

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 1%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 0.54 6.5 Inches

BioInitiative ft. 40.70 488.4 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	2662.08	10.25	1.58	20.25	0.41	30.25	0.18
0.50	665.52	10.50	1.51	20.50	0.40	30.50	0.18
0.75	295.79	10.75	1.44	20.75	0.39	30.75	0.18
1.00	166.38	11.00	1.38	21.00	0.38	31.00	0.17
1.25	106.48	11.25	1.31	21.25	0.37	31.25	0.17
1.50	73.95	11.50	1.26	21.50	0.36	31.50	0.17
1.75	54.33	11.75	1.21	21.75	0.35	31.75	0.17
2.00	41.60	12.00	1.16	22.00	0.34	32.00	0.16
2.25	32.87	12.25	1.11	22.25	0.34	32.25	0.16
2.50	26.62	12.50	1.06	22.50	0.33	32.50	0.16
2.75	22.00	12.75	1.02	22.75	0.32	32.75	0.16
3.00	18.49	13.00	0.98	23.00	0.31	33.00	0.15
3.25	15.75	13.25	0.95	23.25	0.31	33.25	0.15
3.50	13.58	13.50	0.91	23.50	0.30	33.50	0.15
3.75	11.83	13.75	0.88	23.75	0.29	33.75	0.15
4.00	10.40	14.00	0.85	24.00	0.29	34.00	0.14
4.25	9.21	14.25	0.82	24.25	0.28	34.25	0.14
4.50	8.22	14.50	0.79	24.50	0.28	34.50	0.14
4.75	7.37	14.75	0.76	24.75	0.27	34.75	0.14
5.00	6.66	15.00	0.74	25.00	0.27	35.00	0.14
5.25	6.04	15.25	0.72	25.25	0.26	35.25	0.13
5.50	5.50	15.50	0.69	25.50	0.26	35.50	0.13
5.75	5.03	15.75	0.67	25.75	0.25	35.75	0.13
6.00	4.62	16.00	0.65	26.00	0.25	36.00	0.13
6.25	4.26	16.25	0.63	26.25	0.24	36.25	0.13
6.50	3.94	16.50	0.61	26.50	0.24	36.50	0.12
6.75	3.65	16.75	0.59	26.75	0.23	36.75	0.12
7.00	3.40	17.00	0.58	27.00	0.23	37.00	0.12
7.25	3.17	17.25	0.56	27.25	0.22	37.25	0.12
7.50	2.96	17.50	0.54	27.50	0.22	37.50	0.12
7.75	2.77	17.75	0.53	27.75	0.22	37.75	0.12
8.00	2.60	18.00	0.51	28.00	0.21	38.00	0.12
8.25	2.44	18.25	0.50	28.25	0.21	38.25	0.11
8.50	2.30	18.50	0.49	28.50	0.20	38.50	0.11
8.75	2.17	18.75	0.47	28.75	0.20	38.75	0.11
9.00	2.05	19.00	0.46	29.00	0.20	39.00	0.11
9.25	1.94	19.25	0.45	29.25	0.19	39.25	0.11
9.50	1.84	19.50	0.44	29.50	0.19	39.50	0.11
9.75	1.75	19.75	0.43	29.75	0.19	39.75	0.11
10.00	1.66	20.00	0.42	30.00	0.18	40.00	0.10

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)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 1%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 0.54

6.45 Inches

BioInitiative ft. 40.70

488.40 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	0.10	54.25	0.06	68.25	0.04	82.25	0.02
40.50	0.10	54.50	0.06	68.50	0.04	82.50	0.02
40.75	0.10	54.75	0.06	68.75	0.04	82.75	0.02
41.00	0.10	55.00	0.06	69.00	0.03	83.00	0.02
41.25	0.10	55.25	0.05	69.25	0.03	83.25	0.02
41.50	0.10	55.50	0.05	69.50	0.03	83.50	0.02
41.75	0.10	55.75	0.05	69.75	0.03	83.75	0.02
42.00	0.09	56.00	0.05	70.00	0.03	84.00	0.02
42.25	0.09	56.25	0.05	70.25	0.03	84.25	0.02
42.50	0.09	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	0.08	58.25	0.05	72.25	0.03	86.25	0.02
44.50	0.08	58.50	0.05	72.50	0.03	86.50	0.02
44.75	0.08	58.75	0.05	72.75	0.03	86.75	0.02
45.00	0.08	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	0.04	75.00	0.03	89.00	0.02
47.25	0.07	61.25	0.04	75.25	0.03	89.25	0.02
47.50	0.07	61.50	0.04	75.50	0.03	89.50	0.02
47.75	0.07	61.75	0.04	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	0.06	64.75	0.04	78.75	0.03	92.75	0.02
51.00	0.06	65.00	0.04	79.00	0.03	93.00	0.02
51.25	0.06	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	0.02	95.75	0.02
54.00	0.06	68.00	0.04	82.00	0.02	96.00	0.02

Table 11 – 1%

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 10%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 1.70 20.4 Inches

BioInitiative ft. 129.00 1548.0 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	26620.83	10.25	15.84	20.25	4.06	30.25	1.82
0.50	6655.21	10.50	15.09	20.50	3.96	30.50	1.79
0.75	2957.87	10.75	14.40	20.75	3.86	30.75	1.76
1.00	1663.80	11.00	13.75	21.00	3.77	31.00	1.73
1.25	1064.83	11.25	13.15	21.25	3.68	31.25	1.70
1.50	739.47	11.50	12.58	21.50	3.60	31.50	1.68
1.75	543.28	11.75	12.05	21.75	3.52	31.75	1.65
2.00	415.95	12.00	11.55	22.00	3.44	32.00	1.62
2.25	328.65	12.25	11.09	22.25	3.36	32.25	1.60
2.50	266.21	12.50	10.65	22.50	3.29	32.50	1.58
2.75	220.01	12.75	10.23	22.75	3.21	32.75	1.55
3.00	184.87	13.00	9.84	23.00	3.15	33.00	1.53
3.25	157.52	13.25	9.48	23.25	3.08	33.25	1.50
3.50	135.82	13.50	9.13	23.50	3.01	33.50	1.48
3.75	118.31	13.75	8.80	23.75	2.95	33.75	1.46
4.00	103.99	14.00	8.49	24.00	2.89	34.00	1.44
4.25	92.11	14.25	8.19	24.25	2.83	34.25	1.42
4.50	82.16	14.50	7.91	24.50	2.77	34.50	1.40
4.75	73.74	14.75	7.65	24.75	2.72	34.75	1.38
5.00	66.55	15.00	7.39	25.00	2.66	35.00	1.36
5.25	60.36	15.25	7.15	25.25	2.61	35.25	1.34
5.50	55.00	15.50	6.93	25.50	2.56	35.50	1.32
5.75	50.32	15.75	6.71	25.75	2.51	35.75	1.30
6.00	46.22	16.00	6.50	26.00	2.46	36.00	1.28
6.25	42.59	16.25	6.30	26.25	2.41	36.25	1.27
6.50	39.38	16.50	6.11	26.50	2.37	36.50	1.25
6.75	36.52	16.75	5.93	26.75	2.33	36.75	1.23
7.00	33.96	17.00	5.76	27.00	2.28	37.00	1.22
7.25	31.65	17.25	5.59	27.25	2.24	37.25	1.20
7.50	29.58	17.50	5.43	27.50	2.20	37.50	1.18
7.75	27.70	17.75	5.28	27.75	2.16	37.75	1.17
8.00	26.00	18.00	5.14	28.00	2.12	38.00	1.15
8.25	24.45	18.25	5.00	28.25	2.08	38.25	1.14
8.50	23.03	18.50	4.86	28.50	2.05	38.50	1.12
8.75	21.73	18.75	4.73	28.75	2.01	38.75	1.11
9.00	20.54	19.00	4.61	29.00	1.98	39.00	1.09
9.25	19.45	19.25	4.49	29.25	1.94	39.25	1.08
9.50	18.44	19.50	4.38	29.50	1.91	39.50	1.07
9.75	17.50	19.75	4.27	29.75	1.88	39.75	1.05
10.00	16.64	20.00	4.16	30.00	1.85	40.00	1.04

Notes:

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

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - 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)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
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# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 10%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 1.70

20.40 Inches

BioInitiative ft. 129.00

1548.00 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	1.03	54.25	0.57	68.25	0.36	82.25	0.25
40.50	1.01	54.50	0.56	68.50	0.35	82.50	0.24
40.75	1.00	54.75	0.56	68.75	0.35	82.75	0.24
41.00	0.99	55.00	0.55	69.00	0.35	83.00	0.24
41.25	0.98	55.25	0.55	69.25	0.35	83.25	0.24
41.50	0.97	55.50	0.54	69.50	0.34	83.50	0.24
41.75	0.95	55.75	0.54	69.75	0.34	83.75	0.24
42.00	0.94	56.00	0.53	70.00	0.34	84.00	0.24
42.25	0.93	56.25	0.53	70.25	0.34	84.25	0.23
42.50	0.92	56.50	0.52	70.50	0.33	84.50	0.23
42.75	0.91	56.75	0.52	70.75	0.33	84.75	0.23
43.00	0.90	57.00	0.51	71.00	0.33	85.00	0.23
43.25	0.89	57.25	0.51	71.25	0.33	85.25	0.23
43.50	0.88	57.50	0.50	71.50	0.33	85.50	0.23
43.75	0.87	57.75	0.50	71.75	0.32	85.75	0.23
44.00	0.86	58.00	0.49	72.00	0.32	86.00	0.22
44.25	0.85	58.25	0.49	72.25	0.32	86.25	0.22
44.50	0.84	58.50	0.49	72.50	0.32	86.50	0.22
44.75	0.83	58.75	0.48	72.75	0.31	86.75	0.22
45.00	0.82	59.00	0.48	73.00	0.31	87.00	0.22
45.25	0.81	59.25	0.47	73.25	0.31	87.25	0.22
45.50	0.80	59.50	0.47	73.50	0.31	87.50	0.22
45.75	0.79	59.75	0.47	73.75	0.31	87.75	0.22
46.00	0.79	60.00	0.46	74.00	0.30	88.00	0.21
46.25	0.78	60.25	0.46	74.25	0.30	88.25	0.21
46.50	0.77	60.50	0.45	74.50	0.30	88.50	0.21
46.75	0.76	60.75	0.45	74.75	0.30	88.75	0.21
47.00	0.75	61.00	0.45	75.00	0.30	89.00	0.21
47.25	0.75	61.25	0.44	75.25	0.29	89.25	0.21
47.50	0.74	61.50	0.44	75.50	0.29	89.50	0.21
47.75	0.73	61.75	0.44	75.75	0.29	89.75	0.21
48.00	0.72	62.00	0.43	76.00	0.29	90.00	0.21
48.25	0.71	62.25	0.43	76.25	0.29	90.25	0.20
48.50	0.71	62.50	0.43	76.50	0.28	90.50	0.20
48.75	0.70	62.75	0.42	76.75	0.28	90.75	0.20
49.00	0.69	63.00	0.42	77.00	0.28	91.00	0.20
49.25	0.69	63.25	0.42	77.25	0.28	91.25	0.20
49.50	0.68	63.50	0.41	77.50	0.28	91.50	0.20
49.75	0.67	63.75	0.41	77.75	0.28	91.75	0.20
50.00	0.67	64.00	0.41	78.00	0.27	92.00	0.20
50.25	0.66	64.25	0.40	78.25	0.27	92.25	0.20
50.50	0.65	64.50	0.40	78.50	0.27	92.50	0.19
50.75	0.65	64.75	0.40	78.75	0.27	92.75	0.19
51.00	0.64	65.00	0.39	79.00	0.27	93.00	0.19
51.25	0.63	65.25	0.39	79.25	0.26	93.25	0.19
51.50	0.63	65.50	0.39	79.50	0.26	93.50	0.19
51.75	0.62	65.75	0.38	79.75	0.26	93.75	0.19
52.00	0.62	66.00	0.38	80.00	0.26	94.00	0.19
52.25	0.61	66.25	0.38	80.25	0.26	94.25	0.19
52.50	0.60	66.50	0.38	80.50	0.26	94.50	0.19
52.75	0.60	66.75	0.37	80.75	0.26	94.75	0.19
53.00	0.59	67.00	0.37	81.00	0.25	95.00	0.18
53.25	0.59	67.25	0.37	81.25	0.25	95.25	0.18
53.50	0.58	67.50	0.37	81.50	0.25	95.50	0.18
53.75	0.58	67.75	0.36	81.75	0.25	95.75	0.18
54.00	0.57	68.00	0.36	82.00	0.25	96.00	0.18

Table 11 – 10%

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

**Meters** 1 Collector Meter

Time Avg: 20%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.40 28.9 Inches

BioInitiative ft. 182.00 2184.0 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	53241.65	10.25	31.67	20.25	8.11	30.25	3.64
0.50	13310.41	10.50	30.18	20.50	7.92	30.50	3.58
0.75	5915.74	10.75	28.79	20.75	7.73	30.75	3.52
1.00	3327.60	11.00	27.50	21.00	7.55	31.00	3.46
1.25	2129.67	11.25	26.29	21.25	7.37	31.25	3.41
1.50	1478.93	11.50	25.16	21.50	7.20	31.50	3.35
1.75	1086.56	11.75	24.10	21.75	7.03	31.75	3.30
2.00	831.90	12.00	23.11	22.00	6.88	32.00	3.25
2.25	657.30	12.25	22.17	22.25	6.72	32.25	3.20
2.50	532.42	12.50	21.30	22.50	6.57	32.50	3.15
2.75	440.01	12.75	20.47	22.75	6.43	32.75	3.10
3.00	369.73	13.00	19.69	23.00	6.29	33.00	3.06
3.25	315.04	13.25	18.95	23.25	6.16	33.25	3.01
3.50	271.64	13.50	18.26	23.50	6.03	33.50	2.97
3.75	236.63	13.75	17.60	23.75	5.90	33.75	2.92
4.00	207.98	14.00	16.98	24.00	5.78	34.00	2.88
4.25	184.23	14.25	16.39	24.25	5.66	34.25	2.84
4.50	164.33	14.50	15.83	24.50	5.54	34.50	2.80
4.75	147.48	14.75	15.29	24.75	5.43	34.75	2.76
5.00	133.10	15.00	14.79	25.00	5.32	35.00	2.72
5.25	120.73	15.25	14.31	25.25	5.22	35.25	2.68
5.50	110.00	15.50	13.85	25.50	5.12	35.50	2.64
5.75	100.65	15.75	13.41	25.75	5.02	35.75	2.60
6.00	92.43	16.00	13.00	26.00	4.92	36.00	2.57
6.25	85.19	16.25	12.60	26.25	4.83	36.25	2.53
6.50	78.76	16.50	12.22	26.50	4.74	36.50	2.50
6.75	73.03	16.75	11.86	26.75	4.65	36.75	2.46
7.00	67.91	17.00	11.51	27.00	4.56	37.00	2.43
7.25	63.31	17.25	11.18	27.25	4.48	37.25	2.40
7.50	59.16	17.50	10.87	27.50	4.40	37.50	2.37
7.75	55.40	17.75	10.56	27.75	4.32	37.75	2.34
8.00	51.99	18.00	10.27	28.00	4.24	38.00	2.30
8.25	48.89	18.25	9.99	28.25	4.17	38.25	2.27
8.50	46.06	18.50	9.72	28.50	4.10	38.50	2.24
8.75	43.46	18.75	9.47	28.75	4.03	38.75	2.22
9.00	41.08	19.00	9.22	29.00	3.96	39.00	2.19
9.25	38.89	19.25	8.98	29.25	3.89	39.25	2.16
9.50	36.87	19.50	8.75	29.50	3.82	39.50	2.13
9.75	35.00	19.75	8.53	29.75	3.76	39.75	2.11
10.00	33.28	20.00	8.32	30.00	3.70	40.00	2.08

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)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 20%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.40

28.86 Inches

BioInitiative ft. 182.00

2184.00 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	2.05	54.25	1.13	68.25	0.71	82.25	0.49
40.50	2.03	54.50	1.12	68.50	0.71	82.50	0.49
40.75	2.00	54.75	1.11	68.75	0.70	82.75	0.49
41.00	1.98	55.00	1.10	69.00	0.70	83.00	0.48
41.25	1.96	55.25	1.09	69.25	0.69	83.25	0.48
41.50	1.93	55.50	1.08	69.50	0.69	83.50	0.48
41.75	1.91	55.75	1.07	69.75	0.68	83.75	0.47
42.00	1.89	56.00	1.06	70.00	0.68	84.00	0.47
42.25	1.86	56.25	1.05	70.25	0.67	84.25	0.47
42.50	1.84	56.50	1.04	70.50	0.67	84.50	0.47
42.75	1.82	56.75	1.03	70.75	0.66	84.75	0.46
43.00	1.80	57.00	1.02	71.00	0.66	85.00	0.46
43.25	1.78	57.25	1.02	71.25	0.66	85.25	0.46
43.50	1.76	57.50	1.01	71.50	0.65	85.50	0.46
43.75	1.74	57.75	1.00	71.75	0.65	85.75	0.45
44.00	1.72	58.00	0.99	72.00	0.64	86.00	0.45
44.25	1.70	58.25	0.98	72.25	0.64	86.25	0.45
44.50	1.68	58.50	0.97	72.50	0.63	86.50	0.44
44.75	1.66	58.75	0.96	72.75	0.63	86.75	0.44
45.00	1.64	59.00	0.96	73.00	0.62	87.00	0.44
45.25	1.63	59.25	0.95	73.25	0.62	87.25	0.44
45.50	1.61	59.50	0.94	73.50	0.62	87.50	0.43
45.75	1.59	59.75	0.93	73.75	0.61	87.75	0.43
46.00	1.57	60.00	0.92	74.00	0.61	88.00	0.43
46.25	1.56	60.25	0.92	74.25	0.60	88.25	0.43
46.50	1.54	60.50	0.91	74.50	0.60	88.50	0.42
46.75	1.52	60.75	0.90	74.75	0.60	88.75	0.42
47.00	1.51	61.00	0.89	75.00	0.59	89.00	0.42
47.25	1.49	61.25	0.89	75.25	0.59	89.25	0.42
47.50	1.47	61.50	0.88	75.50	0.58	89.50	0.42
47.75	1.46	61.75	0.87	75.75	0.58	89.75	0.41
48.00	1.44	62.00	0.87	76.00	0.58	90.00	0.41
48.25	1.43	62.25	0.86	76.25	0.57	90.25	0.41
48.50	1.41	62.50	0.85	76.50	0.57	90.50	0.41
48.75	1.40	62.75	0.85	76.75	0.56	90.75	0.40
49.00	1.39	63.00	0.84	77.00	0.56	91.00	0.40
49.25	1.37	63.25	0.83	77.25	0.56	91.25	0.40
49.50	1.36	63.50	0.83	77.50	0.55	91.50	0.40
49.75	1.34	63.75	0.82	77.75	0.55	91.75	0.40
50.00	1.33	64.00	0.81	78.00	0.55	92.00	0.39
50.25	1.32	64.25	0.81	78.25	0.54	92.25	0.39
50.50	1.30	64.50	0.80	78.50	0.54	92.50	0.39
50.75	1.29	64.75	0.79	78.75	0.54	92.75	0.39
51.00	1.28	65.00	0.79	79.00	0.53	93.00	0.38
51.25	1.27	65.25	0.78	79.25	0.53	93.25	0.38
51.50	1.25	65.50	0.78	79.50	0.53	93.50	0.38
51.75	1.24	65.75	0.77	79.75	0.52	93.75	0.38
52.00	1.23	66.00	0.76	80.00	0.52	94.00	0.38
52.25	1.22	66.25	0.76	80.25	0.52	94.25	0.37
52.50	1.21	66.50	0.75	80.50	0.51	94.50	0.37
52.75	1.20	66.75	0.75	80.75	0.51	94.75	0.37
53.00	1.18	67.00	0.74	81.00	0.51	95.00	0.37
53.25	1.17	67.25	0.74	81.25	0.50	95.25	0.37
53.50	1.16	67.50	0.73	81.50	0.50	95.50	0.36
53.75	1.15	67.75	0.72	81.75	0.50	95.75	0.36
54.00	1.14	68.00	0.72	82.00	0.49	96.00	0.36

Table 11 – 20%

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

**Meters** 1 Collector Meter

Time Avg: 30%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.95 35.3 Inches

BioInitiative ft. 223.00 2676.0 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	79862.48	10.25	47.51	20.25	12.17	30.25	5.45
0.50	19965.62	10.50	45.27	20.50	11.88	30.50	5.37
0.75	8873.61	10.75	43.19	20.75	11.59	30.75	5.28
1.00	4991.41	11.00	41.25	21.00	11.32	31.00	5.19
1.25	3194.50	11.25	39.44	21.25	11.05	31.25	5.11
1.50	2218.40	11.50	37.74	21.50	10.80	31.50	5.03
1.75	1629.85	11.75	36.15	21.75	10.55	31.75	4.95
2.00	1247.85	12.00	34.66	22.00	10.31	32.00	4.87
2.25	985.96	12.25	33.26	22.25	10.08	32.25	4.80
2.50	798.62	12.50	31.94	22.50	9.86	32.50	4.73
2.75	660.02	12.75	30.70	22.75	9.64	32.75	4.65
3.00	554.60	13.00	29.53	23.00	9.44	33.00	4.58
3.25	472.56	13.25	28.43	23.25	9.23	33.25	4.51
3.50	407.46	13.50	27.39	23.50	9.04	33.50	4.45
3.75	354.94	13.75	26.40	23.75	8.85	33.75	4.38
4.00	311.96	14.00	25.47	24.00	8.67	34.00	4.32
4.25	276.34	14.25	24.58	24.25	8.49	34.25	4.26
4.50	246.49	14.50	23.74	24.50	8.32	34.50	4.19
4.75	221.23	14.75	22.94	24.75	8.15	34.75	4.13
5.00	199.66	15.00	22.18	25.00	7.99	35.00	4.07
5.25	181.09	15.25	21.46	25.25	7.83	35.25	4.02
5.50	165.01	15.50	20.78	25.50	7.68	35.50	3.96
5.75	150.97	15.75	20.12	25.75	7.53	35.75	3.91
6.00	138.65	16.00	19.50	26.00	7.38	36.00	3.85
6.25	127.78	16.25	18.90	26.25	7.24	36.25	3.80
6.50	118.14	16.50	18.33	26.50	7.11	36.50	3.75
6.75	109.55	16.75	17.79	26.75	6.98	36.75	3.70
7.00	101.87	17.00	17.27	27.00	6.85	37.00	3.65
7.25	94.96	17.25	16.77	27.25	6.72	37.25	3.60
7.50	88.74	17.50	16.30	27.50	6.60	37.50	3.55
7.75	83.10	17.75	15.84	27.75	6.48	37.75	3.50
8.00	77.99	18.00	15.41	28.00	6.37	38.00	3.46
8.25	73.34	18.25	14.99	28.25	6.25	38.25	3.41
8.50	69.09	18.50	14.58	28.50	6.15	38.50	3.37
8.75	65.19	18.75	14.20	28.75	6.04	38.75	3.32
9.00	61.62	19.00	13.83	29.00	5.94	39.00	3.28
9.25	58.34	19.25	13.47	29.25	5.83	39.25	3.24
9.50	55.31	19.50	13.13	29.50	5.74	39.50	3.20
9.75	52.51	19.75	12.80	29.75	5.64	39.75	3.16
10.00	49.91	20.00	12.48	30.00	5.55	40.00	3.12

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)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 30%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.95

35.34 Inches

BioInitiative ft. 223.00

2676.00 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	3.08	54.25	1.70	68.25	1.07	82.25	0.74
40.50	3.04	54.50	1.68	68.50	1.06	82.50	0.73
40.75	3.01	54.75	1.67	68.75	1.06	82.75	0.73
41.00	2.97	55.00	1.65	69.00	1.05	83.00	0.72
41.25	2.93	55.25	1.64	69.25	1.04	83.25	0.72
41.50	2.90	55.50	1.62	69.50	1.03	83.50	0.72
41.75	2.86	55.75	1.61	69.75	1.03	83.75	0.71
42.00	2.83	56.00	1.59	70.00	1.02	84.00	0.71
42.25	2.80	56.25	1.58	70.25	1.01	84.25	0.70
42.50	2.76	56.50	1.56	70.50	1.00	84.50	0.70
42.75	2.73	56.75	1.55	70.75	1.00	84.75	0.69
43.00	2.70	57.00	1.54	71.00	0.99	85.00	0.69
43.25	2.67	57.25	1.52	71.25	0.98	85.25	0.69
43.50	2.64	57.50	1.51	71.50	0.98	85.50	0.68
43.75	2.61	57.75	1.50	71.75	0.97	85.75	0.68
44.00	2.58	58.00	1.48	72.00	0.96	86.00	0.67
44.25	2.55	58.25	1.47	72.25	0.96	86.25	0.67
44.50	2.52	58.50	1.46	72.50	0.95	86.50	0.67
44.75	2.49	58.75	1.45	72.75	0.94	86.75	0.66
45.00	2.46	59.00	1.43	73.00	0.94	87.00	0.66
45.25	2.44	59.25	1.42	73.25	0.93	87.25	0.66
45.50	2.41	59.50	1.41	73.50	0.92	87.50	0.65
45.75	2.38	59.75	1.40	73.75	0.92	87.75	0.65
46.00	2.36	60.00	1.39	74.00	0.91	88.00	0.64
46.25	2.33	60.25	1.38	74.25	0.91	88.25	0.64
46.50	2.31	60.50	1.36	74.50	0.90	88.50	0.64
46.75	2.28	60.75	1.35	74.75	0.89	88.75	0.63
47.00	2.26	61.00	1.34	75.00	0.89	89.00	0.63
47.25	2.24	61.25	1.33	75.25	0.88	89.25	0.63
47.50	2.21	61.50	1.32	75.50	0.88	89.50	0.62
47.75	2.19	61.75	1.31	75.75	0.87	89.75	0.62
48.00	2.17	62.00	1.30	76.00	0.86	90.00	0.62
48.25	2.14	62.25	1.29	76.25	0.86	90.25	0.61
48.50	2.12	62.50	1.28	76.50	0.85	90.50	0.61
48.75	2.10	62.75	1.27	76.75	0.85	90.75	0.61
49.00	2.08	63.00	1.26	77.00	0.84	91.00	0.60
49.25	2.06	63.25	1.25	77.25	0.84	91.25	0.60
49.50	2.04	63.50	1.24	77.50	0.83	91.50	0.60
49.75	2.02	63.75	1.23	77.75	0.83	91.75	0.59
50.00	2.00	64.00	1.22	78.00	0.82	92.00	0.59
50.25	1.98	64.25	1.21	78.25	0.82	92.25	0.59
50.50	1.96	64.50	1.20	78.50	0.81	92.50	0.58
50.75	1.94	64.75	1.19	78.75	0.80	92.75	0.58
51.00	1.92	65.00	1.18	79.00	0.80	93.00	0.58
51.25	1.90	65.25	1.17	79.25	0.79	93.25	0.57
51.50	1.88	65.50	1.16	79.50	0.79	93.50	0.57
51.75	1.86	65.75	1.15	79.75	0.78	93.75	0.57
52.00	1.85	66.00	1.15	80.00	0.78	94.00	0.56
52.25	1.83	66.25	1.14	80.25	0.78	94.25	0.56
52.50	1.81	66.50	1.13	80.50	0.77	94.50	0.56
52.75	1.79	66.75	1.12	80.75	0.77	94.75	0.56
53.00	1.78	67.00	1.11	81.00	0.76	95.00	0.55
53.25	1.76	67.25	1.10	81.25	0.76	95.25	0.55
53.50	1.74	67.50	1.10	81.50	0.75	95.50	0.55
53.75	1.73	67.75	1.09	81.75	0.75	95.75	0.54
54.00	1.71	68.00	1.08	82.00	0.74	96.00	0.54

Table 11 – 30%



# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 40%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 3.40 40.8 Inches

BioInitiative ft. 258.00 3096.0 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	106483.31	10.25	63.35	20.25	16.23	30.25	7.27
0.50	26620.83	10.50	60.36	20.50	15.84	30.50	7.15
0.75	11831.48	10.75	57.59	20.75	15.46	30.75	7.04
1.00	6655.21	11.00	55.00	21.00	15.09	31.00	6.93
1.25	4259.33	11.25	52.58	21.25	14.74	31.25	6.81
1.50	2957.87	11.50	50.32	21.50	14.40	31.50	6.71
1.75	2173.13	11.75	48.20	21.75	14.07	31.75	6.60
2.00	1663.80	12.00	46.22	22.00	13.75	32.00	6.50
2.25	1314.61	12.25	44.35	22.25	13.44	32.25	6.40
2.50	1064.83	12.50	42.59	22.50	13.15	32.50	6.30
2.75	880.03	12.75	40.94	22.75	12.86	32.75	6.20
3.00	739.47	13.00	39.38	23.00	12.58	33.00	6.11
3.25	630.08	13.25	37.91	23.25	12.31	33.25	6.02
3.50	543.28	13.50	36.52	23.50	12.05	33.50	5.93
3.75	473.26	13.75	35.20	23.75	11.80	33.75	5.84
4.00	415.95	14.00	33.96	24.00	11.55	34.00	5.76
4.25	368.45	14.25	32.77	24.25	11.32	34.25	5.67
4.50	328.65	14.50	31.65	24.50	11.09	34.50	5.59
4.75	294.97	14.75	30.59	24.75	10.86	34.75	5.51
5.00	266.21	15.00	29.58	25.00	10.65	35.00	5.43
5.25	241.46	15.25	28.62	25.25	10.44	35.25	5.36
5.50	220.01	15.50	27.70	25.50	10.23	35.50	5.28
5.75	201.29	15.75	26.83	25.75	10.04	35.75	5.21
6.00	184.87	16.00	26.00	26.00	9.84	36.00	5.14
6.25	170.37	16.25	25.20	26.25	9.66	36.25	5.06
6.50	157.52	16.50	24.45	26.50	9.48	36.50	5.00
6.75	146.07	16.75	23.72	26.75	9.30	36.75	4.93
7.00	135.82	17.00	23.03	27.00	9.13	37.00	4.86
7.25	126.62	17.25	22.37	27.25	8.96	37.25	4.80
7.50	118.31	17.50	21.73	27.50	8.80	37.50	4.73
7.75	110.80	17.75	21.12	27.75	8.64	37.75	4.67
8.00	103.99	18.00	20.54	28.00	8.49	38.00	4.61
8.25	97.78	18.25	19.98	28.25	8.34	38.25	4.55
8.50	92.11	18.50	19.45	28.50	8.19	38.50	4.49
8.75	86.93	18.75	18.93	28.75	8.05	38.75	4.43
9.00	82.16	19.00	18.44	29.00	7.91	39.00	4.38
9.25	77.78	19.25	17.96	29.25	7.78	39.25	4.32
9.50	73.74	19.50	17.50	29.50	7.65	39.50	4.27
9.75	70.01	19.75	17.06	29.75	7.52	39.75	4.21
10.00	66.55	20.00	16.64	30.00	7.39	40.00	4.16

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)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

**Meters** 1 Collector Meter

Time Avg: 40%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 3.40

40.81 Inches

BioInitiative ft. 258.00

3096.00 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	4.11	54.25	2.26	68.25	1.43	82.25	0.98
40.50	4.06	54.50	2.24	68.50	1.42	82.50	0.98
40.75	4.01	54.75	2.22	68.75	1.41	82.75	0.97
41.00	3.96	55.00	2.20	69.00	1.40	83.00	0.97
41.25	3.91	55.25	2.18	69.25	1.39	83.25	0.96
41.50	3.86	55.50	2.16	69.50	1.38	83.50	0.95
41.75	3.82	55.75	2.14	69.75	1.37	83.75	0.95
42.00	3.77	56.00	2.12	70.00	1.36	84.00	0.94
42.25	3.73	56.25	2.10	70.25	1.35	84.25	0.94
42.50	3.68	56.50	2.08	70.50	1.34	84.50	0.93
42.75	3.64	56.75	2.07	70.75	1.33	84.75	0.93
43.00	3.60	57.00	2.05	71.00	1.32	85.00	0.92
43.25	3.56	57.25	2.03	71.25	1.31	85.25	0.92
43.50	3.52	57.50	2.01	71.50	1.30	85.50	0.91
43.75	3.48	57.75	2.00	71.75	1.29	85.75	0.91
44.00	3.44	58.00	1.98	72.00	1.28	86.00	0.90
44.25	3.40	58.25	1.96	72.25	1.27	86.25	0.89
44.50	3.36	58.50	1.94	72.50	1.27	86.50	0.89
44.75	3.32	58.75	1.93	72.75	1.26	86.75	0.88
45.00	3.29	59.00	1.91	73.00	1.25	87.00	0.88
45.25	3.25	59.25	1.90	73.25	1.24	87.25	0.87
45.50	3.21	59.50	1.88	73.50	1.23	87.50	0.87
45.75	3.18	59.75	1.86	73.75	1.22	87.75	0.86
46.00	3.15	60.00	1.85	74.00	1.22	88.00	0.86
46.25	3.11	60.25	1.83	74.25	1.21	88.25	0.85
46.50	3.08	60.50	1.82	74.50	1.20	88.50	0.85
46.75	3.05	60.75	1.80	74.75	1.19	88.75	0.84
47.00	3.01	61.00	1.79	75.00	1.18	89.00	0.84
47.25	2.98	61.25	1.77	75.25	1.18	89.25	0.84
47.50	2.95	61.50	1.76	75.50	1.17	89.50	0.83
47.75	2.92	61.75	1.75	75.75	1.16	89.75	0.83
48.00	2.89	62.00	1.73	76.00	1.15	90.00	0.82
48.25	2.86	62.25	1.72	76.25	1.14	90.25	0.82
48.50	2.83	62.50	1.70	76.50	1.14	90.50	0.81
48.75	2.80	62.75	1.69	76.75	1.13	90.75	0.81
49.00	2.77	63.00	1.68	77.00	1.12	91.00	0.80
49.25	2.74	63.25	1.66	77.25	1.12	91.25	0.80
49.50	2.72	63.50	1.65	77.50	1.11	91.50	0.79
49.75	2.69	63.75	1.64	77.75	1.10	91.75	0.79
50.00	2.66	64.00	1.62	78.00	1.09	92.00	0.79
50.25	2.64	64.25	1.61	78.25	1.09	92.25	0.78
50.50	2.61	64.50	1.60	78.50	1.08	92.50	0.78
50.75	2.58	64.75	1.59	78.75	1.07	92.75	0.77
51.00	2.56	65.00	1.58	79.00	1.07	93.00	0.77
51.25	2.53	65.25	1.56	79.25	1.06	93.25	0.77
51.50	2.51	65.50	1.55	79.50	1.05	93.50	0.76
51.75	2.49	65.75	1.54	79.75	1.05	93.75	0.76
52.00	2.46	66.00	1.53	80.00	1.04	94.00	0.75
52.25	2.44	66.25	1.52	80.25	1.03	94.25	0.75
52.50	2.41	66.50	1.50	80.50	1.03	94.50	0.75
52.75	2.39	66.75	1.49	80.75	1.02	94.75	0.74
53.00	2.37	67.00	1.48	81.00	1.01	95.00	0.74
53.25	2.35	67.25	1.47	81.25	1.01	95.25	0.73
53.50	2.33	67.50	1.46	81.50	1.00	95.50	0.73
53.75	2.30	67.75	1.45	81.75	1.00	95.75	0.73
54.00	2.28	68.00	1.44	82.00	0.99	96.00	0.72

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 50%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 3.80 45.6 Inches

BioInitiative ft. 288.00 3456.0 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	133104.14	10.25	79.18	20.25	20.29	30.25	9.09
0.50	33276.03	10.50	75.46	20.50	19.80	30.50	8.94
0.75	14789.35	10.75	71.99	20.75	19.32	30.75	8.80
1.00	8319.01	11.00	68.75	21.00	18.86	31.00	8.66
1.25	5324.17	11.25	65.73	21.25	18.42	31.25	8.52
1.50	3697.34	11.50	62.90	21.50	18.00	31.50	8.38
1.75	2716.41	11.75	60.26	21.75	17.59	31.75	8.25
2.00	2079.75	12.00	57.77	22.00	17.19	32.00	8.12
2.25	1643.26	12.25	55.44	22.25	16.80	32.25	8.00
2.50	1331.04	12.50	53.24	22.50	16.43	32.50	7.88
2.75	1100.03	12.75	51.17	22.75	16.07	32.75	7.76
3.00	924.33	13.00	49.22	23.00	15.73	33.00	7.64
3.25	787.60	13.25	47.38	23.25	15.39	33.25	7.52
3.50	679.10	13.50	45.65	23.50	15.06	33.50	7.41
3.75	591.57	13.75	44.00	23.75	14.75	33.75	7.30
4.00	519.94	14.00	42.44	24.00	14.44	34.00	7.20
4.25	460.57	14.25	40.97	24.25	14.15	34.25	7.09
4.50	410.82	14.50	39.57	24.50	13.86	34.50	6.99
4.75	368.71	14.75	38.24	24.75	13.58	34.75	6.89
5.00	332.76	15.00	36.97	25.00	13.31	35.00	6.79
5.25	301.82	15.25	35.77	25.25	13.05	35.25	6.70
5.50	275.01	15.50	34.63	25.50	12.79	35.50	6.60
5.75	251.61	15.75	33.54	25.75	12.55	35.75	6.51
6.00	231.08	16.00	32.50	26.00	12.31	36.00	6.42
6.25	212.97	16.25	31.50	26.25	12.07	36.25	6.33
6.50	196.90	16.50	30.56	26.50	11.85	36.50	6.24
6.75	182.58	16.75	29.65	26.75	11.63	36.75	6.16
7.00	169.78	17.00	28.79	27.00	11.41	37.00	6.08
7.25	158.27	17.25	27.96	27.25	11.20	37.25	6.00
7.50	147.89	17.50	27.16	27.50	11.00	37.50	5.92
7.75	138.51	17.75	26.40	27.75	10.80	37.75	5.84
8.00	129.98	18.00	25.68	28.00	10.61	38.00	5.76
8.25	122.23	18.25	24.98	28.25	10.42	38.25	5.69
8.50	115.14	18.50	24.31	28.50	10.24	38.50	5.61
8.75	108.66	18.75	23.66	28.75	10.06	38.75	5.54
9.00	102.70	19.00	23.04	29.00	9.89	39.00	5.47
9.25	97.23	19.25	22.45	29.25	9.72	39.25	5.40
9.50	92.18	19.50	21.88	29.50	9.56	39.50	5.33
9.75	87.51	19.75	21.33	29.75	9.40	39.75	5.26
10.00	83.19	20.00	20.80	30.00	9.24	40.00	5.20

Notes:

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

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

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

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

$$\pi() = 3.1459$$

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

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

$$\% \text{Ref} = \text{Percent reflections}$$
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 50%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 3.80

45.62 Inches

BioInitiative ft. 288.00

3456.00 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	5.13	54.25	2.83	68.25	1.79	82.25	1.23
40.50	5.07	54.50	2.80	68.50	1.77	82.50	1.22
40.75	5.01	54.75	2.78	68.75	1.76	82.75	1.21
41.00	4.95	55.00	2.75	69.00	1.75	83.00	1.21
41.25	4.89	55.25	2.73	69.25	1.73	83.25	1.20
41.50	4.83	55.50	2.70	69.50	1.72	83.50	1.19
41.75	4.77	55.75	2.68	69.75	1.71	83.75	1.19
42.00	4.72	56.00	2.65	70.00	1.70	84.00	1.18
42.25	4.66	56.25	2.63	70.25	1.69	84.25	1.17
42.50	4.61	56.50	2.61	70.50	1.67	84.50	1.17
42.75	4.55	56.75	2.58	70.75	1.66	84.75	1.16
43.00	4.50	57.00	2.56	71.00	1.65	85.00	1.15
43.25	4.45	57.25	2.54	71.25	1.64	85.25	1.14
43.50	4.40	57.50	2.52	71.50	1.63	85.50	1.14
43.75	4.35	57.75	2.49	71.75	1.62	85.75	1.13
44.00	4.30	58.00	2.47	72.00	1.60	86.00	1.12
44.25	4.25	58.25	2.45	72.25	1.59	86.25	1.12
44.50	4.20	58.50	2.43	72.50	1.58	86.50	1.11
44.75	4.15	58.75	2.41	72.75	1.57	86.75	1.11
45.00	4.11	59.00	2.39	73.00	1.56	87.00	1.10
45.25	4.06	59.25	2.37	73.25	1.55	87.25	1.09
45.50	4.02	59.50	2.35	73.50	1.54	87.50	1.09
45.75	3.97	59.75	2.33	73.75	1.53	87.75	1.08
46.00	3.93	60.00	2.31	74.00	1.52	88.00	1.07
46.25	3.89	60.25	2.29	74.25	1.51	88.25	1.07
46.50	3.85	60.50	2.27	74.50	1.50	88.50	1.06
46.75	3.81	60.75	2.25	74.75	1.49	88.75	1.06
47.00	3.77	61.00	2.24	75.00	1.48	89.00	1.05
47.25	3.73	61.25	2.22	75.25	1.47	89.25	1.04
47.50	3.69	61.50	2.20	75.50	1.46	89.50	1.04
47.75	3.65	61.75	2.18	75.75	1.45	89.75	1.03
48.00	3.61	62.00	2.16	76.00	1.44	90.00	1.03
48.25	3.57	62.25	2.15	76.25	1.43	90.25	1.02
48.50	3.54	62.50	2.13	76.50	1.42	90.50	1.02
48.75	3.50	62.75	2.11	76.75	1.41	90.75	1.01
49.00	3.46	63.00	2.10	77.00	1.40	91.00	1.00
49.25	3.43	63.25	2.08	77.25	1.39	91.25	1.00
49.50	3.40	63.50	2.06	77.50	1.39	91.50	0.99
49.75	3.36	63.75	2.05	77.75	1.38	91.75	0.99
50.00	3.33	64.00	2.03	78.00	1.37	92.00	0.98
50.25	3.29	64.25	2.02	78.25	1.36	92.25	0.98
50.50	3.26	64.50	2.00	78.50	1.35	92.50	0.97
50.75	3.23	64.75	1.98	78.75	1.34	92.75	0.97
51.00	3.20	65.00	1.97	79.00	1.33	93.00	0.96
51.25	3.17	65.25	1.95	79.25	1.32	93.25	0.96
51.50	3.14	65.50	1.94	79.50	1.32	93.50	0.95
51.75	3.11	65.75	1.92	79.75	1.31	93.75	0.95
52.00	3.08	66.00	1.91	80.00	1.30	94.00	0.94
52.25	3.05	66.25	1.90	80.25	1.29	94.25	0.94
52.50	3.02	66.50	1.88	80.50	1.28	94.50	0.93
52.75	2.99	66.75	1.87	80.75	1.28	94.75	0.93
53.00	2.96	67.00	1.85	81.00	1.27	95.00	0.92
53.25	2.93	67.25	1.84	81.25	1.26	95.25	0.92
53.50	2.91	67.50	1.83	81.50	1.25	95.50	0.91
53.75	2.88	67.75	1.81	81.75	1.24	95.75	0.91
54.00	2.85	68.00	1.80	82.00	1.24	96.00	0.90

Table 11 – 50%

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 60%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 4.17 50.0 Inches

BioInitiative ft. 316.00 3792.0 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	159724.96	10.25	95.02	20.25	24.34	30.25	10.91
0.50	39931.24	10.50	90.55	20.50	23.75	30.50	10.73
0.75	17747.22	10.75	86.38	20.75	23.19	30.75	10.56
1.00	9982.81	11.00	82.50	21.00	22.64	31.00	10.39
1.25	6389.00	11.25	78.88	21.25	22.11	31.25	10.22
1.50	4436.80	11.50	75.48	21.50	21.60	31.50	10.06
1.75	3259.69	11.75	72.31	21.75	21.10	31.75	9.90
2.00	2495.70	12.00	69.33	22.00	20.63	32.00	9.75
2.25	1971.91	12.25	66.52	22.25	20.16	32.25	9.60
2.50	1597.25	12.50	63.89	22.50	19.72	32.50	9.45
2.75	1320.04	12.75	61.41	22.75	19.29	32.75	9.31
3.00	1109.20	13.00	59.07	23.00	18.87	33.00	9.17
3.25	945.12	13.25	56.86	23.25	18.47	33.25	9.03
3.50	814.92	13.50	54.78	23.50	18.08	33.50	8.90
3.75	709.89	13.75	52.80	23.75	17.70	33.75	8.76
4.00	623.93	14.00	50.93	24.00	17.33	34.00	8.64
4.25	552.68	14.25	49.16	24.25	16.98	34.25	8.51
4.50	492.98	14.50	47.48	24.50	16.63	34.50	8.39
4.75	442.45	14.75	45.88	24.75	16.30	34.75	8.27
5.00	399.31	15.00	44.37	25.00	15.97	35.00	8.15
5.25	362.19	15.25	42.93	25.25	15.66	35.25	8.03
5.50	330.01	15.50	41.55	25.50	15.35	35.50	7.92
5.75	301.94	15.75	40.24	25.75	15.06	35.75	7.81
6.00	277.30	16.00	39.00	26.00	14.77	36.00	7.70
6.25	255.56	16.25	37.80	26.25	14.49	36.25	7.60
6.50	236.28	16.50	36.67	26.50	14.22	36.50	7.49
6.75	219.10	16.75	35.58	26.75	13.95	36.75	7.39
7.00	203.73	17.00	34.54	27.00	13.69	37.00	7.29
7.25	189.92	17.25	33.55	27.25	13.44	37.25	7.19
7.50	177.47	17.50	32.60	27.50	13.20	37.50	7.10
7.75	166.21	17.75	31.69	27.75	12.96	37.75	7.01
8.00	155.98	18.00	30.81	28.00	12.73	38.00	6.91
8.25	146.67	18.25	29.97	28.25	12.51	38.25	6.82
8.50	138.17	18.50	29.17	28.50	12.29	38.50	6.73
8.75	130.39	18.75	28.40	28.75	12.08	38.75	6.65
9.00	123.24	19.00	27.65	29.00	11.87	39.00	6.56
9.25	116.67	19.25	26.94	29.25	11.67	39.25	6.48
9.50	110.61	19.50	26.25	29.50	11.47	39.50	6.40
9.75	105.01	19.75	25.59	29.75	11.28	39.75	6.32
10.00	99.83	20.00	24.96	30.00	11.09	40.00	6.24

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)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

**Meters** 1 Collector Meter

Time Avg: 60%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 4.17

49.98 Inches

BioInitiative ft. 316.00

3792.00 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	6.16	54.25	3.39	68.25	2.14	82.25	1.48
40.50	6.09	54.50	3.36	68.50	2.13	82.50	1.47
40.75	6.01	54.75	3.33	68.75	2.11	82.75	1.46
41.00	5.94	55.00	3.30	69.00	2.10	83.00	1.45
41.25	5.87	55.25	3.27	69.25	2.08	83.25	1.44
41.50	5.80	55.50	3.24	69.50	2.07	83.50	1.43
41.75	5.73	55.75	3.21	69.75	2.05	83.75	1.42
42.00	5.66	56.00	3.18	70.00	2.04	84.00	1.41
42.25	5.59	56.25	3.16	70.25	2.02	84.25	1.41
42.50	5.53	56.50	3.13	70.50	2.01	84.50	1.40
42.75	5.46	56.75	3.10	70.75	1.99	84.75	1.39
43.00	5.40	57.00	3.07	71.00	1.98	85.00	1.38
43.25	5.34	57.25	3.05	71.25	1.97	85.25	1.37
43.50	5.28	57.50	3.02	71.50	1.95	85.50	1.37
43.75	5.22	57.75	2.99	71.75	1.94	85.75	1.36
44.00	5.16	58.00	2.97	72.00	1.93	86.00	1.35
44.25	5.10	58.25	2.94	72.25	1.91	86.25	1.34
44.50	5.04	58.50	2.92	72.50	1.90	86.50	1.33
44.75	4.99	58.75	2.89	72.75	1.89	86.75	1.33
45.00	4.93	59.00	2.87	73.00	1.87	87.00	1.32
45.25	4.88	59.25	2.84	73.25	1.86	87.25	1.31
45.50	4.82	59.50	2.82	73.50	1.85	87.50	1.30
45.75	4.77	59.75	2.80	73.75	1.84	87.75	1.30
46.00	4.72	60.00	2.77	74.00	1.82	88.00	1.29
46.25	4.67	60.25	2.75	74.25	1.81	88.25	1.28
46.50	4.62	60.50	2.73	74.50	1.80	88.50	1.27
46.75	4.57	60.75	2.70	74.75	1.79	88.75	1.27
47.00	4.52	61.00	2.68	75.00	1.77	89.00	1.26
47.25	4.47	61.25	2.66	75.25	1.76	89.25	1.25
47.50	4.42	61.50	2.64	75.50	1.75	89.50	1.25
47.75	4.38	61.75	2.62	75.75	1.74	89.75	1.24
48.00	4.33	62.00	2.60	76.00	1.73	90.00	1.23
48.25	4.29	62.25	2.58	76.25	1.72	90.25	1.23
48.50	4.24	62.50	2.56	76.50	1.71	90.50	1.22
48.75	4.20	62.75	2.54	76.75	1.69	90.75	1.21
49.00	4.16	63.00	2.52	77.00	1.68	91.00	1.21
49.25	4.12	63.25	2.50	77.25	1.67	91.25	1.20
49.50	4.07	63.50	2.48	77.50	1.66	91.50	1.19
49.75	4.03	63.75	2.46	77.75	1.65	91.75	1.19
50.00	3.99	64.00	2.44	78.00	1.64	92.00	1.18
50.25	3.95	64.25	2.42	78.25	1.63	92.25	1.17
50.50	3.91	64.50	2.40	78.50	1.62	92.50	1.17
50.75	3.88	64.75	2.38	78.75	1.61	92.75	1.16
51.00	3.84	65.00	2.36	79.00	1.60	93.00	1.15
51.25	3.80	65.25	2.34	79.25	1.59	93.25	1.15
51.50	3.76	65.50	2.33	79.50	1.58	93.50	1.14
51.75	3.73	65.75	2.31	79.75	1.57	93.75	1.14
52.00	3.69	66.00	2.29	80.00	1.56	94.00	1.13
52.25	3.66	66.25	2.27	80.25	1.55	94.25	1.12
52.50	3.62	66.50	2.26	80.50	1.54	94.50	1.12
52.75	3.59	66.75	2.24	80.75	1.53	94.75	1.11
53.00	3.55	67.00	2.22	81.00	1.52	95.00	1.11
53.25	3.52	67.25	2.21	81.25	1.51	95.25	1.10
53.50	3.49	67.50	2.19	81.50	1.50	95.50	1.09
53.75	3.46	67.75	2.17	81.75	1.49	95.75	1.09
54.00	3.42	68.00	2.16	82.00	1.48	96.00	1.08

Table 11 – 60%

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 70%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 4.50 54.0 Inches

BioInitiative ft. 342.00 4104.0 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	186345.79	10.25	110.85	20.25	28.40	30.25	12.73
0.50	46586.45	10.50	105.64	20.50	27.71	30.50	12.52
0.75	20705.09	10.75	100.78	20.75	27.05	30.75	12.32
1.00	11646.61	11.00	96.25	21.00	26.41	31.00	12.12
1.25	7453.83	11.25	92.02	21.25	25.79	31.25	11.93
1.50	5176.27	11.50	88.07	21.50	25.20	31.50	11.74
1.75	3802.98	11.75	84.36	21.75	24.62	31.75	11.55
2.00	2911.65	12.00	80.88	22.00	24.06	32.00	11.37
2.25	2300.57	12.25	77.61	22.25	23.53	32.25	11.20
2.50	1863.46	12.50	74.54	22.50	23.01	32.50	11.03
2.75	1540.05	12.75	71.64	22.75	22.50	32.75	10.86
3.00	1294.07	13.00	68.91	23.00	22.02	33.00	10.69
3.25	1102.64	13.25	66.34	23.25	21.55	33.25	10.53
3.50	950.74	13.50	63.90	23.50	21.09	33.50	10.38
3.75	828.20	13.75	61.60	23.75	20.65	33.75	10.22
4.00	727.91	14.00	59.42	24.00	20.22	34.00	10.07
4.25	644.80	14.25	57.35	24.25	19.81	34.25	9.93
4.50	575.14	14.50	55.39	24.50	19.40	34.50	9.79
4.75	516.19	14.75	53.53	24.75	19.01	34.75	9.64
5.00	465.86	15.00	51.76	25.00	18.63	35.00	9.51
5.25	422.55	15.25	50.08	25.25	18.27	35.25	9.37
5.50	385.01	15.50	48.48	25.50	17.91	35.50	9.24
5.75	352.26	15.75	46.95	25.75	17.56	35.75	9.11
6.00	323.52	16.00	45.49	26.00	17.23	36.00	8.99
6.25	298.15	16.25	44.11	26.25	16.90	36.25	8.86
6.50	275.66	16.50	42.78	26.50	16.58	36.50	8.74
6.75	255.62	16.75	41.51	26.75	16.28	36.75	8.62
7.00	237.69	17.00	40.30	27.00	15.98	37.00	8.51
7.25	221.58	17.25	39.14	27.25	15.68	37.25	8.39
7.50	207.05	17.50	38.03	27.50	15.40	37.50	8.28
7.75	193.91	17.75	36.97	27.75	15.12	37.75	8.17
8.00	181.98	18.00	35.95	28.00	14.86	38.00	8.07
8.25	171.12	18.25	34.97	28.25	14.59	38.25	7.96
8.50	161.20	18.50	34.03	28.50	14.34	38.50	7.86
8.75	152.12	18.75	33.13	28.75	14.09	38.75	7.76
9.00	143.79	19.00	32.26	29.00	13.85	39.00	7.66
9.25	136.12	19.25	31.43	29.25	13.61	39.25	7.56
9.50	129.05	19.50	30.63	29.50	13.38	39.50	7.46
9.75	122.52	19.75	29.86	29.75	13.16	39.75	7.37
10.00	116.47	20.00	29.12	30.00	12.94	40.00	7.28

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)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 70%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 4.50

53.98 Inches

BioInitiative ft. 342.00

4104.00 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	7.19	54.25	3.96	68.25	2.50	82.25	1.72
40.50	7.10	54.50	3.92	68.50	2.48	82.50	1.71
40.75	7.01	54.75	3.89	68.75	2.46	82.75	1.70
41.00	6.93	55.00	3.85	69.00	2.45	83.00	1.69
41.25	6.84	55.25	3.82	69.25	2.43	83.25	1.68
41.50	6.76	55.50	3.78	69.50	2.41	83.50	1.67
41.75	6.68	55.75	3.75	69.75	2.39	83.75	1.66
42.00	6.60	56.00	3.71	70.00	2.38	84.00	1.65
42.25	6.52	56.25	3.68	70.25	2.36	84.25	1.64
42.50	6.45	56.50	3.65	70.50	2.34	84.50	1.63
42.75	6.37	56.75	3.62	70.75	2.33	84.75	1.62
43.00	6.30	57.00	3.58	71.00	2.31	85.00	1.61
43.25	6.23	57.25	3.55	71.25	2.29	85.25	1.60
43.50	6.15	57.50	3.52	71.50	2.28	85.50	1.59
43.75	6.08	57.75	3.49	71.75	2.26	85.75	1.58
44.00	6.02	58.00	3.46	72.00	2.25	86.00	1.57
44.25	5.95	58.25	3.43	72.25	2.23	86.25	1.57
44.50	5.88	58.50	3.40	72.50	2.22	86.50	1.56
44.75	5.82	58.75	3.37	72.75	2.20	86.75	1.55
45.00	5.75	59.00	3.35	73.00	2.19	87.00	1.54
45.25	5.69	59.25	3.32	73.25	2.17	87.25	1.53
45.50	5.63	59.50	3.29	73.50	2.16	87.50	1.52
45.75	5.56	59.75	3.26	73.75	2.14	87.75	1.51
46.00	5.50	60.00	3.24	74.00	2.13	88.00	1.50
46.25	5.44	60.25	3.21	74.25	2.11	88.25	1.50
46.50	5.39	60.50	3.18	74.50	2.10	88.50	1.49
46.75	5.33	60.75	3.16	74.75	2.08	88.75	1.48
47.00	5.27	61.00	3.13	75.00	2.07	89.00	1.47
47.25	5.22	61.25	3.10	75.25	2.06	89.25	1.46
47.50	5.16	61.50	3.08	75.50	2.04	89.50	1.45
47.75	5.11	61.75	3.05	75.75	2.03	89.75	1.45
48.00	5.05	62.00	3.03	76.00	2.02	90.00	1.44
48.25	5.00	62.25	3.01	76.25	2.00	90.25	1.43
48.50	4.95	62.50	2.98	76.50	1.99	90.50	1.42
48.75	4.90	62.75	2.96	76.75	1.98	90.75	1.41
49.00	4.85	63.00	2.93	77.00	1.96	91.00	1.41
49.25	4.80	63.25	2.91	77.25	1.95	91.25	1.40
49.50	4.75	63.50	2.89	77.50	1.94	91.50	1.39
49.75	4.71	63.75	2.87	77.75	1.93	91.75	1.38
50.00	4.66	64.00	2.84	78.00	1.91	92.00	1.38
50.25	4.61	64.25	2.82	78.25	1.90	92.25	1.37
50.50	4.57	64.50	2.80	78.50	1.89	92.50	1.36
50.75	4.52	64.75	2.78	78.75	1.88	92.75	1.35
51.00	4.48	65.00	2.76	79.00	1.87	93.00	1.35
51.25	4.43	65.25	2.74	79.25	1.85	93.25	1.34
51.50	4.39	65.50	2.71	79.50	1.84	93.50	1.33
51.75	4.35	65.75	2.69	79.75	1.83	93.75	1.33
52.00	4.31	66.00	2.67	80.00	1.82	94.00	1.32
52.25	4.27	66.25	2.65	80.25	1.81	94.25	1.31
52.50	4.23	66.50	2.63	80.50	1.80	94.50	1.30
52.75	4.19	66.75	2.61	80.75	1.79	94.75	1.30
53.00	4.15	67.00	2.59	81.00	1.78	95.00	1.29
53.25	4.11	67.25	2.58	81.25	1.76	95.25	1.28
53.50	4.07	67.50	2.56	81.50	1.75	95.50	1.28
53.75	4.03	67.75	2.54	81.75	1.74	95.75	1.27
54.00	3.99	68.00	2.52	82.00	1.73	96.00	1.26



# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 80%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 4.81 57.7 Inches

BioInitiative ft. 365.00 4380.0 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	212966.62	10.25	126.69	20.25	32.46	30.25	14.55
0.50	53241.65	10.50	120.73	20.50	31.67	30.50	14.31
0.75	23662.96	10.75	115.18	20.75	30.91	30.75	14.08
1.00	13310.41	11.00	110.00	21.00	30.18	31.00	13.85
1.25	8518.66	11.25	105.17	21.25	29.48	31.25	13.63
1.50	5915.74	11.50	100.65	21.50	28.79	31.50	13.41
1.75	4346.26	11.75	96.41	21.75	28.14	31.75	13.20
2.00	3327.60	12.00	92.43	22.00	27.50	32.00	13.00
2.25	2629.22	12.25	88.70	22.25	26.89	32.25	12.80
2.50	2129.67	12.50	85.19	22.50	26.29	32.50	12.60
2.75	1760.05	12.75	81.88	22.75	25.72	32.75	12.41
3.00	1478.93	13.00	78.76	23.00	25.16	33.00	12.22
3.25	1260.16	13.25	75.82	23.25	24.62	33.25	12.04
3.50	1086.56	13.50	73.03	23.50	24.10	33.50	11.86
3.75	946.52	13.75	70.40	23.75	23.60	33.75	11.69
4.00	831.90	14.00	67.91	24.00	23.11	34.00	11.51
4.25	736.91	14.25	65.55	24.25	22.63	34.25	11.35
4.50	657.30	14.50	63.31	24.50	22.17	34.50	11.18
4.75	589.94	14.75	61.18	24.75	21.73	34.75	11.02
5.00	532.42	15.00	59.16	25.00	21.30	35.00	10.87
5.25	482.92	15.25	57.23	25.25	20.88	35.25	10.71
5.50	440.01	15.50	55.40	25.50	20.47	35.50	10.56
5.75	402.58	15.75	53.66	25.75	20.07	35.75	10.41
6.00	369.73	16.00	51.99	26.00	19.69	36.00	10.27
6.25	340.75	16.25	50.41	26.25	19.32	36.25	10.13
6.50	315.04	16.50	48.89	26.50	18.95	36.50	9.99
6.75	292.14	16.75	47.44	26.75	18.60	36.75	9.86
7.00	271.64	17.00	46.06	27.00	18.26	37.00	9.72
7.25	253.23	17.25	44.73	27.25	17.92	37.25	9.59
7.50	236.63	17.50	43.46	27.50	17.60	37.50	9.47
7.75	221.61	17.75	42.25	27.75	17.28	37.75	9.34
8.00	207.98	18.00	41.08	28.00	16.98	38.00	9.22
8.25	195.56	18.25	39.96	28.25	16.68	38.25	9.10
8.50	184.23	18.50	38.89	28.50	16.39	38.50	8.98
8.75	173.85	18.75	37.86	28.75	16.10	38.75	8.86
9.00	164.33	19.00	36.87	29.00	15.83	39.00	8.75
9.25	155.56	19.25	35.92	29.25	15.56	39.25	8.64
9.50	147.48	19.50	35.00	29.50	15.29	39.50	8.53
9.75	140.02	19.75	34.12	29.75	15.04	39.75	8.42
10.00	133.10	20.00	33.28	30.00	14.79	40.00	8.32

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)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 80%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 4.81

57.71 Inches

BioInitiative ft. 365.00

4380.00 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	8.22	54.25	4.52	68.25	2.86	82.25	1.97
40.50	8.11	54.50	4.48	68.50	2.84	82.50	1.96
40.75	8.02	54.75	4.44	68.75	2.82	82.75	1.94
41.00	7.92	55.00	4.40	69.00	2.80	83.00	1.93
41.25	7.82	55.25	4.36	69.25	2.78	83.25	1.92
41.50	7.73	55.50	4.32	69.50	2.76	83.50	1.91
41.75	7.64	55.75	4.28	69.75	2.74	83.75	1.90
42.00	7.55	56.00	4.24	70.00	2.72	84.00	1.89
42.25	7.46	56.25	4.21	70.25	2.70	84.25	1.88
42.50	7.37	56.50	4.17	70.50	2.68	84.50	1.86
42.75	7.28	56.75	4.13	70.75	2.66	84.75	1.85
43.00	7.20	57.00	4.10	71.00	2.64	85.00	1.84
43.25	7.12	57.25	4.06	71.25	2.62	85.25	1.83
43.50	7.03	57.50	4.03	71.50	2.60	85.50	1.82
43.75	6.95	57.75	3.99	71.75	2.59	85.75	1.81
44.00	6.88	58.00	3.96	72.00	2.57	86.00	1.80
44.25	6.80	58.25	3.92	72.25	2.55	86.25	1.79
44.50	6.72	58.50	3.89	72.50	2.53	86.50	1.78
44.75	6.65	58.75	3.86	72.75	2.51	86.75	1.77
45.00	6.57	59.00	3.82	73.00	2.50	87.00	1.76
45.25	6.50	59.25	3.79	73.25	2.48	87.25	1.75
45.50	6.43	59.50	3.76	73.50	2.46	87.50	1.74
45.75	6.36	59.75	3.73	73.75	2.45	87.75	1.73
46.00	6.29	60.00	3.70	74.00	2.43	88.00	1.72
46.25	6.22	60.25	3.67	74.25	2.41	88.25	1.71
46.50	6.16	60.50	3.64	74.50	2.40	88.50	1.70
46.75	6.09	60.75	3.61	74.75	2.38	88.75	1.69
47.00	6.03	61.00	3.58	75.00	2.37	89.00	1.68
47.25	5.96	61.25	3.55	75.25	2.35	89.25	1.67
47.50	5.90	61.50	3.52	75.50	2.34	89.50	1.66
47.75	5.84	61.75	3.49	75.75	2.32	89.75	1.65
48.00	5.78	62.00	3.46	76.00	2.30	90.00	1.64
48.25	5.72	62.25	3.43	76.25	2.29	90.25	1.63
48.50	5.66	62.50	3.41	76.50	2.27	90.50	1.63
48.75	5.60	62.75	3.38	76.75	2.26	90.75	1.62
49.00	5.54	63.00	3.35	77.00	2.24	91.00	1.61
49.25	5.49	63.25	3.33	77.25	2.23	91.25	1.60
49.50	5.43	63.50	3.30	77.50	2.22	91.50	1.59
49.75	5.38	63.75	3.28	77.75	2.20	91.75	1.58
50.00	5.32	64.00	3.25	78.00	2.19	92.00	1.57
50.25	5.27	64.25	3.22	78.25	2.17	92.25	1.56
50.50	5.22	64.50	3.20	78.50	2.16	92.50	1.56
50.75	5.17	64.75	3.17	78.75	2.15	92.75	1.55
51.00	5.12	65.00	3.15	79.00	2.13	93.00	1.54
51.25	5.07	65.25	3.13	79.25	2.12	93.25	1.53
51.50	5.02	65.50	3.10	79.50	2.11	93.50	1.52
51.75	4.97	65.75	3.08	79.75	2.09	93.75	1.51
52.00	4.92	66.00	3.06	80.00	2.08	94.00	1.51
52.25	4.88	66.25	3.03	80.25	2.07	94.25	1.50
52.50	4.83	66.50	3.01	80.50	2.05	94.50	1.49
52.75	4.78	66.75	2.99	80.75	2.04	94.75	1.48
53.00	4.74	67.00	2.97	81.00	2.03	95.00	1.47
53.25	4.69	67.25	2.94	81.25	2.02	95.25	1.47
53.50	4.65	67.50	2.92	81.50	2.00	95.50	1.46
53.75	4.61	67.75	2.90	81.75	1.99	95.75	1.45
54.00	4.56	68.00	2.88	82.00	1.98	96.00	1.44

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

**Meters** 1 Collector Meter

Time Avg: 90%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 5.10 61.2 Inches

BioInitiative ft. 387.00 4644.0 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	239587.44	10.25	142.53	20.25	36.52	30.25	16.36
0.50	59896.86	10.50	135.82	20.50	35.63	30.50	16.10
0.75	26620.83	10.75	129.58	20.75	34.78	30.75	15.84
1.00	14974.22	11.00	123.75	21.00	33.96	31.00	15.58
1.25	9583.50	11.25	118.31	21.25	33.16	31.25	15.33
1.50	6655.21	11.50	113.23	21.50	32.39	31.50	15.09
1.75	4889.54	11.75	108.46	21.75	31.65	31.75	14.85
2.00	3743.55	12.00	103.99	22.00	30.94	32.00	14.62
2.25	2957.87	12.25	99.79	22.25	30.25	32.25	14.40
2.50	2395.87	12.50	95.83	22.50	29.58	32.50	14.18
2.75	1980.06	12.75	92.11	22.75	28.93	32.75	13.96
3.00	1663.80	13.00	88.60	23.00	28.31	33.00	13.75
3.25	1417.68	13.25	85.29	23.25	27.70	33.25	13.54
3.50	1222.38	13.50	82.16	23.50	27.11	33.50	13.34
3.75	1064.83	13.75	79.20	23.75	26.55	33.75	13.15
4.00	935.89	14.00	76.40	24.00	26.00	34.00	12.95
4.25	829.02	14.25	73.74	24.25	25.46	34.25	12.77
4.50	739.47	14.50	71.22	24.50	24.95	34.50	12.58
4.75	663.68	14.75	68.83	24.75	24.45	34.75	12.40
5.00	598.97	15.00	66.55	25.00	23.96	35.00	12.22
5.25	543.28	15.25	64.39	25.25	23.49	35.25	12.05
5.50	495.02	15.50	62.33	25.50	23.03	35.50	11.88
5.75	452.91	15.75	60.36	25.75	22.58	35.75	11.72
6.00	415.95	16.00	58.49	26.00	22.15	36.00	11.55
6.25	383.34	16.25	56.71	26.25	21.73	36.25	11.40
6.50	354.42	16.50	55.00	26.50	21.32	36.50	11.24
6.75	328.65	16.75	53.37	26.75	20.93	36.75	11.09
7.00	305.60	17.00	51.81	27.00	20.54	37.00	10.94
7.25	284.88	17.25	50.32	27.25	20.17	37.25	10.79
7.50	266.21	17.50	48.90	27.50	19.80	37.50	10.65
7.75	249.31	17.75	47.53	27.75	19.45	37.75	10.51
8.00	233.97	18.00	46.22	28.00	19.10	38.00	10.37
8.25	220.01	18.25	44.96	28.25	18.76	38.25	10.23
8.50	207.26	18.50	43.75	28.50	18.44	38.50	10.10
8.75	195.58	18.75	42.59	28.75	18.12	38.75	9.97
9.00	184.87	19.00	41.48	29.00	17.81	39.00	9.84
9.25	175.01	19.25	40.41	29.25	17.50	39.25	9.72
9.50	165.92	19.50	39.38	29.50	17.21	39.50	9.60
9.75	157.52	19.75	38.39	29.75	16.92	39.75	9.48
10.00	149.74	20.00	37.44	30.00	16.64	40.00	9.36

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)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 90%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 5.10

61.21 Inches

BioInitiative ft. 387.00

4644.00 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	9.24	54.25	5.09	68.25	3.21	82.25	2.21
40.50	9.13	54.50	5.04	68.50	3.19	82.50	2.20
40.75	9.02	54.75	5.00	68.75	3.17	82.75	2.19
41.00	8.91	55.00	4.95	69.00	3.15	83.00	2.17
41.25	8.80	55.25	4.91	69.25	3.12	83.25	2.16
41.50	8.69	55.50	4.86	69.50	3.10	83.50	2.15
41.75	8.59	55.75	4.82	69.75	3.08	83.75	2.13
42.00	8.49	56.00	4.77	70.00	3.06	84.00	2.12
42.25	8.39	56.25	4.73	70.25	3.03	84.25	2.11
42.50	8.29	56.50	4.69	70.50	3.01	84.50	2.10
42.75	8.19	56.75	4.65	70.75	2.99	84.75	2.08
43.00	8.10	57.00	4.61	71.00	2.97	85.00	2.07
43.25	8.01	57.25	4.57	71.25	2.95	85.25	2.06
43.50	7.91	57.50	4.53	71.50	2.93	85.50	2.05
43.75	7.82	57.75	4.49	71.75	2.91	85.75	2.04
44.00	7.73	58.00	4.45	72.00	2.89	86.00	2.02
44.25	7.65	58.25	4.41	72.25	2.87	86.25	2.01
44.50	7.56	58.50	4.38	72.50	2.85	86.50	2.00
44.75	7.48	58.75	4.34	72.75	2.83	86.75	1.99
45.00	7.39	59.00	4.30	73.00	2.81	87.00	1.98
45.25	7.31	59.25	4.27	73.25	2.79	87.25	1.97
45.50	7.23	59.50	4.23	73.50	2.77	87.50	1.96
45.75	7.15	59.75	4.19	73.75	2.75	87.75	1.94
46.00	7.08	60.00	4.16	74.00	2.73	88.00	1.93
46.25	7.00	60.25	4.13	74.25	2.72	88.25	1.92
46.50	6.93	60.50	4.09	74.50	2.70	88.50	1.91
46.75	6.85	60.75	4.06	74.75	2.68	88.75	1.90
47.00	6.78	61.00	4.02	75.00	2.66	89.00	1.89
47.25	6.71	61.25	3.99	75.25	2.64	89.25	1.88
47.50	6.64	61.50	3.96	75.50	2.63	89.50	1.87
47.75	6.57	61.75	3.93	75.75	2.61	89.75	1.86
48.00	6.50	62.00	3.90	76.00	2.59	90.00	1.85
48.25	6.43	62.25	3.86	76.25	2.58	90.25	1.84
48.50	6.37	62.50	3.83	76.50	2.56	90.50	1.83
48.75	6.30	62.75	3.80	76.75	2.54	90.75	1.82
49.00	6.24	63.00	3.77	77.00	2.53	91.00	1.81
49.25	6.17	63.25	3.74	77.25	2.51	91.25	1.80
49.50	6.11	63.50	3.71	77.50	2.49	91.50	1.79
49.75	6.05	63.75	3.68	77.75	2.48	91.75	1.78
50.00	5.99	64.00	3.66	78.00	2.46	92.00	1.77
50.25	5.93	64.25	3.63	78.25	2.45	92.25	1.76
50.50	5.87	64.50	3.60	78.50	2.43	92.50	1.75
50.75	5.81	64.75	3.57	78.75	2.41	92.75	1.74
51.00	5.76	65.00	3.54	79.00	2.40	93.00	1.73
51.25	5.70	65.25	3.52	79.25	2.38	93.25	1.72
51.50	5.65	65.50	3.49	79.50	2.37	93.50	1.71
51.75	5.59	65.75	3.46	79.75	2.35	93.75	1.70
52.00	5.54	66.00	3.44	80.00	2.34	94.00	1.69
52.25	5.48	66.25	3.41	80.25	2.33	94.25	1.69
52.50	5.43	66.50	3.39	80.50	2.31	94.50	1.68
52.75	5.38	66.75	3.36	80.75	2.30	94.75	1.67
53.00	5.33	67.00	3.34	81.00	2.28	95.00	1.66
53.25	5.28	67.25	3.31	81.25	2.27	95.25	1.65
53.50	5.23	67.50	3.29	81.50	2.25	95.50	1.64
53.75	5.18	67.75	3.26	81.75	2.24	95.75	1.63
54.00	5.14	68.00	3.24	82.00	2.23	96.00	1.62

Table 11 – 90%

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

**Meters** 1 Collector Meter

Time Avg: 100%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 5.38 64.5 Inches

BioInitiative ft. 407.00 4884.0 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	266208.27	10.25	158.36	20.25	40.57	30.25	18.18
0.50	66552.07	10.50	150.91	20.50	39.59	30.50	17.89
0.75	29578.70	10.75	143.97	20.75	38.64	30.75	17.60
1.00	16638.02	11.00	137.50	21.00	37.73	31.00	17.31
1.25	10648.33	11.25	131.46	21.25	36.85	31.25	17.04
1.50	7394.67	11.50	125.81	21.50	35.99	31.50	16.77
1.75	5432.82	11.75	120.51	21.75	35.17	31.75	16.50
2.00	4159.50	12.00	115.54	22.00	34.38	32.00	16.25
2.25	3286.52	12.25	110.87	22.25	33.61	32.25	16.00
2.50	2662.08	12.50	106.48	22.50	32.87	32.50	15.75
2.75	2200.07	12.75	102.35	22.75	32.15	32.75	15.51
3.00	1848.67	13.00	98.45	23.00	31.45	33.00	15.28
3.25	1575.20	13.25	94.77	23.25	30.78	33.25	15.05
3.50	1358.21	13.50	91.29	23.50	30.13	33.50	14.83
3.75	1183.15	13.75	88.00	23.75	29.50	33.75	14.61
4.00	1039.88	14.00	84.89	24.00	28.89	34.00	14.39
4.25	921.14	14.25	81.94	24.25	28.29	34.25	14.18
4.50	821.63	14.50	79.13	24.50	27.72	34.50	13.98
4.75	737.42	14.75	76.47	24.75	27.16	34.75	13.78
5.00	665.52	15.00	73.95	25.00	26.62	35.00	13.58
5.25	603.65	15.25	71.54	25.25	26.10	35.25	13.39
5.50	550.02	15.50	69.25	25.50	25.59	35.50	13.20
5.75	503.23	15.75	67.07	25.75	25.09	35.75	13.02
6.00	462.17	16.00	64.99	26.00	24.61	36.00	12.84
6.25	425.93	16.25	63.01	26.25	24.15	36.25	12.66
6.50	393.80	16.50	61.11	26.50	23.69	36.50	12.49
6.75	365.17	16.75	59.30	26.75	23.25	36.75	12.32
7.00	339.55	17.00	57.57	27.00	22.82	37.00	12.15
7.25	316.54	17.25	55.91	27.25	22.41	37.25	11.99
7.50	295.79	17.50	54.33	27.50	22.00	37.50	11.83
7.75	277.01	17.75	52.81	27.75	21.61	37.75	11.68
8.00	259.97	18.00	51.35	28.00	21.22	38.00	11.52
8.25	244.45	18.25	49.95	28.25	20.85	38.25	11.37
8.50	230.28	18.50	48.61	28.50	20.48	38.50	11.22
8.75	217.31	18.75	47.33	28.75	20.13	38.75	11.08
9.00	205.41	19.00	46.09	29.00	19.78	39.00	10.94
9.25	194.45	19.25	44.90	29.25	19.45	39.25	10.80
9.50	184.35	19.50	43.76	29.50	19.12	39.50	10.66
9.75	175.02	19.75	42.65	29.75	18.80	39.75	10.53
10.00	166.38	20.00	41.60	30.00	18.49	40.00	10.40

Notes:

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

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

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

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

$$\pi() = 3.1459$$

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

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

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

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) Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010

5) TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)

6) Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 Collector Meter – 1000% reflections)

Meters 1 Collector Meter

Time Avg: 100%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 5.38

64.52 Inches

BioInitiative ft. 407.00

4884.00 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	10.27	54.25	5.65	68.25	3.57	82.25	2.46
40.50	10.14	54.50	5.60	68.50	3.55	82.50	2.44
40.75	10.02	54.75	5.55	68.75	3.52	82.75	2.43
41.00	9.90	55.00	5.50	69.00	3.49	83.00	2.42
41.25	9.78	55.25	5.45	69.25	3.47	83.25	2.40
41.50	9.66	55.50	5.40	69.50	3.44	83.50	2.39
41.75	9.55	55.75	5.35	69.75	3.42	83.75	2.37
42.00	9.43	56.00	5.31	70.00	3.40	84.00	2.36
42.25	9.32	56.25	5.26	70.25	3.37	84.25	2.34
42.50	9.21	56.50	5.21	70.50	3.35	84.50	2.33
42.75	9.10	56.75	5.17	70.75	3.32	84.75	2.32
43.00	9.00	57.00	5.12	71.00	3.30	85.00	2.30
43.25	8.89	57.25	5.08	71.25	3.28	85.25	2.29
43.50	8.79	57.50	5.03	71.50	3.25	85.50	2.28
43.75	8.69	57.75	4.99	71.75	3.23	85.75	2.26
44.00	8.59	58.00	4.95	72.00	3.21	86.00	2.25
44.25	8.50	58.25	4.90	72.25	3.19	86.25	2.24
44.50	8.40	58.50	4.86	72.50	3.17	86.50	2.22
44.75	8.31	58.75	4.82	72.75	3.14	86.75	2.21
45.00	8.22	59.00	4.78	73.00	3.12	87.00	2.20
45.25	8.13	59.25	4.74	73.25	3.10	87.25	2.19
45.50	8.04	59.50	4.70	73.50	3.08	87.50	2.17
45.75	7.95	59.75	4.66	73.75	3.06	87.75	2.16
46.00	7.86	60.00	4.62	74.00	3.04	88.00	2.15
46.25	7.78	60.25	4.58	74.25	3.02	88.25	2.14
46.50	7.69	60.50	4.55	74.50	3.00	88.50	2.12
46.75	7.61	60.75	4.51	74.75	2.98	88.75	2.11
47.00	7.53	61.00	4.47	75.00	2.96	89.00	2.10
47.25	7.45	61.25	4.43	75.25	2.94	89.25	2.09
47.50	7.37	61.50	4.40	75.50	2.92	89.50	2.08
47.75	7.30	61.75	4.36	75.75	2.90	89.75	2.07
48.00	7.22	62.00	4.33	76.00	2.88	90.00	2.05
48.25	7.15	62.25	4.29	76.25	2.86	90.25	2.04
48.50	7.07	62.50	4.26	76.50	2.84	90.50	2.03
48.75	7.00	62.75	4.23	76.75	2.82	90.75	2.02
49.00	6.93	63.00	4.19	77.00	2.81	91.00	2.01
49.25	6.86	63.25	4.16	77.25	2.79	91.25	2.00
49.50	6.79	63.50	4.13	77.50	2.77	91.50	1.99
49.75	6.72	63.75	4.09	77.75	2.75	91.75	1.98
50.00	6.66	64.00	4.06	78.00	2.73	92.00	1.97
50.25	6.59	64.25	4.03	78.25	2.72	92.25	1.96
50.50	6.52	64.50	4.00	78.50	2.70	92.50	1.94
50.75	6.46	64.75	3.97	78.75	2.68	92.75	1.93
51.00	6.40	65.00	3.94	79.00	2.67	93.00	1.92
51.25	6.33	65.25	3.91	79.25	2.65	93.25	1.91
51.50	6.27	65.50	3.88	79.50	2.63	93.50	1.90
51.75	6.21	65.75	3.85	79.75	2.62	93.75	1.89
52.00	6.15	66.00	3.82	80.00	2.60	94.00	1.88
52.25	6.09	66.25	3.79	80.25	2.58	94.25	1.87
52.50	6.04	66.50	3.76	80.50	2.57	94.50	1.86
52.75	5.98	66.75	3.73	80.75	2.55	94.75	1.85
53.00	5.92	67.00	3.71	81.00	2.54	95.00	1.84
53.25	5.87	67.25	3.68	81.25	2.52	95.25	1.83
53.50	5.81	67.50	3.65	81.50	2.50	95.50	1.82
53.75	5.76	67.75	3.62	81.75	2.49	95.75	1.81
54.00	5.71	68.00	3.60	82.00	2.47	96.00	1.81

Table 11 – 100%