

FCC Test Report

Product Name	Mobile Tablet
Model No	DT317BT
FCC ID.	YE3800H

Applicant	DT Research, Inc.
Address	6F, No. 1, NingPo E. St. Taipei, 100 Taiwan

Date of Receipt	Jan. 05, 2017
Issue Date	Feb. 07, 2017
Report No.	1710172R-RFUSP27V00
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 report of the equipment and evaluated measurement uncertainty herein.

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Applicant	DT Research, Inc.			
Address	6F, No. 1, NingPo E. St. Taipei, 100 Taiwan			
Manufacturer	DT Research, Inc.			
Model No.	DT317BT			
FCC ID.	YE3800H			
EUT Rated Voltage	AC 100-240V, 50-60Hz			
EUT Test Voltage	AC 120V/60Hz			
Trade Name	DT Research, Inc.			
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2015			
	ANSI C63.4: 2014, ANSI C63.10: 2013			
	KDB 558074 D01 DTS Meas Guidance v03r05			
Test Result	Complied			

Documented By :	Rita Huang
	(Senior Adm. Specialist / Rita Huang)
Tested By :	Xiao Chen
	(Engineer / Xiao Chen)
Approved By :	Alm 3
	(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	
1.7.	List of Test Equipment	
2.	Conducted Emission	11
2.1.	Test Setup	11
2.2.	Limits	
2.3.	Test Procedure	
2.4.	Uncertainty	
2.5.	Test Result of Conducted Emission	
3.	Maximum Conducted Power	15
3.1.	Test Setup	15
3.2.	Limits	
3.3.	Test Procedure	
3.4.	Uncertainty	
3.5.	Test Result of Maximum Conducted Power	
4.	Radiated Emission	20
4.1.	Test Setup	20
4.2.	Limits	
4.3.	Test Procedure	22
4.4.	Uncertainty	
4.5.	Test Result of Radiated Emission.	
5.	RF Antenna conducted test	39
5.1.	Test Setup	39
5.2.	Limits	39
5.3.	Test Procedure	39
5.4.	Uncertainty	39
5.5.	Test Result of RF antenna conducted test	40
6.	Band Edge	40
6.1.	Test Setup	46
6.2.	Limits	46
6.3.	Test Procedure	47
6.4.	Uncertainty	47
6.5.	Test Result of Band Edge	48
7.	6dB Bandwidth	64
7.1.	Test Setup	
7.2.	Limits	64

Report No.: 1710172R-RFUSP27V00



9.	EMI Reduction Method During Compliance Testing	90
8.5.	Test Result of Power Density	78
8.4.	Uncertainty	
8.3.	Test Procedure	
8.2.	Limits	77
8.1.	Test Setup	
8.	Power Density	77
7.5.	Test Result of 6dB Bandwidth	65
7.4.	Uncertainty	
7.3.	Test Procedure	64

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs



1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Mobile Tablet		
Trade Name	DT Research, Inc.		
Model No.	DT317BT		
FCC ID.	YE3800H		
Frequency Range	802.11b/g/n-20MHz:2412-2462MHz,802.11n-40MHz:2422-2452MHz		
Number of Channels	802.11b/g/n-20MHz: 11, n-40MHz: 7		
Data Speed	802.11b: 1-11Mbps, 802.11a/g: 6-54Mbps, 802.11n: up to 300Mbps		
Type of Modulation	802.11b:DSSS, DBPSK, DQPSK, CCK		
	802.11g/n: OFDM, BPSK, QPSK, 16QAM, 64QAM		
Antenna Type	PCB Antenna		
Antenna Gain	Refer to the table "Antenna List"		
Channel Control	Auto		
Power Adapter	MFR: ENG, M/N: 6A-181WP05		
	Input: 100-240V~ 0.6A, 50-60Hz		
	Output: 5V==3A		
	Cable out: Non-Shielded, 1.4m, with one ferrite core bonded.		

Antenna List

No	Manufacturer	Part No.	Antenna Type	Peak Gain
1	CHENGYU ELECTRIC Co.,LTD	PA0121(Main),	PCB Antenna	2.02dBi for 2.4 GHz
		PA0122(Aux)		

Note:

1. The antenna of EUT conforms to FCC 15.203.



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

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

802.11n-40MHz (2.4G Band) Center Working Frequency of Each Channel:

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

- 1. This device is a Mobile Tablet with a built-in WLAN · Bluetooth V3.0, V2.1+EDR, V4.0 transceiver, this report for WLAN.
- 2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
- 3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11b is 1Mbps \cdot 802.11g is 6Mbps \cdot 802.11n(20M-BW) is 14.4Mbps and, 802.11n(40M-BW) is 30Mbps).
- 4. At result of pretests, module supports dual-channel transmission, only the worst case is shown in the report.
- 5. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.
- 6. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

Test Mode:	Mode 1: Transmit (802.11b 1Mbps)
	Mode 2: Transmit (802.11g 6Mbps)
	Mode 4: Transmit - 802.11n-20BW_14.4Mbps(2.4G Band)
	Mode 5: Transmit - 802.11n-40BW_30Mbps(2.4G Band)



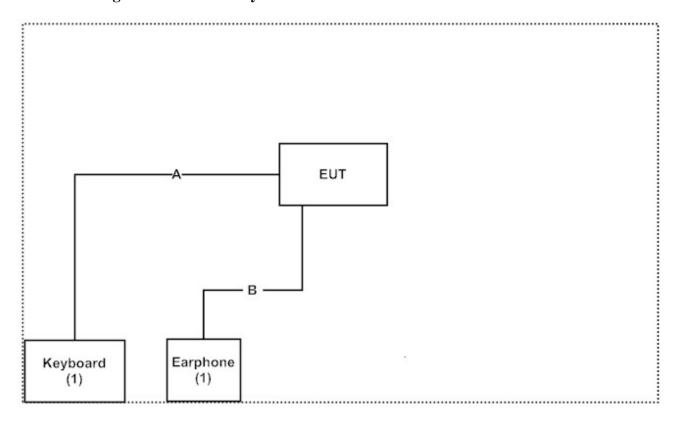
1.3. Tested System Details

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.	Power Cord
1	Keyboard	Logitech	Y-UR83	SY848UK	N/A
2	Earphone	Dr.AV	CD-806B	N/A	N/A

Sign	nal Cable Type	Signal cable Description
A	Keyboard Cable	Non-Shielded, 1.8m
В	Earphone Cable	Non-Shielded, 1.0m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown on 1.4
- (2) Execute software "Comnand Prompt 10.0.1.0 240" on the Notebook PC.
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Start the continuous transmission.
- (5) Verify that the EUT works properly.

Report No.: 1710172R-RFUSP27V00



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 DEKRA Testing and Certification Co., Ltd. Web Site:

http://www.dekra.com.tw/english/about/certificates.aspx?bval=5

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: http://www.dekra.com.tw/index en.aspx

Site Description: Accredited by TAF

Accredited Number: 3023

Site Name: DEKRA Testing and Certification Co., Ltd

Site Address: No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451,

Taiwan, R.O.C.

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

E-Mail: info.tw@dekra.com

FCC Accreditation Number: TW1014



1.7. List of Test Equipment

For Conducted measurements /CB3/SR8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
	Temperature Chamber	WIT GROUP	TH-1S-B	EQ-201-00146	2016/11/28	2017/11/27
X	Spectrum Analyzer	Agilent	N9010A	MY48030495	2016/7/22	2017/7/21
X	Power Meter	Anritsu	ML2495A	6K00003357	2016/6/23	2017/6/22
X	Pulse power sensor	Anritsu	MA2411B	0846193	2016/6/23	2017/6/22
X	EMI Test Receiver	R&S	ESCS 30	100369	2016/10/13	2017/10/12
X	LISN	R&S	ESH3-Z5	836679/017	2017/1/7	2018/1/6
X	LISN	R&S	ENV216	100097	2017/1/7	2018/1/6
X	Coaxial Cable	QTK(Arnist)	RG 400	LC018-RG	2016/6/25	2017/6/24

For Radiated measurements /Site3/CB8

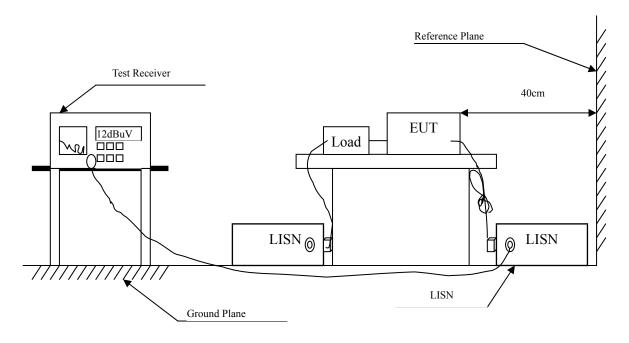
	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSP40	100170	2017/1/5	2018/1/4
	Loop Antenna	Teseq	HLA6121	37133	2016/3/18	2017/3/17
X	Bi-Log Antenna	Schaffner Chase	CBL6112B	2707	2016/6/11	2017/6/10
X	Horn Antenna	ETS-Lindgren	3117	00135205	2016/4/6	2017/4/5
	Horn Antenna	Schwarzbeck	BBHA9170	9170430	2017/1/11	2018/1/10
X	Pre-Amplifier	QTK	AP/0100A	CHM/0901069	2016/6/23	2017/6/22
X	Pre-Amplifier	EMCI	EMC012630SE	980210	2016/1/26	2017/1/24
	Pre-Amplifier	NARDA WE	DBL-1840N506	013	2016/9/30	2017/9/29
X	Filter	MicroTRON	BRM50701	019	2016/11/2	2017/11/1
	Filter	Microwave Circuits	N0257881	36681	2016/12/7	2017/12/6
X	EMI Test Receiver	R&S	ESR26	101385	2016/9/29	2017/9/28
X	Coaxial Cable	QTK(Arnist)	SUCOFLEX 106	L1606-015C	2016/6/23	2017/6/22
X	EMI Test Receiver	R&S	ESCS 30	838251/001	2016/7/21	2017/7/20
X	Coaxial Cable	QTK(Arnist)	RG 214	LC003-RG	2016/6/16	2017/6/15
X	Coaxial signal switch	Anritsu	MP59B	6201415889	2016/6/16	2017/6/15

- 1. All equipments are calibrated every one year.
- 2. The test instruments marked with "X" are used to measure the final test results.
- 3. Test Software version :QuieTek EMI 2.0 V2.1.113.



2. Conducted Emission

2.1. Test Setup





2.2. Limits

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

2.3. 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 C63.4: 2014 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.4. Uncertainty

 $\pm 2.26 \text{ dB}$



2.5. Test Result of Conducted Emission

Product : Mobile Tablet

Test Item : Conducted Emission Test

Power Line : Line 1 Test Date : 2017/01/13

Test Mode : Mode 5: Transmit - 802.11n-40BW_30Mbps(2.4G Band) (2437MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	MHz dB dBuV		dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.189	9.676	46.710	56.386	-8.500	64.886
0.322	9.670	33.480	43.150	-17.936	61.086
0.869	9.697	25.470	35.167	-20.833	56.000
1.287	9.711	24.840	34.551	-21.449	56.000
3.291	9.770	25.140	34.910	-21.090	56.000
9.400	9.888	16.750	26.638	-33.362	60.000
Average					
0.189	9.676	29.490	39.166	-15.720	54.886
0.322	9.670	17.010	26.680	-24.406	51.086
0.869	9.697	10.180	19.877	-26.123	46.000
1.287	9.711	9.980	19.691	-26.309	46.000
3.291	9.770	11.720	21.490	-24.510	46.000
9.400	9.888	9.290	19.178	-30.822	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 Date : 2017/01/13

Test Mode : Mode 5: Transmit - 802.11n-40BW_30Mbps(2.4G Band) (2437MHz)

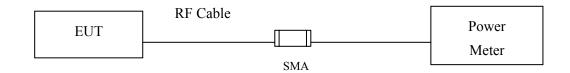
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	MHz dB dBuV		dBuV	dB	dBuV
Line 2					_
Quasi-Peak					
0.185	9.736	46.490	56.226	-8.774	65.000
0.267	9.738	37.960	47.698	-14.959	62.657
0.541	9.747	21.990	31.737	-24.263	56.000
1.513	9.788	23.660	33.448	-22.552	56.000
3.193	9.829	23.540	33.369	-22.631	56.000
8.431	9.945	18.070	28.015	-31.985	60.000
Average					
0.185	9.736	28.330	38.066	-16.934	55.000
0.267	9.738	20.560	30.298	-22.359	52.657
0.541	9.747	5.320	15.067	-30.933	46.000
1.513	9.788	9.590	19.378	-26.622	46.000
3.193	9.829	11.350	21.179	-24.821	46.000
8.431	9.945	10.260	20.205	-29.795	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



3. Maximum Conducted Power

3.1. Test Setup



3.2. Limits

The maximum average power shall be less 1 Watt. (Section 15.247 (b)(3))

3.3. 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 D01 DTS Meas Guidance v03r04 section 9.1.2 PKPM1 Peak power meter method.

3.4. Uncertainty

 $\pm 1.19 \text{ dB}$



3.5. Test Result of Maximum Conducted Power

Product : Mobile Tablet

Test Item : Maximum Conducted Power

Test Site : No.3 OATS Test Date : 2017/01/20

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

CHAIN A

Channel No	Frequency	For d	•	e Power ata Rate (M	Ibps)	Peak Power	Required	Result
	(MHz)	1	2	5.5	11	1	Limit	
			Measur					
01	2412	13.21				16.98	<30dBm	Pass
06	2437	13.14	13.1	13.04	12.98	16.91	<30dBm	Pass
11	2462	13.25				17.02	<30dBm	Pass

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

CHAIN B

Channel No	Frequency	For d	Average	e Power ata Rate (N	Лbps)	Peak Power	Required	Result
	(MHz)	1	2	5.5	11	1	Limit	
			Measur					
01	2412	13.17				16.86	<30dBm	Pass
06	2437	13.07	13.03	12.97	12.88	16.76	<30dBm	Pass
11	2462	12.84				16.56	<30dBm	Pass

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



Test Item : Maximum Conducted Power

Test Site : No.3 OATS Test Date : 2017/01/20

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

CHAIN A

				1	Average		Peak					
	Frequency		F	Power	Required							
Channel No	(MHz)	6	9	12	18	24	36	48	54	6	Limit	Result
01	2412	12.29					-			20.98	<30dBm	Pass
06	2437	12.16	12.09	11.97	11.85	11.78	11.64	11.59	11.47	20.96	<30dBm	Pass
11	2462	12.43		ŀ		- 1	ŀ		ŀ	21.03	<30dBm	Pass

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

CHAIN B

			Б		Average	Peak						
Channel No	Frequency (MHz)	6	9	or diffe	18	24	36	48	54	Power 6	Required Limit	Result
01	2412	11.89				-	-		1	20.79	<30dBm	Pass
06	2437	11.88	11.82	11.78	11.68	11.52	11.47	11.36	11.25	20.81	<30dBm	Pass
11	2462	12.08								20.94	<30dBm	Pass

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



Test Item : Maximum Conducted Power

Test Site : No.3 OATS Test Date : 2017/01/20

Test Mode : Mode 4: Transmit - 802.11n-20BW_14.4Mbps(2.4G Band)

CHAIN A

			Average Power							Peak
Fraguana	Eraguanov		For different Data Rate (Mbps)							Power
Channel No	Frequency (MHz)	14.4	28.9	43.3	57.8	86.7	115.6	130	144.4	14.4
	Measurement Level (dBm)									
01	2412	10.58								19.62
06	2437	10.93	10.89	10.76	10.65	10.57	10.42	10.33	10.28	19.79
11	2462	11								19.8

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

CHAIN B

		Average Power							Peak	
Fraguency		For different Data Rate (Mbps)							Power	
Channel No	Frequency (MHz)	14.4	28.9	43.3	57.8	86.7	115.6	130	144.4	14.4
	Measurement Level (dBm)									
01	2412	10.81	1	1	-	-	1			20.24
06	2437	10.66	10.58	10.49	10.34	10.26	10.18	10.07	10.02	20.11
11	2462	10.86	- 1	1	-	-	- 1			20.14

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit	Result
1	2412	14.4	19.62	20.24	22.95	<30dBm	Pass
6	2437	14.4	19.79	20.11	22.96	<30dBm	Pass
11	2462	14.4	19.80	20.14	22.98	<30dBm	Pass

Note: Peak Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW))



Test Item : Maximum Conducted Power

Test Site : No.3 OATS Test Date : 2017/01/20

Test Mode : Mode 5: Transmit - 802.11n-40BW 30Mbps(2.4G Band)

CHAIN A

			Average Power							
			For different Data Rate (Mbps)							
Channel No	Frequency (MHz)	30	60	90	120	180	240	270	300	30
		Measurement Level (dBm)						Bm)		
3	2422	8.61	1	1	1	-		1		18.38
6	2437	8.67	8.62	8.57	8.45	8.35	8.26	8.14	8.02	18.44
9	2452	8.92	-	-	-	-		-	!	18.55

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

CHAIN B

			Average Power							Peak
Fraguanay		For different Data Rate (Mbps)							Power	
Channel No	Frequency (MHz)	30	60	90	120	180	240	270	300	30
		Measurement Level (dBm)								
3	2422	8.49			I		I		-	18.29
6	2437	8.36	8.29	8.17	8.05	7.97	7.86	7.79	7.64	18.33
9	2452	8.37								18.33

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

CHAIN A+B

Channel	Frequency	Data Rata	Chain A Power	Chain B Power	Chain A+B Power	Limit	Result
	(MHz)	(Mbps)	(dBm)	(dBm)	(dBm)	(dBm)	
3	2422	30	18.38	18.29	21.35	<30dBm	Pass
6	2437	30	18.44	18.33	21.40	<30dBm	Pass
9	2452	30	18.55	18.33	21.45	<30dBm	Pass

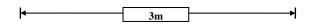
Note: Peak Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW))

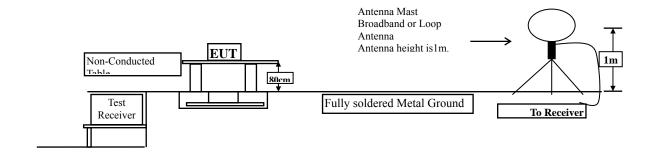


4. Radiated Emission

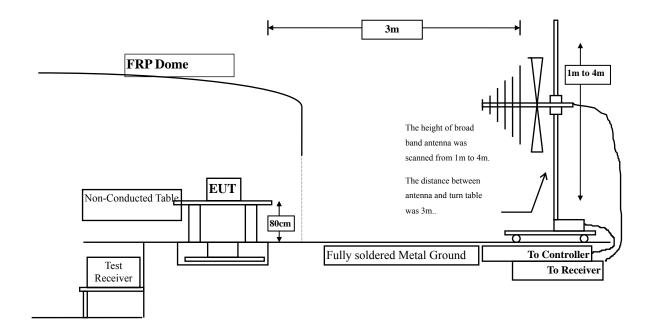
4.1. Test Setup

Radiated Emission Under 30MHz

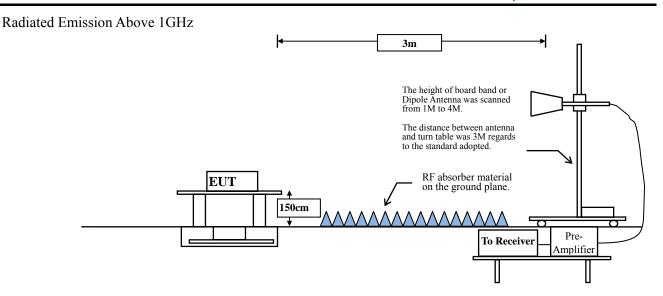




Radiated Emission Below 1GHz







4.2. 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	FCC Part 15 Subpart C Paragraph 15.209(a) Limits									
Frequency MHz	Field strength	Measurement distance								
IVIIIZ	(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)



4.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 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: 2013 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.

4.4. Uncertainty

- + 4.08 dB above 1GHz
- ± 4.22 dB below 1GHz



4.5. Test Result of Radiated Emission

Product : Mobile Tablet

Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS Test Date : 2017/01/19

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	2.428	49.760	52.189	-21.811	74.000
7236.000	9.177	47.930	57.107	-16.893	74.000
9648.000	10.019	41.500	51.520	-22.480	74.000
Average					
Detector:					
7236.000	9.177	42.730	51.907	-2.093	54.000
Vertical					
Peak Detector:					
4824.000	2.836	49.320	52.157	-21.843	74.000
7236.000	9.676	47.200	56.876	-17.124	74.000
9648.000	10.556	41.930	52.487	-21.513	74.000
Average					
Detector:					
7236.000	9.676	41.840	51.516	-2.484	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 Date : 2017/01/19

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	2.076	48.380	50.457	-23.543	74.000
7311.000	9.512	47.080	56.592	-17.408	74.000
9748.000	9.630	40.090	49.720	-24.280	74.000
Average					
Detector:					
7311.000	9.512	40.870	50.382	-3.618	54.000
Vertical					
Peak Detector:					
4874.000	2.532	51.410	53.942	-20.058	74.000
7311.000	10.089	47.620	57.709	-16.291	74.000
9748.000	10.266	40.760	51.027	-22.973	74.000
Average					
Detector:					
7311.000	10.089	41.810	51.899	-2.101	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 Date : 2017/01/19

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	2.191	49.900	52.091	-21.909	74.000
7386.000	10.373	46.040	56.414	-17.586	74.000
9848.000	9.964	40.950	50.914	-23.086	74.000
Average					
Detector:					
7386.000	10.373	39.880	50.254	-3.746	54.000
Vertical					
Peak Detector:					
4924.000	2.805	52.280	55.085	-18.915	74.000
7386.000	11.180	47.250	58.430	-15.570	74.000
9848.000	10.801	42.570	53.371	-20.629	74.000
Average					
Detector:					
4924.000	2.805	49.250	52.055	-1.945	54.000
7386.000	11.180	41.190	52.370	-1.630	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 Date : 2017/01/19

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	2.428	46.340	48.769	-25.231	74.000
7236.000	9.177	52.010	61.187	-12.813	74.000
9648.000	10.019	39.490	49.510	-24.490	74.000
Average					
Detector:					
7236.000	9.177	34.970	44.147	-9.853	54.000
Vertical					
Peak Detector:					
4824.000	2.836	47.410	50.247	-23.753	74.000
7236.000	9.676	54.510	64.186	-9.814	74.000
9648.000	10.556	39.920	50.477	-23.523	74.000
Average					
Detector:					
7236.000	9.676	36.950	46.626	-7.374	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 Date : 2017/01/19

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	2.076	48.250	50.327	-23.673	74.000
7311.000	9.512	56.080	65.592	-8.408	74.000
9748.000	9.630	38.880	48.510	-25.490	74.000
Average					
Detector:					
7311.000	9.512	39.670	49.182	-4.818	54.000
Vertical					
Peak Detector:					
4874.000	2.532	51.110	53.642	-20.358	74.000
7311.000	10.089	57.320	67.409	-6.591	74.000
9748.000	10.266	39.540	49.807	-24.193	74.000
Average					
Detector:					
7311.000	10.089	41.570	51.659	-2.341	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 Date : 2017/01/19

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	2.191	48.450	50.641	-23.359	74.000
7386.000	10.373	50.020	60.394	-13.606	74.000
9848.000	9.964	39.220	49.184	-24.816	74.000
Average					
Detector:					
7386.000	10.373	33.880	44.254	-9.746	54.000
Vertical					
Peak Detector:					
4924.000	2.805	50.570	53.375	-20.625	74.000
7386.000	11.180	53.290	64.470	-9.530	74.000
9848.000	10.801	40.530	51.331	-22.669	74.000
Average					
Detector:					
7386.000	11.180	36.740	47.920	-6.080	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 Date : 2017/01/19

Test Mode : Mode 4: Transmit - 802.11n-20BW_14.4Mbps(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	2.428	53.660	56.089	-17.911	74.000
7236.000	9.177	59.440	68.617	-5.383	74.000
9648.000	10.019	39.700	49.720	-24.280	74.000
Average					
Detector:					
4824.000	2.428	38.480	40.909	-13.091	54.000
7236.000	9.177	41.070	50.247	-3.753	54.000
Vertical					
Peak Detector:					
4824.000	2.836	51.130	53.967	-20.033	74.000
7236.000	9.676	56.780	66.456	-7.544	74.000
9648.000	10.556	39.430	49.987	-24.013	74.000
Average					
Detector:					
7236.000	9.676	39.420	49.096	-4.904	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 Date : 2017/01/19

Test Mode : Mode 4: Transmit - 802.11n-20BW_14.4Mbps(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	2.076	51.910	53.987	-20.013	74.000
7311.000	9.512	56.380	65.892	-8.108	74.000
9748.000	9.630	38.850	48.480	-25.520	74.000
Average					
Detector:					
7311.000	9.512	38.350	47.862	-6.138	54.000
Vertical					
Peak Detector:					
4874.000	2.532	50.810	53.342	-20.658	74.000
7311.000	9.512	53.810	63.322	9.322	74.000
9748.000	10.266	39.120	49.387	-24.613	74.000
Average					
Detector:					
7311.000	10.089	37.020	47.109	-6.891	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 Date : 2017/01/19

Test Mode : Mode 4: Transmit - 802.11n-20BW_14.4Mbps(2.4G Band) (2462 MHz)

Correct	Reading	Measurement	Margin	Limit
Factor	Level	Level		
dB	dBuV	dBuV/m	dB	dBuV/m
2.191	50.490	52.681	-21.319	74.000
10.373	52.270	62.644	-11.356	74.000
9.964	39.310	49.274	-24.726	74.000
10.373	34.750	45.124	-8.876	54.000
2.805	48.980	51.785	-22.215	74.000
11.180	48.790	59.970	-14.030	74.000
10.801	39.550	50.351	-23.649	74.000
11.180	32.760	43.940	-10.060	54.000
	Factor dB 2.191 10.373 9.964 10.373 2.805 11.180 10.801	Factor Level dBuV 2.191 50.490 10.373 52.270 9.964 39.310 10.373 34.750 2.805 48.980 11.180 48.790 10.801 39.550	Factor dB Level dBuV Level dBuV/m 2.191 50.490 52.681 10.373 52.270 62.644 9.964 39.310 49.274 10.373 34.750 45.124 2.805 48.980 51.785 11.180 48.790 59.970 10.801 39.550 50.351	Factor dB Level dBuV Level dBuV/m dB 2.191 50.490 52.681 -21.319 10.373 52.270 62.644 -11.356 9.964 39.310 49.274 -24.726 10.373 34.750 45.124 -8.876 2.805 48.980 51.785 -22.215 11.180 48.790 59.970 -14.030 10.801 39.550 50.351 -23.649

- 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 Date : 2017/01/19

Test Mode : Mode 5: Transmit - 802.11n-40BW_30Mbps(2.4G Band) (2422MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4844.000	2.280	48.250	50.531	-23.469	74.000
7266.000	9.106	48.260	57.366	-16.634	74.000
9688.000	9.663	38.590	48.253	-25.747	74.000
Average					
Detector:					
7266.000	9.106	32.620	41.726	-12.274	54.000
Vertical					
Peak Detector:					
4844.000	2.707	46.360	49.068	-24.932	74.000
7266.000	9.626	48.730	58.356	-15.644	74.000
9688.000	10.284	39.130	49.414	-24.586	74.000
Average					
Detector:					
7266.000	9.626	32.670	42.296	-11.704	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 Date : 2017/01/19

Test Mode : Mode 5: Transmit - 802.11n-40BW 30Mbps(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	2.076	49.530	51.607	-22.393	74.000
7311.000	9.512	51.210	60.722	-13.278	74.000
9748.000	9.630	38.640	48.270	-25.730	74.000
Average					
Detector:					
7311.000	9.512	34.140	43.652	-10.348	54.000
Vertical					
Peak Detector:					
4874.000	2.532	47.500	50.032	-23.968	74.000
7311.000	10.089	49.800	59.889	-14.111	74.000
9748.000	10.266	39.140	49.407	-24.593	74.000
Average					
Detector:					
7311.000	10.089	33.730	43.819	-10.181	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 Date : 2017/01/19

Test Mode : Mode 5: Transmit - 802.11n-40BW_30Mbps(2.4G Band) (2452 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4904.000	2.000	48.480	50.481	-23.519	74.000
7356.000	10.308	48.450	58.758	-15.242	74.000
9808.000	9.850	38.560	48.410	-25.590	74.000
Average					
Detector:					
7356.000	10.308	32.540	42.848	-11.152	54.000
Vertical					
Peak Detector:					
4904.000	2.513	46.730	49.244	-24.756	74.000
7356.000	11.022	47.570	58.592	-15.408	74.000
9808.000	10.512	38.210	48.722	-25.278	74.000
Average					
Detector:					
7356.000	11.022	31.550	42.572	-11.428	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 Date : 2017/01/18

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					
239.520	-6.878	38.360	31.482	-14.518	46.000
416.060	-0.221	41.802	41.581	-4.419	46.000
542.160	3.925	32.449	36.374	-9.626	46.000
666.320	1.879	32.563	34.442	-11.558	46.000
831.220	7.121	32.631	39.752	-6.248	46.000
918.520	6.718	29.817	36.535	-9.465	46.000
Vertical					
99.840	-6.063	42.751	36.688	-6.812	43.500
251.160	-4.958	34.140	29.182	-16.818	46.000
416.060	-6.381	34.100	27.719	-18.281	46.000
515.000	0.081	35.190	35.271	-10.729	46.000
699.300	-0.024	35.027	35.003	-10.997	46.000
831.220	2.041	29.477	31.518	-14.482	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 Date : 2017/01/18

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					
239.520	-6.878	37.991	31.113	-14.887	46.000
416.060	-0.221	36.938	36.717	-9.283	46.000
515.000	3.191	36.399	39.590	-6.410	46.000
666.320	1.879	32.560	34.439	-11.561	46.000
831.220	7.121	32.364	39.485	-6.515	46.000
918.520	6.718	30.722	37.440	-8.560	46.000
Vertical					
99.840	-6.063	42.265	36.202	-7.298	43.500
239.520	-6.138	34.340	28.202	-17.798	46.000
416.060	-6.381	35.237	28.856	-17.144	46.000
515.000	0.081	35.637	35.718	-10.282	46.000
666.320	-0.951	35.823	34.872	-11.128	46.000
831.220	2.041	30.808	32.849	-13.151	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 Date : 2017/01/18

Test Mode : Mode 4: Transmit - 802.11n-20BW 14.4Mbps(2.4G Band) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					_
239.520	-6.878	37.025	30.147	-15.853	46.000
357.860	-0.719	34.629	33.910	-12.090	46.000
515.000	3.191	36.111	39.302	-6.698	46.000
666.320	1.879	32.274	34.153	-11.847	46.000
831.220	7.121	31.513	38.634	-7.366	46.000
916.580	6.470	27.810	34.280	-11.720	46.000
Vertical					
156.100	-5.217	35.814	30.597	-12.903	43.500
239.520	-6.138	37.025	30.887	-15.113	46.000
357.860	-1.239	34.629	33.390	-12.610	46.000
515.000	0.081	36.111	36.192	-9.808	46.000
666.320	-0.951	35.625	34.674	-11.326	46.000
831.220	2.041	31.513	33.554	-12.446	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 Date : 2017/01/18

Test Mode : Mode 5: Transmit - 802.11n-40BW_30Mbps(2.4G Band) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					_
249.220	-6.216	37.410	31.194	-14.806	46.000
416.060	-0.221	41.082	40.861	-5.139	46.000
515.000	3.191	36.136	39.327	-6.673	46.000
666.320	1.879	32.392	34.271	-11.729	46.000
776.900	5.167	32.030	37.197	-8.803	46.000
831.220	7.121	32.583	39.704	-6.296	46.000
Vertical					
99.840	-6.063	42.403	36.340	-7.160	43.500
239.520	-6.138	35.413	29.275	-16.725	46.000
416.060	-6.381	35.460	29.079	-16.921	46.000
666.320	-0.951	36.023	35.072	-10.928	46.000
831.220	2.041	30.254	32.295	-13.705	46.000
965.080	3.832	25.266	29.098	-24.902	54.000

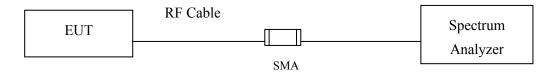
- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 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 Setup

RF antenna Conducted Measurement:



5.2. 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)).

5.3. 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.

5.4. Uncertainty

The measurement uncertainty

Conducted is defined as ± 1.20 dB



5.5. Test Result of RF antenna conducted test

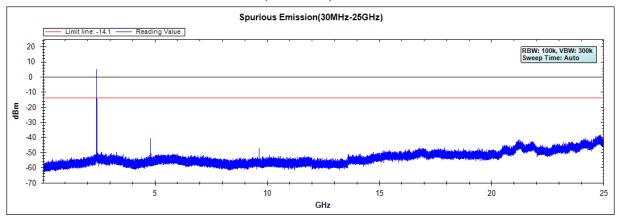
Product : Mobile Tablet

Test Item : RF antenna conducted test

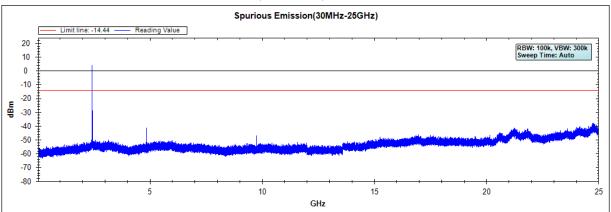
Test Site : No.3 OATS Test Date : 2017/01/18

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

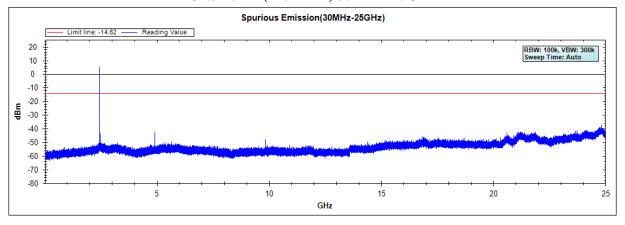
Channel 01 (2412MHz) 30MHz-25GHz



Channel 06 (2437MHz) 30MHz -25GHz



Channel 11 (2462MHz) 30MHz -25GHz



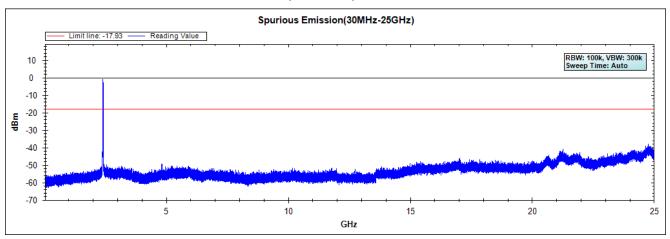


Test Item : RF Antenna Conducted Spurious

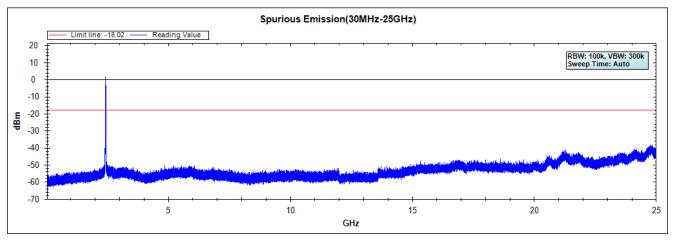
Test Site : No.3 OATS Test Date : 2017/01/18

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

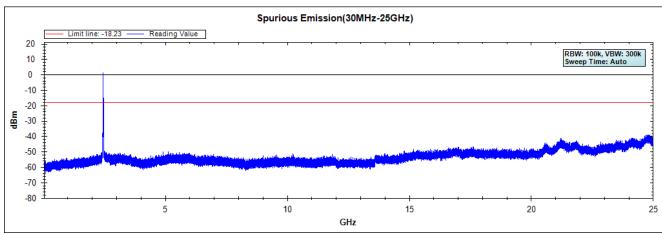
Channel 01 (2412MHz) 30MHz -25GHz



Channel 06 (2437MHz) 30MHz -25GHz



Channel 11 (2462MHz) 30MHz -25GHz



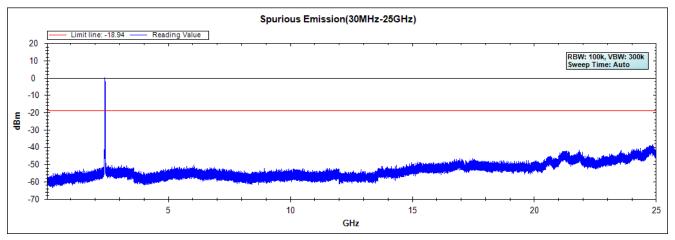


Test Item : RF Antenna Conducted Spurious

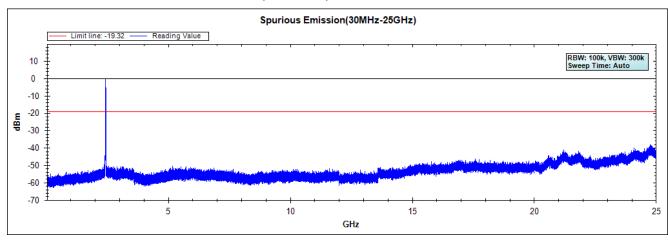
Test Site : No.3 OATS Test Date : 2017/01/18

Test Mode : Mode 4: Transmit - 802.11n-20BW_14.4Mbps(2.4G Band)

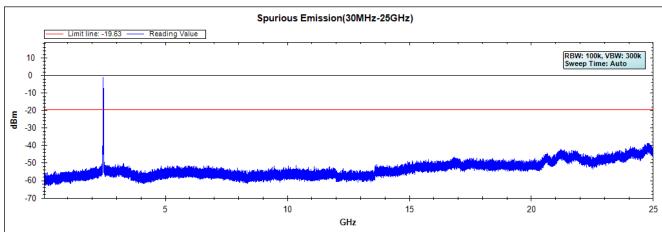
Channel 01 (2412MHz) 30MHz -25GHz-Chain A



Channel 06 (2437MHz) 30MHz -25GHz-Chain A

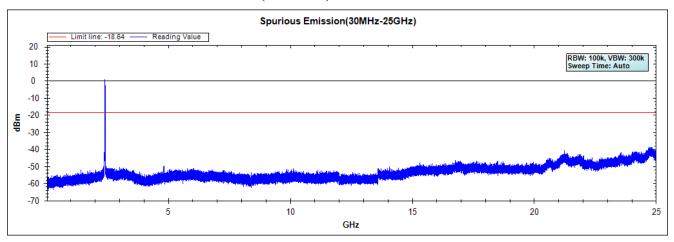


Channel 11 (2462MHz) 30MHz -25GHz-Chain A

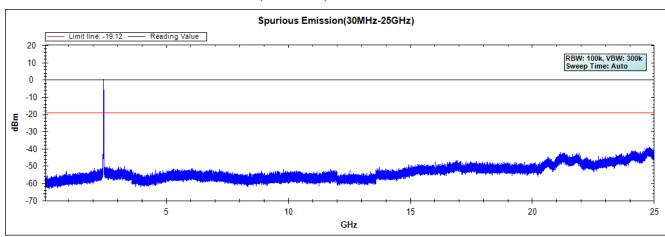




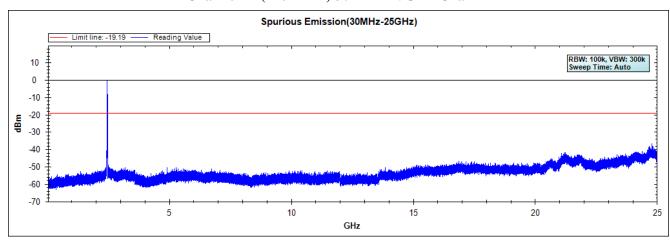
Channel 01 (2412MHz) 30MHz -25GHz-Chain B



Channel 06 (2437MHz) 30MHz -25GHz-Chain B



Channel 11 (2462MHz) 30MHz -25GHz-Chain B



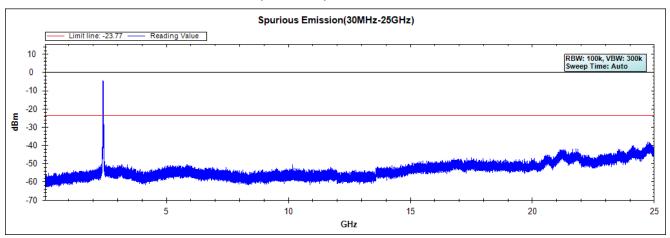


Test Item : RF Antenna Conducted Spurious

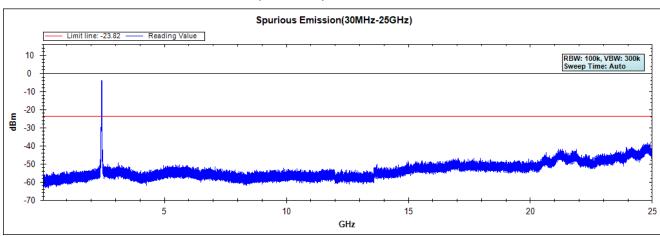
Test Site : No.3 OATS Test Date : 2017/01/18

Test Mode : Mode 5: Transmit - 802.11n-40BW_30Mbps(2.4G Band)

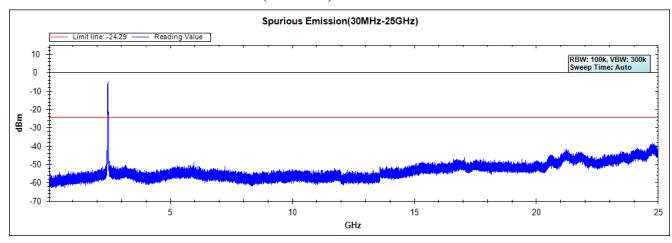
Channel 03 (2422MHz) 30MHz -25GHz-Chain A



Channel 06 (2437MHz) 30MHz -25GHz-Chain A

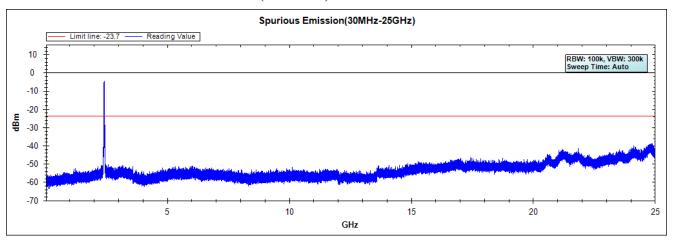


Channel 09 (2452MHz) 30MHz -25GHz-Chain A

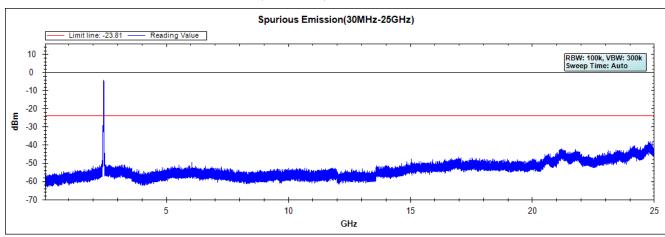


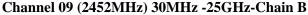


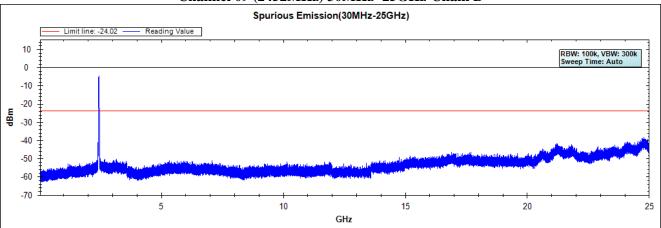
Channel 03 (2422MHz) 30MHz -25GHz-Chain B



Channel 06 (2437MHz) 30MHz -25GHz-Chain B





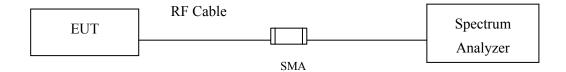




6. Band Edge

6.1. Test Setup

RF Conducted Measurement



The height of board band or Dipole Antenna was scanned from 1M to 4M. The distance between antenna and turn table was 3M regards to the standard adopted. RF absorber material on the ground plane. To Receiver Pre-Amplifier

6.2. 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.



6.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 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 1.5 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 C63.10:2013 on radiated measurement.

6.4. Uncertainty

- ± 4.08 dB above 1GHz
- + 4.22 dB below 1GHz



6.5. Test Result of Band Edge

Product : Mobile Tablet
Test Item : Band Edge
Test Site : No.3 OATS
Test Date : 2017/01/18

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

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)	Result
01 (Peak)	2377.800	33.729	27.523	61.252	74.00	54.00	Pass
01 (Peak)	2390.000	33.739	27.231	60.970	74.00	54.00	Pass
01 (Peak)	2400.000	33.752	37.810	71.561	74.00	54.00	Pass
01 (Peak)	2411.000	33.769	75.805	109.574			
01 (Average)	2386.400	33.736	17.355	51.091	74.00	54.00	Pass
01 (Average)	2390.000	33.739	14.714	48.453	74.00	54.00	Pass
01 (Average)	2400.000	33.752	32.735	66.486			
01 (Average)	2411.200	33.770	71.919	105.689			

Figure Channel 01:



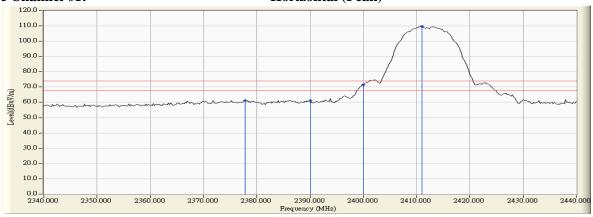
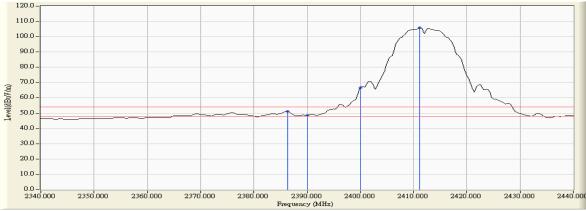


Figure Channel 01:

Horizontal (Average)



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



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

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)	2385.400	32.299	28.244	60.543	74.00	54.00	Pass
01 (Peak)	2390.000	32.267	26.500	58.767	74.00	54.00	Pass
01 (Peak)	2400.000	32.241	35.371	67.612	74.00	54.00	Pass
01 (Peak)	2411.000	32.244	72.805	105.049			
01 (Average)	2385.600	32.298	19.165	51.463	74.00	54.00	Pass
01 (Average)	2390.000	32.267	15.153	47.420	74.00	54.00	Pass
01 (Average)	2400.000	32.241	29.996	62.237			
01 (Average)	2411.400	32.247	68.875	101.121			

Figure Channel 01:

Vertical (Peak)

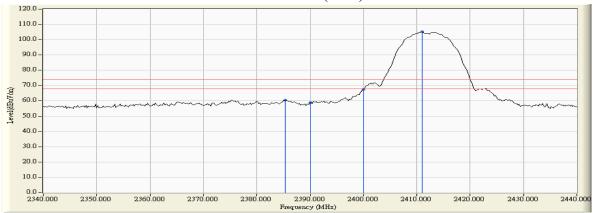


Figure Channel 01:

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.



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

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chamilei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
11 (Peak)	2460.900	33.890	73.139	107.029			
11 (Peak)	2483.500	33.951	25.786	59.736	74.00	54.00	Pass
11 (Peak)	2488.100	33.962	26.476	60.438	74.00	54.00	Pass
11 (Average)	2461.100	33.890	69.407	103.297			
11 (Average)	2483.500	33.951	14.028	47.978	74.00	54.00	Pass
11 (Average)	2488.100	33.962	15.815	49.777	74.00	54.00	Pass

Figure Channel 11:

Horizontal (Peak)

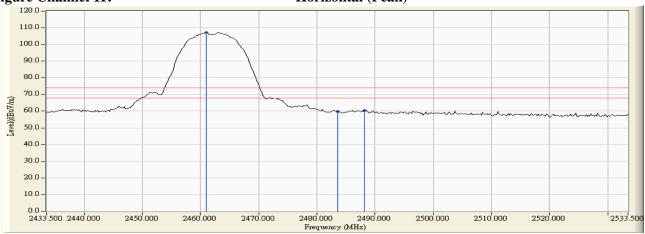
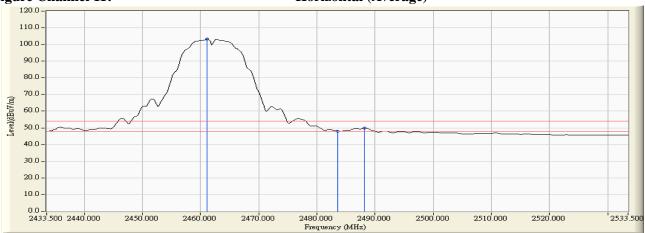


Figure Channel 11:

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.



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

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
11 (Peak)	2462.900	32.485	68.080	100.565	(ubu v/III)	(ubu v/III)	
11 (Peak)	2483.500	32.586	24.794	57.379	74.00	54.00	Pass
11 (Peak)	2486.700	32.601	25.874	58.474	74.00	54.00	Pass
11 (Average)	2461.100	32.476	64.110	96.586	74.00	34.00	1 ass
11 (Average)	2483.500	32.586	12.911	45.496	74.00	54.00	Pass
11 (Average)	2488.300	32.608	14.279	46.887	74.00	54.00	Pass

Figure Channel 11:

Vertical (Peak)

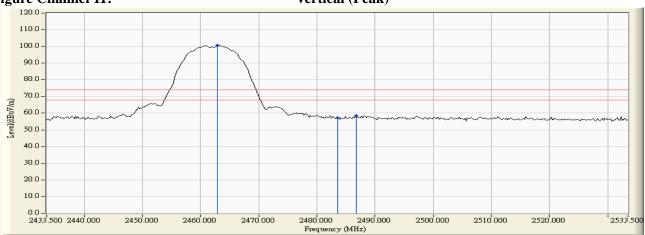
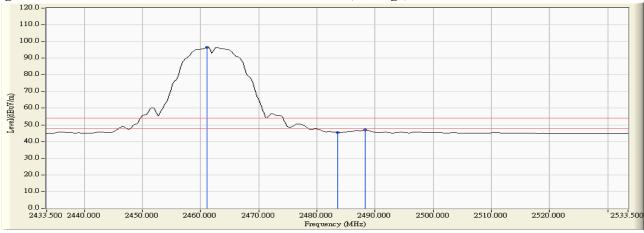


Figure Channel 11:

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.



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

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chainei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
01 (Peak)	2387.400	33.737	39.327	73.064	74.00	54.00	Pass
01 (Peak)	2390.000	33.739	38.571	72.310	74.00	54.00	Pass
01 (Peak)	2399.000	33.750	51.130	84.880			
01 (Peak)	2400.000	33.752	49.435	83.186			
01 (Peak)	2414.600	33.778	74.443	108.221			
01(Average)	2390.000	33.739	17.264	51.003	74.00	54.00	Pass
01(Average)	2400.000	33.752	27.752	61.503			
01(Average)	2409.200	33.766	61.483	95.249			

Figure Channel 01:

Horizontal (Peak)

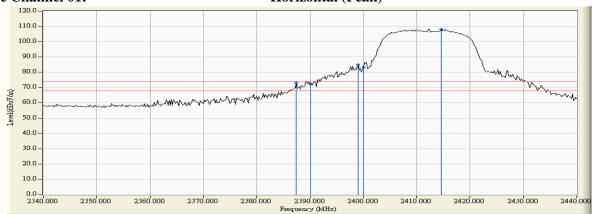
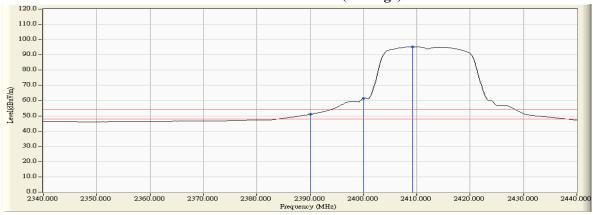


Figure Channel 01:

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.



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

RF Radiated Measurement (Vertical):

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)	Result
01 (Peak)	2390.000	32.267	36.435	68.702	74.00	54.00	Pass
01 (Peak)	2400.000	32.241	43.847	76.088	74.00	54.00	Pass
01 (Peak)	2407.800	32.244	70.935	103.178			-
01 (Average)	2390.000	32.267	15.557	47.824	74.00	54.00	Pass
01 (Average)	2400.000	32.241	25.043	57.284	74.00	54.00	Pass
01 (Average)	2409.200	32,244	58.518	90.762			-

Figure Channel 01:

Vertical (Peak)

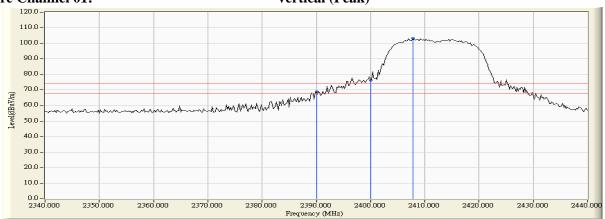
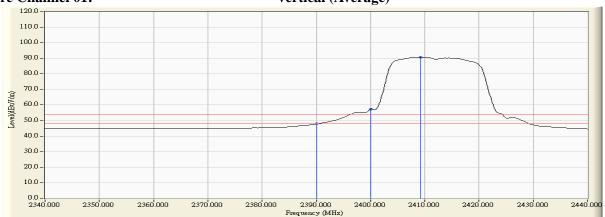


Figure Channel 01:

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.



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

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chamici No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
11 (Peak)	2459.300	33.886	74.318	108.204			
11 (Peak)	2483.500	33.951	39.024	72.974	74.00	54.00	Pass
11 (Peak)	2484.300	33.951	39.476	73.428	74.00	54.00	Pass
11 (Average)	2458.900	33.885	61.068	94.953			
11 (Average)	2483.500	33.951	18.113	52.063	74.00	54.00	Pass



Horizontal (Peak)

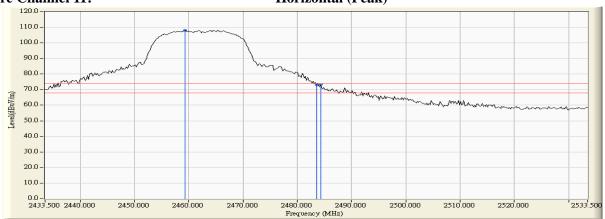
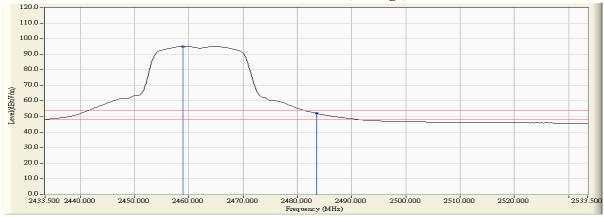


Figure Channel 11:

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.



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

RF Radiated Measurement (Vertical):

Channel No.	1 2		_	Emission Level		_	Result
Chamier 1vo.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
11 (Peak)	2464.500	32.492	68.872	101.364			
11 (Peak)	2483.500	32.586	35.295	67.880	74.00	54.00	Pass
11 (Average)	2465.500	32.497	56.242	88.739			
11 (Average)	2483.500	32.586	16.139	48.724	74.00	54.00	Pass

Figure Channel 11:

Vertical (Peak)

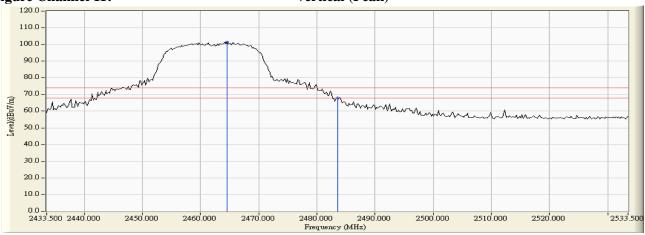
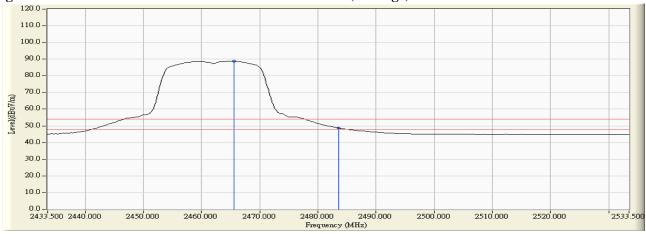


Figure Channel 11:

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.



Test Mode : Mode 4: Transmit - 802.11n-20BW 14.4Mbps(2.4G Band)

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
0.1 (7) 1)		(/	\ /				-
01 (Peak)	2387.400	33.737	37.848	71.585	74.00	54.00	Pass
01 (Peak)	2390.000	33.739	36.480	70.219	74.00	54.00	Pass
01 (Peak)	2400.000	33.752	47.409	81.160	-		
01 (Peak)	2410.600	33.769	73.825	107.594	-		
01 (Average)	2390.000	33.739	17.120	50.859	74.00	54.00	Pass
01 (Average)	2400.000	33.752	29.653	63.404	-		
01 (Average)	2408.600	33.766	58.238	92.003			

Figure Channel 01:

Horizontal (Peak)

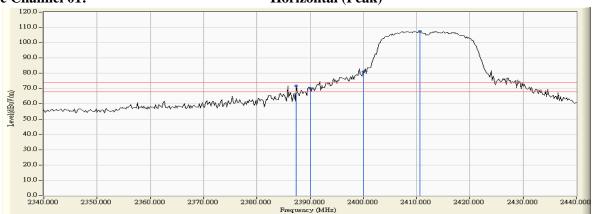
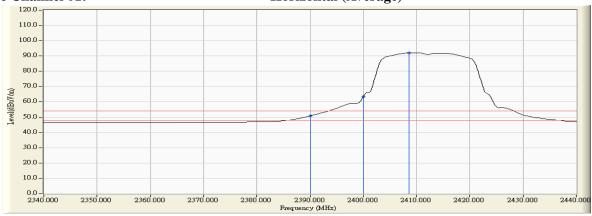


Figure Channel 01:

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.



Test Mode : Mode 4: Transmit - 802.11n-20BW 14.4Mbps(2.4G Band)

RF Radiated Measurement (Vertical):

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
01 (Peak)	2388.400	32.278	33.059	65.337	74.00	54.00	Pass
01 (Peak)	2390.000	32.267	32.966	65.233	74.00	54.00	Pass
01 (Peak)	2400.000	32.241	43.891	76.132			
01 (Peak)	2415.800	32.266	70.926	103.192			
01 (Average)	2390.000	32.267	14.934	47.201	74.00	54.00	Pass
01 (Average)	2400.000	32.241	26.506	58.747			
01 (Average)	2415.400	32.264	56.127	88.391			

Figure Channel 01:

Vertical (Peak)

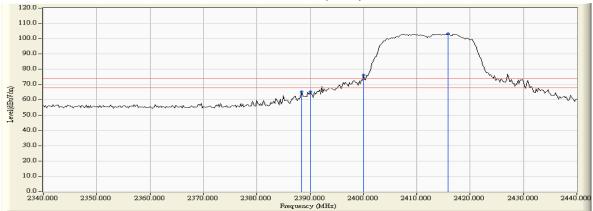
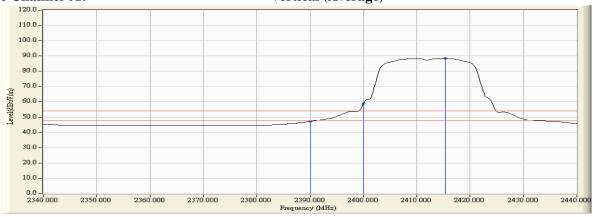


Figure Channel 01:

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.



Test Mode : Mode 4: Transmit - 802.11n-20BW 14.4Mbps(2.4G Band)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chamilei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Resuit
11 (Peak)	2465.100	33.900	72.407	106.308			
11 (Peak)	2483.500	33.951	33.263	67.213	74.00	54.00	Pass
11 (Peak)	2485.100	33.954	32.822	66.776	74.00	54.00	Pass
11 (Average)	2458.700	33.884	56.413	90.297			
11 (Average)	2483.500	33.951	14.891	48.841	74.00	54.00	Pass

Figure Channel 11:

Horizontal (Peak)

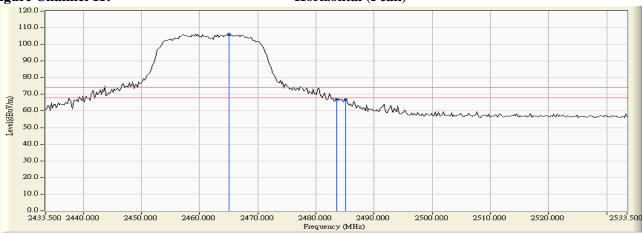


Figure Channel 11:

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.



Test Mode : Mode 4: Transmit - 802.11n-20BW 14.4Mbps(2.4G Band)

RF Radiated Measurement (Vertical):

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)	2465.300	32.496	74.374	106.870			
11 (Peak)	2483.500	32.586	40.653	73.238	74.00	54.00	Pass
11 (Average)	2465.300	32.496	58.911	91.407			
11 (Average)	2483.500	32.586	16.682	49.267	74.00	54.00	Pass



Vertical (Peak)

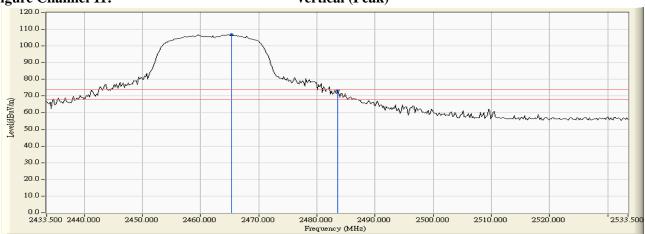
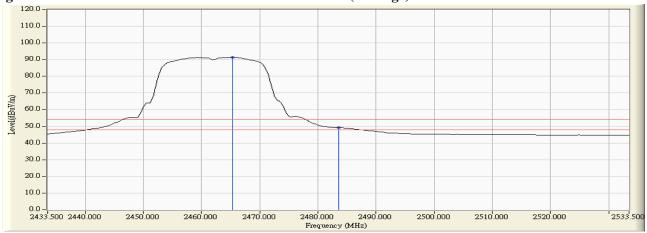


Figure Channel 11:

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.



Test Mode : Mode 5: Transmit - 802.11n-40BW 30Mbps(2.4G Band)

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)	2387.000	33.736	39.004	72.740	74.00	54.00	Pass
03 (Peak)	2390.000	33.739	35.835	69.574	74.00	54.00	Pass
03 (Peak)	2400.000	33.752	45.743	79.494			
03 (Peak)	2408.400	33.766	69.590	103.355			
03 (Average)	2390.000	33.739	17.911	51.650	74.00	54.00	Pass
03 (Average)	2400.000	33.752	30.651	64.402			
03 (Average)	2408.400	33.766	50.762	84.528			

Figure Channel 03:

Horizontal (Peak)

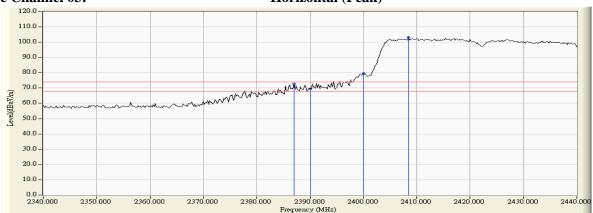


Figure Channel 03:

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 5: Transmit - 802.11n-40BW 30Mbps(2.4G Band)

RF Radiated Measurement (Vertical):

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)	Result
03 (Peak)	2389.400	32.271	34.602	66.873	74.00	54.00	Pass
03 (Peak)	2390.000	32.267	33.257	65.524	74.00	54.00	Pass
03 (Peak)	2400.000	32.241	42.170	74.411			
03 (Peak)	2426.600	32.315	66.773	99.088			
03 (Average)	2390.000	32.267	15.362	47.629	74.00	54.00	Pass
03 (Average)	2400.000	32.241	28.278	60.519			
03 (Average)	2435.800	32.357	48.677	81.033			

Figure Channel 03:

Vertical (Peak)

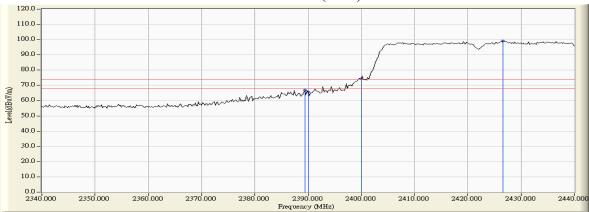
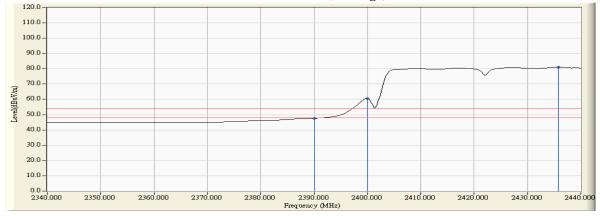


Figure Channel 03:

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 5: Transmit - 802.11n-40BW 30Mbps(2.4G Band)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chamilei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
09 (Peak)	2448.900	33.859	69.556	103.415			
09 (Peak)	2483.500	33.951	34.598	68.548	74.00	54.00	Pass
09 (Peak)	2486.300	33.957	39.848	73.805	74.00	54.00	Pass
09 (Average)	2456.900	33.880	50.329	84.209			
09 (Average)	2483.500	33.951	18.285	52.235	74.00	54.00	Pass

Figure Channel 09:

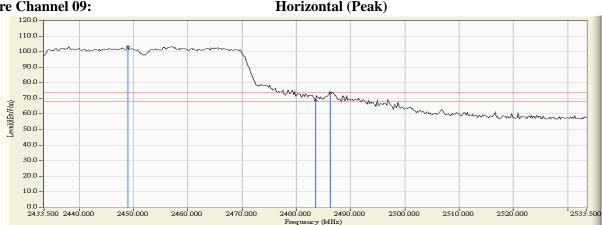
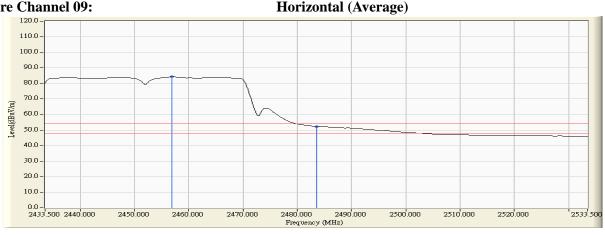


Figure Channel 09:



- 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.
- The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 5: Transmit - 802.11n-40BW 30Mbps(2.4G Band)

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chamilei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
09 (Peak)	2466.500	32.502	70.501	103.003			
09 (Peak)	2483.500	32.586	38.914	71.499	74.00	54.00	Pass
09 (Peak)	2483.700	32.586	39.218	71.804	74.00	54.00	Pass
09 (Average)	2465.300	32.496	51.652	84.148			
09 (Average)	2483.500	32.586	17.599	50.184	74.00	54.00	Pass

Figure Channel 09:

Vertical (Peak)

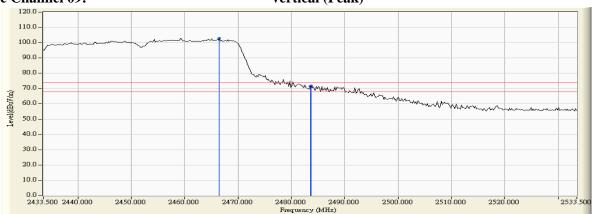
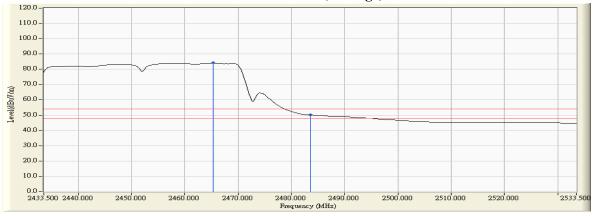


Figure Channel 09:

Vertical (Average)

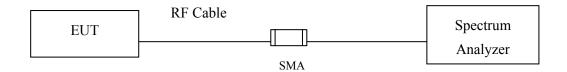


- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level =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



7. 6dB Bandwidth

7.1. Test Setup



7.2. Limits

The minimum bandwidth shall be at least 500 kHz.

7.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013; tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 1-5% of the emission bandwidth, $VBW \ge 3*RBW$

7.4. Uncertainty

 $\pm\ 283 Hz$



7.5. Test Result of 6dB Bandwidth

Product : Mobile Tablet

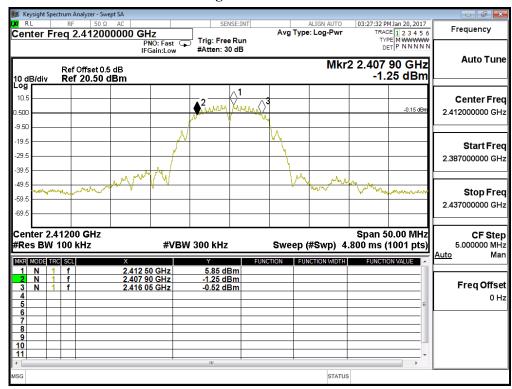
Test Item : 6dB Bandwidth Data

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	8150	>500	Pass

Figure Channel 1:





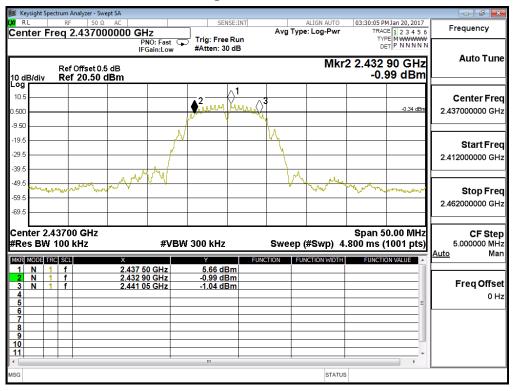
Test Item : 6dB Bandwidth Data

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	8150	>500	Pass

Figure Channel 6:



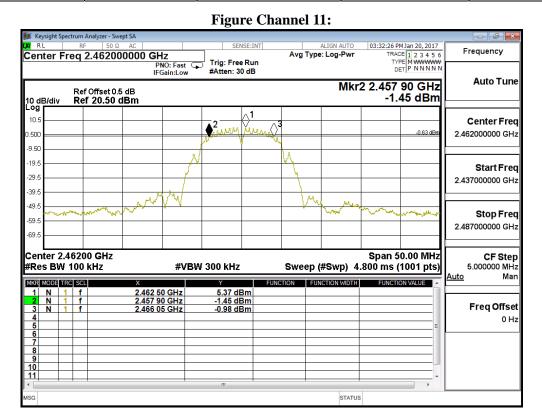


Test Item : 6dB Bandwidth Data

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	8150	>500	Pass





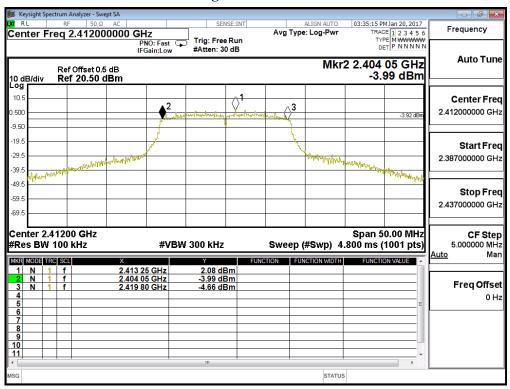
Test Item : 6dB Bandwidth Data

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	15750	>500	Pass

Figure Channel 1:





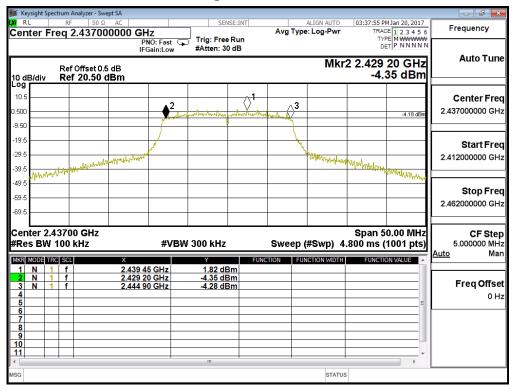
Test Item : 6dB Bandwidth Data

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	15700	>500	Pass

Figure Channel 6:





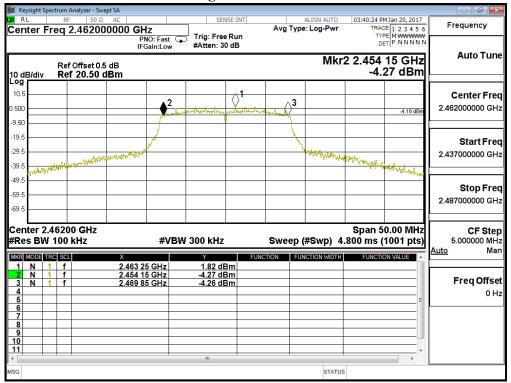
Test Item : 6dB Bandwidth Data

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	15700	>500	Pass

Figure Channel 11:





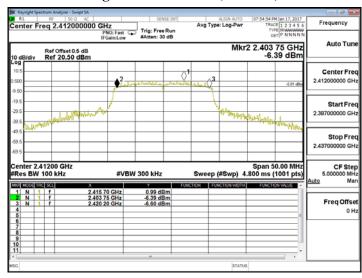
Test Item : 6dB Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 4: Transmit - 802.11n-20BW_14.4Mbps(2.4G Band) (2412MHz)

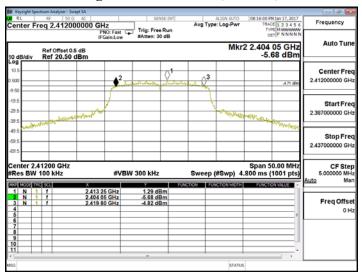
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412.00	16450	>500	Pass

Figure Channel 1: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412.00	15750	>500	Pass

Figure Channel 1: (Chain B)





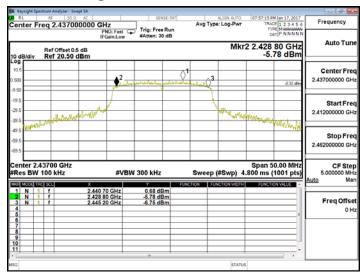
Test Item : 6dB Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 4: Transmit - 802.11n-20BW 14.4Mbps(2.4G Band) (2437MHz)

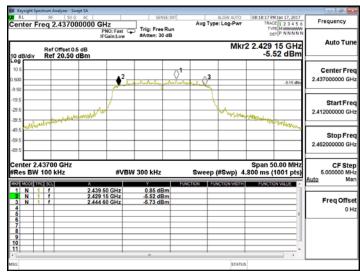
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437.00	16400	>500	Pass

Figure Channel 6: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437.00	15450	>500	Pass

Figure Channel 6: (Chain B)





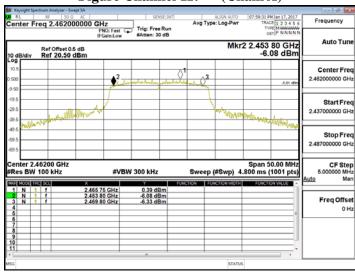
Test Item : 6dB Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 4: Transmit - 802.11n-20BW_14.4Mbps(2.4G Band) (2462MHz)

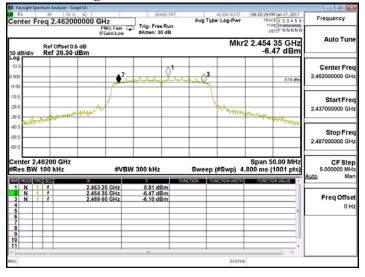
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462.00	16000	>500	Pass

Figure Channel 11: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462.00	15250	>500	Pass

Figure Channel 11: (Chain B)





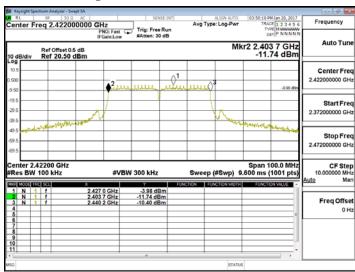
Test Item : 6dB Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 5: Transmit - 802.11n-40BW_30Mbps(2.4G Band) (2422MHz)

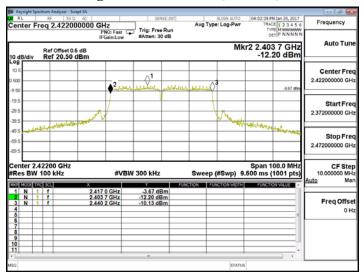
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
3	2422.00	36500	>500	Pass

Figure Channel 1: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
3	2422.00	36500	>500	Pass

Figure Channel 1: (Chain B)





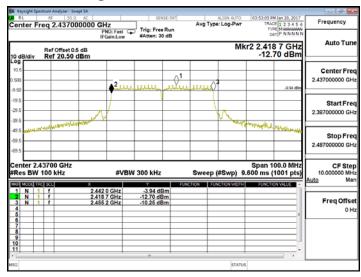
Test Item : 6dB Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 5: Transmit - 802.11n-40BW 30Mbps(2.4G Band) (2437MHz)

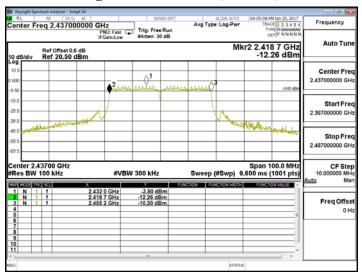
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437.00	36500	>500	Pass

Figure Channel 4: (Chain A)



Channel No	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437.00	36500	>500	Pass

Figure Channel 4: (Chain B)





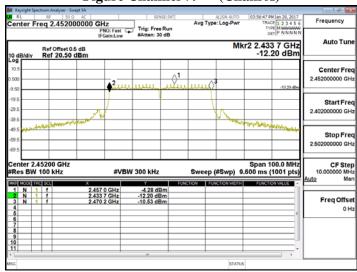
Test Item : 6dB Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 5: Transmit - 802.11n-40BW 30Mbps(2.4G Band) (2452MHz)

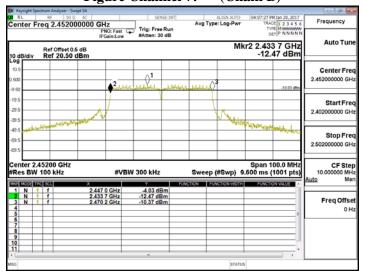
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
9	2452.00	36500	>500	Pass

Figure Channel 7: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
9	2452.00	36500	>500	Pass

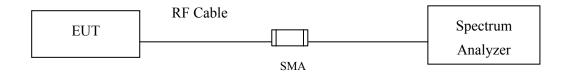
Figure Channel 7: (Chain B)





8. Power Density

8.1. Test Setup



8.2. Limits

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

8.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013; tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

The maximum power spectral density using KDB 558074 section 10.2 PKPSD (peak PSD) method.

8.4. Uncertainty

 $\pm \ 1.20 \ dB$



8.5. Test Result of Power Density

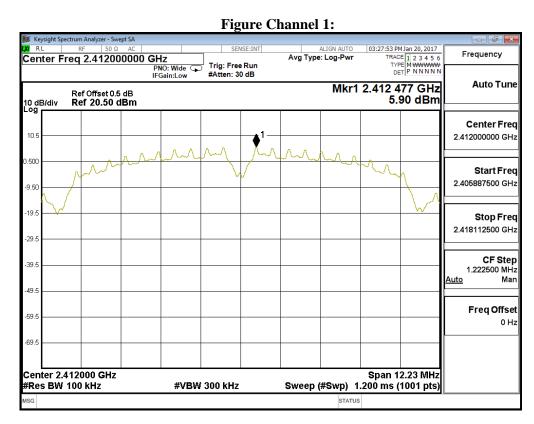
Product : Mobile Tablet

Test Item : Power Density Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	5.90	≦8dBm	Pass



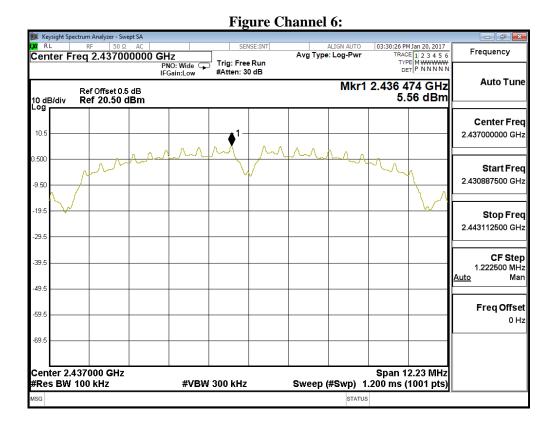


Test Item : Power Density Data

Test Site : No.3OATS

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
6	2437	5.56	≦8dBm	Pass





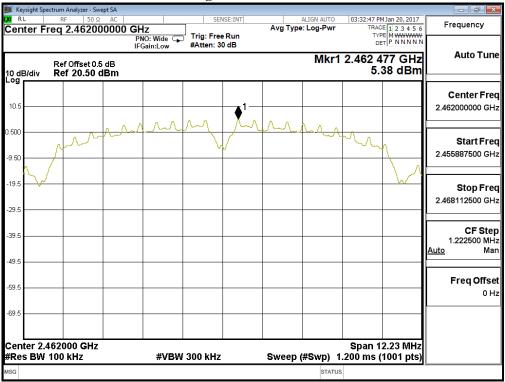
Test Item : Power Density Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
11	2462	5.38	≤8dBm	Pass

Figure Channel 11:



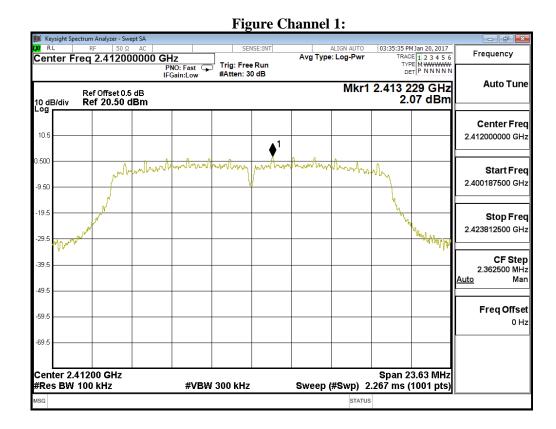


Test Item : Power Density Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	2.07	≤8dBm	Pass



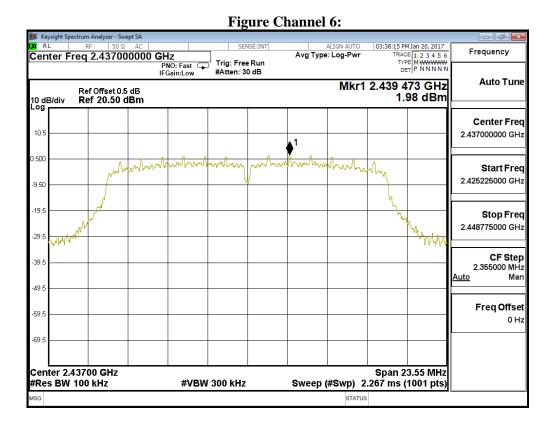


Test Item : Power Density Data

Test Site : No.3OATS

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
6	2437	1.98	≤8dBm	Pass



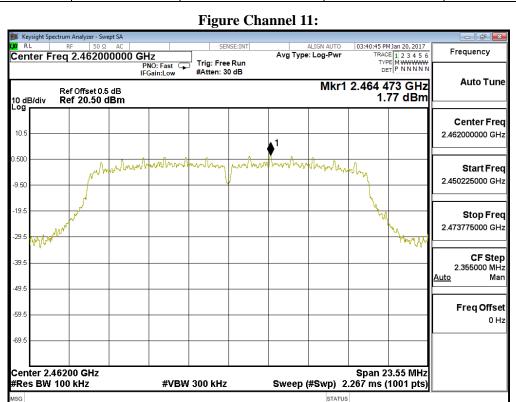


Test Item : Power Density Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
11	2462	1.77	≤8dBm	Pass



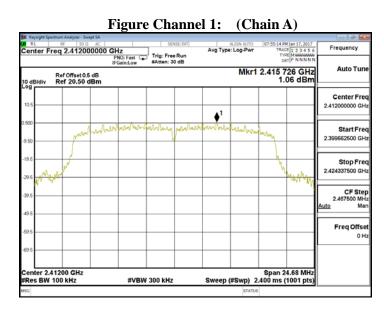


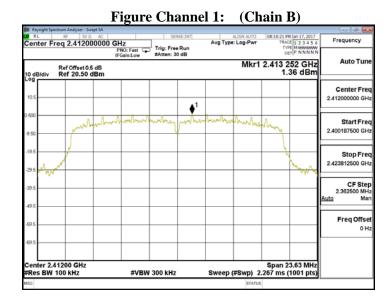
Test Site : No.3 OATS

Test Mode : Mode 4: Transmit - 802.11n-20BW_14.4Mbps(2.4G Band) (2412MHz)

CHAIN	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)1	Limit	Result
A	1.060	4.070	≦8dBm	Pass
В	1.360	4.370	≦8dBm	Pass

Note 1: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.





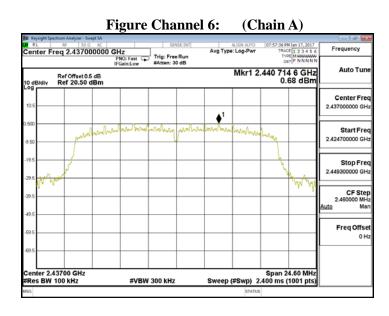


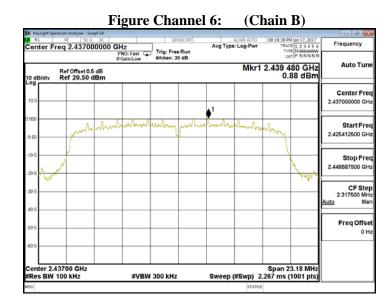
Test Site : No.3OATS

Test Mode : Mode 4: Transmit - 802.11n-20BW 14.4Mbps(2.4G Band) (2437MHz)

CHAIN	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)1	Limit	Result
A	0.680	3.690	≦8dBm	Pass
В	0.880	3.890	≦8dBm	Pass

Note 1: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.





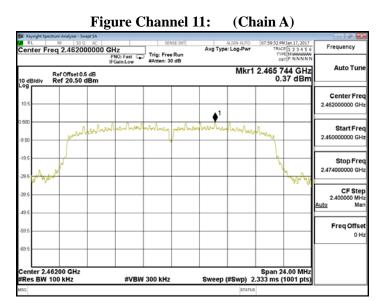


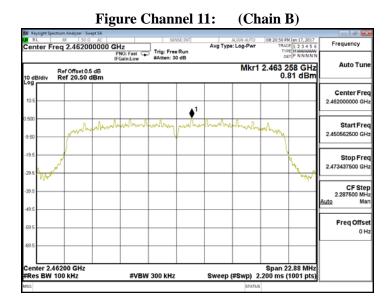
Test Site : No.3 OATS

Test Mode : Mode 4: Transmit - 802.11n-20BW_14.4Mbps(2.4G Band) (2462MHz)

CHAIN	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)1	Limit	Result
Α	0.370	3.380	≦8dBm	Pass
В	0.810	3.820	≦8dBm	Pass

Note 1: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.





Page: 86 of 92

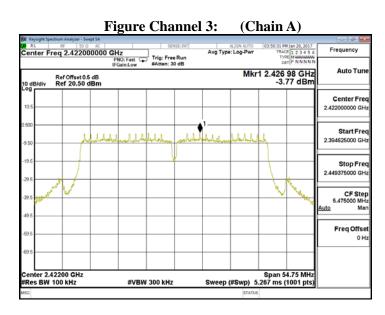


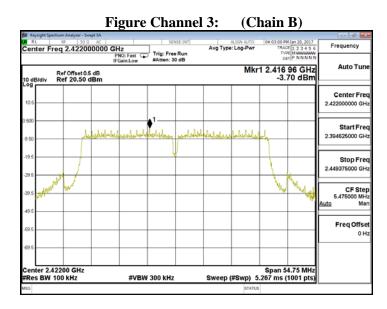
Test Site : No.3 OATS

Test Mode : Mode 5: Transmit - 802.11n-40BW_30Mbps(2.4G Band) (2422MHz)

CHAIN	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)1	Limit	Result
Α	-3.770	-0.760	≦8dBm	Pass
В	-3.700	-0.690	≦8dBm	Pass

Note 1: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.





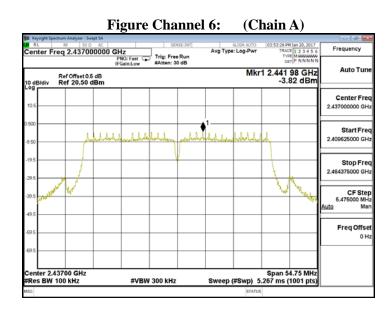


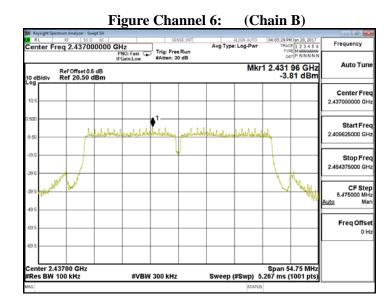
Test Site : No.3OATS

Test Mode : Mode 5: Transmit - 802.11n-40BW_30Mbps(2.4G Band) (2437MHz)

CHAIN	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)1	Limit	Result
Α	-3.820	-0.810	≦8dBm	Pass
В	-3.810	-0.800	≦8dBm	Pass

Note 1: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.





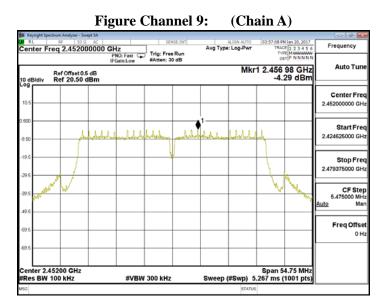


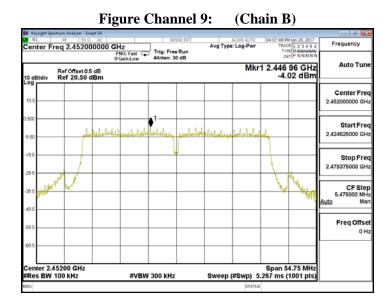
Test Site : No.3 OATS

Test Mode : Mode 5: Transmit - 802.11n-40BW_30Mbps(2.4G Band) (2452MHz)

CHAIN	PPSD/MHz (dBm)	Total PPSD/MHz (dBm)1	Limit	Result
A	-4.290	-1.280	≦8dBm	Pass
В	-4.020	-1.010	≦8dBm	Pass

Note 1: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.





Page: 89 of 92



9. EMI Reduction Method During Compliance Testing

No modification was made during testing.

Page: 90 of 92



Attachment 1: EUT Test Photographs



Attachment 2: EUT Detailed Photographs