

## Appendix A – Radiated and Conducted Emissions Measurement Data

### A.1 Conducted Emissions Data

Conducted emissions limits do not apply to this Access BPL equipment

### A.2 Radiated Emissions Data

#### A.2.1 1.705 MHz to 30 MHz

Date: February 7, 2008

EUT: CURRENT Bridge URD 6111 (S/N: 13018AD900433074)

Location: CURRENT Potomac Test Area – C-7053

Mode: LV and MV Active (transmitting LV-signal, 4.4 MHz to 20.8 MHz)

Frequency (MHz)	Antenna Location	Antenna Height (m)	QP Level Measured on Analyzer (dBμV/m)	Measurement Distance (m)	Distance Correction Factor to 30m (dB)	QP Level Corrected to 30m (dBμV/m)	30m Limit (dBμV/m)	Margin (dB)
6.43	0°	1	64.33	3	-40.0	24.33	29.5	-5.17
6.63	0°	1	64.08	3	-40.0	24.08	29.5	-5.42
4.48	0°	1	59.22	3	-40.0	19.22	29.5	-10.28
6.23	0°	1	62.30	3	-40.0	22.30	29.5	-7.20
4.48	22.5°	1	61.52	3	-40.0	21.52	29.5	-7.98
6.63	22.5°	1	65.16	3	-40.0	25.16	29.5	-4.34
11.74	22.5°	1	59.12	3	-40.0	19.12	29.5	-10.38
11.30	22.5°	1	59.24	3	-40.0	19.24	29.5	-10.26
6.42	45°	1	64.16	3	-40.0	24.16	29.5	-5.34
4.48	45°	1	61.73	3	-40.0	21.73	29.5	-7.77
11.51	45°	1	60.59	3	-40.0	20.59	29.5	-8.91
11.90	45°	1	55.69	3	-40.0	15.69	29.5	-13.81
8.97	67.5°	1	63.79	3	-40.0	23.79	29.5	-5.71
4.67	67.5°	1	60.23	3	-40.0	20.23	29.5	-9.27
11.51	67.5°	1	62.81	3	-40.0	22.81	29.5	-6.69
11.90	67.5°	1	53.83	3	-40.0	13.83	29.5	-15.67
6.62	90°	1	65.61	3	-40.0	25.61	29.5	-3.89
6.26	90°	1	64.04	3	-40.0	24.04	29.5	-5.46
4.48	90°	1	60.69	3	-40.0	20.69	29.5	-8.81
9.36	90°	1	59.48	3	-40.0	19.48	29.5	-10.02
6.07	112.5°	1	54.91	3	-40.0	14.91	29.5	-14.59
6.46	112.5°	1	54.98	3	-40.0	14.98	29.5	-14.52
19.15	112.5°	1	51.60	3	-40.0	11.60	29.5	-17.90
19.53	112.5°	1	50.50	3	-40.0	10.50	29.5	-19.00
6.07	135°	1	60.23	3	-40.0	20.23	29.5	-9.27
5.65	135°	1	58.22	3	-40.0	18.22	29.5	-11.28
6.62	135°	1	59.24	3	-40.0	19.24	29.5	-10.26
4.50	135°	1	63.04	3	-40.0	23.04	29.5	-6.46
9.60	157.5°	1	57.68	3	-40.0	17.68	29.5	-11.82
10.53	157.5°	1	55.40	3	-40.0	15.40	29.5	-14.10
10.76	157.5°	1	55.49	3	-40.0	15.49	29.5	-14.01
16.60	157.5°	1	53.73	3	-40.0	13.73	29.5	-15.77

Frequency	Antenna Location	Antenna Height (m)	QP Level Measured on Analyzer	Measurement Distance	Distance Correction Factor to 30m	QP Level Corrected to 30m (dBμV/m)	30m Limit (dBμV/m)	Margin (dB)
9.80	180°	1	54.35	3	-40.0	14.35	29.5	-15.15
8.98	180°	1	55.22	3	-40.0	15.22	29.5	-14.28
16.40	180°	1	52.16	3	-40.0	12.16	29.5	-17.34
17.00	180°	1	53.37	3	-40.0	13.37	29.5	-16.13
9.38	202.5°	1	51.67	3	-40.0	11.67	29.5	-17.83
9.80	202.5°	1	52.45	3	-40.0	12.45	29.5	-17.05
16.80	202.5°	1	53.11	3	-40.0	13.11	29.5	-16.39
17.37	202.5°	1	50.58	3	-40.0	10.58	29.5	-18.92
9.81	225°	1	50.84	3	-40.0	10.84	29.5	-18.66
9.61	225°	1	51.66	3	-40.0	11.66	29.5	-17.84
18.96	225°	1	56.78	3	-40.0	16.78	29.5	-12.72
16.60	225°	1	54.63	3	-40.0	14.63	29.5	-14.87
9.38	247.5°	1	47.83	3	-40.0	7.83	29.5	-21.67
9.98	247.5°	1	46.63	3	-40.0	6.63	29.5	-22.87
8.81	247.5°	1	48.17	3	-40.0	8.17	29.5	-21.33
19.10	247.5°	1	55.86	3	-40.0	15.86	29.5	-13.64
9.38	270°	1	47.83	3	-40.0	7.83	29.5	-21.67
9.98	270°	1	46.63	3	-40.0	6.63	29.5	-22.87
8.81	270°	1	48.17	3	-40.0	8.17	29.5	-21.33
19.10	270°	1	55.86	3	-40.0	15.86	29.5	-13.64
9.38	292.5°	1	47.83	3	-40.0	7.83	29.5	-21.67
9.98	292.5°	1	46.63	3	-40.0	6.63	29.5	-22.87
8.81	292.5°	1	48.17	3	-40.0	8.17	29.5	-21.33
19.10	292.5°	1	55.86	3	-40.0	15.86	29.5	-13.64
9.38	315°	1	47.83	3	-40.0	7.83	29.5	-21.67
9.98	315°	1	46.63	3	-40.0	6.63	29.5	-22.87
8.81	315°	1	48.17	3	-40.0	8.17	29.5	-21.33
19.10	315°	1	55.86	3	-40.0	15.86	29.5	-13.64
9.38	337.5°	1	47.83	3	-40.0	7.83	29.5	-21.67
9.98	337.5°	1	46.63	3	-40.0	6.63	29.5	-22.87
8.81	337.5°	1	48.17	3	-40.0	8.17	29.5	-21.33
19.10	337.5°	1	55.86	3	-40.0	15.86	29.5	-13.64

Date: February 21, 2008  
 EUT: CURRENT Bridge URD 6111 (S/N: 13018AD900433074)  
 Location: CURRENT Gaithersburg Test Area – A-9204  
 Mode: LV Active (transmitting LV-signal, 4.4 MHz to 20.8 MHz)

Frequency (MHz)	Antenna Location	Antenna Height (m)	QP Level Measured on Analyzer (dBμV/m)	Measurement Distance (m)	Distance Correction Factor to 30m (dB)	QP Level Corrected to 30m (dBμV/m)	30m Limit (dBμV/m)	Margin (dB)
19.16	0°	1	58.39	3	-40.0	18.39	29.5	-11.11
20.70	0°	1	55.87	3	-40.0	15.87	29.5	-13.63
19.52	0°	1	56.61	3	-40.0	16.61	29.5	-12.89
11.57	0°	1	51.34	3	-40.0	11.34	29.5	-18.16
19.15	22.5°	1	56.67	3	-40.0	16.67	29.5	-12.83
19.30	22.5°	1	55.97	3	-40.0	15.97	29.5	-13.53
18.96	22.5°	1	55.99	3	-40.0	15.99	29.5	-13.51
11.77	22.5°	1	43.83	3	-40.0	3.83	29.5	-25.67
18.96	45°	1	55.37	3	-40.0	15.37	29.5	-14.13
19.15	45°	1	55.69	3	-40.0	15.69	29.5	-13.81
13.80	45°	1	43.77	3	-40.0	3.77	29.5	-25.73
11.77	45°	1	40.03	3	-40.0	0.03	29.5	-29.47
9.63	67.5°	1	47.99	3	-40.0	7.99	29.5	-21.51
8.20	67.5°	1	48.92	3	-40.0	8.92	29.5	-20.58
19.15	67.5°	1	55.31	3	-40.0	15.31	29.5	-14.19
13.63	67.5°	1	47.85	3	-40.0	7.85	29.5	-21.65
8.41	90°	1	44.19	3	-40.0	4.19	29.5	-25.31
9.80	90°	1	49.48	3	-40.0	9.48	29.5	-20.02
19.33	90°	1	54.58	3	-40.0	14.58	29.5	-14.92
19.52	90°	1	53.52	3	-40.0	13.52	29.5	-15.98
4.70	112.5°	1	47.02	3	-40.0	7.02	29.5	-22.48
6.63	112.5°	1	46.67	3	-40.0	6.67	29.5	-22.83
13.68	112.5°	1	46.78	3	-40.0	6.78	29.5	-22.72
19.33	112.5°	1	52.74	3	-40.0	12.74	29.5	-16.76
6.25	135°	1	46.78	3	-40.0	6.78	29.5	-22.72
6.63	135°	1	46.67	3	-40.0	6.67	29.5	-22.83
13.67	135°	1	47.49	3	-40.0	7.49	29.5	-22.01
17.01	135°	1	47.56	3	-40.0	7.56	29.5	-21.94
6.23	157.5°	1	47.01	3	-40.0	7.01	29.5	-22.49
4.90	157.5°	1	45.13	3	-40.0	5.13	29.5	-24.37
13.68	157.5°	1	47.56	3	-40.0	7.56	29.5	-21.94
16.98	157.5°	1	47.60	3	-40.0	7.60	29.5	-21.90
4.70	180°	1	50.30	3	-40.0	10.30	29.5	-19.20
11.77	180°	1	44.54	3	-40.0	4.54	29.5	-24.96
18.96	180°	1	51.90	3	-40.0	11.90	29.5	-17.60
18.56	180°	1	46.95	3	-40.0	6.95	29.5	-22.55
9.36	202.5°	1	51.09	3	-40.0	11.09	29.5	-18.41
11.71	202.5°	1	54.28	3	-40.0	14.28	29.5	-15.22
18.89	202.5°	1	49.95	3	-40.0	9.95	29.5	-19.55
19.16	202.5°	1	51.08	3	-40.0	11.08	29.5	-18.42
4.68	225°	1	55.34	3	-40.0	15.34	29.5	-14.16
4.88	225°	1	53.09	3	-40.0	13.09	29.5	-16.41
11.72	225°	1	54.76	3	-40.0	14.76	29.5	-14.74
18.96	225°	1	48.65	3	-40.0	8.65	29.5	-20.85

Frequency	Antenna Location	Antenna Height (m)	QP Level Measured on Analyzer	Measurement Distance	Distance Correction Factor to 30m	QP Level Corrected to 30m (dBμV/m)	30m Limit (dBμV/m)	Margin (dB)
4.70	247.5°	1	54.01	3	-40.0	14.01	29.5	-15.49
11.73	247.5°	1	54.84	3	-40.0	14.84	29.5	-14.66
11.92	247.5°	1	53.03	3	-40.0	13.03	29.5	-16.47
18.96	247.5°	1	48.10	3	-40.0	8.10	29.5	-21.40
11.71	270°	1	55.32	3	-40.0	15.32	29.5	-14.18
11.90	270°	1	53.48	3	-40.0	13.48	29.5	-16.02
19.16	270°	1	45.78	3	-40.0	5.78	29.5	-23.72
18.75	270°	1	39.23	3	-40.0	-0.77	29.5	-30.27
8.02	292.5°	1	53.94	3	-40.0	13.94	29.5	-15.56
8.38	292.5°	1	50.45	3	-40.0	10.45	29.5	-19.05
11.72	292.5°	1	56.47	3	-40.0	16.47	29.5	-13.03
18.96	292.5°	1	43.36	3	-40.0	3.36	29.5	-26.14
11.72	315°	1	53.75	3	-40.0	13.75	29.5	-15.75
11.92	315°	1	51.40	3	-40.0	11.40	29.5	-18.10
19.15	315°	1	50.47	3	-40.0	10.47	29.5	-19.03
18.76	315°	1	43.39	3	-40.0	3.39	29.5	-26.11
4.70	337.5°	1	58.54	3	-40.0	18.54	29.5	-10.96
9.38	337.5°	1	50.44	3	-40.0	10.44	29.5	-19.06
17.20	337.5°	1	54.80	3	-40.0	14.80	29.5	-14.70
20.70	337.5°	1	52.06	3	-40.0	12.06	29.5	-17.44

Date: February 22, 2008

EUT: CURRENT Bridge URD 6111 (S/N: 13018AD900433074)

Location: CURRENT Gaithersburg Test Area – A-7042

Mode: LV Active (transmitting LV-signal, 4.4 MHz to 20.8 MHz)

Frequency	Antenna Location	Antenna Height (m)	QP Level Measured on Analyzer	Measurement Distance	Distance Correction Factor to 30m	QP Level Corrected to 30m (dBμV/m)	30m Limit (dBμV/m)	Margin (dB)
(MHz)			(dBμV/m)	(m)	(dB)			
9.39	0°	1	58.55	3	-40.0	18.55	29.5	-10.95
4.90	0°	1	53.02	3	-40.0	13.02	29.5	-16.48
11.57	0°	1	50.26	3	-40.0	10.26	29.5	-19.24
17.60	0°	1	44.14	3	-40.0	4.14	29.5	-25.36
5.08	22.5°	1	48.78	3	-40.0	8.78	29.5	-20.72
5.71	22.5°	1	47.34	3	-40.0	7.34	29.5	-22.16
11.57	22.5°	1	48.69	3	-40.0	8.69	29.5	-20.81
12.68	22.5°	1	51.97	3	-40.0	11.97	29.5	-17.53
5.60	45°	1	44.94	3	-40.0	4.94	29.5	-24.56
4.88	45°	1	46.97	3	-40.0	6.97	29.5	-22.53
11.57	45°	1	50.05	3	-40.0	10.05	29.5	-19.45
12.68	45°	1	54.01	3	-40.0	14.01	29.5	-15.49
11.58	67.5°	1	49.35	3	-40.0	9.35	29.5	-20.15
13.08	67.5°	1	53.21	3	-40.0	13.21	29.5	-16.29
12.48	67.5°	1	53.35	3	-40.0	13.35	29.5	-16.15
12.68	67.5°	1	53.91	3	-40.0	13.91	29.5	-15.59
11.53	90°	1	49.37	3	-40.0	9.37	29.5	-20.13
12.16	90°	1	51.04	3	-40.0	11.04	29.5	-18.46
13.85	90°	1	53.04	3	-40.0	13.04	29.5	-16.46
13.53	90°	1	55.25	3	-40.0	15.25	29.5	-14.25

Frequency	Antenna Location	Antenna Height (m)	QP Level Measured on Analyzer	Measurement Distance	Distance Correction Factor to 30m	QP Level Corrected to 30m (dBμV/m)	30m Limit (dBμV/m)	Margin (dB)
13.80	112.5°	1	51.81	3	-40.0	11.81	29.5	-17.69
13.45	112.5°	1	54.22	3	-40.0	14.22	29.5	-15.28
13.10	112.5°	1	52.47	3	-40.0	12.47	29.5	-17.03
17.60	112.5°	1	47.32	3	-40.0	7.32	29.5	-22.18
4.88	135°	1	48.25	3	-40.0	8.25	29.5	-21.25
6.06	135°	1	45.44	3	-40.0	5.44	29.5	-24.06
11.53	135°	1	42.57	3	-40.0	2.57	29.5	-26.93
13.85	135°	1	49.32	3	-40.0	9.32	29.5	-20.18
4.88	157.5°	1	50.30	3	-40.0	10.30	29.5	-19.20
6.07	157.5°	1	46.15	3	-40.0	6.15	29.5	-23.35
6.43	157.5°	1	45.78	3	-40.0	5.78	29.5	-23.72
7.62	157.5°	1	49.85	3	-40.0	9.85	29.5	-19.65
7.63	180°	1	49.75	3	-40.0	9.75	29.5	-19.75
4.88	180°	1	50.84	3	-40.0	10.84	29.5	-18.66
5.06	180°	1	48.19	3	-40.0	8.19	29.5	-21.31
17.20	180°	1	42.69	3	-40.0	2.69	29.5	-26.81
9.38	202.5°	1	57.11	3	-40.0	17.11	29.5	-12.39
7.62	202.5°	1	50.11	3	-40.0	10.11	29.5	-19.39
4.88	202.5°	1	49.52	3	-40.0	9.52	29.5	-19.98
12.16	202.5°	1	48.27	3	-40.0	8.27	29.5	-21.23
7.63	225°	1	50.68	3	-40.0	10.68	29.5	-18.82
8.25	225°	1	45.81	3	-40.0	5.81	29.5	-23.69
11.53	225°	1	49.74	3	-40.0	9.74	29.5	-19.76
17.52	225°	1	43.46	3	-40.0	3.46	29.5	-26.04
4.90	247.5°	1	52.21	3	-40.0	12.21	29.5	-17.29
12.16	247.5°	1	55.26	3	-40.0	15.26	29.5	-14.24
12.50	247.5°	1	55.89	3	-40.0	15.89	29.5	-13.61
20.12	247.5°	1	49.17	3	-40.0	9.17	29.5	-20.33
4.87	270°	1	56.37	3	-40.0	16.37	29.5	-13.13
5.10	270°	1	53.11	3	-40.0	13.11	29.5	-16.39
12.16	270°	1	54.11	3	-40.0	14.11	29.5	-15.39
20.30	270°	1	48.98	3	-40.0	8.98	29.5	-20.52
5.66	292.5°	1	52.95	3	-40.0	12.95	29.5	-16.55
4.86	292.5°	1	53.55	3	-40.0	13.55	29.5	-15.95
11.53	292.5°	1	49.71	3	-40.0	9.71	29.5	-19.79
19.93	292.5°	1	49.89	3	-40.0	9.89	29.5	-19.61
4.90	315°	1	53.98	3	-40.0	13.98	29.5	-15.52
4.70	315°	1	52.63	3	-40.0	12.63	29.5	-16.87
11.53	315°	1	46.30	3	-40.0	6.30	29.5	-23.20
20.70	315°	1	52.33	3	-40.0	12.33	29.5	-17.17
7.40	337.5°	1	50.27	3	-40.0	10.27	29.5	-19.23
4.88	337.5°	1	52.37	3	-40.0	12.37	29.5	-17.13
17.60	337.5°	1	44.11	3	-40.0	4.11	29.5	-25.39
16.90	337.5°	1	43.03	3	-40.0	3.03	29.5	-26.47

**A.2.3 50 MHz to 1000 MHz**

Date: February 12, 2008  
 EUT: CURRENT Bridge URD 6111 (S/N: 13018AD900433074)  
 Location: Washington Laboratories Open Area Test Site  
 Mode: LV Active (transmitting LV-signal, 4.4 MHz to 20.8 MHz)

*Horizontal Polarity:*

Frequency (MHz)	Polarity H/V	Azimuth Degree	Ant. Height (m)	SA Level (QP) (dBμV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amplifier Gain (dB)	Corr. Level (dBμV/m)	Corr. Level (μV/m)	Limit (μV/m)	Margin (dB)
33.380	H	0.0	4.0	6.6	17.6	0.4	0.0	24.6	17.0	300.0	-24.9
45.796	H	180.0	4.0	18.0	9.7	0.7	0.0	28.4	26.3	300.0	-21.1
74.560	H	340.0	4.0	23.7	7.6	1.1	0.0	32.4	41.8	300.0	-17.1
85.460	H	0.0	4.0	16.9	7.8	1.3	0.0	25.9	19.8	300.0	-23.6
94.416	H	0.0	4.0	13.5	9.2	1.3	0.0	24.0	15.9	500.0	-29.9
97.658	H	45.0	3.4	14.0	9.7	1.4	0.0	25.1	18.0	500.0	-28.9
108.770	H	0.0	4.0	16.7	11.6	1.5	0.0	29.8	30.8	500.0	-24.2
168.440	H	270.0	4.0	11.3	11.6	2.0	0.0	24.8	17.4	500.0	-29.1
192.244	H	90.0	2.9	19.7	11.3	2.1	0.0	33.1	45.1	500.0	-20.9
203.504	H	0.0	2.0	18.7	11.8	2.2	0.0	32.7	43.1	500.0	-21.3
257.704	H	90.0	1.8	18.2	12.1	2.4	0.0	32.7	43.2	700.0	-24.2
288.384	H	180.0	1.7	16.3	13.6	2.6	0.0	32.5	42.0	700.0	-24.4
357.924	H	90.0	1.2	17.4	14.8	2.8	0.0	35.0	56.4	700.0	-21.9
415.200	H	300.0	1.0	15.6	15.9	3.0	0.0	34.5	53.0	700.0	-22.4
425.000	H	270.0	1.0	14.3	15.9	3.0	0.0	33.2	45.8	700.0	-23.7
443.830	H	15.0	1.0	18.3	16.8	3.1	0.0	38.2	81.0	700.0	-18.7
800.000	H	180.0	1.6	11.4	21.6	4.4	0.0	37.4	73.9	700.0	-19.5
800.000	H	180.0	1.6	11.4	21.6	4.4	0.0	37.4	73.9	700.0	-19.5

*Vertical Polarity:*

Frequency (MHz)	Polarity H/V	Azimuth Degree	Ant. Height (m)	SA Level (QP) (dBμV)	Ant. Corr. (dB/m)	Cable Corr. (dB)	Amplifier Gain (dB)	Corr. Level (dBμV/m)	Corr. Level (μV/m)	Limit (μV/m)	Margin (dB)
33.394	V	0.0	1.0	6.6	17.6	0.4	0.0	24.6	17.0	300.0	-25.0
42.972	V	180.0	1.0	12.3	11.2	0.6	0.0	24.1	16.0	300.0	-25.5
47.783	V	90.0	1.0	23.0	8.8	0.7	0.0	32.5	42.2	300.0	-17.0
57.220	V	90.0	1.0	17.5	7.2	0.9	0.0	25.6	19.1	300.0	-23.9
64.780	V	225.0	1.0	23.1	7.1	1.0	0.0	31.2	36.3	300.0	-18.3
85.870	V	180.0	1.0	21.2	7.8	1.3	0.0	30.3	32.6	300.0	-19.3
89.660	V	270.0	1.0	18.0	8.3	1.3	0.0	27.6	23.9	500.0	-26.4
89.781	V	270.0	1.0	10.6	8.3	1.3	0.0	20.2	10.2	500.0	-33.8
98.391	V	45.0	1.0	15.2	9.8	1.4	0.0	26.4	21.0	500.0	-27.5
141.210	V	0.0	1.0	9.6	12.6	1.8	0.0	24.0	15.8	500.0	-30.0
165.284	V	180.0	1.0	12.3	11.7	1.9	0.0	25.9	19.8	500.0	-28.0
199.997	V	125.0	1.0	18.4	12.3	2.2	0.0	32.9	43.9	500.0	-21.1
239.990	V	90.0	1.0	15.7	11.3	2.4	0.0	29.4	29.4	700.0	-27.5
300.000	V	270.0	1.0	14.8	13.3	2.6	0.0	30.7	34.3	700.0	-26.2
357.940	V	150.0	1.6	19.1	14.8	2.8	0.0	36.7	68.6	700.0	-20.2
384.532	V	15.0	2.0	14.3	15.5	2.9	0.0	32.7	43.1	700.0	-24.2
386.562	V	350.0	1.8	13.9	15.6	2.9	0.0	32.4	41.5	700.0	-24.5
400.000	V	45.0	1.8	19.7	15.7	2.9	0.0	38.3	82.6	700.0	-18.6
415.216	V	180.0	1.3	19.9	15.9	3.0	0.0	38.8	87.0	700.0	-18.1
522.573	V	0.0	1.0	15.7	17.6	3.3	0.0	36.6	67.7	700.0	-20.3
525.000	V	0.0	1.0	15.6	17.6	3.3	0.0	36.5	67.0	700.0	-20.4
712.241	V	190.0	1.0	14.5	20.0	4.1	0.0	38.6	85.3	700.0	-18.3
724.997	V	225.0	1.0	14.3	20.4	4.1	0.0	38.8	87.3	700.0	-18.1
750.000	V	180.0	1.0	9.8	21.1	4.2	0.0	35.1	57.0	700.0	-21.8