

FCC Test Report

(Class II Permissive Change)

Product Name	Intel® Dual Band Wireless-AC 7260
Model No.	7260HMW
FCC ID.	PD97260H, PD97260HU

* FCC ID: PD97260H (For OEM factory installation)

* FCC ID: PD97260HU (For user installation)

Applicant	Intel Mobile Communications
Address	100 Center Point Circle, Suite 200 Columbia, South Carolina 29210 USA

Date of Receipt	Oct. 14, 2013
Issued Date	Oct. 28, 2013
Report No.	13A0258R-RFUSP43V01-B
Report Version	V1.0



The Test Results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of Quietek Corporation.

This report must not be used to claim product endorsement by TAF or any agency of the U.S. Government

Test Report Certification

Issued Date: Oct. 28, 2013

Report No.: 13A0258R-RFUSP43V01-B





Product Name	Intel® Dual Band Wireless-AC 7260
Applicant	Intel Mobile Communications
Address	100 Center Point Circle, Suite 200 Columbia, South Carolina 29210 USA
Manufacturer	Intel Mobile Communications
Model No.	7260HMW
FCC ID.	PD97260H, PD97260HU
EUT Rated Voltage	DC 3.3V (via Mini-PCI Express slot)
EUT Test Voltage	AC 120V/ 60Hz
Trade Name	Intel
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2012 ANSI C63.4: 2003, ANSI C63.10: 2009
Test Result	Complied

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 (Senior Adm. Specialist / Joanne Lin)

Tested By : 
 (Engineer / Nowal Kuo)


Approved By : 
 (Manager / Vincent Lin)

TABLE OF CONTENTS

Description	Page
1. GENERAL INFORMATION	4
1.1. EUT Description.....	4
1.2. Operational Description.....	6
1.3. Tested System Details.....	7
1.4. Configuration of Tested System	7
1.5. EUT Exercise Software	7
1.6. Test Facility	8
2. PEAK POWER OUTPUT	9
2.1. Test Equipment	9
2.2. Test Setup	9
2.3. Limit.....	9
2.4. Test Procedure	9
2.5. Uncertainty	9
2.6. Test Result of Peak Power Output.....	10
3. RADIATED EMISSION	14
3.1. Test Equipment	14
3.2. Test Setup	14
3.3. Limits.....	15
3.4. Test Procedure	16
3.5. Uncertainty	16
3.6. Test Result of Radiated Emission.....	17
4. BAND EDGE	25
4.1. Test Equipment.....	25
4.2. Test Setup	26
4.3. Limit.....	27
4.4. Test Procedure	27
4.5. Uncertainty	27
4.6. Test Result of Band Edge	28
5. EMI REDUCTION METHOD DURING COMPLIANCE TESTING	36
Attachment 1: EUT Test Photographs	
Attachment 2: EUT Detailed Photographs	

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Intel® Dual Band Wireless-AC 7260
Trade Name	Intel
Model No.	7260HMW
FCC ID.	PD97260H, PD97260HU
Frequency Range	2402 – 2480MHz
Channel Number	79
Type of Modulation	FHSS: GFSK(1Mbps) / π /4DQPSK(2Mbps) / 8DPSK(3Mbps)
Antenna Type	Dipole Antenna
Channel Control	Auto
Antenna Gain	Refer to the table “Antenna List”
Contain Module	Intel / 7260HMW

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	WHAYU	C642-510049-A (Tx1/ Rx1) C642-510049-A (Tx2/ Rx2)	Dipole	1.54dBi for 2.4 GHz

Note: The antenna of EUT is conform to FCC 15.203.

Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00:	2402 MHz	Channel 20:	2422 MHz	Channel 40:	2442 MHz	Channel 60:	2462 MHz
Channel 01:	2403 MHz	Channel 21:	2423 MHz	Channel 41:	2443 MHz	Channel 61:	2463 MHz
Channel 02:	2404 MHz	Channel 22:	2424 MHz	Channel 42:	2444 MHz	Channel 62:	2464 MHz
Channel 03:	2405 MHz	Channel 23:	2425 MHz	Channel 43:	2445 MHz	Channel 63:	2465 MHz
Channel 04:	2406 MHz	Channel 24:	2426 MHz	Channel 44:	2446 MHz	Channel 64:	2466 MHz
Channel 05:	2407 MHz	Channel 25:	2427 MHz	Channel 45:	2447 MHz	Channel 65:	2467 MHz
Channel 06:	2408 MHz	Channel 26:	2428 MHz	Channel 46:	2448 MHz	Channel 66:	2468 MHz
Channel 07:	2409 MHz	Channel 27:	2429 MHz	Channel 47:	2449 MHz	Channel 67:	2469 MHz
Channel 08:	2410 MHz	Channel 28:	2430 MHz	Channel 48:	2450 MHz	Channel 68:	2470 MHz
Channel 09:	2411 MHz	Channel 29:	2431 MHz	Channel 49:	2451 MHz	Channel 69:	2471 MHz
Channel 10:	2412 MHz	Channel 30:	2432 MHz	Channel 50:	2452 MHz	Channel 70:	2472 MHz
Channel 11:	2413 MHz	Channel 31:	2433 MHz	Channel 51:	2453 MHz	Channel 71:	2473 MHz
Channel 12:	2414 MHz	Channel 32:	2434 MHz	Channel 52:	2454 MHz	Channel 72:	2474 MHz
Channel 13:	2415 MHz	Channel 33:	2435 MHz	Channel 53:	2455 MHz	Channel 73:	2475 MHz
Channel 14:	2416 MHz	Channel 34:	2436 MHz	Channel 54:	2456 MHz	Channel 74:	2476 MHz
Channel 15:	2417 MHz	Channel 35:	2437 MHz	Channel 55:	2457 MHz	Channel 75:	2477 MHz
Channel 16:	2418 MHz	Channel 36:	2438 MHz	Channel 56:	2458 MHz	Channel 76:	2478 MHz
Channel 17:	2419 MHz	Channel 37:	2439 MHz	Channel 57:	2459 MHz	Channel 77:	2479 MHz
Channel 18:	2420 MHz	Channel 38:	2440 MHz	Channel 58:	2460 MHz	Channel 78:	2480 MHz
Channel 19:	2421 MHz	Channel 39:	2441 MHz	Channel 59:	2461 MHz		

Note:

1. The EUT is a Intel® Dual Band Wireless-AC 7260 with a built-in WLAN and Bluetooth V4.0 V3.0, V2.1+EDR transceiver, this report for Bluetooth V3.0, V2.1+EDR.
2. These tests were conducted on a sample for the purpose of demonstrating compliance of Bluetooth transmitter with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. Bluetooth operation was evaluated at both 1Mb/s and 3Mb/s data rates. 2Mb/s data rate was found, through pre-testing, to produce emissions similar to those for 3Mb/s.
5. This is to request a Class II permissive change for FCC ID: PD97260H, PD97260HU, originally granted on 04/04/2013.

The major change filed under this application is:

Change #1: Addition new antenna, antenna type is different with the original application.

(Antenna type: Dipole antenna)

Test Mode	Mode 1: Transmit - 1Mbps (GFSK) Mode 2: Transmit - 3Mbps (8DPSK)
-----------	---

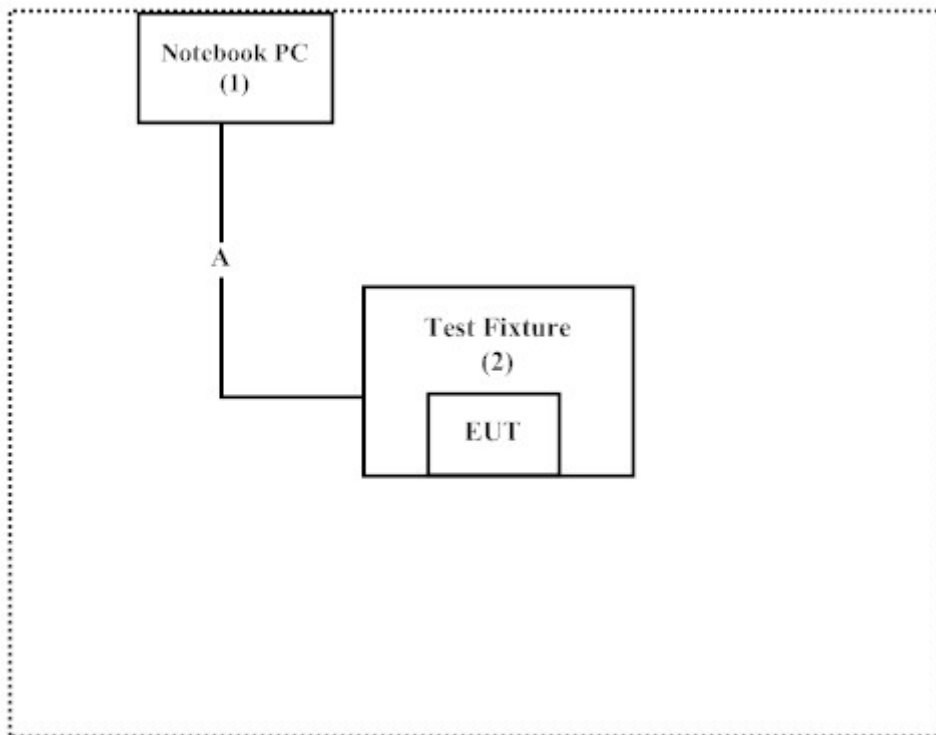
1.3. Tested System Details

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	N/A	Non-Shielded, 1.8m
2	Test Fixture	Intel	N/A	N/A

Signal Cable Type	Signal cable Description
A	Test Fixture Line Cable
	Non-Shielded, 1.0m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown in Section 1.4
- (2) Execute "DRTU Ver1.6.1-556" program on the Notebook PC.
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Start transmits continually.
- (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	30-65
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/>

Site Description: File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
Registration Number: 92195

Site Name: Quietek Corporation
Site Address: No.5-22, Ruishukeng,
Linkou Dist. New Taipei City 24451,
Taiwan, R.O.C.
TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789
E-Mail : service@quietek.com

FCC Accreditation Number: TW1014

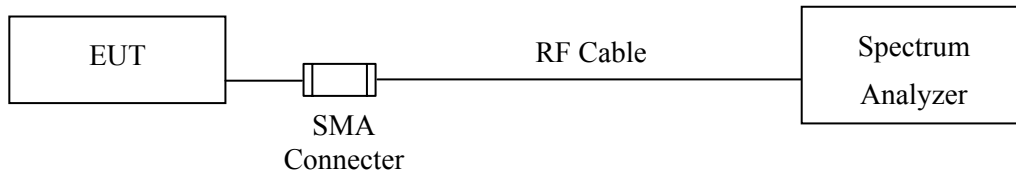
2. Peak Power Output

2.1. Test Equipment

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Power Meter	Anritsu	ML2495A/6K00003357	May, 2013
Power Sensor	Anritsu	MA2411B/0738448	Jun., 2013
X Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

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. Limit

The maximum peak power shall be less 1Watt.

2.4. Test Procedure

The EUT was setup to ANSI C63.10: 2009; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

2.5. Uncertainty

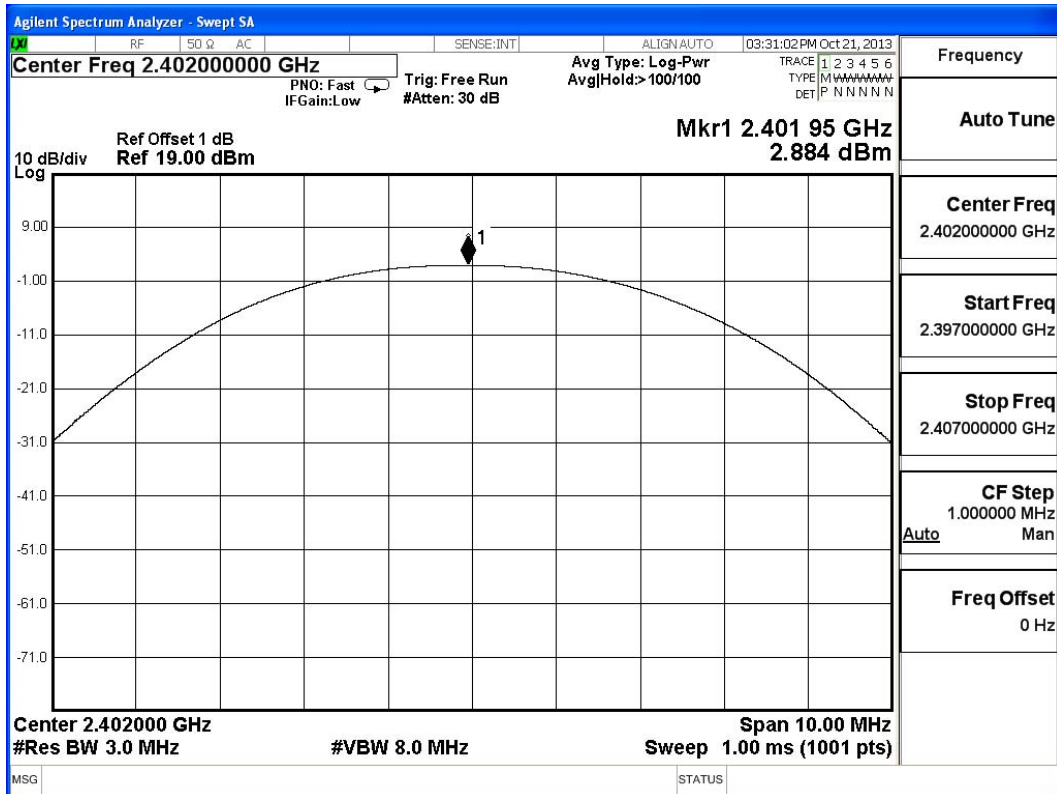
± 1.27 dB

2.6. Test Result of Peak Power Output

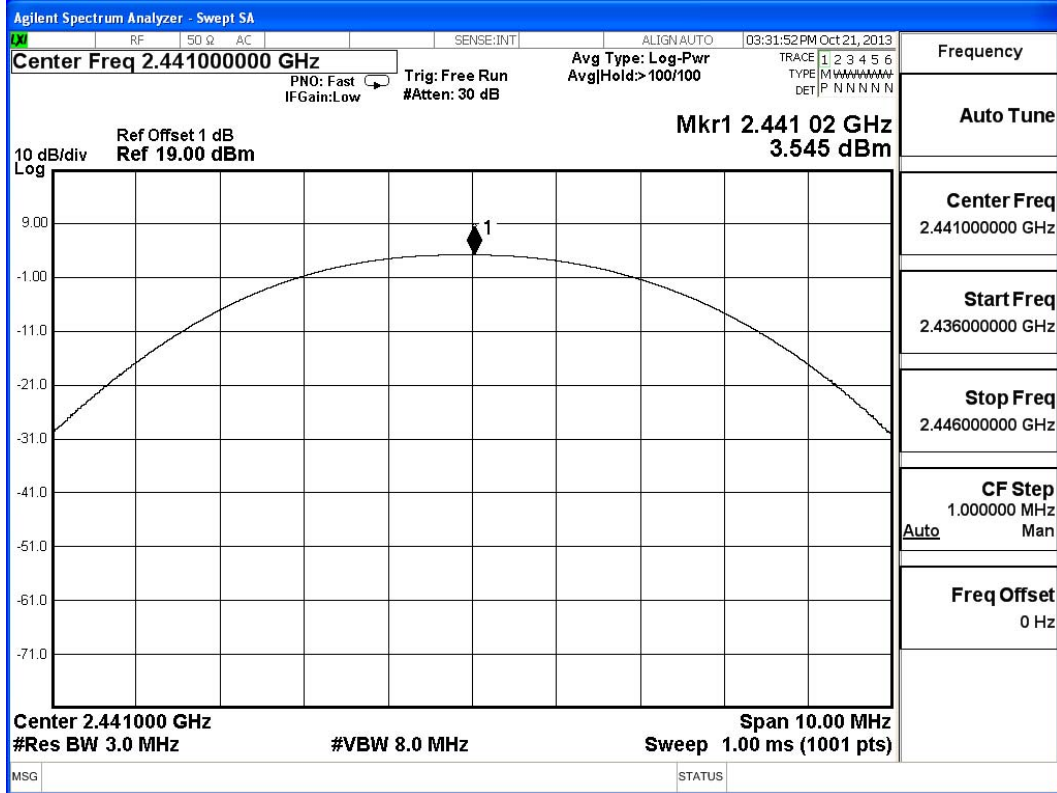
Product : Intel® Dual Band Wireless-AC 7260
 Test Item : Peak Power Output
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402.00	2.884	1 Watt= 30 dBm	Pass
Channel 39	2441.00	3.545	1 Watt= 30 dBm	Pass
Channel 78	2480.00	4.204	1 Watt= 30 dBm	Pass

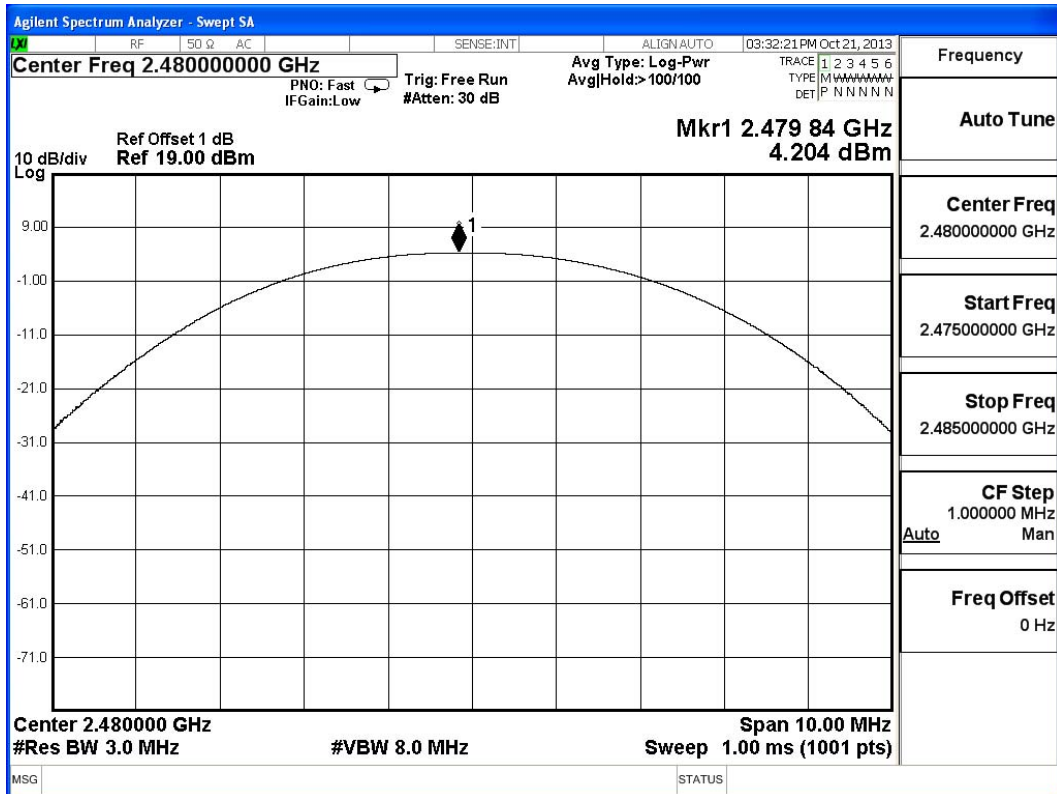
Channel 00



Channel 39



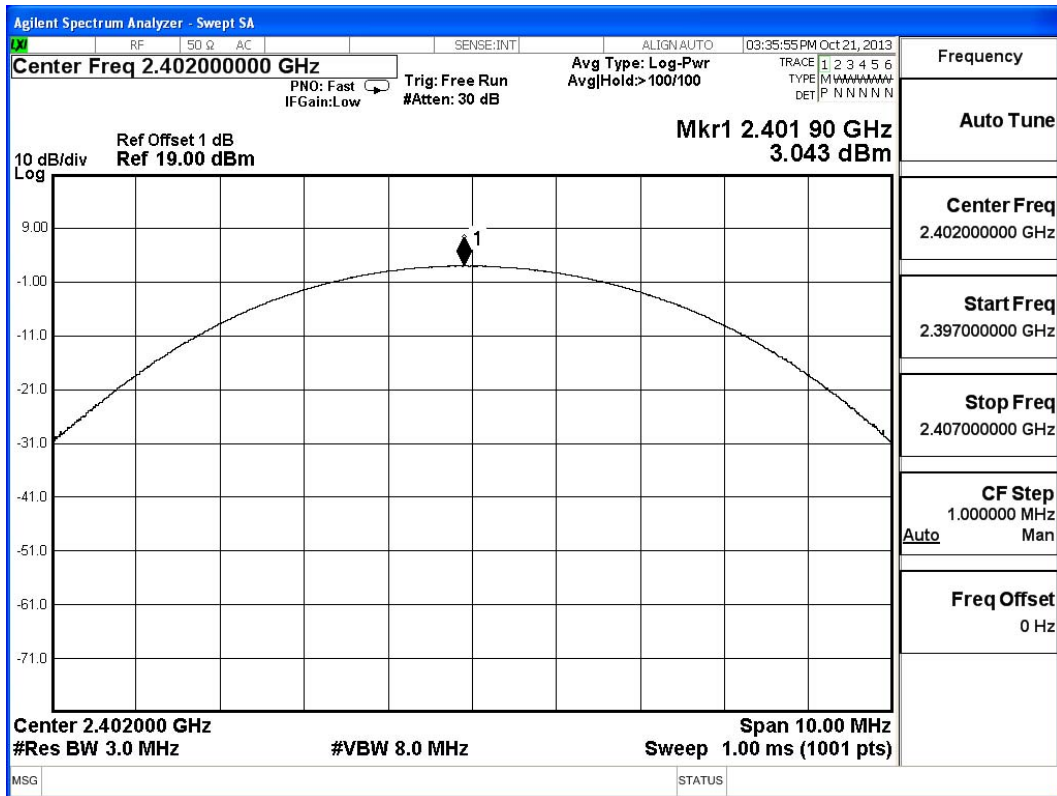
Channel 78



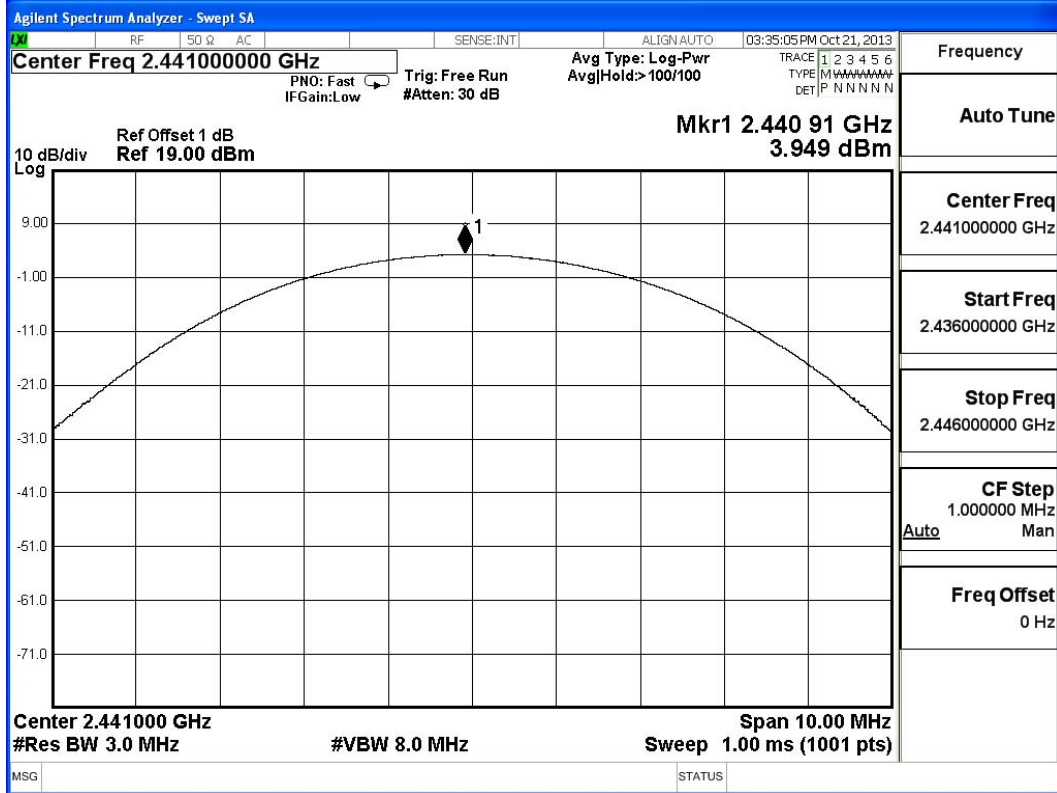
Product : Intel® Dual Band Wireless-AC 7260
 Test Item : Peak Power Output
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402.00	3.043	1 Watt= 30 dBm	Pass
Channel 39	2441.00	3.949	1 Watt= 30 dBm	Pass
Channel 78	2480.00	4.578	1 Watt= 30 dBm	Pass

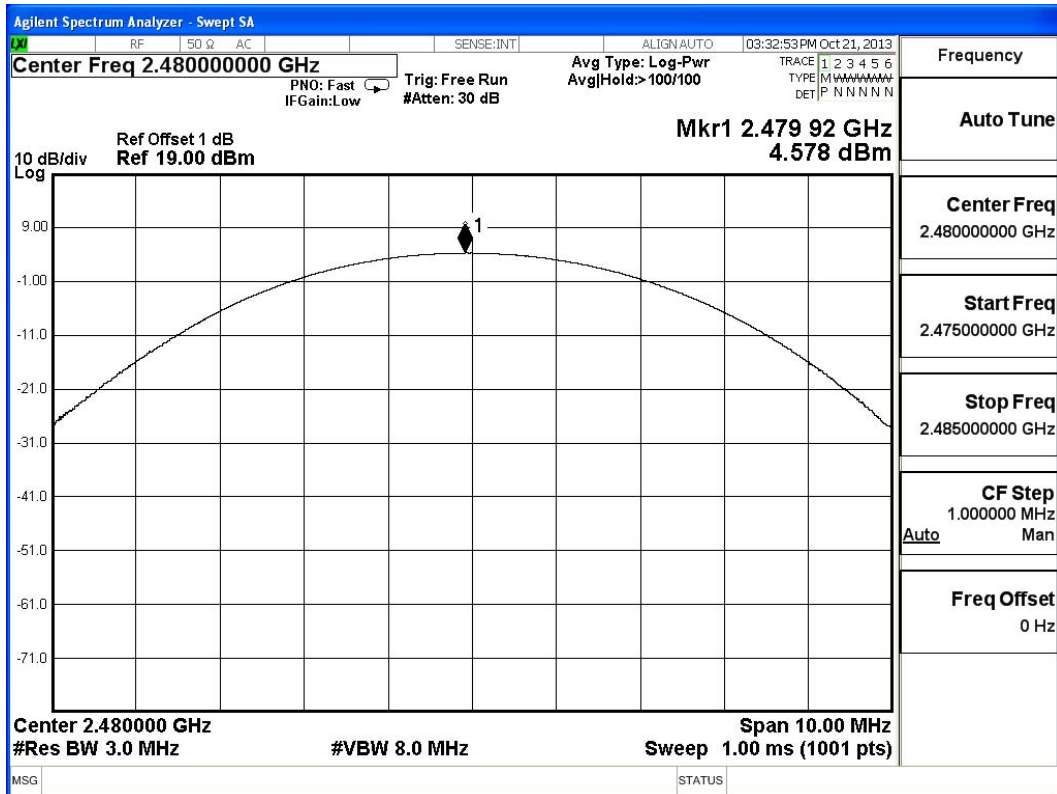
Channel 00



Channel 39



Channel 78



3. Radiated Emission

3.1. Test Equipment

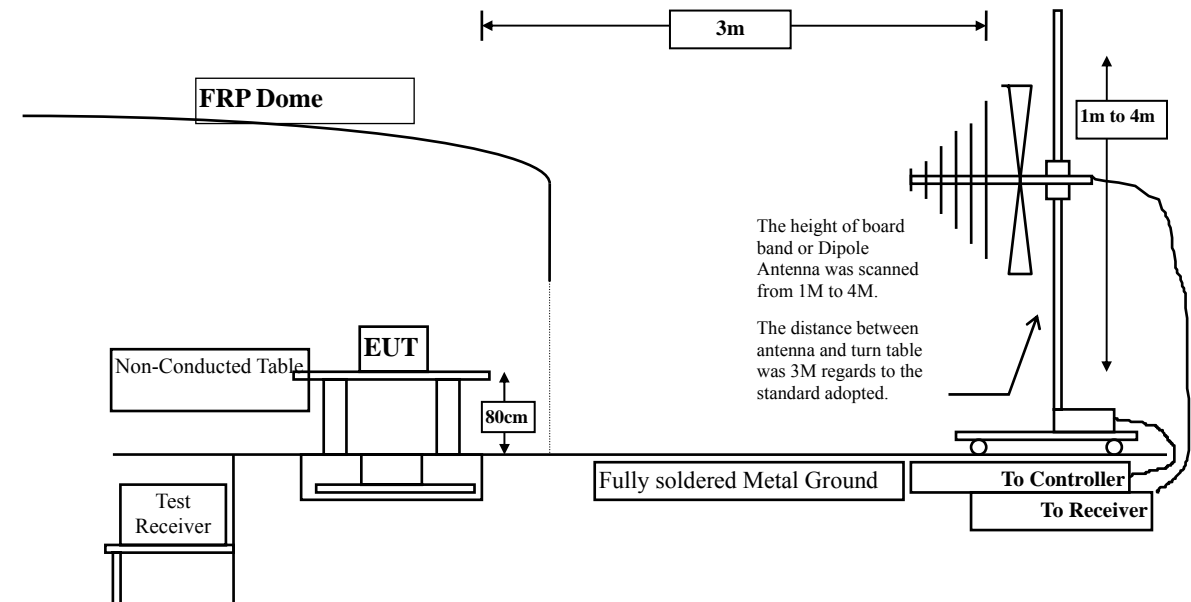
The following test equipments are used during the radiated emission test:

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., 2013
	X	Controller	Quietek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

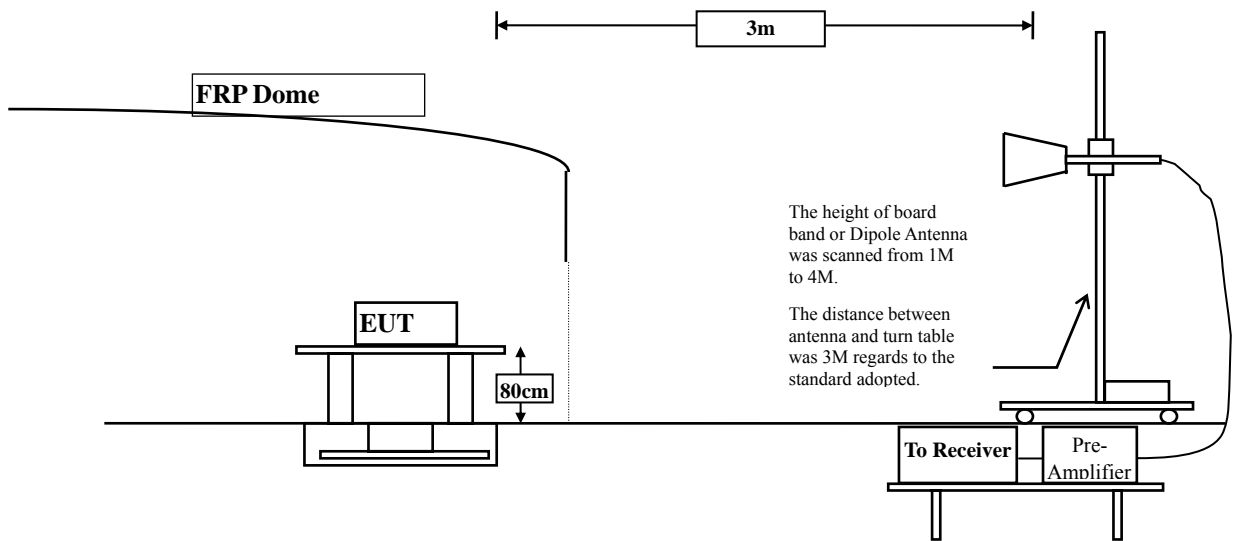
- Note:
1. All equipments are calibrated every one year.
 2. The test instruments marked by "X" are used to measure the final test results.

3.2. Test Setup

Below 1GHz



Above 1GHz



3.3. Limits

➤ General Radiated Emission 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 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:
1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
 2. In the Above Table, the tighter limit applies at the band edges.
 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3.4. Test Procedure

The EUT was setup according to ANSI C63.10, 2009 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 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.

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 on the Final Measurement.

The measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.

3.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

3.6. Test Result of Radiated Emission

Product : Intel® Dual Band Wireless-AC 7260
 Test Item : Harmonic Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2402MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4804.000	3.327	39.730	43.057	-30.943	74.000
7206.000	10.136	36.260	46.396	-27.604	74.000
9608.000	13.706	35.890	49.596	-24.404	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4804.000	6.638	41.020	47.657	-26.343	74.000
7260.000	11.885	36.550	48.435	-25.565	74.000
9608.000	14.103	35.980	50.083	-23.917	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 : Intel® Dual Band Wireless-AC 7260
 Test Item : Harmonic Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2441MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4882.000	3.001	39.940	42.941	-31.059	74.000
7323.000	11.846	36.460	48.307	-25.693	74.000
9764.000	12.563	36.030	48.593	-25.407	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4882.000	5.713	40.430	46.144	-27.856	74.000
7323.000	12.727	36.720	49.448	-24.552	74.000
9764.000	13.028	35.990	49.018	-24.982	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 : Intel® Dual Band Wireless-AC 7260
 Test Item : Harmonic Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2480MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4960.000	2.760	36.820	39.580	-34.420	74.000
7440.000	12.567	35.780	48.346	-25.654	74.000
9920.000	13.456	35.790	49.246	-24.754	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4960.000	5.557	40.780	46.337	-27.663	74.000
7440.000	13.426	36.210	49.635	-24.365	74.000
9920.000	13.958	35.450	49.408	-24.592	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 : Intel® Dual Band Wireless-AC 7260
 Test Item : Harmonic Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)(2402MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4804.000	3.327	40.870	44.197	-29.803	74.000
7206.000	10.136	36.910	47.046	-26.954	74.000
9608.000	13.706	35.700	49.406	-24.594	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4804.000	6.638	41.020	47.657	-26.343	74.000
7206.000	11.005	36.100	47.105	-26.895	74.000
9608.000	14.103	35.700	49.803	-24.197	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 : Intel® Dual Band Wireless-AC 7260
 Test Item : Harmonic Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4882.000	3.001	40.840	43.841	-30.159	74.000
7323.000	11.846	36.530	48.377	-25.623	74.000
9764.000	12.563	36.430	48.993	-25.007	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4882.000	5.713	41.130	46.844	-27.156	74.000
7323.000	12.727	36.240	48.968	-25.032	74.000
9764.000	13.028	35.940	48.968	-25.032	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 : Intel® Dual Band Wireless-AC 7260
 Test Item : Harmonic Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2480MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4960.000	2.760	40.380	43.140	-30.860	74.000
7440.000	12.567	35.560	48.126	-25.874	74.000
9920.000	13.456	35.490	48.946	-25.054	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4960.000	5.557	40.750	46.307	-27.693	74.000
7440.000	13.426	36.500	49.925	-24.075	74.000
9920.000	13.958	35.950	49.908	-24.092	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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Intel® Dual Band Wireless-AC 7260
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2441MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
150.280	-10.194	45.555	35.361	-8.139	43.500
299.660	-3.585	39.639	36.054	-9.946	46.000
460.680	1.589	29.256	30.845	-15.155	46.000
600.360	3.977	32.042	36.019	-9.981	46.000
730.340	3.395	28.223	31.618	-14.382	46.000
866.140	5.596	34.314	39.910	-6.090	46.000
Vertical					
156.100	-6.201	23.994	17.792	-25.708	43.500
340.400	-3.899	23.622	19.723	-26.277	46.000
501.420	-0.795	22.439	21.644	-24.356	46.000
641.100	-3.972	23.593	19.621	-26.379	46.000
804.060	3.587	22.829	26.416	-19.584	46.000
965.080	7.932	23.572	31.504	-22.496	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 : Intel® Dual Band Wireless-AC 7260
 Test Item : General Radiated Emission
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
142.520	-10.427	49.290	38.863	-4.637	43.500
268.620	-4.942	42.454	37.512	-8.488	46.000
398.600	-2.268	35.595	33.327	-12.673	46.000
532.460	1.957	24.036	25.993	-20.007	46.000
666.320	2.031	28.896	30.928	-15.072	46.000
862.260	5.641	31.746	37.387	-8.613	46.000
Vertical					
173.560	-8.444	33.208	24.765	-18.735	43.500
301.600	-6.785	23.782	16.998	-29.002	46.000
460.680	-3.221	24.807	21.586	-24.414	46.000
604.240	-1.740	22.207	20.467	-25.533	46.000
800.180	2.801	22.133	24.934	-21.066	46.000
957.320	6.789	24.340	31.129	-14.871	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.

4. Band Edge

4.1. Test Equipment

RF Conducted Measurement

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

	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

RF Radiated Measurement:

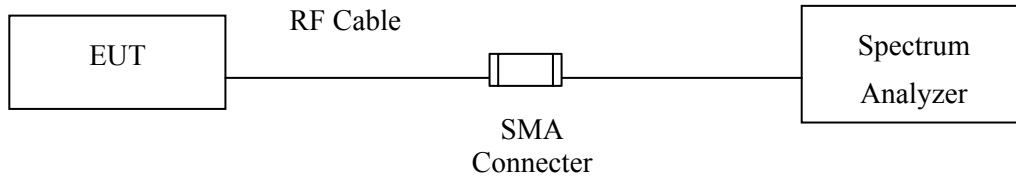
The following test equipments are used during the band edge tests:

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., 2013
	X	Controller	Quietek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

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

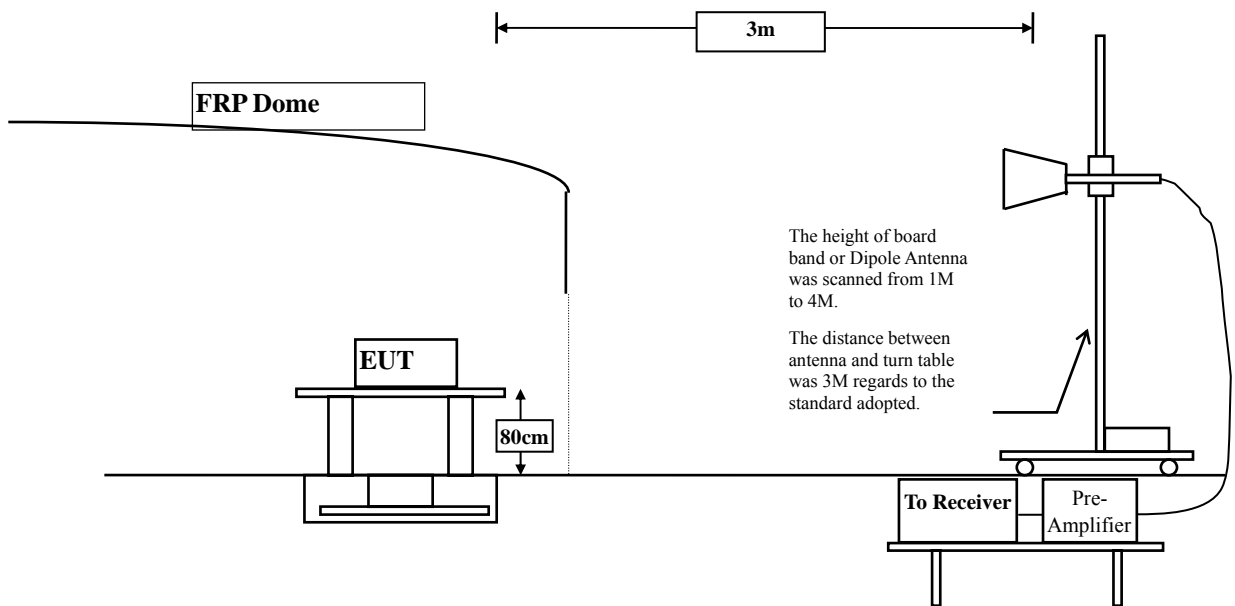
4.2. Test Setup

RF Conducted Measurement



RF Radiated Measurement:

Above 1GHz



4.3. Limit

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)).

4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 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 can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2009 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz. The EUT was setup to ANSI C63.10: 2009; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

4.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

4.6. Test Result of Band Edge

Product : Intel® Dual Band Wireless-AC 7260
 Test Item : Band Edge
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2361.800	-1.242	45.095	43.853	74.00	54.00	Pass
00 (Peak)	2390.000	-1.131	37.700	36.569	74.00	54.00	Pass
00 (Peak)	2402.200	-1.072	92.997	91.926	--	--	Pass
00 (Average)	2361.800	-1.242	37.711	36.469	74.00	54.00	Pass
00 (Average)	2390.000	-1.131	27.012	25.881	74.00	54.00	Pass
00 (Average)	2402.000	-1.073	78.202	77.130	--	--	Pass

Figure Channel 00: Horizontal (Peak)

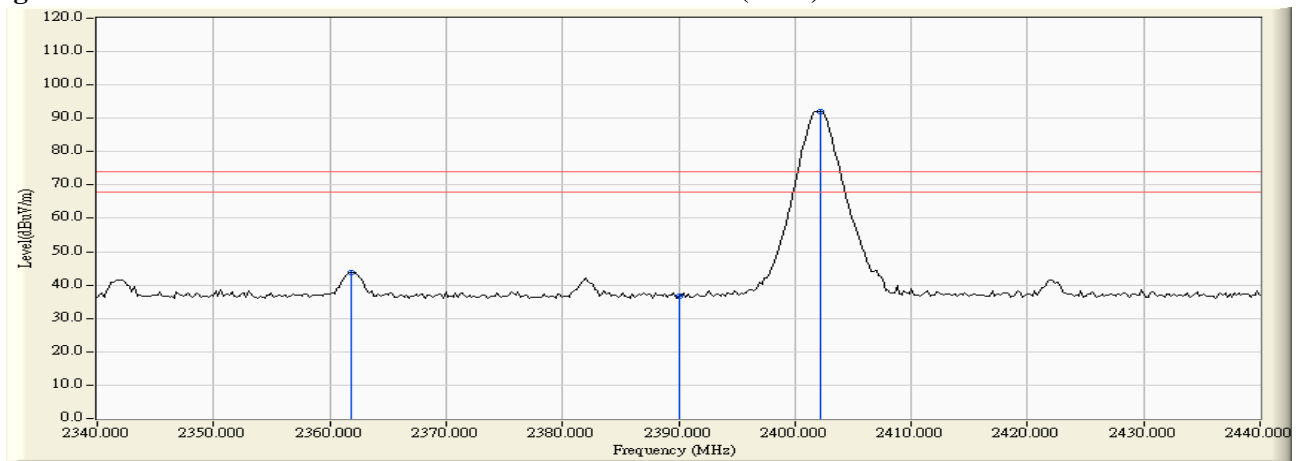
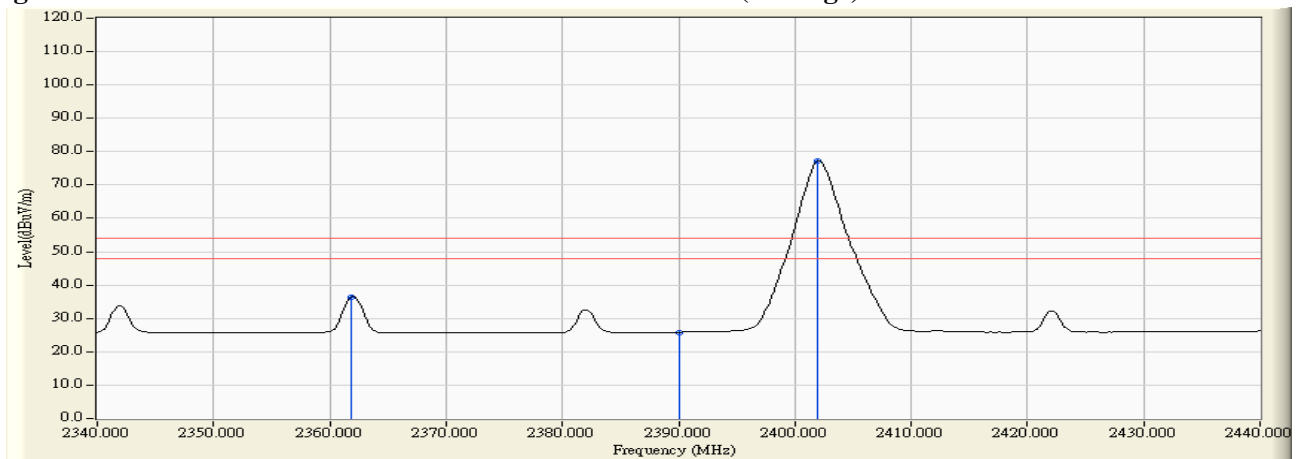


Figure Channel 00: Horizontal (Average)



- 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 : Intel® Dual Band Wireless-AC 7260
 Test Item : Band Edge
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2362.000	-1.595	47.951	46.356	74.00	54.00	Pass
00 (Peak)	2390.000	-1.725	41.711	39.986	74.00	54.00	Pass
00 (Peak)	2402.200	-1.729	99.294	97.566	--	--	Pass
00 (Average)	2361.800	-1.594	41.072	39.478	74.00	54.00	Pass
00 (Average)	2390.000	-1.725	27.328	25.603	74.00	54.00	Pass
00 (Average)	2402.000	-1.729	83.358	81.629	--	--	Pass

Figure Channel 00: Vertical (Peak)

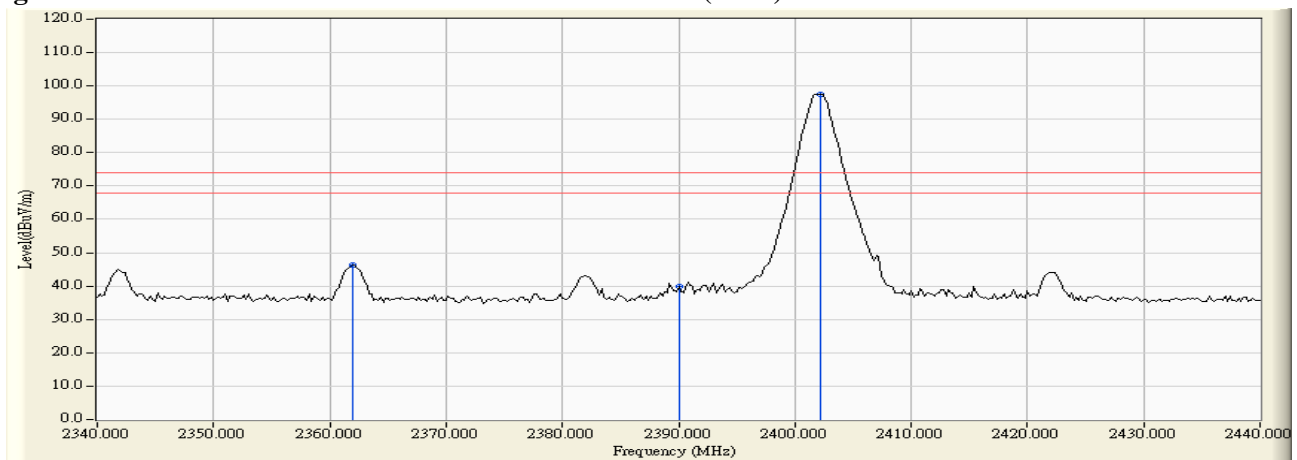
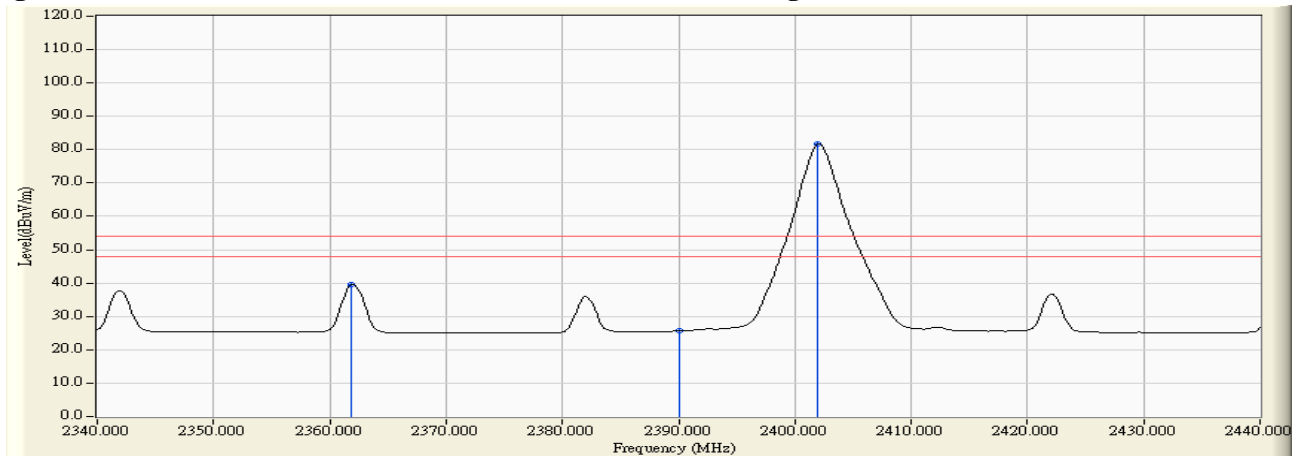


Figure Channel 00: Vertical (Average)



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 : Intel® Dual Band Wireless-AC 7260
 Test Item : Band Edge
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2479.700	-0.581	93.004	92.422	--	--	Pass
78 (Peak)	2483.500	-0.558	54.400	53.842	74.00	54.00	Pass
78 (Average)	2480.100	-0.580	78.079	77.499	--	--	Pass
78 (Average)	2483.500	-0.558	47.244	46.686	74.00	54.00	Pass

Figure Channel 78: Horizontal (Peak)

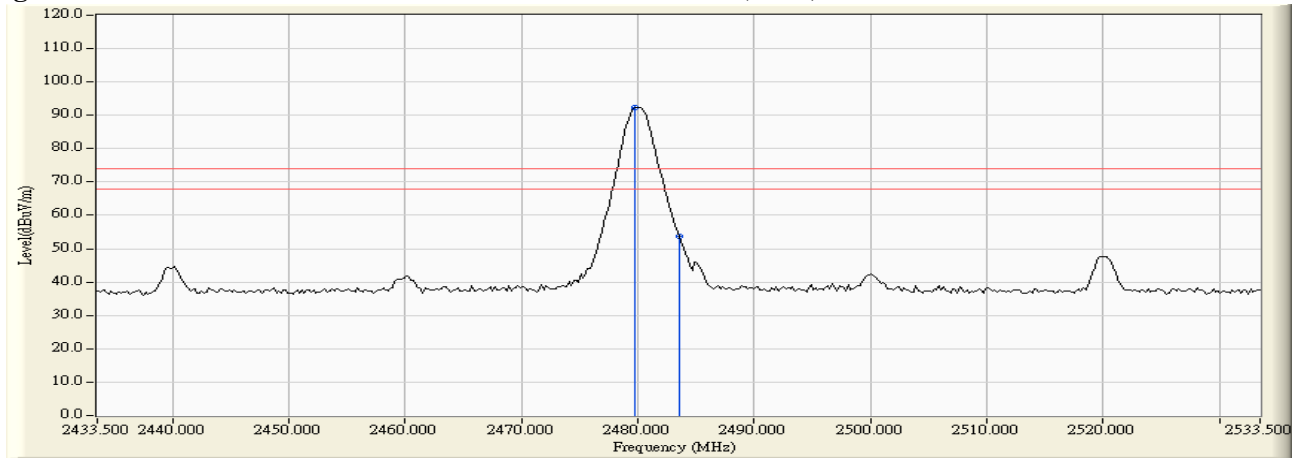
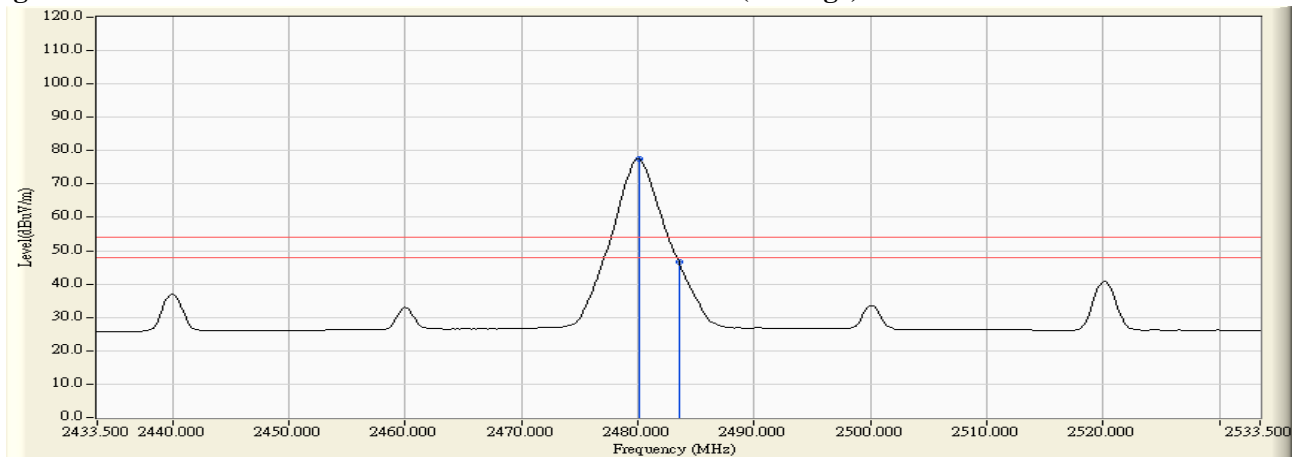


Figure Channel 78: Horizontal (Average)



- 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 : Intel® Dual Band Wireless-AC 7260
 Test Item : Band Edge
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2479.700	-1.325	100.309	98.983	--	--	Pass
78 (Peak)	2483.500	-1.305	61.905	60.600	74.00	54.00	Pass
78 (Average)	2480.100	-1.324	83.826	82.502	--	--	Pass
78 (Average)	2483.500	-1.305	52.850	51.545	74.00	54.00	Pass

Figure Channel 78: Vertical (Peak)

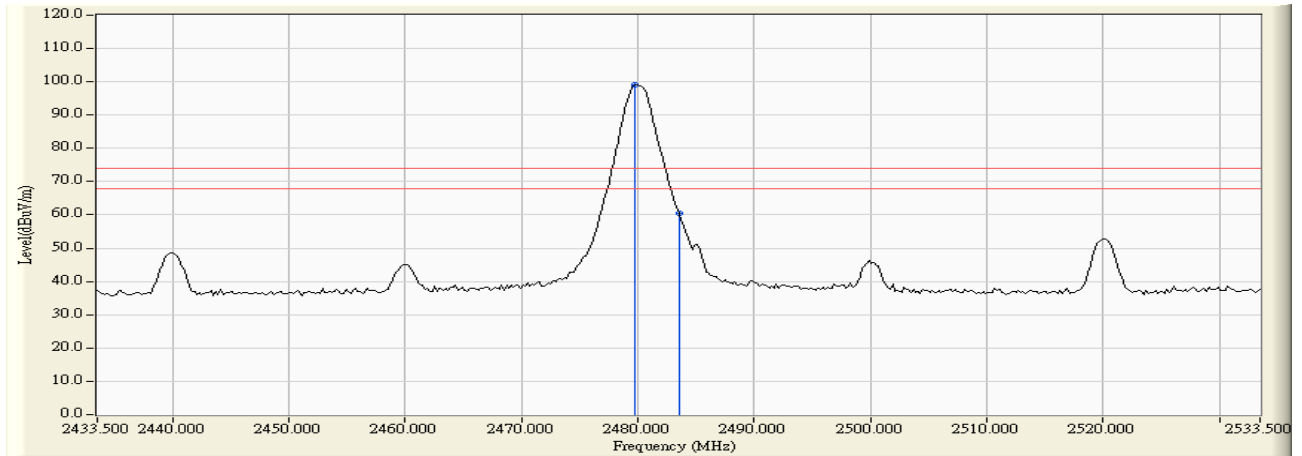
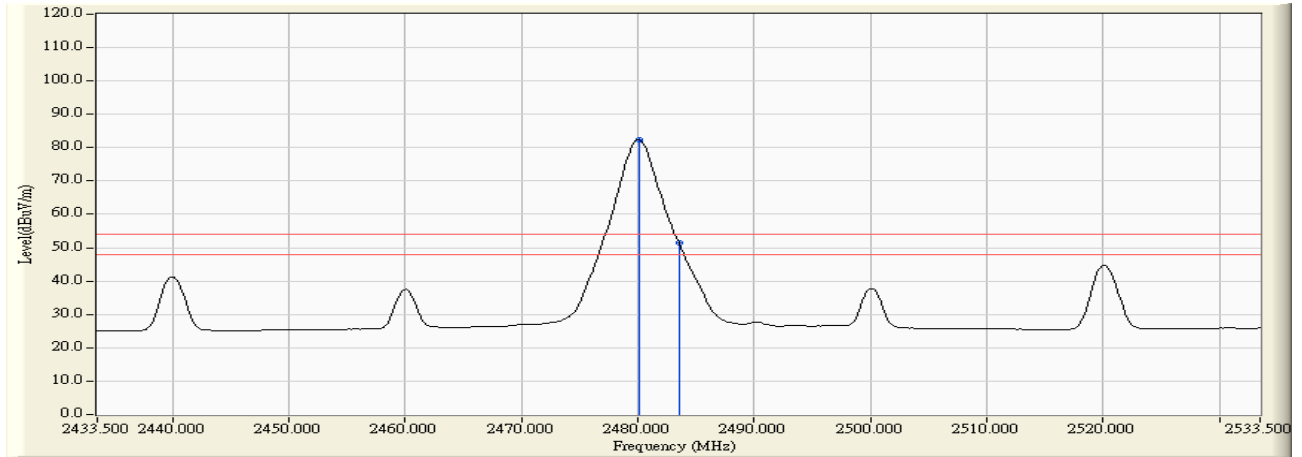


Figure Channel 78: Vertical (Average)



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 : Intel® Dual Band Wireless-AC 7260
 Test Item : Band Edge
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2361.800	-1.242	45.309	44.067	74.00	54.00	Pass
00 (Peak)	2390.000	-1.131	42.322	41.191	74.00	54.00	Pass
00 (Peak)	2402.000	-1.073	93.644	92.572	--	--	Pass
00 (Average)	2362.200	-1.240	36.733	35.493	74.00	54.00	Pass
00 (Average)	2390.000	-1.131	27.366	26.235	74.00	54.00	Pass
00 (Average)	2402.000	-1.073	76.548	75.476	--	--	Pass

Figure Channel 00: Horizontal (Peak)

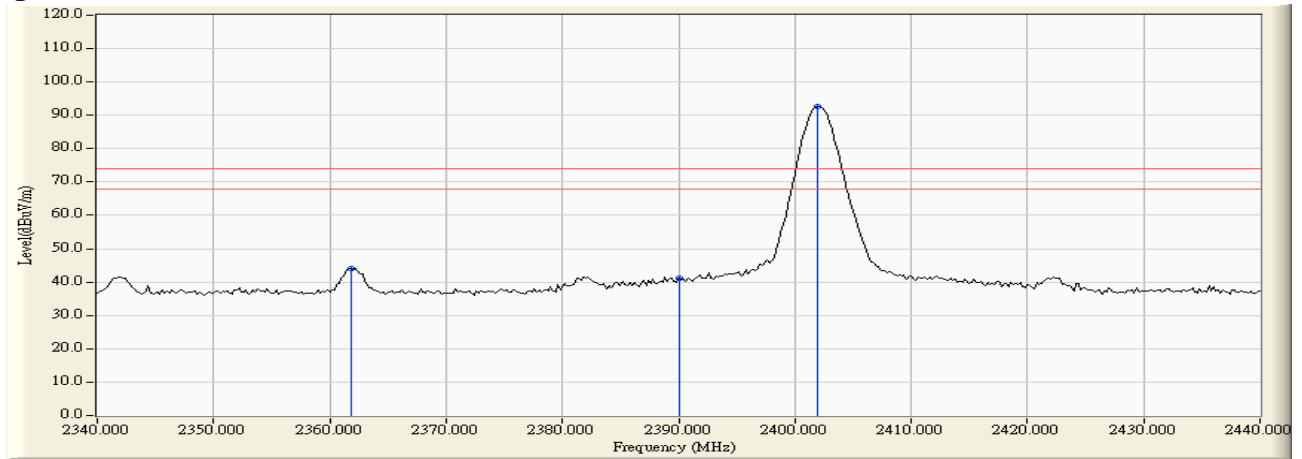
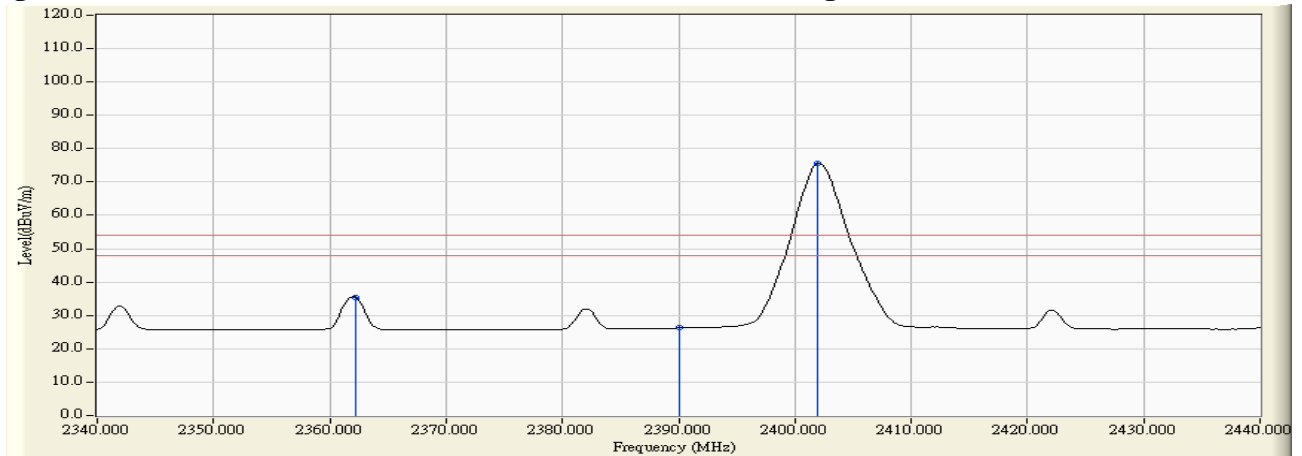


Figure Channel 00: Horizontal (Average)



- 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 : Intel® Dual Band Wireless-AC 7260
 Test Item : Band Edge
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
00 (Peak)	2361.800	-1.594	48.885	47.291	74.00	54.00	Pass
00 (Peak)	2390.000	-1.725	46.914	45.189	74.00	54.00	Pass
00 (Peak)	2402.000	-1.729	99.393	97.664	--	--	Pass
00 (Average)	2362.200	-1.596	39.657	38.061	74.00	54.00	Pass
00 (Average)	2390.000	-1.725	28.732	27.007	74.00	54.00	Pass
00 (Average)	2402.000	-1.729	81.288	79.559	--	--	Pass

Figure Channel 00: Vertical (Peak)

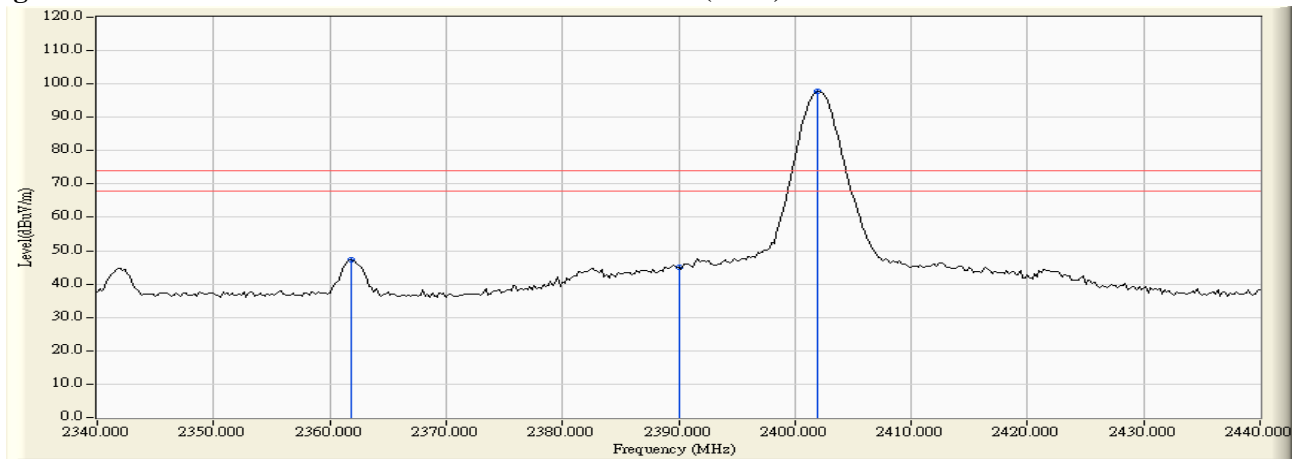
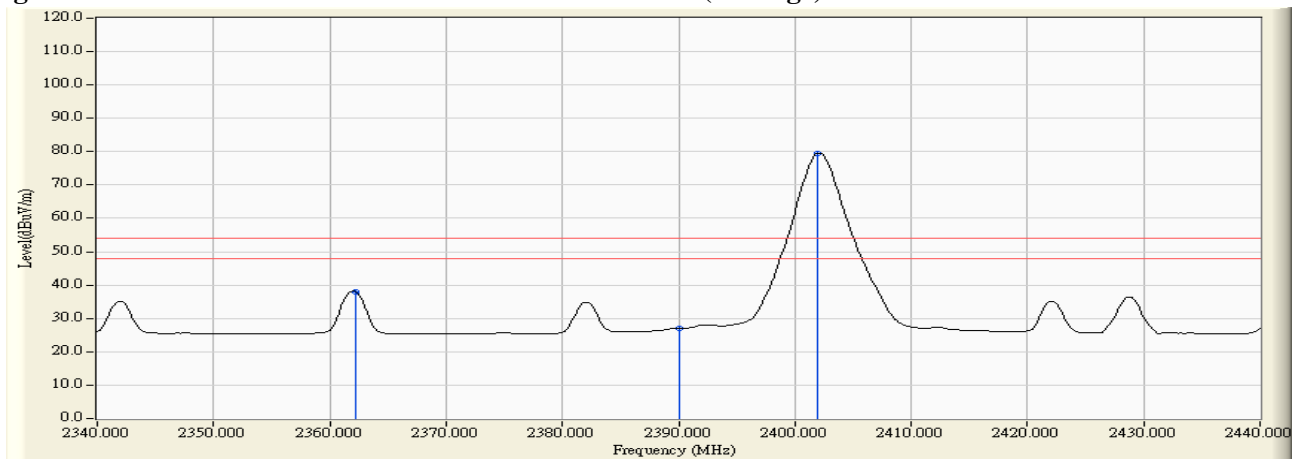


Figure Channel 00: Vertical (Average)



- 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 : Intel® Dual Band Wireless-AC 7260
 Test Item : Band Edge
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2479.900	-0.581	94.355	93.774	--	--	Pass
78 (Peak)	2483.500	-0.558	57.095	56.537	74.00	54.00	Pass
78 (Average)	2480.100	-0.580	77.639	77.059	--	--	Pass
78 (Average)	2483.500	-0.558	47.821	47.263	74.00	54.00	Pass

Figure Channel 78: Horizontal (Peak)

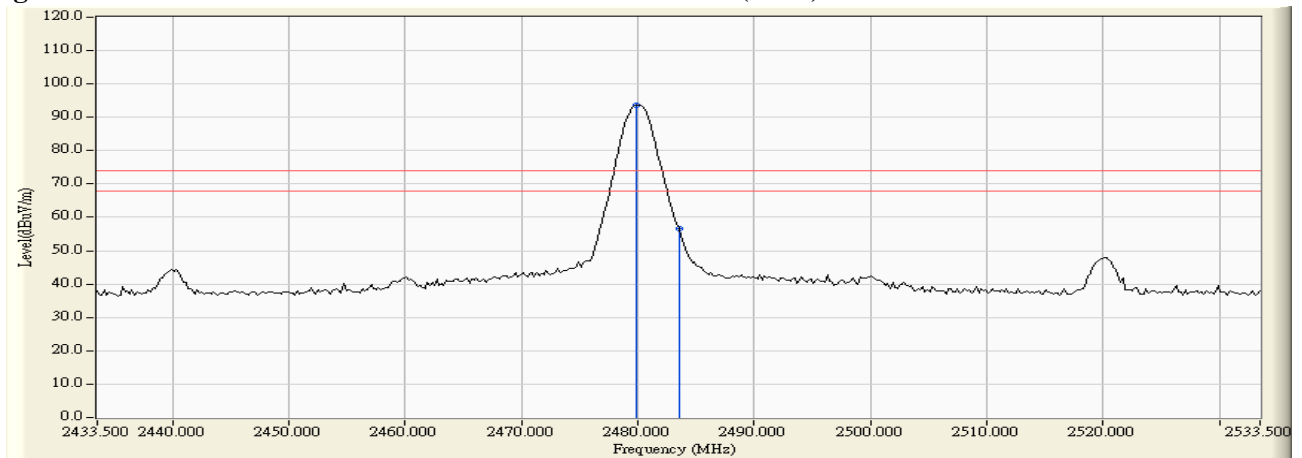
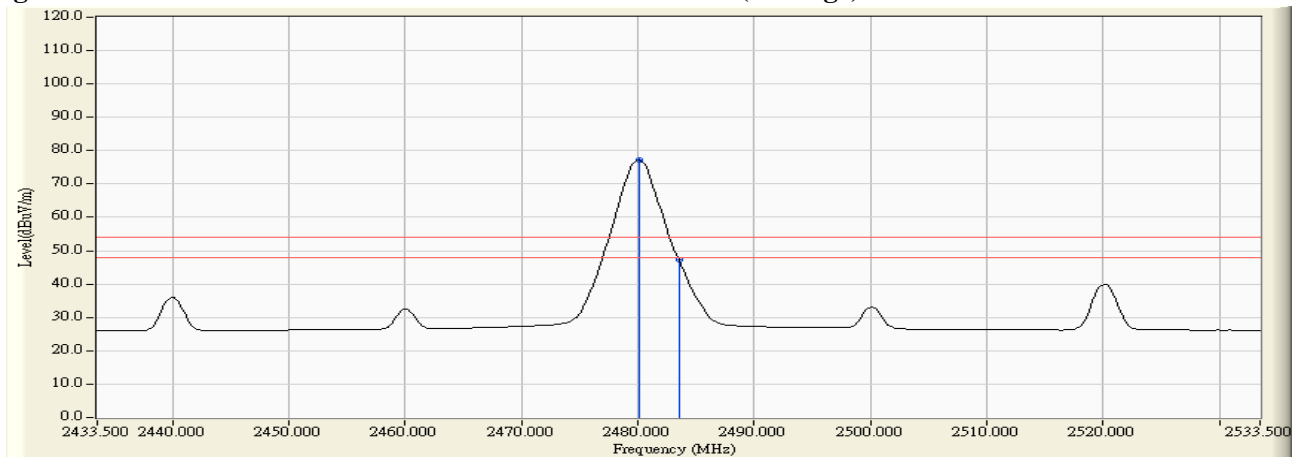


Figure Channel 78: Horizontal (Average)



- 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 : Intel® Dual Band Wireless-AC 7260
 Test Item : Band Edge
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
78 (Peak)	2480.100	-1.324	101.790	100.466	--	--	Pass
78 (Peak)	2483.500	-1.305	64.385	63.080	74.00	54.00	Pass
78 (Average)	2480.100	-1.324	83.263	81.939	--	--	Pass
78 (Average)	2483.500	-1.305	53.573	52.268	74.00	54.00	Pass

Figure Channel 78: Vertical (Peak)

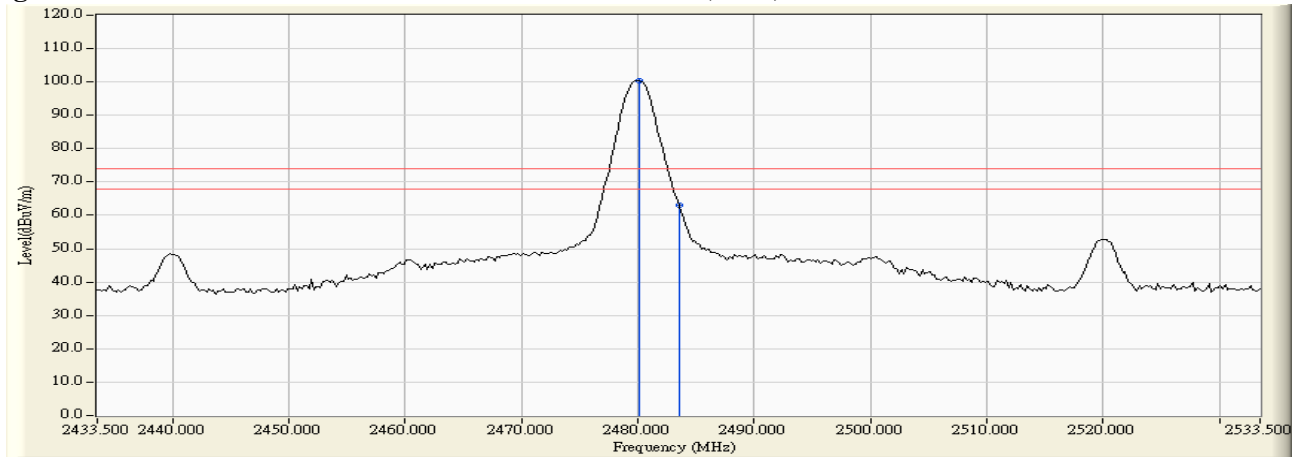
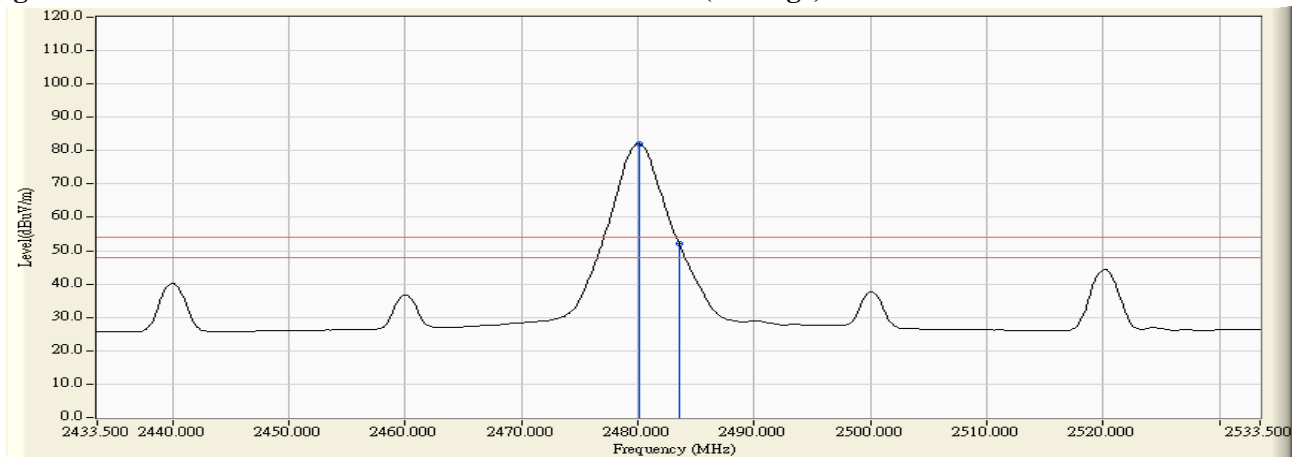


Figure Channel 78: Vertical (Average)



- 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.

5. EMI Reduction Method During Compliance Testing

No modification was made during testing.

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs