FCC Test Report

Product Name	IP COMMUNICATION TERMINAL
Model No	IP100H
FCC ID.	AFJ357600

Applicant	ICOM Incorporated
Address	1-1-32 Kamiminami, Hirano-ku, Osaka, 547-0003

Date of Receipt	Dec. 26, 2013
Issue Date	Mar. 06, 2014
Report No.	1410008R-RFUSP25V00
Report Version	V1.0

Testing Laboratory
0914

The test results relate only to the samples tested.
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This report must not be used to claim product endorsement by TAF or any agency of the U.S. Government

Test Report Certification

Issue Date: Mar. 06, 2014
Report No.: 1410008R-RFUSP25V00

Product Name	IP COMMUNICATION TERMINAL
Applicant	ICOM Incorporated
Address	1-1-32 Kamiminami, Hirano-ku, Osaka, 547-0003
Manufacturer	ICOM Incorporated
Model No.	IP100H
FCC ID.	AFJ357600
EUT Rated Voltage	DC 7.4V by battery
EUT Test Voltage	AC 120V/60Hz
Trade Name	ICOM
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2012 ANSI C63.10: 2009, KDB 558074
Test Result	Complied

The test results relate only to the samples tested.
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(Director / Vincent Lin)

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Attachment 1: EUT Test Photographs
Attachment 2: EUT Detailed Photographs

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	IP COMMUNICATION TERMINAL
Trade Name	ICOM
Model No.	IP100H
FCC ID.	AFJ357600
Frequency Range	2412-2462MHz for 802.11b/g/n-20BW, 2422-2452MHz for 802.11n-40BW
Number of Channels	802.11b/g/n-20MHz: 11, n-40MHz: 7
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps, 802.11n: up to 150Mbps
Type of Modulation	802.11b:DSSS (DBPSK, DQPSK, CCK) 802.11g/n:OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	Monopole / Dipole Antenna
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto
Contain Module	TAIYO / WYSBMVGX4

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain	Remark
1	Exceltek	N/A	Dipole	2.0 dBi for 2.4GHz	External Antenna
2	TAIYO YUDEN	AH 104N2450D1	Monopole	2.1 dBi for 2.4GHz	Internal Antenna

Note: The antenna of EUT is conform to FCC 15.203

802.11b/g/n-20MHz Center Frequency of Each Channel:

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

802.11n-40MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 03:	2422 MHz	Channel 04:	2427 MHz	Channel 05:	2432 MHz	Channel 06:	2437 MHz
Channel 07:	2442 MHz	Channel 08:	2447 MHz	Channel 09:	2452 MHz		

Note:

1. This device is an IP COMMUNICATION TERMINAL with a built-in 2.4GHz and 5GHz Band WLAN transceiver this report for 2.4Ghz Band.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
4. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11b is 1Mbps 、802.11g is 6Mbps、802.11n(20M-BW) is 7.2Mbps and 、802.11n(40M-BW) is 15Mbps)
5. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.

Test Mode:	Mode 1: Transmit (802.11b 1Mbps)
	Mode 2: Transmit (802.11g 6Mbps)
	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)
	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

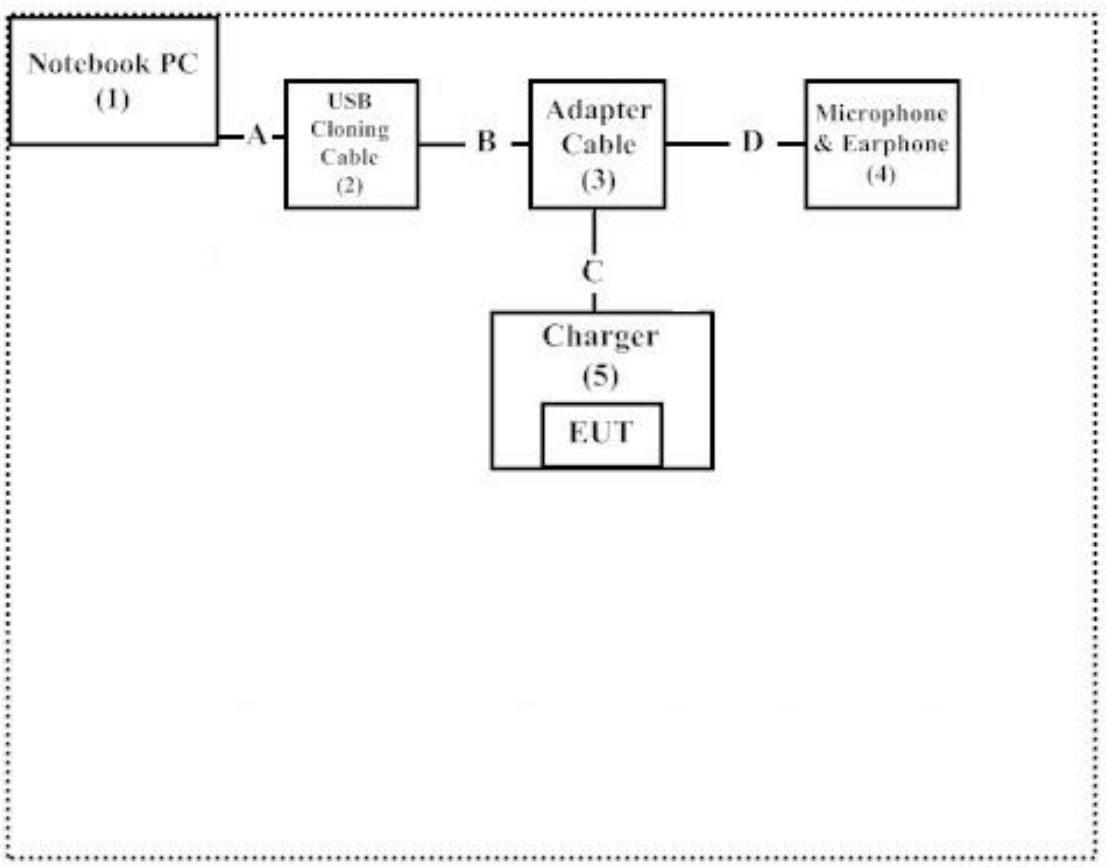
1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	DELL	PPT	N/A	Non-Shielded, 1.8m
2	USB Cloning Cable	iCOM	OPC-478UC	N/A	N/A
3	Adapter Cable	iCOM	OPC-2144	N/A	N/A
4	Microphone & Earphone	iCOM	HS-99	N/A	N/A
5	Charger	iCOM	BC-202	N/A	N/A

Signal Cable Type		Signal cable Description
A	Mini USB to USB Cable	Non-Shielded, 1.5m, with one ferrite core bonded.
B	USB Cloning Cable	Non-Shielded, 0.6m
C	Adapter Cable	Non-Shielded, 0.225m
D	Microphone & Earphone Cable	Non-Shielded, 1.2m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

(1) Setup the EUT as shown in Section 1.4

(2) Execute software “MFG_Tool (V1.0.0.0)” on the EUT.

(3) Configure the test mode, the test channel, and the data rate.

(4) Press “OK” to start the continuous Transmit.

(5) Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site: http://www.quietek.com/tw/ctg/cts/accreditations.htm
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site: http://www.quietek.com/

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E-Mail : service@quietek.com

FCC Accreditation Number: TW1014

2. Conducted Emission

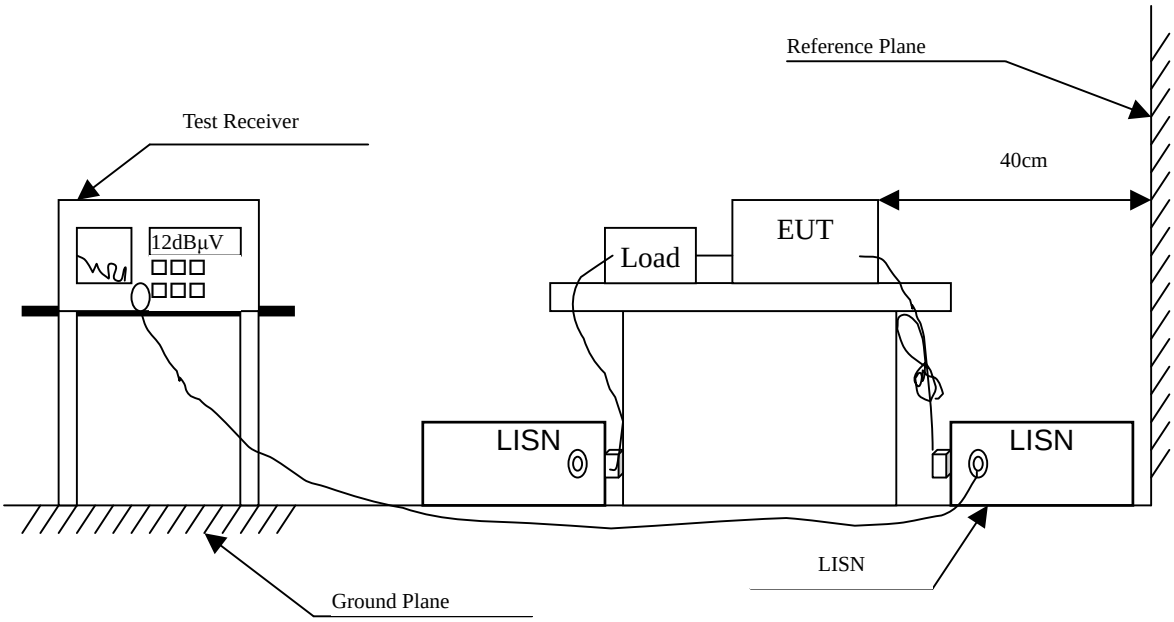
2.1. Test Equipment

	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.	Remark
X	Test Receiver	R & S	ESCS 30 / 825442/018	Sep., 2013	
X	Artificial Mains Network	R & S	ENV4200 / 848411/10	Feb., 2014	Peripherals
X	LISN	R & S	ESH3-Z5 / 825562/002	Feb., 2014	EUT
	DC LISN	Schwarzbeck	8226 / 176	Mar, 2014	EUT
X	Pulse Limiter	R & S	ESH3-Z2 / 357.8810.52	Feb., 2014	
	No.1 Shielded Room				

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked by “X” are used to measure the final test results.

2.2. Test Setup



2.3. Limits

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

2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2009 on conducted measurement.
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product : IP COMMUNICATION TERMINAL
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV	Margin dB	Limit dBμV
Line 1					
Quasi-Peak					
0.173	9.552	37.640	47.192	-18.151	65.343
0.236	9.576	31.800	41.376	-22.167	63.543
0.357	9.590	24.160	33.750	-26.336	60.086
1.759	9.654	9.760	19.413	-36.587	56.000
5.431	9.770	19.320	29.090	-30.910	60.000
14.037	10.120	23.760	33.880	-26.120	60.000
Average					
0.173	9.552	19.310	28.862	-26.481	55.343
0.236	9.576	16.610	26.186	-27.357	53.543
0.357	9.590	14.730	24.320	-25.766	50.086
1.759	9.654	2.600	12.253	-33.747	46.000
5.431	9.770	13.740	23.510	-26.490	50.000
14.037	10.120	20.540	30.660	-19.340	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : IP COMMUNICATION TERMINAL
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV	Margin dB	Limit dBμV
Line 2					
Quasi-Peak					
0.197	9.589	34.240	43.829	-20.828	64.657
0.220	9.590	31.750	41.340	-22.660	64.000
0.341	9.604	22.010	31.614	-28.929	60.543
0.603	9.607	16.180	25.787	-30.213	56.000
5.365	9.800	24.390	34.190	-25.810	60.000
14.521	10.209	23.990	34.199	-25.801	60.000
Average					
0.197	9.589	9.410	18.999	-35.658	54.657
0.220	9.590	18.690	28.280	-25.720	54.000
0.341	9.604	7.080	16.684	-33.859	50.543
0.603	9.607	8.380	17.987	-28.013	46.000
5.365	9.800	19.390	29.190	-20.810	50.000
14.521	10.209	21.660	31.869	-18.131	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Peak Power Output

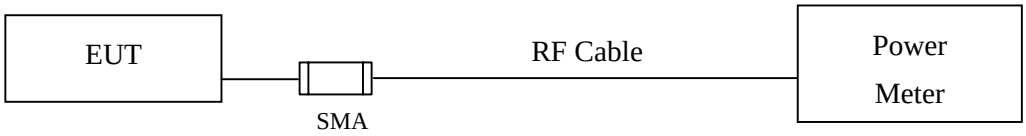
3.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2013
X	Power Sensor	Anritsu	MA2411B/0738448	Jun, 2013

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

3.2. Test Setup



3.3. Limits

The maximum peak power shall be less 1 Watt.

3.4. Test Procedure

The EUT was tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements. The maximum peak conducted output power using KDB 558074 section 9.1.3 PKPM1 Peak power meter method.

3.5. Uncertainty

± 1.27 dB

3.6. Test Result of Peak Power Output

Product : IP COMMUNICATION TERMINAL
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Peak Power	Required Limit	Result
		1	2	5.5	11	1		
		Measurement Level (dBm)						
01	2412	8.58	--	--	--	11.38	<30dBm	Pass
06	2437	11.50	11.02	10.94	10.88	14.10	<30dBm	Pass
11	2462	11.58	--	--	--	14.19	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : IP COMMUNICATION TERMINAL
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		6	9	12	18	24	36	48	54	6		
		Measurement Level (dBm)										
01	2412	10.53	--	--	--	--	--	--	--	20.12	<30dBm	Pass
06	2437	10.62	10.55	10.42	10.39	10.35	10.27	10.21	10.19	20.01	<30dBm	Pass
11	2462	10.41	--	--	--	--	--	--	--	20.31	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : IP COMMUNICATION TERMINAL
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		7.2	14.4	21.7	28.9	43.3	57.8	65	72.2	7.2		
		Measurement Level (dBm)										
01	2412	9.87	--	--	--	--	--	--	--	18.83	<30dBm	Pass
06	2437	9.47	9.33	9.24	9.17	9.11	9.08	9.02	8.99	18.24	<30dBm	Pass
11	2462	9.54	--	--	--	--	--	--	--	18.36	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : IP COMMUNICATION TERMINAL
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		15	30	45	60	90	120	135	150	15		
		Measurement Level (dBm)										
03	2422	10.21	--	--	--	--	--	--	--	19.04	<30dBm	Pass
06	2437	10.31	10.22	10.19	10.11	10.02	9.98	9.82	9.79	19.12	<30dBm	Pass
09	2452	10.04	--	--	--	--	--	--	--	18.96	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

4. Radiated Emission

4.1. Test Equipment

The following test equipment are used during the radiated emission test:

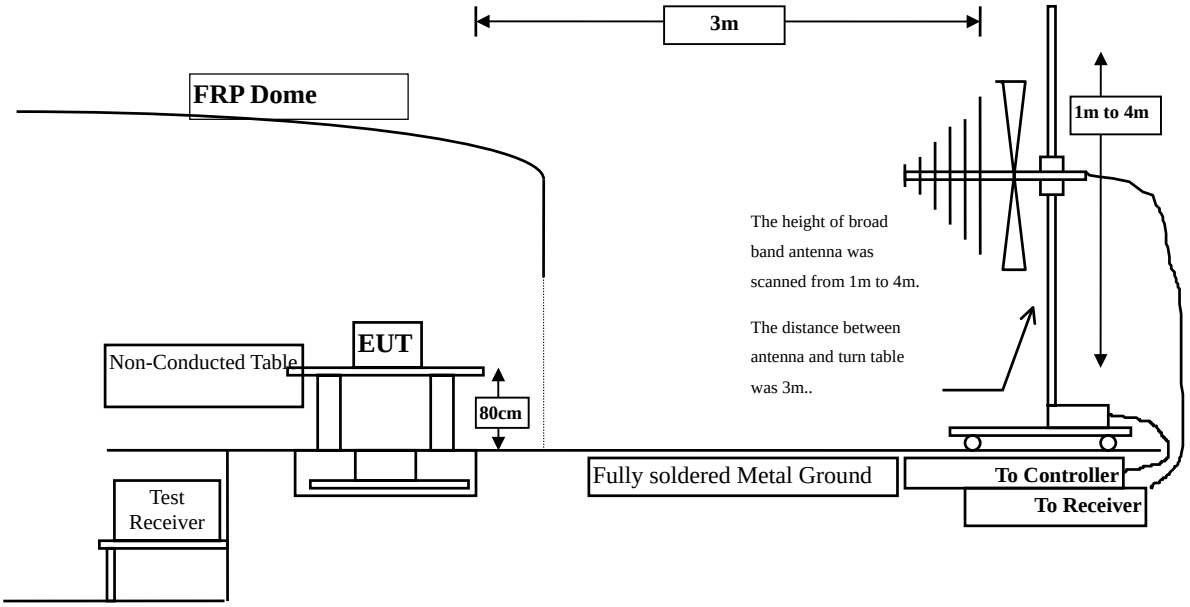
Test Site	Equipment		Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Loop Antenna	Teseq	HLA6120 / 26739	Jul., 2013
	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2013
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2013
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2013
	X	Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2013
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2013
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2013
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2014
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

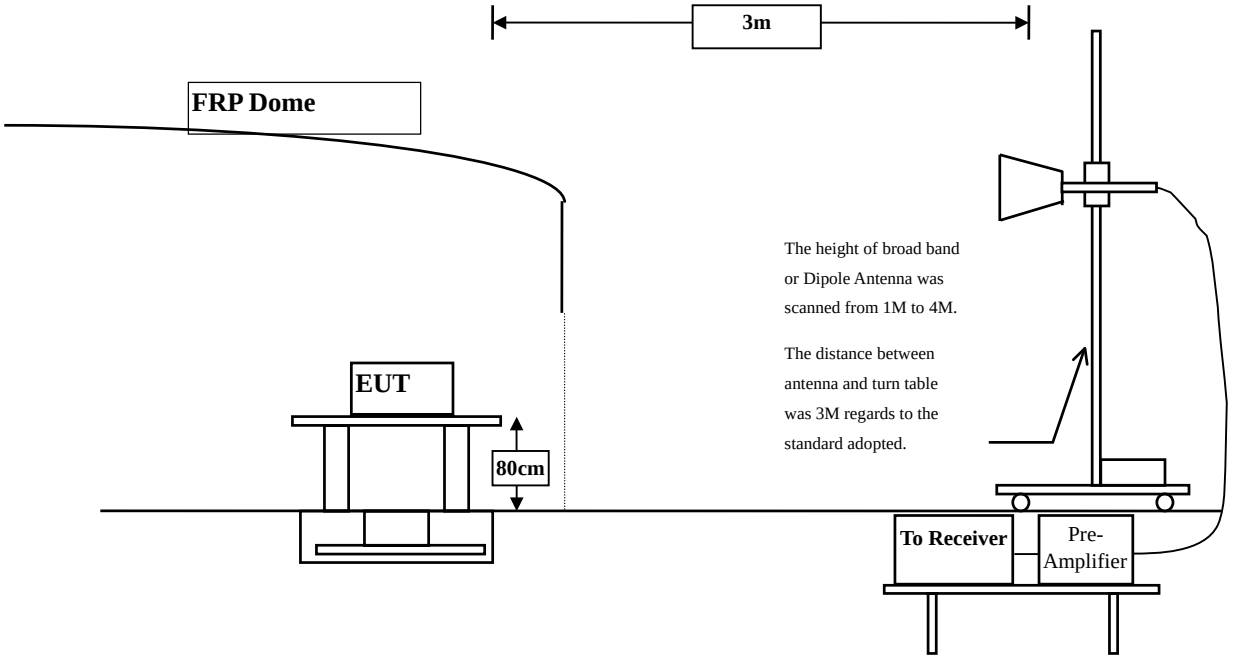
2. The test instruments marked with “X” are used to measure the final test results.

4.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



4.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits		
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remarks: E field strength (dBμV/m) = 20 log E field strength (uV/m)

4.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2009 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2009 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The frequency range from 9kHz to 10th harmonics is checked.

4.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

4.6. Test Result of Radiated Emission

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4824.000	3.261	47.920	51.181	-22.819	74.000
7236.000	10.650	36.540	47.190	-26.810	74.000
9648.000	13.337	36.570	49.906	-24.094	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	47.940	54.361	-19.639	74.000
7236.000	11.495	35.330	46.825	-27.175	74.000
9648.000	13.807	36.590	50.396	-23.604	74.000
Average Detector:					
4824.000	6.421	43.670	50.091	-3.909	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4874.000	3.038	48.890	51.927	-22.073	74.000
7311.000	11.795	35.940	47.734	-26.266	74.000
9748.000	12.635	36.190	48.825	-25.175	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	47.680	53.491	-20.509	74.000
7311.000	12.630	35.560	48.189	-25.811	74.000
9748.000	13.126	36.870	49.996	-24.004	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4924.000	2.858	47.900	50.757	-23.243	74.000
7386.000	12.127	35.220	47.348	-26.652	74.000
9848.000	12.852	35.870	48.723	-25.277	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	47.780	53.300	-20.700	74.000
7386.000	13.254	35.880	49.134	-24.866	74.000
9848.000	13.367	36.030	49.397	-24.603	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4824.000	3.261	47.000	50.261	-23.739	74.000
7236.000	10.650	35.780	46.430	-27.570	74.000
9648.000	13.337	37.760	51.096	-22.904	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	44.960	51.381	-22.619	74.000
7236.000	11.495	36.210	47.705	-26.295	74.000
9648.000	13.807	38.380	52.186	-21.814	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4874.000	3.038	47.710	50.747	-23.253	74.000
7311.000	11.795	36.900	48.694	-25.306	74.000
9748.000	12.635	36.460	49.095	-24.905	74.000
Average Detector:					
--					
Peak Detector:					
4874.000	5.812	46.530	52.341	-21.659	74.000
7311.000	12.630	35.340	47.969	-26.031	74.000
9748.000	13.126	36.570	49.696	-24.304	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4924.000	2.858	46.810	49.667	-24.333	74.000
7386.000	12.127	35.650	47.778	-26.222	74.000
9848.000	12.852	35.780	48.633	-25.367	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	45.530	51.050	-22.950	74.000
7386.000	13.254	35.880	49.134	-24.866	74.000
9848.000	13.367	36.450	49.817	-24.183	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2412MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4824.000	3.261	45.960	49.221	-24.779	74.000
7236.000	10.650	35.810	46.460	-27.540	74.000
9648.000	13.337	36.780	50.116	-23.884	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	44.030	50.451	-23.549	74.000
7236.000	11.495	36.350	47.845	-26.155	74.000
9648.000	13.807	36.940	50.746	-23.254	74.000
Average Detector:					
--					

Note:
1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437 MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4874.000	3.038	45.970	49.007	-24.993	74.000
7311.000	11.795	36.490	48.284	-25.716	74.000
9748.000	12.635	36.950	49.585	-24.415	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	44.750	50.561	-23.439	74.000
7311.000	12.630	36.490	49.119	-24.881	74.000
9748.000	13.126	37.780	50.906	-23.094	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462 MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4924.000	2.858	46.450	49.307	-24.693	74.000
7386.000	12.127	35.720	47.848	-26.152	74.000
9848.000	12.852	36.980	49.833	-24.167	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	45.550	51.070	-22.930	74.000
7386.000	13.254	36.110	49.364	-24.636	74.000
9848.000	13.367	36.940	50.307	-23.693	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2422MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4844.000	3.171	44.090	47.261	-26.739	74.000
7266.000	11.162	36.230	47.392	-26.608	74.000
9688.000	12.964	36.660	49.625	-24.375	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4844.000	6.178	41.810	47.988	-26.012	74.000
7266.000	11.982	38.060	50.042	-23.958	74.000
9688.000	13.507	37.860	51.368	-22.632	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437 MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4874.000	3.038	43.940	46.977	-27.023	74.000
7311.000	11.795	35.340	47.134	-26.866	74.000
9748.000	12.635	36.600	49.235	-24.765	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	42.860	48.671	-25.329	74.000
7311.000	12.630	36.750	49.379	-24.621	74.000
9748.000	13.126	37.650	50.776	-23.224	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2452 MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4904.000	2.914	44.300	47.215	-26.785	74.000
7356.000	11.995	36.170	48.164	-25.836	74.000
9808.000	12.475	36.930	49.405	-24.595	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4904.000	5.530	43.670	49.201	-24.799	74.000
7356.000	13.005	36.510	49.514	-24.486	74.000
9808.000	12.901	37.330	50.231	-23.769	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4824.000	3.261	39.330	42.591	-31.409	74.000
7236.000	10.650	35.680	46.330	-27.670	74.000
9648.000	13.337	36.940	50.276	-23.724	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	47.660	54.081	-19.919	74.000
7236.000	11.495	35.770	47.265	-26.735	74.000
9648.000	13.807	36.780	50.586	-23.414	74.000
Average Detector:					
4824.000	6.421	44.770	51.191	-2.809	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4874.000	3.038	40.690	43.727	-30.273	74.000
7311.000	11.795	34.370	46.164	-27.836	74.000
9748.000	12.635	36.250	48.885	-25.115	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	48.200	54.011	-19.989	74.000
7311.000	12.630	35.730	48.359	-25.641	74.000
9748.000	13.126	36.270	49.396	-24.604	74.000
Average Detector:					
4874.000	5.812	45.420	51.231	-2.769	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4924.000	2.858	41.110	43.967	-30.033	74.000
7386.000	12.127	34.960	47.088	-26.912	74.000
9848.000	12.852	35.740	48.593	-25.407	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	48.690	54.210	-19.790	74.000
7386.000	13.254	35.720	48.974	-25.026	74.000
9848.000	13.367	36.660	50.027	-23.973	74.000
Average Detector:					
4924.000	5.521	46.140	51.660	-2.340	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4824.000	3.261	37.550	40.811	-33.189	74.000
7236.000	10.650	35.200	45.850	-28.150	74.000
9648.000	13.337	36.460	49.796	-24.204	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	43.340	49.761	-24.239	74.000
7236.000	11.495	35.180	46.675	-27.325	74.000
9648.000	13.807	35.660	49.466	-24.534	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4874.000	3.038	37.260	40.297	-33.703	74.000
7311.000	11.795	34.780	46.574	-27.426	74.000
9748.000	12.635	36.100	48.735	-25.265	74.000
Average Detector:					
--					
Peak Detector:					
4874.000	5.812	46.820	52.631	-21.369	74.000
7311.000	12.630	35.120	47.749	-26.251	74.000
9748.000	13.126	36.140	49.266	-24.734	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4924.000	2.858	37.390	40.247	-33.753	74.000
7386.000	12.127	34.900	47.028	-26.972	74.000
9848.000	12.852	35.640	48.493	-25.507	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	48.530	54.050	-19.950	74.000
7386.000	13.254	34.640	47.894	-26.106	74.000
9848.000	13.367	35.610	48.977	-25.023	74.000
Average Detector:					
4924.000	5.521	33.520	39.040	-14.960	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2412MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4824.000	3.261	37.550	40.811	-33.189	74.000
7236.000	10.650	35.610	46.260	-27.740	74.000
9648.000	13.337	37.010	50.346	-23.654	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	43.440	49.861	-24.139	74.000
7236.000	11.495	35.590	47.085	-26.915	74.000
9648.000	13.807	35.860	49.666	-24.334	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437 MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4874.000	3.038	37.110	40.147	-33.853	74.000
7311.000	11.795	35.160	46.954	-27.046	74.000
9748.000	12.635	36.020	48.655	-25.345	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	46.460	52.271	-21.729	74.000
7311.000	12.630	34.800	47.429	-26.571	74.000
9748.000	13.126	35.720	48.846	-25.154	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462 MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4924.000	2.858	37.580	40.437	-33.563	74.000
7386.000	12.127	35.140	47.268	-26.732	74.000
9848.000	12.852	36.180	49.033	-24.967	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	46.320	51.840	-22.160	74.000
7386.000	13.254	34.790	48.044	-25.956	74.000
9848.000	13.367	36.180	49.547	-24.453	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2422MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4844.000	3.171	37.740	40.911	-33.089	74.000
7266.000	11.162	35.330	46.492	-27.508	74.000
9688.000	12.964	36.240	49.205	-24.795	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4844.000	6.178	43.240	49.418	-24.582	74.000
7266.000	11.982	35.760	47.742	-26.258	74.000
9688.000	13.507	36.440	49.948	-24.052	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437 MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4874.000	3.038	36.980	40.017	-33.983	74.000
7311.000	11.795	34.580	46.374	-27.626	74.000
9748.000	12.635	36.280	48.915	-25.085	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	45.530	51.341	-22.659	74.000
7311.000	12.630	34.840	47.469	-26.531	74.000
9748.000	13.126	35.960	49.086	-24.914	74.000
Average Detector:					
--					

Note:
1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2452 MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4904.000	2.914	36.570	39.485	-34.515	74.000
7356.000	11.995	34.880	46.874	-27.126	74.000
9808.000	12.475	36.350	48.825	-25.175	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4904.000	5.530	43.840	49.371	-24.629	74.000
7356.000	13.005	34.660	47.664	-26.336	74.000
9808.000	12.901	36.590	49.491	-24.509	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : IP COMMUNICATION TERMINAL
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)(2437 MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
336.520	2.877	36.594	39.471	-6.529	46.000
507.240	3.306	34.688	37.994	-8.006	46.000
612.000	3.536	34.229	37.765	-8.235	46.000
664.380	3.679	32.583	36.262	-9.738	46.000
769.140	3.910	27.986	31.896	-14.104	46.000
881.660	3.904	26.902	30.806	-15.194	46.000
Vertical					
406.360	6.520	33.844	40.364	-5.636	46.000
509.180	6.732	25.928	32.660	-13.340	46.000
666.320	7.101	31.203	38.305	-7.695	46.000
749.740	7.300	30.124	37.424	-8.576	46.000
809.880	7.349	29.835	37.184	-8.816	46.000
916.580	7.304	27.894	35.198	-10.802	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : IP COMMUNICATION TERMINAL
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)(2437 MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
336.520	2.877	36.661	39.538	-6.462	46.000
507.240	3.306	33.668	36.974	-9.026	46.000
600.360	3.534	32.240	35.774	-10.226	46.000
666.320	3.678	32.140	35.819	-10.181	46.000
749.740	3.877	27.426	31.303	-14.697	46.000
873.900	3.907	29.724	33.631	-12.369	46.000
Vertical					
406.360	6.520	32.932	39.452	-6.548	46.000
491.720	6.707	34.157	40.863	-5.137	46.000
534.400	6.799	35.871	42.670	-3.330	46.000
666.320	7.101	32.553	39.655	-6.345	46.000
749.740	7.300	29.954	37.254	-8.746	46.000
903.000	7.306	27.962	35.268	-10.732	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : IP COMMUNICATION TERMINAL
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2437 MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
313.240	2.786	37.462	40.248	-5.752	46.000
511.120	3.316	36.358	39.674	-6.326	46.000
666.320	3.678	31.297	34.976	-11.024	46.000
755.560	3.888	30.762	34.650	-11.350	46.000
827.340	3.909	32.537	36.446	-9.554	46.000
967.020	3.938	29.305	33.243	-20.757	54.000
Vertical					
342.340	6.318	37.127	43.445	-2.555	46.000
480.080	6.681	32.930	39.611	-6.389	46.000
588.720	6.938	34.746	41.684	-4.316	46.000
664.380	7.102	32.383	39.485	-6.515	46.000
755.560	7.311	29.707	37.018	-8.982	46.000
811.820	7.341	29.544	36.884	-9.116	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : IP COMMUNICATION TERMINAL
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2437 MHz) (Monopole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
381.140	3.029	37.876	40.905	-5.095	46.000
480.080	3.258	38.544	41.802	-4.198	46.000
526.640	3.354	38.893	42.247	-3.753	46.000
565.440	3.438	36.694	40.132	-5.868	46.000
710.940	3.783	36.442	40.225	-5.775	46.000
809.880	3.926	31.071	34.997	-11.003	46.000
Vertical					
350.100	6.348	34.199	40.547	-5.453	46.000
507.240	6.729	34.734	41.463	-4.537	46.000
565.440	6.861	35.582	42.443	-3.557	46.000
670.200	7.104	32.772	39.876	-6.124	46.000
749.740	7.300	29.637	36.937	-9.063	46.000
811.820	7.341	30.071	37.411	-8.589	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : IP COMMUNICATION TERMINAL
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)(2437 MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
144.460	-10.377	40.591	30.214	-13.286	43.500
264.740	-4.991	38.956	33.965	-12.035	46.000
414.120	-3.242	41.619	38.377	-7.623	46.000
598.420	3.991	27.723	31.714	-14.286	46.000
724.520	3.485	33.939	37.424	-8.576	46.000
970.900	6.962	27.398	34.360	-19.640	54.000
Vertical					
84.320	-4.484	36.800	32.316	-7.684	40.000
204.600	-7.666	43.199	35.532	-7.968	43.500
357.860	-3.734	34.046	30.312	-15.688	46.000
513.060	-0.670	26.430	25.760	-20.240	46.000
596.480	-3.113	29.101	25.988	-20.012	46.000
961.200	7.260	23.704	30.964	-23.036	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : IP COMMUNICATION TERMINAL
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)(2437 MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
107.600	-7.058	35.471	28.413	-15.087	43.500
183.260	-12.294	44.922	32.628	-10.872	43.500
359.800	-1.680	37.839	36.159	-9.841	46.000
598.420	3.991	27.996	31.987	-14.013	46.000
800.180	5.141	32.607	37.748	-8.252	46.000
947.620	6.619	26.053	32.672	-13.328	46.000
Vertical					
134.760	-4.648	35.193	30.545	-12.955	43.500
204.600	-7.666	42.642	34.975	-8.525	43.500
357.860	-3.734	33.890	30.156	-15.844	46.000
458.740	-3.887	26.961	23.074	-22.926	46.000
598.420	-2.979	27.678	24.699	-21.301	46.000
798.240	2.808	28.259	31.067	-14.933	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : IP COMMUNICATION TERMINAL
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2437 MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
127.000	-10.017	46.447	36.430	-7.070	43.500
237.580	-7.700	44.298	36.598	-9.402	46.000
439.340	-2.009	39.957	37.948	-8.052	46.000
530.520	1.873	32.208	34.081	-11.919	46.000
749.740	3.320	29.992	33.312	-12.688	46.000
870.020	5.201	30.715	35.916	-10.084	46.000
Vertical					
109.540	-0.418	37.432	37.014	-6.486	43.500
218.180	-8.589	42.499	33.909	-12.091	46.000
357.860	-3.734	32.962	29.228	-16.772	46.000
493.660	-2.396	39.758	37.362	-8.638	46.000
625.580	-2.600	30.842	28.242	-17.758	46.000
798.240	2.808	28.073	30.881	-15.119	46.000
965.080	7.932	23.368	31.300	-22.700	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : IP COMMUNICATION TERMINAL
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2437 MHz) (Dipole Antenna)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
95.960	-7.820	39.607	31.787	-11.713	43.500
264.740	-4.991	37.480	32.489	-13.511	46.000
421.880	-3.214	39.257	36.043	-9.957	46.000
600.360	3.977	28.562	32.539	-13.461	46.000
796.300	5.161	31.646	36.807	-9.193	46.000
920.460	6.467	28.202	34.669	-11.331	46.000
Vertical					
107.600	-0.318	34.631	34.313	-9.187	43.500
204.600	-7.666	42.887	35.220	-8.280	43.500
326.820	-5.468	39.787	34.320	-11.680	46.000
412.180	-7.225	43.034	35.809	-10.191	46.000
536.340	-0.305	26.443	26.138	-19.862	46.000
666.320	-1.809	30.881	29.073	-16.927	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

5. RF antenna conducted test

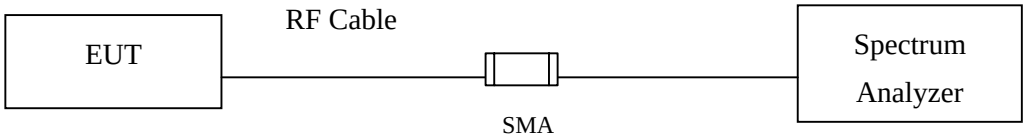
5.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

5.2. Test Setup

RF antenna Conducted Measurement:



5.3. Limits

In any 100 kHz 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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

The EUT was tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

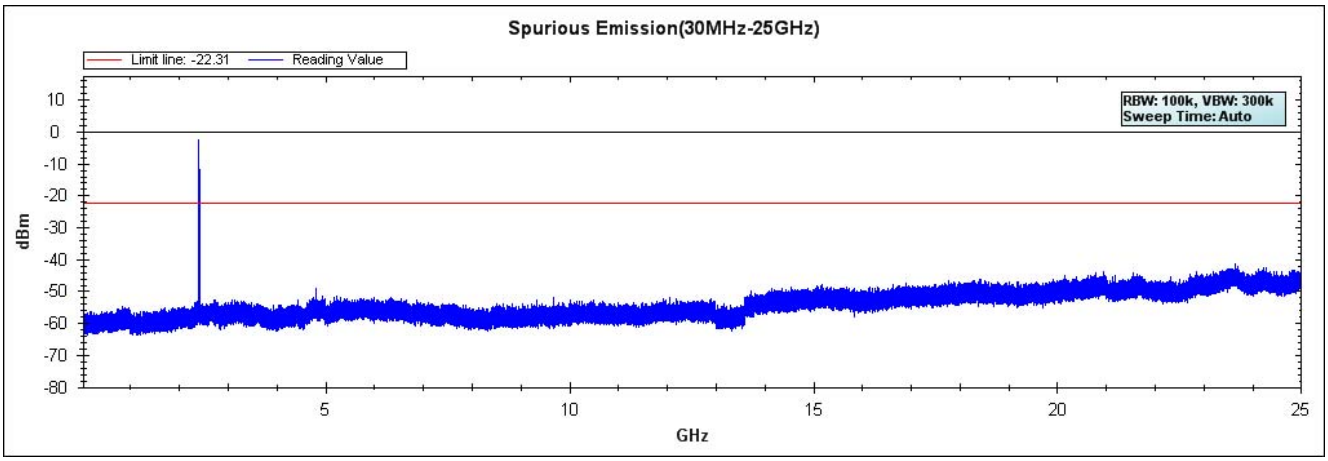
5.5. Uncertainty

The measurement uncertainty
Conducted is defined as ± 1.27dB

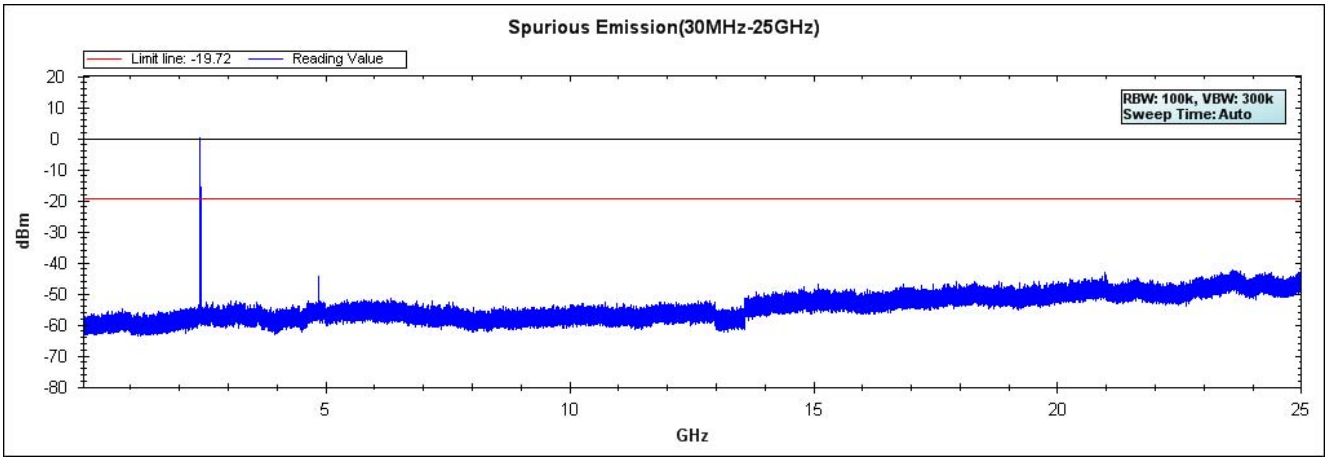
5.6. Test Result of RF antenna conducted test

Product	:	IP COMMUNICATION TERMINAL
Test Item	:	RF antenna conducted test
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

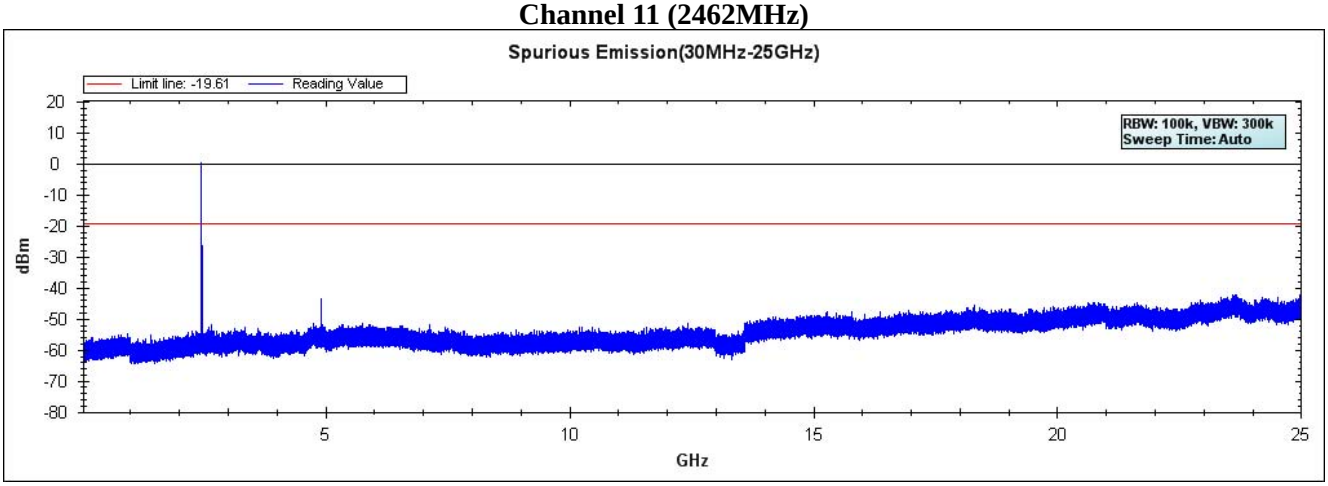
Channel 01 (2412MHz)



Channel 06 (2437MHz)



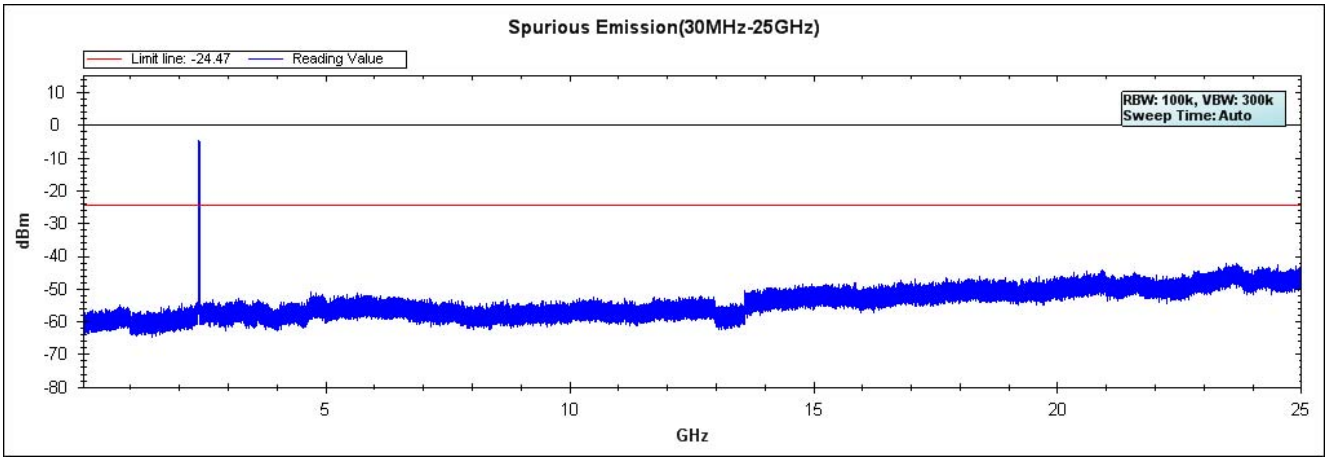
Channel 11 (2462MHz)



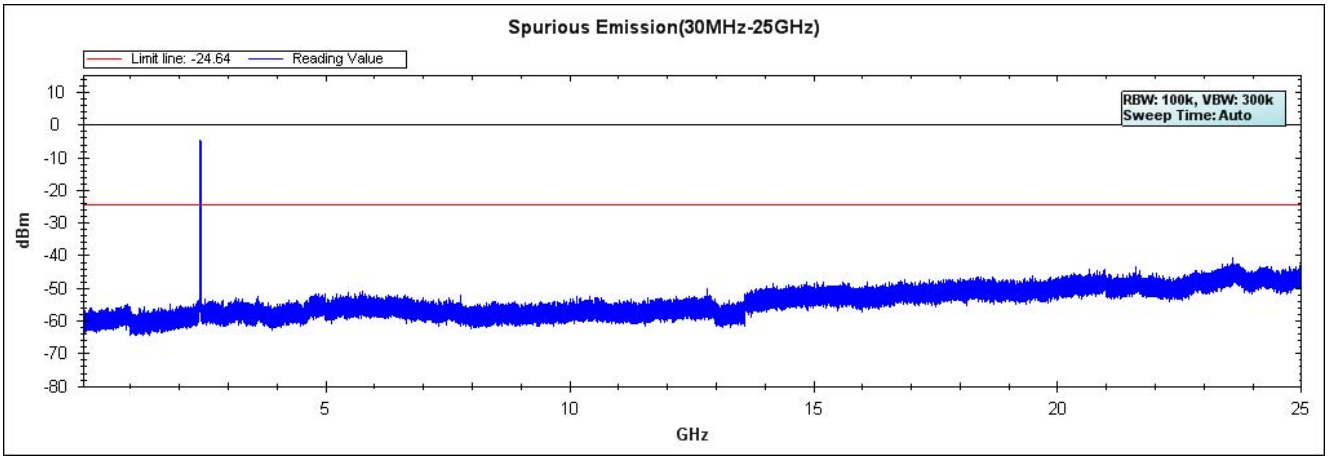
Note: The above test pattern is synthesized by multiple of the frequency range.

Product	:	IP COMMUNICATION TERMINAL
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

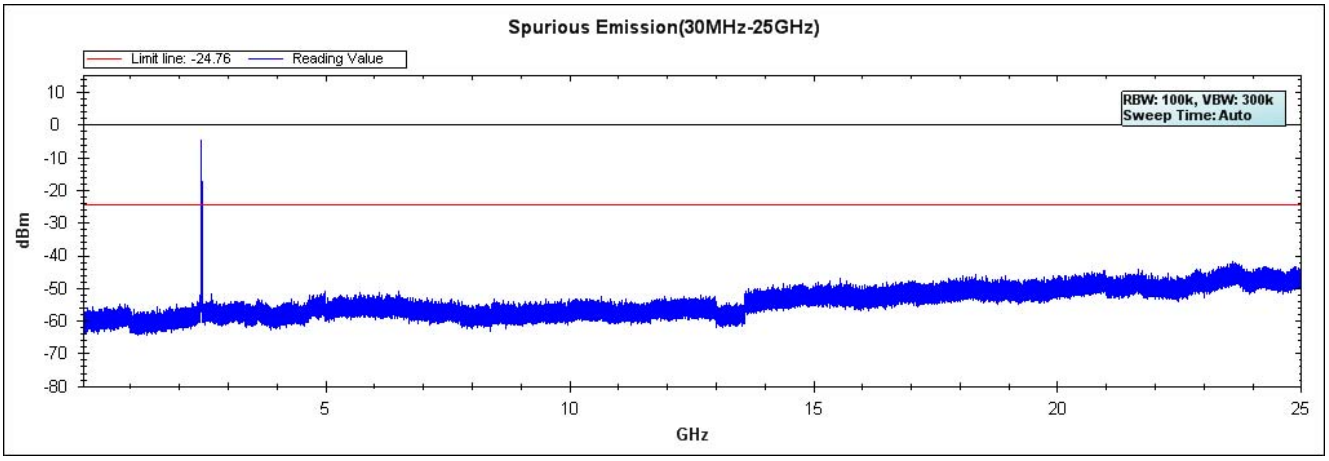
Channel 01 (2412MHz)



Channel 06 (2437MHz)



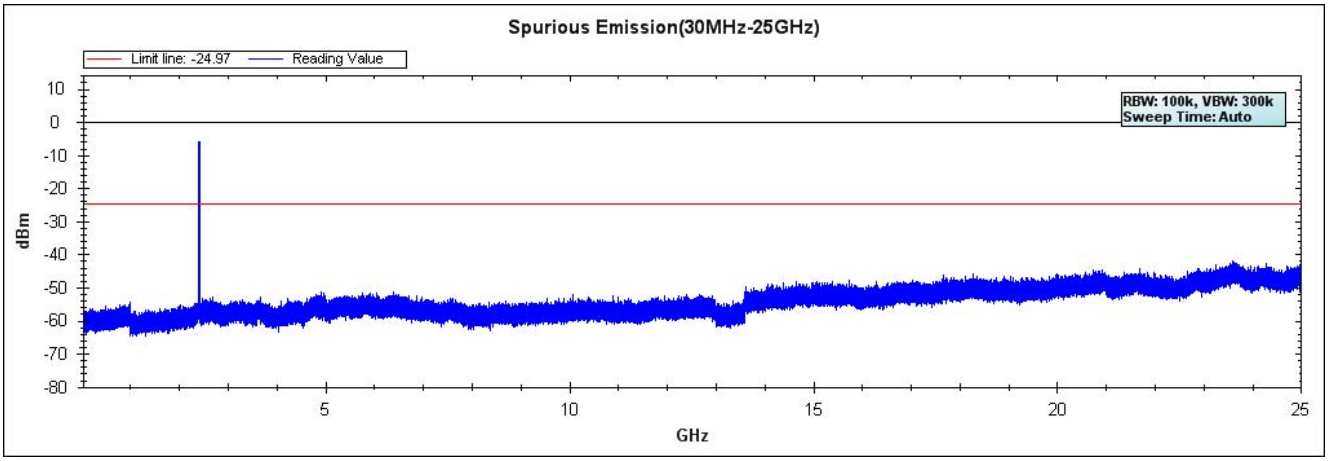
Channel 11 (2462MHz)



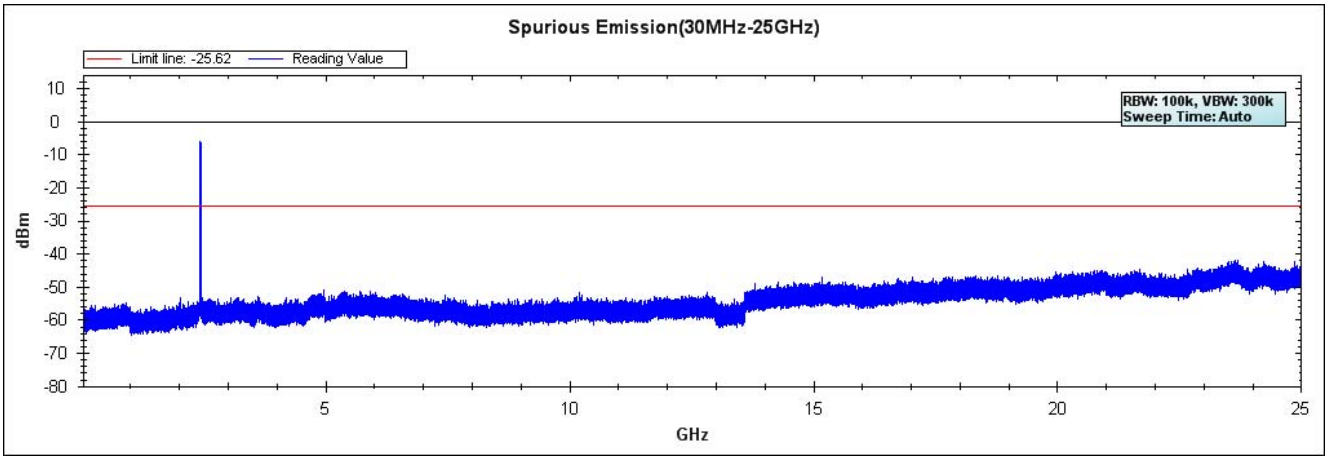
Note: The above test pattern is synthesized by multiple of the frequency range.

Product	:	IP COMMUNICATION TERMINAL
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

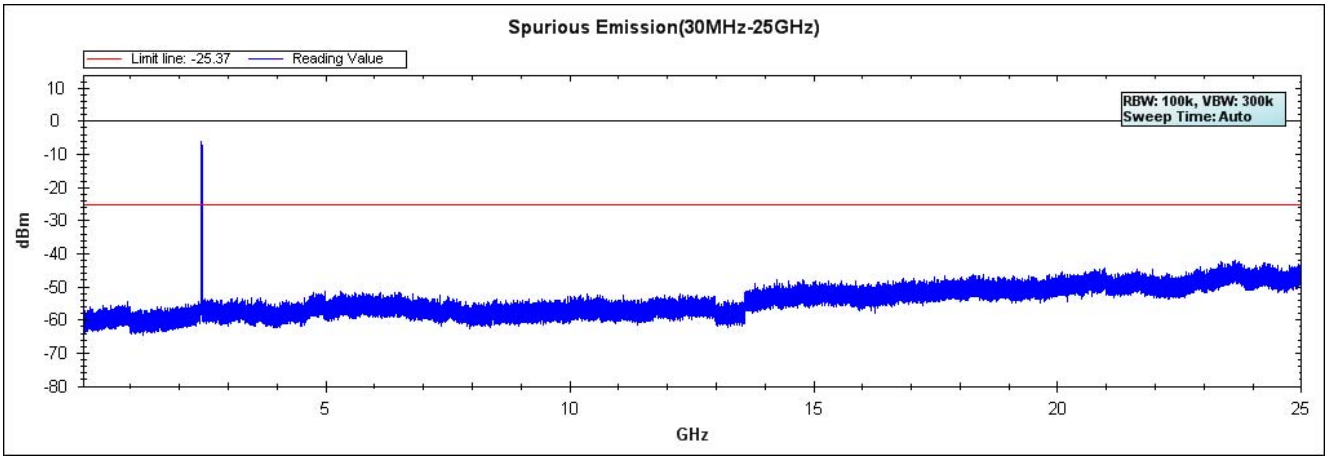
Channel 01 (2412MHz)



Channel 06 (2437MHz)



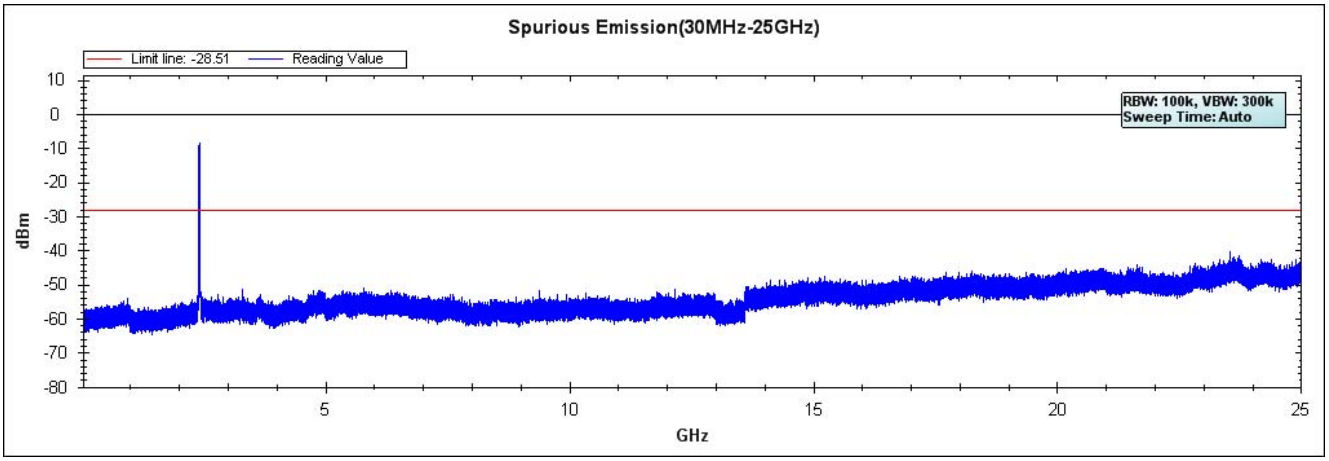
Channel 11 (2462MHz)



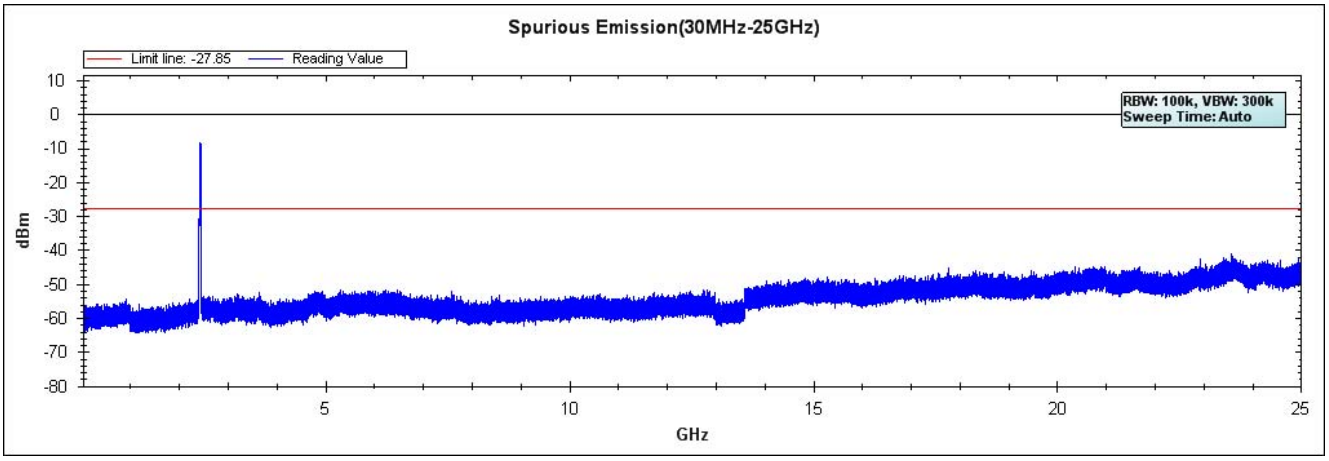
Note: The above test pattern is synthesized by multiple of the frequency range.

Product	:	IP COMMUNICATION TERMINAL
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	No.3 OATS
Test Mode	:	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

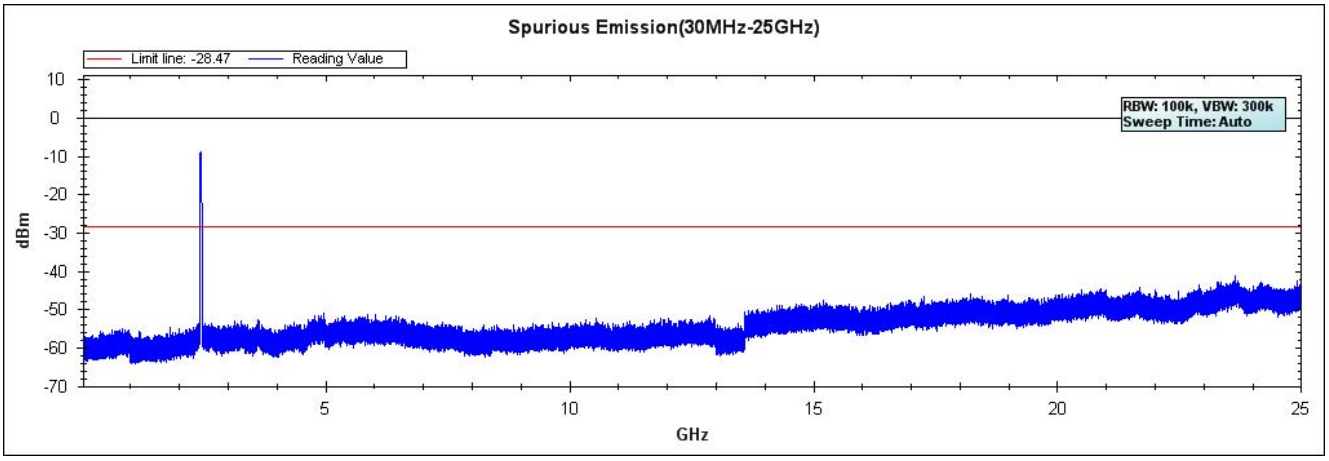
Channel 01 (2422MHz)



Channel 04 (2437MHz)



Channel 07 (2452MHz)



Note: The above test pattern is synthesized by multiple of the frequency range.

6. Band Edge

6.1. Test Equipment

RF Radiated Measurement:

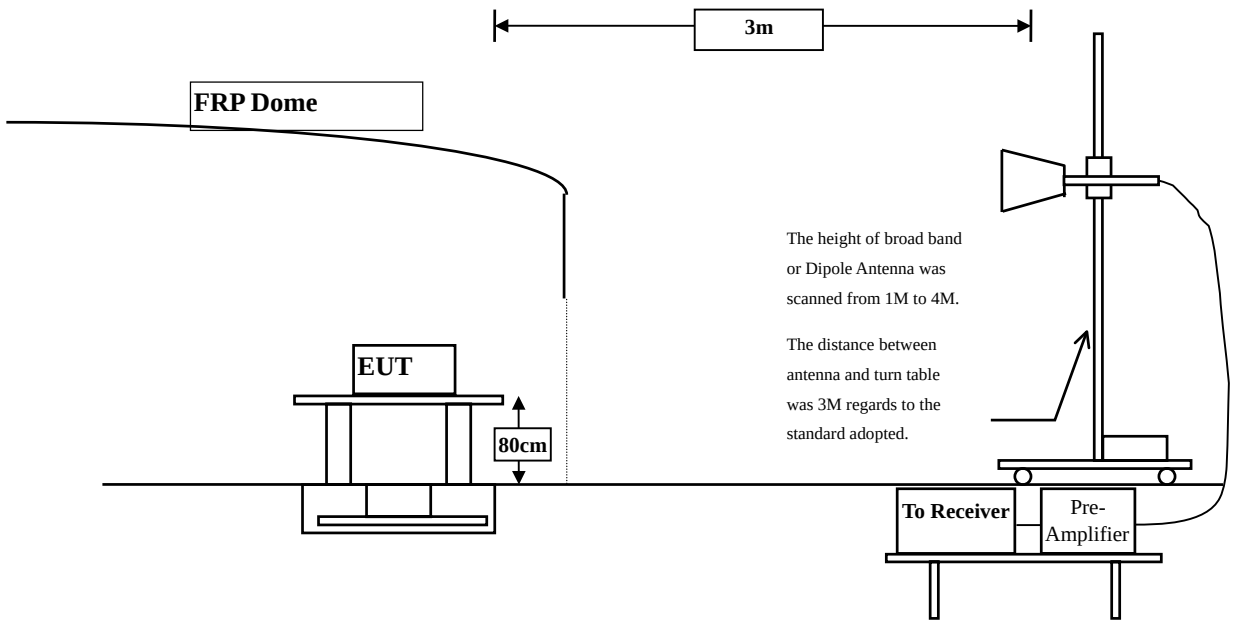
The following test equipments are used during the band edge tests:

Test Site	Equipment		Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3		Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2013
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2013
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2013
	X	Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2013
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2013
		Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2013
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2014
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note: 1. All instruments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

6.2. Test Setup

RF Radiated Measurement:



6.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

6.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2009 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2009 on radiated measurement.

6.5. Uncertainty

± 3.9 dB above 1GHz
± 3.8 dB below 1GHz

6.6. Test Result of Band Edge

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (Monopole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2390.000	31.509	23.777	55.286	74.00	54.00	Pass
01 (Peak)	2400.000	31.561	23.454	55.015	--	--	Pass
01 (Peak)	2413.000	31.646	62.048	93.694	--	--	Pass
01 (Average)	2390.000	31.509	11.836	43.345	74.00	54.00	Pass
01 (Average)	2400.000	31.561	11.992	43.553	--	--	Pass
01 (Average)	2411.200	31.632	58.328	89.960	--	--	Pass

Figure Channel 01: Horizontal (Peak)

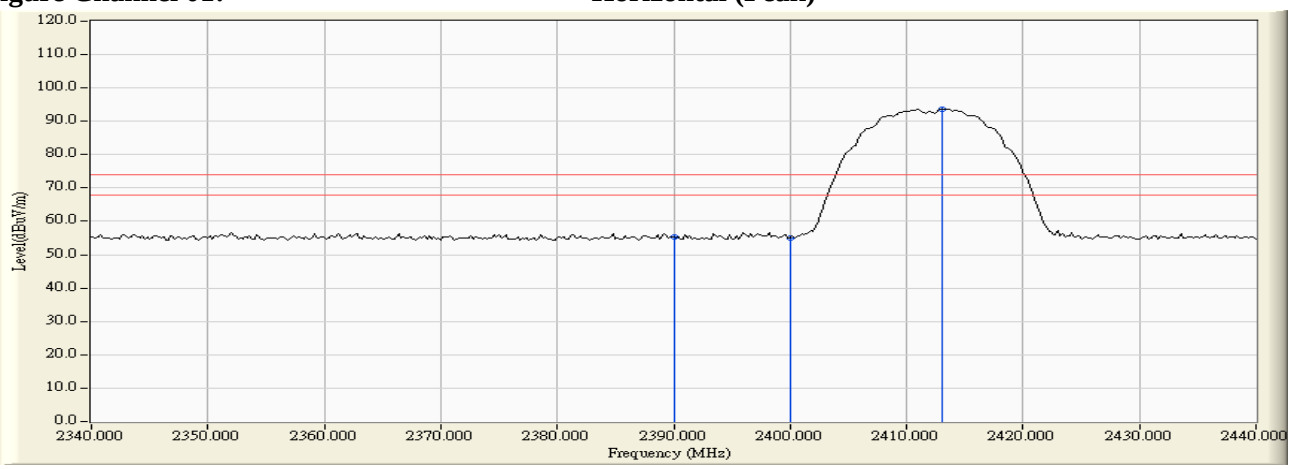
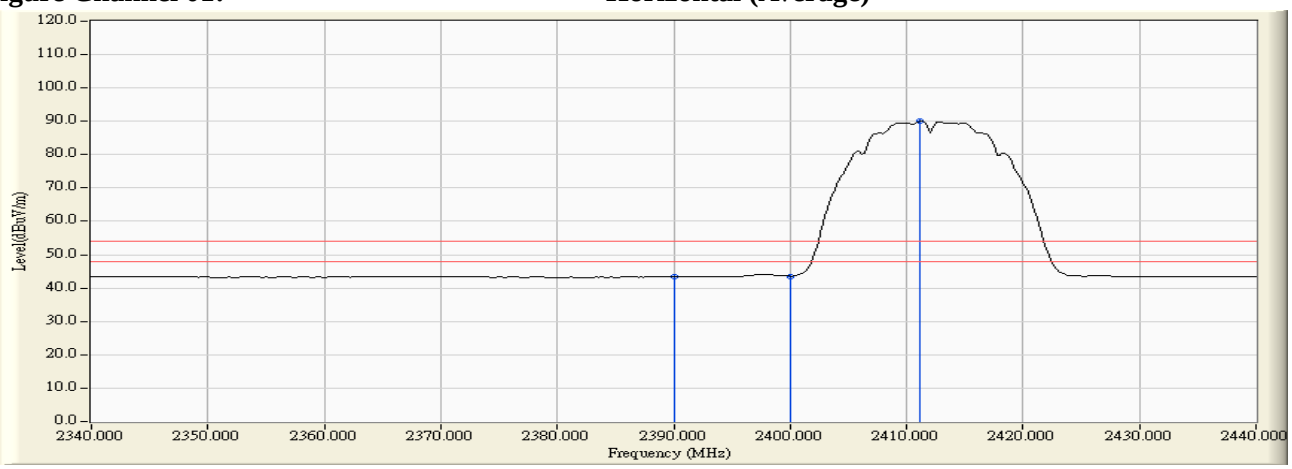


Figure Channel 01: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (Monopole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2390.000	30.915	23.295	54.210	74.00	54.00	Pass
01 (Peak)	2400.000	30.912	23.286	54.198	--	--	Pass
01 (Peak)	2413.000	30.956	60.811	91.767	--	--	Pass
01 (Average)	2390.000	30.915	11.711	42.626	74.00	54.00	Pass
01 (Average)	2400.000	30.912	11.864	42.776	--	--	Pass
01 (Average)	2412.800	30.955	56.969	87.924	--	--	Pass

Figure Channel 01: Vertical (Peak)

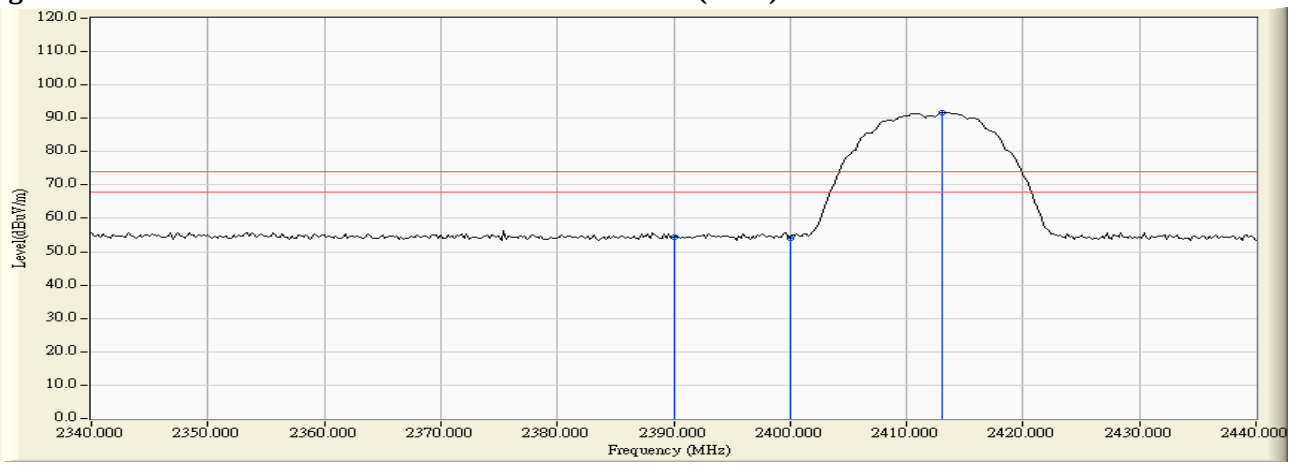
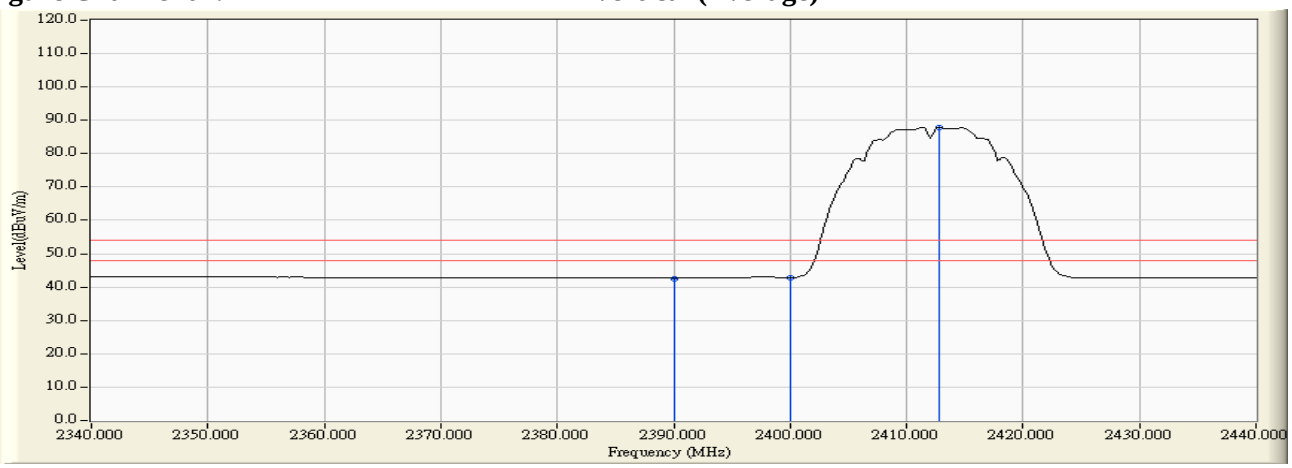


Figure Channel 01: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (Monopole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2462.900	32.026	60.092	92.118	--	--	Pass
11 (Peak)	2483.500	32.182	23.462	55.644	74.00	54.00	Pass
11 (Average)	2461.300	32.014	56.442	88.456	--	--	Pass
11 (Average)	2483.500	32.182	11.742	43.924	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)

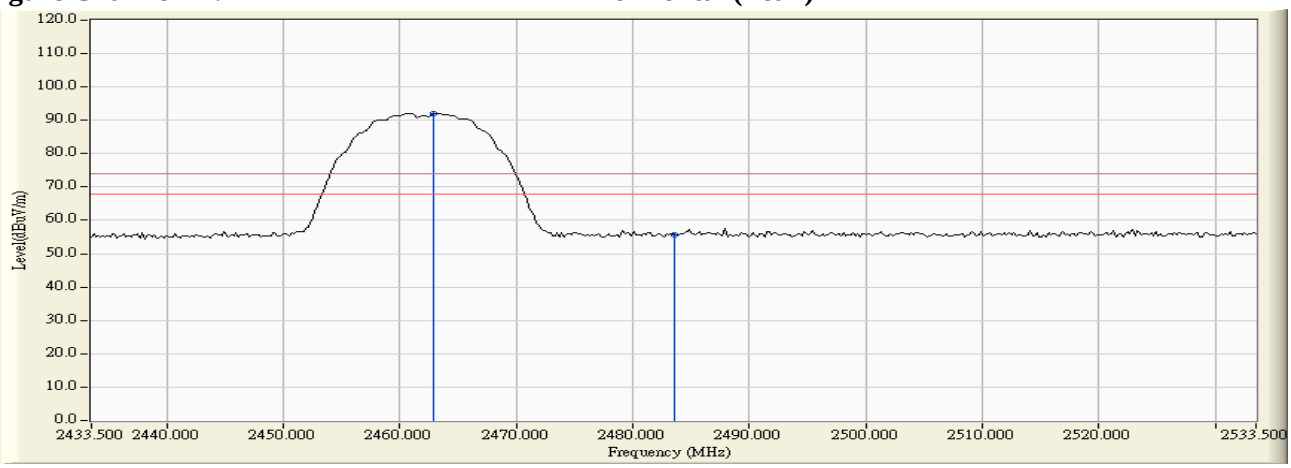
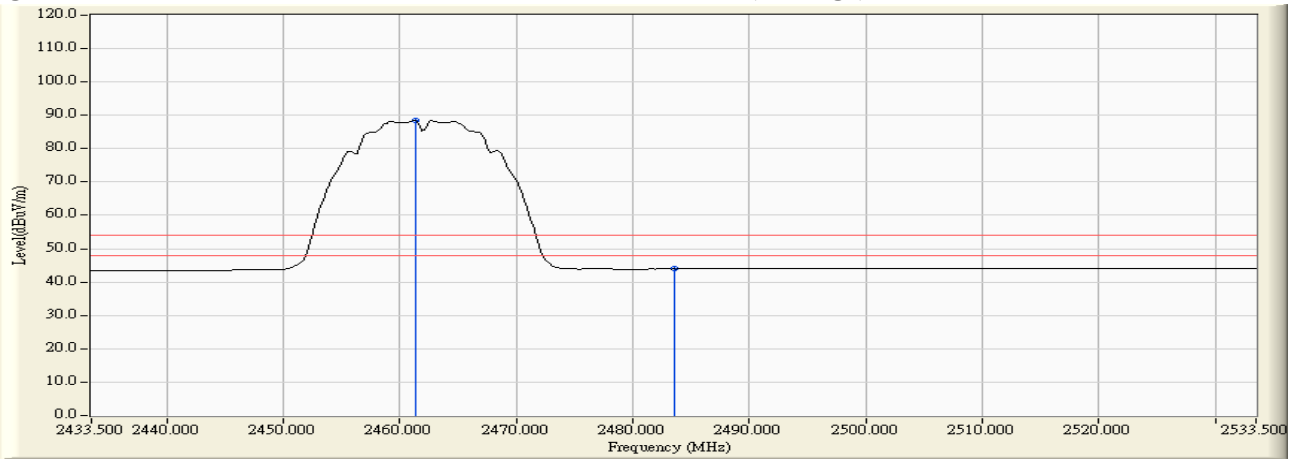


Figure Channel 11: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (Monopole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2462.900	31.296	59.692	90.988	--	--	Pass
11 (Peak)	2483.500	31.435	23.103	54.538	74.00	54.00	Pass
11 (Average)	2461.300	31.286	55.970	87.256	--	--	Pass
11 (Average)	2483.500	31.435	11.750	43.185	74.00	54.00	Pass

Figure Channel 11: Vertical (Peak)

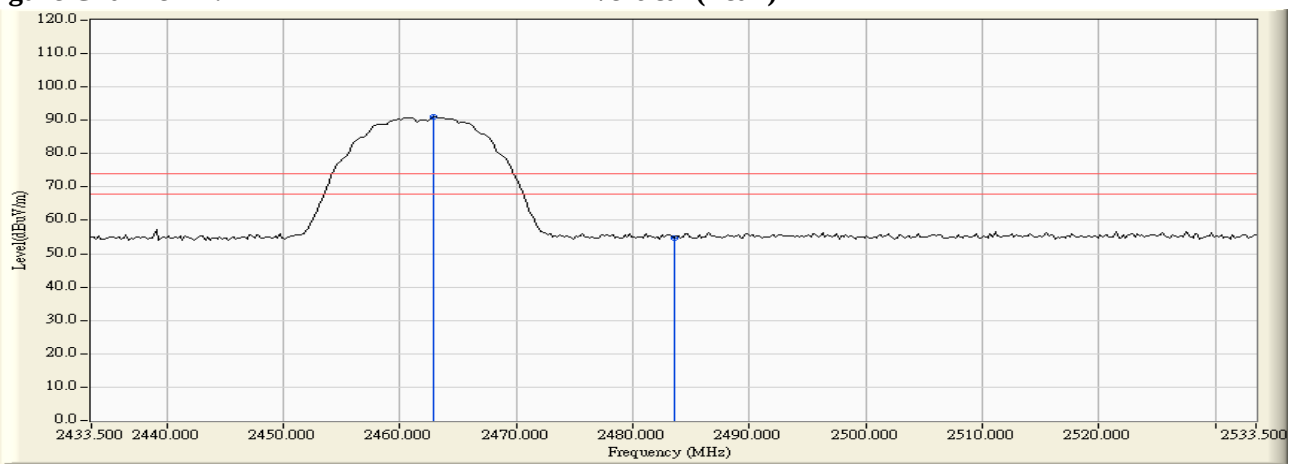
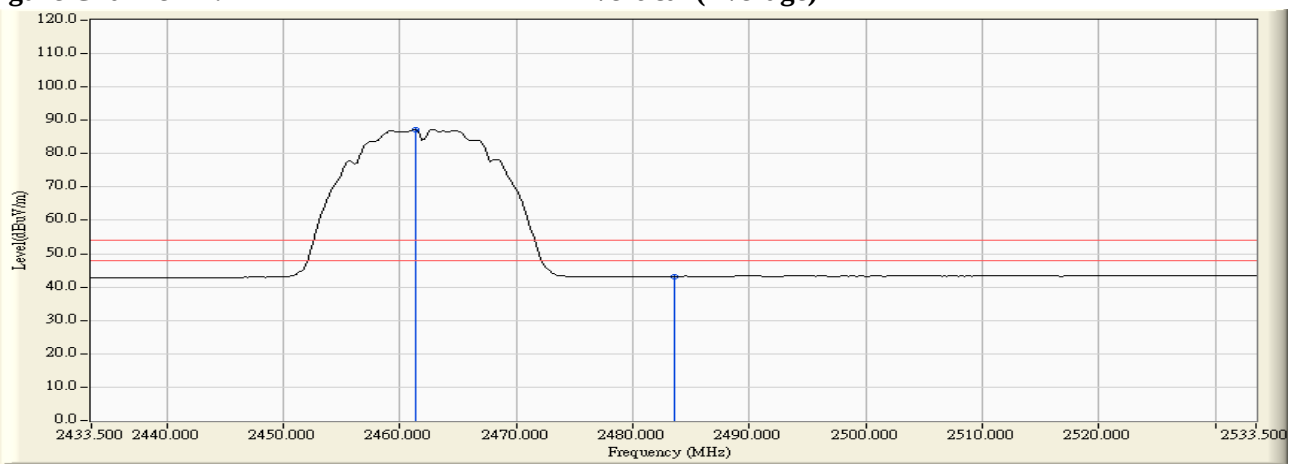


Figure Channel 11: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (Monopole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2390.000	31.509	23.745	55.254	74.00	54.00	Pass
01 (Peak)	2400.000	31.561	28.613	60.174	--	--	Pass
01 (Peak)	2405.200	31.594	62.695	94.289	--	--	Pass
01 (Average)	2390.000	31.509	11.974	43.483	74.00	54.00	Pass
01 (Average)	2400.000	31.561	13.099	44.660	--	--	Pass
01 (Average)	2406.200	31.600	53.404	85.004	--	--	Pass

Figure Channel 01: Horizontal (Peak)

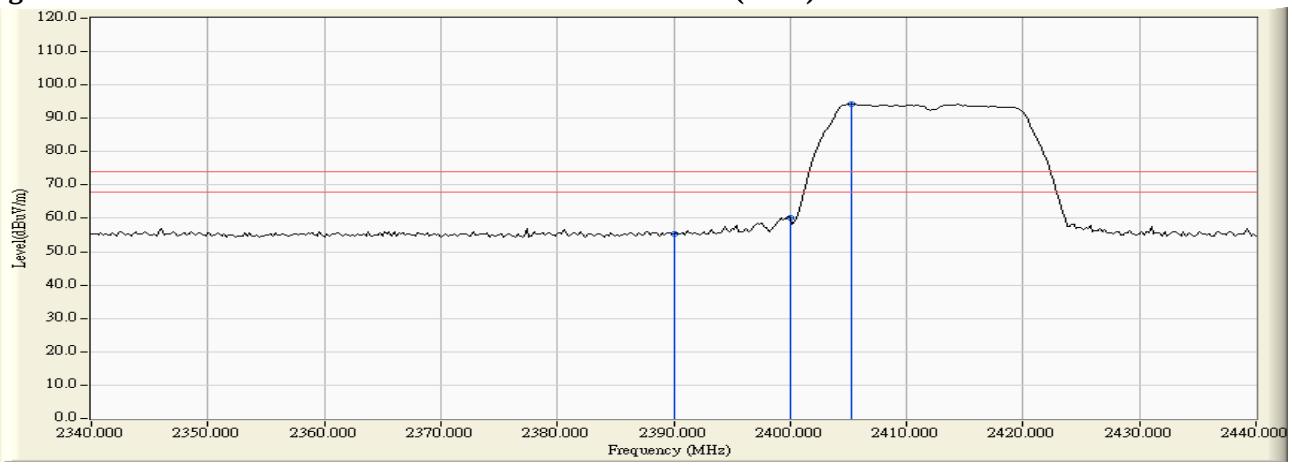
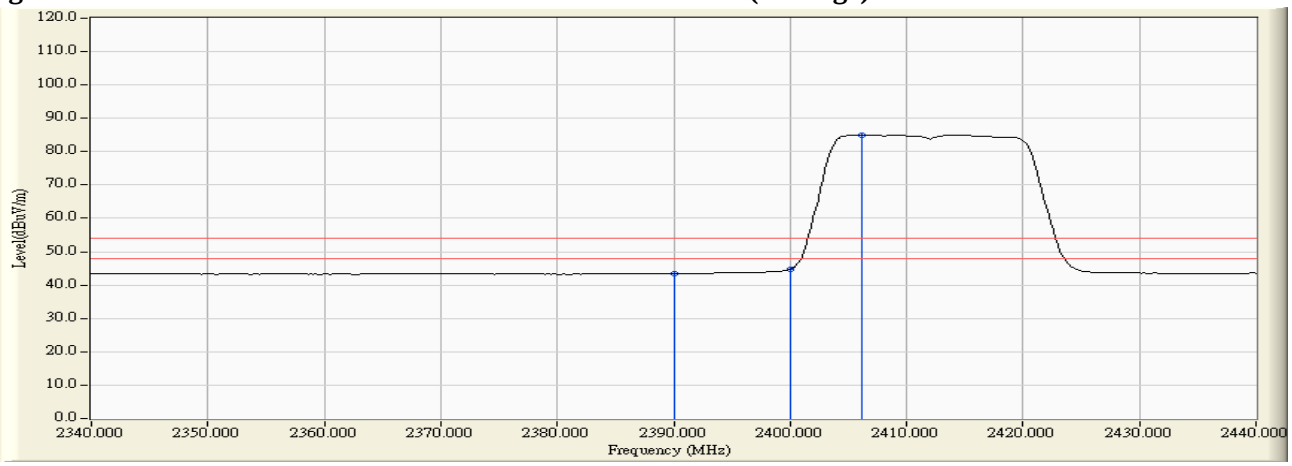


Figure Channel 01: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (Monopole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2390.000	30.915	23.161	54.076	74.00	54.00	Pass
01 (Peak)	2400.000	30.912	25.583	56.495	--	--	Pass
01 (Peak)	2414.400	30.966	61.416	92.382	--	--	Pass
01 (Average)	2390.000	30.915	11.893	42.808	74.00	54.00	Pass
01 (Average)	2400.000	30.912	12.639	43.551	--	--	Pass
01 (Average)	2414.400	30.966	52.595	83.561	--	--	Pass

Figure Channel 01: Vertical (Peak)

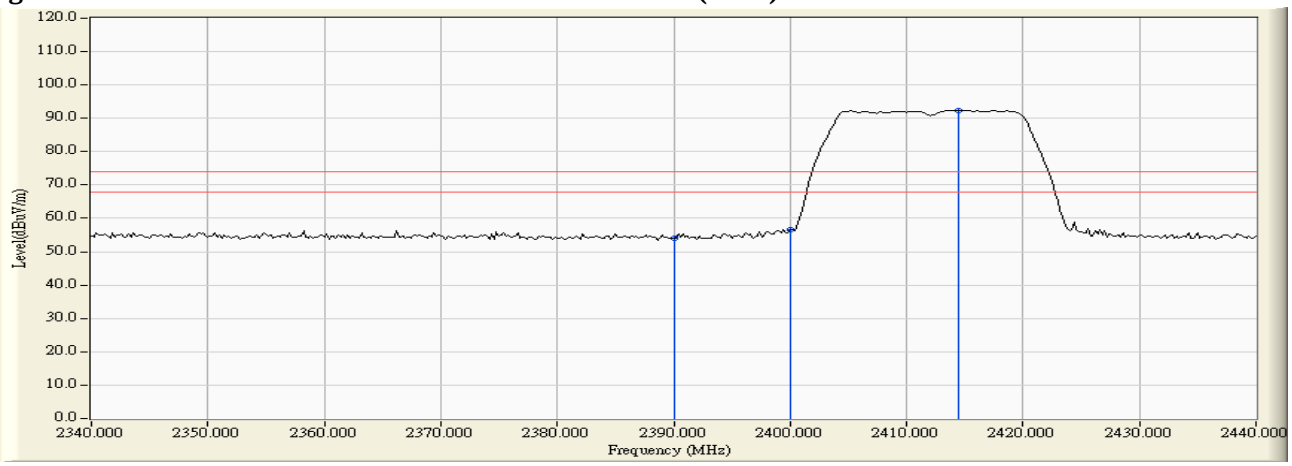
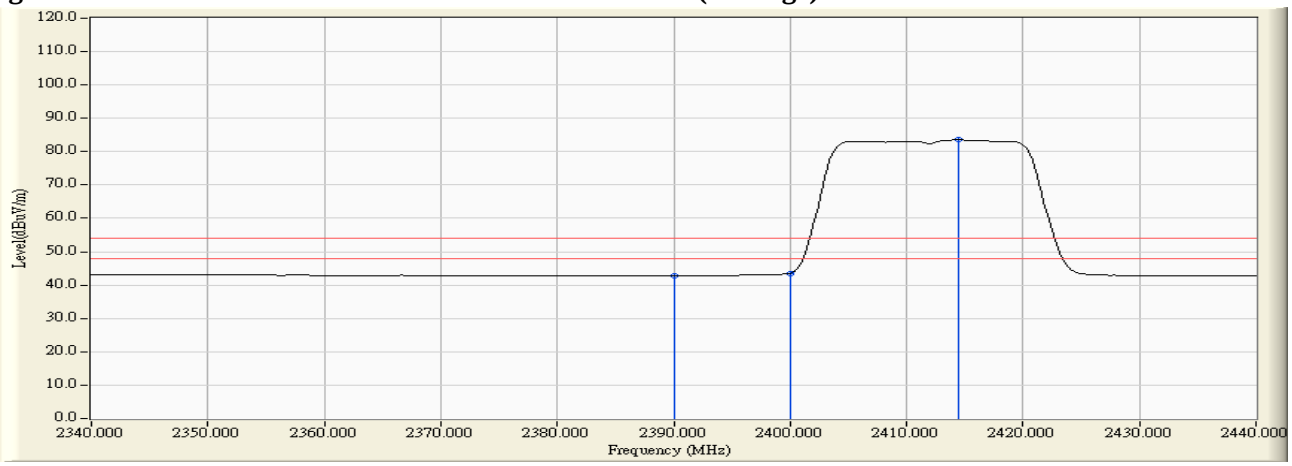


Figure Channel 01: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (Monopole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2468.300	32.067	60.948	93.015	--	--	Pass
11 (Peak)	2483.500	32.182	23.409	55.591	74.00	54.00	Pass
11 (Average)	2464.500	32.038	51.875	83.913	--	--	Pass
11 (Average)	2483.500	32.182	11.855	44.037	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)

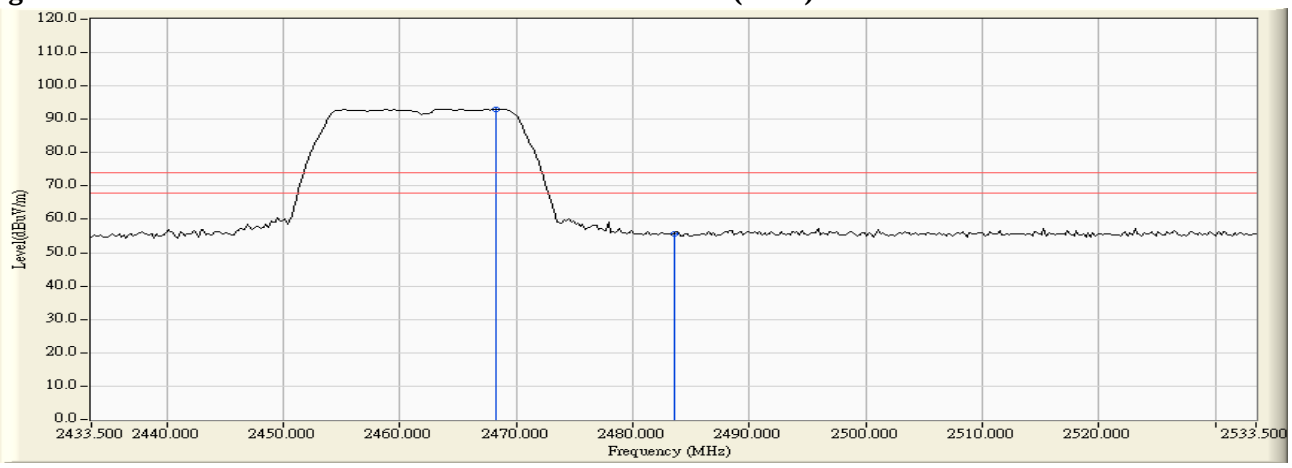
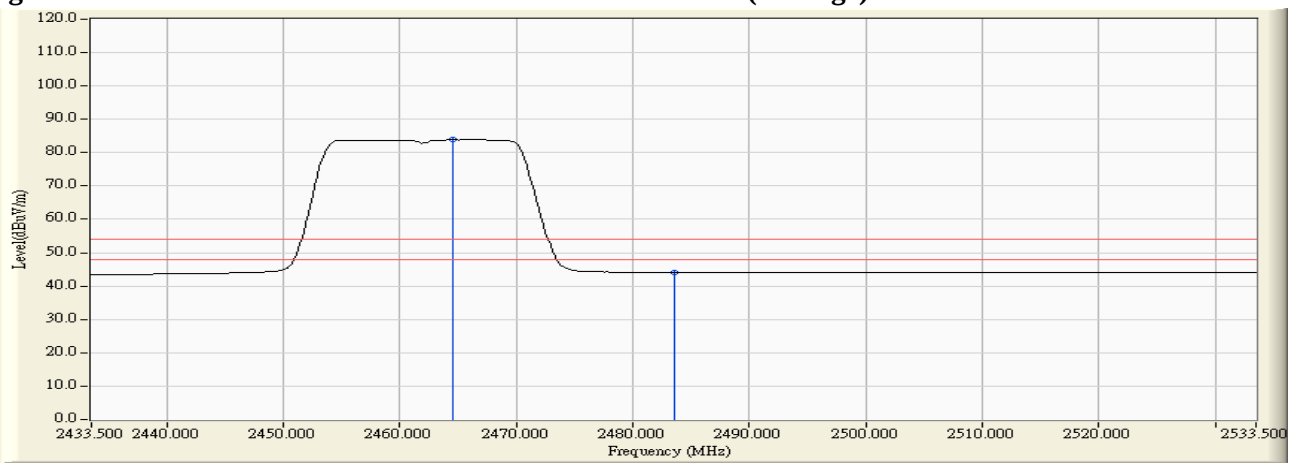


Figure Channel 11: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (Monopole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2468.500	31.334	60.725	92.059	--	--	Pass
11 (Peak)	2483.500	31.435	23.297	54.732	74.00	54.00	Pass
11 (Average)	2465.100	31.312	51.528	82.839	--	--	Pass
11 (Average)	2483.500	31.435	11.877	43.312	74.00	54.00	Pass

Figure Channel 11: Vertical (Peak)

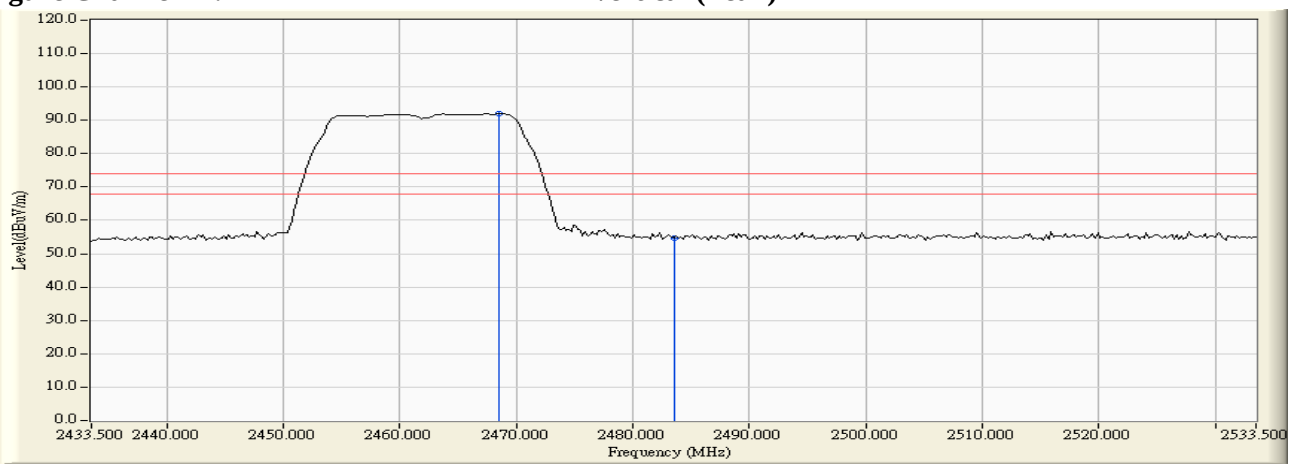
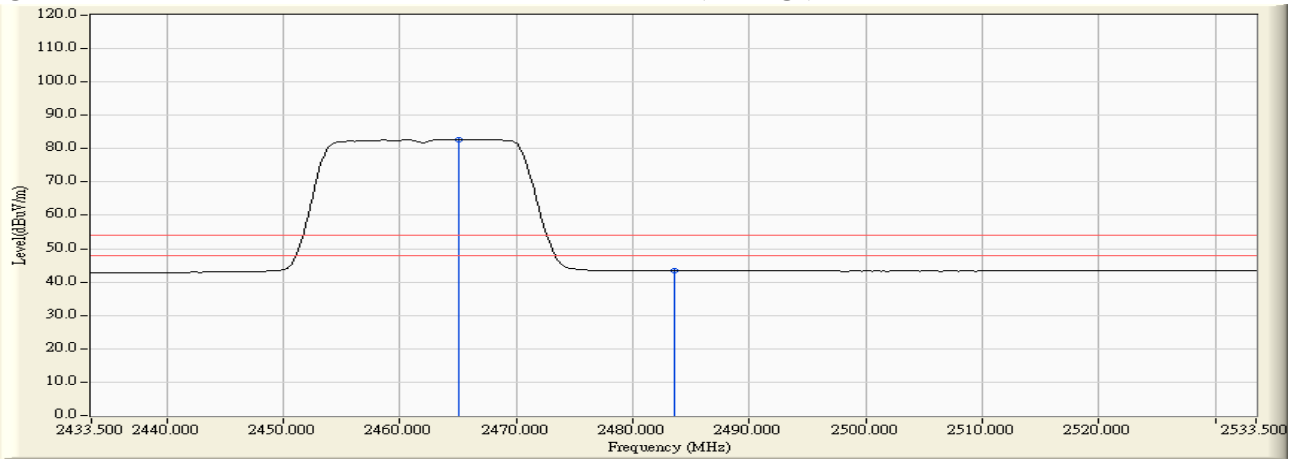


Figure Channel 11: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (Monopole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2390.000	31.509	24.806	56.315	74.00	54.00	Pass
01 (Peak)	2400.000	31.561	24.739	56.300	--	--	Pass
01 (Peak)	2406.600	31.603	61.567	93.170	--	--	Pass
01 (Average)	2390.000	31.509	11.870	43.379	74.00	54.00	Pass
01 (Average)	2400.000	31.561	13.497	45.058	--	--	Pass
01 (Average)	2405.200	31.594	52.157	83.751	--	--	Pass

Figure Channel 01: Horizontal (Peak)

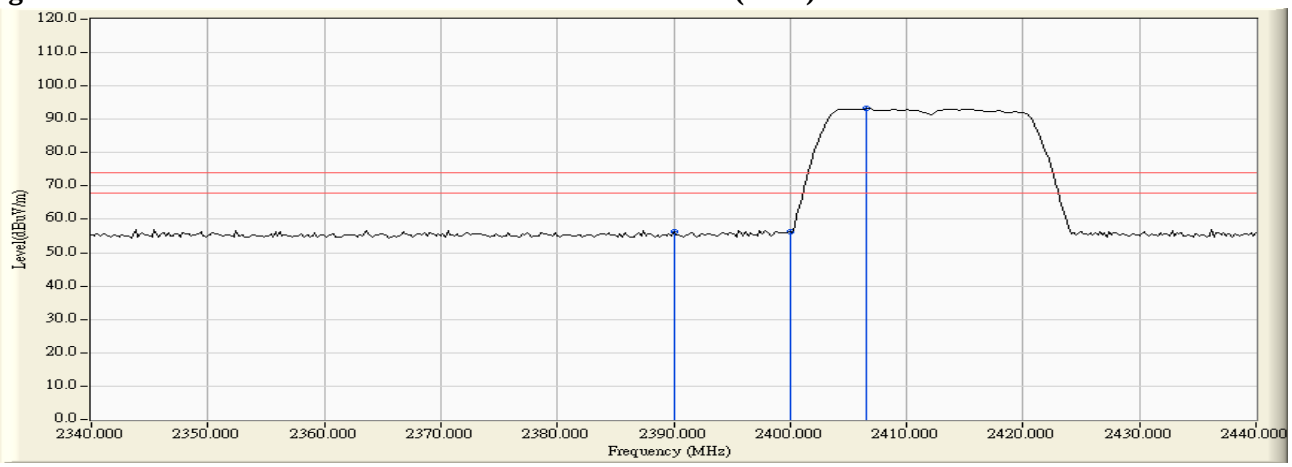
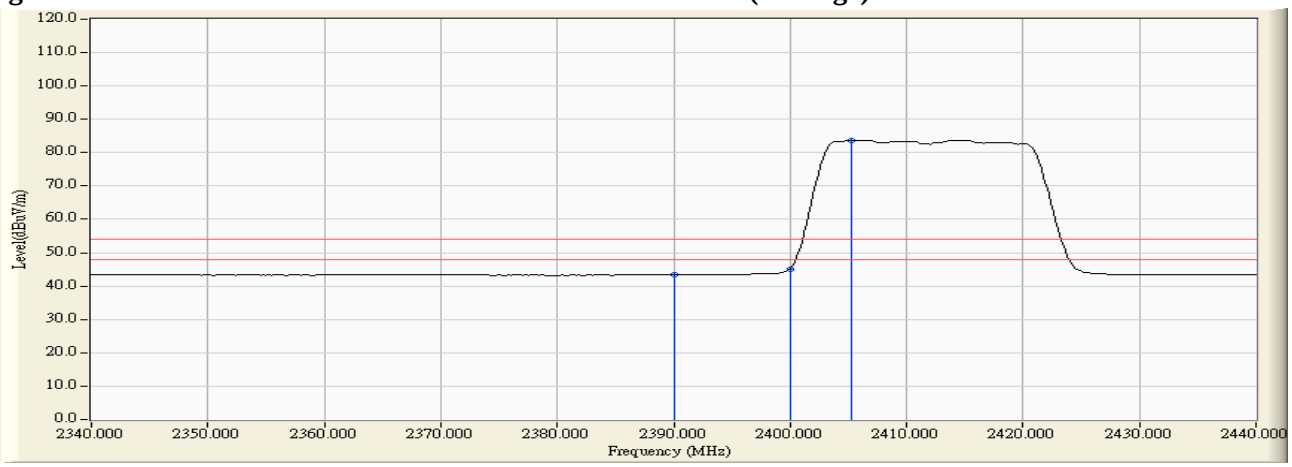


Figure Channel 01: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (Monopole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2390.000	30.915	23.596	54.511	74.00	54.00	Pass
01 (Peak)	2400.000	30.912	25.027	55.939	--	--	Pass
01 (Peak)	2415.200	30.971	60.755	91.726	--	--	Pass
01 (Average)	2390.000	30.915	11.837	42.752	74.00	54.00	Pass
01 (Average)	2400.000	30.912	13.139	44.051	--	--	Pass
01 (Average)	2414.000	30.963	51.128	82.091	--	--	Pass

Figure Channel 01: Vertical (Peak)

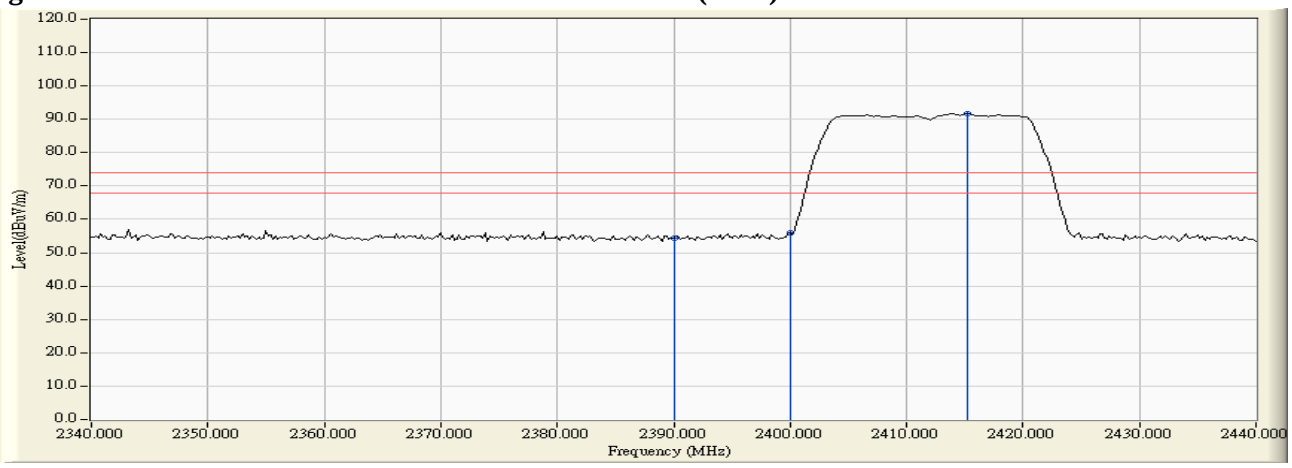
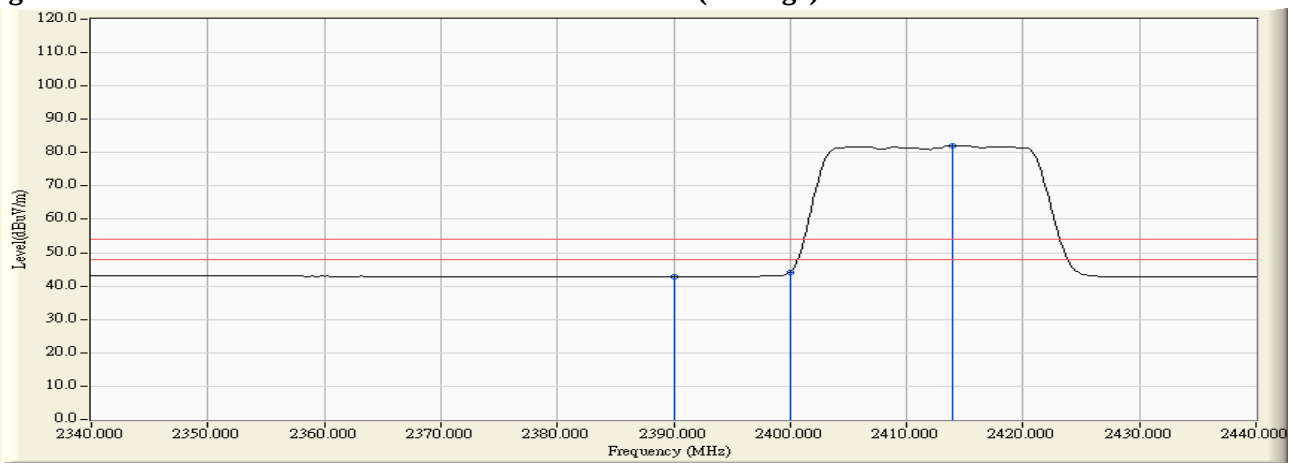


Figure Channel 01: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (Monopole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2465.100	32.043	60.110	92.153	--	--	Pass
11 (Peak)	2483.500	32.182	23.073	55.255	74.00	54.00	Pass
11 (Average)	2465.100	32.043	50.600	82.643	--	--	Pass
11 (Average)	2483.500	32.182	11.801	43.983	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)

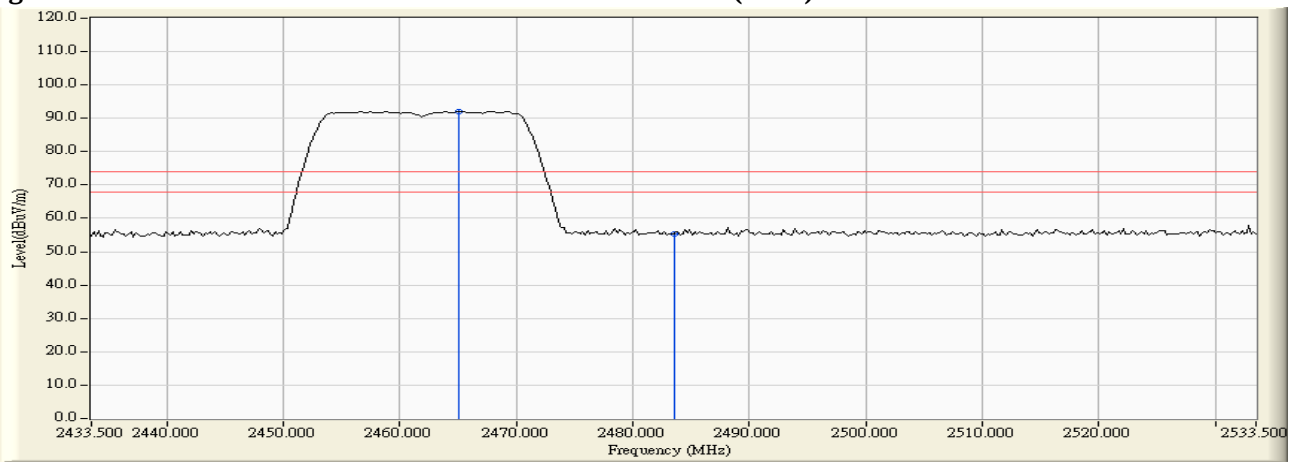
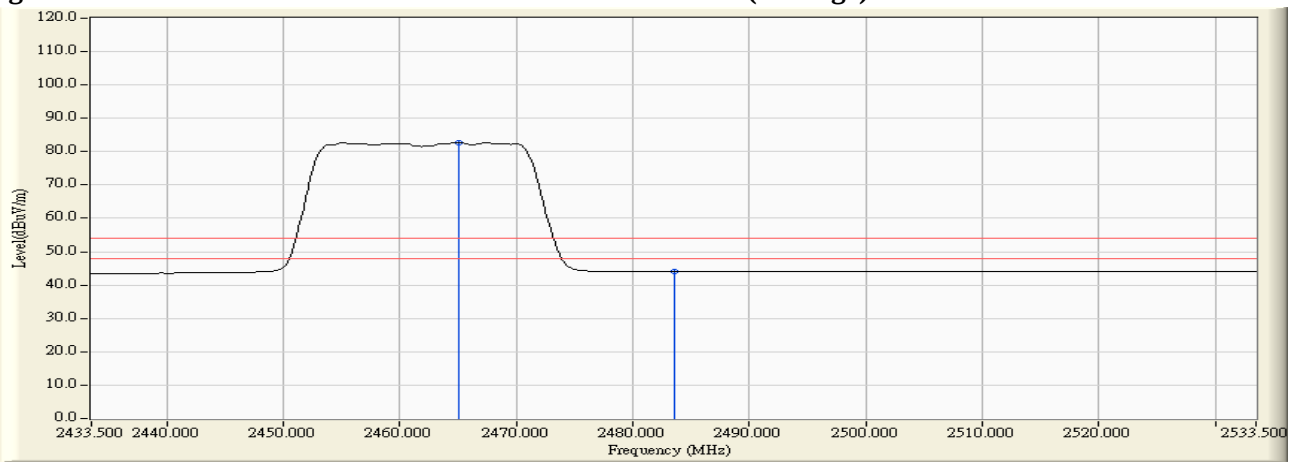


Figure Channel 11: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (Monopole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2465.100	31.312	59.732	91.043	--	--	Pass
11 (Peak)	2483.500	31.435	24.978	56.413	74.00	54.00	Pass
11 (Average)	2467.500	31.327	50.227	81.554	--	--	Pass
11 (Average)	2483.500	31.435	11.834	43.269	74.00	54.00	Pass

Figure Channel 11: Vertical (Peak)

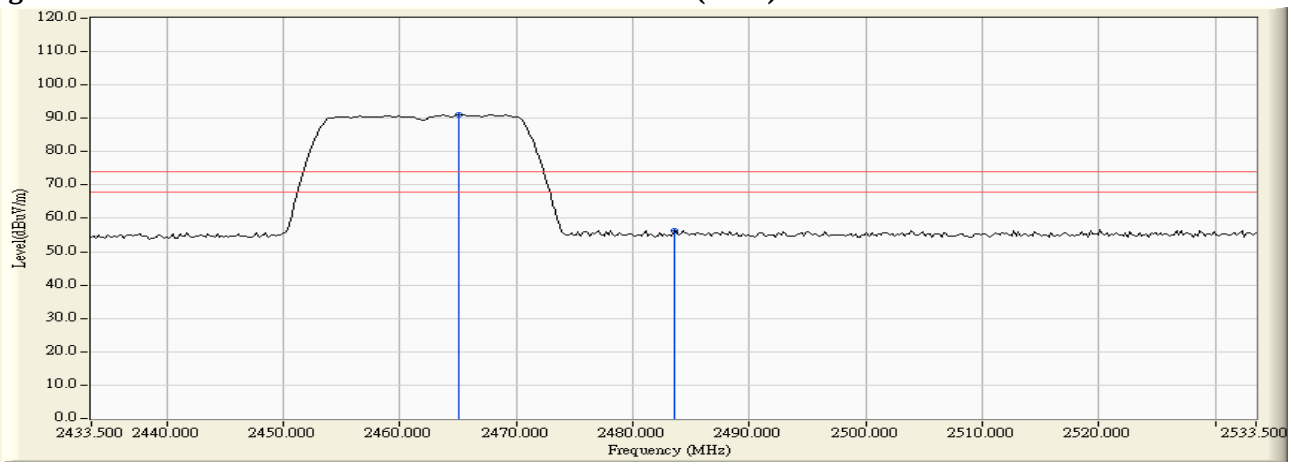
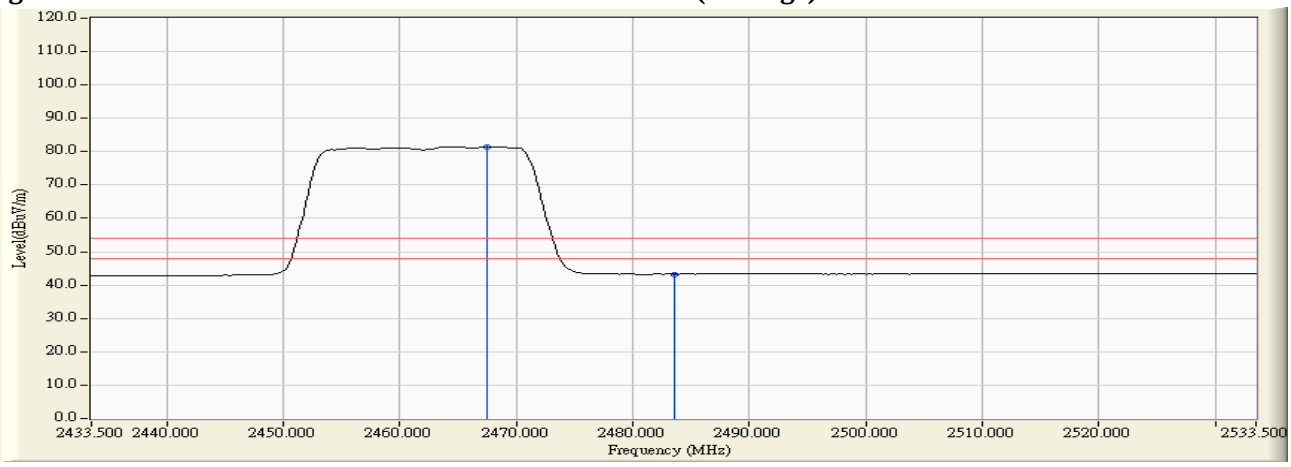


Figure Channel 11: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (Monopole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
03 (Peak)	2390.000	31.509	23.373	54.882	74.00	54.00	Pass
03 (Peak)	2400.000	31.561	25.754	57.315	--	--	Pass
03 (Peak)	2414.200	31.655	58.421	90.076	--	--	Pass
03 (Average)	2390.000	31.509	12.022	43.531	74.00	54.00	Pass
03 (Average)	2400.000	31.561	12.884	44.445	--	--	Pass
03 (Average)	2406.200	31.600	49.033	80.633	--	--	Pass

Figure Channel 03: Horizontal (Peak)

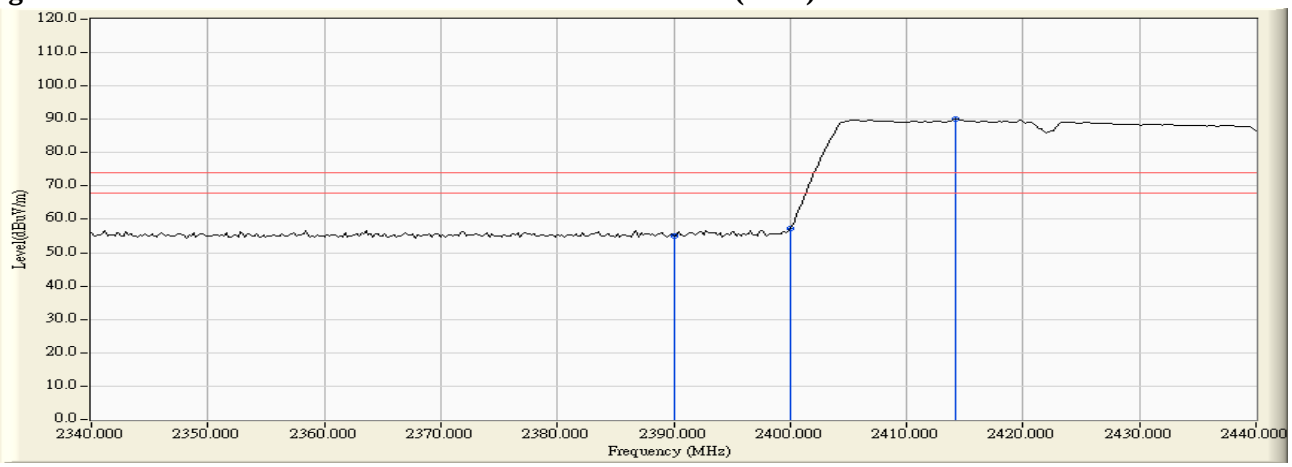
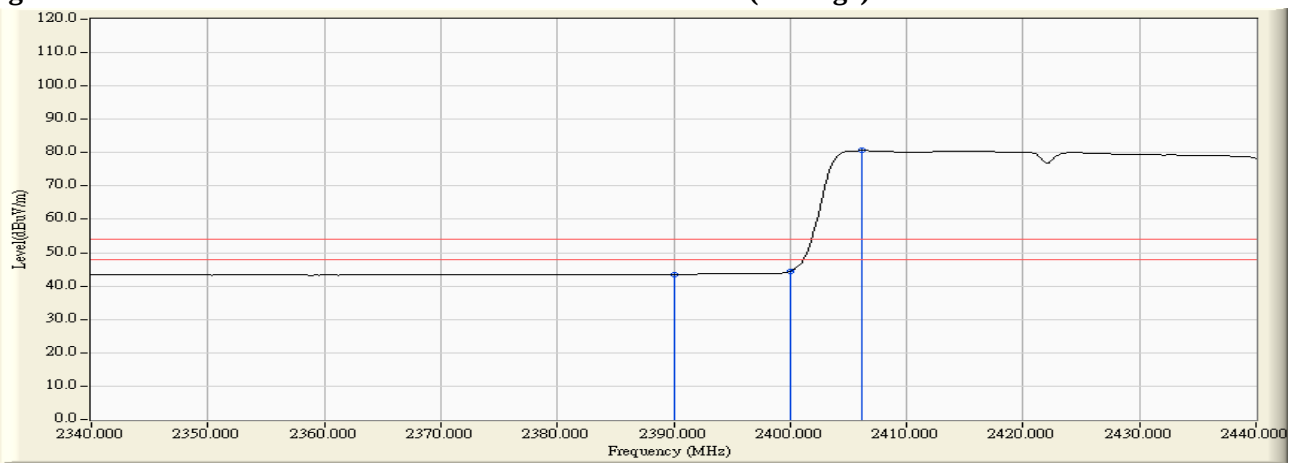


Figure Channel 03: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (Monopole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
03 (Peak)	2390.000	30.915	23.307	54.222	74.00	54.00	Pass
03 (Peak)	2400.000	30.912	24.079	54.991	--	--	Pass
03 (Peak)	2414.200	30.964	57.578	88.542	--	--	Pass
03 (Average)	2390.000	30.915	11.924	42.839	74.00	54.00	Pass
03 (Average)	2400.000	30.912	12.550	43.462	--	--	Pass
03 (Average)	2424.600	31.035	48.111	79.146	--	--	Pass

Figure Channel 03: Vertical (Peak)

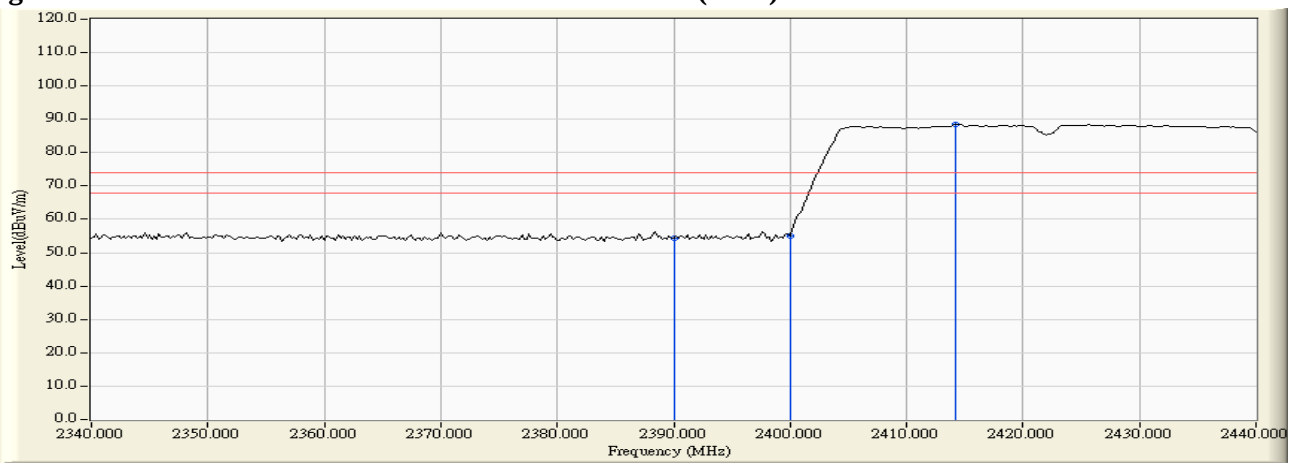
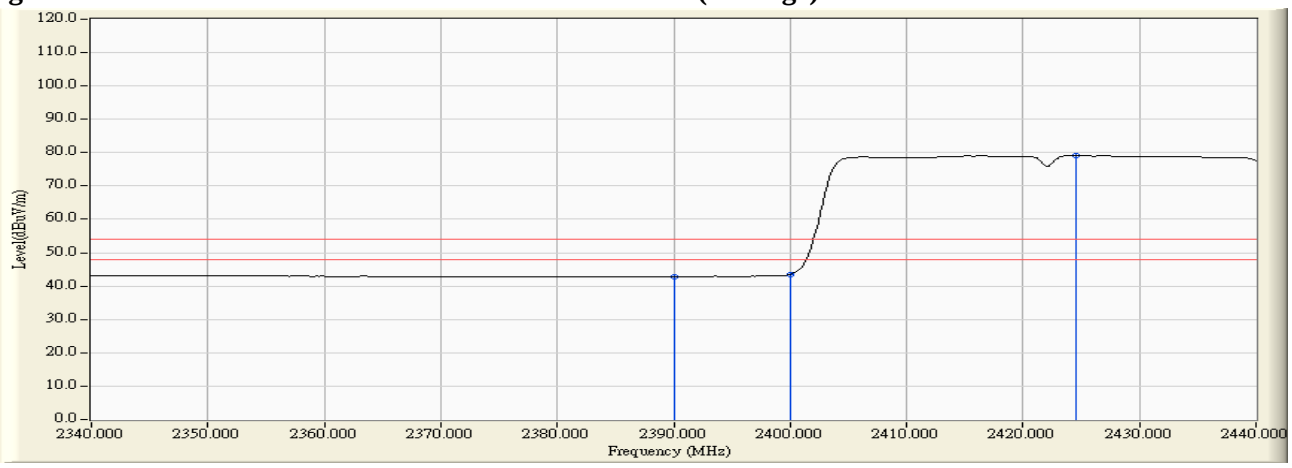


Figure Channel 03: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (Monopole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
09 (Peak)	2449.700	31.926	57.199	89.125	--	--	Pass
09 (Peak)	2483.500	32.182	23.638	55.820	74.00	54.00	Pass
09 (Average)	2455.300	31.969	47.780	79.749	--	--	Pass
09 (Average)	2483.500	32.182	11.830	44.012	74.00	54.00	Pass

Figure Channel 09: Horizontal (Peak)

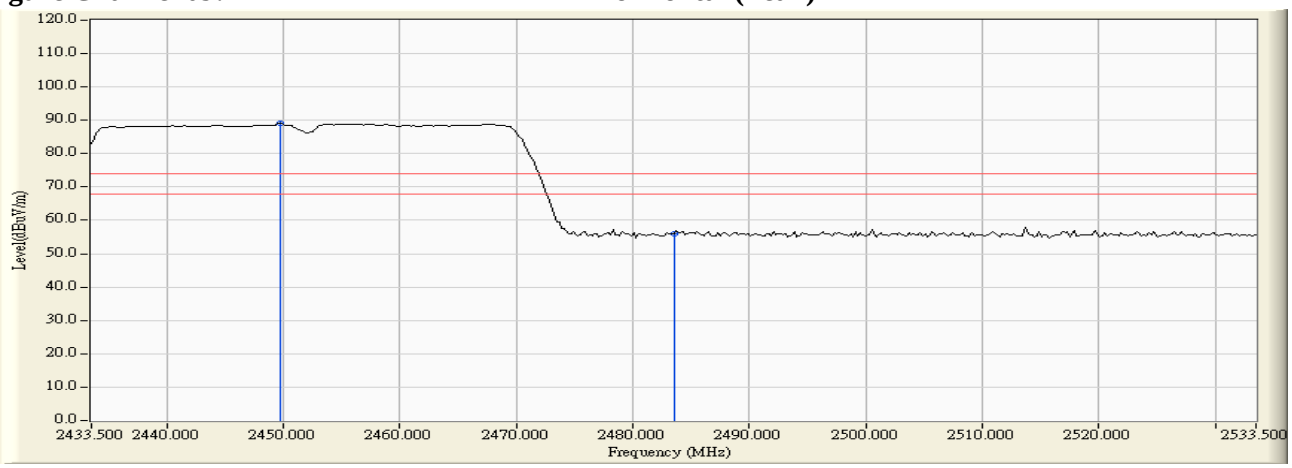
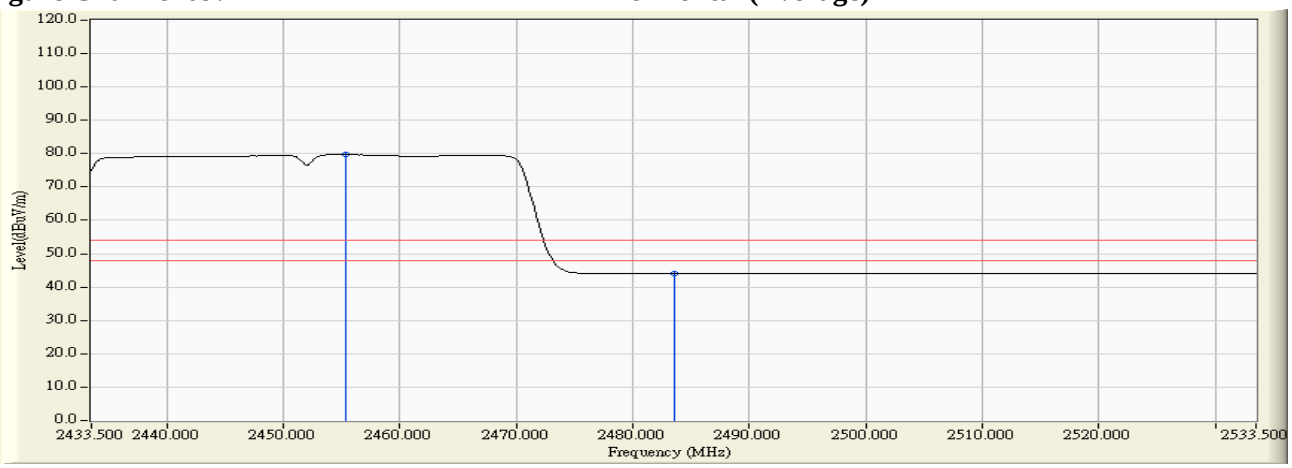


Figure Channel 09: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (Monopole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
09 (Peak)	2467.900	31.330	56.855	88.185	--	--	Pass
09 (Peak)	2483.500	31.435	23.738	55.173	74.00	54.00	Pass
09 (Average)	2467.300	31.326	47.651	78.977	--	--	Pass
09 (Average)	2483.500	31.435	11.869	43.304	74.00	54.00	Pass

Figure Channel 09: Vertical (Peak)

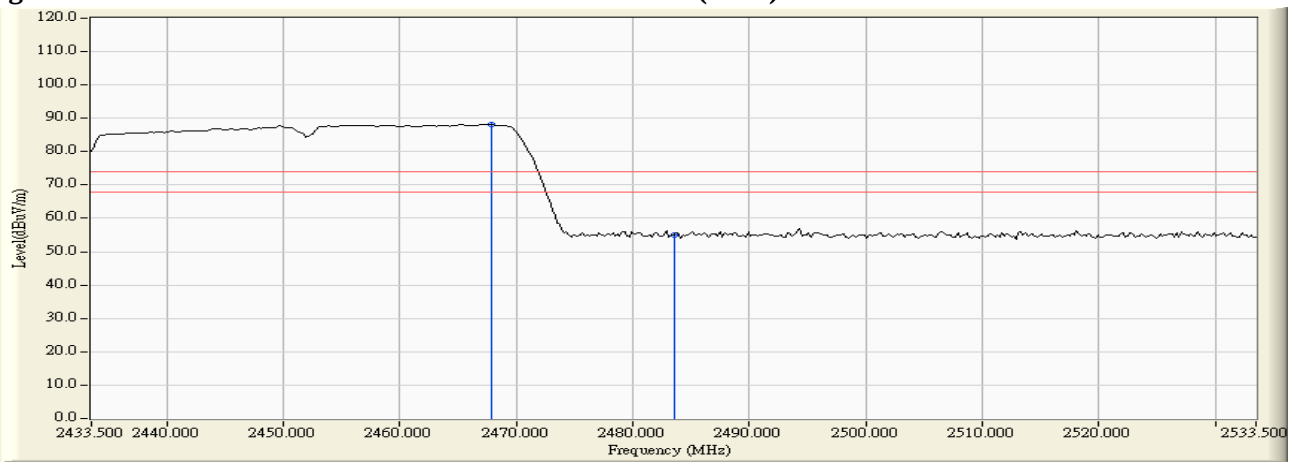
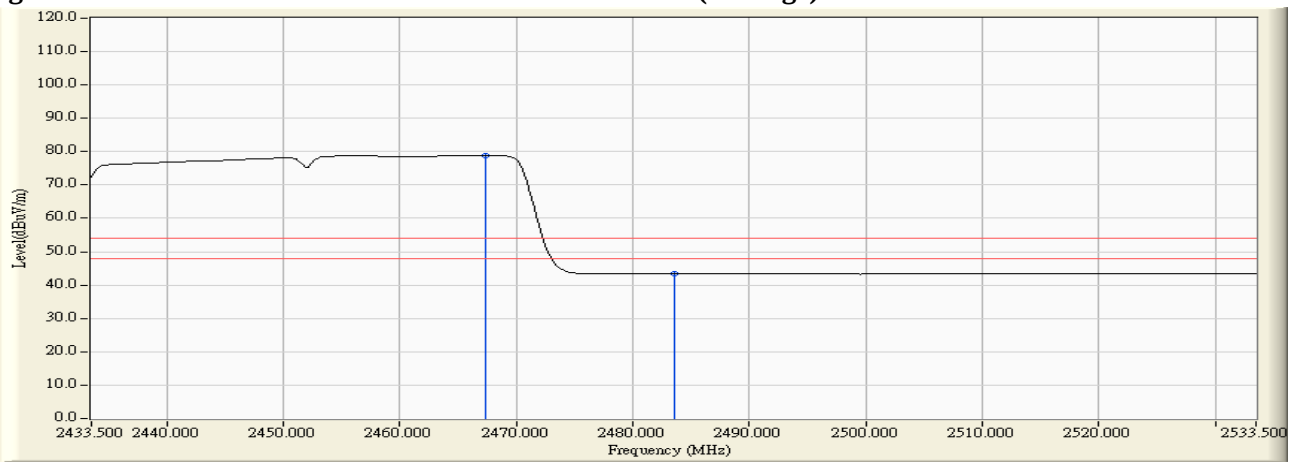


Figure Channel 09: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (Dipole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2390.000	31.509	24.404	55.913	74.00	54.00	Pass
01 (Peak)	2400.000	31.561	23.477	55.038	--	--	Pass
01 (Peak)	2413.000	31.646	57.671	89.317	--	--	Pass
01 (Average)	2390.000	31.509	11.673	43.182	74.00	54.00	Pass
01 (Average)	2400.000	31.561	11.723	43.284	--	--	Pass
01 (Average)	2412.800	31.645	53.881	85.525	--	--	Pass

Figure Channel 01: Horizontal (Peak)

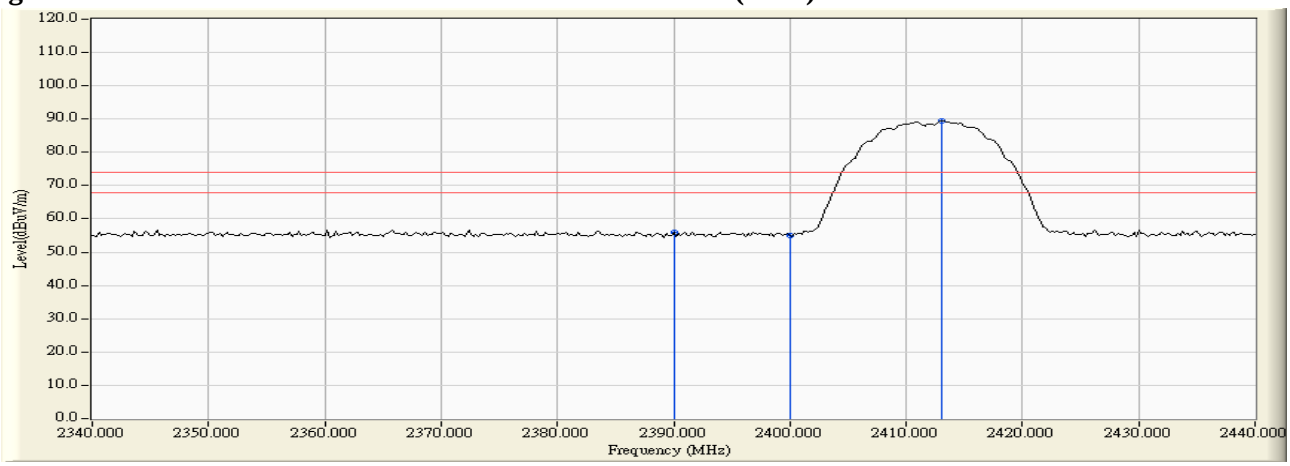
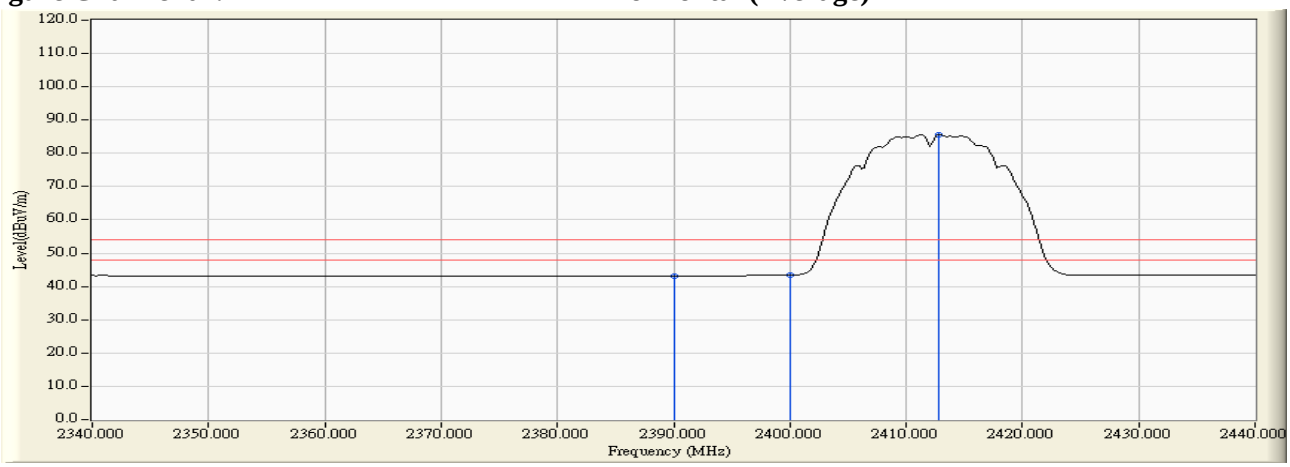


Figure Channel 01: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (Dipole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2389.000	30.920	24.028	54.948	74.00	54.00	Pass
01 (Peak)	2390.000	30.915	22.909	53.824	74.00	54.00	Pass
01 (Peak)	2400.000	30.912	24.653	55.565	--	--	Pass
01 (Peak)	2413.000	30.956	67.540	98.496	--	--	Pass
01 (Average)	2390.000	30.915	11.712	42.627	74.00	54.00	Pass
01 (Average)	2400.000	30.912	12.553	43.465	--	--	Pass
01 (Average)	2412.800	30.955	63.804	94.759	--	--	Pass

Figure Channel 01: Vertical (Peak)

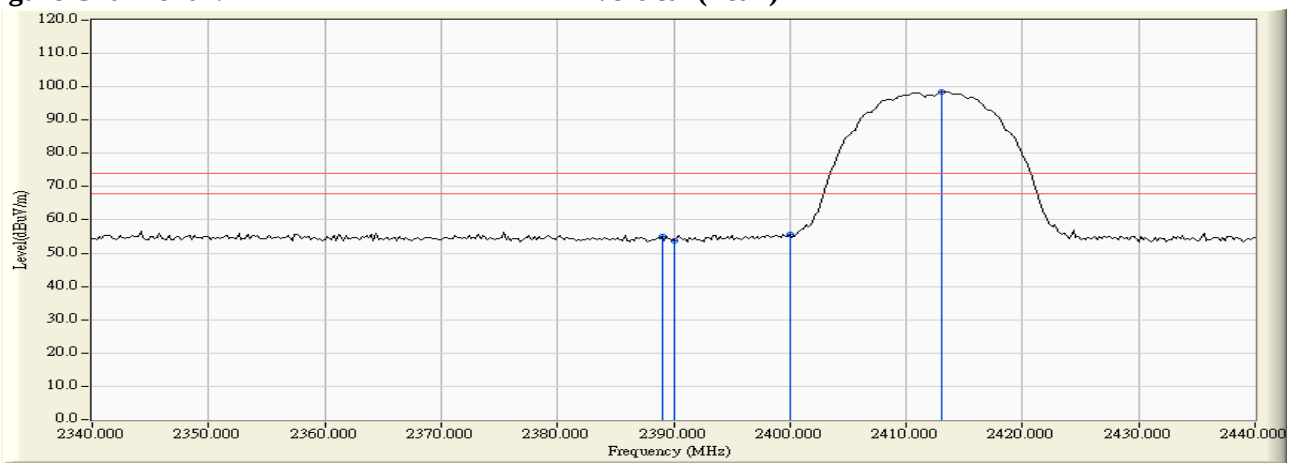
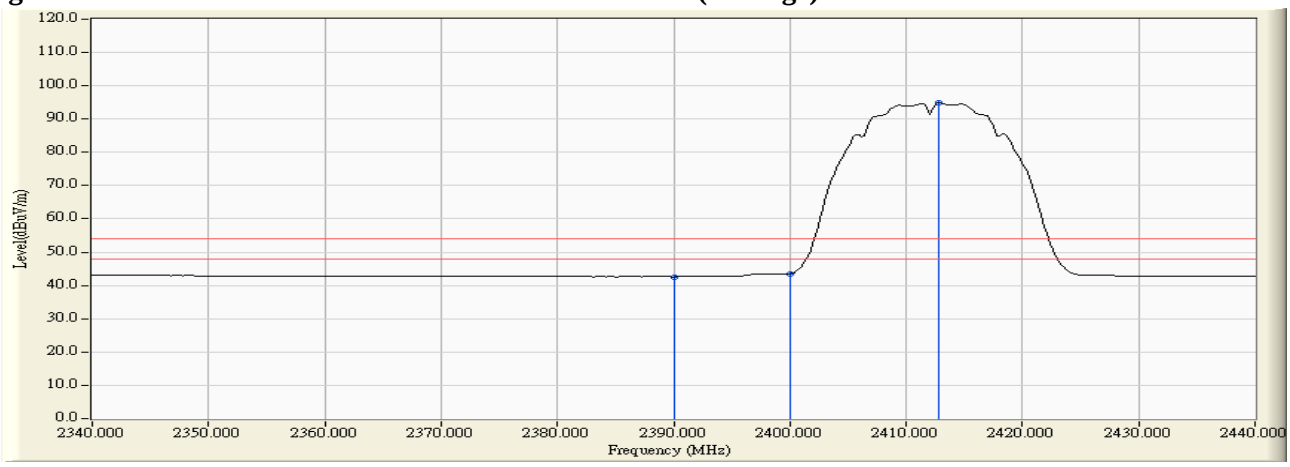


Figure Channel 01: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (Dipole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2462.900	32.026	60.245	92.271	--	--	Pass
11 (Peak)	2483.500	32.182	23.377	55.559	74.00	54.00	Pass
11 (Average)	2461.300	32.014	56.696	88.710	--	--	Pass
11 (Average)	2483.500	32.182	11.630	43.812	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)

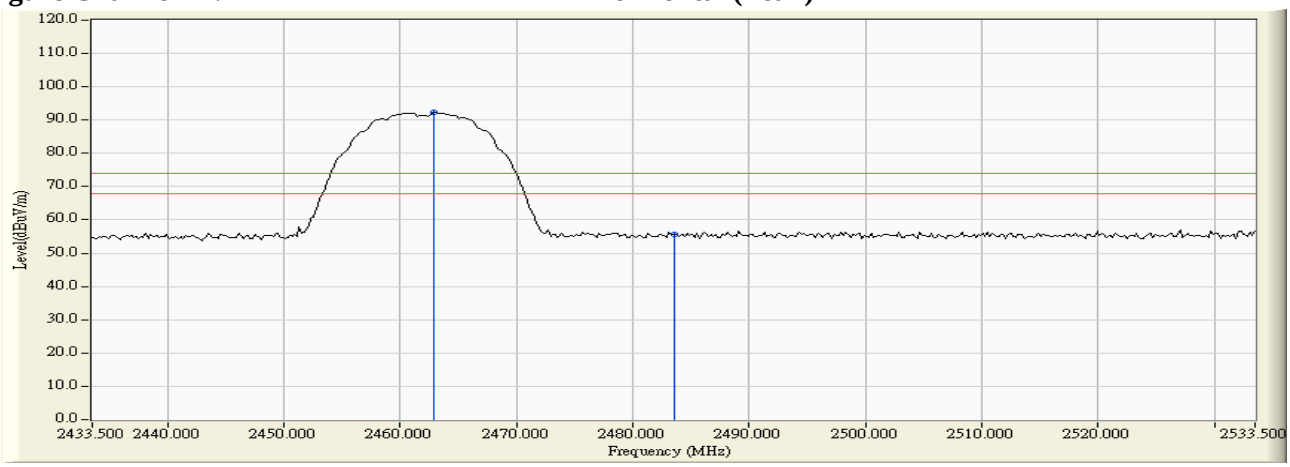
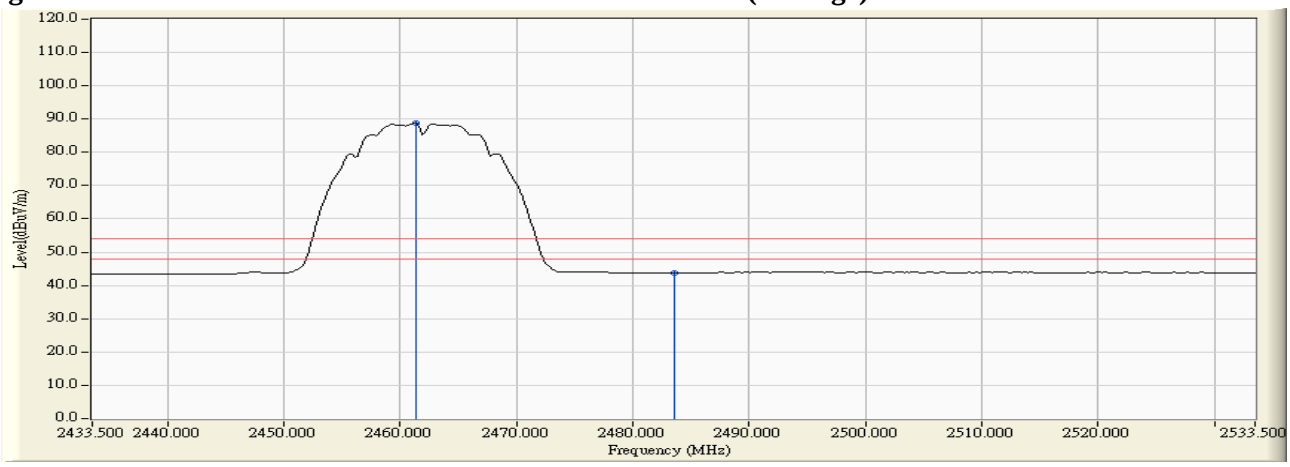


Figure Channel 11: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (Dipole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2462.900	31.296	69.618	100.914	--	--	Pass
11 (Peak)	2483.500	31.435	23.520	54.955	74.00	54.00	Pass
11 (Average)	2461.300	31.286	65.984	97.270	--	--	Pass
11 (Average)	2483.500	31.435	11.801	43.236	74.00	54.00	Pass

Figure Channel 11: Vertical (Peak)

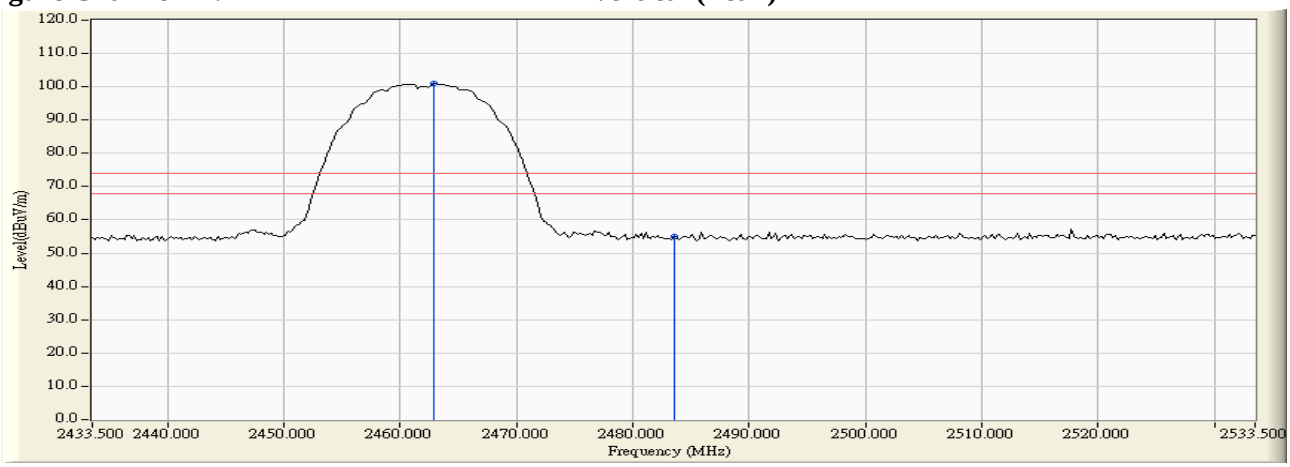
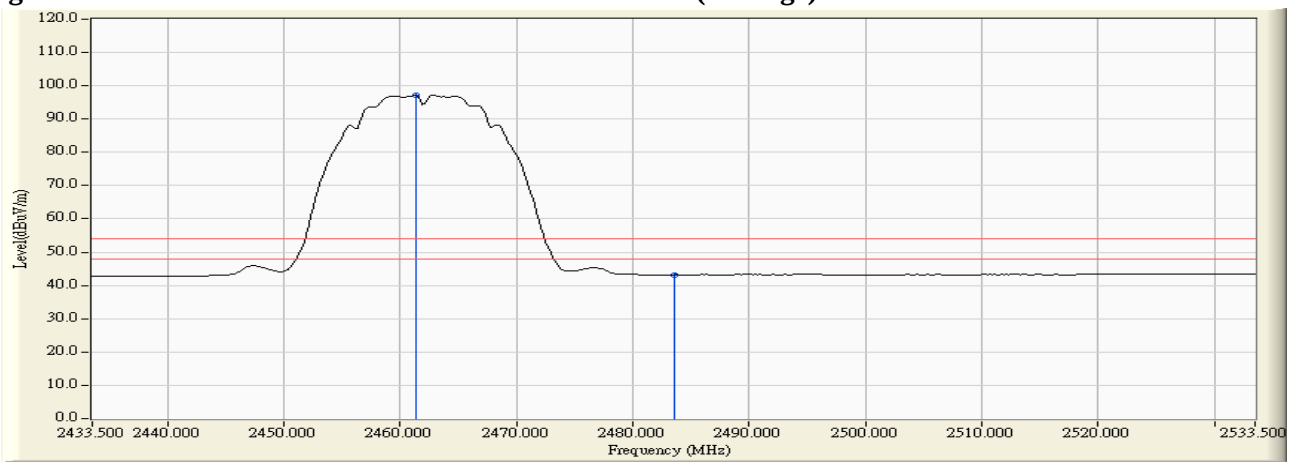


Figure Channel 11: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (Dipole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2345.400	31.334	25.954	57.289	74.00	54.00	Pass
01 (Peak)	2387.200	31.498	24.934	56.432	74.00	54.00	Pass
01 (Peak)	2390.000	31.509	23.268	54.777	74.00	54.00	Pass
01 (Peak)	2400.000	31.561	23.568	55.129	--	--	Pass
01 (Peak)	2414.400	31.657	58.511	90.168	--	--	Pass
01 (Average)	2390.000	31.509	11.747	43.256	74.00	54.00	Pass
01 (Average)	2400.000	31.561	12.089	43.650	--	--	Pass
01 (Average)	2414.000	31.654	49.576	81.229	--	--	Pass

Figure Channel 01: Horizontal (Peak)

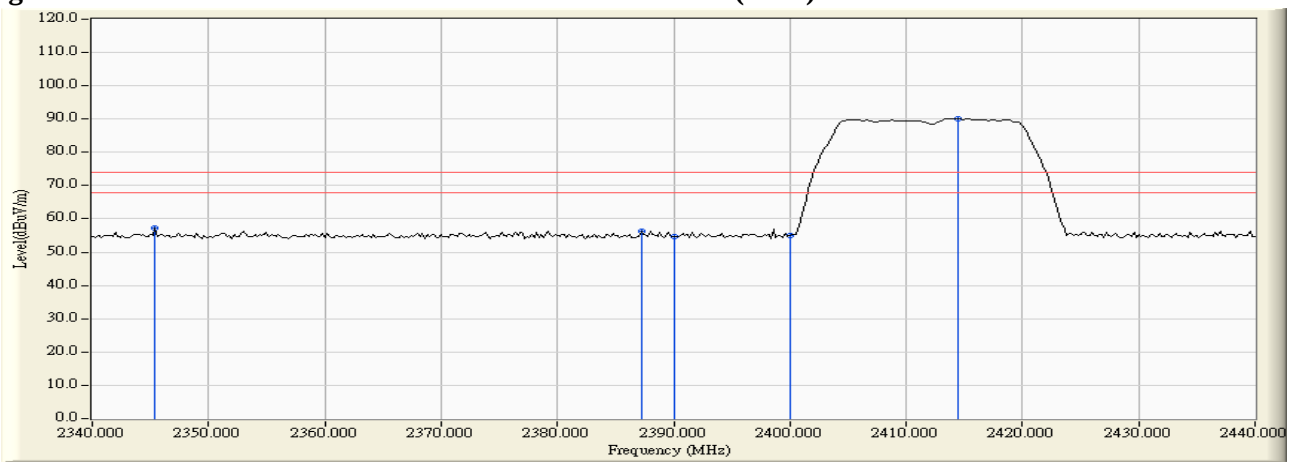
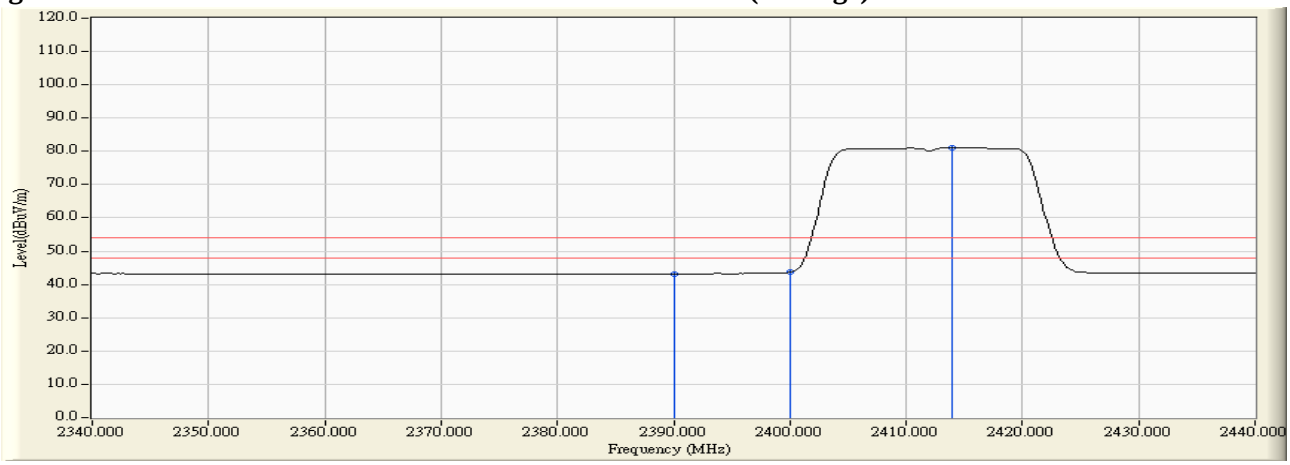


Figure Channel 01: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (Dipole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2353.200	31.086	26.332	57.418	74.00	54.00	Pass
01 (Peak)	2390.000	30.915	24.107	55.022	74.00	54.00	Pass
01 (Peak)	2400.000	30.912	27.055	57.967	--	--	Pass
01 (Peak)	2414.400	30.966	67.532	98.498	--	--	Pass
01 (Average)	2390.000	30.915	11.885	42.800	74.00	54.00	Pass
01 (Average)	2400.000	30.912	14.020	44.932	--	--	Pass
01 (Average)	2414.000	30.963	58.442	89.405	--	--	Pass

Figure Channel 01: Vertical (Peak)

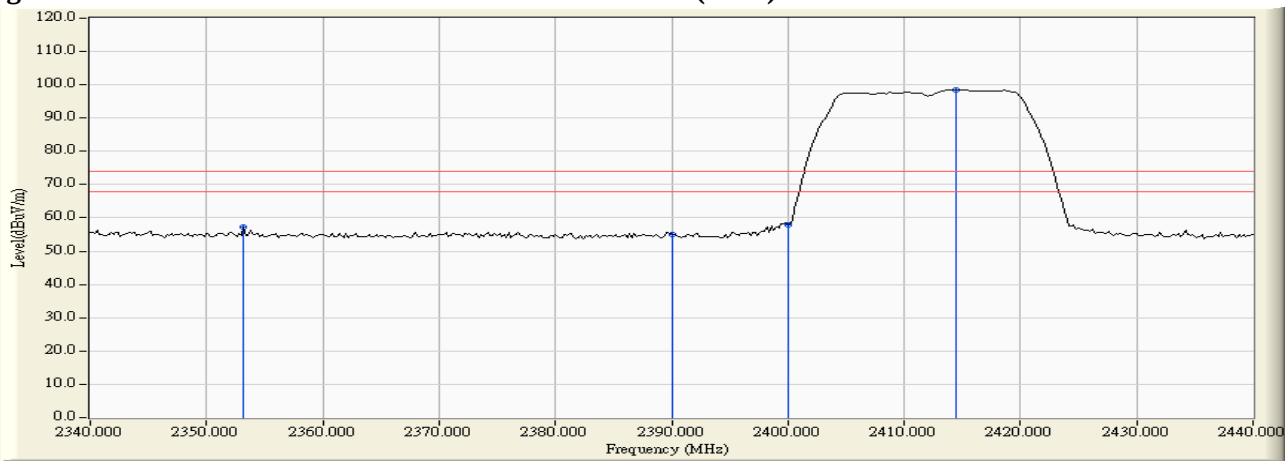
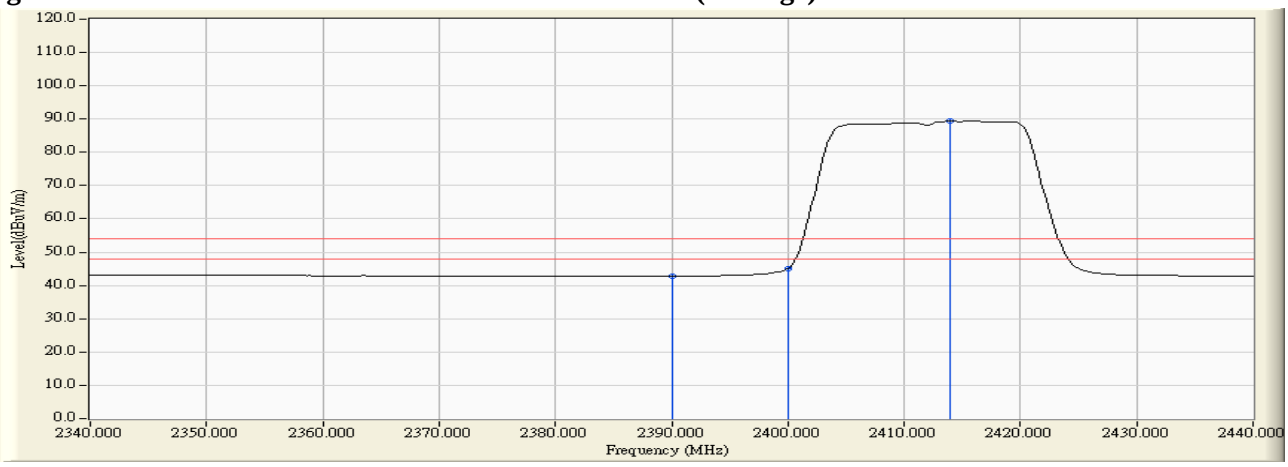


Figure Channel 01: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (Dipole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2455.500	31.971	59.839	91.809	--	--	Pass
11 (Peak)	2483.500	32.182	22.831	55.013	74.00	54.00	Pass
11 (Average)	2455.100	31.967	51.089	83.056	--	--	Pass
11 (Average)	2483.500	32.182	11.729	43.911	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)

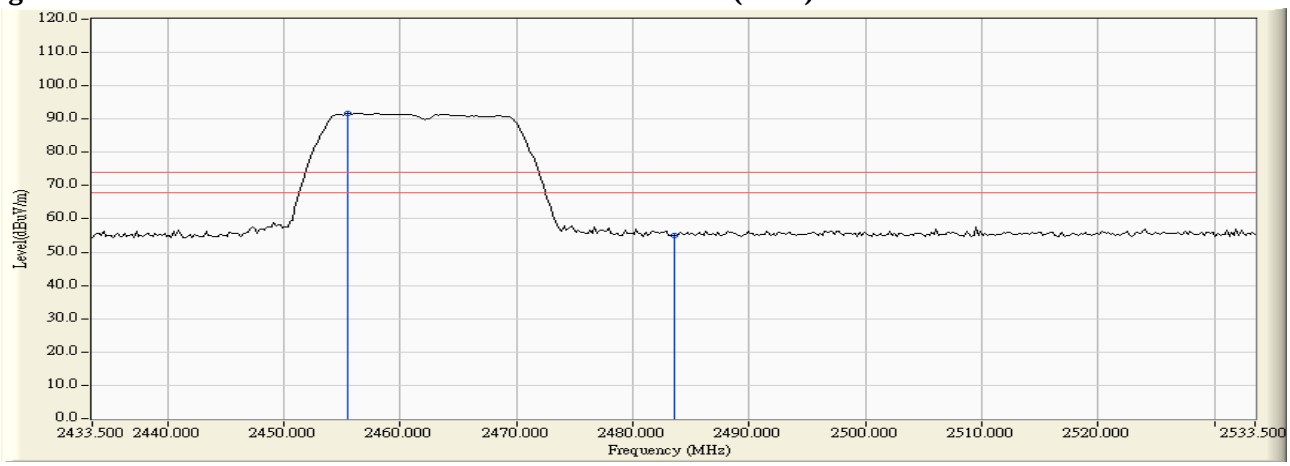
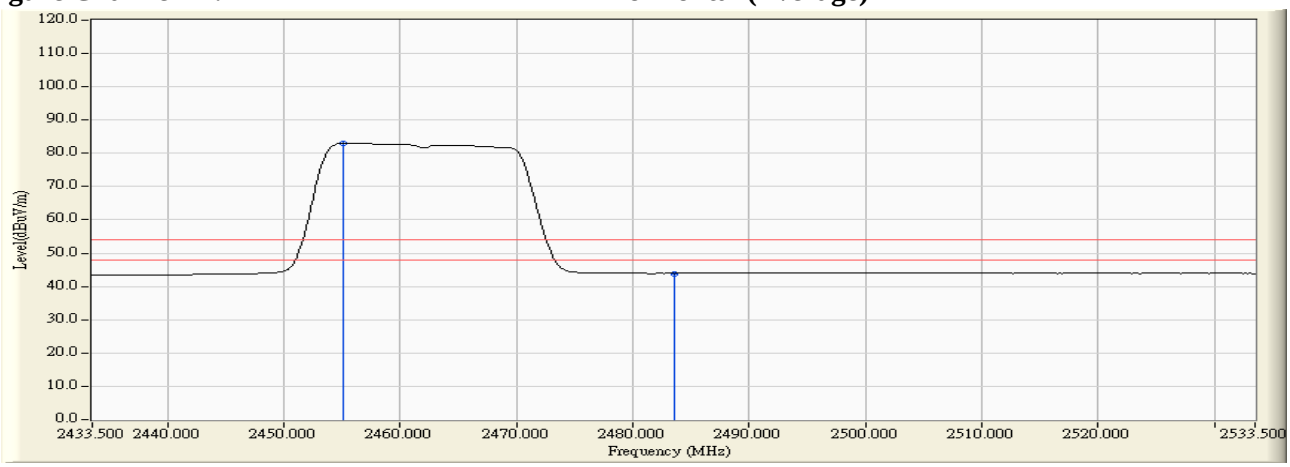


Figure Channel 11: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (Dipole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2456.500	31.252	69.940	101.193	--	--	Pass
11 (Peak)	2483.500	31.435	23.824	55.259	74.00	54.00	Pass
11 (Peak)	2484.300	31.440	24.827	56.268	74.00	54.00	Pass
11 (Average)	2455.100	31.243	61.138	92.381	--	--	Pass
11 (Average)	2483.500	31.435	12.220	43.655	74.00	54.00	Pass

Figure Channel 11: Vertical (Peak)

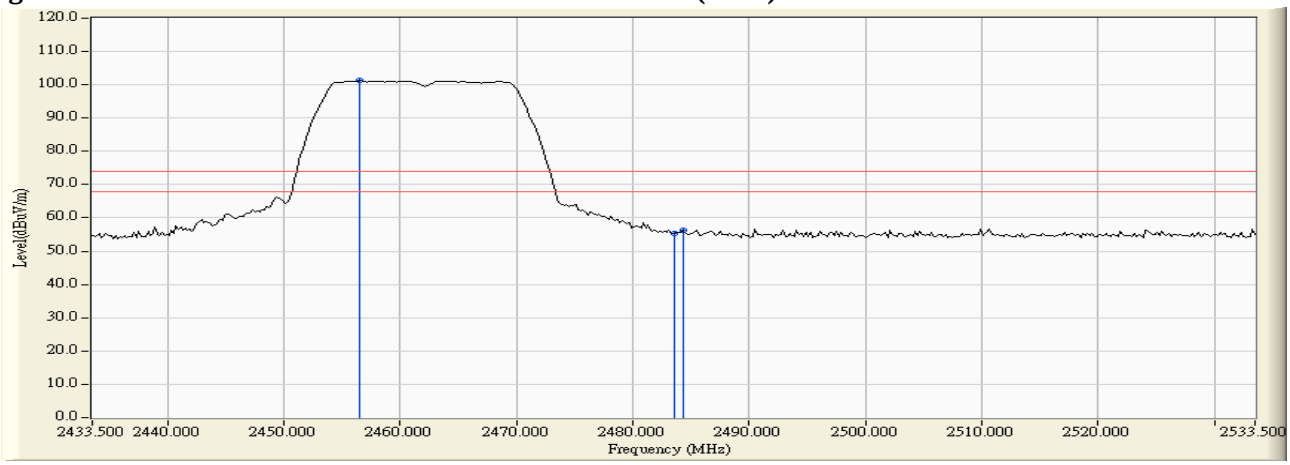
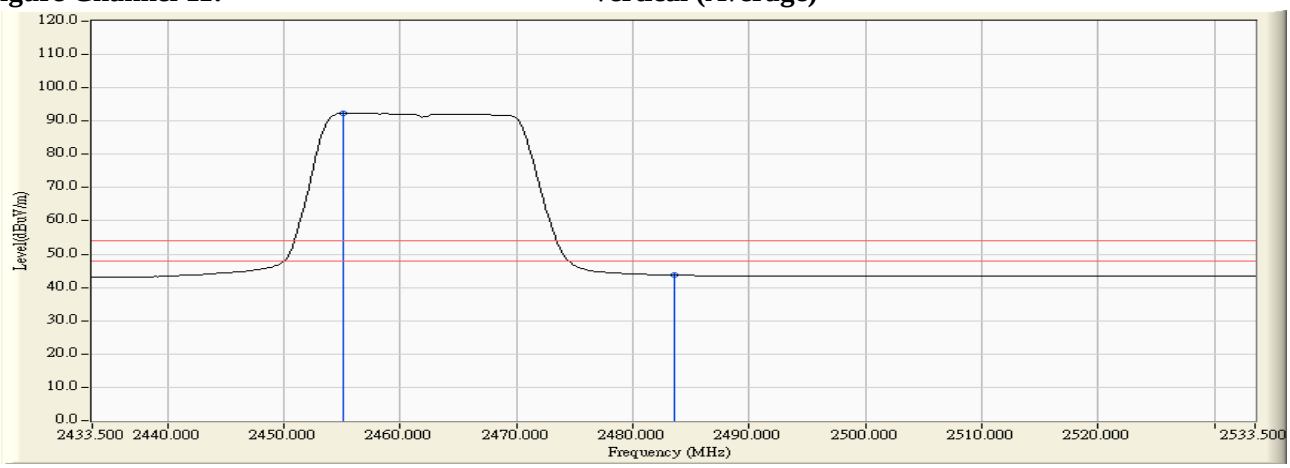


Figure Channel 11: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (Dipole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2389.200	31.506	24.005	55.511	74.00	54.00	Pass
01 (Peak)	2390.000	31.509	22.106	53.615	74.00	54.00	Pass
01 (Peak)	2400.000	31.561	21.991	53.552	--	--	Pass
01 (Peak)	2415.400	31.664	57.528	89.192	--	--	Pass
01 (Average)	2390.000	31.509	11.752	43.261	74.00	54.00	Pass
01 (Average)	2400.000	31.561	12.453	44.014	--	--	Pass
01 (Average)	2415.000	31.661	48.124	79.785	--	--	Pass

Figure Channel 01: Horizontal (Peak)

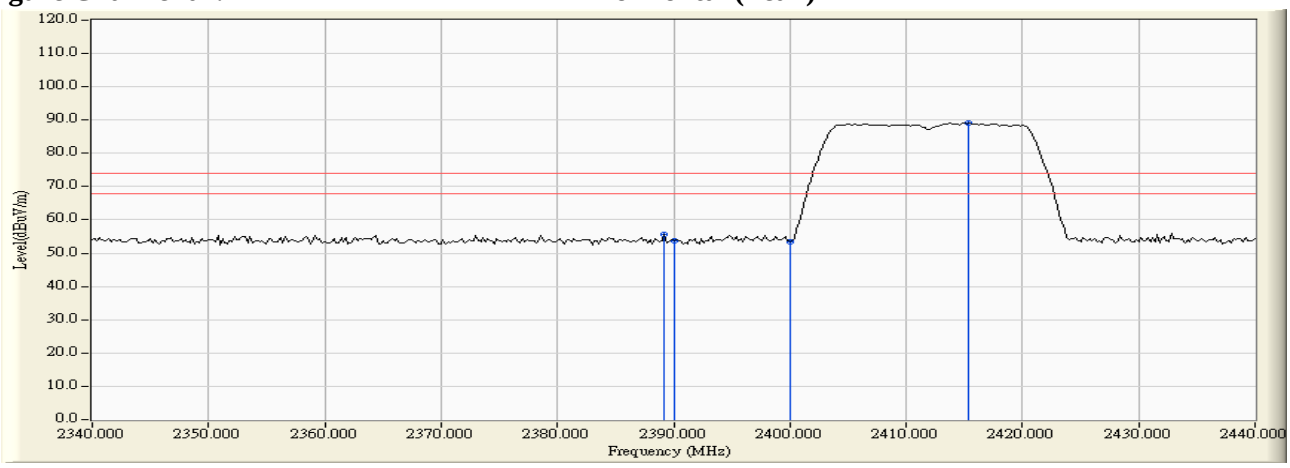
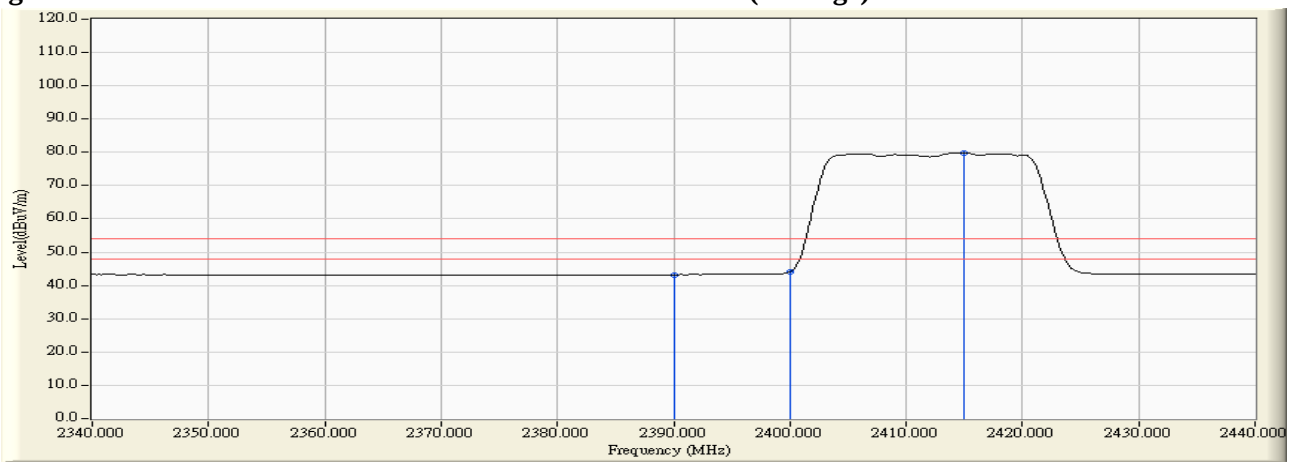


Figure Channel 01: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (Dipole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2367.800	31.019	24.927	55.945	74.00	54.00	Pass
01 (Peak)	2390.000	30.915	23.789	54.704	74.00	54.00	Pass
01 (Peak)	2400.000	30.912	26.277	57.189	--	--	Pass
01 (Peak)	2415.200	30.971	66.905	97.876	--	--	Pass
01 (Average)	2390.000	30.915	11.935	42.850	74.00	54.00	Pass
01 (Average)	2400.000	30.912	15.446	46.358	--	--	Pass
01 (Average)	2415.200	30.971	57.458	88.429	--	--	Pass

Figure Channel 01: **Vertical (Peak)**

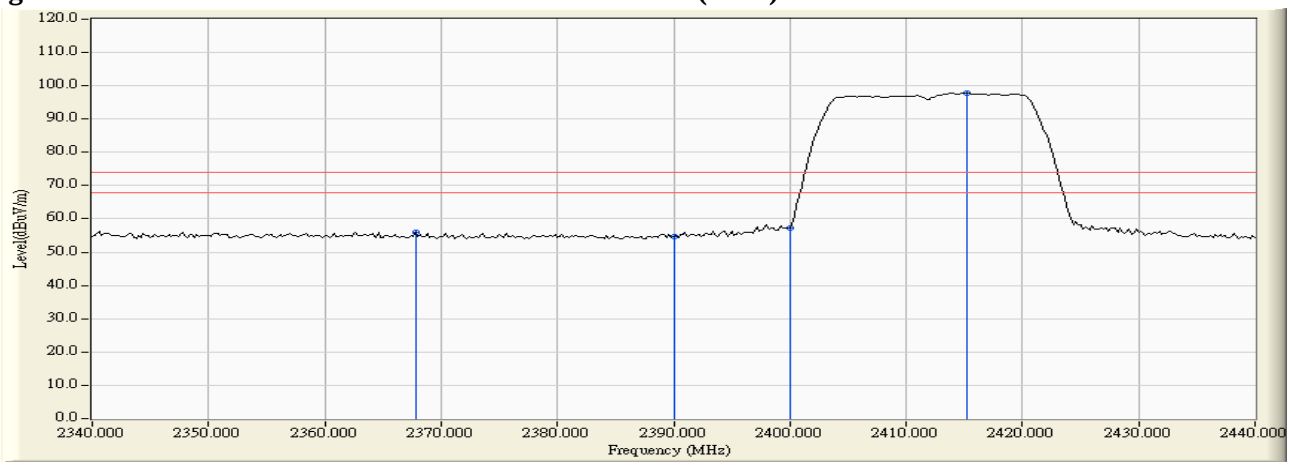
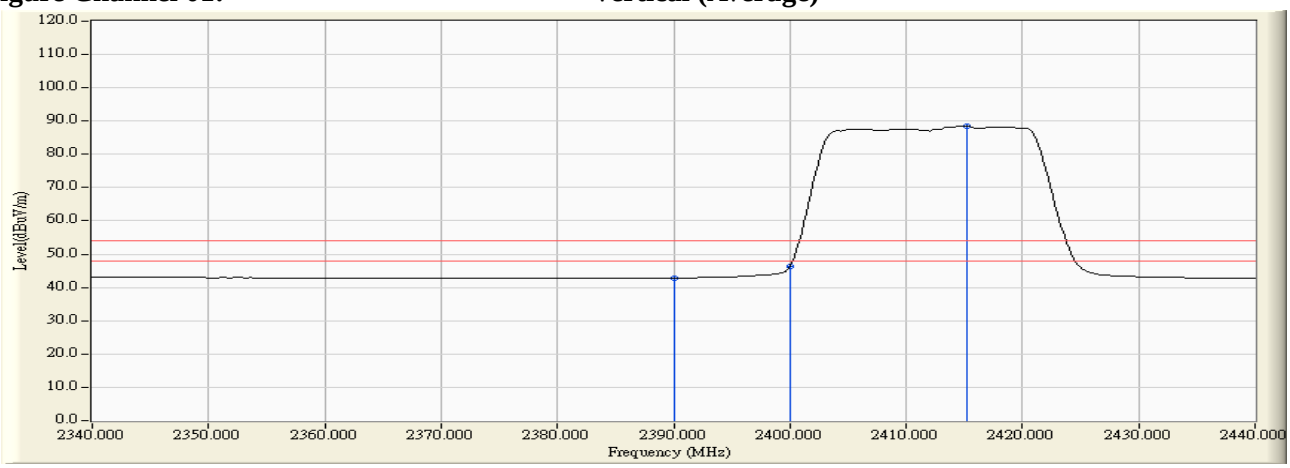


Figure Channel 01: **Vertical (Average)**



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (Dipole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2456.500	31.977	58.529	90.507	--	--	Pass
11 (Peak)	2483.500	32.182	23.587	55.769	74.00	54.00	Pass
11 (Average)	2458.900	31.997	49.107	81.103	--	--	Pass
11 (Average)	2483.500	32.182	11.722	43.904	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)

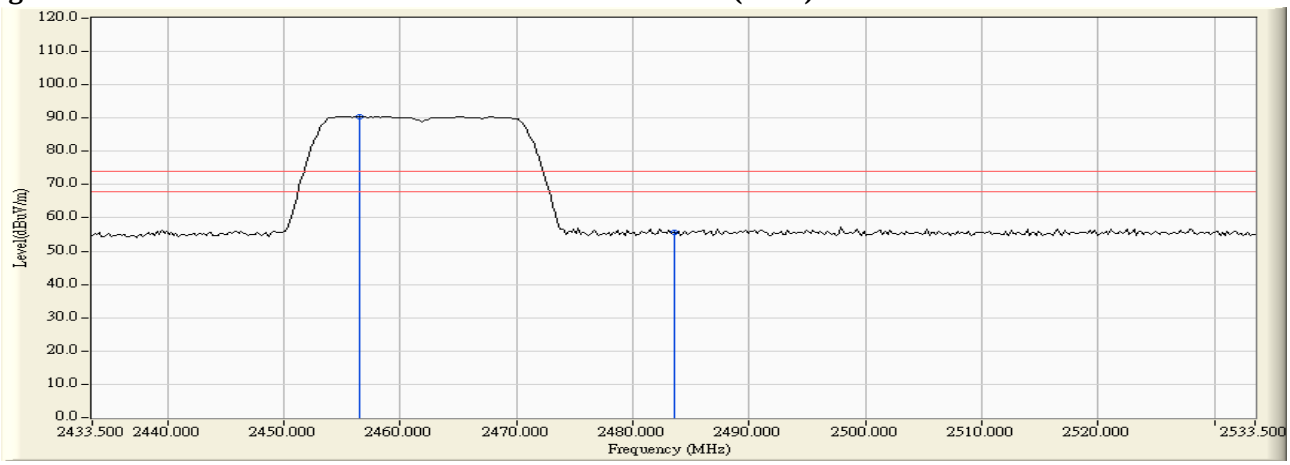
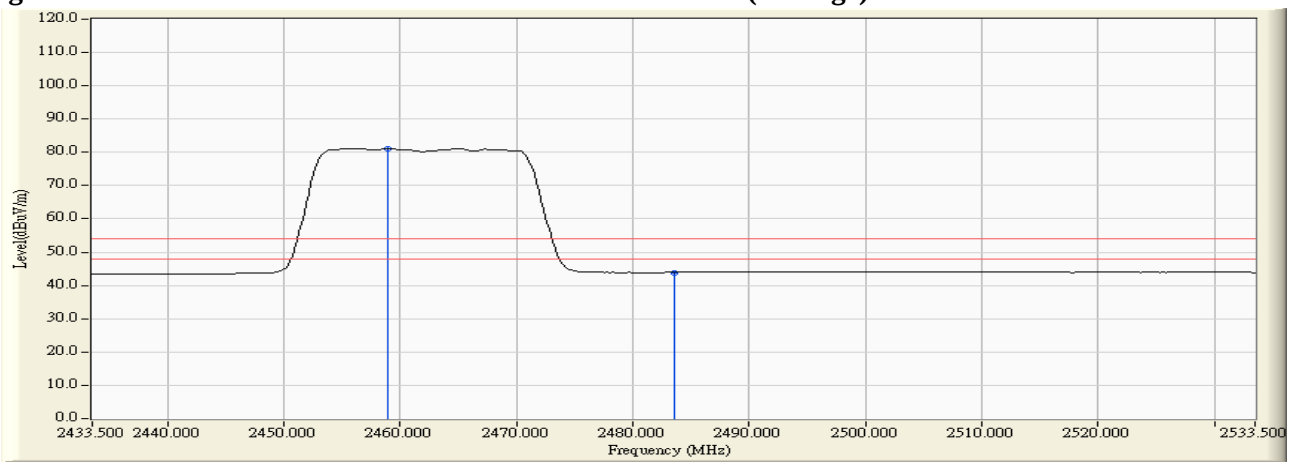


Figure Channel 11: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (Dipole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2465.100	31.312	69.389	100.700	--	--	Pass
11 (Peak)	2483.500	31.435	23.064	54.499	74.00	54.00	Pass
11 (Peak)	2484.100	31.439	24.858	56.297	74.00	54.00	Pass
11 (Average)	2458.900	31.270	60.022	91.291	--	--	Pass
11 (Average)	2483.500	31.435	12.022	43.457	74.00	54.00	Pass

Figure Channel 11: Vertical (Peak)

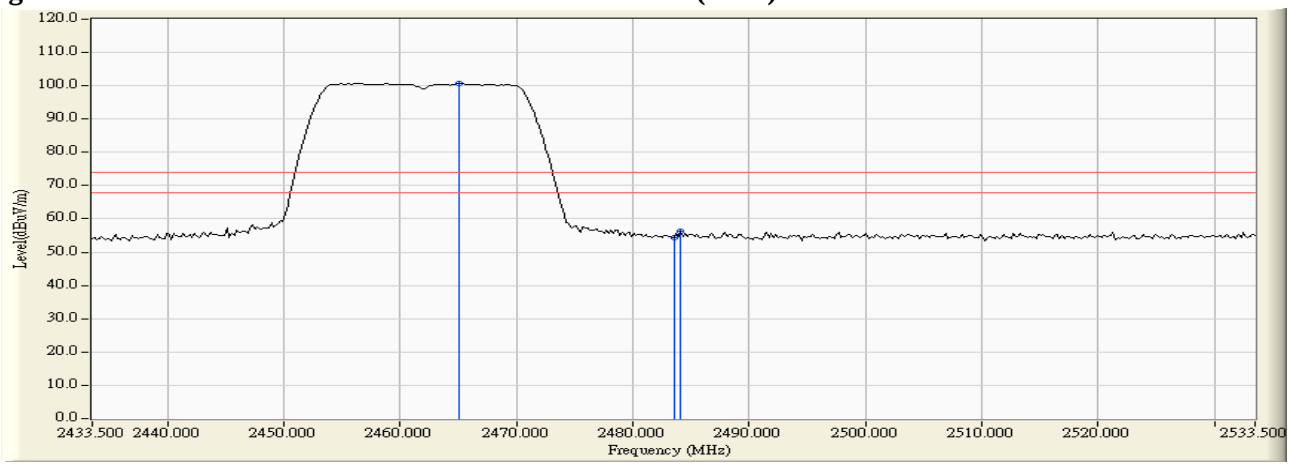
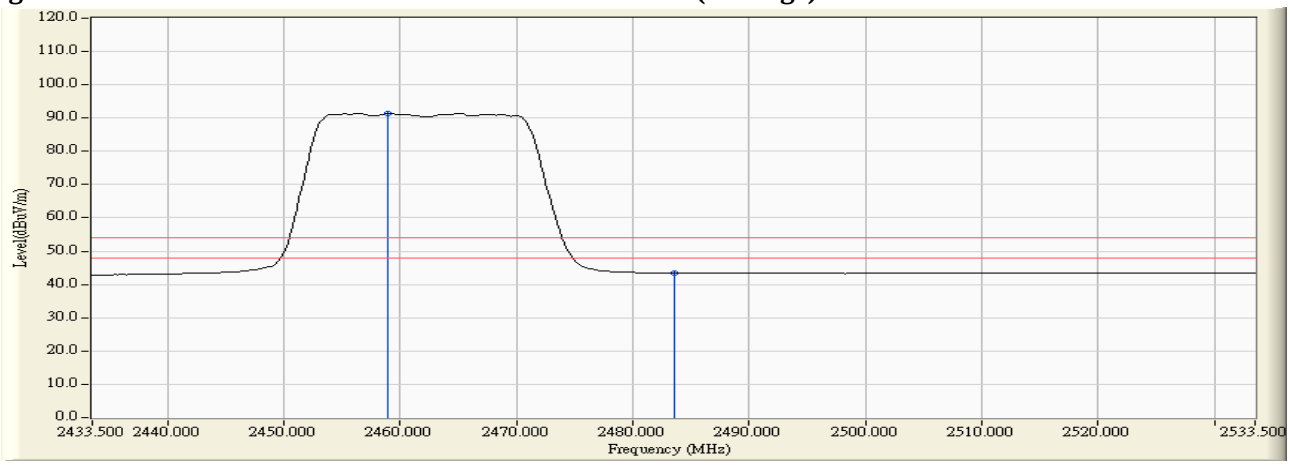


Figure Channel 11: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (Dipole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
03 (Peak)	2373.600	31.445	25.378	56.823	74.00	54.00	Pass
03 (Peak)	2390.000	31.509	23.478	54.987	74.00	54.00	Pass
03 (Peak)	2400.000	31.561	24.117	55.678	--	--	Pass
03 (Peak)	2419.800	31.698	57.357	89.055	--	--	Pass
03 (Average)	2390.000	31.509	11.882	43.391	74.00	54.00	Pass
03 (Average)	2400.000	31.561	12.469	44.030	--	--	Pass
03 (Average)	2424.600	31.735	48.146	79.881	--	--	Pass

Figure Channel 03: Horizontal (Peak)

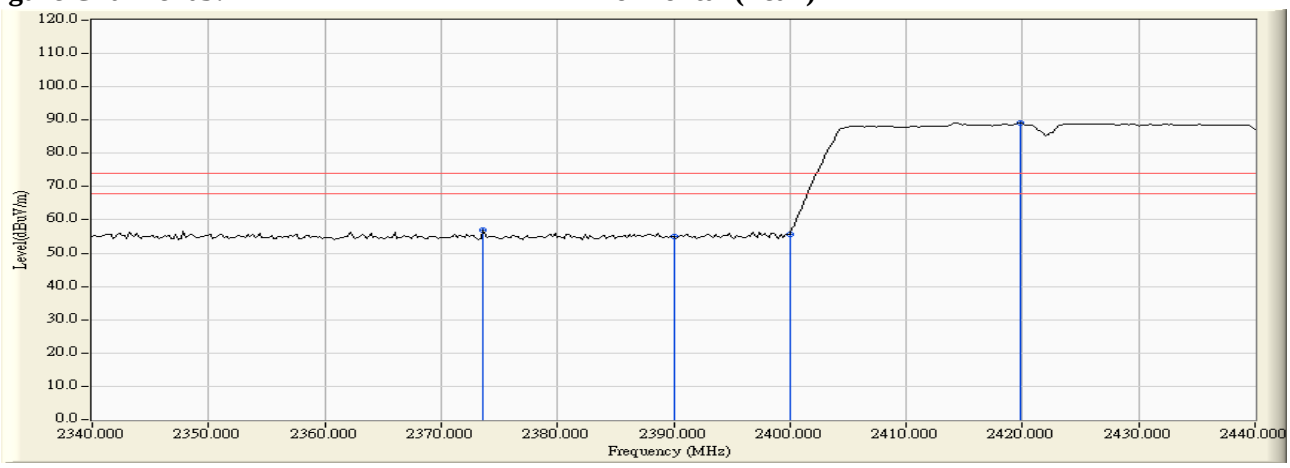
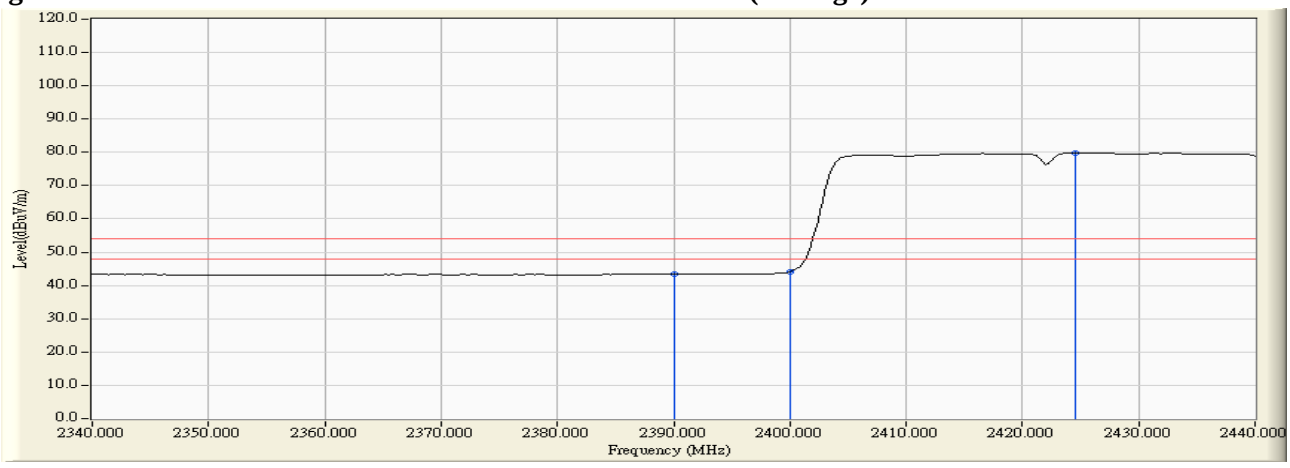


Figure Channel 03: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (Dipole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
03 (Peak)	2364.400	31.033	25.678	56.712	74.00	54.00	Pass
03 (Peak)	2390.000	30.915	23.287	54.202	74.00	54.00	Pass
03 (Peak)	2400.000	30.912	29.525	60.437	--	--	Pass
03 (Peak)	2419.800	31.003	66.788	97.790	--	--	Pass
03 (Average)	2390.000	30.915	12.502	43.417	74.00	54.00	Pass
03 (Average)	2400.000	30.912	15.305	46.217	--	--	Pass
03 (Average)	2424.600	31.035	57.608	88.643	--	--	Pass

Figure Channel 03: Vertical (Peak)

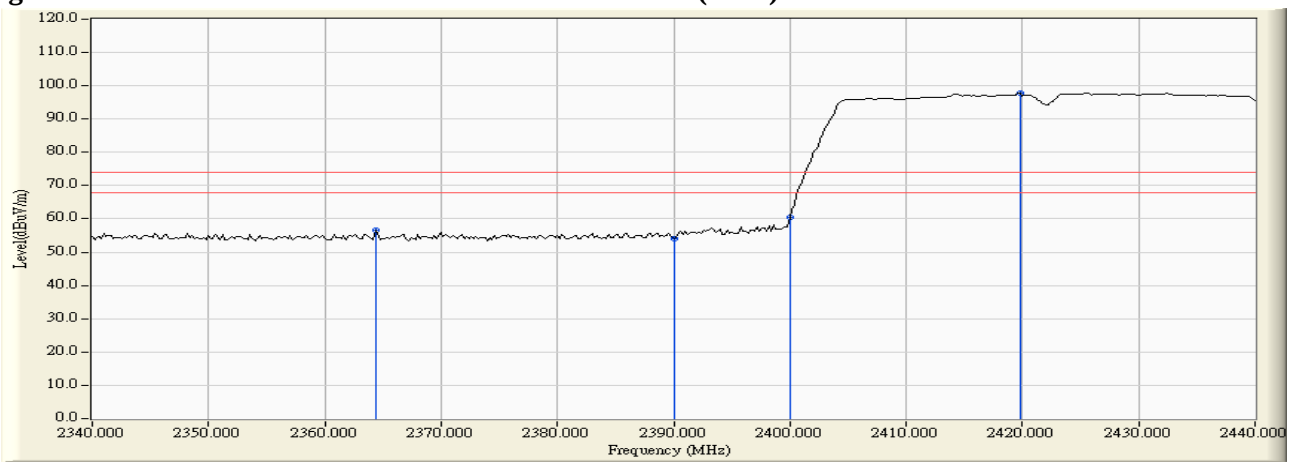
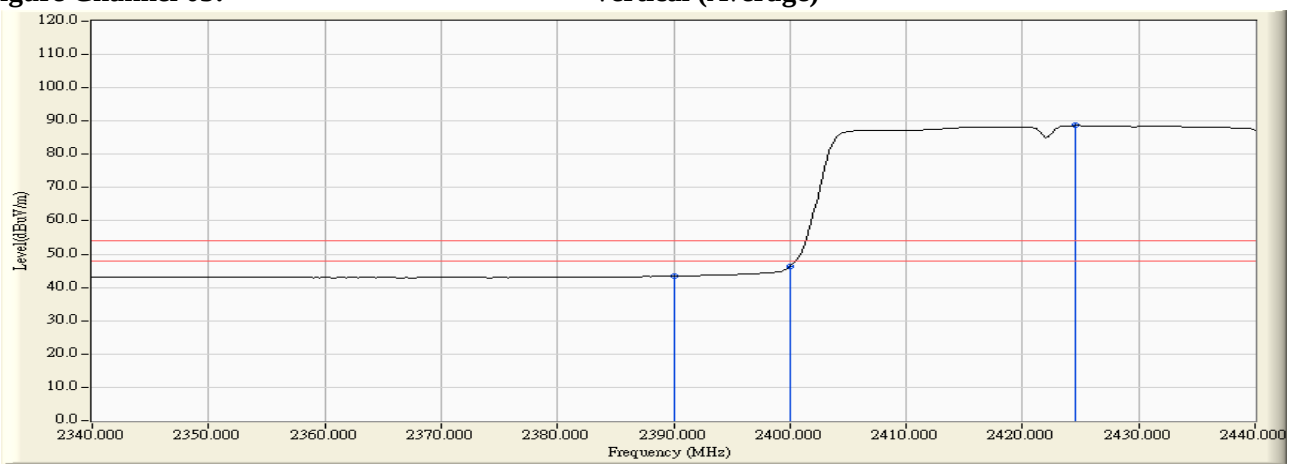


Figure Channel 03: Vertical (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (Dipole Antenna)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
09 (Peak)	2449.700	31.926	57.370	89.296	--	--	Pass
09 (Peak)	2483.500	32.182	21.587	53.769	74.00	54.00	Pass
09 (Peak)	2485.700	32.198	24.064	56.263	74.00	54.00	Pass
09 (Average)	2454.900	31.966	48.005	79.971	--	--	Pass
09 (Average)	2483.500	32.182	11.789	43.971	74.00	54.00	Pass

Figure Channel 09: Horizontal (Peak)

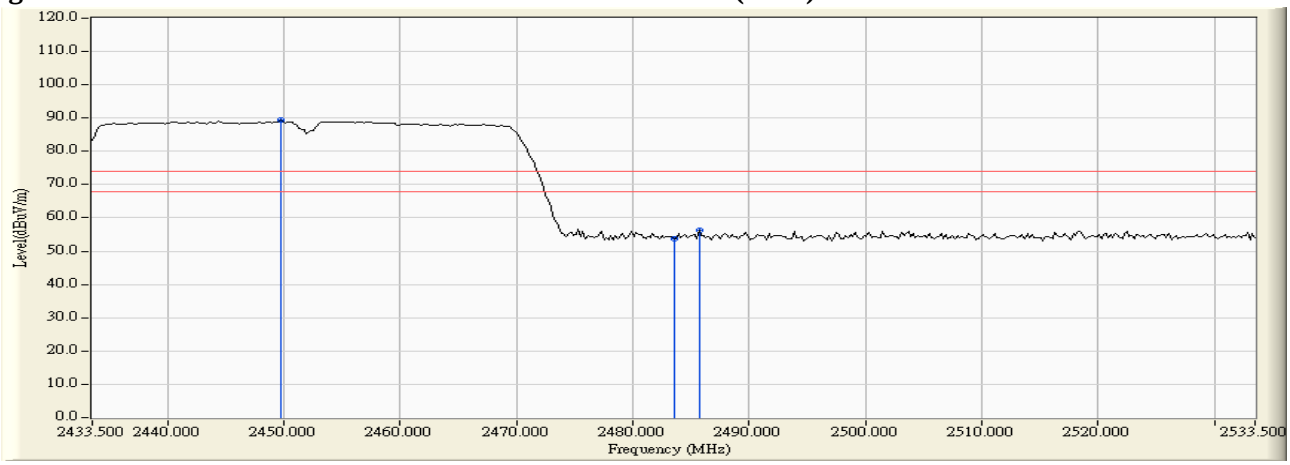
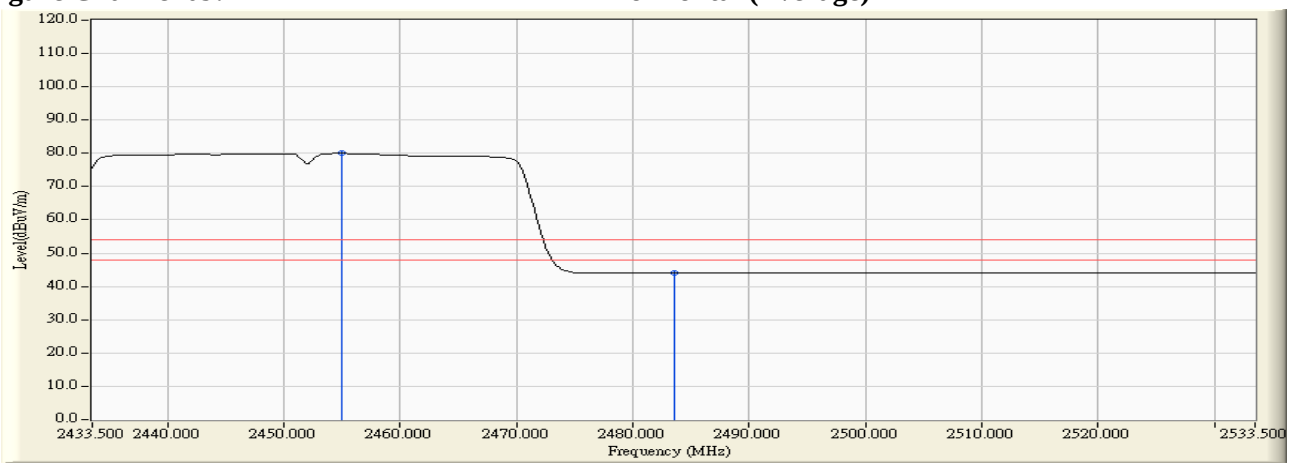


Figure Channel 09: Horizontal (Average)



Note:

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

Product : IP COMMUNICATION TERMINAL
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (Dipole Antenna)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
09 (Peak)	2467.900	30.206	67.036	98.366	--	--	Pass
09 (Peak)	2483.500	30.303	27.236	58.671	74.00	54.00	Pass
09 (Peak)	2484.700	31.444	27.327	58.770	74.00	54.00	Pass
09 (Average)	2467.300	31.326	58.069	89.395	--	--	Pass
09 (Average)	2483.500	31.435	13.002	44.437	74.00	54.00	Pass

Figure Channel 09: Vertical (Peak)

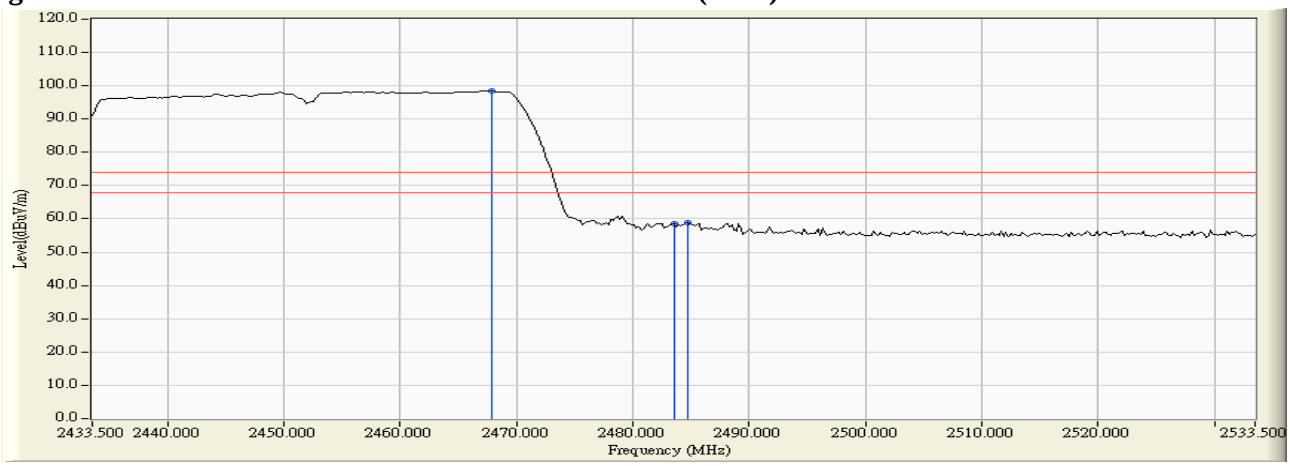
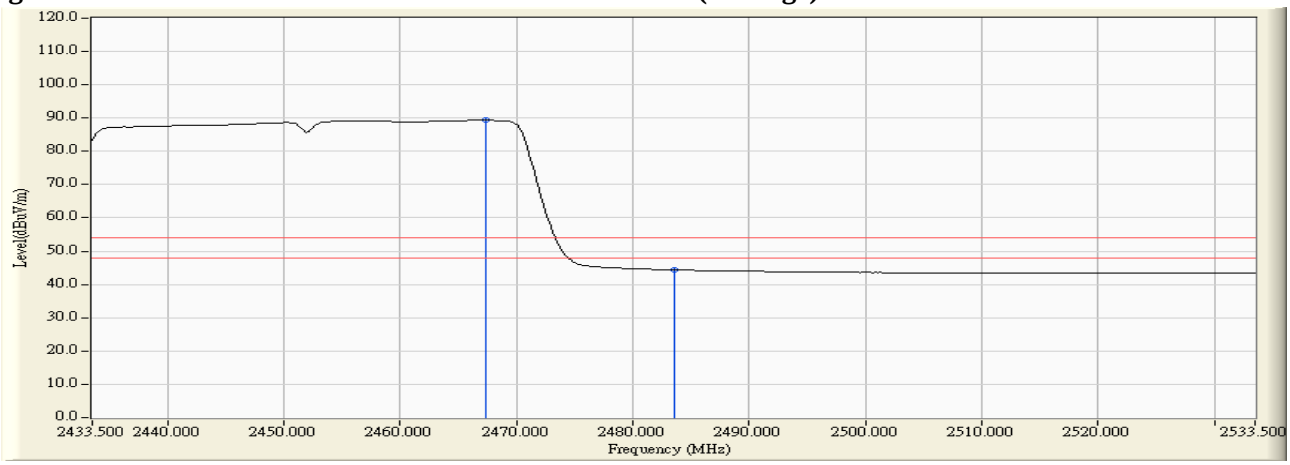


Figure Channel 09: Vertical (Average)



Note:

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

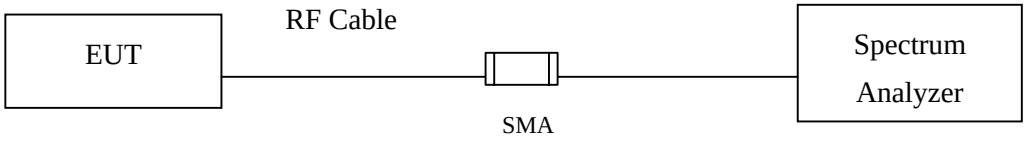
7. Occupied Bandwidth

7.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

Note:
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

7.2. Test Setup



7.3. Limits

The minimum bandwidth shall be at least 500 kHz.

7.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2009; tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

7.5. Uncertainty

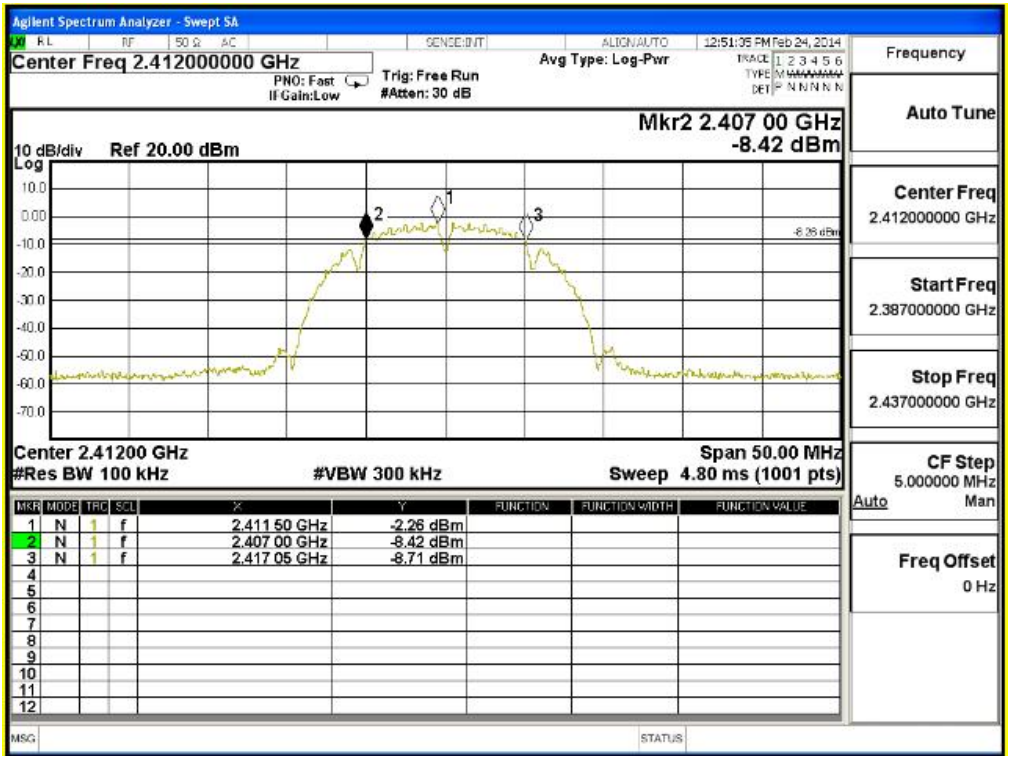
± 150Hz

7.6. Test Result of Occupied Bandwidth

Product : IP COMMUNICATION TERMINAL
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412	10050	>500	Pass

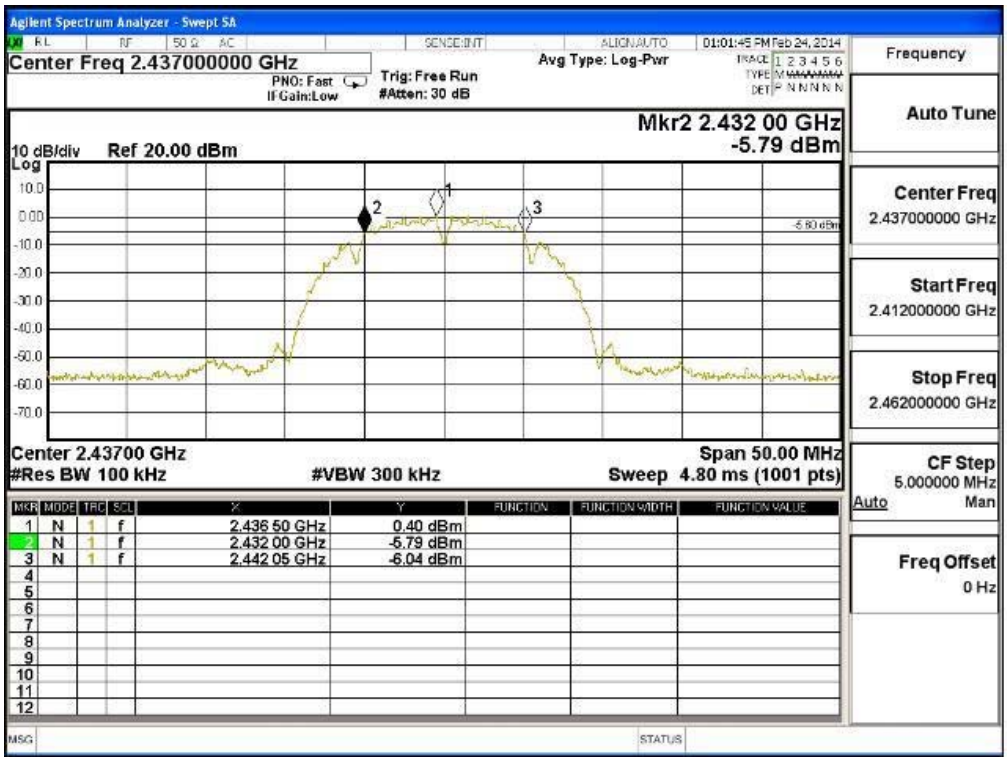
Figure Channel 1:



Product : IP COMMUNICATION TERMINAL
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437	10050	>500	Pass

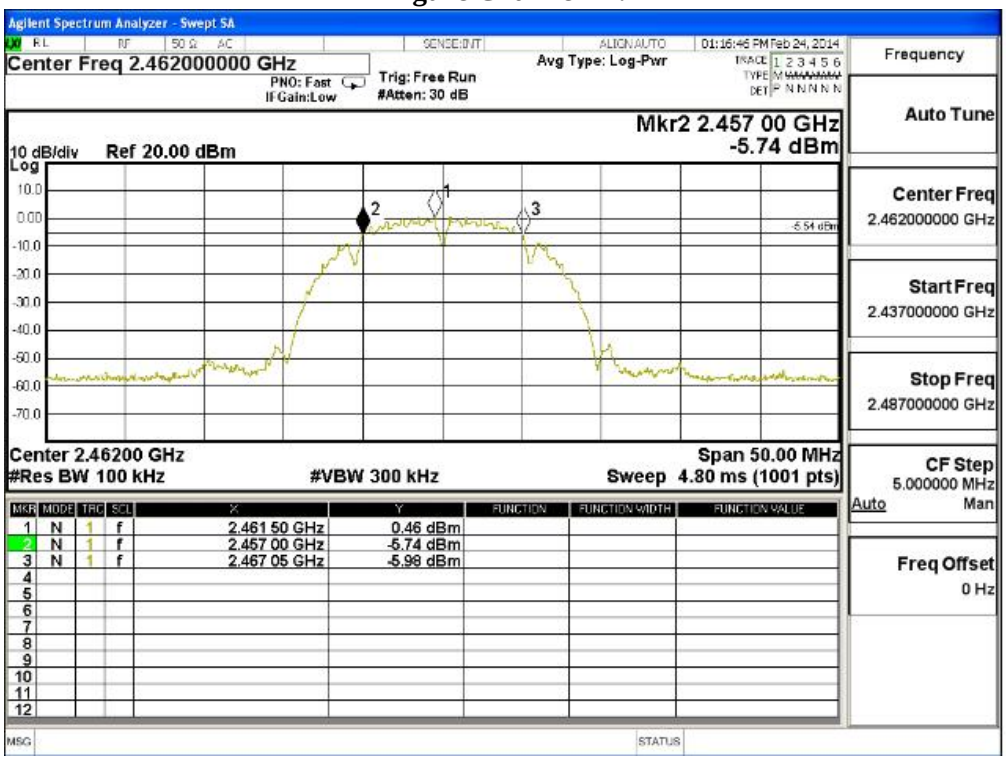
Figure Channel 6:



Product : IP COMMUNICATION TERMINAL
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462	10050	>500	Pass

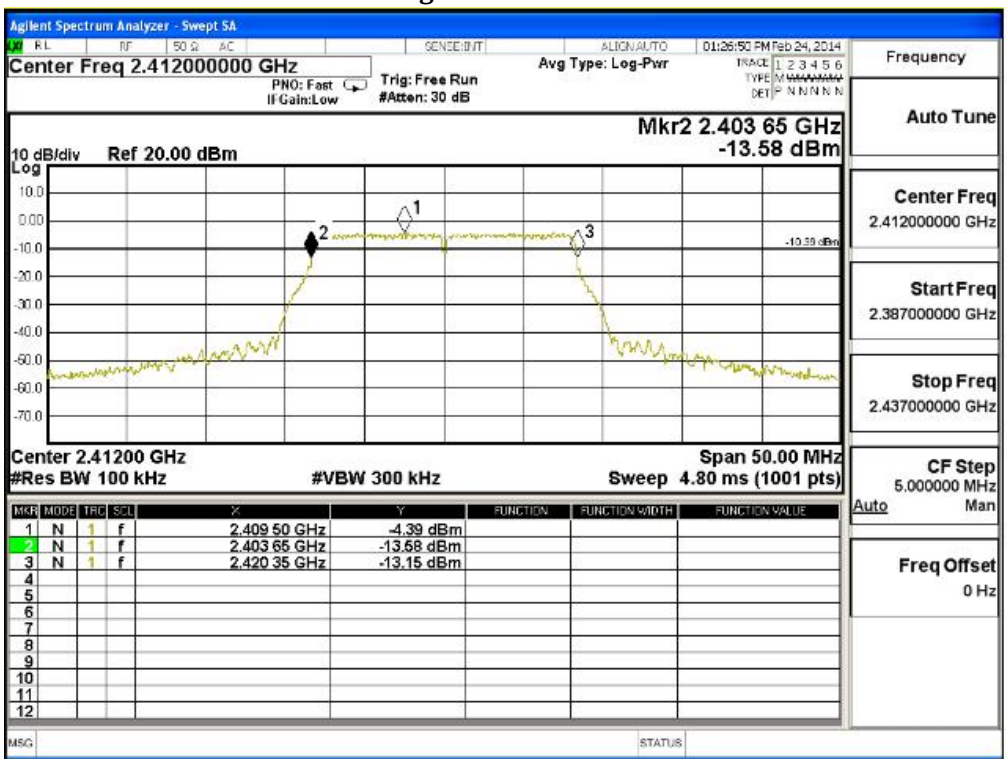
Figure Channel 11:



Product : IP COMMUNICATION TERMINAL
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412	16700	>500	Pass

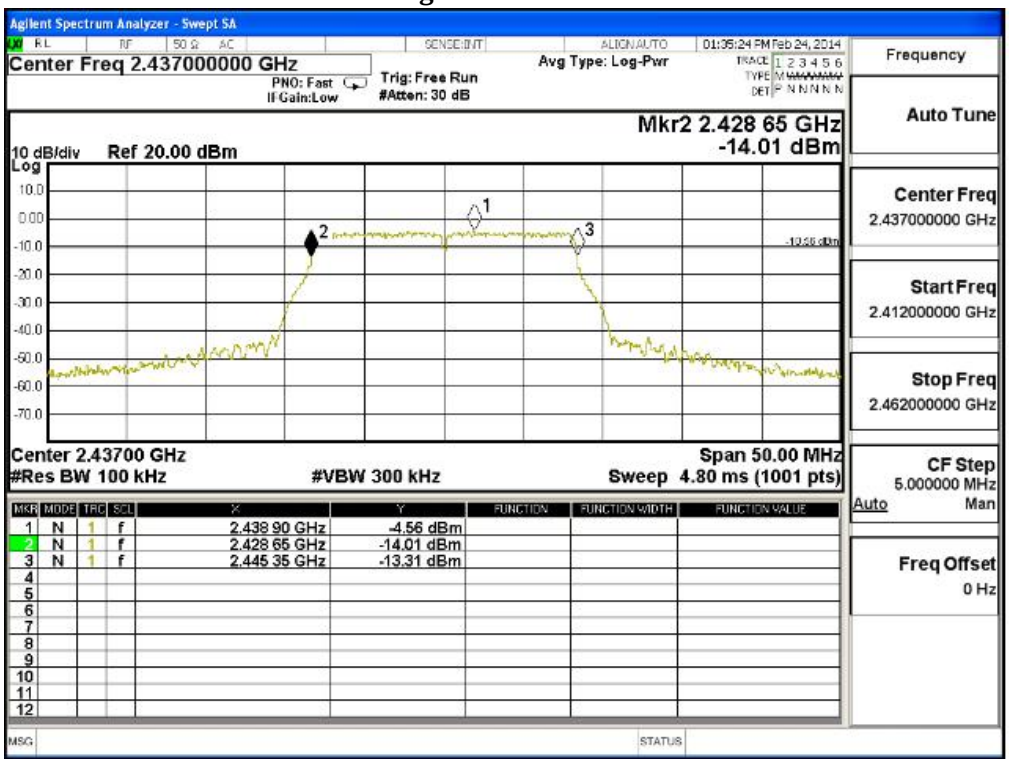
Figure Channel 1:



Product : IP COMMUNICATION TERMINAL
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437	16700	>500	Pass

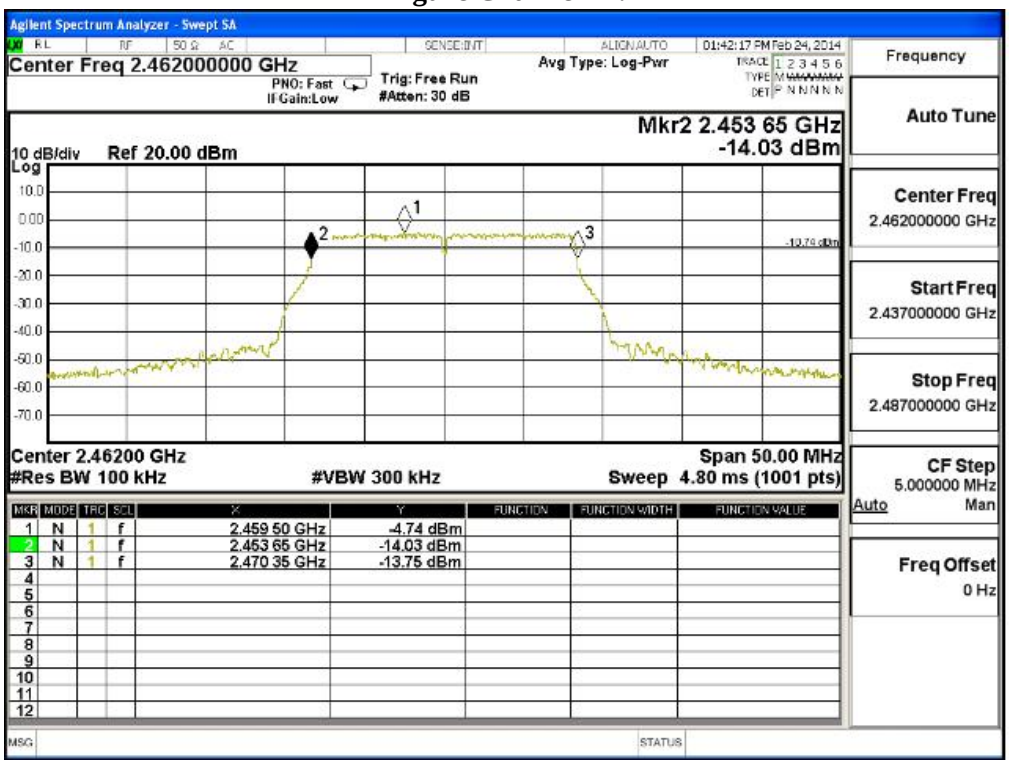
Figure Channel 6:



Product : IP COMMUNICATION TERMINAL
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462	16700	>500	Pass

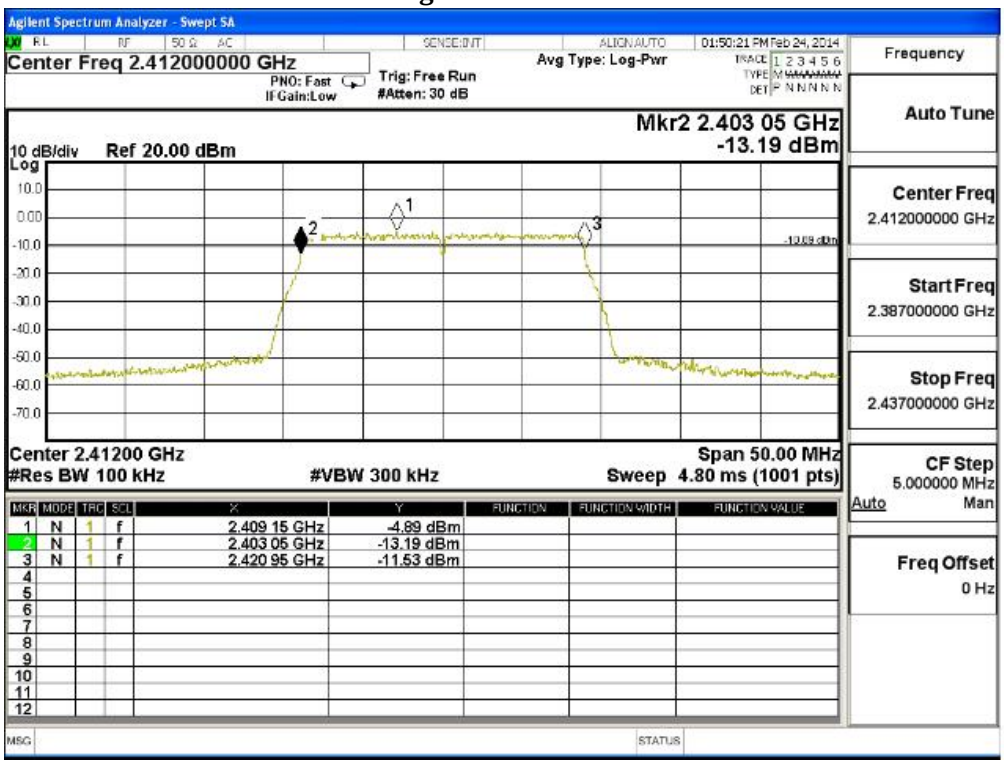
Figure Channel 11:



Product : IP COMMUNICATION TERMINAL
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412	17900	>500	Pass

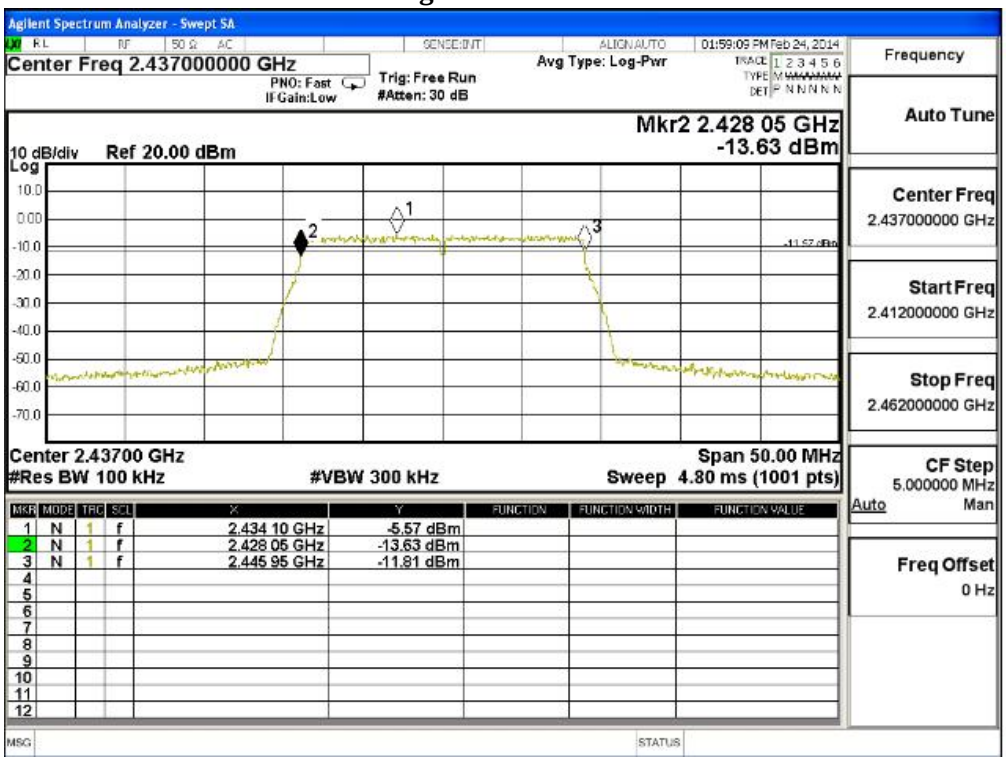
Figure Channel 1:



Product : IP COMMUNICATION TERMINAL
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437	17900	>500	Pass

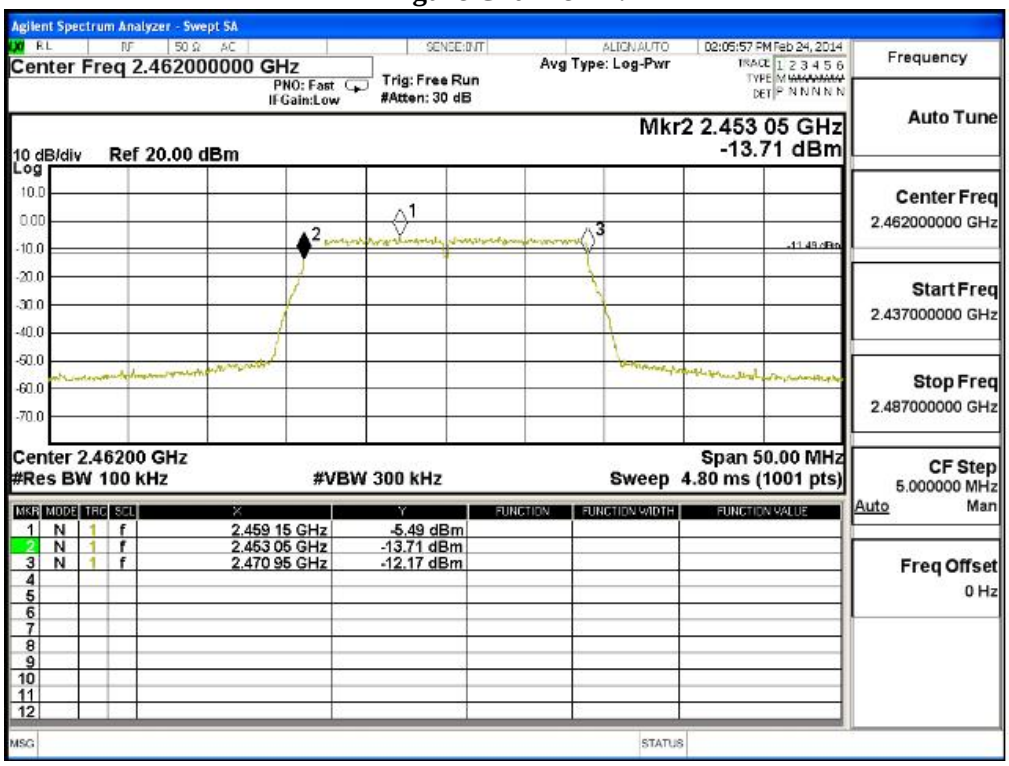
Figure Channel 6:



Product : IP COMMUNICATION TERMINAL
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462	17900	>500	Pass

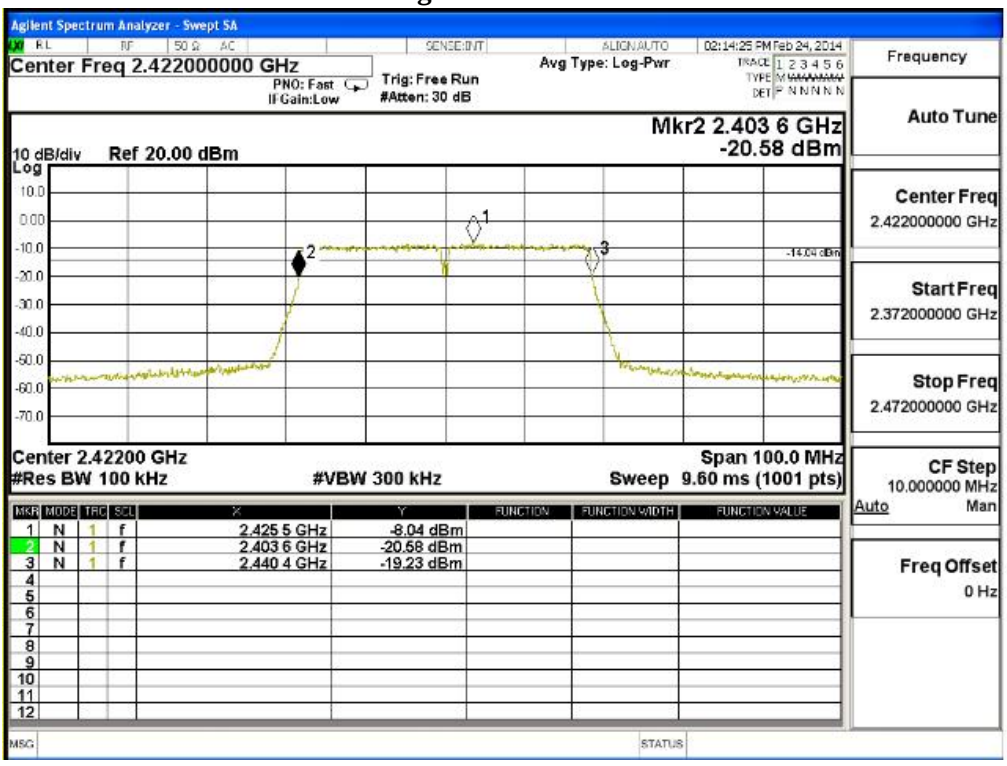
Figure Channel 11:



Product : IP COMMUNICATION TERMINAL
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2422MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
3	2422	36800	>500	Pass

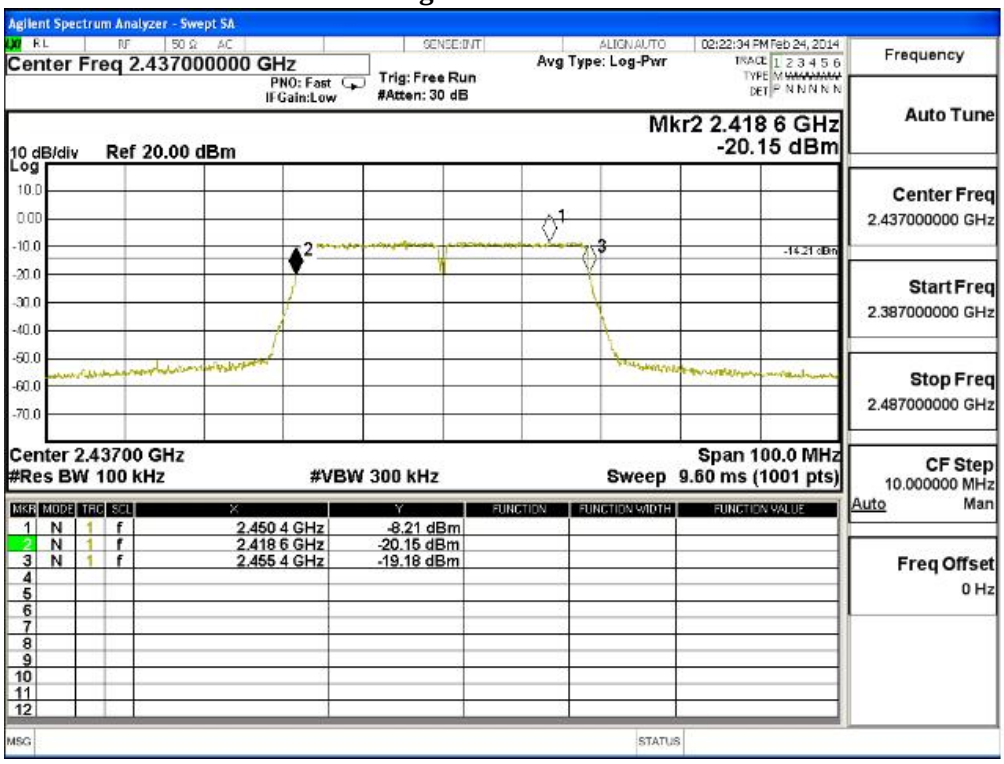
Figure Channel 1:



Product : IP COMMUNICATION TERMINAL
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437	36800	>500	Pass

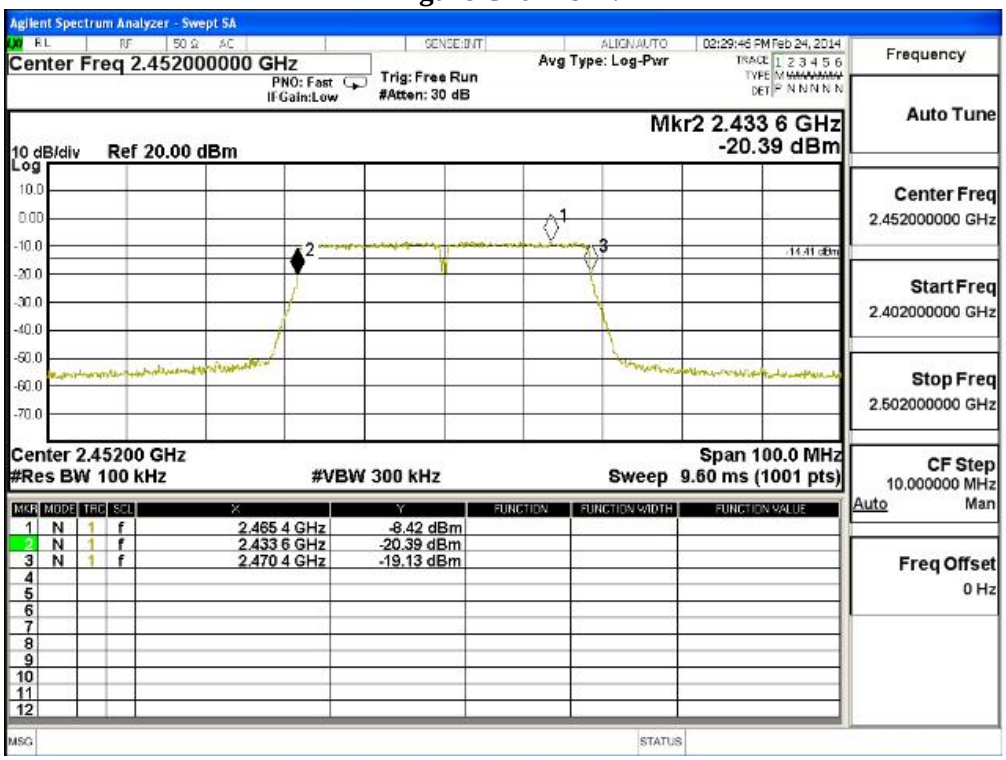
Figure Channel 4:



Product : IP COMMUNICATION TERMINAL
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2452MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
9	2452	36800	>500	Pass

Figure Channel 7:



8. Power Density

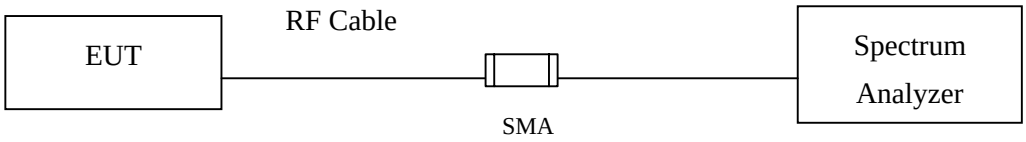
8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

8.2. Test Setup



8.3. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

8.4. Test Procedure

The EUT was setup according to ANSI C63.10, 2009; tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements.
The maximum power spectral density using KDB 558074 section 10.2 PKPSD (peak PSD) method.

8.5. Uncertainty

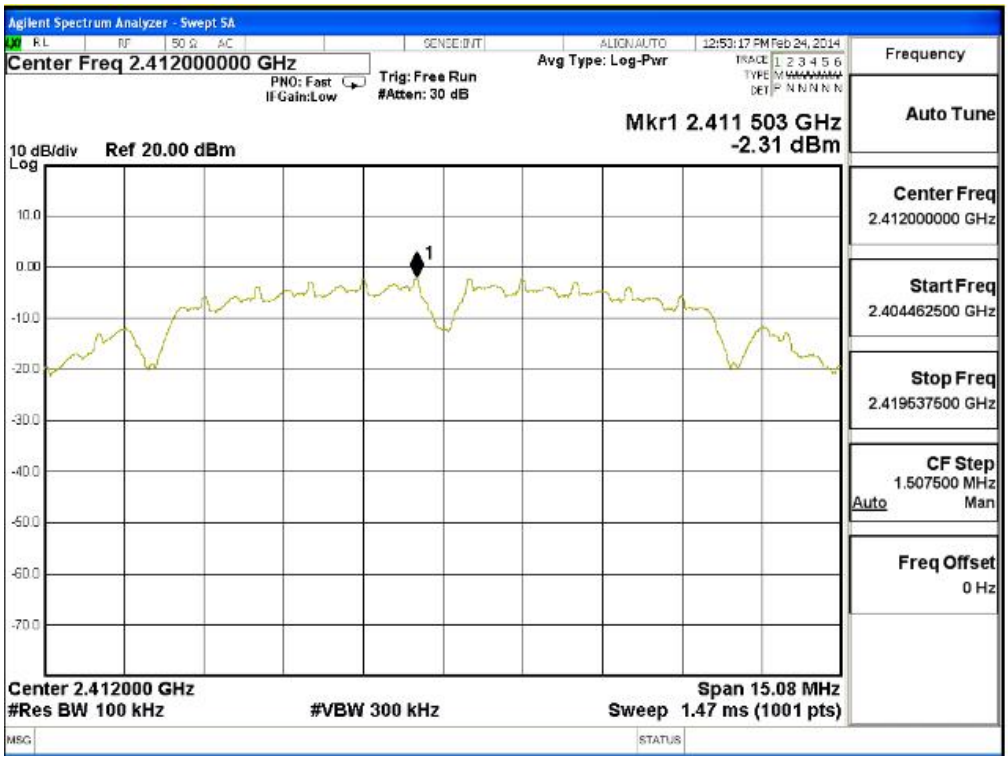
± 1.27 dB

8.6. Test Result of Power Density

Product : IP COMMUNICATION TERMINAL
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-2.310	< 8dBm	Pass

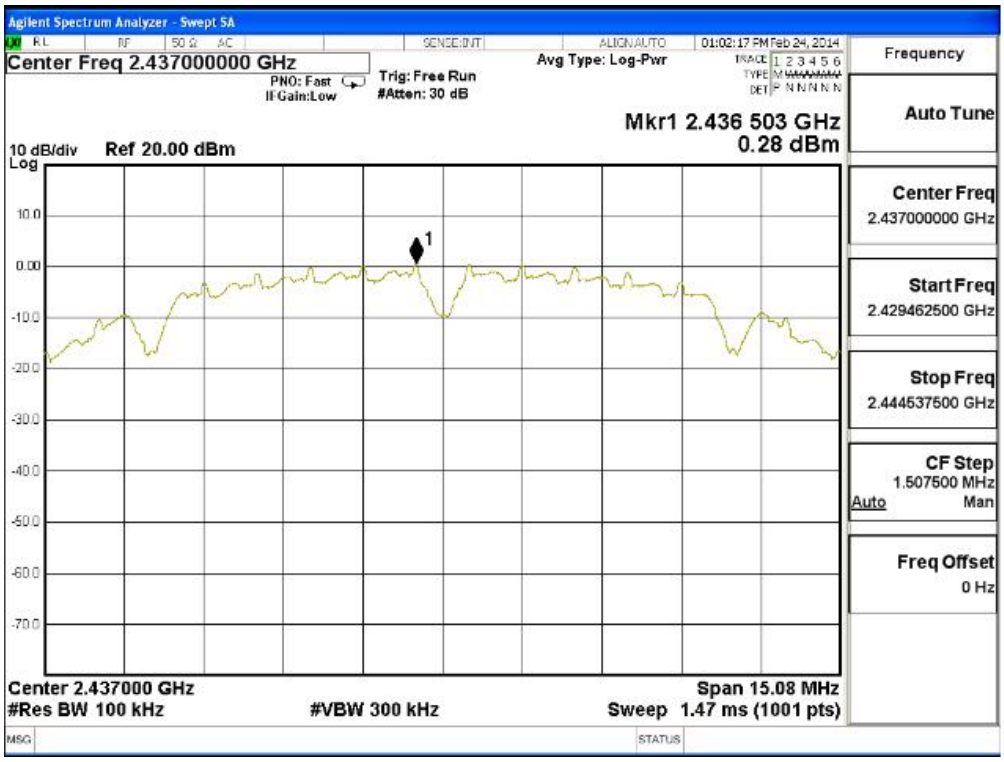
Figure Channel 1:



Product : IP COMMUNICATION TERMINAL
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437	0.280	< 8dBm	Pass

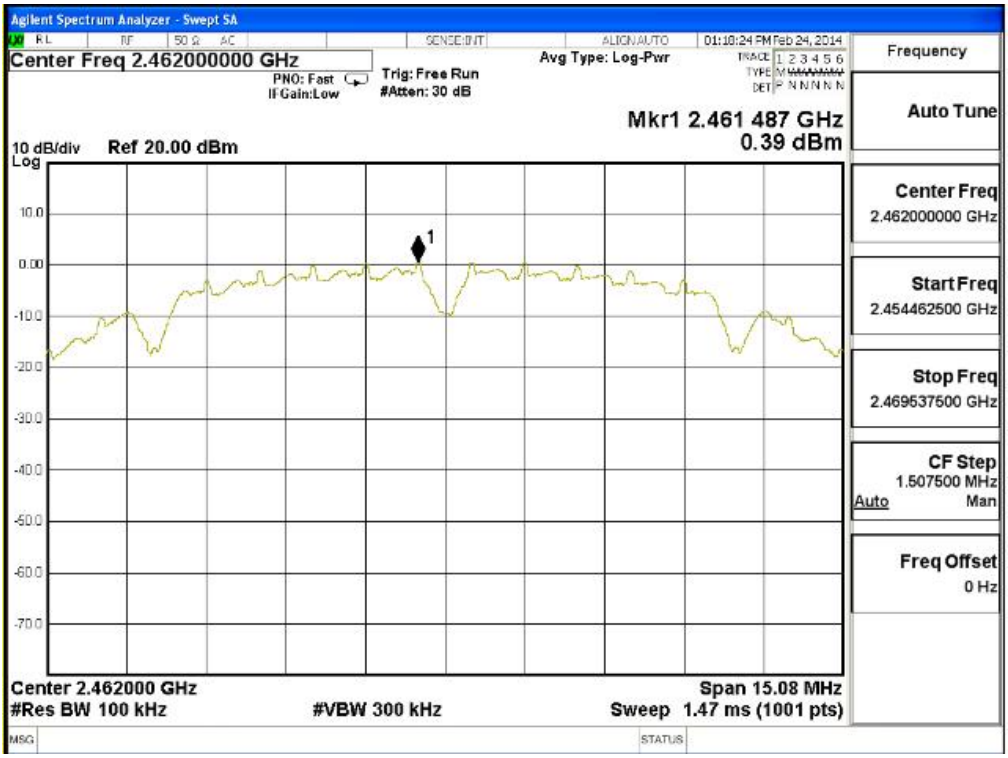
Figure Channel 6:



Product : IP COMMUNICATION TERMINAL
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462	0.390	< 8dBm	Pass

Figure Channel 11:



Product : IP COMMUNICATION TERMINAL
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-4.470	< 8dBm	Pass

Figure Channel 1:

Product : IP COMMUNICATION TERMINAL
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437	-4.640	< 8dBm	Pass

Figure Channel 6:

Product : IP COMMUNICATION TERMINAL
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

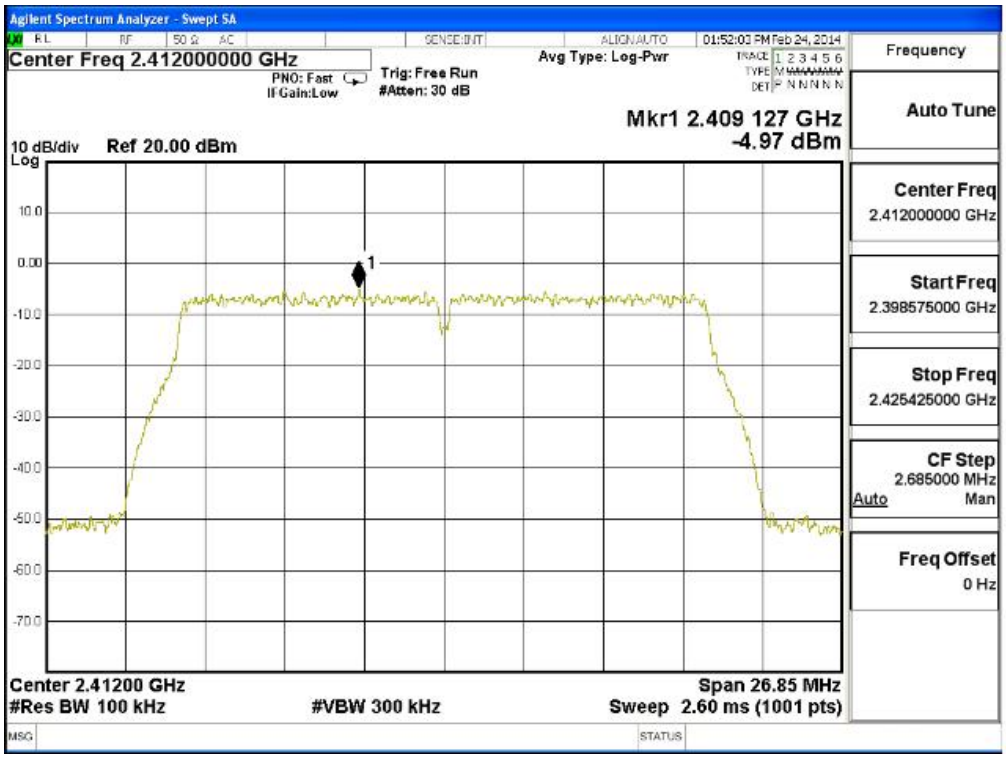
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462	-4.760	< 8dBm	Pass

Figure Channel 11:

Product : IP COMMUNICATION TERMINAL
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-4.970	< 8dBm	Pass

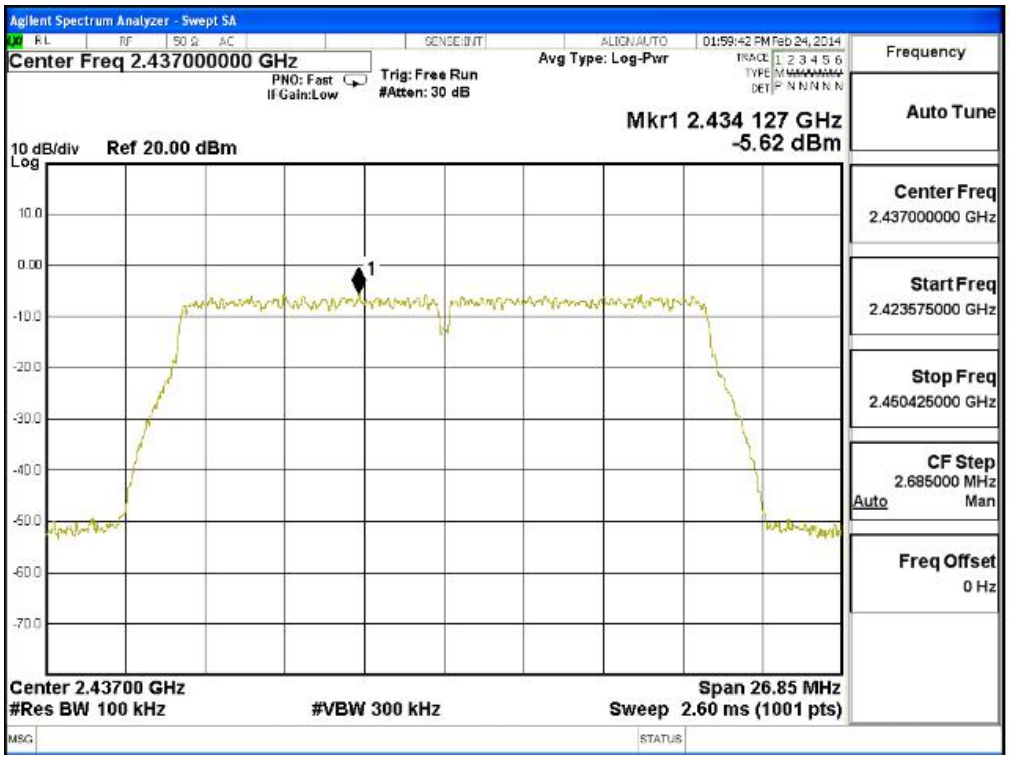
Figure Channel 1:



Product : IP COMMUNICATION TERMINAL
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437	-5.620	< 8dBm	Pass

Figure Channel 6:



Product : IP COMMUNICATION TERMINAL
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)

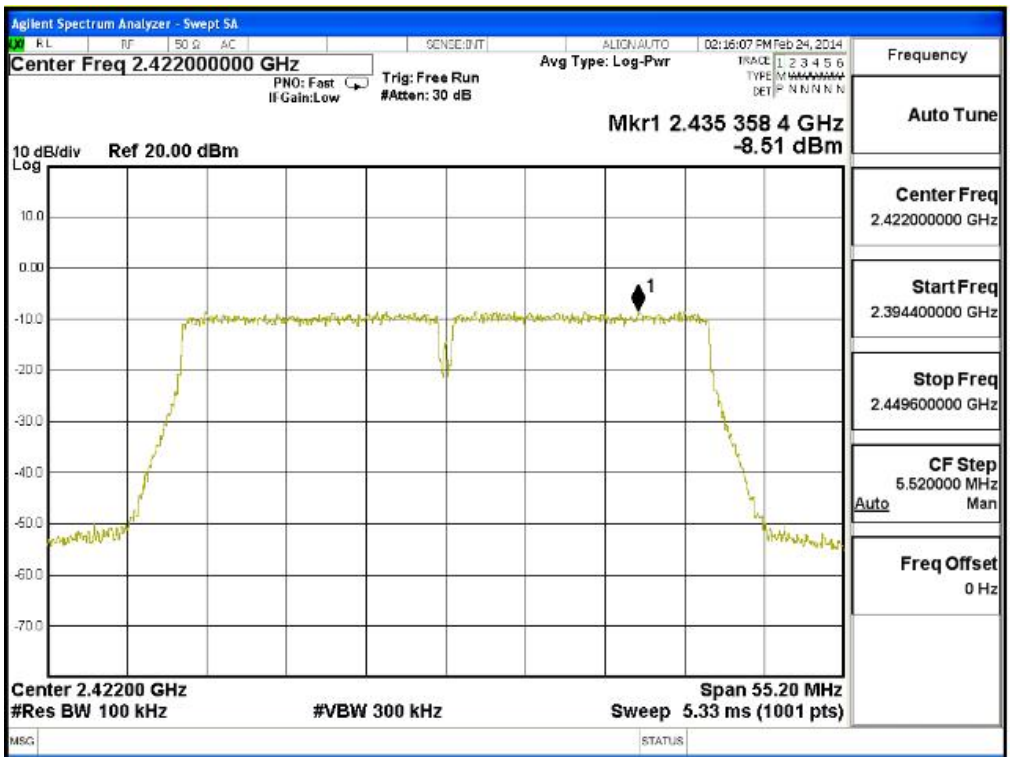
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462	-5.370	< 8dBm	Pass

Figure Channel 11:

Product : IP COMMUNICATION TERMINAL
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2422MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-8.510	< 8dBm	Pass

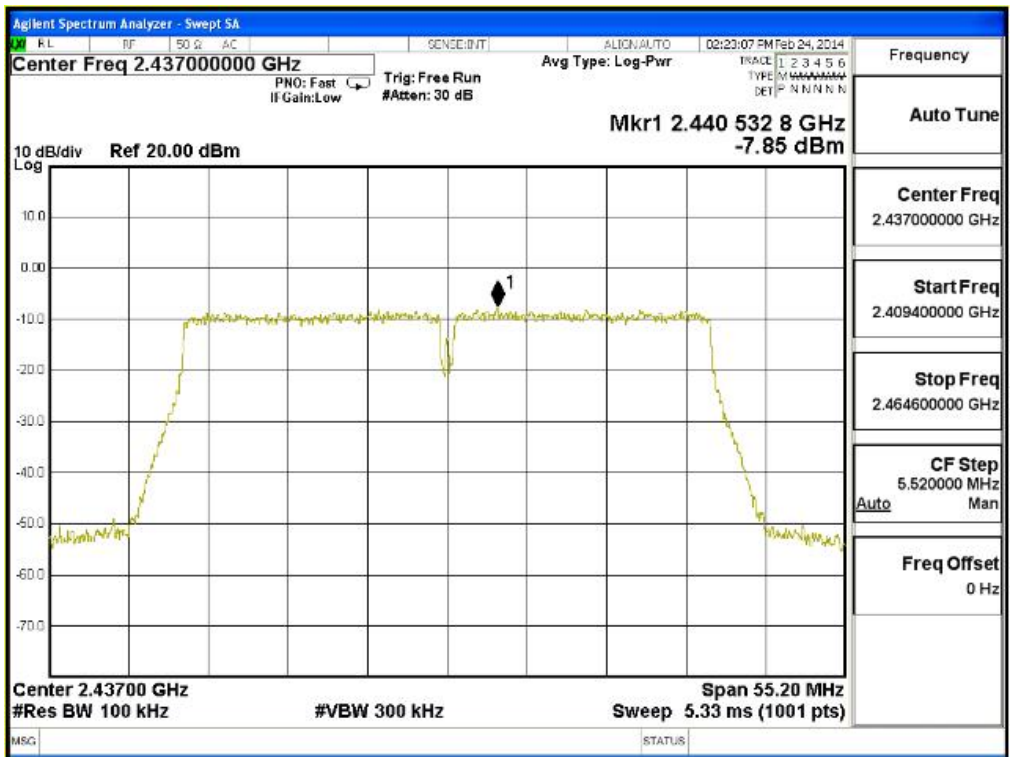
Figure Channel 1:



Product : IP COMMUNICATION TERMINAL
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437	-7.850	< 8dBm	Pass

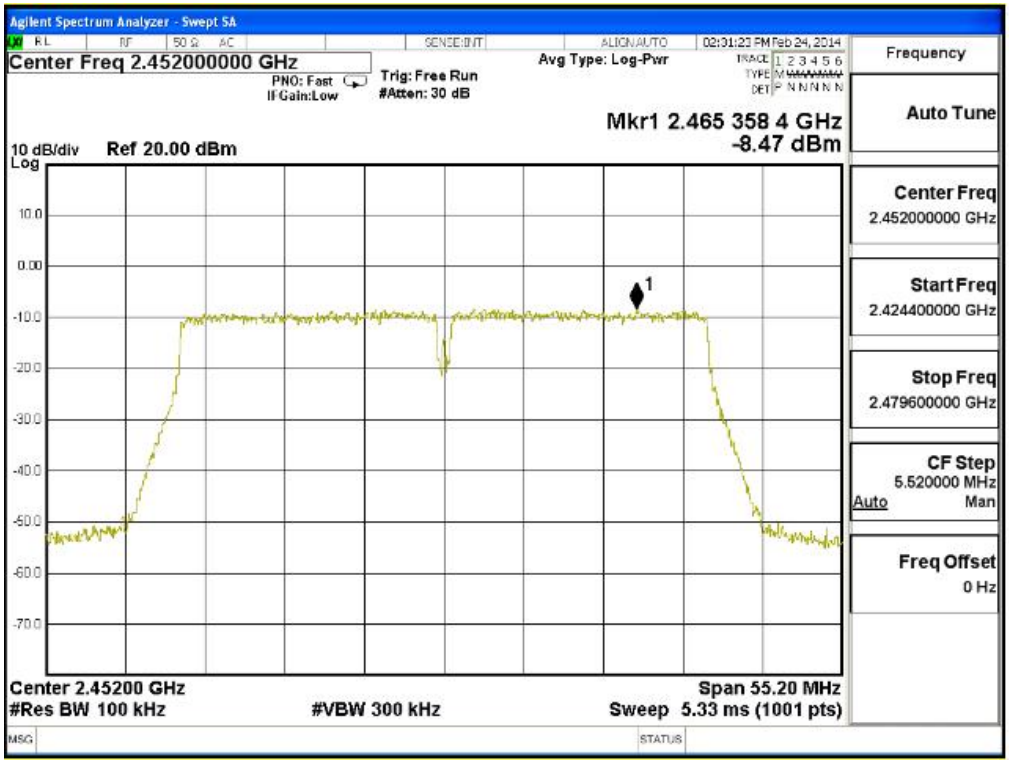
Figure Channel 4:



Product : IP COMMUNICATION TERMINAL
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2452MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
9	2452	-8.470	< 8dBm	Pass

Figure Channel 7:



9. EMI Reduction Method During Compliance Testing

No modification was made during testing.