

**Appendix A – Radiated and Conducted Emissions Measurement Data****A.1 Conducted Emissions Data**

Date: April 5, 2007  
 EUT: CT S4e Meter (S/N: 3011000000368190)  
 Location: Washington Laboratories Laboratory  
 Mode: Active (transmitting LV-signal, 4.4 MHz to 20.8 MHz), Idle (non-transmitting)

Line: Neutral

Equipment Operating Mode	Frequency (MHz)	Corrected Amplitude (dB $\mu$ V)		Limit (dB $\mu$ V)		Margin (dB)	
		QP	Ave	QP	Ave	QP	Ave
Active	0.871	36.9	26.3	60.0	--	-23.1	--
	1.190	33.9	14.8	60.0	--	-26.1	--
	1.389	33.8	4.9	60.0	--	-26.2	--
Idle	0.265	47.0	37.0	61.3	51.3	-14.3	-14.3
	0.400	36.2	24.8	57.9	47.9	-21.7	-23.1
	19.974	27.8	26.3	60.0	50.0	-32.2	-23.7
	26.000	17.8	6.6	60.0	50.0	-42.2	-43.4

Line: Phase

Equipment Operating Mode	Frequency (MHz)	Corrected Amplitude (dB $\mu$ V)		Limit (dB $\mu$ V)		Margin (dB)	
		QP	Ave	QP	Ave	QP	Ave
Active	0.874	36.8	27.3	60.0	--	-23.2	--
	1.193	33.9	14.5	60.0	--	-26.1	--
	1.382	34.3	4.4	60.0	--	-25.7	--
Idle	0.266	46.0	36.4	61.3	51.3	-15.3	-14.9
	0.402	35.8	23.8	57.8	47.8	-22.0	-24.0
	19.979	29.6	27.4	60.0	50.0	-30.4	-22.6
	26.610	13.2	4.6	60.0	50.0	-46.8	-45.4

**A.2 Radiated Emissions Data****A.2.1 1.705 MHz to 30 MHz**

Date: May 17, 2007  
 EUT: CT S4e Meter (S/N: 3011000000370499)  
 Location: 12109 Sheets Farm Road  
 Mode: Active (transmitting LV-signal, 4.4 MHz to 20.8 MHz, using nuttcp command)

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)
4.49	FR-A	1.0m	39.8	10.0m	-19.08	20.72	29.54	-8.8
6.25	FC	1.0m	37.0	10.0m	-19.08	17.92	29.54	-11.6
4.88	FR-B	1.0m	36.7	10.0m	-19.08	17.62	29.54	-11.9
15.04	FR-B	1.0m	36.2	10.0m	-19.08	17.12	29.54	-12.4
9.18	BC	1.0m	36.0	10.0m	-19.08	16.92	29.54	-12.6
5.08	BC	1.0m	35.9	10.0m	-19.08	16.82	29.54	-12.7

Date: May 22, 2007  
 EUT: CT S4e Meter (S/N: 3011000000370499)  
 Location: 12028 Coldstream Drive  
 Mode: Active (transmitting LV-signal, 4.4 MHz to 20.8 MHz, using nuttcp command)

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)
6.64	BL	1.0m	48.2	7.0m	-25.28	22.92	29.54	-6.6
4.69	FR	1.0m	48.1	7.0m	-25.28	22.82	29.54	-6.7
4.49	FR	1.0m	47.4	7.0m	-25.28	22.12	29.54	-7.4
4.88	OH1	1.0m	48.5	6.2m	-27.39	21.11	29.54	-8.4
6.45	BC	1.0m	46.1	7.0m	-25.28	20.82	29.54	-8.7
5.08	FR	1.0m	45.4	7.0m	-25.28	20.12	29.54	-9.4
15.82	FL	1.0m	45.2	7.0m	-25.28	19.92	29.54	-9.6

Date: May 23, 2007  
 EUT: CT S4e Meter (S/N: 3011000000370499)  
 Location: 17907 Coachmans Road  
 Mode: Active (transmitting LV-signal, 4.4 MHz to 20.8 MHz, using nuttcp command)

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)
13.67	BR	1.0m	48.9	5.0m	-31.13	17.77	29.54	-11.8
5.08	FL	1.0m	48.8	5.0m	-31.13	17.67	29.54	-11.9
13.48	BR	1.0m	48.8	5.0m	-31.13	17.67	29.54	-11.9
5.66	FL	1.0m	47.9	5.0m	-31.13	16.77	29.54	-12.8
18.36	FC	1.0m	47.5	5.0m	-31.13	16.37	29.54	-13.2
5.86	FC	1.0m	47.4	5.0m	-31.13	16.27	29.54	-13.3
6.84	FRK	1.0m	46.3	5.0m	-31.13	15.17	29.54	-14.4
7.81	FRK	1.0m	46.1	5.0m	-31.13	14.97	29.54	-14.6
6.64	FRK	1.0m	46.0	5.0m	-31.13	14.87	29.54	-14.7
17.38	FR	1.0m	46.0	5.0m	-31.13	14.87	29.54	-14.7
4.69	FRK	1.0m	45.9	5.0m	-31.13	14.77	29.54	-14.8
17.77	FC	1.0m	45.7	5.0m	-31.13	14.57	29.54	-15.0

**A.2.2 30 MHz to 1000 MHz**

Date: April 5, 2007  
 EUT: CT S4e Meter (S/N: 3011000000368190)  
 Location: Washington Laboratories Open Area Test Site  
 Mode: Active (transmitting LV-signal, 4.4 MHz to 20.8 MHz)

*Vertical Polarity*

Frequency (MHz)	Antenna Azimuth (degrees)	Antenna Height (m)	QP Level Measured on Analyzer (dB $\mu$ V/m)	Measurement Distance (m)	Distance Correction Factor to 3m (dB)	QP Level Corrected to 3m (dB $\mu$ V/m)	3m Limit (dB $\mu$ V/m)	Margin (dB)
61.268	215	1.0	21.2	3.0	0.0	21.2	40.0	-18.8
85.000	141	1.0	23.9	3.0	0.0	23.9	40.0	-16.1
109.910	90	1.0	26.0	3.0	0.0	26.0	43.5	-17.5
129.900	199	1.0	33.0	3.0	0.0	33.0	43.5	-10.5
189.800	342	1.0	22.8	3.0	0.0	22.8	43.5	-20.7
248.862	324	1.0	22.7	3.0	0.0	22.7	46.0	-23.3
269.742	178	1.0	22.4	3.0	0.0	22.4	46.0	-23.6
371.917	127	2.0	30.0	3.0	0.0	30.0	46.0	-16.0
400.000	62	1.3	35.8	3.0	0.0	35.8	46.0	-10.2
500.000	301	1.0	32.2	3.0	0.0	32.2	46.0	-13.8
800.000	15	1.5	33.5	3.0	0.0	33.5	46.0	-12.5
900.000	262	2.2	34.1	3.0	0.0	34.1	46.0	-11.9
1000.000	5	1.6	35.7	3.0	0.0	35.7	54.0	-18.3

*Horizontal Polarity*

Frequency (MHz)	Antenna Azimuth (degrees)	Antenna Height (m)	QP Level Measured on Analyzer (dB $\mu$ V/m)	Measurement Distance (m)	Distance Correction Factor to 3m (dB)	QP Level Corrected to 3m (dB $\mu$ V/m)	3m Limit (dB $\mu$ V/m)	Margin (dB)
61.264	136	1.5	24.2	3.0	0.0	24.2	40.0	-15.8
83.280	318	2.8	26.7	3.0	0.0	26.7	40.0	-13.3
109.900	252	3.3	25.8	3.0	0.0	25.8	43.5	-17.7
129.896	222	2.5	33.8	3.0	0.0	33.8	43.5	-9.7
189.820	232	1.4	30.0	3.0	0.0	30.0	43.5	-13.5
249.760	330	1.0	24.7	3.0	0.0	24.7	46.0	-21.3
269.750	21	1.0	33.8	3.0	0.0	33.8	46.0	-12.2
289.720	40	1.0	34.1	3.0	0.0	34.1	46.0	-11.9
375.000	237	1.0	33.8	3.0	0.0	33.8	46.0	-12.2
400.000	224	1.0	35.1	3.0	0.0	35.1	46.0	-10.9
500.000	274	1.0	35.5	3.0	0.0	35.5	46.0	-10.5
800.000	248	1.0	32.8	3.0	0.0	32.8	46.0	-13.2
900.000	307	1.0	33.9	3.0	0.0	33.9	46.0	-12.1
1000.000	357	1.0	33.7	3.0	0.0	33.7	54.0	-20.3

Date: May 22, 2008  
 EUT: CT S4e Meter (S/N: 3011000000370499)  
 Location: 12028 Coldstream Drive  
 Mode: Active (transmitting LV-signal, 4.4 MHz to 20.8 MHz)

*Vertical Polarity*

Frequency (MHz)	Antenna Azimuth (degrees)	Antenna Height (m)	QP Level Measured on Analyzer (dB $\mu$ V/m)	Measurement Distance (m)	Distance Correction Factor to 3m (dB)	QP Level Corrected to 3m (dB $\mu$ V/m)	3m Limit (dB $\mu$ V/m)	Margin (dB)
61.54	0	1.5	31.2	3.0	0.0	31.2	40.0	-8.8
85.00	0	1.5	19.4	3.0	0.0	19.4	40.0	-20.6
110.20	0	1.5	29.3	3.0	0.0	29.3	43.5	-14.2
129.70	0	1.5	19.9	3.0	0.0	19.9	43.5	-23.6
190.20	0	1.5	34.8	3.0	0.0	34.8	43.5	-8.7
249.30	0	1.5	28.8	3.0	0.0	28.8	46.0	-17.2
269.70	0	1.5	27.1	3.0	0.0	27.1	46.0	-18.9
371.90	0	1.5	26.8	3.0	0.0	26.8	46.0	-19.2
400.00	0	1.5	32.5	3.0	0.0	32.5	46.0	-13.5
500.00	0	1.5	32.3	3.0	0.0	32.3	46.0	-13.7
800.00	0	1.5	36.6	3.0	0.0	36.6	46.0	-9.4
900.00	0	1.5	39.5	3.0	0.0	39.5	46.0	-6.5
1000.00	0	1.5	41.2	3.0	0.0	41.2	54.0	-12.8

*Horizontal Polarity*

Frequency (MHz)	Antenna Azimuth (degrees)	Antenna Height (m)	QP Level Measured on Analyzer (dB $\mu$ V/m)	Measurement Distance (m)	Distance Correction Factor to 3m (dB)	QP Level Corrected to 3m (dB $\mu$ V/m)	3m Limit (dB $\mu$ V/m)	Margin (dB)
61.24	0	1.5	31.5	3.0	0.0	31.5	40.0	-8.5
83.27	0	1.5	23.1	3.0	0.0	23.1	40.0	-16.9
109.90	0	1.5	25.1	3.0	0.0	25.1	43.5	-18.4
129.80	0	1.5	27.4	3.0	0.0	27.4	43.5	-16.1
190.10	0	1.5	33.6	3.0	0.0	33.6	43.5	-9.9
250.00	0	1.5	27.1	3.0	0.0	27.1	46.0	-18.9
269.70	0	1.5	29.2	3.0	0.0	29.2	46.0	-16.8
289.90	0	1.5	27.5	3.0	0.0	27.5	46.0	-18.5
375.00	0	1.5	27.5	3.0	0.0	27.5	46.0	-18.5
400.00	0	1.5	33.9	3.0	0.0	33.9	46.0	-12.1
500.00	0	1.5	32.2	3.0	0.0	32.2	46.0	-13.8
800.00	0	1.5	37.6	3.0	0.0	37.6	46.0	-8.4
900.00	0	1.5	39.4	3.0	0.0	39.4	46.0	-6.6
1000.00	0	1.5	41.1	3.0	0.0	41.1	54.0	-12.9

Date: May 23, 2007  
 EUT: CT S Meter (S/N: 3011000000370499)  
 Location: 17907 Coachmans Road  
 Mode: Active (transmitting LV-signal, 4.4 MHz to 20.8 MHz)

*Vertical Polarity*

Frequency (MHz)	Antenna Azimuth (degrees)	Antenna Height (m)	QP Level Measured on Analyzer (dB $\mu$ V/m)	Measurement Distance (m)	Distance Correction Factor to 3m (dB)	QP Level Corrected to 3m (dB $\mu$ V/m)	3m Limit (dB $\mu$ V/m)	Margin (dB)
61.27	0	1.5	29.3	3.0	0.0	29.3	40.0	-10.7
85.00	0	1.5	25.8	3.0	0.0	25.8	40.0	-14.2
109.98	0	1.5	20.2	3.0	0.0	20.2	43.5	-23.3
129.80	0	1.5	18.8	3.0	0.0	18.8	43.5	-24.7
189.76	0	1.5	27.1	3.0	0.0	27.1	43.5	-16.4
248.86	0	1.5	23.1	3.0	0.0	23.1	46.0	-22.9
269.69	0	1.5	24.7	3.0	0.0	24.7	46.0	-21.3
371.82	0	1.5	25.5	3.0	0.0	25.5	46.0	-20.5
400.00	0	1.5	34.0	3.0	0.0	34.0	46.0	-12.0
500.00	0	1.5	34.9	3.0	0.0	34.9	46.0	-11.1
800.00	0	1.5	36.2	3.0	0.0	36.2	46.0	-9.8
900.00	0	1.5	37.4	3.0	0.0	37.4	46.0	-8.6
1000.00	0	1.5	42.3	3.0	0.0	42.3	54.0	-11.7

*Horizontal Polarity*

Frequency (MHz)	Antenna Azimuth (degrees)	Antenna Height (m)	QP Level Measured on Analyzer (dB $\mu$ V/m)	Measurement Distance (m)	Distance Correction Factor to 3m (dB)	QP Level Corrected to 3m (dB $\mu$ V/m)	3m Limit (dB $\mu$ V/m)	Margin (dB)
61.27	0	1.5	27.9	3.0	0.0	27.9	40.0	-12.1
83.30	0	1.5	23.4	3.0	0.0	23.4	40.0	-16.6
109.88	0	1.5	28.9	3.0	0.0	28.9	43.5	-14.6
129.87	0	1.5	27.4	3.0	0.0	27.4	43.5	-16.1
189.78	0	1.5	33.8	3.0	0.0	33.8	43.5	-9.7
249.78	0	1.5	25.1	3.0	0.0	25.1	46.0	-20.9
269.68	0	1.5	30.2	3.0	0.0	30.2	46.0	-15.8
289.76	0	1.5	28.0	3.0	0.0	28.0	46.0	-18.0
375.00	0	1.5	30.2	3.0	0.0	30.2	46.0	-15.8
400.00	0	1.5	34.5	3.0	0.0	34.5	46.0	-11.5
500.00	0	1.5	34.0	3.0	0.0	34.0	46.0	-12.0
800.00	0	1.5	36.2	3.0	0.0	36.2	46.0	-9.8
900.00	0	1.5	36.9	3.0	0.0	36.9	46.0	-9.1
1000.00	0	1.5	41.7	3.0	0.0	41.7	54.0	-12.3