



FCC TEST REPORT

for

47 CFR Part 15 Subpart C and IC RSS-210

Equipment : USRobotics Wireless MAXg USB Adapter
Trade Name : USRobotics
Model No. : USR5425
FCC ID : IXM-USGBR02
IC ID : 550A-15044
Filing Type : Certification
Applicant : **Universal Scientific Industrial Co., Ltd.**

141, Lane 351, Taiping Road, Sec. 1, Tsao Tuen, Nan-Tou, Taiwan

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- The data shown in this test report were carried out on Jun. 25, 2007 at **Sporton International Inc. LAB.**
- Report No.: FR762910, Report Version: Rev. 01

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History of this test report

Report Issue Date: Jul. 11, 2007

Report No.	Description



1. General Description of Equipment under Test

1.1 Applicant

Universal Scientific Industrial Co., Ltd.

141, Lane 351, Taiping Road, Sec. 1, Tsao Tuen, Nan-Tou, Taiwan

1.2 Manufacturer

Universal Scientific Industrial Co., Ltd.

141, Lane 351, Taiping Road, Sec. 1, Tsao Tuen, Nan-Tou, Taiwan

1.3 Basic Description of Equipment under Test

Equipment	: USRobotics Wireless MAXg USB Adapter
Trade Name	: USRobotics
Model No.	: USR5425
FCC ID	: IXM-USGBR02
IC ID	: 550A-15044

**1.4 Feature of Equipment under Test**

Product Feature & Specification	
1. DUT Type	USRobotics Wireless MAXg USB Adapter
2. Trade Name	USRobotics
3. Model Name	USR5425
4. FCC ID	IXM-USGBR02
5. IC ID	550A-15044
6. Tx Frequency	2400 ~ 2483.5 MHz
7. Rx Frequency	2400 ~ 2483.5 MHz
8. Number of Channels	11
9. Carrier Frequency of Each Channel	$2412+(n-1)*5$ MHz; n=1~11
10. Antenna Connector	N/A
11. Antenna Type	Printed Antenna
12. Antenna Gain	3.63 dBi
13. Maximum Output Power	802.11b : 18.74 dBm 802.11g : 20.76 dBm
14. Type of Modulation	DSSS / OFDM
15. DUT Stage	Identical Prototype
16. Application Type	Certification



2 Test Configuration of Equipment under Test

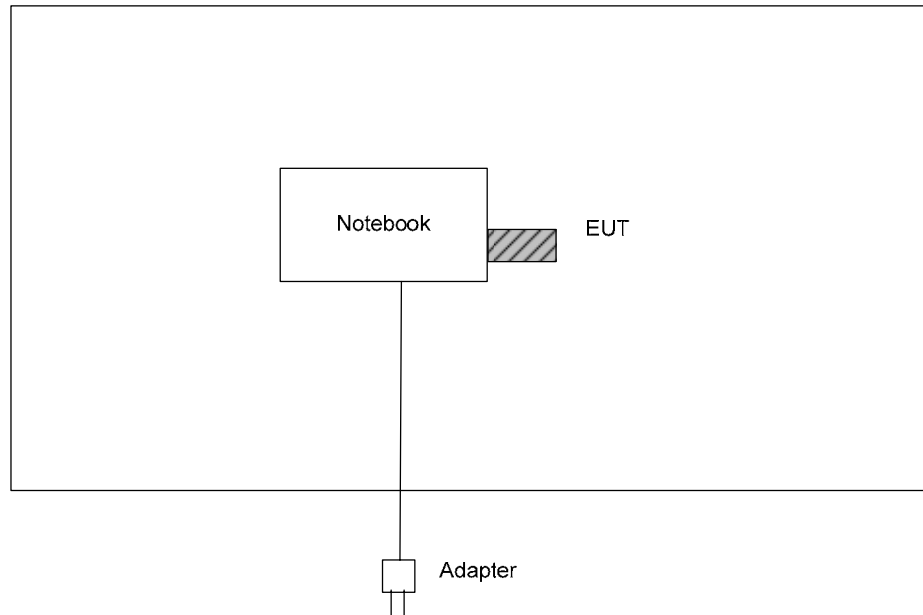
2.1 Test Manner

- a. The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.
- b. For spurious emission below 1GHz, only one channel of each application was tested because it is not related to channel selection.
- c. The EUT is programmed to transmit signal continuously for all testings.
- d. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

2.2 Test Mode

Application		
Radiated Emission	802.11b	802.11g
	Mode 1: Tx_CH01_2412 MHz	Mode 4: Tx_CH01_2412 MHz
	Mode 2: Tx_CH06_2437 MHz	Mode 5: Tx_CH06_2437 MHz
	Mode 3: Tx_CH11_2462 MHz	Mode 6: Tx_CH11_2462 MHz
Conducted Emission	WLAN Linking Mode	

2.3 Connection Diagram of Test System



2.4 Ancillary Equipment List

Item	Asset	Trade Name	Model Name	FCC ID	Power Cord
1.	Notebook	DELL	D400	E2K24GBRL	N/A
2.	RS-232 Mouse	State	MS-303	DoC	N/A



3. RF Utility

The programmed RF Utility is installed in notebook to provide channel selection, power lever, data rate and the application type. RF Utility can send transmitting signal for all testings.



4. General Information of Test

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park,
Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
TEL : 886-3-327-3456
FAX : 886-3-318-0055

Test Site No : CO01-HY, 03CH06-HY

4.1 Test Voltage

120V/ 60Hz

4.2 Standard for Methods of Measurement

ANSI C63.4-2003

4.3 Test in Compliance with

47 CFR Part 15 Subpart C and IC RSS-210 Issued 6

4.4 Frequency Range Investigated

- a. Conducted Emission : from 150 KHz to 30 MHz
- b. Radiated Emission : from 30 MHz to 25000 MHz

4.5 Test Distance

The test distance of radiated emission from antenna to EUT is 3 m.



5. Test Data and Test Result

5.1 List of Measurements and Examinations

FCC Rule	IC Rule	Description of Test	Result
15.207	RSS-Gen 7.2.2	Conducted Emission	Pass
15.247(a)(2)	A8.2 (1)	6dB Bandwidth	Pass
15.247(b)	A8.4 (4)	Maximum Peak Output Power	Pass
15.209(a)	2.6	Radiated Emission	Pass
15.247 (c)	A8.5	100kHz Bandwidth of Frequency Band Edges	Pass
15.247(d)	A8.2 (2)	Power Spectral Density	Pass
15.203 15.247(b)(4)	A8.4 (6)	Antenna Requirement	Pass

5.2 6dB Bandwidth Measurement

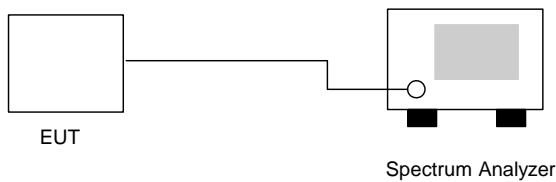
5.2.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.2.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer directly.
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The 6 dB bandwidth is defined as the frequency range where the power is higher than the peak power minus 6dB.

5.2.3 Test Setup Layout :



5.2.4 Test Result :

- Application Type : WLAN 802.11b/g
- Temperature : 25~27°C
- Relative Humidity : 56~58%
- Test Enginner : Sam

802.11b

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	10.00	> 0.5MHz	Mode 1
06	2437	10.09	> 0.5MHz	Mode 2
11	2462	10.06	> 0.5MHz	Mode 3

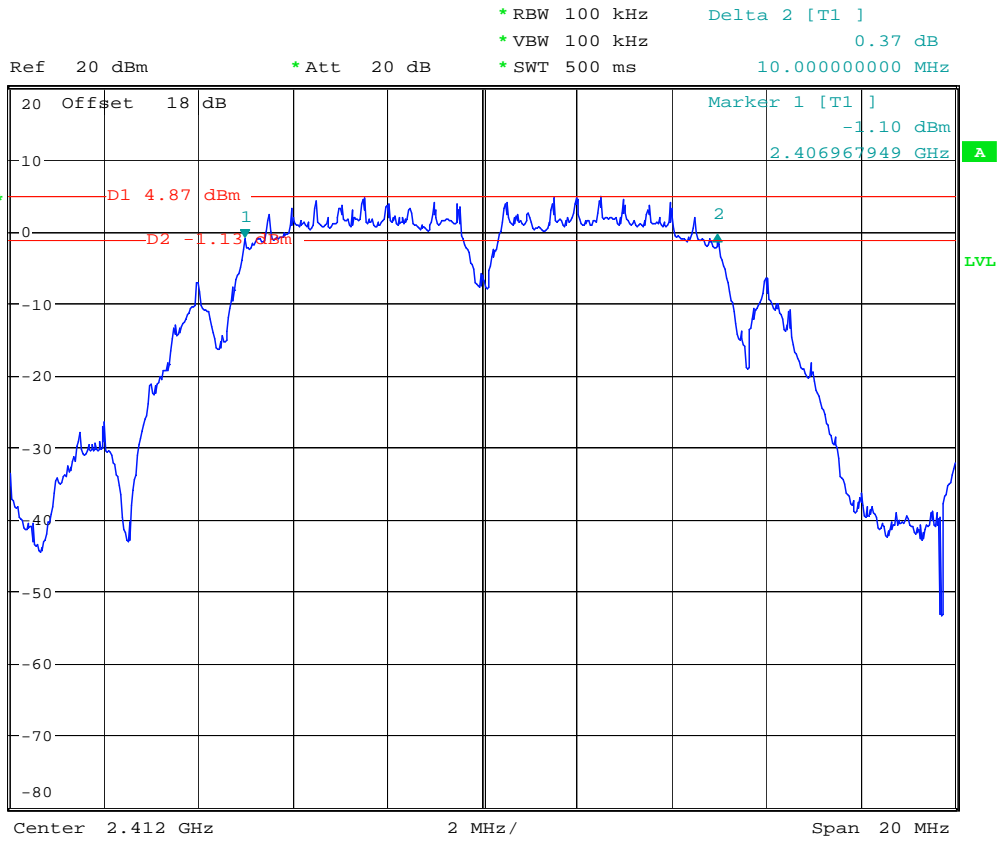
802.11g

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	16.34	> 0.5MHz	Mode 4
06	2437	16.34	> 0.5MHz	Mode 5
11	2462	16.34	> 0.5MHz	Mode 6



5.2.5 6dB Bandwidth

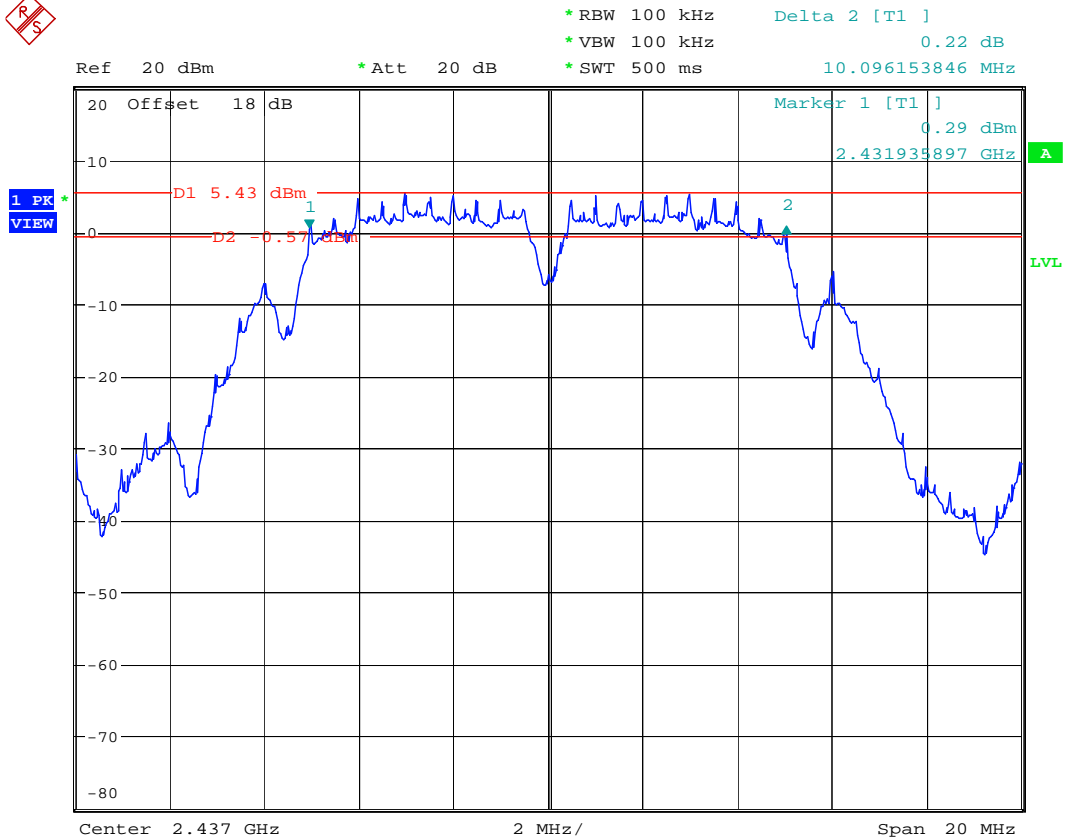
Mode 1



Date: 25.JUN.2007 03:43:45



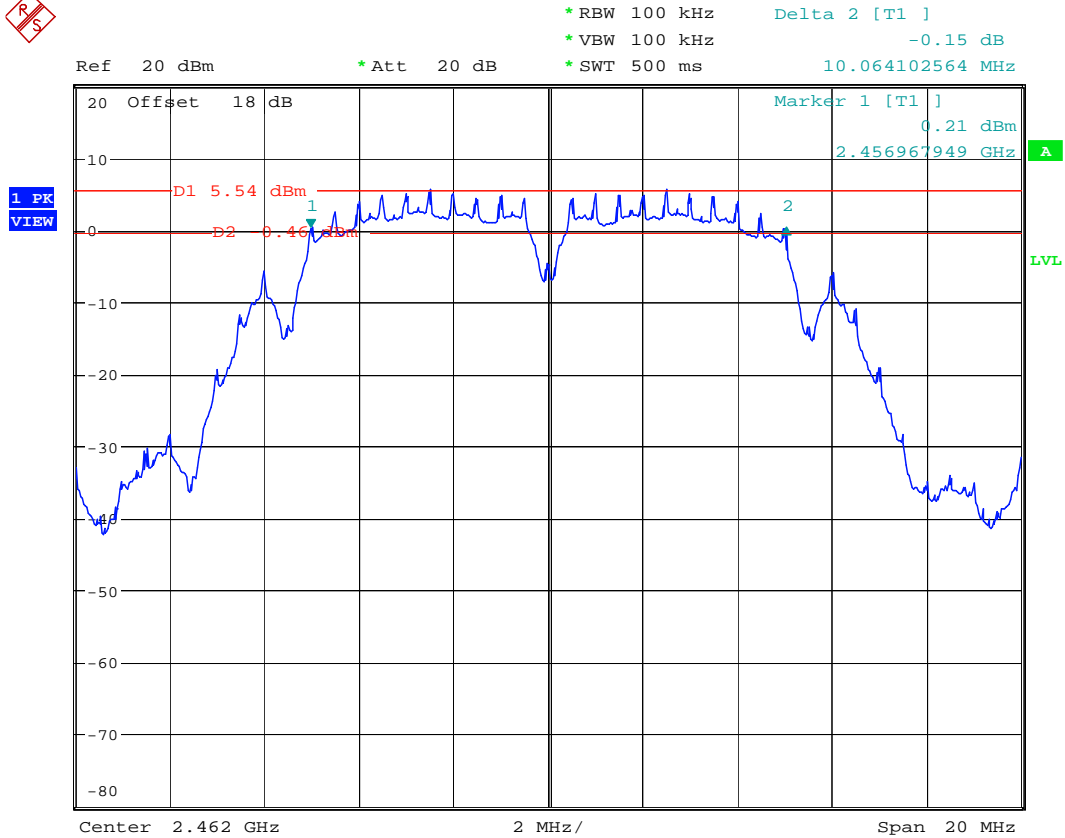
Mode 2



Date: 25.JUN.2007 03:56:09



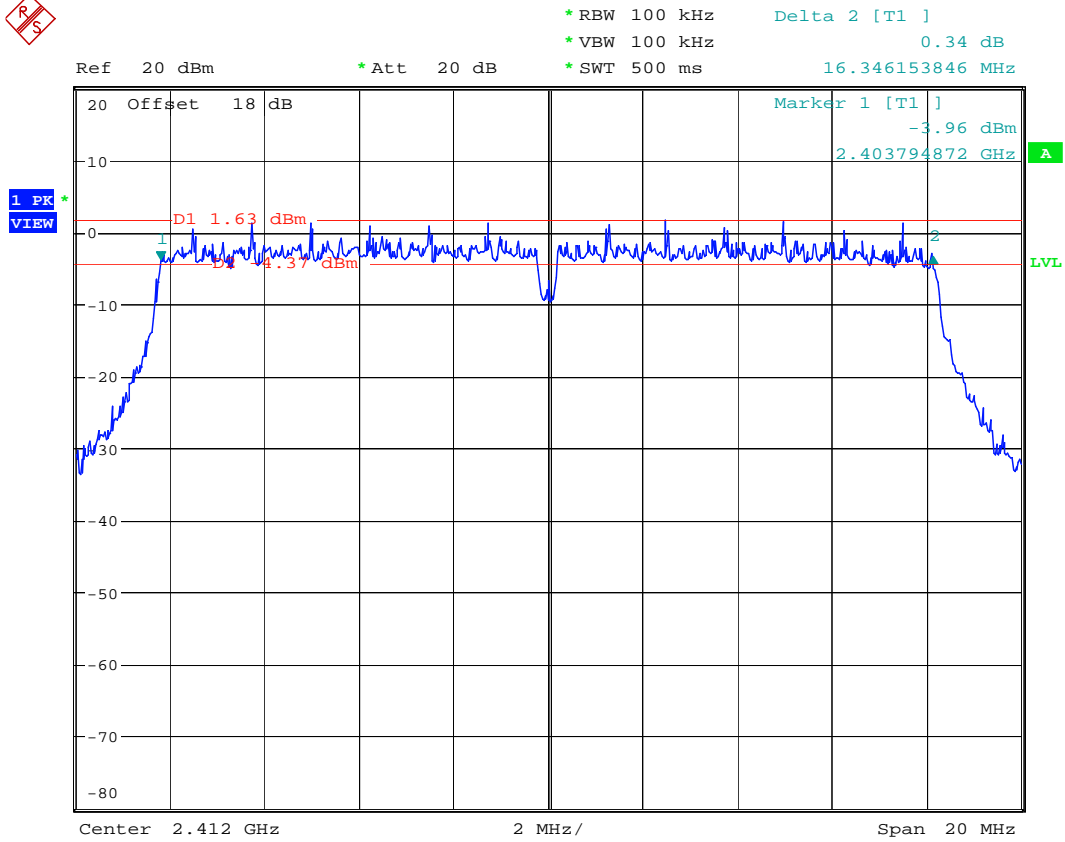
Mode 3



Date: 25.JUN.2007 04:02:31



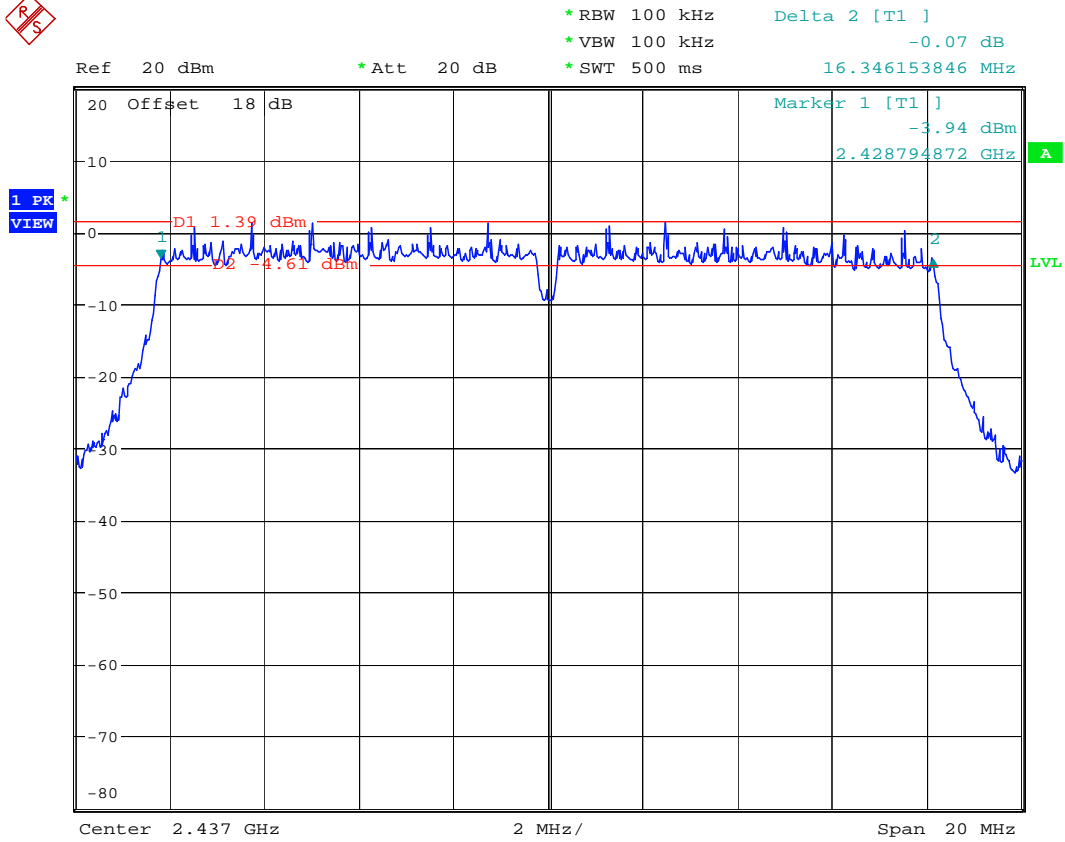
Mode 4



Date: 25.JUN.2007 04:04:43



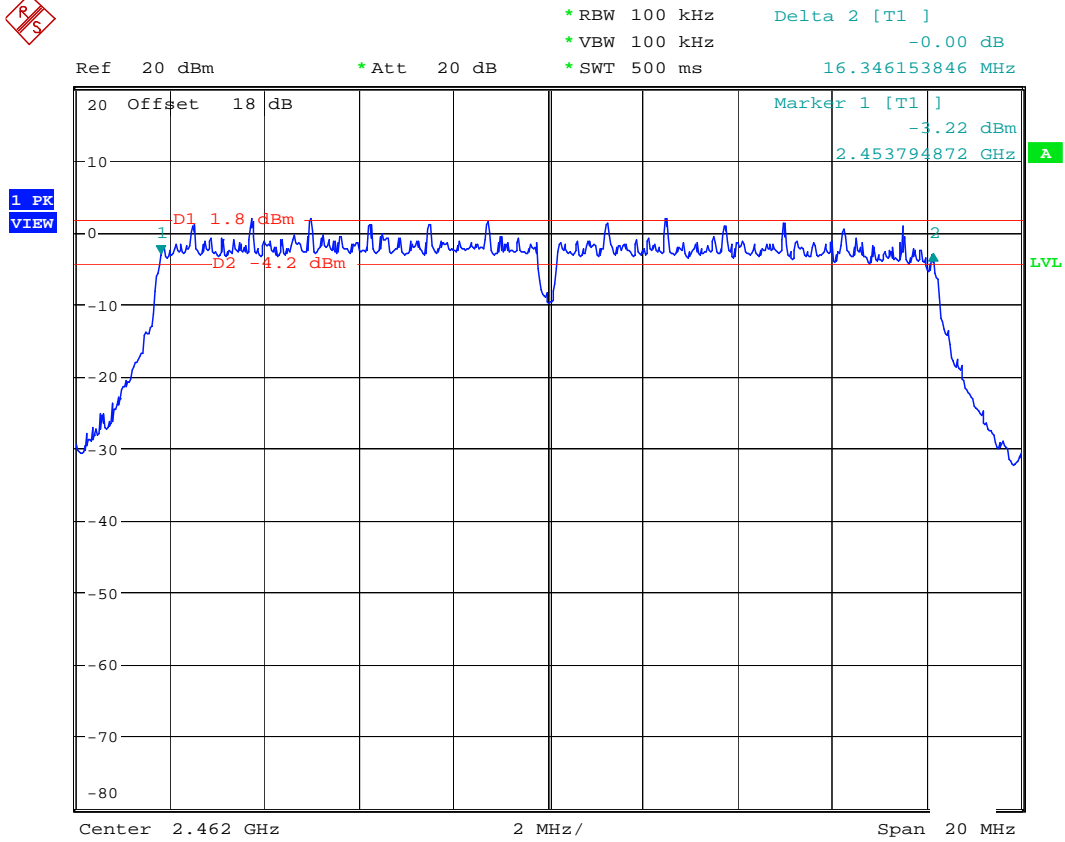
Mode 5



Date: 25.JUN.2007 04:06:33



Mode 6



Date: 25.JUN.2007 04:11:21

5.3 Power Spectral Density Measurement

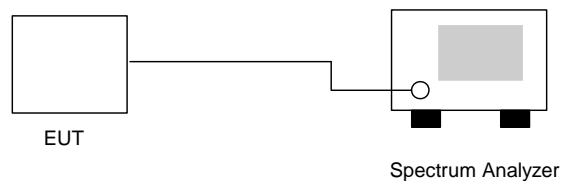
5.3.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.3.2 Test Procedure :

1. The transmitter output was connected to spectrum analyzer directly.
2. The spectrum analyzer's resolution bandwidth was set at 3kHz RBW and 30kHz VBW as that of the fundamental frequency. Set the sweep time=span/3kHz.
3. The power spectral density was measured and recorded.
4. The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

5.3.3 Test Setup Layout :





5.3.4 Test Result :

- Application Type : 802.11b/g
- Temperature : 25~27°C
- Relative Humidity : 56~28%
- Test Enginner : Tony

802.11b

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-7.84	8	Mode 1
06	2437	-7.36	8	Mode 2
11	2462	-7.78	8	Mode 3

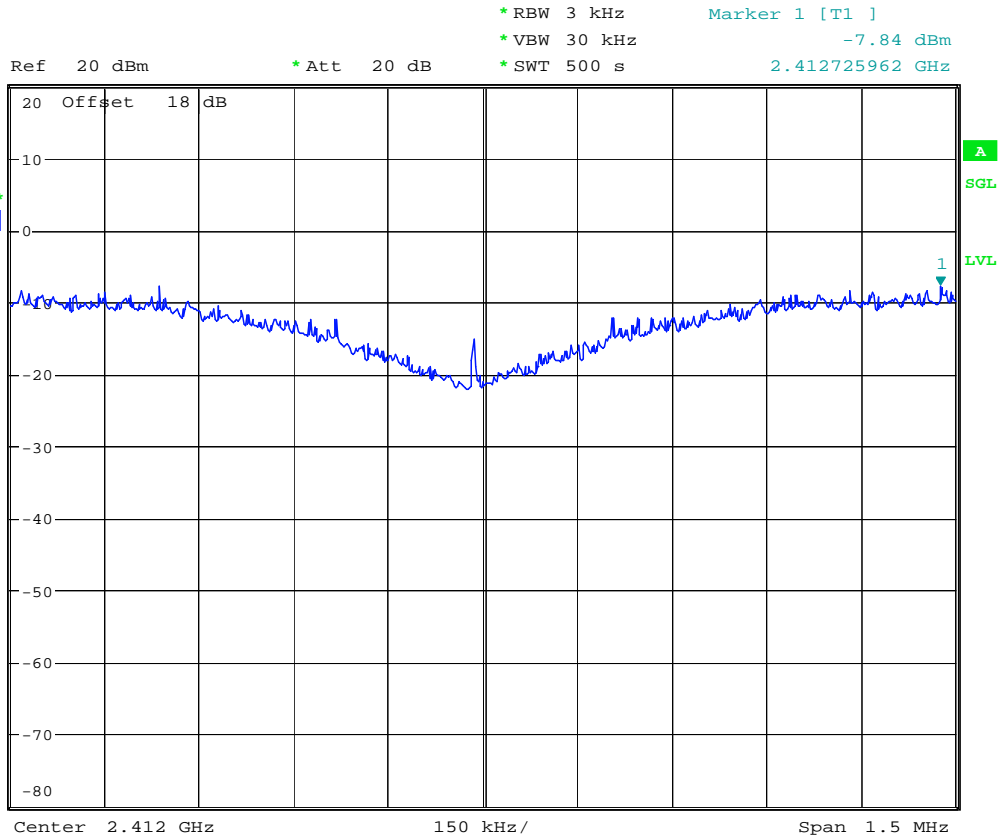
802.11g

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-11.09	8	Mode 4
06	2437	-11.44	8	Mode 5
11	2462	-10.93	8	Mode 6



5.3.5 Power Spectral Density

Mode 1



Date: 25.JUN.2007 04:38:37



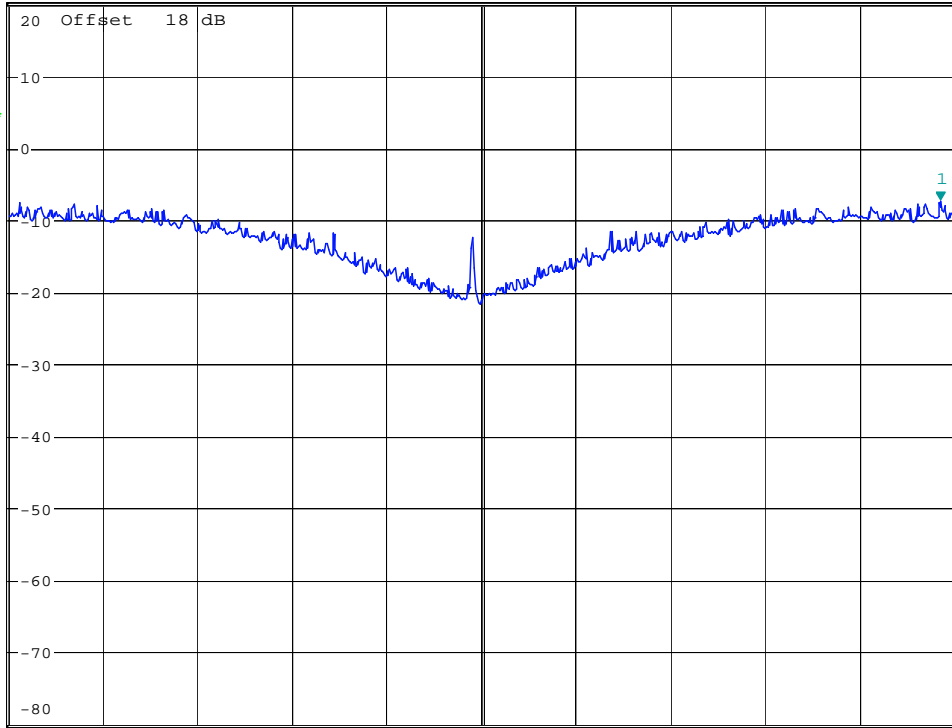
Mode 2



*RBW 3 kHz Marker 1 [T1]
*VBW 30 kHz -7.36 dBm
*SWT 500 s 2.437728365 GHz

Ref 20 dBm

*Att 20 dB



Center 2.437 GHz

150 kHz/

Span 1.5 MHz

Date: 25.JUN.2007 09:04:51



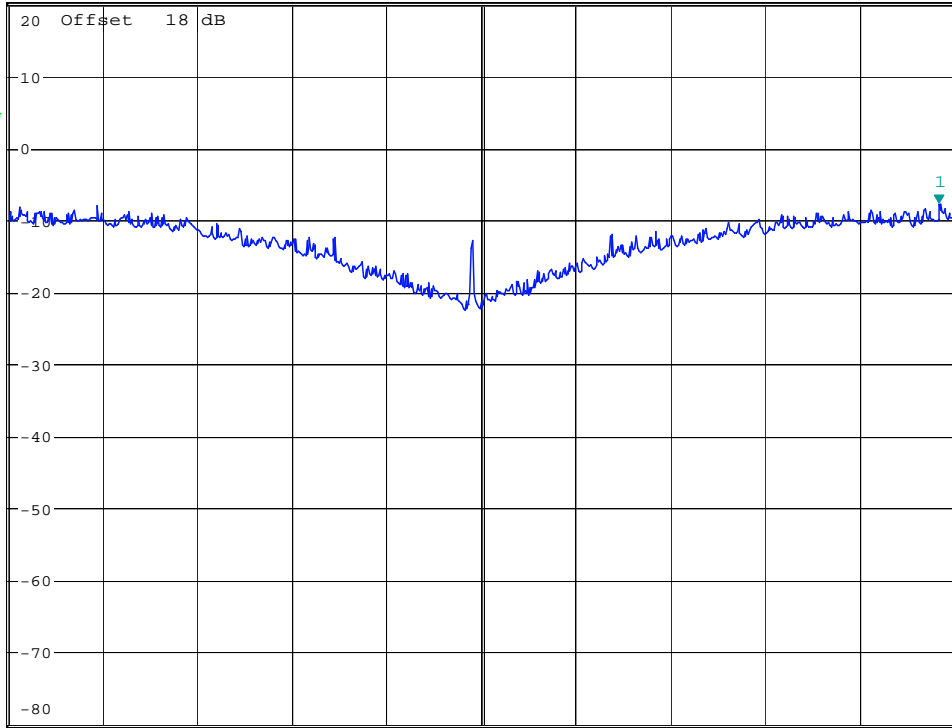
Mode 3



*RBW 3 kHz Marker 1 [T1]
*VBW 30 kHz -7.78 dBm
*SWT 500 s 2.462725962 GHz

Ref 20 dBm

*Att 20 dB



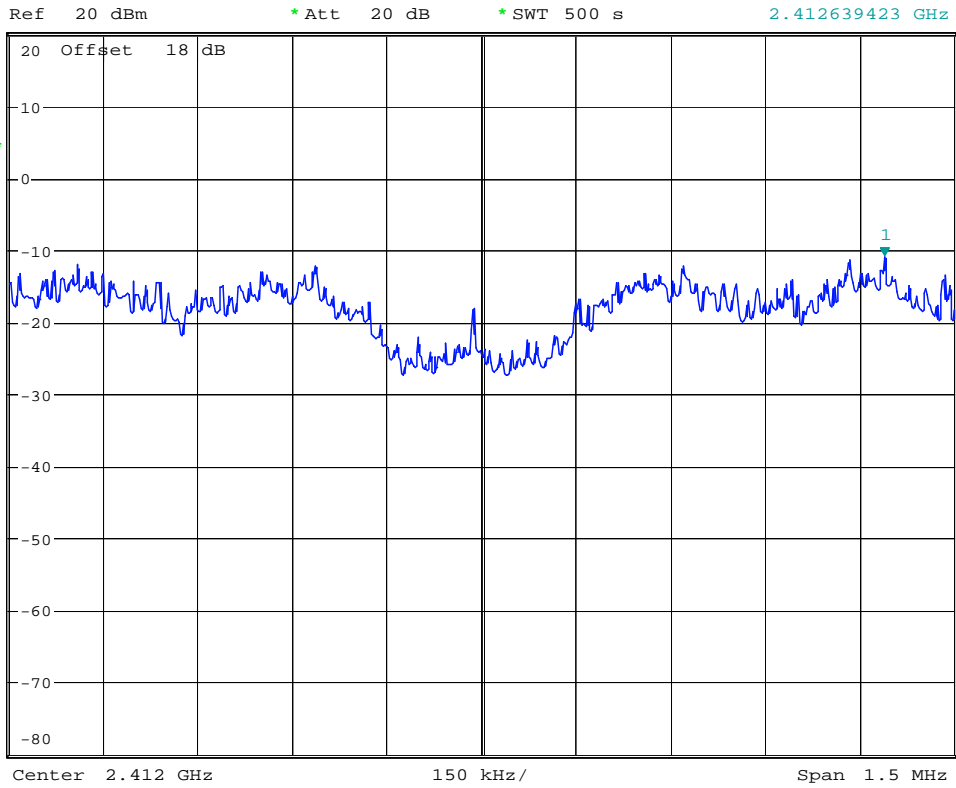
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Mode 4



*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-11.09 dBm
2.412639423 GHz



Date: 25.JUN.2007 09:23:44



Mode 5

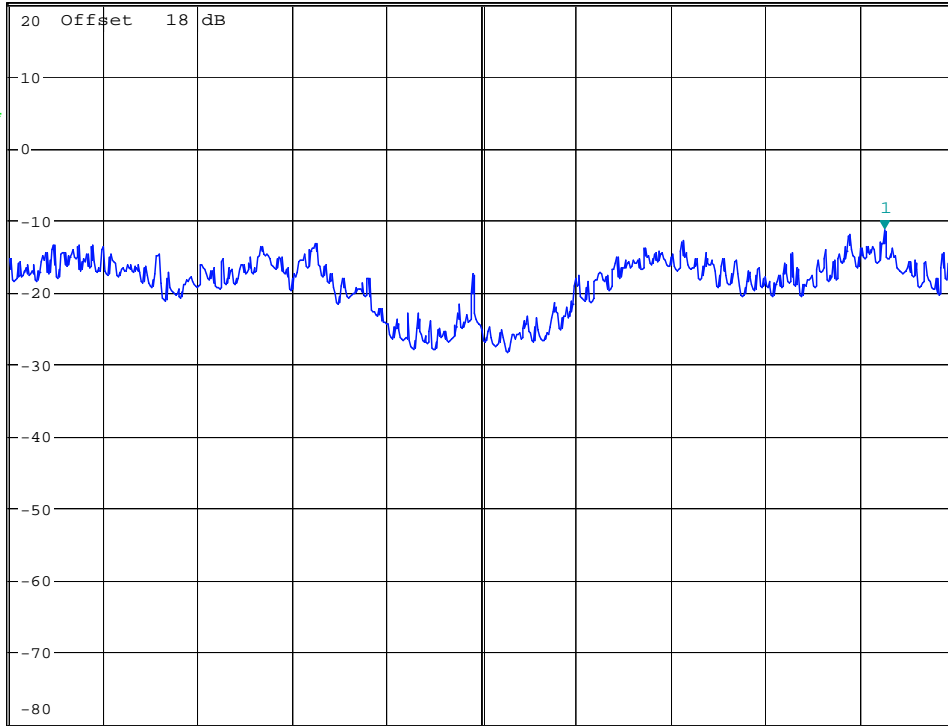


*RBW 3 kHz Marker 1 [T1]
*VBW 30 kHz -11.44 dBm
*SWT 500 s 2.437639423 GHz

Ref 20 dBm

*Att 20 dB

1 PK *
CLRWR



Center 2.437 GHz

150 kHz/

Span 1.5 MHz

Date: 25.JUN.2007 09:36:18



Mode 6

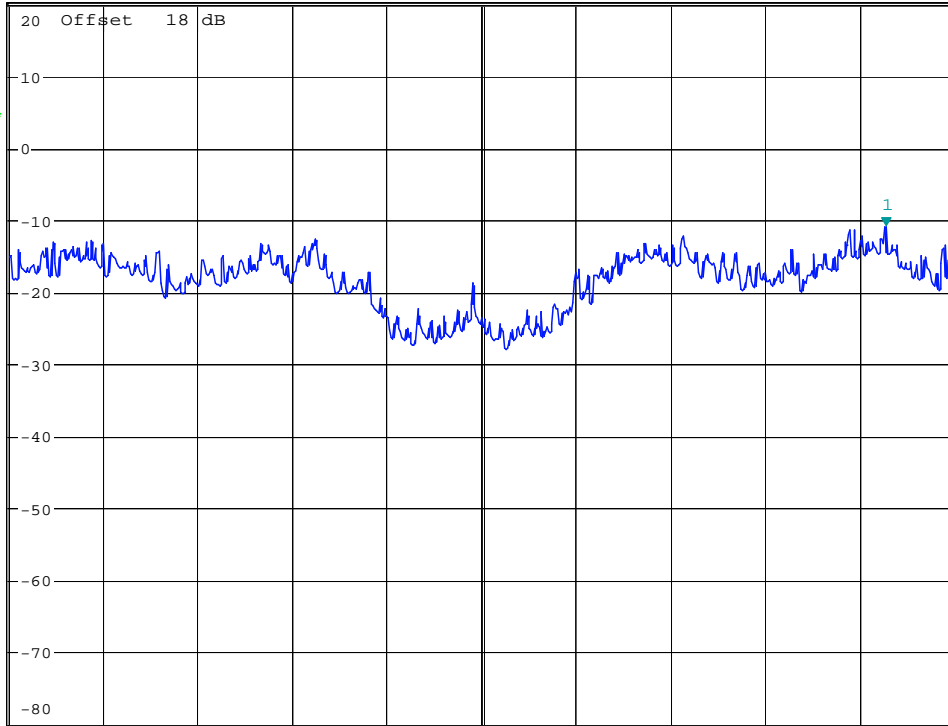


*RBW 3 kHz Marker 1 [T1]
 *VBW 30 kHz -10.93 dBm
 *SWT 500 s 2.462641827 GHz

Ref 20 dBm

*Att 20 dB

1 PK *
 CLRWR



Center 2.462 GHz 150 kHz/ Span 1.5 MHz

Date: 25.JUN.2007 09:46:18



5.4 Band Edges Measurement

5.4.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.4.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer via a low lose cable.
2. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100 kHz bandwidth from band edge.
3. The band edges was measured and recorded.

5.4.3 Test Result :

- Application Type : WLAN 802.11b/g
- Temperature : 25~27°C
- Relative Humidity : 56~58%
- Test Enginner : Tony

- Test Result in WLAN lower band (Channel 1) : PASS
- Test Result in WLAN higher band (Channel 11) : PASS

5.4.4 Note on Band Edge Emission :

➤WLAN 802.11b

CH01 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2384.2	57.61	-16.39	74.00	59.05	30.25	3.75	35.44	100	0	Peak
2384.2	48.25	-5.75	54.00	49.69	30.25	3.75	35.44	100	95	Average

CH01 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2386.6	48.75	-5.25	54.00	50.19	30.25	3.75	35.44	100	50	Average
2386.6	58.17	-15.83	74.00	59.61	30.25	3.75	35.44	100	0	Peak



CH11 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2490.8	47.83	-26.17	54.00	49.18	30.30	3.86	35.51	100	113	Average
2490.8	57.90	-16.10	74.00	59.25	30.30	3.86	35.51	100	0	Peak

CH11 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	58.23	-15.77	74.00	59.59	30.29	3.86	35.51	100	0	Peak
2483.5	48.60	-5.40	54.00	49.96	30.29	3.86	35.51	100	96	Average

➤WLAN 802.11g

CH01 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.8	65.94	-8.06	74.00	67.39	30.26	3.75	35.46	100	0	Peak
2389.8	50.33	-3.67	54.00	51.78	30.26	3.75	35.46	100	55	Average

CH01 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.9	67.03	-6.97	74.00	68.48	30.26	3.75	35.46	100	0	Peak
2389.9	50.40	-3.60	54.00	51.85	30.26	3.75	35.46	100	56	Average

CH11 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2490.7	65.92	-8.08	74.00	67.27	30.30	3.86	35.51	100	0	Peak
2490.7	50.05	-3.95	54.00	51.40	30.30	3.86	35.51	100	112	Average



CH11 (Vertical)

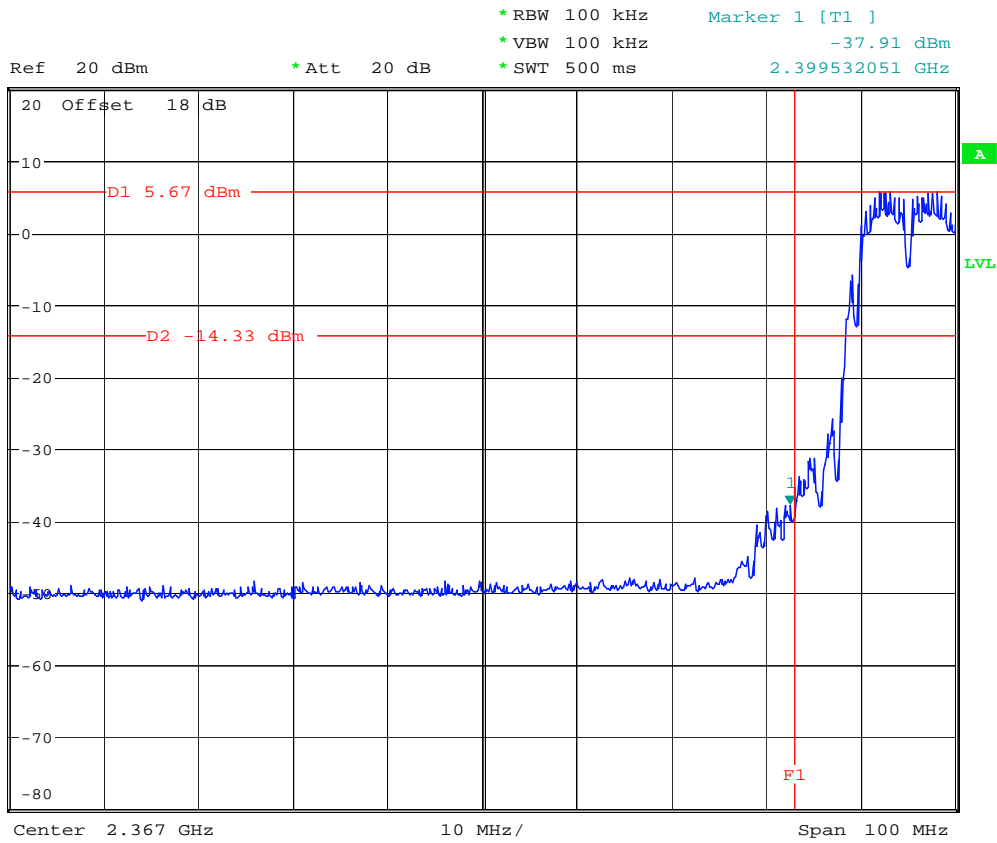
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
4926.0	49.98	-24.02	74.00	46.93	33.34	5.92	36.21	100	0	Peak
4926.0	38.08	-15.92	54.00	35.03	33.34	5.92	36.21	100	109	Average



5.4.4 20dB Band Edge

WLAN 802.11b

CH01



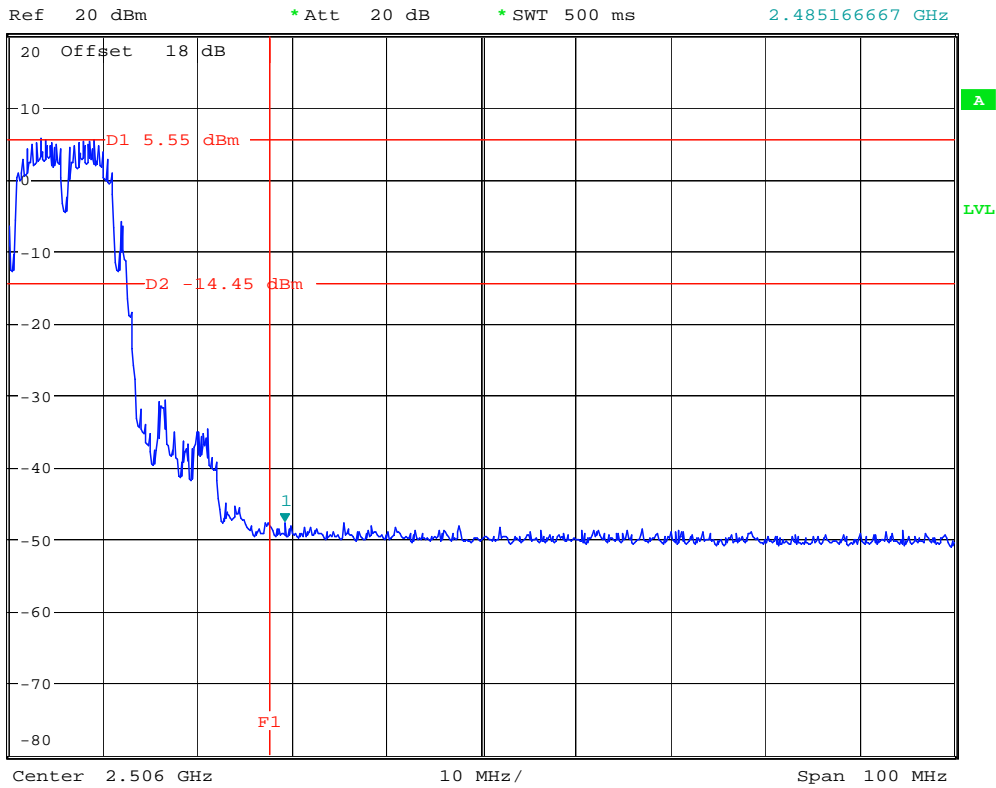
Date: 25.JUN.2007 04:16:09



CH11



*RBW 100 kHz Marker 1 [T1]
*VBW 100 kHz -47.85 dBm
*SWT 500 ms 2.485166667 GHz

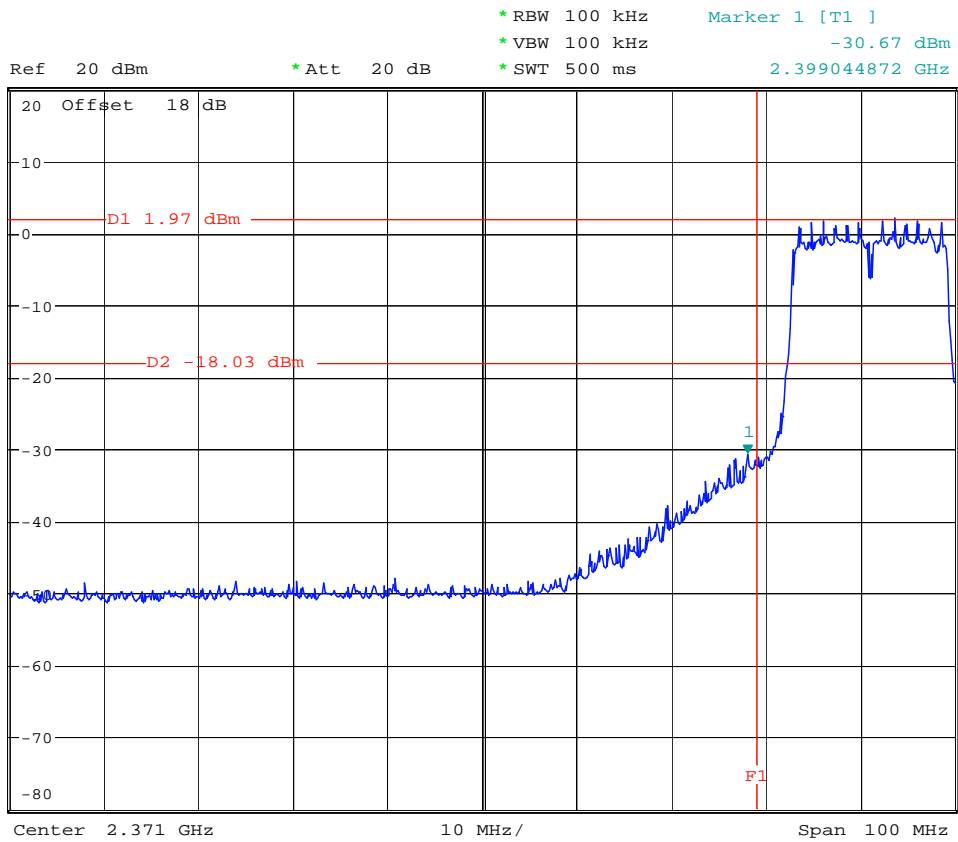


Date: 25.JUN.2007 04:20:53



WLAN 802.11g

CH01



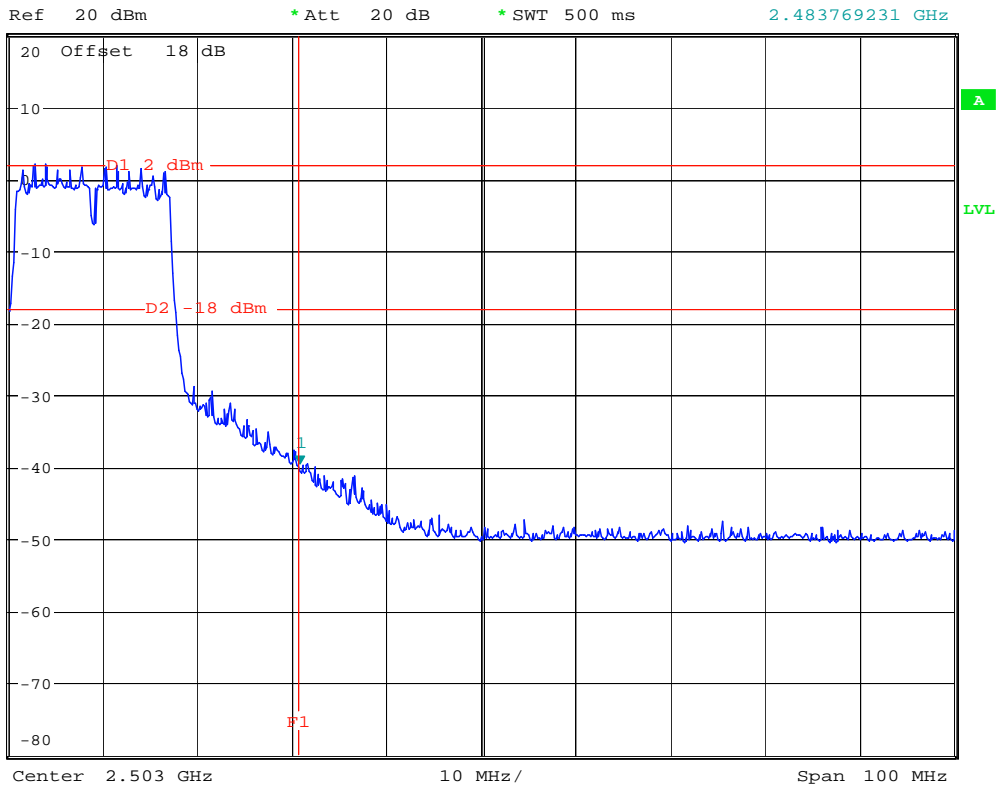
Date: 25.JUN.2007 04:24:02



CH11



*RBW 100 kHz Marker 1 [T1]
*VBW 100 kHz -39.73 dBm
*SWT 500 ms 2.483769231 GHz



Date: 25.JUN.2007 04:28:06

5.5 Peak Output Power Measurement

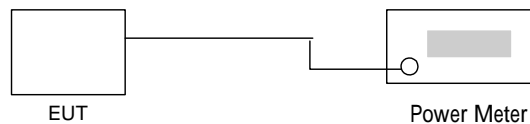
5.5.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.5.2 Test Procedure :

1. The antenna port (RF output) of the EUT was connected to the input (RF input) of a power meter for WLAN measurement. The power is equal to the reading level on power meter plus cable loss at the EUT antenna terminal.
2. The antenna port(RF output) of the EUT was connected to the input (RF input) of a spectrum analyzer for BT measurement. The cable loss has been offset before testing.

5.5.3 Test Setup Layout :



5.5.4 Test Result :

- Application Type : WLAN 802.11b/g
- Temperature : 25~27°C
- Relative Humidity : 56~58%
- Test Enginner : Tony

WLAN 802.11b

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	18.67	1W/30 dBm
06	2437	18.74	1W/30 dBm
11	2462	18.41	1W/30 dBm

WLAN 802.11g

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	20.76	1W/30 dBm
06	2437	19.86	1W/30 dBm
11	2462	20.52	1W/30 dBm



5.6 Conducted Emission

5.6.1 Measuring Instruments

As described in chapter 6 of this test Report.

5.6.2 Test Procedures :

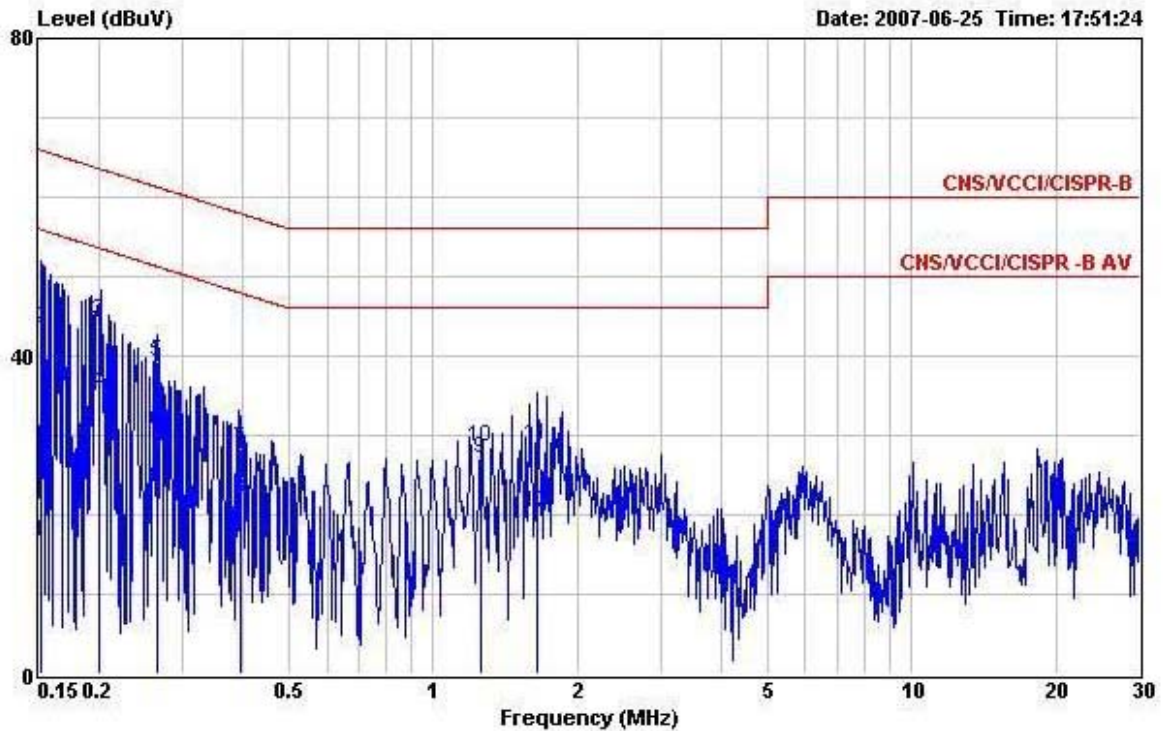
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of a line impedance stabilization network (LISN).
- c. All the support units are connected to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.



5.6.3 Test Data

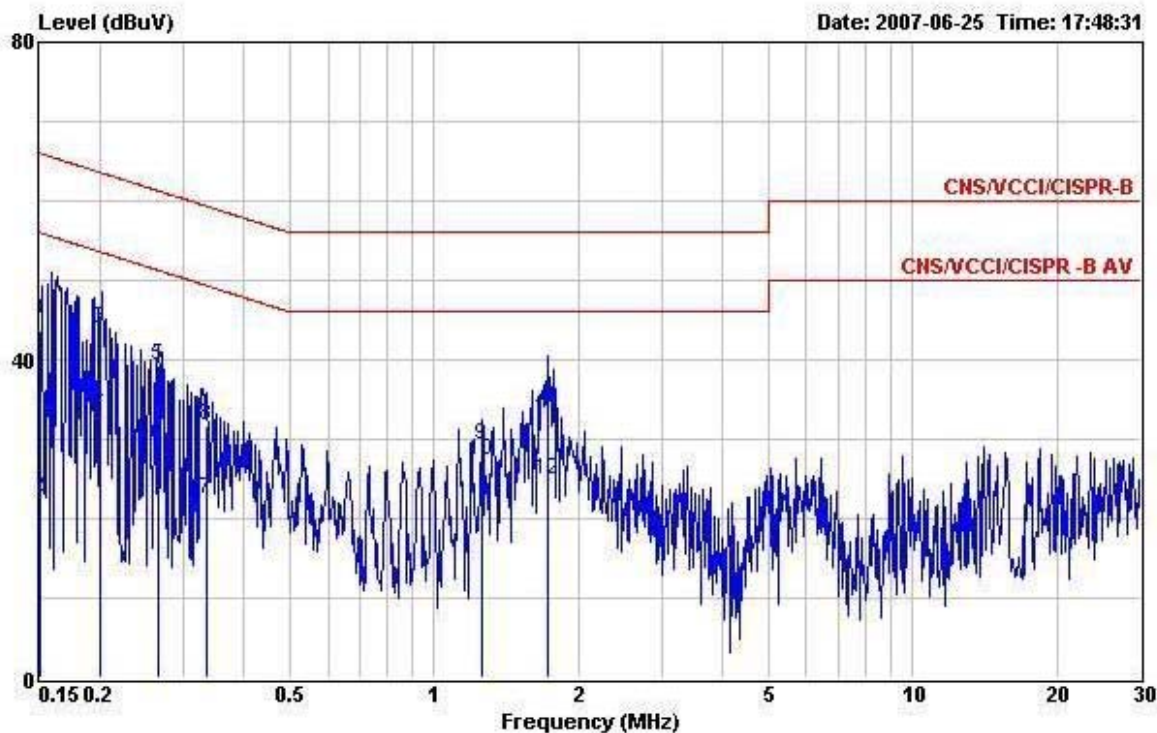
- Temperature : 25~27°C
- Relative Humidity : 56~58%
- Test Enginner : Sam
- Test Mode : Mode 1

The test that passed at minimum margin was marked by the frame in the following table.



Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE
 EUT : USB DONGLE
 Power : 120V/60Hz(FROM SYSTER)
 Model :
 Memo : **PING**
 Memo :
 Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.151	16.65	-39.31	55.96	16.47	0.10	0.08	Average
2	0.151	43.38	-22.58	65.96	43.20	0.10	0.08	QP
3	0.199	44.34	-19.29	63.63	44.14	0.10	0.10	QP
4	0.199	35.45	-18.18	53.63	35.25	0.10	0.10	Average
5	0.264	39.30	-22.00	61.30	39.12	0.10	0.08	QP
6	0.264	30.51	-20.79	51.30	30.33	0.10	0.08	Average
7	0.394	28.19	-29.78	57.97	28.05	0.10	0.04	QP
8	0.394	21.90	-26.07	47.97	21.76	0.10	0.04	Average
9	1.261	27.18	-18.82	46.00	26.89	0.10	0.19	Average
10	1.261	28.57	-27.43	56.00	28.28	0.10	0.19	QP
11	1.650	28.68	-27.32	56.00	28.36	0.10	0.22	QP
12	1.650	20.35	-25.65	46.00	20.03	0.10	0.22	Average



Site : C001-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL
 EUT : USB DONGLE
 Power : 120V/60Hz(FROM SYSTER)
 Model :
 Memo : **PING**
 Memo :
 Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.150	43.67	-22.33	66.00	43.49	0.10	0.08	QP
2	0.150	22.73	-33.27	56.00	22.55	0.10	0.08	Average
3	0.200	43.81	-19.78	63.59	43.61	0.10	0.10	QP
4	0.200	34.13	-19.46	53.59	33.93	0.10	0.10	Average
5	0.265	39.34	-21.94	61.28	39.16	0.10	0.08	QP
6	0.265	29.16	-22.12	51.28	28.98	0.10	0.08	Average
7	0.334	22.43	-26.92	49.35	22.27	0.10	0.06	Average
8	0.334	31.73	-27.62	59.35	31.57	0.10	0.06	QP
9	1.260	29.28	-26.72	56.00	28.99	0.10	0.19	QP
10	1.260	27.30	-18.70	46.00	27.01	0.10	0.19	Average
11	1.729	32.70	-23.30	56.00	32.37	0.10	0.23	QP
12	1.729	25.00	-21.00	46.00	24.67	0.10	0.23	Average



5.7 Radiated Emission Measurement

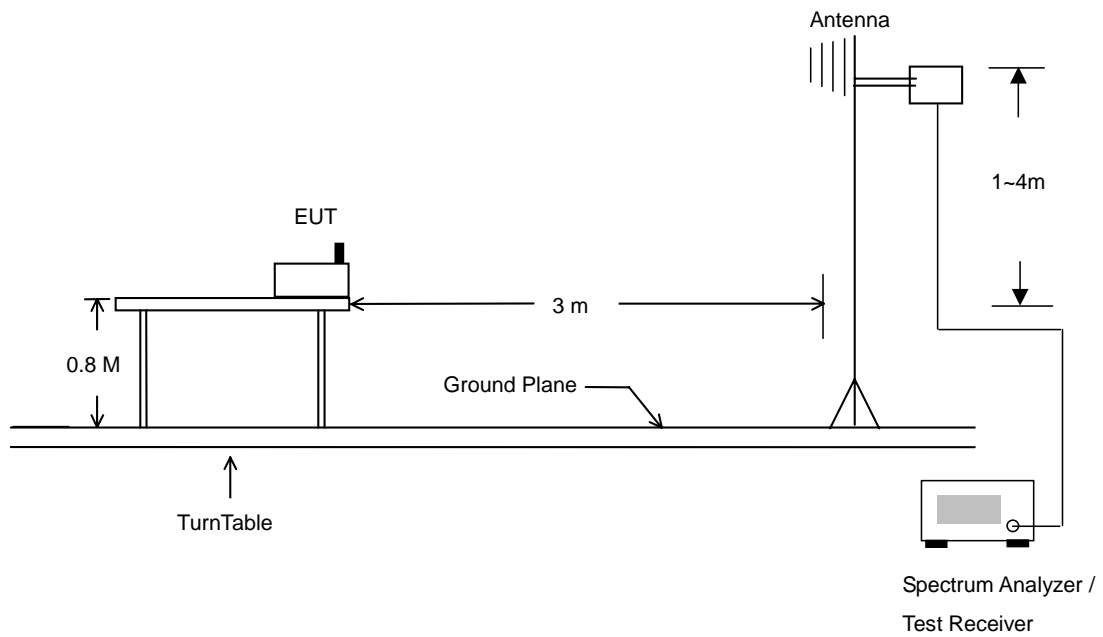
5.7.1 Measuring Instruments

As described in chapter 6 of this Report.

5.7.2 Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
- e. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. For testing below 1GHz, If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average 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.

5.7.3 Typical Test Setup Layout of Radiated Emission

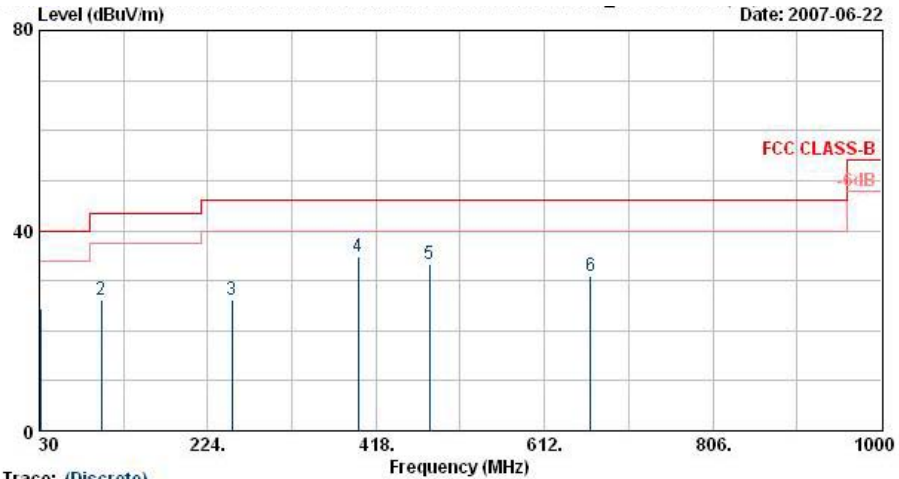




5.7.4 Test Data

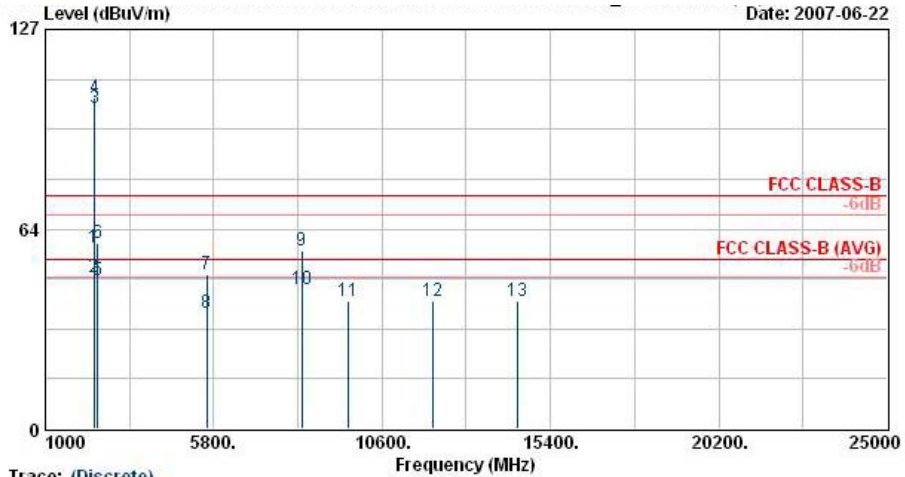
- Temperature : 25°~27C
- Relative Humidity : 56~58%
- Test Enginner : Sam
- Test Mode : Mode 1
- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : LF-ANT(951121) HORIZONTAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-EP-02
 Memo : lib_Tx Ch01;2412MHz
 Data Rate : 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	31.08	24.46	-15.54	40.00	36.29	18.95	0.64	31.43	---	Peak
2	101.28	26.08	-17.42	43.50	45.10	11.07	1.07	31.15	---	Peak
3	251.94	26.15	-19.85	46.00	43.03	12.31	1.74	30.93	---	Peak
4	397.30	34.73	-11.27	46.00	47.66	15.71	2.22	30.86	---	Peak
5	479.90	33.17	-12.83	46.00	44.37	17.09	2.53	30.81	---	Peak
6	665.40	31.03	-14.97	46.00	39.77	18.74	3.15	30.63	---	Peak



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : USB Dongle
 Power : From system
 Model : US-G-BR-02
 Memo : 11b_Tx Ch01;2412MHz
 Data Rate : 1

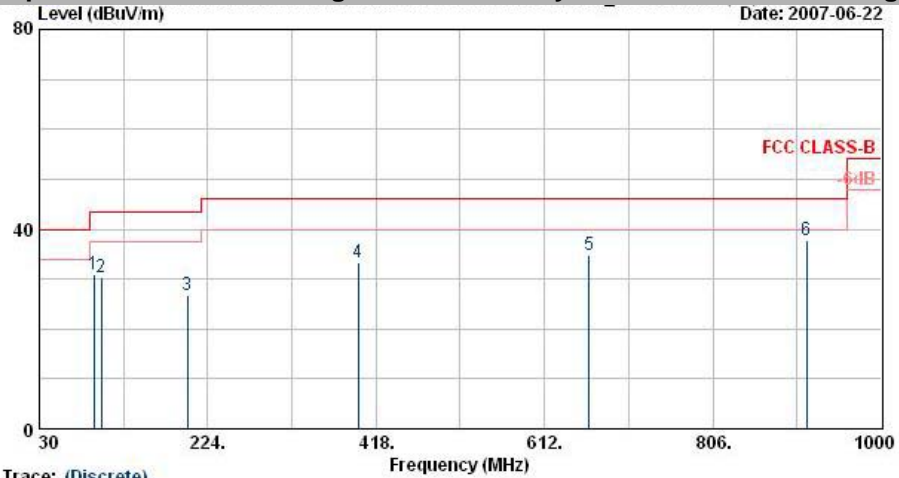
	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2384.16	57.61	-16.39	74.00	59.05	30.25	3.75	35.44	100	0 Peak
2 @	2384.16	48.25	-5.75	54.00	49.69	30.25	3.75	35.44	100	95 Average
3 @	2412.00	101.88			103.30	30.27	3.77	35.46	100	95 Average
4 @	2412.00	105.50			106.92	30.27	3.77	35.46	100	0 Peak
5 @	2484.00	47.21	-6.79	54.00	48.57	30.29	3.86	35.51	100	95 Average
6	2484.00	59.17	-14.83	74.00	60.53	30.29	3.86	35.51	100	0 Peak
7	5607.00	49.02	-24.98	74.00	44.36	33.70	6.88	35.93	100	0 Peak
8	5607.00	36.71	-17.29	54.00	32.05	33.70	6.88	35.93	100	73 Average
9	8316.00	56.69	-17.31	74.00	45.22	39.35	8.14	36.02	100	0 Peak
10 @	8316.00	44.50	-9.50	54.00	33.03	39.35	8.14	36.02	100	97 Average
11	9642.00	40.44	-33.56	74.00	78.10	-10.09	9.12	36.68	---	--- Peak
12	12057.00	40.37	-33.63	74.00	76.08	-9.80	10.65	36.56	---	--- Peak
13	14472.00	40.74	-33.26	74.00	71.03	-6.57	11.72	35.44	---	--- Peak

Remark: #3 and #4 Fundamental Signal



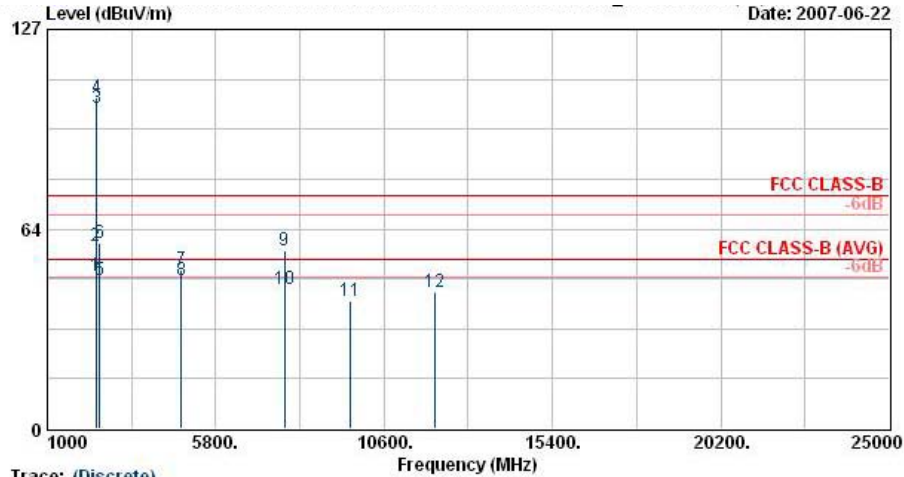
- Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : LF-ANT(951121) VERTICAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-BR-02
 Memo : lib_Tx: Ch01;2412MHz
 Data Rate : 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	92.64	30.96	-12.54	43.50	51.40	9.62	1.05	31.11	---	---	Peak
2	101.28	30.43	-13.07	43.50	49.44	11.07	1.07	31.15	---	---	Peak
3	200.64	26.66	-16.84	43.50	46.78	9.36	1.54	31.02	---	---	Peak
4	397.30	33.44	-12.56	46.00	46.36	15.71	2.22	30.86	---	---	Peak
5	663.30	34.76	-11.24	46.00	43.52	18.74	3.14	30.63	---	---	Peak
6 @	913.90	37.84	-8.16	46.00	43.71	20.63	3.85	30.34	---	---	Peak



Date: 2007-06-22

Trace: (Discrete)
 Site : 03CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : USB Dongle
 Power : From system
 Model : US-G-BR-02
 Memo : 11b_Tx Ch01;2412MHz
 Data Rate : 1

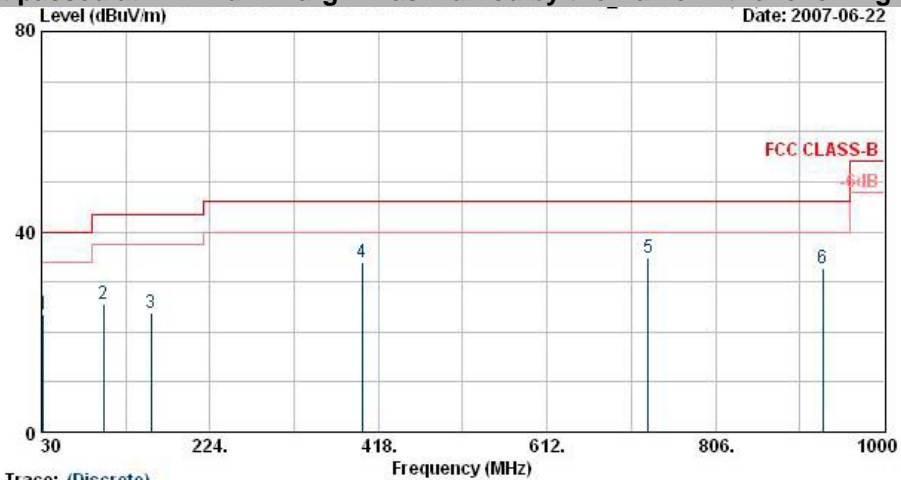
	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	2386.56	48.75	-5.25	54.00	50.19	30.25	3.75	35.44	100	50 Average
2	2386.56	58.17	-15.83	74.00	59.61	30.25	3.75	35.44	100	0 Peak
3 @	2412.00	101.88			103.30	30.27	3.77	35.46	100	50 Average
4 @	2412.00	105.49			106.91	30.27	3.77	35.46	100	0 Peak
5 @	2488.00	47.09	-6.91	54.00	48.44	30.30	3.86	35.51	100	50 Average
6	2488.00	58.98	-15.02	74.00	60.33	30.30	3.86	35.51	100	0 Peak
7	4821.00	50.59	-23.41	74.00	47.93	32.94	5.84	36.12	100	0 Peak
8 @	4821.00	47.03	-6.97	54.00	44.36	32.94	5.84	36.12	100	101 Average
9	7752.00	56.57	-17.43	74.00	45.56	39.25	7.70	35.95	100	0 Peak
10 @	7752.00	44.32	-9.68	54.00	33.32	39.25	7.70	35.95	100	60 Average
11	9642.00	40.81	-33.19	74.00	78.46	-10.09	9.12	36.68	100	0 Peak
12	12057.00	43.57	-30.43	74.00	79.28	-9.80	10.65	36.56	100	0 Peak

Remark: #3 and #4 Fundamental Signal



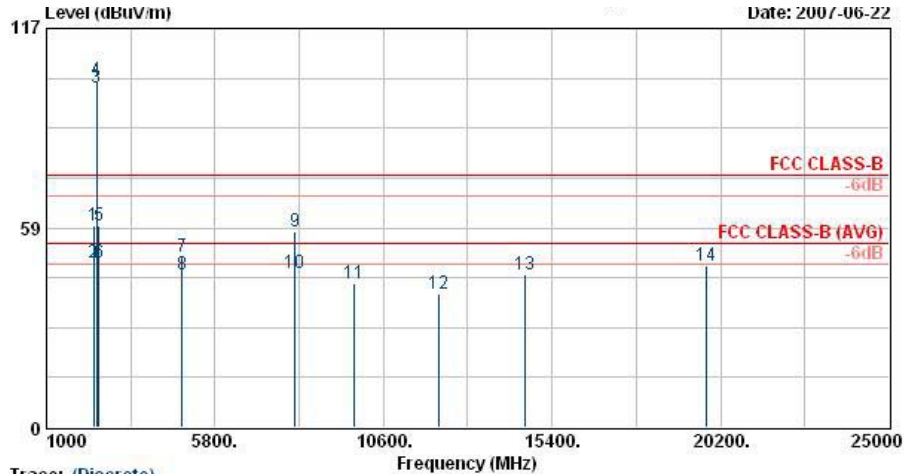
- Test Mode : Mode 2
- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
 Site : D3CH06-HY
 Condition : LR-ANT(851121) HORIZONTAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-BR-02
 Memo : 11b_Tx: Ch06;2437MHz
 Data Rate : 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg		
1	32.43	23.52	-16.48	40.00	36.68	17.54	0.66	31.36	---	---	Peak
2	101.28	25.53	-17.97	43.50	44.55	11.07	1.07	31.15	---	---	Peak
3	156.09	23.70	-19.80	43.50	43.14	10.24	1.37	31.05	---	---	Peak
4	399.40	34.05	-11.95	46.00	46.92	15.76	2.23	30.86	---	---	Peak
5	728.40	34.73	-11.27	46.00	42.84	19.15	3.30	30.56	100	56	Peak
6	929.30	32.84	-13.16	46.00	38.55	20.74	3.88	30.32	---	---	Peak



Site : 03CH06-HY
 Condition : SHF-EHF HORN HORIZONTAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-BP-02
 Memo : 11b_Tx Ch06;2437MHz
 Data Rate : 1

Trace: (Discrete)

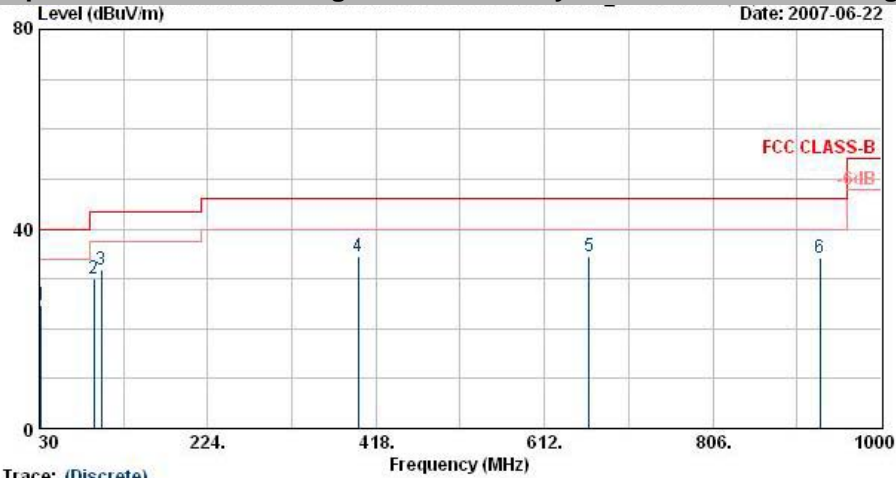
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	2344.00	59.24	-14.76	74.00	60.71	30.24	3.71	35.42	100	0 Peak
2 !	2344.00	48.14	-5.86	54.00	49.62	30.24	3.71	35.42	100	120 Average
3 X	2437.00	99.62			101.00	30.28	3.82	35.47	100	120 Average
4 X	2437.00	101.98			103.36	30.28	3.82	35.47	100	0 Peak
5	2498.00	59.04	-14.96	74.00	60.39	30.30	3.88	35.53	100	0 Peak
6 !	2498.00	48.21	-5.79	54.00	49.56	30.30	3.88	35.53	100	120 Average
7	4872.00	50.20	-23.80	74.00	47.35	33.14	5.88	36.16	100	0 Peak
8	4872.00	44.67	-9.33	54.00	41.81	33.14	5.88	36.16	100	213 Average
9	8082.00	57.25	-16.75	74.00	45.72	39.53	7.89	35.90	100	0 Peak
10	8082.00	45.33	-8.67	54.00	33.81	39.53	7.89	35.90	100	106 Average
11	9747.00	42.01	-31.99	74.00	79.32	-9.85	9.15	36.61	100	0 Peak
12	12186.00	39.12	-34.88	74.00	75.16	-10.25	10.66	36.46	100	0 Peak
13	14622.00	44.66	-29.34	74.00	75.18	-6.50	11.62	35.63	100	0 Peak
14	19791.00	47.57	-26.43	74.00	45.25	21.97	16.92	36.57	100	0 Peak

Remark: #3 and #4 Fundamental Signal



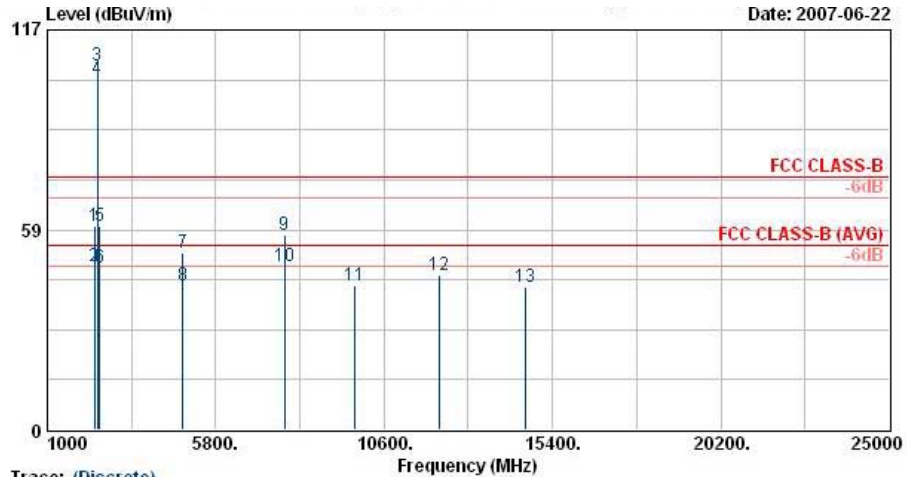
- Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : LF-ANT(951121) VERTICAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-BR-02
 Memo : 11b_Tx: Ch06;2437MHz
 Data Rate : 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	32.43	24.74	-15.26	40.00	37.90	17.54	0.66	31.36	---	---	Peak
2	92.64	30.16	-13.34	43.50	50.60	9.62	1.05	31.11	---	---	Peak
3	101.28	31.81	-11.69	43.50	50.83	11.07	1.07	31.15	---	---	Peak
4	397.30	34.37	-11.63	46.00	47.30	15.71	2.22	30.86	---	---	Peak
5	663.30	34.58	-11.42	46.00	43.33	18.74	3.14	30.63	100	186	Peak
6	929.30	34.19	-11.81	46.00	39.90	20.74	3.88	30.32	---	---	Peak



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-BR-02
 Memo : 11b_Tx Ch06;2437MHz
 Data Rate : 1

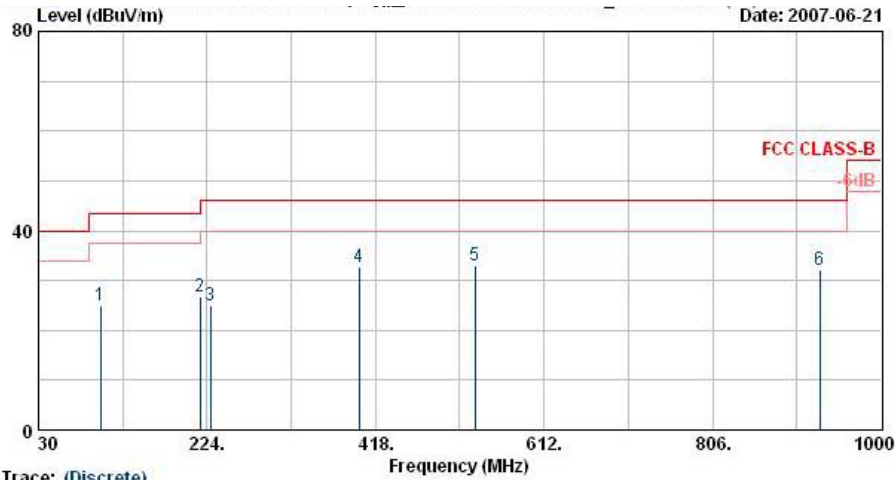
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2344.00	59.79	-14.21	74.00	61.27	30.24	3.71	35.42	100	0	Peak
2	2344.00	47.65	-6.35	54.00	49.13	30.24	3.71	35.42	100	58	Average
3 X	2437.00	106.41			107.79	30.28	3.82	35.47	100	0	Peak
4 @	2437.00	102.82			104.20	30.28	3.82	35.47	100	97	Average
5	2484.00	59.62	-14.38	74.00	60.98	30.29	3.86	35.51	100	0	Peak
6	2484.00	47.55	-6.45	54.00	48.91	30.29	3.86	35.51	100	58	Average
7	4872.00	51.64	-22.36	74.00	48.78	33.14	5.88	36.16	100	0	Peak
8	4872.00	42.37	-11.63	54.00	39.51	33.14	5.88	36.16	100	213	Average
9	7761.00	56.99	-17.01	74.00	45.95	39.27	7.71	35.95	100	0	Peak
10	7761.00	47.77	-6.23	54.00	36.74	39.27	7.71	35.95	100	158	Average
11	9747.00	42.39	-31.61	74.00	79.70	-9.85	9.15	36.61	100	0	Peak
12	12186.00	45.43	-28.57	74.00	81.47	-10.25	10.66	36.46	100	0	Peak
13	14622.00	41.76	-32.24	74.00	72.28	-6.50	11.62	35.63	100	0	Peak

Remark: #3 and #4 Fundamental Signal



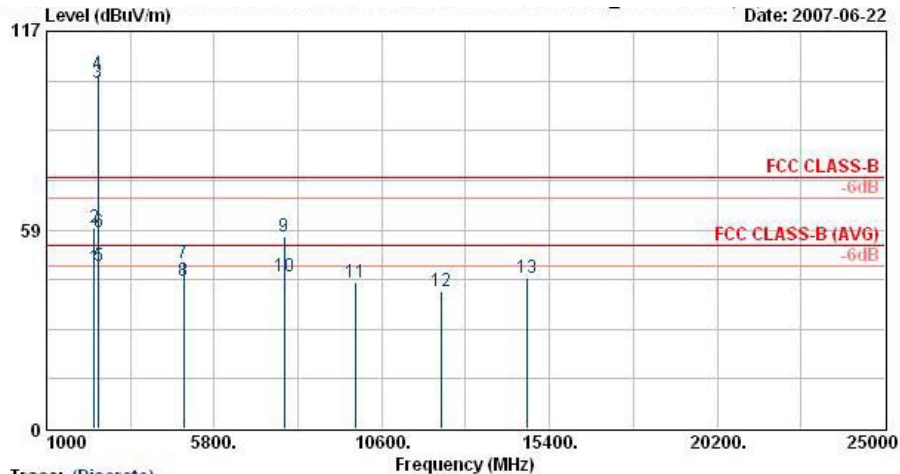
- Test Mode : Mode 3
- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : LF-ANT(951121) HORIZONTAL
 EUT : USB Dongle
 Power : From system
 Model : US-G-BP-02
 Memo : lib_Tx Ch11;2462MHz
 Data Rate : 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	101.28	25.00	-18.50	43.50	44.01	11.07	1.07	31.15	---	---	Peak
2	216.03	26.74	-19.26	46.00	45.90	10.27	1.60	31.03	---	---	Peak
3	227.64	24.93	-21.07	46.00	43.27	10.96	1.65	30.95	---	---	Peak
4	399.40	32.76	-13.24	46.00	45.63	15.76	2.23	30.86	---	---	Peak
5	532.40	33.01	-12.99	46.00	43.28	17.76	2.72	30.75	100	257	Peak
6	929.30	32.10	-13.90	46.00	37.81	20.74	3.88	30.32	---	---	Peak



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : SHF-EHF HORN HORIZONTAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-EB-02
 Memo : lib_Rx: Ch11;2462MHz
 Data Rate : 1

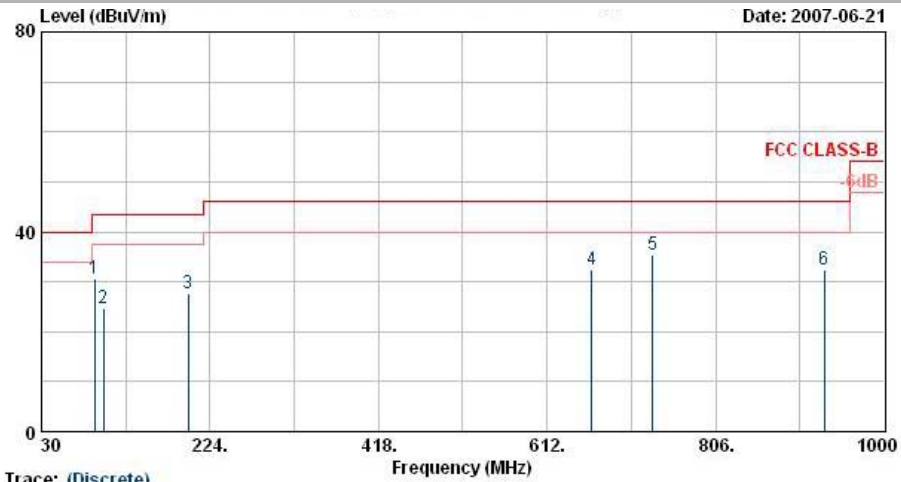
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2358.00	47.27	-6.73	54.00	48.74	30.24	3.71	35.42	100	113	Average
2	2358.00	59.28	-14.72	74.00	60.75	30.24	3.71	35.42	100	0	Peak
3 X	2462.00	101.73			103.10	30.29	3.84	35.49	100	113	Average
4 X	2462.00	104.56			105.92	30.29	3.84	35.49	100	0	Peak
5	2490.79	47.83	-26.17	54.00	49.18	30.30	3.86	35.51	100	113	Average
6	2490.79	57.90	-16.10	74.00	59.25	30.30	3.86	35.51	100	0	Peak
7	4926.00	48.84	-25.16	74.00	45.79	33.34	5.92	36.21	100	0	Peak
8	4926.00	43.29	-10.71	54.00	40.24	33.34	5.92	36.21	100	352	Average
9	7806.00	56.62	-17.38	74.00	45.50	39.32	7.72	35.92	100	0	Peak
10	7806.00	44.59	-9.41	54.00	33.47	39.32	7.72	35.92	100	237	Average
11	9846.00	42.92	-31.08	74.00	79.91	-9.63	9.18	36.54	100	0	Peak
12	12306.00	40.48	-33.52	74.00	76.83	-10.65	10.68	36.38	100	0	Peak
13	14772.00	44.44	-29.56	74.00	75.15	-6.38	11.47	35.79	100	0	Peak

Remark: #3 and #4 Fundamental Signal



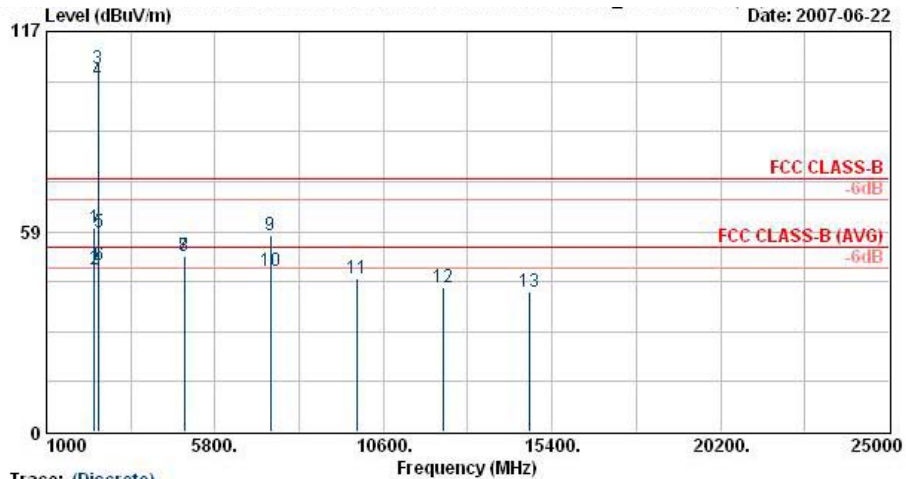
- Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
 Site : 03CH08-HY
 Condition : LR-ANT(951121) VERTICAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-BF-02
 Memo : 11b_Tx: Ch11;2462MHz
 Data Rate : 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	91.29	30.56	-12.94	43.50	51.41	9.23	1.04	31.12	---	Peak
2	101.28	24.61	-18.89	43.50	43.63	11.07	1.07	31.15	---	Peak
3	199.29	27.66	-15.84	43.50	47.84	9.30	1.54	31.02	---	Peak
4	663.30	32.42	-13.58	46.00	41.17	18.74	3.14	30.63	---	Peak
5	733.30	35.28	-10.72	46.00	43.33	19.20	3.30	30.55	100	94 Peak
6	931.40	32.36	-13.64	46.00	38.04	20.75	3.88	30.31	---	Peak



Date: 2007-06-22

Trace: (Discrete)
 Site : 03CH06-HY
 Condition : SHF-EHF HORN VERTICAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-BF-02
 Memo : 11b_Rx Ch11;2462MHz
 Data Rate : 1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2358.00	59.66	-14.34	74.00	61.13	30.24	3.71	35.42	100	0	Peak
2	2358.00	47.22	-6.78	54.00	48.69	30.24	3.71	35.42	100	96	Average
3 X	2462.00	106.21			107.58	30.29	3.84	35.49	100	0	Peak
4 X	2462.00	102.63			104.00	30.29	3.84	35.49	100	96	Average
5	2483.52	58.23	-15.77	74.00	59.59	30.29	3.86	35.51	100	0	Peak
6 !	2483.52	48.60	-5.40	54.00	49.96	30.29	3.86	35.51	100	96	Average
7	4926.00	51.50	-22.50	74.00	48.45	33.34	5.92	36.21	100	0	Peak
8 !	4926.00	51.19	-2.81	54.00	48.14	33.34	5.92	36.21	100	74	Average
9	7386.00	57.27	-16.73	74.00	46.91	38.67	7.68	36.00	100	0	Peak
10	7386.00	46.80	-7.20	54.00	36.45	38.67	7.68	36.00	100	243	Average
11	9846.00	44.66	-29.34	74.00	81.64	-9.63	9.18	36.54	100	0	Peak
12	12306.00	42.34	-31.66	74.00	78.69	-10.65	10.68	36.38	100	0	Peak
13	14772.00	40.96	-33.04	74.00	71.67	-6.38	11.47	35.79	100	0	Peak

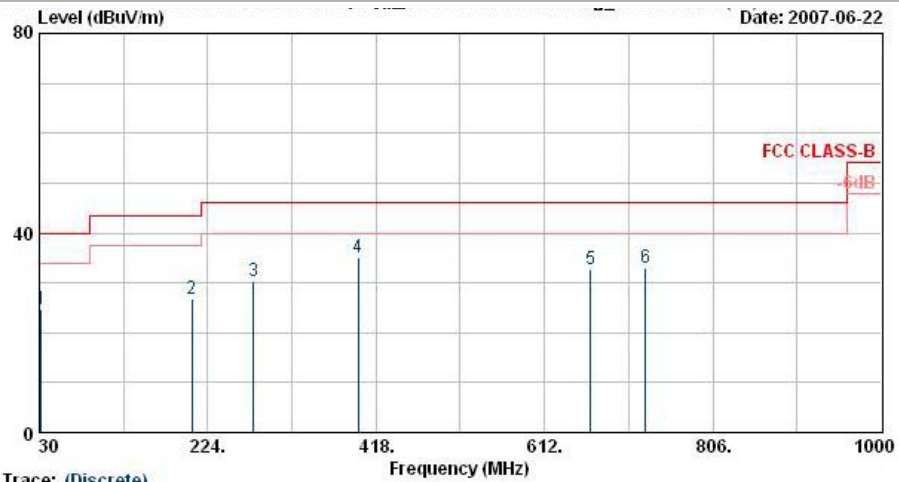
Remark: #3 and #4 Fundamental Signal



Test Mode : Mode 4

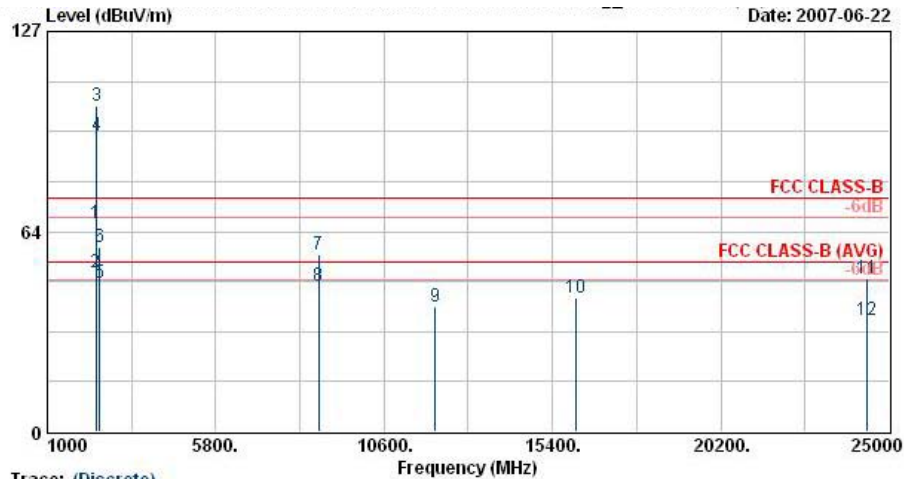
- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : LF-ANT(951121) HORIZONTAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-EP-02
 Memo : Lig_Tx Ch01;2412MHz
 Data Rate : 6

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	31.89	24.72	-15.28	40.00	37.22	18.25	0.65	31.39	---	---	Peak
2	206.04	26.88	-16.62	43.50	46.71	9.64	1.56	31.03	---	---	Peak
3	276.78	30.37	-15.63	46.00	46.73	12.77	1.84	30.97	---	---	Peak
4	397.30	35.14	-10.86	46.00	48.07	15.71	2.22	30.86	100	314	Peak
5	665.40	32.70	-13.30	46.00	41.44	18.74	3.15	30.63	---	---	Peak
6	728.40	32.97	-13.03	46.00	41.08	19.15	3.30	30.56	---	---	Peak



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : HF-ANT-D60410 HORIZONTAL
 EUT : USB Dongle
 Power : From system
 Model : US-G-BR-02
 Memo : lig_Tx Ch01;2412MHz
 Data Rate : 6

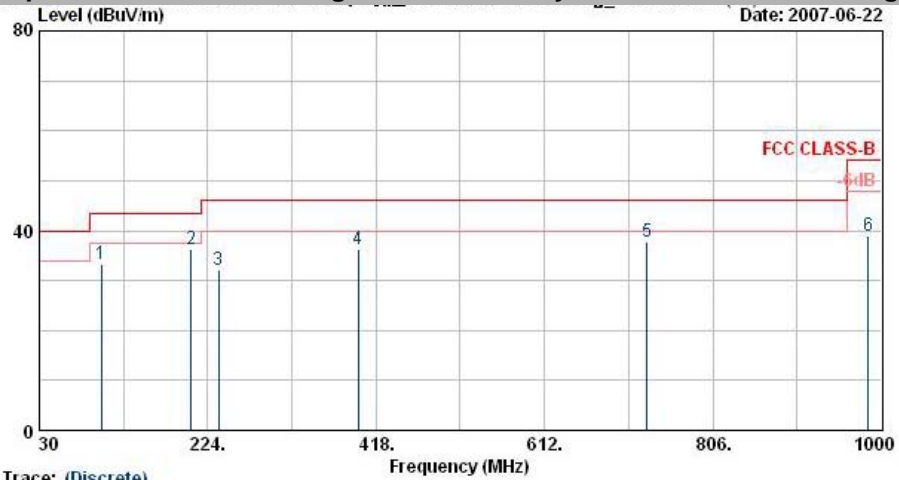
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.76	65.94	-8.06	74.00	67.39	30.26	3.75	35.46	100	0	Peak
2 !	2389.76	50.33	-3.67	54.00	51.78	30.26	3.75	35.46	100	55	Average
3 X	2412.00	103.21			104.63	30.27	3.77	35.46	100	0	Peak
4 X	2412.00	94.13			95.55	30.27	3.77	35.46	100	112	Average
5	2484.00	47.01	-6.99	54.00	48.37	30.29	3.86	35.51	100	112	Average
6	2484.00	58.70	-15.30	74.00	60.06	30.29	3.86	35.51	100	0	Peak
7	8727.00	56.41	-17.59	74.00	45.09	38.87	8.72	36.27	100	0	Peak
8	8727.00	46.21	-7.79	54.00	34.89	38.87	8.72	36.27	100	90	Average
9	12057.00	39.88	-34.12	74.00	75.59	-9.80	10.65	36.56	100	0	Peak
10	16056.00	42.27	-31.73	74.00	70.96	-4.64	11.78	35.83	100	0	Peak
11	24356.00	48.74	-25.26	74.00	46.58	21.79	19.04	38.67	100	0	Peak
12	24356.00	35.37	-18.63	54.00	33.21	21.79	19.04	38.67	100	90	Average

Remark: #3 and #4 Fundamental Signal



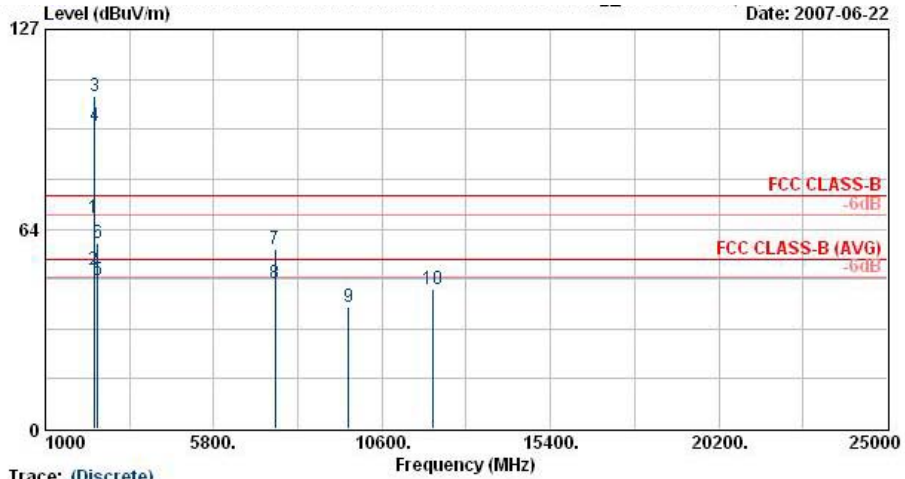
- Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : LF-ANT(851121) VERTICAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-BP-02
 Memo : lig_Tx Ch01;2412MHz
 Data Rate : 6

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	101.28	33.38	-10.12	43.50	52.40	11.07	1.07	31.15	---	---	Peak
2	205.23	36.31	-7.19	43.50	56.13	9.64	1.56	31.03	100	179	Peak
3	236.28	32.19	-13.81	46.00	49.97	11.47	1.68	30.93	---	---	Peak
4	397.30	36.35	-9.65	46.00	49.28	15.71	2.22	30.86	---	---	Peak
5	729.80	37.76	-8.24	46.00	45.86	19.16	3.30	30.55	---	---	Peak
6	985.30	38.94	-15.06	54.00	44.08	21.14	3.99	30.27	---	---	Peak



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : HF-ANT-060410 VERTICAL
 EUT : USB Dongle
 Power : From system
 Model : US-G-BR-02
 Memo : 1lg_Tx Ch01;2412MHz
 Data Rate : 6

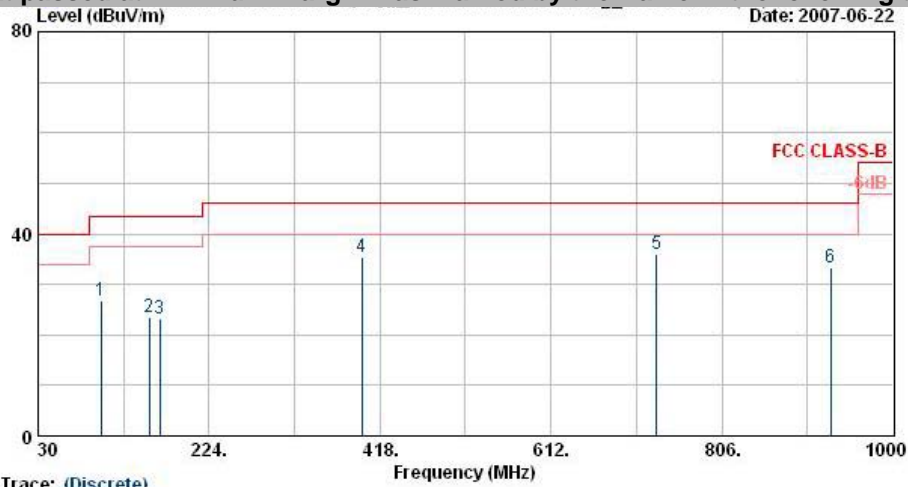
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.92	67.03	-6.97	74.00	68.48	30.26	3.75	35.46	100	0	Peak
2 !	2389.92	50.40	-3.60	54.00	51.85	30.26	3.75	35.46	100	56	Average
3 X	2412.00	105.62			107.04	30.27	3.77	35.46	100	0	Peak
4 X	2412.00	96.11			97.53	30.27	3.77	35.46	100	95	Average
5	2498.00	47.08	-6.92	54.00	48.43	30.30	3.88	35.53	100	95	Average
6	2498.00	58.93	-15.07	74.00	60.28	30.30	3.88	35.53	100	0	Peak
7	7551.00	57.02	-16.98	74.00	46.45	38.97	7.63	36.04	100	0	Peak
8	7551.00	46.17	-7.83	54.00	35.60	38.97	7.63	36.04	100	89	Average
9	9642.00	38.85	-35.15	74.00	76.50	-10.09	9.12	36.68	100	0	Peak
10	12057.00	44.57	-29.43	74.00	80.29	-9.80	10.65	36.56	100	0	Peak

Remark: #3 and #4 Fundamental Signal



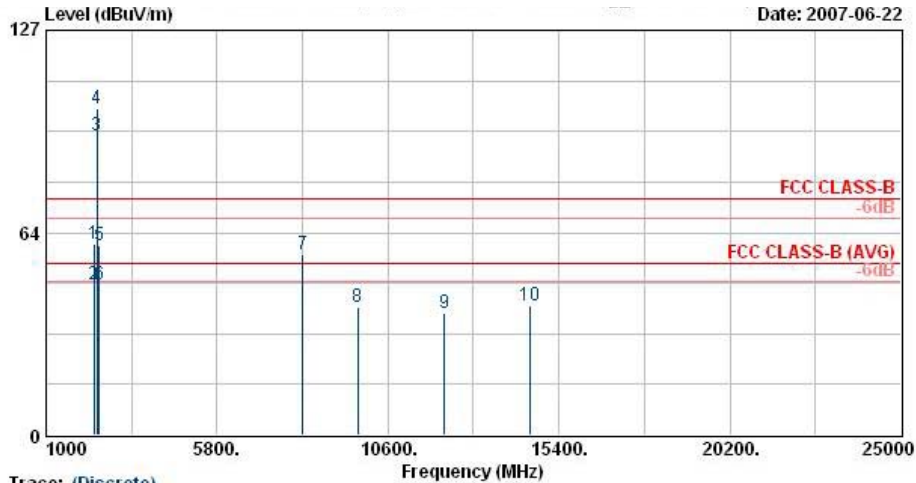
- Test Mode : Mode 5
- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : LF-ANT(951121) HORIZONTAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-BR-02
 Memo : Iig_Ts: Ch06;2437MHz
 Data Rate : 6

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	101.28	26.78	-16.72	43.50	45.80	11.07	1.07	31.15	---	Peak
2	156.09	23.54	-19.96	43.50	42.97	10.24	1.37	31.05	---	Peak
3	168.24	23.34	-20.16	43.50	42.98	9.94	1.42	31.01	---	Peak
4	397.30	35.30	-10.70	46.00	48.23	15.71	2.22	30.86	---	Peak
5	731.90	35.96	-10.04	46.00	44.02	19.19	3.30	30.55	---	Peak
6	929.30	33.30	-12.70	46.00	39.00	20.74	3.88	30.32	---	Peak



Trace: (Discrete)

Site : 03CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-BR-02
 Memo : Ilg_T: Ch06;2437MHz
 Data Rate : 6

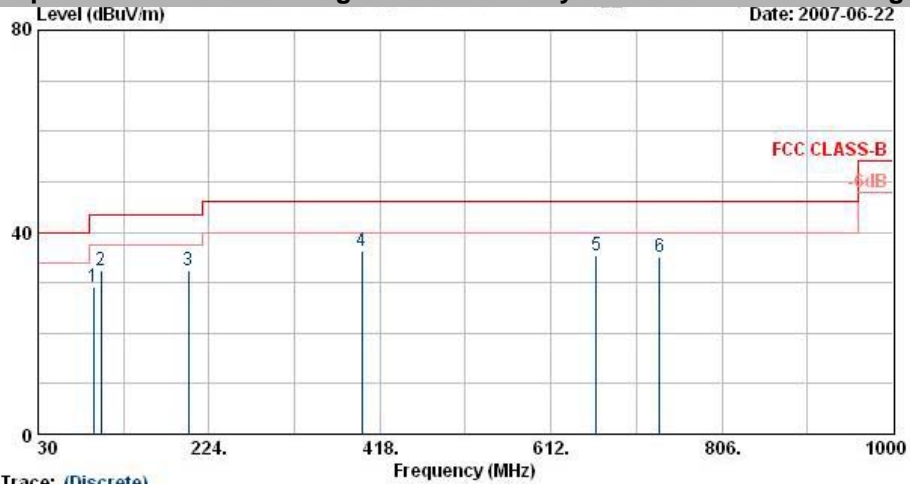
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2334.00	59.83	-14.17	74.00	61.31	30.23	3.69	35.40	100	0	Peak
2	2334.00	47.17			48.66	30.23	3.69	35.40	100	113	Average
3 X	2437.00	93.91			95.32	30.27	3.79	35.47	100	113	Average
4 X	2437.00	102.48	28.48	74.00	103.89	30.27	3.79	35.47	100	0	Peak
5	2494.00	59.35	-14.65	74.00	60.70	30.30	3.88	35.53	100	0	Peak
6	2494.00	47.13	-6.87	54.00	48.48	30.30	3.88	35.53	100	113	Average
7	8202.00	56.56	-17.44	74.00	45.06	39.43	8.02	35.96	---	---	Peak
8	9741.00	40.21	-33.79	74.00	77.54	-9.87	9.15	36.61	---	---	Peak
9	12177.00	38.24	-35.76	74.00	74.26	-10.21	10.66	36.48	---	---	Peak
10	14601.00	40.50	-33.50	74.00	70.98	-6.52	11.64	35.60	---	---	Peak

Remark: #3 and #4 Fundamental Signal



- Polarization : Vertical

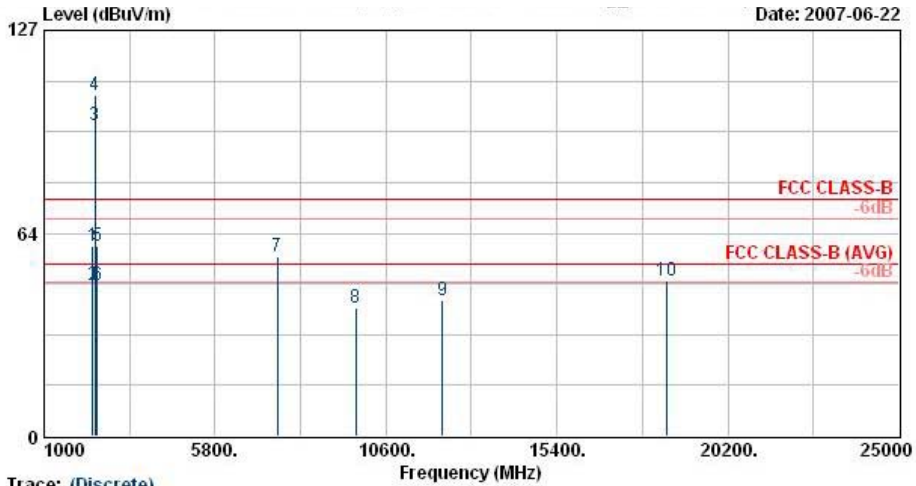
The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 03CH06-HY
 Condition : LF-ANT(951121) VERTICAL
 EUT : USB Dongle
 Power : From system
 Model : US-G-BR-02
 Memo : 11g_Tx Ch06;2437MHz
 Data Rate : 6

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	92.64	29.22	-14.28	43.50	49.66	9.62	1.05	31.11	---	---	Peak
2	101.28	32.29	-11.21	43.50	51.30	11.07	1.07	31.15	---	---	Peak
3	200.64	32.56	-10.94	43.50	52.68	9.36	1.54	31.02	---	---	Peak
4	397.30	36.34	-9.66	46.00	49.26	15.71	2.22	30.86	---	---	Peak
5	663.30	35.44	-10.56	46.00	44.20	18.74	3.14	30.63	---	---	Peak
6	735.40	35.20	-10.80	46.00	43.23	19.22	3.31	30.55	---	---	Peak



Date: 2007-06-22

Trace: (Discrete)

Site : 03CH06-HV
 Condition : HF-ANT-060410 VERTICAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-BR-02
 Memo : Iig_Tx Ch06; 2437MHz
 Data Rate : 6

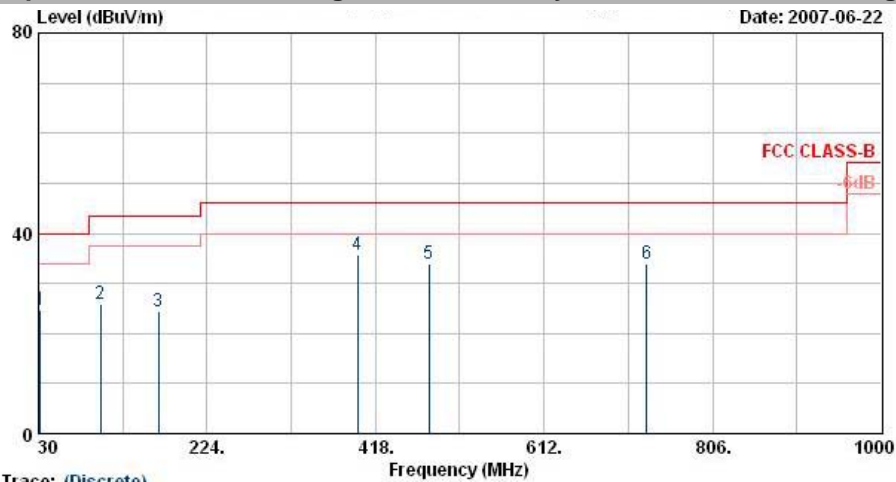
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	Remark
1	2364.00	59.32	-14.68	74.00	60.77	30.24	3.73	35.42	100	0	Peak
2	2364.00	47.30	-6.70	54.00	48.75	30.24	3.73	35.42	100	98	Average
3 @	2437.00	97.25			98.63	30.28	3.82	35.47	100	98	Average
4 X	2437.00	106.49			107.87	30.28	3.82	35.47	100	0	Peak
5	2484.00	59.46	-14.54	74.00	60.82	30.29	3.86	35.51	100	0	Peak
6	2484.00	47.21	-6.79	54.00	48.57	30.29	3.86	35.51	100	98	Average
7	7557.00	56.19	-17.81	74.00	45.60	38.99	7.63	36.04	---	---	Peak
8	9747.00	40.22	-33.78	74.00	77.53	-9.85	9.15	36.61	---	---	Peak
9	12186.00	42.62	-31.38	74.00	78.66	-10.25	10.66	36.46	---	---	Peak
10	18501.00	48.66	-25.34	74.00	44.05	21.19	19.36	35.94	---	---	Peak

Remark: #3 and #4 Fundamental Signal



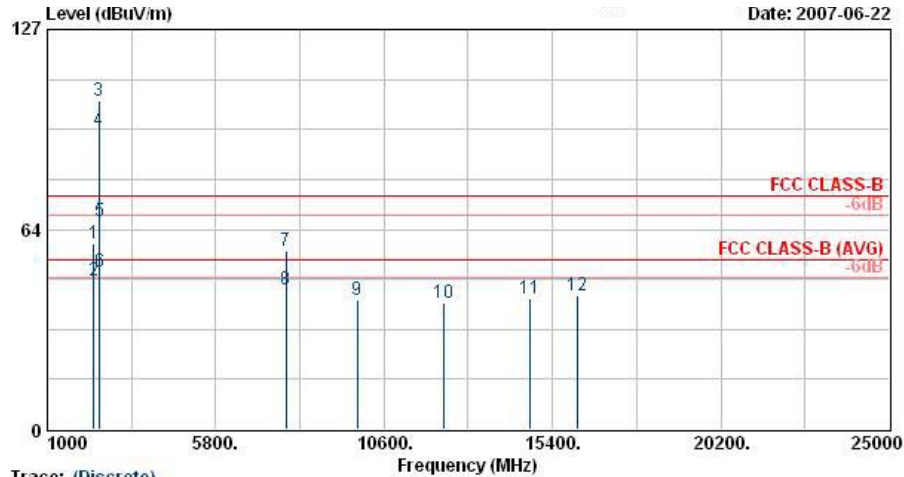
- Test Mode : Mode 6
- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : LF-ANT(951121) HORIZONTAL
 EUT : USB Dongle
 Power : From system
 Model : US-G-BF-02
 Memo : Iig_Tx Ch11;2462MHz
 Data Rate : 6

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	32.43	24.83	-15.17	40.00	37.98	17.54	0.66	31.36	---	---	Peak
2	101.28	25.95	-17.55	43.50	44.96	11.07	1.07	31.15	---	---	Peak
3	168.24	24.34	-19.16	43.50	43.98	9.94	1.42	31.01	---	---	Peak
4	397.30	35.75	-10.25	46.00	48.68	15.71	2.22	30.86	---	---	Peak
5	479.90	33.78	-12.22	46.00	44.97	17.09	2.53	30.81	---	---	Peak
6	729.80	33.88	-12.12	46.00	41.98	19.16	3.30	30.55	---	---	Peak



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : HF-ANT-060410 HORIZONTAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-BR-02
 Memo : lig_Tx Ch11;2462MHz
 Data Rate : 6

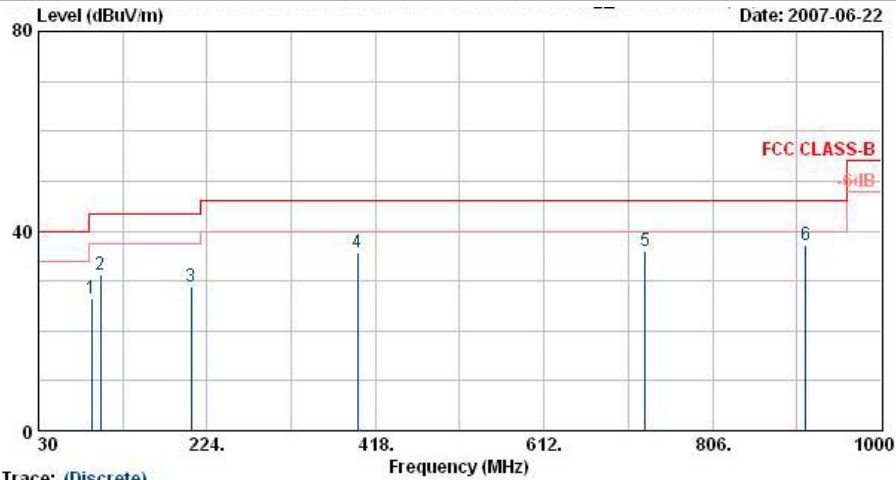
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2314.00	59.24	-14.76	74.00	60.75	30.22	3.66	35.40	100	0	Peak
2	2314.00	47.02	-6.98	54.00	48.53	30.22	3.66	35.40	100	112	Average
3 X	2462.00	104.53			105.90	30.29	3.84	35.49	100	0	Peak
4 X	2462.00	94.86			96.23	30.29	3.84	35.49	100	112	Average
5	2490.74	65.92	-8.08	74.00	67.27	30.30	3.86	35.51	100	0	Peak
6 !	2490.74	50.05	-3.95	54.00	51.40	30.30	3.86	35.51	100	112	Average
7	7797.00	56.65	-17.35	74.00	45.54	39.32	7.72	35.92	100	0	Peak
8	7797.00	44.57	-9.43	54.00	33.45	39.32	7.72	35.92	100	90	Average
9	9846.00	41.11	-32.89	74.00	78.09	-9.63	9.18	36.54	100	0	Peak
10	12306.00	39.93	-34.07	74.00	76.29	-10.65	10.68	36.38	100	0	Peak
11	14766.00	41.33	-32.67	74.00	72.03	-6.38	11.47	35.79	100	0	Peak
12	16101.00	42.63	-31.37	74.00	71.21	-5.14	11.79	35.24	100	0	Peak

Remark: #3 and #4 Fundamental Signal



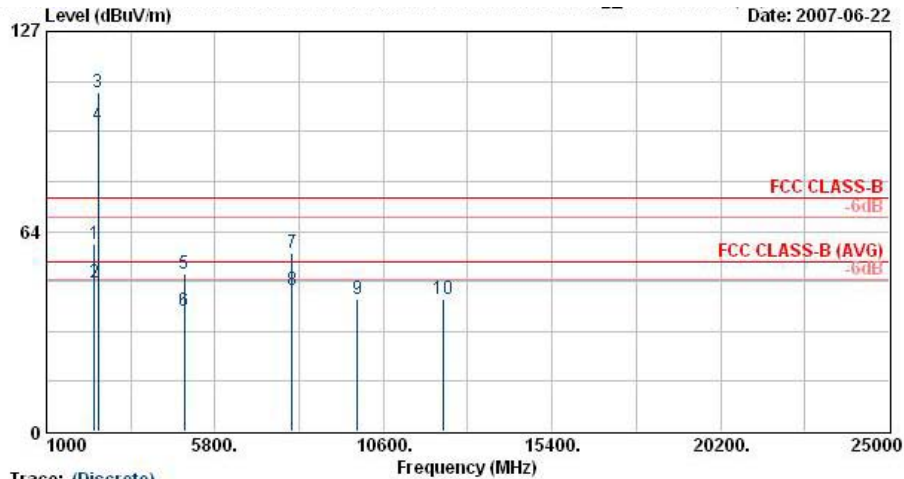
- Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)
 Site : D3CH06-HY
 Condition : LF-ANT(951121) VERTICAL
 EUT : USB Dongle
 Power : From system
 Model : US-G-BR-02
 Memo : Lig_T: Ch11;2462MHz
 Data Rate : 6

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	91.29	26.53	-16.97	43.50	47.38	9.23	1.04	31.12	---	Peak
2	101.28	31.35	-12.15	43.50	50.36	11.07	1.07	31.15	---	Peak
3	206.04	28.83	-14.67	43.50	48.65	9.64	1.56	31.03	---	Peak
4	397.30	35.76	-10.24	46.00	48.69	15.71	2.22	30.86	---	Peak
5	728.40	35.97	-10.03	46.00	44.08	19.15	3.30	30.56	---	Peak
6	913.20	37.10	-8.90	46.00	42.97	20.63	3.85	30.35	---	Peak



Trace: (Discrete)

Site : D3CH06-HY
 Condition : HP-ANT-060410 VERTICAL
 EUT : USB Dongle
 Power : From system
 Model : US-C-BR-02
 Memo : Lig_Tx: Ch11;2462MHz
 Data Rate : 6

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2358.00	59.64	-14.36	74.00	61.11	30.24	3.71	35.42	100	0	Peak
2	2358.00	47.34	-6.66	54.00	48.81	30.24	3.71	35.42	100	100	Average
3 X	2462.00	107.58			108.94	30.29	3.84	35.49	100	0	Peak
4 @	2462.00	97.27			98.64	30.29	3.84	35.49	100	100	Average
5	4926.00	49.98	-24.02	74.00	46.93	33.34	5.92	36.21	100	0	Peak
6	4926.00	38.08	-15.92	54.00	35.03	33.34	5.92	36.21	100	109	Average
7	7986.00	56.61	-17.39	74.00	45.09	39.58	7.79	35.85	100	0	Peak
8	7986.00	44.64	-9.36	54.00	33.12	39.58	7.79	35.85	100	80	Average
9	9852.00	41.96	-32.04	74.00	78.95	-9.63	9.18	36.54	100	0	Peak
10	12297.00	42.22	-31.78	74.00	78.54	-10.62	10.68	36.38	100	0	Peak

Remark: #3 and #4 Fundamental Signal



5.8 Antenna Requirements

5.8.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no other antenna except assembled by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi.

5.8.2 Antenna Connected Construction

The antenna used in this product is Printed Antenna without connector and it is considered to meet antenna requirement of FCC.

5.8.3 Antenna Gain

The antenna gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

**6 List of Measuring Equipments Used**

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
EMC Receiver	R&S	ESCS 30	100132	9kHz – 2.75GHz	Aug. 30, 2006	Aug. 29, 2007	Conduction (CO01-HY)
LISN	MessTec	NNB-2/16Z	2001/004	9kHz – 30MHz	Mar. 30, 2007	Mar. 29, 2008	Conduction (CO01-HY)
LISN (Support Unit)	MessTec	NNB-2/16Z	2001/009	9kHz – 30MHz	Mar. 30, 2007	Mar. 29, 2008	Conduction (CO01-HY)
EMI Filter	LINDGREN	LRE-2060	1004	< 450Hz	N/A	N/A	Conduction (CO01-HY)
EMI Filter	LINDGREN	N6006	201052	0 – 60Hz	N/A	N/A	Conduction (CO01-HY)
RF Cable-CON	Suhner Switzerland	RG223/U	CB029	9kHz – 30MHz	Dec. 04, 2006	Dec. 03, 2007	Conduction (CO01-HY)
Isolation Transformer	Erika Fiedler OHG	D-65396 Walluf	58	45MHz-2.15GHz	N/A	N/A	Conduction (CO01-HY)
Spectrum analyzer	Agilent	E4408B	MY44211030	9KHz-26.5GHz	Oct. 05, 2006	Oct. 04, 2007	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jul. 13, 2006	Jul. 12, 2007	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Nov. 20, 2006	Nov. 19, 2007	Radiation (03CH06-HY)
Double Ridge Horn Antenna	Com-Power	AH118	071025	1G~18G	Jun. 04, 2007	Jun. 04, 2008	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-249	14G - 40G	Nov. 20, 2006	Nov. 19, 2008	Radiation (03CH06-HY)
Pre Amplifier	Agilent	8449B	3008A01917	1G - 26.5G	Nov. 15, 2006	Nov. 14, 2007	Radiation (03CH06-HY)
Pre Amplifier	Mini Circuits	ZKL-2	D092004-1	10~2500MHz	Nov. 15, 2006	Nov. 14, 2007	Radiation (03CH06-HY)
Base Station Simulator	R & S	CMU200	106656	WCDMA	Nov. 20, 2006	Nov. 19, 2007	Radiation (03CH06-HY)
Controller	INN-CO	CO2000	N/A	N/A	N/A	N/A	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0 ~ 360 degree	N/A	N/A	Radiation (03CH06-HY)
Antenna Mast	INN-CO	MM3000	114/8000604/L	1 m - 4 m	N/A	N/A	Radiation (03CH06-HY)



7 Uncertainty Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch	+0.34/-0.35	U-shape	0.24
combined standard uncertainty Uc(y)	1.13		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.26		

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch	+0.39/-0.41	U-shaped	0.28
combined standard uncertainty Uc(y)	1.27		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.54		



Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Contribution	Uncertainty of x_i		$u(x_i)$	C_i	$C_i * u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20 \log(1 - \Gamma_1 * \Gamma_2 * \Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty $U_c(y)$	2.36				
Measuring uncertainty for a level of confidence of 95% $U = 2U_c(y)$	4.72				