

4.3. Radiated Emissions Measurement

4.3.1. Limit

The field strength of any emissions which appear outside of this band shall not exceed the general radiated emissions limits in Section 15.209(a)

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

4.3.2. Measuring Instruments and Setting

Please refer to section 5 in this report. The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

4.3.3. Test Procedures

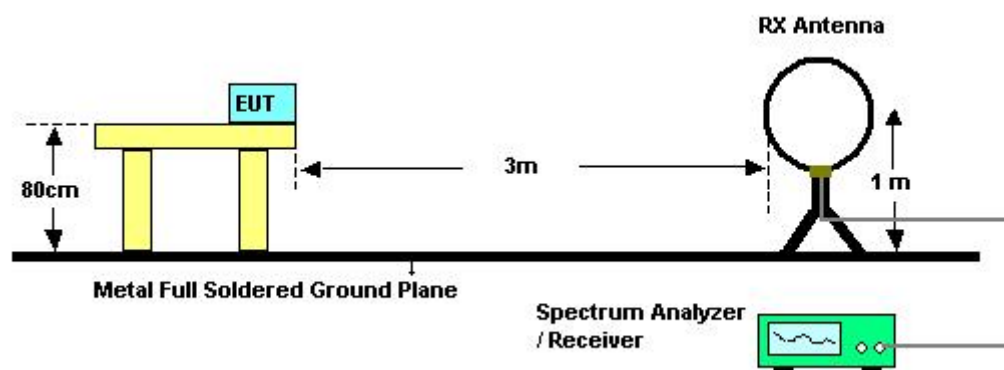
1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical

polarization.

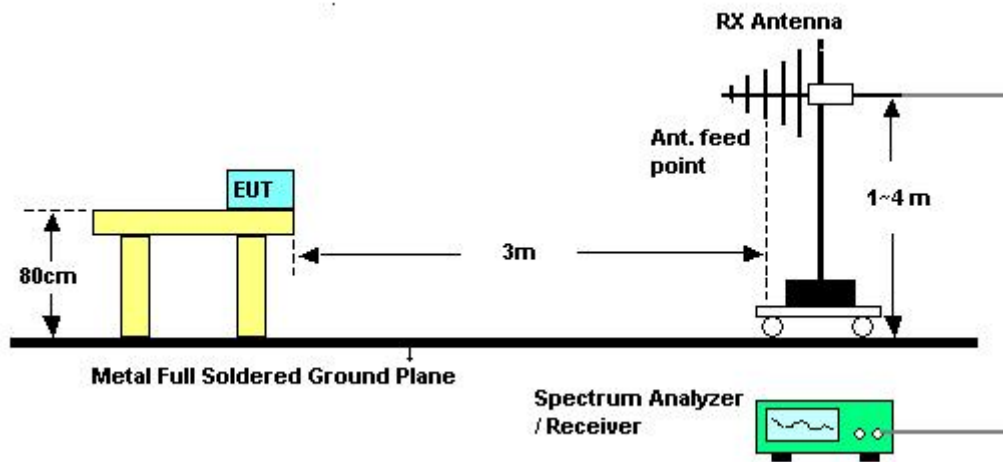
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High – Low scan is not required in this case.

4.3.4. Test Setup Layout

For radiated emissions below 30MHz



For radiated emissions above 30MHz



4.3.5. Test Deviation

There is no deviation with the original standard.

4.3.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.3.7. Results of Radiated Emissions (9kHz~30MHz)

Temperature	24°C	Humidity	64%
Test Engineer	Beck Wu	Configurations	Channel 51 / Ant. 1 / Ant. 1 + Ant. 2/ Antenna without bundle of cable / Antenna with bundle of cable

Freq. (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

Note:

The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

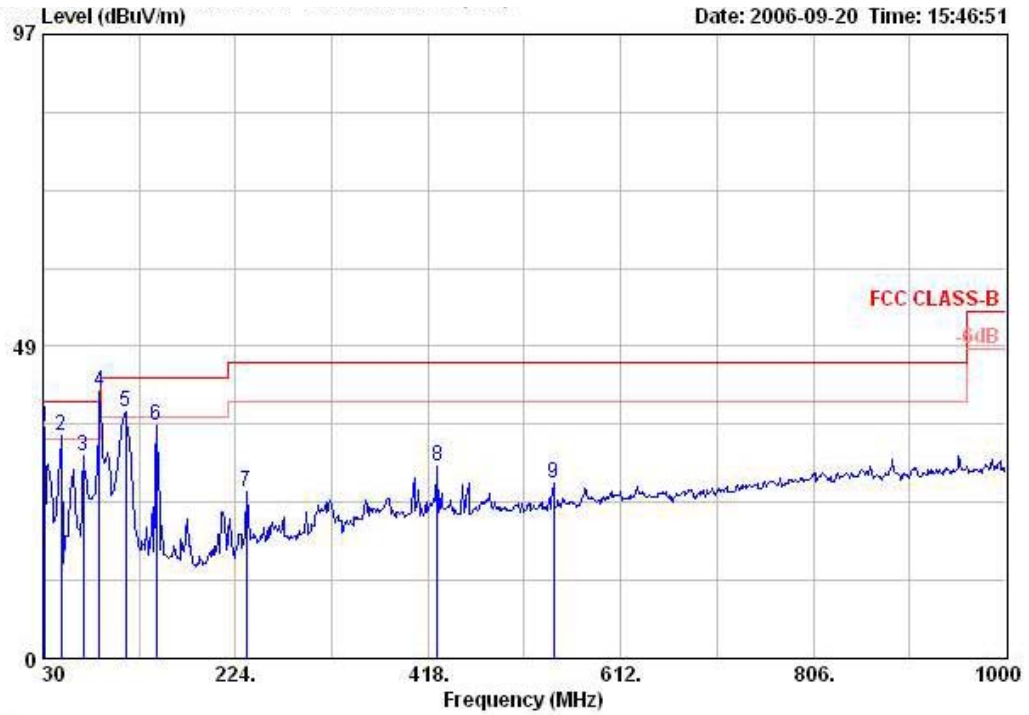
Distance extrapolation factor = $40 \log(\text{specific distance} / \text{test distance})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

4.3.8. Results for Radiated Emissions (30MHz~10th Harmonic)

Temperature	24°C	Humidity	64%
Test Engineer	Beck Wu	Configurations	Channel 1 / Antenna without bundle of cable / Ant. 1

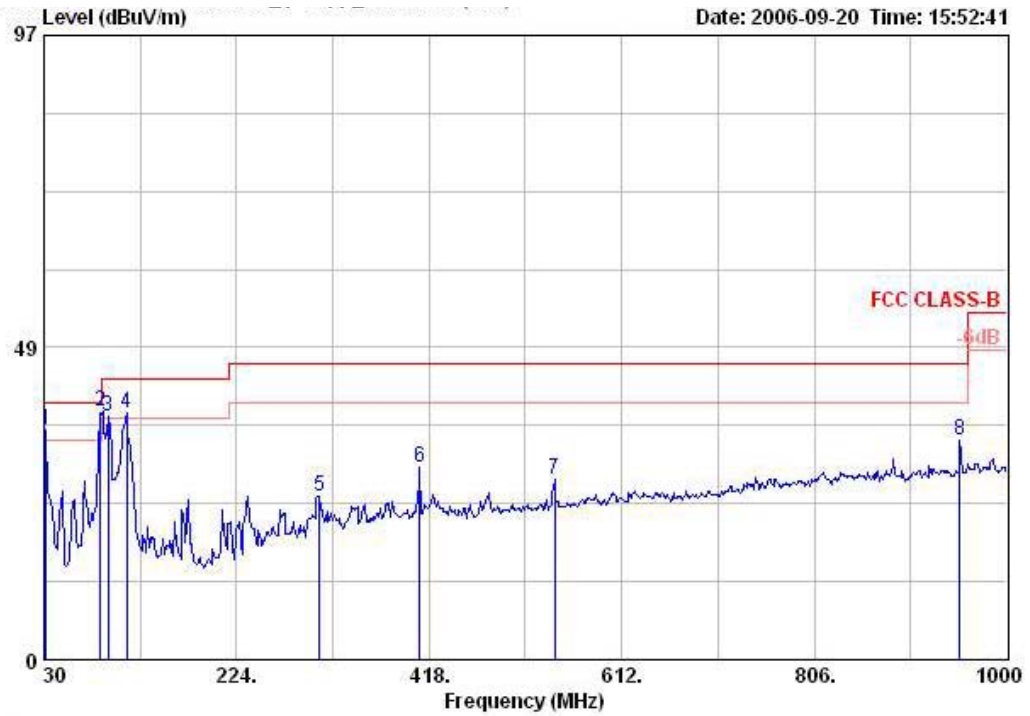
Vertical



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 !	31.940	35.86	-4.14	40.00	43.06	18.96	0.32	26.49	Peak	400	0
2 !	48.430	34.58	-5.42	40.00	50.62	9.77	0.67	26.47	Peak	400	0
3	70.740	31.47	-8.53	40.00	50.33	6.88	0.39	26.14	Peak	400	0
4 @	87.230	41.60			58.37	8.82	0.54	26.13	Peak	400	0
5 !	113.420	38.31	-5.19	43.50	50.96	12.61	0.70	25.96	Peak	400	0
6	144.460	36.26	-7.24	43.50	49.89	11.64	0.53	25.80	Peak	400	0
7	234.670	25.84	-20.16	46.00	38.43	11.75	1.09	25.43	Peak	400	0
8	427.700	29.77	-16.23	46.00	37.14	16.89	1.50	25.76	Peak	400	0
9	544.100	27.24	-18.76	46.00	33.38	18.51	1.63	26.28	Peak	400	0

Item 4 is fundamental frequency.

Horizontal

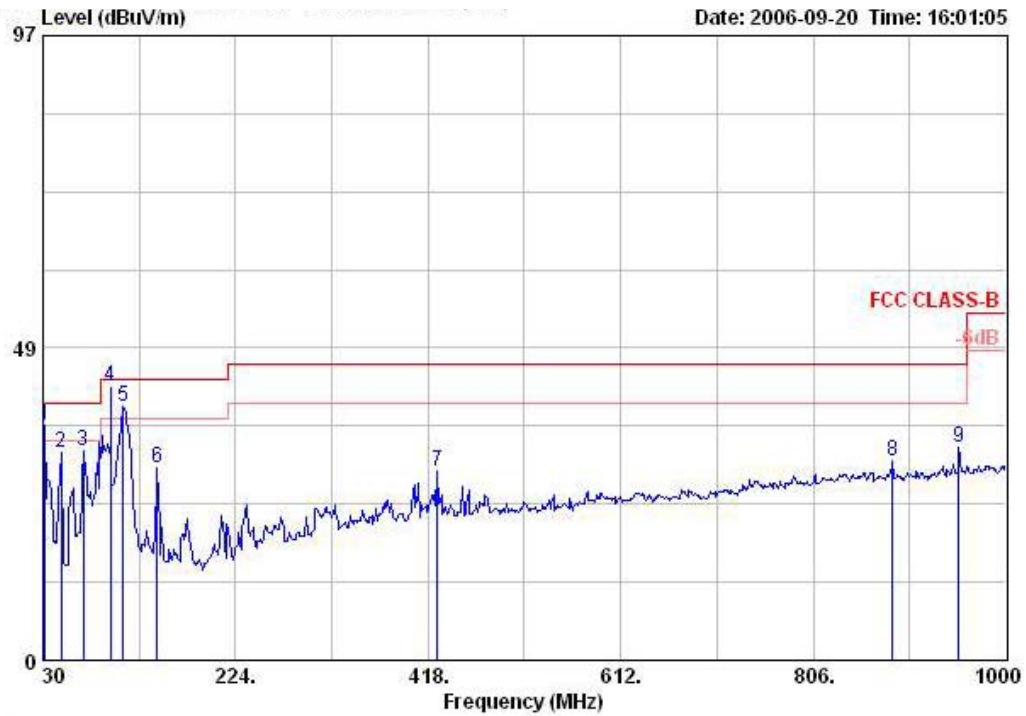


	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table
	Level	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 !	35.69	-4.31	40.00	42.90	18.96	0.32	26.49 Peak	100	0
2 !	38.59			55.36	8.82	0.54	26.13 Peak	100	0
3 !	37.71	-5.79	43.50	52.95	10.25	0.61	26.10 Peak	100	0
4 !	38.33	-5.17	43.50	50.98	12.61	0.70	25.96 Peak	100	0
5	25.37	-20.64	46.00	35.05	14.12	1.14	24.95 Peak	100	0
6	29.85	-16.15	46.00	37.26	16.62	1.58	25.61 Peak	100	0
7	28.07	-17.93	46.00	34.21	18.51	1.63	26.28 Peak	100	0
8	34.03	-11.97	46.00	34.43	22.02	3.06	25.47 Peak	100	0

Item 2 is fundamental frequency.

Temperature	24°C	Humidity	64%
Test Engineer	Beck Wu	Configurations	Channel 51 / Antenna without bundle of cable / Ant. 1

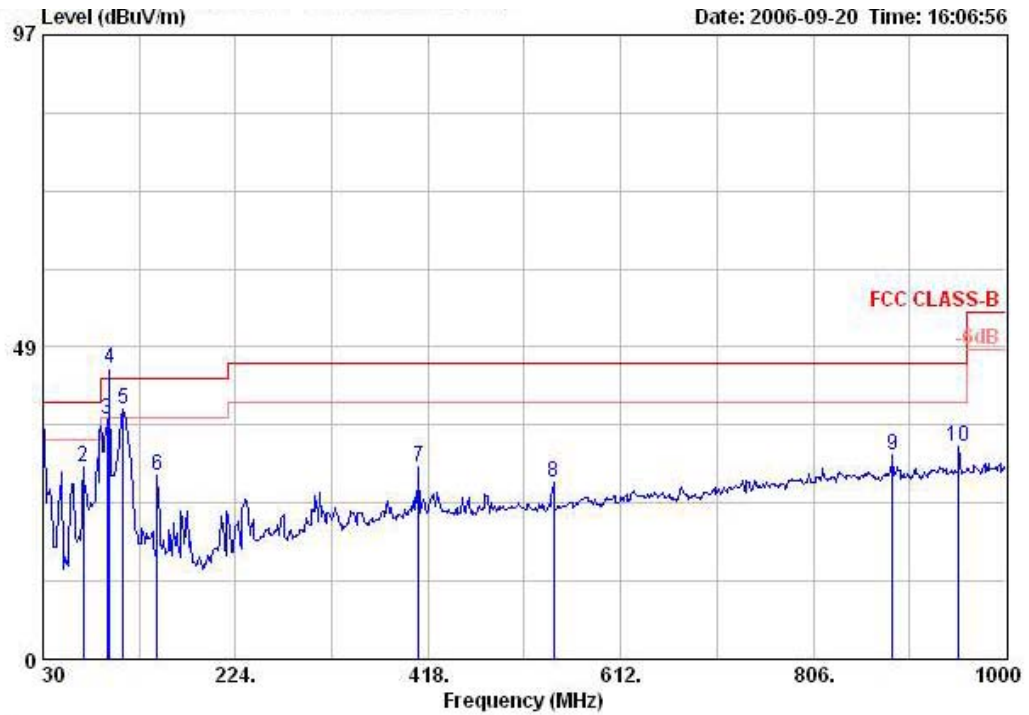
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 !	31.940	36.43	-3.57	40.00	43.64	18.96	0.32	26.49	Peak	400	0
2	48.430	32.24	-7.76	40.00	48.28	9.77	0.67	26.47	Peak	400	0
3	70.740	32.58	-7.42	40.00	51.45	6.88	0.39	26.14	Peak	400	0
4 !	97.610	42.45			57.20	10.82	0.42	26.00	Peak	400	0
5 !	110.510	39.40	-4.10	43.50	52.22	12.53	0.61	25.96	Peak	400	0
6	145.430	29.77	-13.73	43.50	43.45	11.56	0.54	25.79	Peak	400	0
7	427.700	29.40	-16.60	46.00	36.77	16.89	1.50	25.76	Peak	400	0
8	885.540	31.02	-14.98	46.00	32.04	21.47	2.65	25.14	Peak	400	0
9	952.470	33.05	-12.95	46.00	33.45	22.02	3.06	25.47	Peak	400	0

Item 4 is fundamental frequency.

Horizontal

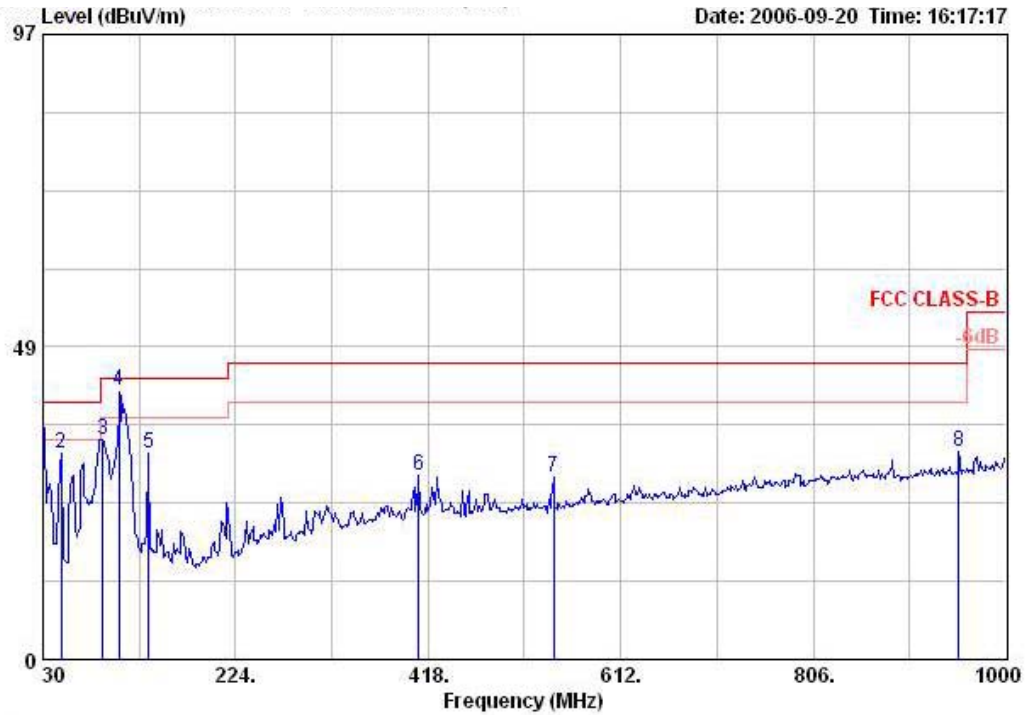


	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table		
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 !	30.000	35.86	-4.14	40.00	41.90	20.20	0.44	26.68	Peak	100	0
2	70.740	29.95	-10.05	40.00	48.82	6.88	0.39	26.14	Peak	100	0
3	94.990	37.34	-6.16	43.50	52.58	10.25	0.61	26.10	Peak	100	0
4 @	97.450	45.25			60.00	10.82	0.42	26.00	Peak	100	0
5 !	110.510	38.87	-4.63	43.50	51.69	12.53	0.61	25.96	Peak	100	0
6	145.430	28.56	-14.94	43.50	42.25	11.56	0.54	25.79	Peak	100	0
7	408.300	29.81	-16.19	46.00	37.22	16.62	1.58	25.61	Peak	100	0
8	544.100	27.62	-18.38	46.00	33.76	18.51	1.63	26.28	Peak	100	0
9	885.540	31.85	-14.15	46.00	32.87	21.47	2.65	25.14	Peak	100	0
10	952.470	32.99	-13.01	46.00	33.38	22.02	3.06	25.47	Peak	100	0

Item 4 is fundamental frequency.

Temperature	24°C	Humidity	64%
Test Engineer	Beck Wu	Configurations	Channel 100 /Antenna without bundle of cable /Ant. 1

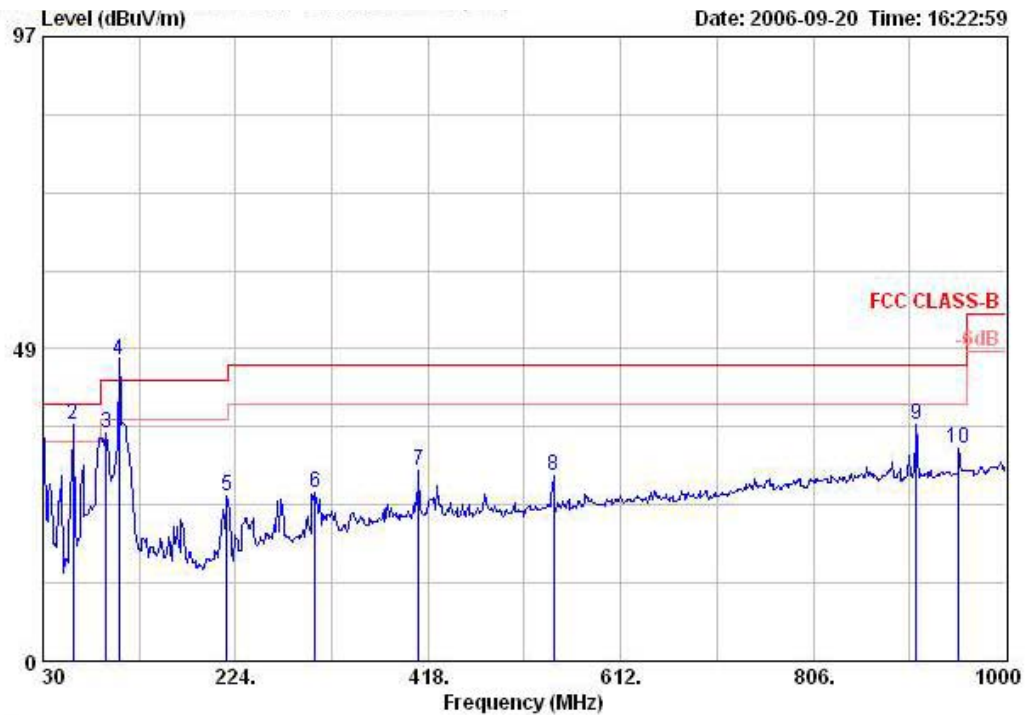
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 !	30.000	36.43	-3.57	40.00	42.47	20.20	0.44	26.68	Peak	400	0
2	48.430	31.89	-8.11	40.00	47.93	9.77	0.67	26.47	Peak	400	0
3	90.140	34.17	-9.33	43.50	50.40	9.30	0.59	26.12	Peak	400	0
4 !	106.630	41.76			55.10	12.11	0.50	25.95	Peak	400	0
5	136.700	32.09	-11.41	43.50	45.24	12.15	0.53	25.84	Peak	400	0
6	408.300	28.68	-17.32	46.00	36.09	16.62	1.58	25.61	Peak	400	0
7	544.100	28.25	-17.75	46.00	34.39	18.51	1.63	26.28	Peak	400	0
8	952.470	32.11	-13.89	46.00	32.51	22.02	3.06	25.47	Peak	400	0

Item 4 is fundamental frequency.

Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 !	30.000	35.32	-4.68	40.00	41.36	20.20	0.44	26.68	Peak	100	94
2 !	60.070	36.79	-3.21	40.00	55.56	7.10	0.51	26.38	Peak	100	94
3	94.020	35.39	-8.11	43.50	50.83	10.06	0.61	26.10	Peak	100	94
4 @	106.630	46.66			60.00	12.11	0.50	25.95	Peak	100	94
5	215.270	25.61	-17.89	43.50	39.39	10.65	1.02	25.45	Peak	100	94
6	304.510	26.29	-19.71	46.00	36.06	14.03	1.14	24.94	Peak	100	94
7	408.300	29.70	-16.30	46.00	37.11	16.62	1.58	25.61	Peak	100	94
8	544.100	28.84	-17.16	46.00	34.98	18.51	1.63	26.28	Peak	100	94
9	909.790	36.86	-9.14	46.00	37.81	21.60	2.77	25.32	Peak	100	94
10	952.470	32.94	-13.06	46.00	33.33	22.02	3.06	25.47	Peak	100	94

Item 4 is fundamental frequency.

Note:

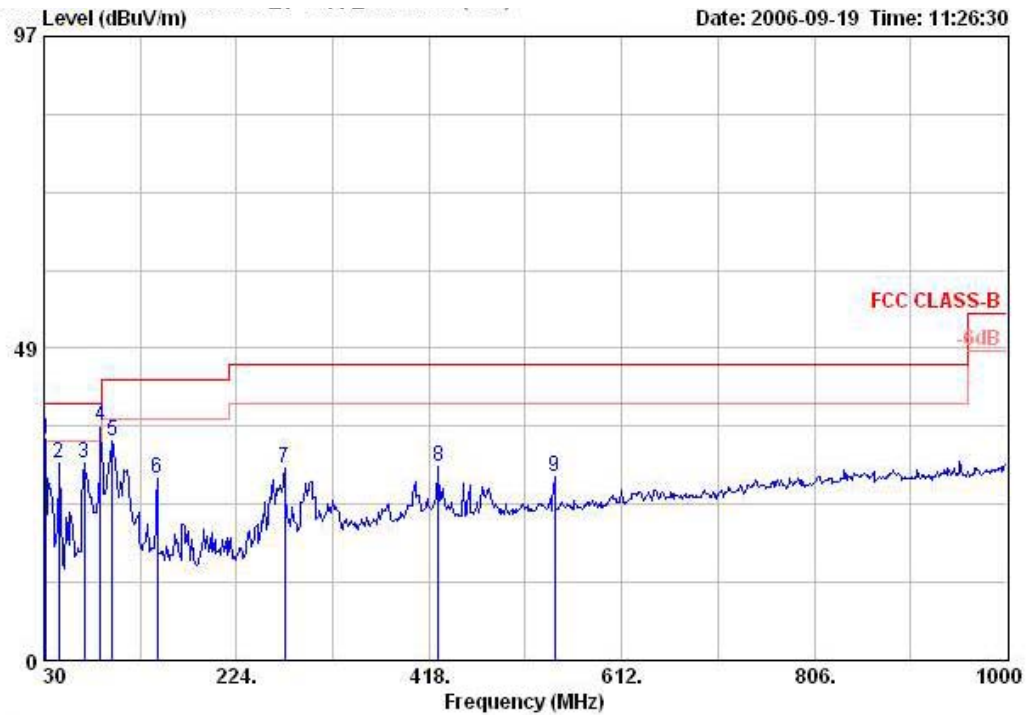
The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Temperature	24°C	Humidity	64%
Test Engineer	Beck Wu	Configurations	Channel 1 / Antenna with bundle of cable / Ant. 1

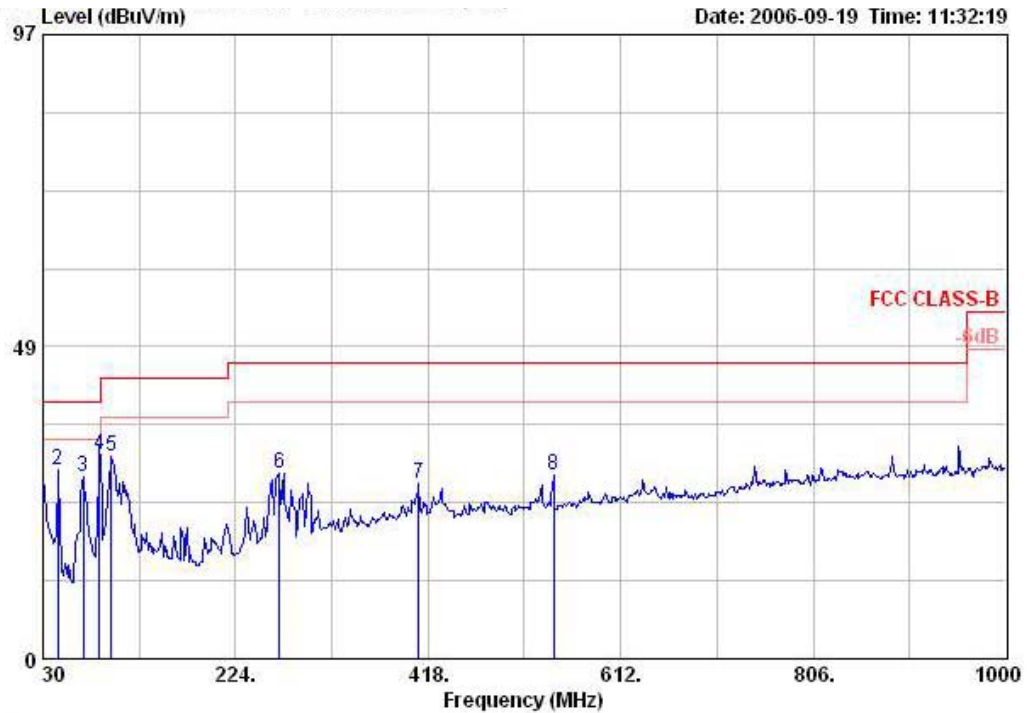
Vertical



	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table
	Freq	Level	Limit	Level	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 !	31.940	34.39	-5.61	40.00	41.59	18.96	0.32 26.49 Peak	400	0
2	44.550	30.55	-9.45	40.00	45.02	11.50	0.51 26.48 Peak	400	0
3	70.740	30.68	-9.32	40.00	49.55	6.88	0.39 26.14 Peak	400	0
4 @	87.230	36.53			53.30	8.82	0.54 26.13 Peak	400	0
5	98.870	34.16	-9.34	43.50	48.75	11.01	0.36 25.96 Peak	400	0
6	144.460	28.34	-15.16	43.50	41.97	11.64	0.53 25.80 Peak	400	0
7	272.500	29.92	-16.08	46.00	40.47	13.50	1.15 25.20 Peak	400	0
8	427.700	30.01	-15.99	46.00	37.38	16.89	1.50 25.76 Peak	400	0
9	544.100	28.42	-17.58	46.00	34.56	18.51	1.63 26.28 Peak	400	0

Item 4 is fundamental frequency.

Horizontal

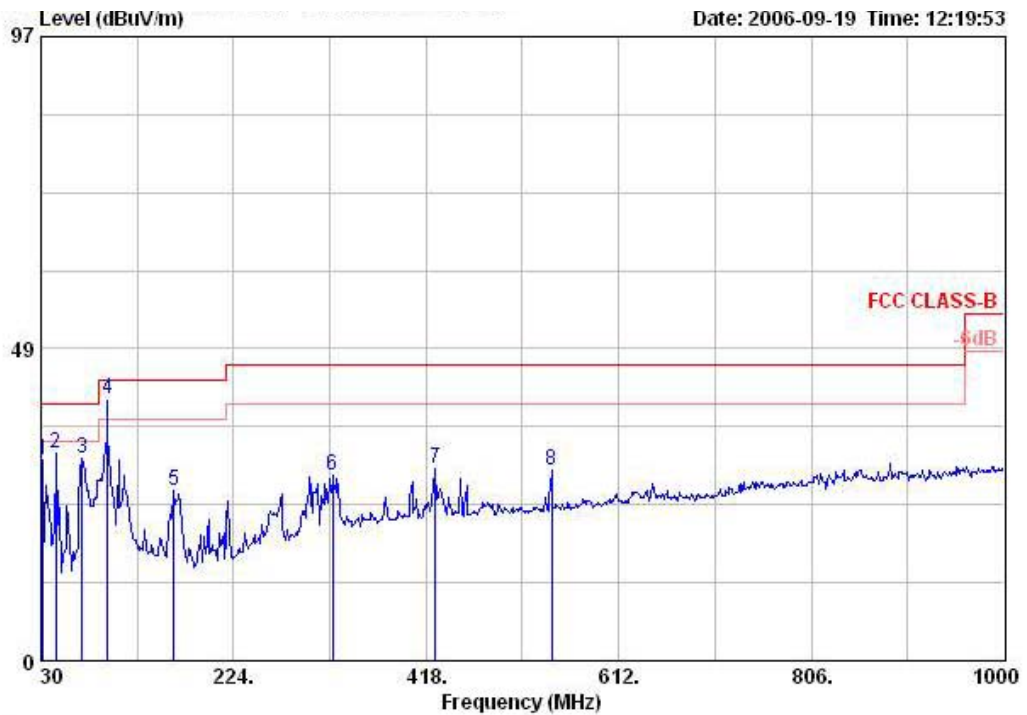


	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Remark	Ant	Table
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	30.000	28.44	-11.56	40.00	34.48	20.20	0.44	26.68	Peak	100	0
2	44.550	29.27	-10.73	40.00	43.74	11.50	0.51	26.48	Peak	100	0
3	70.740	28.33	-11.67	40.00	47.20	6.88	0.39	26.14	Peak	100	0
4	87.230	31.78			48.55	8.82	0.54	26.13	Peak	100	0
5	98.870	31.45	-12.05	43.50	46.04	11.01	0.36	25.96	Peak	100	0
6	268.620	28.87	-17.13	46.00	39.42	13.55	1.15	25.24	Peak	100	0
7	408.300	27.11	-18.89	46.00	34.52	16.62	1.58	25.61	Peak	100	0
8	544.100	28.43	-17.57	46.00	34.57	18.51	1.63	26.28	Peak	100	0

Item 4 is fundamental frequency.

Temperature	24°C	Humidity	64%
Test Engineer	Beck Wu	Configurations	Channel 51 / Antenna with bundle of cable / Ant. 1

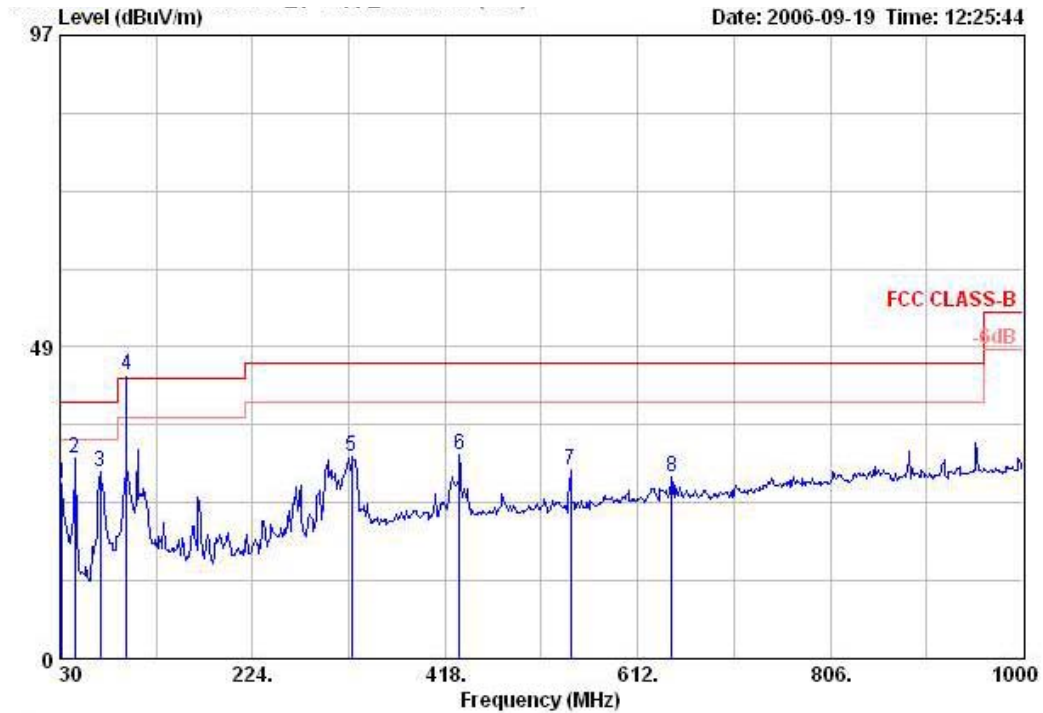
Vertical



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	31.940	31.29	-8.71	40.00	38.50	18.96	0.32	26.49	Peak	400	0
2	44.550	32.21	-7.79	40.00	46.68	11.50	0.51	26.48	Peak	400	0
3	71.710	31.52	-8.48	40.00	50.33	6.96	0.39	26.16	Peak	400	0
4 @	97.330	40.57			55.49	10.63	0.49	26.03	Peak	400	0
5	163.860	26.31	-17.19	43.50	40.89	10.38	0.72	25.68	Peak	400	0
6	323.910	28.76	-17.24	46.00	38.00	14.57	1.15	24.96	Peak	400	0
7	427.700	29.78	-16.22	46.00	37.15	16.89	1.50	25.76	Peak	400	0
8	544.100	29.50	-16.50	46.00	35.64	18.51	1.63	26.28	Peak	400	0

Item 4 is fundamental frequency.

Horizontal

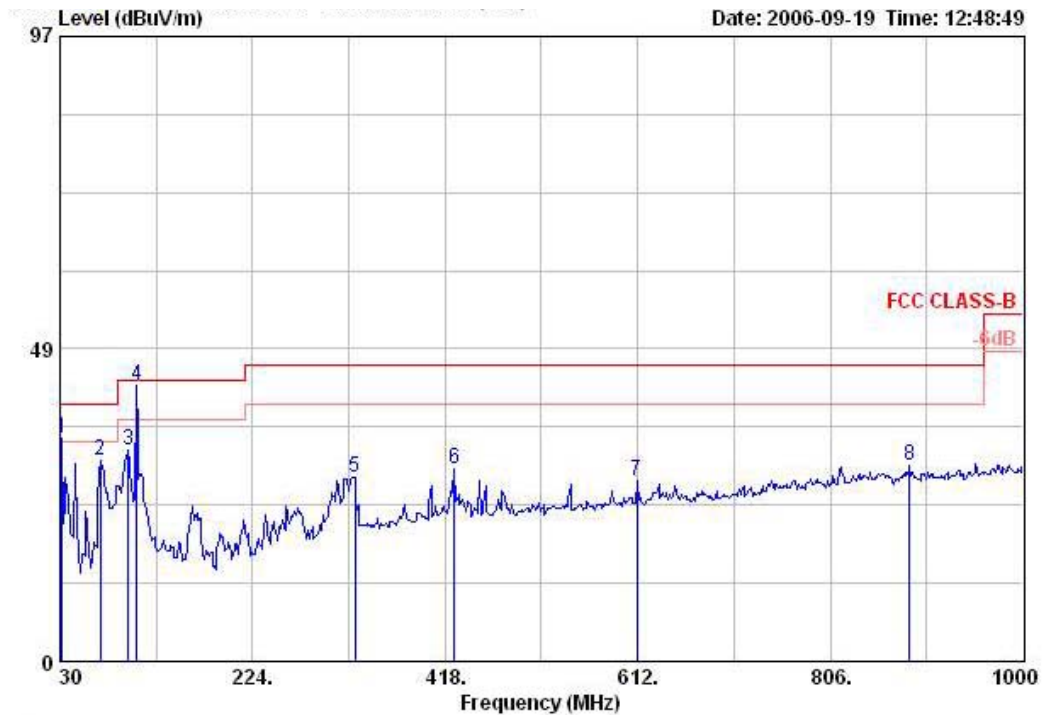


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	31.940	27.20	-12.80	40.00	34.41	18.96	0.32	26.49	Peak	100	0
2	44.550	31.24	-8.76	40.00	45.71	11.50	0.51	26.48	Peak	100	0
3	70.740	28.94	-11.06	40.00	47.81	6.88	0.39	26.14	Peak	100	0
4 @	97.330	44.18			59.10	10.63	0.49	26.03	Peak	100	0
5	323.910	31.37	-14.63	46.00	40.61	14.57	1.15	24.96	Peak	100	0
6	432.550	31.62	-14.38	46.00	38.98	16.96	1.49	25.80	Peak	100	0
7	544.100	29.44	-16.56	46.00	35.58	18.51	1.63	26.28	Peak	100	0
8	645.950	28.15	-17.85	46.00	32.65	19.55	2.14	26.20	Peak	100	0

Item 4 is fundamental frequency.

Temperature	24°C	Humidity	64%
Test Engineer	Beck Wu	Configurations	Channel 100 / Antenna with bundle of cable / Ant. 1

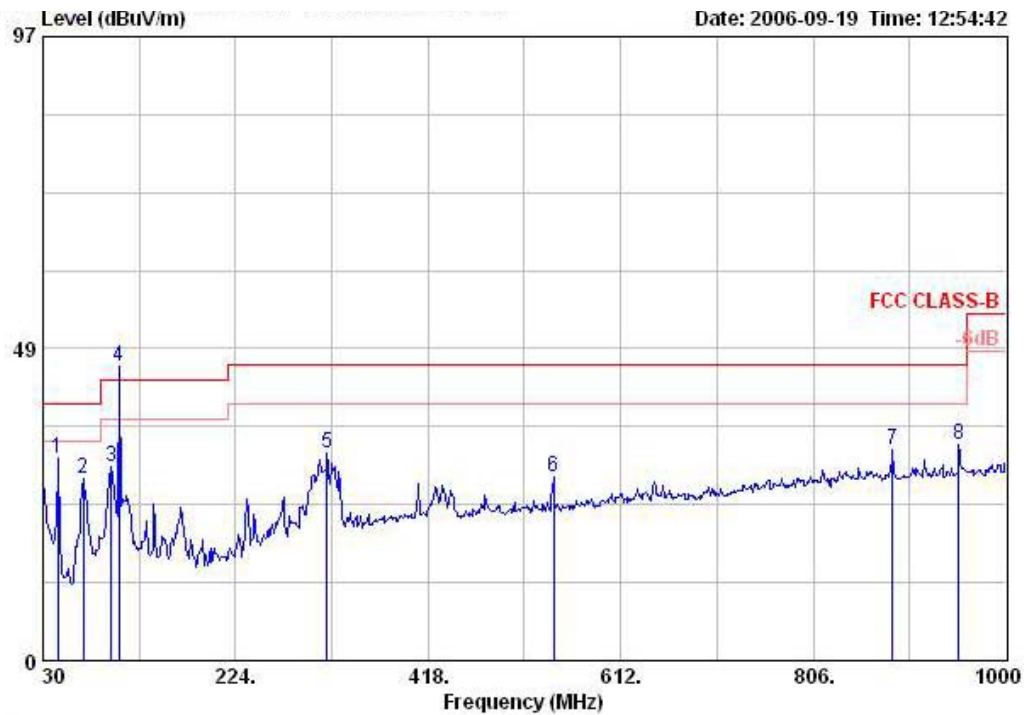
Vertical



	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	
1 !	31.940	34.50	-5.50	40.00	41.70	18.96	0.32	26.49	Peak
2	70.740	31.31	-8.69	40.00	50.18	6.88	0.39	26.14	Peak
3	98.870	32.75	-10.75	43.50	47.34	11.01	0.36	25.96	Peak
4 @	107.600	42.81			55.99	12.24	0.53	25.95	Peak
5	326.820	28.62	-17.38	46.00	37.79	14.65	1.15	24.97	Peak
6	427.700	29.92	-16.08	46.00	37.29	16.89	1.50	25.76	Peak
7	611.030	27.97	-18.03	46.00	32.97	19.13	2.10	26.22	Peak
8	885.540	30.33	-15.67	46.00	31.35	21.47	2.65	25.14	Peak

Item 4 is fundamental frequency.

Horizontal



	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table		
Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
MHz	dBUV/m	dB	dBUV/m	dBUV	dB/m	dB	dB	cm	deg		
1	44.550	31.50	-8.50	40.00	45.97	11.50	0.51	26.48	Peak	100	0
2	70.740	28.18	-11.82	40.00	47.05	6.88	0.39	26.14	Peak	100	0
3	98.870	30.06	-13.44	43.50	44.65	11.01	0.36	25.96	Peak	100	0
4 @	106.630	45.78			59.12	12.11	0.50	25.95	Peak	100	0
5	316.150	32.35	-13.65	46.00	41.80	14.36	1.15	24.96	Peak	100	0
6	544.100	28.63	-17.37	46.00	34.77	18.51	1.63	26.28	Peak	100	0
7	885.540	32.67	-13.33	46.00	33.69	21.47	2.65	25.14	Peak	100	0
8	952.470	33.61	-12.39	46.00	34.00	22.02	3.06	25.47	Peak	100	0

Item 4 is fundamental frequency.

Note:

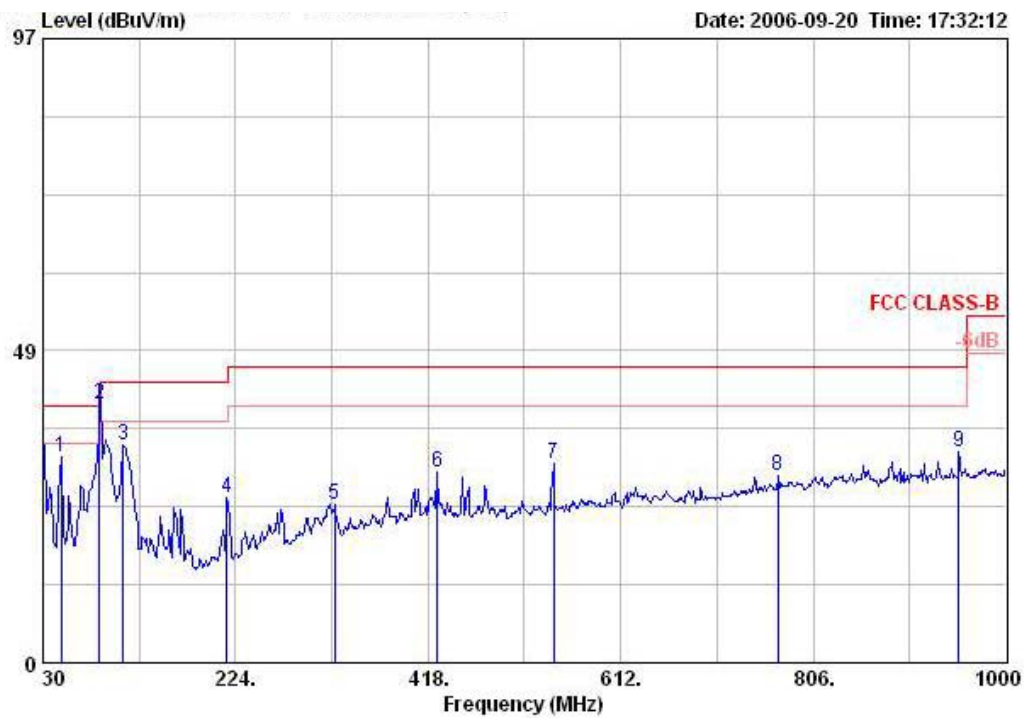
The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Emission level (dBUV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Temperature	24°C	Humidity	64%
Test Engineer	Beck Wu	Configurations	Channel 1 / Antenna without bundle of cable / Ant. 1 + Ant. 2

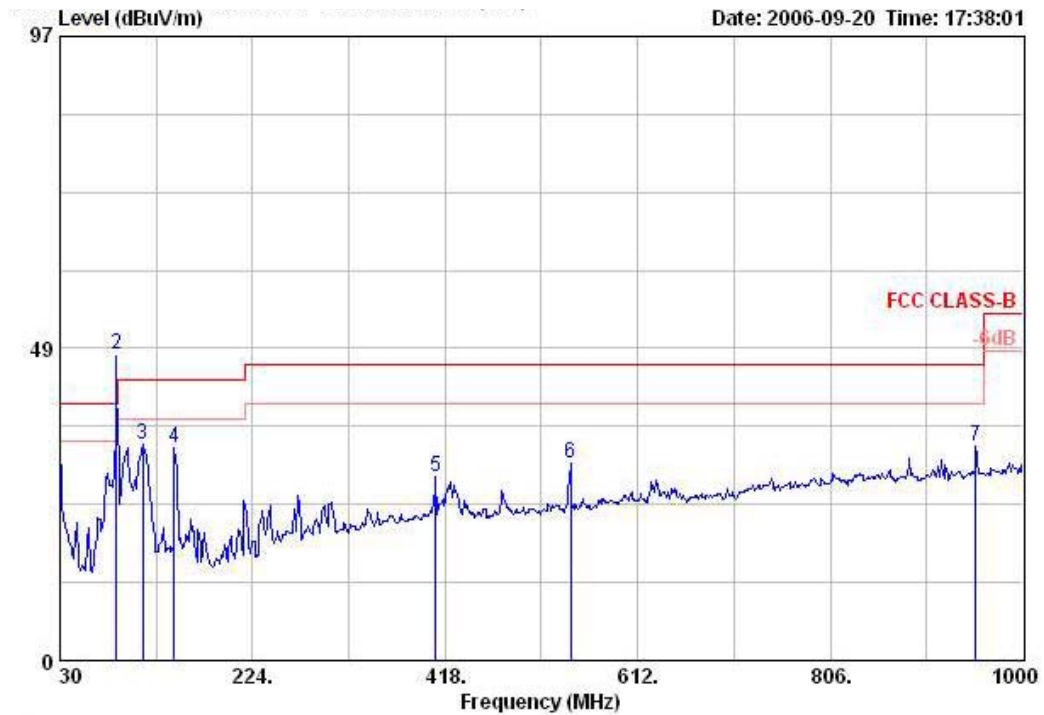
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	48.430	32.04	-7.96	40.00	48.07	9.77	0.67	26.47 Peak	400	0
2 @	87.230	40.22			56.99	8.82	0.54	26.13 Peak	400	0
3	110.510	33.83	-9.67	43.50	46.65	12.53	0.61	25.96 Peak	400	0
4	215.270	25.71	-17.79	43.50	39.49	10.65	1.02	25.45 Peak	400	0
5	323.910	24.66	-21.34	46.00	33.90	14.57	1.15	24.96 Peak	400	0
6	427.700	29.70	-16.30	46.00	37.07	16.89	1.50	25.76 Peak	400	0
7	544.100	30.83	-15.17	46.00	36.97	18.51	1.63	26.28 Peak	400	0
8	770.110	29.19	-16.81	46.00	31.46	20.34	2.49	25.11 Peak	400	0
9	952.470	32.84	-13.16	46.00	33.23	22.02	3.06	25.47 Peak	400	0

Item 2 is fundamental frequency.

Horizontal

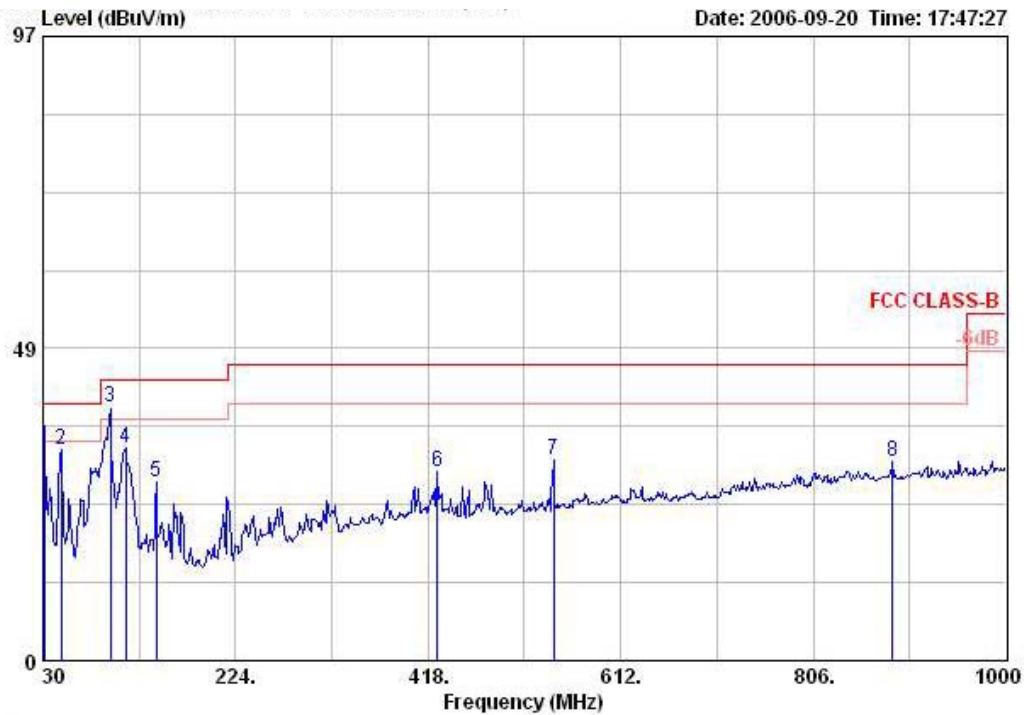


	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table		
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	30.000	32.69	-7.31	40.00	38.73	20.20	0.44	26.68	Peak	100	0
2 @	87.230	47.50			64.27	8.82	0.54	26.13	Peak	100	0
3	113.420	33.51	-9.99	43.50	46.16	12.61	0.70	25.96	Peak	100	0
4	145.430	33.02	-10.48	43.50	46.71	11.56	0.54	25.79	Peak	100	0
5	408.300	28.46	-17.54	46.00	35.87	16.62	1.58	25.61	Peak	100	0
6	544.100	30.61	-15.39	46.00	36.75	18.51	1.63	26.28	Peak	100	0
7	952.470	33.42	-12.58	46.00	33.81	22.02	3.06	25.47	Peak	100	0

Item 2 is fundamental frequency.

Temperature	24°C	Humidity	64%
Test Engineer	Beck Wu	Configurations	Channel 51 / Antenna without bundle of cable / Ant. 1 + Ant. 2

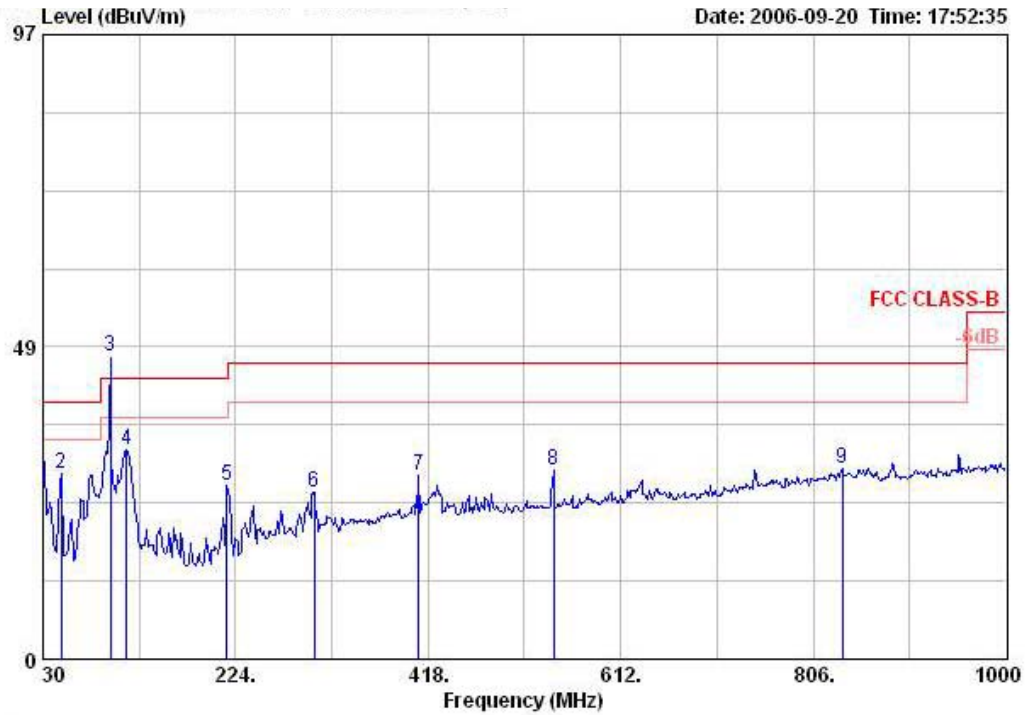
Vertical



	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table		
	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos		
	dB	dBUV/m	dBuV	dB/m	dB	dB		cm	deg		
1 !	30.970	36.39	-3.61	40.00	43.01	19.58	0.38	26.59	Peak	400	0
2	48.430	32.76	-7.24	40.00	48.80	9.77	0.67	26.47	Peak	400	0
3 !	97.900	39.47			54.22	10.82	0.42	26.00	Peak	400	0
4	113.420	33.08	-10.42	43.50	45.74	12.61	0.70	25.96	Peak	400	0
5	144.460	27.78	-15.72	43.50	41.41	11.64	0.53	25.80	Peak	400	0
6	427.700	29.37	-16.63	46.00	36.74	16.89	1.50	25.76	Peak	400	0
7	544.100	31.19	-14.81	46.00	37.33	18.51	1.63	26.28	Peak	400	0
8	885.540	30.98	-15.02	46.00	32.00	21.47	2.65	25.14	Peak	400	0

Item 3 is fundamental frequency.

Horizontal

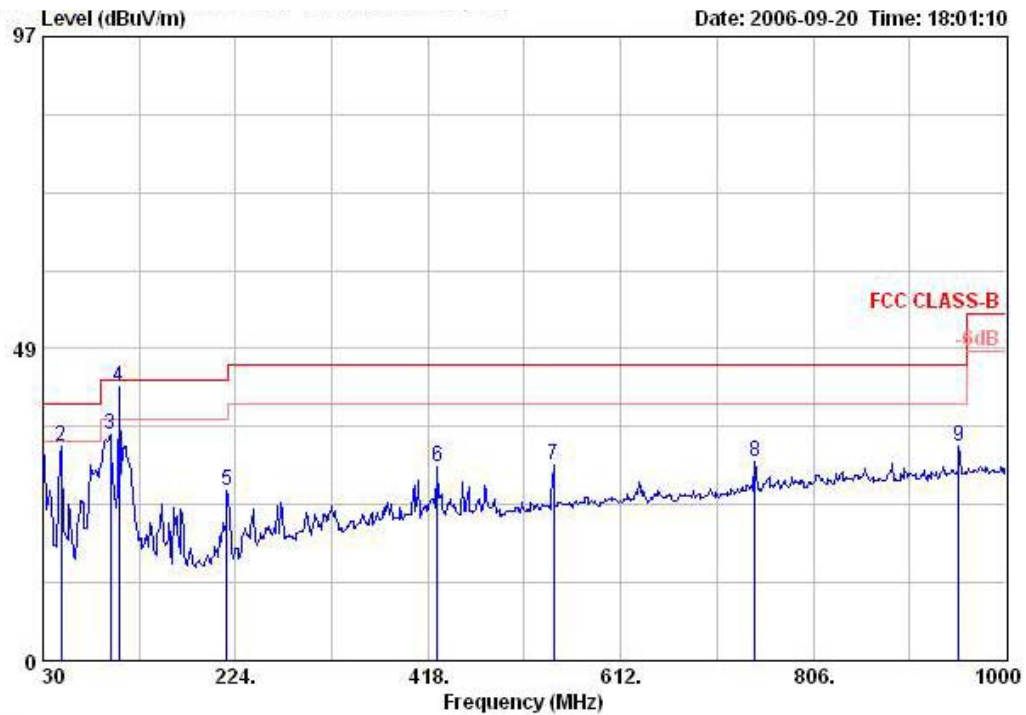


	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table		
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	30.000	33.04	-6.96	40.00	39.08	20.20	0.44	26.68	Peak	100	0
2	48.430	28.86	-11.14	40.00	44.90	9.77	0.67	26.47	Peak	100	0
3 @	97.900	46.94			61.69	10.82	0.42	26.00	Peak	100	0
4	114.390	32.61	-10.89	43.50	45.21	12.64	0.73	25.97	Peak	100	0
5	215.270	26.87	-16.63	43.50	40.65	10.65	1.02	25.45	Peak	100	0
6	303.540	25.82	-20.18	46.00	35.61	14.01	1.14	24.94	Peak	100	0
7	408.300	28.46	-17.54	46.00	35.87	16.62	1.58	25.61	Peak	100	0
8	544.100	29.35	-16.65	46.00	35.49	18.51	1.63	26.28	Peak	100	0
9	835.100	29.72	-16.28	46.00	30.93	21.19	2.52	24.92	Peak	100	0

Item 3 is fundamental frequency.

Temperature	24°C	Humidity	64%
Test Engineer	Beck Wu	Configurations	Channel 100 / Antenna without bundle of cable / Ant. 1+Ant. 2

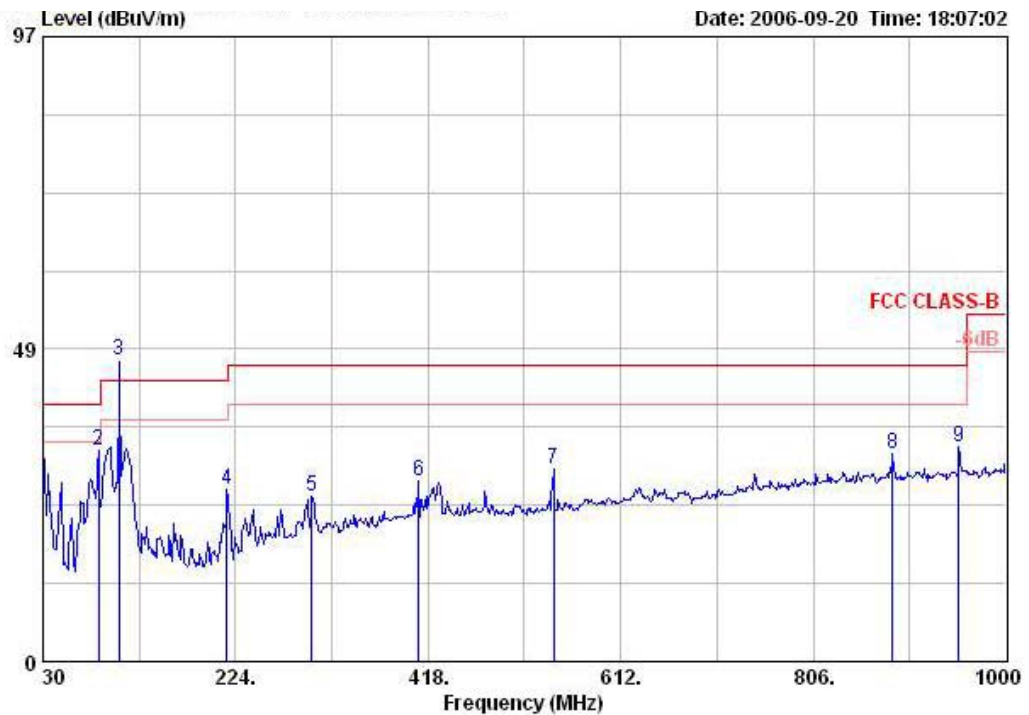
Vertical



	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table		
	Level	Limit	Level	Factor	Loss	Factor	Remark	Pos	Pos		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg		
1 !	30.000	34.75	-5.25	40.00	40.79	20.20	0.44	26.68	Peak	400	0
2	48.430	33.30	-6.70	40.00	49.34	9.77	0.67	26.47	Peak	400	0
3	97.900	35.26	-8.24	43.50	50.02	10.82	0.42	26.00	Peak	400	0
4 !	106.630	42.46			55.80	12.11	0.50	25.95	Peak	400	0
5	215.270	26.55	-16.95	43.50	40.33	10.65	1.02	25.45	Peak	400	0
6	427.700	30.12	-15.88	46.00	37.48	16.89	1.50	25.76	Peak	400	0
7	544.100	30.29	-15.71	46.00	36.43	18.51	1.63	26.28	Peak	400	0
8	746.830	30.84	-15.16	46.00	33.41	20.08	2.46	25.10	Peak	400	0
9	952.470	33.28	-12.72	46.00	33.68	22.02	3.06	25.47	Peak	400	0

Item 4 is fundamental frequency.

Horizontal



	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table		
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	30.000	33.81	-6.19	40.00	39.85	20.20	0.44	26.68	Peak	100	0
2	86.260	32.90	-7.10	40.00	49.85	8.66	0.52	26.13	Peak	100	0
3 @	106.630	46.66			60.00	12.11	0.50	25.95	Peak	100	0
4	215.270	26.63	-16.87	43.50	40.41	10.65	1.02	25.45	Peak	100	0
5	300.630	25.65	-20.35	46.00	35.52	13.93	1.14	24.94	Peak	100	0
6	408.300	27.93	-18.07	46.00	35.34	16.62	1.58	25.61	Peak	100	0
7	544.100	29.87	-16.13	46.00	36.01	18.51	1.63	26.28	Peak	100	0
8	885.540	32.11	-13.89	46.00	33.14	21.47	2.65	25.14	Peak	100	0
9	952.470	33.27	-12.73	46.00	33.66	22.02	3.06	25.47	Peak	100	0

Item 3 is fundamental frequency.

Note:

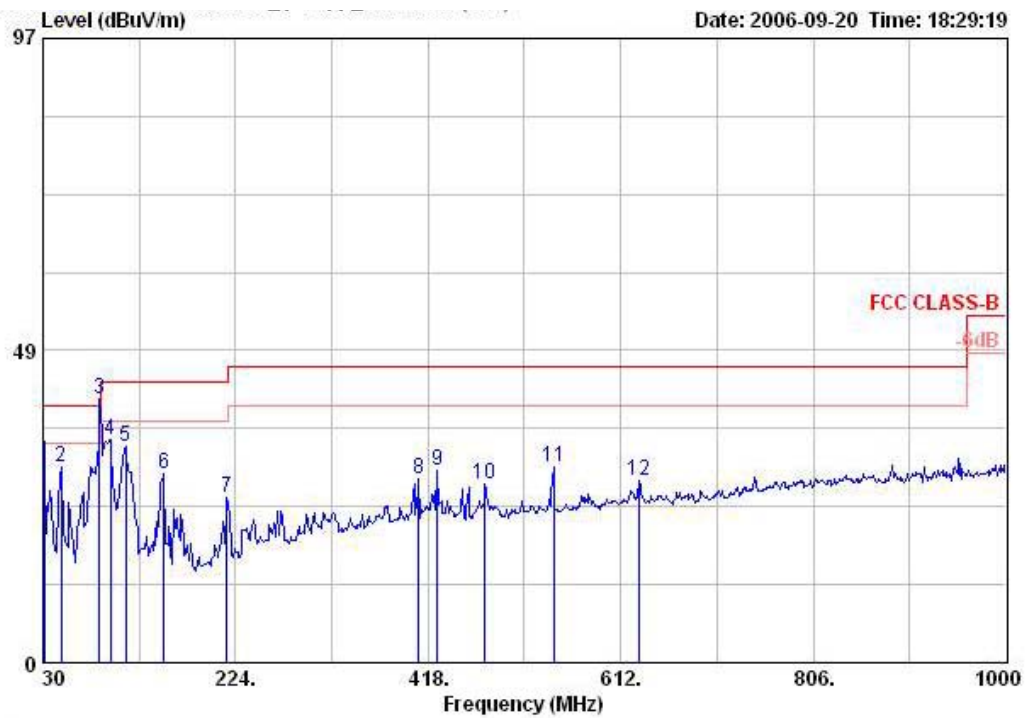
The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Temperature	24°C	Humidity	64%
Test Engineer	Beck Wu	Configurations	Channel 1 / Antenna with bundle of cable / Ant. 1+Ant. 2

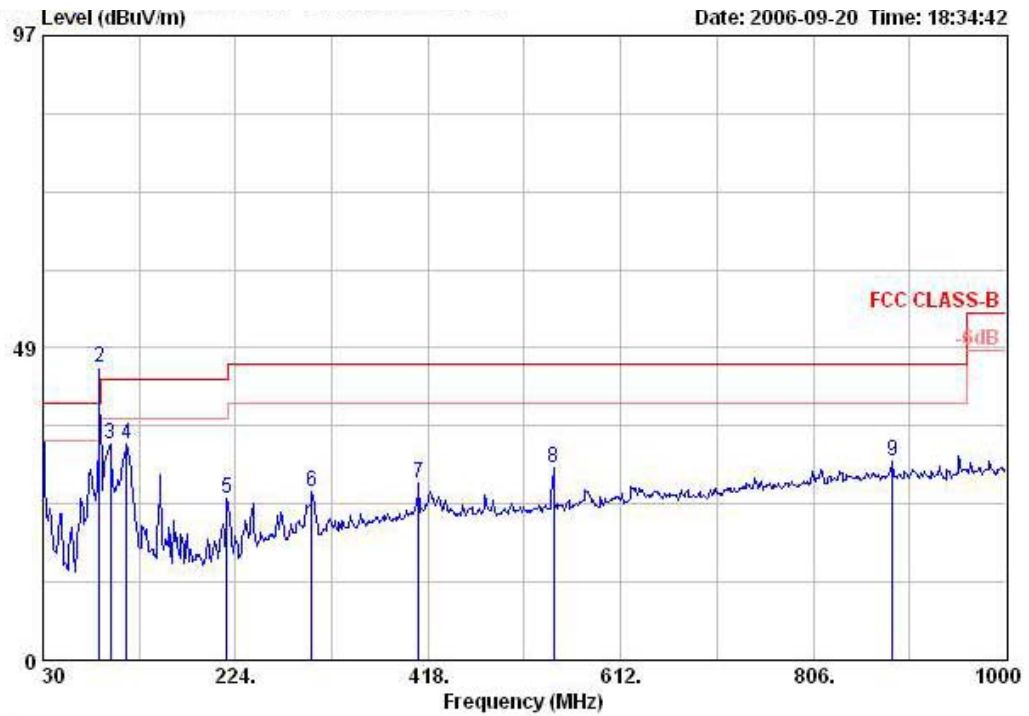
Vertical



	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table		
1	2	3	4	5	6	7	8	9	10		
11	12	13	14	15	16	17	18	19	20		
21	22	23	24	25	26	27	28	29	30		
31	32	33	34	35	36	37	38	39	40		
41	42	43	44	45	46	47	48	49	50		
51	52	53	54	55	56	57	58	59	60		
61	62	63	64	65	66	67	68	69	70		
71	72	73	74	75	76	77	78	79	80		
81	82	83	84	85	86	87	88	89	90		
91	92	93	94	95	96	97	98	99	100		
101	102	103	104	105	106	107	108	109	110		
111	112	113	114	115	116	117	118	119	120		
121	122	123	124	125	126	127	128	129	130		
131	132	133	134	135	136	137	138	139	140		
141	142	143	144	145	146	147	148	149	150		
151	152	153	154	155	156	157	158	159	160		
161	162	163	164	165	166	167	168	169	170		
171	172	173	174	175	176	177	178	179	180		
181	182	183	184	185	186	187	188	189	190		
191	192	193	194	195	196	197	198	199	200		
201	202	203	204	205	206	207	208	209	210		
211	212	213	214	215	216	217	218	219	220		
221	222	223	224	225	226	227	228	229	230		
231	232	233	234	235	236	237	238	239	240		
241	242	243	244	245	246	247	248	249	250		
251	252	253	254	255	256	257	258	259	260		
261	262	263	264	265	266	267	268	269	270		
271	272	273	274	275	276	277	278	279	280		
281	282	283	284	285	286	287	288	289	290		
291	292	293	294	295	296	297	298	299	300		
301	302	303	304	305	306	307	308	309	310		
311	312	313	314	315	316	317	318	319	320		
321	322	323	324	325	326	327	328	329	330		
331	332	333	334	335	336	337	338	339	340		
341	342	343	344	345	346	347	348	349	350		
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361	362	363	364	365	366	367	368	369	370		
371	372	373	374	375	376	377	378	379	380		
381	382	383	384	385	386	387	388	389	390		
391	392	393	394	395	396	397	398	399	400		
401	402	403	404	405	406	407	408	409	410		
411	412	413	414	415	416	417	418	419	420		
421	422	423	424	425	426	427	428	429	430		
431	432	433	434	435	436	437	438	439	440		
441	442	443	444	445	446	447	448	449	450		
451	452	453	454	455	456	457	458	459	460		
461	462	463	464	465	466	467	468	469	470		
471	472	473	474	475	476	477	478	479	480		
481	482	483	484	485	486	487	488	489	490		
491	492	493	494	495	496	497	498	499	500		
501	502	503	504	505	506	507	508	509	510		
511	512	513	514	515	516	517	518	519	520		
521	522	523	524	525	526	527	528	529	530		
531	532	533	534	535	536	537	538	539	540		
541	542	543	544	545	546	547	548	549	550		
551	552	553	554	555	556	557	558	559	560		
561	562	563	564	565	566	567	568	569	570		
571	572	573	574	575	576	577	578	579	580		
581	582	583	584	585	586	587	588	589	590		
591	592	593	594	595	596	597	598	599	600		
601	602	603	604	605	606	607	608	609	610		
611	612	613	614	615	616	617	618	619	620		
621	622	623	624	625	626	627	628	629	630		
631	632	633	634	635	636	637	638	639	640		
641	642	643	644	645	646	647	648	649	650		
651	652	653	654	655	656	657	658	659	660		
661	662	663	664	665	666	667	668	669	670		
671	672	673	674	675	676	677	678	679	680		
681	682	683	684	685	686	687	688	689	690		
691	692	693	694	695	696	697	698	699	700		
701	702	703	704	705	706	707	708	709	710		
711	712	713	714	715	716	717	718	719	720		
721	722	723	724	725	726	727	728	729	730		
731	732	733	734	735	736	737	738	739	740		
741	742	743	744	745	746	747	748	749	750		
751	752	753	754	755	756	757	758	759	760		
761	762	763	764	765	766	767	768	769	770		
771	772	773	774	775	776	777	778	779	780		
781	782	783	784	785	786	787	788	789	790		
791	792	793	794	795	796	797	798	799	800		
801	802	803	804	805	806	807	808	809	810		
811	812	813	814	815	816	817	818	819	820		
821	822	823	824	825	826	827	828	829	830		
831	832	833	834	835	836	837	838	839	840		
841	842	843	844	845	846	847	848	849	850		
851	852	853	854	855	856	857	858	859	860		
861	862	863	864	865	866	867	868	869	870		
871	872	873	874	875	876	877	878	879	880		
881	882	883	884	885	886	887	888	889	890		
891	892	893	894	895	896	897	898	899	900		
901	902	903	904	905	906	907	908	909	910		
911	912	913	914	915	916	917	918	919	920		
921	922	923	924	925	926	927	928	929	930		
931	932	933	934	935	936	937	938	939	940		
941	942	943	944	945	946	947	948	949	950		
951	952	953	954	955	956	957	958	959	960		
961	962	963	964	965	966	967	968	969	970		
971	972	973	974	975	976	977	978	979	980		
981	982	983	984	985	986	987	988	989	990		
991	992	993	994	995	996	997	998	999	1000		
1 !	30.970	34.34	-5.66	40.00	40.96	19.58	0.38	26.59	Peak	400	0
2	48.430	30.42	-9.58	40.00	46.45	9.77	0.67	26.47	Peak	400	0
3 @	87.230	41.03			57.80	8.82	0.54	26.13	Peak	400	0
4	97.900	34.68	-8.82	43.50	49.43	10.82	0.42	26.00	Peak	400	0
5	113.420	33.66	-9.84	43.50	46.32	12.61	0.70	25.96	Peak	400	0
6	152.220	29.29	-14.21	43.50	43.38	11.06	0.63	25.77	Peak	400	0
7	215.270	25.74	-17.76	43.50	39.52	10.65	1.02	25.45	Peak	400	0
8	408.300	28.42	-17.58	46.00	35.83	16.62	1.58	25.61	Peak	400	0
9	427.700	29.73	-16.27	46.00	37.10	16.89	1.50	25.76	Peak	400	0
10	475.230	27.72	-18.28	46.00	34.75	17.50	1.62	26.15	Peak	400	0
11	544.100	30.52	-15.48	46.00	36.66	18.51	1.63	26.28	Peak	400	0
12	630.430	28.24	-17.76	46.00	32.97	19.36	2.12	26.21	Peak	400	0

Item 3 is fundamental frequency.

Horizontal

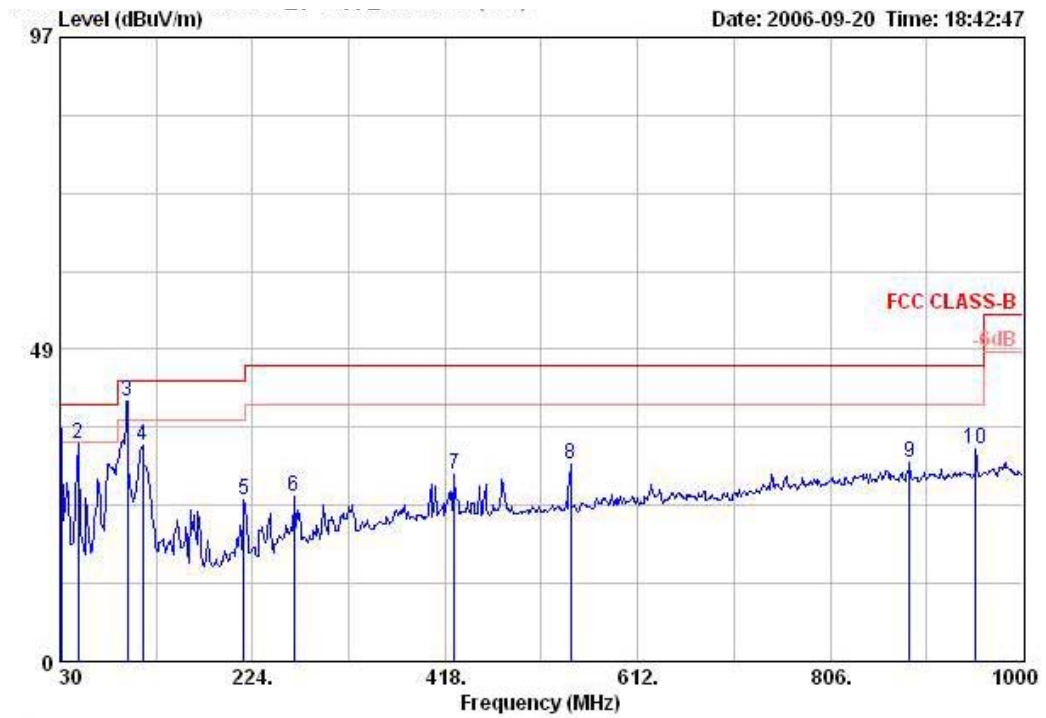


	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table		
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 !	30.000	34.87	-5.13	40.00	40.91	20.20	0.44	26.68	Peak	100	305
2 @	87.230	45.38			62.15	8.82	0.54	26.13	Peak	100	305
3	97.900	33.58	-9.92	43.50	48.33	10.82	0.42	26.00	Peak	100	305
4	114.390	33.48	-10.02	43.50	46.08	12.64	0.73	25.97	Peak	100	305
5	215.270	25.17	-18.33	43.50	38.95	10.65	1.02	25.45	Peak	100	305
6	300.630	26.14	-19.86	46.00	36.01	13.93	1.14	24.94	Peak	100	305
7	408.300	27.60	-18.40	46.00	35.01	16.62	1.58	25.61	Peak	100	305
8	544.100	29.83	-16.17	46.00	35.97	18.51	1.63	26.28	Peak	100	305
9	885.540	31.03	-14.97	46.00	32.05	21.47	2.65	25.14	Peak	100	305

Item 2 is fundamental frequency.

Temperature	24°C	Humidity	64%
Test Engineer	Beck Wu	Configurations	Channel 51 / Antenna with bundle of cable / Ant. 1 + Ant. 2

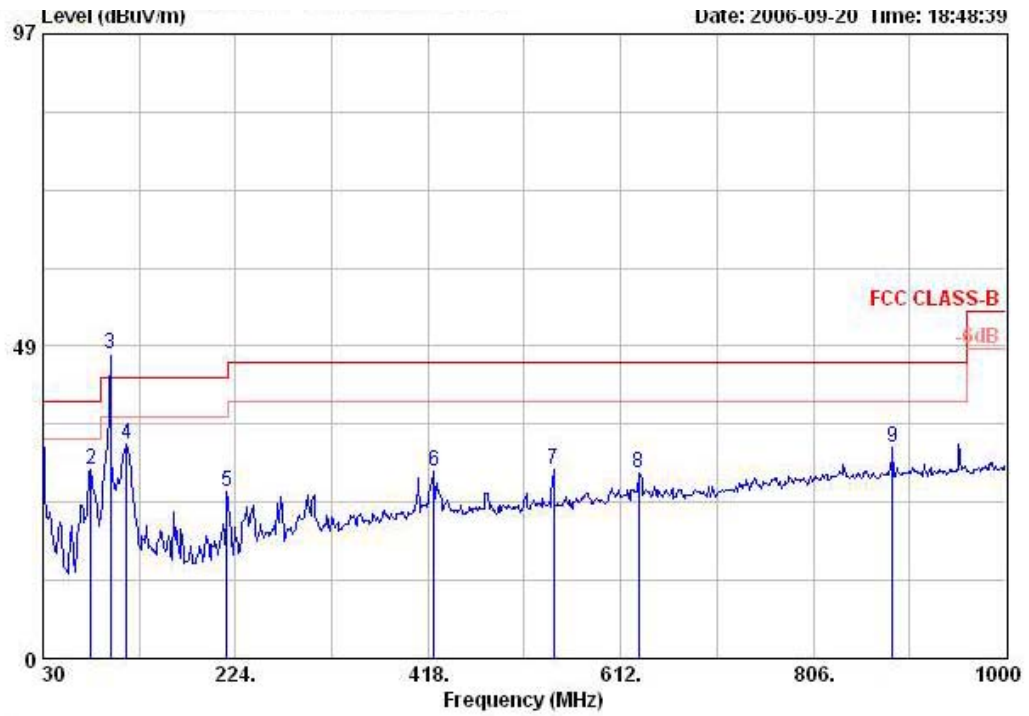
Vertical



	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table		
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 !	30.970	36.26	-3.74	40.00	42.88	19.58	0.38	26.59	Peak	400	0
2	48.430	33.74	-6.26	40.00	49.78	9.77	0.67	26.47	Peak	400	0
3 !	97.900	40.42			55.17	10.82	0.42	26.00	Peak	400	0
4	113.420	33.46	-10.04	43.50	46.11	12.61	0.70	25.96	Peak	400	0
5	215.270	25.13	-18.37	43.50	38.91	10.65	1.02	25.45	Peak	400	0
6	265.710	25.71	-20.29	46.00	36.14	13.70	1.15	25.27	Peak	400	0
7	427.700	29.14	-16.86	46.00	36.51	16.89	1.50	25.76	Peak	400	0
8	544.100	30.73	-15.27	46.00	36.87	18.51	1.63	26.28	Peak	400	0
9	885.540	31.00	-15.00	46.00	32.02	21.47	2.65	25.14	Peak	400	0
10	952.470	32.91	-13.09	46.00	33.30	22.02	3.06	25.47	Peak	400	0

Item 3 is fundamental frequency.

Horizontal

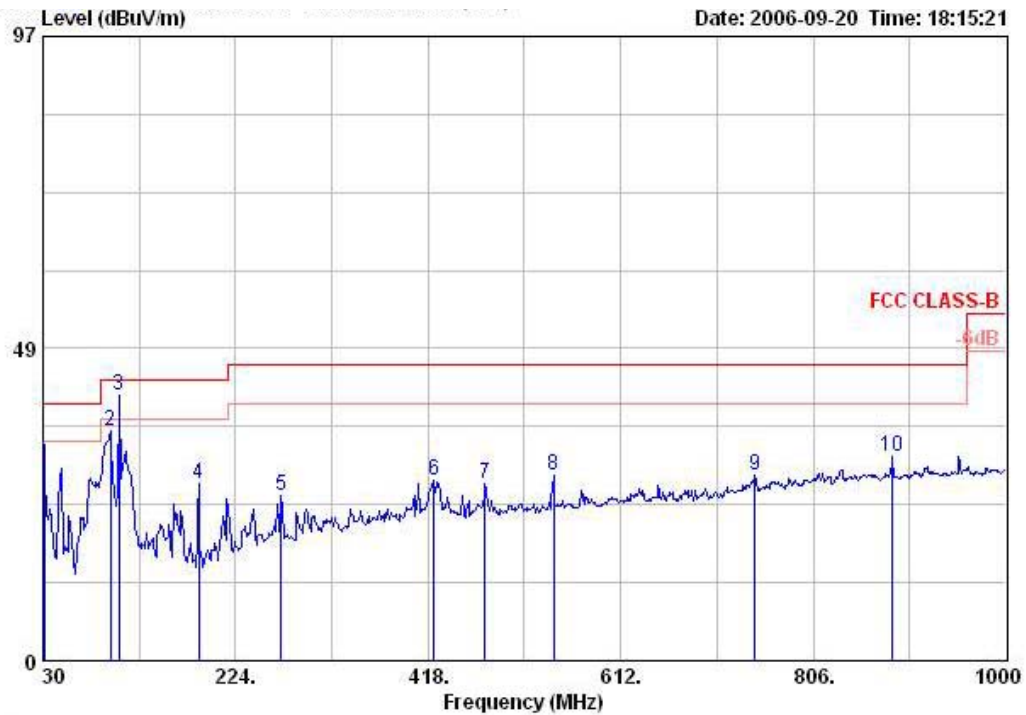


	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table		
	Level	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos		
	dB	dB	dBuV	dB/m	dB	dB		cm	deg		
1 !	30.000	35.25	-4.75	40.00	41.29	20.20	0.44	26.68	Peak	100	0
2	78.500	29.26	-10.74	40.00	47.61	7.54	0.33	26.21	Peak	100	0
3 @	97.900	47.35		46.00	62.10	10.82	0.42	26.00	Peak	100	0
4	114.390	33.22	-10.28	43.50	45.82	12.64	0.73	25.97	Peak	100	0
5	215.270	25.96	-17.54	43.50	39.74	10.65	1.02	25.45	Peak	100	0
6	423.820	29.01	-16.99	46.00	36.39	16.84	1.52	25.73	Peak	100	0
7	544.100	29.35	-16.65	46.00	35.49	18.51	1.63	26.28	Peak	100	0
8	630.430	28.78	-17.22	46.00	33.50	19.36	2.12	26.21	Peak	100	0
9	885.540	32.71	-13.29	46.00	33.73	21.47	2.65	25.14	Peak	100	0

Item 3 is fundamental frequency.

Temperature	24°C	Humidity	64%
Test Engineer	Beck Wu	Configurations	Channel 100 / Antenna with bundle of cable / Ant. 1+Ant. 2

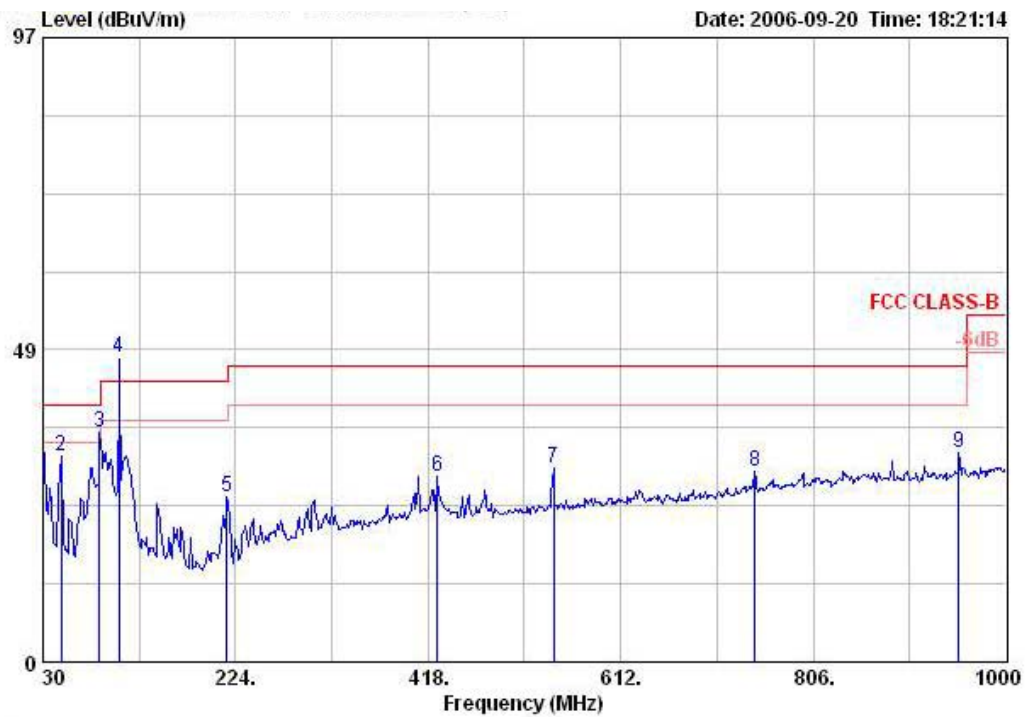
Vertical



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	30.970	33.57	-6.43	40.00	40.20	19.58	0.38	26.59	Peak	400	0
2	97.900	35.65	-7.85	43.50	50.41	10.82	0.42	26.00	Peak	400	0
3 @	106.630	41.16			54.49	12.11	0.50	25.95	Peak	400	0
4	187.140	27.45	-16.05	43.50	42.51	9.56	0.78	25.40	Peak	400	0
5	269.590	25.64	-20.36	46.00	36.22	13.50	1.15	25.23	Peak	400	0
6	423.820	28.14	-17.86	46.00	35.52	16.84	1.52	25.73	Peak	400	0
7	475.230	27.60	-18.40	46.00	34.63	17.50	1.62	26.15	Peak	400	0
8	544.100	28.85	-17.15	46.00	34.99	18.51	1.63	26.28	Peak	400	0
9	746.830	28.76	-17.24	46.00	31.32	20.08	2.46	25.10	Peak	400	0
10	885.540	31.77	-14.23	46.00	32.79	21.47	2.65	25.14	Peak	400	0

Item 3 is fundamental frequency.

Horizontal



	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table		
Freq	Level	Limit	Level	Factor	Loss	Factor	Remark	Pos	Pos		
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB		cm	deg		
1 !	30.000	35.37	-4.63	40.00	41.41	20.20	0.44	26.68	Peak	100	0
2	48.430	31.91	-8.09	40.00	47.95	9.77	0.67	26.47	Peak	100	0
3 !	87.230	35.65	-4.35	40.00	52.42	8.82	0.54	26.13	Peak	100	0
4 @	106.630	47.34			60.68	12.11	0.50	25.95	Peak	100	0
5	215.270	25.70	-17.80	43.50	39.48	10.65	1.02	25.45	Peak	100	0
6	427.700	28.80	-17.20	46.00	36.17	16.89	1.50	25.76	Peak	100	0
7	544.100	30.26	-15.74	46.00	36.40	18.51	1.63	26.28	Peak	100	0
8	746.830	29.61	-16.39	46.00	32.18	20.08	2.46	25.10	Peak	100	0
9	952.470	32.62	-13.38	46.00	33.02	22.02	3.06	25.47	Peak	100	0

Item 4 is fundamental frequency.

Note:

The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

4.4. Band Edge Emissions Measurement

4.4.1. Limit

Band edge emissions outside of the frequency bands shown in below table.

Outside Frequency Band Edge	Limit (dBuV/m) at 3m
Below 88MHz	40.0 (QP)
Above 108MHz	43.5 (QP)

4.4.2. Measuring Instruments and Setting

Please refer to section 5 in this report. The following table is the setting of the receiver.

Receiver Parameter	Setting
Center Frequency	Fundamental Frequency
RB	120 KHz
Detector	QP or Peak

4.4.3. Test Procedures

The test procedure is the same as section 4.2.3, only the frequency range investigated is limited to 2MHz around bandedges.

4.4.4. Test Setup Layout

This test setup layout is the same as that shown in section 4.2.4

4.4.5. Test Deviation

There is no deviation with the original standard.

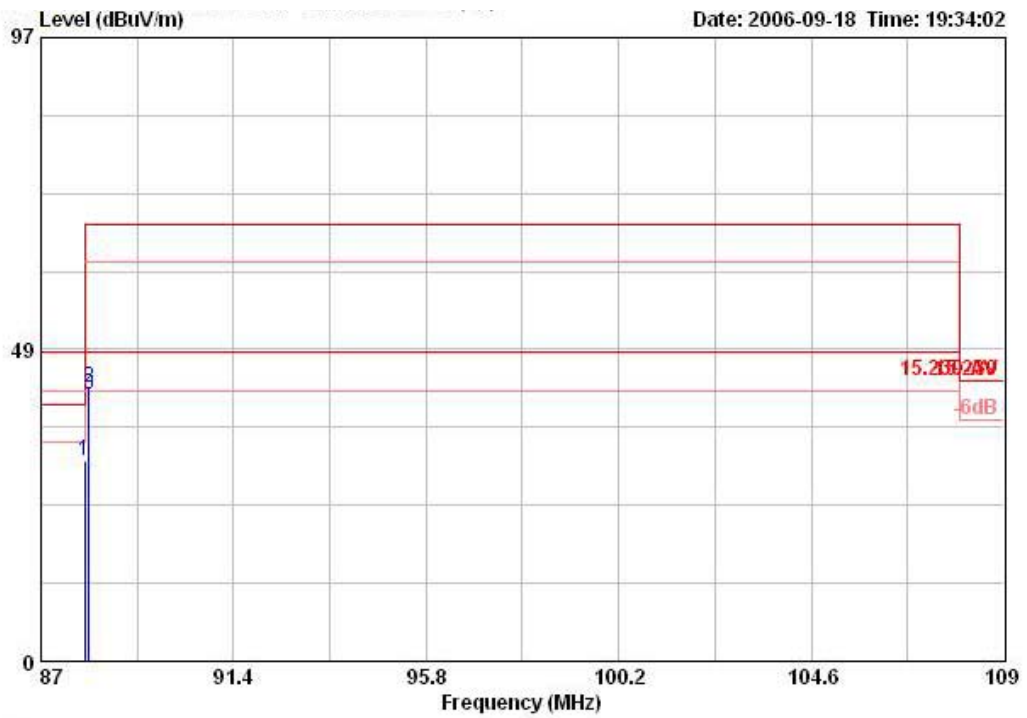
4.4.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.4.7. Test Result of Band Edge and Fundamental Emissions

Temperature	24°C	Humidity	64%
Test Engineer	Leo Hung	Configurations	Channel 1, 100 / Antenna without bundle of cable / Ant. 1

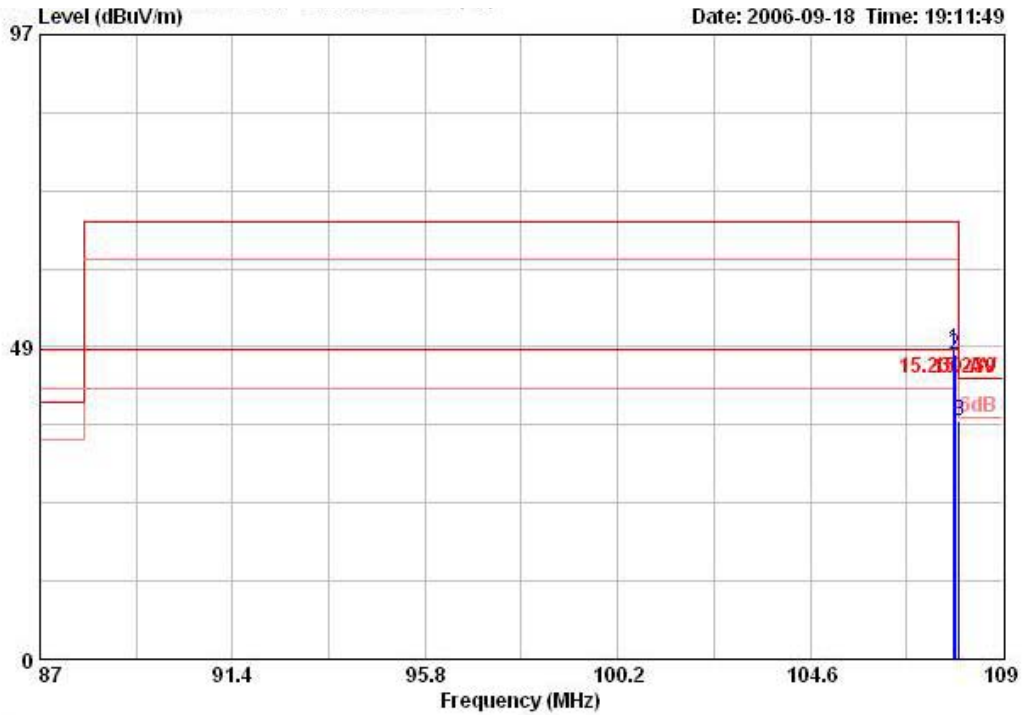
Channel 1



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	88.000	31.11	-8.89	40.00	47.70	8.98	0.55	26.12	QP	100	186

Item 1 is Band Edge.

Channel 100



Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table			
Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
3 @	108.000	36.99	-6.51	43.50	50.17	12.24	0.53	25.95 QP	260	231

Item 3 is Band Edge.

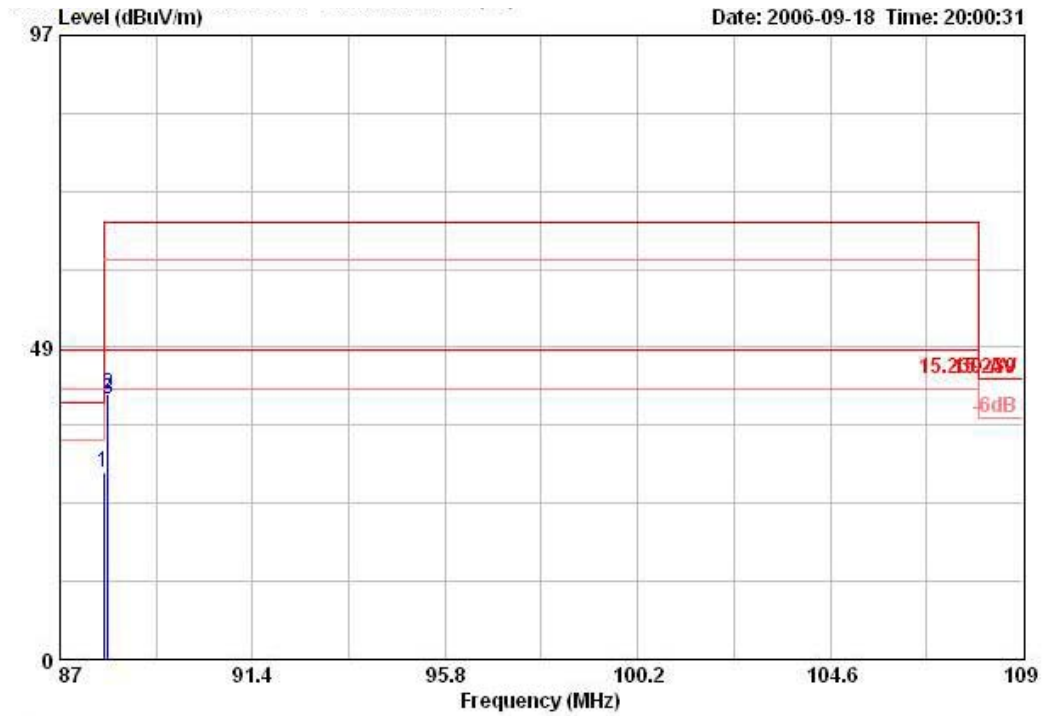
Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Temperature	24°C	Humidity	64%
Test Engineer	Leo Hung	Configurations	Channel 1, 100 / Antenna with bundle of cable / Ant. 1

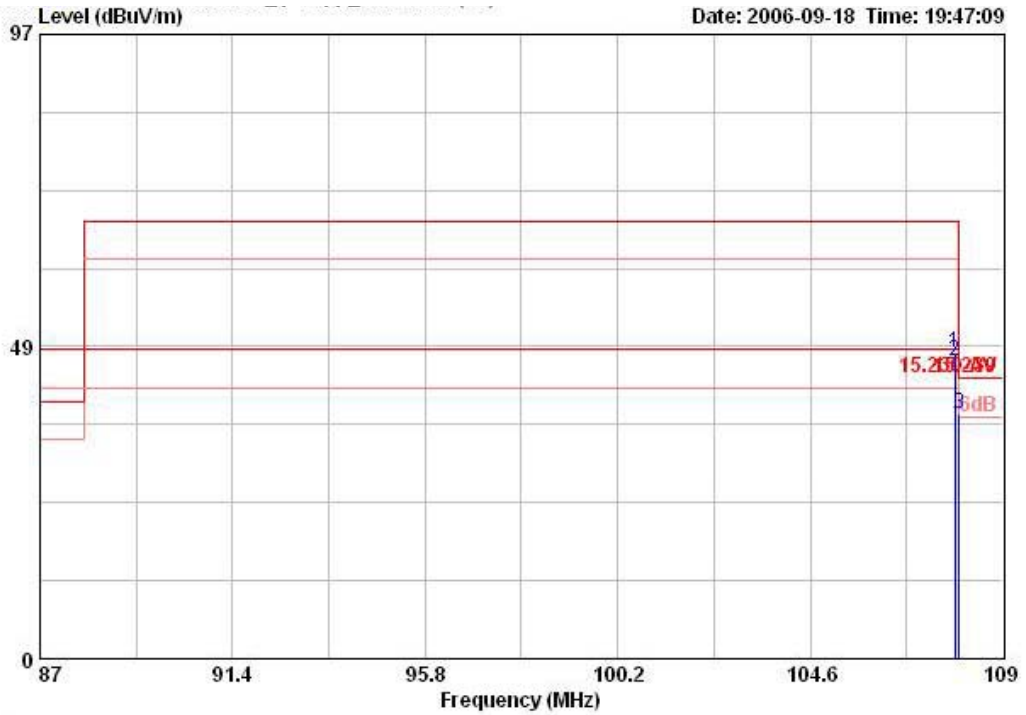
Channel 1



	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table	
1	Level	Limit	Level	Factor	Loss	Factor	Remark	Pos	Pos	
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB	cm	deg
1	88.000	29.18	-10.82	40.00	45.77	8.98	0.55	26.12	QP	100 187

Item 1 is Band Edge.

Channel 100



Item	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
3 @	108.000	38.10	-5.40	43.50	51.28	12.24	0.53	25.95	QP	272	304

Item 3 is Band Edge.

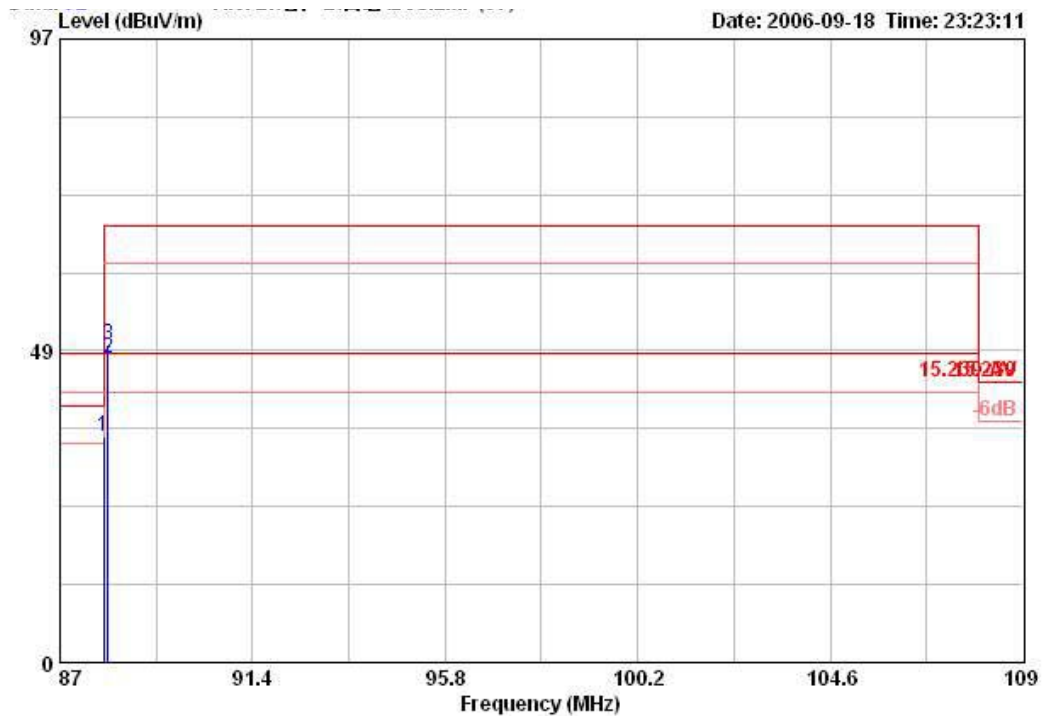
Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Temperature	24°C	Humidity	64%
Test Engineer	Leo Hung	Configurations	Channel 1, 100 / Antenna without bundle of cable / Ant. 1+Ant. 2

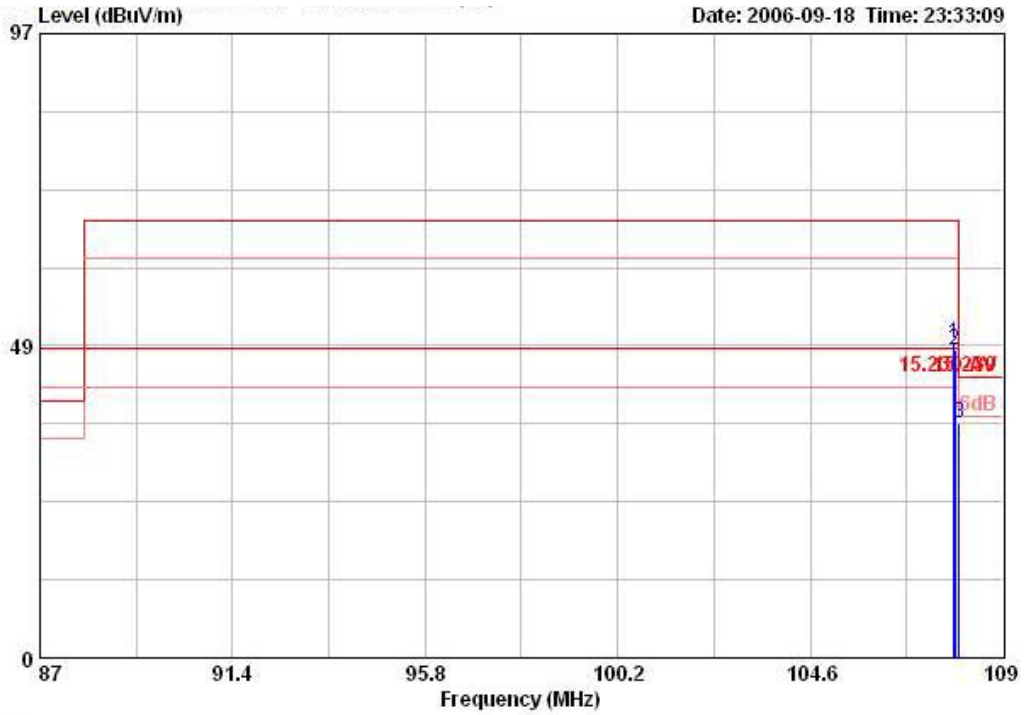
Channel 1



Item	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBUV/m	dB	dBUV/m	dBUV	dB/m	dB	dB		cm	deg
1 @	88.000	35.21	-4.79	40.00	51.80	8.98	0.55	26.12	QP	400	323

Item 1 is Band Edge.

Channel 100



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
3	108.000	36.36	-7.14	43.50	49.54	12.24	0.53	25.95	QP	400	300

Item 3 is Band Edge.

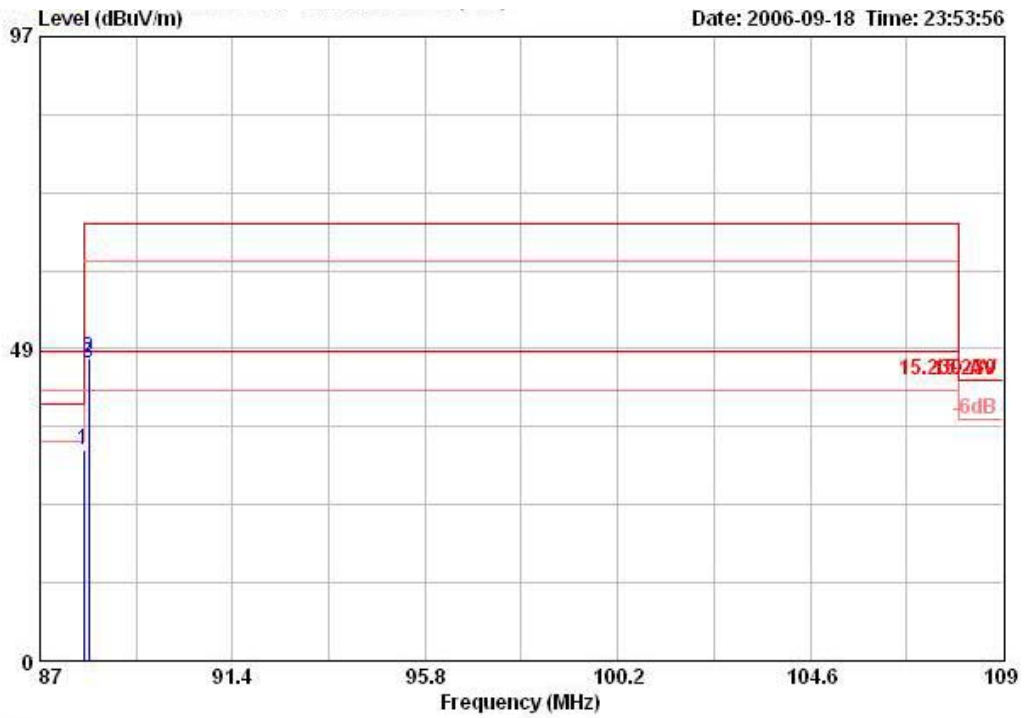
Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Temperature	24°C	Humidity	64%
Test Engineer	Leo Hung	Configurations	Channel 1, 100 / Antenna without bundle of cable / Ant. 1+Ant. 2

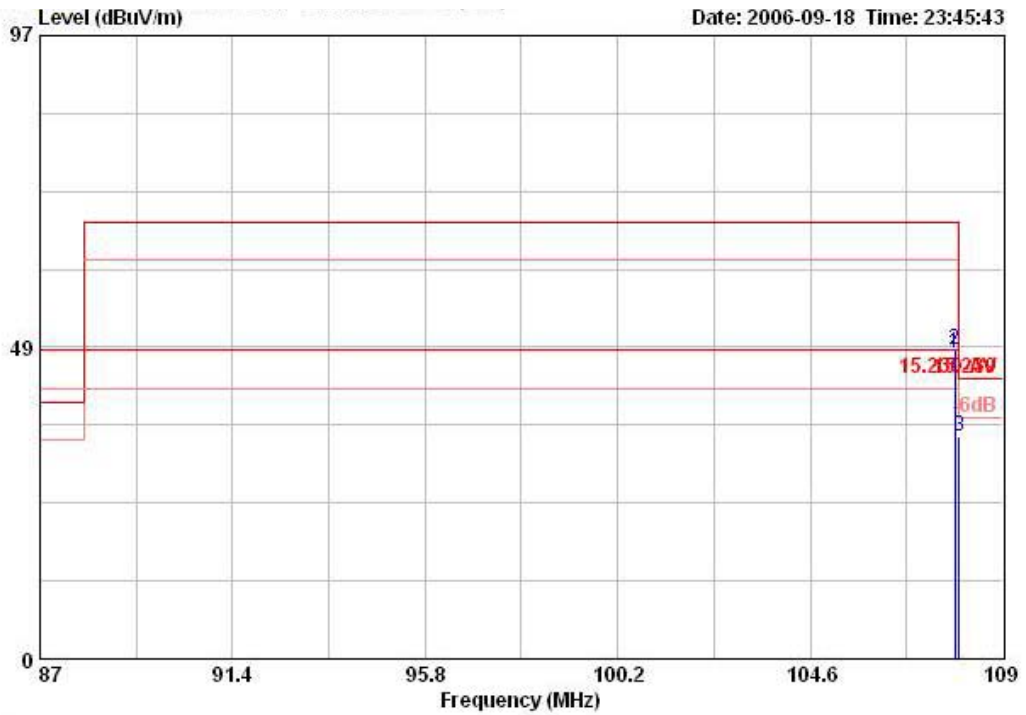
Channel 1



	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table
Freq	Level	Limit	Level	Factor	Loss	Factor	Remark	Pos	Pos
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @ 88.000	32.88	-7.13	40.00	49.47	8.98	0.55	26.12 QP	400	266

Item 1 is Band Edge.

Channel 100



	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table		
Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos		
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		
3	108.000	34.57	-8.93	43.50	47.75	12.24	0.53	25.95	QP	400	112

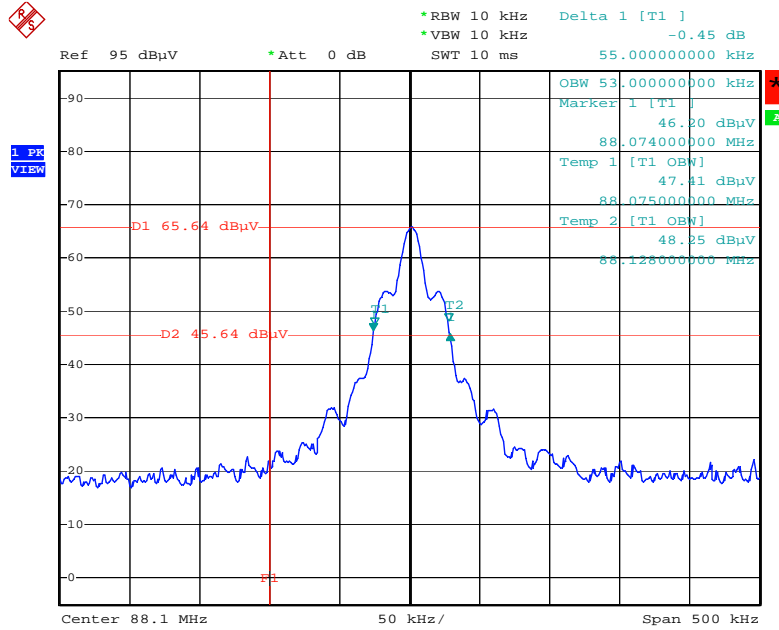
Item 3 is Band Edge.

Note:

Emission level (dBUV/m) = 20 log Emission level (uV/m).

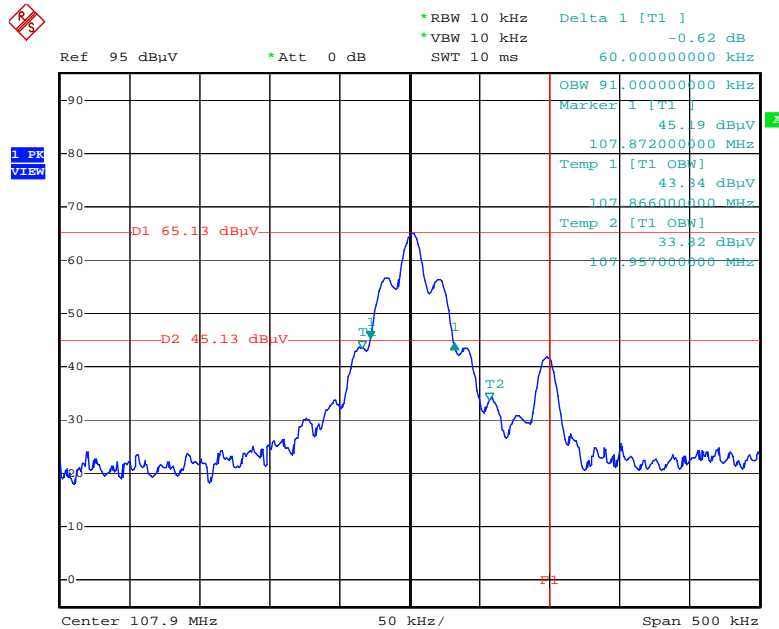
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Low Band Edge Plot on 88.1 MHz



Date: 6.JUL.2006 14:08:15

High Band Edge Plot on 107.9 MHz



Date: 6.JUL.2006 14:02:14

4.5. Antenna Requirements

4.5.1. Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further,

4.5.2. Antenna Connector Construction

Please refer to section 3.1 in this test report, antenna connector complied with the requirements.

5. LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30 MHz - 1 GHz 3m	Jun. 15, 2006	Radiation (03CH03-HY)
Amplifier	SCHAFFNER	CPA9231A	3565	9 kHz - 2 GHz	Jan. 18, 2006	Radiation (03CH03-HY)
Amplifier	Agilent	8449B	3008A02120	1 GHz - 26.5 GHz	May 29, 2006	Radiation (03CH03-HY)
Amplifier	MITEQ	AMF-6F-260400	923364	26.5 GHz - 40 GHz	Jan. 24, 2006*	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSP40	100004/040	9 kHz - 40 GHz	Sep. 30, 2005	Radiation (03CH03-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	May 23, 2006*	Radiation (03CH03-HY)
Bilog Antenna	SCHAFFNER	CBL 6112D	22237	30 MHz – 1 GHz	Jul. 24, 2006	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6903	1GHz ~ 18GHz	Mar. 15, 2006	Radiation (03CH03-HY)
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15 GHz - 40 GHz	NCR	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30 MHz - 1 GHz	Dec.02, 2005	Radiation (03CH03-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	1 GHz - 40 GHz	Dec.02, 2005	Radiation (03CH03-HY)
Turn Table	HD	DS 420	420/650/00	0 – 360 degree	N/A	Radiation (03CH03-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	Radiation (03CH03-HY)
Spectrum analyzer	R&S	FSP30	100023	9kHz ~ 30GHz	Nov. 26, 2005	Conducted (TH01-HY)
Power meter	R&S	NRVS	100444	DC ~ 40GHz	Jun. 10,2006	Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z32	100057	30MHz ~ 6GHz	Jun. 10,2006	Conducted (TH01-HY)
DC power source	G.W.	GPC-6030D	C671845	DC 1V ~ 60V	Dec. 28, 2005	Conducted (TH01-HY)
Temp. and Humidity Chamber	KSON	THS-C3L	612	N/A	Oct. 01, 2005	Conducted (TH01-HY)
RF CABLE-1m	Jye Bao	RG142	CB034-1m	20MHz ~ 7GHz	Dec. 30, 2005	Conducted (TH01-HY)
RF CABLE-2m	Jye Bao	RG142	CB035-2m	20MHz ~ 1GHz	Dec. 30, 2005*	Conducted (TH01-HY)
AC power source	HPC	HPA-500W	HPA-9100024	AC 0 ~ 300V	Apr. 21, 2005*	Conducted (TH01-HY)
Oscilloscope	Tektronix	TDS1012	CO38515	100MHz / 1GS/s	Apr. 14, 2006*	Conducted (TH01-HY)
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	Dec. 30, 2005	Conducted (TH01-HY)
Data Generator	Tektronix	DG2030	063-2920-50	0.1Hz~400MHz	Jun. 16, 2006*	Conducted (TH01-HY)

Note: Calibration Interval of instruments listed above is one year.

Note: * Calibration Interval of instruments listed above is two year.

Note: NCR means Non-Calibration required.

6. SPORTON COMPANY PROFILE

SPORTON Lab. was established in 1986 with one shielded room: the first private EMI test facility, offering local manufacturers an alternative EMI test facility apart from ERSO. In 1988, one 3M and 10M/3M open area test site were setup and also obtained official accreditation from FCC, VCCI and NEMKO. In 1993, a Safety laboratory was founded and obtained accreditation from UL of USA, CSA of Canada and TUV (Rhineland & PS) of Germany. In 1995, one EMC lab, including EMI and EMS test facilities was setup. In 1997, SPORTON Group has provided financial expense to relocate the headquarter to Orient Scientific Park in Taipei Hsien to offer more comprehensive, more qualified and better service to local suppliers and manufactures. In 1999, Safety Group and Component Group were setup. In 2001, SPORTON has established 3M/10M chamber in Hwa Ya Technology Park.

6.1. Test Location

SHIJR	ADD : 6Fl., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C. TEL : 02-2696-2468 FAX : 02-2696-2255
HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 03-327-3456 FAX : 03-318-0055
LINKOU	ADD : No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C TEL : 02-2601-1640 FAX : 02-2601-1695
DUNGHU	ADD : No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C. TEL : 02-2631-4739 FAX : 02-2631-9740
JUNGHE	ADD : 7Fl., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C. TEL : 02-8227-2020 FAX : 02-8227-2626
NEIHU	ADD : 4Fl., No. 339, Hsin Hu 2 nd Rd., Taipei 114, Taiwan, R.O.C. TEL : 02-2794-8886 FAX : 02-2794-9777
JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, Hsinchu County 302, Taiwan, R.O.C. TEL : 03-656-9065 FAX : 03-656-9085