

FCC Test Report

Product Name	Notebook PC
Model No	T100T, H100T, R104T, T101T, H101T, R105T, T102T, H102T, R106T
FCC ID.	MSQT100TAR

Applicant	ASUSTeK COMPUTER INC.
Address	4F, No. 150, LI-TE Rd., PEITOU, TAIPEI 112, TAIWAN

Date of Receipt	Apr. 22, 2014
Issue Date	June 06, 2014
Report No.	1440479R-RFUSP25V00
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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Test Report

Issue Date: June 06, 2014

Report No.: 1440479R-RFUSP25V00



Product Name	Notebook PC
Applicant	ASUSTeK COMPUTER INC.
Address	4F, No. 150, LI-TE Rd., PEITOU, TAIPEI 112, TAIWAN
Manufacturer	TECH-COM(SHANGHAI) COMPUTER CO. LTD
Model No.	T100T, H100T, R104T, T101T, H101T, R105T, T102T, H102T, R106T
EUT Rated Voltage	AC 100-240V, 50-60Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	ASUS
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2012
	ANSI C63.10: 2009, KDB 558074
Test Result	Complied

Documented By	:	Genie	Chang	

(Senior Adm. Specialist / Genie Chang)

Tested By : Jack Hsu

(Engineer / Jack Hsu)

Approved By :

(Director / Vincent Lin)



TABLE OF CONTENTS

De	scription	Page
1.	GENERAL INFORMATION	
1.1.	EUT Description	
1.2.	Operational Description	
1.3.	Tested System Details	
1.4.	Configuration of Tested System	
1.5.	EUT Exercise Software	
1.6.	Test Facility	
2.	Conducted Emission	10
2.1.	Test Equipment	
2.2.	Test Setup	10
2.3.	Limits	11
2.4.	Test Procedure	11
2.5.	Uncertainty	11
2.6.	Test Result of Conducted Emission	12
3.	Peak Power Output	10
3.1.	Test Equipment	16
3.2.	Test Setup	16
3.3.	Limits	16
3.4.	Test Procedure	16
3.5.	Uncertainty	16
3.6.	Test Result of Peak Power Output	17
4.	Radiated Emission	23
4.1.	Test Equipment	23
4.2.	Test Setup	24
4.3.	Limits	
4.4.	Test Procedure	26
4.5.	Uncertainty	26
4.6.	Test Result of Radiated Emission	27
5.	RF antenna conducted test	50
5.1.	Test Equipment	
5.2.	Test Setup	
5.3.	Limits	
5.4.	Test Procedure	
5.5.	Uncertainty	51
5.6.	Test Result of RF antenna conducted test	52
6.	Band Edge	63
6.1.	Test Equipment	
6.2.	Test Setup	
6.3.	Limits	
6.4.	Test Procedure	
6.5.	Uncertainty	
6.6.	Test Result of Band Edge	65



7.	Occupied Bandwidth	135
7.1.	Test Equipment	135
7.2.	Test Setup	
7.3.	Limits	135
7.4.	Test Procedure	
7.5.	Uncertainty	
7.6.	Test Result of Occupied Bandwidth	
8.	Power Density	153
8.1.	Test Equipment	153
8.2.	Test Setup	
8.3.	Limits	
8.4.	Test Procedure	
8.5.	Uncertainty	153
8.6.	Test Result of Power Density	
9.	EMI Reduction Method During Compliance Testing	171

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



1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Notebook PC			
Trade Name	ASUS			
Model No.	T100T, H100T, R104T, T101T, H101T, R105T, T102T, H102T, R106T			
FCC ID.	MSQT100TAR			
Frequency Range	802.11b/g/n-20MHz:2412-2462MHz			
	802.11a/n-20MHz:5745-5825MHz ,802.11n-40MHz:5755-5795MHz			
Number of Channels	802.11b/g/n-20MHz: 11			
	802.11a/n-20MHz: 5, n-40MHz: 2			
Data Speed	802.11b: 1-11Mbps, 802.11a/g: 6-54Mbps, 802.11n: up to 150Mbps			
Channel separation	802.11b/g/n-20MHz: 5 MHz, 802.11a/n-20MHz: 20MHz			
	802.11n-40MHz: 40MHz			
Type of Modulation	802.11b:DSSS, DBPSK, DQPSK, CCK			
	802.11a/g/n: OFDM, BPSK, QPSK, 16QAM, 64QAM			
Antenna Type	PIFA Antenna			
Antenna Gain	Refer to the table "Antenna List"			
Channel Control	Auto			
USB Cable	Non-Shielded, 1.5m			
Power Adapter	MFR: ASUS, M/N: W12-010N3A			
	Input: 100-240V, 50-60Hz, 0.3A			
	Output: 5V, 2A			

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	INPAQ	WAG-P-LB-00-001	PIFA	-2.45dBi For 2.4GHz
				-2.72dBi for 5725~5825GHz

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 00.	2452 MHz	Channel 10:	2457 MHz	Channel 11.	2462 MHz		

802.11a/n-20MHz Center Working Frequency of Each Channel:

Channel Frequency Channel Frequency Channel Frequency Channel Frequency Channel 149: 5745 MHz Channel 153: 5765 MHz Channel 157: 5785 MHz Channel 161: 5805 MHz Channel 165: 5825 MHz

802.11n-40MHz (5G Band) Center Working Frequency of Each Channel:

Channel Frequency Channel Frequency Channel 151: 5755 MHz Channel 159: 5795 MHz

Note:

1. This device is a Notebook PC with a built-in 2.4GHz and 5GHz WLAN transceiver.

2. The Hardware is identical for nine models, the differences between the models is pre-reserved model name, provided for different sales channels.

Difference between the installed OS is as follows:

Installed OS	Model No
Windows 8	T100T, H100T, R104T
Android	T101T, H101T, R105T, T102T, H102T, R106T

- 3. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
- 4. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
- 5. 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).
- 6. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11a/b/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 - 802.11a 6Mbps			
	Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band)			
	Mode 5: Transmit - 802.11n-20BW 7.2Mbps(5G Band)			
Mode 6: Transmit - 802.11n-40BW_15Mbps(5G Band)				



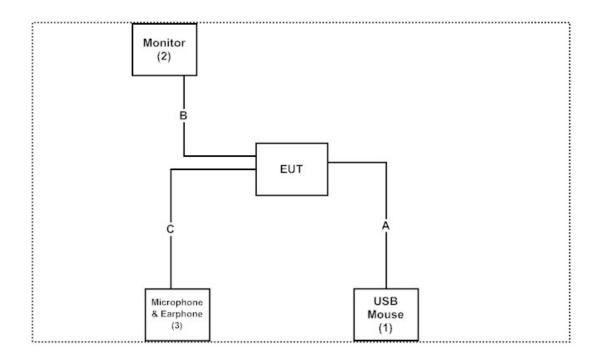
1.3. Tested System Details

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.	FCC ID	Power Cord
(1)	USB Mouse	Logitech	M-U0003	LZ024HR	DoC	N/A
(2)	Monitor	DELL	-	CN-0J257M-728 -01I-038L	DoC	Non-Shielded, 1.8m
(3)	Microphone & Earphone	Ergotech	ET-E201	N/A	N/A	N/A

	Signal Cable Type	Signal cable Description				
A	Mouse Cable	Non-Shielded, 1.8m				
В	HDMI Cable	Non-Shielded, 1.8m				
С	Microphone & Earphone Cable	Non-Shielded, 1.8m				

1.4. Configuration of Tested System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown in section 1.4.
- (2) Execute Telnet program on the EUT
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Press "OK" to start the continuous transmission.
- (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/

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, Ruei-Shu Valley, Ruei-Ping Tsuen,

Lin-Kou Shiang, Taipei,

Taiwan, R.O.C.

TEL: 886-2-8601-3788 / FAX: 886-2-8601-3789

E-Mail: service@quietek.com

FCC Accreditation Number: TW1014



2. Conducted Emission

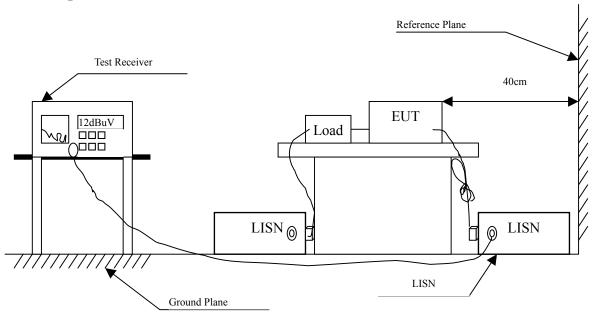
2.1. Test Equipment

	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 (dBuV) Limit									
Frequency	I	Limits							
MHz	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 : Notebook PC

Test Item : Conducted Emission Test

Power Line : Line 1

Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2437MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.197	9.739	36.700	46.439	-18.218	64.657
0.228	9.740	29.810	39.550	-24.221	63.771
0.291	9.743	28.550	38.293	-23.678	61.971
0.537	9.754	27.950	37.704	-18.296	56.000
0.963	9.773	15.900	25.673	-30.327	56.000
18.502	10.020	15.210	25.230	-34.770	60.000
Average					
0.197	9.739	23.990	33.729	-20.928	54.657
0.228	9.740	12.380	22.120	-31.651	53.771
0.291	9.743	12.130	21.873	-30.098	51.971
0.537	9.754	18.260	28.014	-17.986	46.000
0.963	9.773	5.140	14.913	-31.087	46.000
18.502	10.020	8.090	18.110	-31.890	50.000

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



Test Item : Conducted Emission Test

Power Line : Line 2

Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2437MHz)

Frequency	Correct	Correct Reading		Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.189	9.748	35.440	45.188	-19.698	64.886
0.252	9.751	30.210	39.961	-23.125	63.086
0.298	9.746	24.590	34.337	-27.434	61.771
0.365	9.746	21.500	31.246	-28.611	59.857
0.498	9.752	20.820	30.572	-25.485	56.057
0.541	9.754	23.550	33.304	-22.696	56.000
Average					
0.189	9.748	16.950	26.698	-28.188	54.886
0.252	9.751	14.510	24.261	-28.825	53.086
0.298	9.746	8.630	18.377	-33.394	51.771
0.365	9.746	6.500	16.246	-33.611	49.857
0.498	9.752	10.390	20.142	-25.915	46.057
0.541	9.754	13.060	22.814	-23.186	46.000

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



Test Item : Conducted Emission Test

Power Line : Line 1

Test Mode : Mode 6: Transmit - 802.11n-40BW_15Mbps(5G Band) (5755MHz)

Frequency	equency Correct Reading		Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.212	9.739	26.300	36.039	-28.190	64.229
0.509	9.753	30.560	40.313	-15.687	56.000
0.728	9.763	28.980	38.743	-17.257	56.000
0.783	9.765	33.990	43.755	-12.245	56.000
0.892	9.770	27.140	36.910	-19.090	56.000
2.916	9.850	6.100	15.950	-40.050	56.000
Average					
0.212	9.739	11.650	21.389	-32.840	54.229
0.509	9.753	22.740	32.493	-13.507	46.000
0.728	9.763	16.980	26.743	-19.257	46.000
0.783	9.765	27.420	37.185	-8.815	46.000
0.892	9.770	22.040	31.810	-14.190	46.000
2.916	9.850	-0.570	9.280	-36.720	46.000

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



Test Item : Conducted Emission Test

Power Line : Line 2

Test Mode : Mode 6: Transmit - 802.11n-40BW_15Mbps(5G Band) (5755MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.158	9.747	31.690	41.437	-24.334	65.771
0.185	9.748	32.410	42.158	-22.842	65.000
0.201	9.749	29.710	39.459	-25.084	64.543
0.267	9.752	27.070	36.822	-25.835	62.657
0.533	9.754	23.970	33.724	-22.276	56.000
0.841	9.778	31.840	41.618	-14.382	56.000
Average					
0.158	9.747	17.060	26.807	-28.964	55.771
0.185	9.748	16.290	26.038	-28.962	55.000
0.201	9.749	15.330	25.079	-29.464	54.543
0.267	9.752	12.320	22.072	-30.585	52.657
0.533	9.754	17.100	26.854	-19.146	46.000
0.841	9.778	24.030	33.808	-12.192	46.000

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



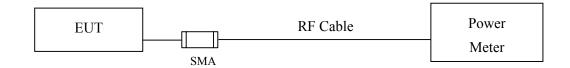
3. Peak Power Output

3.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2014
X	Power Sensor	Anritsu	MA2411B/0738448	Jun, 2014
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 : Notebook PC

Test Item : Peak Power Output Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps)

ChannelNe	Frequency	For d	·	e Power ata Rate (N	Abps)	Peak Power	Required	Dagult	
Channel No	(MHz)	1	2	5.5	11	1	Limit	Result	
			Measur	ement Lev	vel (dBm)				
01	2412	10.71	-	-	-	14.12	<30dBm	Pass	
06	2437	9.47	9.32	9.19	9.03	12.93	<30dBm	Pass	
11	2462	9.25	-	-	-	12.75	<30dBm	Pass	



Test Item : Peak Power Output Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Channel No	Eraguanav	Average Power Peak For different Data Rate (Mbps) Power								Required		
	Frequency (MHz)	6	9	12	18	24	36	48	54	6	Limit	Result
				N	/leasure	ement L	evel (d	Bm)				
01	2412	8.45	ı	-	-	-	ı	-	-	19.24	<30dBm	Pass
02	2417	11.13	ı	-	-	-	ı	-	-	20.42	<30dBm	Pass
03	2422	12.09	ı	ı	ı	ı	ı	ı	ı	21.58	<30dBm	Pass
04	2427	13.04	ı	-	-	-	ı	-	-	22.26	<30dBm	Pass
06	2437	13.00	12.87	12.66	12.50	12.33	12.16	11.99	11.82	22.30	<30dBm	Pass
09	2452	13.10	ı	-	-	-	ı	-	-	22.16	<30dBm	Pass
10	2457	11.08	ı	ı	ı	1	ı	ı	-	20.37	<30dBm	Pass
11	2462	6.74	-	-	-	-	-	-	-	17.41	<30dBm	Pass



Test Item : Peak Power Output Data

Test Site : No.3 OATS

Test Mode : Mode 3: Transmit - 802.11a 6Mbps

Channel No	Frequency (MHz)		Average Power For different Data Rate (Mbps)								Required	
		6	9	12	18	24	36	48	54	6	Limit	Result
			Measurement Level (dBm)									
149	5745	11.26	1			1	1		-	21.43	<30dBm	Pass
157	5785	11.33	11.18	11.04	10.89	10.75	10.60	10.46	10.31	21.89	<30dBm	Pass
165	5825	11.30	I	-	-	I	I		I	21.89	<30dBm	Pass



Test Item : Peak Power Output Data

Test Site : No.3 OATS

Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band)

	Frequency (MHz)		Average Power Peak For different Data Rate (Mbps) Power									
Channel No		7.2	14.4	21.7	28.9	43.3	57.8	65	72.2	7.2	Required Limit	Result
			Measurement Level (dBm)									
01	2412	6.68	ı	ı	ı	ı	ı	ı	1	17.33	<30dBm	Pass
02	2417	10.07	ı	ı	ı	ı	ı	ı	ı	20.03	<30dBm	Pass
03	2422	12.11	ı	ı	ı	ı	ı	ı	ı	21.39	<30dBm	Pass
04	2427	13.23	ı	ı	ı	ı	ı	ı	ı	22.4	<30dBm	Pass
06	2437	13.12	12.98	12.76	12.59	12.41	12.23	12.05	11.87	22.37	<30dBm	Pass
09	2452	13.09	ı	1	ı	1	1	-	-	22.11	<30dBm	Pass
10	2457	11.07	1	1	-	-	ı	-	-	21.26	<30dBm	Pass
11	2462	6.51	-	-	-	-	-	-	-	16.87	<30dBm	Pass



Test Item : Peak Power Output Data

Test Site : No.3 OATS

Test Mode : Mode 5: Transmit - 802.11n-20BW_7.2Mbps(5G Band)

	Frequency (MHz)		Average Power Pe For different Data Rate (Mbps) Pow								Required	
Channel No		7.2	14.4	21.7	28.9	43.3	57.8	65	72.2	7.2	Limit	Result
			Measurement Level (dBm)									
149	5745	11.02								21.24	<30dBm	Pass
157	5785	11.11	10.96	10.77	10.61	10.44	10.27	10.10	9.93	21.13	<30dBm	Pass
165	5825	11.40								21.19	<30dBm	Pass

^{1.} Note: Peak Power Output Value = Reading value on power meter + cable loss



Test Item : Peak Power Output Data

Test Site : No.3 OATS

Test Mode : Mode 6: Transmit - 802.11n-40BW_15Mbps(5G Band)

			Average Power							Peak		
	Frequency (MHz)		For different Data Rate (Mbps)								Required	
Channel No		15	30	45	60	90	120	135	150	15	Limit	Result
			Measurement Level (dBm)									
151	5755	10.57	10.39	10.17	9.98	9.78	9.58	9.38	9.18	20.43	<30dBm	Pass
159	5795	10.64	!	!						20.75	<30dBm	Pass



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	QTK	QTK-AMP-03 / 0003	May, 2014
	X	Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2013
	X	Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar, 2014
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2014
	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

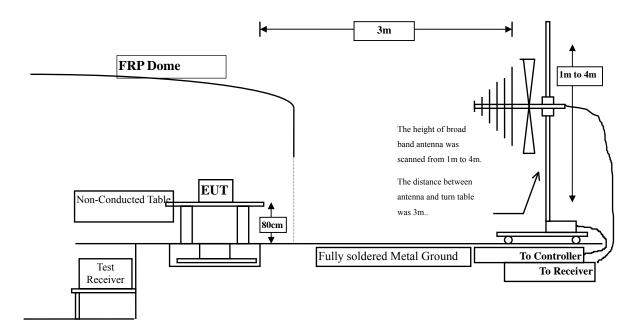
Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

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

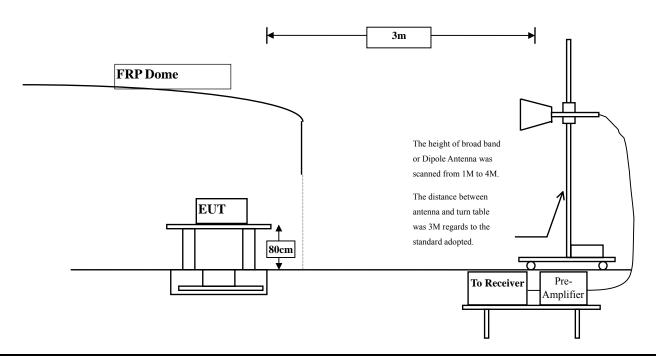


4.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



Page: 24 of 173



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	Measurement distance						
TVITIZ	(microvolts/meter)	(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 $(dBuV/m) = 20 \log E$ 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 measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.

4.5. Uncertainty

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



4.6. Test Result of Radiated Emission

Product : Notebook PC

Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	16.311	44.389	60.701	-13.299	74.000
7236.000	19.942	37.612	57.554	-16.446	74.000
9648.000	20.766	36.662	57.429	-16.571	74.000
Average					
Detector:					
4824.000	42.461	35.225	51.537	-2.463	54.000
7236.000	19.942	24.676	44.618	-9.382	54.000
9648.000	20.766	23.293	44.060	-9.940	54.000
Vertical					
Peak Detector:					
4824.000	16.311	41.752	58.064	-15.936	74.000
7236.000	19.942	36.729	56.671	-17.329	74.000
9648.000	20.766	37.060	57.827	-16.173	74.000
Average					
Detector:					
4824.000	16.311	35.704	52.016	-1.984	54.000
7236.000	19.942	22.880	42.822	-11.178	54.000
9648.000	20.766	23.665	44.432	-9.568	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					_
Peak Detector:					
4874.000	16.448	41.685	58.133	-15.867	74.000
7311.000	19.954	36.682	56.636	2.636	74.000
9748.000	21.140	36.590	57.730	-16.270	74.000
Average					
Detector:					
4874.000	16.448	36.327	52.775	-1.225	54.000
7311.000	19.954	23.378	43.332	-10.668	54.000
9748.000	21.140	24.984	46.124	-7.876	54.000
Vertical					
Peak Detector:					
4874.000	16.448	41.561	58.009	-15.991	74.000
7311.000	19.954	37.105	57.059	-16.941	74.000
9748.000	21.140	36.994	58.134	-15.866	74.000
Average					
Detector:					
4874.000	16.448	35.736	52.184	-1.816	54.000
7311.000	19.954	23.202	43.156	-10.844	54.000
9748.000	21.140	25.240	46.380	-7.620	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	16.361	40.986	57.347	-16.653	74.000
7386.000	19.882	38.848	58.729	-15.271	74.000
9848.000	21.414	36.365	57.778	-16.222	74.000
Average					
Detector:					
4924.000	16.361	34.466	50.827	-3.173	54.000
7386.000	19.882	29.003	48.884	-5.116	54.000
9848.000	21.414	23.246	44.659	-9.341	54.000
Vertical					
Peak Detector:					
4924.000	16.361	42.513	58.874	-15.126	74.000
7386.000	19.882	38.597	58.478	-15.522	74.000
9848.000	21.414	37.378	58.791	-15.209	74.000
Average					
Detector:					
4924.000	16.361	36.121	52.482	-1.518	54.000
7386.000	19.882	27.520	47.401	-6.599	54.000
9848.000	21.414	27.295	48.708	-5.292	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	16.311	39.019	55.331	-18.669	74.000
7236.000	19.942	36.930	56.872	-17.128	74.000
9648.000	20.766	37.142	57.909	-16.091	74.000
Average					
Detector:					
4824.000	16.311	25.069	41.381	-12.619	54.000
7236.000	19.942	22.766	42.708	-11.292	54.000
9648.000	20.766	22.735	43.502	-10.498	54.000
Vertical					
Peak Detector:					
4824.000	16.311	38.058	54.370	-19.630	74.000
7236.000	19.942	36.961	56.903	-17.097	74.000
9648.000	20.766	36.634	57.401	-16.599	74.000
Average					
Detector:					
4824.000	16.311	23.272	39.584	-14.416	54.000
7236.000	19.942	22.570	42.512	-11.488	54.000
9648.000	20.766	22.373	43.140	-10.860	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					_
Peak Detector:					
4874.000	16.448	47.388	63.836	-10.164	74.000
7311.000	19.954	41.941	61.895	-12.105	74.000
9748.000	21.140	38.130	59.270	-14.730	74.000
Average					
Detector:					
4874.000	16.448	33.091	49.539	-4.461	54.000
7311.000	19.954	27.326	47.280	-6.720	54.000
9748.000	21.140	22.894	44.034	-9.966	54.000
Vertical					
Peak Detector:					
4874.000	16.448	49.880	66.328	-7.672	74.000
7311.000	19.954	39.085	59.039	-14.961	74.000
9748.000	21.140	38.484	59.624	-14.376	74.000
Average					
Detector:					
4874.000	16.448	35.095	51.543	-2.457	54.000
7311.000	19.954	25.668	45.622	-8.378	54.000
9748.000	21.140	23.328	44.468	-9.532	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	16.361	38.783	55.144	-18.856	74.000
7386.000	19.882	37.352	57.233	-16.767	74.000
9848.000	21.414	36.853	58.266	-15.734	74.000
Average					
Detector:					
4924.000	16.361	24.414	40.775	-13.225	54.000
7386.000	19.882	23.014	42.895	-11.105	54.000
9848.000	21.414	23.015	44.428	-9.572	54.000
Vertical					
Peak Detector:					
4924.000	16.361	38.195	54.556	-19.444	74.000
7386.000	19.882	36.571	56.452	-17.548	74.000
9848.000	21.414	36.502	57.915	-16.085	74.000
Average					
Detector:					
4924.000	16.361	24.926	41.287	-12.713	54.000
7386.000	19.882	22.656	42.537	-11.463	54.000
9848.000	21.414	22.517	43.930	-10.070	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 3: Transmit - 802.11a 6Mbps (5745 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	14.326	41.430	55.755	-18.245	74.000
Average					
Detector:					
11490.000	14.326	27.510	41.835	-12.165	54.000
Vertical					
Peak Detector:					
11490.000	15.842	40.900	56.741	-17.259	74.000
Average					
Detector:					
11490.000	15.842	26.570	42.411	-11.589	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 3: Transmit - 802.11a 6Mbps (5785 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11570.000	14.849	40.740	55.589	-18.411	74.000
Average					
Detector:					
11570.000	14.849	26.330	41.179	-12.821	54.000
Vertical					
Peak Detector:					
11570.000	16.215	39.520	55.734	-18.266	74.000
Average					
Detector:					
11570.000	16.215	25.710	41.924	-12.076	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 3: Transmit - 802.11a 6Mbps (5825 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	13.179	40.400	53.579	-20.421	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
11650.000	14.634	40.730	55.364	-18.636	74.000
Average					
Detector:					
11650.000	14.634	26.490	41.124	-12.876	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 4: Transmit - 802.11n-20BW 7.2Mbps(2.4G Band) (2412MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	16.311	37.223	53.535	-20.465	74.000
7236.000	19.942	36.508	56.450	-17.550	74.000
9648.000	20.766	36.691	57.458	-16.542	74.000
Average					
Detector:					
7236.000	19.942	22.553	42.495	-11.505	54.000
9648.000	20.766	22.571	43.338	-10.662	54.000
Vertical					
Peak Detector:					
4824.000	16.311	37.536	53.848	-20.152	74.000
7236.000	19.942	36.680	56.622	-17.378	74.000
9648.000	20.766	37.078	57.845	-16.155	74.000
Average					
Detector:					
7236.000	19.942	22.780	42.722	-11.278	54.000
9648.000	20.766	22.775	43.542	-10.458	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	16.448	47.253	63.701	-10.299	74.000
7311.000	19.954	41.283	61.237	-12.763	74.000
9748.000	21.140	37.740	58.880	-15.120	74.000
Average					
Detector:					
4874.000	16.448	32.354	48.802	-5.198	54.000
7311.000	19.954	27.118	47.072	-6.928	54.000
9748.000	21.140	22.747	43.887	-10.113	54.000
Vertical					
Peak Detector:					
4874.000	16.448	49.174	65.622	-8.378	74.000
7311.000	19.954	39.314	59.268	-14.732	74.000
9748.000	21.140	38.187	59.327	-14.673	74.000
Average					
Detector:					
4874.000	16.448	34.792	51.240	-2.760	54.000
7311.000	19.954	24.703	44.657	-9.343	54.000
9748.000	21.140	22.699	43.839	-10.161	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 4: Transmit - 802.11n-20BW 7.2Mbps(2.4G Band) (2462 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	16.361	38.441	54.802	-19.198	74.000
7386.000	19.882	37.673	57.554	-16.446	74.000
9848.000	21.414	36.360	57.773	-16.227	74.000
Average					
Detector:					
4924.000	16.361	23.840	40.201	-13.799	54.000
7386.000	19.882	22.747	42.628	-11.372	54.000
9848.000	21.414	22.890	44.303	-9.697	54.000
Vertical					
Peak Detector:					
4924.000	16.361	37.554	53.915	-20.085	74.000
7386.000	19.882	37.114	56.995	-17.005	74.000
9848.000	21.414	36.647	58.060	-15.940	74.000
Average					
Detector:					
7386.000	19.882	22.893	42.774	-11.226	54.000
9848.000	21.414	22.484	43.897	-10.103	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 5: Transmit - 802.11n-20BW_7.2Mbps(5G Band) (5745MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	14.326	41.240	55.565	-18.435	74.000
Average					
Detector:					
11490.000	14.326	27.040	41.365	-12.635	54.000
Vertical					
Peak Detector:					
11490.000	15.842	40.700	56.541	-17.459	74.000
Average					
_					
Detector:					
11490.000	15.842	26.430	42.271	-11.729	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 5: Transmit - 802.11n-20BW_7.2Mbps(5G Band) (5785 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11570.000	14.849	40.160	55.009	-18.991	74.000
Average					
Detector:					
11570.000	14.849	26.000	40.849	-13.151	54.000
Vertical					
Peak Detector:					
11570.000	16.215	41.240	57.454	-16.546	74.000
Average					
Detector:					
11570.000	16.215	27.200	43.414	-10.586	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 5: Transmit - 802.11n-20BW 7.2Mbps(5G Band) (5825 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	13.179	40.790	53.969	-20.031	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
11650.000	14.634	41.610	56.244	-17.756	74.000
Average					
Detector:					
11650.000	14.634	26.440	41.074	-12.926	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 6: Transmit - 802.11n-40BW_15Mbps(5G Band) (5755MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11510.000	14.402	40.010	54.412	-19.588	74.000
Average					
Detector:					
11510.000	14.402	26.030	40.432	-13.568	54.000
Vertical					
Peak Detector:					
11510.000	15.894	39.680	55.574	-18.426	74.000
Average					
Detector:					
11510.000	15.894	25.770	41.664	-12.336	54.000

- 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.



Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 6: Transmit - 802.11n-40BW_15Mbps(5G Band) (5795 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11590.000	15.138	39.110	54.248	-19.752	74.000
Average					
Detector:					
11590.000	15.138	25.250	40.388	-13.612	54.000
Vertical					
Peak Detector:					
11590.000	16.461	40.090	56.551	-17.449	74.000
Average					
Detector:					
11590.000	16.461	26.130	42.591	-11.409	54.000

- 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.



Test Item : General Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
119.240	-7.291	42.047	34.757	-8.743	43.500
357.860	-0.719	42.205	41.486	-4.514	46.000
468.440	3.544	23.967	27.511	-18.489	46.000
602.300	3.794	25.431	29.225	-16.775	46.000
864.200	6.329	29.009	35.338	-10.662	46.000
972.840	7.189	23.288	30.477	-23.523	54.000
Vertical					
111.480	-3.439	37.819	34.381	-9.119	43.500
169.680	-4.326	32.926	28.600	-14.900	43.500
262.800	-4.944	32.222	27.278	-18.722	46.000
355.920	-0.972	40.052	39.080	-6.920	46.000
485.900	-2.324	32.841	30.517	-15.483	46.000
864.200	-0.291	29.891	29.600	-16.400	46.000

- 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.



Test Item : General Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					_
119.240	-7.291	37.833	30.543	-12.957	43.500
239.520	-6.878	32.238	25.360	-20.640	46.000
353.980	-1.274	38.049	36.775	-9.225	46.000
602.300	3.794	24.727	28.521	-17.479	46.000
864.200	6.329	28.606	34.935	-11.065	46.000
970.900	7.347	23.348	30.695	-23.305	54.000
Vertical					
43.580	-10.919	40.873	29.954	-10.046	40.000
117.300	-3.740	35.911	32.171	-11.329	43.500
200.720	-5.676	36.354	30.678	-12.822	43.500
357.860	-1.239	36.450	35.211	-10.789	46.000
588.720	-2.201	28.770	26.569	-19.431	46.000
864.200	-0.291	30.124	29.833	-16.167	46.000

- 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.



Test Item : General Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 3: Transmit - 802.11a 6Mbps (5785MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					_
39.700	-3.625	31.896	28.271	-11.729	40.000
156.100	-8.497	31.679	23.182	-20.318	43.500
381.140	1.386	34.184	35.570	-10.430	46.000
534.400	3.162	25.775	28.937	-17.063	46.000
864.200	6.329	29.582	35.911	-10.089	46.000
968.960	7.356	22.060	29.416	-24.584	54.000
Vertical					
53.280	-11.767	43.509	31.742	-8.258	40.000
154.160	-5.272	30.870	25.598	-17.902	43.500
295.780	-4.687	32.105	27.418	-18.582	46.000
394.720	-1.697	25.121	23.424	-22.576	46.000
613.940	1.782	27.876	29.658	-16.342	46.000
864.200	-0.291	30.580	30.289	-15.711	46.000

- 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.



Test Item : General Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 4: Transmit - 802.11n-20BW 7.2Mbps(2.4G Band) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
119.240	-7.291	37.231	29.941	-13.559	43.500
266.680	-5.510	32.237	26.727	-19.273	46.000
355.920	-1.242	38.183	36.941	-9.059	46.000
604.240	4.289	24.633	28.923	-17.077	46.000
864.200	6.329	29.197	35.526	-10.474	46.000
986.420	8.189	22.331	30.520	-23.480	54.000
Vertical					
121.180	-3.559	34.531	30.972	-12.528	43.500
353.980	-1.124	34.941	33.817	-12.183	46.000
532.460	1.209	25.323	26.532	-19.468	46.000
613.940	1.782	27.797	29.579	-16.421	46.000
864.200	-0.291	30.232	29.941	-16.059	46.000
967.020	3.889	23.571	27.460	-26.540	54.000

- 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.



Test Item : General Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 5: Transmit - 802.11n-20BW 7.2Mbps(5G Band) (5785 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
39.700	-3.625	31.738	28.113	-11.887	40.000
156.100	-8.497	31.790	23.293	-20.207	43.500
295.780	-4.747	29.320	24.573	-21.427	46.000
460.680	4.030	23.993	28.023	-17.977	46.000
584.840	3.251	28.216	31.467	-14.533	46.000
823.460	7.241	22.701	29.942	-16.058	46.000
Vertical					
43.580	-10.919	40.099	29.180	-10.820	40.000
127.000	-3.712	31.925	28.213	-15.287	43.500
295.780	-4.687	30.299	25.612	-20.388	46.000
390.840	-0.768	24.360	23.592	-22.408	46.000
613.940	1.782	26.658	28.440	-17.560	46.000
864.200	-0.291	29.867	29.576	-16.424	46.000

- 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.



Test Item : General Radiated Emission Data

Test Site : No.3 OATS

Test Mode : Mode 6: Transmit - 802.11n-40BW 15Mbps(5G Band) (5755MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
88.200	-12.076	36.918	24.842	-18.658	43.500
204.600	-10.493	33.434	22.941	-20.559	43.500
322.940	-4.536	30.102	25.567	-20.433	46.000
528.580	3.074	26.174	29.248	-16.752	46.000
712.880	3.792	23.521	27.313	-18.687	46.000
864.200	6.329	29.113	35.442	-10.558	46.000
Vertical					
45.520	-10.625	40.328	29.703	-10.297	40.000
179.380	-0.824	26.042	25.218	-18.282	43.500
295.780	-4.687	31.223	26.536	-19.464	46.000
613.940	1.782	26.550	28.332	-17.668	46.000
796.300	2.639	23.226	25.865	-20.135	46.000
961.200	3.310	23.033	26.343	-27.657	54.000

- 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

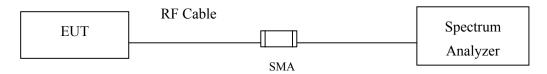
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2014
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2014
	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2014

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 \pm 1.27dB



5.6. Test Result of RF antenna conducted test

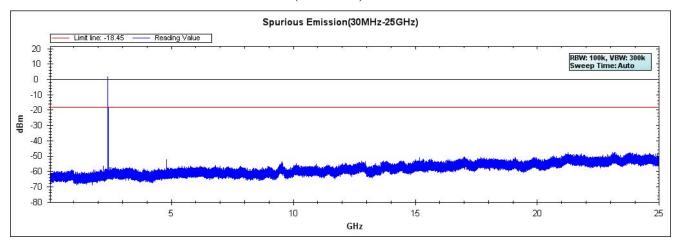
Product : Notebook PC

Test Item : RF antenna conducted test

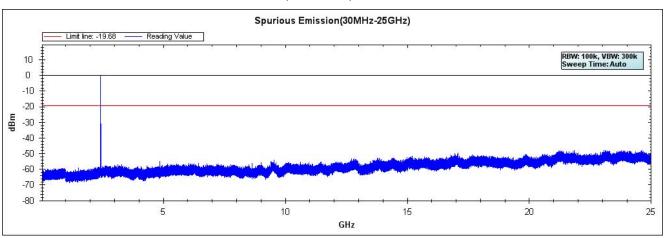
Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps)

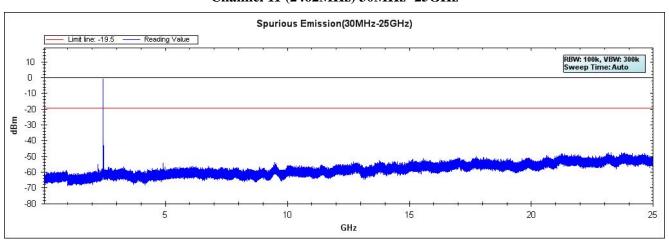
Channel 01 (2412MHz) 30MHz-25GHz



Channel 06 (2437MHz) 30MHz -25GHz



Channel 11 (2462MHz) 30MHz -25GHz



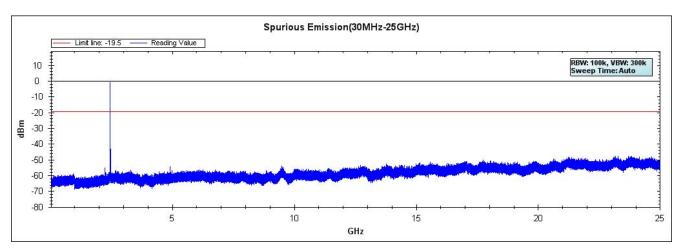


Test Item : RF Antenna Conducted Spurious

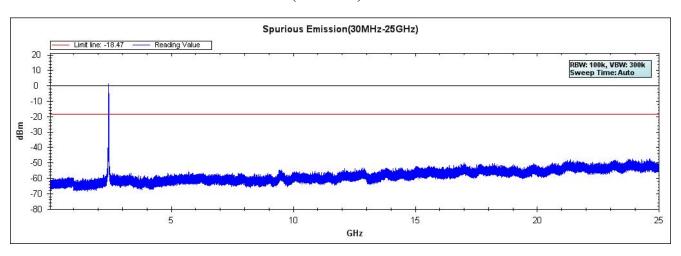
Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11g 6Mbps)

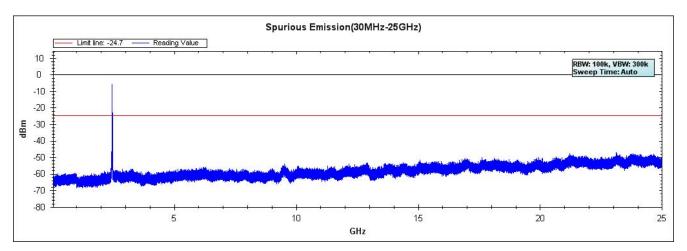
Channel 01 (2412MHz) 30MHz -25GHz



Channel 06 (2437MHz) 30MHz -25GHz



Channel 11 (2462MHz) 30MHz -25GHz



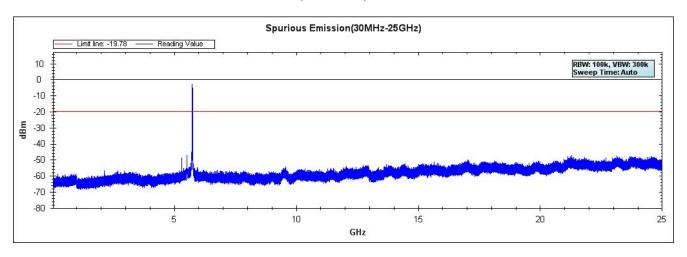


Test Item : RF Antenna Conducted Spurious

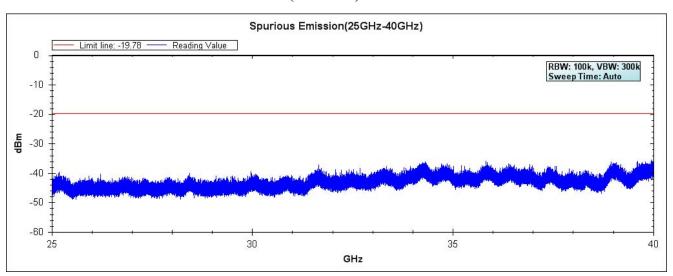
Test Site : No.3 OATS

Test Mode : Mode 3: Transmit - 802.11a 6Mbps

Channel 149 (5745MHz) 30MHz -25GHz

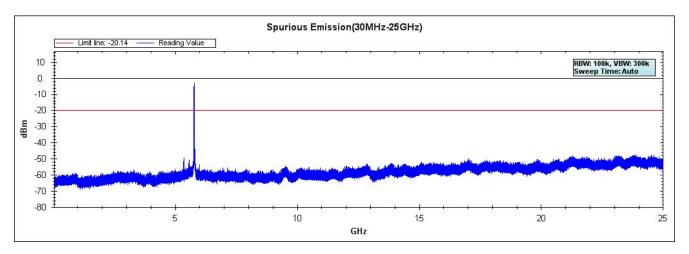


Channel 149 (5745MHz) 25GHz – 40GHz

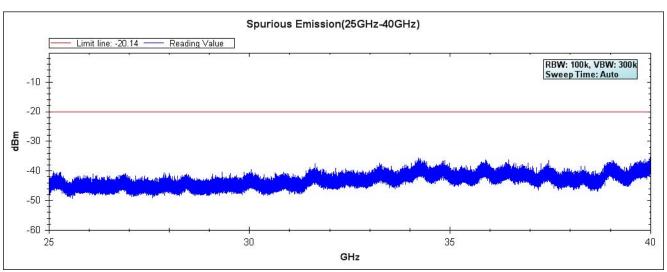




Channel 157 (5785MHz) 30MHz -25GHz

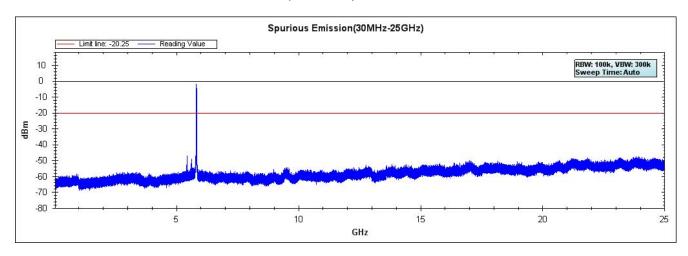


Channel 157 (5785MHz) 25GHz - 40GHz

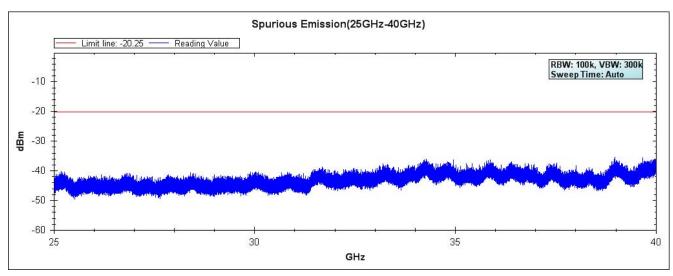




Channel 165 (5825MHz) 30MHz -25GHz



Channel 165 (5825MHz) 25GHz – 40GHz



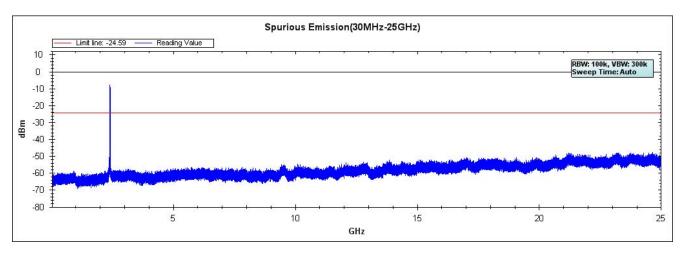


Test Item : RF Antenna Conducted Spurious

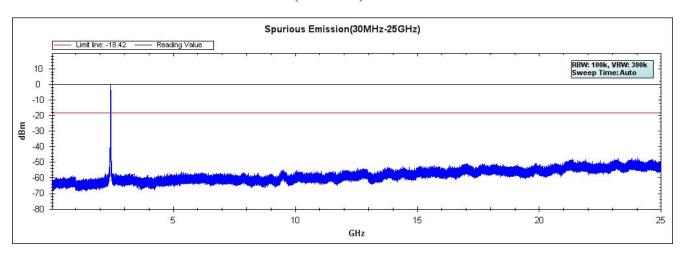
Test Site : No.3 OATS

Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band)

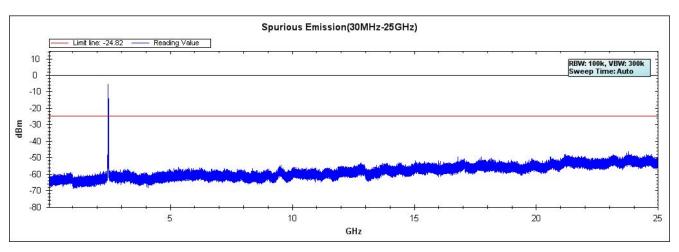
Channel 01 (2412MHz) 30MHz -25GHz



Channel 06 (2437MHz) 30MHz -25GHz



Channel 11 (2462MHz) 30MHz -25GHz



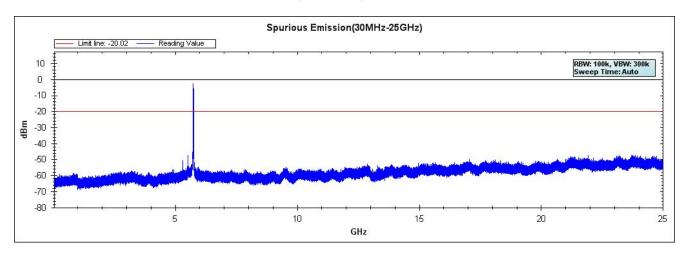


Test Item : RF Antenna Conducted Spurious

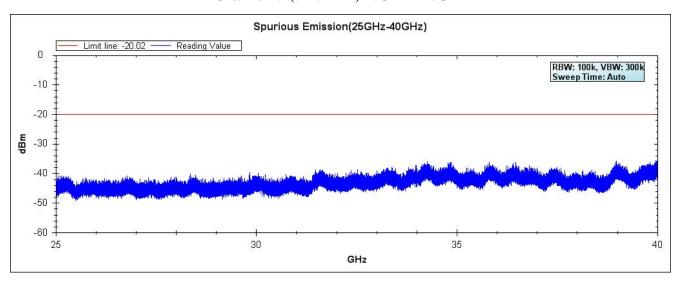
Test Site : No.3 OATS

Test Mode : Mode 5: Transmit - 802.11n-20BW_7.2Mbps(5G Band)

Channel 49 (5745MHz) 30MHz -25GHz

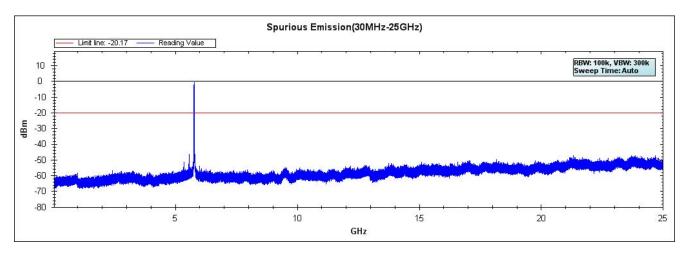


Channel 49 (5745MHz) 25GHz – 40GHz

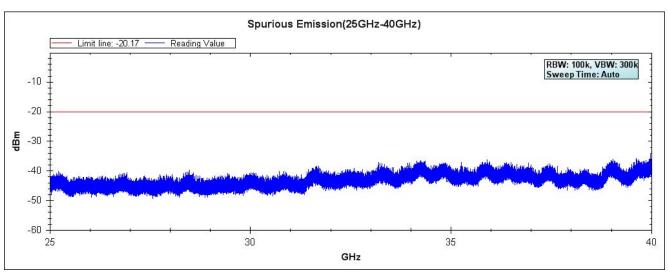




Channel 157 (5785MHz) 30MHz -25GHz

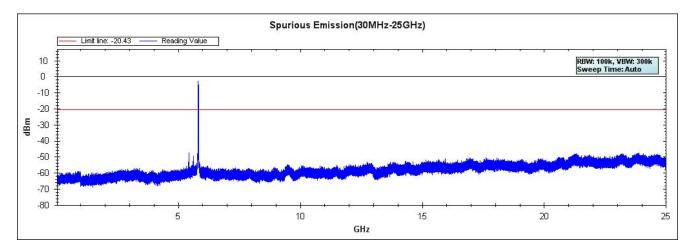


Channel 157 (5785MHz) 25GHz - 40GHz

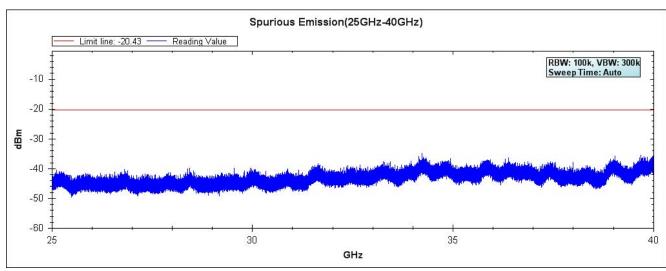




Channel 165 (5825MHz) 30MHz -25GHz



Channel 165 (5825MHz) 25GHz – 40GHz



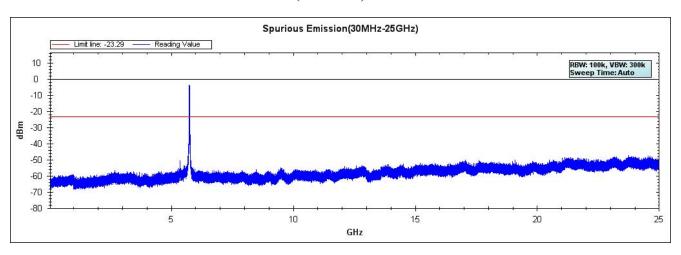


Test Item : RF Antenna Conducted Spurious

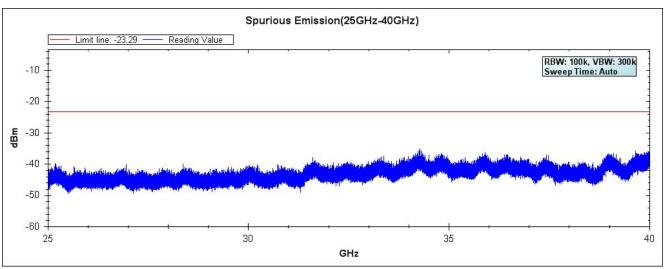
Test Site : No.3 OATS

Test Mode: Mode 6: Transmit - 802.11n-40BW 15Mbps(5G Band)

Channel 151 (5755MHz) 30MHz -25GHz

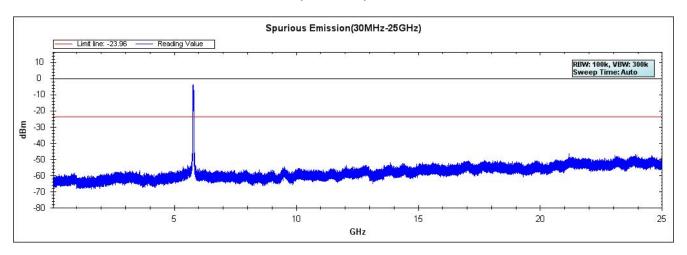


Channel 151 (5755MHz) 25GHz – 40GHz

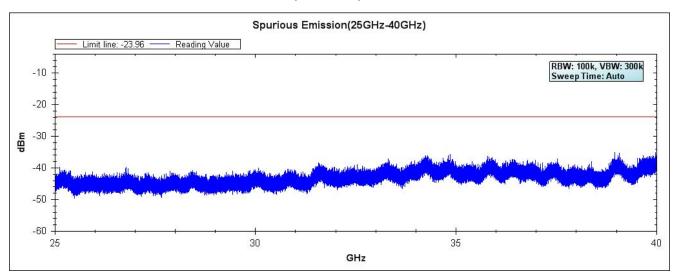




Channel 159 (5795MHz) 30MHz -25GHz



Channel 159 (5795MHz) 25GHz – 40GHz





6. Band Edge

6.1. Test Equipment

RF Radiated Measurement:

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

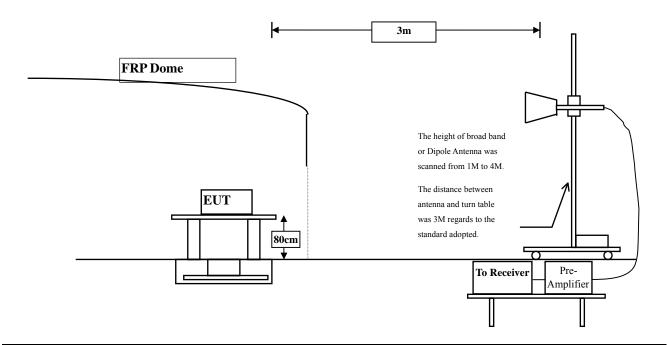
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
⊠Site # 3	Bilog Antenna		Schaffner Chase	CBL6112B/2673	Sep., 2013
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2013
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2013
		Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2014
	X Pre-Amplifier		QTK	AP-180C / CHM_0906076	Sep., 2013
		Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar, 2014
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2014
	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 : Notebook PC
Test Item : Band Edge
Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

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
01 (Peak)	2390.000	11.672	48.708	60.380	74.00	54.00	Pass
01 (Peak)	2400.000	11.703	56.946	68.648			
01 (Peak)	2410.900	11.740	100.173	111.913			
01 (Average)	2390.000	11.672	40.975	52.647	74.00	54.00	Pass
01 (Average)	2400.000	11.703	52.000	63.702			
01 (Average)	2411.200	11.740	97.308	109.048			

Figure Channel 01:

Horizontal (Peak)

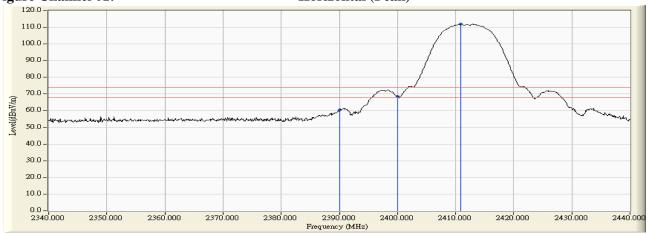


Figure Channel 01:

Horizontal (Average)





- 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 : Notebook PC
Test Item : Band Edge
Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

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
01 (Peak)	2390.000	11.672	47.504	59.176	74.00	54.00	Pass
01 (Peak)	2400.000	11.703	55.324	67.026			
01 (Peak)	2411.000	11.740	98.666	110.406			
01 (Average)	2390.000	11.672	39.800	51.472	74.00	54.00	Pass
01 (Average)	2400.000	11.703	50.375	62.077			
01 (Average)	2411.200	11.740	95.776	107.516			



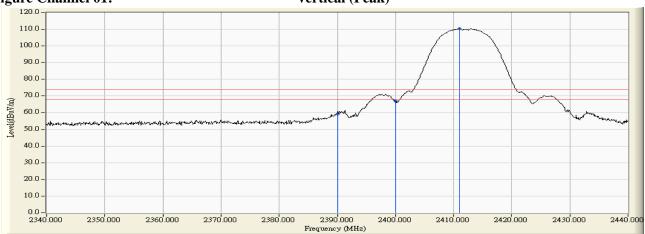
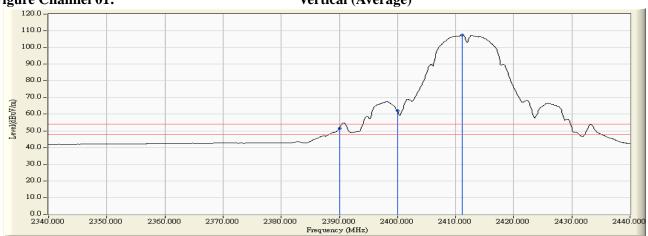


Figure Channel 01: Vertical (Average)





- 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.

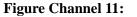


Product : Notebook PC
Test Item : Band Edge
Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	1 -		_	Emission Level		_	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
11 (Peak)	2461.000	11.783	98.646	110.429			
11 (Peak)	2483.500	12.049	45.812	57.861	74.00	54.00	Pass
11 (Average)	2461.300	11.787	95.821	107.608			
11 (Average)	2483.500	12.049	38.767	50.816	74.00	54.00	Pass



Horizontal (Peak)

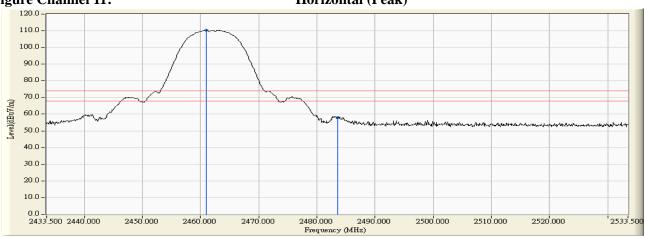


Figure Channel 11:

Horizontal (Average)





- 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 : Notebook PC
Test Item : Band Edge
Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
11 (Peak)	2461.000	11.783	95.599	107.382			
11 (Peak)	2483.500	12.049	46.504	58.553	74.00	54.00	Pass
11 (Average)	2461.200	11.786	92.785	104.571			
11 (Average)	2483.500	12.049	37.322	49.371	74.00	54.00	Pass



Vertical (Peak)

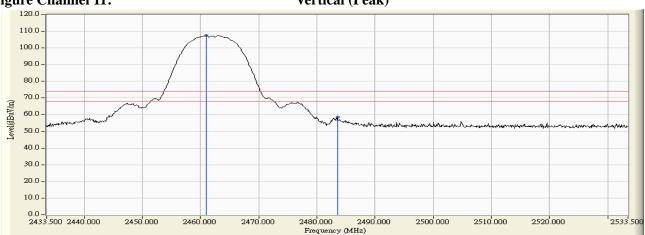
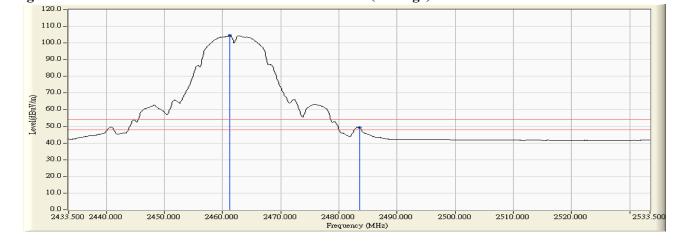


Figure Channel 11:

Vertical (Average)





- 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.

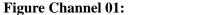


Product : Notebook PC
Test Item : Band Edge
Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Resuit
01 (Peak)	2390.000	11.672	59.805	71.477	74.00	54.00	Pass
01 (Peak)	2400.000	11.703	66.950	78.652			
01 (Peak)	2411.900	11.742	98.532	110.274			
01(Average)	2390.000	11.672	36.933	48.605	74.00	54.00	Pass
01(Average)	2400.000	11.703	49.196	60.898			
01(Average)	2409.600	11.735	85.088	96.823			





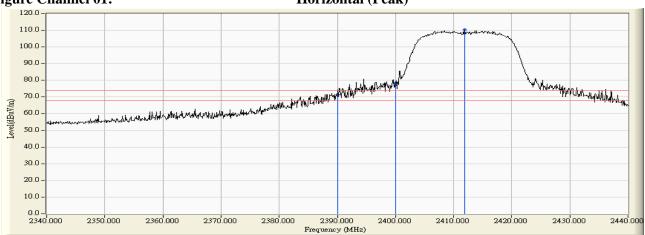
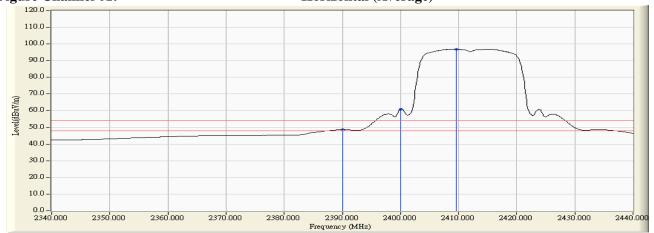


Figure Channel 01:

Horizontal (Average)





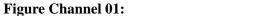
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level =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

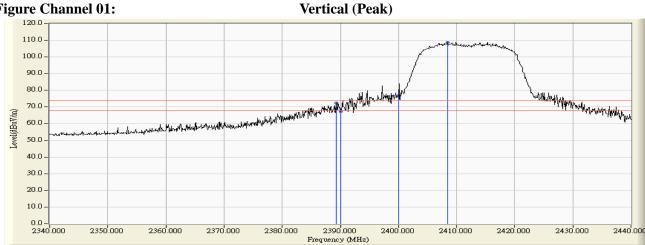


Test Mode Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

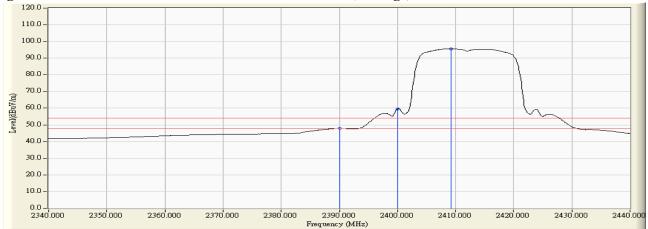
RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2389.300	11.670	60.863	72.533	74.00	54.00	Pass
01 (Peak)	2390.000	11.672	55.720	67.392	74.00	54.00	Pass
01 (Peak)	2400.000	11.703	65.159	76.861	-	1	
01 (Peak)	2408.400	11.730	96.996	108.727	-	-	
01 (Average)	2390.000	11.672	36.209	47.881	74.00	54.00	Pass
01 (Average)	2400.000	11.703	47.929	59.631	-	1	
01 (Average)	2409.200	11.734	83.873	95.607			





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





- 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.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2417MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
02 (Peak)	2390.000	11.672	60.841	72.513	74.00	54.00	Pass
02 (Peak)	2400.000	11.703	68.198	79.900			
02 (Peak)	2413.700	11.746	101.825	113.571	-		
02 (Average)	2390.000	11.672	40.545	52.217	74.00	54.00	Pass
02 (Average)	2400.000	11.703	44.013	55.715	-		
02 (Average)	2419.800	11.760	88.529	100.289			



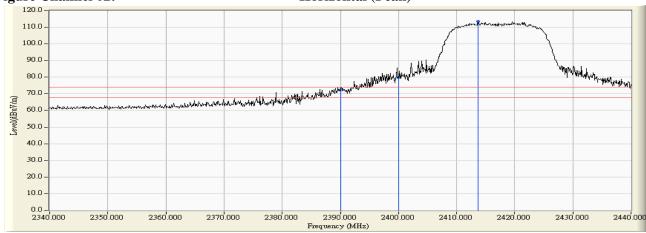
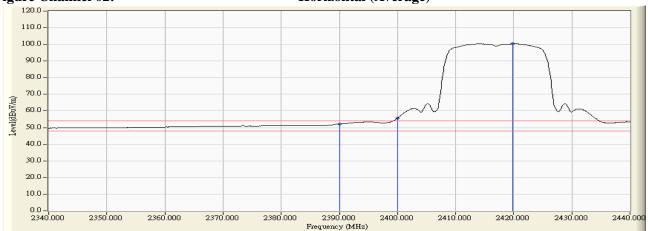


Figure Channel 02: Horizontal (Average)





- 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.

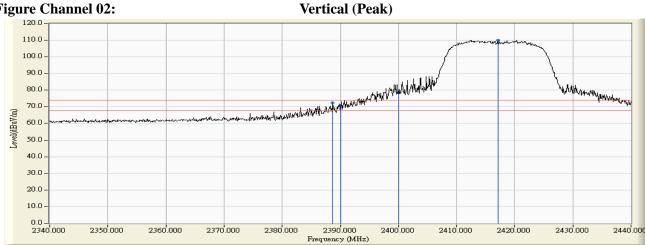


Test Mode Mode 2: Transmit (802.11g 6Mbps) (2417MHz)

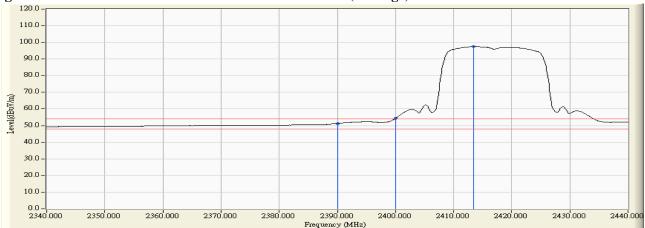
RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
02 (Peak)	2388.700	11.669	60.594	72.263	74.00	54.00	Pass
02 (Peak)	2390.000	11.672	58.756	70.428	74.00	54.00	Pass
02 (Peak)	2400.000	11.703	66.910	78.612			
02 (Peak)	2417.100	11.754	98.314	110.068		-	
02 (Average)	2390.000	11.672	39.618	51.290	74.00	54.00	Pass
02 (Average)	2400.000	11.703	42.600	54.302	-	-	
02 (Average)	2413.400	11.746	85.709	97.454			





Vertical (Average) Figure Channel 02:





- 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.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2422MHz)

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
03 (Peak)	2388.400	11.668	62.136	73.804	74.00	54.00	Pass
03 (Peak)	2390.000	11.672	59.822	71.494	74.00	54.00	Pass
03 (Peak)	2400.000	11.703	67.524	79.226			
03 (Peak)	2419.000	11.758	102.854	114.612			
03 (Average)	2390.000	11.672	40.228	51.900	74.00	54.00	Pass
03 (Average)	2400.000	11.703	42.754	54.456			
03 (Average)	2424.900	11.826	89.482	101.308			



Horizontal (Peak)

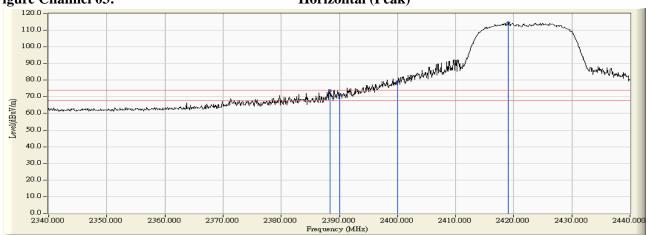
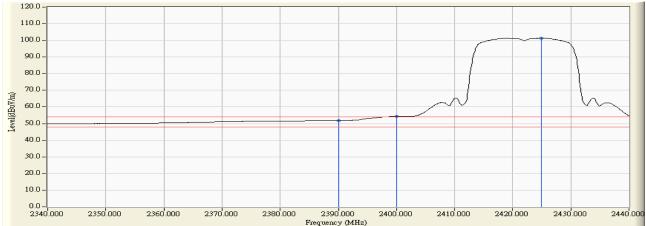


Figure Channel 03:

Horizontal (Average)





- 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.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2422MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chamie No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
03 (Peak)	2388.000	11.667	58.047	69.714	74.00	54.00	Pass
03 (Peak)	2389.900	11.671	58.581	70.253	74.00	54.00	Pass
03 (Peak)	2390.000	11.672	53.853	65.525	74.00	54.00	Pass
03 (Peak)	2400.000	11.703	61.962	73.664		1	
03 (Peak)	2419.000	11.758	101.046	112.804		1	
03 (Average)	2390.000	11.672	38.947	50.619	74.00	54.00	Pass
03 (Average)	2400.000	11.703	41.236	52.938		1	
03 (Average)	2418.500	11.757	87.602	99.359			



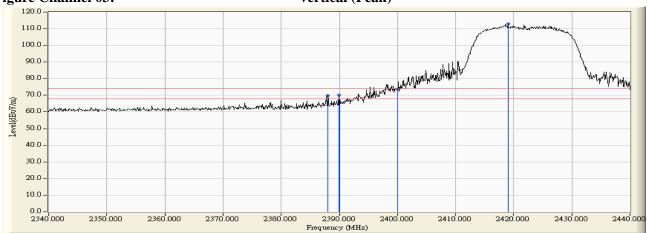
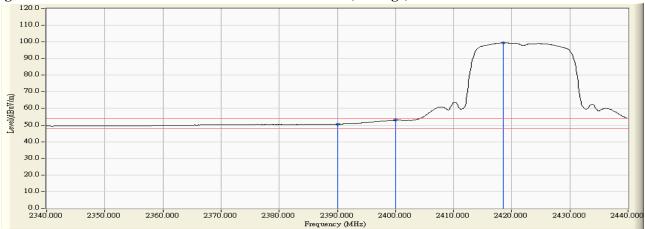


Figure Channel 03: Vertical (Average)





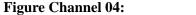
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level =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



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2427MHz)

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
0.4 (7) 1)				` /		,	-
04 (Peak)	2386.900	11.665	61.123	72.788	74.00	54.00	Pass
04 (Peak)	2387.200	11.665	61.911	73.576	74.00	54.00	Pass
04 (Peak)	2390.000	11.672	57.061	68.733	74.00	54.00	Pass
04 (Peak)	2400.000	11.703	61.045	72.747	-		
04 (Peak)	2430.200	11.898	103.832	115.729			
04 (Average)	2390.000	11.672	40.058	51.730	74.00	54.00	Pass
04 (Average)	2400.000	11.703	41.770	53.472			
04 (Average)	2424.200	11.817	90.747	102.564			



Horizontal (Peak)

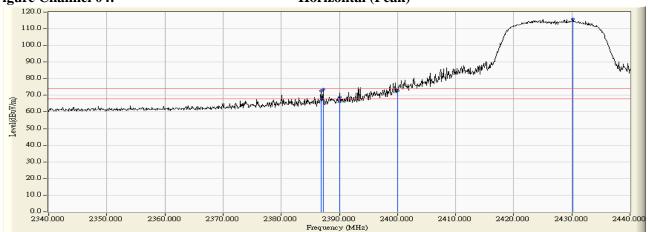
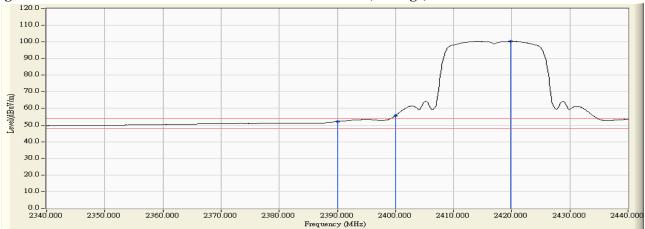


Figure Channel 04:

Horizontal (Average)





- 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.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2427MHz)

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
04 (Peak)	2387.900	11.667	57.634	69.301	74.00	54.00	Pass
04 (Peak)	2390.000	11.672	52.311	63.983	74.00	54.00	Pass
04 (Peak)	2400.000	11.703	58.936	70.638	-	-	
04 (Peak)	2424.000	11.814	100.602	112.416	-	-	
04 (Average)	2390.000	11.672	39.236	50.908	74.00	54.00	Pass
04 (Average)	2400.000	11.703	40.714	52.416			
04 (Average)	2430.300	11.899	87.507	99.406			



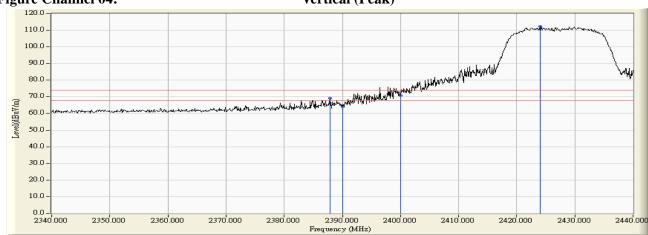
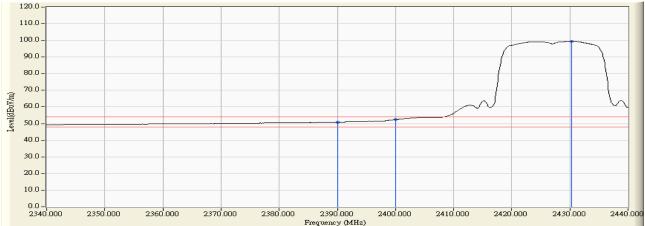


Figure Channel 04: Vertical (Average)





- 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.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2452MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
09 (Peak)	2449.000	11.821	104.056	115.877			
09 (Peak)	2483.500	12.049	59.245	71.294	74.00	54.00	Pass
09 (Peak)	2484.400	12.056	61.784	73.840	74.00	54.00	Pass
09 (Peak)	2485.500	12.065	61.202	73.267	74.00	54.00	Pass
09 (Average)	2448.400	11.830	90.580	102.410	-		
09 (Average)	2483.500	12.049	40.065	52.114	74.00	54.00	Pass



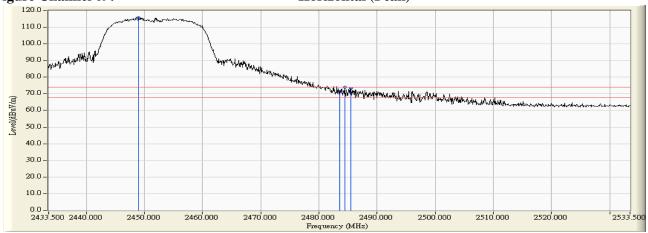
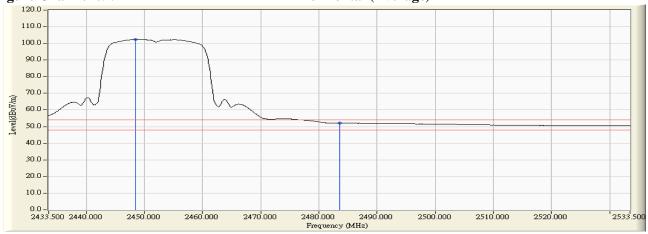


Figure Channel 09: Horizontal (Average)





- 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.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2452MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
09 (Peak)	2449.700	11.809	101.581	113.391	-		
09 (Peak)	2483.500	12.049	54.415	66.464	74.00	54.00	Pass
09 (Peak)	2483.800	12.052	59.903	71.955	74.00	54.00	Pass
09 (Peak)	2484.900	12.060	59.893	71.953	74.00	54.00	Pass
09 (Average)	2448.400	11.830	88.722	100.552	-		
09 (Average)	2483.500	12.049	39.462	51.511	74.00	54.00	Pass



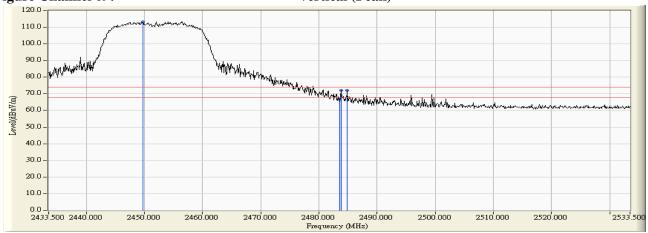
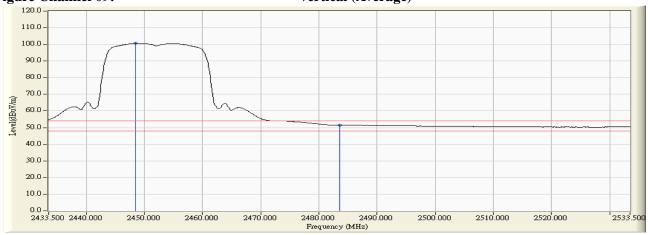


Figure Channel 09: Vertical (Average)





- 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.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2457MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
10 (Peak)	2454.600	11.731	102.019	113.750	-	1	
10 (Peak)	2483.500	12.049	60.214	72.263	74.00	54.00	Pass
10(Peak)	2484.700	12.059	61.578	73.637	74.00	54.00	Pass
10 (Average)	2454.200	11.737	88.785	100.522	-	1	
10 (Average)	2483.500	12.049	40.478	52.527	74.00	54.00	Pass



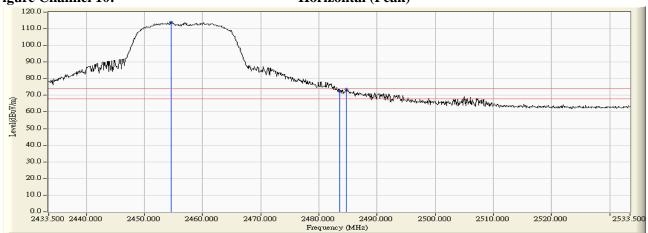


Figure Channel 10: Horizontal (Average)





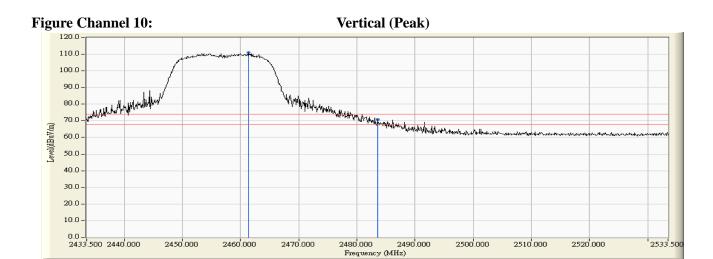
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level =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



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2457MHz)

RF Radiated Measurement (Vertical):

Channal Na	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	D agult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
10 (Peak)	2461.300	11.787	99.047	110.834			
10 (Peak)	2483.500	12.049	58.714	70.763	74.00	54.00	Pass
10 (Average)	2460.300	11.773	86.386	98.159			
10 (Average)	2483.500	12.049	39.754	51.803	74.00	54.00	Pass









- 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.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
11 (Peak)	2464.700	11.837	97.111	108.948	-	1	
11 (Peak)	2483.500	12.049	56.491	68.540	74.00	54.00	Pass
11 (Peak)	2487.100	12.078	59.520	71.598	74.00	54.00	Pass
11 (Average)	2459.100	11.755	84.196	95.951		-	
11 (Average)	2483.500	12.049	37.173	49.222	74.00	54.00	Pass





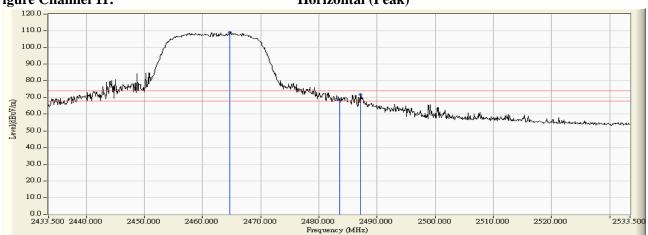


Figure Channel 11:

Horizontal (Average)





- 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.



Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
11 (Peak)	2459.300	11.758	94.401	106.159			
11 (Peak)	2483.500	12.049	54.999	67.048	74.00	54.00	Pass
11 (Peak)	2484.800	12.060	56.986	69.045	74.00	54.00	Pass
11 (Peak)	2486.500	12.073	55.275	67.348	74.00	54.00	Pass
11 (Average)	2459.300	11.758	81.453	93.211			
11 (Average)	2483.500	12.049	35.401	47.450	74.00	54.00	Pass



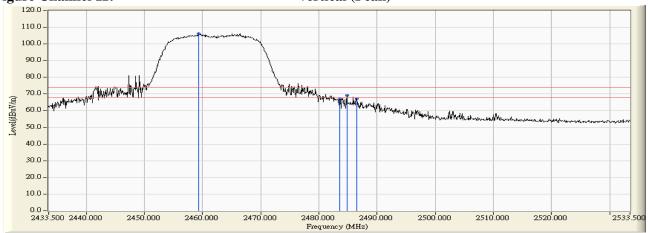


Figure Channel 11: Vertical (Average)





- 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.

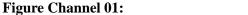
Page: 100 of 173



Test Mode Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2412MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
01 (Peak)	2389.600	11.671	60.619	72.290	74.00	54.00	Pass
01 (Peak)	2390.000	11.672	56.578	68.250	74.00	54.00	Pass
01 (Peak)	2400.000	11.703	68.702	80.404	-	1	-
01 (Peak)	2414.100	11.747	96.358	108.105	ŀ	-	-
01 (Average)	2390.000	11.672	36.205	47.877	74.00	54.00	Pass
01 (Average)	2400.000	11.703	51.985	63.687	-	1	
01 (Average)	2409.000	11.733	83.248	94.981		-	

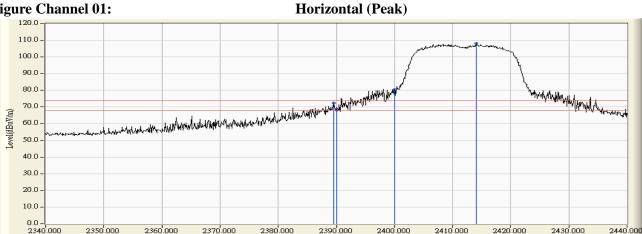


2350,000

2360.000

2370,000

2380,000



2390,000 Frequency (MHz) 2400.000

2410,000

2420,000

2430,000

2440.000

Figure Channel 01: Horizontal (Average) 120.0 110.0 100.0 90.0 80.0 70.0 50.0 40.0 30.0 20.0 10.0 -0.0 – 2340.000 2390,000 Frequency (MHz) 2350.000 2360 .000 2370.000 2400.000 2410.000 2420.000 2430.000 2440.000



- 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.

Page: 102 of 173



Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2412MHz)

RF Radiated Measurement (Vertical):

Channel No.		Correct Factor	_	Emission Level		_	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	resure
01 (Peak)	2390.000	11.672	59.826	71.498	74.00	54.00	Pass
01 (Peak)	2400.000	11.703	63.529	75.231	-		
01 (Peak)	2415.500	11.750	94.542	106.292	-		-
01 (Average)	2390.000	11.672	34.117	45.789	74.00	54.00	Pass
01 (Average)	2400.000	11.703	49.408	61.110			
01 (Average)	2415.400	11.750	81.130	92.880			



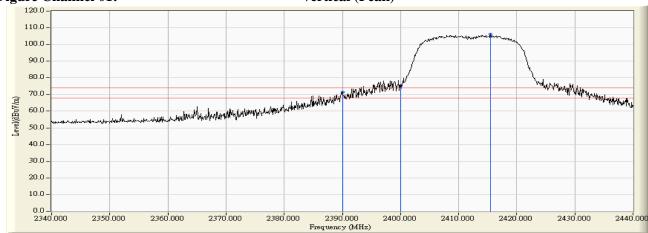
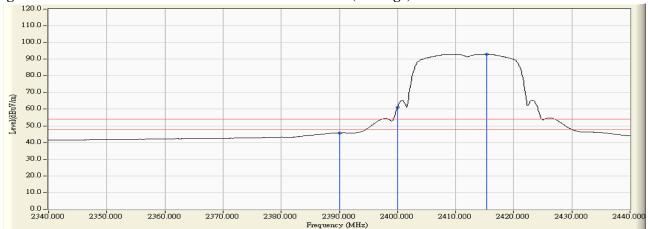


Figure Channel 01: Vertical (Average)





- 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.

Page: 104 of 173



Test Mode Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2417MHz)

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
02 (Peak)	2388.500	11.669	61.825	73.493	74.00	54.00	Pass
02 (Peak)	2390.000	11.672	57.858	69.530	74.00	54.00	Pass
02 (Peak)	2400.000	11.703	72.136	83.838	1		
02 (Peak)	2415.100	11.750	100.959	112.708			
02 (Average)	2390.000	11.672	40.330	52.002	74.00	54.00	Pass
02 (Average)	2400.000	11.703	43.830	55.532	1		
02 (Average)	2419.800	11.760	87.109	98.869			



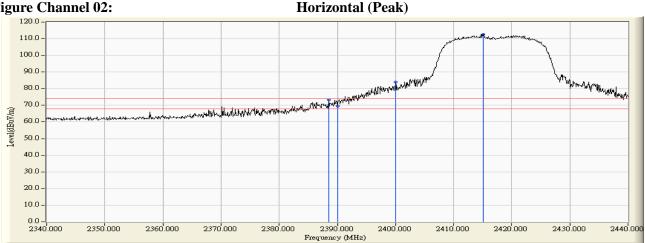


Figure Channel 02: Horizontal (Average)





- 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.

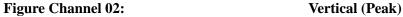
Page: 106 of 173



Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2417MHz)

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
02 (Peak)	2390.000	11.672	55.113	66.785	74.00	54.00	Pass
02 (Peak)	2400.000	11.703	64.326	76.028	-		
02 (Peak)	2415.000	11.749	97.646	109.395			
02 (Average)	2390.000	11.672	39.053	50.725	74.00	54.00	Pass
02 (Average)	2400.000	11.703	42.034	53.736			
02 (Average)	2413.700	11.746	85.043	96.789			



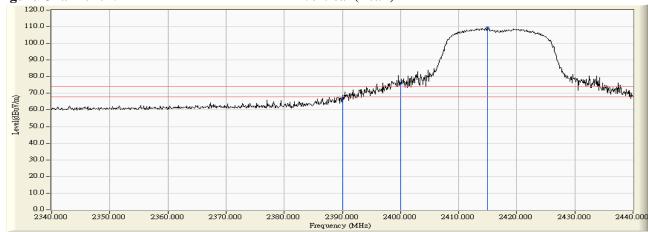
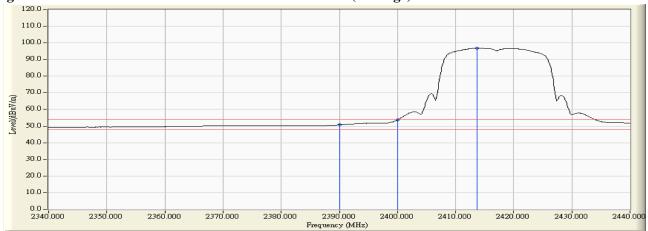


Figure Channel 02: Vertical (Average)





- 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.

Page: 108 of 173



Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2422MHz)

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
03 (Peak)	2381.000	11.684	60.092	71.776	74.00	54.00	Pass
03 (Peak)	2383.700	11.662	60.891	72.552	74.00	54.00	Pass
03 (Peak)	2389.900	11.671	61.854	73.526	74.00	54.00	Pass
03 (Peak)	2390.000	11.672	56.586	68.258	74.00	54.00	Pass
03 (Peak)	2400.000	11.703	64.549	76.251	-		1
03 (Peak)	2420.200	11.763	102.881	114.644	-		I
03 (Average)	2390.000	11.672	40.248	51.920	74.00	54.00	Pass
03 (Average)	2400.000	11.703	43.097	54.799			-
03 (Average)	2425.300	11.832	89.129	100.961	-		I





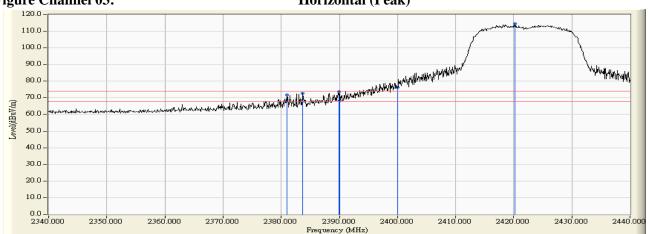
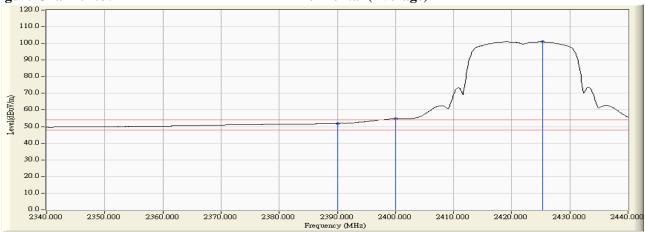


Figure Channel 03:

Horizontal (Average)



Page: 109 of 173



- 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.

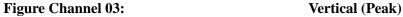
Page: 110 of 173



Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2422MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chamiei 140.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
03 (Peak)	2385.900	11.662	58.551	70.214	74.00	54.00	Pass
03 (Peak)	2390.000	11.672	53.966	65.638	74.00	54.00	Pass
03 (Peak)	2400.000	11.703	63.499	75.201	-		
03 (Peak)	2419.200	11.759	99.748	111.507	-		
03 (Average)	2390.000	11.672	39.048	50.720	74.00	54.00	Pass
03 (Average)	2400.000	11.703	41.466	53.168			
03 (Average)	2418.600	11.757	87.054	98.811			



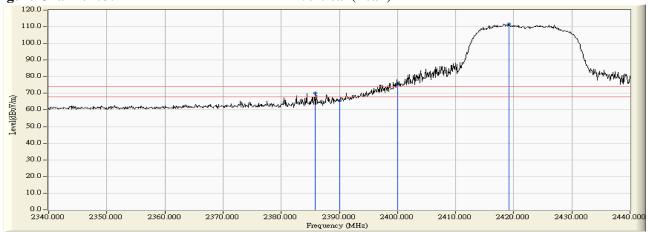
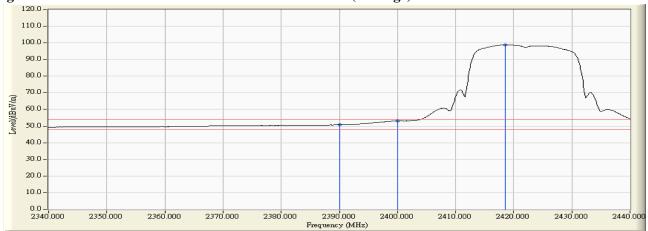


Figure Channel 03: Vertical (Average)



Page: 111 of 173



- 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.

Page: 112 of 173



Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2427MHz)

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
04 (Peak)	2386.600	11.664	61.126	72.790	74.00	54.00	Pass
04 (Peak)	2388.300	11.668	60.754	72.422	74.00	54.00	Pass
04 (Peak)	2390.000	11.672	54.827	66.499	74.00	54.00	Pass
04 (Peak)	2400.000	11.703	61.620	73.322			
04 (Peak)	2432.000	11.922	103.875	115.796	-		
04 (Average)	2390.000	11.672	40.494	52.166	74.00	54.00	Pass
04 (Average)	2400.000	11.703	42.193	53.895			
04 (Average)	2430.200	11.898	90.756	102.653			



Horizontal (Peak)

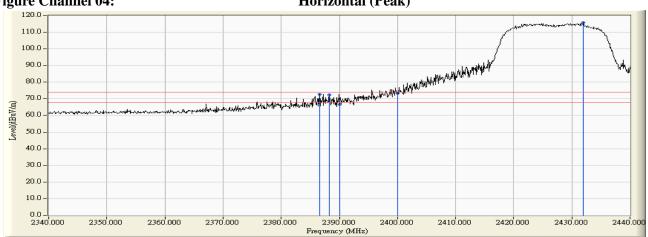
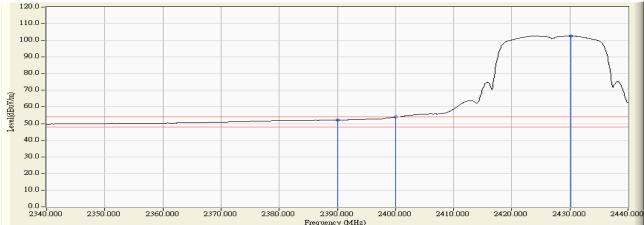


Figure Channel 04:

Horizontal (Average)





- 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.

Page: 114 of 173



Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2427MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
04 (Peak)	2386.000	11.663	54.395	66.058	74.00	54.00	Pass
04 (Peak)	2390.000	11.672	51.627	63.299	74.00	54.00	Pass
04 (Peak)	2400.000	11.703	59.576	71.278	-		1
04 (Peak)	2431.800	11.918	98.896	110.815	-		I
04 (Average)	2390.000	11.672	38.881	50.553	74.00	54.00	Pass
04 (Average)	2400.000	11.703	40.001	51.703			-
04 (Average)	2429.800	11.892	86.338	98.230			



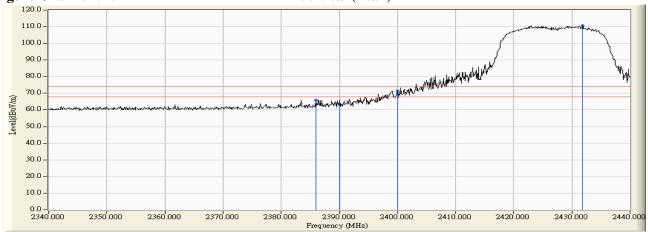
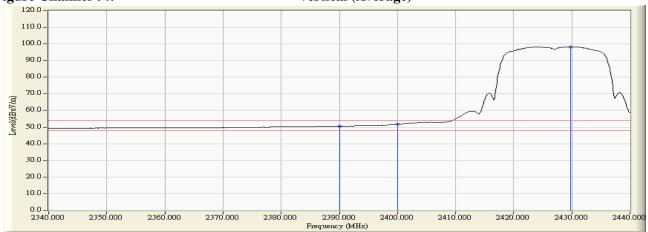


Figure Channel 04: Vertical (Average)





- 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.

Page: 116 of 173



Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2452MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
09(Peak)	2449.700	11.809	98.751	110.561	1		
09 (Peak)	2483.500	12.049	55.154	67.203	74.00	54.00	Pass
09 (Peak)	2489.300	12.095	59.186	71.281	74.00	54.00	Pass
09 (Average)	2448.500	11.829	84.858	96.687			
09 (Average)	2483.500	12.049	33.591	45.640	74.00	54.00	Pass



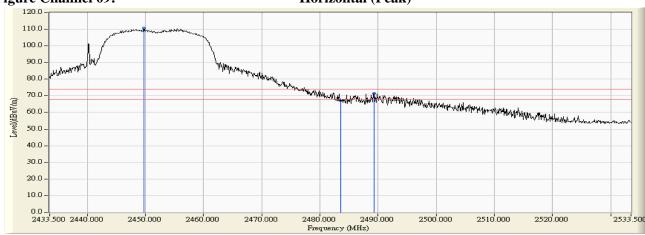
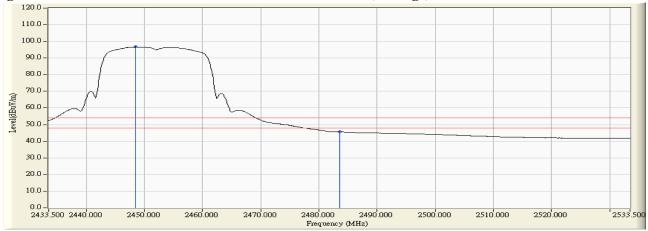


Figure Channel 09: Horizontal (Average)





- 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.

Page: 118 of 173



Test Mode Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2452MHz)

RF Radiated Measurement (Vertical):

Channal Na	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
09(Peak)	2446.900	11.854	99.103	110.958	-		-
09(Peak)	2483.500	12.049	54.385	66.434	74.00	54.00	Pass
09 (Peak)	2488.800	12.091	58.400	70.491	74.00	54.00	Pass
09 (Average)	2448.700	11.826	86.013	97.839	-		-
09 (Average)	2483.500	12.049	33.335	45.384	74.00	54.00	Pass



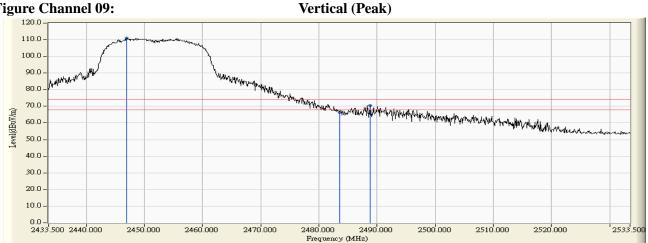
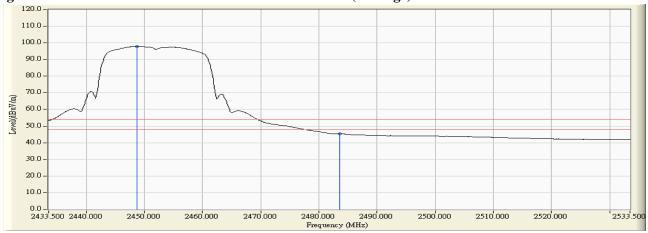


Figure Channel 09: Vertical (Average)





- 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.

Page: 120 of 173



Product Notebook PC Band Edge Test Item Test Site No.3 OATS

Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2457MHz) Test Mode

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Resuit
10(Peak)	2454.900	11.726	100.404	112.130			
10 (Peak)	2483.500	12.049	60.609	72.658	74.00	54.00	Pass
10 (Average)	2460.400	11.774	86.170	97.944			
10 (Average)	2483.500	12.049	36.756	48.805	74.00	54.00	Pass



Horizontal (Peak)

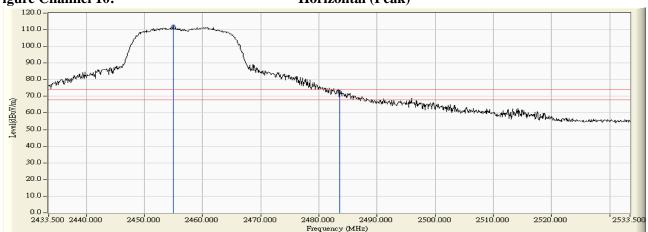
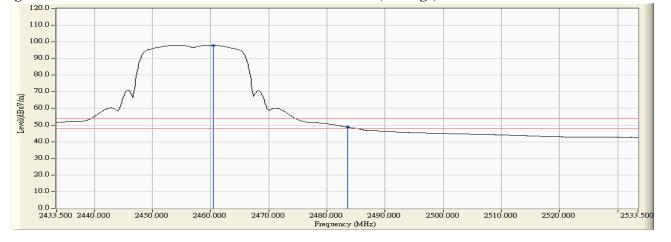


Figure Channel 10:

Horizontal (Average)





- 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.

Page: 122 of 173



Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2457MHz)

RF Radiated Measurement (Vertical):

Channel No	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	D agusta
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
10(Peak)	2455.100	11.723	96.285	108.008	-		
10(Peak)	2483.500	12.049	49.256	61.305	74.00	54.00	Pass
10 (Peak)	2484.000	12.053	53.463	65.516	74.00	54.00	Pass
10 (Average)	2460.500	11.775	82.434	94.210			
10 (Average)	2483.500	12.049	33.220	45.269	74.00	54.00	Pass



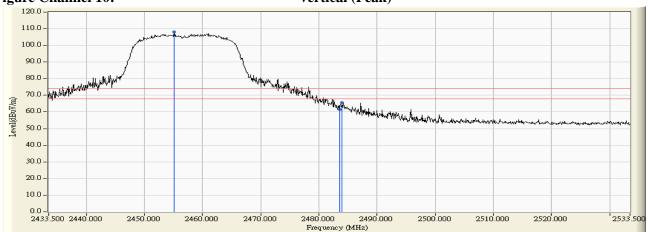
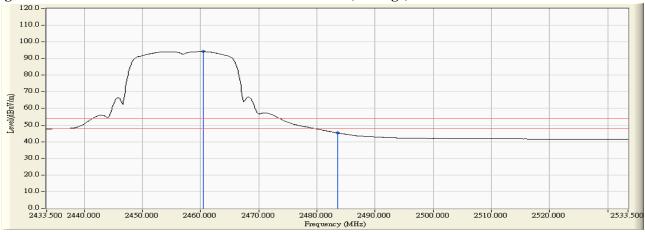


Figure Channel 10: Vertical (Average)





- 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.

Page: 124 of 173

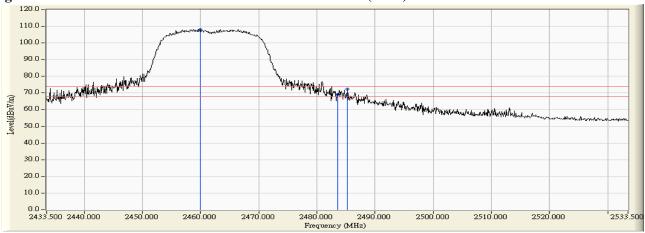


Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chainlei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
11 (Peak)	2459.900	11.767	96.448	108.215			
11 (Peak)	2483.500	12.049	57.088	69.137	74.00	54.00	Pass
11 (Peak)	2485.200	12.062	60.336	72.399	74.00	54.00	Pass
11 (Average)	2458.600	11.748	83.627	95.375			
11 (Average)	2483.500	12.049	37.670	49.719	74.00	54.00	Pass











- 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.

Page: 126 of 173



Test Mode : Mode 4: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2462MHz)

RF Radiated Measurement (Vertical):

Channal Na	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	D agult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
11 (Peak)	2464.100	11.827	95.163	106.991			
11 (Peak)	2483.500	12.049	59.770	71.819	74.00	54.00	Pass
11 (Average)	2465.400	11.847	81.981	93.828			
11 (Average)	2483.500	12.049	37.658	49.707	74.00	54.00	Pass



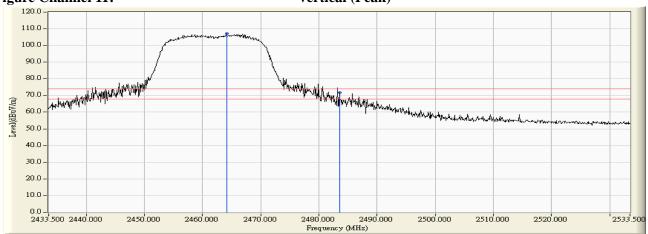
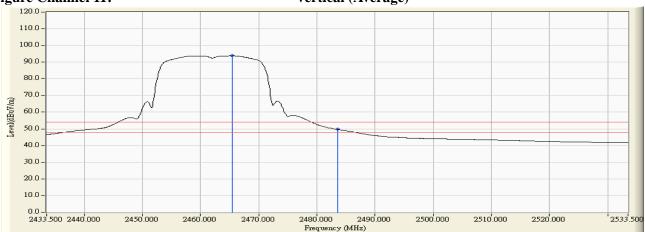


Figure Channel 11: Vertical (Average)





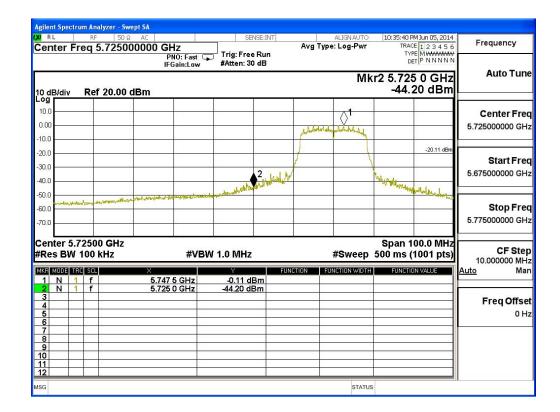
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level =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

Page: 128 of 173



Test Mode : Mode 3: Transmit - 802.11a 6Mbps

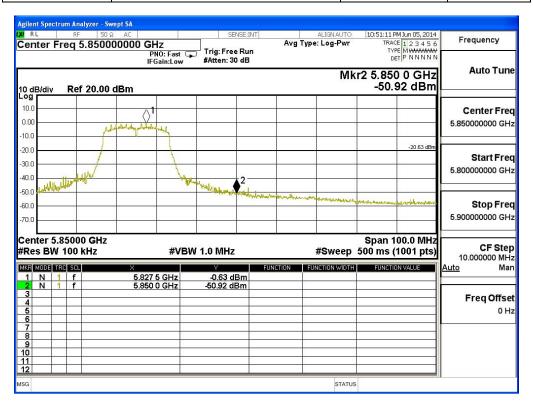
Test Frequency	Measurement Level	Limit	Result
(MHz)	Δ (dB)	Δ (dB)	
5745	44.20	>20	PASS





Test Mode : Mode 3: Transmit - 802.11a 6Mbps

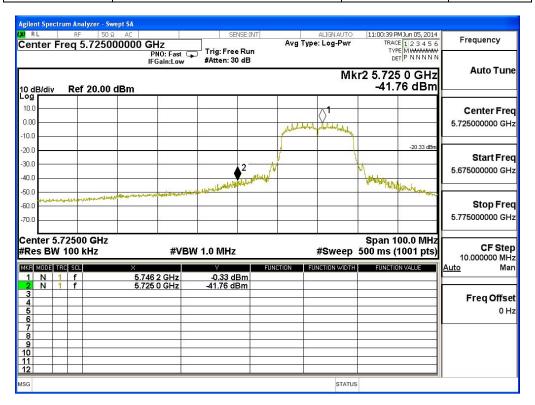
Test Frequency	Measurement Level	Limit	Result
(MHz)	Δ (dB)	Δ (dB)	
5825	50.29	>20	PASS





Test Mode : Mode 5: Transmit - 802.11n-20BW_7.2Mbps(5G Band)

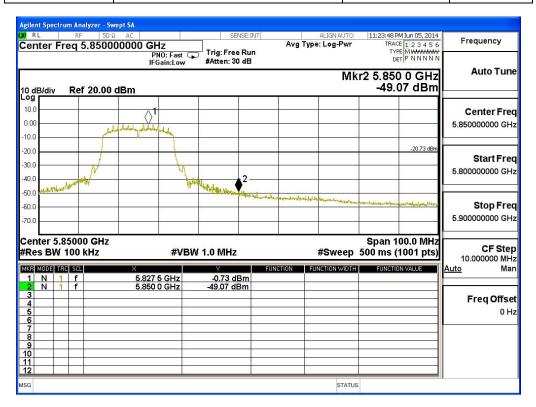
Test Frequency	Measurement Level	Limit	Result
(MHz)	Δ (dB)	Δ (dB)	
5745	41.43	>20	PASS





Test Mode : Mode 5: Transmit - 802.11n-20BW_7.2Mbps(5G Band)

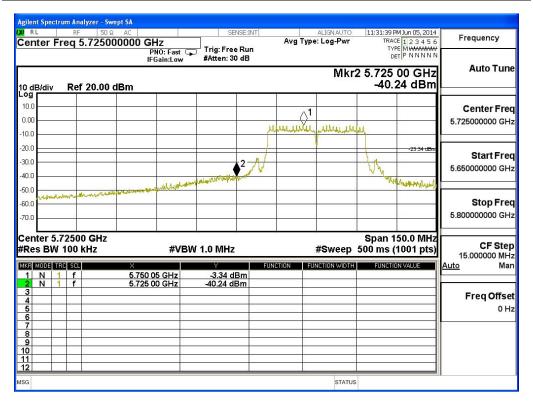
Test Frequency	Measurement Level	Limit	Result
(MHz)	Δ (dB)	Δ (dB)	
5825	48.34	>20	PASS





Test Mode : Mode 6: Transmit - 802.11n-40BW_15Mbps(5G Band)

Test Frequency	Measurement Level	Limit	Result
(MHz)	$\Delta (\mathrm{dB})$	Δ (dB)	
5755	36.90	>20	PASS





Test Mode : Mode 6: Transmit - 802.11n-40BW_15Mbps(5G Band)

Test Frequency	Measurement Level	Limit	Result
(MHz)	Δ (dB)	Δ (dB)	
5795	49.51	>20	PASS





7. Occupied Bandwidth

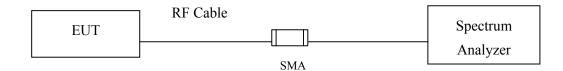
7.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2014
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2014
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2014

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

 \pm 150Hz



7.6. Test Result of Occupied Bandwidth

Product : Notebook PC

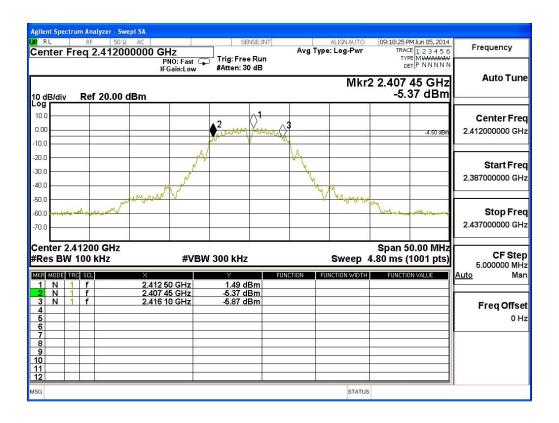
Test Item : Occupied Bandwidth Data

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	2412.00	8650	>500	Pass

Figure Channel 1:





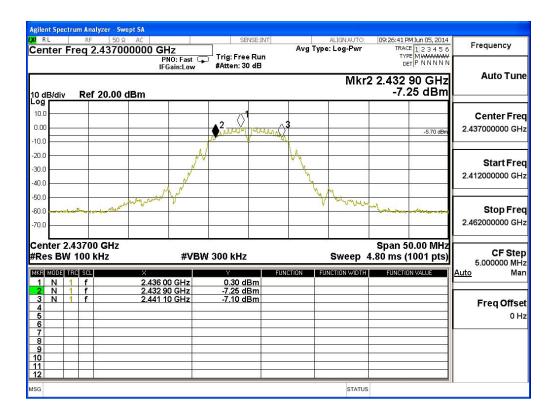
Test Item : Occupied Bandwidth Data

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	2437.00	8200	>500	Pass

Figure Channel 6:





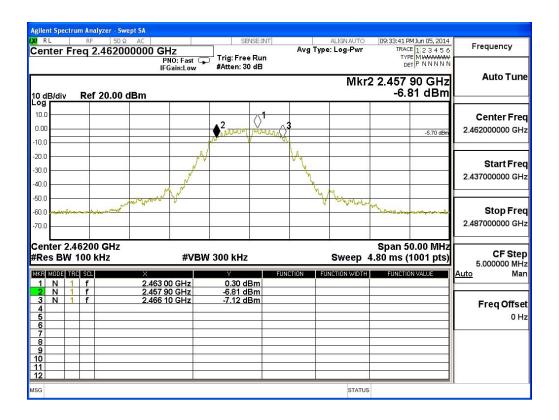
Test Item : Occupied Bandwidth Data

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	2462.00	8200	>500	Pass

Figure Channel 11:





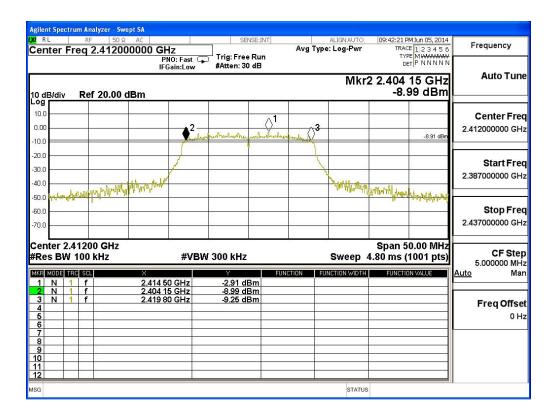
Test Item : Occupied Bandwidth Data

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	2412.00	15650	>500	Pass

Figure Channel 1:





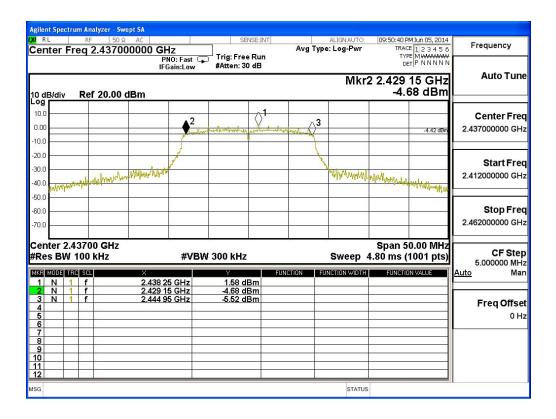
Test Item : Occupied Bandwidth Data

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	2437.00	15800	>500	Pass

Figure Channel 6:





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	2462.00	15900	>500	Pass

Figure Channel 11:

