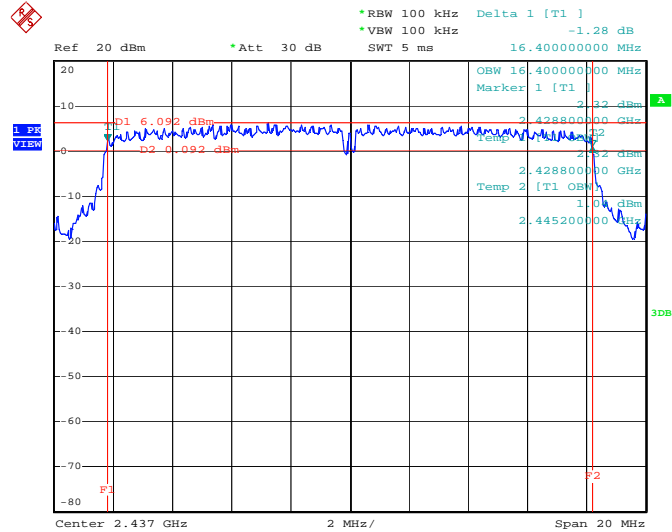
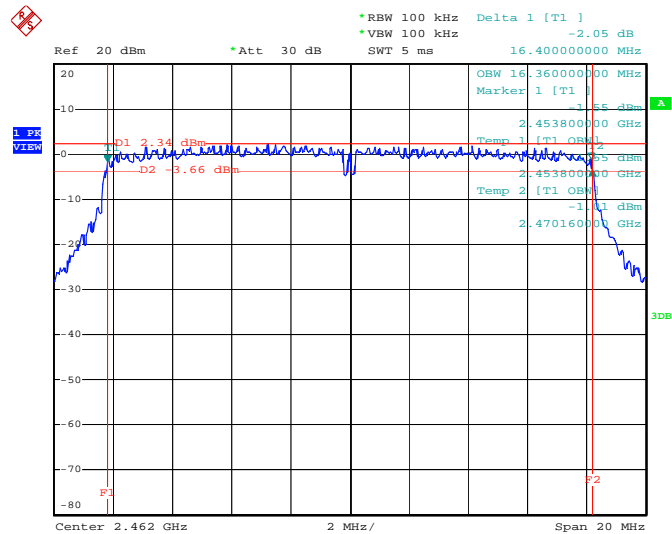


6 dB Bandwidth Plot on Configuration IEEE 802.11g Ant. A / 2437 MHz



Date: 7.MAR.2009 09:50:38

6 dB Bandwidth Plot on Configuration IEEE 802.11g Ant. A / 2462 MHz



Date: 7.MAR.2009 09:52:43

4.5. Radiated Emissions Measurement

4.5.1. Limit

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

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

4.5.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list 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 (Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (Emission in non-restricted band)	1000KHz / 1000KHz for peak

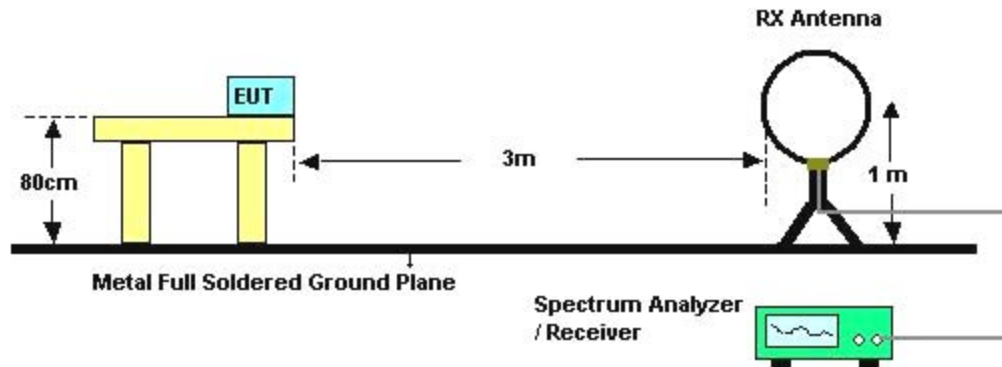
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

4.5.3. Test Procedures

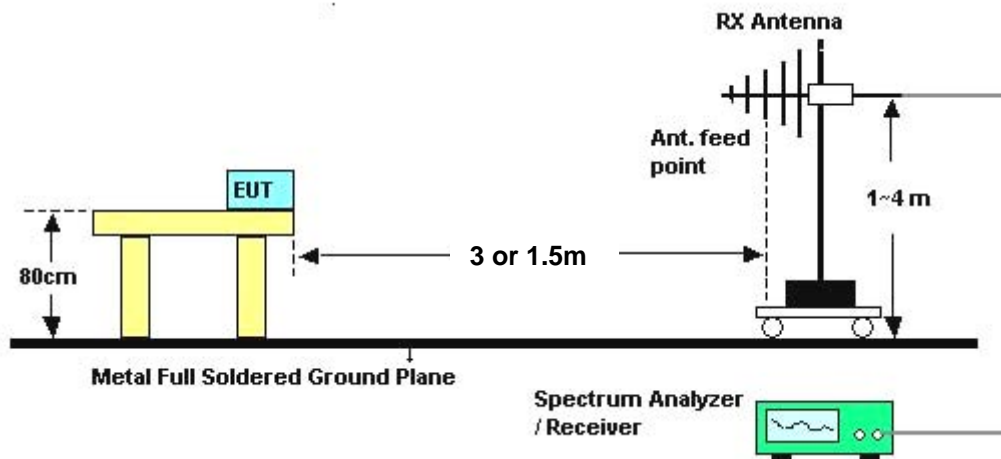
1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting 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.

4.5.4. Test Setup Layout

For radiated emissions below 30MHz



For radiated emissions above 30MHz



Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

4.5.5. Test Deviation

There is no deviation with the original standard.

4.5.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

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

Temperature	26°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Normal Link

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.

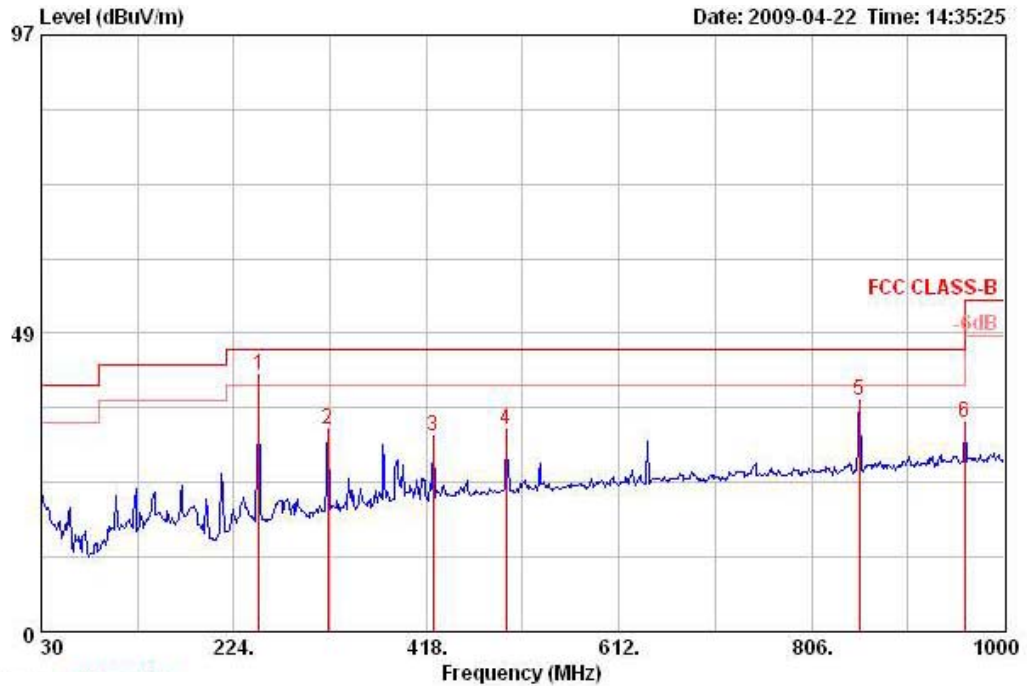
Distance extrapolation factor = $40 \log(\text{specific distance} / \text{test distance})$ (dB);

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

4.5.8. Results of Radiated Emissions (30MHz~1GHz)

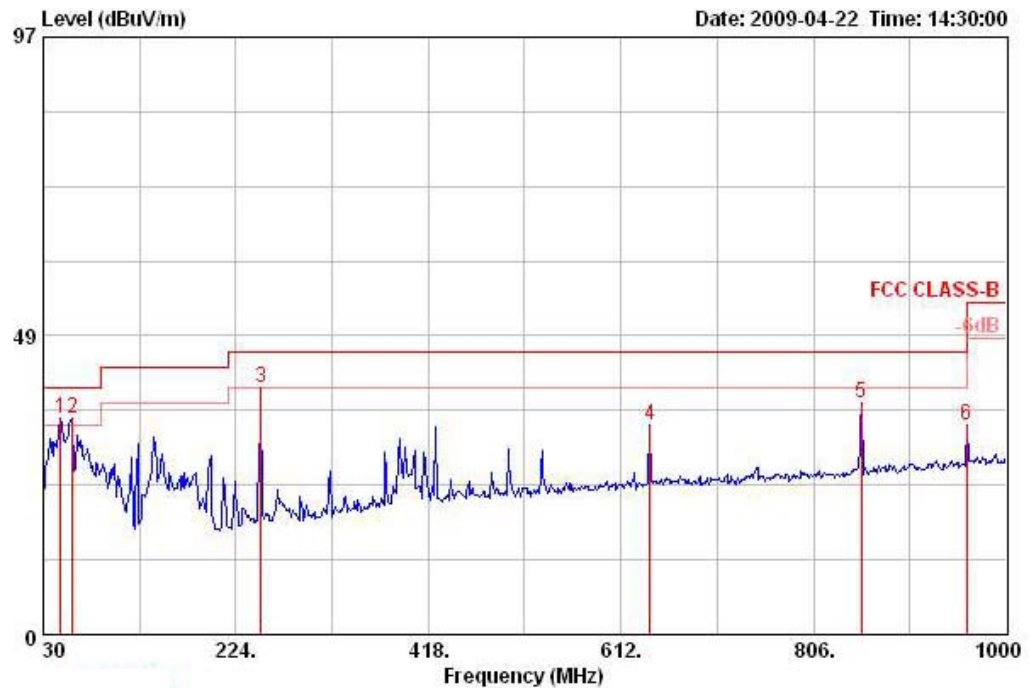
Temperature	26°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Normal Link / Mode 1

Horizontal



	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Remark	Pol/Phase	Table	Ant
	MHz	dBuV/m	Limit	Line	Level	Factor	Factor	Loss			Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	249.220	41.62	-4.38	46.00	54.03	12.70	27.00	1.90	Peak	HORIZONTAL	187	100
2	319.060	32.82	-13.18	46.00	43.83	13.88	27.03	2.14	Peak	HORIZONTAL	0	100
3	424.790	31.75	-14.25	46.00	40.58	16.45	27.73	2.45	Peak	HORIZONTAL	0	100
4	498.510	32.85	-13.15	46.00	40.64	17.60	28.09	2.70	Peak	HORIZONTAL	0	100
5	854.500	37.63	-8.37	46.00	41.52	20.18	27.49	3.42	Peak	HORIZONTAL	0	100
6	960.230	33.86	-20.14	54.00	36.40	20.99	27.16	3.62	Peak	HORIZONTAL	0	100

Vertical



	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Table	Ant
	MHz	dBuV/m	Limit	Line	Level	Factor	Factor	Loss	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	deg	cm
1	47.460	35.20	-4.80	40.00	52.87	9.42	27.80	0.70	VERTICAL	257
2	59.100	35.14	-4.86	40.00	55.16	6.95	27.76	0.80	VERTICAL	0
3	249.220	40.16	-5.84	46.00	52.57	12.70	27.00	1.90	VERTICAL	0
4	641.100	34.09	-11.91	46.00	40.10	18.90	28.06	3.15	VERTICAL	0
5	854.500	37.61	-8.39	46.00	41.50	20.18	27.49	3.42	VERTICAL	0
6	960.230	33.95	-20.05	54.00	36.50	20.99	27.16	3.62	VERTICAL	0

Note:

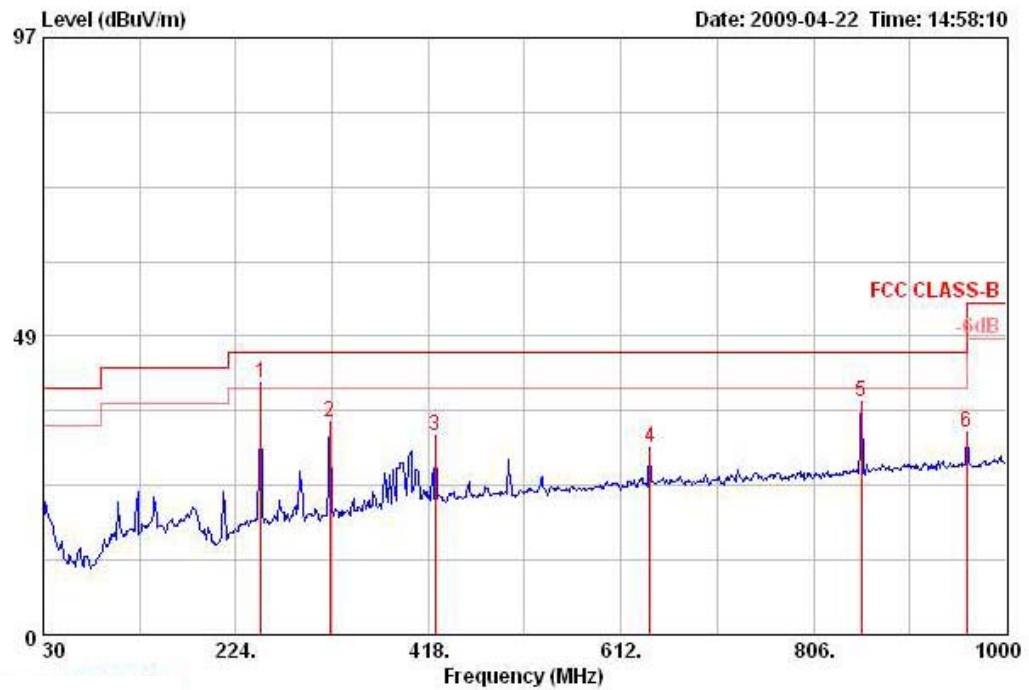
The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

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

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

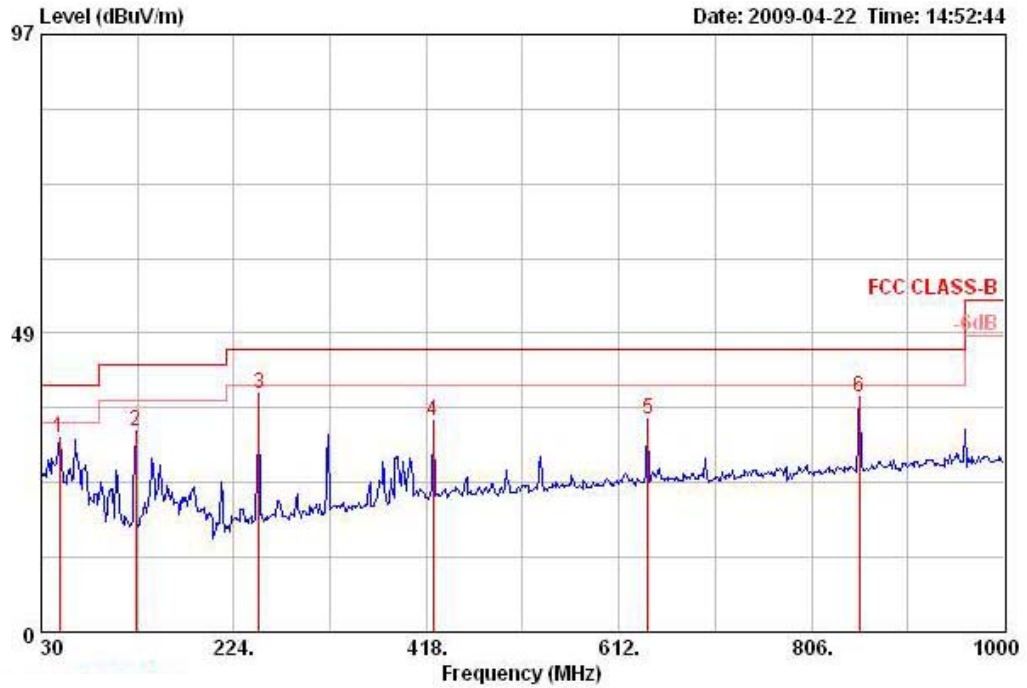
Temperature	26°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Normal Link / Mode 2

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB			deg	cm
1	249.220	40.90	-5.10	46.00	53.31	12.70	27.00	1.90 Peak	HORIZONTAL	167	100
2	319.060	34.56	-11.44	46.00	45.57	13.88	27.03	2.14 Peak	HORIZONTAL	0	100
3	424.790	32.32	-13.68	46.00	41.14	16.45	27.73	2.45 Peak	HORIZONTAL	0	100
4	641.100	30.53	-15.47	46.00	36.54	18.90	28.06	3.15 Peak	HORIZONTAL	0	100
5	854.500	37.72	-8.28	46.00	41.61	20.18	27.49	3.42 Peak	HORIZONTAL	0	100
6	960.230	33.02	-20.98	54.00	35.57	20.99	27.16	3.62 Peak	HORIZONTAL	0	100

Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna	Preamp	Cable	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB			deg	cm
1	48.430	31.64	-8.36	40.00	49.61	9.13	27.80	0.70 Peak	VERTICAL	0	400
2	125.060	32.69	-10.81	43.50	46.71	12.21	27.48	1.25 Peak	VERTICAL	0	400
3	249.220	38.79	-7.21	46.00	51.19	12.70	27.00	1.90 Peak	VERTICAL	95	100
4	424.790	34.25	-11.75	46.00	43.07	16.45	27.73	2.45 Peak	VERTICAL	0	400
5	641.100	34.47	-11.53	46.00	40.48	18.90	28.06	3.15 Peak	VERTICAL	0	400
6	854.500	38.21	-7.79	46.00	42.09	20.18	27.49	3.42 Peak	VERTICAL	0	400

Note:

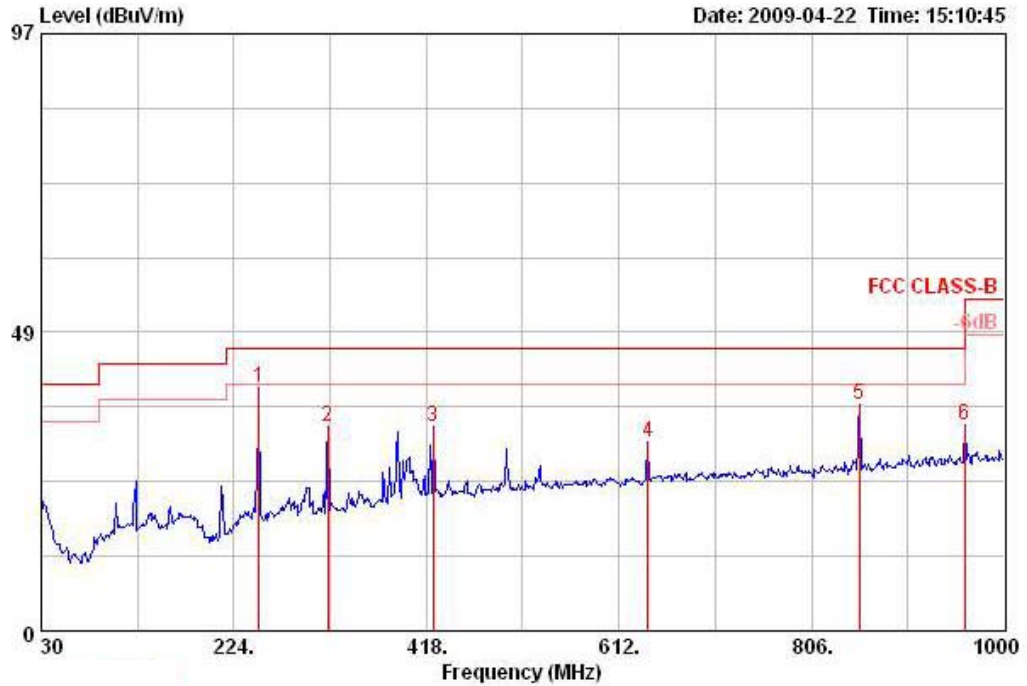
The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

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

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

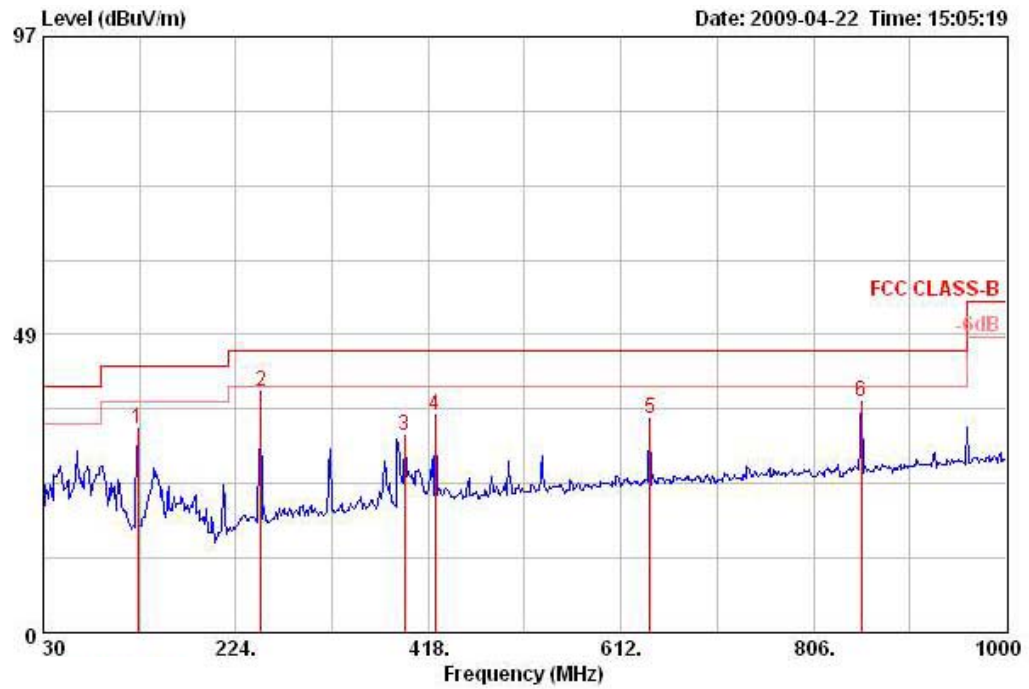
Temperature	26°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Normal Link / Mode 3

Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	249.220	39.63	-6.37	46.00	52.04	12.70	27.00	1.90	Peak	HORIZONTAL	228	100
2	319.060	33.28	-12.72	46.00	44.30	13.88	27.03	2.14	Peak	HORIZONTAL	0	100
3	424.790	33.06	-12.94	46.00	41.89	16.45	27.73	2.45	Peak	HORIZONTAL	0	100
4	641.100	30.67	-15.33	46.00	36.68	18.90	28.06	3.15	Peak	HORIZONTAL	0	100
5	854.500	36.70	-9.30	46.00	40.59	20.18	27.49	3.42	Peak	HORIZONTAL	0	100
6	960.230	33.34	-20.66	54.00	35.89	20.99	27.16	3.62	Peak	HORIZONTAL	0	100

Vertical



	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Remark	Pol/Phase	Table	Ant
	MHz	dBUV/m	Limit	Line	Level	Factor	Factor	Loss			Pos	Pos
			dB	dBUV/m	dBuV	dB/m	dB	dB			deg	cm
1	125.060	33.15	-10.35	43.50	47.17	12.21	27.48	1.25	Peak	VERTICAL	0	400
2	249.220	39.34	-6.66	46.00	51.75	12.70	27.00	1.90	Peak	VERTICAL	119	100
3	393.750	31.99	-14.01	46.00	41.36	15.90	27.56	2.29	Peak	VERTICAL	0	400
4	424.790	35.33	-10.67	46.00	44.15	16.45	27.73	2.45	Peak	VERTICAL	0	400
5	641.100	34.75	-11.25	46.00	40.77	18.90	28.06	3.15	Peak	VERTICAL	0	400
6	854.500	37.61	-8.39	46.00	41.50	20.18	27.49	3.42	Peak	VERTICAL	0	400

Note:

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

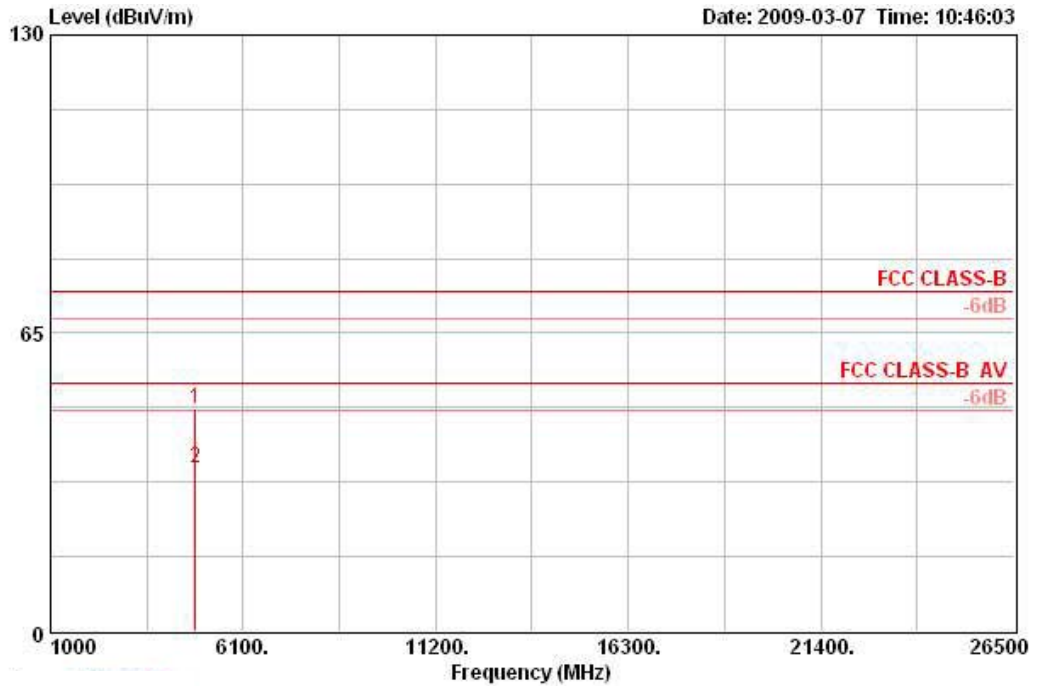
Emission level (dBUV/m) = 20 log Emission level (uV/m).

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

4.5.9. Results for Radiated Emissions (1GHz~10th Harmonic)

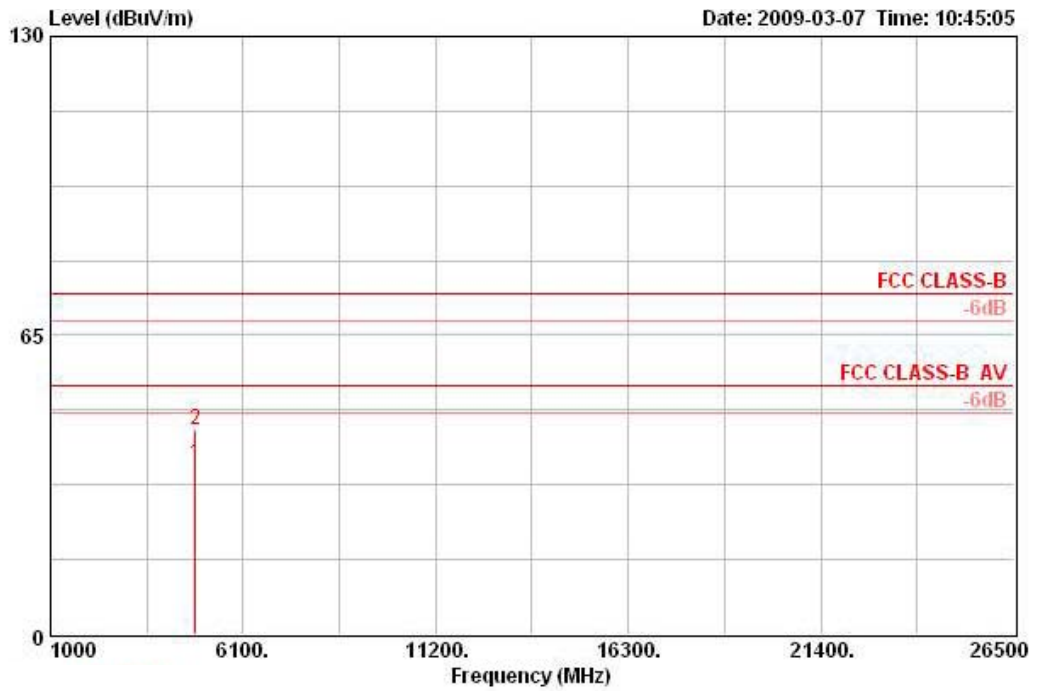
Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 20MHz Ch 1 Ant. A

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB			deg	cm
1	4823.989	48.44	-25.56	74.00	46.46	33.06	35.04	3.96	PEAK	HORIZONTAL	351	100
2	4824.005	35.64	-18.36	54.00	33.66	33.06	35.04	3.96	AVERAGE	HORIZONTAL	351	100

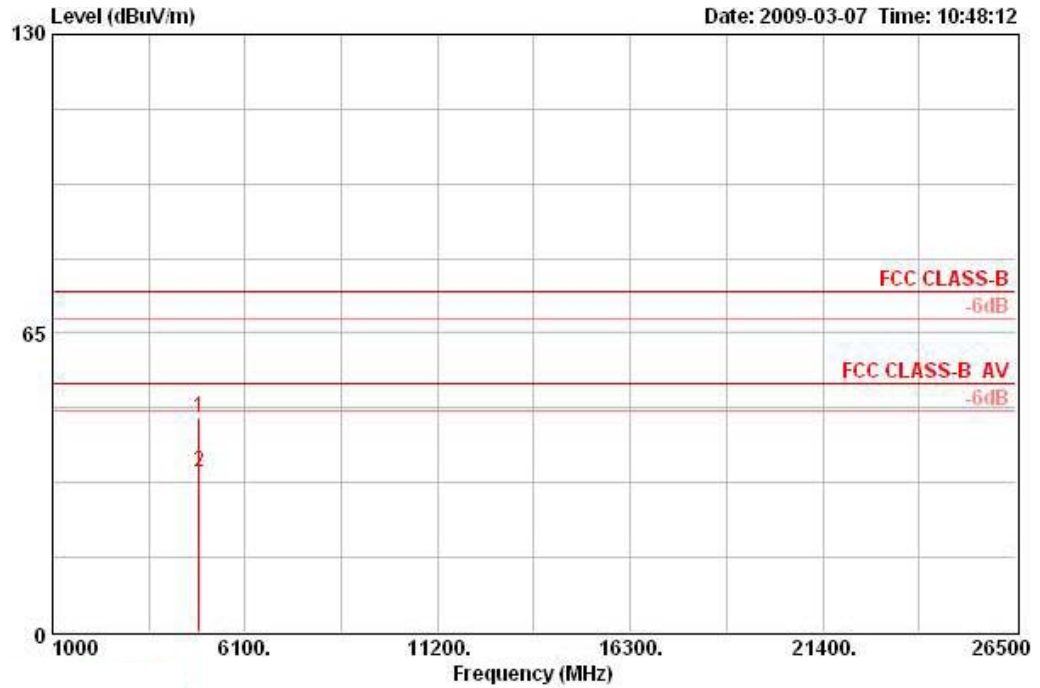
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB			deg	cm
1	4824.006	37.18	-16.82	54.00	35.20	33.06	35.04	3.96 AVERAGE	VERTICAL	22	100
2	4824.012	44.51	-29.49	74.00	42.53	33.06	35.04	3.96 PEAK	VERTICAL	22	100

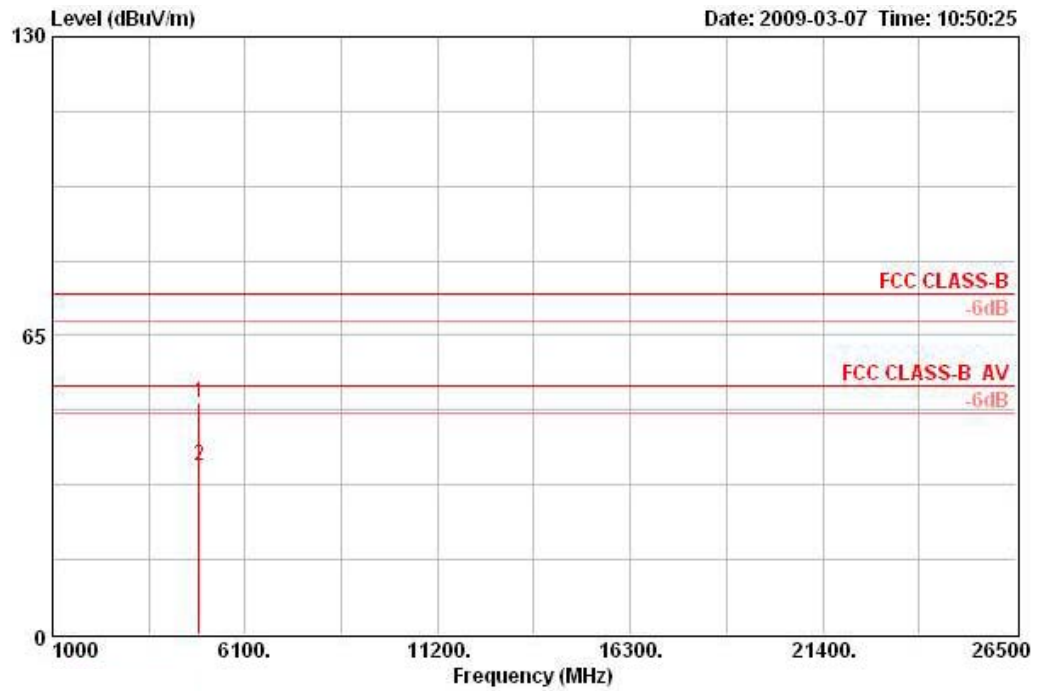
Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 20MHz Ch 6 Ant. A

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4873.982	46.66	-27.34	74.00	44.56	33.16	35.03	3.97	PEAK	HORIZONTAL	0	100
2	4874.021	34.90	-19.10	54.00	32.80	33.16	35.03	3.97	AVERAGE	HORIZONTAL	0	100

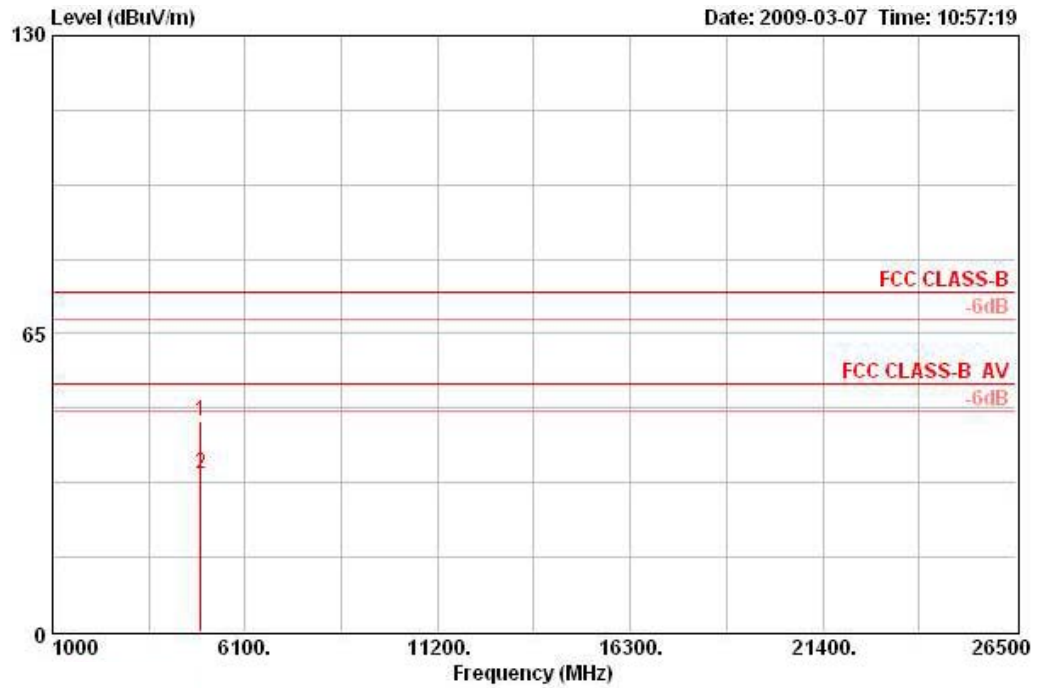
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB			deg	cm
1	4873.978	50.24	-23.76	74.00	48.14	33.16	35.03	3.97 PEAK	VERTICAL	36	127
2	4874.009	36.74	-17.26	54.00	34.64	33.16	35.03	3.97 AVERAGE	VERTICAL	36	127

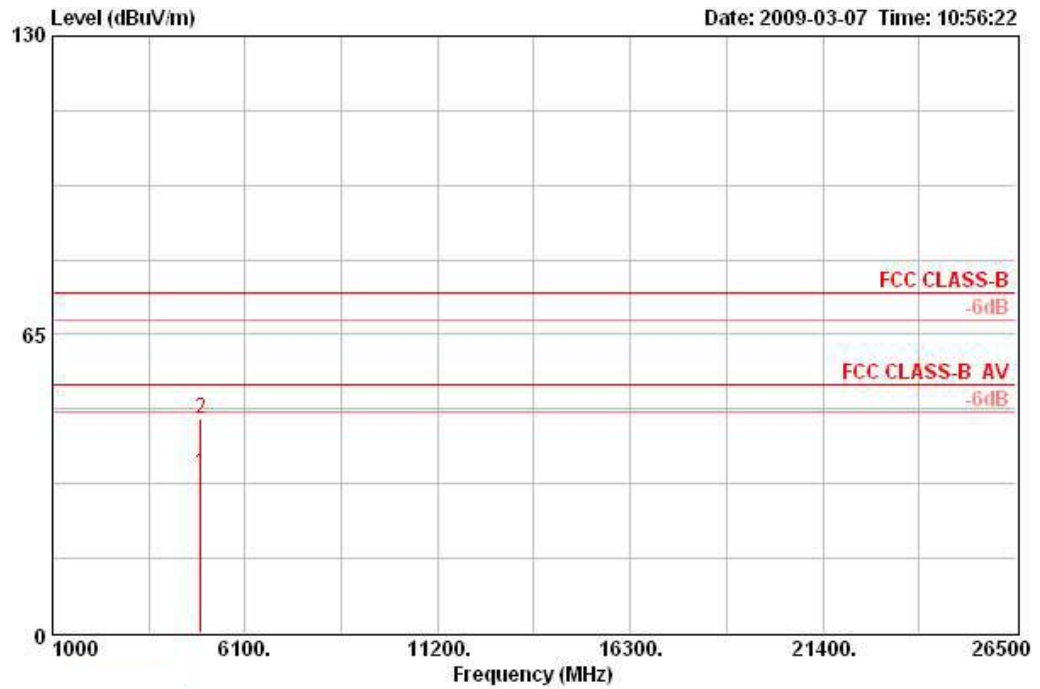
Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 20MHz Ch11 Ant. A

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4923.985	45.99	-28.01	74.00	43.77	33.26	35.02	3.97	PEAK	HORIZONTAL	0	100
2	4924.016	34.45	-19.55	54.00	32.23	33.26	35.02	3.97	AVERAGE	HORIZONTAL	0	100

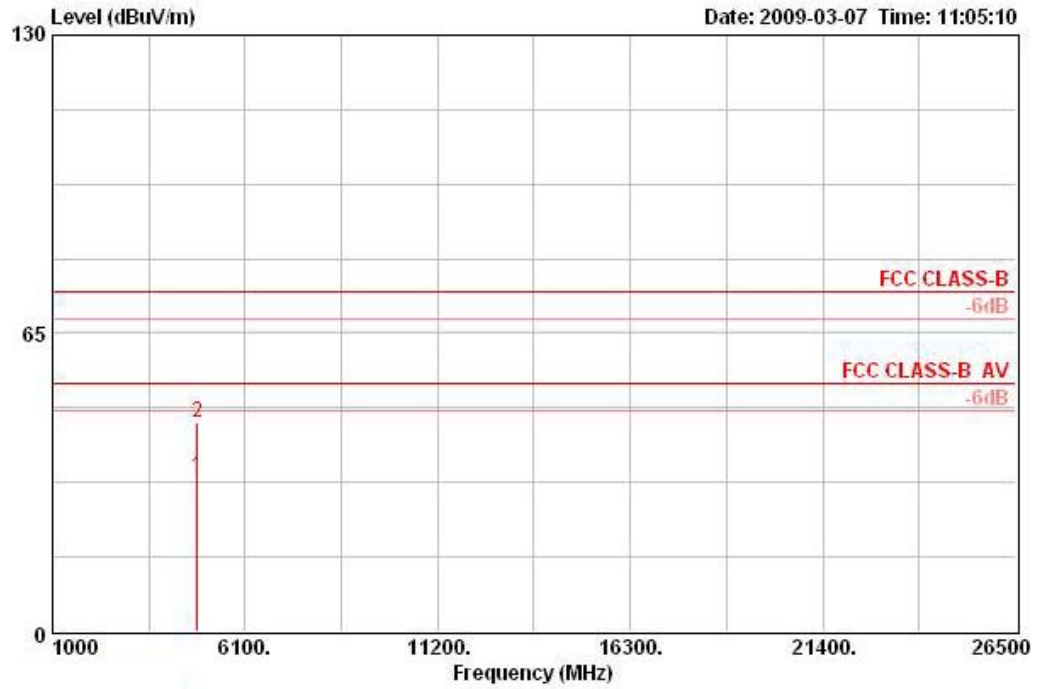
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4923.995	34.86	-19.14	54.00	32.64	33.26	35.02	3.97	AVERAGE	VERTICAL	360	100
2	4923.997	46.52	-27.48	74.00	44.31	33.26	35.02	3.97	PEAK	VERTICAL	360	100

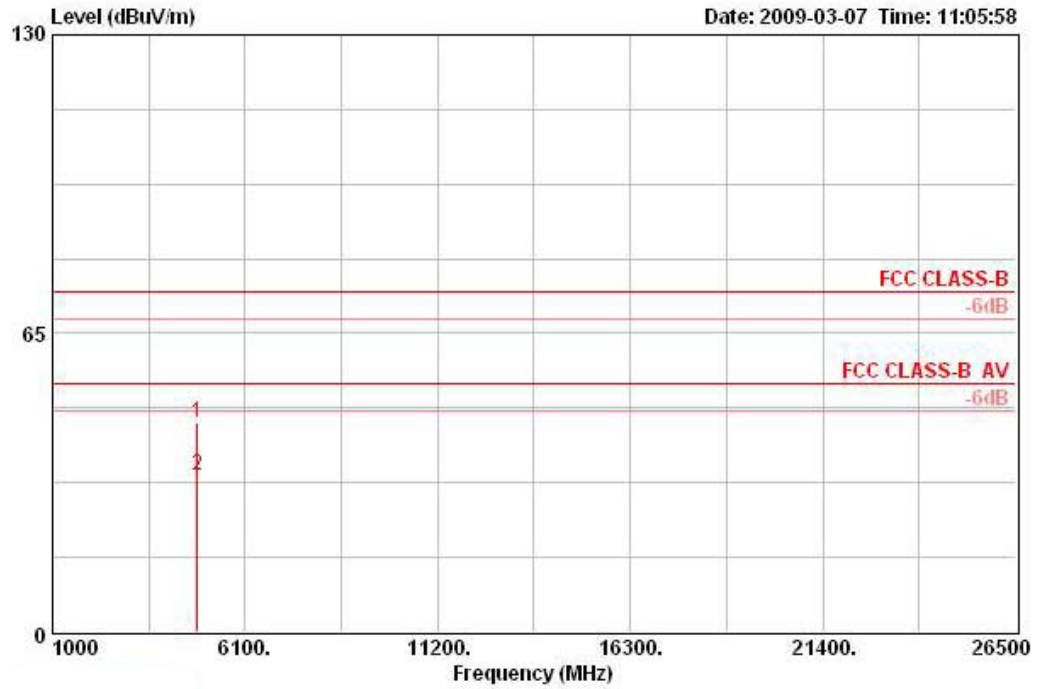
Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 40MHz Ch 3 Ant. A

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4843.980	33.54	-20.46	54.00	31.52	33.09	35.03	3.96	AVERAGE	HORIZONTAL	360	100
2	4844.000	45.73	-28.27	74.00	43.71	33.09	35.03	3.96	PEAK	HORIZONTAL	360	100

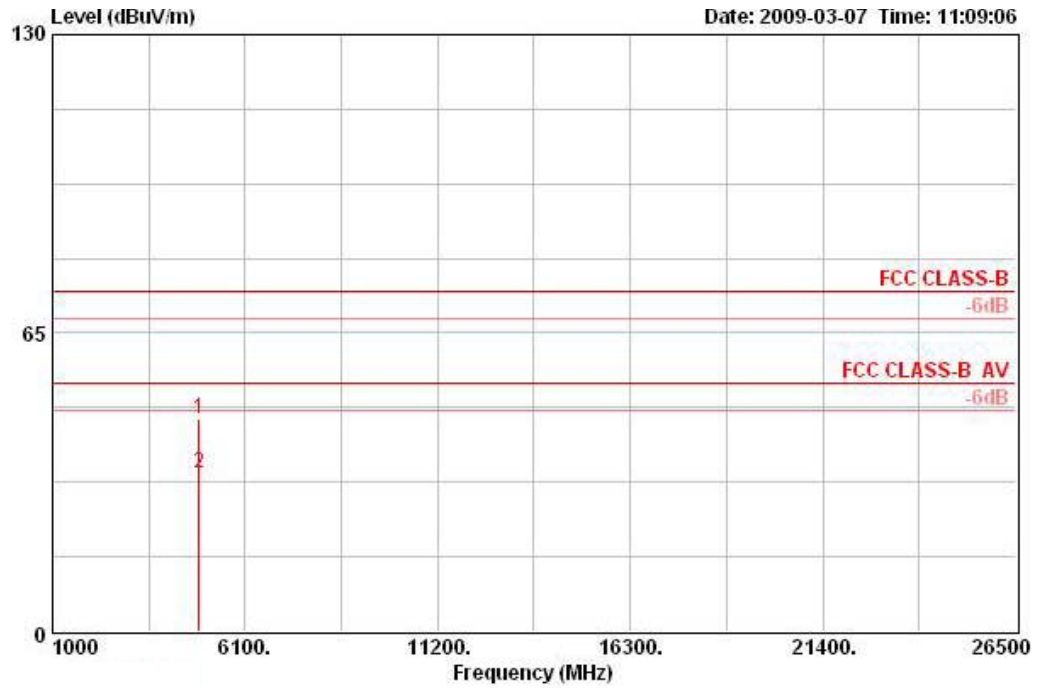
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB			deg	cm
1	4844.007	45.71	-28.29	74.00	43.69	33.09	35.03	3.96 PEAK	VERTICAL	0	100
2	4844.018	33.93	-20.07	54.00	31.91	33.09	35.03	3.96 AVERAGE	VERTICAL	0	100

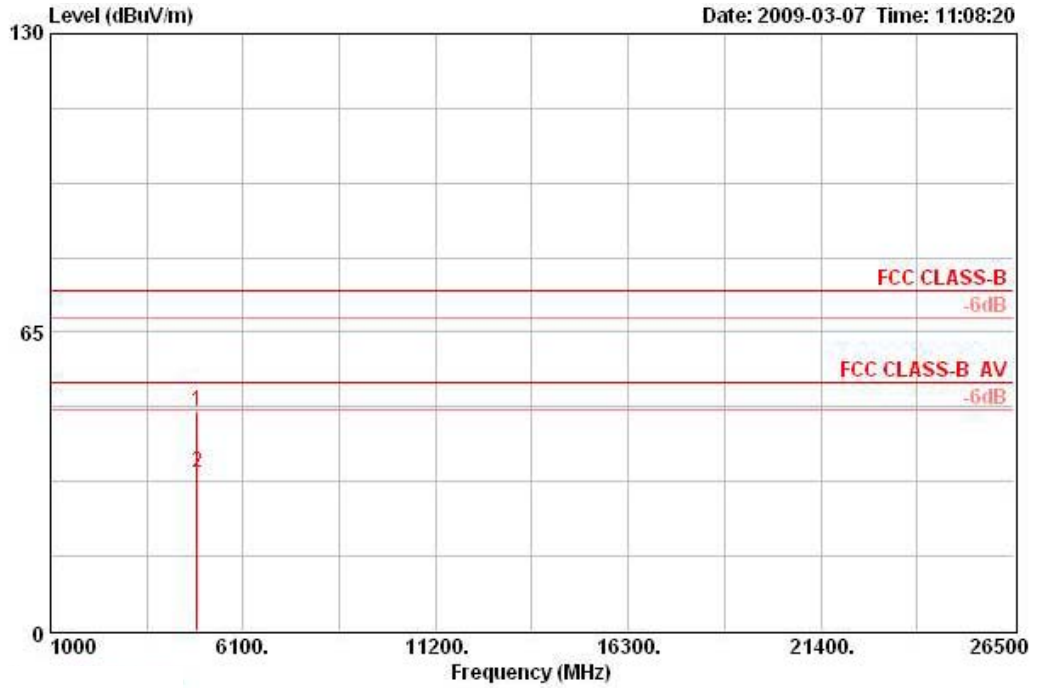
Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 40MHz Ch 6 Ant. A

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4873.979	46.44	-27.56	74.00	44.34	33.16	35.03	3.97	PEAK	HORIZONTAL	178	100
2	4874.001	34.34	-19.66	54.00	32.24	33.16	35.03	3.97	AVERAGE	HORIZONTAL	178	100

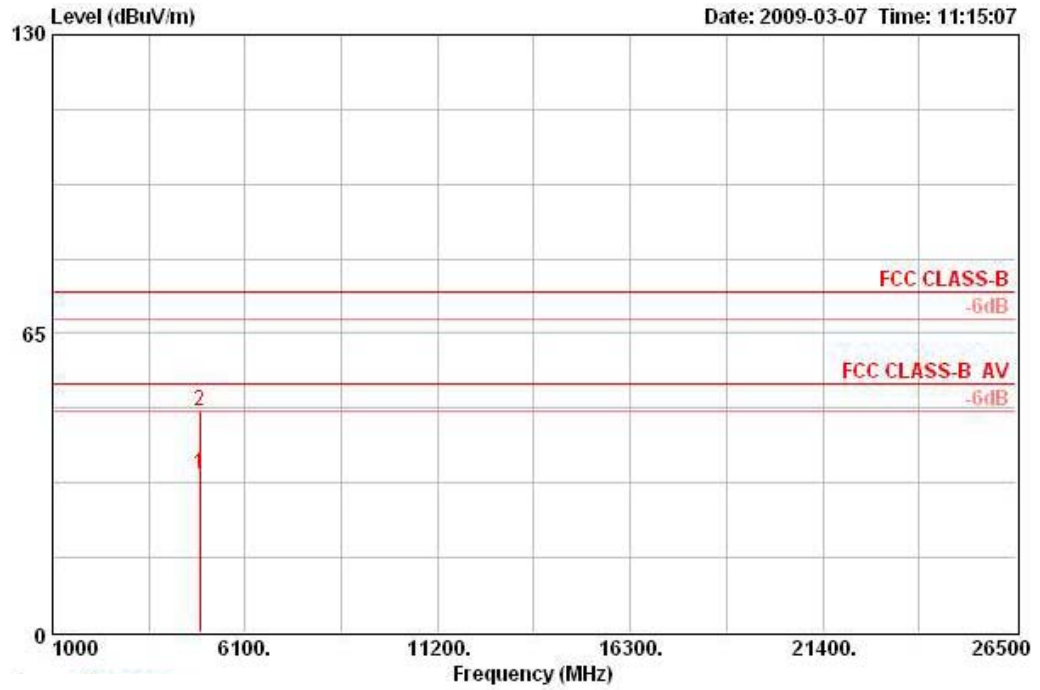
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB			deg	cm
1	4873.979	47.74	-26.26	74.00	45.64	33.16	35.03	3.97	PEAK	VERTICAL	35	100
2	4873.988	34.40	-19.60	54.00	32.30	33.16	35.03	3.97	AVERAGE	VERTICAL	35	100

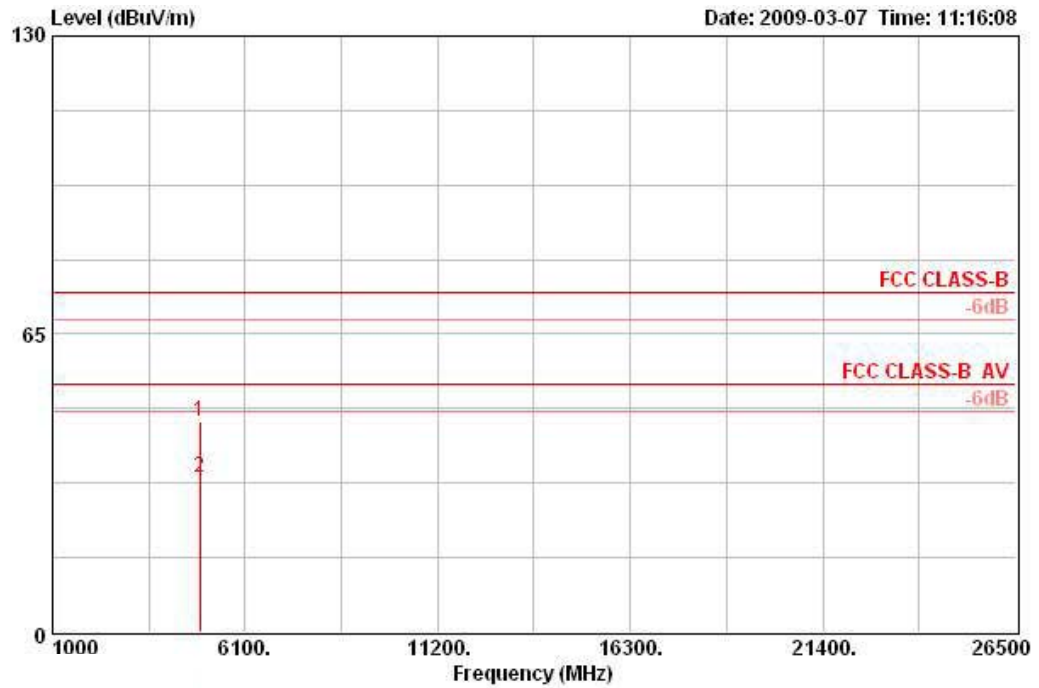
Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 40MHz Ch 9 Ant. A

Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4903.984	34.48	-19.52	54.00	32.34	33.19	35.02	3.97	AVERAGE	HORIZONTAL	175	100
2	4904.001	48.02	-25.98	74.00	45.88	33.19	35.02	3.97	PEAK	HORIZONTAL	175	100

Vertical



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB			deg	cm
1	4903.996	45.75	-28.25	74.00	43.61	33.19	35.02	3.97	PEAK	VERTICAL	360	100
2	4904.013	33.76	-20.24	54.00	31.62	33.19	35.02	3.97	AVERAGE	VERTICAL	360	100

Note:

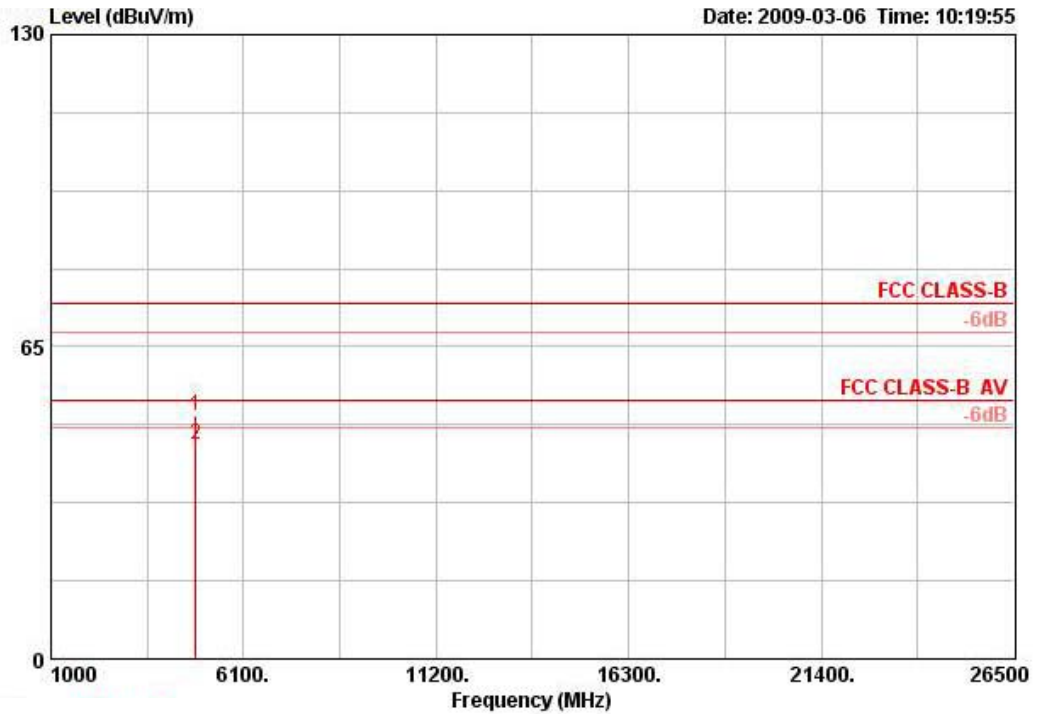
The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

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

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

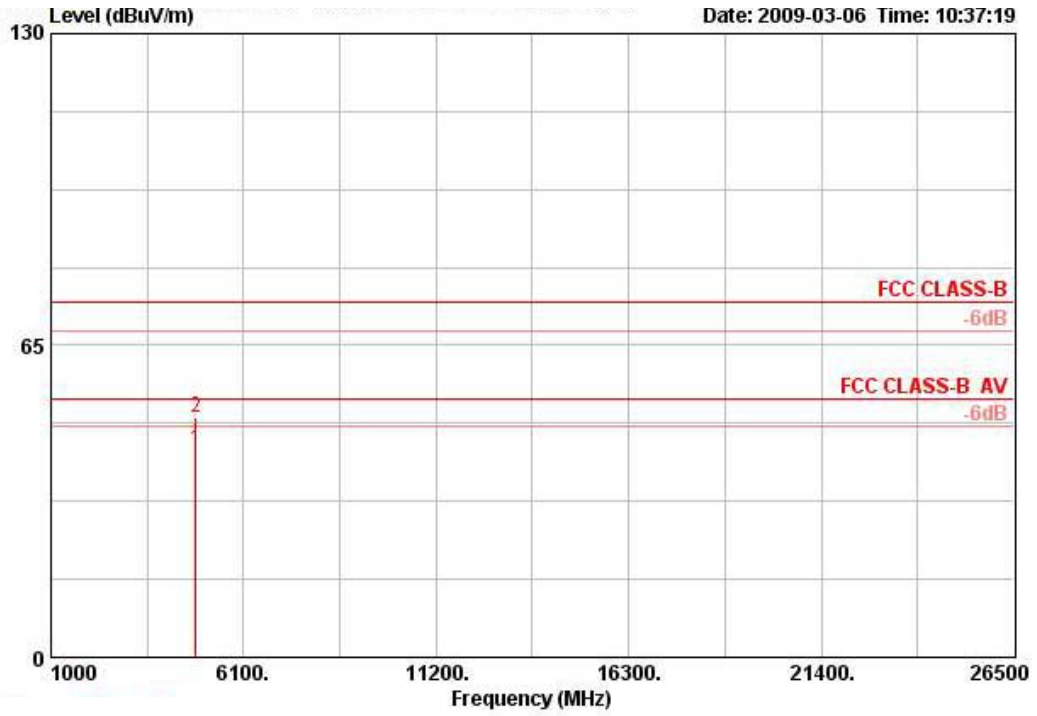
Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	802.11b CH 1 Ant. A

Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB		cm	deg	
1	4823.870	50.55	-23.45	74.00	46.97	32.46	6.39	35.26	PEAK	146	229	HORIZONTAL
2	4823.960	44.73	-9.27	54.00	41.15	32.46	6.39	35.26	AVERAGE	146	229	HORIZONTAL

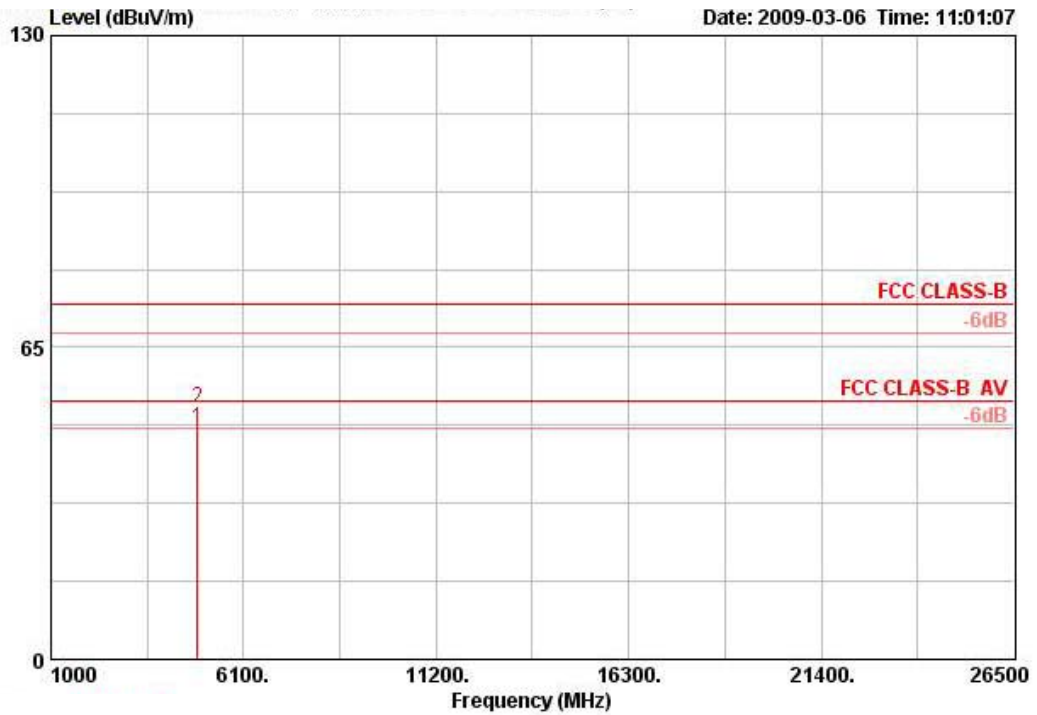
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB		cm	deg	
1	4823.990	43.07	-10.93	54.00	39.49	32.46	6.39	35.26	AVERAGE	170	258	VERTICAL
2	4824.300	49.86	-24.14	74.00	46.28	32.46	6.39	35.26	PEAK	170	258	VERTICAL

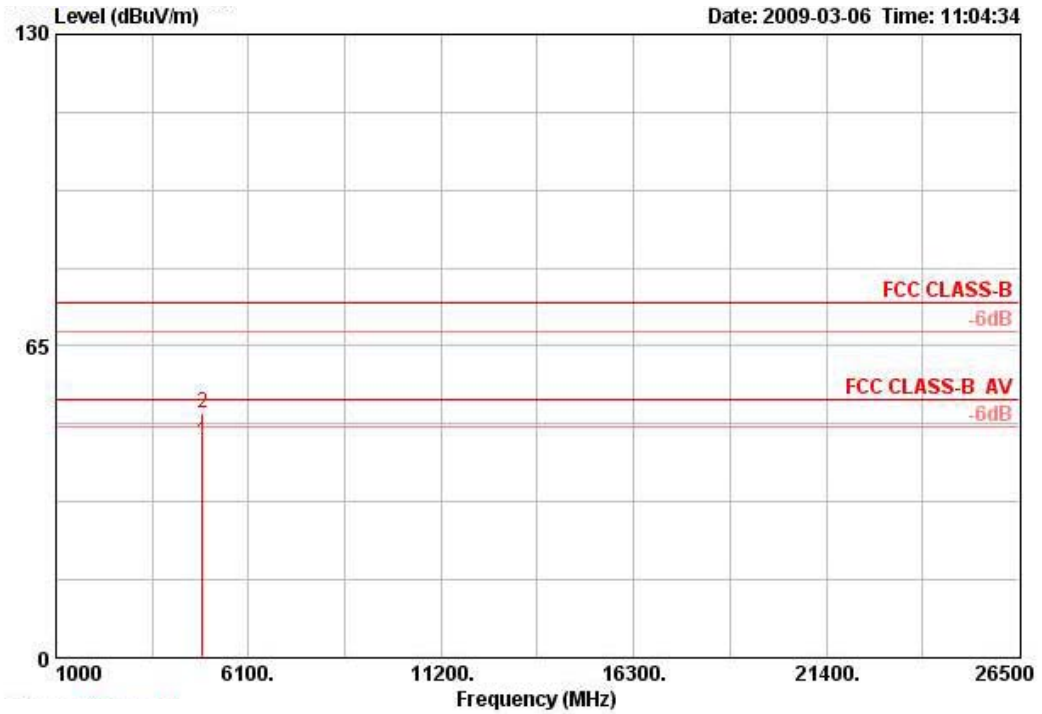
Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	802.11b CH 6 Ant. A

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1 !	4873.950	48.08	-5.92	54.00	44.13	32.56	6.53	35.15	AVERAGE	154	238	HORIZONTAL
2	4873.970	52.44	-21.56	74.00	48.49	32.56	6.53	35.15	PEAK	154	238	HORIZONTAL

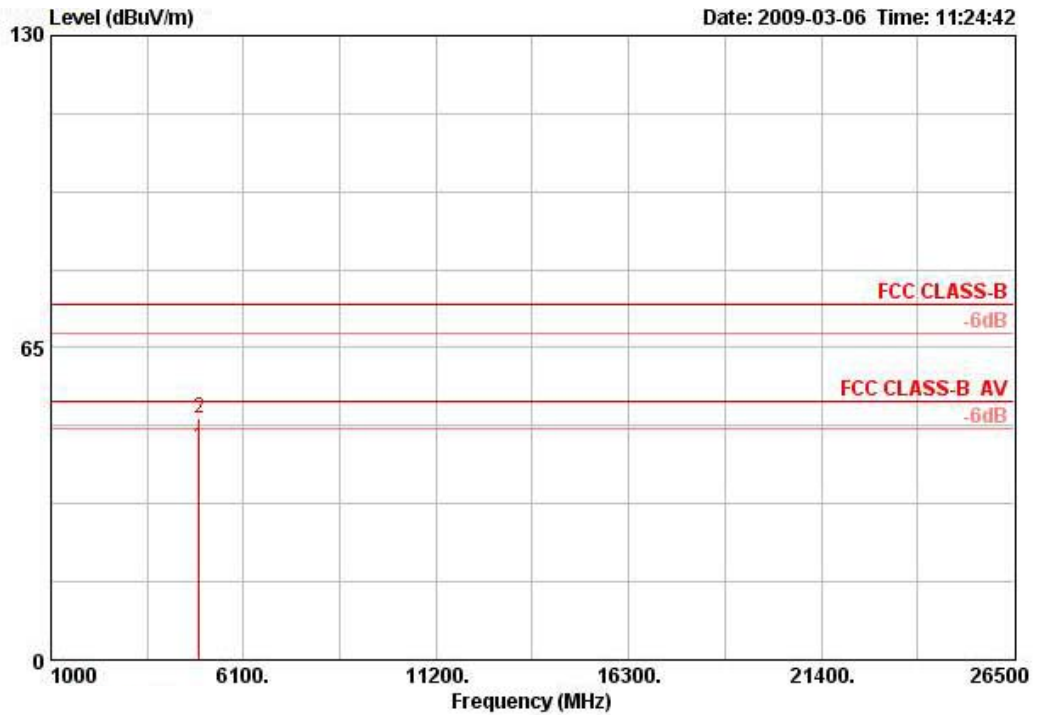
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB		cm	deg	
1	4873.950	44.82	-9.18	54.00	40.87	32.56	6.53	35.15	AVERAGE	8995	257	VERTICAL
2	4874.240	51.17	-22.83	74.00	47.22	32.56	6.53	35.15	PEAK	170	257	VERTICAL

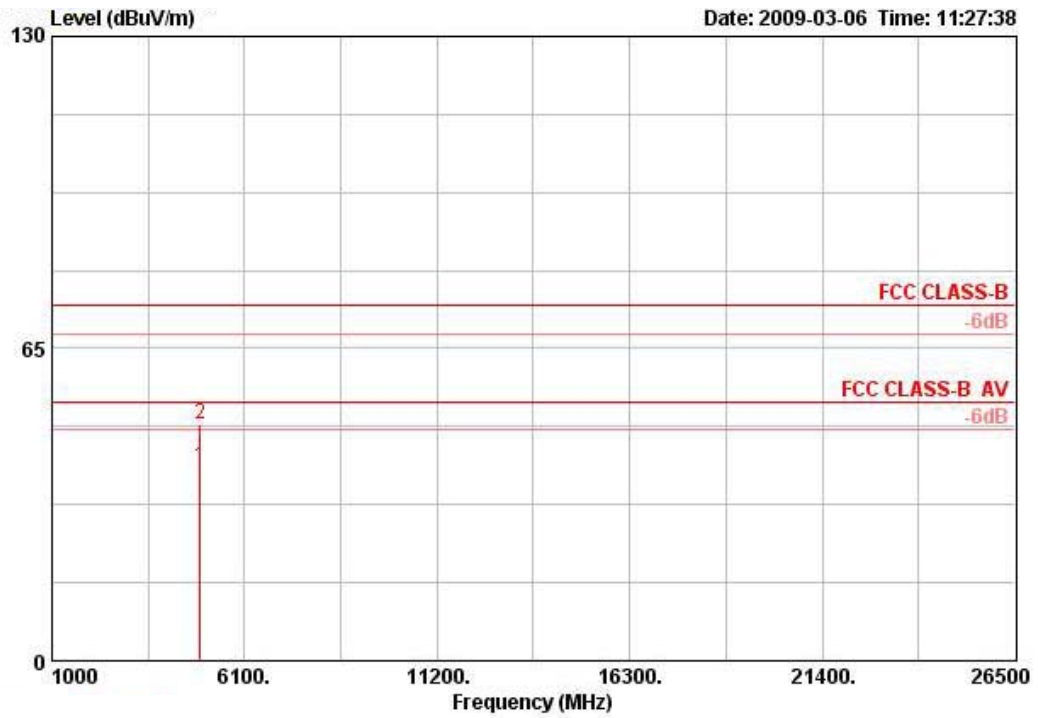
Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	802.11b CH 11 Ant. A

Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB		cm	deg	
1	4923.950	44.27	-9.73	54.00	39.96	32.66	6.68	35.03	AVERAGE	148	224	HORIZONTAL
2	4924.140	50.19	-23.81	74.00	45.88	32.66	6.68	35.03	PEAK	148	224	HORIZONTAL

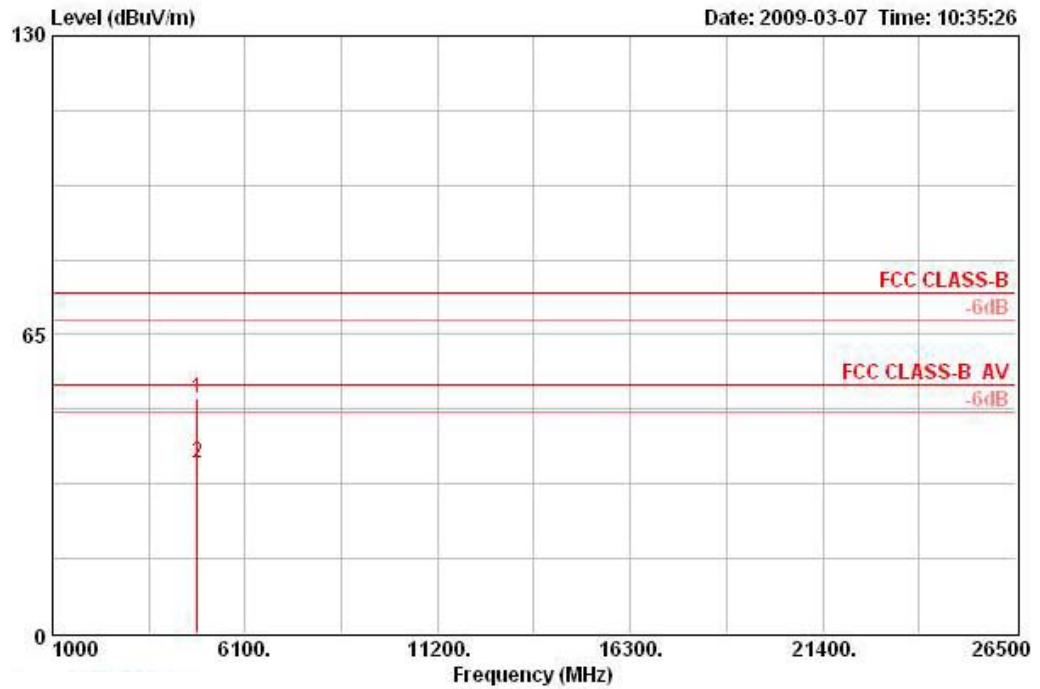
Vertical



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1	4923.930	40.24	-13.76	54.00	35.93	32.66	6.68	35.03	AVERAGE	146	274	VERTICAL
2	4924.030	49.16	-24.84	74.00	44.85	32.66	6.68	35.03	PEAK	146	274	VERTICAL

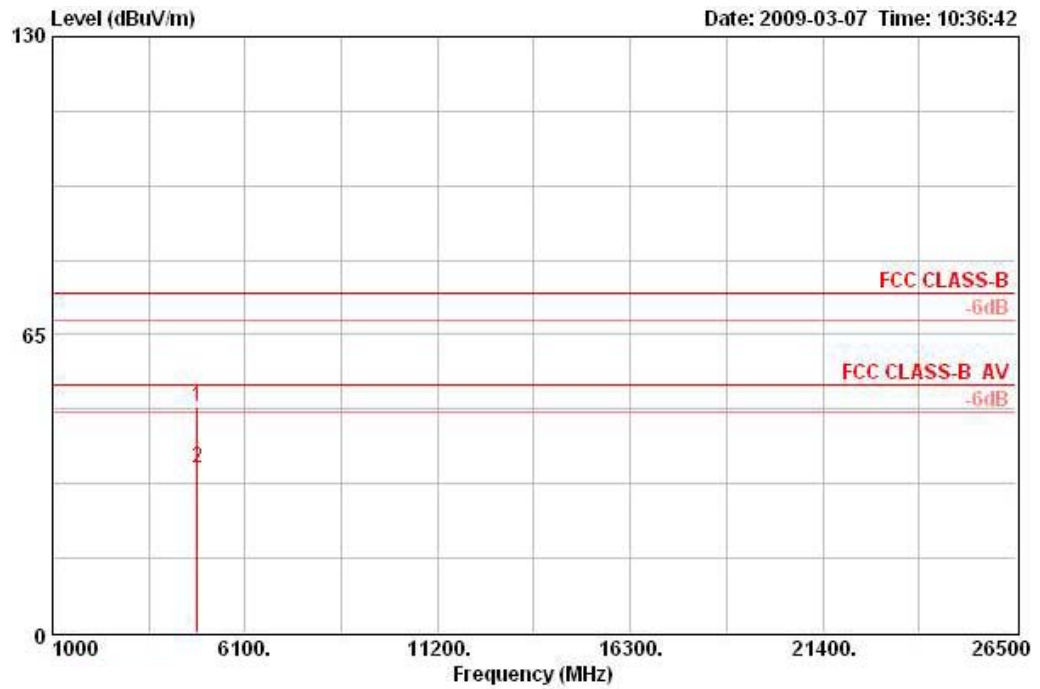
Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	802.11g CH 1 Ant. A

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB			deg	cm
1	4824.008	50.98	-23.02	74.00	49.00	33.06	35.04	3.96 PEAK	HORIZONTAL	334	148
2	4824.025	37.07	-16.93	54.00	35.09	33.06	35.04	3.96 AVERAGE	HORIZONTAL	334	148

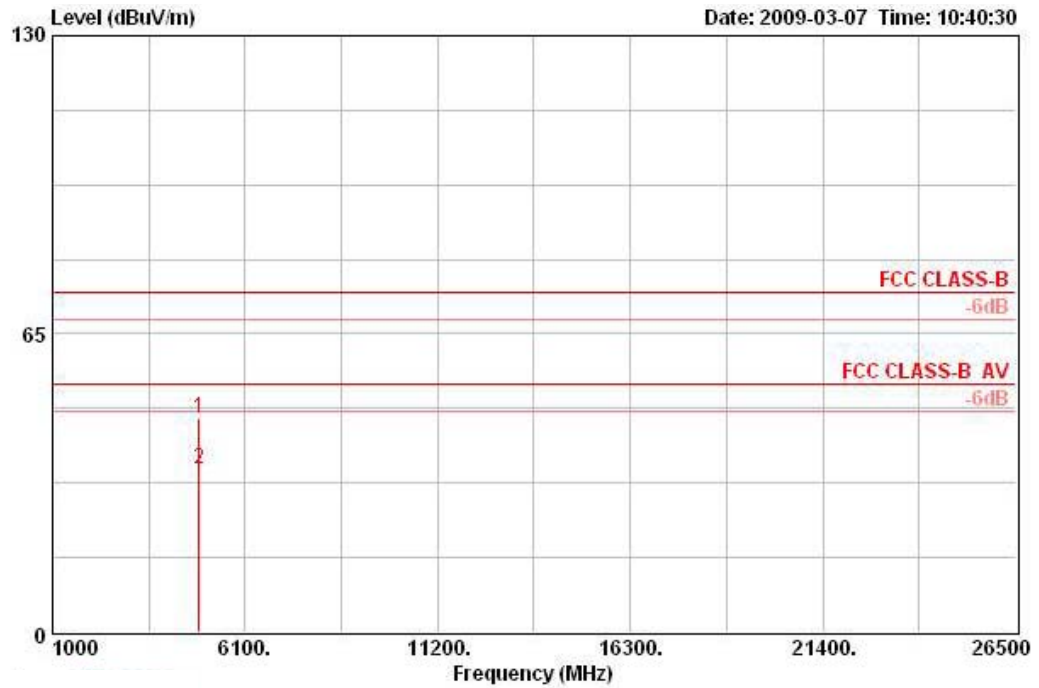
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB			deg	cm
1	4823.995	49.27	-24.73	74.00	47.29	33.06	35.04	3.96 PEAK	VERTICAL	50	100
2	4824.008	35.94	-18.06	54.00	33.96	33.06	35.04	3.96 AVERAGE	VERTICAL	50	100

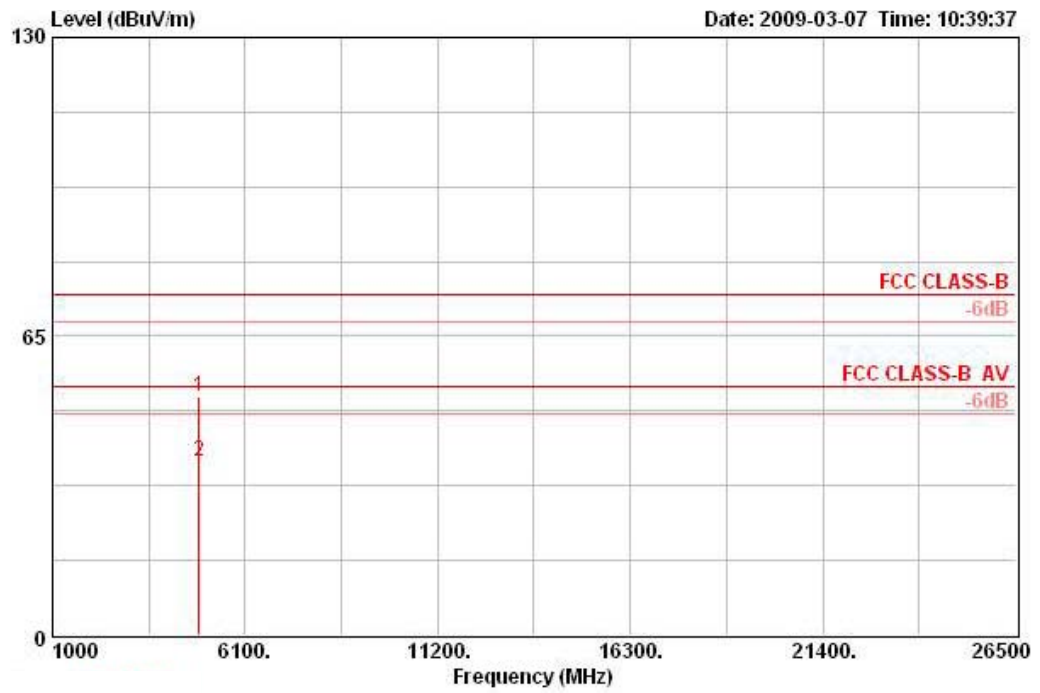
Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	802.11g CH 6 Ant. A

Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4873.979	46.69	-27.31	74.00	44.59	33.16	35.03	3.97	PEAK	HORIZONTAL	360	100
2	4874.011	35.46	-18.54	54.00	33.36	33.16	35.03	3.97	AVERAGE	HORIZONTAL	360	100

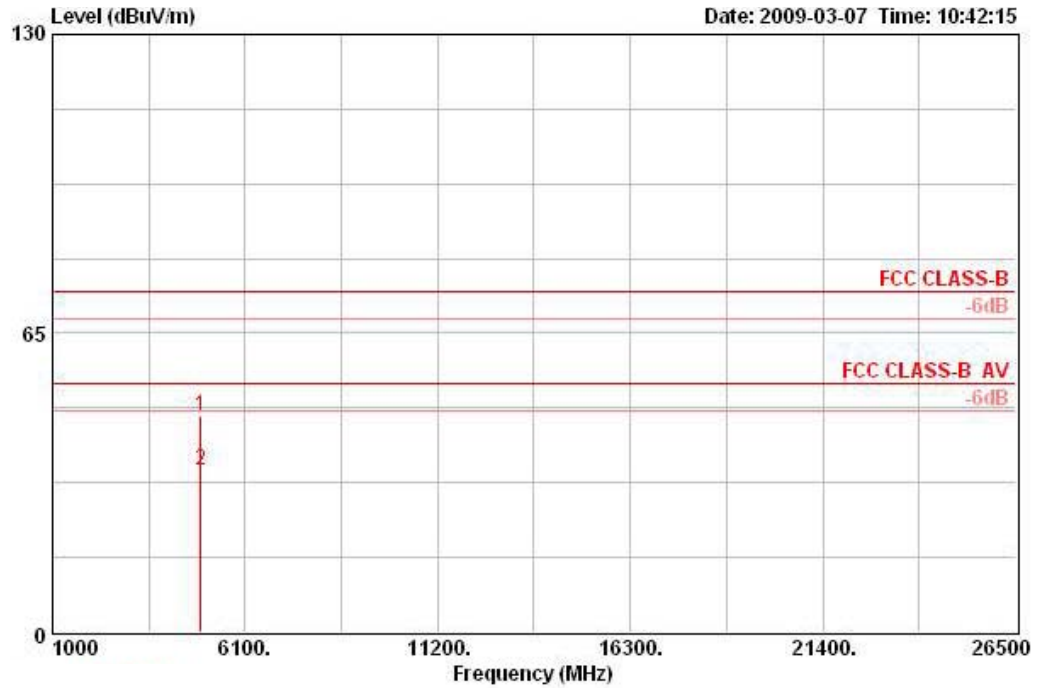
Vertical



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB			deg	cm
1	4873.990	51.79	-22.21	74.00	49.69	33.16	35.03	3.97 PEAK	VERTICAL	35	127
2	4874.008	37.73	-16.27	54.00	35.63	33.16	35.03	3.97 AVERAGE	VERTICAL	35	127

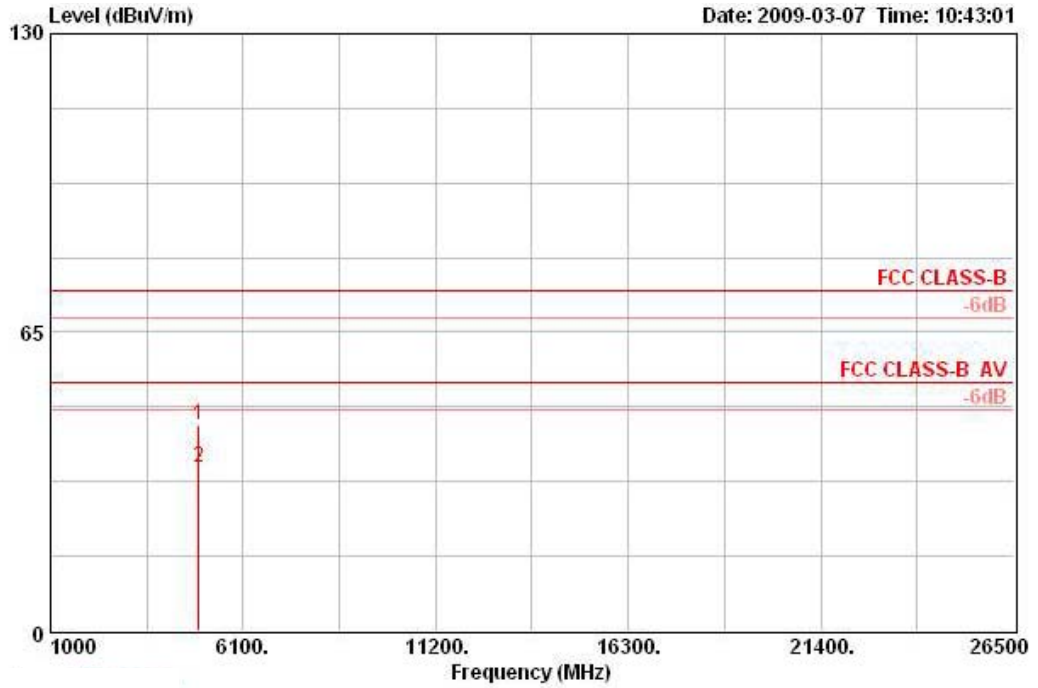
Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	802.11g CH 11 Ant. A

Horizontal



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4924.019	47.06	-26.94	74.00	44.84	33.26	35.02	3.97	PEAK	HORIZONTAL	0	100
2	4924.021	35.09	-18.91	54.00	32.87	33.26	35.02	3.97	AVERAGE	HORIZONTAL	0	100

Vertical



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB			deg	cm
1	4923.978	44.70	-29.30	74.00	42.49	33.26	35.02	3.97	PEAK	VERTICAL	360	100
2	4924.018	35.38	-18.62	54.00	33.17	33.26	35.02	3.97	AVERAGE	VERTICAL	360	100

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB 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.

4.6. Band Edge Emissions Measurement

4.6.1. Limit

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micovolts/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

4.6.2. Measuring Instruments and Setting

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

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RB / VB (Emission in restricted band)	1 MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (Emission in non-restricted band)	100 KHz /100 KHz for Peak

4.6.3. Test Procedures

1. The test procedure is the same as section 4.5.3, only the frequency range investigated is limited to 100MHz around bandedges.
2. In case the emission is fail due to the used RB/VB is too wide, marker-delta method of FCC Public Notice DA00-705 will be followed.

4.6.4. Test Setup Layout

This test setup layout is the same as that shown in section 4.5.4.

4.6.5. Test Deviation

There is no deviation with the original standard.

4.6.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.6.7. Test Result of Band Edge and Fundamental Emissions

Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 20MHz Ch 1, 6, 11 Ant. A
Test Date	Mar. 06, 2009		

Channel 1

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1 !	2390.000	53.57	-0.43	54.00	22.20	27.87	3.50	0.00	AVERAGE	101	154	VERTICAL
2 !	2390.000	72.83	-1.17	74.00	41.46	27.87	3.50	0.00	PEAK	101	154	VERTICAL
3 @	2413.600	104.49			73.15	27.84	3.50	0.00	AVERAGE	101	154	VERTICAL
4	2413.800	114.10			82.75	27.84	3.50	0.00	PEAK	101	154	VERTICAL

Item 3, 4 are the fundamental frequency at 2412 MHz

Channel 6

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1 !	2384.800	51.92	-2.08	54.00	20.54	27.89	3.49	0.00	AVERAGE	100	208	VERTICAL
2	2385.200	62.72	-11.28	74.00	31.34	27.89	3.49	0.00	PEAK	100	208	VERTICAL
3 @	2440.200	102.91			71.60	27.78	3.52	0.00	AVERAGE	100	208	VERTICAL
4	2440.200	112.55			81.24	27.78	3.52	0.00	PEAK	100	208	VERTICAL
5	2485.000	66.06	-7.94	74.00	34.77	27.73	3.56	0.00	PEAK	100	208	VERTICAL
6 !	2489.000	53.81	-0.19	54.00	22.55	27.70	3.56	0.00	AVERAGE	100	208	VERTICAL

Item 3, 4 are the fundamental frequency at 2437MHz.

Channel 11

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1 @	2458.800	109.86			78.73	28.33	0.00	2.80	PEAK	HORIZONTAL	215	190
2 @	2458.800	100.30			69.18	28.33	0.00	2.80	AVERAGE	HORIZONTAL	215	190
3 @	2483.500	52.46	-1.54	54.00	21.27	28.38	0.00	2.81	AVERAGE	HORIZONTAL	215	190
4 @	2483.700	66.79	-7.21	74.00	35.60	28.38	0.00	2.81	PEAK	HORIZONTAL	215	190

Item 1, 2 are the fundamental frequency at 2462 MHz.

Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	Draft n MCS0 40MHz Ch 3, 6, 9 Ant. A
Test Date	Mar. 06, 2009		

Channel 3

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB			deg	cm
1 ☒	2388.800	64.19	-9.81	74.00	33.26	28.17	0.00	2.76 PEAK	HORIZONTAL	210	167
2 ☒	2390.000	51.01	-2.99	54.00	20.07	28.17	0.00	2.76 AVERAGE	HORIZONTAL	210	167
3 ☒	2420.400	92.54			61.52	28.25	0.00	2.77 AVERAGE	HORIZONTAL	210	167
4 ☒	2432.400	102.63			71.60	28.25	0.00	2.78 PEAK	HORIZONTAL	210	167

Item 3, 4 are the fundamental frequency at 2422 MHz.

Channel 6

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB			deg	cm
1	2389.600	56.10	-17.90	74.00	25.17	28.17	0.00	2.76 PEAK	HORIZONTAL	213	189
2 ☒	2390.000	46.48	-7.52	54.00	15.55	28.17	0.00	2.76 AVERAGE	HORIZONTAL	213	189
3 ☒	2452.200	97.82			66.71	28.33	0.00	2.78 AVERAGE	HORIZONTAL	213	189
4 ☒	2452.200	107.03			75.91	28.33	0.00	2.78 PEAK	HORIZONTAL	213	189
5 ☒	2483.500	51.97	-2.03	54.00	20.78	28.38	0.00	2.81 AVERAGE	HORIZONTAL	213	189
6 ☒	2484.700	65.95	-8.05	74.00	34.77	28.38	0.00	2.81 PEAK	HORIZONTAL	213	189

Item 3, 4 are the fundamental frequency at 2437MHz.

Channel 9

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB			deg	cm
1 ☒	2456.800	91.81			60.68	28.33	0.00	2.80 AVERAGE	HORIZONTAL	212	190
2 ☒	2462.400	101.55			70.42	28.33	0.00	2.80 PEAK	HORIZONTAL	212	190
3 ☒	2483.500	52.54	-1.46	54.00	21.35	28.38	0.00	2.81 AVERAGE	HORIZONTAL	212	190
4 ☒	2483.500	64.86	-9.14	74.00	33.67	28.38	0.00	2.81 PEAK	HORIZONTAL	212	190

Item 1, 2 are the fundamental frequency at 2452 MHz.

Note:

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

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

Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	802.11b CH 1, 6, 11 Ant. A
Test Date	Mar. 06, 2009		

Channel 1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1 !	2386.400	53.29	-0.71	54.00	21.94	27.87	3.49	0.00	AVERAGE	106	156	VERTICAL
2	2386.400	62.28	-11.72	74.00	30.92	27.87	3.49	0.00	PEAK	106	156	VERTICAL
3 @	2412.400	107.24			75.89	27.84	3.50	0.00	AVERAGE	106	156	VERTICAL
4	2413.600	110.84			79.50	27.84	3.50	0.00	PEAK	106	156	VERTICAL

Item 3, 4 are the fundamental frequency at 2412 MHz.

Channel 6

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1	2388.900	61.63	-12.37	74.00	30.28	27.87	3.49	0.00	PEAK	185	88	HORIZONTAL
2 !	2389.200	50.54	-3.46	54.00	19.19	27.87	3.49	0.00	AVERAGE	185	88	HORIZONTAL
3	2438.200	114.78			83.47	27.78	3.52	0.00	PEAK	185	88	HORIZONTAL
4 @	2439.800	110.93			79.62	27.78	3.52	0.00	AVERAGE	185	88	HORIZONTAL
5 !	2484.720	53.33	-0.67	54.00	22.04	27.73	3.56	0.00	AVERAGE	185	88	HORIZONTAL
6	2485.100	63.45	-10.55	74.00	32.16	27.73	3.56	0.00	PEAK	185	88	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2437MHz.

Channel 11

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1 @	2459.200	105.06			73.77	27.76	3.54	0.00	AVERAGE	185	91	HORIZONTAL
2	2461.000	108.88			77.58	27.76	3.54	0.00	PEAK	185	91	HORIZONTAL
3	2487.500	60.96	-13.04	74.00	29.70	27.70	3.56	0.00	PEAK	185	91	HORIZONTAL
4 !	2487.600	52.55	-1.45	54.00	21.29	27.70	3.56	0.00	AVERAGE	185	91	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

Temperature	26°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	802.11g CH 1, 6, 11 Ant. A
Test Date	Mar. 06, 2009		

Channel 1

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1 !	2390.000	52.24	-1.76	54.00	20.87	27.87	3.50	0.00	AVERAGE	128	153	VERTICAL
2 !	2390.000	73.78	-0.22	74.00	42.41	27.87	3.50	0.00	PEAK	128	153	VERTICAL
3	2409.000	111.55			80.21	27.84	3.50	0.00	PEAK	128	153	VERTICAL
4	2410.800	102.54			71.19	27.84	3.50	0.00	AVERAGE	128	153	VERTICAL

Item 3, 4 are the fundamental frequency at 2412 MHz.

Channel 6

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1	2382.400	67.26	-6.74	74.00	35.89	27.89	3.49	0.00	PEAK	125	151	VERTICAL
2 !	2384.200	53.10	-0.90	54.00	21.72	27.89	3.49	0.00	AVERAGE	125	151	VERTICAL
3	2440.200	114.55			83.24	27.78	3.52	0.00	PEAK	125	151	VERTICAL
4 @	2440.200	105.19			73.88	27.78	3.52	0.00	AVERAGE	125	151	VERTICAL
5	2486.300	67.97	-6.03	74.00	36.68	27.73	3.56	0.00	PEAK	125	151	VERTICAL
6 !	2489.500	53.70	-0.30	54.00	22.44	27.70	3.56	0.00	AVERAGE	125	151	VERTICAL

Item 3, 4 are the fundamental frequency at 2437 MHz.

Channel 11

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1	2464.600	100.68			69.38	27.76	3.54	0.00	AVERAGE	100	23	VERTICAL
2	2465.400	110.01			78.72	27.76	3.54	0.00	PEAK	100	23	VERTICAL
3 !	2483.500	53.65	-0.35	54.00	22.37	27.73	3.56	0.00	AVERAGE	100	23	VERTICAL
4 !	2483.800	71.00	-3.00	74.00	39.71	27.73	3.56	0.00	PEAK	100	23	VERTICAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

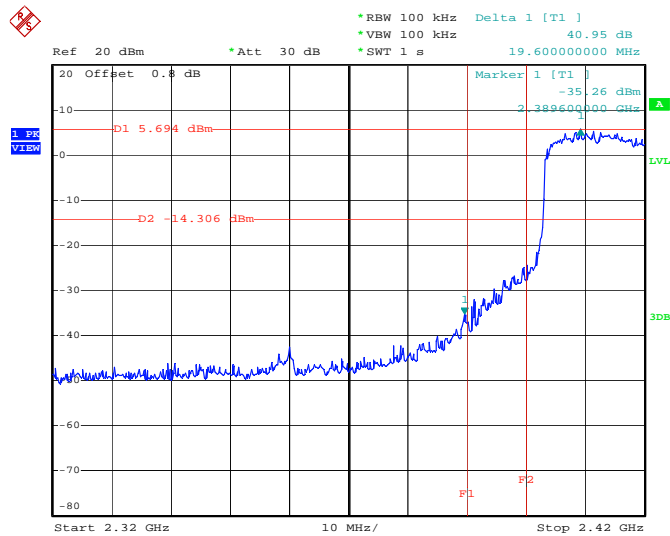
Note:

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

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

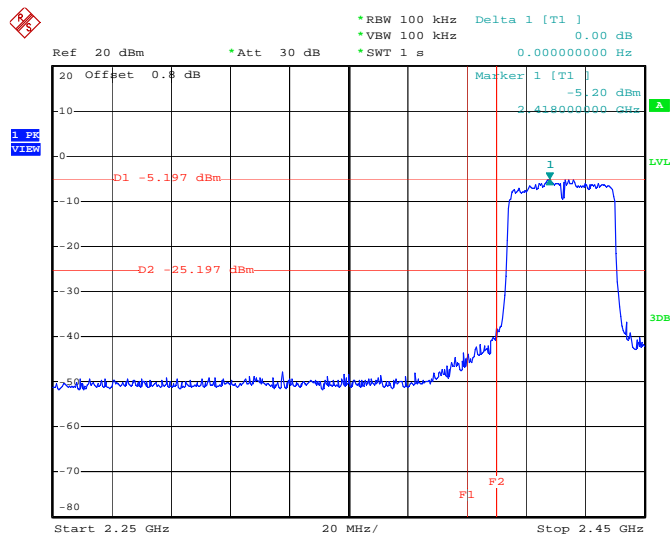
For Emission not in Restricted Band

Low Band Edge Plot on Configuration Drafft n MCS0 20MHz Ant. A / 2412 MHz



Date: 7.MAR.2009 09:56:48

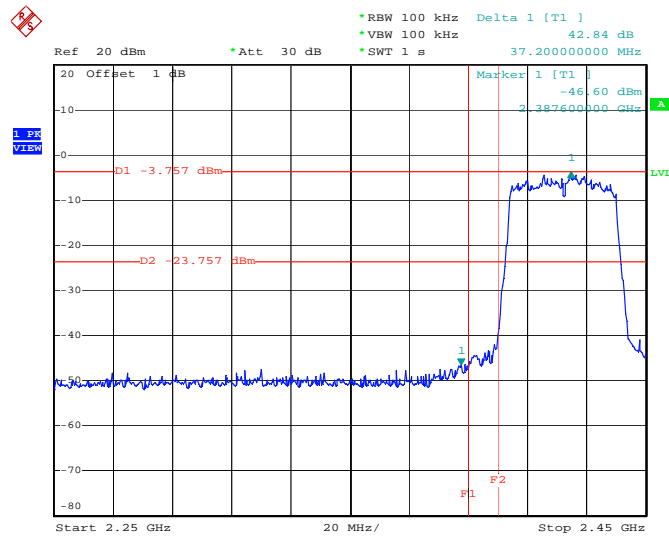
High Band Edge Plot on Configuration Drafft n MCS0 20MHz Ant. A / 2462 MHz



Date: 7.MAR.2009 10:10:58

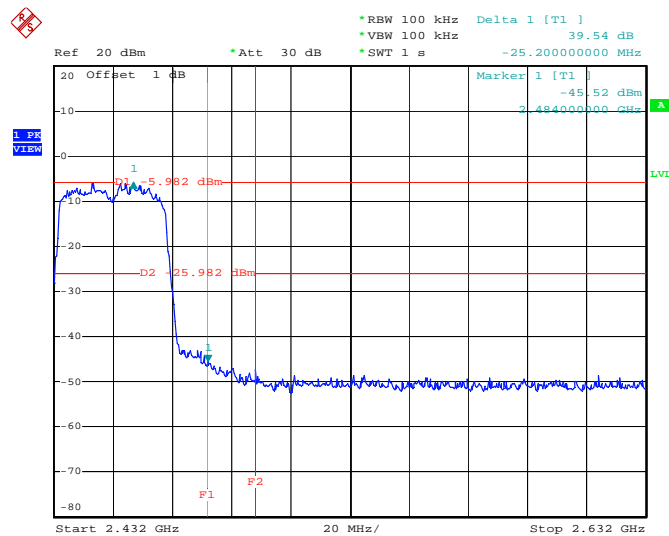
For Emission not in Restricted Band

Low Band Edge Plot on Configuration Drafft n MCS0 40MHz Ant. A / 2422 MHz



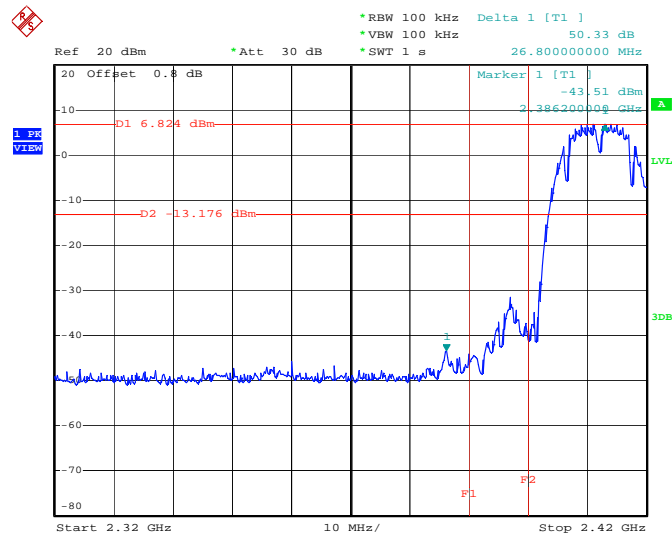
Date: 24.MAR.2009 11:44:56

High Band Edge Plot on Configuration Drafft n MCS0 40MHz Ant. A / 2452 MHz



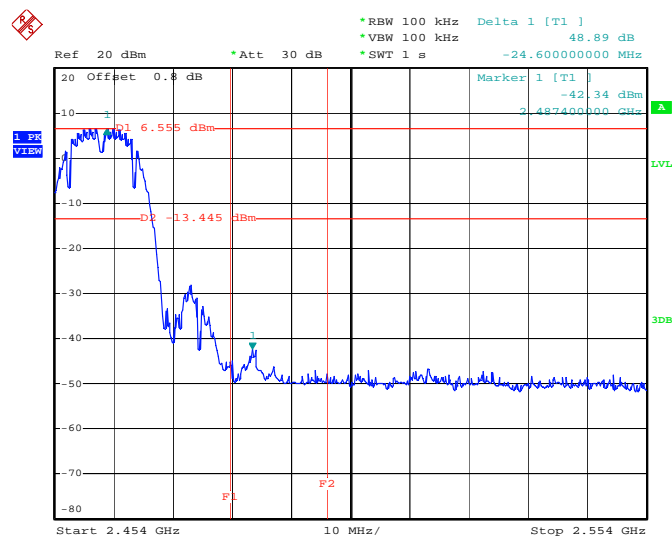
Date: 24.MAR.2009 11:50:51

Low Band Edge Plot on Configuration IEEE 802.11b Ant. A / 2412 MHz



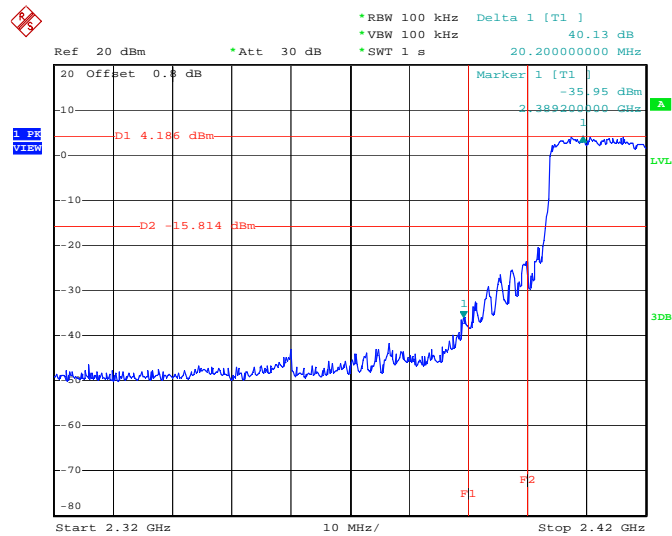
Date: 7.MAR.2009 09:37:18

High Band Edge Plot on Configuration IEEE 802.11b Ant. A / 2462 MHz



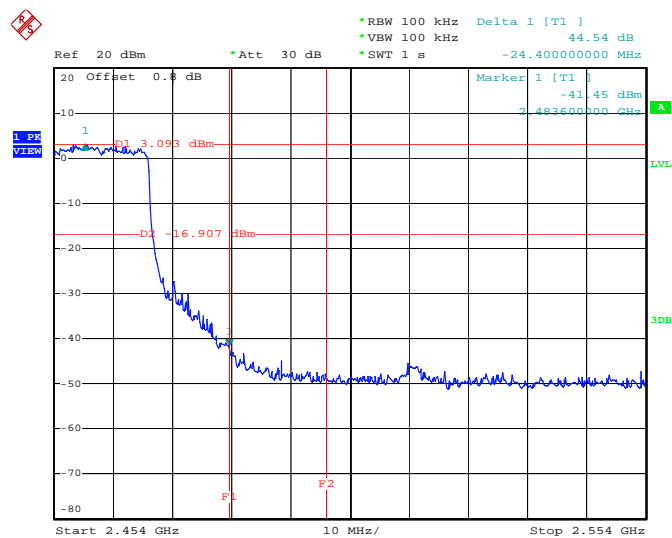
Date: 7.MAR.2009 09:41:52

Low Band Edge Plot on Configuration IEEE 802.11g Ant. A / 2412 MHz



Date: 7.MAR.2009 09:49:50

High Band Edge Plot on Configuration IEEE 802.11g Ant. A / 2462 MHz



Date: 7.MAR.2009 09:54:18

4.7. Antenna Requirements

4.7.1. 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, this requirement does not apply to intentional radiators that must be professionally installed.

4.7.2. Antenna Connector Construction

Please refer to section 3.3 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
EMC Receiver	R&S	ESCS 30	100174	9kHz – 2.75GHz	Apr. 16, 2008	Conduction (CO04-HY)
EMC Receiver	R&S	ESCS 30	100174	9kHz – 2.75GHz	Mar. 03, 2009	Conduction (CO04-HY)
LISN	MessTec	NNB-2/16Z	99079	9kHz – 30MHz	Mar. 31, 2008	Conduction (CO04-HY)
LISN	MessTec	NNB-2/16Z	99079	9kHz – 30MHz	Mar. 23, 2009	Conduction (CO04-HY)
LISN (Support Unit)	EMCO	3810/2NM	9703-1839	9kHz – 30MHz	Mar. 22, 2009	Conduction (CO04-HY)
RF Cable-CON	UTIFLEX	3102-26886-4	CB049	9kHz – 30MHz	Apr. 20, 2008	Conduction (CO04-HY)
ISN	SCHAFFNER	ISN ST08	21653	9kHz – 30MHz	Mar. 27, 2008	Conduction (CO04-HY)
ISN	SCHAFFNER	ISN T400	21653	9kHz – 30MHz	Jun 13, 2008	Conduction (CO04-HY)
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	Conduction (CO04-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30 MHz - 1 GHz 3m	Jun. 14, 2008	Radiation (03CH03-HY)
Amplifier	SCHAFFNER	COA9231A	18667	9 kHz - 2 GHz	Jan. 23, 2009	Radiation (03CH03-HY)
Amplifier	Agilent	8449B	3008A02120	1 GHz - 26.5 GHz	Jul. 21, 2008	Radiation (03CH03-HY)
Amplifier	MITEQ	AMF-6F-260400	9121372	26.5 GHz - 40 GHz	Jan. 22, 2008*	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSP40	100004	9 kHz - 30 GHz	Oct. 06, 2008	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSP30	100023	9 kHz - 30 GHz	Feb 02, 2009	Radiation (03CH03-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	Jul. 28, 2008*	Radiation (03CH03-HY)
Bilog Antenna	SCHAFFNER	CBL 6112D	22237	30 MHz – 1 GHz	Jul. 12, 2008	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6741	1GHz ~ 18GHz	Apr. 29, 2008	Radiation (03CH03-HY)
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15 GHz - 40 GHz	Jan.16, 2009	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30 MHz - 1 GHz	Jan. 05, 2009	Radiation (03CH03-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	1 GHz - 40 GHz	Jan. 05, 2009	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	Jan. 09, 2009	Conducted (TH01-HY)
Power Meter	R&S	NRVS	100444	DC ~ 40GHz	Jul. 11, 2008	Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z51	100458	DC ~ 30GHz	Jul. 11, 2008	Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z32	100057	30MHz ~ 6GHz	Jul. 11, 2008	Conducted (TH01-HY)
AC Power Source	HPC	HPA-500W	HPA-9100024	AC 0 ~ 300V	May 30, 2008*	Conducted (TH01-HY)
DC Power Source	G.W.	GPC-6030D	C671845	DC 1V ~ 60V	Mar. 13, 2009	Conducted (TH01-HY)
Temp. and Humidity Chamber	Giant Force	GTH-225-20-S	MAB0103-001	N/A	Jul. 18, 2008	Conducted (TH01-HY)
RF CABLE-1m	Jye Bao	RG142	CB034-1m	20MHz ~ 7GHz	Dec. 01, 2008	Conducted (TH01-HY)
RF CABLE-2m	Jye Bao	RG142	CB035-2m	20MHz ~ 1GHz	Dec. 01, 2008	Conducted (TH01-HY)
Vector Signal Generator	R&S	SMU200A	102098	100kHz ~ 6GHz	Dec. 14, 2008	Conducted (TH01-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	Mar. 10, 2009	Conducted (TH01-HY)
Oscilloscope	Tektonix	TDS380	B016197	400MHz/ 2GS/s	Jun. 27, 2008	Conducted (TH01-HY)

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

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

6. TEST LOCATION

SHIJR	ADD : 6Fl., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C. TEL : 886-2-2696-2468 FAX : 886-2-2696-2255
HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-318-0055
LINKOU	ADD : No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C TEL : 886-2-2601-1640 FAX : 886-2-2601-1695
DUNGHU	ADD : No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C. TEL : 886-2-2631-4739 FAX : 886-2-2631-9740
JUNGHE	ADD : 7Fl., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C. TEL : 886-2-8227-2020 FAX : 886-2-8227-2626
NEIHU	ADD : 4Fl., No. 339, Hsin Hu 2 nd Rd., Taipei 114, Taiwan, R.O.C. TEL : 886-2-2794-8886 FAX : 886-2-2794-9777
JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

7. TAF CERTIFICATE OF ACCREDITATION



Certificate No. : L1190-070110

財團法人全國認證基金會
Taiwan Accreditation Foundation

Certificate of Accreditation

This is to certify that

Sporton International Inc.

EMC & Wireless Communications Laboratory

No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien,
Taiwan, R.O.C.

is accredited in respect of laboratory

Accreditation Criteria	: ISO/IEC 17025:2005
Accreditation Number	: 1190
Originally Accredited	: December 15, 2003
Effective Period	: January 10, 2007 to January 09, 2010
Accredited Scope	: Testing Field, see described in the Appendix
Specific Accreditation Program	: Accreditation Program for Designated Testing Laboratory for Commodities Inspection Accreditation Program for Telecommunication Equipment Testing Laboratory



Jay-San Chen
President, Taiwan Accreditation Foundation
Date : January 10, 2007

P1, total 9 pages

The Appendix forms an integral part of this Certificate, which shall be invalid when used without the Appendix.