00	13.56

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  
 $S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$   
 S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64 \* ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 10%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 5.88

70.53 Inches

BioInitiative ft. 465.86

5590.36 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	13.40	54.25	7.37	68.25	4.66	82.25	3.21
40.50	13.23	54.50	7.31	68.50	4.63	82.50	3.19
40.75	13.07	54.75	7.24	68.75	4.59	82.75	3.17
41.00	12.91	55.00	7.17	69.00	4.56	83.00	3.15
41.25	12.75	55.25	7.11	69.25	4.53	83.25	3.13
41.50	12.60	55.50	7.05	69.50	4.49	83.50	3.11
41.75	12.45	55.75	6.98	69.75	4.46	83.75	3.09
42.00	12.30	56.00	6.92	70.00	4.43	84.00	3.08
42.25	12.16	56.25	6.86	70.25	4.40	84.25	3.06
42.50	12.02	56.50	6.80	70.50	4.37	84.50	3.04
42.75	11.88	56.75	6.74	70.75	4.34	84.75	3.02
43.00	11.74	57.00	6.68	71.00	4.31	85.00	3.00
43.25	11.60	57.25	6.62	71.25	4.28	85.25	2.99
43.50	11.47	57.50	6.56	71.50	4.25	85.50	2.97
43.75	11.34	57.75	6.51	71.75	4.22	85.75	2.95
44.00	11.21	58.00	6.45	72.00	4.19	86.00	2.93
44.25	11.08	58.25	6.40	72.25	4.16	86.25	2.92
44.50	10.96	58.50	6.34	72.50	4.13	86.50	2.90
44.75	10.84	58.75	6.29	72.75	4.10	86.75	2.88
45.00	10.72	59.00	6.23	73.00	4.07	87.00	2.87
45.25	10.60	59.25	6.18	73.25	4.04	87.25	2.85
45.50	10.48	59.50	6.13	73.50	4.02	87.50	2.83
45.75	10.37	59.75	6.08	73.75	3.99	87.75	2.82
46.00	10.26	60.00	6.03	74.00	3.96	88.00	2.80
46.25	10.15	60.25	5.98	74.25	3.94	88.25	2.79
46.50	10.04	60.50	5.93	74.50	3.91	88.50	2.77
46.75	9.93	60.75	5.88	74.75	3.88	88.75	2.76
47.00	9.82	61.00	5.83	75.00	3.86	89.00	2.74
47.25	9.72	61.25	5.78	75.25	3.83	89.25	2.72
47.50	9.62	61.50	5.74	75.50	3.81	89.50	2.71
47.75	9.52	61.75	5.69	75.75	3.78	89.75	2.69
48.00	9.42	62.00	5.65	76.00	3.76	90.00	2.68
48.25	9.32	62.25	5.60	76.25	3.73	90.25	2.66
48.50	9.23	62.50	5.56	76.50	3.71	90.50	2.65
48.75	9.13	62.75	5.51	76.75	3.68	90.75	2.64
49.00	9.04	63.00	5.47	77.00	3.66	91.00	2.62
49.25	8.95	63.25	5.42	77.25	3.64	91.25	2.61
49.50	8.86	63.50	5.38	77.50	3.61	91.50	2.59
49.75	8.77	63.75	5.34	77.75	3.59	91.75	2.58
50.00	8.68	64.00	5.30	78.00	3.57	92.00	2.56
50.25	8.59	64.25	5.26	78.25	3.54	92.25	2.55
50.50	8.51	64.50	5.22	78.50	3.52	92.50	2.54
50.75	8.43	64.75	5.18	78.75	3.50	92.75	2.52
51.00	8.34	65.00	5.14	79.00	3.48	93.00	2.51
51.25	8.26	65.25	5.10	79.25	3.46	93.25	2.50
51.50	8.18	65.50	5.06	79.50	3.43	93.50	2.48
51.75	8.10	65.75	5.02	79.75	3.41	93.75	2.47
52.00	8.03	66.00	4.98	80.00	3.39	94.00	2.46
52.25	7.95	66.25	4.94	80.25	3.37	94.25	2.44
52.50	7.87	66.50	4.91	80.50	3.35	94.50	2.43
52.75	7.80	66.75	4.87	80.75	3.33	94.75	2.42
53.00	7.73	67.00	4.83	81.00	3.31	95.00	2.40
53.25	7.65	67.25	4.80	81.25	3.29	95.25	2.39
53.50	7.58	67.50	4.76	81.50	3.27	95.50	2.38
53.75	7.51	67.75	4.73	81.75	3.25	95.75	2.37
54.00	7.44	68.00	4.69	82.00	3.23	96.00	2.35

Table 7 – 10%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 20%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 8.31                      99.8 Inches

BioInitiative ft. 658.83                      7906.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	372177.35	10.25	412.96	20.25	105.84	30.25	47.43
0.50	145120.05	10.50	393.54	20.50	103.27	30.50	46.66
0.75	71165.42	10.75	375.46	20.75	100.80	30.75	45.90
1.00	41467.65	11.00	358.59	21.00	98.42	31.00	45.17
1.25	26978.59	11.25	342.84	21.25	96.11	31.25	44.45
1.50	18903.26	11.50	328.10	21.50	93.89	31.50	43.74
1.75	13963.18	11.75	314.29	21.75	91.75	31.75	43.06
2.00	10728.04	12.00	301.33	22.00	89.67	32.00	42.39
2.25	8496.85	12.25	289.16	22.25	87.67	32.25	41.73
2.50	6894.27	12.50	277.72	22.50	85.73	32.50	41.09
2.75	5704.99	12.75	266.93	22.75	83.86	32.75	40.47
3.00	4798.41	13.00	256.77	23.00	82.05	33.00	39.86
3.25	4091.66	13.25	247.17	23.25	80.29	33.25	39.26
3.50	3530.12	13.50	238.11	23.50	78.59	33.50	38.68
3.75	3076.61	13.75	229.53	23.75	76.95	33.75	38.11
4.00	2705.11	14.00	221.41	24.00	75.35	34.00	37.55
4.25	2397.01	14.25	213.71	24.25	73.81	34.25	37.00
4.50	2138.66	14.50	206.40	24.50	72.31	34.50	36.47
4.75	1919.90	14.75	199.47	24.75	70.85	34.75	35.94
5.00	1733.06	15.00	192.88	25.00	69.44	35.00	35.43
5.25	1572.20	15.25	186.60	25.25	68.08	35.25	34.93
5.50	1432.73	15.50	180.63	25.50	66.75	35.50	34.44
5.75	1311.02	15.75	174.95	25.75	65.46	35.75	33.96
6.00	1204.18	16.00	169.52	26.00	64.21	36.00	33.49
6.25	1109.89	16.25	164.35	26.25	62.99	36.25	33.03
6.50	1026.24	16.50	159.41	26.50	61.81	36.50	32.58
6.75	951.71	16.75	154.68	26.75	60.66	36.75	32.14
7.00	885.01	17.00	150.17	27.00	59.54	37.00	31.71
7.25	825.08	17.25	145.85	27.25	58.45	37.25	31.28
7.50	771.03	17.50	141.71	27.50	57.39	37.50	30.87
7.75	722.13	17.75	137.75	27.75	56.36	37.75	30.46
8.00	677.73	18.00	133.95	28.00	55.36	38.00	30.06
8.25	637.31	18.25	130.31	28.25	54.39	38.25	29.67
8.50	600.39	18.50	126.81	28.50	53.44	38.50	29.28
8.75	566.59	18.75	123.45	28.75	52.51	38.75	28.91
9.00	535.57	19.00	120.22	29.00	51.61	39.00	28.54
9.25	507.03	19.25	117.12	29.25	50.73	39.25	28.17
9.50	480.71	19.50	114.14	29.50	49.87	39.50	27.82
9.75	456.38	19.75	111.27	29.75	49.04	39.75	27.47
10.00	433.86	20.00	108.50	30.00	48.23	40.00	27.13

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  
 $S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$   
 S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64 \* ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 20%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 8.31

99.78 Inches

BioInitiative ft. 658.83

7905.97 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	26.79	54.25	14.75	68.25	9.32	82.25	6.42
40.50	26.46	54.50	14.61	68.50	9.25	82.50	6.38
40.75	26.14	54.75	14.48	68.75	9.18	82.75	6.34
41.00	25.82	55.00	14.35	69.00	9.12	83.00	6.30
41.25	25.51	55.25	14.22	69.25	9.05	83.25	6.26
41.50	25.20	55.50	14.09	69.50	8.99	83.50	6.23
41.75	24.90	55.75	13.97	69.75	8.92	83.75	6.19
42.00	24.61	56.00	13.84	70.00	8.86	84.00	6.15
42.25	24.32	56.25	13.72	70.25	8.80	84.25	6.12
42.50	24.03	56.50	13.60	70.50	8.73	84.50	6.08
42.75	23.75	56.75	13.48	70.75	8.67	84.75	6.04
43.00	23.47	57.00	13.36	71.00	8.61	85.00	6.01
43.25	23.20	57.25	13.24	71.25	8.55	85.25	5.97
43.50	22.94	57.50	13.13	71.50	8.49	85.50	5.94
43.75	22.68	57.75	13.01	71.75	8.43	85.75	5.90
44.00	22.42	58.00	12.90	72.00	8.37	86.00	5.87
44.25	22.17	58.25	12.79	72.25	8.32	86.25	5.83
44.50	21.92	58.50	12.68	72.50	8.26	86.50	5.80
44.75	21.67	58.75	12.58	72.75	8.20	86.75	5.77
45.00	21.43	59.00	12.47	73.00	8.15	87.00	5.73
45.25	21.20	59.25	12.36	73.25	8.09	87.25	5.70
45.50	20.97	59.50	12.26	73.50	8.03	87.50	5.67
45.75	20.74	59.75	12.16	73.75	7.98	87.75	5.64
46.00	20.51	60.00	12.06	74.00	7.93	88.00	5.61
46.25	20.29	60.25	11.96	74.25	7.87	88.25	5.57
46.50	20.07	60.50	11.86	74.50	7.82	88.50	5.54
46.75	19.86	60.75	11.76	74.75	7.77	88.75	5.51
47.00	19.65	61.00	11.66	75.00	7.72	89.00	5.48
47.25	19.44	61.25	11.57	75.25	7.67	89.25	5.45
47.50	19.24	61.50	11.48	75.50	7.61	89.50	5.42
47.75	19.04	61.75	11.38	75.75	7.56	89.75	5.39
48.00	18.84	62.00	11.29	76.00	7.51	90.00	5.36
48.25	18.64	62.25	11.20	76.25	7.47	90.25	5.33
48.50	18.45	62.50	11.11	76.50	7.42	90.50	5.30
48.75	18.26	62.75	11.02	76.75	7.37	90.75	5.27
49.00	18.08	63.00	10.94	77.00	7.32	91.00	5.24
49.25	17.89	63.25	10.85	77.25	7.27	91.25	5.21
49.50	17.71	63.50	10.76	77.50	7.23	91.50	5.18
49.75	17.54	63.75	10.68	77.75	7.18	91.75	5.16
50.00	17.36	64.00	10.60	78.00	7.13	92.00	5.13
50.25	17.19	64.25	10.51	78.25	7.09	92.25	5.10
50.50	17.02	64.50	10.43	78.50	7.04	92.50	5.07
50.75	16.85	64.75	10.35	78.75	7.00	92.75	5.05
51.00	16.69	65.00	10.27	79.00	6.95	93.00	5.02
51.25	16.53	65.25	10.19	79.25	6.91	93.25	4.99
51.50	16.37	65.50	10.12	79.50	6.87	93.50	4.97
51.75	16.21	65.75	10.04	79.75	6.82	93.75	4.94
52.00	16.05	66.00	9.96	80.00	6.78	94.00	4.91
52.25	15.90	66.25	9.89	80.25	6.74	94.25	4.89
52.50	15.75	66.50	9.82	80.50	6.70	94.50	4.86
52.75	15.60	66.75	9.74	80.75	6.66	94.75	4.83
53.00	15.45	67.00	9.67	81.00	6.62	95.00	4.81
53.25	15.31	67.25	9.60	81.25	6.58	95.25	4.78
53.50	15.16	67.50	9.53	81.50	6.53	95.50	4.76
53.75	15.02	67.75	9.46	81.75	6.49	95.75	4.73
54.00	14.89	68.00	9.39	82.00	6.46	96.00	4.71

Table 7 – 20%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 30%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 10.18                      122.2 Inches

BioInitiative ft. 806.90                      9682.8 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	558266.03	10.25	619.44	20.25	158.76	30.25	71.15
0.50	217680.07	10.50	590.31	20.50	154.91	30.50	69.99
0.75	106748.14	10.75	563.18	20.75	151.20	30.75	68.85
1.00	62201.47	11.00	537.88	21.00	147.62	31.00	67.75
1.25	40467.88	11.25	514.25	21.25	144.17	31.25	66.67
1.50	28354.89	11.50	492.14	21.50	140.84	31.50	65.61
1.75	20944.77	11.75	471.43	21.75	137.62	31.75	64.58
2.00	16092.06	12.00	452.00	22.00	134.51	32.00	63.58
2.25	12745.27	12.25	433.74	22.25	131.50	32.25	62.60
2.50	10341.41	12.50	416.57	22.50	128.60	32.50	61.64
2.75	8557.48	12.75	400.40	22.75	125.79	32.75	60.70
3.00	7197.61	13.00	385.15	23.00	123.07	33.00	59.79
3.25	6137.49	13.25	370.76	23.25	120.44	33.25	58.89
3.50	5295.18	13.50	357.16	23.50	117.89	33.50	58.01
3.75	4614.91	13.75	344.29	23.75	115.42	33.75	57.16
4.00	4057.67	14.00	332.11	24.00	113.03	34.00	56.32
4.25	3595.51	14.25	320.56	24.25	110.71	34.25	55.50
4.50	3207.99	14.50	309.61	24.50	108.46	34.50	54.70
4.75	2879.86	14.75	299.20	24.75	106.28	34.75	53.92
5.00	2599.58	15.00	289.31	25.00	104.17	35.00	53.15
5.25	2358.30	15.25	279.91	25.25	102.11	35.25	52.40
5.50	2149.10	15.50	270.95	25.50	100.12	35.50	51.66
5.75	1966.54	15.75	262.42	25.75	98.19	35.75	50.94
6.00	1806.28	16.00	254.29	26.00	96.31	36.00	50.24
6.25	1664.83	16.25	246.52	26.25	94.48	36.25	49.55
6.50	1539.37	16.50	239.11	26.50	92.71	36.50	48.87
6.75	1427.56	16.75	232.03	26.75	90.98	36.75	48.21
7.00	1327.51	17.00	225.25	27.00	89.31	37.00	47.56
7.25	1237.61	17.25	218.77	27.25	87.68	37.25	46.92
7.50	1156.55	17.50	212.57	27.50	86.09	37.50	46.30
7.75	1083.19	17.75	206.62	27.75	84.54	37.75	45.69
8.00	1016.60	18.00	200.92	28.00	83.04	38.00	45.09
8.25	955.96	18.25	195.46	28.25	81.58	38.25	44.50
8.50	900.59	18.50	190.21	28.50	80.15	38.50	43.92
8.75	849.89	18.75	185.17	28.75	78.77	38.75	43.36
9.00	803.36	19.00	180.33	29.00	77.41	39.00	42.81
9.25	760.54	19.25	175.68	29.25	76.10	39.25	42.26
9.50	721.06	19.50	171.21	29.50	74.81	39.50	41.73
9.75	684.57	19.75	166.90	29.75	73.56	39.75	41.21
10.00	650.79	20.00	162.75	30.00	72.34	40.00	40.69

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  
 $S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$   
 S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64 \* ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 30%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 10.18                      122.22 Inches

BioInitiative ft. 806.90                      9682.79 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	40.19	54.25	22.12	68.25	13.98	82.25	9.62
40.50	39.69	54.50	21.92	68.50	13.88	82.50	9.57
40.75	39.21	54.75	21.72	68.75	13.77	82.75	9.51
41.00	38.73	55.00	21.52	69.00	13.68	83.00	9.45
41.25	38.26	55.25	21.33	69.25	13.58	83.25	9.39
41.50	37.80	55.50	21.14	69.50	13.48	83.50	9.34
41.75	37.35	55.75	20.95	69.75	13.38	83.75	9.28
42.00	36.91	56.00	20.76	70.00	13.29	84.00	9.23
42.25	36.47	56.25	20.58	70.25	13.19	84.25	9.17
42.50	36.05	56.50	20.40	70.50	13.10	84.50	9.12
42.75	35.63	56.75	20.22	70.75	13.01	84.75	9.06
43.00	35.21	57.00	20.04	71.00	12.92	85.00	9.01
43.25	34.81	57.25	19.86	71.25	12.83	85.25	8.96
43.50	34.41	57.50	19.69	71.50	12.74	85.50	8.91
43.75	34.02	57.75	19.52	71.75	12.65	85.75	8.85
44.00	33.63	58.00	19.35	72.00	12.56	86.00	8.80
44.25	33.25	58.25	19.19	72.25	12.47	86.25	8.75
44.50	32.88	58.50	19.02	72.50	12.39	86.50	8.70
44.75	32.51	58.75	18.86	72.75	12.30	86.75	8.65
45.00	32.15	59.00	18.70	73.00	12.22	87.00	8.60
45.25	31.80	59.25	18.55	73.25	12.13	87.25	8.55
45.50	31.45	59.50	18.39	73.50	12.05	87.50	8.50
45.75	31.11	59.75	18.24	73.75	11.97	87.75	8.46
46.00	30.77	60.00	18.09	74.00	11.89	88.00	8.41
46.25	30.44	60.25	17.94	74.25	11.81	88.25	8.36
46.50	30.11	60.50	17.79	74.50	11.73	88.50	8.31
46.75	29.79	60.75	17.64	74.75	11.65	88.75	8.27
47.00	29.47	61.00	17.50	75.00	11.57	89.00	8.22
47.25	29.16	61.25	17.35	75.25	11.50	89.25	8.17
47.50	28.86	61.50	17.21	75.50	11.42	89.50	8.13
47.75	28.56	61.75	17.07	75.75	11.35	89.75	8.08
48.00	28.26	62.00	16.94	76.00	11.27	90.00	8.04
48.25	27.97	62.25	16.80	76.25	11.20	90.25	7.99
48.50	27.68	62.50	16.67	76.50	11.13	90.50	7.95
48.75	27.40	62.75	16.54	76.75	11.05	90.75	7.91
49.00	27.12	63.00	16.40	77.00	10.98	91.00	7.86
49.25	26.84	63.25	16.27	77.25	10.91	91.25	7.82
49.50	26.57	63.50	16.15	77.50	10.84	91.50	7.78
49.75	26.31	63.75	16.02	77.75	10.77	91.75	7.73
50.00	26.04	64.00	15.90	78.00	10.70	92.00	7.69
50.25	25.78	64.25	15.77	78.25	10.63	92.25	7.65
50.50	25.53	64.50	15.65	78.50	10.57	92.50	7.61
50.75	25.28	64.75	15.53	78.75	10.50	92.75	7.57
51.00	25.03	65.00	15.41	79.00	10.43	93.00	7.53
51.25	24.79	65.25	15.29	79.25	10.37	93.25	7.49
51.50	24.55	65.50	15.18	79.50	10.30	93.50	7.45
51.75	24.31	65.75	15.06	79.75	10.24	93.75	7.41
52.00	24.08	66.00	14.95	80.00	10.17	94.00	7.37
52.25	23.85	66.25	14.83	80.25	10.11	94.25	7.33
52.50	23.62	66.50	14.72	80.50	10.05	94.50	7.29
52.75	23.40	66.75	14.61	80.75	9.99	94.75	7.25
53.00	23.18	67.00	14.50	81.00	9.92	95.00	7.21
53.25	22.96	67.25	14.40	81.25	9.86	95.25	7.18
53.50	22.75	67.50	14.29	81.50	9.80	95.50	7.14
53.75	22.54	67.75	14.18	81.75	9.74	95.75	7.10
54.00	22.33	68.00	14.08	82.00	9.68	96.00	7.06

Table 7 – 30%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 40%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 11.76                      141.1 Inches

BioInitiative ft. 931.73                      11180.7 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	744354.71	10.25	825.93	20.25	211.68	30.25	94.86
0.50	290240.10	10.50	787.08	20.50	206.55	30.50	93.32
0.75	142330.85	10.75	750.91	20.75	201.60	30.75	91.80
1.00	82935.30	11.00	717.18	21.00	196.83	31.00	90.33
1.25	53957.17	11.25	685.67	21.25	192.23	31.25	88.89
1.50	37806.52	11.50	656.19	21.50	187.78	31.50	87.49
1.75	27926.36	11.75	628.58	21.75	183.49	31.75	86.11
2.00	21456.08	12.00	602.67	22.00	179.35	32.00	84.77
2.25	16993.69	12.25	578.33	22.25	175.34	32.25	83.46
2.50	13788.54	12.50	555.43	22.50	171.46	32.50	82.18
2.75	11409.98	12.75	533.87	22.75	167.72	32.75	80.94
3.00	9596.82	13.00	513.54	23.00	164.09	33.00	79.71
3.25	8183.32	13.25	494.35	23.25	160.58	33.25	78.52
3.50	7060.24	13.50	476.21	23.50	157.18	33.50	77.35
3.75	6153.21	13.75	459.06	23.75	153.89	33.75	76.21
4.00	5410.23	14.00	442.81	24.00	150.70	34.00	75.09
4.25	4794.02	14.25	427.42	24.25	147.61	34.25	74.00
4.50	4277.31	14.50	412.81	24.50	144.61	34.50	72.93
4.75	3839.81	14.75	398.93	24.75	141.71	34.75	71.89
5.00	3466.11	15.00	385.75	25.00	138.89	35.00	70.86
5.25	3144.40	15.25	373.21	25.25	136.15	35.25	69.86
5.50	2865.47	15.50	361.27	25.50	133.50	35.50	68.88
5.75	2622.05	15.75	349.89	25.75	130.92	35.75	67.92
6.00	2408.37	16.00	339.05	26.00	128.41	36.00	66.98
6.25	2219.77	16.25	328.70	26.25	125.98	36.25	66.06
6.50	2052.49	16.50	318.81	26.50	123.61	36.50	65.16
6.75	1903.42	16.75	309.37	26.75	121.31	36.75	64.28
7.00	1770.01	17.00	300.34	27.00	119.08	37.00	63.41
7.25	1650.15	17.25	291.70	27.25	116.90	37.25	62.56
7.50	1542.06	17.50	283.42	27.50	114.79	37.50	61.73
7.75	1444.25	17.75	275.50	27.75	112.73	37.75	60.92
8.00	1355.46	18.00	267.90	28.00	110.72	38.00	60.12
8.25	1274.61	18.25	260.61	28.25	108.77	38.25	59.33
8.50	1200.78	18.50	253.62	28.50	106.87	38.50	58.57
8.75	1133.19	18.75	246.90	28.75	105.02	38.75	57.81
9.00	1071.14	19.00	240.44	29.00	103.22	39.00	57.07
9.25	1014.06	19.25	234.24	29.25	101.46	39.25	56.35
9.50	961.41	19.50	228.27	29.50	99.75	39.50	55.64
9.75	912.77	19.75	222.53	29.75	98.08	39.75	54.94
10.00	867.72	20.00	217.00	30.00	96.45	40.00	54.26

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 40%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 11.76                      141.13 Inches

BioInitiative ft. 931.73                      11180.73 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	53.58	54.25	29.50	68.25	18.64	82.25	12.83
40.50	52.92	54.50	29.23	68.50	18.50	82.50	12.75
40.75	52.28	54.75	28.96	68.75	18.37	82.75	12.68
41.00	51.64	55.00	28.70	69.00	18.23	83.00	12.60
41.25	51.02	55.25	28.44	69.25	18.10	83.25	12.53
41.50	50.40	55.50	28.18	69.50	17.97	83.50	12.45
41.75	49.80	55.75	27.93	69.75	17.84	83.75	12.38
42.00	49.21	56.00	27.68	70.00	17.72	84.00	12.30
42.25	48.63	56.25	27.44	70.25	17.59	84.25	12.23
42.50	48.06	56.50	27.19	70.50	17.47	84.50	12.16
42.75	47.50	56.75	26.96	70.75	17.34	84.75	12.09
43.00	46.95	57.00	26.72	71.00	17.22	85.00	12.02
43.25	46.41	57.25	26.49	71.25	17.10	85.25	11.94
43.50	45.88	57.50	26.26	71.50	16.98	85.50	11.88
43.75	45.35	57.75	26.03	71.75	16.86	85.75	11.81
44.00	44.84	58.00	25.81	72.00	16.75	86.00	11.74
44.25	44.33	58.25	25.58	72.25	16.63	86.25	11.67
44.50	43.84	58.50	25.37	72.50	16.52	86.50	11.60
44.75	43.35	58.75	25.15	72.75	16.40	86.75	11.54
45.00	42.87	59.00	24.94	73.00	16.29	87.00	11.47
45.25	42.40	59.25	24.73	73.25	16.18	87.25	11.40
45.50	41.93	59.50	24.52	73.50	16.07	87.50	11.34
45.75	41.47	59.75	24.32	73.75	15.96	87.75	11.27
46.00	41.03	60.00	24.11	74.00	15.85	88.00	11.21
46.25	40.58	60.25	23.91	74.25	15.75	88.25	11.15
46.50	40.15	60.50	23.72	74.50	15.64	88.50	11.08
46.75	39.72	60.75	23.52	74.75	15.54	88.75	11.02
47.00	39.30	61.00	23.33	75.00	15.43	89.00	10.96
47.25	38.88	61.25	23.14	75.25	15.33	89.25	10.90
47.50	38.48	61.50	22.95	75.50	15.23	89.50	10.84
47.75	38.07	61.75	22.77	75.75	15.13	89.75	10.78
48.00	37.68	62.00	22.58	76.00	15.03	90.00	10.72
48.25	37.29	62.25	22.40	76.25	14.93	90.25	10.66
48.50	36.91	62.50	22.22	76.50	14.83	90.50	10.60
48.75	36.53	62.75	22.05	76.75	14.74	90.75	10.54
49.00	36.16	63.00	21.87	77.00	14.64	91.00	10.48
49.25	35.79	63.25	21.70	77.25	14.55	91.25	10.43
49.50	35.43	63.50	21.53	77.50	14.45	91.50	10.37
49.75	35.07	63.75	21.36	77.75	14.36	91.75	10.31
50.00	34.72	64.00	21.19	78.00	14.27	92.00	10.26
50.25	34.38	64.25	21.03	78.25	14.18	92.25	10.20
50.50	34.04	64.50	20.87	78.50	14.09	92.50	10.15
50.75	33.71	64.75	20.71	78.75	14.00	92.75	10.09
51.00	33.38	65.00	20.55	79.00	13.91	93.00	10.04
51.25	33.05	65.25	20.39	79.25	13.82	93.25	9.98
51.50	32.73	65.50	20.23	79.50	13.74	93.50	9.93
51.75	32.42	65.75	20.08	79.75	13.65	93.75	9.88
52.00	32.10	66.00	19.93	80.00	13.56	94.00	9.82
52.25	31.80	66.25	19.78	80.25	13.48	94.25	9.77
52.50	31.50	66.50	19.63	80.50	13.40	94.50	9.72
52.75	31.20	66.75	19.48	80.75	13.31	94.75	9.67
53.00	30.90	67.00	19.34	81.00	13.23	95.00	9.62
53.25	30.61	67.25	19.20	81.25	13.15	95.25	9.57
53.50	30.33	67.50	19.05	81.50	13.07	95.50	9.52
53.75	30.05	67.75	18.91	81.75	12.99	95.75	9.47
54.00	29.77	68.00	18.77	82.00	12.91	96.00	9.42

Table 7 – 40%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 50%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 13.15                      157.8 Inches

BioInitiative ft. 1041.70                      12500.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	930443.39	10.25	1032.41	20.25	264.60	30.25	118.58
0.50	362800.12	10.50	983.85	20.50	258.19	30.50	116.65
0.75	177913.56	10.75	938.64	20.75	252.00	30.75	114.76
1.00	103669.12	11.00	896.47	21.00	246.04	31.00	112.91
1.25	67446.47	11.25	857.09	21.25	240.28	31.25	111.11
1.50	47258.15	11.50	820.24	21.50	234.73	31.50	109.36
1.75	34907.95	11.75	785.72	21.75	229.36	31.75	107.64
2.00	26820.11	12.00	753.33	22.00	224.18	32.00	105.97
2.25	21242.11	12.25	722.91	22.25	219.17	32.25	104.33
2.50	17235.68	12.50	694.29	22.50	214.33	32.50	102.73
2.75	14262.47	12.75	667.34	22.75	209.65	32.75	101.17
3.00	11996.02	13.00	641.92	23.00	205.11	33.00	99.64
3.25	10229.15	13.25	617.93	23.25	200.73	33.25	98.15
3.50	8825.30	13.50	595.27	23.50	196.48	33.50	96.69
3.75	7691.52	13.75	573.82	23.75	192.36	33.75	95.26
4.00	6762.79	14.00	553.52	24.00	188.38	34.00	93.87
4.25	5992.52	14.25	534.27	24.25	184.51	34.25	92.50
4.50	5346.64	14.50	516.01	24.50	180.77	34.50	91.17
4.75	4799.76	14.75	498.67	24.75	177.14	34.75	89.86
5.00	4332.64	15.00	482.19	25.00	173.61	35.00	88.58
5.25	3930.50	15.25	466.51	25.25	170.19	35.25	87.33
5.50	3581.83	15.50	451.59	25.50	166.87	35.50	86.10
5.75	3277.56	15.75	437.37	25.75	163.65	35.75	84.90
6.00	3010.46	16.00	423.81	26.00	160.51	36.00	83.73
6.25	2774.72	16.25	410.87	26.25	157.47	36.25	82.58
6.50	2565.61	16.50	398.52	26.50	154.51	36.50	81.45
6.75	2379.27	16.75	386.71	26.75	151.64	36.75	80.34
7.00	2212.51	17.00	375.42	27.00	148.84	37.00	79.26
7.25	2062.69	17.25	364.62	27.25	146.13	37.25	78.20
7.50	1927.58	17.50	354.28	27.50	143.48	37.50	77.16
7.75	1805.32	17.75	344.37	27.75	140.91	37.75	76.14
8.00	1694.33	18.00	334.87	28.00	138.40	38.00	75.15
8.25	1593.26	18.25	325.76	28.25	135.96	38.25	74.17
8.50	1500.98	18.50	317.02	28.50	133.59	38.50	73.21
8.75	1416.48	18.75	308.62	28.75	131.28	38.75	72.27
9.00	1338.93	19.00	300.56	29.00	129.02	39.00	71.34
9.25	1267.57	19.25	292.80	29.25	126.83	39.25	70.44
9.50	1201.77	19.50	285.34	29.50	124.69	39.50	69.55
9.75	1140.96	19.75	278.16	29.75	122.60	39.75	68.68
10.00	1084.65	20.00	271.26	30.00	120.57	40.00	67.82

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 50%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 13.15                      157.80 Inches

BioInitiative ft. 1041.70                      12500.43 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	66.98	54.25	36.87	68.25	23.30	82.25	16.04
40.50	66.16	54.50	36.53	68.50	23.13	82.50	15.94
40.75	65.35	54.75	36.20	68.75	22.96	82.75	15.85
41.00	64.55	55.00	35.87	69.00	22.79	83.00	15.75
41.25	63.77	55.25	35.55	69.25	22.63	83.25	15.66
41.50	63.01	55.50	35.23	69.50	22.47	83.50	15.56
41.75	62.25	55.75	34.91	69.75	22.30	83.75	15.47
42.00	61.51	56.00	34.60	70.00	22.15	84.00	15.38
42.25	60.79	56.25	34.30	70.25	21.99	84.25	15.29
42.50	60.08	56.50	33.99	70.50	21.83	84.50	15.20
42.75	59.38	56.75	33.69	70.75	21.68	84.75	15.11
43.00	58.69	57.00	33.40	71.00	21.53	85.00	15.02
43.25	58.01	57.25	33.11	71.25	21.38	85.25	14.93
43.50	57.35	57.50	32.82	71.50	21.23	85.50	14.84
43.75	56.69	57.75	32.54	71.75	21.08	85.75	14.76
44.00	56.05	58.00	32.26	72.00	20.93	86.00	14.67
44.25	55.42	58.25	31.98	72.25	20.79	86.25	14.59
44.50	54.80	58.50	31.71	72.50	20.64	86.50	14.50
44.75	54.19	58.75	31.44	72.75	20.50	86.75	14.42
45.00	53.59	59.00	31.17	73.00	20.36	87.00	14.34
45.25	53.00	59.25	30.91	73.25	20.22	87.25	14.25
45.50	52.41	59.50	30.65	73.50	20.09	87.50	14.17
45.75	51.84	59.75	30.40	73.75	19.95	87.75	14.09
46.00	51.28	60.00	30.14	74.00	19.82	88.00	14.01
46.25	50.73	60.25	29.89	74.25	19.68	88.25	13.93
46.50	50.18	60.50	29.65	74.50	19.55	88.50	13.85
46.75	49.65	60.75	29.40	74.75	19.42	88.75	13.78
47.00	49.12	61.00	29.16	75.00	19.29	89.00	13.70
47.25	48.60	61.25	28.92	75.25	19.16	89.25	13.62
47.50	48.09	61.50	28.69	75.50	19.04	89.50	13.55
47.75	47.59	61.75	28.46	75.75	18.91	89.75	13.47
48.00	47.10	62.00	28.23	76.00	18.79	90.00	13.40
48.25	46.61	62.25	28.00	76.25	18.66	90.25	13.32
48.50	46.13	62.50	27.78	76.50	18.54	90.50	13.25
48.75	45.66	62.75	27.56	76.75	18.42	90.75	13.18
49.00	45.19	63.00	27.34	77.00	18.30	91.00	13.10
49.25	44.74	63.25	27.12	77.25	18.18	91.25	13.03
49.50	44.29	63.50	26.91	77.50	18.07	91.50	12.96
49.75	43.84	63.75	26.70	77.75	17.95	91.75	12.89
50.00	43.40	64.00	26.49	78.00	17.84	92.00	12.82
50.25	42.97	64.25	26.29	78.25	17.72	92.25	12.75
50.50	42.55	64.50	26.08	78.50	17.61	92.50	12.68
50.75	42.13	64.75	25.88	78.75	17.50	92.75	12.61
51.00	41.72	65.00	25.68	79.00	17.39	93.00	12.55
51.25	41.31	65.25	25.49	79.25	17.28	93.25	12.48
51.50	40.91	65.50	25.29	79.50	17.17	93.50	12.41
51.75	40.52	65.75	25.10	79.75	17.06	93.75	12.35
52.00	40.13	66.00	24.91	80.00	16.96	94.00	12.28
52.25	39.75	66.25	24.72	80.25	16.85	94.25	12.22
52.50	39.37	66.50	24.54	80.50	16.75	94.50	12.15
52.75	39.00	66.75	24.35	80.75	16.64	94.75	12.09
53.00	38.63	67.00	24.17	81.00	16.54	95.00	12.02
53.25	38.27	67.25	23.99	81.25	16.44	95.25	11.96
53.50	37.91	67.50	23.82	81.50	16.34	95.50	11.90
53.75	37.56	67.75	23.64	81.75	16.24	95.75	11.84
54.00	37.21	68.00	23.47	82.00	16.14	96.00	11.77

Table 7 – 50%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 60%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 14.41                      172.9 Inches

BioInitiative ft. 1141.13                      13693.5 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	1116532.06	10.25	1238.89	20.25	317.52	30.25	142.30
0.50	435360.14	10.50	1180.62	20.50	309.82	30.50	139.97
0.75	213496.27	10.75	1126.37	20.75	302.40	30.75	137.71
1.00	124402.94	11.00	1075.77	21.00	295.25	31.00	135.50
1.25	80935.76	11.25	1028.51	21.25	288.34	31.25	133.34
1.50	56709.78	11.50	984.29	21.50	281.68	31.50	131.23
1.75	41889.54	11.75	942.86	21.75	275.24	31.75	129.17
2.00	32184.13	12.00	904.00	22.00	269.02	32.00	127.16
2.25	25490.54	12.25	867.49	22.25	263.01	32.25	125.20
2.50	20682.81	12.50	833.15	22.50	257.20	32.50	123.28
2.75	17114.96	12.75	800.80	22.75	251.58	32.75	121.40
3.00	14395.23	13.00	770.31	23.00	246.14	33.00	119.57
3.25	12274.98	13.25	741.52	23.25	240.87	33.25	117.78
3.50	10590.36	13.50	714.32	23.50	235.77	33.50	116.03
3.75	9229.82	13.75	688.59	23.75	230.84	33.75	114.32
4.00	8115.34	14.00	664.22	24.00	226.05	34.00	112.64
4.25	7191.03	14.25	641.12	24.25	221.42	34.25	111.00
4.50	6415.97	14.50	619.21	24.50	216.92	34.50	109.40
4.75	5759.71	14.75	598.40	24.75	212.56	34.75	107.83
5.00	5199.17	15.00	578.63	25.00	208.33	35.00	106.30
5.25	4716.60	15.25	559.81	25.25	204.23	35.25	104.79
5.50	4298.20	15.50	541.90	25.50	200.24	35.50	103.32
5.75	3933.07	15.75	524.84	25.75	196.37	35.75	101.88
6.00	3612.55	16.00	508.57	26.00	192.62	36.00	100.47
6.25	3329.66	16.25	493.05	26.25	188.96	36.25	99.09
6.50	3078.73	16.50	478.22	26.50	185.42	36.50	97.74
6.75	2855.12	16.75	464.05	26.75	181.97	36.75	96.41
7.00	2655.02	17.00	450.51	27.00	178.61	37.00	95.12
7.25	2475.23	17.25	437.55	27.25	175.35	37.25	93.84
7.50	2313.09	17.50	425.14	27.50	172.18	37.50	92.60
7.75	2166.38	17.75	413.25	27.75	169.09	37.75	91.37
8.00	2033.19	18.00	401.85	28.00	166.08	38.00	90.18
8.25	1911.92	18.25	390.92	28.25	163.16	38.25	89.00
8.50	1801.17	18.50	380.42	28.50	160.31	38.50	87.85
8.75	1699.78	18.75	370.35	28.75	157.53	38.75	86.72
9.00	1606.71	19.00	360.67	29.00	154.83	39.00	85.61
9.25	1521.08	19.25	351.36	29.25	152.19	39.25	84.52
9.50	1442.12	19.50	342.41	29.50	149.62	39.50	83.46
9.75	1369.15	19.75	333.80	29.75	147.12	39.75	82.41
10.00	1301.58	20.00	325.51	30.00	144.68	40.00	81.38

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 60%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 14.41

172.86 Inches

BioInitiative ft. 1141.13

13693.54 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	80.38	54.25	44.24	68.25	27.95	82.25	19.25
40.50	79.39	54.50	43.84	68.50	27.75	82.50	19.13
40.75	78.42	54.75	43.44	68.75	27.55	82.75	19.02
41.00	77.46	55.00	43.05	69.00	27.35	83.00	18.90
41.25	76.53	55.25	42.66	69.25	27.15	83.25	18.79
41.50	75.61	55.50	42.27	69.50	26.96	83.50	18.68
41.75	74.70	55.75	41.90	69.75	26.77	83.75	18.57
42.00	73.82	56.00	41.52	70.00	26.57	84.00	18.45
42.25	72.95	56.25	41.15	70.25	26.39	84.25	18.35
42.50	72.09	56.50	40.79	70.50	26.20	84.50	18.24
42.75	71.25	56.75	40.43	70.75	26.01	84.75	18.13
43.00	70.42	57.00	40.08	71.00	25.83	85.00	18.02
43.25	69.61	57.25	39.73	71.25	25.65	85.25	17.92
43.50	68.81	57.50	39.38	71.50	25.47	85.50	17.81
43.75	68.03	57.75	39.04	71.75	25.29	85.75	17.71
44.00	67.26	58.00	38.71	72.00	25.12	86.00	17.61
44.25	66.50	58.25	38.38	72.25	24.95	86.25	17.50
44.50	65.76	58.50	38.05	72.50	24.77	86.50	17.40
44.75	65.02	58.75	37.73	72.75	24.60	86.75	17.30
45.00	64.30	59.00	37.41	73.00	24.44	87.00	17.20
45.25	63.59	59.25	37.09	73.25	24.27	87.25	17.11
45.50	62.90	59.50	36.78	73.50	24.10	87.50	17.01
45.75	62.21	59.75	36.47	73.75	23.94	87.75	16.91
46.00	61.54	60.00	36.17	74.00	23.78	88.00	16.82
46.25	60.87	60.25	35.87	74.25	23.62	88.25	16.72
46.50	60.22	60.50	35.58	74.50	23.46	88.50	16.63
46.75	59.58	60.75	35.28	74.75	23.30	88.75	16.53
47.00	58.95	61.00	34.99	75.00	23.15	89.00	16.44
47.25	58.33	61.25	34.71	75.25	23.00	89.25	16.35
47.50	57.71	61.50	34.43	75.50	22.84	89.50	16.26
47.75	57.11	61.75	34.15	75.75	22.69	89.75	16.17
48.00	56.52	62.00	33.88	76.00	22.54	90.00	16.08
48.25	55.93	62.25	33.60	76.25	22.40	90.25	15.99
48.50	55.36	62.50	33.34	76.50	22.25	90.50	15.90
48.75	54.79	62.75	33.07	76.75	22.11	90.75	15.81
49.00	54.23	63.00	32.81	77.00	21.96	91.00	15.72
49.25	53.68	63.25	32.55	77.25	21.82	91.25	15.64
49.50	53.14	63.50	32.29	77.50	21.68	91.50	15.55
49.75	52.61	63.75	32.04	77.75	21.54	91.75	15.47
50.00	52.09	64.00	31.79	78.00	21.40	92.00	15.38
50.25	51.57	64.25	31.54	78.25	21.27	92.25	15.30
50.50	51.06	64.50	31.30	78.50	21.13	92.50	15.22
50.75	50.56	64.75	31.06	78.75	21.00	92.75	15.14
51.00	50.06	65.00	30.82	79.00	20.86	93.00	15.06
51.25	49.58	65.25	30.58	79.25	20.73	93.25	14.98
51.50	49.10	65.50	30.35	79.50	20.60	93.50	14.90
51.75	48.62	65.75	30.12	79.75	20.47	93.75	14.82
52.00	48.16	66.00	29.89	80.00	20.35	94.00	14.74
52.25	47.70	66.25	29.67	80.25	20.22	94.25	14.66
52.50	47.24	66.50	29.45	80.50	20.09	94.50	14.58
52.75	46.80	66.75	29.23	80.75	19.97	94.75	14.50
53.00	46.36	67.00	29.01	81.00	19.85	95.00	14.43
53.25	45.92	67.25	28.79	81.25	19.73	95.25	14.35
53.50	45.49	67.50	28.58	81.50	19.60	95.50	14.28
53.75	45.07	67.75	28.37	81.75	19.48	95.75	14.20
54.00	44.66	68.00	28.16	82.00	19.37	96.00	14.13

Table 7 – 60%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters 8 Electric Meters**

Time Avg: 70%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 15.56                      186.7 Inches

BioInitiative ft. 1232.56                      14790.7 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	1302620.74	10.25	1445.37	20.25	370.44	30.25	166.01
0.50	507920.17	10.50	1377.39	20.50	361.46	30.50	163.30
0.75	249078.99	10.75	1314.09	20.75	352.80	30.75	160.66
1.00	145136.77	11.00	1255.06	21.00	344.45	31.00	158.08
1.25	94425.05	11.25	1199.92	21.25	336.40	31.25	155.56
1.50	66161.41	11.50	1148.34	21.50	328.62	31.50	153.10
1.75	48871.13	11.75	1100.01	21.75	321.11	31.75	150.70
2.00	37548.15	12.00	1054.67	22.00	313.86	32.00	148.35
2.25	29738.96	12.25	1012.07	22.25	306.84	32.25	146.06
2.50	24129.95	12.50	972.00	22.50	300.06	32.50	143.82
2.75	19967.46	12.75	934.27	22.75	293.50	32.75	141.64
3.00	16794.43	13.00	898.69	23.00	287.16	33.00	139.50
3.25	14320.81	13.25	865.11	23.25	281.02	33.25	137.41
3.50	12355.42	13.50	833.37	23.50	275.07	33.50	135.37
3.75	10768.12	13.75	803.35	23.75	269.31	33.75	133.37
4.00	9467.90	14.00	774.92	24.00	263.73	34.00	131.41
4.25	8389.53	14.25	747.98	24.25	258.32	34.25	129.50
4.50	7485.30	14.50	722.41	24.50	253.08	34.50	127.63
4.75	6719.67	14.75	698.14	24.75	247.99	34.75	125.80
5.00	6065.70	15.00	675.06	25.00	243.05	35.00	124.01
5.25	5502.70	15.25	653.12	25.25	238.27	35.25	122.26
5.50	5014.57	15.50	632.22	25.50	233.62	35.50	120.54
5.75	4588.59	15.75	612.31	25.75	229.10	35.75	118.86
6.00	4214.65	16.00	593.33	26.00	224.72	36.00	117.22
6.25	3884.60	16.25	575.22	26.25	220.46	36.25	115.61
6.50	3591.85	16.50	557.92	26.50	216.32	36.50	114.03
6.75	3330.98	16.75	541.40	26.75	212.30	36.75	112.48
7.00	3097.52	17.00	525.59	27.00	208.38	37.00	110.97
7.25	2887.76	17.25	510.47	27.25	204.58	37.25	109.48
7.50	2698.61	17.50	495.99	27.50	200.87	37.50	108.03
7.75	2527.44	17.75	482.12	27.75	197.27	37.75	106.60
8.00	2372.06	18.00	468.82	28.00	193.76	38.00	105.20
8.25	2230.57	18.25	456.07	28.25	190.35	38.25	103.83
8.50	2101.37	18.50	443.83	28.50	187.03	38.50	102.49
8.75	1983.08	18.75	432.07	28.75	183.79	38.75	101.17
9.00	1874.50	19.00	420.78	29.00	180.63	39.00	99.88
9.25	1774.60	19.25	409.92	29.25	177.56	39.25	98.61
9.50	1682.47	19.50	399.48	29.50	174.56	39.50	97.37
9.75	1597.34	19.75	389.43	29.75	171.64	39.75	96.15
10.00	1518.51	20.00	379.76	30.00	168.79	40.00	94.95

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters 8 Electric Meters**

Time Avg: 70%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 15.56                      186.71 Inches

BioInitiative ft. 1232.56                      14790.71 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	93.77	54.25	51.62	68.25	32.61	82.25	22.46
40.50	92.62	54.50	51.15	68.50	32.38	82.50	22.32
40.75	91.48	54.75	50.68	68.75	32.14	82.75	22.19
41.00	90.37	55.00	50.22	69.00	31.91	83.00	22.05
41.25	89.28	55.25	49.77	69.25	31.68	83.25	21.92
41.50	88.21	55.50	49.32	69.50	31.45	83.50	21.79
41.75	87.15	55.75	48.88	69.75	31.23	83.75	21.66
42.00	86.12	56.00	48.44	70.00	31.00	84.00	21.53
42.25	85.10	56.25	48.01	70.25	30.78	84.25	21.40
42.50	84.11	56.50	47.59	70.50	30.57	84.50	21.28
42.75	83.13	56.75	47.17	70.75	30.35	84.75	21.15
43.00	82.16	57.00	46.76	71.00	30.14	85.00	21.03
43.25	81.21	57.25	46.35	71.25	29.93	85.25	20.90
43.50	80.28	57.50	45.95	71.50	29.72	85.50	20.78
43.75	79.37	57.75	45.55	71.75	29.51	85.75	20.66
44.00	78.47	58.00	45.16	72.00	29.31	86.00	20.54
44.25	77.59	58.25	44.77	72.25	29.10	86.25	20.42
44.50	76.72	58.50	44.39	72.50	28.90	86.50	20.30
44.75	75.86	58.75	44.01	72.75	28.70	86.75	20.19
45.00	75.02	59.00	43.64	73.00	28.51	87.00	20.07
45.25	74.19	59.25	43.27	73.25	28.31	87.25	19.96
45.50	73.38	59.50	42.91	73.50	28.12	87.50	19.84
45.75	72.58	59.75	42.55	73.75	27.93	87.75	19.73
46.00	71.79	60.00	42.20	74.00	27.74	88.00	19.62
46.25	71.02	60.25	41.85	74.25	27.56	88.25	19.51
46.50	70.26	60.50	41.50	74.50	27.37	88.50	19.40
46.75	69.51	60.75	41.16	74.75	27.19	88.75	19.29
47.00	68.77	61.00	40.83	75.00	27.01	89.00	19.18
47.25	68.05	61.25	40.49	75.25	26.83	89.25	19.07
47.50	67.33	61.50	40.17	75.50	26.65	89.50	18.97
47.75	66.63	61.75	39.84	75.75	26.48	89.75	18.86
48.00	65.94	62.00	39.52	76.00	26.30	90.00	18.76
48.25	65.25	62.25	39.20	76.25	26.13	90.25	18.65
48.50	64.58	62.50	38.89	76.50	25.96	90.50	18.55
48.75	63.92	62.75	38.58	76.75	25.79	90.75	18.45
49.00	63.27	63.00	38.28	77.00	25.62	91.00	18.35
49.25	62.63	63.25	37.97	77.25	25.46	91.25	18.25
49.50	62.00	63.50	37.68	77.50	25.29	91.50	18.15
49.75	61.38	63.75	37.38	77.75	25.13	91.75	18.05
50.00	60.77	64.00	37.09	78.00	24.97	92.00	17.95
50.25	60.16	64.25	36.80	78.25	24.81	92.25	17.85
50.50	59.57	64.50	36.52	78.50	24.65	92.50	17.76
50.75	58.98	64.75	36.24	78.75	24.50	92.75	17.66
51.00	58.41	65.00	35.96	79.00	24.34	93.00	17.56
51.25	57.84	65.25	35.68	79.25	24.19	93.25	17.47
51.50	57.28	65.50	35.41	79.50	24.04	93.50	17.38
51.75	56.73	65.75	35.14	79.75	23.89	93.75	17.29
52.00	56.18	66.00	34.88	80.00	23.74	94.00	17.19
52.25	55.65	66.25	34.61	80.25	23.59	94.25	17.10
52.50	55.12	66.50	34.35	80.50	23.44	94.50	17.01
52.75	54.60	66.75	34.10	80.75	23.30	94.75	16.92
53.00	54.08	67.00	33.84	81.00	23.15	95.00	16.83
53.25	53.58	67.25	33.59	81.25	23.01	95.25	16.74
53.50	53.08	67.50	33.34	81.50	22.87	95.50	16.66
53.75	52.58	67.75	33.10	81.75	22.73	95.75	16.57
54.00	52.10	68.00	32.85	82.00	22.59	96.00	16.48

Table 7 – 70%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 80%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 16.63                      199.6 Inches

BioInitiative ft. 1317.66                      15811.9 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	1488709.42	10.25	1651.85	20.25	423.36	30.25	189.73
0.50	580480.19	10.50	1574.16	20.50	413.10	30.50	186.63
0.75	284661.70	10.75	1501.82	20.75	403.20	30.75	183.61
1.00	165870.59	11.00	1434.36	21.00	393.66	31.00	180.66
1.25	107914.35	11.25	1371.34	21.25	384.46	31.25	177.78
1.50	75613.04	11.50	1312.39	21.50	375.57	31.50	174.97
1.75	55852.72	11.75	1257.15	21.75	366.98	31.75	172.23
2.00	42912.17	12.00	1205.33	22.00	358.69	32.00	169.55
2.25	33987.38	12.25	1156.65	22.25	350.68	32.25	166.93
2.50	27577.09	12.50	1110.86	22.50	342.93	32.50	164.37
2.75	22819.95	12.75	1067.74	22.75	335.43	32.75	161.87
3.00	19193.63	13.00	1027.08	23.00	328.18	33.00	159.43
3.25	16366.64	13.25	988.70	23.25	321.16	33.25	157.04
3.50	14120.48	13.50	952.43	23.50	314.37	33.50	154.70
3.75	12306.43	13.75	918.11	23.75	307.78	33.75	152.42
4.00	10820.46	14.00	885.63	24.00	301.41	34.00	150.19
4.25	9588.03	14.25	854.83	24.25	295.22	34.25	148.00
4.50	8554.63	14.50	825.61	24.50	289.23	34.50	145.87
4.75	7679.62	14.75	797.87	24.75	283.42	34.75	143.77
5.00	6932.23	15.00	771.50	25.00	277.78	35.00	141.73
5.25	6288.80	15.25	746.42	25.25	272.30	35.25	139.72
5.50	5730.93	15.50	722.54	25.50	266.99	35.50	137.76
5.75	5244.10	15.75	699.79	25.75	261.83	35.75	135.84
6.00	4816.74	16.00	678.09	26.00	256.82	36.00	133.96
6.25	4439.55	16.25	657.39	26.25	251.95	36.25	132.12
6.50	4104.97	16.50	637.63	26.50	247.22	36.50	130.32
6.75	3806.83	16.75	618.74	26.75	242.62	36.75	128.55
7.00	3540.02	17.00	600.68	27.00	238.15	37.00	126.82
7.25	3300.30	17.25	583.39	27.25	233.80	37.25	125.12
7.50	3084.12	17.50	566.85	27.50	229.57	37.50	123.46
7.75	2888.51	17.75	551.00	27.75	225.45	37.75	121.83
8.00	2710.92	18.00	535.80	28.00	221.45	38.00	120.23
8.25	2549.22	18.25	521.22	28.25	217.54	38.25	118.67
8.50	2401.57	18.50	507.23	28.50	213.74	38.50	117.13
8.75	2266.38	18.75	493.80	28.75	210.04	38.75	115.62
9.00	2142.28	19.00	480.89	29.00	206.44	39.00	114.15
9.25	2028.11	19.25	468.48	29.25	202.92	39.25	112.70
9.50	1922.83	19.50	456.55	29.50	199.50	39.50	111.28
9.75	1825.53	19.75	445.06	29.75	196.16	39.75	109.88
10.00	1735.44	20.00	434.01	30.00	192.90	40.00	108.51

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 80%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 16.63

199.61 Inches

BioInitiative ft. 1317.66

15811.93 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	107.17	54.25	58.99	68.25	37.27	82.25	25.66
40.50	105.85	54.50	58.45	68.50	37.00	82.50	25.51
40.75	104.55	54.75	57.92	68.75	36.73	82.75	25.36
41.00	103.28	55.00	57.40	69.00	36.47	83.00	25.20
41.25	102.03	55.25	56.88	69.25	36.20	83.25	25.05
41.50	100.81	55.50	56.37	69.50	35.94	83.50	24.90
41.75	99.61	55.75	55.86	69.75	35.69	83.75	24.75
42.00	98.42	56.00	55.36	70.00	35.43	84.00	24.61
42.25	97.26	56.25	54.87	70.25	35.18	84.25	24.46
42.50	96.12	56.50	54.39	70.50	34.93	84.50	24.32
42.75	95.00	56.75	53.91	70.75	34.69	84.75	24.17
43.00	93.90	57.00	53.44	71.00	34.44	85.00	24.03
43.25	92.82	57.25	52.97	71.25	34.20	85.25	23.89
43.50	91.75	57.50	52.51	71.50	33.96	85.50	23.75
43.75	90.71	57.75	52.06	71.75	33.73	85.75	23.61
44.00	89.68	58.00	51.61	72.00	33.49	86.00	23.48
44.25	88.67	58.25	51.17	72.25	33.26	86.25	23.34
44.50	87.68	58.50	50.73	72.50	33.03	86.50	23.20
44.75	86.70	58.75	50.30	72.75	32.80	86.75	23.07
45.00	85.74	59.00	49.88	73.00	32.58	87.00	22.94
45.25	84.79	59.25	49.46	73.25	32.36	87.25	22.81
45.50	83.86	59.50	49.04	73.50	32.14	87.50	22.68
45.75	82.95	59.75	48.63	73.75	31.92	87.75	22.55
46.00	82.05	60.00	48.23	74.00	31.71	88.00	22.42
46.25	81.17	60.25	47.83	74.25	31.49	88.25	22.29
46.50	80.30	60.50	47.43	74.50	31.28	88.50	22.17
46.75	79.44	60.75	47.04	74.75	31.07	88.75	22.04
47.00	78.60	61.00	46.66	75.00	30.87	89.00	21.92
47.25	77.77	61.25	46.28	75.25	30.66	89.25	21.80
47.50	76.95	61.50	45.90	75.50	30.46	89.50	21.67
47.75	76.15	61.75	45.53	75.75	30.26	89.75	21.55
48.00	75.36	62.00	45.17	76.00	30.06	90.00	21.43
48.25	74.58	62.25	44.80	76.25	29.86	90.25	21.32
48.50	73.81	62.50	44.45	76.50	29.67	90.50	21.20
48.75	73.05	62.75	44.09	76.75	29.47	90.75	21.08
49.00	72.31	63.00	43.74	77.00	29.28	91.00	20.97
49.25	71.58	63.25	43.40	77.25	29.09	91.25	20.85
49.50	70.86	63.50	43.06	77.50	28.91	91.50	20.74
49.75	70.15	63.75	42.72	77.75	28.72	91.75	20.62
50.00	69.45	64.00	42.39	78.00	28.54	92.00	20.51
50.25	68.76	64.25	42.06	78.25	28.36	92.25	20.40
50.50	68.08	64.50	41.73	78.50	28.18	92.50	20.29
50.75	67.41	64.75	41.41	78.75	28.00	92.75	20.18
51.00	66.75	65.00	41.09	79.00	27.82	93.00	20.07
51.25	66.10	65.25	40.78	79.25	27.64	93.25	19.97
51.50	65.46	65.50	40.47	79.50	27.47	93.50	19.86
51.75	64.83	65.75	40.16	79.75	27.30	93.75	19.75
52.00	64.21	66.00	39.86	80.00	27.13	94.00	19.65
52.25	63.60	66.25	39.56	80.25	26.96	94.25	19.55
52.50	62.99	66.50	39.26	80.50	26.79	94.50	19.44
52.75	62.40	66.75	38.97	80.75	26.63	94.75	19.34
53.00	61.81	67.00	38.68	81.00	26.46	95.00	19.24
53.25	61.23	67.25	38.39	81.25	26.30	95.25	19.14
53.50	60.66	67.50	38.11	81.50	26.14	95.50	19.04
53.75	60.10	67.75	37.83	81.75	25.98	95.75	18.94
54.00	59.54	68.00	37.55	82.00	25.82	96.00	18.84

Table 7 – 80%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 90%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 17.64                      211.7 Inches

BioInitiative ft. 1397.59                      16771.1 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	1674798.10	10.25	1858.33	20.25	476.28	30.25	213.45
0.50	653040.21	10.50	1770.93	20.50	464.73	30.50	209.96
0.75	320244.41	10.75	1689.55	20.75	453.60	30.75	206.56
1.00	186604.42	11.00	1613.65	21.00	442.87	31.00	203.24
1.25	121403.64	11.25	1542.76	21.25	432.51	31.25	200.00
1.50	85064.67	11.50	1476.43	21.50	422.51	31.50	196.84
1.75	62834.31	11.75	1414.30	21.75	412.86	31.75	193.75
2.00	48276.19	12.00	1356.00	22.00	403.53	32.00	190.74
2.25	38235.81	12.25	1301.23	22.25	394.51	32.25	187.79
2.50	31024.22	12.50	1249.72	22.50	385.79	32.50	184.92
2.75	25672.45	12.75	1201.21	22.75	377.36	32.75	182.10
3.00	21592.84	13.00	1155.46	23.00	369.20	33.00	179.36
3.25	18412.47	13.25	1112.28	23.25	361.31	33.25	176.67
3.50	15885.54	13.50	1071.48	23.50	353.66	33.50	174.04
3.75	13844.73	13.75	1032.88	23.75	346.26	33.75	171.47
4.00	12173.01	14.00	996.33	24.00	339.08	34.00	168.96
4.25	10786.54	14.25	961.68	24.25	332.13	34.25	166.50
4.50	9623.96	14.50	928.82	24.50	325.38	34.50	164.10
4.75	8639.57	14.75	897.60	24.75	318.84	34.75	161.75
5.00	7798.75	15.00	867.94	25.00	312.50	35.00	159.44
5.25	7074.90	15.25	839.72	25.25	306.34	35.25	157.19
5.50	6447.30	15.50	812.86	25.50	300.36	35.50	154.98
5.75	5899.61	15.75	787.26	25.75	294.56	35.75	152.82
6.00	5418.83	16.00	762.86	26.00	288.92	36.00	150.71
6.25	4994.49	16.25	739.57	26.25	283.45	36.25	148.64
6.50	4618.10	16.50	717.33	26.50	278.12	36.50	146.61
6.75	4282.69	16.75	696.08	26.75	272.95	36.75	144.62
7.00	3982.52	17.00	675.76	27.00	267.92	37.00	142.67
7.25	3712.84	17.25	656.32	27.25	263.03	37.25	140.76
7.50	3469.64	17.50	637.70	27.50	258.27	37.50	138.89
7.75	3249.57	17.75	619.87	27.75	253.63	37.75	137.06
8.00	3049.79	18.00	602.77	28.00	249.13	38.00	135.26
8.25	2867.87	18.25	586.37	28.25	244.74	38.25	133.50
8.50	2701.76	18.50	570.64	28.50	240.46	38.50	131.77
8.75	2549.67	18.75	555.52	28.75	236.30	38.75	130.08
9.00	2410.07	19.00	541.00	29.00	232.24	39.00	128.42
9.25	2281.63	19.25	527.04	29.25	228.29	39.25	126.78
9.50	2163.18	19.50	513.62	29.50	224.44	39.50	125.19
9.75	2053.72	19.75	500.70	29.75	220.68	39.75	123.62
10.00	1952.37	20.00	488.26	30.00	217.02	40.00	122.08

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi i) R^2$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 90%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 17.64                      211.71 Inches

BioInitiative ft. 1397.59                      16771.09 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	120.56	54.25	66.37	68.25	41.93	82.25	28.87
40.50	119.08	54.50	65.76	68.50	41.63	82.50	28.70
40.75	117.62	54.75	65.16	68.75	41.32	82.75	28.52
41.00	116.19	55.00	64.57	69.00	41.03	83.00	28.35
41.25	114.79	55.25	63.99	69.25	40.73	83.25	28.18
41.50	113.41	55.50	63.41	69.50	40.44	83.50	28.01
41.75	112.06	55.75	62.84	69.75	40.15	83.75	27.85
42.00	110.73	56.00	62.28	70.00	39.86	84.00	27.68
42.25	109.42	56.25	61.73	70.25	39.58	84.25	27.52
42.50	108.14	56.50	61.19	70.50	39.30	84.50	27.36
42.75	106.88	56.75	60.65	70.75	39.02	84.75	27.19
43.00	105.64	57.00	60.12	71.00	38.75	85.00	27.03
43.25	104.42	57.25	59.59	71.25	38.48	85.25	26.88
43.50	103.22	57.50	59.08	71.50	38.21	85.50	26.72
43.75	102.05	57.75	58.57	71.75	37.94	85.75	26.56
44.00	100.89	58.00	58.06	72.00	37.68	86.00	26.41
44.25	99.75	58.25	57.57	72.25	37.42	86.25	26.26
44.50	98.63	58.50	57.07	72.50	37.16	86.50	26.11
44.75	97.54	58.75	56.59	72.75	36.91	86.75	25.95
45.00	96.46	59.00	56.11	73.00	36.65	87.00	25.81
45.25	95.39	59.25	55.64	73.25	36.40	87.25	25.66
45.50	94.35	59.50	55.17	73.50	36.16	87.50	25.51
45.75	93.32	59.75	54.71	73.75	35.91	87.75	25.37
46.00	92.31	60.00	54.26	74.00	35.67	88.00	25.22
46.25	91.31	60.25	53.81	74.25	35.43	88.25	25.08
46.50	90.33	60.50	53.36	74.50	35.19	88.50	24.94
46.75	89.37	60.75	52.93	74.75	34.96	88.75	24.80
47.00	88.42	61.00	52.49	75.00	34.72	89.00	24.66
47.25	87.49	61.25	52.06	75.25	34.49	89.25	24.52
47.50	86.57	61.50	51.64	75.50	34.27	89.50	24.38
47.75	85.67	61.75	51.22	75.75	34.04	89.75	24.25
48.00	84.78	62.00	50.81	76.00	33.82	90.00	24.11
48.25	83.90	62.25	50.41	76.25	33.60	90.25	23.98
48.50	83.04	62.50	50.00	76.50	33.38	90.50	23.85
48.75	82.19	62.75	49.61	76.75	33.16	90.75	23.72
49.00	81.35	63.00	49.21	77.00	32.94	91.00	23.59
49.25	80.53	63.25	48.82	77.25	32.73	91.25	23.46
49.50	79.72	63.50	48.44	77.50	32.52	91.50	23.33
49.75	78.92	63.75	48.06	77.75	32.31	91.75	23.20
50.00	78.13	64.00	47.69	78.00	32.10	92.00	23.08
50.25	77.35	64.25	47.32	78.25	31.90	92.25	22.95
50.50	76.59	64.50	46.95	78.50	31.70	92.50	22.83
50.75	75.84	64.75	46.59	78.75	31.50	92.75	22.71
51.00	75.10	65.00	46.23	79.00	31.30	93.00	22.58
51.25	74.36	65.25	45.88	79.25	31.10	93.25	22.46
51.50	73.64	65.50	45.53	79.50	30.90	93.50	22.34
51.75	72.93	65.75	45.18	79.75	30.71	93.75	22.22
52.00	72.23	66.00	44.84	80.00	30.52	94.00	22.11
52.25	71.55	66.25	44.50	80.25	30.33	94.25	21.99
52.50	70.87	66.50	44.17	80.50	30.14	94.50	21.87
52.75	70.20	66.75	43.84	80.75	29.96	94.75	21.76
53.00	69.53	67.00	43.51	81.00	29.77	95.00	21.64
53.25	68.88	67.25	43.19	81.25	29.59	95.25	21.53
53.50	68.24	67.50	42.87	81.50	29.41	95.50	21.42
53.75	67.61	67.75	42.55	81.75	29.23	95.75	21.30
54.00	66.98	68.00	42.24	82.00	29.05	96.00	21.19

Table 7 – 90%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

## Meters 8 Electric Meters

Time Avg: 100%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 18.60 223.2 Inches

BioInitiative ft. 1473.19 17678.3 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	1860886.77	10.25	2064.81	20.25	529.20	30.25	237.16
0.50	725600.24	10.50	1967.70	20.50	516.37	30.50	233.29
0.75	355827.12	10.75	1877.28	20.75	504.01	30.75	229.51
1.00	207338.24	11.00	1792.95	21.00	492.08	31.00	225.83
1.25	134892.93	11.25	1714.18	21.25	480.57	31.25	222.23
1.50	94516.30	11.50	1640.48	21.50	469.46	31.50	218.71
1.75	69815.90	11.75	1571.44	21.75	458.73	31.75	215.28
2.00	53640.21	12.00	1506.67	22.00	448.36	32.00	211.93
2.25	42484.23	12.25	1445.82	22.25	438.35	32.25	208.66
2.50	34471.36	12.50	1388.58	22.50	428.66	32.50	205.46
2.75	28524.94	12.75	1334.67	22.75	419.29	32.75	202.34
3.00	23992.04	13.00	1283.85	23.00	410.23	33.00	199.28
3.25	20458.30	13.25	1235.87	23.25	401.45	33.25	196.30
3.50	17650.60	13.50	1190.53	23.50	392.96	33.50	193.38
3.75	15383.03	13.75	1147.64	23.75	384.73	33.75	190.53
4.00	13525.57	14.00	1107.03	24.00	376.76	34.00	187.73
4.25	11985.04	14.25	1068.54	24.25	369.03	34.25	185.00
4.50	10693.29	14.50	1032.02	24.50	361.54	34.50	182.33
4.75	9599.52	14.75	997.34	24.75	354.27	34.75	179.72
5.00	8665.28	15.00	964.38	25.00	347.22	35.00	177.16
5.25	7861.00	15.25	933.02	25.25	340.38	35.25	174.66
5.50	7163.67	15.50	903.17	25.50	333.74	35.50	172.20
5.75	6555.12	15.75	874.73	25.75	327.29	35.75	169.80
6.00	6020.92	16.00	847.62	26.00	321.03	36.00	167.45
6.25	5549.44	16.25	821.74	26.25	314.94	36.25	165.15
6.50	5131.22	16.50	797.03	26.50	309.03	36.50	162.90
6.75	4758.54	16.75	773.42	26.75	303.28	36.75	160.69
7.00	4425.03	17.00	750.85	27.00	297.69	37.00	158.53
7.25	4125.38	17.25	729.24	27.25	292.25	37.25	156.41
7.50	3855.15	17.50	708.56	27.50	286.96	37.50	154.33
7.75	3610.63	17.75	688.74	27.75	281.82	37.75	152.29
8.00	3388.65	18.00	669.75	28.00	276.81	38.00	150.29
8.25	3186.53	18.25	651.53	28.25	271.93	38.25	148.33
8.50	3001.96	18.50	634.04	28.50	267.18	38.50	146.41
8.75	2832.97	18.75	617.25	28.75	262.55	38.75	144.53
9.00	2677.86	19.00	601.11	29.00	258.05	39.00	142.68
9.25	2535.14	19.25	585.60	29.25	253.65	39.25	140.87
9.50	2403.53	19.50	570.68	29.50	249.37	39.50	139.09
9.75	2281.91	19.75	556.33	29.75	245.20	39.75	137.35
10.00	2169.30	20.00	542.51	30.00	241.13	40.00	135.64

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 1000% reflections)

**Meters** 8 Electric Meters

Time Avg: 100%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 18.60

223.17 Inches

BioInitiative ft. 1473.19

17678.28 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	133.96	54.25	73.74	68.25	46.59	82.25	32.08
40.50	132.31	54.50	73.07	68.50	46.25	82.50	31.89
40.75	130.69	54.75	72.40	68.75	45.92	82.75	31.69
41.00	129.10	55.00	71.74	69.00	45.58	83.00	31.50
41.25	127.54	55.25	71.10	69.25	45.26	83.25	31.31
41.50	126.01	55.50	70.46	69.50	44.93	83.50	31.13
41.75	124.51	55.75	69.83	69.75	44.61	83.75	30.94
42.00	123.03	56.00	69.20	70.00	44.29	84.00	30.76
42.25	121.58	56.25	68.59	70.25	43.98	84.25	30.58
42.50	120.15	56.50	67.99	70.50	43.67	84.50	30.39
42.75	118.75	56.75	67.39	70.75	43.36	84.75	30.22
43.00	117.37	57.00	66.80	71.00	43.05	85.00	30.04
43.25	116.02	57.25	66.22	71.25	42.75	85.25	29.86
43.50	114.69	57.50	65.64	71.50	42.45	85.50	29.69
43.75	113.38	57.75	65.07	71.75	42.16	85.75	29.52
44.00	112.10	58.00	64.51	72.00	41.86	86.00	29.34
44.25	110.84	58.25	63.96	72.25	41.58	86.25	29.17
44.50	109.59	58.50	63.42	72.50	41.29	86.50	29.01
44.75	108.37	58.75	62.88	72.75	41.01	86.75	28.84
45.00	107.17	59.00	62.35	73.00	40.73	87.00	28.67
45.25	105.99	59.25	61.82	73.25	40.45	87.25	28.51
45.50	104.83	59.50	61.30	73.50	40.17	87.50	28.35
45.75	103.69	59.75	60.79	73.75	39.90	87.75	28.19
46.00	102.56	60.00	60.29	74.00	39.63	88.00	28.03
46.25	101.46	60.25	59.79	74.25	39.37	88.25	27.87
46.50	100.37	60.50	59.29	74.50	39.10	88.50	27.71
46.75	99.30	60.75	58.81	74.75	38.84	88.75	27.55
47.00	98.25	61.00	58.32	75.00	38.58	89.00	27.40
47.25	97.21	61.25	57.85	75.25	38.33	89.25	27.25
47.50	96.19	61.50	57.38	75.50	38.07	89.50	27.09
47.75	95.18	61.75	56.92	75.75	37.82	89.75	26.94
48.00	94.19	62.00	56.46	76.00	37.57	90.00	26.79
48.25	93.22	62.25	56.01	76.25	37.33	90.25	26.65
48.50	92.26	62.50	55.56	76.50	37.08	90.50	26.50
48.75	91.32	62.75	55.12	76.75	36.84	90.75	26.35
49.00	90.39	63.00	54.68	77.00	36.60	91.00	26.21
49.25	89.47	63.25	54.25	77.25	36.37	91.25	26.06
49.50	88.57	63.50	53.82	77.50	36.13	91.50	25.92
49.75	87.68	63.75	53.40	77.75	35.90	91.75	25.78
50.00	86.81	64.00	52.98	78.00	35.67	92.00	25.64
50.25	85.95	64.25	52.57	78.25	35.44	92.25	25.50
50.50	85.10	64.50	52.17	78.50	35.22	92.50	25.36
50.75	84.26	64.75	51.76	78.75	35.00	92.75	25.23
51.00	83.44	65.00	51.37	79.00	34.77	93.00	25.09
51.25	82.63	65.25	50.97	79.25	34.56	93.25	24.96
51.50	81.83	65.50	50.59	79.50	34.34	93.50	24.83
51.75	81.04	65.75	50.20	79.75	34.12	93.75	24.69
52.00	80.26	66.00	49.82	80.00	33.91	94.00	24.56
52.25	79.49	66.25	49.45	80.25	33.70	94.25	24.43
52.50	78.74	66.50	49.08	80.50	33.49	94.50	24.30
52.75	77.99	66.75	48.71	80.75	33.28	94.75	24.17
53.00	77.26	67.00	48.35	81.00	33.08	95.00	24.05
53.25	76.54	67.25	47.99	81.25	32.88	95.25	23.92
53.50	75.82	67.50	47.63	81.50	32.67	95.50	23.80
53.75	75.12	67.75	47.28	81.75	32.47	95.75	23.67
54.00	74.43	68.00	46.93	82.00	32.28	96.00	23.55

Table 7 – 100%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters 8 Electric Meters**

Time Avg: 1%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 3.54                      42.5 Inches

BioInitiative ft. 281.25                      3374.9 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	67822.40	10.25	75.25	20.25	19.29	30.25	8.64
0.50	26445.43	10.50	71.72	20.50	18.82	30.50	8.50
0.75	12968.58	10.75	68.42	20.75	18.37	30.75	8.36
1.00	7556.71	11.00	65.35	21.00	17.93	31.00	8.23
1.25	4916.35	11.25	62.48	21.25	17.51	31.25	8.10
1.50	3444.77	11.50	59.79	21.50	17.11	31.50	7.97
1.75	2544.53	11.75	57.27	21.75	16.72	31.75	7.85
2.00	1954.99	12.00	54.91	22.00	16.34	32.00	7.72
2.25	1548.39	12.25	52.69	22.25	15.98	32.25	7.60
2.50	1256.35	12.50	50.61	22.50	15.62	32.50	7.49
2.75	1039.63	12.75	48.64	22.75	15.28	32.75	7.37
3.00	874.42	13.00	46.79	23.00	14.95	33.00	7.26
3.25	745.63	13.25	45.04	23.25	14.63	33.25	7.15
3.50	643.30	13.50	43.39	23.50	14.32	33.50	7.05
3.75	560.65	13.75	41.83	23.75	14.02	33.75	6.94
4.00	492.96	14.00	40.35	24.00	13.73	34.00	6.84
4.25	436.81	14.25	38.94	24.25	13.45	34.25	6.74
4.50	389.73	14.50	37.61	24.50	13.18	34.50	6.65
4.75	349.87	14.75	36.35	24.75	12.91	34.75	6.55
5.00	315.82	15.00	35.15	25.00	12.65	35.00	6.46
5.25	286.50	15.25	34.01	25.25	12.41	35.25	6.37
5.50	261.09	15.50	32.92	25.50	12.16	35.50	6.28
5.75	238.91	15.75	31.88	25.75	11.93	35.75	6.19
6.00	219.44	16.00	30.89	26.00	11.70	36.00	6.10
6.25	202.26	16.25	29.95	26.25	11.48	36.25	6.02
6.50	187.01	16.50	29.05	26.50	11.26	36.50	5.94
6.75	173.43	16.75	28.19	26.75	11.05	36.75	5.86
7.00	161.28	17.00	27.37	27.00	10.85	37.00	5.78
7.25	150.35	17.25	26.58	27.25	10.65	37.25	5.70
7.50	140.51	17.50	25.82	27.50	10.46	37.50	5.62
7.75	131.59	17.75	25.10	27.75	10.27	37.75	5.55
8.00	123.50	18.00	24.41	28.00	10.09	38.00	5.48
8.25	116.14	18.25	23.75	28.25	9.91	38.25	5.41
8.50	109.41	18.50	23.11	28.50	9.74	38.50	5.34
8.75	103.25	18.75	22.50	28.75	9.57	38.75	5.27
9.00	97.60	19.00	21.91	29.00	9.40	39.00	5.20
9.25	92.40	19.25	21.34	29.25	9.24	39.25	5.13
9.50	87.60	19.50	20.80	29.50	9.09	39.50	5.07
9.75	83.17	19.75	20.28	29.75	8.94	39.75	5.01
10.00	79.06	20.00	19.77	30.00	8.79	40.00	4.94

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 1%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 3.54

42.53 Inches

BioInitiative ft. 281.25

3374.94 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	4.88	54.25	2.69	68.25	1.70	82.25	1.17
40.50	4.82	54.50	2.66	68.50	1.69	82.50	1.16
40.75	4.76	54.75	2.64	68.75	1.67	82.75	1.16
41.00	4.71	55.00	2.61	69.00	1.66	83.00	1.15
41.25	4.65	55.25	2.59	69.25	1.65	83.25	1.14
41.50	4.59	55.50	2.57	69.50	1.64	83.50	1.13
41.75	4.54	55.75	2.54	69.75	1.63	83.75	1.13
42.00	4.48	56.00	2.52	70.00	1.61	84.00	1.12
42.25	4.43	56.25	2.50	70.25	1.60	84.25	1.11
42.50	4.38	56.50	2.48	70.50	1.59	84.50	1.11
42.75	4.33	56.75	2.46	70.75	1.58	84.75	1.10
43.00	4.28	57.00	2.43	71.00	1.57	85.00	1.09
43.25	4.23	57.25	2.41	71.25	1.56	85.25	1.09
43.50	4.18	57.50	2.39	71.50	1.55	85.50	1.08
43.75	4.13	57.75	2.37	71.75	1.54	85.75	1.08
44.00	4.09	58.00	2.35	72.00	1.53	86.00	1.07
44.25	4.04	58.25	2.33	72.25	1.52	86.25	1.06
44.50	3.99	58.50	2.31	72.50	1.50	86.50	1.06
44.75	3.95	58.75	2.29	72.75	1.49	86.75	1.05
45.00	3.91	59.00	2.27	73.00	1.48	87.00	1.05
45.25	3.86	59.25	2.25	73.25	1.47	87.25	1.04
45.50	3.82	59.50	2.23	73.50	1.46	87.50	1.03
45.75	3.78	59.75	2.22	73.75	1.45	87.75	1.03
46.00	3.74	60.00	2.20	74.00	1.44	88.00	1.02
46.25	3.70	60.25	2.18	74.25	1.43	88.25	1.02
46.50	3.66	60.50	2.16	74.50	1.43	88.50	1.01
46.75	3.62	60.75	2.14	74.75	1.42	88.75	1.00
47.00	3.58	61.00	2.13	75.00	1.41	89.00	1.00
47.25	3.54	61.25	2.11	75.25	1.40	89.25	0.99
47.50	3.51	61.50	2.09	75.50	1.39	89.50	0.99
47.75	3.47	61.75	2.07	75.75	1.38	89.75	0.98
48.00	3.43	62.00	2.06	76.00	1.37	90.00	0.98
48.25	3.40	62.25	2.04	76.25	1.36	90.25	0.97
48.50	3.36	62.50	2.02	76.50	1.35	90.50	0.97
48.75	3.33	62.75	2.01	76.75	1.34	90.75	0.96
49.00	3.29	63.00	1.99	77.00	1.33	91.00	0.96
49.25	3.26	63.25	1.98	77.25	1.33	91.25	0.95
49.50	3.23	63.50	1.96	77.50	1.32	91.50	0.94
49.75	3.20	63.75	1.95	77.75	1.31	91.75	0.94
50.00	3.16	64.00	1.93	78.00	1.30	92.00	0.93
50.25	3.13	64.25	1.92	78.25	1.29	92.25	0.93
50.50	3.10	64.50	1.90	78.50	1.28	92.50	0.92
50.75	3.07	64.75	1.89	78.75	1.28	92.75	0.92
51.00	3.04	65.00	1.87	79.00	1.27	93.00	0.91
51.25	3.01	65.25	1.86	79.25	1.26	93.25	0.91
51.50	2.98	65.50	1.84	79.50	1.25	93.50	0.90
51.75	2.95	65.75	1.83	79.75	1.24	93.75	0.90
52.00	2.93	66.00	1.82	80.00	1.24	94.00	0.90
52.25	2.90	66.25	1.80	80.25	1.23	94.25	0.89
52.50	2.87	66.50	1.79	80.50	1.22	94.50	0.89
52.75	2.84	66.75	1.78	80.75	1.21	94.75	0.88
53.00	2.82	67.00	1.76	81.00	1.21	95.00	0.88
53.25	2.79	67.25	1.75	81.25	1.20	95.25	0.87
53.50	2.76	67.50	1.74	81.50	1.19	95.50	0.87
53.75	2.74	67.75	1.72	81.75	1.18	95.75	0.86
54.00	2.71	68.00	1.71	82.00	1.18	96.00	0.86

Table 8 – 1%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 10%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 11.23                      134.7 Inches

BioInitiative ft. 889.38                      10672.5 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	678224.02	10.25	752.55	20.25	192.87	30.25	86.44
0.50	264454.30	10.50	717.15	20.50	188.20	30.50	85.03
0.75	129685.75	10.75	684.20	20.75	183.69	30.75	83.65
1.00	75567.08	11.00	653.46	21.00	179.34	31.00	82.31
1.25	49163.46	11.25	624.75	21.25	175.15	31.25	80.99
1.50	34447.68	11.50	597.89	21.50	171.10	31.50	79.71
1.75	25445.30	11.75	572.73	21.75	167.19	31.75	78.46
2.00	19549.86	12.00	549.12	22.00	163.41	32.00	77.24
2.25	15483.92	12.25	526.95	22.25	159.76	32.25	76.05
2.50	12563.53	12.50	506.09	22.50	156.23	32.50	74.88
2.75	10396.28	12.75	486.44	22.75	152.82	32.75	73.74
3.00	8744.21	13.00	467.91	23.00	149.51	33.00	72.63
3.25	7456.29	13.25	450.43	23.25	146.31	33.25	71.54
3.50	6432.99	13.50	433.90	23.50	143.22	33.50	70.48
3.75	5606.54	13.75	418.27	23.75	140.22	33.75	69.44
4.00	4929.57	14.00	403.47	24.00	137.31	34.00	68.42
4.25	4368.10	14.25	389.44	24.25	134.50	34.25	67.43
4.50	3897.31	14.50	376.13	24.50	131.77	34.50	66.45
4.75	3498.67	14.75	363.49	24.75	129.12	34.75	65.50
5.00	3158.17	15.00	351.48	25.00	126.55	35.00	64.57
5.25	2865.04	15.25	340.05	25.25	124.06	35.25	63.66
5.50	2610.89	15.50	329.17	25.50	121.64	35.50	62.76
5.75	2389.10	15.75	318.81	25.75	119.29	35.75	61.89
6.00	2194.40	16.00	308.93	26.00	117.00	36.00	61.03
6.25	2022.56	16.25	299.49	26.25	114.78	36.25	60.19
6.50	1870.14	16.50	290.49	26.50	112.63	36.50	59.37
6.75	1734.31	16.75	281.88	26.75	110.53	36.75	58.57
7.00	1612.76	17.00	273.66	27.00	108.50	37.00	57.78
7.25	1503.55	17.25	265.78	27.25	106.52	37.25	57.00
7.50	1405.06	17.50	258.24	27.50	104.59	37.50	56.25
7.75	1315.94	17.75	251.02	27.75	102.71	37.75	55.50
8.00	1235.04	18.00	244.10	28.00	100.89	38.00	54.78
8.25	1161.37	18.25	237.46	28.25	99.11	38.25	54.06
8.50	1094.10	18.50	231.08	28.50	97.38	38.50	53.36
8.75	1032.51	18.75	224.96	28.75	95.69	38.75	52.68
9.00	975.98	19.00	219.08	29.00	94.05	39.00	52.00
9.25	923.96	19.25	213.43	29.25	92.45	39.25	51.34
9.50	876.00	19.50	207.99	29.50	90.89	39.50	50.69
9.75	831.67	19.75	202.76	29.75	89.37	39.75	50.06
10.00	790.63	20.00	197.72	30.00	87.88	40.00	49.44

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 10%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 11.23                      134.71 Inches

BioInitiative ft. 889.38                      10672.51 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	48.82	54.25	26.88	68.25	16.98	82.25	11.69
40.50	48.22	54.50	26.63	68.50	16.86	82.50	11.62
40.75	47.63	54.75	26.39	68.75	16.73	82.75	11.55
41.00	47.05	55.00	26.15	69.00	16.61	83.00	11.48
41.25	46.48	55.25	25.91	69.25	16.49	83.25	11.41
41.50	45.93	55.50	25.68	69.50	16.38	83.50	11.34
41.75	45.38	55.75	25.45	69.75	16.26	83.75	11.28
42.00	44.84	56.00	25.22	70.00	16.14	84.00	11.21
42.25	44.31	56.25	25.00	70.25	16.03	84.25	11.14
42.50	43.79	56.50	24.78	70.50	15.91	84.50	11.08
42.75	43.28	56.75	24.56	70.75	15.80	84.75	11.01
43.00	42.78	57.00	24.35	71.00	15.69	85.00	10.95
43.25	42.29	57.25	24.13	71.25	15.58	85.25	10.88
43.50	41.80	57.50	23.92	71.50	15.47	85.50	10.82
43.75	41.32	57.75	23.72	71.75	15.36	85.75	10.76
44.00	40.86	58.00	23.51	72.00	15.26	86.00	10.69
44.25	40.40	58.25	23.31	72.25	15.15	86.25	10.63
44.50	39.94	58.50	23.11	72.50	15.05	86.50	10.57
44.75	39.50	58.75	22.92	72.75	14.95	86.75	10.51
45.00	39.06	59.00	22.72	73.00	14.84	87.00	10.45
45.25	38.63	59.25	22.53	73.25	14.74	87.25	10.39
45.50	38.21	59.50	22.34	73.50	14.64	87.50	10.33
45.75	37.79	59.75	22.16	73.75	14.54	87.75	10.27
46.00	37.38	60.00	21.97	74.00	14.44	88.00	10.21
46.25	36.98	60.25	21.79	74.25	14.35	88.25	10.16
46.50	36.58	60.50	21.61	74.50	14.25	88.50	10.10
46.75	36.19	60.75	21.43	74.75	14.16	88.75	10.04
47.00	35.81	61.00	21.26	75.00	14.06	89.00	9.99
47.25	35.43	61.25	21.08	75.25	13.97	89.25	9.93
47.50	35.06	61.50	20.91	75.50	13.88	89.50	9.87
47.75	34.69	61.75	20.74	75.75	13.78	89.75	9.82
48.00	34.33	62.00	20.58	76.00	13.69	90.00	9.77
48.25	33.98	62.25	20.41	76.25	13.60	90.25	9.71
48.50	33.63	62.50	20.25	76.50	13.52	90.50	9.66
48.75	33.28	62.75	20.09	76.75	13.43	90.75	9.60
49.00	32.94	63.00	19.93	77.00	13.34	91.00	9.55
49.25	32.61	63.25	19.77	77.25	13.25	91.25	9.50
49.50	32.28	63.50	19.62	77.50	13.17	91.50	9.45
49.75	31.96	63.75	19.46	77.75	13.08	91.75	9.40
50.00	31.64	64.00	19.31	78.00	13.00	92.00	9.35
50.25	31.32	64.25	19.16	78.25	12.92	92.25	9.29
50.50	31.02	64.50	19.01	78.50	12.84	92.50	9.24
50.75	30.71	64.75	18.87	78.75	12.75	92.75	9.19
51.00	30.41	65.00	18.72	79.00	12.67	93.00	9.15
51.25	30.11	65.25	18.58	79.25	12.59	93.25	9.10
51.50	29.82	65.50	18.44	79.50	12.52	93.50	9.05
51.75	29.54	65.75	18.30	79.75	12.44	93.75	9.00
52.00	29.25	66.00	18.16	80.00	12.36	94.00	8.95
52.25	28.97	66.25	18.02	80.25	12.28	94.25	8.90
52.50	28.70	66.50	17.89	80.50	12.21	94.50	8.86
52.75	28.43	66.75	17.75	80.75	12.13	94.75	8.81
53.00	28.16	67.00	17.62	81.00	12.06	95.00	8.76
53.25	27.89	67.25	17.49	81.25	11.98	95.25	8.72
53.50	27.63	67.50	17.36	81.50	11.91	95.50	8.67
53.75	27.38	67.75	17.23	81.75	11.84	95.75	8.63
54.00	27.13	68.00	17.11	82.00	11.76	96.00	8.58

Table 8 – 10%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 20%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 15.88                      190.5 Inches

BioInitiative ft. 1257.77                      15093.2 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	1356448.05	10.25	1505.09	20.25	385.75	30.25	172.87
0.50	528908.60	10.50	1434.31	20.50	376.40	30.50	170.05
0.75	259371.51	10.75	1368.40	20.75	367.38	30.75	167.30
1.00	151134.16	11.00	1306.93	21.00	358.69	31.00	164.61
1.25	98326.92	11.25	1249.51	21.25	350.30	31.25	161.99
1.50	68895.35	11.50	1195.79	21.50	342.20	31.50	159.43
1.75	50890.60	11.75	1145.46	21.75	334.38	31.75	156.93
2.00	39099.72	12.00	1098.25	22.00	326.82	32.00	154.48
2.25	30967.84	12.25	1053.89	22.25	319.52	32.25	152.10
2.50	25127.06	12.50	1012.17	22.50	312.46	32.50	149.77
2.75	20792.56	12.75	972.88	22.75	305.63	32.75	147.49
3.00	17488.42	13.00	935.83	23.00	299.03	33.00	145.26
3.25	14912.58	13.25	900.86	23.25	292.63	33.25	143.09
3.50	12865.97	13.50	867.81	23.50	286.44	33.50	140.96
3.75	11213.09	13.75	836.55	23.75	280.44	33.75	138.88
4.00	9859.14	14.00	806.94	24.00	274.63	34.00	136.84
4.25	8736.20	14.25	778.88	24.25	268.99	34.25	134.85
4.50	7794.61	14.50	752.26	24.50	263.53	34.50	132.91
4.75	6997.34	14.75	726.98	24.75	258.24	34.75	131.00
5.00	6316.35	15.00	702.96	25.00	253.10	35.00	129.14
5.25	5730.09	15.25	680.10	25.25	248.11	35.25	127.31
5.50	5221.78	15.50	658.35	25.50	243.27	35.50	125.52
5.75	4778.20	15.75	637.62	25.75	238.57	35.75	123.78
6.00	4388.80	16.00	617.85	26.00	234.00	36.00	122.06
6.25	4045.13	16.25	598.99	26.25	229.57	36.25	120.38
6.50	3740.28	16.50	580.98	26.50	225.26	36.50	118.74
6.75	3468.62	16.75	563.77	26.75	221.07	36.75	117.13
7.00	3225.52	17.00	547.31	27.00	216.99	37.00	115.55
7.25	3007.09	17.25	531.56	27.25	213.03	37.25	114.01
7.50	2810.12	17.50	516.49	27.50	209.17	37.50	112.49
7.75	2631.88	17.75	502.04	27.75	205.42	37.75	111.01
8.00	2470.08	18.00	488.20	28.00	201.77	38.00	109.55
8.25	2322.74	18.25	474.91	28.25	198.22	38.25	108.12
8.50	2188.20	18.50	462.17	28.50	194.75	38.50	106.72
8.75	2065.02	18.75	449.93	28.75	191.38	38.75	105.35
9.00	1951.96	19.00	438.17	29.00	188.10	39.00	104.01
9.25	1847.93	19.25	426.86	29.25	184.90	39.25	102.69
9.50	1752.00	19.50	415.99	29.50	181.77	39.50	101.39
9.75	1663.35	19.75	405.52	29.75	178.73	39.75	100.12
10.00	1581.26	20.00	395.45	30.00	175.77	40.00	98.87

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 20%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 15.88                      190.53 Inches

BioInitiative ft. 1257.77                      15093.21 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	97.65	54.25	53.75	68.25	33.96	82.25	23.38
40.50	96.44	54.50	53.26	68.50	33.71	82.50	23.24
40.75	95.27	54.75	52.77	68.75	33.47	82.75	23.10
41.00	94.11	55.00	52.30	69.00	33.23	83.00	22.96
41.25	92.97	55.25	51.82	69.25	32.99	83.25	22.83
41.50	91.85	55.50	51.36	69.50	32.75	83.50	22.69
41.75	90.76	55.75	50.90	69.75	32.52	83.75	22.55
42.00	89.68	56.00	50.45	70.00	32.28	84.00	22.42
42.25	88.62	56.25	50.00	70.25	32.06	84.25	22.29
42.50	87.58	56.50	49.56	70.50	31.83	84.50	22.16
42.75	86.56	56.75	49.12	70.75	31.60	84.75	22.03
43.00	85.56	57.00	48.69	71.00	31.38	85.00	21.90
43.25	84.57	57.25	48.27	71.25	31.16	85.25	21.77
43.50	83.60	57.50	47.85	71.50	30.94	85.50	21.64
43.75	82.65	57.75	47.43	71.75	30.73	85.75	21.51
44.00	81.71	58.00	47.03	72.00	30.52	86.00	21.39
44.25	80.79	58.25	46.62	72.25	30.31	86.25	21.27
44.50	79.89	58.50	46.23	72.50	30.10	86.50	21.14
44.75	79.00	58.75	45.83	72.75	29.89	86.75	21.02
45.00	78.12	59.00	45.45	73.00	29.69	87.00	20.90
45.25	77.26	59.25	45.06	73.25	29.48	87.25	20.78
45.50	76.41	59.50	44.68	73.50	29.28	87.50	20.66
45.75	75.58	59.75	44.31	73.75	29.09	87.75	20.54
46.00	74.76	60.00	43.94	74.00	28.89	88.00	20.43
46.25	73.96	60.25	43.58	74.25	28.69	88.25	20.31
46.50	73.16	60.50	43.22	74.50	28.50	88.50	20.20
46.75	72.38	60.75	42.86	74.75	28.31	88.75	20.08
47.00	71.61	61.00	42.51	75.00	28.12	89.00	19.97
47.25	70.86	61.25	42.17	75.25	27.94	89.25	19.86
47.50	70.11	61.50	41.83	75.50	27.75	89.50	19.75
47.75	69.38	61.75	41.49	75.75	27.57	89.75	19.64
48.00	68.66	62.00	41.15	76.00	27.39	90.00	19.53
48.25	67.95	62.25	40.82	76.25	27.21	90.25	19.42
48.50	67.25	62.50	40.50	76.50	27.03	90.50	19.32
48.75	66.56	62.75	40.18	76.75	26.86	90.75	19.21
49.00	65.89	63.00	39.86	77.00	26.68	91.00	19.10
49.25	65.22	63.25	39.54	77.25	26.51	91.25	19.00
49.50	64.56	63.50	39.23	77.50	26.34	91.50	18.90
49.75	63.92	63.75	38.93	77.75	26.17	91.75	18.79
50.00	63.28	64.00	38.62	78.00	26.00	92.00	18.69
50.25	62.65	64.25	38.32	78.25	25.84	92.25	18.59
50.50	62.03	64.50	38.03	78.50	25.67	92.50	18.49
50.75	61.42	64.75	37.73	78.75	25.51	92.75	18.39
51.00	60.82	65.00	37.44	79.00	25.35	93.00	18.29
51.25	60.23	65.25	37.16	79.25	25.19	93.25	18.19
51.50	59.65	65.50	36.87	79.50	25.03	93.50	18.10
51.75	59.07	65.75	36.59	79.75	24.87	93.75	18.00
52.00	58.50	66.00	36.32	80.00	24.72	94.00	17.90
52.25	57.95	66.25	36.04	80.25	24.56	94.25	17.81
52.50	57.40	66.50	35.77	80.50	24.41	94.50	17.71
52.75	56.85	66.75	35.51	80.75	24.26	94.75	17.62
53.00	56.32	67.00	35.24	81.00	24.11	95.00	17.53
53.25	55.79	67.25	34.98	81.25	23.96	95.25	17.44
53.50	55.27	67.50	34.72	81.50	23.82	95.50	17.35
53.75	54.76	67.75	34.46	81.75	23.67	95.75	17.26
54.00	54.25	68.00	34.21	82.00	23.53	96.00	17.17

Table 8 – 20%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters 8 Electric Meters**

Time Avg: 30%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 19.45                      233.4 Inches

BioInitiative ft. 1540.44                      18485.3 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	2034672.07	10.25	2257.64	20.25	578.62	30.25	259.31
0.50	793362.91	10.50	2151.46	20.50	564.59	30.50	255.08
0.75	389057.26	10.75	2052.59	20.75	551.07	30.75	250.95
1.00	226701.23	11.00	1960.39	21.00	538.03	31.00	246.92
1.25	147490.37	11.25	1874.26	21.25	525.45	31.25	242.98
1.50	103343.03	11.50	1793.68	21.50	513.30	31.50	239.14
1.75	76335.90	11.75	1718.19	21.75	501.57	31.75	235.39
2.00	58649.59	12.00	1647.37	22.00	490.24	32.00	231.72
2.25	46451.76	12.25	1580.84	22.25	479.28	32.25	228.15
2.50	37690.58	12.50	1518.26	22.50	468.69	32.50	224.65
2.75	31188.84	12.75	1459.32	22.75	458.45	32.75	221.23
3.00	26232.62	13.00	1403.74	23.00	448.54	33.00	217.89
3.25	22368.87	13.25	1351.29	23.25	438.94	33.25	214.63
3.50	19298.96	13.50	1301.71	23.50	429.66	33.50	211.44
3.75	16819.63	13.75	1254.82	23.75	420.66	33.75	208.32
4.00	14788.70	14.00	1210.42	24.00	411.94	34.00	205.27
4.25	13104.31	14.25	1168.33	24.25	403.49	34.25	202.28
4.50	11691.92	14.50	1128.40	24.50	395.30	34.50	199.36
4.75	10496.01	14.75	1090.48	24.75	387.35	34.75	196.50
5.00	9474.52	15.00	1054.44	25.00	379.65	35.00	193.70
5.25	8595.13	15.25	1020.16	25.25	372.17	35.25	190.97
5.50	7832.67	15.50	987.52	25.50	364.91	35.50	188.29
5.75	7167.30	15.75	956.42	25.75	357.86	35.75	185.66
6.00	6583.21	16.00	926.78	26.00	351.01	36.00	183.09
6.25	6067.69	16.25	898.48	26.25	344.35	36.25	180.58
6.50	5610.41	16.50	871.47	26.50	337.89	36.50	178.11
6.75	5202.93	16.75	845.65	26.75	331.60	36.75	175.70
7.00	4838.27	17.00	820.97	27.00	325.49	37.00	173.33
7.25	4510.64	17.25	797.35	27.25	319.55	37.25	171.01
7.50	4215.18	17.50	774.73	27.50	313.76	37.50	168.74
7.75	3947.82	17.75	753.06	27.75	308.13	37.75	166.51
8.00	3705.11	18.00	732.29	28.00	302.66	38.00	164.33
8.25	3484.11	18.25	712.37	28.25	297.32	38.25	162.19
8.50	3282.31	18.50	693.25	28.50	292.13	38.50	160.09
8.75	3097.54	18.75	674.89	28.75	287.07	38.75	158.03
9.00	2927.94	19.00	657.25	29.00	282.15	39.00	156.01
9.25	2771.89	19.25	640.29	29.25	277.34	39.25	154.03
9.50	2628.00	19.50	623.98	29.50	272.66	39.50	152.08
9.75	2495.02	19.75	608.28	29.75	268.10	39.75	150.18
10.00	2371.88	20.00	593.17	30.00	263.65	40.00	148.31

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 30%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 19.45                      233.36 Inches

BioInitiative ft. 1540.44                      18485.33 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	146.47	54.25	80.63	68.25	50.94	82.25	35.08
40.50	144.67	54.50	79.89	68.50	50.57	82.50	34.86
40.75	142.90	54.75	79.16	68.75	50.20	82.75	34.65
41.00	141.16	55.00	78.44	69.00	49.84	83.00	34.45
41.25	139.45	55.25	77.74	69.25	49.48	83.25	34.24
41.50	137.78	55.50	77.04	69.50	49.13	83.50	34.03
41.75	136.13	55.75	76.35	69.75	48.78	83.75	33.83
42.00	134.52	56.00	75.67	70.00	48.43	84.00	33.63
42.25	132.93	56.25	75.00	70.25	48.08	84.25	33.43
42.50	131.37	56.50	74.33	70.50	47.74	84.50	33.23
42.75	129.84	56.75	73.68	70.75	47.41	84.75	33.04
43.00	128.33	57.00	73.04	71.00	47.07	85.00	32.84
43.25	126.86	57.25	72.40	71.25	46.74	85.25	32.65
43.50	125.40	57.50	71.77	71.50	46.42	85.50	32.46
43.75	123.97	57.75	71.15	71.75	46.09	85.75	32.27
44.00	122.57	58.00	70.54	72.00	45.77	86.00	32.08
44.25	121.19	58.25	69.93	72.25	45.46	86.25	31.90
44.50	119.83	58.50	69.34	72.50	45.15	86.50	31.71
44.75	118.49	58.75	68.75	72.75	44.84	86.75	31.53
45.00	117.18	59.00	68.17	73.00	44.53	87.00	31.35
45.25	115.89	59.25	67.59	73.25	44.23	87.25	31.17
45.50	114.62	59.50	67.03	73.50	43.93	87.50	30.99
45.75	113.37	59.75	66.47	73.75	43.63	87.75	30.82
46.00	112.14	60.00	65.91	74.00	43.33	88.00	30.64
46.25	110.93	60.25	65.37	74.25	43.04	88.25	30.47
46.50	109.74	60.50	64.83	74.50	42.75	88.50	30.30
46.75	108.57	60.75	64.30	74.75	42.47	88.75	30.13
47.00	107.42	61.00	63.77	75.00	42.19	89.00	29.96
47.25	106.29	61.25	63.25	75.25	41.91	89.25	29.79
47.50	105.17	61.50	62.74	75.50	41.63	89.50	29.62
47.75	104.07	61.75	62.23	75.75	41.35	89.75	29.46
48.00	102.99	62.00	61.73	76.00	41.08	90.00	29.30
48.25	101.93	62.25	61.24	76.25	40.81	90.25	29.13
48.50	100.88	62.50	60.75	76.50	40.55	90.50	28.97
48.75	99.85	62.75	60.26	76.75	40.28	90.75	28.81
49.00	98.83	63.00	59.79	77.00	40.02	91.00	28.66
49.25	97.83	63.25	59.32	77.25	39.76	91.25	28.50
49.50	96.84	63.50	58.85	77.50	39.51	91.50	28.34
49.75	95.87	63.75	58.39	77.75	39.25	91.75	28.19
50.00	94.92	64.00	57.93	78.00	39.00	92.00	28.04
50.25	93.97	64.25	57.48	78.25	38.75	92.25	27.88
50.50	93.05	64.50	57.04	78.50	38.51	92.50	27.73
50.75	92.13	64.75	56.60	78.75	38.26	92.75	27.58
51.00	91.23	65.00	56.16	79.00	38.02	93.00	27.44
51.25	90.34	65.25	55.73	79.25	37.78	93.25	27.29
51.50	89.47	65.50	55.31	79.50	37.55	93.50	27.14
51.75	88.61	65.75	54.89	79.75	37.31	93.75	27.00
52.00	87.76	66.00	54.48	80.00	37.08	94.00	26.86
52.25	86.92	66.25	54.06	80.25	36.85	94.25	26.71
52.50	86.09	66.50	53.66	80.50	36.62	94.50	26.57
52.75	85.28	66.75	53.26	80.75	36.39	94.75	26.43
53.00	84.48	67.00	52.86	81.00	36.17	95.00	26.29
53.25	83.68	67.25	52.47	81.25	35.95	95.25	26.16
53.50	82.90	67.50	52.08	81.50	35.73	95.50	26.02
53.75	82.13	67.75	51.70	81.75	35.51	95.75	25.88
54.00	81.38	68.00	51.32	82.00	35.29	96.00	25.75

Table 8 – 30%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters 8 Electric Meters**

Time Avg: 40%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 22.46                      269.5 Inches

BioInitiative ft. 1778.75                      21345.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	2712896.09	10.25	3010.19	20.25	771.49	30.25	345.75
0.50	1057817.21	10.50	2868.61	20.50	752.79	30.50	340.10
0.75	518743.01	10.75	2736.79	20.75	734.76	30.75	334.60
1.00	302268.31	11.00	2613.85	21.00	717.38	31.00	329.22
1.25	196653.83	11.25	2499.01	21.25	700.60	31.25	323.97
1.50	137790.70	11.50	2391.58	21.50	684.40	31.50	318.85
1.75	101781.20	11.75	2290.93	21.75	668.76	31.75	313.85
2.00	78199.45	12.00	2196.50	22.00	653.65	32.00	308.97
2.25	61935.69	12.25	2107.78	22.25	639.04	32.25	304.20
2.50	50254.11	12.50	2024.34	22.50	624.92	32.50	299.53
2.75	41585.12	12.75	1945.75	22.75	611.27	32.75	294.98
3.00	34976.83	13.00	1871.66	23.00	598.05	33.00	290.53
3.25	29825.16	13.25	1801.71	23.25	585.26	33.25	286.17
3.50	25731.94	13.50	1735.62	23.50	572.87	33.50	281.92
3.75	22426.17	13.75	1673.09	23.75	560.88	33.75	277.76
4.00	19718.27	14.00	1613.89	24.00	549.25	34.00	273.69
4.25	17472.41	14.25	1557.77	24.25	537.99	34.25	269.71
4.50	15589.22	14.50	1504.53	24.50	527.07	34.50	265.81
4.75	13994.68	14.75	1453.97	24.75	516.47	34.75	262.00
5.00	12632.69	15.00	1405.92	25.00	506.20	35.00	258.27
5.25	11460.17	15.25	1360.21	25.25	496.22	35.25	254.62
5.50	10443.56	15.50	1316.69	25.50	486.54	35.50	251.05
5.75	9556.39	15.75	1275.23	25.75	477.14	35.75	247.55
6.00	8777.61	16.00	1235.70	26.00	468.01	36.00	244.12
6.25	8090.25	16.25	1197.98	26.25	459.14	36.25	240.77
6.50	7480.55	16.50	1161.96	26.50	450.52	36.50	237.48
6.75	6937.25	16.75	1127.54	26.75	442.14	36.75	234.26
7.00	6451.03	17.00	1094.62	27.00	433.99	37.00	231.11
7.25	6014.18	17.25	1063.13	27.25	426.06	37.25	228.02
7.50	5620.24	17.50	1032.97	27.50	418.35	37.50	224.99
7.75	5263.77	17.75	1004.09	27.75	410.85	37.75	222.02
8.00	4940.15	18.00	976.39	28.00	403.54	38.00	219.10
8.25	4645.48	18.25	949.83	28.25	396.43	38.25	216.25
8.50	4376.41	18.50	924.33	28.50	389.51	38.50	213.45
8.75	4130.05	18.75	899.85	28.75	382.76	38.75	210.70
9.00	3903.92	19.00	876.33	29.00	376.19	39.00	208.01
9.25	3695.86	19.25	853.72	29.25	369.79	39.25	205.37
9.50	3503.99	19.50	831.97	29.50	363.55	39.50	202.78
9.75	3326.69	19.75	811.05	29.75	357.47	39.75	200.24
10.00	3162.51	20.00	790.90	30.00	351.53	40.00	197.74

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 40%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 22.46

269.47 Inches

BioInitiative ft. 1778.75

21345.02 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	195.29	54.25	107.50	68.25	67.92	82.25	46.77
40.50	192.89	54.50	106.52	68.50	67.43	82.50	46.49
40.75	190.53	54.75	105.55	68.75	66.94	82.75	46.21
41.00	188.21	55.00	104.59	69.00	66.46	83.00	45.93
41.25	185.94	55.25	103.65	69.25	65.98	83.25	45.65
41.50	183.71	55.50	102.72	69.50	65.50	83.50	45.38
41.75	181.51	55.75	101.80	69.75	65.03	83.75	45.11
42.00	179.36	56.00	100.89	70.00	64.57	84.00	44.84
42.25	177.24	56.25	100.00	70.25	64.11	84.25	44.57
42.50	175.16	56.50	99.11	70.50	63.66	84.50	44.31
42.75	173.12	56.75	98.24	70.75	63.21	84.75	44.05
43.00	171.11	57.00	97.38	71.00	62.76	85.00	43.79
43.25	169.14	57.25	96.53	71.25	62.32	85.25	43.54
43.50	167.20	57.50	95.69	71.50	61.89	85.50	43.28
43.75	165.30	57.75	94.87	71.75	61.46	85.75	43.03
44.00	163.42	58.00	94.05	72.00	61.03	86.00	42.78
44.25	161.58	58.25	93.25	72.25	60.61	86.25	42.53
44.50	159.77	58.50	92.45	72.50	60.19	86.50	42.29
44.75	157.99	58.75	91.67	72.75	59.78	86.75	42.04
45.00	156.24	59.00	90.89	73.00	59.37	87.00	41.80
45.25	154.52	59.25	90.13	73.25	58.97	87.25	41.56
45.50	152.83	59.50	89.37	73.50	58.57	87.50	41.32
45.75	151.16	59.75	88.62	73.75	58.17	87.75	41.09
46.00	149.52	60.00	87.89	74.00	57.78	88.00	40.86
46.25	147.91	60.25	87.16	74.25	57.39	88.25	40.63
46.50	146.32	60.50	86.44	74.50	57.01	88.50	40.40
46.75	144.76	60.75	85.73	74.75	56.62	88.75	40.17
47.00	143.23	61.00	85.03	75.00	56.25	89.00	39.94
47.25	141.72	61.25	84.34	75.25	55.87	89.25	39.72
47.50	140.23	61.50	83.65	75.50	55.51	89.50	39.50
47.75	138.76	61.75	82.98	75.75	55.14	89.75	39.28
48.00	137.32	62.00	82.31	76.00	54.78	90.00	39.06
48.25	135.90	62.25	81.65	76.25	54.42	90.25	38.84
48.50	134.51	62.50	81.00	76.50	54.06	90.50	38.63
48.75	133.13	62.75	80.35	76.75	53.71	90.75	38.42
49.00	131.77	63.00	79.72	77.00	53.36	91.00	38.21
49.25	130.44	63.25	79.09	77.25	53.02	91.25	38.00
49.50	129.13	63.50	78.47	77.50	52.68	91.50	37.79
49.75	127.83	63.75	77.85	77.75	52.34	91.75	37.59
50.00	126.56	64.00	77.24	78.00	52.00	92.00	37.38
50.25	125.30	64.25	76.64	78.25	51.67	92.25	37.18
50.50	124.06	64.50	76.05	78.50	51.34	92.50	36.98
50.75	122.84	64.75	75.47	78.75	51.02	92.75	36.78
51.00	121.64	65.00	74.89	79.00	50.70	93.00	36.58
51.25	120.46	65.25	74.31	79.25	50.38	93.25	36.39
51.50	119.29	65.50	73.75	79.50	50.06	93.50	36.19
51.75	118.14	65.75	73.19	79.75	49.75	93.75	36.00
52.00	117.01	66.00	72.63	80.00	49.44	94.00	35.81
52.25	115.89	66.25	72.09	80.25	49.13	94.25	35.62
52.50	114.79	66.50	71.55	80.50	48.82	94.50	35.43
52.75	113.70	66.75	71.01	80.75	48.52	94.75	35.24
53.00	112.63	67.00	70.48	81.00	48.22	95.00	35.06
53.25	111.58	67.25	69.96	81.25	47.93	95.25	34.87
53.50	110.54	67.50	69.44	81.50	47.63	95.50	34.69
53.75	109.51	67.75	68.93	81.75	47.34	95.75	34.51
54.00	108.50	68.00	68.42	82.00	47.05	96.00	34.33

Table 8 – 40%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 50%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 25.11                      301.3 Inches

BioInitiative ft. 1988.70                      23864.5 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	3391120.11	10.25	3762.74	20.25	964.37	30.25	432.18
0.50	1322271.51	10.50	3585.77	20.50	940.99	30.50	425.13
0.75	648428.76	10.75	3420.99	20.75	918.46	30.75	418.24
1.00	377835.39	11.00	3267.32	21.00	896.72	31.00	411.53
1.25	245817.29	11.25	3123.77	21.25	875.75	31.25	404.97
1.50	172238.38	11.50	2989.47	21.50	855.50	31.50	398.57
1.75	127226.49	11.75	2863.66	21.75	835.95	31.75	392.31
2.00	97749.31	12.00	2745.62	22.00	817.06	32.00	386.21
2.25	77419.61	12.25	2634.73	22.25	798.80	32.25	380.24
2.50	62817.64	12.50	2530.43	22.50	781.15	32.50	374.42
2.75	51981.40	12.75	2432.19	22.75	764.08	32.75	368.72
3.00	43721.04	13.00	2339.57	23.00	747.56	33.00	363.16
3.25	37281.45	13.25	2252.14	23.25	731.57	33.25	357.72
3.50	32164.93	13.50	2169.52	23.50	716.09	33.50	352.40
3.75	28032.72	13.75	2091.37	23.75	701.10	33.75	347.20
4.00	24647.84	14.00	2017.36	24.00	686.57	34.00	342.11
4.25	21840.51	14.25	1947.21	24.25	672.49	34.25	337.13
4.50	19486.53	14.50	1880.66	24.50	658.83	34.50	332.27
4.75	17493.34	14.75	1817.46	24.75	645.59	34.75	327.50
5.00	15790.87	15.00	1757.40	25.00	632.75	35.00	322.84
5.25	14325.22	15.25	1700.26	25.25	620.28	35.25	318.28
5.50	13054.45	15.50	1645.87	25.50	608.18	35.50	313.81
5.75	11945.49	15.75	1594.04	25.75	596.43	35.75	309.44
6.00	10972.01	16.00	1544.63	26.00	585.01	36.00	305.15
6.25	10112.81	16.25	1497.47	26.25	573.92	36.25	300.96
6.50	9350.69	16.50	1452.45	26.50	563.15	36.50	296.85
6.75	8671.56	16.75	1409.42	26.75	552.67	36.75	292.83
7.00	8063.79	17.00	1368.28	27.00	542.48	37.00	288.88
7.25	7517.73	17.25	1328.91	27.25	532.58	37.25	285.02
7.50	7025.30	17.50	1291.22	27.50	522.94	37.50	281.23
7.75	6579.71	17.75	1255.11	27.75	513.56	37.75	277.52
8.00	6175.19	18.00	1220.49	28.00	504.43	38.00	273.88
8.25	5806.85	18.25	1187.29	28.25	495.54	38.25	270.31
8.50	5470.51	18.50	1155.42	28.50	486.89	38.50	266.81
8.75	5162.56	18.75	1124.82	28.75	478.45	38.75	263.38
9.00	4879.89	19.00	1095.41	29.00	470.24	39.00	260.02
9.25	4619.82	19.25	1067.15	29.25	462.24	39.25	256.71
9.50	4379.99	19.50	1039.97	29.50	454.44	39.50	253.47
9.75	4158.36	19.75	1013.81	29.75	446.83	39.75	250.30
10.00	3953.14	20.00	988.62	30.00	439.42	40.00	247.18

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 50%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 25.11

301.28 Inches

BioInitiative ft. 1988.70

23864.46 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	244.12	54.25	134.38	68.25	84.90	82.25	58.46
40.50	241.11	54.50	133.15	68.50	84.29	82.50	58.11
40.75	238.16	54.75	131.94	68.75	83.67	82.75	57.76
41.00	235.27	55.00	130.74	69.00	83.07	83.00	57.41
41.25	232.42	55.25	129.56	69.25	82.47	83.25	57.06
41.50	229.63	55.50	128.40	69.50	81.88	83.50	56.72
41.75	226.89	55.75	127.25	69.75	81.29	83.75	56.39
42.00	224.20	56.00	126.11	70.00	80.71	84.00	56.05
42.25	221.55	56.25	124.99	70.25	80.14	84.25	55.72
42.50	218.95	56.50	123.89	70.50	79.57	84.50	55.39
42.75	216.40	56.75	122.80	70.75	79.01	84.75	55.06
43.00	213.89	57.00	121.73	71.00	78.45	85.00	54.74
43.25	211.43	57.25	120.67	71.25	77.91	85.25	54.42
43.50	209.00	57.50	119.62	71.50	77.36	85.50	54.10
43.75	206.62	57.75	118.59	71.75	76.82	85.75	53.79
44.00	204.28	58.00	117.57	72.00	76.29	86.00	53.47
44.25	201.98	58.25	116.56	72.25	75.76	86.25	53.16
44.50	199.72	58.50	115.56	72.50	75.24	86.50	52.86
44.75	197.49	58.75	114.58	72.75	74.73	86.75	52.55
45.00	195.30	59.00	113.61	73.00	74.21	87.00	52.25
45.25	193.15	59.25	112.66	73.25	73.71	87.25	51.95
45.50	191.03	59.50	111.71	73.50	73.21	87.50	51.66
45.75	188.95	59.75	110.78	73.75	72.71	87.75	51.36
46.00	186.90	60.00	109.86	74.00	72.22	88.00	51.07
46.25	184.89	60.25	108.95	74.25	71.74	88.25	50.78
46.50	182.91	60.50	108.05	74.50	71.26	88.50	50.50
46.75	180.95	60.75	107.16	74.75	70.78	88.75	50.21
47.00	179.03	61.00	106.29	75.00	70.31	89.00	49.93
47.25	177.14	61.25	105.42	75.25	69.84	89.25	49.65
47.50	175.28	61.50	104.56	75.50	69.38	89.50	49.37
47.75	173.45	61.75	103.72	75.75	68.92	89.75	49.10
48.00	171.65	62.00	102.89	76.00	68.47	90.00	48.83
48.25	169.88	62.25	102.06	76.25	68.02	90.25	48.56
48.50	168.13	62.50	101.25	76.50	67.58	90.50	48.29
48.75	166.41	62.75	100.44	76.75	67.14	90.75	48.02
49.00	164.72	63.00	99.64	77.00	66.70	91.00	47.76
49.25	163.05	63.25	98.86	77.25	66.27	91.25	47.50
49.50	161.41	63.50	98.08	77.50	65.85	91.50	47.24
49.75	159.79	63.75	97.31	77.75	65.42	91.75	46.98
50.00	158.20	64.00	96.56	78.00	65.01	92.00	46.73
50.25	156.62	64.25	95.81	78.25	64.59	92.25	46.47
50.50	155.08	64.50	95.06	78.50	64.18	92.50	46.22
50.75	153.55	64.75	94.33	78.75	63.77	92.75	45.97
51.00	152.05	65.00	93.61	79.00	63.37	93.00	45.73
51.25	150.57	65.25	92.89	79.25	62.97	93.25	45.48
51.50	149.11	65.50	92.18	79.50	62.58	93.50	45.24
51.75	147.68	65.75	91.48	79.75	62.18	93.75	45.00
52.00	146.26	66.00	90.79	80.00	61.80	94.00	44.76
52.25	144.86	66.25	90.11	80.25	61.41	94.25	44.52
52.50	143.49	66.50	89.43	80.50	61.03	94.50	44.29
52.75	142.13	66.75	88.76	80.75	60.65	94.75	44.05
53.00	140.79	67.00	88.10	81.00	60.28	95.00	43.82
53.25	139.47	67.25	87.45	81.25	59.91	95.25	43.59
53.50	138.17	67.50	86.80	81.50	59.54	95.50	43.36
53.75	136.89	67.75	86.16	81.75	59.18	95.75	43.14
54.00	135.63	68.00	85.53	82.00	58.82	96.00	42.91

Table 8 – 50%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters 8 Electric Meters**

Time Avg: 60%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 27.50                      330.0 Inches

BioInitiative ft. 2178.52                      26142.2 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	4069344.14	10.25	4515.28	20.25	1157.24	30.25	518.62
0.50	1586725.81	10.50	4302.92	20.50	1129.19	30.50	510.15
0.75	778114.52	10.75	4105.19	20.75	1102.15	30.75	501.89
1.00	453402.47	11.00	3920.78	21.00	1076.06	31.00	493.83
1.25	294980.75	11.25	3748.52	21.25	1050.90	31.25	485.96
1.50	206686.06	11.50	3587.37	21.50	1026.60	31.50	478.28
1.75	152671.79	11.75	3436.39	21.75	1003.14	31.75	470.78
2.00	117299.17	12.00	3294.74	22.00	980.47	32.00	463.45
2.25	92903.53	12.25	3161.68	22.25	958.57	32.25	456.29
2.50	75381.17	12.50	3036.51	22.50	937.38	32.50	449.30
2.75	62377.68	12.75	2918.63	22.75	916.90	32.75	442.47
3.00	52465.25	13.00	2807.49	23.00	897.08	33.00	435.79
3.25	44737.74	13.25	2702.57	23.25	877.89	33.25	429.26
3.50	38597.92	13.50	2603.43	23.50	859.31	33.50	422.88
3.75	33639.26	13.75	2509.64	23.75	841.32	33.75	416.64
4.00	29577.41	14.00	2420.83	24.00	823.88	34.00	410.53
4.25	26208.61	14.25	2336.65	24.25	806.98	34.25	404.56
4.50	23383.83	14.50	2256.79	24.50	790.60	34.50	398.72
4.75	20992.01	14.75	2180.95	24.75	774.71	34.75	393.00
5.00	18949.04	15.00	2108.88	25.00	759.29	35.00	387.41
5.25	17190.26	15.25	2040.31	25.25	744.33	35.25	381.93
5.50	15665.34	15.50	1975.04	25.50	729.81	35.50	376.57
5.75	14334.59	15.75	1912.85	25.75	715.71	35.75	371.33
6.00	13166.41	16.00	1853.55	26.00	702.01	36.00	366.19
6.25	12135.38	16.25	1796.97	26.25	688.71	36.25	361.15
6.50	11220.83	16.50	1742.93	26.50	675.77	36.50	356.22
6.75	10405.87	16.75	1691.30	26.75	663.20	36.75	351.39
7.00	9676.55	17.00	1641.93	27.00	650.98	37.00	346.66
7.25	9021.28	17.25	1594.69	27.25	639.09	37.25	342.02
7.50	8430.36	17.50	1549.46	27.50	627.52	37.50	337.48
7.75	7895.65	17.75	1506.13	27.75	616.27	37.75	333.02
8.00	7410.23	18.00	1464.59	28.00	605.31	38.00	328.66
8.25	6968.22	18.25	1424.74	28.25	594.65	38.25	324.37
8.50	6564.61	18.50	1386.50	28.50	584.26	38.50	320.17
8.75	6195.07	18.75	1349.78	28.75	574.15	38.75	316.06
9.00	5855.87	19.00	1314.50	29.00	564.29	39.00	312.02
9.25	5543.78	19.25	1280.58	29.25	554.69	39.25	308.06
9.50	5255.99	19.50	1247.96	29.50	545.32	39.50	304.17
9.75	4990.04	19.75	1216.57	29.75	536.20	39.75	300.36
10.00	4743.77	20.00	1186.35	30.00	527.30	40.00	296.61

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 60%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 27.50

330.04 Inches

BioInitiative ft. 2178.52

26142.21 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	292.94	54.25	161.26	68.25	101.89	82.25	70.15
40.50	289.33	54.50	159.78	68.50	101.14	82.50	69.73
40.75	285.80	54.75	158.32	68.75	100.41	82.75	69.31
41.00	282.32	55.00	156.89	69.00	99.68	83.00	68.89
41.25	278.91	55.25	155.47	69.25	98.96	83.25	68.48
41.50	275.56	55.50	154.07	69.50	98.25	83.50	68.07
41.75	272.27	55.75	152.70	69.75	97.55	83.75	67.66
42.00	269.04	56.00	151.34	70.00	96.85	84.00	67.26
42.25	265.86	56.25	149.99	70.25	96.17	84.25	66.86
42.50	262.74	56.50	148.67	70.50	95.49	84.50	66.47
42.75	259.68	56.75	147.36	70.75	94.81	84.75	66.08
43.00	256.67	57.00	146.07	71.00	94.15	85.00	65.69
43.25	253.71	57.25	144.80	71.25	93.49	85.25	65.30
43.50	250.80	57.50	143.54	71.50	92.83	85.50	64.92
43.75	247.95	57.75	142.30	71.75	92.19	85.75	64.54
44.00	245.14	58.00	141.08	72.00	91.55	86.00	64.17
44.25	242.37	58.25	139.87	72.25	90.92	86.25	63.80
44.50	239.66	58.50	138.68	72.50	90.29	86.50	63.43
44.75	236.99	58.75	137.50	72.75	89.67	86.75	63.06
45.00	234.36	59.00	136.34	73.00	89.06	87.00	62.70
45.25	231.78	59.25	135.19	73.25	88.45	87.25	62.34
45.50	229.24	59.50	134.05	73.50	87.85	87.50	61.99
45.75	226.74	59.75	132.94	73.75	87.26	87.75	61.63
46.00	224.28	60.00	131.83	74.00	86.67	88.00	61.28
46.25	221.87	60.25	130.74	74.25	86.08	88.25	60.94
46.50	219.49	60.50	129.66	74.50	85.51	88.50	60.59
46.75	217.14	60.75	128.59	74.75	84.94	88.75	60.25
47.00	214.84	61.00	127.54	75.00	84.37	89.00	59.92
47.25	212.57	61.25	126.50	75.25	83.81	89.25	59.58
47.50	210.34	61.50	125.48	75.50	83.26	89.50	59.25
47.75	208.15	61.75	124.46	75.75	82.71	89.75	58.92
48.00	205.98	62.00	123.46	76.00	82.17	90.00	58.59
48.25	203.85	62.25	122.47	76.25	81.63	90.25	58.27
48.50	201.76	62.50	121.49	76.50	81.10	90.50	57.95
48.75	199.69	62.75	120.53	76.75	80.57	90.75	57.63
49.00	197.66	63.00	119.57	77.00	80.05	91.00	57.31
49.25	195.66	63.25	118.63	77.25	79.53	91.25	57.00
49.50	193.69	63.50	117.70	77.50	79.02	91.50	56.69
49.75	191.75	63.75	116.78	77.75	78.51	91.75	56.38
50.00	189.83	64.00	115.87	78.00	78.01	92.00	56.07
50.25	187.95	64.25	114.97	78.25	77.51	92.25	55.77
50.50	186.09	64.50	114.08	78.50	77.02	92.50	55.47
50.75	184.26	64.75	113.20	78.75	76.53	92.75	55.17
51.00	182.46	65.00	112.33	79.00	76.04	93.00	54.87
51.25	180.69	65.25	111.47	79.25	75.56	93.25	54.58
51.50	178.94	65.50	110.62	79.50	75.09	93.50	54.29
51.75	177.21	65.75	109.78	79.75	74.62	93.75	54.00
52.00	175.51	66.00	108.95	80.00	74.15	94.00	53.71
52.25	173.84	66.25	108.13	80.25	73.69	94.25	53.43
52.50	172.19	66.50	107.32	80.50	73.24	94.50	53.14
52.75	170.56	66.75	106.52	80.75	72.78	94.75	52.86
53.00	168.95	67.00	105.72	81.00	72.34	95.00	52.59
53.25	167.37	67.25	104.94	81.25	71.89	95.25	52.31
53.50	165.81	67.50	104.16	81.50	71.45	95.50	52.04
53.75	164.27	67.75	103.39	81.75	71.01	95.75	51.77
54.00	162.75	68.00	102.64	82.00	70.58	96.00	51.50

Table 8 – 60%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

## Meters 8 Electric Meters

Time Avg: 70%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 29.71                      356.5 Inches

BioInitiative ft. 2353.07                      28236.8 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	4747568.16	10.25	5267.83	20.25	1350.11	30.25	605.06
0.50	1851180.11	10.50	5020.07	20.50	1317.39	30.50	595.18
0.75	907800.27	10.75	4789.39	20.75	1285.84	30.75	585.54
1.00	528969.55	11.00	4574.24	21.00	1255.41	31.00	576.14
1.25	344144.20	11.25	4373.27	21.25	1226.05	31.25	566.95
1.50	241133.73	11.50	4185.26	21.50	1197.70	31.50	557.99
1.75	178117.09	11.75	4009.12	21.75	1170.33	31.75	549.24
2.00	136849.03	12.00	3843.87	22.00	1143.88	32.00	540.69
2.25	108387.45	12.25	3688.62	22.25	1118.33	32.25	532.34
2.50	87944.69	12.50	3542.60	22.50	1093.62	32.50	524.18
2.75	72773.96	12.75	3405.07	22.75	1069.71	32.75	516.21
3.00	61209.45	13.00	3275.40	23.00	1046.59	33.00	508.42
3.25	52194.03	13.25	3153.00	23.25	1024.20	33.25	500.80
3.50	45030.90	13.50	3037.33	23.50	1002.53	33.50	493.36
3.75	39245.81	13.75	2927.91	23.75	981.54	33.75	486.08
4.00	34506.98	14.00	2824.30	24.00	961.20	34.00	478.95
4.25	30576.72	14.25	2726.10	24.25	941.48	34.25	471.99
4.50	27281.14	14.50	2632.92	24.50	922.37	34.50	465.17
4.75	24490.68	14.75	2544.45	24.75	903.83	34.75	458.50
5.00	22107.21	15.00	2460.36	25.00	885.84	35.00	451.98
5.25	20055.30	15.25	2380.37	25.25	868.39	35.25	445.59
5.50	18276.23	15.50	2304.21	25.50	851.45	35.50	439.34
5.75	16723.69	15.75	2231.66	25.75	835.00	35.75	433.21
6.00	15360.82	16.00	2162.48	26.00	819.02	36.00	427.22
6.25	14157.94	16.25	2096.46	26.25	803.49	36.25	421.34
6.50	13090.97	16.50	2033.42	26.50	788.40	36.50	415.59
6.75	12140.18	16.75	1973.19	26.75	773.74	36.75	409.96
7.00	11289.30	17.00	1915.59	27.00	759.48	37.00	404.44
7.25	10524.82	17.25	1860.47	27.25	745.61	37.25	399.03
7.50	9835.42	17.50	1807.71	27.50	732.11	37.50	393.72
7.75	9211.59	17.75	1757.15	27.75	718.98	37.75	388.53
8.00	8645.27	18.00	1708.69	28.00	706.20	38.00	383.43
8.25	8129.60	18.25	1662.20	28.25	693.76	38.25	378.44
8.50	7658.71	18.50	1617.59	28.50	681.64	38.50	373.54
8.75	7227.58	18.75	1574.74	28.75	669.84	38.75	368.73
9.00	6831.85	19.00	1533.58	29.00	658.34	39.00	364.02
9.25	6467.75	19.25	1494.01	29.25	647.13	39.25	359.40
9.50	6131.99	19.50	1455.95	29.50	636.21	39.50	354.86
9.75	5821.71	19.75	1419.33	29.75	625.56	39.75	350.41
10.00	5534.39	20.00	1384.07	30.00	615.18	40.00	346.05

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 70%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 29.71

356.48 Inches

BioInitiative ft. 2353.07

28236.81 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	341.76	54.25	188.13	68.25	118.87	82.25	81.85
40.50	337.56	54.50	186.41	68.50	118.00	82.50	81.35
40.75	333.43	54.75	184.71	68.75	117.14	82.75	80.86
41.00	329.37	55.00	183.04	69.00	116.30	83.00	80.37
41.25	325.39	55.25	181.38	69.25	115.46	83.25	79.89
41.50	321.49	55.50	179.75	69.50	114.63	83.50	79.41
41.75	317.65	55.75	178.14	69.75	113.81	83.75	78.94
42.00	313.88	56.00	176.56	70.00	113.00	84.00	78.47
42.25	310.17	56.25	174.99	70.25	112.19	84.25	78.01
42.50	306.53	56.50	173.45	70.50	111.40	84.50	77.54
42.75	302.96	56.75	171.92	70.75	110.61	84.75	77.09
43.00	299.45	57.00	170.42	71.00	109.84	85.00	76.64
43.25	296.00	57.25	168.93	71.25	109.07	85.25	76.19
43.50	292.60	57.50	167.47	71.50	108.31	85.50	75.74
43.75	289.27	57.75	166.02	71.75	107.55	85.75	75.30
44.00	285.99	58.00	164.59	72.00	106.81	86.00	74.86
44.25	282.77	58.25	163.18	72.25	106.07	86.25	74.43
44.50	279.60	58.50	161.79	72.50	105.34	86.50	74.00
44.75	276.49	58.75	160.42	72.75	104.62	86.75	73.57
45.00	273.42	59.00	159.06	73.00	103.90	87.00	73.15
45.25	270.41	59.25	157.72	73.25	103.19	87.25	72.73
45.50	267.45	59.50	156.40	73.50	102.49	87.50	72.32
45.75	264.53	59.75	155.09	73.75	101.80	87.75	71.91
46.00	261.66	60.00	153.80	74.00	101.11	88.00	71.50
46.25	258.84	60.25	152.53	74.25	100.43	88.25	71.09
46.50	256.07	60.50	151.27	74.50	99.76	88.50	70.69
46.75	253.34	60.75	150.03	74.75	99.09	88.75	70.30
47.00	250.65	61.00	148.80	75.00	98.43	89.00	69.90
47.25	248.00	61.25	147.59	75.25	97.78	89.25	69.51
47.50	245.40	61.50	146.39	75.50	97.13	89.50	69.12
47.75	242.84	61.75	145.21	75.75	96.49	89.75	68.74
48.00	240.31	62.00	144.04	76.00	95.86	90.00	68.36
48.25	237.83	62.25	142.88	76.25	95.23	90.25	67.98
48.50	235.38	62.50	141.74	76.50	94.61	90.50	67.60
48.75	232.98	62.75	140.62	76.75	94.00	90.75	67.23
49.00	230.60	63.00	139.50	77.00	93.39	91.00	66.86
49.25	228.27	63.25	138.40	77.25	92.78	91.25	66.50
49.50	225.97	63.50	137.31	77.50	92.19	91.50	66.13
49.75	223.70	63.75	136.24	77.75	91.59	91.75	65.77
50.00	221.47	64.00	135.18	78.00	91.01	92.00	65.42
50.25	219.27	64.25	134.13	78.25	90.43	92.25	65.06
50.50	217.11	64.50	133.09	78.50	89.85	92.50	64.71
50.75	214.98	64.75	132.06	78.75	89.28	92.75	64.36
51.00	212.87	65.00	131.05	79.00	88.72	93.00	64.02
51.25	210.80	65.25	130.05	79.25	88.16	93.25	63.67
51.50	208.76	65.50	129.06	79.50	87.61	93.50	63.33
51.75	206.75	65.75	128.08	79.75	87.06	93.75	63.00
52.00	204.76	66.00	127.11	80.00	86.51	94.00	62.66
52.25	202.81	66.25	126.15	80.25	85.98	94.25	62.33
52.50	200.88	66.50	125.20	80.50	85.44	94.50	62.00
52.75	198.98	66.75	124.27	80.75	84.91	94.75	61.67
53.00	197.11	67.00	123.34	81.00	84.39	95.00	61.35
53.25	195.26	67.25	122.43	81.25	83.87	95.25	61.03
53.50	193.44	67.50	121.52	81.50	83.36	95.50	60.71
53.75	191.65	67.75	120.63	81.75	82.85	95.75	60.39
54.00	189.88	68.00	119.74	82.00	82.35	96.00	60.08

Table 8 – 70%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters 8 Electric Meters**

Time Avg: 80%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 31.76                      381.1 Inches

BioInitiative ft. 2515.53                      30186.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	5425792.18	10.25	6020.38	20.25	1542.99	30.25	691.49
0.50	2115634.41	10.50	5737.23	20.50	1505.59	30.50	680.20
0.75	1037486.02	10.75	5473.58	20.75	1469.53	30.75	669.19
1.00	604536.62	11.00	5227.71	21.00	1434.75	31.00	658.44
1.25	393307.66	11.25	4998.03	21.25	1401.20	31.25	647.95
1.50	275581.41	11.50	4783.16	21.50	1368.80	31.50	637.70
1.75	203562.39	11.75	4581.85	21.75	1337.52	31.75	627.70
2.00	156398.90	12.00	4392.99	22.00	1307.30	32.00	617.93
2.25	123871.37	12.25	4215.57	22.25	1278.09	32.25	608.39
2.50	100508.22	12.50	4048.68	22.50	1249.85	32.50	599.07
2.75	83170.24	12.75	3891.51	22.75	1222.53	32.75	589.96
3.00	69953.66	13.00	3743.32	23.00	1196.10	33.00	581.05
3.25	59650.33	13.25	3603.43	23.25	1170.52	33.25	572.35
3.50	51463.89	13.50	3471.24	23.50	1145.75	33.50	563.84
3.75	44852.35	13.75	3346.19	23.75	1121.76	33.75	555.51
4.00	39436.54	14.00	3227.78	24.00	1098.51	34.00	547.38
4.25	34944.82	14.25	3115.54	24.25	1075.98	34.25	539.41
4.50	31178.44	14.50	3009.06	24.50	1054.13	34.50	531.63
4.75	27989.35	14.75	2907.94	24.75	1032.95	34.75	524.00
5.00	25265.38	15.00	2811.84	25.00	1012.39	35.00	516.55
5.25	22920.35	15.25	2720.42	25.25	992.45	35.25	509.24
5.50	20887.12	15.50	2633.39	25.50	973.08	35.50	502.10
5.75	19112.79	15.75	2550.47	25.75	954.28	35.75	495.10
6.00	17555.22	16.00	2471.40	26.00	936.02	36.00	488.25
6.25	16180.50	16.25	2395.96	26.25	918.28	36.25	481.54
6.50	14961.11	16.50	2323.91	26.50	901.03	36.50	474.96
6.75	13874.49	16.75	2255.07	26.75	884.27	36.75	468.52
7.00	12902.06	17.00	2189.24	27.00	867.97	37.00	462.21
7.25	12028.37	17.25	2126.26	27.25	852.12	37.25	456.03
7.50	11240.48	17.50	2065.95	27.50	836.70	37.50	449.97
7.75	10527.53	17.75	2008.17	27.75	821.69	37.75	444.03
8.00	9880.30	18.00	1952.78	28.00	807.09	38.00	438.21
8.25	9290.97	18.25	1899.66	28.25	792.86	38.25	432.50
8.50	8752.82	18.50	1848.67	28.50	779.02	38.50	426.90
8.75	8260.10	18.75	1799.71	28.75	765.53	38.75	421.41
9.00	7807.83	19.00	1752.66	29.00	752.39	39.00	416.02
9.25	7391.71	19.25	1707.44	29.25	739.58	39.25	410.74
9.50	7007.99	19.50	1663.95	29.50	727.10	39.50	405.56
9.75	6653.38	19.75	1622.09	29.75	714.93	39.75	400.47
10.00	6325.02	20.00	1581.80	30.00	703.07	40.00	395.48

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi i) R^2$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 80%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 31.76

381.09 Inches

BioInitiative ft. 2515.53

30186.42 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	390.59	54.25	215.01	68.25	135.85	82.25	93.54
40.50	385.78	54.50	213.04	68.50	134.86	82.50	92.97
40.75	381.06	54.75	211.10	68.75	133.88	82.75	92.41
41.00	376.43	55.00	209.18	69.00	132.91	83.00	91.85
41.25	371.88	55.25	207.30	69.25	131.95	83.25	91.30
41.50	367.41	55.50	205.43	69.50	131.00	83.50	90.76
41.75	363.02	55.75	203.59	69.75	130.07	83.75	90.22
42.00	358.72	56.00	201.78	70.00	129.14	84.00	89.68
42.25	354.48	56.25	199.99	70.25	128.22	84.25	89.15
42.50	350.33	56.50	198.22	70.50	127.31	84.50	88.62
42.75	346.24	56.75	196.48	70.75	126.42	84.75	88.10
43.00	342.23	57.00	194.76	71.00	125.53	85.00	87.58
43.25	338.28	57.25	193.07	71.25	124.65	85.25	87.07
43.50	334.40	57.50	191.39	71.50	123.78	85.50	86.56
43.75	330.59	57.75	189.74	71.75	122.92	85.75	86.06
44.00	326.85	58.00	188.10	72.00	122.07	86.00	85.56
44.25	323.16	58.25	186.49	72.25	121.22	86.25	85.06
44.50	319.54	58.50	184.90	72.50	120.39	86.50	84.57
44.75	315.98	58.75	183.33	72.75	119.56	86.75	84.09
45.00	312.48	59.00	181.78	73.00	118.74	87.00	83.60
45.25	309.04	59.25	180.25	73.25	117.93	87.25	83.12
45.50	305.65	59.50	178.74	73.50	117.13	87.50	82.65
45.75	302.32	59.75	177.25	73.75	116.34	87.75	82.18
46.00	299.04	60.00	175.77	74.00	115.56	88.00	81.71
46.25	295.82	60.25	174.32	74.25	114.78	88.25	81.25
46.50	292.65	60.50	172.88	74.50	114.01	88.50	80.79
46.75	289.53	60.75	171.46	74.75	113.25	88.75	80.34
47.00	286.45	61.00	170.06	75.00	112.50	89.00	79.89
47.25	283.43	61.25	168.67	75.25	111.75	89.25	79.44
47.50	280.46	61.50	167.30	75.50	111.01	89.50	79.00
47.75	277.53	61.75	165.95	75.75	110.28	89.75	78.56
48.00	274.64	62.00	164.62	76.00	109.55	90.00	78.12
48.25	271.81	62.25	163.30	76.25	108.84	90.25	77.69
48.50	269.01	62.50	161.99	76.50	108.13	90.50	77.26
48.75	266.26	62.75	160.70	76.75	107.42	90.75	76.84
49.00	263.55	63.00	159.43	77.00	106.73	91.00	76.41
49.25	260.88	63.25	158.17	77.25	106.04	91.25	76.00
49.50	258.25	63.50	156.93	77.50	105.35	91.50	75.58
49.75	255.66	63.75	155.70	77.75	104.68	91.75	75.17
50.00	253.11	64.00	154.49	78.00	104.01	92.00	74.76
50.25	250.60	64.25	153.29	78.25	103.34	92.25	74.36
50.50	248.12	64.50	152.10	78.50	102.69	92.50	73.96
50.75	245.69	64.75	150.93	78.75	102.04	92.75	73.56
51.00	243.28	65.00	149.77	79.00	101.39	93.00	73.16
51.25	240.92	65.25	148.63	79.25	100.75	93.25	72.77
51.50	238.58	65.50	147.49	79.50	100.12	93.50	72.38
51.75	236.28	65.75	146.37	79.75	99.49	93.75	72.00
52.00	234.02	66.00	145.27	80.00	98.87	94.00	71.61
52.25	231.78	66.25	144.17	80.25	98.26	94.25	71.24
52.50	229.58	66.50	143.09	80.50	97.65	94.50	70.86
52.75	227.41	66.75	142.02	80.75	97.04	94.75	70.49
53.00	225.27	67.00	140.96	81.00	96.45	95.00	70.12
53.25	223.16	67.25	139.92	81.25	95.85	95.25	69.75
53.50	221.08	67.50	138.88	81.50	95.27	95.50	69.38
53.75	219.03	67.75	137.86	81.75	94.69	95.75	69.02
54.00	217.00	68.00	136.85	82.00	94.11	96.00	68.66

Table 8 – 80%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters 8 Electric Meters**

Time Avg: 90%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 33.68                      404.2 Inches

BioInitiative ft. 2668.13                      32017.5 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	6104016.20	10.25	6772.93	20.25	1735.86	30.25	777.93
0.50	2380088.72	10.50	6454.38	20.50	1693.78	30.50	765.23
0.75	1167171.78	10.75	6157.78	20.75	1653.22	30.75	752.84
1.00	680103.70	11.00	5881.17	21.00	1614.10	31.00	740.75
1.25	442471.12	11.25	5622.78	21.25	1576.35	31.25	728.94
1.50	310029.09	11.50	5381.05	21.50	1539.90	31.50	717.42
1.75	229007.69	11.75	5154.58	21.75	1504.71	31.75	706.16
2.00	175948.76	12.00	4942.11	22.00	1470.71	32.00	695.17
2.25	139355.29	12.25	4742.51	22.25	1437.85	32.25	684.44
2.50	113071.75	12.50	4554.77	22.50	1406.08	32.50	673.95
2.75	93566.52	12.75	4377.95	22.75	1375.35	32.75	663.70
3.00	78697.87	13.00	4211.23	23.00	1345.61	33.00	653.68
3.25	67106.62	13.25	4053.86	23.25	1316.83	33.25	643.89
3.50	57896.87	13.50	3905.14	23.50	1288.97	33.50	634.32
3.75	50458.89	13.75	3764.46	23.75	1261.98	33.75	624.95
4.00	44366.11	14.00	3631.25	24.00	1235.82	34.00	615.80
4.25	39312.92	14.25	3504.98	24.25	1210.48	34.25	606.84
4.50	35075.75	14.50	3385.19	24.50	1185.90	34.50	598.08
4.75	31488.02	14.75	3271.43	24.75	1162.06	34.75	589.50
5.00	28423.56	15.00	3163.31	25.00	1138.94	35.00	581.11
5.25	25785.39	15.25	3060.47	25.25	1116.50	35.25	572.90
5.50	23498.01	15.50	2962.56	25.50	1094.72	35.50	564.86
5.75	21501.89	15.75	2869.27	25.75	1073.57	35.75	556.99
6.00	19749.62	16.00	2780.33	26.00	1053.02	36.00	549.28
6.25	18203.07	16.25	2695.45	26.25	1033.06	36.25	541.73
6.50	16831.24	16.50	2614.40	26.50	1013.66	36.50	534.33
6.75	15608.80	16.75	2536.96	26.75	994.80	36.75	527.09
7.00	14514.82	17.00	2462.90	27.00	976.47	37.00	519.99
7.25	13531.91	17.25	2392.04	27.25	958.64	37.25	513.03
7.50	12645.54	17.50	2324.19	27.50	941.29	37.50	506.22
7.75	11843.47	17.75	2259.19	27.75	924.40	37.75	499.53
8.00	11115.34	18.00	2196.88	28.00	907.97	38.00	492.98
8.25	10452.34	18.25	2137.11	28.25	891.97	38.25	486.56
8.50	9846.92	18.50	2079.75	28.50	876.39	38.50	480.26
8.75	9292.61	18.75	2024.67	28.75	861.22	38.75	474.09
9.00	8783.81	19.00	1971.75	29.00	846.44	39.00	468.03
9.25	8315.68	19.25	1920.87	29.25	832.03	39.25	462.08
9.50	7883.99	19.50	1871.94	29.50	817.99	39.50	456.25
9.75	7485.05	19.75	1824.85	29.75	804.30	39.75	450.53
10.00	7115.65	20.00	1779.52	30.00	790.95	40.00	444.92

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi i) R^2$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 90%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 33.68

404.21 Inches

BioInitiative ft. 2668.13

32017.53 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	439.41	54.25	241.88	68.25	152.83	82.25	105.23
40.50	434.00	54.50	239.67	68.50	151.71	82.50	104.59
40.75	428.69	54.75	237.49	68.75	150.61	82.75	103.96
41.00	423.48	55.00	235.33	69.00	149.52	83.00	103.34
41.25	418.36	55.25	233.21	69.25	148.45	83.25	102.72
41.50	413.34	55.50	231.11	69.50	147.38	83.50	102.10
41.75	408.40	55.75	229.04	69.75	146.33	83.75	101.49
42.00	403.56	56.00	227.00	70.00	145.28	84.00	100.89
42.25	398.79	56.25	224.99	70.25	144.25	84.25	100.29
42.50	394.12	56.50	223.00	70.50	143.23	84.50	99.70
42.75	389.52	56.75	221.04	70.75	142.22	84.75	99.11
43.00	385.00	57.00	219.11	71.00	141.22	85.00	98.53
43.25	380.57	57.25	217.20	71.25	140.23	85.25	97.95
43.50	376.20	57.50	215.31	71.50	139.25	85.50	97.38
43.75	371.92	57.75	213.45	71.75	138.28	85.75	96.81
44.00	367.70	58.00	211.62	72.00	137.32	86.00	96.25
44.25	363.56	58.25	209.80	72.25	136.37	86.25	95.70
44.50	359.49	58.50	208.02	72.50	135.44	86.50	95.14
44.75	355.48	58.75	206.25	72.75	134.51	86.75	94.60
45.00	351.54	59.00	204.50	73.00	133.59	87.00	94.05
45.25	347.67	59.25	202.78	73.25	132.68	87.25	93.51
45.50	343.86	59.50	201.08	73.50	131.78	87.50	92.98
45.75	340.11	59.75	199.40	73.75	130.88	87.75	92.45
46.00	336.42	60.00	197.74	74.00	130.00	88.00	91.93
46.25	332.80	60.25	196.11	74.25	129.13	88.25	91.41
46.50	329.23	60.50	194.49	74.50	128.26	88.50	90.89
46.75	325.72	60.75	192.89	74.75	127.41	88.75	90.38
47.00	322.26	61.00	191.31	75.00	126.56	89.00	89.87
47.25	318.86	61.25	189.76	75.25	125.72	89.25	89.37
47.50	315.51	61.50	188.22	75.50	124.89	89.50	88.87
47.75	312.22	61.75	186.70	75.75	124.06	89.75	88.38
48.00	308.97	62.00	185.19	76.00	123.25	90.00	87.89
48.25	305.78	62.25	183.71	76.25	122.44	90.25	87.40
48.50	302.64	62.50	182.24	76.50	121.64	90.50	86.92
48.75	299.54	62.75	180.79	76.75	120.85	90.75	86.44
49.00	296.49	63.00	179.36	77.00	120.07	91.00	85.97
49.25	293.49	63.25	177.95	77.25	119.29	91.25	85.50
49.50	290.53	63.50	176.55	77.50	118.52	91.50	85.03
49.75	287.62	63.75	175.17	77.75	117.76	91.75	84.57
50.00	284.75	64.00	173.80	78.00	117.01	92.00	84.11
50.25	281.92	64.25	172.45	78.25	116.26	92.25	83.65
50.50	279.14	64.50	171.12	78.50	115.52	92.50	83.20
50.75	276.40	64.75	169.80	78.75	114.79	92.75	82.75
51.00	273.69	65.00	168.49	79.00	114.07	93.00	82.31
51.25	271.03	65.25	167.20	79.25	113.35	93.25	81.87
51.50	268.41	65.50	165.93	79.50	112.64	93.50	81.43
51.75	265.82	65.75	164.67	79.75	111.93	93.75	81.00
52.00	263.27	66.00	163.43	80.00	111.23	94.00	80.57
52.25	260.76	66.25	162.19	80.25	110.54	94.25	80.14
52.50	258.28	66.50	160.98	80.50	109.85	94.50	79.72
52.75	255.84	66.75	159.77	80.75	109.18	94.75	79.30
53.00	253.43	67.00	158.58	81.00	108.50	95.00	78.88
53.25	251.05	67.25	157.41	81.25	107.84	95.25	78.47
53.50	248.71	67.50	156.24	81.50	107.18	95.50	78.06
53.75	246.40	67.75	155.09	81.75	106.52	95.75	77.65
54.00	244.13	68.00	153.95	82.00	105.87	96.00	77.24

Table 8 – 90%

# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters 8 Electric Meters**

Time Avg: 100%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 35.51                      426.1 Inches

BioInitiative ft. 2812.45                      33749.4 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	6782240.23	10.25	7525.47	20.25	1928.73	30.25	864.37
0.50	2644543.02	10.50	7171.53	20.50	1881.98	30.50	850.26
0.75	1296857.53	10.75	6841.98	20.75	1836.91	30.75	836.49
1.00	755670.78	11.00	6534.63	21.00	1793.44	31.00	823.05
1.25	491634.58	11.25	6247.53	21.25	1751.49	31.25	809.94
1.50	344476.76	11.50	5978.95	21.50	1711.00	31.50	797.13
1.75	254452.99	11.75	5727.32	21.75	1671.90	31.75	784.63
2.00	195498.62	12.00	5491.24	22.00	1634.12	32.00	772.42
2.25	154839.22	12.25	5269.46	22.25	1597.61	32.25	760.49
2.50	125635.28	12.50	5060.85	22.50	1562.31	32.50	748.83
2.75	103962.79	12.75	4864.39	22.75	1528.16	32.75	737.44
3.00	87442.08	13.00	4679.14	23.00	1495.13	33.00	726.31
3.25	74562.91	13.25	4504.28	23.25	1463.15	33.25	715.43
3.50	64329.86	13.50	4339.05	23.50	1432.18	33.50	704.80
3.75	56065.44	13.75	4182.73	23.75	1402.19	33.75	694.39
4.00	49295.68	14.00	4034.72	24.00	1373.14	34.00	684.22
4.25	43681.02	14.25	3894.42	24.25	1344.97	34.25	674.27
4.50	38973.06	14.50	3761.32	24.50	1317.67	34.50	664.53
4.75	34986.69	14.75	3634.92	24.75	1291.18	34.75	655.01
5.00	31581.73	15.00	3514.79	25.00	1265.49	35.00	645.68
5.25	28650.43	15.25	3400.52	25.25	1240.56	35.25	636.56
5.50	26108.89	15.50	3291.73	25.50	1216.35	35.50	627.62
5.75	23890.99	15.75	3188.08	25.75	1192.85	35.75	618.88
6.00	21944.02	16.00	3089.25	26.00	1170.02	36.00	610.31
6.25	20225.63	16.25	2994.94	26.25	1147.85	36.25	601.92
6.50	18701.38	16.50	2904.89	26.50	1126.29	36.50	593.70
6.75	17343.11	16.75	2818.84	26.75	1105.34	36.75	585.65
7.00	16127.58	17.00	2736.55	27.00	1084.97	37.00	577.77
7.25	15035.46	17.25	2657.82	27.25	1065.15	37.25	570.04
7.50	14050.60	17.50	2582.44	27.50	1045.87	37.50	562.46
7.75	13159.41	17.75	2510.22	27.75	1027.11	37.75	555.04
8.00	12350.38	18.00	2440.98	28.00	1008.86	38.00	547.76
8.25	11613.71	18.25	2374.57	28.25	991.08	38.25	540.62
8.50	10941.02	18.50	2310.84	28.50	973.77	38.50	533.62
8.75	10325.12	18.75	2249.63	28.75	956.91	38.75	526.76
9.00	9759.79	19.00	2190.83	29.00	940.48	39.00	520.03
9.25	9239.64	19.25	2134.30	29.25	924.48	39.25	513.43
9.50	8759.98	19.50	2079.93	29.50	908.87	39.50	506.95
9.75	8316.73	19.75	2027.62	29.75	893.66	39.75	500.59
10.00	7906.28	20.00	1977.25	30.00	878.83	40.00	494.35

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi i) R^2$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



# Silver Springs OWS-NIC514 Meter Power Density Computer Modeling

(8 Meters – OET Bulletin 65 equation (6) – 2000% reflections)

**Meters** 8 Electric Meters

Time Avg: 100%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 35.51

426.07 Inches

BioInitiative ft. 2812.45

33749.44 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	488.23	54.25	268.76	68.25	169.81	82.25	116.92
40.50	482.22	54.50	266.30	68.50	168.57	82.50	116.21
40.75	476.33	54.75	263.87	68.75	167.35	82.75	115.51
41.00	470.53	55.00	261.48	69.00	166.14	83.00	114.82
41.25	464.85	55.25	259.12	69.25	164.94	83.25	114.13
41.50	459.26	55.50	256.79	69.50	163.76	83.50	113.45
41.75	453.78	55.75	254.49	69.75	162.58	83.75	112.77
42.00	448.40	56.00	252.23	70.00	161.42	84.00	112.10
42.25	443.10	56.25	249.99	70.25	160.28	84.25	111.44
42.50	437.91	56.50	247.78	70.50	159.14	84.50	110.78
42.75	432.80	56.75	245.60	70.75	158.02	84.75	110.13
43.00	427.78	57.00	243.45	71.00	156.91	85.00	109.48
43.25	422.85	57.25	241.33	71.25	155.81	85.25	108.84
43.50	418.01	57.50	239.24	71.50	154.72	85.50	108.20
43.75	413.24	57.75	237.17	71.75	153.65	85.75	107.57
44.00	408.56	58.00	235.13	72.00	152.58	86.00	106.95
44.25	403.96	58.25	233.12	72.25	151.53	86.25	106.33
44.50	399.43	58.50	231.13	72.50	150.48	86.50	105.71
44.75	394.98	58.75	229.17	72.75	149.45	86.75	105.11
45.00	390.60	59.00	227.23	73.00	148.43	87.00	104.50
45.25	386.30	59.25	225.31	73.25	147.42	87.25	103.91
45.50	382.07	59.50	223.42	73.50	146.42	87.50	103.31
45.75	377.90	59.75	221.56	73.75	145.43	87.75	102.72
46.00	373.81	60.00	219.72	74.00	144.45	88.00	102.14
46.25	369.78	60.25	217.90	74.25	143.47	88.25	101.56
46.50	365.81	60.50	216.10	74.50	142.51	88.50	100.99
46.75	361.91	60.75	214.32	74.75	141.56	88.75	100.42
47.00	358.07	61.00	212.57	75.00	140.62	89.00	99.86
47.25	354.29	61.25	210.84	75.25	139.69	89.25	99.30
47.50	350.57	61.50	209.13	75.50	138.76	89.50	98.75
47.75	346.91	61.75	207.44	75.75	137.85	89.75	98.20
48.00	343.30	62.00	205.77	76.00	136.94	90.00	97.65
48.25	339.76	62.25	204.12	76.25	136.05	90.25	97.11
48.50	336.26	62.50	202.49	76.50	135.16	90.50	96.58
48.75	332.82	62.75	200.88	76.75	134.28	90.75	96.05
49.00	329.44	63.00	199.29	77.00	133.41	91.00	95.52
49.25	326.10	63.25	197.72	77.25	132.55	91.25	95.00
49.50	322.81	63.50	196.16	77.50	131.69	91.50	94.48
49.75	319.58	63.75	194.63	77.75	130.85	91.75	93.96
50.00	316.39	64.00	193.11	78.00	130.01	92.00	93.45
50.25	313.25	64.25	191.61	78.25	129.18	92.25	92.95
50.50	310.16	64.50	190.13	78.50	128.36	92.50	92.45
50.75	307.11	64.75	188.66	78.75	127.55	92.75	91.95
51.00	304.10	65.00	187.21	79.00	126.74	93.00	91.45
51.25	301.14	65.25	185.78	79.25	125.94	93.25	90.96
51.50	298.23	65.50	184.37	79.50	125.15	93.50	90.48
51.75	295.35	65.75	182.97	79.75	124.37	93.75	90.00
52.00	292.52	66.00	181.58	80.00	123.59	94.00	89.52
52.25	289.73	66.25	180.22	80.25	122.82	94.25	89.04
52.50	286.98	66.50	178.86	80.50	122.06	94.50	88.57
52.75	284.26	66.75	177.53	80.75	121.31	94.75	88.11
53.00	281.59	67.00	176.20	81.00	120.56	95.00	87.64
53.25	278.95	67.25	174.90	81.25	119.82	95.25	87.18
53.50	276.35	67.50	173.60	81.50	119.08	95.50	86.73
53.75	273.78	67.75	172.32	81.75	118.36	95.75	86.28
54.00	271.25	68.00	171.06	82.00	117.64	96.00	85.83

Table 8 – 100%

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 60% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	1%	60%	1.483	915		11	610	6.3	1.04%
Silver Springs Electric Meter	WLAN	1	1%	60%	0.114	2400		11	1000	0.5	0.05%
		0	1%	60%							
Silver Springs Electric Meter	RFLAN-SSN	0	1%	60%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	1%	60%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	60%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	1%	60%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	60%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	1%	60%	0.114	2400	1	1	1000		
								1			

6.8  
(uW/cm<sup>2</sup>)      1.09%

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	5%	60%	1.483	915		11	610	31.7	5.20%
Silver Springs Electric Meter	WLAN	1	5%	60%	0.114	2400		11	1000	2.4	0.24%
		0	5%	60%							
Silver Springs Electric Meter	RFLAN-SSN	0	5%	60%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	5%	60%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	60%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	5%	60%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	60%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	5%	60%	0.114	2400	1	1	1000		

34.2  
(uW/cm<sup>2</sup>)      5.45%

**Table D-9**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 60% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	10%	60%	1.483	915		11	610	63.4	10.40%
Silver Springs Electric Meter	WLAN	1	10%	60%	0.114	2400		11	1000	4.9	0.49%
		0	10%	60%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	10%	60%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	10%	60%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	60%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	10%	60%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	60%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	10%	60%	0.114	2400	1	1	1000		

68.3  
(uW/cm<sup>2</sup>)      10.89%

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	20%	60%	1.483	915		11	610	126.9	20.81%
Silver Springs Electric Meter	WLAN	1	20%	60%	0.114	2400		11	1000	9.7	0.97%
		0	20%	60%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	20%	60%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	20%	60%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	60%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	20%	60%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	60%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	20%	60%	0.114	2400	1	1	1000		

136.6  
(uW/cm<sup>2</sup>)      21.78%

**Table D-9**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 60% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	30%	60%	1.483	915		11	610	190.3	31.21%
Silver Springs Electric Meter	WLAN	1	30%	60%	0.114	2400		11	1000	14.6	1.46%
		0	30%	60%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	0	30%	60%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	30%	60%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	60%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	30%	60%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	60%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	30%	60%	0.114	2400	1	1	1000		

204.9  
(uW/cm<sup>2</sup>)      32.67%

**Notes:**

- 1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(R)^2)$$

S = Power Density uW/cm<sup>2</sup>

EIRP = 1.64 \* ERP

pi() = 3.1459

R = Distance to device

TA = Time average

%Ref = Percent reflections

- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

**Table D-9**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 100% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	1%	100%	1.483	915		11	610	9.9	1.63%
Silver Springs Electric Meter	WLAN	1	1%	100%	0.114	2400		11	1000	0.8	0.08%
		0	1%	100%							
Silver Springs Electric Meter	RFLAN-SSN	0	1%	100%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	1%	100%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	100%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	1%	100%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	100%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	1%	100%	0.114	2400	1	1	1000		
								1			

10.7  
(uW/cm<sup>2</sup>)      1.70%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	5%	100%	1.483	915		11	610	49.6	8.13%
Silver Springs Electric Meter	WLAN	1	5%	100%	0.114	2400		11	1000	3.8	0.38%
		0	5%	100%							
Silver Springs Electric Meter	RFLAN-SSN	0	5%	100%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	5%	100%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	100%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	5%	100%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	100%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	5%	100%	0.114	2400	1	1	1000		

53.4  
(uW/cm<sup>2</sup>)      8.51%

**Table D-10**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 100% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	10%	100%	1.483	915		11	610	99.1	16.26%
Silver Springs Electric Meter	WLAN	1	10%	100%	0.114	2400		11	1000	7.6	0.76%
		0	10%	100%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	10%	100%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	10%	100%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	100%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	10%	100%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	100%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	10%	100%	0.114	2400	1	1	1000		

106.7  
(uW/cm<sup>2</sup>)      17.02%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	20%	100%	1.483	915		11	610	198.3	32.51%
Silver Springs Electric Meter	WLAN	1	20%	100%	0.114	2400		11	1000	15.2	1.52%
		0	20%	100%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	20%	100%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	20%	100%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	100%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	20%	100%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	100%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	20%	100%	0.114	2400	1	1	1000		

213.5  
(uW/cm<sup>2</sup>)      34.03%

**Table D-10**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 100% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	30%	100%	1.483	915		11	610	297.4	48.77%
Silver Springs Electric Meter	WLAN	1	30%	100%	0.114	2400		11	1000	22.8	2.28%
		0	30%	100%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	0	30%	100%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	30%	100%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	100%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	30%	100%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	100%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	30%	100%	0.114	2400	1	1	1000		

320.2  
(uW/cm<sup>2</sup>)      51.05%

**Notes:**

1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(R)^2)$$

S = Power Density uW/cm<sup>2</sup>

EIRP = 1.64 \* ERP

pi() = 3.1459

R = Distance to device

TA = Time average

%Ref = Percent reflections

2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)

3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)

4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22

August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304

5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009

6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 1000% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	1%	1000%	1.483	915		11	610	299.9	49.18%
Silver Springs Electric Meter	WLAN	1	1%	1000%	0.114	2400		11	1000	23.0	2.30%
		0	1%	1000%							
Silver Springs Electric Meter	RFLAN-SSN	0	1%	1000%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	1%	1000%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	1000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	1%	1000%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	1000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	1%	1000%	0.114	2400	1	1	1000		
								1			

322.9  
(uW/cm<sup>2</sup>)      51.47%

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	5%	1000%	1.483	915		11	610	1499.5	245.88%
Silver Springs Electric Meter	WLAN	1	5%	1000%	0.114	2400		11	1000	114.8	11.48%
		0	5%	1000%							
Silver Springs Electric Meter	RFLAN-SSN	0	5%	1000%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	5%	1000%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	1000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	5%	1000%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	1000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	5%	1000%	0.114	2400	1	1	1000		

1614.3  
(uW/cm<sup>2</sup>)      257.36%

**Table D-11**



## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 1000% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	10%	1000%	1.483	915		11	610	2998.9	491.77%
Silver Springs Electric Meter	WLAN	1	10%	1000%	0.114	2400		11	1000	229.6	22.96%
		0	10%	1000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	10%	1000%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	10%	1000%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	1000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	10%	1000%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	1000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	10%	1000%	0.114	2400	1	1	1000		

3228.5  
(uW/cm<sup>2</sup>)      514.73%

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	20%	1000%	1.483	915		11	610	5997.9	983.54%
Silver Springs Electric Meter	WLAN	1	20%	1000%	0.114	2400		11	1000	459.2	45.92%
		0	20%	1000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	20%	1000%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	20%	1000%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	1000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	20%	1000%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	1000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	20%	1000%	0.114	2400	1	1	1000		

6457.1  
(uW/cm<sup>2</sup>)      1029.46%

**Table D-11**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 1000% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	30%	1000%	1.483	915		11	610	8996.8	1475.30%
Silver Springs Electric Meter	WLAN	1	30%	1000%	0.114	2400		11	1000	688.8	68.88%
		0	30%	1000%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	0	30%	1000%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	30%	1000%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	1000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	30%	1000%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	1000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	30%	1000%	0.114	2400	1	1	1000		

9685.6  
(uW/cm<sup>2</sup>)      1544.18%

**Notes:**

1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(R)^2)$$

S = Power Density uW/cm<sup>2</sup>

EIRP = 1.64 \* ERP

pi() = 3.1459

R = Distance to device

TA = Time average

%Ref = Percent reflections

2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)

3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)

4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304

5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009

6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

**Table D-11**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 2000% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	1%	2000%	1.483	915		11	610	1093.0	179.23%
Silver Springs Electric Meter	WLAN	1	1%	2000%	0.114	2400		11	1000	83.7	8.37%
		0	1%	2000%							
Silver Springs Electric Meter	RFLAN-SSN	0	1%	2000%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	1%	2000%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	2000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	1%	2000%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	2000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	1%	2000%	0.114	2400	1	1	1000		
								1			

1176.7  
(uW/cm<sup>2</sup>)      187.60%

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	5%	2000%	1.483	915		11	610	5465.0	896.16%
Silver Springs Electric Meter	WLAN	1	5%	2000%	0.114	2400		11	1000	418.4	41.84%
		0	5%	2000%							
Silver Springs Electric Meter	RFLAN-SSN	0	5%	2000%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	5%	2000%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	2000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	5%	2000%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	2000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	5%	2000%	0.114	2400	1	1	1000		

5883.4  
(uW/cm<sup>2</sup>)      938.00%

**Table D-12**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 2000% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	10%	2000%	1.483	915		11	610	10930.0	1792.31%
Silver Springs Electric Meter	WLAN	1	10%	2000%	0.114	2400		11	1000	836.8	83.68%
		0	10%	2000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	10%	2000%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	10%	2000%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	2000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	10%	2000%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	2000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	10%	2000%	0.114	2400	1	1	1000		

11766.8  
(uW/cm<sup>2</sup>)      1875.99%

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	20%	2000%	1.483	915		11	610	21860.0	3584.62%
Silver Springs Electric Meter	WLAN	1	20%	2000%	0.114	2400		11	1000	1673.6	167.36%
		0	20%	2000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	20%	2000%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	20%	2000%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	2000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	20%	2000%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	2000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	20%	2000%	0.114	2400	1	1	1000		

23533.6  
(uW/cm<sup>2</sup>)      3751.98%

**Table D-12**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 2000% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	30%	2000%	1.483	915		11	610	32790.0	5376.93%
Silver Springs Electric Meter	WLAN	1	30%	2000%	0.114	2400		11	1000	2510.4	251.04%
		0	30%	2000%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	0	30%	2000%	1.483	915		11	610		
Silver Springs Electric Meter	WLAN	0	30%	2000%	0.114	2400		11	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	2000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	30%	2000%	0.114	2400	1	1	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	2000%	1.483	915	1	1	610		
Silver Springs Electric Meter	WLAN	0	30%	2000%	0.114	2400	1	1	1000		

35300.4  
(uW/cm<sup>2</sup>)      5627.97%

**Notes:**

- 1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$

S = Power Density uW/cm<sup>2</sup>

EIRP = 1.64 \* ERP

pi() = 3.1459

R = Distance to device

TA = Time average

%Ref = Percent reflections

- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 60% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	1%	60%	1.483	915		11	610	6.3	1.04%
Silver Springs Electric Meter	WLAN	1	1%	60%	0.114	2400		11	1000	0.5	0.05%
		0	1%	60%							
Silver Springs Electric Meter	RFLAN-SSN	1	1%	60%	1.483	915		11	610	6.3	1.04%
Silver Springs Electric Meter	WLAN	1	1%	60%	0.114	2400		11	1000	0.5	0.05%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	60%	1.483	915	1	1	610	4.5	0.74%
Silver Springs Electric Meter	WLAN	1	1%	60%	0.114	2400	1	1	1000	0.3	0.03%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	60%	1.483	915	1	1	610	4.5	0.74%
Silver Springs Electric Meter	WLAN	1	1%	60%	0.114	2400	1	1	1000	0.3	0.03%
								1			

23.4  
(uW/cm<sup>2</sup>)      3.74%

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	5%	60%	1.483	915		11	610	31.7	5.20%
Silver Springs Electric Meter	WLAN	1	5%	60%	0.114	2400		11	1000	2.4	0.24%
		0	5%	60%							
Silver Springs Electric Meter	RFLAN-SSN	1	5%	60%	1.483	915		11	610	31.7	5.20%
Silver Springs Electric Meter	WLAN	1	5%	60%	0.114	2400		11	1000	2.4	0.24%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	60%	1.483	915	1	1	610	22.7	3.72%
Silver Springs Electric Meter	WLAN	1	5%	60%	0.114	2400	1	1	1000	1.7	0.17%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	60%	1.483	915	1	1	610	22.7	3.72%
Silver Springs Electric Meter	WLAN	1	5%	60%	0.114	2400	1	1	1000	1.7	0.17%

117.2  
(uW/cm<sup>2</sup>)      18.69%

**Table D-13**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 60% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	10%	60%	1.483	915		11	610	63.4	10.40%
Silver Springs Electric Meter	WLAN	1	10%	60%	0.114	2400		11	1000	4.9	0.49%
		0	10%	60%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	10%	60%	1.483	915		11	610	63.4	10.40%
Silver Springs Electric Meter	WLAN	1	10%	60%	0.114	2400		11	1000	4.9	0.49%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	60%	1.483	915	1	1	610	45.4	7.45%
Silver Springs Electric Meter	WLAN	1	10%	60%	0.114	2400	1	1	1000	3.5	0.35%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	60%	1.483	915	1	1	610	45.4	7.45%
Silver Springs Electric Meter	WLAN	1	10%	60%	0.114	2400	1	1	1000	3.5	0.35%

234.4  
(uW/cm<sup>2</sup>)      37.37%

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	20%	60%	1.483	915		11	610	126.9	20.81%
Silver Springs Electric Meter	WLAN	1	20%	60%	0.114	2400		11	1000	9.7	0.97%
		0	20%	60%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	20%	60%	1.483	915		11	610	126.9	20.81%
Silver Springs Electric Meter	WLAN	1	20%	60%	0.114	2400		11	1000	9.7	0.97%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	60%	1.483	915	1	1	610	90.9	14.90%
Silver Springs Electric Meter	WLAN	1	20%	60%	0.114	2400	1	1	1000	7.0	0.70%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	60%	1.483	915	1	1	610	90.9	14.90%
Silver Springs Electric Meter	WLAN	1	20%	60%	0.114	2400	1	1	1000	7.0	0.70%

468.8  
(uW/cm<sup>2</sup>)      74.75%

**Table D-13**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 60% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	30%	60%	1.483	915		11	610	190.3	31.21%
Silver Springs Electric Meter	WLAN	1	30%	60%	0.114	2400		11	1000	14.6	1.46%
		0	30%	60%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	1	30%	60%	1.483	915		11	610	190.3	31.21%
Silver Springs Electric Meter	WLAN	1	30%	60%	0.114	2400		11	1000	14.6	1.46%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	60%	1.483	915	1	1	610	136.3	22.35%
Silver Springs Electric Meter	WLAN	1	30%	60%	0.114	2400	1	1	1000	10.4	1.04%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	60%	1.483	915	1	1	610	136.3	22.35%
Silver Springs Electric Meter	WLAN	1	30%	60%	0.114	2400	1	1	1000	10.4	1.04%

703.3  
(uW/cm<sup>2</sup>)      112.12%

**Notes:**

- 1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections

$$S = \text{EIRP} * [\text{TA} * (1 + \% \text{Ref})^2] / (4\pi(R)^2)$$

S = Power Density uW/cm<sup>2</sup>

EIRP = 1.64\*ERP

pi() = 3.1459

R = Distance to device

TA = Time average

%Ref = Percent reflections

- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 100% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	1%	100%	1.483	915		11	610	9.9	1.63%
Silver Springs Electric Meter	WLAN	1	1%	100%	0.114	2400		11	1000	0.8	0.08%
		0	1%	100%							
Silver Springs Electric Meter	RFLAN-SSN	1	1%	100%	1.483	915		11	610	9.9	1.63%
Silver Springs Electric Meter	WLAN	1	1%	100%	0.114	2400		11	1000	0.8	0.08%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	100%	1.483	915	1	1	610	7.1	1.16%
Silver Springs Electric Meter	WLAN	1	1%	100%	0.114	2400	1	1	1000	0.5	0.05%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	100%	1.483	915	1	1	610	7.1	1.16%
Silver Springs Electric Meter	WLAN	1	1%	100%	0.114	2400	1	1	1000	0.5	0.05%
								1			

36.6  
(uW/cm<sup>2</sup>)      5.84%

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	5%	100%	1.483	915		11	610	49.6	8.13%
Silver Springs Electric Meter	WLAN	1	5%	100%	0.114	2400		11	1000	3.8	0.38%
		0	5%	100%							
Silver Springs Electric Meter	RFLAN-SSN	1	5%	100%	1.483	915		11	610	49.6	8.13%
Silver Springs Electric Meter	WLAN	1	5%	100%	0.114	2400		11	1000	3.8	0.38%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	100%	1.483	915	1	1	610	35.5	5.82%
Silver Springs Electric Meter	WLAN	1	5%	100%	0.114	2400	1	1	1000	2.7	0.27%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	100%	1.483	915	1	1	610	35.5	5.82%
Silver Springs Electric Meter	WLAN	1	5%	100%	0.114	2400	1	1	1000	2.7	0.27%

183.1  
(uW/cm<sup>2</sup>)      29.20%

**Table D-14**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 100% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	10%	100%	1.483	915		11	610	99.1	16.26%
Silver Springs Electric Meter	WLAN	1	10%	100%	0.114	2400		11	1000	7.6	0.76%
		0	10%	100%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	10%	100%	1.483	915		11	610	99.1	16.26%
Silver Springs Electric Meter	WLAN	1	10%	100%	0.114	2400		11	1000	7.6	0.76%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	100%	1.483	915	1	1	610	71.0	11.64%
Silver Springs Electric Meter	WLAN	1	10%	100%	0.114	2400	1	1	1000	5.4	0.54%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	100%	1.483	915	1	1	610	71.0	11.64%
Silver Springs Electric Meter	WLAN	1	10%	100%	0.114	2400	1	1	1000	5.4	0.54%

366.3  
(uW/cm<sup>2</sup>)      58.40%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	20%	100%	1.483	915		11	610	198.3	32.51%
Silver Springs Electric Meter	WLAN	1	20%	100%	0.114	2400		11	1000	15.2	1.52%
		0	20%	100%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	20%	100%	1.483	915		11	610	198.3	32.51%
Silver Springs Electric Meter	WLAN	1	20%	100%	0.114	2400		11	1000	15.2	1.52%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	100%	1.483	915	1	1	610	142.0	23.28%
Silver Springs Electric Meter	WLAN	1	20%	100%	0.114	2400	1	1	1000	10.9	1.09%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	100%	1.483	915	1	1	610	142.0	23.28%
Silver Springs Electric Meter	WLAN	1	20%	100%	0.114	2400	1	1	1000	10.9	1.09%

732.6  
(uW/cm<sup>2</sup>)      116.79%

**Table D-14**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 100% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	30%	100%	1.483	915		11	610	297.4	48.77%
Silver Springs Electric Meter	WLAN	1	30%	100%	0.114	2400		11	1000	22.8	2.28%
		0	30%	100%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	1	30%	100%	1.483	915		11	610	297.4	48.77%
Silver Springs Electric Meter	WLAN	1	30%	100%	0.114	2400		11	1000	22.8	2.28%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	100%	1.483	915	1	1	610	212.9	34.92%
Silver Springs Electric Meter	WLAN	1	30%	100%	0.114	2400	1	1	1000	16.3	1.63%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	100%	1.483	915	1	1	610	212.9	34.92%
Silver Springs Electric Meter	WLAN	1	30%	100%	0.114	2400	1	1	1000	16.3	1.63%

1098.9  
(uW/cm<sup>2</sup>)      175.19%

**Notes:**

- 1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$

S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64\*ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 1000% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	1%	1000%	1.483	915		11	610	299.9	49.18%
Silver Springs Electric Meter	WLAN	1	1%	1000%	0.114	2400		11	1000	23.0	2.30%
		0	1%	1000%							
Silver Springs Electric Meter	RFLAN-SSN	1	1%	1000%	1.483	915		11	610	299.9	49.18%
Silver Springs Electric Meter	WLAN	1	1%	1000%	0.114	2400		11	1000	23.0	2.30%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	1000%	1.483	915	1	1	610	214.7	35.21%
Silver Springs Electric Meter	WLAN	1	1%	1000%	0.114	2400	1	1	1000	16.4	1.64%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	1000%	1.483	915	1	1	610	214.7	35.21%
Silver Springs Electric Meter	WLAN	1	1%	1000%	0.114	2400	1	1	1000	16.4	1.64%
								1			

1108.0  
(uW/cm<sup>2</sup>)      176.65%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	5%	1000%	1.483	915		11	610	1499.5	245.88%
Silver Springs Electric Meter	WLAN	1	5%	1000%	0.114	2400		11	1000	114.8	11.48%
		0	5%	1000%							
Silver Springs Electric Meter	RFLAN-SSN	1	5%	1000%	1.483	915		11	610	1499.5	245.88%
Silver Springs Electric Meter	WLAN	1	5%	1000%	0.114	2400		11	1000	114.8	11.48%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	1000%	1.483	915	1	1	610	1073.6	176.05%
Silver Springs Electric Meter	WLAN	1	5%	1000%	0.114	2400	1	1	1000	82.2	8.22%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	1000%	1.483	915	1	1	610	1073.6	176.05%
Silver Springs Electric Meter	WLAN	1	5%	1000%	0.114	2400	1	1	1000	82.2	8.22%

5540.1  
(uW/cm<sup>2</sup>)      883.26%

**Table D-15**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 1000% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	10%	1000%	1.483	915		11	610	2998.9	491.77%
Silver Springs Electric Meter	WLAN	1	10%	1000%	0.114	2400		11	1000	229.6	22.96%
		0	10%	1000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	10%	1000%	1.483	915		11	610	2998.9	491.77%
Silver Springs Electric Meter	WLAN	1	10%	1000%	0.114	2400		11	1000	229.6	22.96%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	1000%	1.483	915	1	1	610	2147.2	352.09%
Silver Springs Electric Meter	WLAN	1	10%	1000%	0.114	2400	1	1	1000	164.4	16.44%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	1000%	1.483	915	1	1	610	2147.2	352.09%
Silver Springs Electric Meter	WLAN	1	10%	1000%	0.114	2400	1	1	1000	164.4	16.44%

11080.2  
(uW/cm<sup>2</sup>)      1766.52%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	20%	1000%	1.483	915		11	610	5997.9	983.54%
Silver Springs Electric Meter	WLAN	1	20%	1000%	0.114	2400		11	1000	459.2	45.92%
		0	20%	1000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	20%	1000%	1.483	915		11	610	5997.9	983.54%
Silver Springs Electric Meter	WLAN	1	20%	1000%	0.114	2400		11	1000	459.2	45.92%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	1000%	1.483	915	1	1	610	4294.3	704.19%
Silver Springs Electric Meter	WLAN	1	20%	1000%	0.114	2400	1	1	1000	328.8	32.88%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	1000%	1.483	915	1	1	610	4294.3	704.19%
Silver Springs Electric Meter	WLAN	1	20%	1000%	0.114	2400	1	1	1000	328.8	32.88%

22160.3  
(uW/cm<sup>2</sup>)      3533.04%

**Table D-15**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 1000% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	30%	1000%	1.483	915		11	610	8996.8	1475.30%
Silver Springs Electric Meter	WLAN	1	30%	1000%	0.114	2400		11	1000	688.8	68.88%
		0	30%	1000%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	1	30%	1000%	1.483	915		11	610	8996.8	1475.30%
Silver Springs Electric Meter	WLAN	1	30%	1000%	0.114	2400		11	1000	688.8	68.88%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	1000%	1.483	915	1	1	610	6441.5	1056.28%
Silver Springs Electric Meter	WLAN	1	30%	1000%	0.114	2400	1	1	1000	493.2	49.32%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	1000%	1.483	915	1	1	610	6441.5	1056.28%
Silver Springs Electric Meter	WLAN	1	30%	1000%	0.114	2400	1	1	1000	493.2	49.32%

33240.5  
(uW/cm<sup>2</sup>)      5299.56%

**Notes:**

- 1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$

S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64\*ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 2000% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	1%	2000%	1.483	915		11	610	1093.0	179.23%
Silver Springs Electric Meter	WLAN	1	1%	2000%	0.114	2400		11	1000	83.7	8.37%
		0	1%	2000%							
Silver Springs Electric Meter	RFLAN-SSN	1	1%	2000%	1.483	915		11	610	1093.0	179.23%
Silver Springs Electric Meter	WLAN	1	1%	2000%	0.114	2400		11	1000	83.7	8.37%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	2000%	1.483	915	1	1	610	782.6	128.33%
Silver Springs Electric Meter	WLAN	1	1%	2000%	0.114	2400	1	1	1000	59.9	5.99%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	2000%	1.483	915	1	1	610	782.6	128.33%
Silver Springs Electric Meter	WLAN	1	1%	2000%	0.114	2400	1	1	1000	59.9	5.99%
								1			

4038.3  
(uW/cm<sup>2</sup>)      643.83%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	5%	2000%	1.483	915		11	610	5465.0	896.16%
Silver Springs Electric Meter	WLAN	1	5%	2000%	0.114	2400		11	1000	418.4	41.84%
		0	5%	2000%							
Silver Springs Electric Meter	RFLAN-SSN	1	5%	2000%	1.483	915		11	610	5465.0	896.16%
Silver Springs Electric Meter	WLAN	1	5%	2000%	0.114	2400		11	1000	418.4	41.84%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	2000%	1.483	915	1	1	610	3912.8	641.63%
Silver Springs Electric Meter	WLAN	1	5%	2000%	0.114	2400	1	1	1000	299.6	29.96%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	2000%	1.483	915	1	1	610	3912.8	641.63%
Silver Springs Electric Meter	WLAN	1	5%	2000%	0.114	2400	1	1	1000	299.6	29.96%

20191.5  
(uW/cm<sup>2</sup>)      3219.16%

**Table D-16**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 2000% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	10%	2000%	1.483	915		11	610	10930.0	1792.31%
Silver Springs Electric Meter	WLAN	1	10%	2000%	0.114	2400		11	1000	836.8	83.68%
		0	10%	2000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	10%	2000%	1.483	915		11	610	10930.0	1792.31%
Silver Springs Electric Meter	WLAN	1	10%	2000%	0.114	2400		11	1000	836.8	83.68%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	2000%	1.483	915	1	1	610	7825.6	1283.25%
Silver Springs Electric Meter	WLAN	1	10%	2000%	0.114	2400	1	1	1000	599.1	59.91%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	2000%	1.483	915	1	1	610	7825.6	1283.25%
Silver Springs Electric Meter	WLAN	1	10%	2000%	0.114	2400	1	1	1000	599.1	59.91%

40383.1      6438.31%  
(uW/cm<sup>2</sup>)

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	20%	2000%	1.483	915		11	610	21860.0	3584.62%
Silver Springs Electric Meter	WLAN	1	20%	2000%	0.114	2400		11	1000	1673.6	167.36%
		0	20%	2000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	20%	2000%	1.483	915		11	610	21860.0	3584.62%
Silver Springs Electric Meter	WLAN	1	20%	2000%	0.114	2400		11	1000	1673.6	167.36%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	2000%	1.483	915	1	1	610	15651.2	2566.50%
Silver Springs Electric Meter	WLAN	1	20%	2000%	0.114	2400	1	1	1000	1198.3	119.83%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	2000%	1.483	915	1	1	610	15651.2	2566.50%
Silver Springs Electric Meter	WLAN	1	20%	2000%	0.114	2400	1	1	1000	1198.3	119.83%

80766.1      12876.62%  
(uW/cm<sup>2</sup>)

**Table D-16**



## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 2000% Reflections - 1% to 100% Duty Cycles)

### NURSERY/BEDROOM EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	30%	2000%	1.483	915		11	610	32790.0	5376.93%
Silver Springs Electric Meter	WLAN	1	30%	2000%	0.114	2400		11	1000	2510.4	251.04%
		0	30%	2000%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	1	30%	2000%	1.483	915		11	610	32790.0	5376.93%
Silver Springs Electric Meter	WLAN	1	30%	2000%	0.114	2400		11	1000	2510.4	251.04%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	2000%	1.483	915	1	1	610	23476.8	3849.76%
Silver Springs Electric Meter	WLAN	1	30%	2000%	0.114	2400	1	1	1000	1797.4	179.74%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	2000%	1.483	915	1	1	610	23476.8	3849.76%
Silver Springs Electric Meter	WLAN	1	30%	2000%	0.114	2400	1	1	1000	1797.4	179.74%

121149.2    19314.93%  
(uW/cm<sup>2</sup>)

**Notes:**

- 1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(R)^2)$$

S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64 \* ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 60% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	1%	60%	1.483	915	2	4	610	1.0	0.16%
Silver Springs Electric Meter	WLAN	1	1%	60%	0.114	2400	2	4	1000	0.1	0.01%
		0	1%	60%							
Silver Springs Electric Meter	RFLAN-SSN	0	1%	60%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	1%	60%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	60%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	1%	60%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	60%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	1%	60%	0.114	2400	3	10	1000		
								1			

1.1  
(uW/cm<sup>2</sup>)      0.17%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	5%	60%	1.483	915	2	4	610	4.9	0.80%
Silver Springs Electric Meter	WLAN	1	5%	60%	0.114	2400	2	4	1000	0.4	0.04%
		0	5%	60%							
Silver Springs Electric Meter	RFLAN-SSN	0	5%	60%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	5%	60%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	60%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	5%	60%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	60%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	5%	60%	0.114	2400	3	10	1000		

5.3  
(uW/cm<sup>2</sup>)      0.84%

**Table D-17**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 60% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	10%	60%	1.483	915	2	4	610	9.8	1.61%
Silver Springs Electric Meter	WLAN	1	10%	60%	0.114	2400	2	4	1000	0.7	0.07%
		0	10%	60%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	10%	60%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	10%	60%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	60%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	10%	60%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	60%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	10%	60%	0.114	2400	3	10	1000		

10.5  
(uW/cm<sup>2</sup>)      1.68%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	20%	60%	1.483	915	2	4	610	19.6	3.21%
Silver Springs Electric Meter	WLAN	1	20%	60%	0.114	2400	2	4	1000	1.5	0.15%
		0	20%	60%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	20%	60%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	20%	60%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	60%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	20%	60%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	60%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	20%	60%	0.114	2400	3	10	1000		

21.1  
(uW/cm<sup>2</sup>)      3.36%

**Table D-17**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 60% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	30%	60%	1.483	915	2	4	610	29.4	4.82%
Silver Springs Electric Meter	WLAN	1	30%	60%	0.114	2400	2	4	1000	2.2	0.22%
		0	30%	60%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	0	30%	60%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	30%	60%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	60%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	30%	60%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	60%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	30%	60%	0.114	2400	3	10	1000		

31.6  
(uW/cm<sup>2</sup>)      5.04%

**Notes:**

1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections

$$S = EIRP \cdot [TA \cdot (1 + \%Ref)^2] / (4\pi R^2)$$

S = Power Density uW/cm<sup>2</sup>

EIRP = 1.64 \* ERP

pi() = 3.1459

R = Distance to device

TA = Time average

%Ref = Percent reflections

2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)

3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)

4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304

5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009

6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 100% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	1%	100%	1.483	915	2	4	610	1.5	0.25%
Silver Springs Electric Meter	WLAN	1	1%	100%	0.114	2400	2	4	1000	0.1	0.01%
		0	1%	100%							
Silver Springs Electric Meter	RFLAN-SSN	0	1%	100%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	1%	100%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	100%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	1%	100%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	100%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	1%	100%	0.114	2400	3	10	1000		
								1			

1.6  
(uW/cm<sup>2</sup>)      0.26%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	5%	100%	1.483	915	2	4	610	7.7	1.25%
Silver Springs Electric Meter	WLAN	1	5%	100%	0.114	2400	2	4	1000	0.6	0.06%
		0	5%	100%							
Silver Springs Electric Meter	RFLAN-SSN	0	5%	100%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	5%	100%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	100%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	5%	100%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	100%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	5%	100%	0.114	2400	3	10	1000		

8.2  
(uW/cm<sup>2</sup>)      1.31%

**Table D-18**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 100% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	10%	100%	1.483	915	2	4	610	15.3	2.51%
Silver Springs Electric Meter	WLAN	1	10%	100%	0.114	2400	2	4	1000	1.2	0.12%
		0	10%	100%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	10%	100%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	10%	100%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	100%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	10%	100%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	100%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	10%	100%	0.114	2400	3	10	1000		

16.5  
(uW/cm<sup>2</sup>)      2.63%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	20%	100%	1.483	915	2	4	610	30.6	5.02%
Silver Springs Electric Meter	WLAN	1	20%	100%	0.114	2400	2	4	1000	2.3	0.23%
		0	20%	100%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	20%	100%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	20%	100%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	100%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	20%	100%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	100%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	20%	100%	0.114	2400	3	10	1000		

32.9  
(uW/cm<sup>2</sup>)      5.25%

**Table D-18**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 100% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	30%	100%	1.483	915	2	4	610	45.9	7.53%
Silver Springs Electric Meter	WLAN	1	30%	100%	0.114	2400	2	4	1000	3.5	0.35%
		0	30%	100%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	0	30%	100%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	30%	100%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	100%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	30%	100%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	100%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	30%	100%	0.114	2400	3	10	1000		

49.4  
(uW/cm<sup>2</sup>)      7.88%

**Notes:**

1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi R^2)$$

S = Power Density uW/cm<sup>2</sup>

EIRP = 1.64 \* ERP

pi() = 3.1459

R = Distance to device

TA = Time average

%Ref = Percent reflections

2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)

3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)

4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC514, Model: 340-040304

5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009

6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 1000% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	1%	1000%	1.483	915	2	4	610	46.3	7.59%
Silver Springs Electric Meter	WLAN	1	1%	1000%	0.114	2400	2	4	1000	3.5	0.35%
		0	1%	1000%							
Silver Springs Electric Meter	RFLAN-SSN	0	1%	1000%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	1%	1000%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	1000%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	1%	1000%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	1000%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	1%	1000%	0.114	2400	3	10	1000		
								1			

49.8  
(uW/cm<sup>2</sup>)      7.94%

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	5%	1000%	1.483	915	2	4	610	231.4	37.95%
Silver Springs Electric Meter	WLAN	1	5%	1000%	0.114	2400	2	4	1000	17.7	1.77%
		0	5%	1000%							
Silver Springs Electric Meter	RFLAN-SSN	0	5%	1000%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	5%	1000%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	1000%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	5%	1000%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	1000%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	5%	1000%	0.114	2400	3	10	1000		

249.1  
(uW/cm<sup>2</sup>)      39.72%

**Table D-19**



## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 1000% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	10%	1000%	1.483	915	2	4	610	462.8	75.90%
Silver Springs Electric Meter	WLAN	1	10%	1000%	0.114	2400	2	4	1000	35.4	3.54%
		0	10%	1000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	10%	1000%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	10%	1000%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	1000%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	10%	1000%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	1000%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	10%	1000%	0.114	2400	3	10	1000		

498.3  
(uW/cm<sup>2</sup>)      79.44%

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	20%	1000%	1.483	915	2	4	610	925.7	151.80%
Silver Springs Electric Meter	WLAN	1	20%	1000%	0.114	2400	2	4	1000	70.9	7.09%
		0	20%	1000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	20%	1000%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	20%	1000%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	1000%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	20%	1000%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	1000%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	20%	1000%	0.114	2400	3	10	1000		

996.6  
(uW/cm<sup>2</sup>)      158.88%

**Table D-19**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 1000% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	30%	1000%	1.483	915	2	4	610	1388.5	227.69%
Silver Springs Electric Meter	WLAN	1	30%	1000%	0.114	2400	2	4	1000	106.3	10.63%
		0	30%	1000%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	0	30%	1000%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	30%	1000%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	1000%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	30%	1000%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	1000%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	30%	1000%	0.114	2400	3	10	1000		

1494.8  
(uW/cm<sup>2</sup>)      238.32%

**Notes:**

- 1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(R)^2)$$

S = Power Density uW/cm<sup>2</sup>

EIRP = 1.64 \* ERP

pi() = 3.1459

R = Distance to device

TA = Time average

%Ref = Percent reflections

- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 2000% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	1%	2000%	1.483	915	2	4	610	168.7	27.66%
Silver Springs Electric Meter	WLAN	1	1%	2000%	0.114	2400	2	4	1000	12.9	1.29%
		0	1%	2000%							
Silver Springs Electric Meter	RFLAN-SSN	0	1%	2000%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	1%	2000%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	2000%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	1%	2000%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	1%	2000%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	1%	2000%	0.114	2400	3	10	1000		
								1			

181.6  
(uW/cm<sup>2</sup>)      28.95%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	5%	2000%	1.483	915	2	4	610	843.4	138.31%
Silver Springs Electric Meter	WLAN	1	5%	2000%	0.114	2400	2	4	1000	64.6	6.46%
		0	5%	2000%							
Silver Springs Electric Meter	RFLAN-SSN	0	5%	2000%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	5%	2000%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	2000%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	5%	2000%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	5%	2000%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	5%	2000%	0.114	2400	3	10	1000		

908.0  
(uW/cm<sup>2</sup>)      144.77%

**Table D-20**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 2000% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	10%	2000%	1.483	915	2	4	610	1686.9	276.62%
Silver Springs Electric Meter	WLAN	1	10%	2000%	0.114	2400	2	4	1000	129.1	12.91%
		0	10%	2000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	10%	2000%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	10%	2000%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	2000%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	10%	2000%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	10%	2000%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	10%	2000%	0.114	2400	3	10	1000		

1816.0  
(uW/cm<sup>2</sup>)      289.53%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	20%	2000%	1.483	915	2	4	610	3373.8	553.24%
Silver Springs Electric Meter	WLAN	1	20%	2000%	0.114	2400	2	4	1000	258.3	25.83%
		0	20%	2000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	0	20%	2000%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	20%	2000%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	2000%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	20%	2000%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	20%	2000%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	20%	2000%	0.114	2400	3	10	1000		

3632.1  
(uW/cm<sup>2</sup>)      579.07%

**Table D-20**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(1 Meter - 2000% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	30%	2000%	1.483	915	2	4	610	5060.7	829.86%
Silver Springs Electric Meter	WLAN	1	30%	2000%	0.114	2400	2	4	1000	387.4	38.74%
		0	30%	2000%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	0	30%	2000%	1.483	915	2	10	610		
Silver Springs Electric Meter	WLAN	0	30%	2000%	0.114	2400	2	10	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	2000%	1.483	915	3	4	610		
Silver Springs Electric Meter	WLAN	0	30%	2000%	0.114	2400	3	4	1000		
Silver Springs Electric Meter	RFLAN-SSN	0	30%	2000%	1.483	915	3	10	610		
Silver Springs Electric Meter	WLAN	0	30%	2000%	0.114	2400	3	10	1000		

5448.1  
(uW/cm<sup>2</sup>)      868.60%

**Notes:**

1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi R^2)$$

S = Power Density uW/cm<sup>2</sup>

EIRP = 1.64 \* ERP

pi() = 3.1459

R = Distance to device

TA = Time average

%Ref = Percent reflections

2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)

3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)

4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304

5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009

6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 60% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	1%	60%	1.483	915	2	4	610	1.0	0.16%
Silver Springs Electric Meter	WLAN	1	1%	60%	0.114	2400	2	4	1000	0.1	0.01%
		0	1%	60%							
Silver Springs Electric Meter	RFLAN-SSN	1	1%	60%	1.483	915	2	10	610	0.7	0.11%
Silver Springs Electric Meter	WLAN	1	1%	60%	0.114	2400	2	10	1000	0.1	0.01%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	60%	1.483	915	3	4	610	0.5	0.08%
Silver Springs Electric Meter	WLAN	1	1%	60%	0.114	2400	3	4	1000	0.0	0.00%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	60%	1.483	915	3	10	610	0.4	0.06%
Silver Springs Electric Meter	WLAN	1	1%	60%	0.114	2400	3	10	1000	0.0	0.00%
								1			

2.7  
(uW/cm<sup>2</sup>)      0.43%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	5%	60%	1.483	915	2	4	610	4.9	0.80%
Silver Springs Electric Meter	WLAN	1	5%	60%	0.114	2400	2	4	1000	0.4	0.04%
		0	5%	60%							
Silver Springs Electric Meter	RFLAN-SSN	1	5%	60%	1.483	915	2	10	610	3.3	0.54%
Silver Springs Electric Meter	WLAN	1	5%	60%	0.114	2400	2	10	1000	0.3	0.03%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	60%	1.483	915	3	4	610	2.4	0.39%
Silver Springs Electric Meter	WLAN	1	5%	60%	0.114	2400	3	4	1000	0.2	0.02%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	60%	1.483	915	3	10	610	1.8	0.30%
Silver Springs Electric Meter	WLAN	1	5%	60%	0.114	2400	3	10	1000	0.1	0.01%

13.4  
(uW/cm<sup>2</sup>)      2.13%

**Table D-21**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 60% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	10%	60%	1.483	915	2	4	610	9.8	1.61%
Silver Springs Electric Meter	WLAN	1	10%	60%	0.114	2400	2	4	1000	0.7	0.07%
		0	10%	60%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	10%	60%	1.483	915	2	10	610	6.6	1.09%
Silver Springs Electric Meter	WLAN	1	10%	60%	0.114	2400	2	10	1000	0.5	0.05%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	60%	1.483	915	3	4	610	4.8	0.79%
Silver Springs Electric Meter	WLAN	1	10%	60%	0.114	2400	3	4	1000	0.4	0.04%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	60%	1.483	915	3	10	610	3.6	0.59%
Silver Springs Electric Meter	WLAN	1	10%	60%	0.114	2400	3	10	1000	0.3	0.03%

26.8  
(uW/cm<sup>2</sup>)      4.27%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	20%	60%	1.483	915	2	4	610	19.6	3.21%
Silver Springs Electric Meter	WLAN	1	20%	60%	0.114	2400	2	4	1000	1.5	0.15%
		0	20%	60%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	20%	60%	1.483	915	2	10	610	13.3	2.18%
Silver Springs Electric Meter	WLAN	1	20%	60%	0.114	2400	2	10	1000	1.0	0.10%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	60%	1.483	915	3	4	610	9.6	1.57%
Silver Springs Electric Meter	WLAN	1	20%	60%	0.114	2400	3	4	1000	0.7	0.07%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	60%	1.483	915	3	10	610	7.3	1.19%
Silver Springs Electric Meter	WLAN	1	20%	60%	0.114	2400	3	10	1000	0.6	0.06%

53.5  
(uW/cm<sup>2</sup>)      8.53%

**Table D-21**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 60% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	30%	60%	1.483	915	2	4	610	29.4	4.82%
Silver Springs Electric Meter	WLAN	1	30%	60%	0.114	2400	2	4	1000	2.2	0.22%
		0	30%	60%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	1	30%	60%	1.483	915	2	10	610	19.9	3.27%
Silver Springs Electric Meter	WLAN	1	30%	60%	0.114	2400	2	10	1000	1.5	0.15%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	60%	1.483	915	3	4	610	14.4	2.36%
Silver Springs Electric Meter	WLAN	1	30%	60%	0.114	2400	3	4	1000	1.1	0.11%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	60%	1.483	915	3	10	610	10.9	1.78%
Silver Springs Electric Meter	WLAN	1	30%	60%	0.114	2400	3	10	1000	0.8	0.08%

80.3  
(uW/cm<sup>2</sup>)      12.80%

**Notes:**

- 1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi R^2)$$

S = Power Density uW/cm<sup>2</sup>

EIRP = 1.64 \* ERP

pi() = 3.1459

R = Distance to device

TA = Time average

%Ref = Percent reflections

- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009



## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 100% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	1%	100%	1.483	915	2	4	610	1.5	0.25%
Silver Springs Electric Meter	WLAN	1	1%	100%	0.114	2400	2	4	1000	0.1	0.01%
		0	1%	100%							
Silver Springs Electric Meter	RFLAN-SSN	1	1%	100%	1.483	915	2	10	610	1.0	0.17%
Silver Springs Electric Meter	WLAN	1	1%	100%	0.114	2400	2	10	1000	0.1	0.01%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	100%	1.483	915	3	4	610	0.7	0.12%
Silver Springs Electric Meter	WLAN	1	1%	100%	0.114	2400	3	4	1000	0.1	0.01%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	100%	1.483	915	3	10	610	0.6	0.09%
Silver Springs Electric Meter	WLAN	1	1%	100%	0.114	2400	3	10	1000	0.0	0.00%
								1			

4.2  
(uW/cm<sup>2</sup>)      0.67%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	5%	100%	1.483	915	2	4	610	7.7	1.25%
Silver Springs Electric Meter	WLAN	1	5%	100%	0.114	2400	2	4	1000	0.6	0.06%
		0	5%	100%							
Silver Springs Electric Meter	RFLAN-SSN	1	5%	100%	1.483	915	2	10	610	5.2	0.85%
Silver Springs Electric Meter	WLAN	1	5%	100%	0.114	2400	2	10	1000	0.4	0.04%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	100%	1.483	915	3	4	610	3.7	0.61%
Silver Springs Electric Meter	WLAN	1	5%	100%	0.114	2400	3	4	1000	0.3	0.03%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	100%	1.483	915	3	10	610	2.8	0.46%
Silver Springs Electric Meter	WLAN	1	5%	100%	0.114	2400	3	10	1000	0.2	0.02%

20.9  
(uW/cm<sup>2</sup>)      3.33%

**Table D-22**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 100% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	( $\mu\text{W}/\text{cm}^2$ )	( $\mu\text{W}/\text{cm}^2$ )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	10%	100%	1.483	915	2	4	610	15.3	2.51%
Silver Springs Electric Meter	WLAN	1	10%	100%	0.114	2400	2	4	1000	1.2	0.12%
		0	10%	100%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	10%	100%	1.483	915	2	10	610	10.4	1.70%
Silver Springs Electric Meter	WLAN	1	10%	100%	0.114	2400	2	10	1000	0.8	0.08%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	100%	1.483	915	3	4	610	7.5	1.23%
Silver Springs Electric Meter	WLAN	1	10%	100%	0.114	2400	3	4	1000	0.6	0.06%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	100%	1.483	915	3	10	610	5.7	0.93%
Silver Springs Electric Meter	WLAN	1	10%	100%	0.114	2400	3	10	1000	0.4	0.04%

41.8  
( $\mu\text{W}/\text{cm}^2$ )      6.67%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	( $\mu\text{W}/\text{cm}^2$ )	( $\mu\text{W}/\text{cm}^2$ )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	20%	100%	1.483	915	2	4	610	30.6	5.02%
Silver Springs Electric Meter	WLAN	1	20%	100%	0.114	2400	2	4	1000	2.3	0.23%
		0	20%	100%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	20%	100%	1.483	915	2	10	610	20.8	3.40%
Silver Springs Electric Meter	WLAN	1	20%	100%	0.114	2400	2	10	1000	1.6	0.16%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	100%	1.483	915	3	4	610	15.0	2.46%
Silver Springs Electric Meter	WLAN	1	20%	100%	0.114	2400	3	4	1000	1.1	0.11%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	100%	1.483	915	3	10	610	11.3	1.86%
Silver Springs Electric Meter	WLAN	1	20%	100%	0.114	2400	3	10	1000	0.9	0.09%

83.6  
( $\mu\text{W}/\text{cm}^2$ )      13.33%

**Table D-22**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 100% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	30%	100%	1.483	915	2	4	610	45.9	7.53%
Silver Springs Electric Meter	WLAN	1	30%	100%	0.114	2400	2	4	1000	3.5	0.35%
		0	30%	100%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	1	30%	100%	1.483	915	2	10	610	31.1	5.10%
Silver Springs Electric Meter	WLAN	1	30%	100%	0.114	2400	2	10	1000	2.4	0.24%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	100%	1.483	915	3	4	610	22.5	3.69%
Silver Springs Electric Meter	WLAN	1	30%	100%	0.114	2400	3	4	1000	1.7	0.17%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	100%	1.483	915	3	10	610	17.0	2.79%
Silver Springs Electric Meter	WLAN	1	30%	100%	0.114	2400	3	10	1000	1.3	0.13%

125.5  
(uW/cm<sup>2</sup>)      20.00%

**Notes:**

- 1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(R)^2)$$

S = Power Density uW/cm<sup>2</sup>

EIRP = 1.64 \* ERP

pi() = 3.1459

R = Distance to device

TA = Time average

%Ref = Percent reflections

- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 1000% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	1%	1000%	1.483	915	2	4	610	46.3	7.59%
Silver Springs Electric Meter	WLAN	1	1%	1000%	0.114	2400	2	4	1000	3.5	0.35%
		0	1%	1000%							
Silver Springs Electric Meter	RFLAN-SSN	1	1%	1000%	1.483	915	2	10	610	31.4	5.15%
Silver Springs Electric Meter	WLAN	1	1%	1000%	0.114	2400	2	10	1000	2.4	0.24%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	1000%	1.483	915	3	4	610	22.7	3.72%
Silver Springs Electric Meter	WLAN	1	1%	1000%	0.114	2400	3	4	1000	1.7	0.17%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	1000%	1.483	915	3	10	610	17.1	2.81%
Silver Springs Electric Meter	WLAN	1	1%	1000%	0.114	2400	3	10	1000	1.3	0.13%
								1			

126.5  
(uW/cm<sup>2</sup>)      20.17%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	5%	1000%	1.483	915	2	4	610	231.4	37.95%
Silver Springs Electric Meter	WLAN	1	5%	1000%	0.114	2400	2	4	1000	17.7	1.77%
		0	5%	1000%							
Silver Springs Electric Meter	RFLAN-SSN	1	5%	1000%	1.483	915	2	10	610	157.0	25.74%
Silver Springs Electric Meter	WLAN	1	5%	1000%	0.114	2400	2	10	1000	12.0	1.20%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	1000%	1.483	915	3	4	610	113.4	18.59%
Silver Springs Electric Meter	WLAN	1	5%	1000%	0.114	2400	3	4	1000	8.7	0.87%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	1000%	1.483	915	3	10	610	85.7	14.06%
Silver Springs Electric Meter	WLAN	1	5%	1000%	0.114	2400	3	10	1000	6.6	0.66%

632.5  
(uW/cm<sup>2</sup>)      100.84%

**Table D-23**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 1000% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	10%	1000%	1.483	915	2	4	610	462.8	75.90%
Silver Springs Electric Meter	WLAN	1	10%	1000%	0.114	2400	2	4	1000	35.4	3.54%
		0	10%	1000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	10%	1000%	1.483	915	2	10	610	313.9	51.47%
Silver Springs Electric Meter	WLAN	1	10%	1000%	0.114	2400	2	10	1000	24.0	2.40%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	1000%	1.483	915	3	4	610	226.8	37.19%
Silver Springs Electric Meter	WLAN	1	10%	1000%	0.114	2400	3	4	1000	17.4	1.74%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	1000%	1.483	915	3	10	610	171.5	28.12%
Silver Springs Electric Meter	WLAN	1	10%	1000%	0.114	2400	3	10	1000	13.1	1.31%

1265.0  
(uW/cm<sup>2</sup>)      201.68%

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	20%	1000%	1.483	915	2	4	610	925.7	151.80%
Silver Springs Electric Meter	WLAN	1	20%	1000%	0.114	2400	2	4	1000	70.9	7.09%
		0	20%	1000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	20%	1000%	1.483	915	2	10	610	627.8	102.95%
Silver Springs Electric Meter	WLAN	1	20%	1000%	0.114	2400	2	10	1000	48.1	4.81%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	1000%	1.483	915	3	4	610	453.6	74.38%
Silver Springs Electric Meter	WLAN	1	20%	1000%	0.114	2400	3	4	1000	34.7	3.47%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	1000%	1.483	915	3	10	610	343.0	56.24%
Silver Springs Electric Meter	WLAN	1	20%	1000%	0.114	2400	3	10	1000	26.3	2.63%

2530.0  
(uW/cm<sup>2</sup>)      403.36%

**Table D-23**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 1000% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	30%	1000%	1.483	915	2	4	610	1388.5	227.69%
Silver Springs Electric Meter	WLAN	1	30%	1000%	0.114	2400	2	4	1000	106.3	10.63%
		0	30%	1000%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	1	30%	1000%	1.483	915	2	10	610	941.7	154.42%
Silver Springs Electric Meter	WLAN	1	30%	1000%	0.114	2400	2	10	1000	72.1	7.21%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	1000%	1.483	915	3	4	610	680.4	111.57%
Silver Springs Electric Meter	WLAN	1	30%	1000%	0.114	2400	3	4	1000	52.1	5.21%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	1000%	1.483	915	3	10	610	514.5	84.36%
Silver Springs Electric Meter	WLAN	1	30%	1000%	0.114	2400	3	10	1000	39.4	3.94%

3795.0  
(uW/cm<sup>2</sup>)      605.04%

**Notes:**

- 1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(\text{R})^2)$$

S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64\*ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 2000% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	1%	2000%	1.483	915	2	4	610	168.7	27.66%
Silver Springs Electric Meter	WLAN	1	1%	2000%	0.114	2400	2	4	1000	12.9	1.29%
		0	1%	2000%							
Silver Springs Electric Meter	RFLAN-SSN	1	1%	2000%	1.483	915	2	10	610	114.4	18.76%
Silver Springs Electric Meter	WLAN	1	1%	2000%	0.114	2400	2	10	1000	8.8	0.88%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	2000%	1.483	915	3	4	610	82.7	13.55%
Silver Springs Electric Meter	WLAN	1	1%	2000%	0.114	2400	3	4	1000	6.3	0.63%
Silver Springs Electric Meter	RFLAN-SSN	1	1%	2000%	1.483	915	3	10	610	62.5	10.25%
Silver Springs Electric Meter	WLAN	1	1%	2000%	0.114	2400	3	10	1000	4.8	0.48%
								1			

461.0  
(uW/cm<sup>2</sup>)      73.50%

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	5%	2000%	1.483	915	2	4	610	843.4	138.31%
Silver Springs Electric Meter	WLAN	1	5%	2000%	0.114	2400	2	4	1000	64.6	6.46%
		0	5%	2000%							
Silver Springs Electric Meter	RFLAN-SSN	1	5%	2000%	1.483	915	2	10	610	572.0	93.80%
Silver Springs Electric Meter	WLAN	1	5%	2000%	0.114	2400	2	10	1000	43.8	4.38%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	2000%	1.483	915	3	4	610	413.3	67.77%
Silver Springs Electric Meter	WLAN	1	5%	2000%	0.114	2400	3	4	1000	31.6	3.16%
Silver Springs Electric Meter	RFLAN-SSN	1	5%	2000%	1.483	915	3	10	610	312.5	51.25%
Silver Springs Electric Meter	WLAN	1	5%	2000%	0.114	2400	3	10	1000	23.9	2.39%

2305.2  
(uW/cm<sup>2</sup>)      367.52%

**Table D-24**

## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 2000% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	10%	2000%	1.483	915	2	4	610	1686.9	276.62%
Silver Springs Electric Meter	WLAN	1	10%	2000%	0.114	2400	2	4	1000	129.1	12.91%
		0	10%	2000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	10%	2000%	1.483	915	2	10	610	1144.1	187.60%
Silver Springs Electric Meter	WLAN	1	10%	2000%	0.114	2400	2	10	1000	87.6	8.76%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	2000%	1.483	915	3	4	610	826.6	135.54%
Silver Springs Electric Meter	WLAN	1	10%	2000%	0.114	2400	3	4	1000	63.3	6.33%
Silver Springs Electric Meter	RFLAN-SSN	1	10%	2000%	1.483	915	3	10	610	625.0	102.49%
Silver Springs Electric Meter	WLAN	1	10%	2000%	0.114	2400	3	10	1000	47.9	4.79%

4610.4  
(uW/cm<sup>2</sup>)      735.04%

Item Description	Device	units	Time Avg.	% Reflections	ERP (watts)	Freq. (MHz)	Distance		FCC Limit (uW/cm <sup>2</sup> )	Power Density (uW/cm <sup>2</sup> )	Percent of FCC Limit
							Feet	Inches			
Silver Springs Electric Meter	RFLAN-SSN	1	20%	2000%	1.483	915	2	4	610	3373.8	553.24%
Silver Springs Electric Meter	WLAN	1	20%	2000%	0.114	2400	2	4	1000	258.3	25.83%
		0	20%	2000%	0.114						
Silver Springs Electric Meter	RFLAN-SSN	1	20%	2000%	1.483	915	2	10	610	2288.1	375.21%
Silver Springs Electric Meter	WLAN	1	20%	2000%	0.114	2400	2	10	1000	175.2	17.52%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	2000%	1.483	915	3	4	610	1653.2	271.09%
Silver Springs Electric Meter	WLAN	1	20%	2000%	0.114	2400	3	4	1000	126.6	12.66%
Silver Springs Electric Meter	RFLAN-SSN	1	20%	2000%	1.483	915	3	10	610	1250.0	204.98%
Silver Springs Electric Meter	WLAN	1	20%	2000%	0.114	2400	3	10	1000	95.7	9.57%

9220.8  
(uW/cm<sup>2</sup>)      1470.09%

**Table D-24**



## Silver Springs OWS-NIC514 Smart Meter Computer Modeling

(4 Meters - 2000% Reflections - 1% to 100% Duty Cycles)

### KITCHEN EXAMPLE

Item Description	Device	units	Time Avg.	% Reflections	ERP	Freq.	Distance		FCC Limit	Power Density	Percent of
					(watts)	(MHz)	Feet	Inches	(uW/cm <sup>2</sup> )	(uW/cm <sup>2</sup> )	FCC Limit
Silver Springs Electric Meter	RFLAN-SSN	1	30%	2000%	1.483	915	2	4	610	5060.7	829.86%
Silver Springs Electric Meter	WLAN	1	30%	2000%	0.114	2400	2	4	1000	387.4	38.74%
		0	30%	2000%	1.483						
Silver Springs Electric Meter	RFLAN-SSN	1	30%	2000%	1.483	915	2	10	610	3432.2	562.81%
Silver Springs Electric Meter	WLAN	1	30%	2000%	0.114	2400	2	10	1000	262.8	26.28%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	2000%	1.483	915	3	4	610	2479.7	406.63%
Silver Springs Electric Meter	WLAN	1	30%	2000%	0.114	2400	3	4	1000	189.8	18.98%
Silver Springs Electric Meter	RFLAN-SSN	1	30%	2000%	1.483	915	3	10	610	1875.0	307.47%
Silver Springs Electric Meter	WLAN	1	30%	2000%	0.114	2400	3	10	1000	143.6	14.36%

13831.3  
(uW/cm<sup>2</sup>)      2205.13%

**Notes:**

- 1) Formula is a modification of OET Bulletin 65 equation (3) to include the effects of time averaged output and percent reflections

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(R)^2)$$

S = Power Density uW/cm<sup>2</sup>

EIRP = 1.64 \* ERP

pi() = 3.1459

R = Distance to device

TA = Time average

%Ref = Percent reflections

- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Meter ERP RFLAN = 1.483 W, ZigBee = 0.114 W per Silver Springs Networks Report No. 09PRO009, Dated 22 August 2009 - FCC ID: OWS-NIC5514, Model: 340-040304
- 5) TPO=0.968 watts at 915 MHz, TPO=0.148 watts at 2405 MHz per Silver Springs Network Report: 09PRO009
- 6) Antenna Gain 4.0 dBi at 915 MHz, 1.0 dBi at 2405 MHz per Silver Springs Networks Report: 09PRO009