

# FCC TEST REPORT

**Report Reference No.** ..... : 2100724301

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Approved by (+ signature) ..... Victor Meng

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Date of issue ..... : 2010.09.20

Total number of pages ..... : 34

**Applicant's name** ..... : DESAY A&V SCIENCE AND TECHNOLOGY CO.,LTD

Address ..... : Desay 3rd Industry Zone,Chenjiang Town Huizhou City Guangdong  
516229 China

**Manufacture's Name** ..... : DESAY A&V SCIENCE AND TECHNOLOGY CO.,LTD

Address ..... : Desay 3rd Industry Zone,Chenjiang Town Huizhou City Guangdong  
516229 China

## Test specification:

Standards..... : FCC Part15 subpart C

Test procedure ..... : ANSI C63.4: 2003, DA 00-705

Non-standard test method..... : N/A

## Test item description

Product name..... : 3D BLU-RAY DISC PLAYER

Trademark ..... : VAZIO

Model and/or type reference ..... : VBR333, VBR334

Rating(s)..... : 110V-120V ~ 50/60Hz 15W

## Testing Laboratory information:

Testing Laboratory Name ..... : I-Test Laboratory

FCC register number ..... : 935596

Address ..... : 1-2 floor, South Block, Building A2 , No 3 Keyan Lu, Science City,  
Guangzhou, Guangdong Province, P.R. China

Testing location ..... : Same as above

**Test item description** ..... : 3D BLU-RAY DISC PLAYER  
**Trade Mark** ..... : /  
**Model/Type reference**..... : **VBR333**  
**Listed Models** ..... : **VBR334**  
**Difference description**..... : Only model name is different for market requirement.  
**Power Supply**..... : AC 120V/60Hz  
**Result**..... : **Positive**  
**FCC ID**..... : **XJGDS0003**

**RADIATED EMISSION TEST (ABOVE 1 GHz):**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
A	Draft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2
A	Draft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15

Eleven channels are provided for 802.11b, 802.11g and draft 802.11n (20MHz):

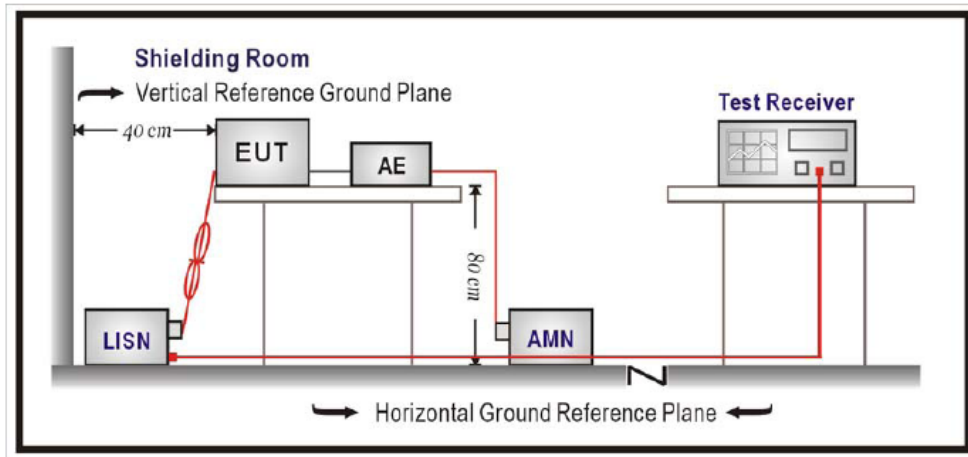
CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2412MHz	7	2442MHz
2	2417MHz	8	2447MHz
3	2422MHz	9	2452MHz
4	2427MHz	10	2457MHz
5	2432MHz	11	2462MHz
6	2437MHz		

Seven channels are provided for draft 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2422MHz	5	2442MHz
2	2427MHz	6	2447MHz
3	2432MHz	7	2452MHz
4	2437MHz		

# 1. Conducted Emissions Test Results

## TEST CONFIGURATION



## TEST PRECEDURE

The EUT was setup and tested according to ANSI C63.4, 2003.

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

## CONDUCTED LIMIT

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
Frequency MHz	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

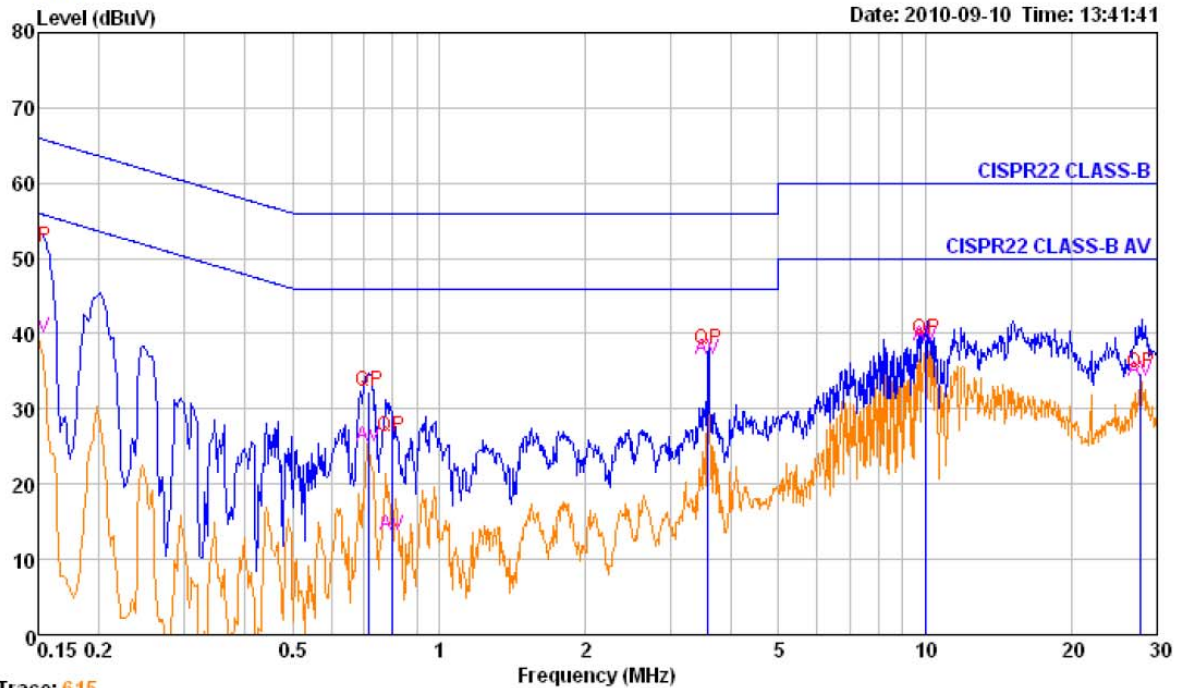
Remarks : In the above table, the tighter limit applies at the band edges.

**CONDUCTED EMISSION TEST RESULTS**



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 电话: 020-32209330  
 传真: 020-62824387

Data: 616 File: D:\My Documents\test result\04-desay\desay.EM6 (619)



Trace: 615  
 Site :  
 Condition: CISPR22 CLASS-B ENU-216 LINE  
 eut : UBR333  
 mode :  
 memo : L

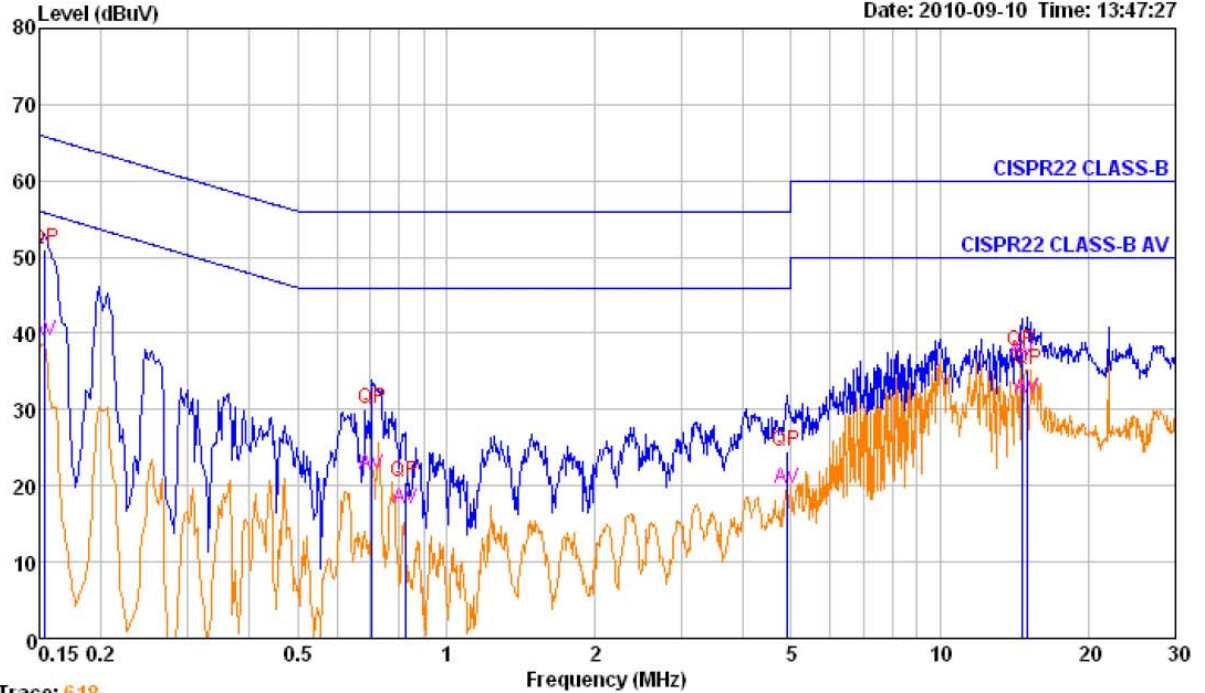
	Freq	Level	Remark	LISN Factor	Cable Loss	Limit Line	Over Limit	A/Pos	T/Pos
	MHz	dBuV		dB	dB	dBuV	dB	cm	deg
1	0.15	39.50	Average	9.70	0.20	56.00	-16.50	---	---
2	0.15	51.52	QP	9.70	0.20	66.00	-14.48	100	0
3	0.72	24.90	Average	9.71	0.29	46.00	-21.10	---	---
4	0.72	32.29	QP	9.71	0.29	56.00	-23.71	100	0
5	0.80	13.23	Average	9.70	0.29	46.00	-32.77	---	---
6	0.80	26.35	QP	9.70	0.29	56.00	-29.65	100	0
7	3.58	36.58	Average	9.62	0.38	46.00	-9.42	---	---
8	3.58	37.80	QP	9.62	0.38	56.00	-18.20	100	0
9	10.06	38.32	Average	9.65	0.44	50.00	-11.68	---	---
10	10.06	39.19	QP	9.65	0.44	60.00	-20.81	100	0
11	27.80	33.70	Average	9.66	0.50	50.00	-16.30	---	---
12	27.80	34.83	QP	9.66	0.50	60.00	-25.17	100	0



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 传真: 020-62824387

Data: 619 File: D:\My Documents\test result\04-desay\desay.EM6 (619)

Date: 2010-09-10 Time: 13:47:27



Trace: 618

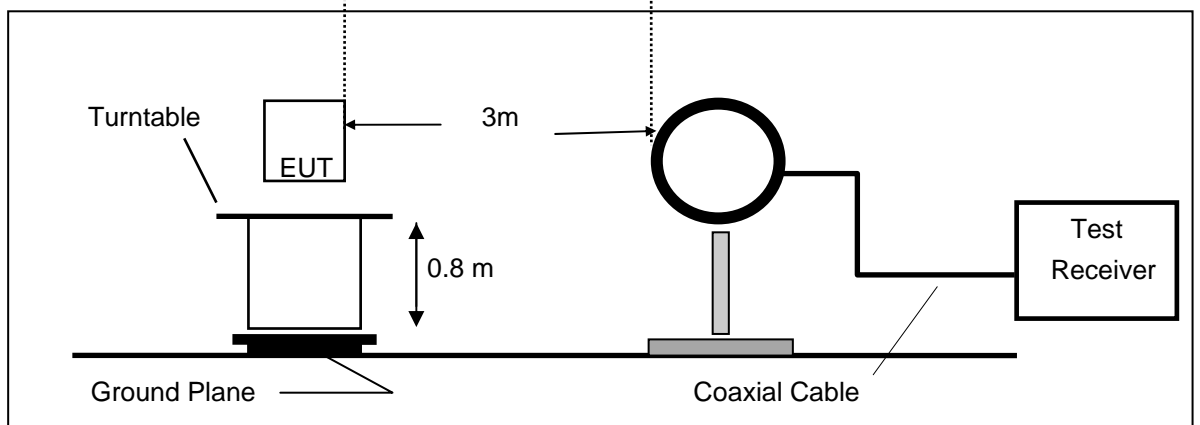
Site :  
 Condition: CISPR22 CLASS-B ENU-216 NEUTRAL  
 Antenna: UBR333  
 mode :  
 memo : N

	Freq	Level	Remark	LISN Factor	Cable Loss	Limit Line	Over Limit	A/Pos	T/Pos
	MHz	dBuV		dB	dB	dBuV	dB	cm	deg
1	q	0.15	51.08 QP	9.70	0.20	65.80	-14.72	100	0
2		0.15	39.01 Average	9.70	0.20	55.78	-16.77	---	---
3		0.71	21.43 Average	9.62	0.29	46.00	-24.57	---	---
4		0.71	29.98 QP	9.62	0.29	56.00	-26.02	100	0
5		0.82	17.03 Average	9.62	0.30	46.00	-28.97	---	---
6		0.82	20.57 QP	9.62	0.30	56.00	-35.43	100	0
7		4.89	19.51 Average	9.62	0.40	46.00	-26.49	---	---
8		4.89	24.43 QP	9.62	0.40	56.00	-31.57	100	0
9	a	14.64	36.22 Average	9.63	0.46	50.00	-13.78	---	---
10		14.64	37.59 QP	9.63	0.46	60.00	-22.41	100	0
11		15.03	31.45 Average	9.63	0.46	50.00	-18.55	---	---
12		15.03	35.19 QP	9.63	0.46	60.00	-24.81	100	0

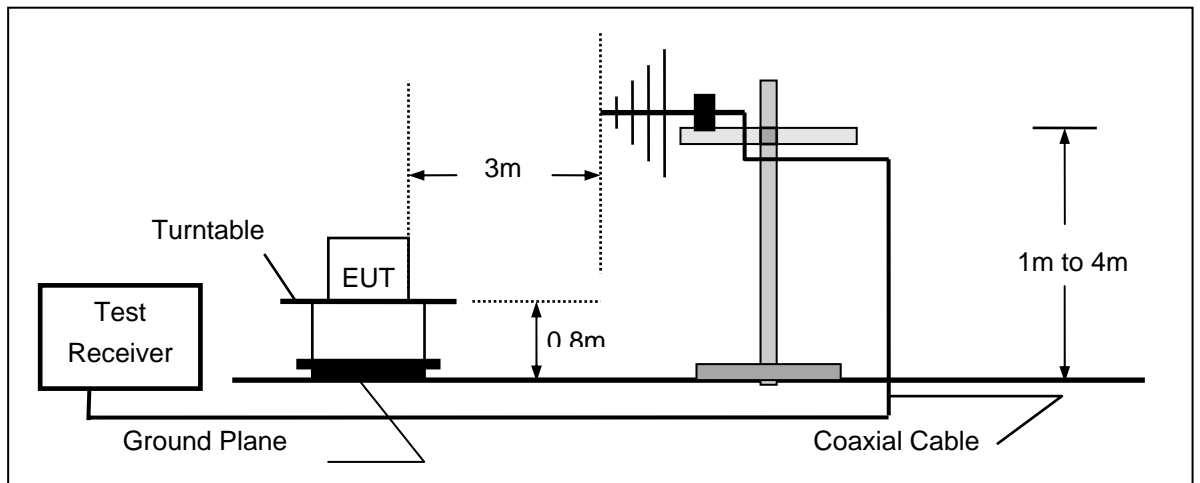
## 2. Radiated Emissions Test Results

### TEST CONFIGURATION

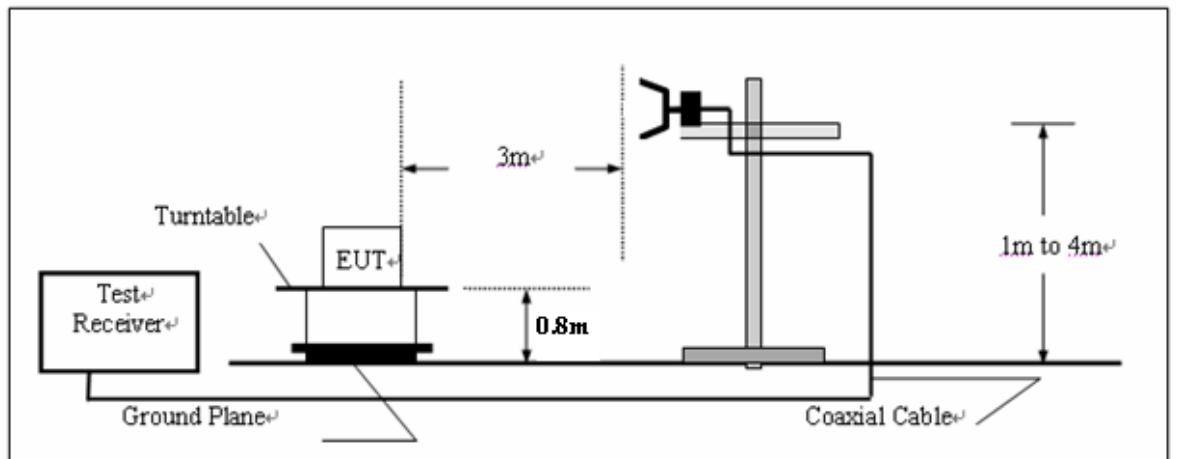
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz



**Test procedures**

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

**NOTE:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

**FIELD STRENGTH CALCULATION**

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

**RADIATION LIMIT**

For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

<b>Frequency (MHz)</b>	<b>Distance (Meters)</b>	<b>Radiated (dB<math>\mu</math>V/m)</b>	<b>Radiated (<math>\mu</math>V/m)</b>
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.



**RADIATED EMISSION TEST RESULTS**

**Below 1GHz:**

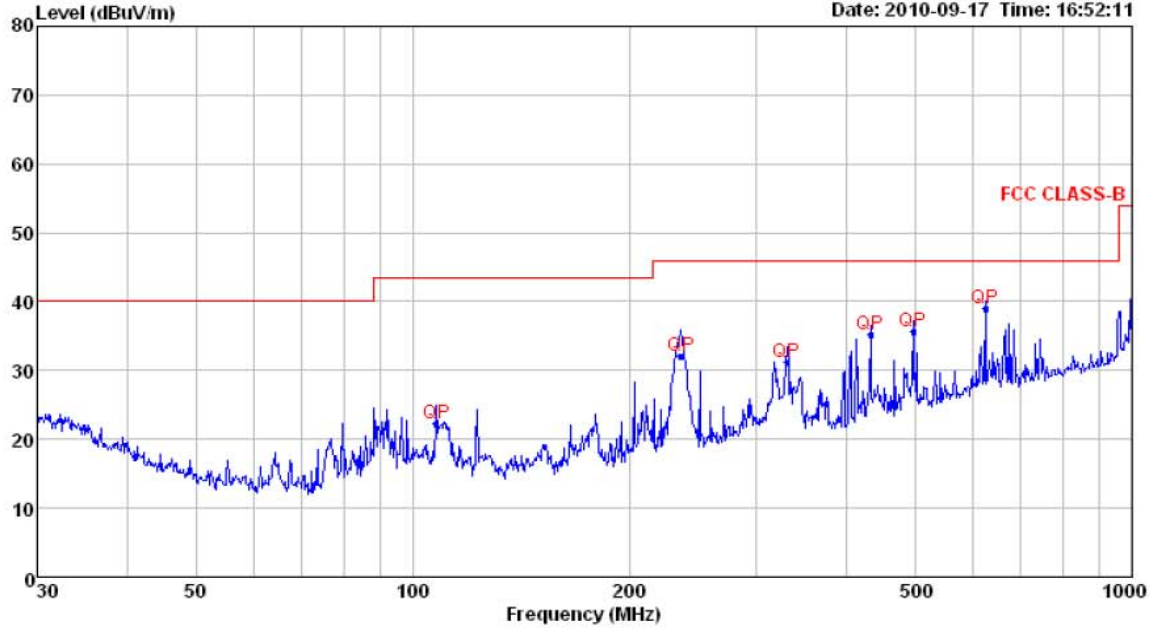


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 传真: 020-62824387

Data: 2260

File: D:\My Documents\test result\04-desay2\0.EM6 (2261)

Date: 2010-09-17 Time: 16:52:11



Site :  
 Condition: FCC CLASS-B 3m 3142D HORIZONTAL  
 Antenna : UBR333  
 Mode : 120U  
 Memo : H

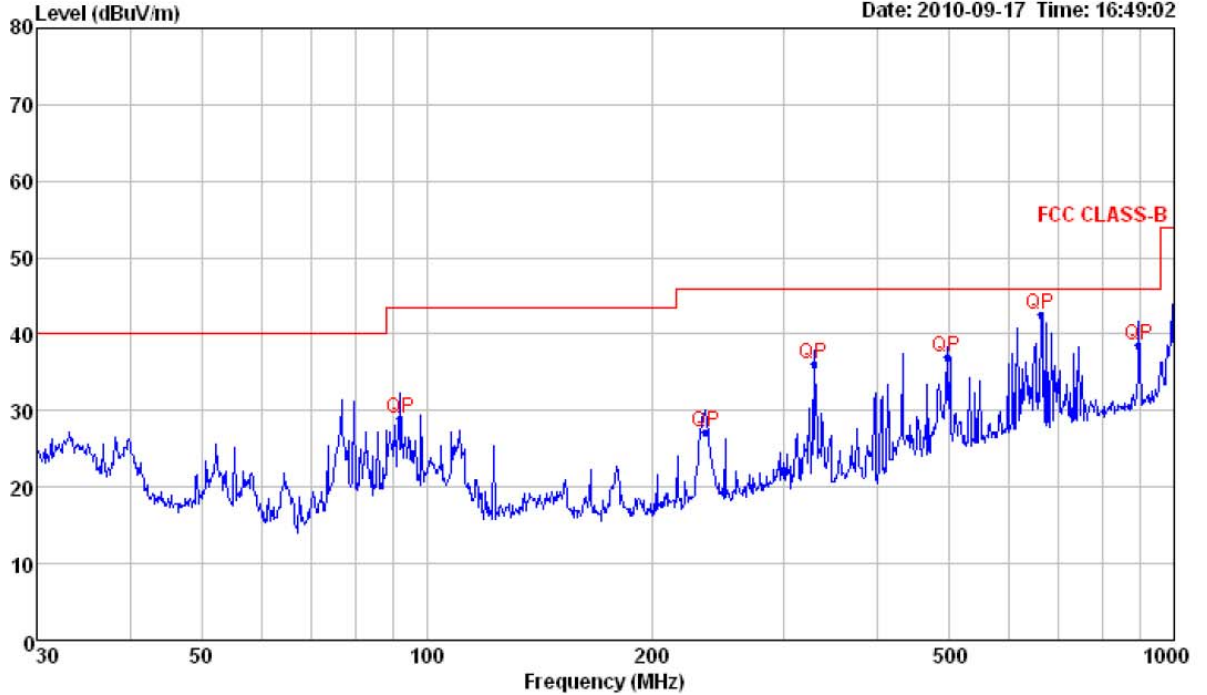
	Freq	Level	Remark	Antenna Factor	Cable Loss	Limit Line	Over Limit	A/Pos	T/Pos
	MHz	dBuV/m		dB/m	dB	dBuV/m	dB	cm	deg
1	107.89	22.30	QP	8.46	2.18	43.50	-21.20	201	226
2	235.82	32.20	QP	11.69	2.54	46.00	-13.80	152	248
3	331.35	31.20	QP	14.18	2.70	46.00	-14.80	200	229
4	432.55	35.10	QP	16.15	2.82	46.00	-10.90	200	235
5	495.93	35.70	QP	17.57	2.88	46.00	-10.30	178	254
6 q	625.08	38.90	QP	20.50	2.99	46.00	-7.10	200	265



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 电话: 020-32209330  
 传真: 020-62824387

Data: 2261 File: D:\My Documents\test result\04-desay2\0.EM6 (2261)

Date: 2010-09-17 Time: 16:49:02



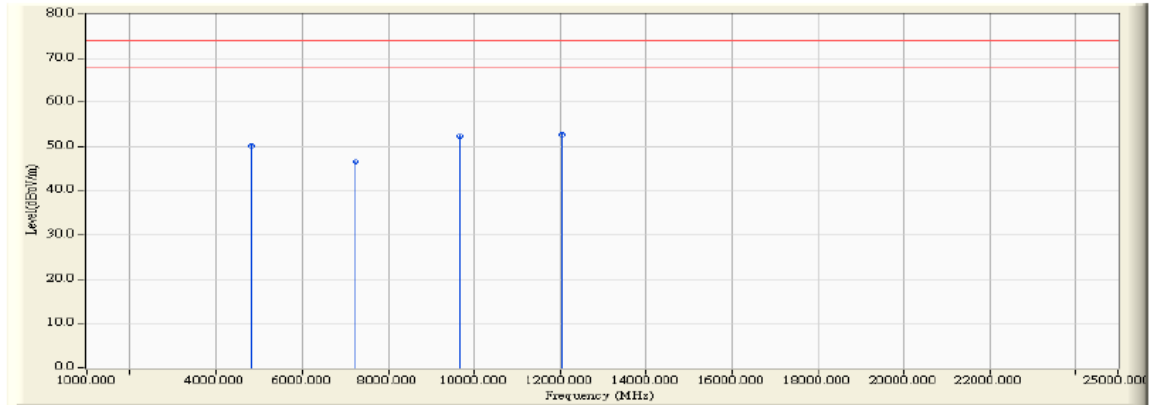
Site :  
 Condition: FCC CLASS-B 3m 3142D VERTICAL  
 Antenna : UBR333  
 Mode : 120V  
 Memo : U

	Freq	Level	Remark	Antenna Factor	Cable Loss	Limit Line	Over Limit	A/Pos	T/Pos
	MHz	dBuV/m		dB/m	dB	dBuV/m	dB	cm	deg
1	92.14	28.90	QP	8.39	2.11	43.50	-14.60	200	315
2	235.82	27.20	QP	11.70	2.54	46.00	-18.80	188	341
3	329.04	36.20	QP	14.15	2.69	46.00	-9.80	200	334
4	495.93	37.10	QP	17.57	2.88	46.00	-8.90	201	352
5 q	663.47	42.66	QP	20.55	3.01	46.00	-3.34	201	360
6	897.00	38.60	QP	22.78	3.15	46.00	-7.40	201	348

**Above 1GHz:**

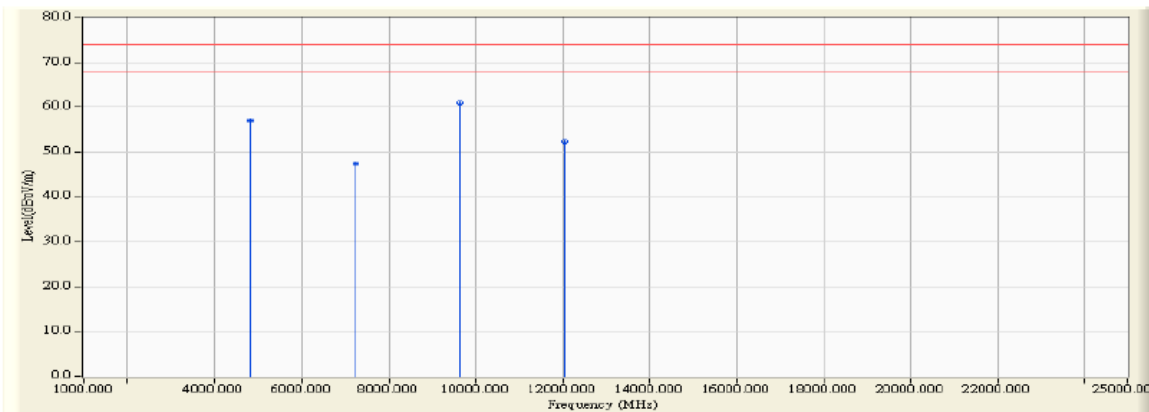
**802.11b CH1:**

**Horizontal**

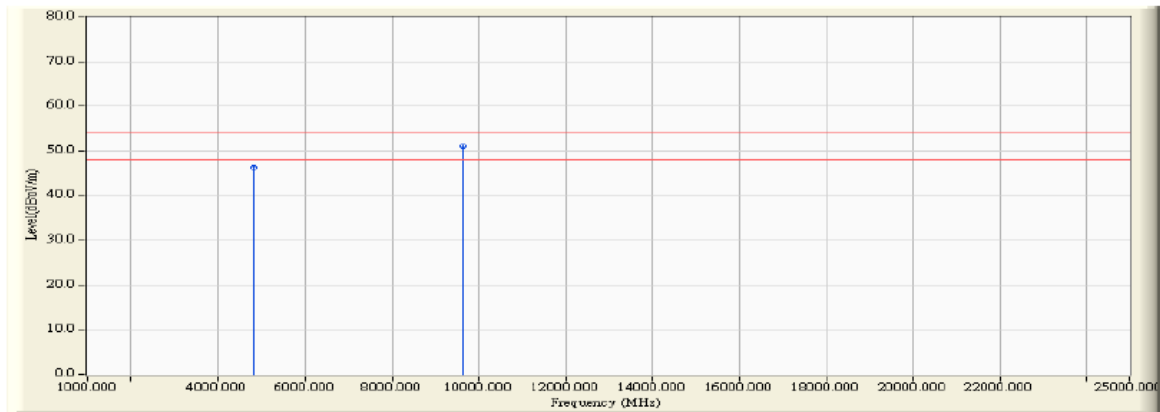


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4824.000	0.402	49.790	50.192	-23.808	74.000	54.000	PEAK
2	7236.200	6.884	39.650	46.534	-27.466	74.000	54.000	PEAK
3	9672.000	10.912	41.490	52.402	-21.598	74.000	54.000	PEAK
4	* 12060.400	15.618	37.060	52.678	-21.322	74.000	54.000	PEAK

**Vertical**



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4824.000	0.402	56.620	57.022	-16.978	74.000	54.000	PEAK
2	7236.200	6.459	40.970	47.429	-26.571	74.000	54.000	PEAK
3	* 9648.000	10.918	50.090	61.008	-12.992	74.000	54.000	PEAK
4	12060.400	14.351	37.920	52.271	-21.729	74.000	54.000	PEAK



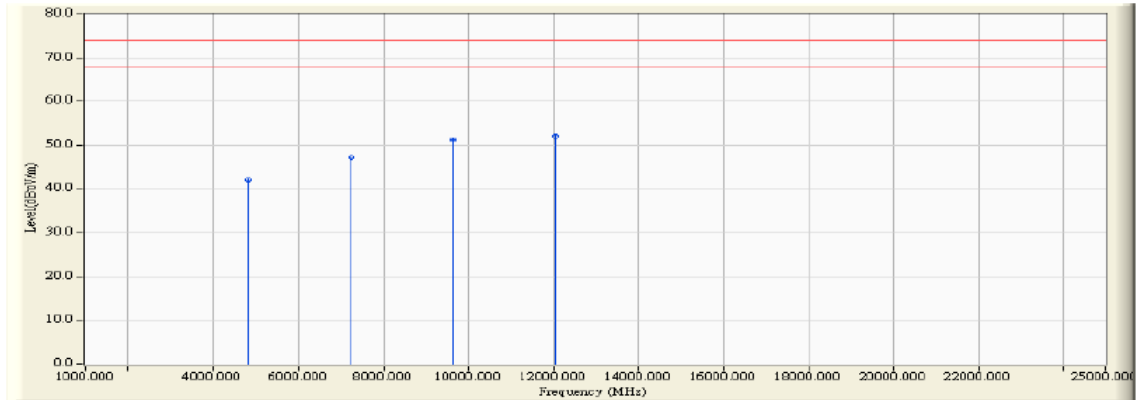
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4825.800	2.541	43.740	46.280	-7.720	74.000	54.000	AVERAGE
2	* 9648.000	10.918	40.070	50.988	-3.012	74.000	54.000	AVERAGE

**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

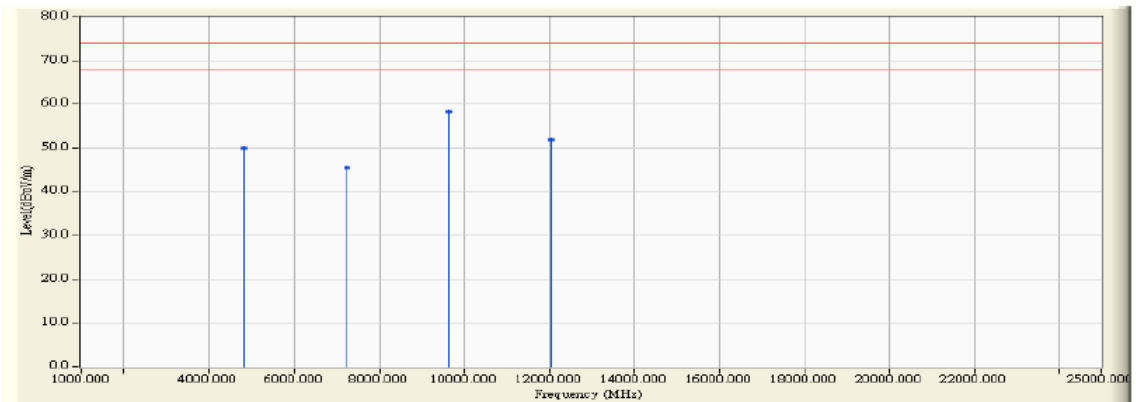
**802.11g CH1:**

**Horizontal**

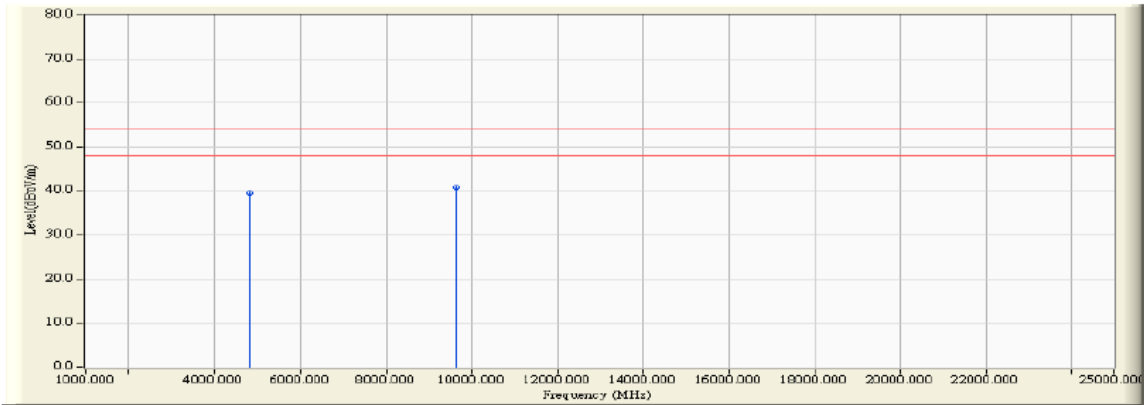


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4824.000	0.402	41.540	41.942	-32.058	74.000	54.000	PEAK
2	7236.200	6.884	40.390	47.274	-26.726	74.000	54.000	PEAK
3	9648.000	10.813	40.370	51.183	-22.817	74.000	54.000	PEAK
4	* 12060.400	15.618	36.600	52.218	-21.782	74.000	54.000	PEAK

**Vertical**



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4824.000	2.539	47.370	49.909	-24.091	74.000	54.000	PEAK
2	7236.200	6.459	39.060	45.519	-28.481	74.000	54.000	PEAK
3	* 9648.000	10.918	47.350	58.268	-15.732	74.000	54.000	PEAK
4	12060.400	14.351	37.500	51.851	-22.149	74.000	54.000	PEAK



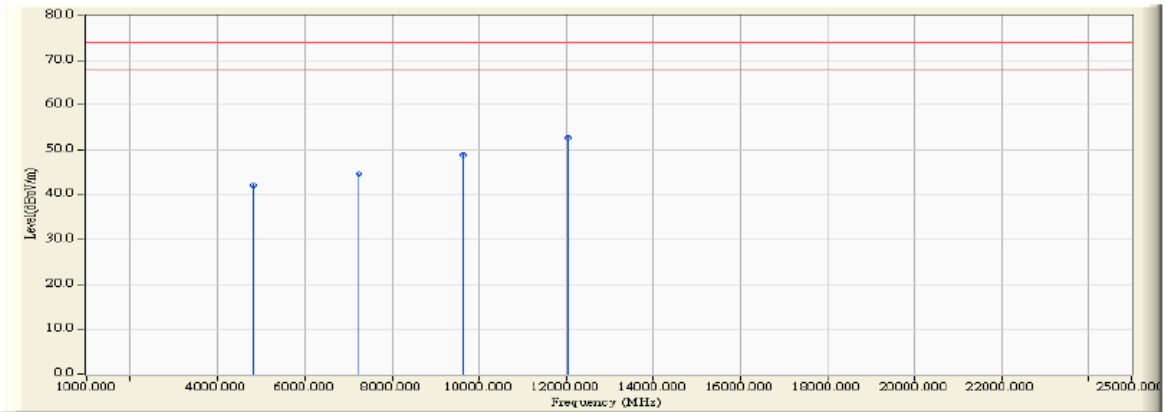
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4824.200	2.540	37.000	39.539	-14.461	74.000	54.000	AVERAGE
2	* 9649.200	10.924	29.760	40.684	-13.316	74.000	54.000	AVERAGE

**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

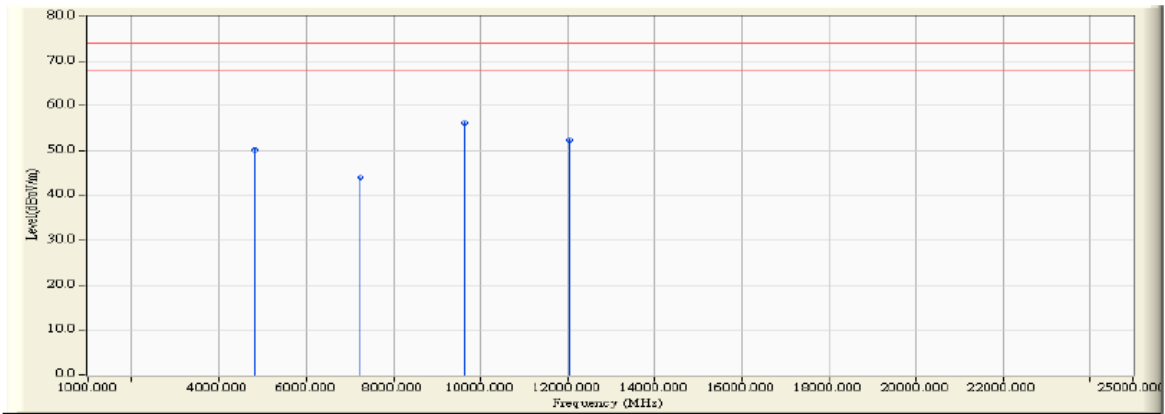
802.11n(20M) CH1:

Horizontal

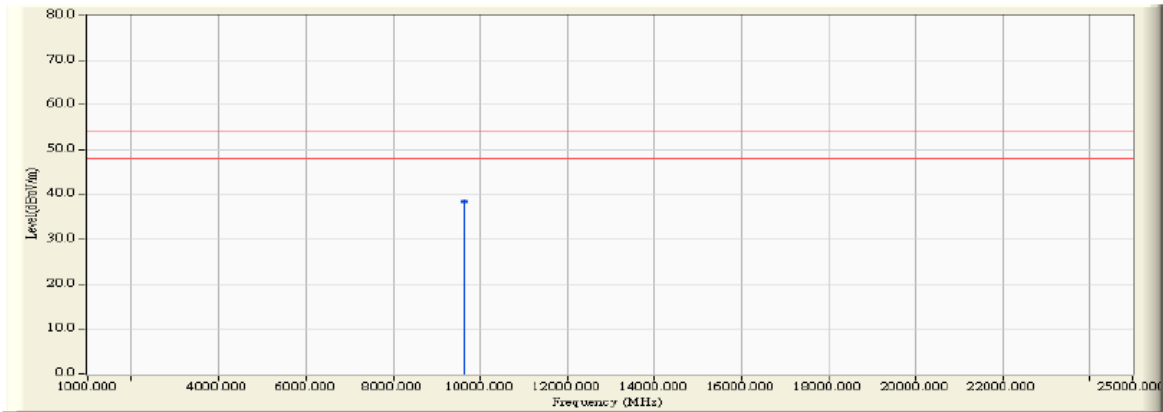


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4824.020	0.402	41.690	42.092	-31.908	74.000	54.000	PEAK
2	7236.230	6.884	37.730	44.614	-29.386	74.000	54.000	PEAK
3	9648.250	10.814	37.980	48.794	-25.206	74.000	54.000	PEAK
4	* 12060.340	15.618	37.100	52.718	-21.282	74.000	54.000	PEAK

Vertical



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4824.130	2.539	47.600	50.139	-23.861	74.000	54.000	PEAK
2	7236.230	6.459	37.610	44.069	-29.931	74.000	54.000	PEAK
3	* 9648.230	10.919	45.280	56.199	-17.801	74.000	54.000	PEAK
4	12060.250	14.352	37.900	52.252	-21.748	74.000	54.000	PEAK



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	9647.000	10.913	27.380	38.293	-15.707	74.000	54.000	AVERAGE

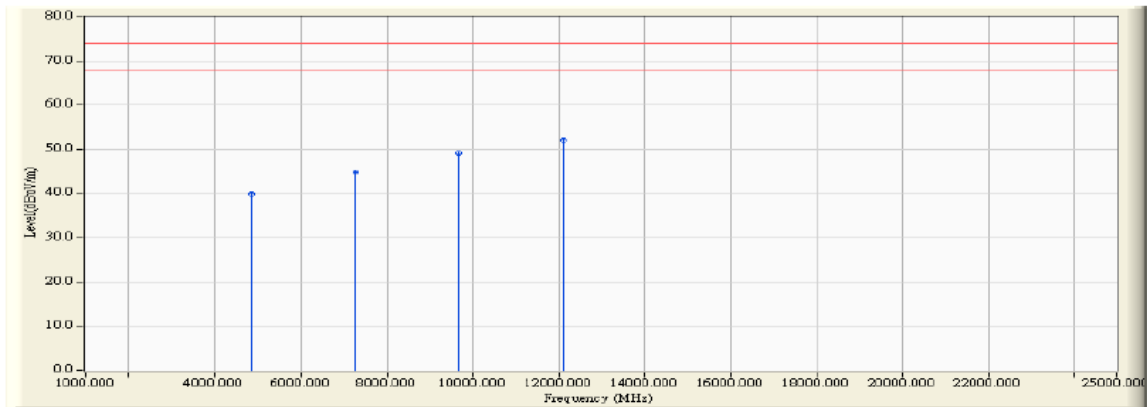
**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.



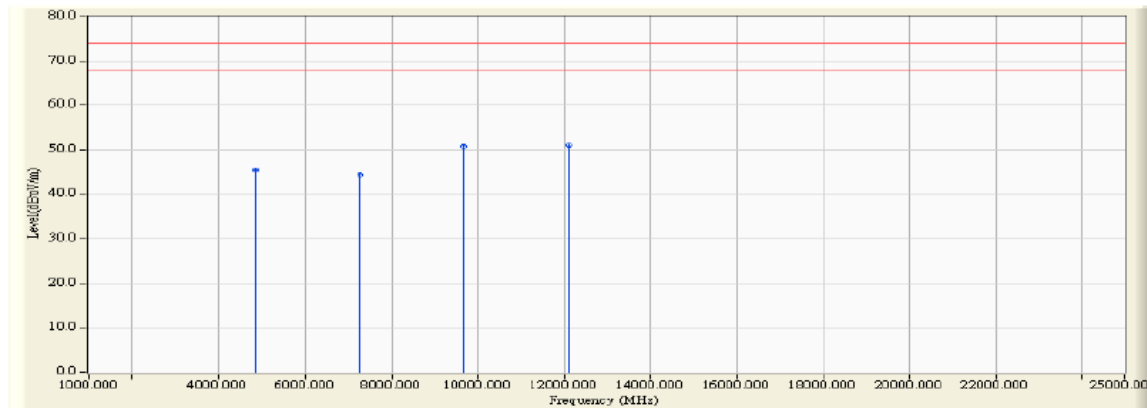
**802.11n(40M) CH3:**

**Horizontal**



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4844.230	0.452	39.340	39.791	-34.209	74.000	54.000	PEAK
2	7266.230	7.022	37.820	44.842	-29.158	74.000	54.000	PEAK
3	9688.120	10.970	38.140	49.110	-24.890	74.000	54.000	PEAK
4 *	12110.020	15.425	36.720	52.144	-21.856	74.000	54.000	PEAK

**Vertical**



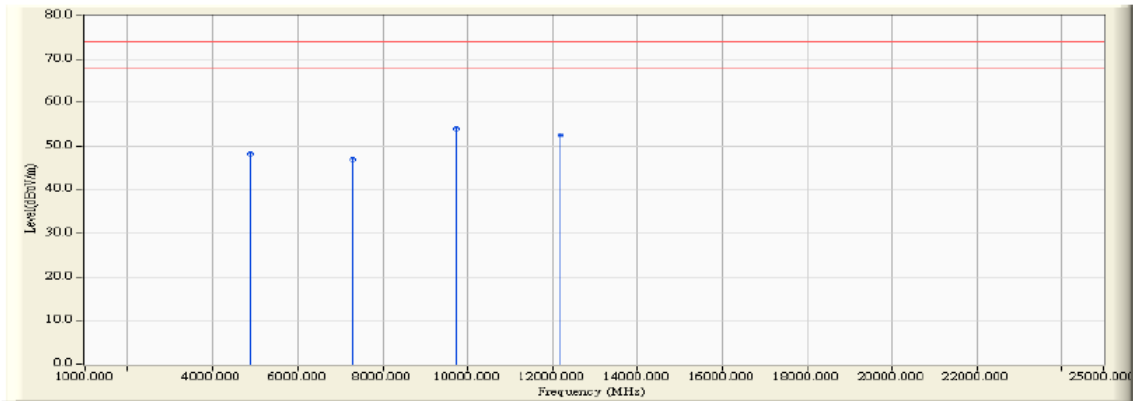
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4844.000	2.556	42.930	45.487	-28.513	74.000	54.000	PEAK
2	7266.120	6.517	37.880	44.397	-29.603	74.000	54.000	PEAK
3	9688.450	11.123	39.610	50.733	-23.267	74.000	54.000	PEAK
4 *	12110.120	14.261	36.870	51.130	-22.870	74.000	54.000	PEAK

**Note:**

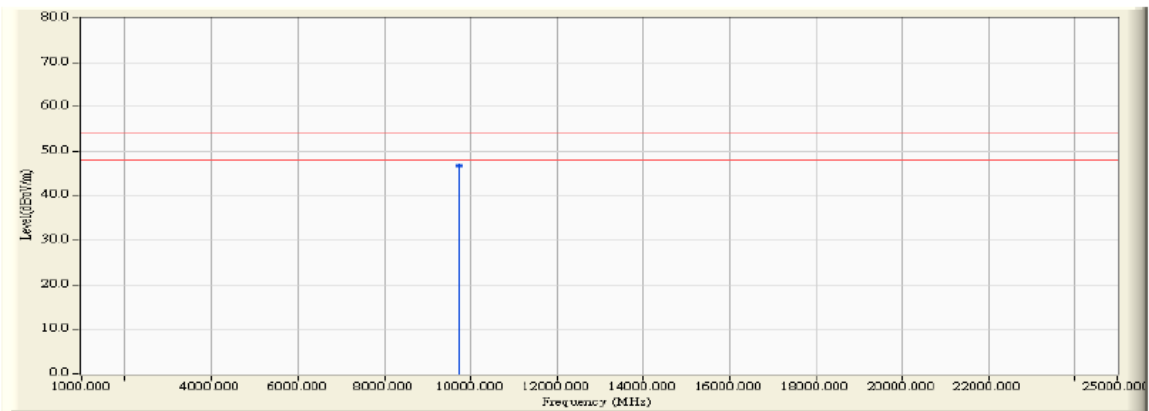
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

802.11b CH6:

Horizontal

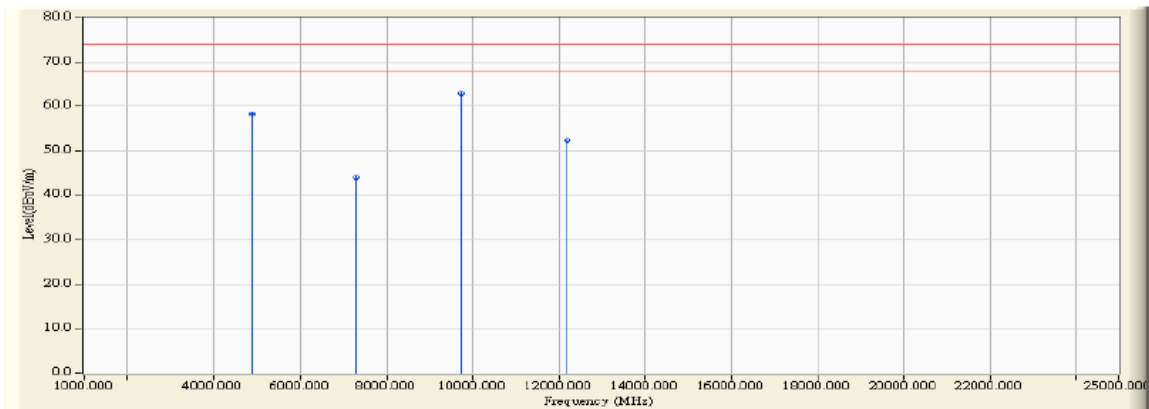


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4874.000	0.531	47.650	48.180	-25.820	74.000	54.000	PEAK
2	7311.000	7.227	39.710	46.937	-27.063	74.000	54.000	PEAK
3	* 9747.800	11.219	42.840	54.059	-19.941	74.000	54.000	PEAK
4	12185.000	15.121	37.400	52.521	-21.479	74.000	54.000	PEAK

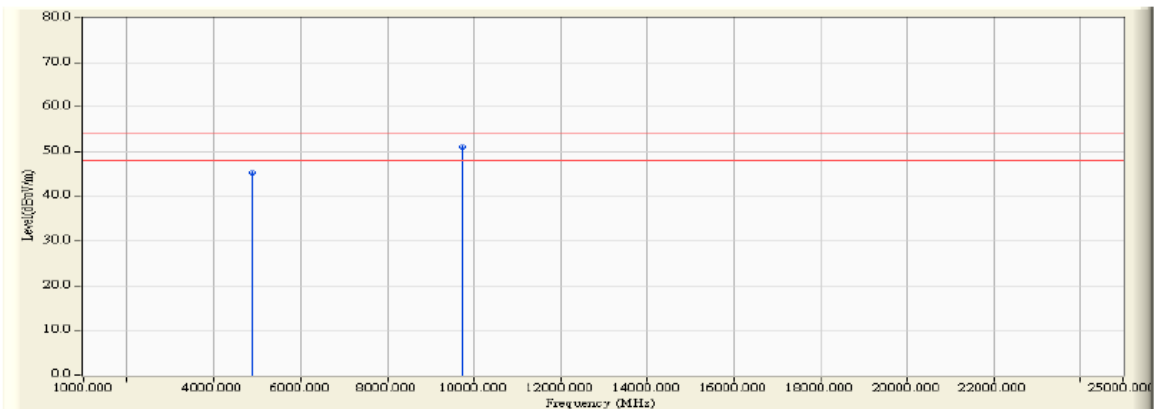


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	* 9747.960	11.220	35.580	46.800	-7.200	74.000	54.000	AVERAGE

**Vertical**



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4874.000	2.577	55.660	58.237	-15.763	74.000	54.000	PEAK
2	7311.200	6.604	37.430	44.034	-29.966	74.000	54.000	PEAK
3	* 9747.880	11.419	51.350	62.769	-11.231	74.000	54.000	PEAK
4	12185.210	14.126	38.120	52.246	-21.754	74.000	54.000	PEAK



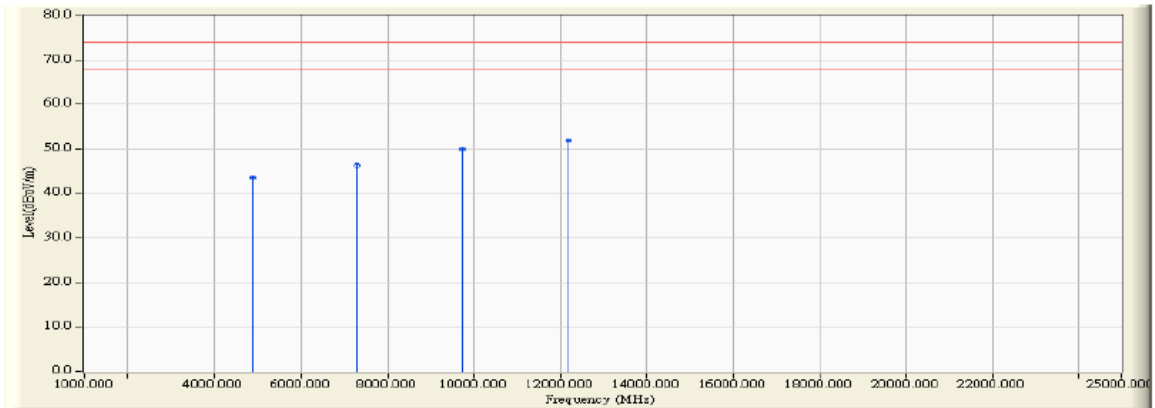
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4875.000	2.577	42.710	45.288	-8.712	74.000	54.000	AVERAGE
2	* 9748.000	11.420	39.560	50.980	-3.020	74.000	54.000	AVERAGE

**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

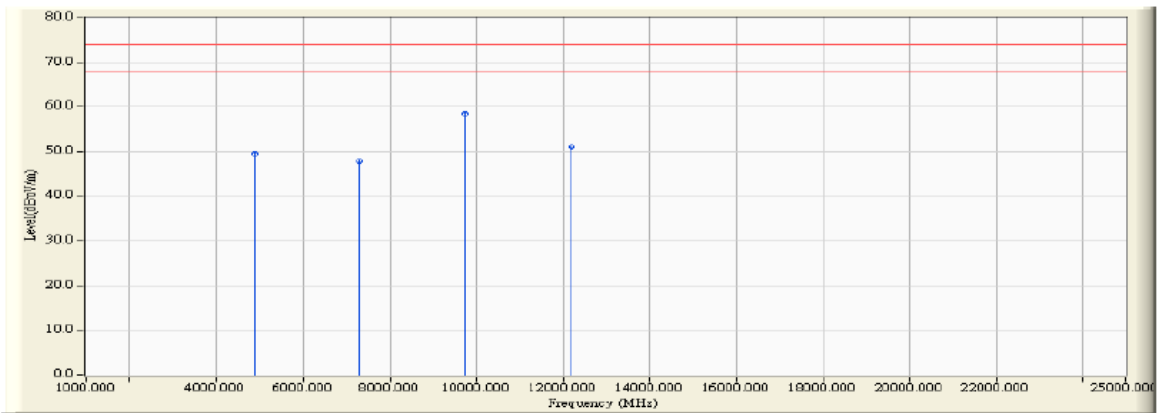
**802.11g CH6:**

**Horizontal**

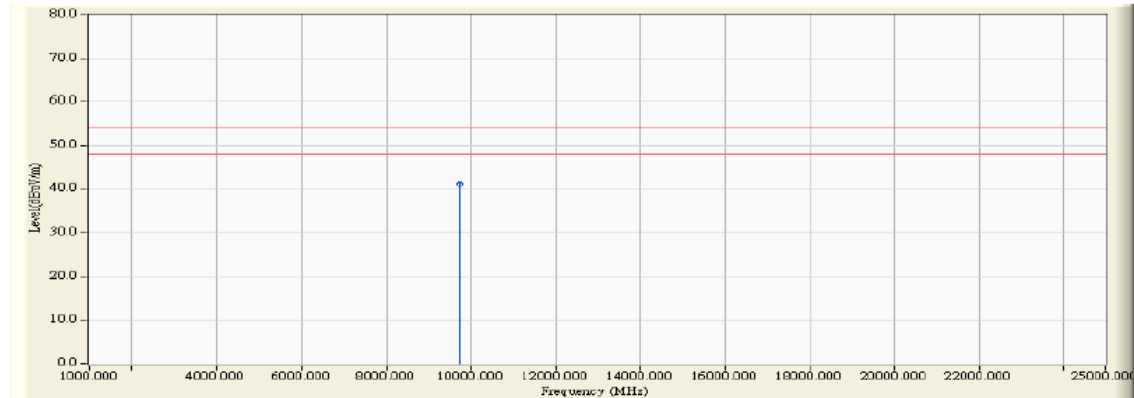


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4874.000	0.531	43.010	43.540	-30.460	74.000	54.000	PEAK
2	7311.000	7.227	39.030	46.257	-27.743	74.000	54.000	PEAK
3	9747.800	11.219	38.850	50.069	-23.931	74.000	54.000	PEAK
4 *	12185.000	15.121	36.770	51.891	-22.109	74.000	54.000	PEAK

**Vertical**



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4874.000	2.577	47.040	49.617	-24.383	74.000	54.000	PEAK
2	7311.000	6.604	41.270	47.874	-26.126	74.000	54.000	PEAK
3 *	9747.800	11.419	47.050	58.469	-15.531	74.000	54.000	PEAK
4	12185.000	14.127	36.900	51.027	-22.973	74.000	54.000	PEAK



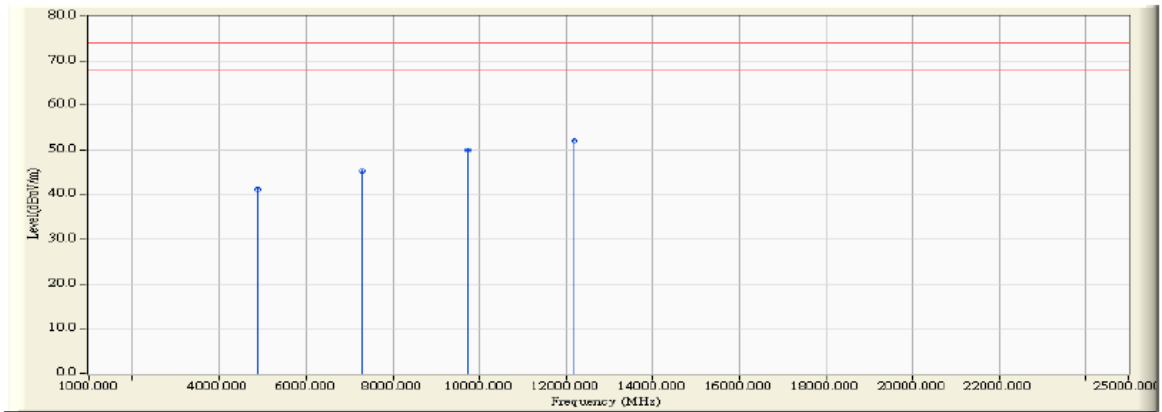
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	* 9749.200	11.426	29.710	41.136	-12.864	74.000	54.000	AVERAGE

**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

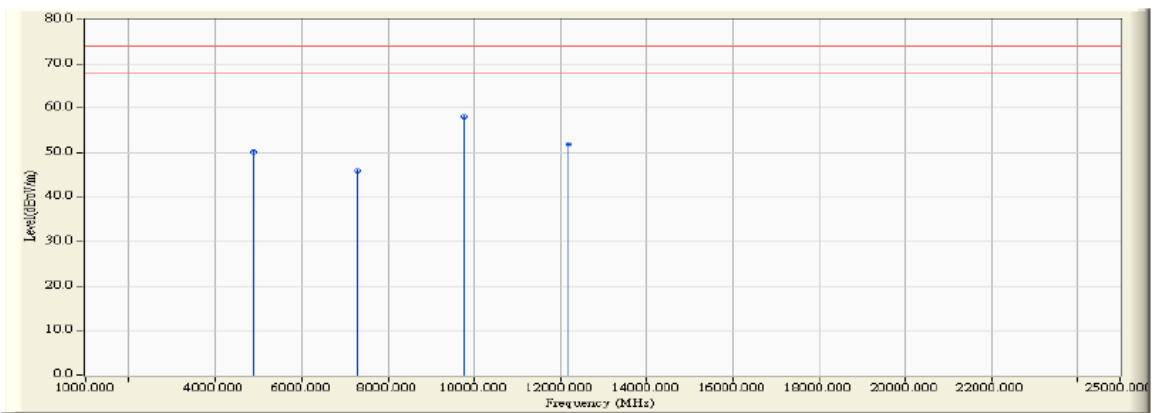
**802.11n(20M) CH6:**

**Horizontal**

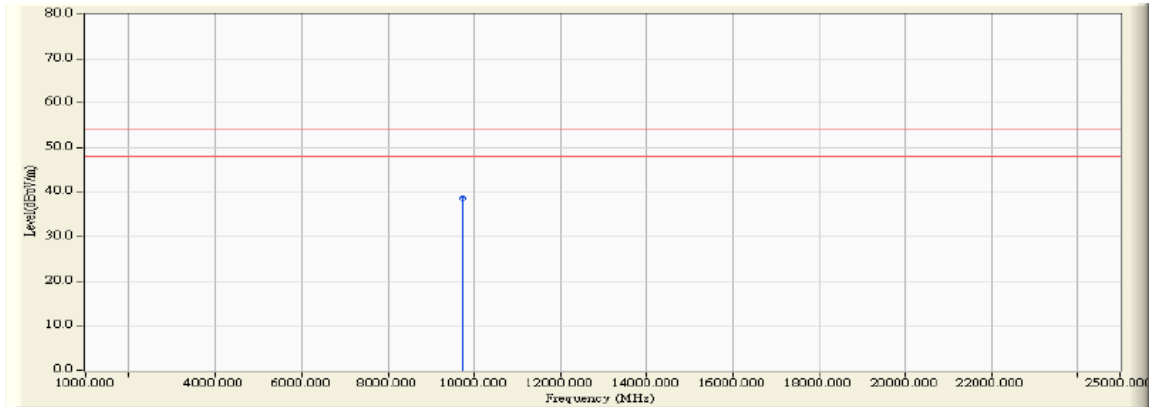


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4874.000	0.531	40.740	41.270	-32.730	74.000	54.000	PEAK
2	7311.000	7.227	38.130	45.357	-28.643	74.000	54.000	PEAK
3	9747.000	11.216	38.750	49.966	-24.034	74.000	54.000	PEAK
4	* 12185.000	15.121	36.910	52.031	-21.969	74.000	54.000	PEAK

**Vertical**



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4874.250	2.577	47.640	50.217	-23.783	74.000	54.000	PEAK
2	7311.000	6.604	39.340	45.944	-28.056	74.000	54.000	PEAK
3	* 9760.000	11.478	46.550	58.028	-15.972	74.000	54.000	PEAK
4	12185.230	14.126	37.670	51.796	-22.204	74.000	54.000	PEAK



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Detector Type	Peak Limit (dBµV/m)
1	* 9751.800	11.438	27.240	38.678	74.000	54.000	AVERAGE	74.000

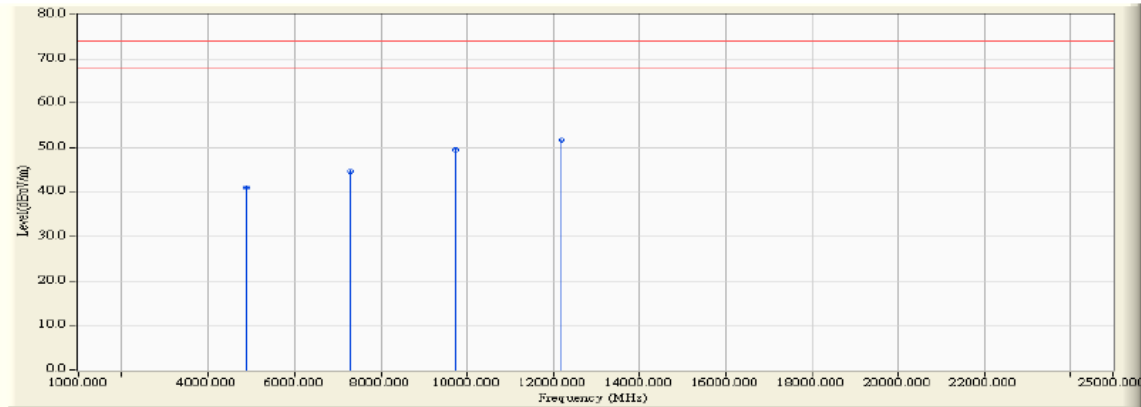
**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.



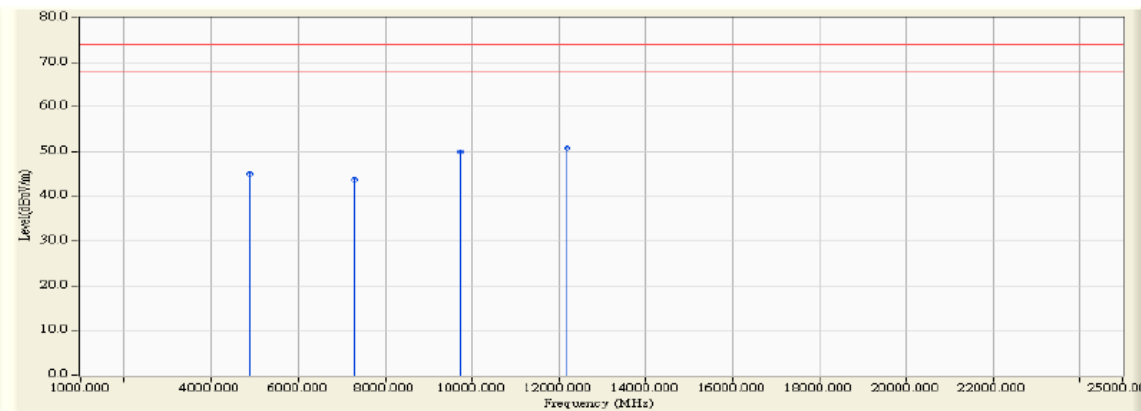
**802.11n(40M) CH6:**

**Horizontal**



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4874.120	0.531	40.460	40.991	-33.009	74.000	54.000	PEAK
2	7311.210	7.228	37.490	44.718	-29.282	74.000	54.000	PEAK
3	9747.800	11.219	38.220	49.439	-24.561	74.000	54.000	PEAK
4	* 12185.020	15.121	36.660	51.781	-22.219	74.000	54.000	PEAK

**Vertical**



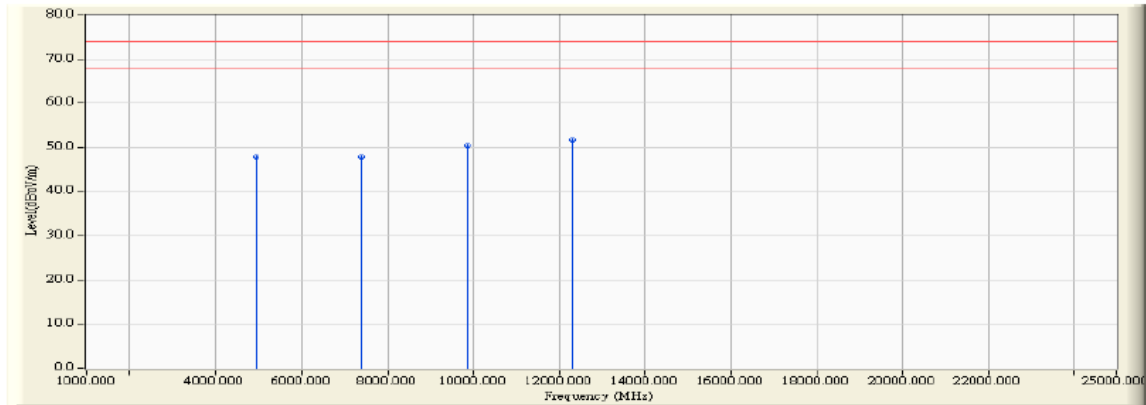
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4874.120	2.577	42.460	45.037	-28.963	74.000	54.000	PEAK
2	7311.000	6.604	37.220	43.824	-30.176	74.000	54.000	PEAK
3	9747.200	11.416	38.600	50.016	-23.984	74.000	54.000	PEAK
4	* 12185.000	14.127	36.670	50.797	-23.203	74.000	54.000	PEAK

**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

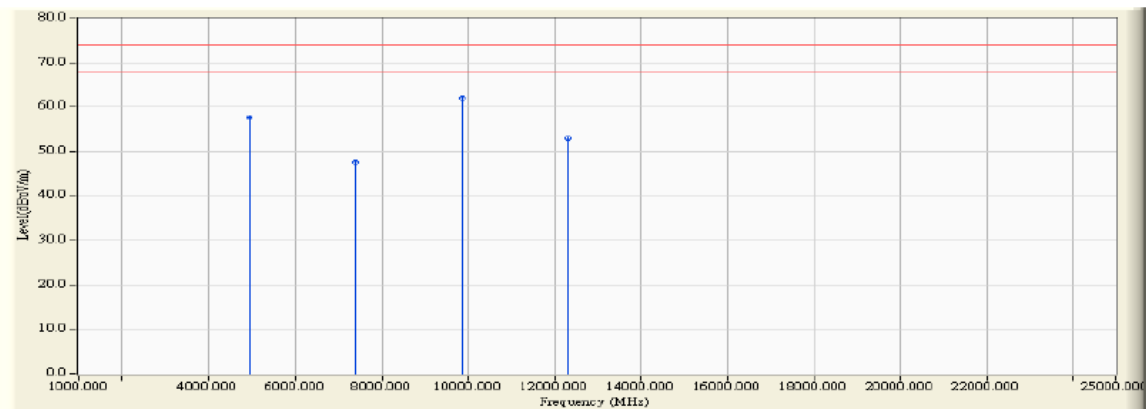
**802.11b CH11:**

**Horizontal**

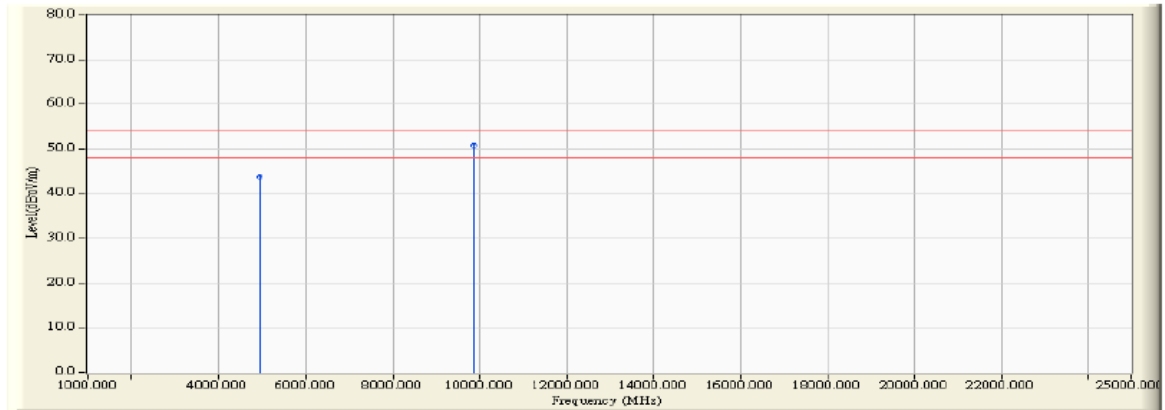


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4923.960	0.667	47.100	47.768	-26.232	74.000	54.000	PEAK
2	7386.000	7.581	40.160	47.741	-26.259	74.000	54.000	PEAK
3	9848.000	11.618	38.820	50.438	-23.562	74.000	54.000	PEAK
4	* 12309.960	14.633	36.990	51.623	-22.377	74.000	54.000	PEAK

**Vertical**



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4924.200	2.605	55.030	57.635	-16.365	74.000	54.000	PEAK
2	7387.000	6.762	40.760	47.522	-26.478	74.000	54.000	PEAK
3	* 9847.880	11.921	50.010	61.931	-12.069	74.000	54.000	PEAK
4	12309.960	13.893	39.020	52.912	-21.088	74.000	54.000	PEAK



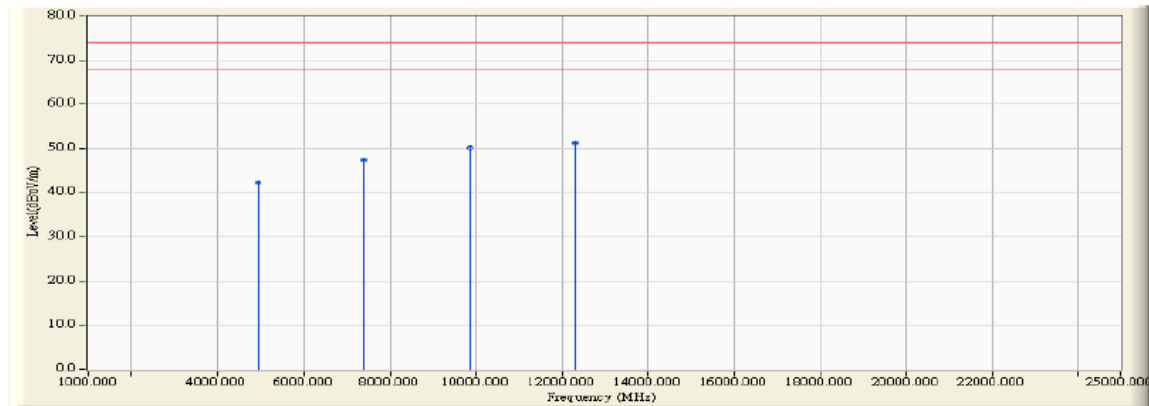
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4925.800	2.606	41.140	43.746	-10.254	74.000	54.000	AVERAGE
2	*	9847.960	11.922	38.960	50.881	-3.119	74.000	54.000	AVERAGE

**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

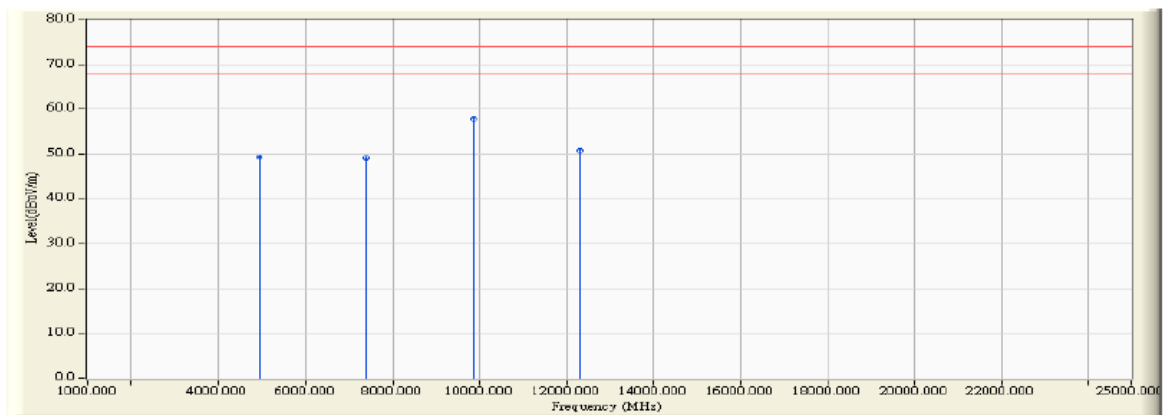
**802.11g CH11:**

**Horizontal**

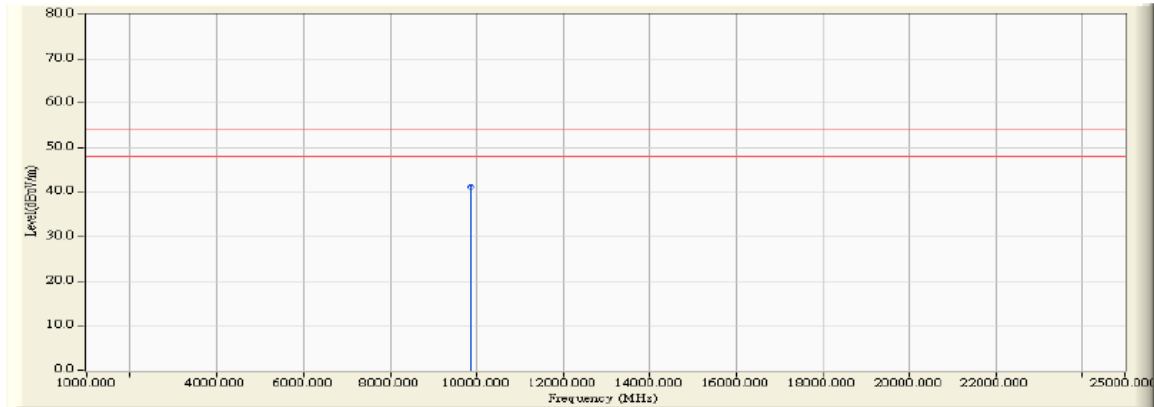


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4923.960	0.667	41.540	42.208	-31.792	74.000	54.000	PEAK
2	7386.000	7.581	39.720	47.301	-26.699	74.000	54.000	PEAK
3	9848.000	11.618	38.670	50.288	-23.712	74.000	54.000	PEAK
4	* 12309.960	14.633	36.720	51.353	-22.647	74.000	54.000	PEAK

**Vertical**



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4923.960	2.604	46.680	49.284	-24.716	74.000	54.000	PEAK
2	7386.000	6.760	42.390	49.150	-24.850	74.000	54.000	PEAK
3	* 9848.000	11.922	45.960	57.881	-16.119	74.000	54.000	PEAK
4	12309.960	13.893	37.040	50.932	-23.068	74.000	54.000	PEAK



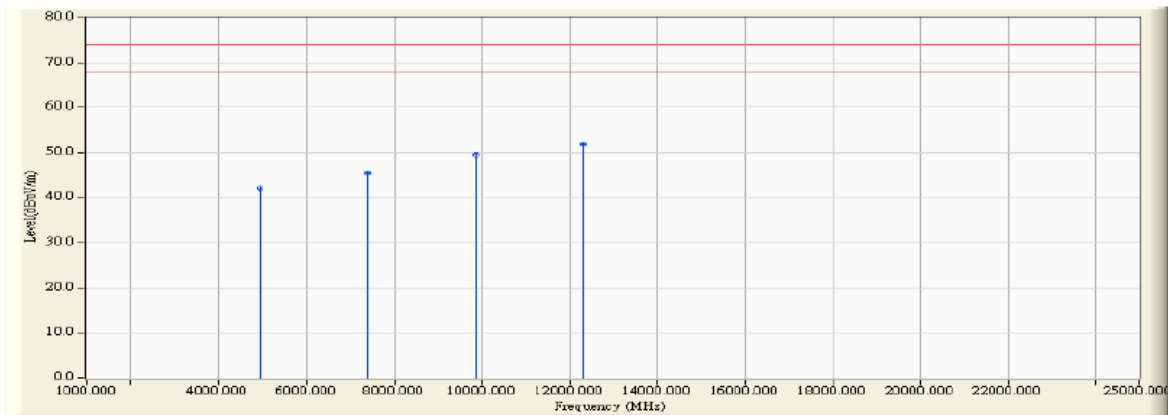
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	9849.400	11.929	29.170	41.098	-12.902	74.000	54.000	AVERAGE

**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

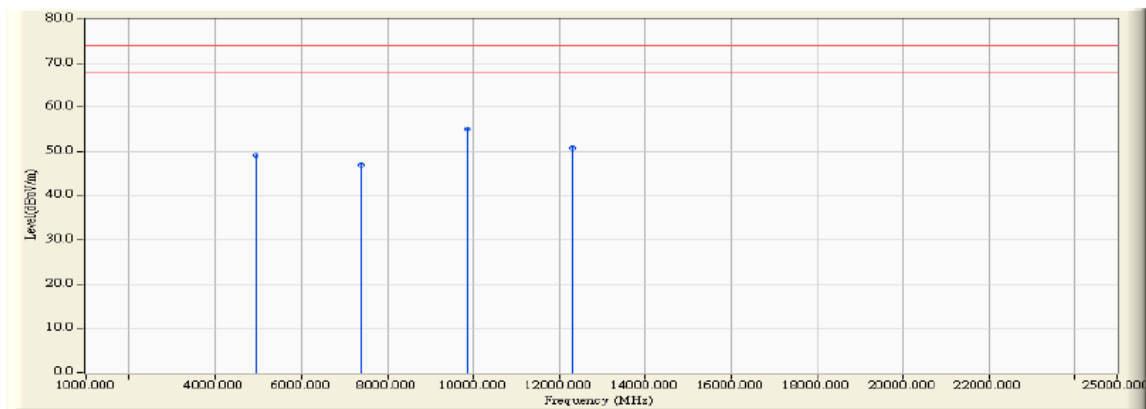
**802.11n(20M) CH11:**

**Horizontal**

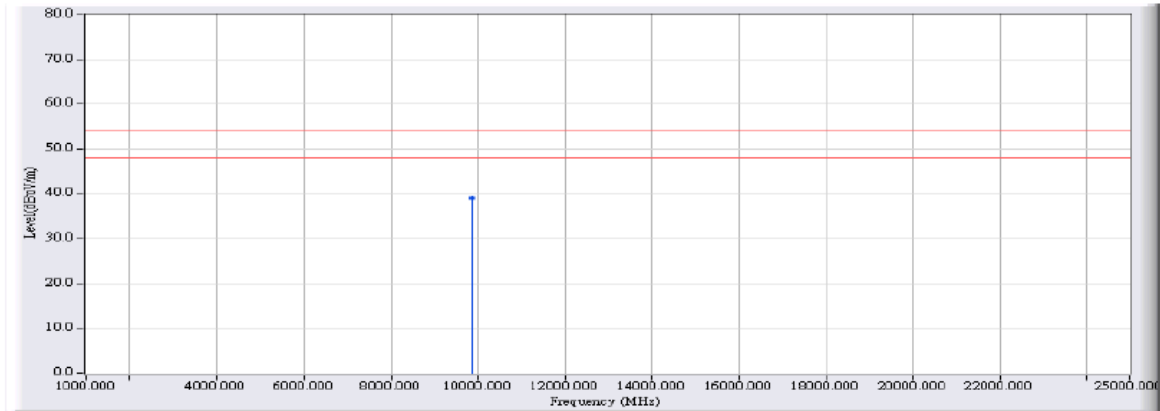


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4936.000	0.702	41.300	42.002	-31.998	74.000	54.000	PEAK
2	7386.000	7.581	37.970	45.551	-28.449	74.000	54.000	PEAK
3	9848.000	11.618	38.000	49.618	-24.382	74.000	54.000	PEAK
4	* 12309.960	14.633	37.190	51.823	-22.177	74.000	54.000	PEAK

**Vertical**



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4923.870	2.604	46.580	49.184	-24.816	74.000	54.000	PEAK
2	7386.000	6.760	40.220	46.980	-27.020	74.000	54.000	PEAK
3	* 9848.230	11.923	43.100	55.023	-18.977	74.000	54.000	PEAK
4	12309.960	13.893	36.850	50.742	-23.258	74.000	54.000	PEAK



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	9848.250	11.923	27.140	39.063	-14.937	74.000	54.000	AVERAGE

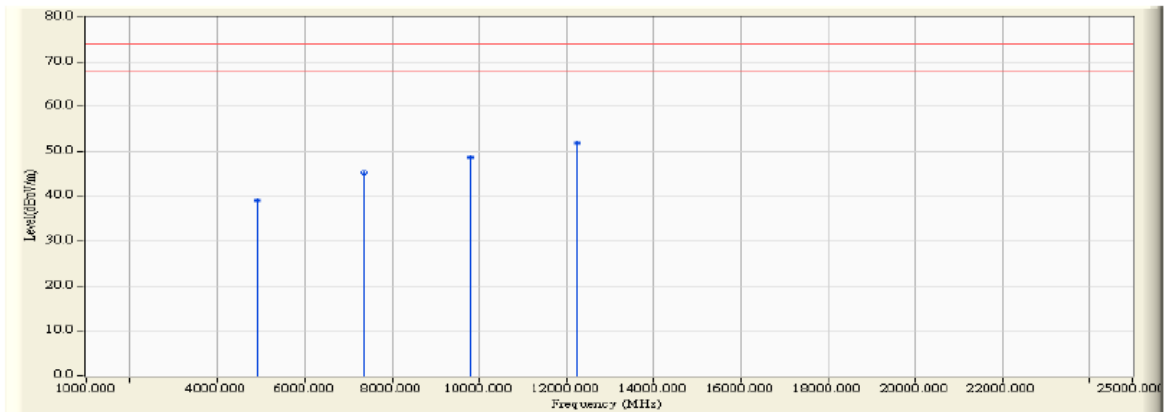
**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.



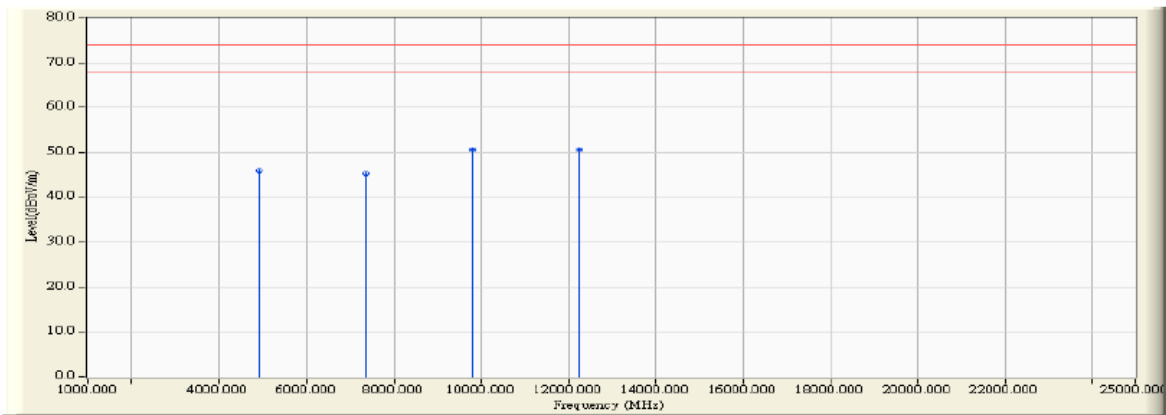
**802.11n(40M) CH9:**

**Horizontal**



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4904.250	0.618	38.460	39.078	-34.922	74.000	54.000	PEAK
2	7356.120	7.444	37.850	45.294	-28.706	74.000	54.000	PEAK
3	9808.140	11.461	37.250	48.711	-25.289	74.000	54.000	PEAK
4	* 12260.140	14.827	36.980	51.807	-22.193	74.000	54.000	PEAK

**Vertical**



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4904.250	2.589	43.390	45.979	-28.021	74.000	54.000	PEAK
2	7356.250	6.692	38.510	45.202	-28.798	74.000	54.000	PEAK
3	9808.140	11.720	38.790	50.510	-23.490	74.000	54.000	PEAK
4	* 12260.120	13.984	36.550	50.534	-23.466	74.000	54.000	PEAK

**Note:**

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.