

FCC TEST REPORT

for

47 CFR Part 15 Subpart C

Equipment : 802.11g WIRELESS LAN PCI CARD

Trade (Model) Name : EDIMAX (EW-7128G)

GLP (GWA-E18G)

FCC ID : NDD9571280405

Filing Type : Certification

Applicant : EDIMAX Technology Co., Ltd.
No. 3, Wu Chuan 3rd Road, Wu-Ku
Industrial Park, Taipei Hsien, Taiwan.

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SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

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History of this test report

Original Report Issue Date: June 16, 2004

☒ No additional attachment.

☐ Additional attachment were issued as following record:

Attachment No.	Issue Date	Description

CERTIFICATE OF COMPLIANCE
for
47 CFR Part 15 Subpart C

Equipment : 802.11g WIRELESS LAN PCI CARD

Trade (Model) Name : EDIMAX (EW-7128G)

GLP (GWA-E18G)

FCC ID : NDD9571280405

Filing Type : Certification

Applicant : EDIMAX Technology Co., Ltd.
No. 3, Wu Chuan 3rd Road, Wu-Ku
Industrial Park, Taipei Hsien, Taiwan.

I HEREBY CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 - 2001** and the equipment under test was **passed** all test items required in FCC Part 15 subpart C, relative to the equipment under test. Testing was carried out on June 14, 2004 at **SPORTON International Inc. LAB.**



Daniel Lee

Manager

SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

SPORTON International Inc.

TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

FCC ID : NDD9571280405

Page No. : 1 of 102

Issued Date : June 16, 2004

1. General Description of Equipment under Test

1.1. Applicant

EDIMAX Technology Co., Ltd.

No. 3, Wu Chuan 3rd Road, Wu-Ku Industrial Park, Taipei Hsien, Taiwan.

1.2 Manufacturer

EDIMAX Technology Co., Ltd.

No. 3, Wu Chuan 3rd Road, Wu-Ku Industrial Park, Taipei Hsien, Taiwan.

1.3 Basic Description of Equipment under Test

Equipment	: 802.11g WIRELESS LAN PCI CARD
Trade (Model) Name	: EDIMAX (EW-7128G) GLP (GWA-E18G)
FCC ID	: NDD9571280405
Power Supply Type	: 3.3V

1.4 Feature of Equipment under Test

Product Feature & Specification				
1. Host/Radio interface	32-bit PCI V2.2-2.1			
2. Modulation Type/Data Rate	802.11b: BPSK,QPSK,CCK 802.11g: OFDM,WITH BPSK,QPSK,16QAM,64QAM			
3. Freq.Range/Carrier Freqs.	2400 MHz ~ 2483.5 MHz			
4. Number of Channels	USA/Canada: 11	V	European: 13	
	Japan: 13, 14		Other:	
5. Carrier Frequency of each channel	2412 MHz +(n-1)*5 MHz, n= 1~11			
6. Maximum Output Power to Antenna (Normal Condition)	802.11b:18dBm 802.11g:15dBm			
7. Channel Spacing	5 MHz			
8. Type of Antenna Connector	RP-SMA			
9. Antenna Type	External detachable dipole antenna			
10. Antenna Gain	2 dBi			
11. Function Type	Transmitter		Transceiver	V
12. Attached Data Cables(length, shield)	N/A			
13. Power Rating (DC/AC , Voltage)	DC 5V			
14. Duty Cycle	N/A			
15. Temperature / Humidity Range	0°C to 55°C Max TO 95%			

2 Test Configuration of Equipment under Test

2.1 Test Manner

- a. The EUT has been associated with peripherals pursuant to ANSI C63.4-2001 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.
- b. The complete test system included COMPAQ PC, VIEWSONIC Monitor, LOGITECH PS2 Keyboard, LOGITECH USB Mouse, EPSON Printer, ACEEX MODEM and EUT for EMI test.
- c. The EUT can operate on eleven channels from 2412MHz to 2462MHz. (as listed in section 1.4).
- d. The following test modes were tested for conduction test:

Mode 1: Operating

The following test modes were tested for radiation test:

Mode 1: 11b TX CH01 (2412MHz)

Mode 2: 11b TX CH06 (2437MHz)

Mode 3: 11b TX CH11 (2462MHz)

Mode 4: 11g TX CH01 (2412MHz)

Mode 5: 11g TX CH06 (2437MHz)

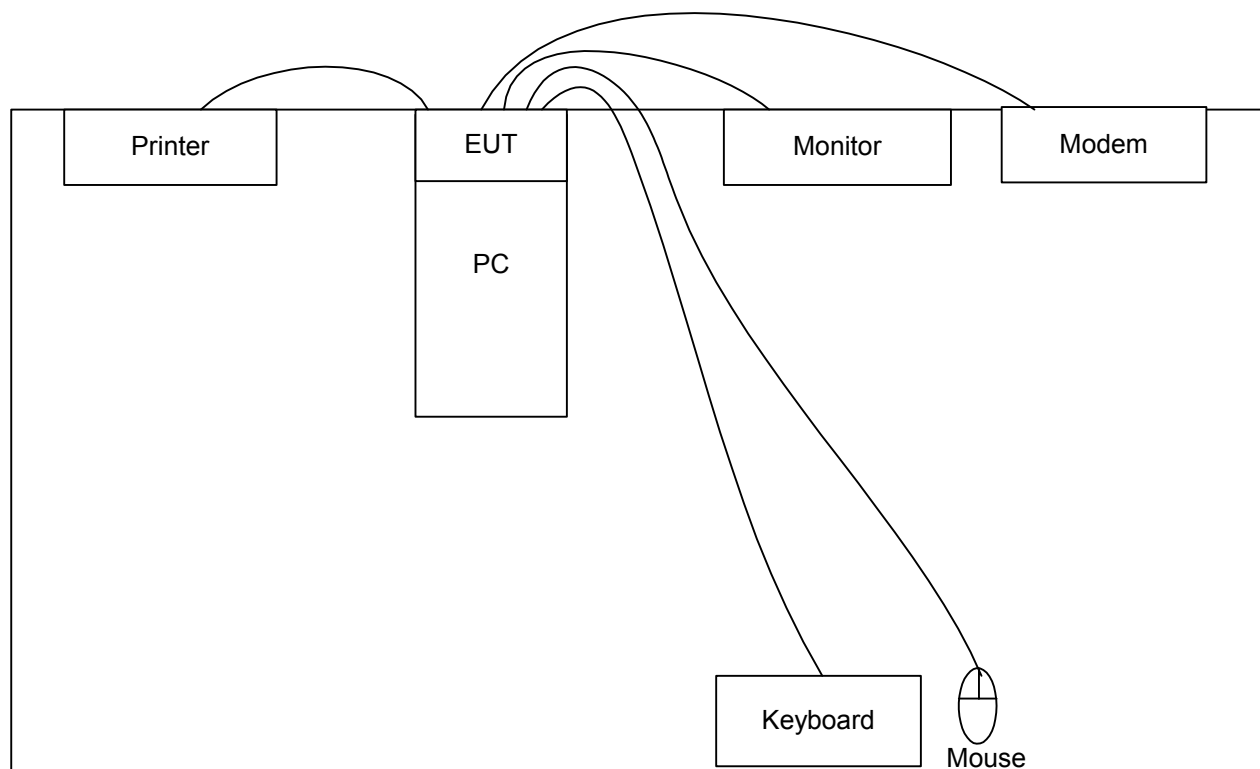
Mode 6: 11g TX CH11 (2462MHz)

- e. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

2.2 Description of Test System

Item	Asset	Model Name	Power Cord	S/N
1.	PC (COMPAQ)	D380MX	N/A	SP0021
2.	Monitor (VIEWSONIC)	VCDTS21553-3P	Shielded, 1.7m	SP0023
3.	PS2 Keyboard (LOGITECH)	Y-SJ17	Shielded, 1.7m	SP0027
4.	USB Mouse (LOGITECH)	M-BE58	Shielded, 1.7m	SP0031
5.	Printer (EPSON)	STYLUS COLRO 680	Shielded, 1.35m	SP0035
6.	MODEM (ACEEX)	DM141	Shielded, 1.15m	SP0039

2.3 Connection Diagram of Test System



3 Operation of Equipment under Test

An executive program, EMCTEST.EXE on Win XP continuously generating a complete line of "H" pattern, was used as the test software.

The program was executed as follows:

- a. Turn on the power of all equipment.
- b. The PC reads the test program from the hard disk drive and runs it.
- c. The PC sends "H" messages to the monitor, and the monitor displays "H" patterns on the screen.
- d. The PC sends "H" messages to the printer, then the printer prints them on the paper.
- e. The PC sends "H" messages to the internal hard disk , and the hard disk reads and writes the message.
- f. Repeat the steps from c to e.

At the same time, the following program was executed:

"RT2800.EXE" sends continuous transmitting.

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, 03CH03-HY

4.1 Test Voltage

110V/ 60Hz

4.2 Standard for Methods of Measurement

ANSI C63.4-2001

4.3 Test in Compliance with

47 CFR Part 15 Subpart C

4.4 Frequency Range Investigated

- a. Conduction: from 150 kHz to 30 MHz
- b. Radiation: from 30 MHz to 25000 MHz

4.5 Test Distance

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

5 Report of Measurements and Examinations

5.1 List of Measurements and Examinations

FCC Rule	Description of Test	Result
15.207	Conducted Emission	Pass
15.247(a)(2)	6dB Bandwidth	Pass
15.247(b)	Maximum Peak Output Power	Pass
15.209(a)	Radiated Emission	Pass
15.247 (c)	100kHz Bandwidth of Frequency Band Edges	Pass
15.247(d)	Power Spectral Density	Pass
15.203 15.247(B)(4)	Antenna Requirement	Pass
1.1307 2.1091	RF Exposure	Pass

5.2 6dB Bandwidth

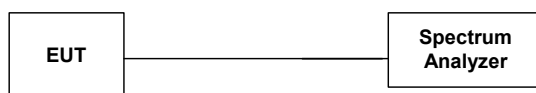
5.2.1 Measuring Instruments :

As described in chapter 7 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 :

- Mode 1~3 : WLAN 802.11b
- Temperature : 23°C
- Relative Humidity : 53%

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	11.96	0.5	Mode 1
06	2437	11.96	0.5	Mode 2
11	2462	11.96	0.5	Mode 3

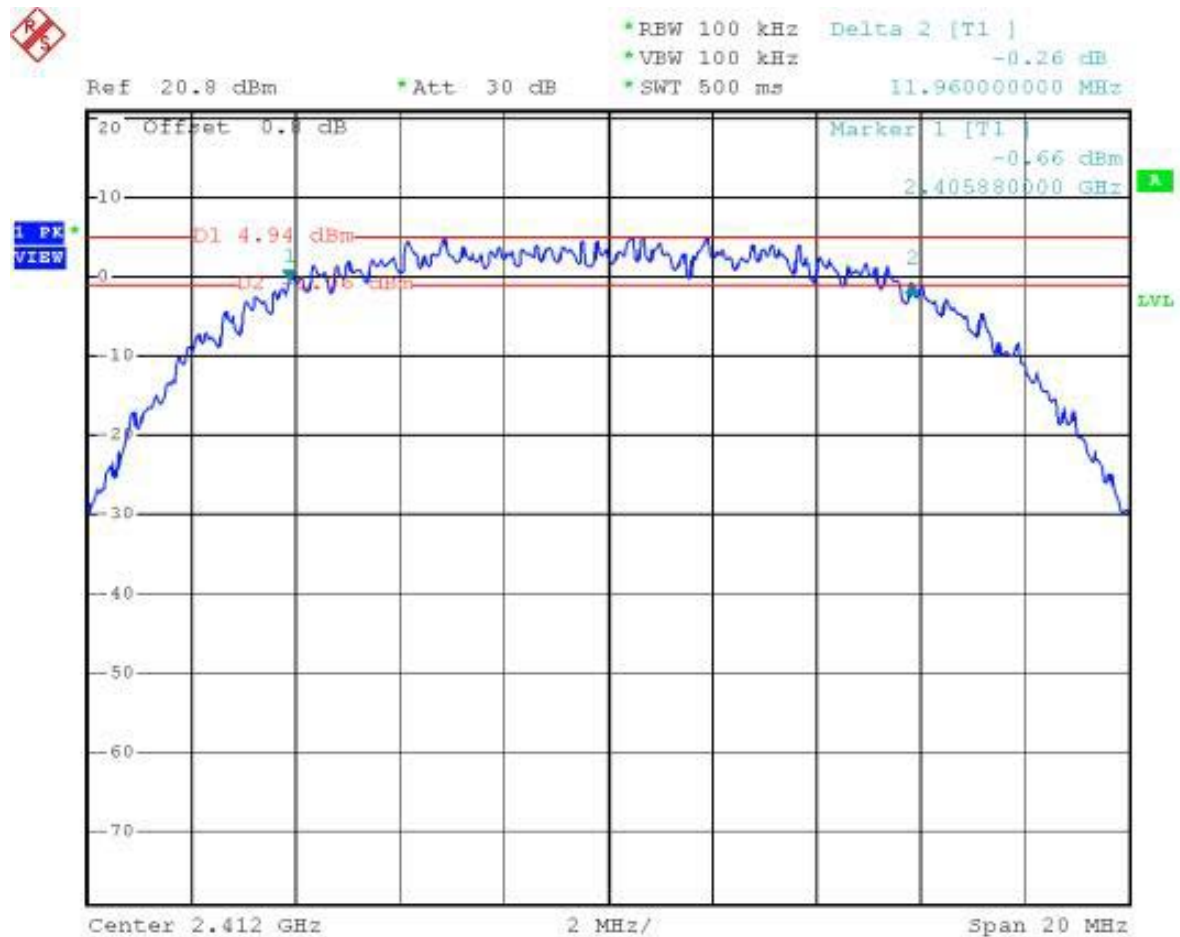
5.2.5 Test Result :

- Mode 4~6 : WLAN 802.11g
- Temperature : 23℃
- Relative Humidity : 53%

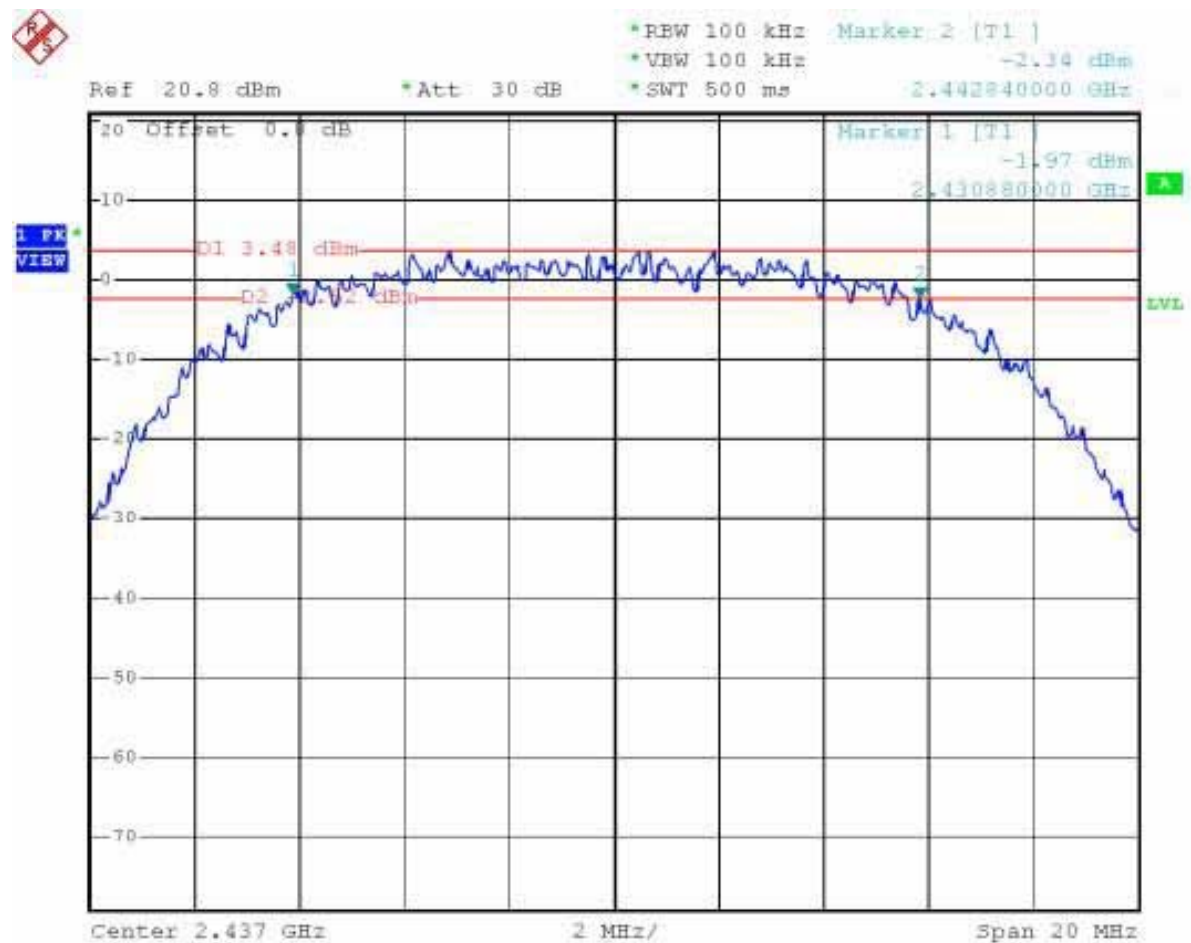
Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	16.52	0.5	Mode 4
06	2437	16.52	0.5	Mode 5
11	2462	16.52	0.5	Mode 6

5.2.6 6dB Bandwidth

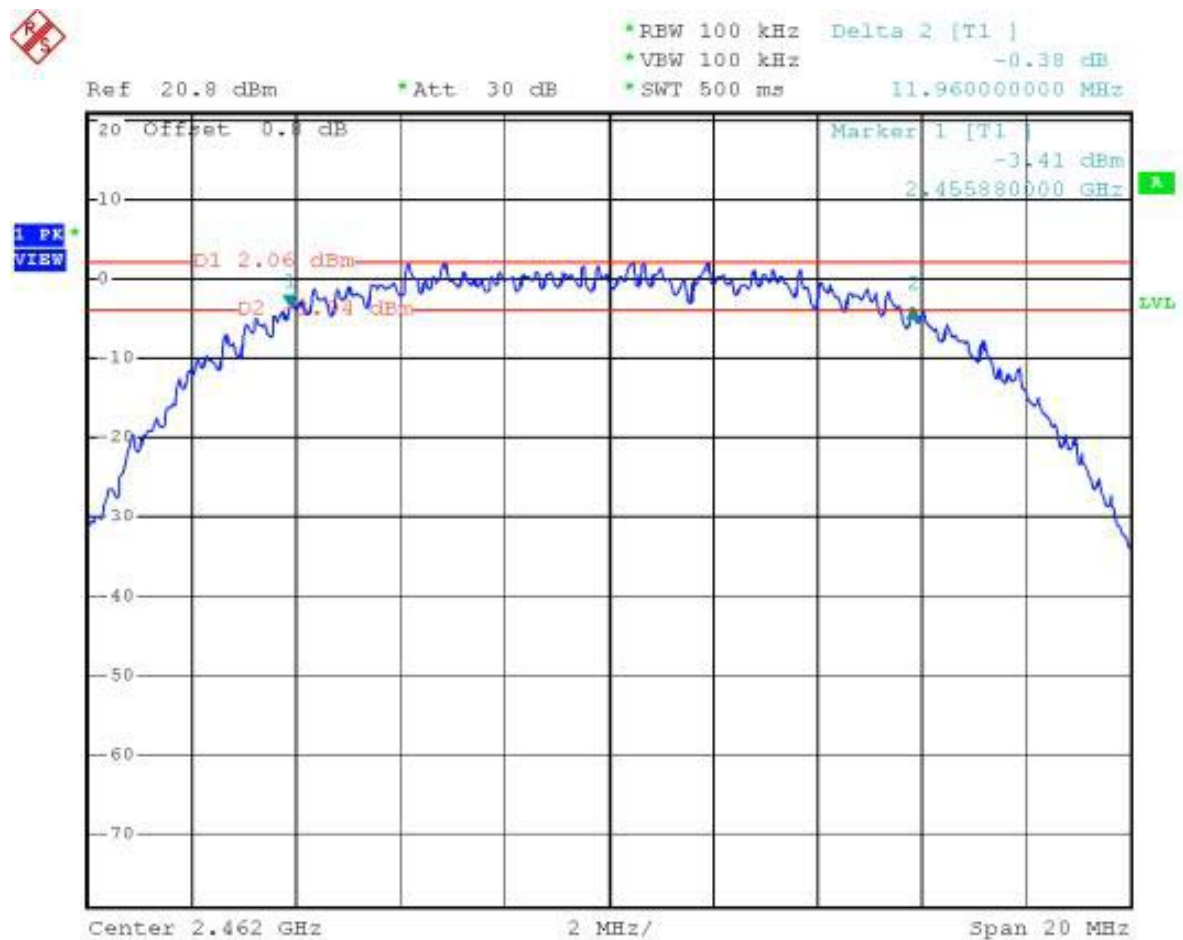
Mode 1 : 802.11b CH01 (2412MHz)



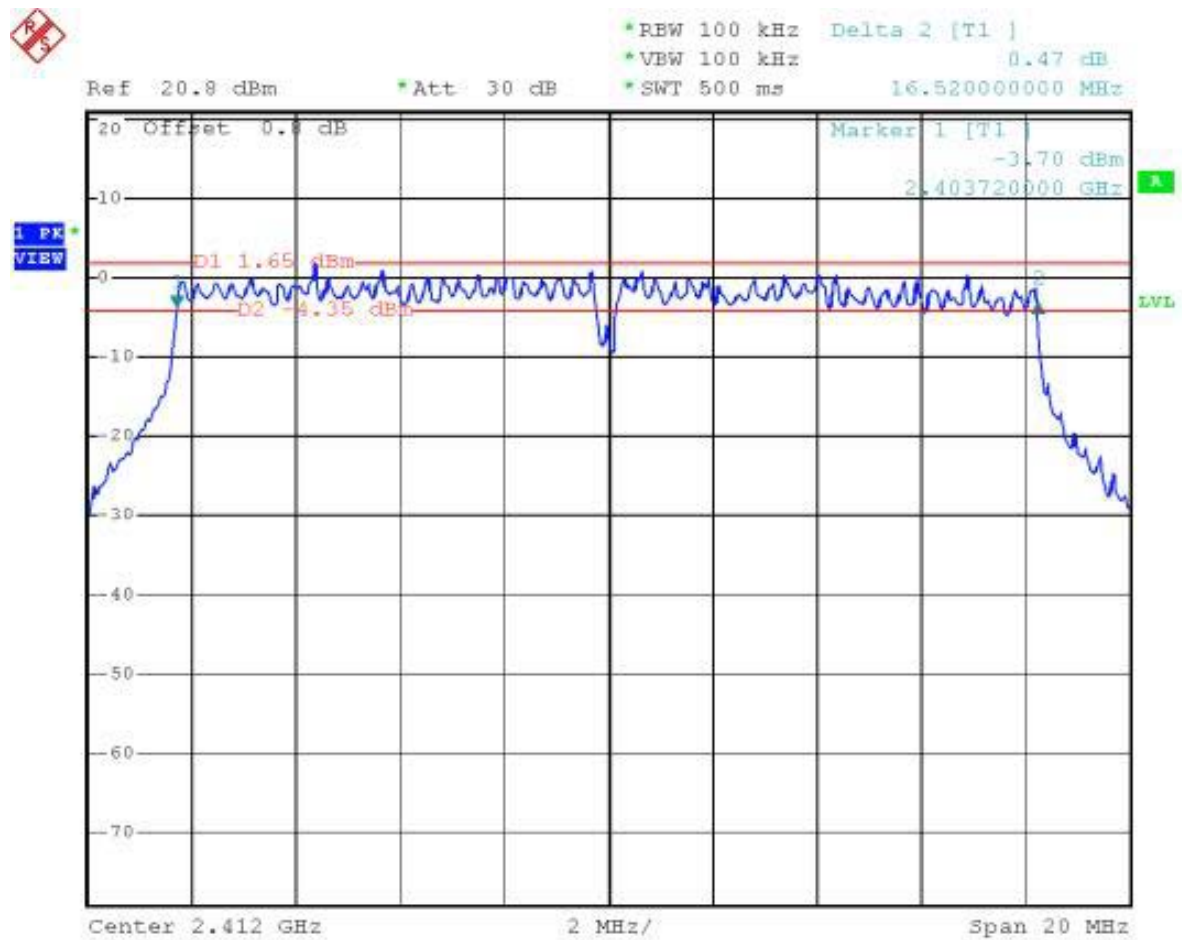
Mode 2 : 802.11b CH06 (2437MHz)



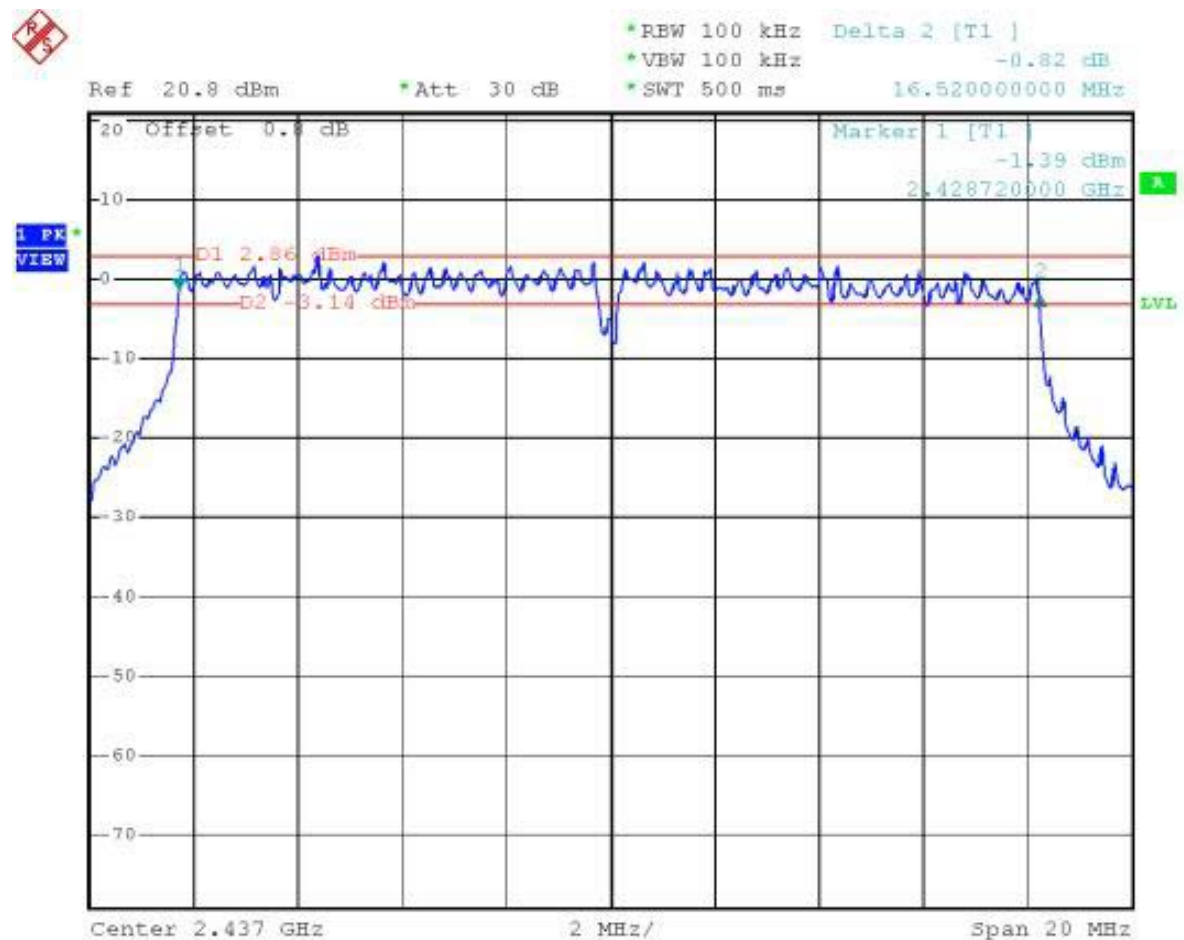
Mode 3 : 802.11b CH11(2462MHz)



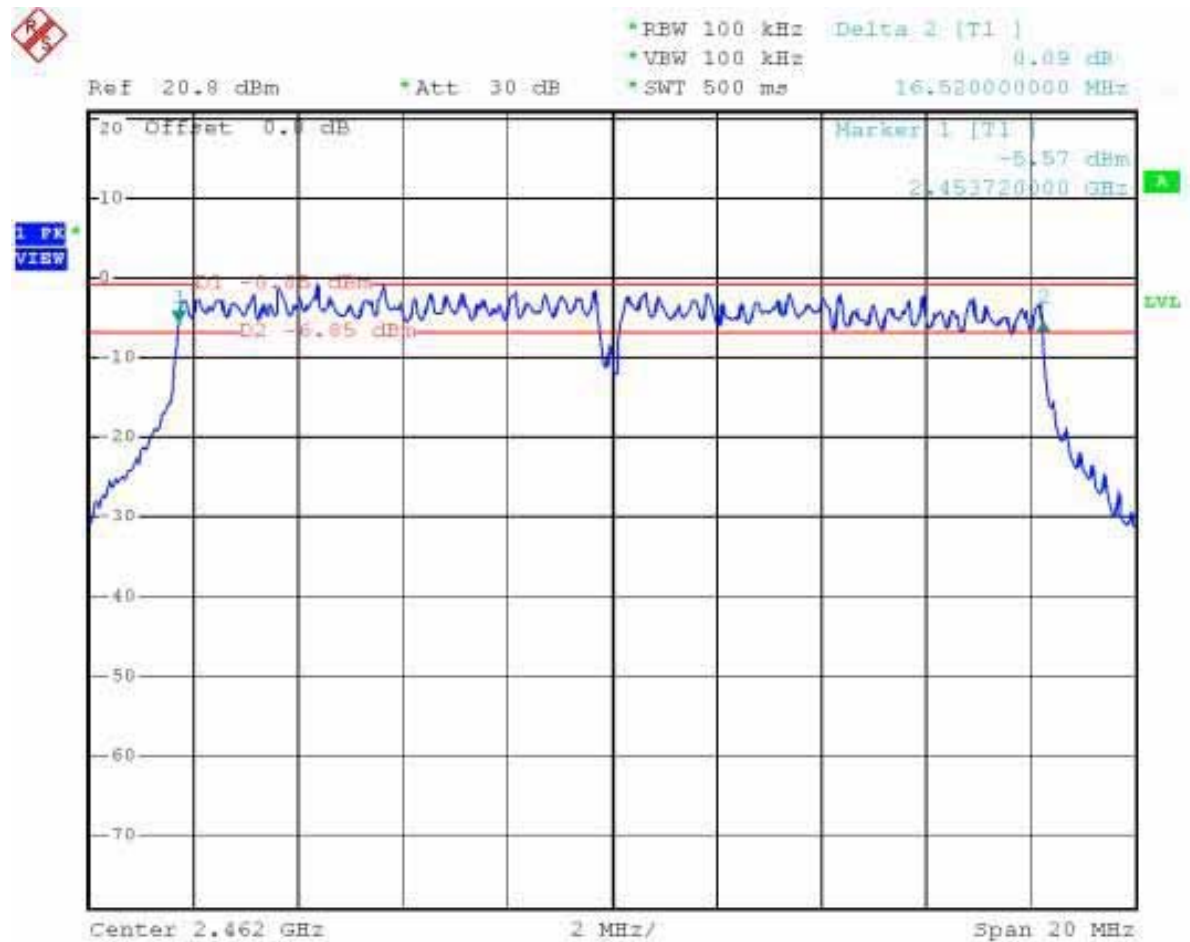
Mode 4 : 802.11g CH01 (2412MHz)



Mode 5 : 802.11g CH06 (2437MHz)



Mode 6 : 802.11g CH11(2462MHz)



5.3 Power Spectral Density

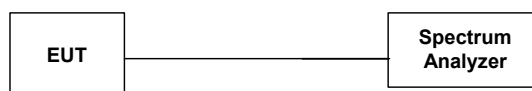
5.3.1 Measuring Instruments :

As described in chapter 7 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 :

- Mode 1~3: WLAN 802.11b
- Temperature : 23°C
- Relative Humidity : 53%

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-8.80	8	Mode 1
06	2437	-10.04	8	Mode 2
11	2462	-11.54	8	Mode 3

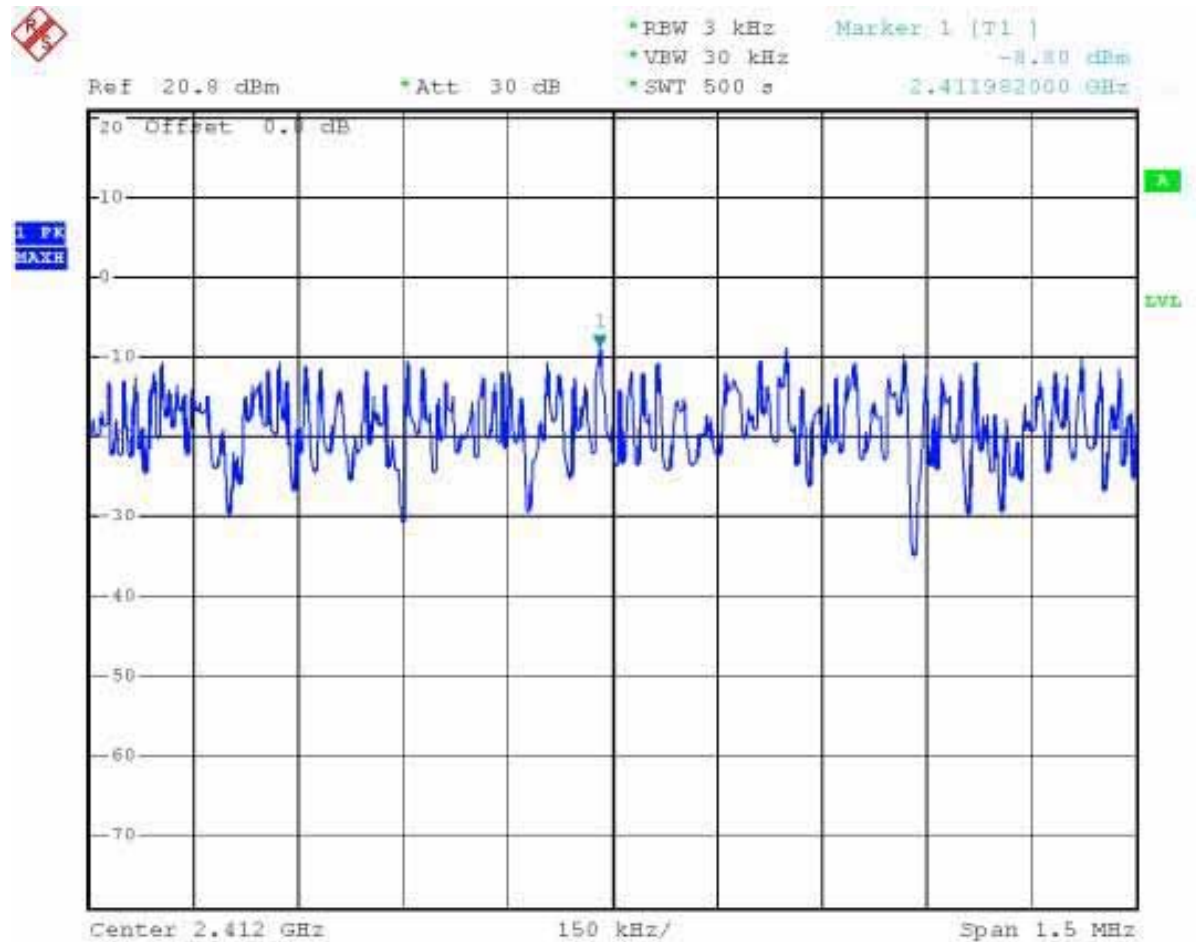
5.3.5 Test Result :

- Mode 4~6: WLAN 802.11g
- Temperature : 25°C,
- Relative Humidity : 52%

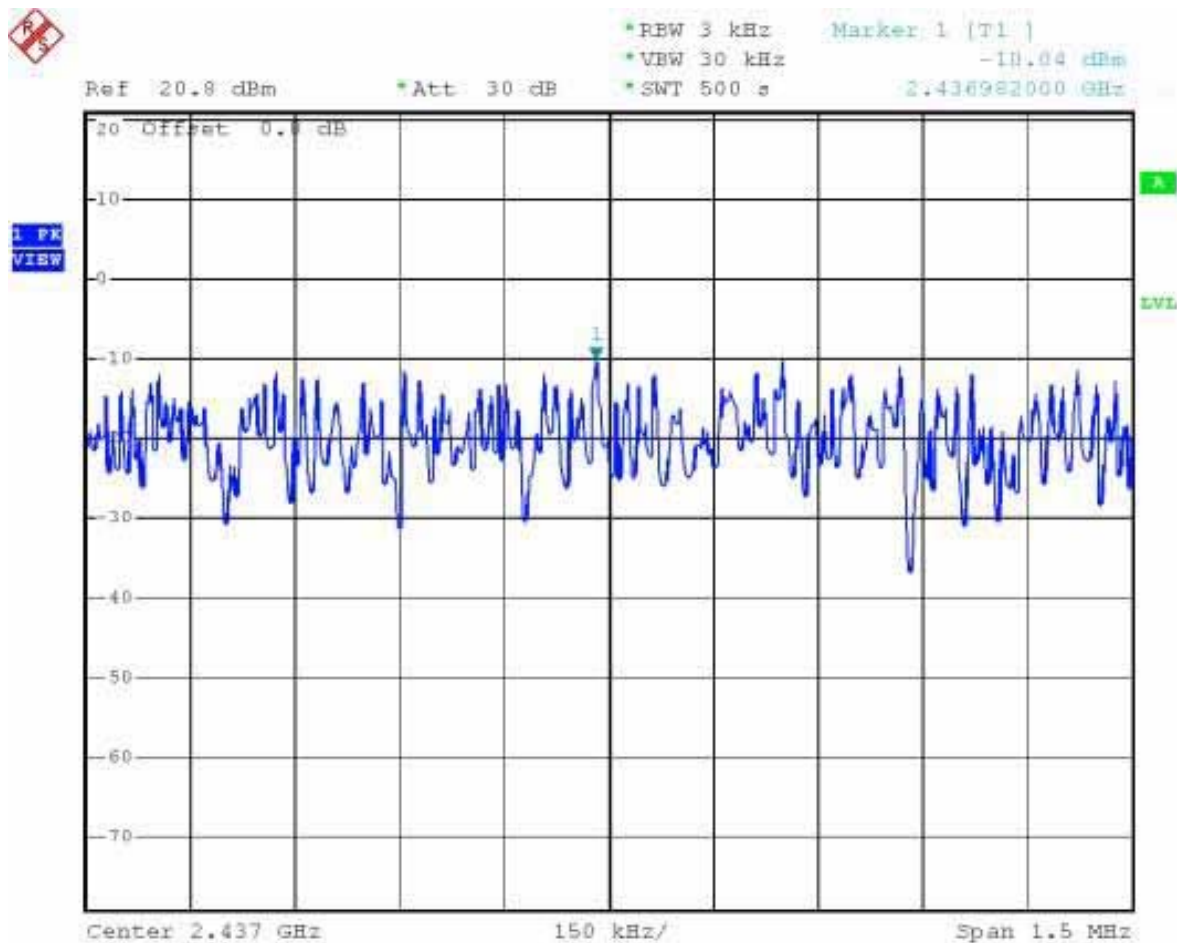
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-12.54	8	Mode 4
06	2437	-13.09	8	Mode 5
11	2462	-14.66	8	Mode 6

5.3.6 Power Spectral Density

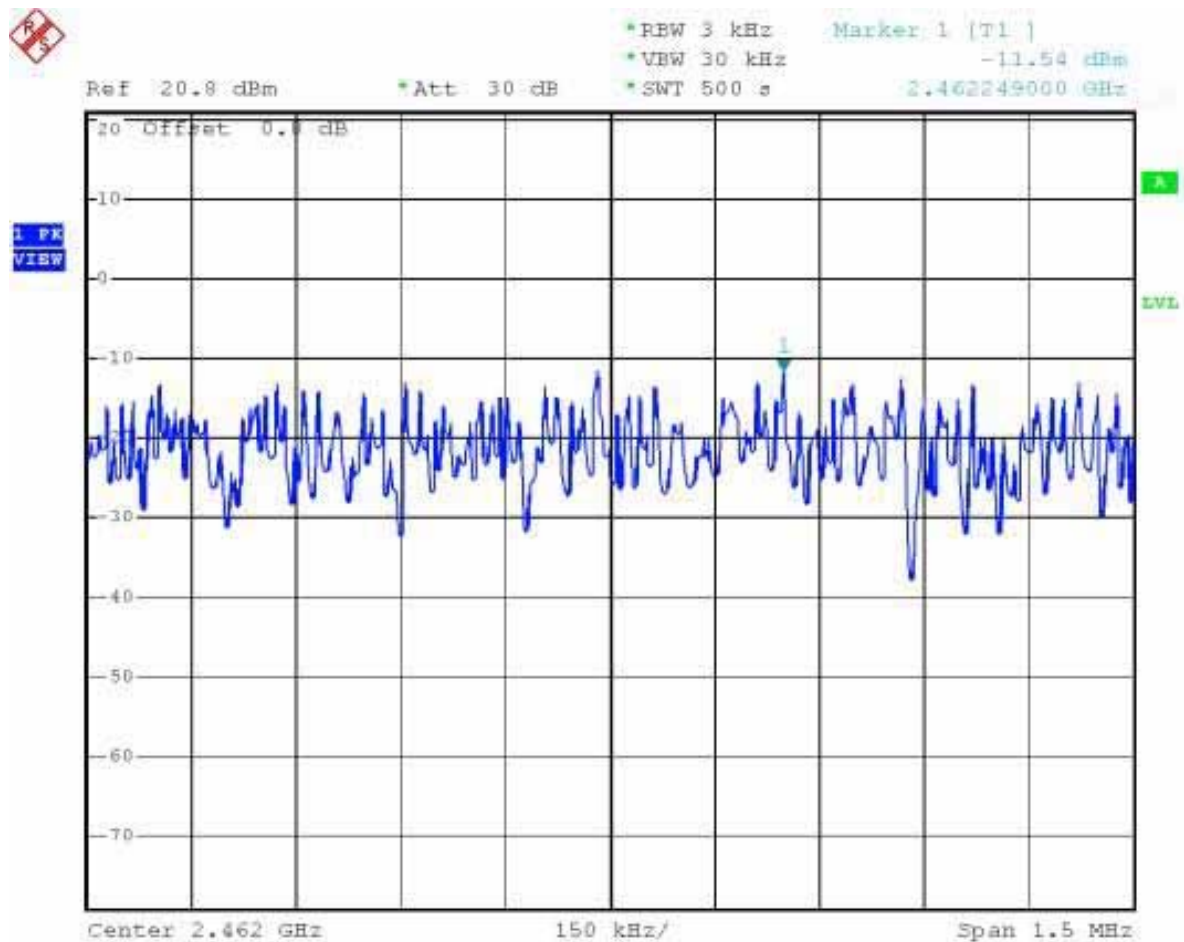
Mode 1 : 802.11b CH01(2412MHz)



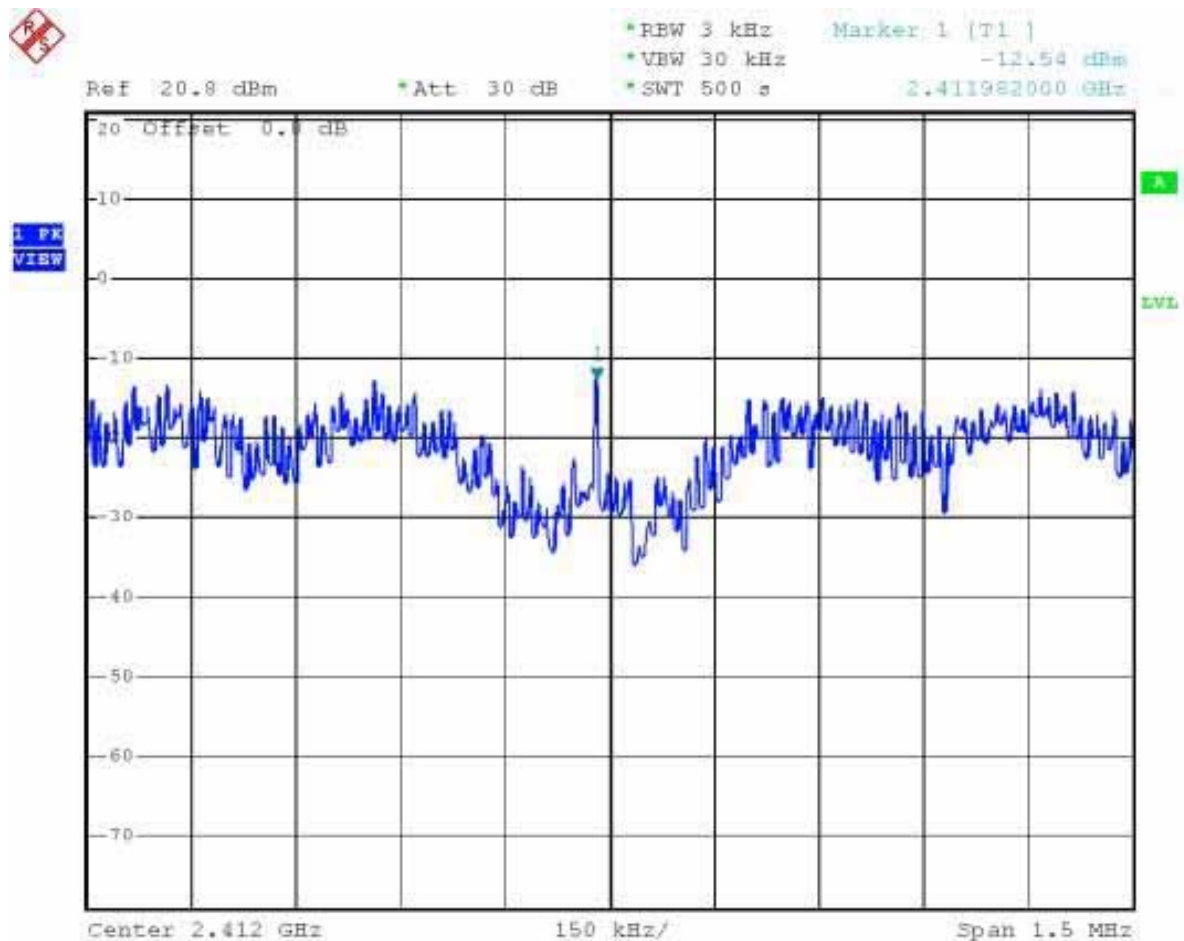
Mode 2 : 802.11b CH06 (2437MHz)



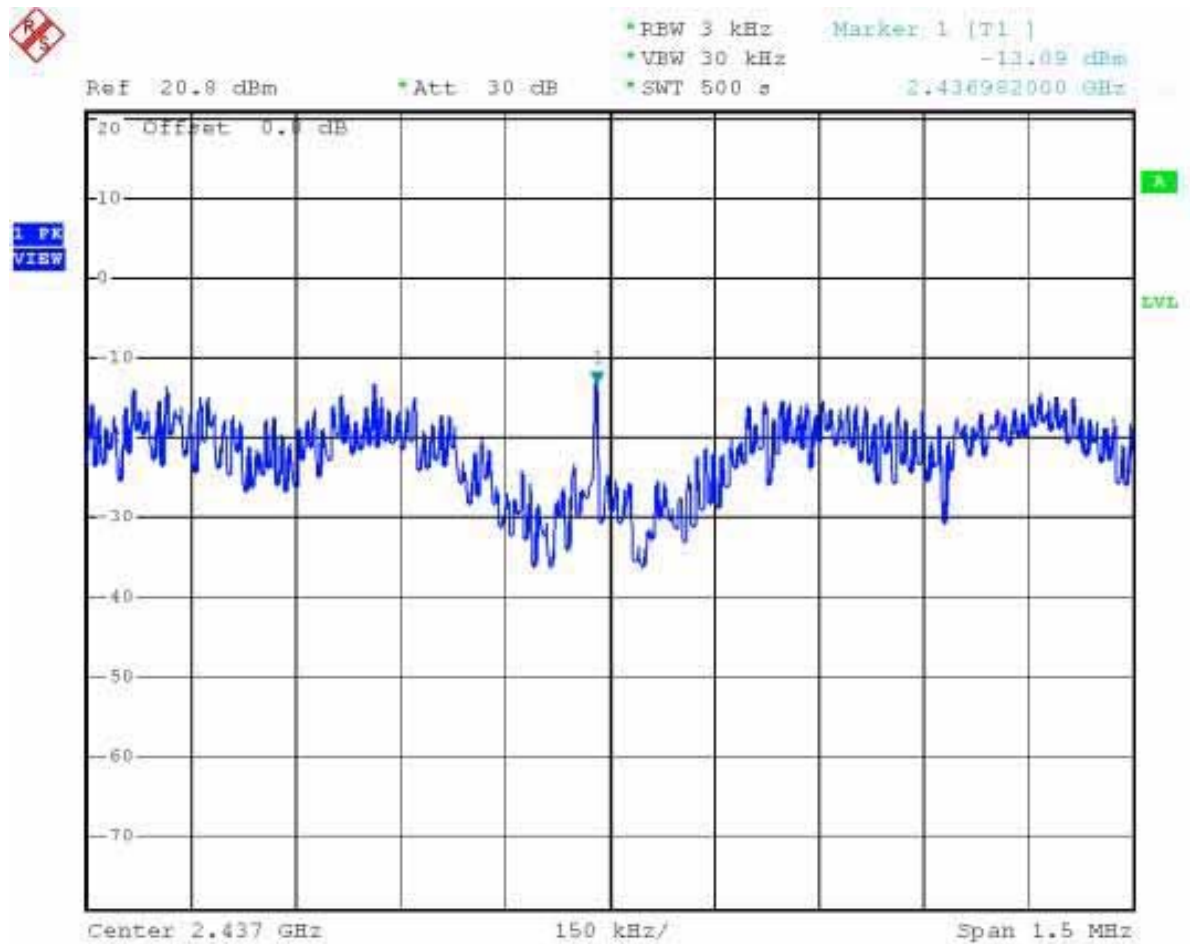
Mode 3 : 802.11b CH11 (2462MHz)



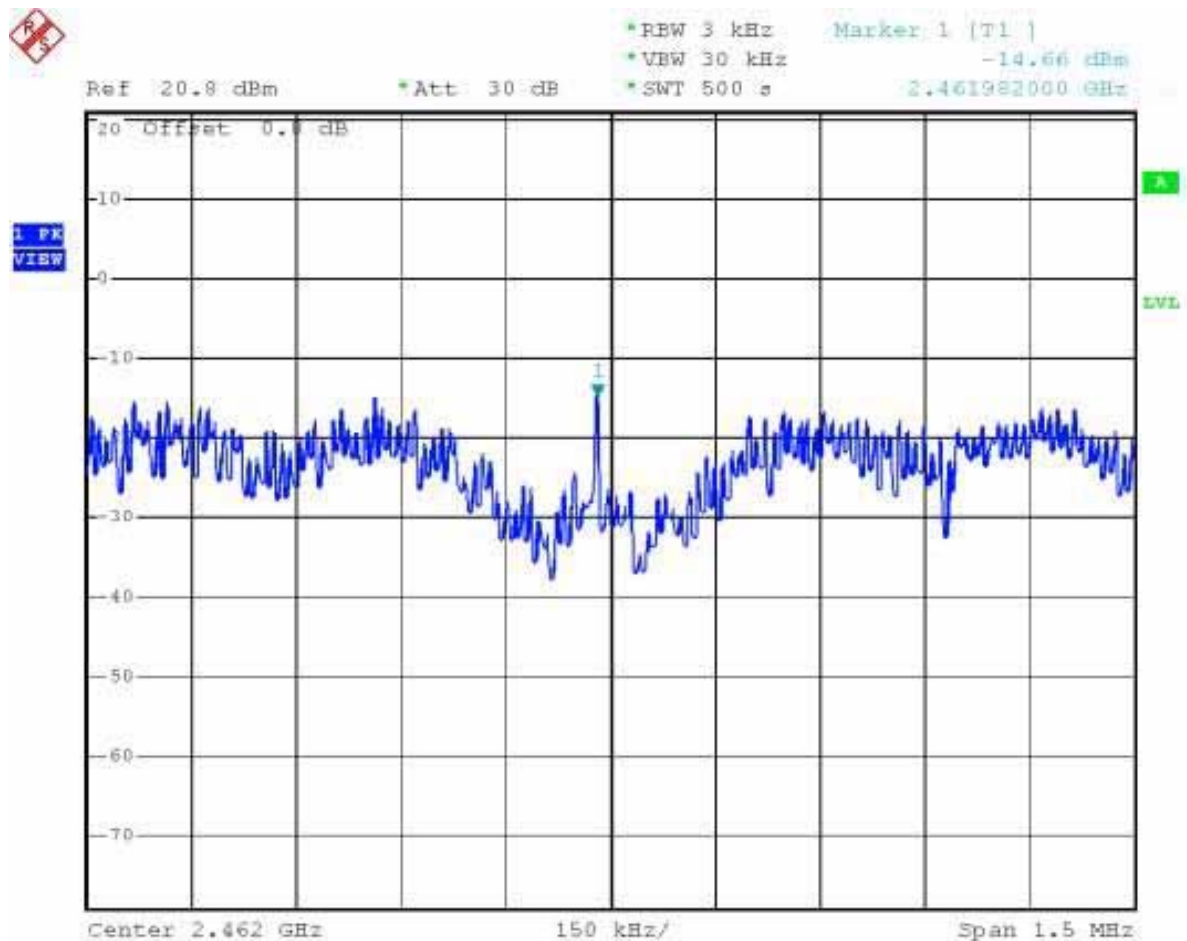
Mode 4 : 802.11g CH01(2412MHz)



Mode 5 : 802.11g CH06 (2437MHz)



Mode 6 : 802.11g CH11 (2462MHz)



5.4 Band Edges Measurement

5.4.1 Measuring Instruments :

As described in chapter 7 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 :

- Mode 1 and 3 : WLAN 802.11b
- Temperature : 23°C
- Relative Humidity : 53%
- Test Result in lower band (Channel 1) : PASS
- Test Result in higher band (Channel 11) : PASS

5.4.4 Note on Band Edge Emission

The band edge emission shows 47.00 dB delta between carrier maximum power and local maximum emission in the restricted band (2.390GHz).

The band edge emission shows 49.21 dB delta between carrier maximum power and local maximum emission in the restricted band (2.4835GHz)

802.11b

Channel	Polarity	The emission of carrier power strength	Frequency	The emission of band edge power strength	Limit	Margin	Remark	Result
		(dB μ V/m)	(MHz)	(dB μ V/m)	(dB μ V/m)	(dB)		
01	H	106.12	2400.00	59.12	74	-14.88	Peak	Pass
	H	92.19	2400.00	45.19	54	-8.81	Average	Pass
	V	116.61	2400.00	69.61	74	-4.39	Peak	Pass
	V	100.64	2400.00	53.64	54	-0.36	Average	Pass
11	H	106.81	2486.5	57.6	74	-16.4	Peak	Pass
	H	92.32	2486.5	43.11	54	-10.89	Average	Pass
	V	115.81	2486.5	66.6	74	-7.4	Peak	Pass
	V	99.92	2486.5	50.71	54	-3.29	Average	Pass

5.4.5 Test Result :

- Mode 4 and 6 : WLAN 802.11g
- Temperature : 23°C
- Relative Humidity : 53%
- Test Result in lower band (Channel 1) : PASS
- Test Result in higher band (Channel 11) : PASS

5.4.6 Note on Band Edge Emission

The band edge emission shows 42.77 dB delta between carrier maximum power and local maximum emission in the restricted band (2.390GHz).

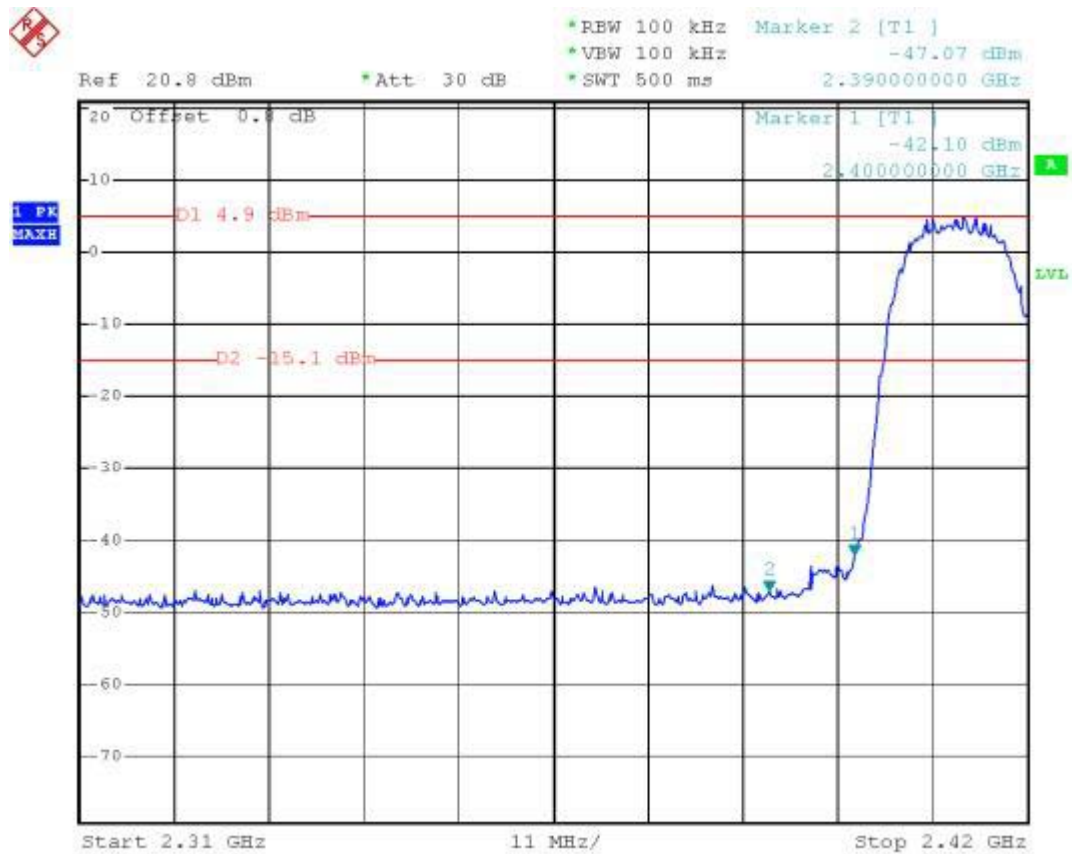
The band edge emission shows 46.37 dB delta between carrier maximum power and local maximum emission in the restricted band (2.4835GHz).

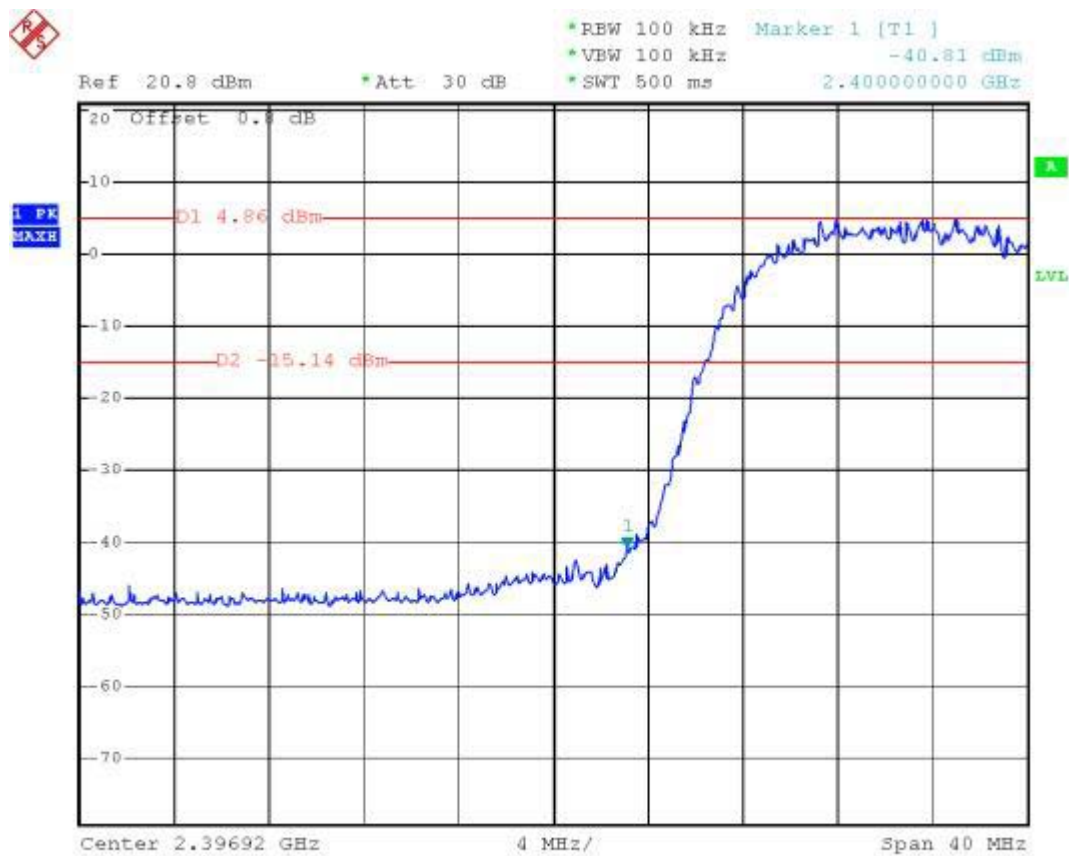
802.11g

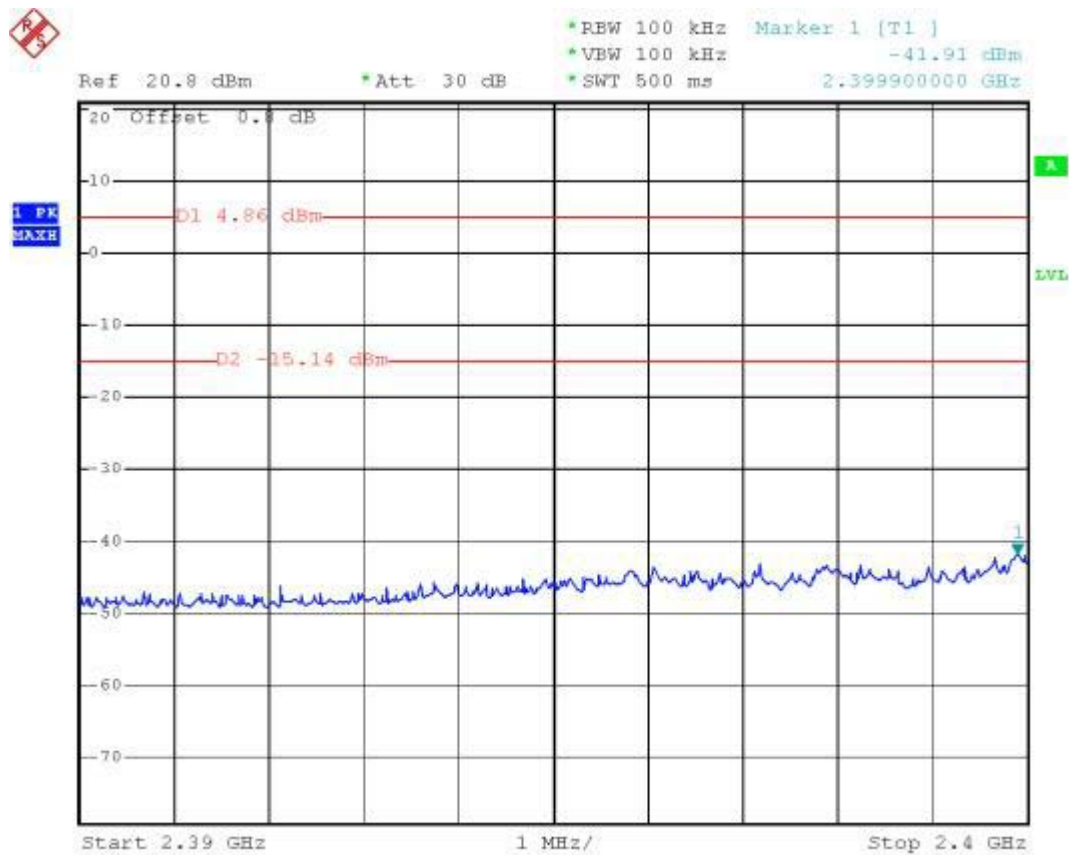
Channel	Polarity	The emission of carrier power strength	Frequency	The emission of band edge power strength	Limit	Margin	Remark	Result
		(dB μ V/m)		(dB μ V/m)				
01	V	105.5	2400	62.73	74	-11.27	Peak	Pass
	V	91.87	2400	49.1	54	-4.9	Average	Pass
	H	112.72	2400	69.95	74	-4.05	Peak	Pass
	H	96.07	2400	53.3	54	-0.7	Average	Pass
11	V	104.55	2483.7	58.18	74	-15.82	Peak	Pass
	V	90.19	2483.7	43.82	54	-10.18	Average	Pass
	H	109.49	2483.7	63.12	74	-10.88	Peak	Pass
	H	95.24	2483.7	48.87	54	-5.13	Average	Pass

5.4.7 Band Edge Ruled

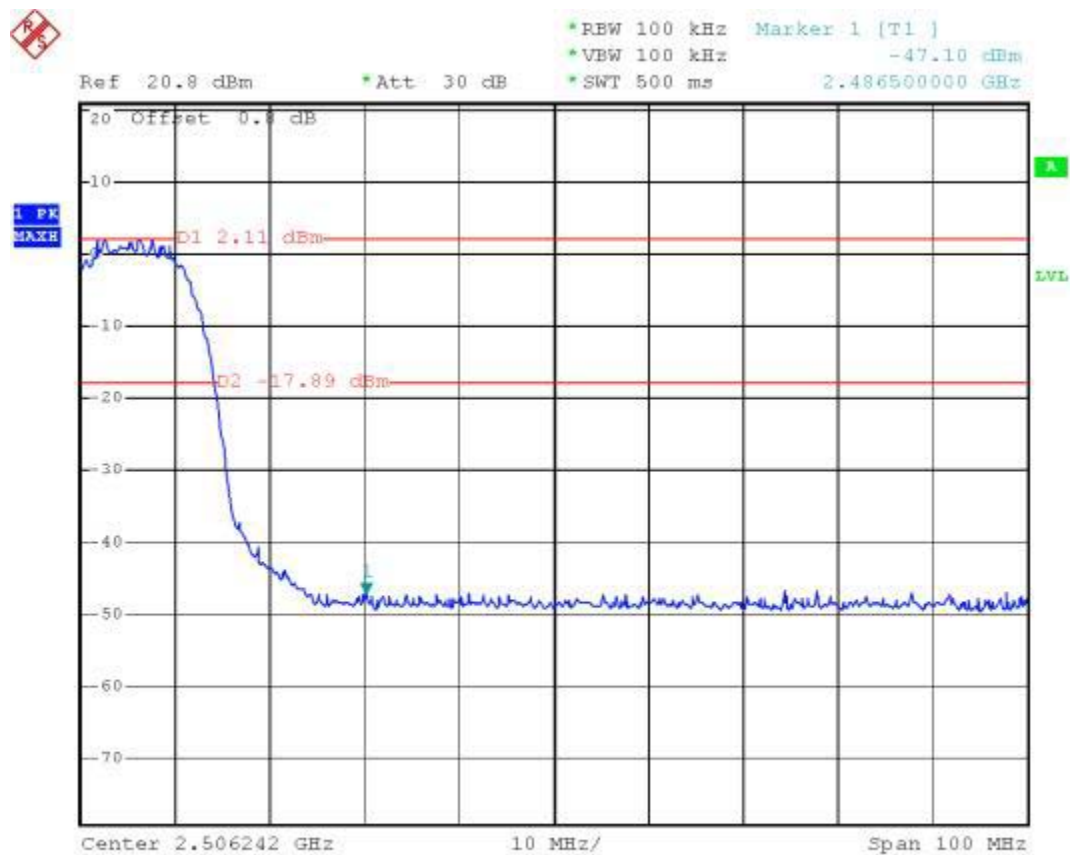
Mode1 : 802.11b CH01 (2412MHz)

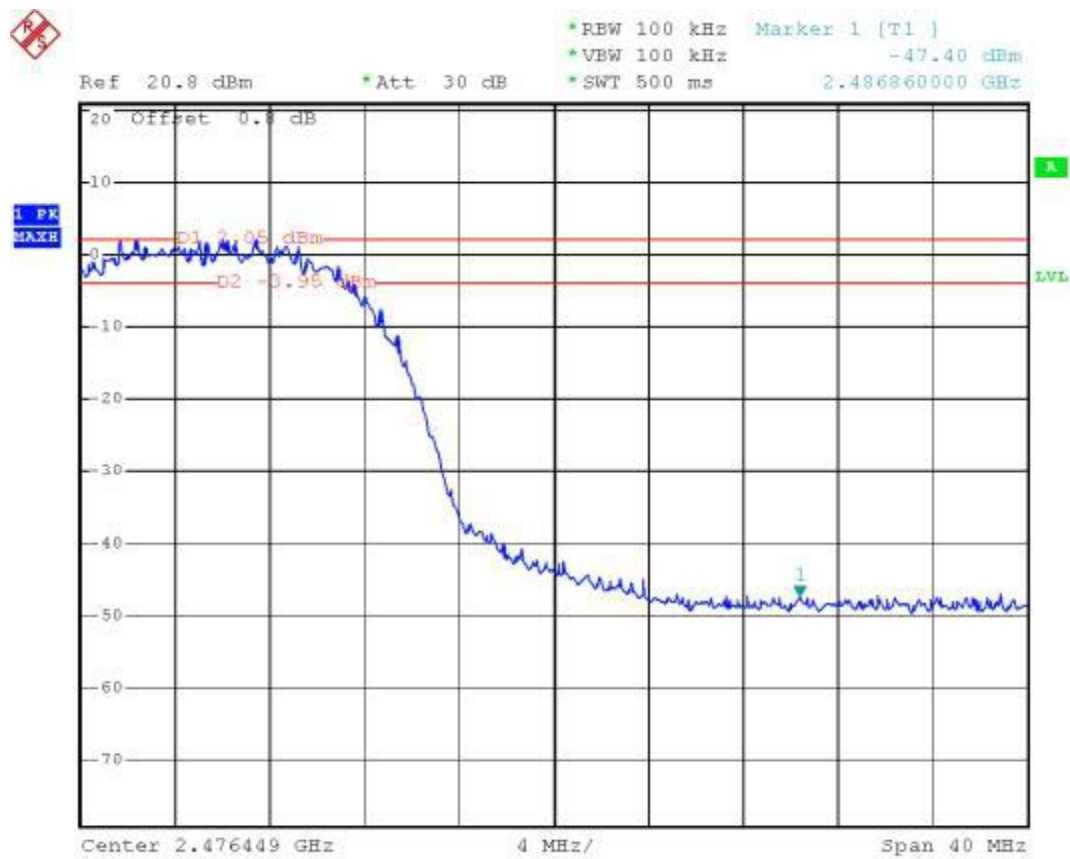


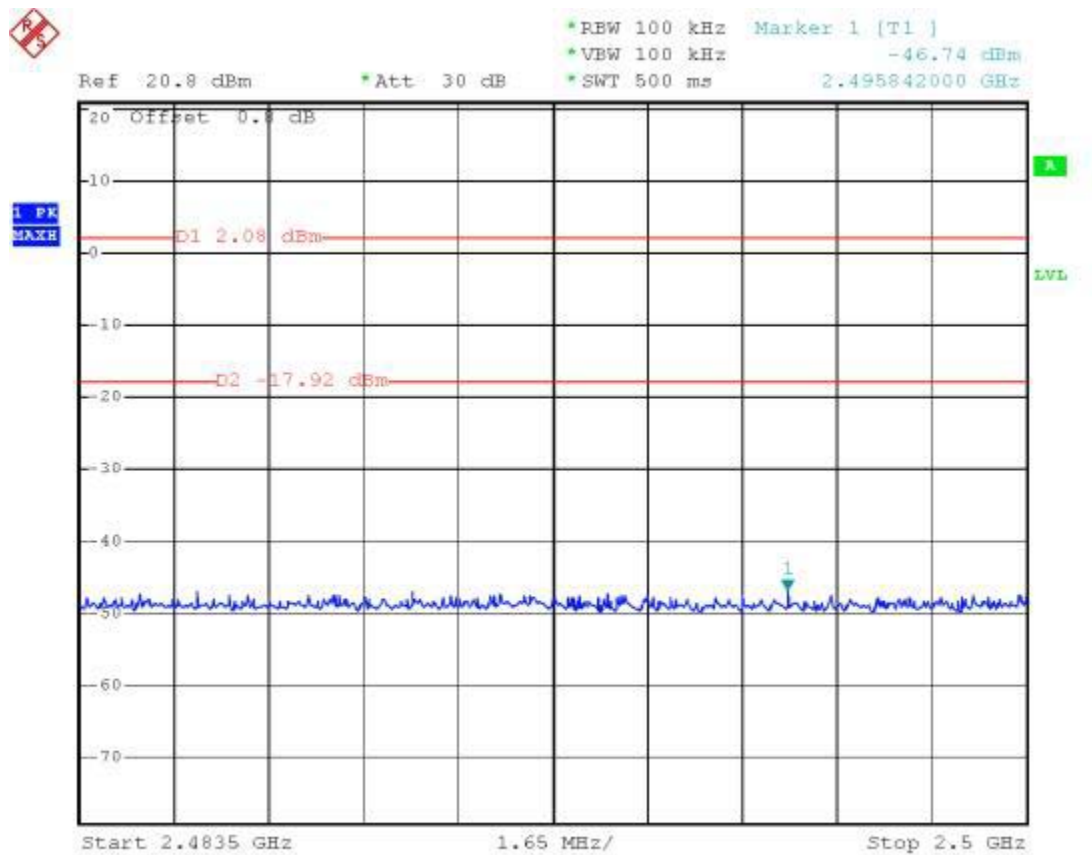




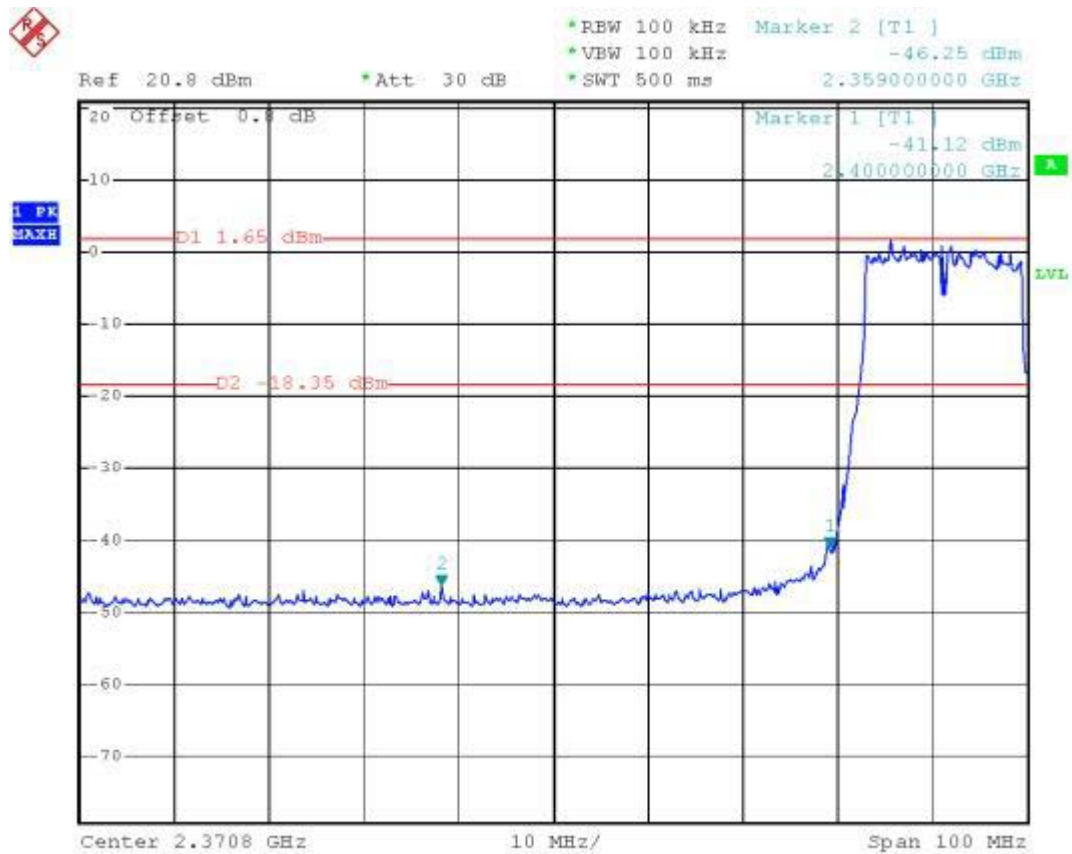
Mode 2 : 802.11b CH11 (2462MHz)

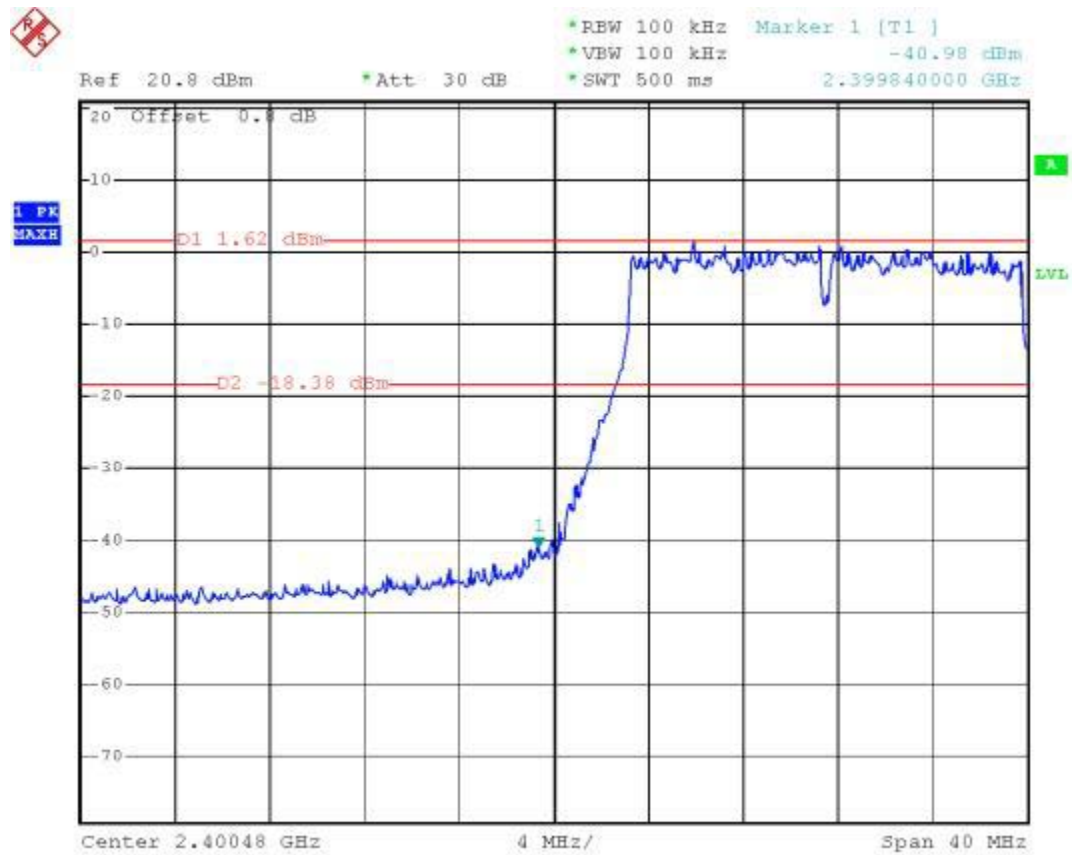


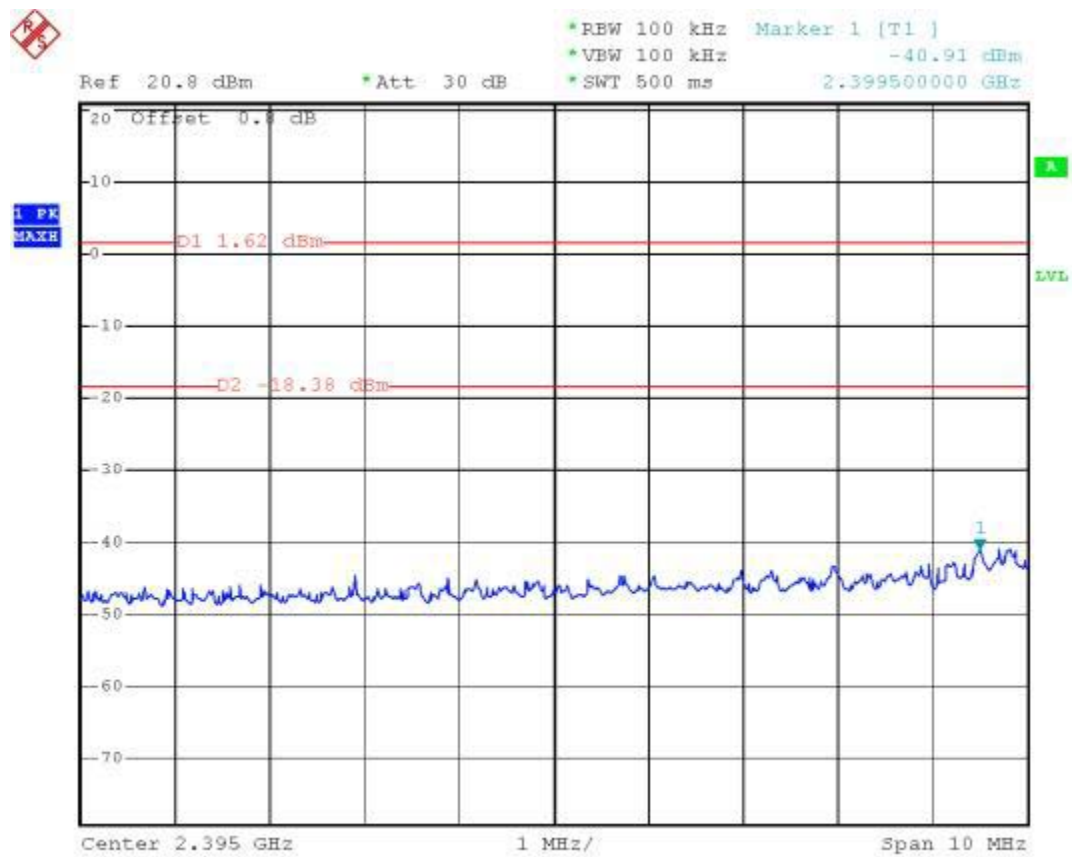




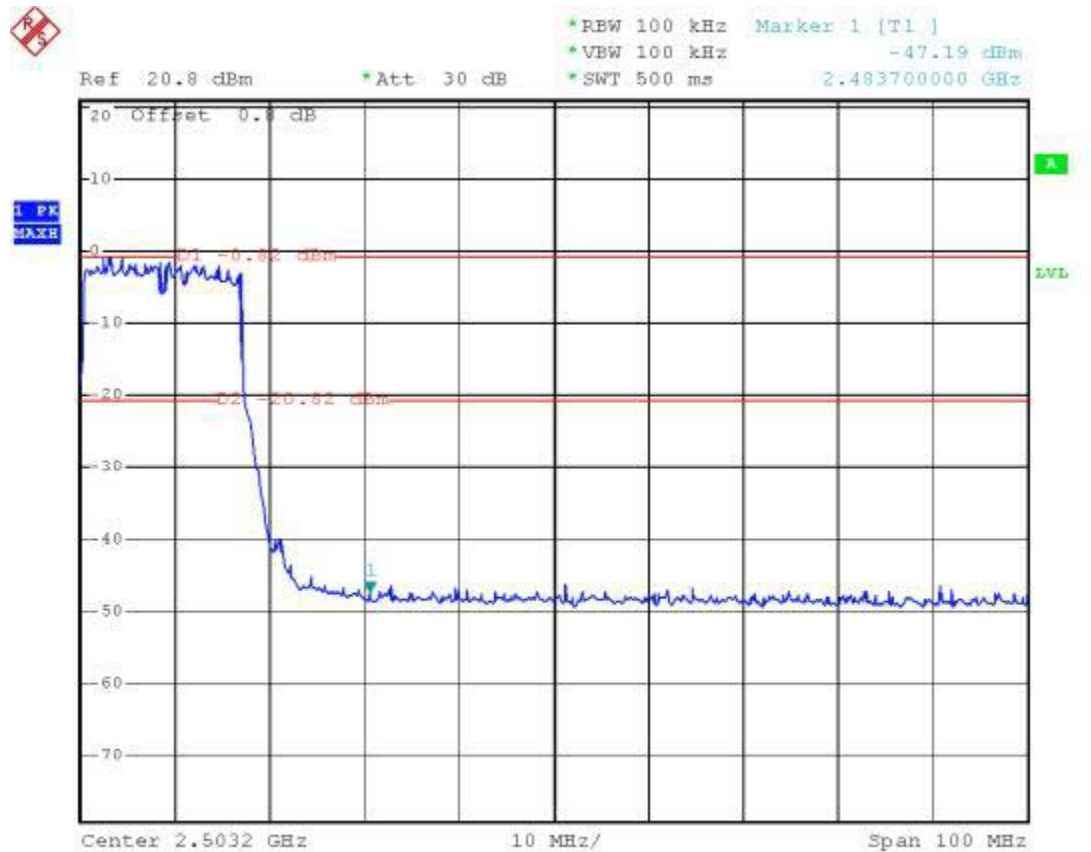
Mode3 : 802.11g CH01 (2412MHz)

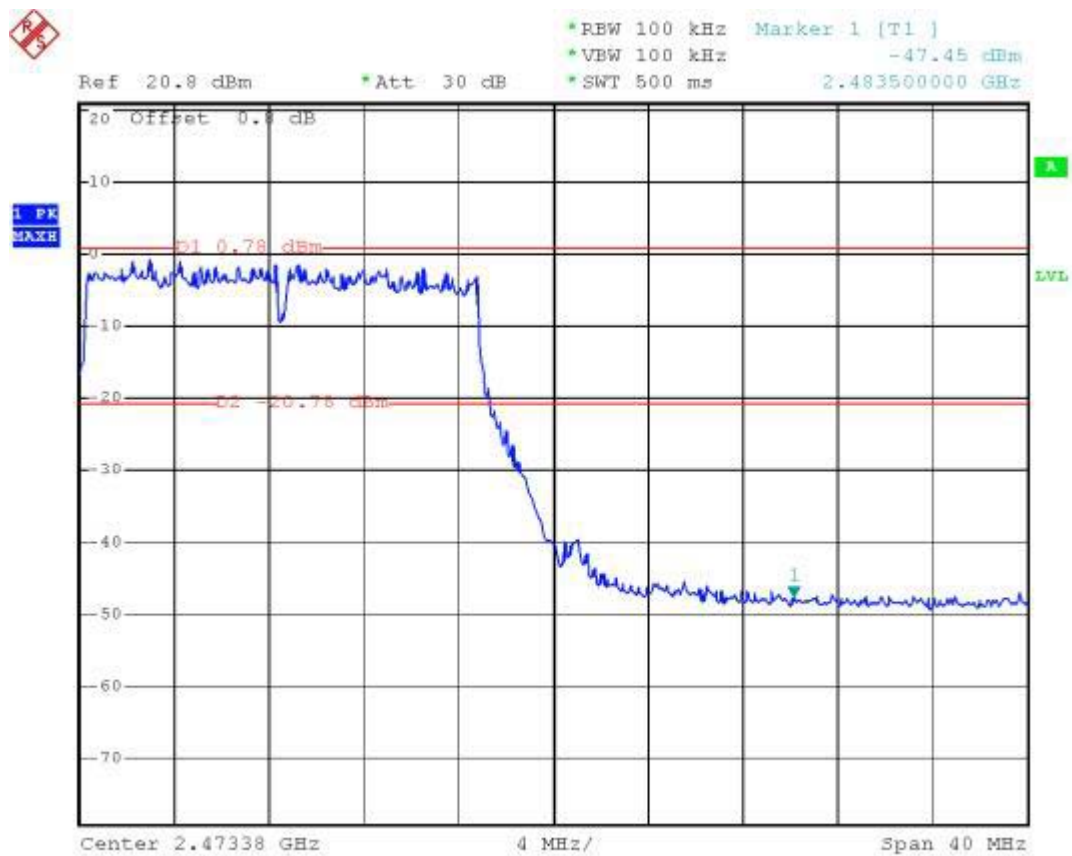


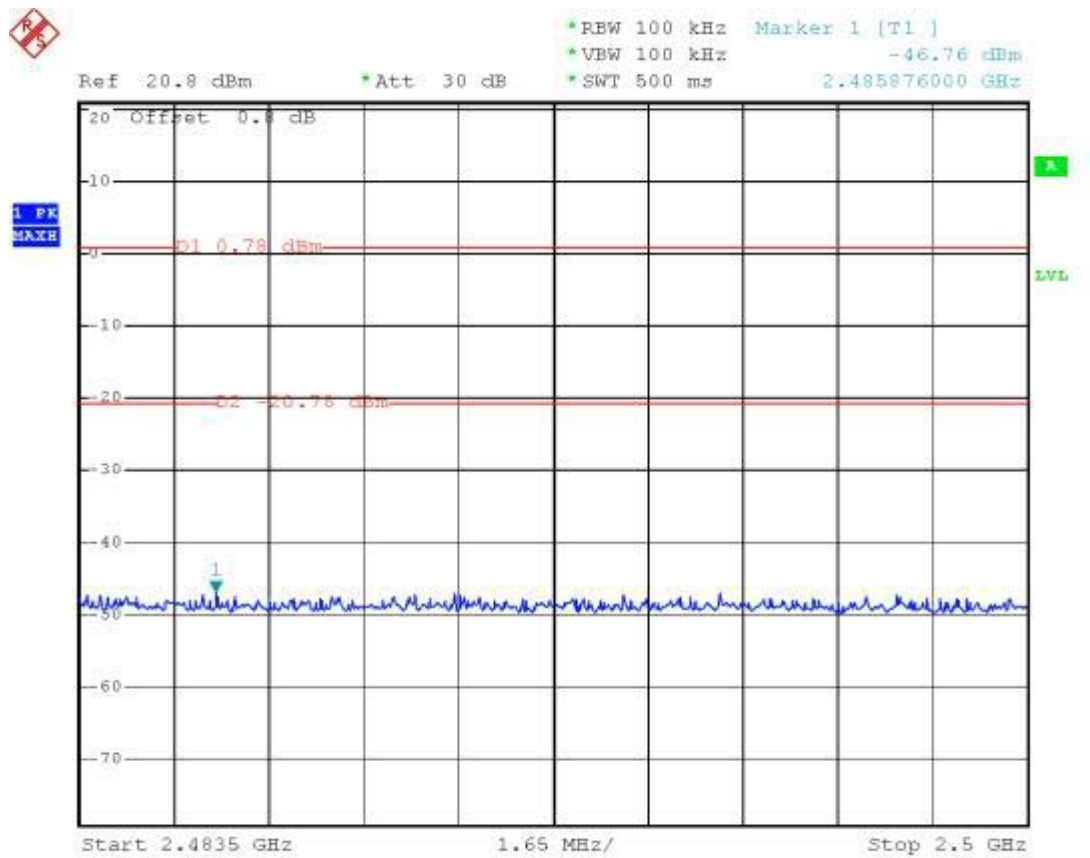




Mode 4 : 802.11g CH11 (2462MHz)







5.5 Peak Output Power

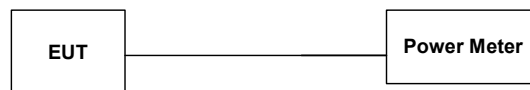
5.5.1 Measuring Instruments :

As described in chapter 7 of this test report.

5.5.2 Test Procedure :

The antenna port (RF output) of the EUT was connected to the input (RF input) of a power meter.
The power is equal to the reading level on power meter plus cable loss at the EUT antenna terminal.

5.5.3 Test Setup Layout :



5.5.4 Test Result :

- Mode 1~3 : WLAN 802.11b
- Temperature : 23°C
- Relative Humidity : 53%

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	16.3	1W/30 dBm
06	2437	16.4	1W/30 dBm
11	2462	16.1	1W/30 dBm

5.5.5 Test Result :

- Mode 4~6 : WLAN 802.11g
- Temperature : 23℃
- Relative Humidity : 53%

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	17.1	1W/30 dBm
06	2437	17.03	1W/30 dBm
11	2462	16.82	1W/30 dBm

6. Test of Conducted Emission

Conducted emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 kHz and return leads of the EUT according to the methods defined in ANSI C63.4-2001 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

6.1. Major Measuring Instruments

● Test Receiver	(R&S ESCS 30)
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

6.2. Test Procedures

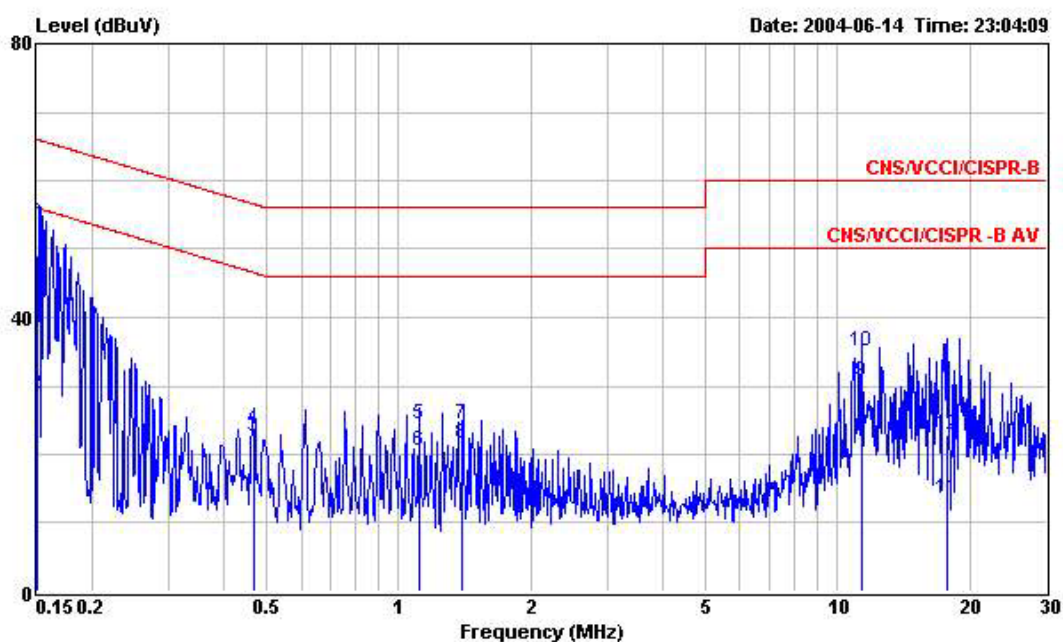
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of the line impedance stabilization network (LISN).
- c. All the support units are connect to the other LISN.
- 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.

6.3. Test Result of Conducted Emission

6.3.1 Frequency Range of Test : 150kHz to 30 MHz

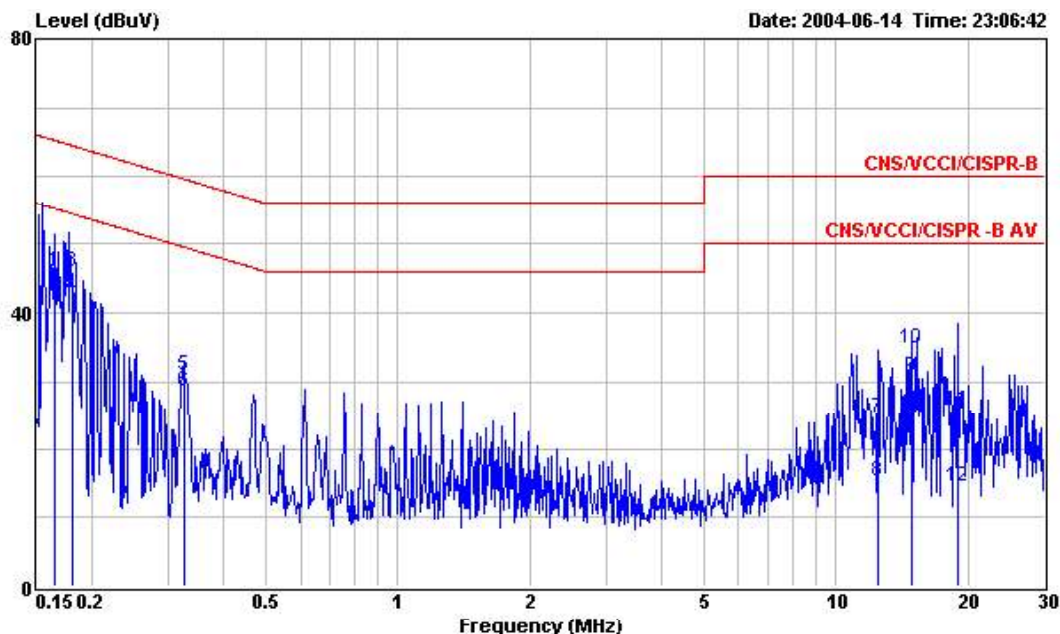
- Test Mode : Mode 1 Operating
- Temperature : 23°C
- Relative Humidity : 53%

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



Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2003 2001/008 LINE
 EUT : WLAN
 Power : 110W/60Hz
 Model : EW-7128G
 Memo : Link Mode
 : Dipole

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.150	49.22	-16.78	66.00	49.11	0.10	0.01	QP
2	0.150	28.83	-27.17	56.00	28.72	0.10	0.01	Average
3	0.469	22.52	-24.01	46.53	22.36	0.10	0.06	Average
4	0.469	23.58	-32.95	56.53	23.42	0.10	0.06	QP
5	1.114	24.50	-31.50	56.00	24.32	0.10	0.08	QP
6	1.114	20.57	-25.43	46.00	20.39	0.10	0.08	Average
7	1.400	24.40	-31.60	56.00	24.22	0.10	0.08	QP
8	1.400	21.68	-24.32	46.00	21.50	0.10	0.08	Average
9	11.391	30.60	-19.40	50.00	30.24	0.20	0.16	Average
10	11.391	35.02	-24.98	60.00	34.66	0.20	0.16	QP
11	17.750	13.56	-36.44	50.00	13.10	0.26	0.20	Average
12	17.750	22.87	-37.13	60.00	22.41	0.26	0.20	QP



Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2003 2001/008 NEUTRAL
 EUT : WLAN
 Power : 110V/60Hz
 Model : EW-7128G
 Memo : Link Mode
 : Dipole

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.164	45.90	-19.35	65.25	45.79	0.10	0.01	QP
2	0.164	42.28	-12.97	55.25	42.17	0.10	0.01	Average
3	0.181	45.99	-18.47	64.46	45.89	0.10	0.00	QP
4	0.181	42.32	-12.14	54.46	42.22	0.10	0.00	Average
5	0.325	31.00	-28.58	59.58	30.86	0.10	0.04	QP
6	0.325	28.45	-21.13	49.58	28.31	0.10	0.04	Average
7	12.450	24.63	-35.37	60.00	24.20	0.25	0.18	QP
8	12.450	15.31	-34.69	50.00	14.88	0.25	0.18	Average
9	14.909	30.59	-19.41	50.00	30.08	0.30	0.21	Average
10	14.909	34.79	-25.21	60.00	34.28	0.30	0.21	QP
11	18.920	25.70	-34.30	60.00	25.20	0.30	0.20	QP
12	18.920	14.59	-35.41	50.00	14.09	0.30	0.20	Average

Test Engineer : 

Jay

7. Test of Radiated Emission

Radiated emissions from 30 MHz to 25 GHz were measured according to the methods defined in ANSI C63.4-2001. 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

7.1. Major Measuring Instruments

- Amplifier (MITEQ AFS44)
 - RF Gain 40 dB
 - Signal Input 100 MHz to 26.5 GHz

- Amplifier (HP8447D)
 - RF Gain 30 dB
 - Signal Input 100 MHz to 1.3 GHz

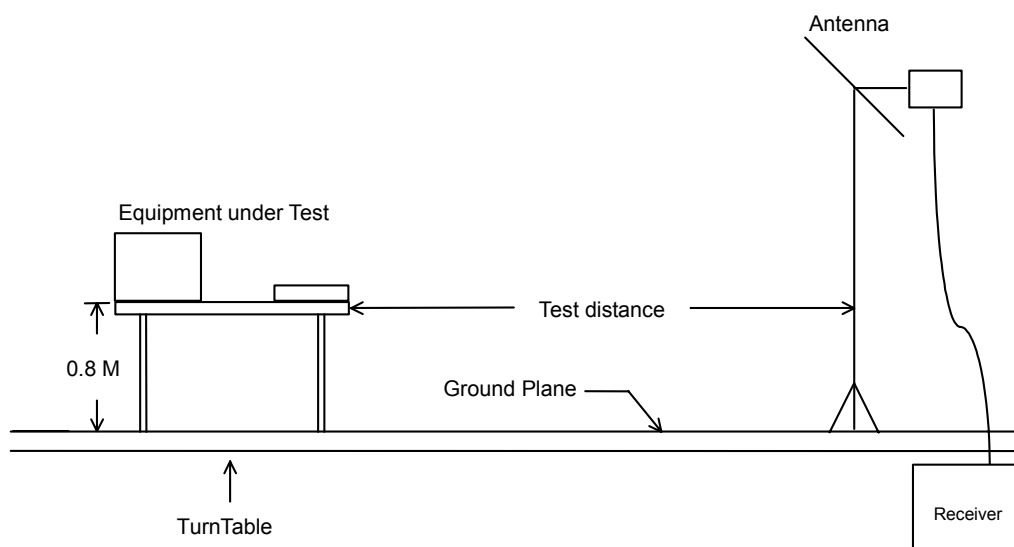
- Spectrum analyzer (R&S FSP40)
 - Attenuation 10 dB
 - Start Frequency 1 GHz
 - Stop Frequency 25 GHz
 - Resolution Bandwidth 1 MHz
 - Video Bandwidth 1 MHz
 - Signal Input 9 kHz to 40 GHz

- Spectrum analyzer (R&S FSP40)
 - Attenuation 10 dB
 - Start Frequency 30MHz
 - Stop Frequency 1 GHz
 - Resolution Bandwidth 120 KHz
 - Video Bandwidth 300KHz
 - Signal Input 9 kHz to 40 GHz

7.2. Test Procedures

1. The EUT was placed on a rotatable table top 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. 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.
5. 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.
6. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
7. 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.
8. 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.

7.3. Typical Test Setup Layout of Radiated Emission

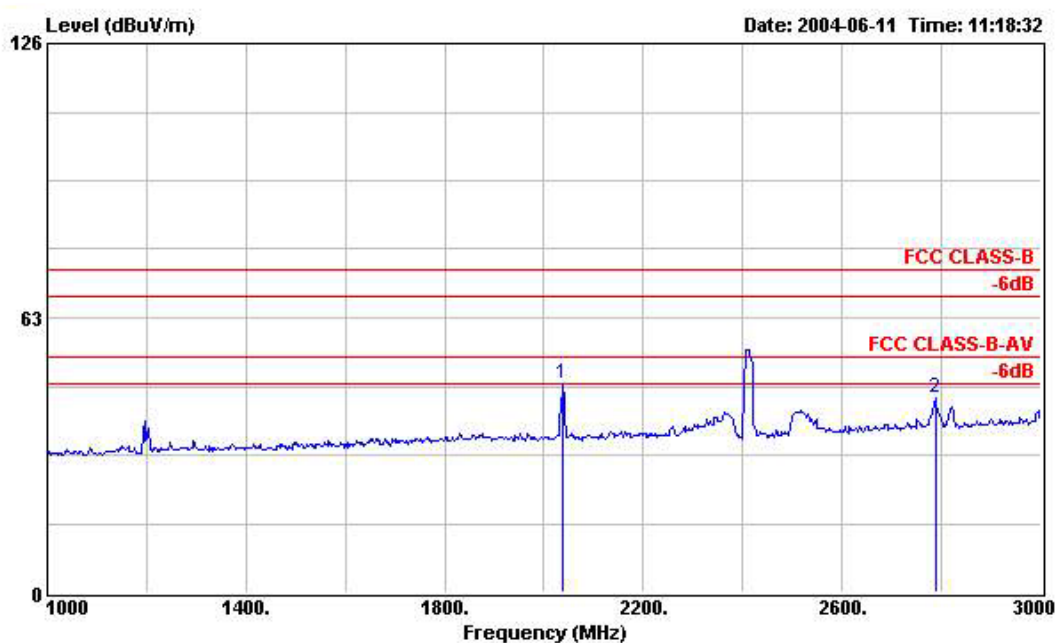


7.4. Test Result of Radiated Emission

7.4.1 Test Mode: Mode 1 (11b TX CH01)

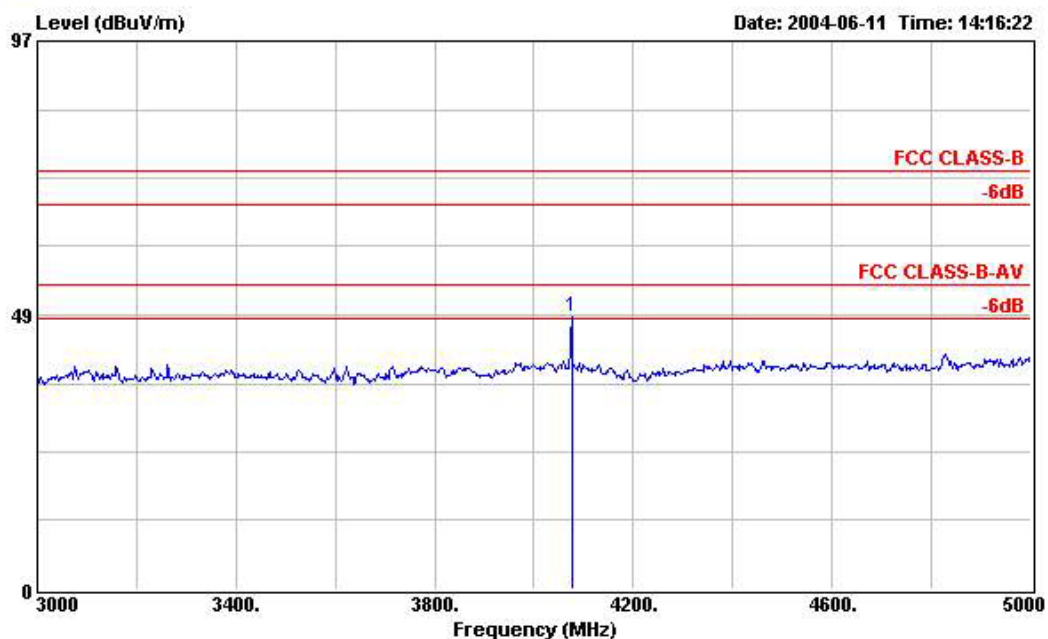
- Test Distance : 3 m
- Temperature : 23°C
- Relative Humidity :53%
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

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



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
 EUT : WLAN
 Power : AC 110V / 60Hz
 Model : EW-7128G
 Memo : 11b TX CH01 2412MHz
 Dipole

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2038.000	47.94	-26.06	74.00	60.01	27.21	1.65	40.93	Peak	---	---
2	2788.000	44.73	-29.27	74.00	54.52	29.46	1.95	41.20	Peak	---	---

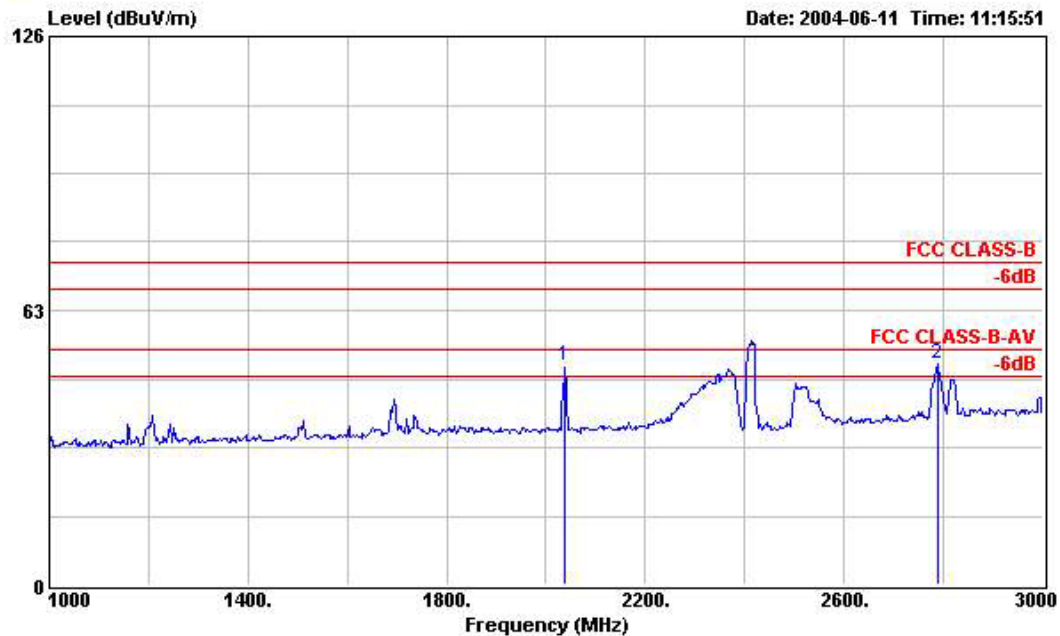


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
 EUT : WLAN
 Power : AC 110V / 60Hz
 Model : EW-7128G
 Memo : 11b TX CH01 2412MHz
 : Dipole

Freq	Level	Over	Limit	Read	Probe	Cable	Preamp	Remark	Ant	Table
MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor		Pos	Pos
		dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4076.000	48.07	-25.93	74.00	54.43	32.66	2.55	41.57 Peak	---	---

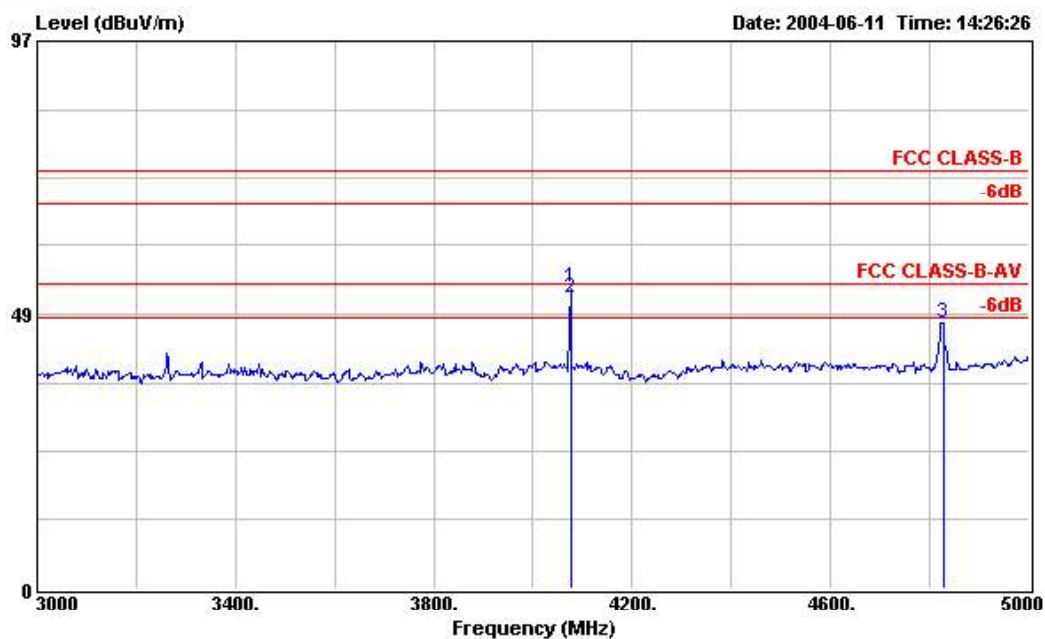
For 4.076GHz ~ 25GHz

Frequency from 4076MHz to 25000MHz, the emission emitted by the EUT is too low to be measured.



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : WLAN
 Power : AC 110V / 60Hz
 Model : EW-7128G
 Memo : 11b TX CH01 2412MHz
 : Dipole

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2038.000	50.27	-23.73	74.00	62.34	27.21	1.65	40.93	Peak	---	---
2	2788.000	50.70	-23.30	74.00	60.49	29.46	1.95	41.20	Peak	---	---

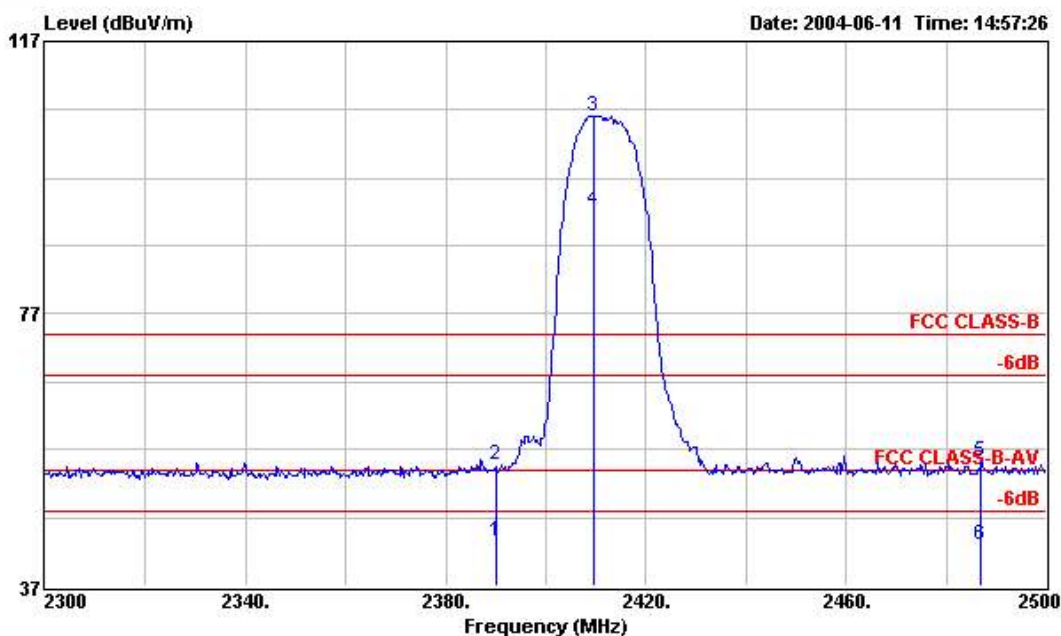


Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : WLAN
 Power : AC 110V / 60Hz
 Model : EW-7128G
 Memo : 11b TX CH01 2412MHz
 Dipole

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4076.000	53.34	-20.66	74.00	59.70	32.66	2.55	41.57	Peak	---	---
2	4076.000	51.45	-2.55	54.00	57.81	32.66	2.55	41.57	Average	100	218
3	4828.000	47.08	-26.92	74.00	53.73	33.24	2.49	42.38	Peak	---	---

For 4.828GHz ~ 25GHz

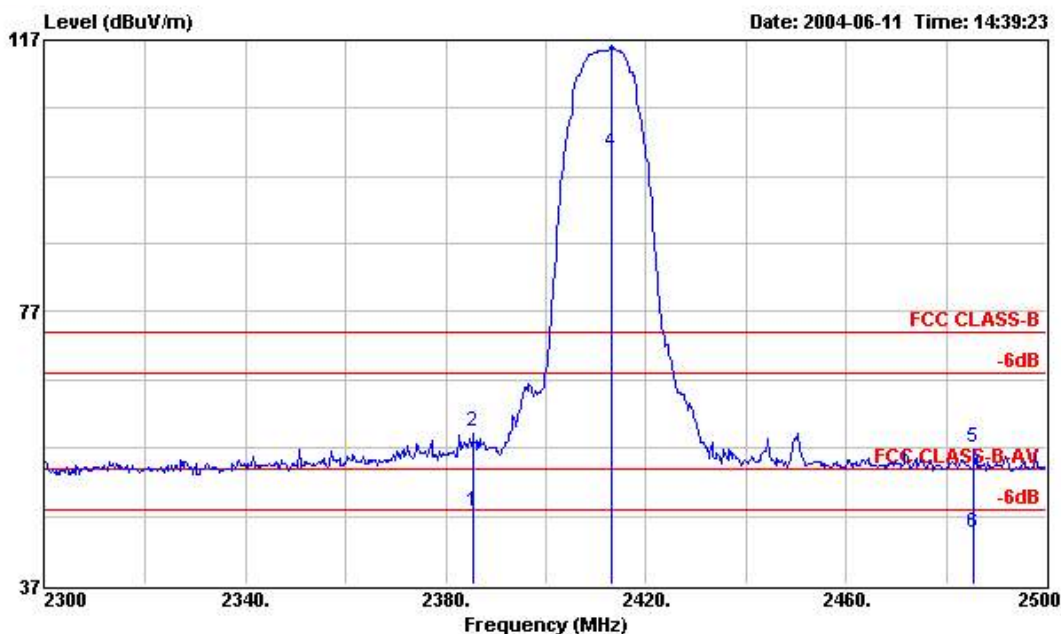
Frequency from 4828MHz to 25000MHz, the emission emitted by the EUT is too low to be measured.



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
 EUT : WLAN
 Power : AC 110V / 60Hz
 Model : EW-7128G
 Memo : 11b TX CH01 2412MHz
 Dipole

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamplifier Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	43.43	-10.57	54.00	13.57	28.14	1.72	0.00	Average	100	300
2	2390.000	54.74	-19.26	74.00	24.88	28.14	1.72	0.00	Peak	---	---
3 X	2409.600	106.12			76.19	28.19	1.74	0.00	Peak	---	---
4 X	2409.600	92.19			62.26	28.19	1.74	0.00	Average	100	343
5	2487.000	55.15	-18.85	74.00	24.96	28.40	1.79	0.00	Peak	---	---
6	2487.000	43.09	-10.91	54.00	12.90	28.40	1.79	0.00	Average	100	342

Remark: The "X" represent a fundamental frequency.



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : WLAN
 Power : AC 110V / 60Hz
 Model : EW-7128G
 Memo : 11b TX CH01 2412MHz
 Dipole

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamplifier Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2385.380	47.74	-6.26	54.00	17.89	28.13	1.72	0.00	Average	121	320
2	2385.380	59.51	-14.49	74.00	29.66	28.13	1.72	0.00	Peak	---	---
3 X	2413.200	116.61			86.67	28.20	1.74	0.00	Peak	---	---
4 X	2413.200	100.64			70.70	28.20	1.74	0.00	Average	112	342
5	2485.480	57.03	-16.97	74.00	26.85	28.39	1.79	0.00	Peak	---	---
6	2485.480	44.68	-9.32	54.00	14.50	28.39	1.79	0.00	Average	110	337

Remark: The "X" represent a fundamental frequency.

■ Field strength of fundamental and harmonics

Frequency	Antenna	Cable	Reading	Preamp	Limits	Emission	Margin	Detect	
Polarity	Factor	Loss		Factor					
(MHz)	(dB/m)	(dB)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Mode	
2409.600	H	28.19	1.74	76.19	0.00	-	106.12	-	Peak
2409.600	H	28.19	1.74	62.26	0.00	-	92.19	-	AV
2413.200	V	28.20	1.74	86.67	0.00	-	116.61	-	Peak
2413.200	V	28.20	1.74	70.70	0.00	-	100.64	-	AV
4076.000	H	32.66	2.55	12.86	41.57	74.00	48.07	-25.93	Peak
4076.000	V	32.66	2.55	18.13	41.57	74.00	53.34	-20.66	Peak
4076.000	V	32.66	2.55	16.24	41.57	54.00	51.45	-2.55	AV
4828.000	V	33.24	2.49	11.35	42.38	74.00	47.08	-26.92	Peak
7236.000	V/H	-	-	-	-	-	-	-	AV/Peak
9648.000	V/H	-	-	-	-	-	-	-	AV/Peak
12060.000	V/H	-	-	-	-	-	-	-	AV/Peak
14472.000	V/H	-	-	-	-	-	-	-	AV/Peak
16884.000	V/H	-	-	-	-	-	-	-	AV/Peak
19296.000	V/H	-	-	-	-	-	-	-	AV/Peak
21708.000	V/H	-	-	-	-	-	-	-	AV/Peak
24120.000	V/H	-	-	-	-	-	-	-	AV/Peak

Remark:

1. The emission emitted by the EUT is too low to be measured except the emission listed above,
2. Reading = Reading on SA-Preamp Factor

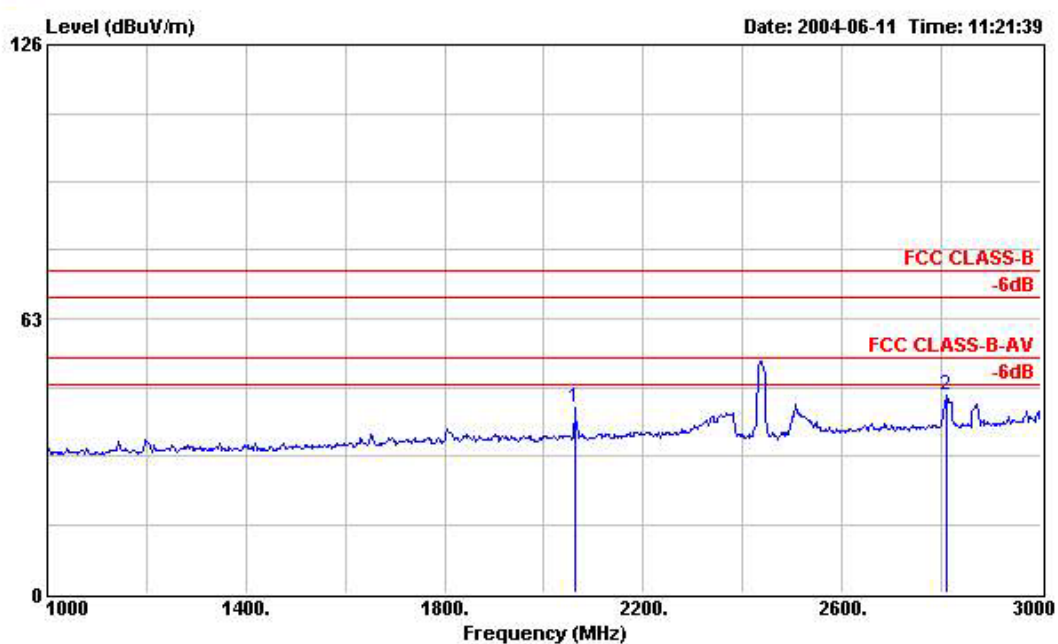
Test Engineer : 

Jay

7.4.2 Test Mode: Mode 2 (11b TX CH06)

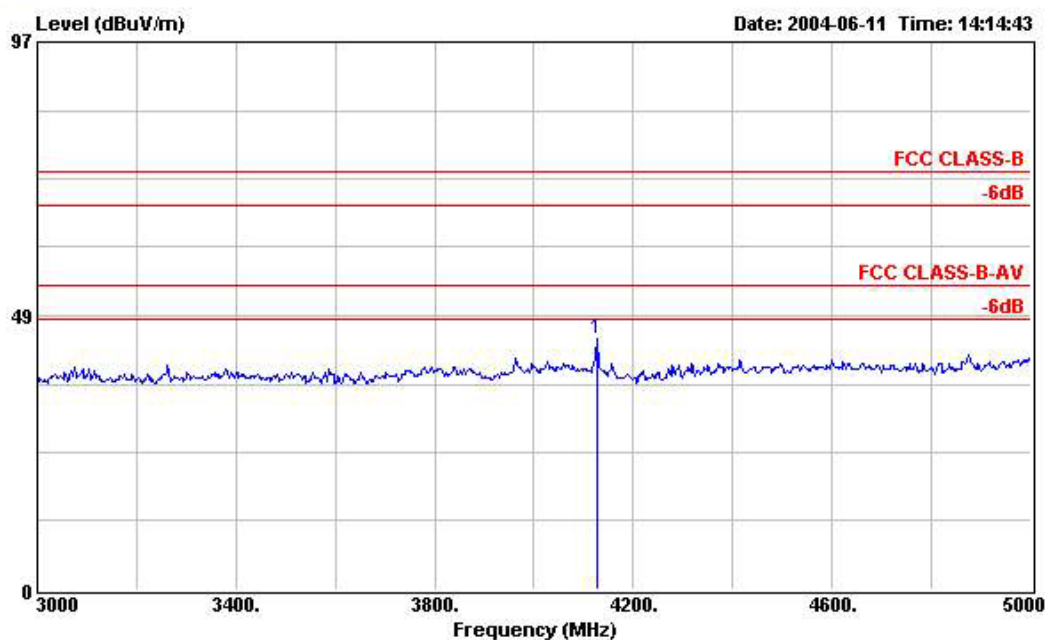
- Test Distance : 3 m
- Temperature : 23°C
- Relative Humidity :53%
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

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



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
 EUT : WLAN
 Power : AC 110V / 60Hz
 Model : EW-7128G
 Memo : 11b TX CH06 2437MHz
 Dipole

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
			dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2062.000	42.39	-31.61	74.00	54.40	27.27	1.66	40.94	Peak	---	---
2	2812.000	45.49	-28.51	74.00	55.19	29.54	1.96	41.20	Peak	---	---



Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
EUT : WLAN
Power : AC 110V / 60Hz
Model : EW-7128G
Memo : 11b TX CH06 2437MHz
Dipole

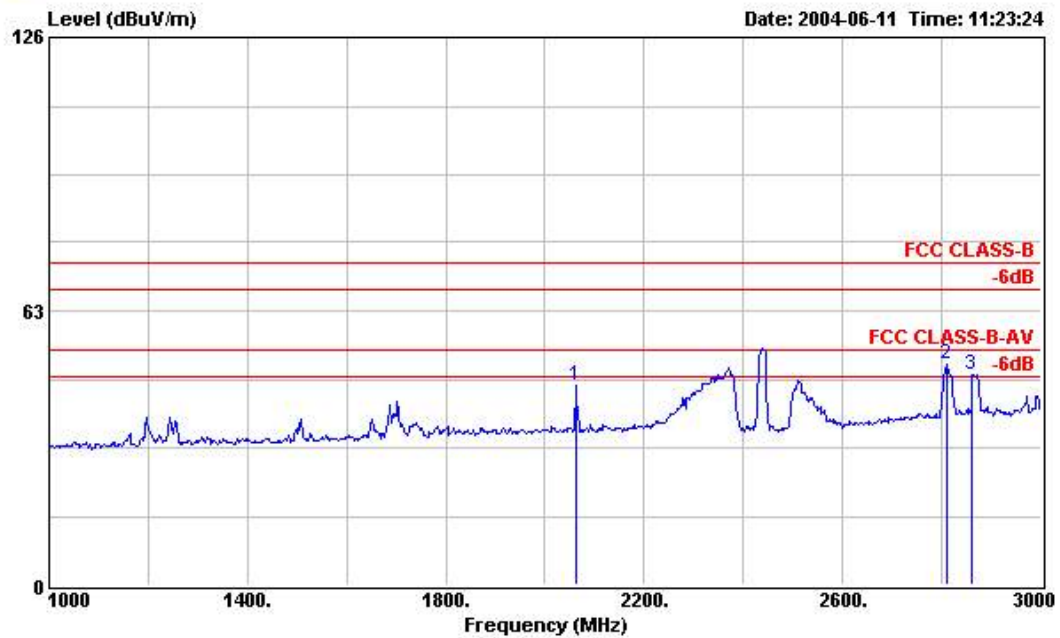
	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4126.000	44.51	-29.49	74.00	50.99	32.64	2.49	41.61	Peak	---	---

For 4.126GHz ~ 25GHz

Frequency from 4126MHz to 25000MHz, the emission emitted by the EUT is too low to be measured.

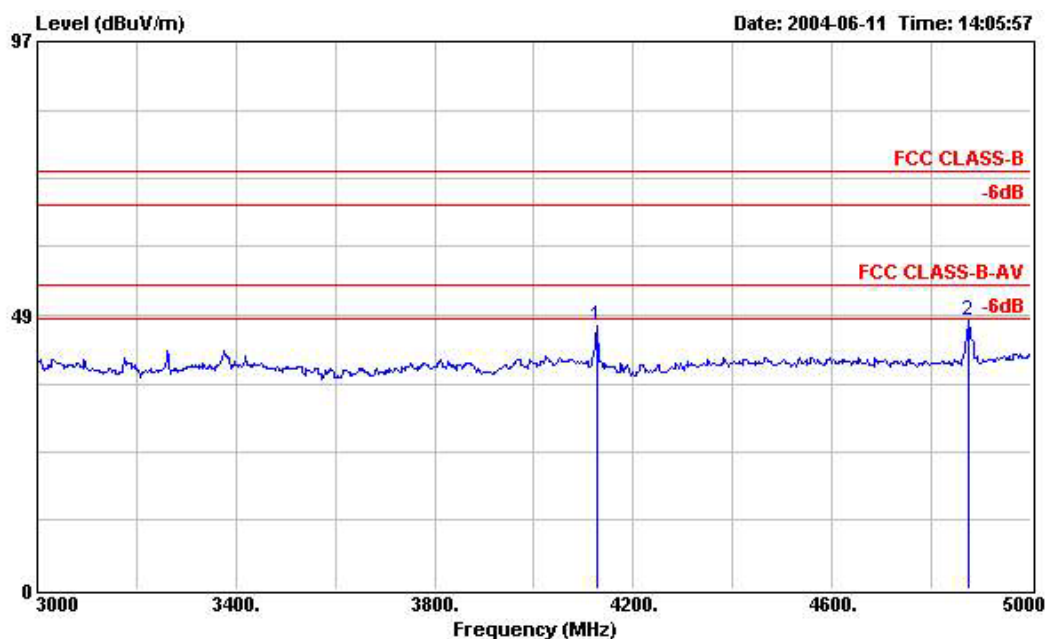
FCC TEST REPORT

Report No. :F452063



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
 EUT : WLAN
 Power : AC 110V / 60Hz
 Model : EW-7128G
 Memo : 11b TX CH06 2437MHz
 Dipole

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2062.000	45.89	-28.11	74.00	57.90	27.27	1.66	40.94	Peak	---	---
2	2812.000	50.80	-23.20	74.00	60.50	29.54	1.96	41.20	Peak	---	---
3	2862.000	48.30	-25.70	74.00	57.83	29.72	1.95	41.20	Peak	---	---

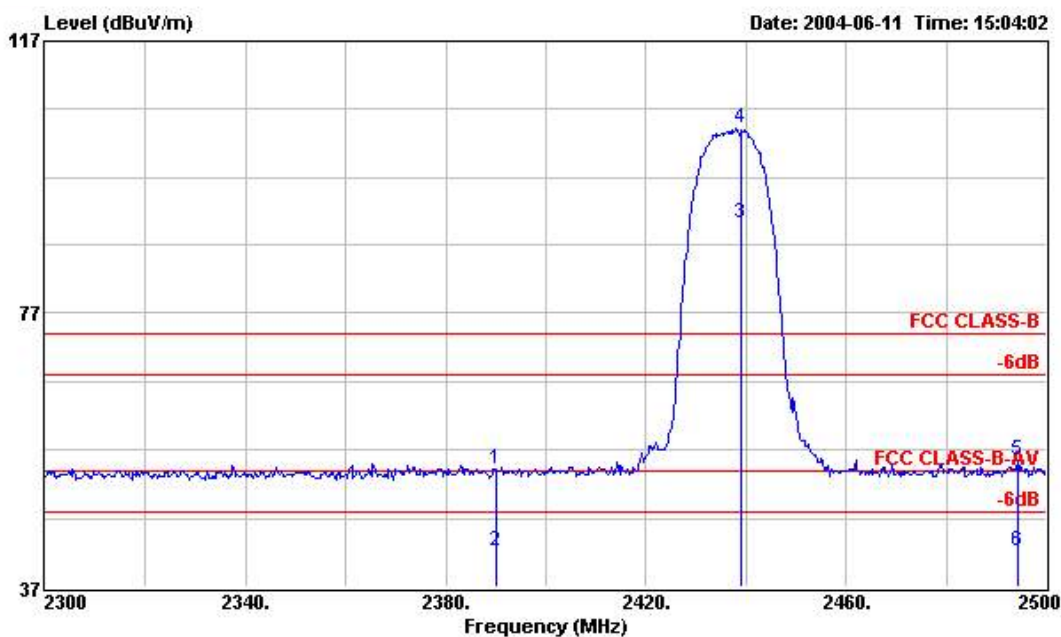


Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6821 VERTICAL
EUT : WLAN
Power : AC 110V / 60Hz
Model : EW-7128G
Memo : 11b TX CH06 2437MHz
Dipole

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4126.000	46.54	-27.46	74.00	53.02	32.64	2.49	41.61	Peak	---	---
2	4876.000	47.40	-26.60	74.00	53.97	33.35	2.52	42.44	Peak	---	---

For 4.876GHz ~ 25GHz

Frequency from 4876MHz to 25000MHz, the emission emitted by the EUT is too low to be measured.



Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6821 HORIZONTAL
 EUT : WLAN
 Power : AC 110V / 60Hz
 Model : EW-7128G
 Memo : 11b TX CH06 2437MHz
 Dipole

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp		Ant	Table
	MHz	dBuV/m	dB	dBuV/m	Level	Factor	Loss	Factor	Remark	Pos	Pos
					dBuV	dB	dB	dB		cm	deg
1	2390.000	54.10	-19.90	74.00	24.24	28.14	1.72	0.00	Peak	---	---
2	2390.000	42.10	-11.90	54.00	12.24	28.14	1.72	0.00	Average	100	348
3 X	2439.160	90.05			60.01	28.27	1.77	0.00	Average	100	331
4 X	2439.160	104.35			74.31	28.27	1.77	0.00	Peak	---	---
5	2494.200	55.61	-18.39	74.00	25.42	28.40	1.79	0.00	Peak	---	---
6	2494.200	42.17	-11.83	54.00	11.98	28.40	1.79	0.00	Average	100	343

Remark: The "X" represent a fundamental frequency.