FCC TEST REPORT

According to

FCC CFR Title 47 Part 15 Subpart C

Applicant	:	Suzhou Shuanglin Plastics&Rubber Electronics Co.,Ltd.
Address	:	No.166-168,WestShiHuRoad,WuzhongDistrict,Suzhou,Jiangsu,China
Manufacturer	:	Suzhou Shuanglin Plastics&Rubber Electronics Co.,Ltd.
Address	:	No.166-168,WestShiHuRoad,WuzhongDistrict,Suzhou,Jiangsu,China
Equipment	:	Mobile Internet Devices
Model No.	:	SL08DW01 / GT800 / GT810
FCC ID	:	YZF-A101202

Table of Contents

Document history

Attachment No.	Date	Description
SEFI1009109	December 15, 2010	First issue

FCC TEST REPORT

according to

FCC CFR Title 47 Part 15 Subpart C

Applicant	:	Suzhou Shuanglin Plastics&Rubber Electronics Co.,Ltd.
Address	:	No.166-168,WestShiHuRoad,WuzhongDistrict,Suzhou,Jiangsu,China
Manufacturer	:	Suzhou Shuanglin Plastics&Rubber Electronics Co.,Ltd.
Address	:	No.166-168,WestShiHuRoad,WuzhongDistrict,Suzhou,Jiangsu,China
Equipment	:	Mobile Internet Devices
Model No.	:	SL08DW01 / GT800 / GT810
FCC ID	:	YZF-A101202

I HEREBY CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 – 2003** and the energy emitted by this equipment was ***passed***
CISPR PUB. 22 and FCC Part 15 in both radiated and conducted emission class B limits.
Testing was carried out Nov 25, 2010 at ***Cerpass Technology Corp.***

Documented By:

Jeson Wang/ Administration

Approved By:

Clinton Kao/ Technical director

1. Report of Measurements and Examinations

FCC CFR Title 47 Part 15 Subpart C: 2007 ANSI C63.4: 2003			
Clause	Test Parameter	Test Performed	Remark
15.207	Conducted Emission	YES	PASS
15.209	Radiated Emission	YES	PASS
15.247(a) 15.215(c)	Occupied Bandwidth	YES	PASS
15.247(b)	Maximum Peak Output Power	YES	PASS
15.247(c)	Band Edges	YES	PASS
15.247(c)	RF antenna conducted	YES	PASS
15.247(d)	Power Spectral Density	YES	PASS

2. Test Configuration of Equipment under Test

2.1. Feature of Equipment under Test

Mobile Internet Devices	Model No：	SL08DW01 / GT800 / GT810
Adapter	Model No.:	HKA01805020-2A
	Input:	100-240V 50/60Hz 0.5A
	Output:	5.0V⎓2.0A
Power Supply Cable	Non-Shielded, 1.5m, with one ferrite core bonded	
Additional Power Option	Battery: 3.7Vdc, 3050mAh	
USB Cable	Non-shielding, 0.5m	
Remark	They are identical except the model name. This is only to satisfy the different requirements of the client. **SL08DW01**was selected as the test model and its data have been recorded in this report.	

WLAN	Atheros/ar6102
Spreading	802.11b: DSSS 802.11g: OFDM
Frequency Range	802.11b/g: 2412-2462MHz
Number of Channels	802.11b/g:11
Data Rate	802.11b: 11, 5.5, 2, 1 Mbps 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps
Max. output power	802.11b:12.65dBm 802.11g:11.83dBm
Antenna Type	Dipole antenna
Antenna Gain	1.0 dBi

2.2. Carrier Frequency of Channels

802.11b, 802.11g

Channel	Frequency(MHz)	Channel	Frequency(MHz)
01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	11	2462
06	2437	---	---

2.3. Test Manner

Test Manner	
a	During testing, the interface cables and equipment positions were varied according to 47 CFR, Part 2, Part 15
b	Adjust the EUT at the test mode and the test channel. Then test.
The test modes:	
	Normal Link
	Transmit by 802.11b
	Transmit by 802.11g

2.4. Description of Test System

No	Device	Manufacturer	Model No.	Description
1	Notebook	ASUS	W6A	Power by adaptor

2.5. General Information of Test

Test Site:	Cerpass Technology Corp.
Performand Location :	No.66,Tangzhuang Road, Suzhou Industrial Park, Jiangsu 215006, China
NVLAP LAB Code :	200814-0
FCC Registration Number :	916572, 331395
IC Registration Number :	7290A-1, 7290A-2
VCCI Registration Number :	T-343 for Telecommunication Test C-2919 for Conducted emission test R-2670 for Radiated emission test below 1GHz G-227 for Radiated emission test above 1GHz

Laboratory accreditation

2.6. Measurement Uncertainty

Measurement Item	Measurement Frequency	Polarization	Uncertainty
Conducted Emission	9 kHz ~ 30 MHz	LINE/NEUTRAL	±2.71 dB
Radiated Emission	30 MHz ~ 25GHz	Vertical	±4.11 dB
		Horizontal	±4.10 dB
Occupied Bandwidth	---	---	±7500 Hz
Maximum Peak Output Power	---	---	±1.4 dB
Band Edges	---	---	±2.2 dB
Power Spectral Density	---	---	±2.2 dB

3. Test of Conducted Emission

3.1. Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

*Decreases with the logarithm of the frequency.

3.2. Test Procedures

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

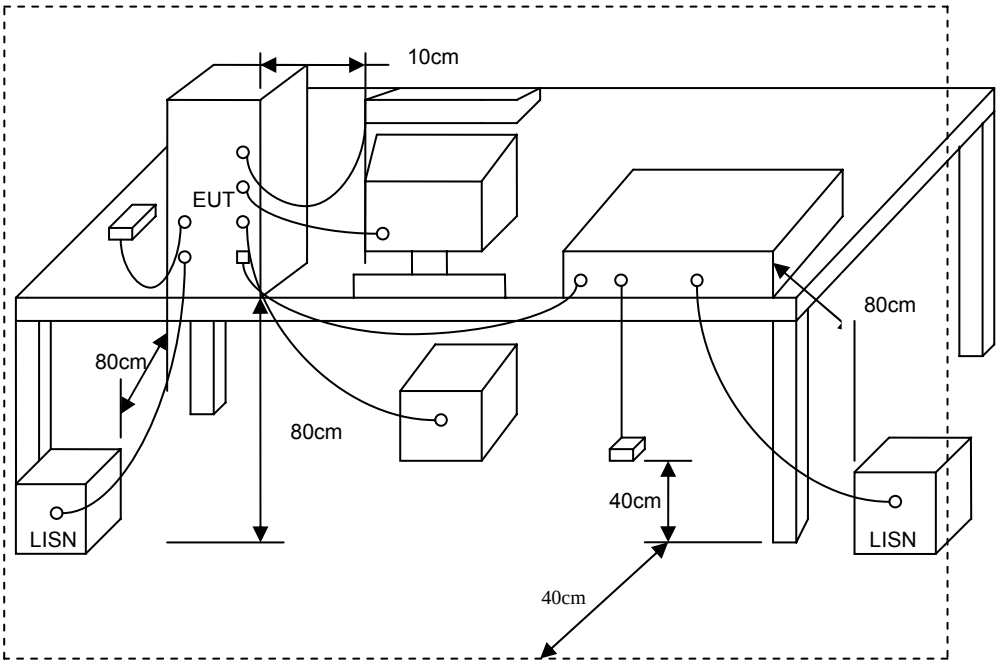
The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

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

3.3. Typical Test Setup

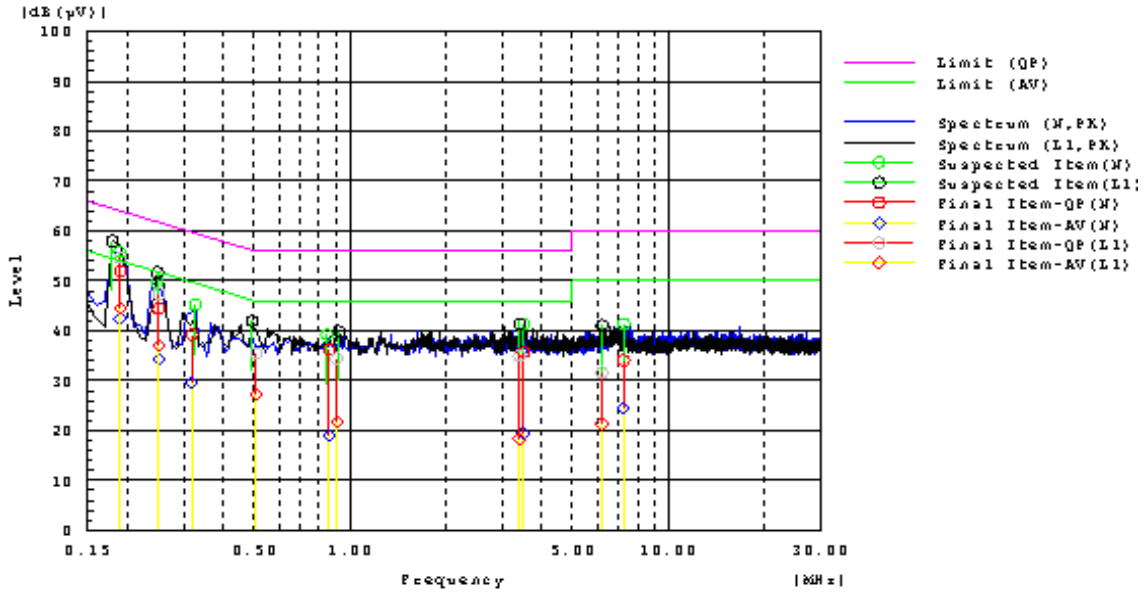


3.4. Measurement Equipment

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date
Test Receiver	R&S	ESCI	100565	2010.01.15
AMN	R&S	ESH2-Z5	100182	2010.06.23
Two-Line V-Network	R&S	ENV216	100325	2010.04.18
ISN	FCC	FCC-TLISN-T2-02	20379	2010.06.23
ISN	FCC	FCC-TLISN-T4-02	20380	2010.06.23
ISN	FCC	FCC-TLISN-T8-02	20381	2010.06.23
Attenuator	R&S	ESH3-Z2	100529	2010.01.11
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-004	2010.08.14

3.5. Test Result and Data

Test Mode :	Normal Link		
AC Power :	AC 120V/60Hz	Phase :	L&N
Temperature :	22°C	Humidity:	50%
Pressur(mbar) :	1002	Date:	2010-11-08



Frequency MHz	Line Phase	Reading dB(uV) QP	Reading dB(uV) AV	Factor dB	Level dB(uV) QP	Level dB(uV) AV	Limit dB(uV) QP	Limit dB(uV) AV	Margin dB QP	Margin dB AV	Pass/Fail
0.18977	L1	34.8	24.6	19.9	54.7	44.5	64.0	54.0	9.3	9.5	Pass
0.25146	L1	27.5	17.2	19.9	47.4	37.1	61.7	51.7	14.3	14.6	Pass
0.50696	L1	15.6	7.4	19.8	35.4	27.2	56.0	46.0	20.6	18.8	Pass
0.90757	L1	14.7	1.9	19.8	34.5	21.7	56.0	46.0	21.5	24.3	Pass
3.40513	L1	15.3	-1.4	19.7	35.0	18.3	56.0	46.0	21.0	27.7	Pass
6.1819	L1	11.9	1.6	19.7	31.6	21.3	60.0	50.0	28.4	28.7	Pass
0.19006	N	32.5	22.9	19.5	52.0	42.4	64.0	54.0	12.0	11.6	Pass
0.25069	N	25.0	14.8	19.5	44.5	34.3	61.7	51.7	17.2	17.4	Pass
0.31859	N	19.8	10.1	19.5	39.3	29.6	59.7	49.7	20.4	20.1	Pass
0.85907	N	16.8	-0.4	19.5	36.3	19.1	56.0	46.0	19.7	26.9	Pass
3.50746	N	16.1	-0.1	19.6	35.7	19.5	56.0	46.0	20.3	26.5	Pass
7.2227	N	14.4	4.8	19.7	34.1	24.5	60.0	50.0	25.9	25.5	Pass

Note: Measurement Level = Reading Level + Correct Factor

4. Test of Radiated Emission

4.1. Test Limit

Radiated emissions from 30 MHz to 25 GHz were measured according to the methods defines in ANSI C63.4-2003. The EUT was placed, 0.8 meter above the ground plane, as shown in section 5.6.3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions 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:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
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

Remark: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

4.2. Test Procedures

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

procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set

to transmit in a continuous mode.

For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless

otherwise noted as quasi-peak.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, then the video bandwidth is set to 1MHz for peak measurements and 10Hz for average measurements.

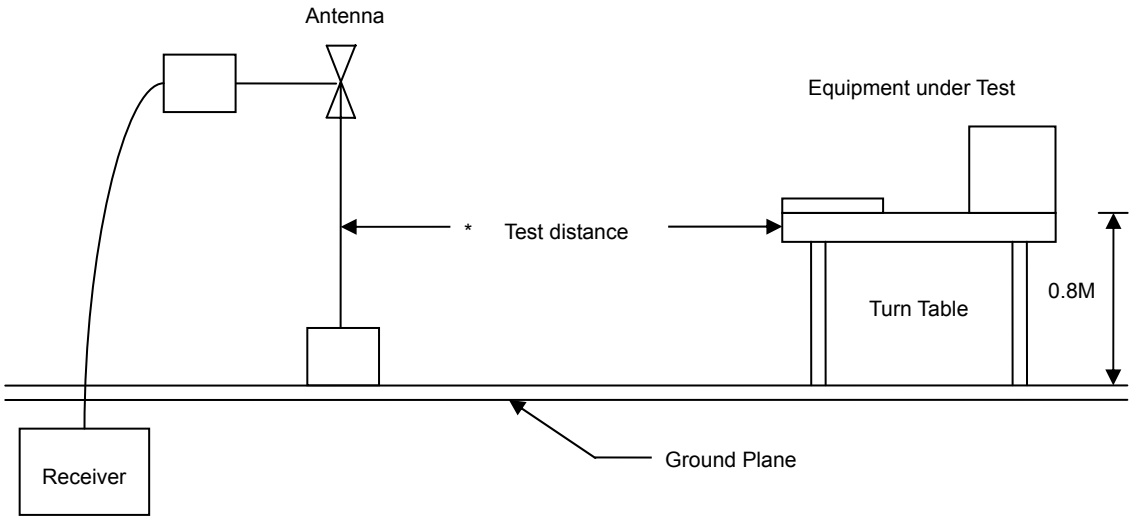
The spectrum from 30MHz to 26GHz is investigated with the transmitter set to the lowest, middle and highest channels in the 2.4GHz band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are

Made with the antenna polarized in both the vertical and the horizontal positions.

When performing radiated measurements >1 GHz, the EUT always remains within the 3dB beam-width of the measuring antenna.

4.3. Typical Test Setup



4.4. Measurement Equipment

Instrument	Model No.	Manufacturer	Serial No.	Calibration Date
EMI Test Receiver	R&S	ESCI	100563	2010.06.23
H64 Amplifier	HP	8447F	3113A05582	2010.08.14
Preamplifier	Agilent	8449B	ED-HE-EMI-077	2010.02.10
Preamplifier	Agilent	8449B	3008A02342	2010.02.10
Ultra Broadband Antenna	R&S	HL562	100362	2010.11.25
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-619	2010.11.10
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	9170-347	2010.10.15
Spectrum Analyzer	R&S	FSP40	100324	2010.08.14
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2010.08.17

4.5. Test Result and Data

Under 1G:

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2010-12-09**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode : Normal Link**

Freq. (MHz)	Ant.Pol. H/V	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit 3m (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
92.65	V	48.32	-17.49	30.84	43.5	-12.67	Peak
131.26	V	52.77	-16.98	35.79	43.5	-7.71	Peak
170.36	V	50.84	-17.42	33.42	43.5	-10.08	Peak
232.63	V	44.25	-15.95	28.31	46	-17.70	Peak
323.63	V	42.58	-12.16	30.43	46	-15.58	Peak
365.02	V	39.58	-11.42	28.16	46	-17.84	Peak
77.35	H	50.98	-18.43	32.55	40	-7.45	Peak
129.63	H	52.11	-16.85	35.26	43.5	-8.24	Peak
201.35	H	47.34	-17.65	29.69	43.5	-13.81	Peak
232.65	H	49.57	-15.94	33.63	46	-12.37	Peak
323.65	H	45.21	-12.16	33.06	46	-12.95	Peak
414.63	H	35.68	-10.36	25.33	46	-20.68	Peak

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Above 1G:

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2010-12-09**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode : Transmit by 802.11b (2412MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
1213.26	V	59.26	48.56	-5.82	53.44	42.74	74	54	-11.26	average
4825.32	V	48.56	40.26	7.39	55.95	47.65	74	54	-6.35	average
7236.33	V	42.15	33.08	15.47	57.62	48.55	74	54	-5.45	average
1213.21	H	57.32	47.24	-5.83	51.49	41.41	74	54	-12.59	average
4825.36	H	46.23	39.65	7.41	53.64	47.06	74	54	-6.94	average
7233.36	H	40.55	31.24	15.47	56.02	46.71	74	54	-7.29	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2010-12-09**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2437MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
1213.56	V	55.29	47.99	-5.85	49.44	42.14	74.00	54.00	-11.86	average
4874.33	V	47.14	38.24	7.46	54.60	45.70	74.00	54.00	-8.30	average
7310.21	V	42.16	31.06	15.52	57.68	46.58	74.00	54.00	-7.42	average
1213.56	H	56.32	47.85	-5.85	50.47	42.00	74.00	54.00	-12.00	average
4875.22	H	45.74	35.26	7.48	53.22	42.74	74.00	54.00	-11.26	average
7313.23	H	41.58	32.05	15.52	57.10	47.57	74.00	54.00	-6.43	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2010-12-09**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2462MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
1213.61	V	54.74	46.25	-5.86	48.88	40.39	74.00	54.00	-13.61	average
4925.33	V	46.27	37.21	7.55	53.82	44.76	74.00	54.00	-9.24	average
7385.56	V	43.05	31.05	15.61	58.66	46.66	74.00	54.00	-7.34	average
1213.60	H	55.47	46.22	-5.86	49.61	40.36	74.00	54.00	-13.64	average
4925.35	H	45.24	36.49	7.55	52.79	44.04	74.00	54.00	-9.96	average
7385.24	H	41.11	30.85	15.61	56.72	46.46	74.00	54.00	-7.54	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2010-12-09**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2412MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
1213.41	V	56.31	45.26	-5.87	50.44	39.39	74.00	54.00	-14.61	average
4825.36	V	46.25	36.51	7.56	53.81	44.07	74.00	54.00	-9.93	average
7233.36	V	40.58	31.25	15.47	56.05	46.72	74.00	54.00	-7.28	average
1213.45	H	55.47	46.27	-5.88	49.59	40.39	74.00	54.00	-13.61	average
4825.38	H	44.15	35.20	7.56	51.71	42.76	74.00	54.00	-11.24	average
7231.57	H	39.86	30.04	15.47	55.33	45.51	74.00	54.00	-8.49	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2010-12-09**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2437MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
1213.62	V	55.29	46.22	-5.86	49.43	40.36	74.00	54.00	-13.64	average
4875.26	V	47.24	36.47	7.46	54.70	43.93	74.00	54.00	-10.07	average
7310.24	V	39.68	28.77	15.52	55.20	44.29	74.00	54.00	-9.71	average
1213.62	H	57.11	37.55	5.86	62.97	43.41	74.00	54.00	-10.59	average
4875.31	H	47.25	36.21	7.46	54.71	43.67	74.00	54.00	-10.33	average
7311.34	H	39.06	28.50	15.52	54.58	44.02	74.00	54.00	-9.98	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2010-12-09**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2462MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
1213.25	V	56.21	47.24	-5.83	50.38	41.41	74.00	54.00	-12.59	average
4926.33	V	48.18	38.47	7.57	55.75	46.04	74.00	54.00	-7.96	average
7385.56	V	38.98	28.15	15.61	54.59	43.76	74.00	54.00	-10.24	average
1213.26	H	56.22	45.21	-5.83	50.39	39.38	74.00	54.00	-14.62	average
4926.34	H	47.13	37.32	7.57	54.70	44.89	74.00	54.00	-9.11	average
7384.54	H	37.48	27.69	15.61	53.09	43.30	74.00	54.00	-10.70	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

5. Occupied Bandwidth

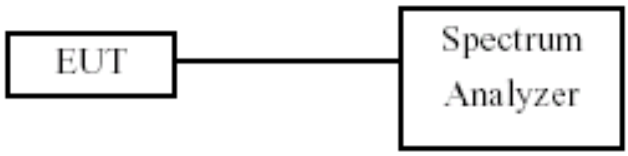
5.1. Test Limit

Systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725- 5850 MHz band. The minimum 6 dB bandwidth shall be at least 500 kHz.

5.2. Test Procedures

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Span greater than RBW.

5.3. Test Setup Layout



5.4. Measurement Equipment

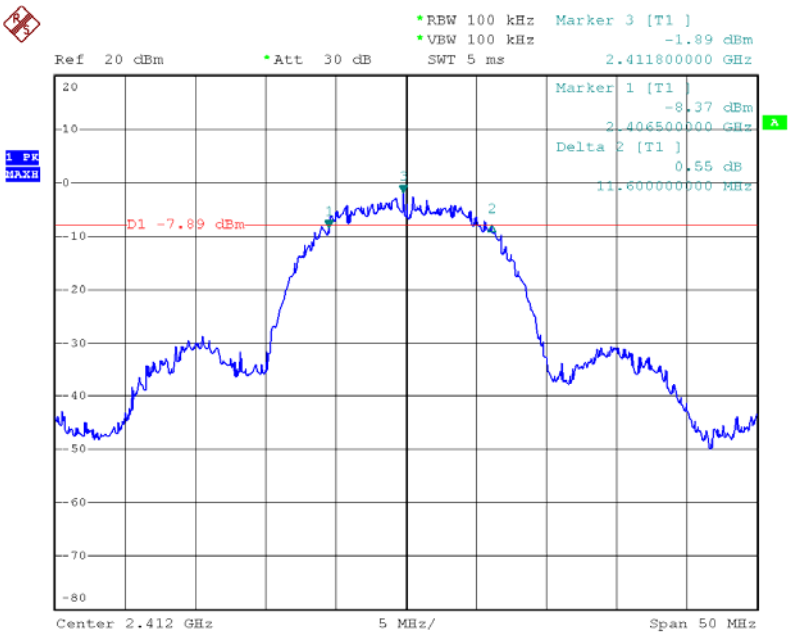
Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date
Spectrum Analyzer	R&S	FSP40	100324	2010.08.14
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2010.08.17

5.5. Test Result and Data

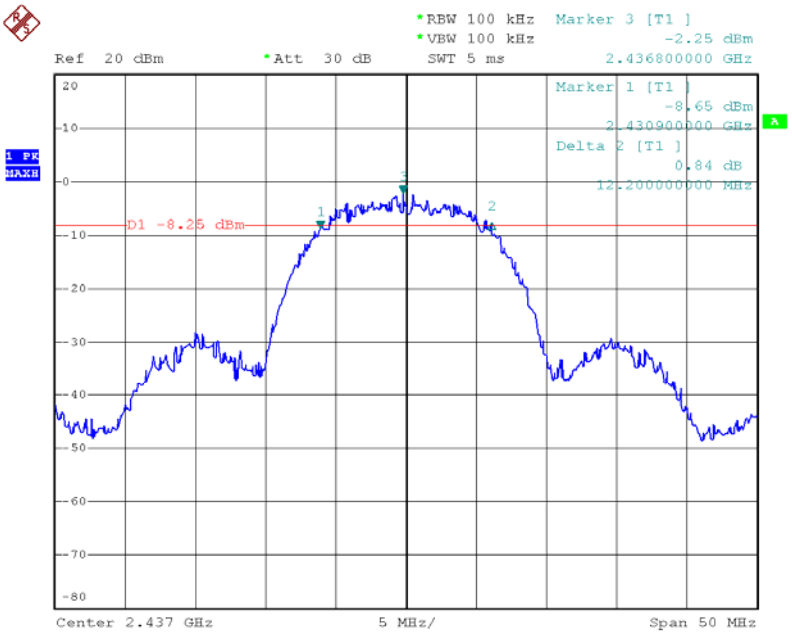
Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11b
Test Date	2010-12-10

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	11600	500	Pass
06	2437	12200	500	Pass
11	2462	11600	500	Pass

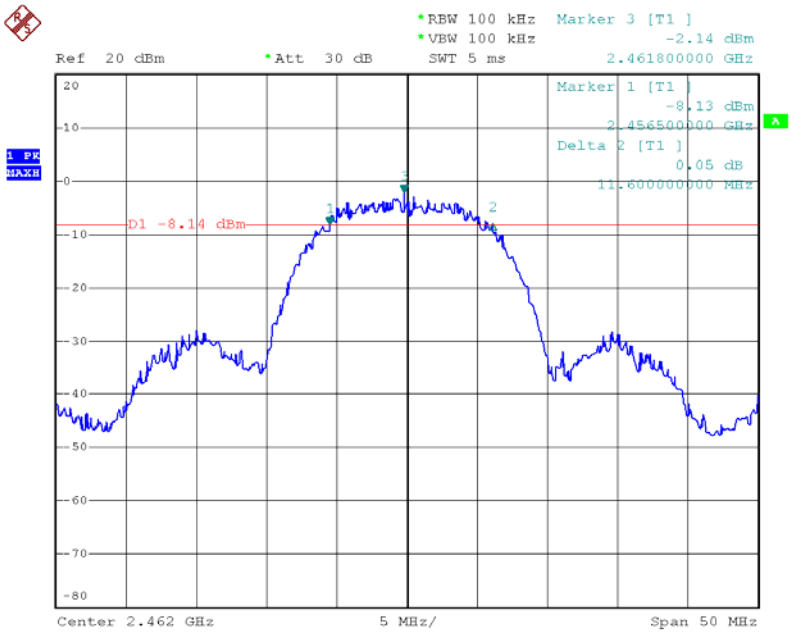
Channel 01 (2412MHz)



Channel 06 (2437MHz)



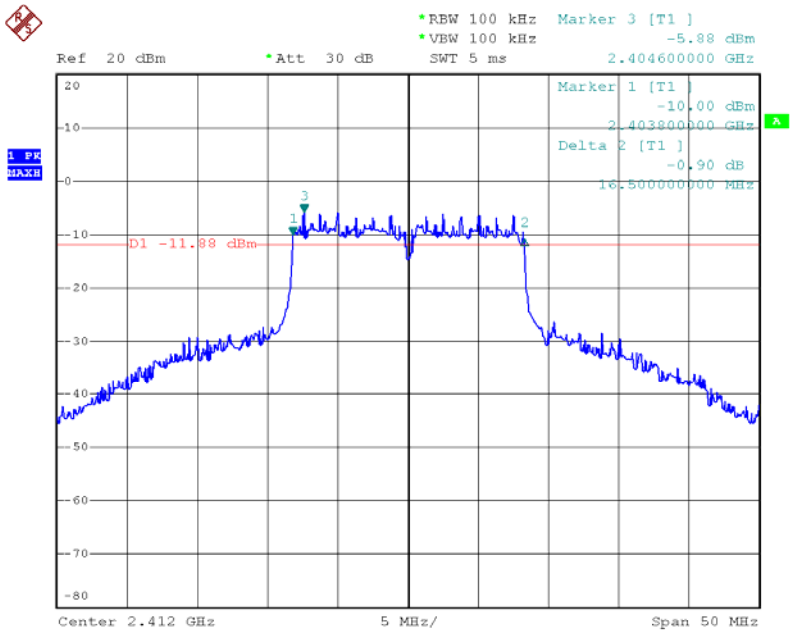
Channel 11 (2462MHz)



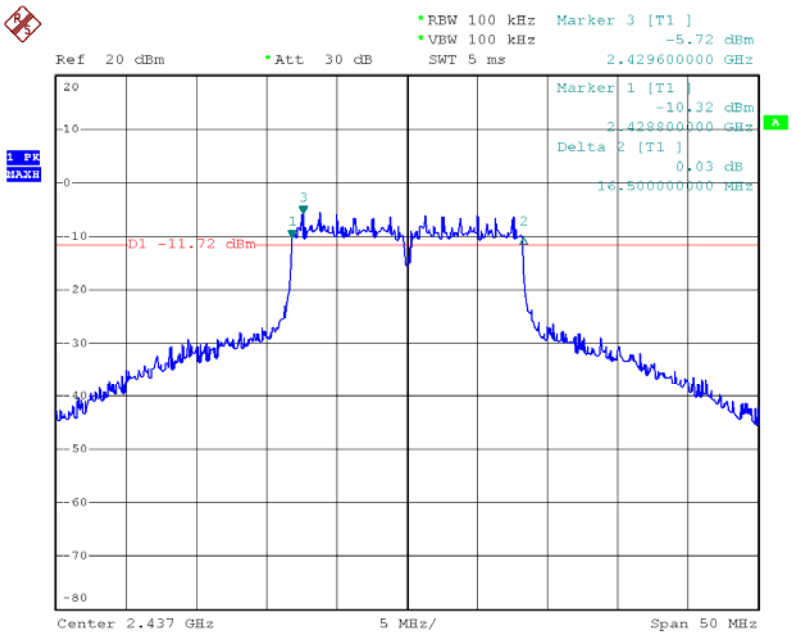
Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11g
Test Date	2010-12-10

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	16500	500	Pass
06	2437	16500	500	Pass
11	2462	16500	500	Pass

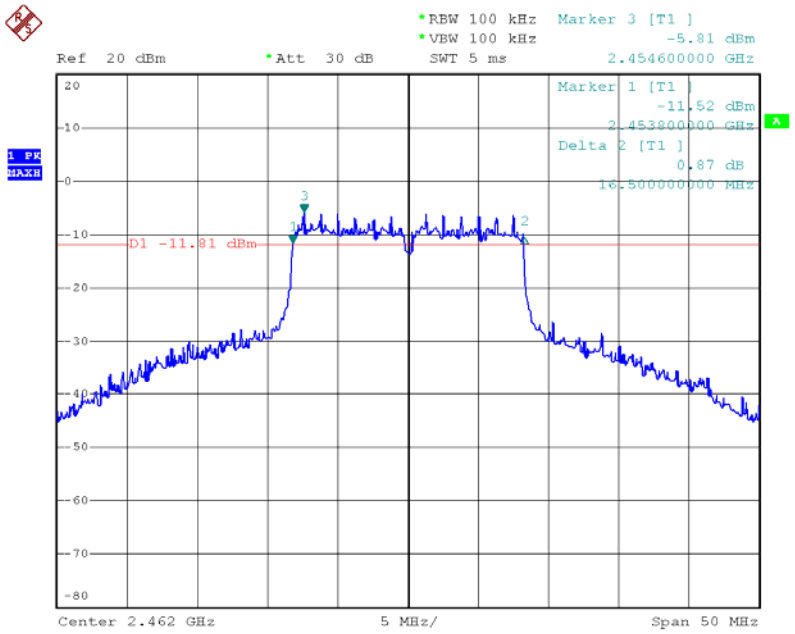
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



6. Maximum Peak Output Power

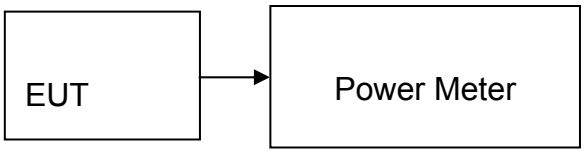
6.1. Test Limit

The maximum peak power shall be less 1Watt (30dBm).
The conducted output power limit is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of standard FCC part 15.247, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power of the intentional radiator is reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6 dBi.

6.2. Test Procedure

The transmitter output is connected to the Power Meter.

6.3. Test Setup Layout



6.4. Measurement Equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date
Power Meter	NRP	R&S	CCE013	2010.01.15
Power Sensor	NRP-Z91	R&S	100385	2010.01.15
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2010.08.17

6.5. Test Result and Data

Test Item	Maximum Peak Output Power
Test Mode	Transmit by 802.11b
Test Date	2010-12-10

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit (dBm)	Result
01	2412	11.53	30	Pass
06	2437	12.13	30	Pass
11	2462	12.65	30	Pass

Test Item	Maximum Peak Output Power
Test Mode	Transmit by 802.11g
Test Date	2010-12-10

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit (dBm)	Result
01	2412	10.98	30	Pass
06	2437	11.61	30	Pass
11	2462	11.83	30	Pass

7. Band Edges

7.1. Test Limit

For RF Conducted requirement:

20 dB bandwidth of the emission is contained within the operation frequency band.

For RF Radiated requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

7.2. Test Procedure

For RF Conducted Measurement:

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Span greater than RBW.

For RF Radiated Measurement:

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

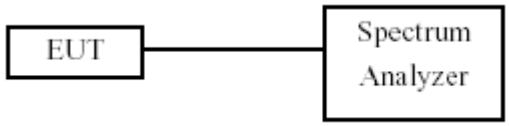
For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

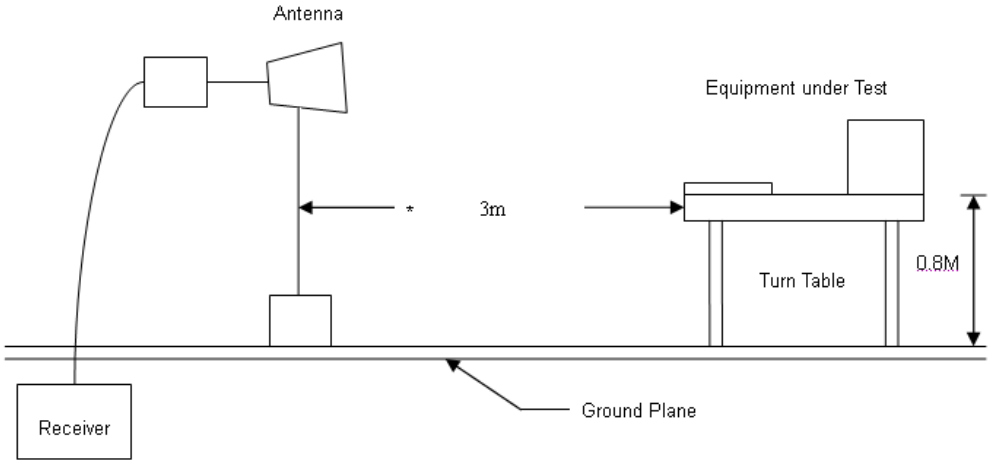
For measurements above 1GHz the resolution bandwidth is set to 1MHz, then the video bandwidth is set to 1MHz for peak measurements and 10Hz for average measurements.

The spectrum from 30MHz to 26GHz is investigated with the transmitter set to the lowest, middle and highest channels in the 2.4GHz band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are Made with the antenna polarized in both the vertical and the horizontal positions.

7.3. Test Setup Layout



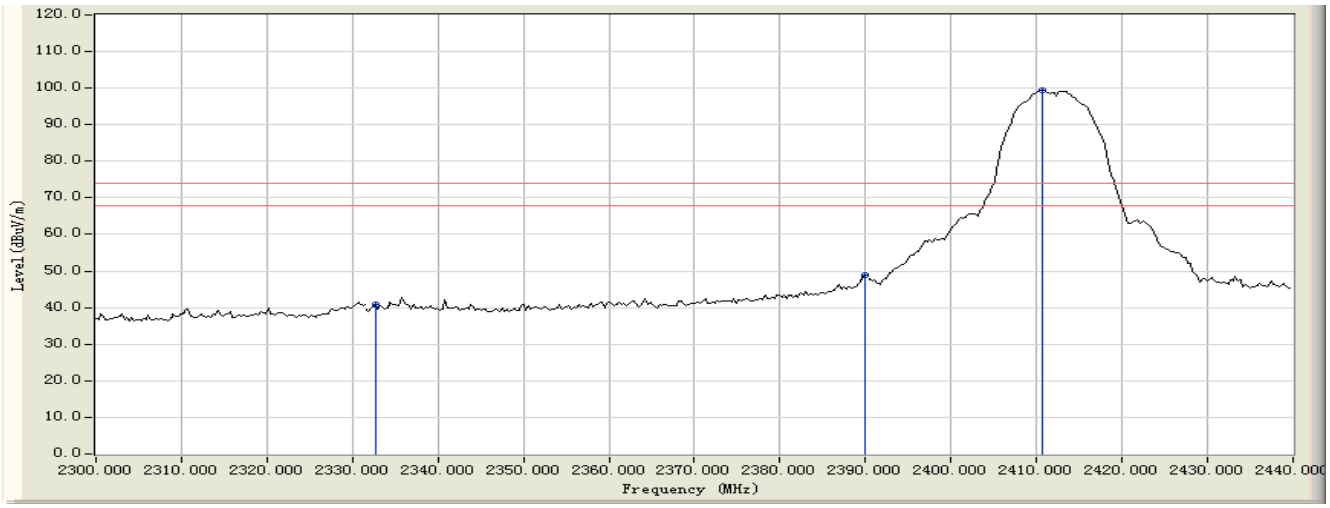


7.4. Measurement Equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date
Spectrum Analyzer	R&S	FSP40	100324	2010.08.14
H64 Amplifier	HP	8447F	3113A05582	2010.08.14
Preamplifier	Agilent	8449B	ED-HE-EMI-077	2010.02.10
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-619	2010.11.10
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2010.08.17

7.5. Test Result and Data

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2010-12-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : (1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2412MHz)**

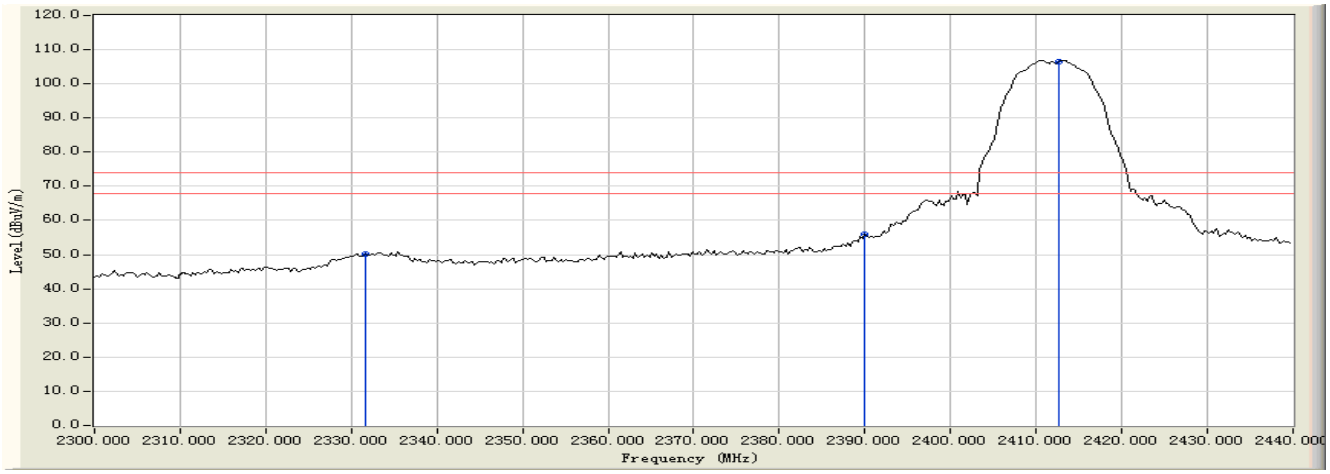


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2332.583	0.239	42.226	42.465	-31.535	74.000	PEAK
2		2390.000	0.358	46.663	47.021	-26.979	74.000	PEAK
3	*	2410.662	0.424	99.001	99.425	N/A	N/A	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : Time : 2010-12-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : (1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2412MHz)**

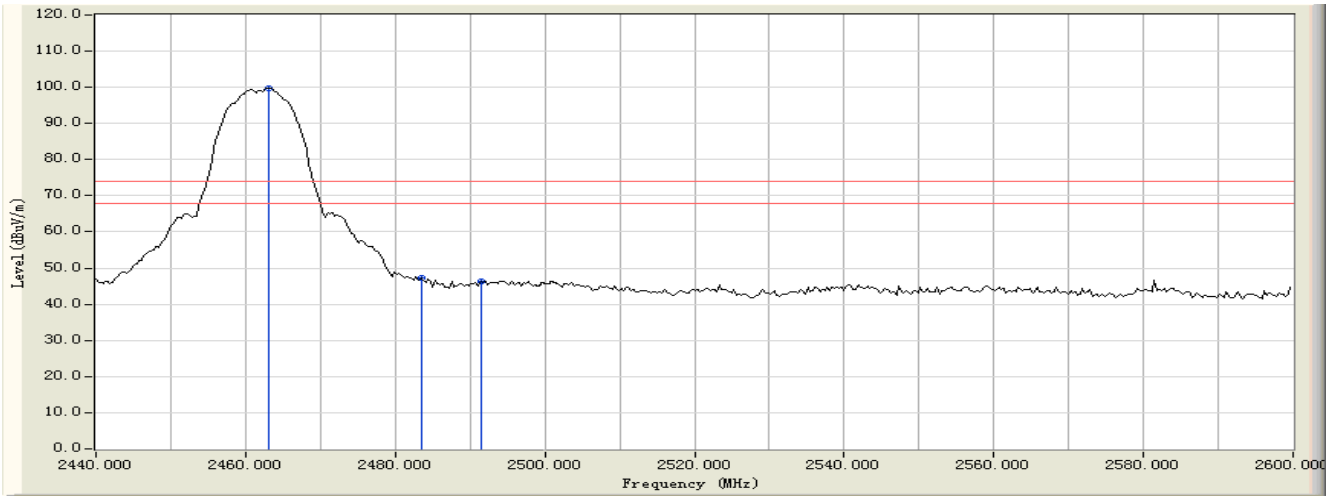


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2331.577	0.237	49.948	50.185	-23.815	74.000	PEAK
2		2390.000	0.358	53.480	53.838	-20.162	74.000	PEAK
3	*	2412.615	0.431	106.177	106.608	N/A	N/A	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : Time : 2010-12-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : (1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2462MHz)**

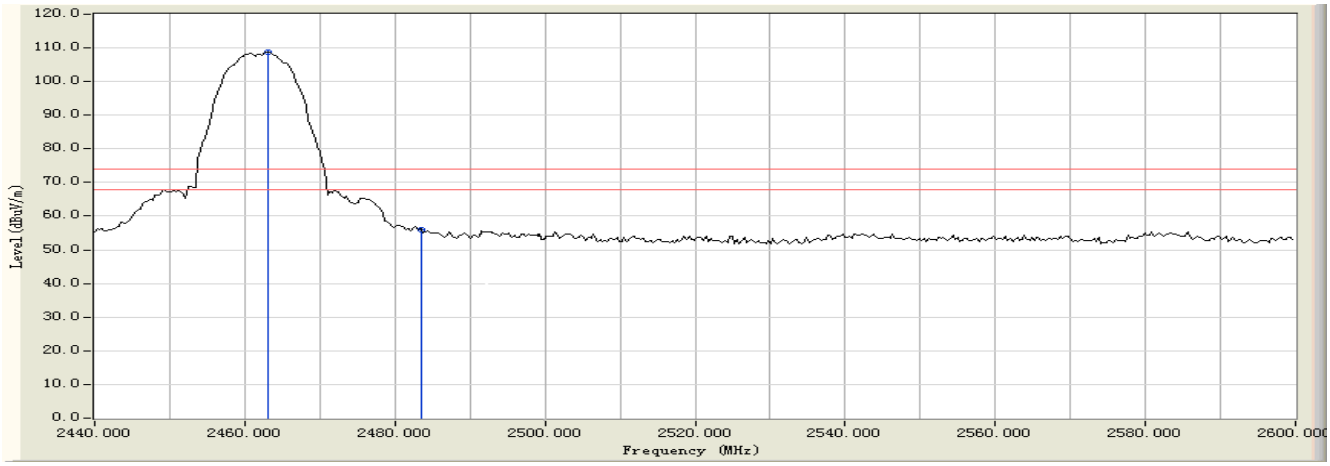


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2462.994	0.602	99.266	99.869	N/A	N/A	PEAK
2		2483.500	0.672	46.466	47.139	-26.861	74.000	PEAK
3		2491.417	0.700	45.587	46.287	-27.713	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : Time : 2010-12-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : (1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2462MHz)**



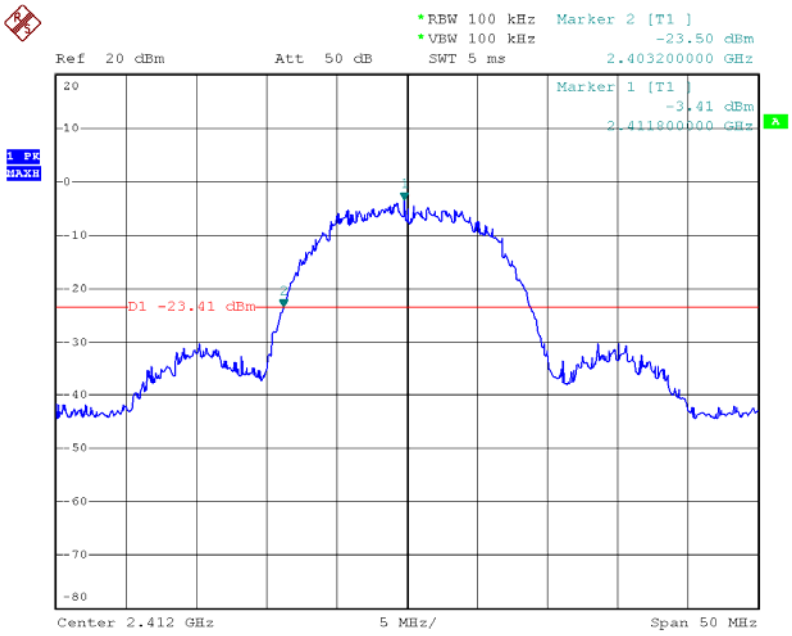
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2462.994	0.602	108.062	108.665	N/A	N/A	PEAK
2		2483.500	0.672	52.369	53.042	-20.958	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

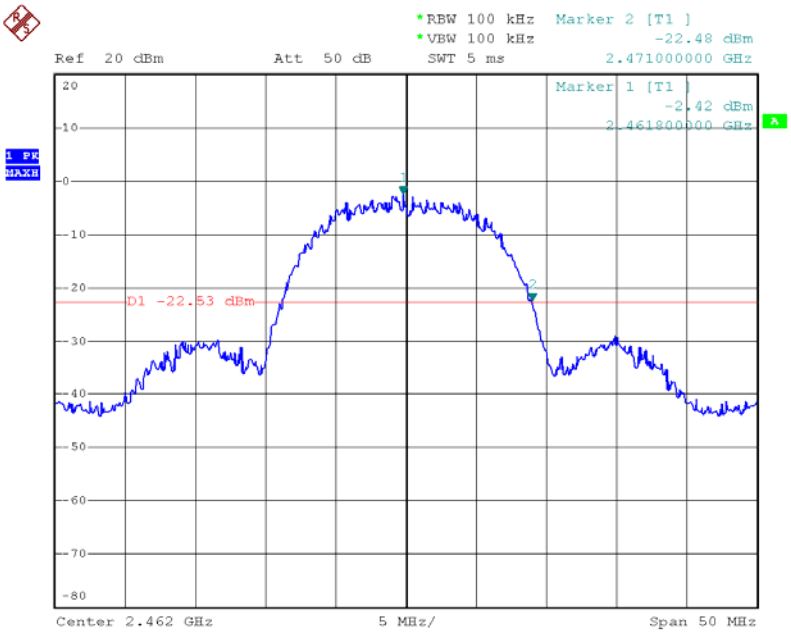
Band Edge (20dBc RF Conducted Measurement)

Mode: Transmit by 802.11b (2412MHz)

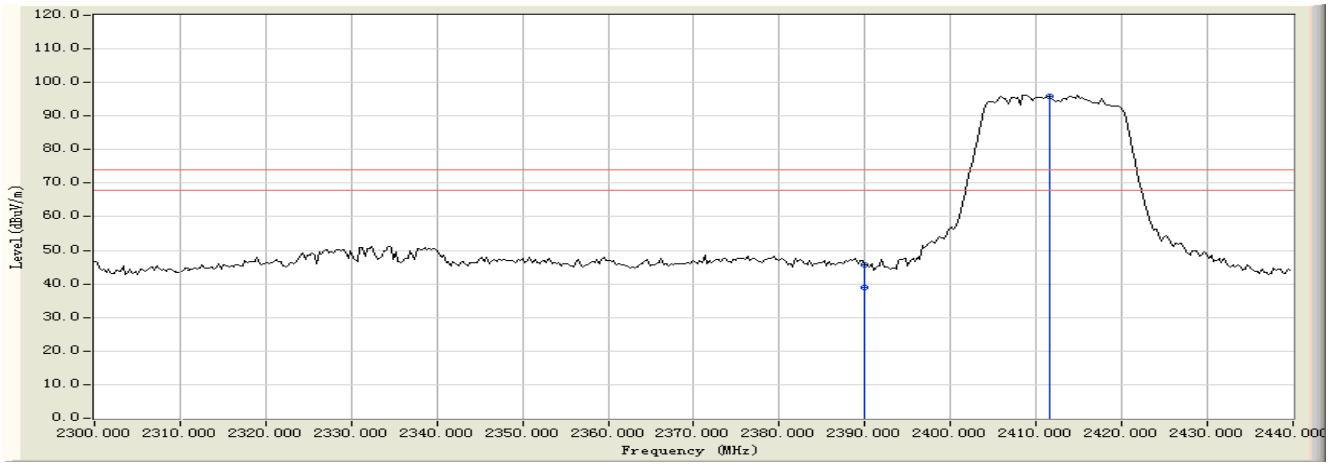


Band Edge (20dBc RF Conducted Measurement)

Mode: Transmit by 802.11b (2462MHz)



Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2010-12-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : (1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2412MHz)**

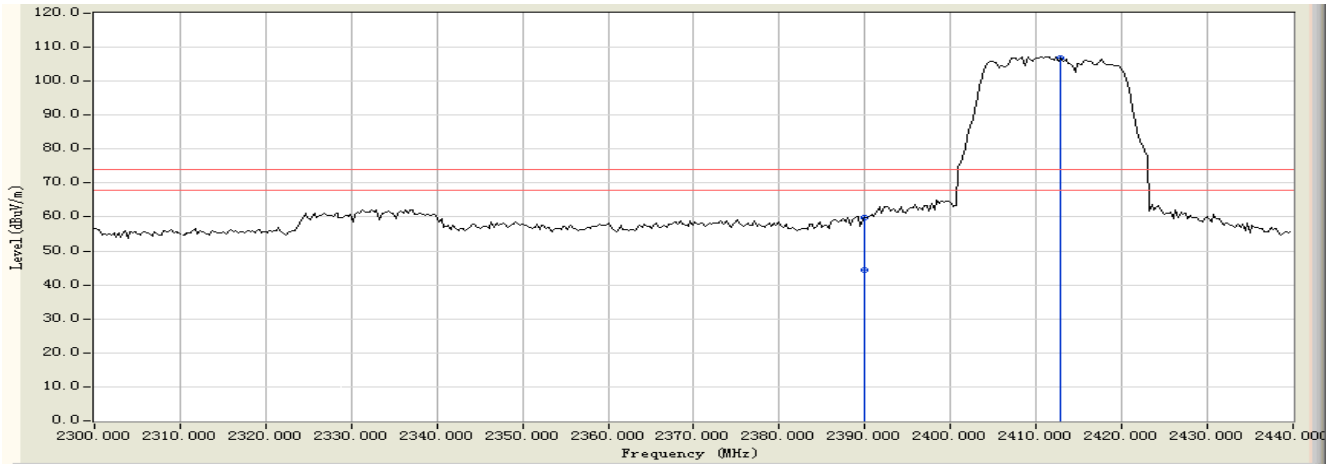


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.358	45.460	45.818	-28.182	74.000	PEAK
2		2390.000	0.358	38.420	38.778	-15.222	54.000	AVERAGE
3	*	2411.497	0.427	95.485	95.912	N/A	N/A	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2010-12-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : (1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2412MHz)**

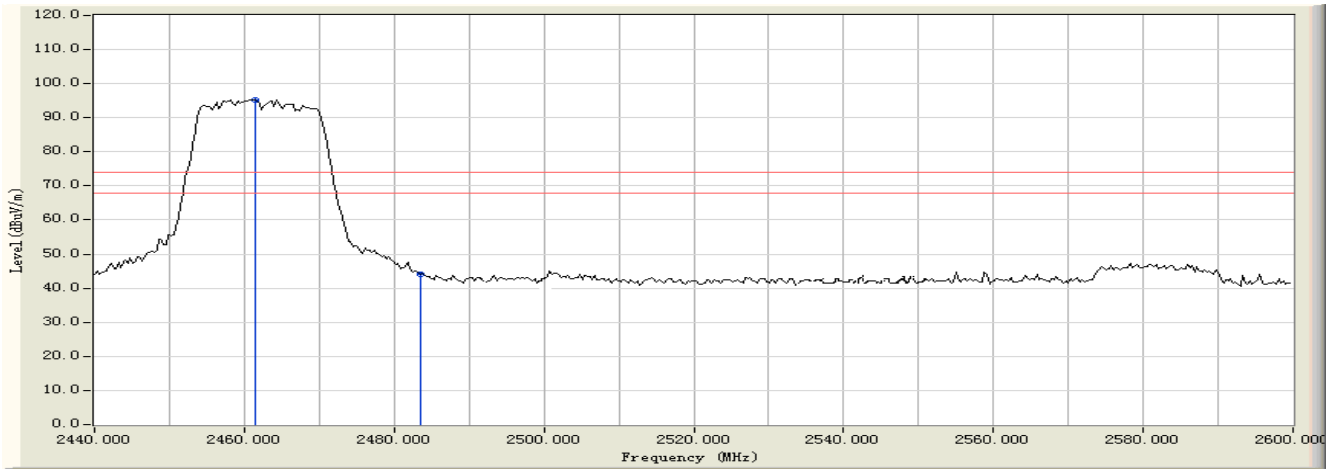


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.358	59.551	59.909	-14.091	74.000	PEAK
2	*	2412.894	0.432	106.442	106.874	N/A	N/A	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2010-12-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : (1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2462MHz)**

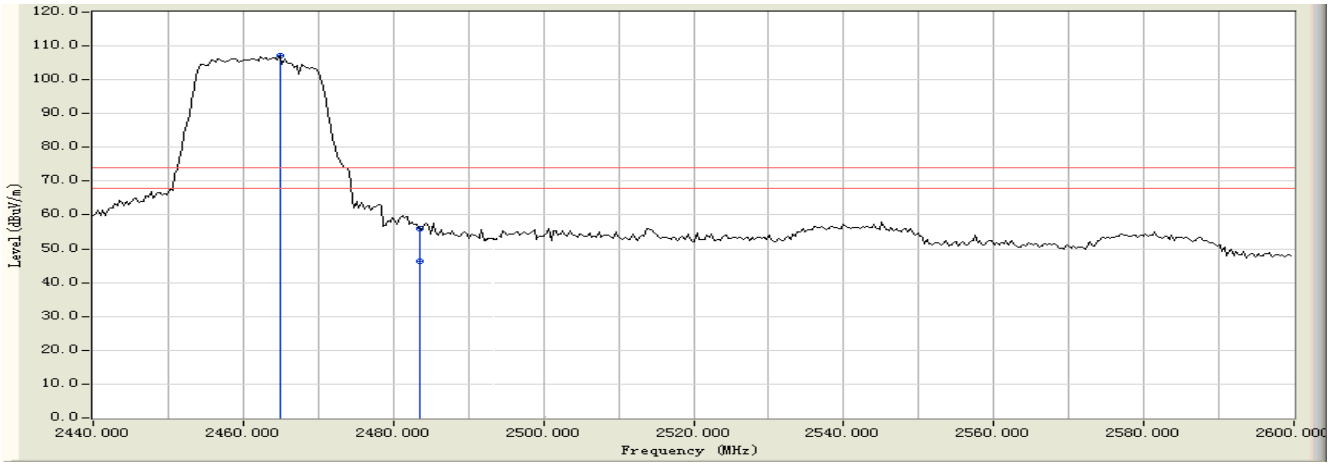


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2461.397	0.597	94.648	95.245	N/A	N/A	PEAK
2		2483.500	0.672	43.486	44.159	-29.841	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2010-12-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Mobile Internet Devices	**Probe : (1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2462MHz)**

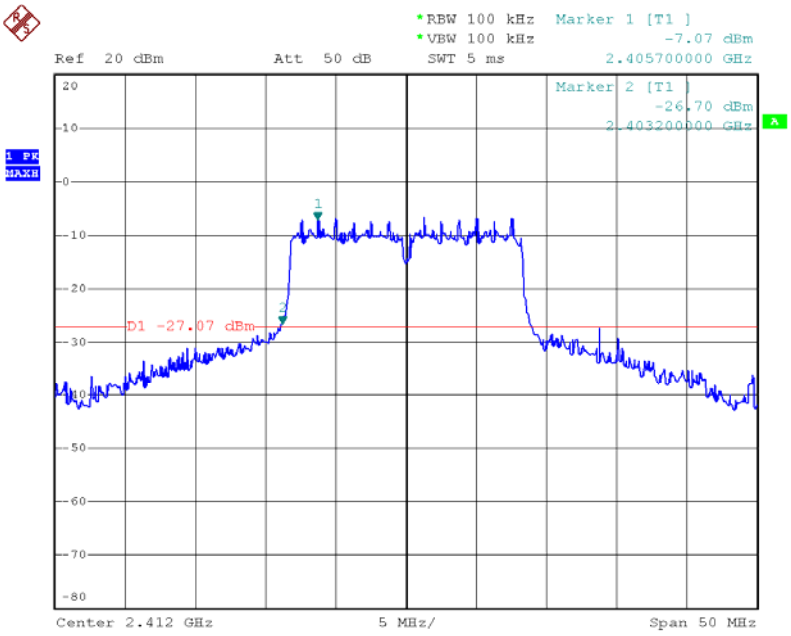


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2464.910	0.610	106.627	107.236	N/A	N/A	PEAK
2		2483.500	0.672	55.343	56.016	-17.984	74.000	PEAK
3		2483.500	0.672	45.610	46.283	-7.717	54.000	AVERAGE

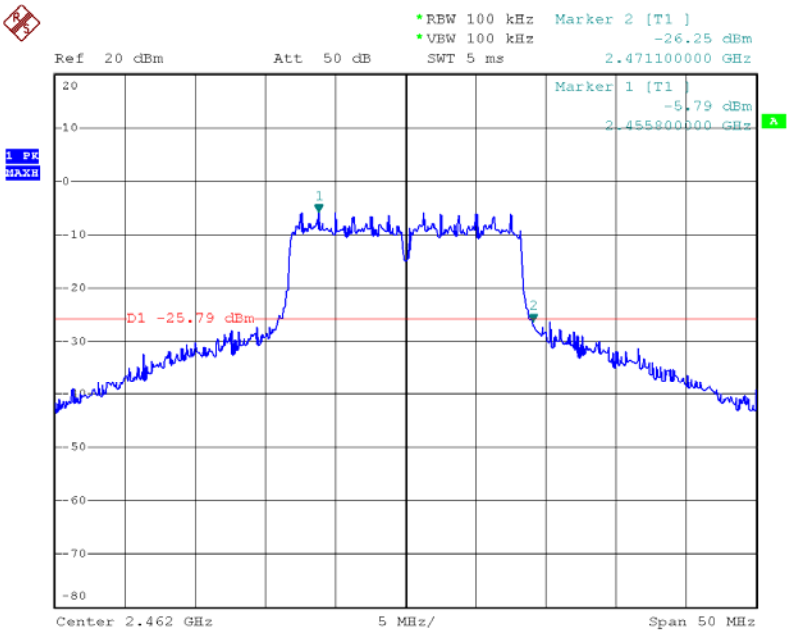
Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Band Edge (20dBc RF Conducted Measurement)
Mode: Transmit by 802.11g (2412MHz)



Band Edge (20dBc RF Conducted Measurement)
Mode: Transmit by 802.11g (2462MHz)



8. RF Antenna Conducted Spurious

8.1. Test Limit

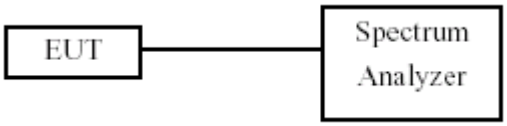
In any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional Radiator is operating, the radio frequency power that is produced by the intentional radiator shall Be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

8.2. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074for compliance to FCC 47CFR 15.247 requirements.

Set RBW= 100 kHz, Set VBW>RBW, Sweep time=Auto, set up through 10 th harmonic.

8.3. Test Setup Layout



8.4. Measurement Equipment

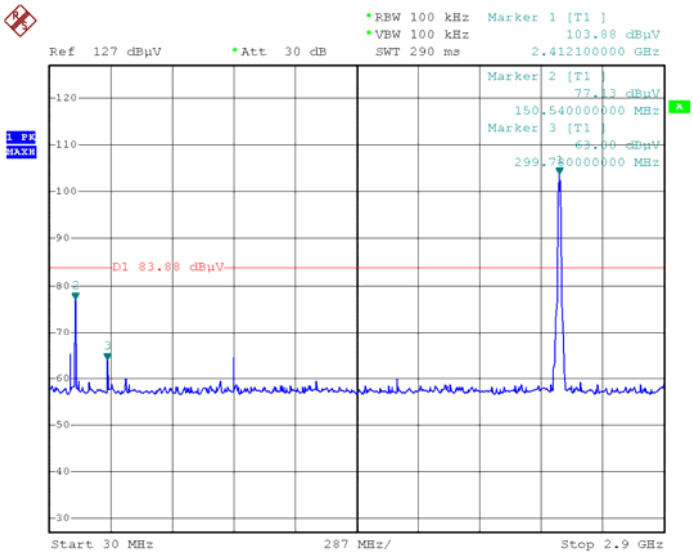
Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date
Spectrum Analyzer	R&S	FSP40	100324	2010.08.14
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2010.08.17

8.5. Test Result and Data

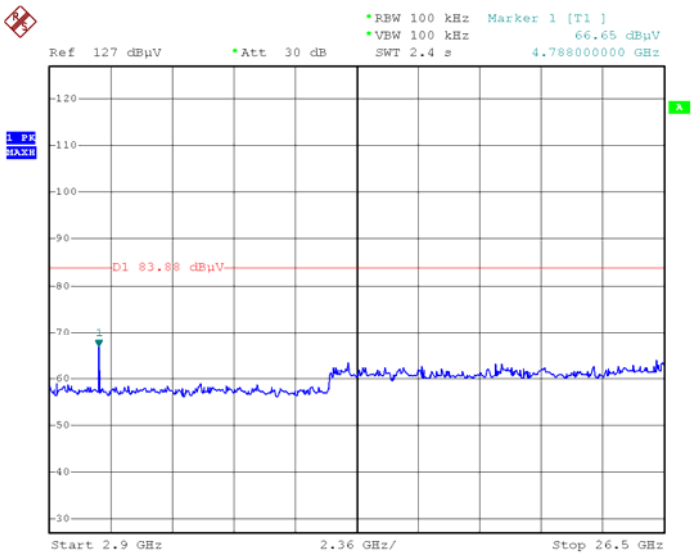
Test Item	RF Antenna Conducted Spurious
Test Mode	Transmit by 802.11b
Test Date	2010-12-13

Channel 01 (2412MHz)

30M---2.9G

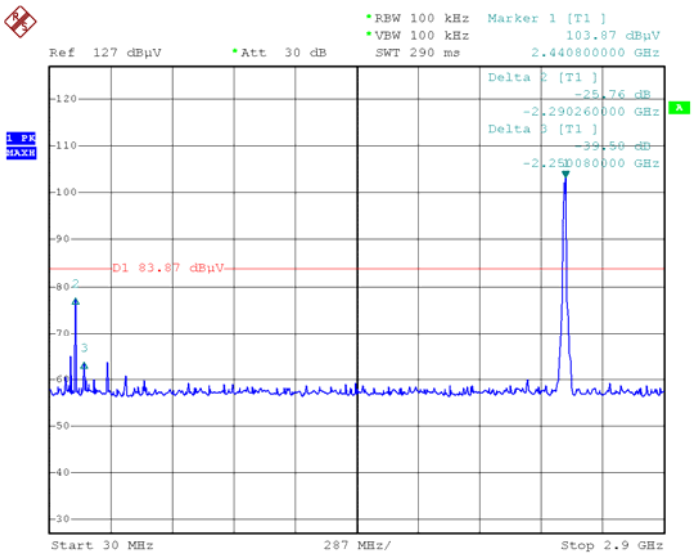


2.9---26.5G

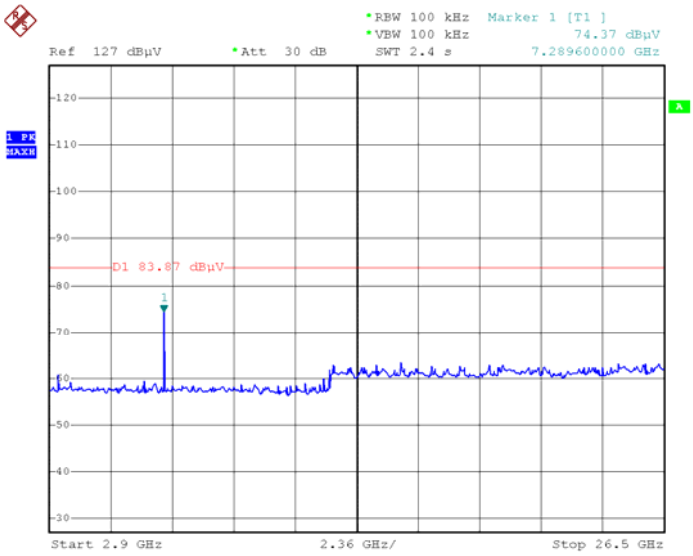


Channel 06 (2437MHz)

30M---2.9G

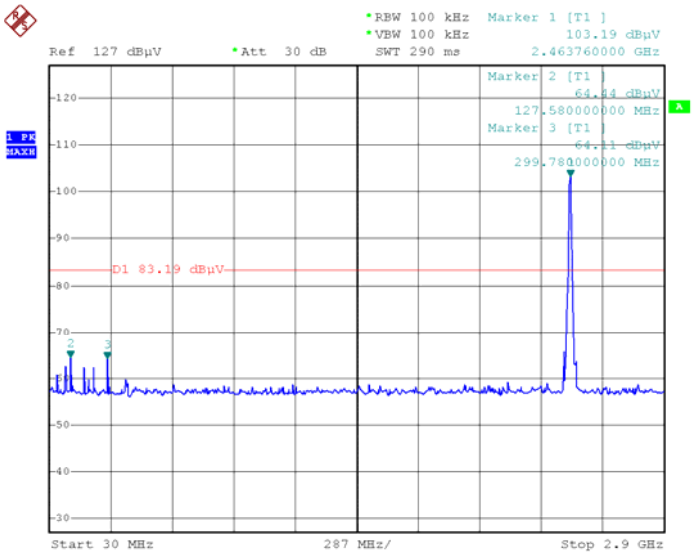


2.9---26.5G

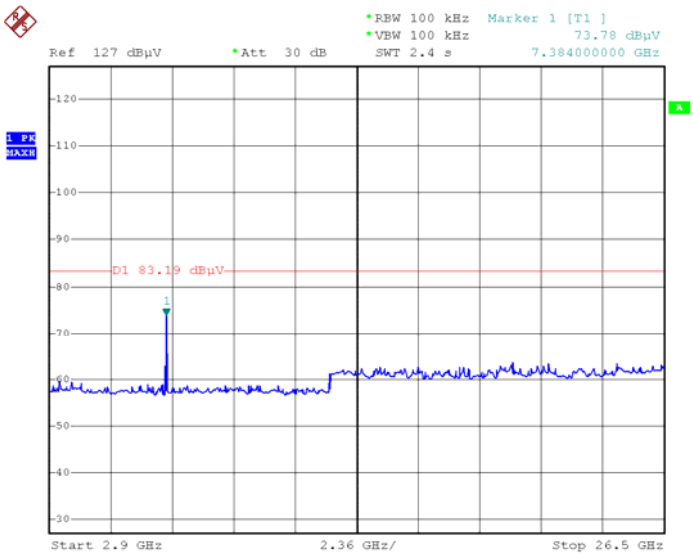


Channel 11 (2462MHz)

30M---2.9G



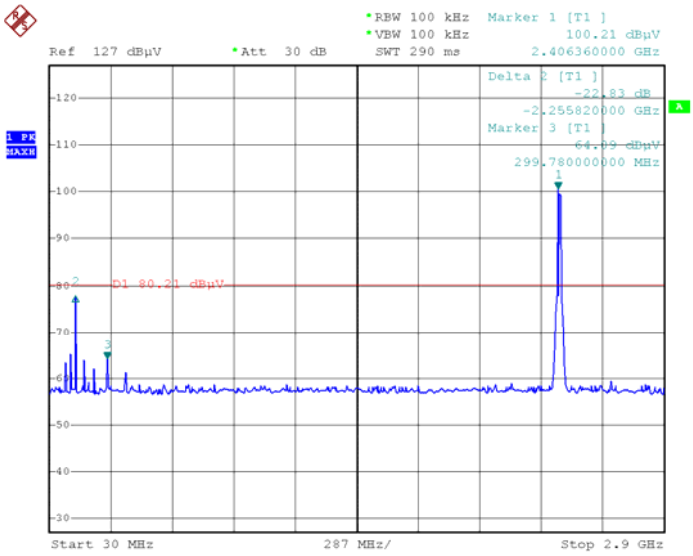
2.9---26.5G



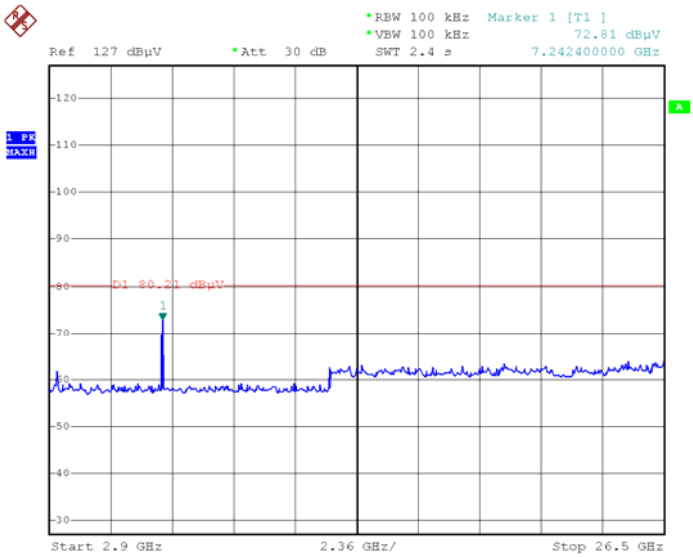
Test Item	RF Antenna Conducted Spurious
Test Mode	Transmit by 802.11g
Test Date	2010-12-13

Channel 01 (2412MHz)

30M---2.9G

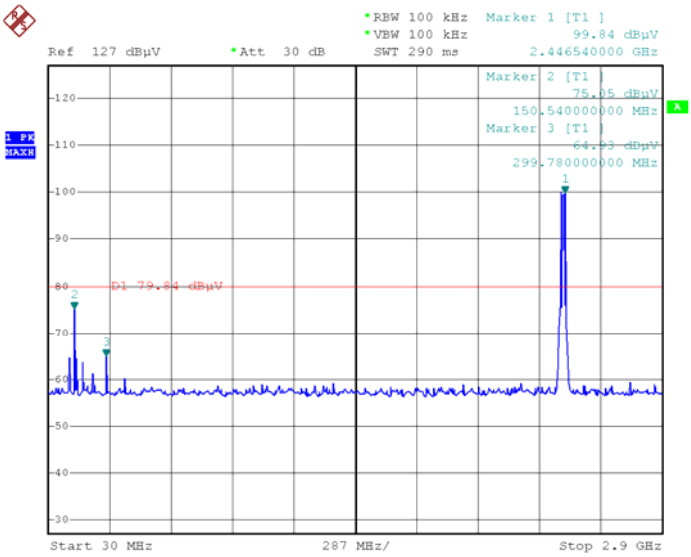


2.9---26.5G

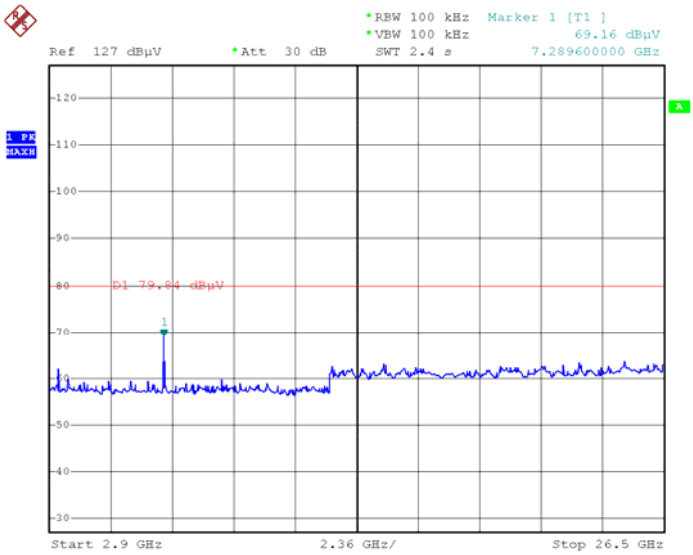


Channel 06 (2437MHz)

30M---2.9G

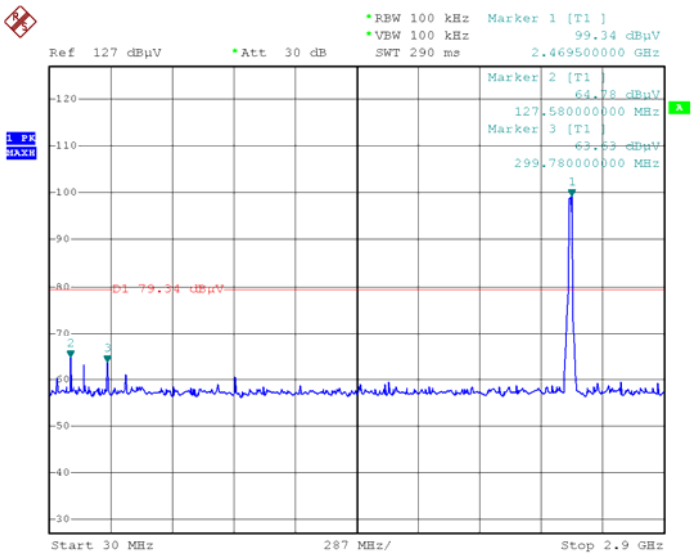


2.9---26.5G

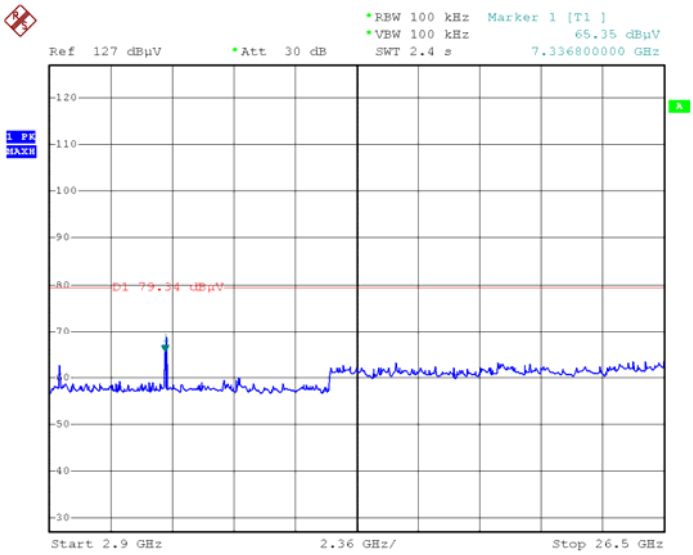


Channel 11 (2462MHz)

30M---2.9G



2.9---26.5G



9. Power Spectral Density

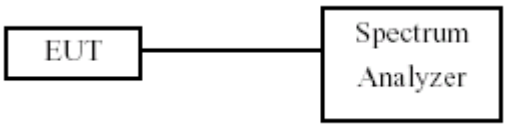
9.1. Test Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiated to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

9.2. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW= 3 kHz, Set VBW≧ RBW, Sweep time=SPAN/3kHz, Set detector=Peak detector.

9.3. Test Setup Layout



9.4. Measurement Equipment

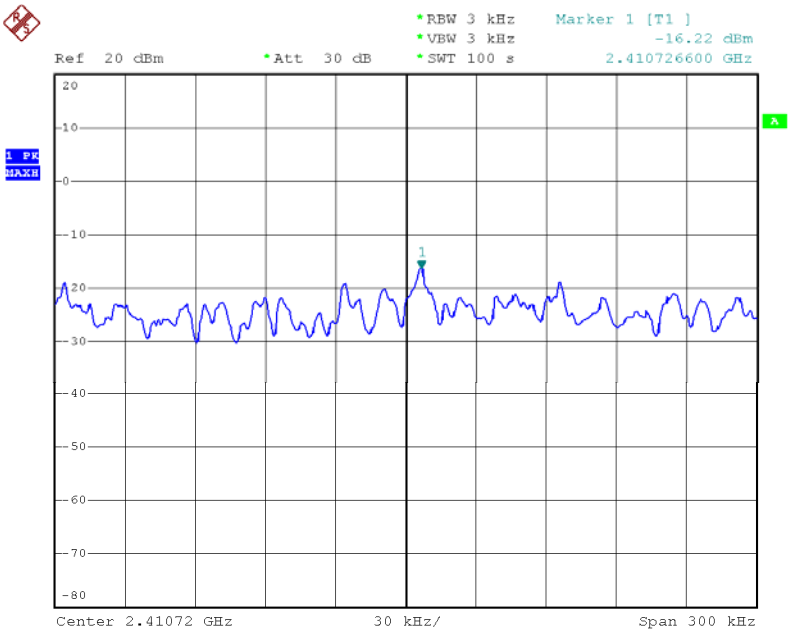
Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date
Spectrum Analyzer	R&S	FSP40	100324	2010.08.14
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2010.08.17

9.5. Test Result and Data

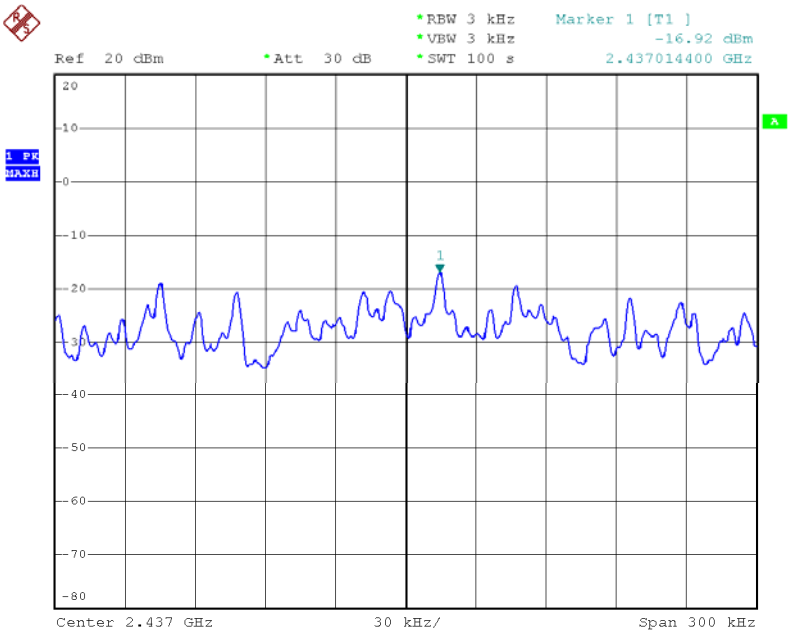
Test Item	Power Spectral Density
Test Mode	Transmit by 802.11b
Test Date	2010-12-10

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
01	2412	-16.22	8	Pass
06	2437	-16.92	8	Pass
11	2462	-16.47	8	Pass

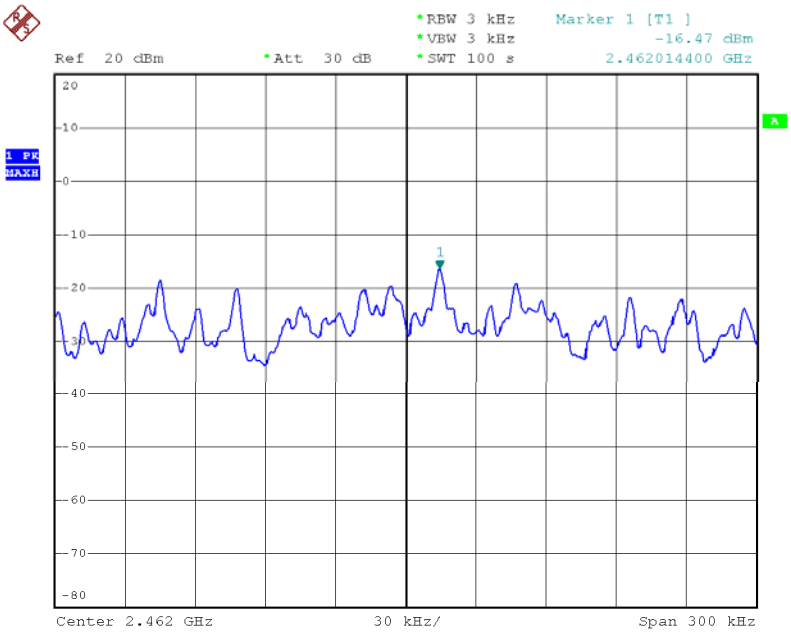
Channel 01 (2412MHz)



Channel 06 (2437MHz)



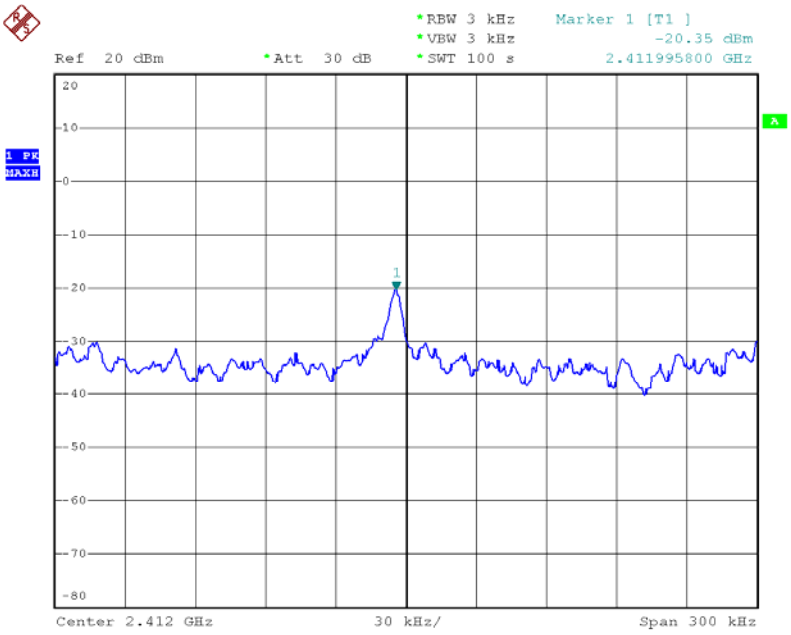
Channel 11 (2462MHz)



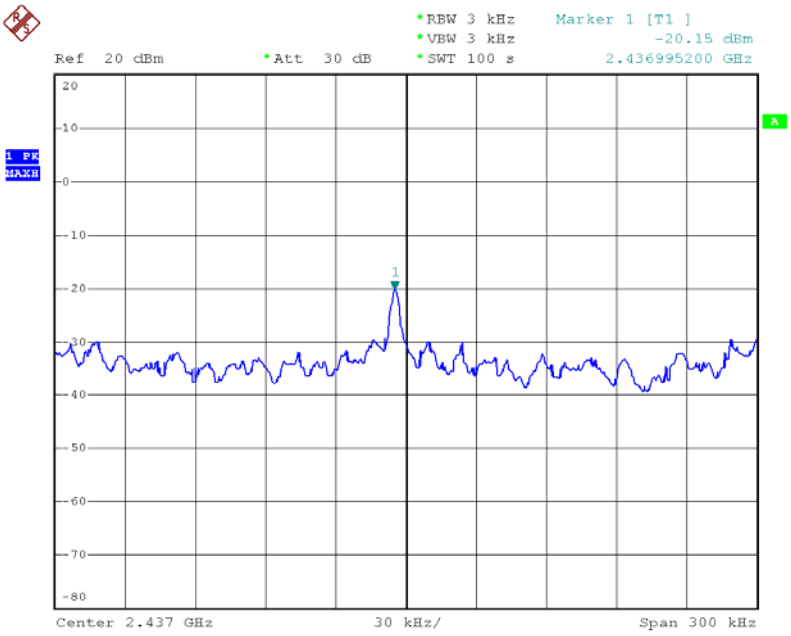
Test Item	Power Spectral Density
Test Mode	Transmit by 802.11g
Test Date	2010-12-10

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
01	2412	-20.35	8	Pass
06	2437	-20.15	8	Pass
11	2462	-19.34	8	Pass

Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)