

FCC REPORT

Applicant: Shenzhen YIDONG Technology Co., Ltd

Address of Applicant: Floor 1-5,Building B, Area B, Yuanfen Industrial Zone, Dalang,
Bao'an District, Shenzhen, China

Equipment Under Test (EUT)

Product Name: Flat Computer

Model No.: AT-6141,Ultra970,EMR3691

FCC ID: LU7-AT6141

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247:2011

Date of sample receipt: 11 Nov., 2012

Date of Test: 12 to 24 Nov., 2012

Date of report issued: 26 Nov., 2012

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

A circular blue ink stamp from Global United Technology Services Co., Ltd. is visible. The stamp contains the text "GLOBAL UNITED TECHNOLOGY SERVICES CO., LTD." around the perimeter and "GTS" in the center. A handwritten signature in black ink is written across the stamp.

Robinson Lo

Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the GTS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

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2 Version

Version No.	Date	Description
00	26 Nov., 2012	Original

Prepared By:

Joe. Zhou

Date:

26 Nov., 2012

Project Engineer

Check By:

Bruce Zhang

Date:

26 Nov., 2012

Reviewer

3 Contents

	Page
1 COVER PAGE	1
2 VERSION	2
3 CONTENTS	3
4 TEST SUMMARY	4
5 GENERAL INFORMATION	5
5.1 CLIENT INFORMATION	5
5.2 GENERAL DESCRIPTION OF E.U.T.	5
5.3 TEST ENVIRONMENT AND MODE.....	7
5.4 TEST FACILITY.....	7
5.5 TEST LOCATION	7
5.6 OTHER INFORMATION REQUESTED BY THE CUSTOMER	7
5.7 TEST INSTRUMENTS LIST	8
6 TEST RESULTS AND MEASUREMENT DATA	9
6.1 ANTENNA REQUIREMENT:	9
6.2 CONDUCTED EMISSIONS.....	10
6.3 MAXIMUM CONDUCTED OUTPUT POWER.....	13
6.4 OCCUPY BANDWIDTH.....	17
6.5 POWER SPECTRAL DENSITY.....	24
6.6 BAND EDGE.....	28
6.6.1 <i>Conducted Emission Method</i>	28
6.6.2 <i>Radiated Emission Method</i>	31
6.7 SPURIOUS EMISSION	35
6.7.1 <i>Conducted Emission Method</i>	35
6.7.2 <i>Radiated Emission Method</i>	41
7 TEST SETUP PHOTO	52
8 EUT CONSTRUCTIONAL DETAILS	54

4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	15.207	Pass
Conducted Peak Output Power	15.247 (b)(3)	Pass
6dB Occupied Bandwidth	15.247 (a)(2)	Pass
Power Spectral Density	15.247 (e)	Pass
Band Edge	15.247(d)	Pass
Spurious Emission	15.205/15.209	Pass

Pass: The EUT complies with the essential requirements in the standard.

5 General Information

5.1 Client Information

Applicant:	Shenzhen YIDONG Technology Co., Ltd
Address of Applicant:	Floor 1-5,Building B, Area B, Yuanfen Industrial Zone, Dalang, Bao'an District, Shenzhen, China
Manufacturer/ Factory:	Shenzhen YIDONG Technology Co., Ltd
Address of Manufacturer/ Factory:	Floor 1-5,Building B, Area B, Yuanfen Industrial Zone, Dalang, Bao'an District, Shenzhen, China

5.2 General Description of E.U.T.

Product Name:	Flat Computer
Model No.:	AT-6141,Ultra970,EMR3691
Operation Frequency:	2412MHz~2462MHz (802.11b/802.11g/802.11n(H20);
Channel numbers:	11 for 802.11b/802.11g/802.11n(H20) ;
Channel separation:	5MHz
Modulation technology: (IEEE 802.11b)	CCK/BPSK/QPSK
Modulation technology: (IEEE 802.11g/802.11n)	64QAM/16QAM/BPSK/QPSK
Data speed (IEEE 802.11b):	1Mbps, 2Mbps, 5.5Mbps, 11Mbps
Data speed (IEEE 802.11g):	6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps,54Mbps
Data speed (IEEE 802.11n):	Up to 150Mbps
Antenna Type:	Integral antenna
Antenna gain:	2.0 dBi
AC adapter:	Model: HNC050300U Input: AC 100-240V~50/60Hz 0.45A MAX Output: DC 5.0V 3.0A
Power supply:	DC 3.7V Li-ion battery
Remark:	The AT-6141, Ultra970 and EMR3691 were identical inside, since the electrical circuit design, layout, components used and internal wiring were identical for the above items, with only differences being the model number and appearance color. Base on the differences, we selected the AT-6141 for full test.

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

802.11b/802.11g/802.11n (H20)

Channel	Frequency
The lowest channel	2412MHz
The middle channel	2437MHz
The Highest channel	2462MHz

5.3 Test environment and mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	54 % RH
Atmospheric Pressure:	1010 mbar
Test mode:	
Operation mode	Keep the EUT in transmitting with modulation.

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

Mode	Data rate
802.11b	1Mbps
802.11g	6Mbps
802.11n(H20)	6.5Mbps

Final Test Mode:

According to ANSI C63.4 standards, the test results are both the “worst case” and “worst setup” 1Mbps for 802.11b, 6Mbps for 802.11g, 6.5Mbps for 802.11n(H20), Duty cycle setting during the transmission is 100% with maximum power setting for all modulations.

5.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC —Registration No.: 600491**

Global United Technology Service Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 600491, July 20, 2010.

● **Industry Canada (IC)**

The 3m Semi-anechoic chamber of Global United Technology Service Co., Ltd. Has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-1.

5.5 Test Location

All tests were performed at:

Global United Technology Service Co., Ltd.

Address: 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China

Tel: 0755-27798480

Fax: 0755-27798960

5.6 Other Information Requested by the Customer

None.

5.7 Test Instruments list

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	Mar. 30 2012	Mar. 29 2013
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Jul. 04 2012	Jul. 03 2013
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	Feb. 26 2012	Feb. 25 2013
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	June 30 2012	June 29 2013
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	Mar. 30 2012	Mar. 29 2013
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	Apr. 01 2012	Mar. 31 2013
9	Coaxial Cable	GTS	N/A	GTS211	Apr. 01 2012	Mar. 31 2013
9	Coaxial cable	GTS	N/A	GTS210	Apr. 01 2012	Mar. 31 2013
11	Coaxial Cable	GTS	N/A	GTS212	Apr. 01 2012	Mar. 31 2013
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Jul. 04 2012	Jul. 03 2013
13	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Jul. 04 2012	Jul. 03 2013
14	Pre-amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 30 2012	June 29 2013
15	Band filter	Amindeon	82346	GTS219	June 30 2012	June 29 2013

Conducted Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.0(L)x3.0(W)x3.0(H)	GTS252	Jul. 04 2012	Jul. 03 2013
2	EMI Test Receiver	Rohde & Schwarz	ESCS30	GTS223	Jul. 04 2012	Jul. 03 2013
3	10dB Pulse Limited	Rohde & Schwarz	N/A	GTS224	Jul. 04 2012	Jul. 03 2013
4	LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	GTS226	Jul. 04 2012	Jul. 03 2013
5	Coaxial Cable	GTS	N/A	GTS227	Apr. 01 2012	Mar. 31 2013
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A

6 Test results and Measurement Data

6.1 Antenna requirement:

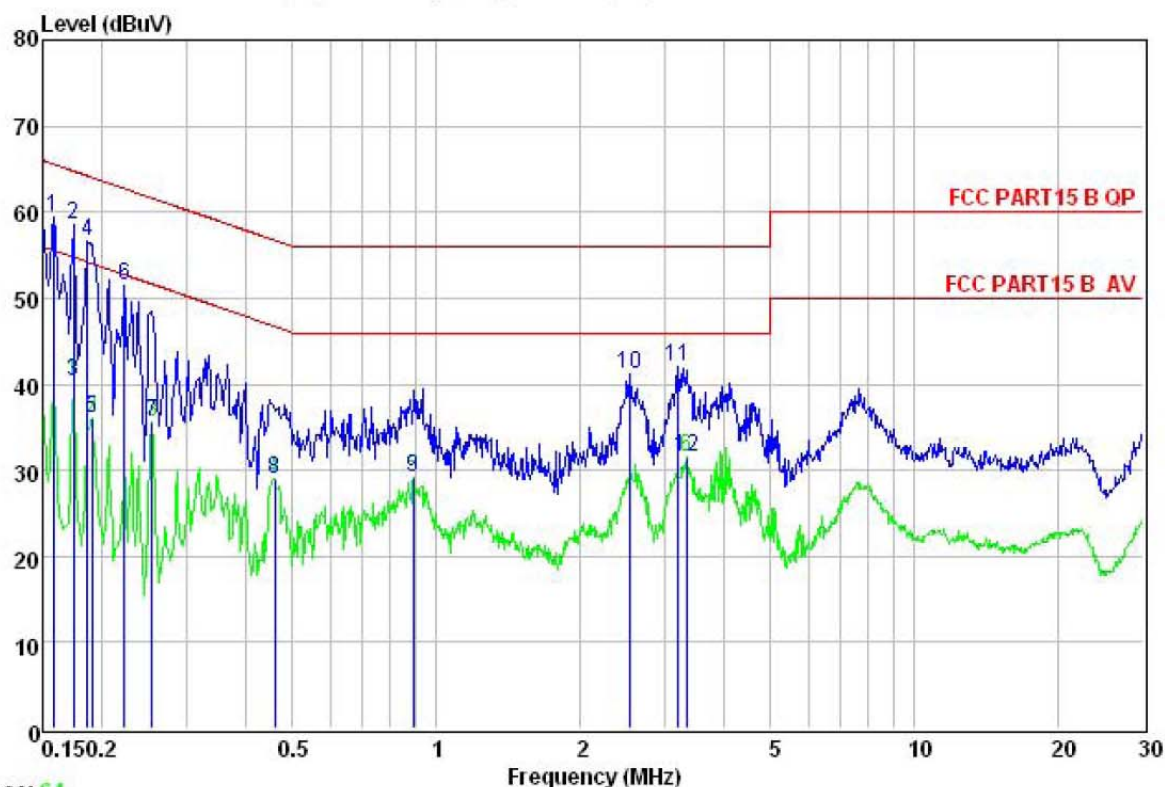
Standard requirement:	FCC Part15 C Section 15.203 /247(c)
<i>15.203 requirement:</i> <i>An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.</i> <i>15.247(c) (1)(i) requirement:</i> <i>(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.</i>	
E.U.T Antenna:	
The antenna is integral antenna and no consideration of replacement. The typical gain of the antenna is 2.0dBi.	
WIFI Antenna 	

6.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207		
Test Method:	ANSI C63.4: 2003		
Test Frequency Range:	150kHz to 30MHz		
Class / Severity:	Class B		
Receiver setup:	RBW=9kHz, VBW=30kHz		
Limit:	Frequency range (MHz)	Limit (dBuV)	
		Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
* Decreases with the logarithm of the frequency.			
Test procedure	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. 2. 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). 3. 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: 2003 on conducted measurement.		
Test setup:	Reference Plane LISN AUX Equipment E.U.T 40cm 80cm LISN Filter AC power EMI Receiver Test table/Insulation plane Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m		
Test Instruments:	Refer to section 5.7 for details		
Test mode:	Refer to section 5.3 for details		
Test results:	Passed		

Measurement Data

Line:

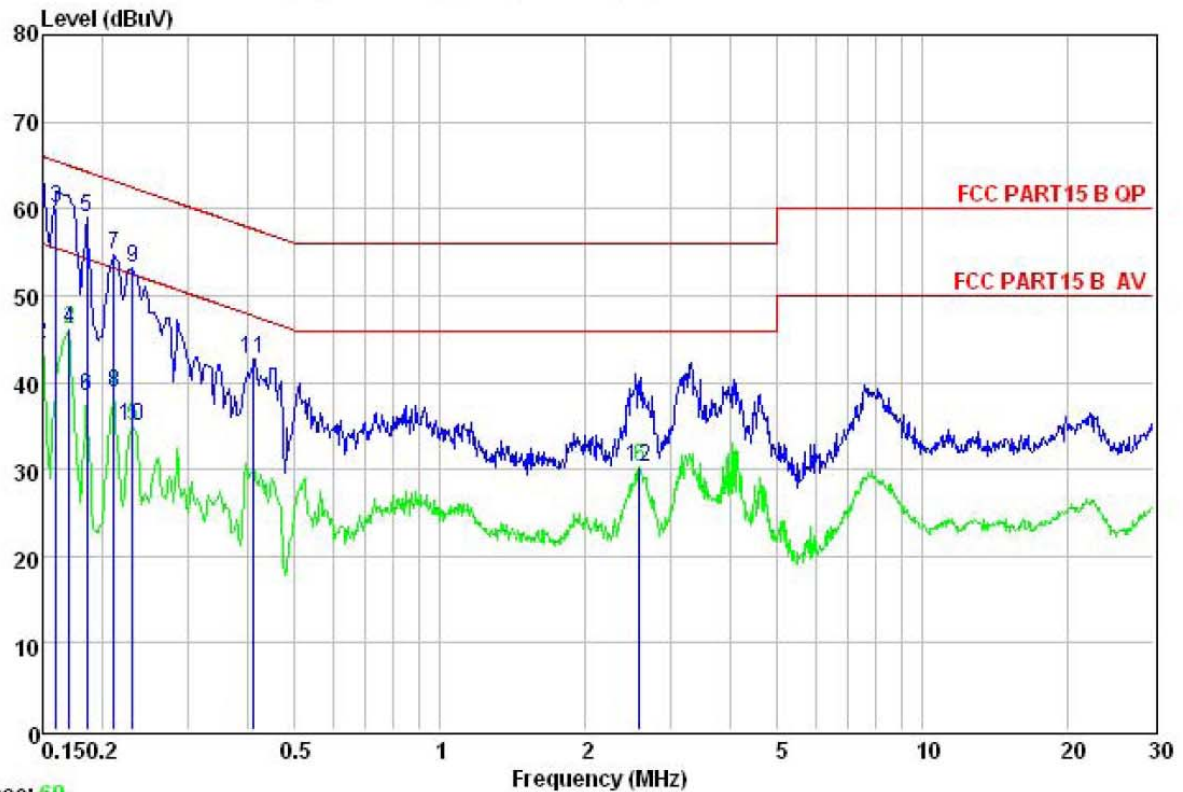


Trace: 64

Site : CCIS Conducted Test Site
 Condition : FCC PART15 B QP LISN LINE
 Job No : 235RF
 Test Mode : Wifi Mode
 Power Rating : AC 120V/60Hz
 Environment : Temp: 23 °C Humi:56% Atmos:101KPa
 Test Engineer: feng

	Read Freq	LISN Level	Cable Factor	Cable Loss	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.158	48.38	10.24	0.79	59.41	65.56	-6.15	QP
2	0.174	47.63	10.23	0.77	58.63	64.77	-6.14	QP
3	0.174	29.34	10.23	0.77	40.34	54.77	-14.43	Average
4	0.186	45.62	10.22	0.76	56.60	64.20	-7.60	QP
5	0.190	25.10	10.22	0.76	36.08	54.02	-17.94	Average
6	0.222	40.55	10.22	0.76	51.53	62.74	-11.21	QP
7	0.253	24.66	10.24	0.75	35.65	51.64	-15.99	Average
8	0.459	18.02	10.27	0.75	29.04	46.71	-17.67	Average
9	0.894	18.22	10.20	0.85	29.27	46.00	-16.73	Average
10	2.527	29.98	10.28	0.94	41.20	56.00	-14.80	QP
11	3.207	30.78	10.29	0.91	41.98	56.00	-14.02	QP
12	3.328	20.34	10.29	0.90	31.53	46.00	-14.47	Average

Neutral:



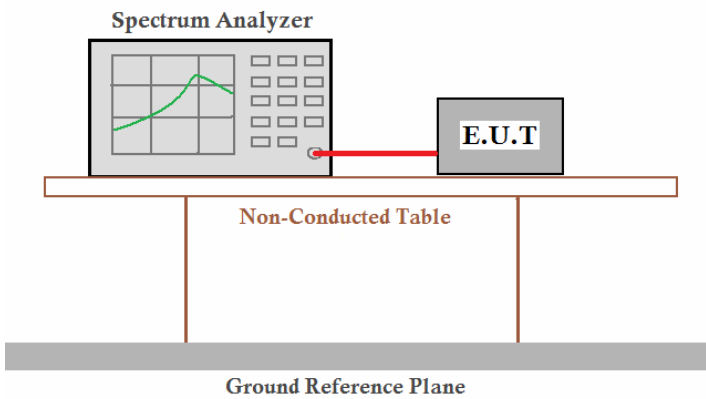
Site : CCIS Conducted Test Site
 Condition : FCC PART15 B QP LISN NEUTRAL
 Job No : 235RF
 Test Mode : Wifi Mode
 Power Rating : AC 120V/60Hz
 Environment : Temp: 23 °C Humi:56% Atmos:101KPa
 Test Engineer: feng

	Read	LISN	Cable	Limit	Over	
Freq	Level	Factor	Loss	Line	Limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB
1	0.150	50.54	10.27	0.79	61.60	66.00 -4.40 QP
2	0.150	33.36	10.27	0.79	44.42	56.00 -11.58 Average
3	0.160	49.04	10.26	0.78	60.08	65.47 -5.39 QP
4	0.170	35.16	10.25	0.78	46.19	54.94 -8.75 Average
5	0.185	48.02	10.24	0.77	59.03	64.24 -5.21 QP
6	0.185	27.36	10.24	0.77	38.37	54.24 -15.87 Average
7	0.211	43.78	10.23	0.76	54.77	63.18 -8.41 QP
8	0.211	27.88	10.23	0.76	38.87	53.18 -14.31 Average
9	0.230	42.16	10.23	0.75	53.14	62.44 -9.30 QP
10	0.230	24.07	10.23	0.75	35.05	52.44 -17.39 Average
11	0.410	31.77	10.26	0.72	42.75	57.64 -14.89 QP
12	2.581	19.05	10.27	0.94	30.26	46.00 -15.74 Average

Notes:

1. An initial pre-scan was performed on the live and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Receiver Read level + LISN Factor + Cable Loss

6.3 Maximum Conducted Output Power

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	ANSI C63.4:2003 and KDB558074
Limit:	30dBm
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data

Test CH	Maximum Conducted Output Power (dBm)			Limit(dBm)	Result
	802.11b	802.11g	802.11n(H20)		
Lowest	12.88	12.45	12.21	30.00	Pass
Middle	12.93	12.63	12.38		
Highest	12.58	12.73	12.39		

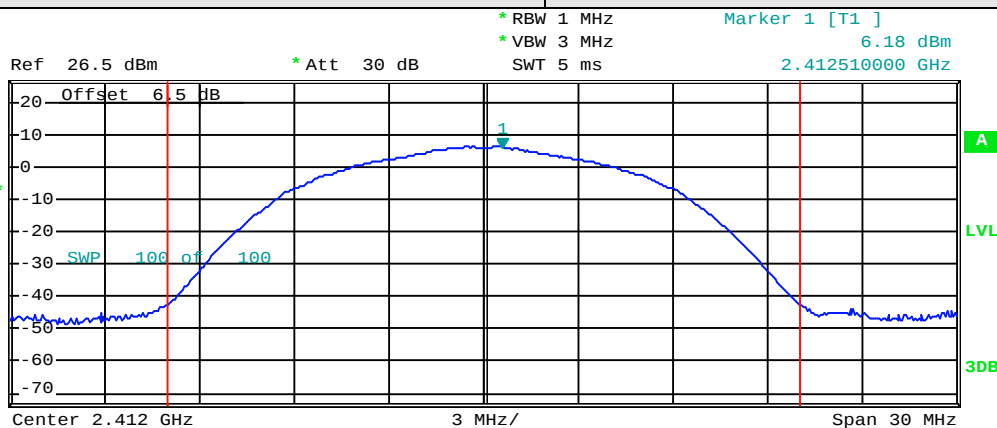
Test plot as follows:

Peak Output Power:

Test mode:	802.11b
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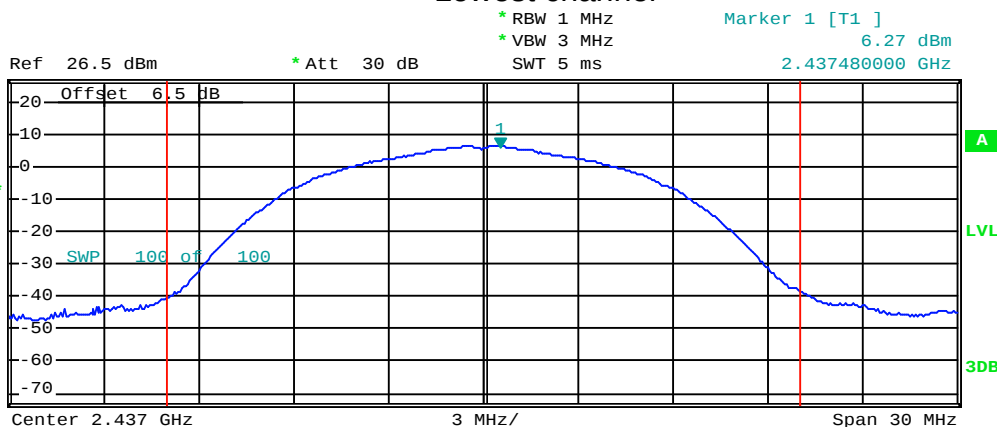
1 RM
MAXH



Lowest channel



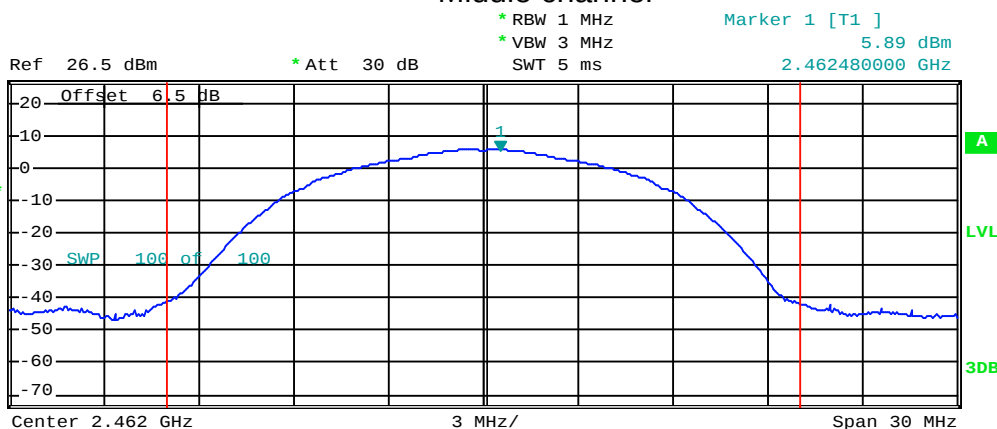
1 RM
MAXH



Middle channel



1 RM
MAXH

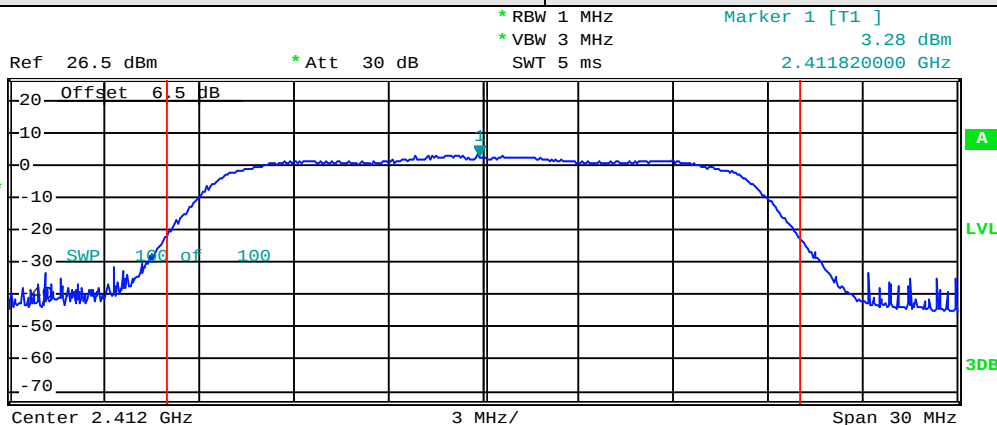


Highest channel

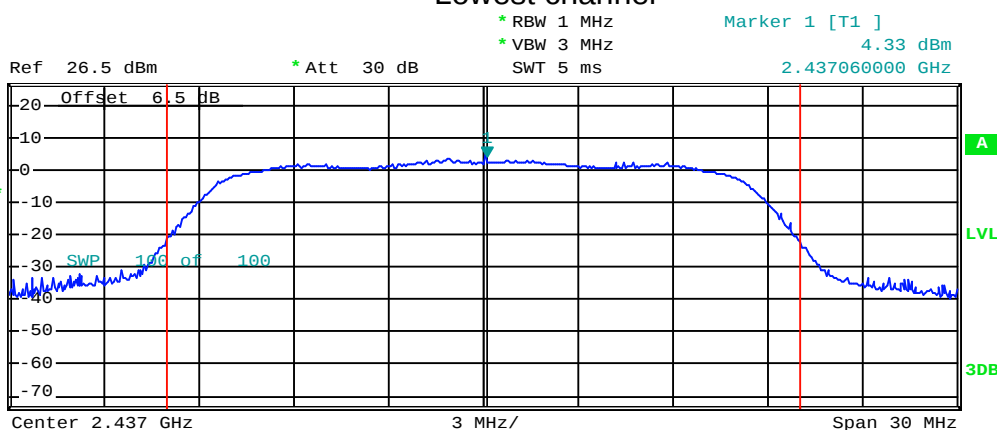
Test mode:	802.11g
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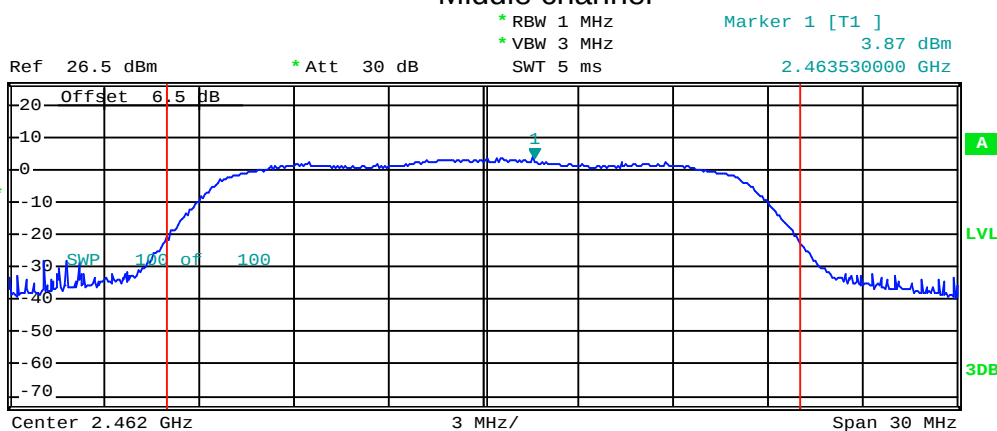
1 RM
MAXH



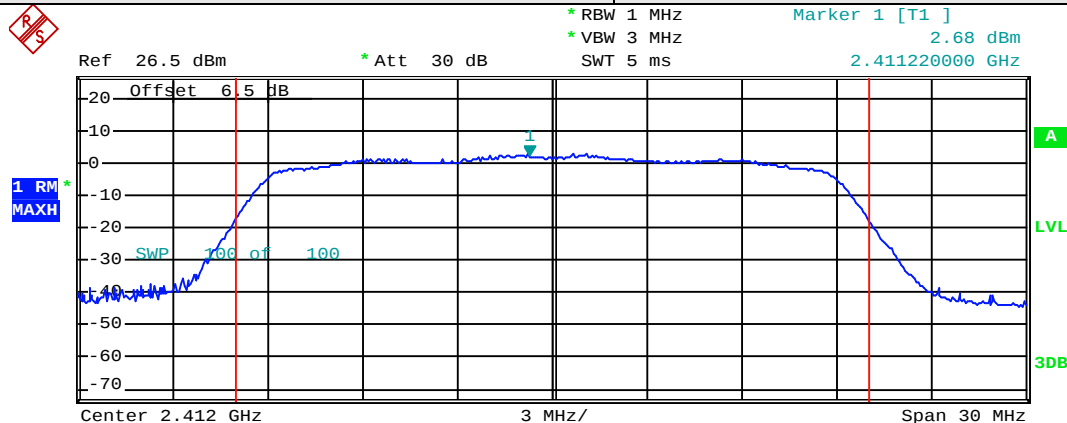
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MAXH



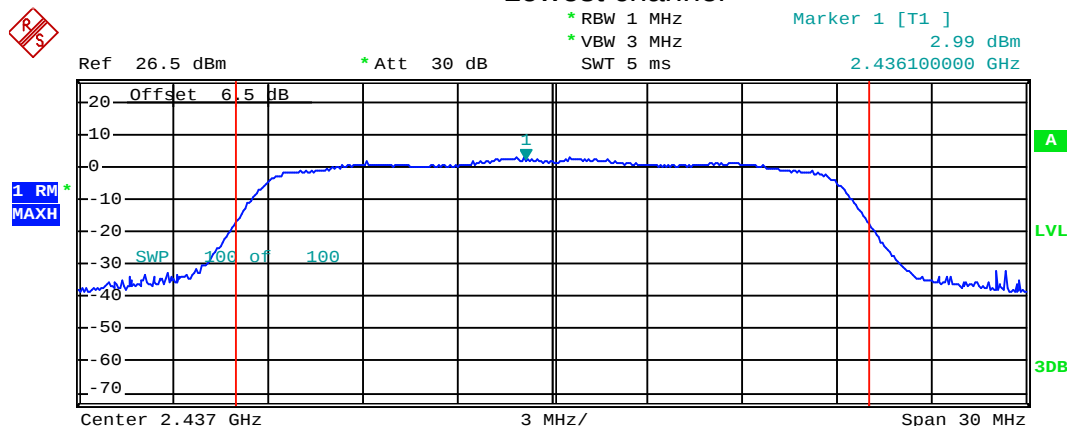
1 RM
MAXH



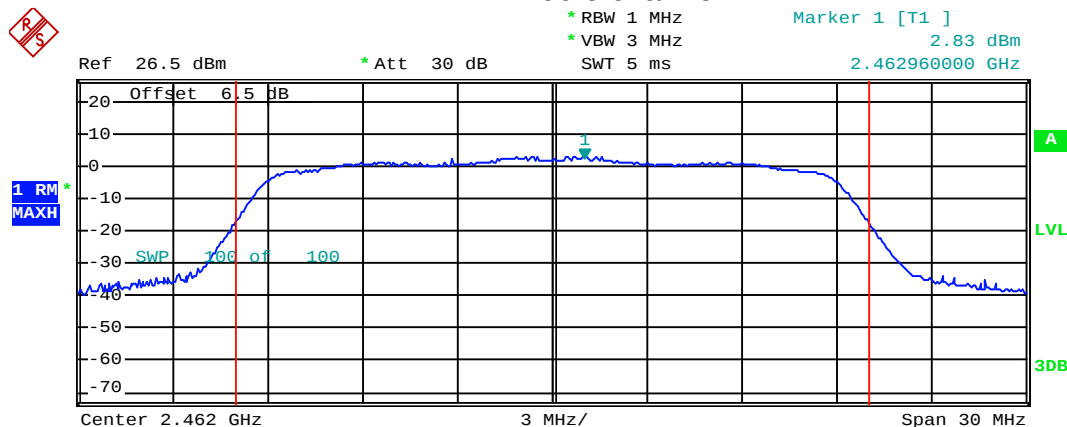
Test mode:	802.11n(H20)
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Lowest channel

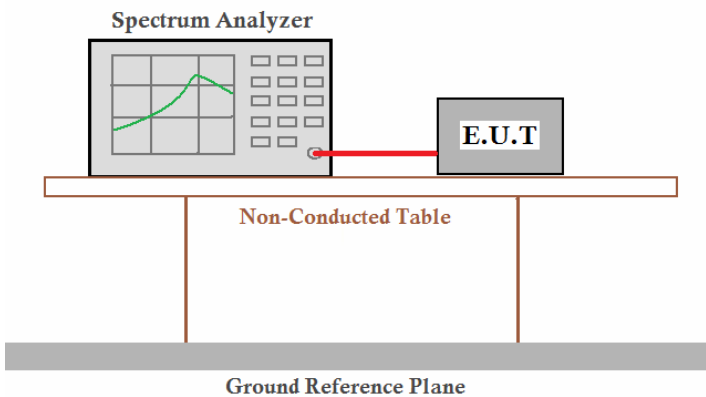


Middle channel



Highest channel

6.4 Occupy Bandwidth

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Test Method:	ANSI C63.4:2003 and KDB558074
Limit:	>500kHz
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data

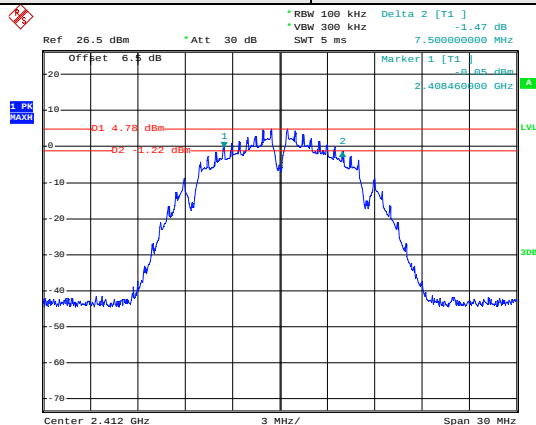
Test CH	6dB Occupy Bandwidth (MHz)			Limit(kHz)	Result
	802.11b	802.11g	802.11n(H20)		
Lowest	7.50	15.12	15.15	>500	Pass
Middle	8.04	15.12	15.18		
Highest	8.01	15.12	15.12		

Test CH	26dB Emission Bandwidth (MHz)			Limit(kHz)	Result
	802.11b	802.11g	802.11n(H20)		
Lowest	15.15	18.21	18.69	N/A	N/A
Middle	14.58	18.30	18.57		
Highest	14.25	18.30	18.72		

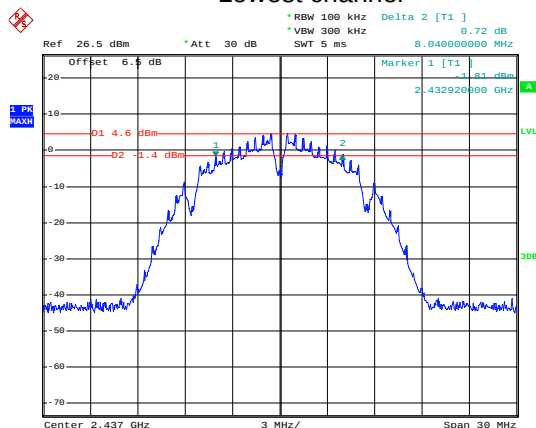
Test plot as follows:

Test mode: 6dB BW

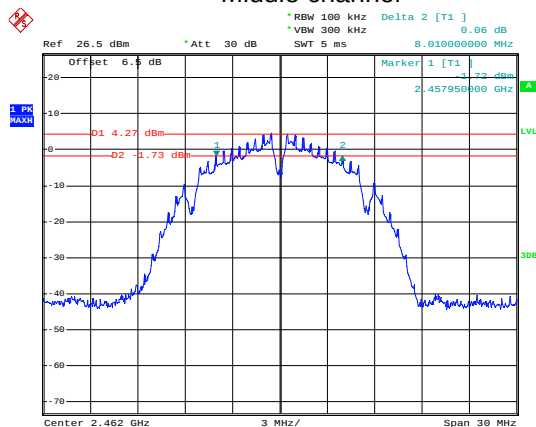
802.11b



Lowest channel



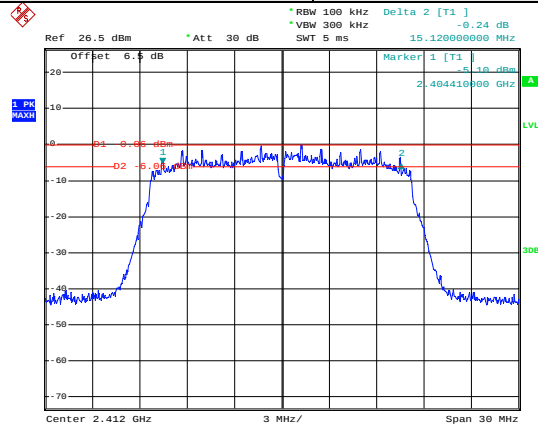
Middle channel



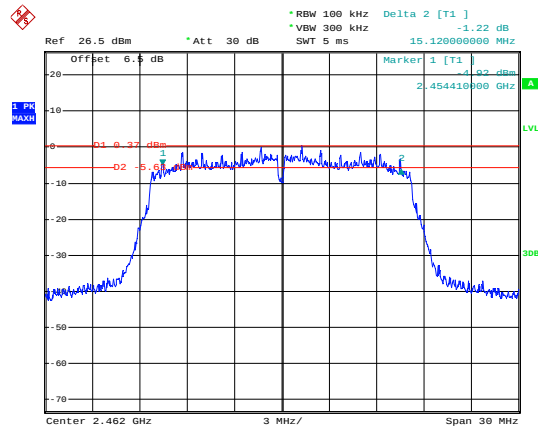
Highest channel

Test mode: 6dB BW

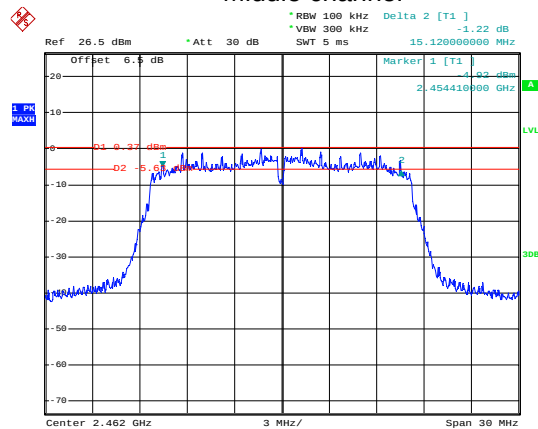
802.11g



Lowest channel



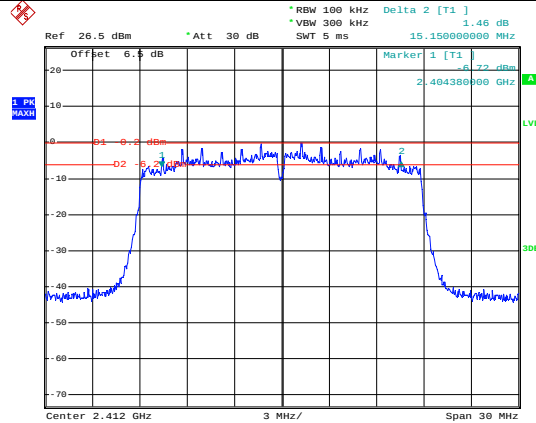
Middle channel



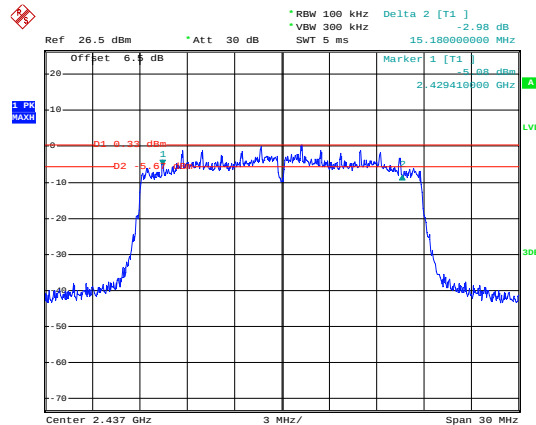
Highest channel

Test mode: 6dB BW

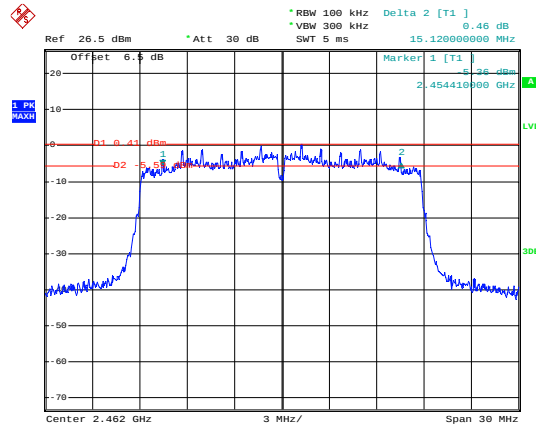
802.11n(H20)



Lowest channel



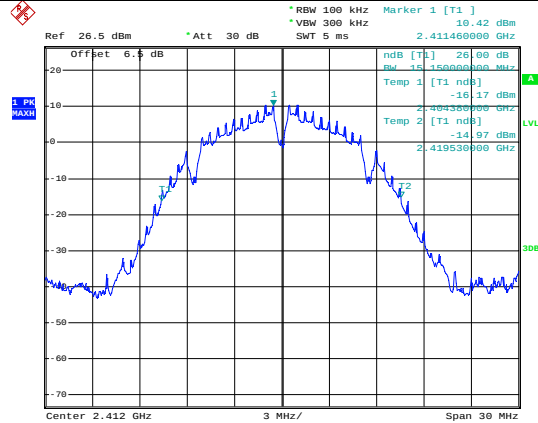
Middle channel



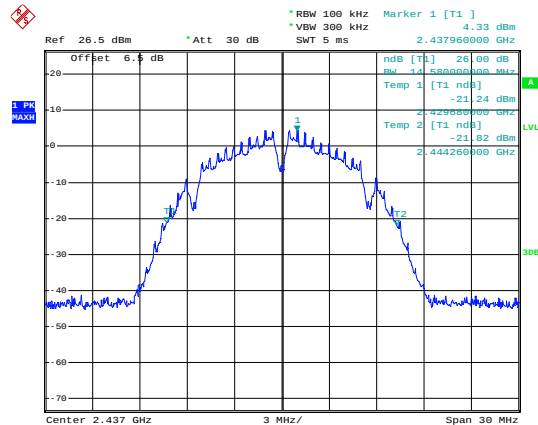
Highest channel

Test mode:26dB EBW

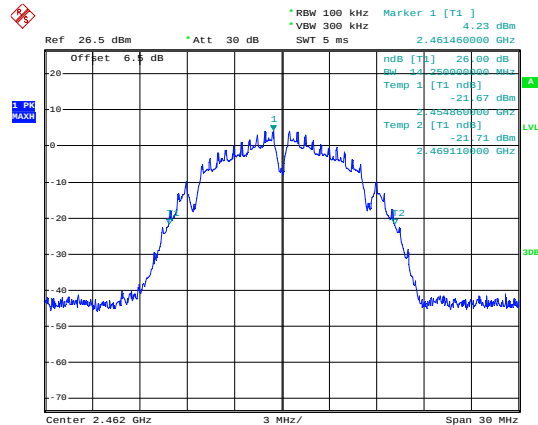
802.11b



Lowest channel



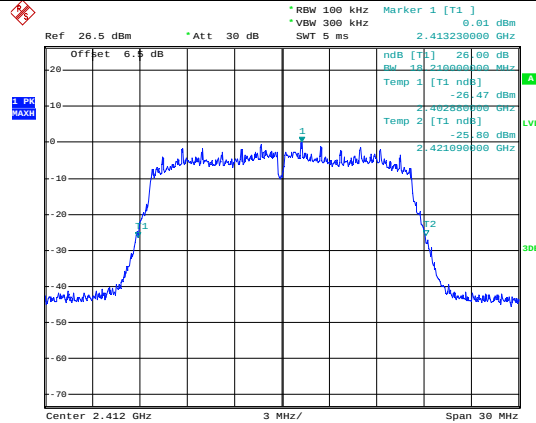
Middle channel



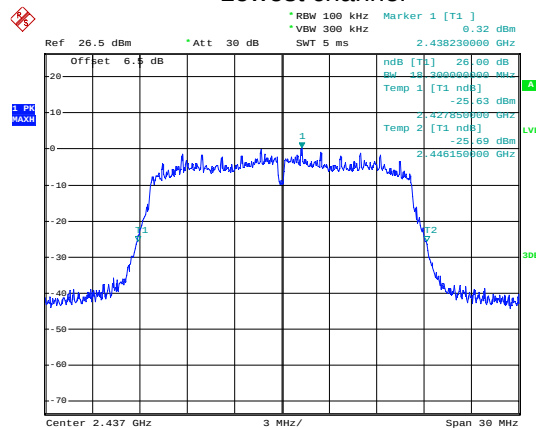
Highest channel

Test mode:26dB EBW

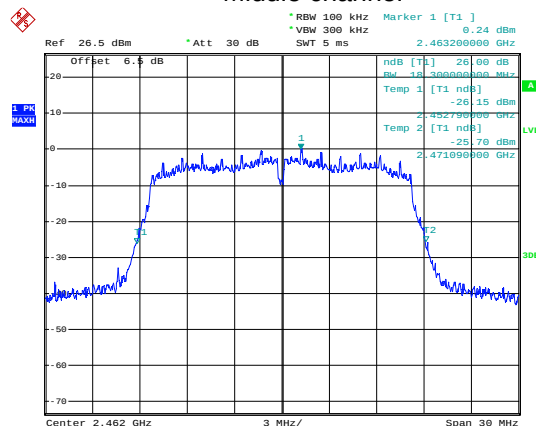
802.11g



Lowest channel



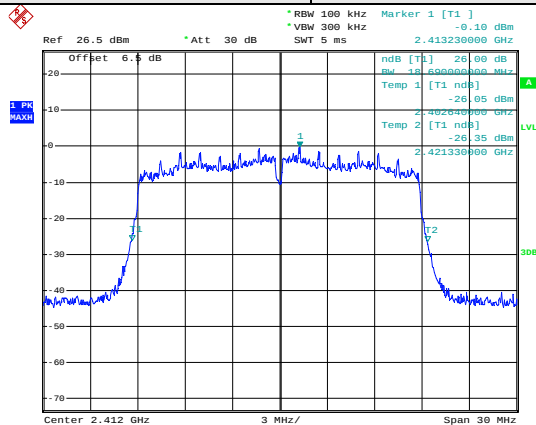
Middle channel



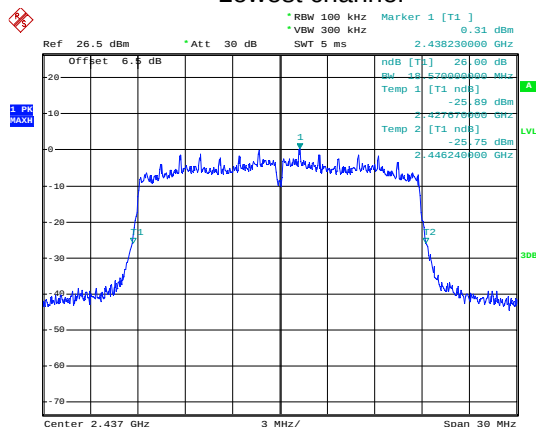
Highest channel

Test mode:26dB EBW

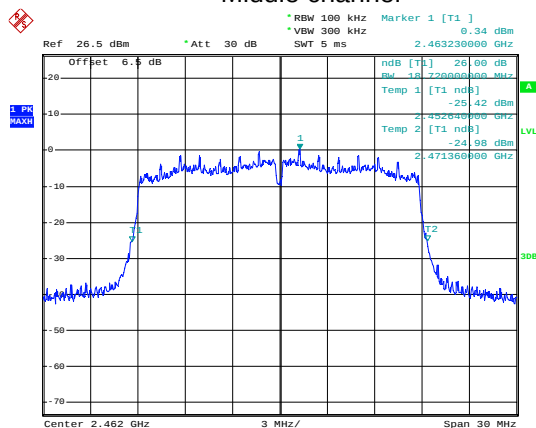
802.11n(H20)



Lowest channel

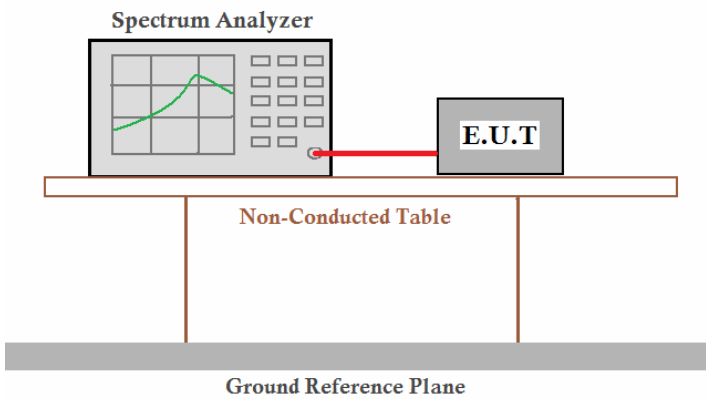


Middle channel



Highest channel

6.5 Power Spectral Density

Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	ANSI C63.4:2003 and KDB558074
Limit:	8dBm
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

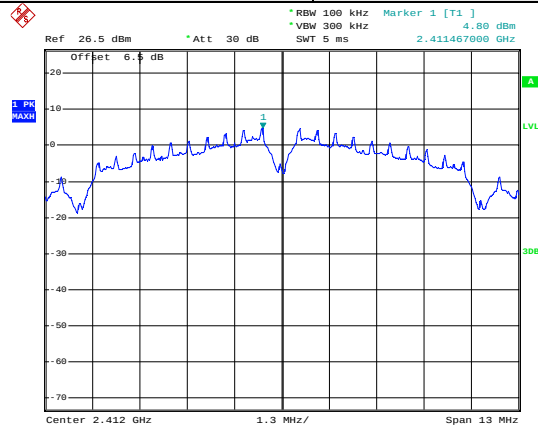
Measurement Data

Test CH	Power Spectral Density (dBm)			Limit(dBm)	Result
	802.11b	802.11g	802.11n(H20)		
Lowest	4.80	0.17	0.07	8.00	Pass
Middle	4.73	-0.01	0.21		
Highest	4.42	0.33	0.21		

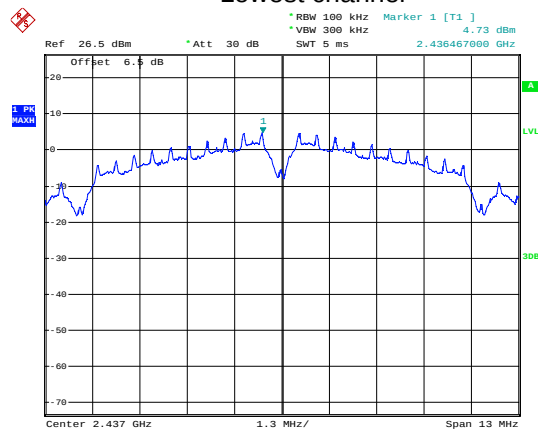
Test plot as follows:

Test mode:

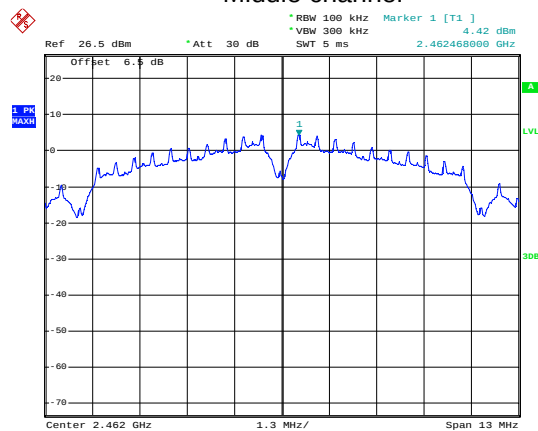
802.11b



Lowest channel



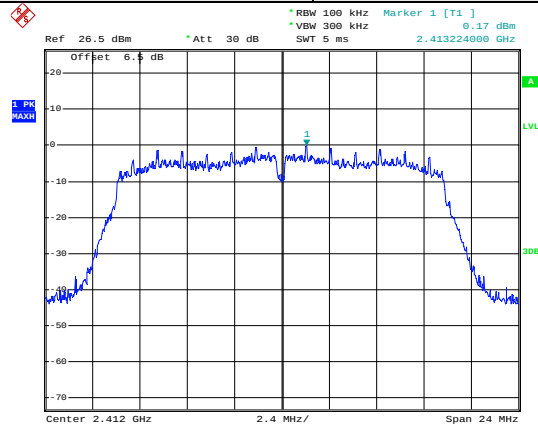
Middle channel



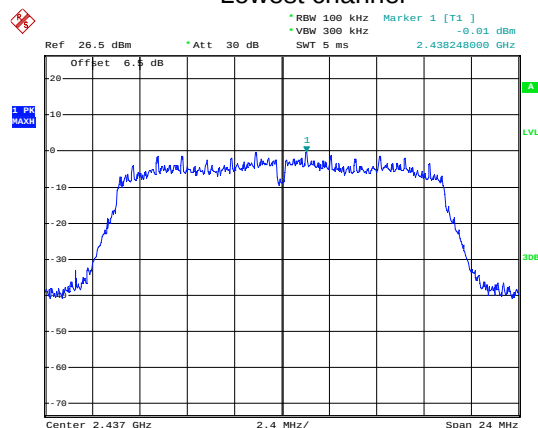
Highest channel

Test mode:

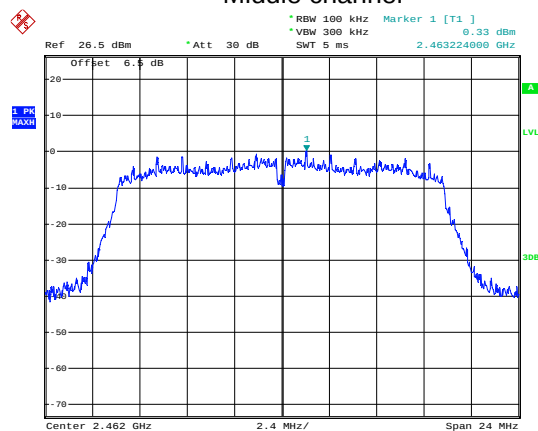
802.11g



Lowest channel



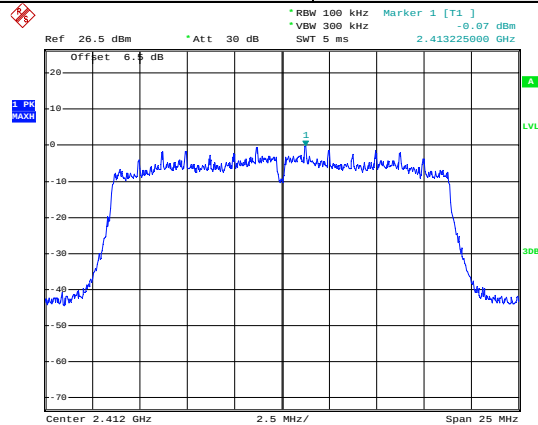
Middle channel



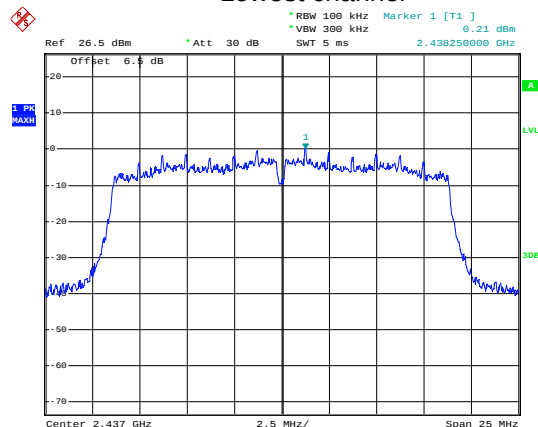
Highest channel

Test mode:

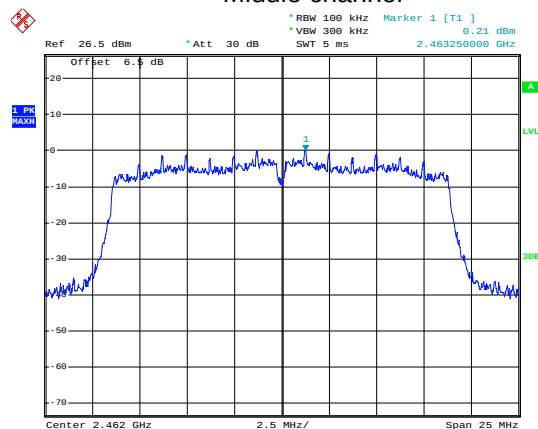
802.11n(H20)



Lowest channel



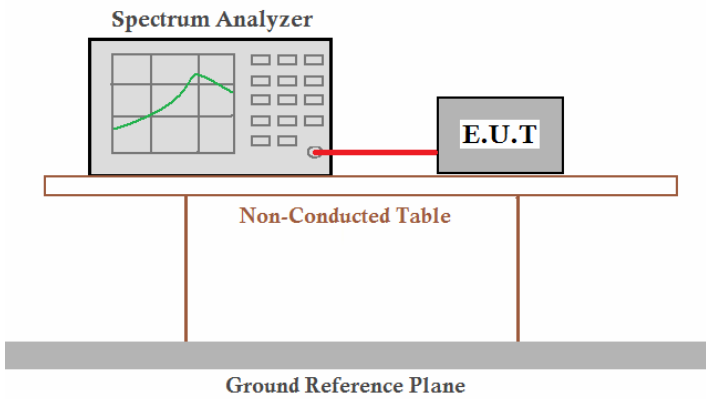
Middle channel



Highest channel

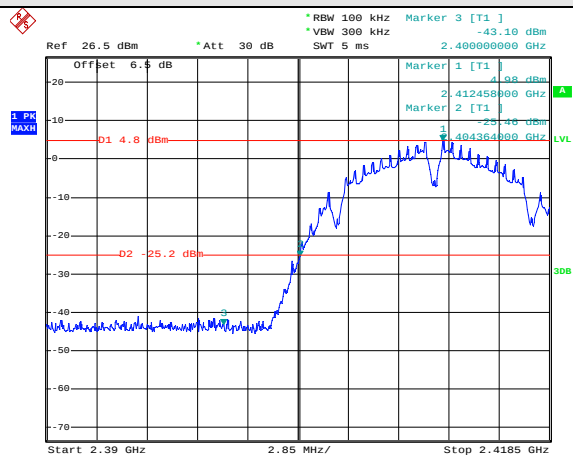
6.6 Band Edge

6.6.1 Conducted Emission Method

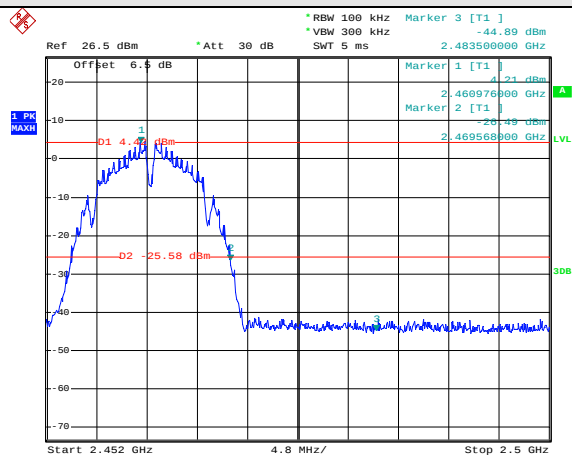
Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.4:2003 and KDB558074
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 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.
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Test plot as follows:

Test mode:	802.11b
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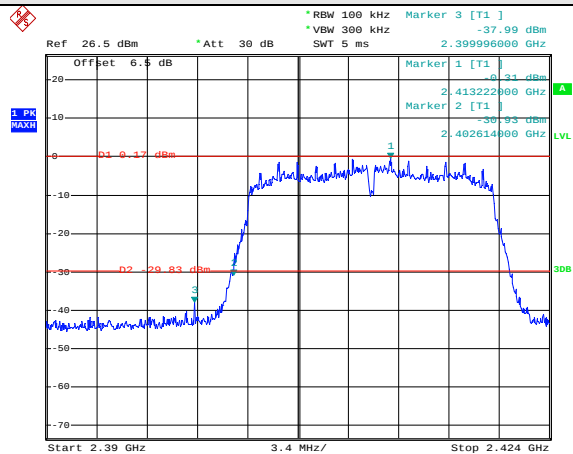


Lowest channel

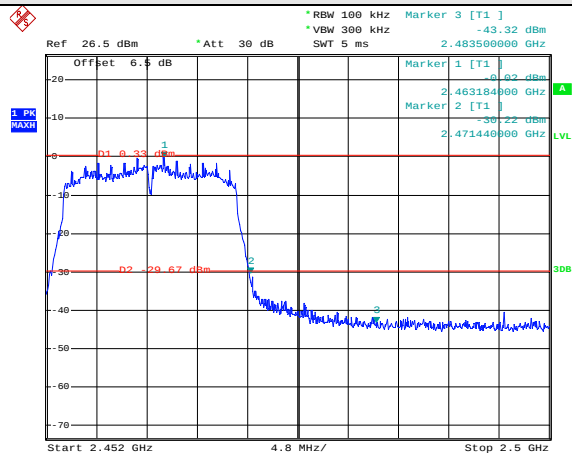


Highest channel

Test mode:	802.11g
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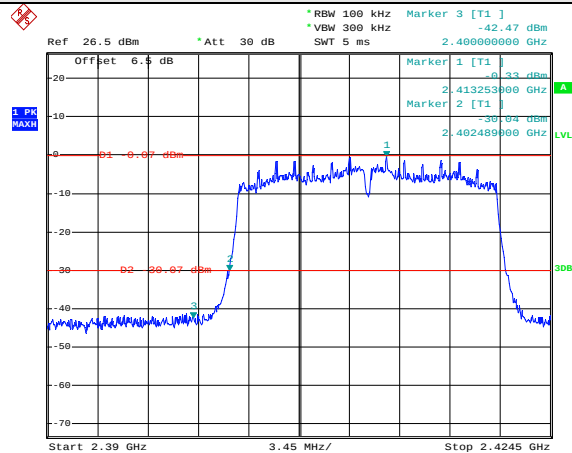


Lowest channel

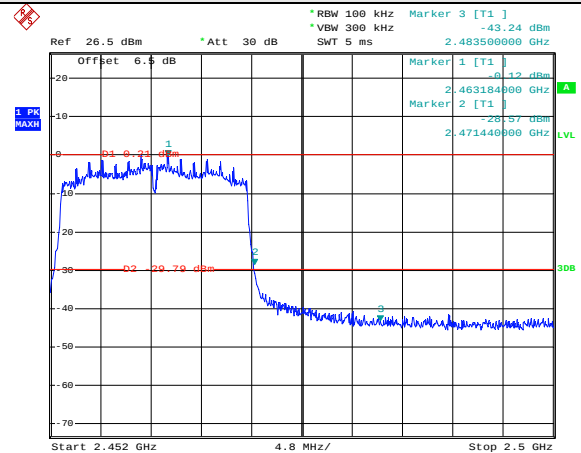


Highest channel

Test mode:	802.11n(H20)
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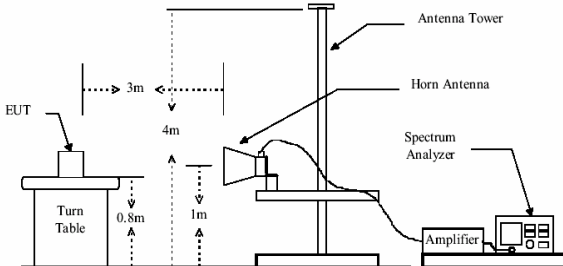


Lowest channel



Highest channel

6.6.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205																		
Test Method:	ANSI C63.4: 2003																		
Test Frequency Range:	2.3GHz to 2.5GHz																		
Test site:	Measurement Distance: 3m																		
Receiver setup:	<table><tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr><tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr><tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average Value</td></tr></table>					Frequency	Detector	RBW	VBW	Remark	Above 1GHz	Peak	1MHz	3MHz	Peak Value	Peak	1MHz	10Hz	Average Value
Frequency	Detector	RBW	VBW	Remark															
Above 1GHz	Peak	1MHz	3MHz	Peak Value															
	Peak	1MHz	10Hz	Average Value															
Limit:	<table><tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr><tr><td rowspan="2">Above 1GHz</td><td>54.00</td><td>Average Value</td></tr><tr><td>74.00</td><td>Peak Value</td></tr></table>					Frequency	Limit (dBuV/m @3m)	Remark	Above 1GHz	54.00	Average Value	74.00	Peak Value						
Frequency	Limit (dBuV/m @3m)	Remark																	
Above 1GHz	54.00	Average Value																	
	74.00	Peak Value																	
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.																		
Test setup:																			
Test Instruments:	Refer to section 5.7 for details																		
Test mode:	Refer to section 5.3 for details																		
Test results:	Passed																		

802.11b

Test channel:		Lowest			Level:		Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2390.00	51.47	27.59	3.33	30.10	52.29	74.00	-21.71	Vertical
2400.00	55.63	27.58	3.37	30.10	56.48	74.00	-17.52	Vertical
2390.00	52.82	27.59	3.33	30.10	53.64	74.00	-20.36	Horizontal
2400.00	56.69	27.58	3.37	30.10	57.54	74.00	-16.46	Horizontal

Test channel:		Lowest			Level:		Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	35.11	27.59	3.33	30.10	35.93	54.00	-18.07	Vertical
2400.00	38.62	27.58	3.37	30.10	39.47	54.00	-14.53	Vertical
2390.00	36.46	27.59	3.33	30.10	37.28	54.00	-16.72	Horizontal
2400.00	39.68	27.58	3.37	30.10	40.53	54.00	-13.47	Horizontal

Test channel:		Highest			Level:		Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	55.91	27.53	3.49	29.93	57.00	74.00	-17.00	Horizontal
2500.00	52.01	27.55	3.52	30.70	52.38	74.00	-21.62	Horizontal
2483.50	57.07	27.53	3.49	29.93	58.16	74.00	-15.84	Vertical
2500.00	53.41	27.55	3.52	30.70	53.78	74.00	-20.22	Vertical

Test channel:		Highest			Level:		Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	38.87	27.53	3.49	29.93	39.96	54.00	-14.04	Horizontal
2500.00	34.30	27.55	3.52	30.70	34.67	54.00	-19.33	Horizontal
2483.50	40.27	27.53	3.49	29.93	41.36	54.00	-12.64	Vertical
2500.00	35.46	27.55	3.52	30.70	35.83	54.00	-18.17	Vertical
2500.00	36.72	27.55	3.52	30.70	37.09	54.00	-16.91	Vertical

802.11g

Test channel:		Lowest			Level:		Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	53.21	27.59	3.33	30.10	54.03	74.00	-19.97	Horizontal
2400.00	53.87	27.58	3.37	30.10	54.72	74.00	-19.28	Horizontal
2390.00	53.15	27.59	3.33	30.10	53.97	74.00	-20.03	Vertical
2400.00	54.99	27.58	3.37	30.10	55.84	74.00	-18.16	Vertical

Test channel:		Lowest			Level:		Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	36.97	27.59	3.33	30.10	37.79	54.00	-16.21	Horizontal
2400.00	38.67	27.58	3.37	30.10	39.52	54.00	-14.48	Horizontal
2390.00	38.33	27.59	3.33	30.10	39.15	54.00	-14.85	Vertical
2400.00	39.88	27.58	3.37	30.10	40.73	54.00	-13.27	Vertical

Test channel:		Highest			Level:		Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	55.96	27.53	3.49	29.93	57.05	74.00	-16.95	Horizontal
2500.00	55.61	27.55	3.52	30.70	55.98	74.00	-18.02	Horizontal
2483.50	56.78	27.53	3.49	29.93	57.87	74.00	-16.13	Vertical
2500.00	55.61	27.55	3.52	30.70	55.98	74.00	-18.02	Vertical

Test channel:		Highest			Level:		Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	39.78	27.53	3.49	29.93	40.87	54.00	-13.13	Horizontal
2500.00	38.91	27.55	3.52	30.70	39.28	54.00	-14.72	Horizontal
2483.50	39.85	27.53	3.49	29.93	40.94	54.00	-13.06	Vertical
2500.00	38.31	27.55	3.52	30.70	38.68	54.00	-15.32	Vertical

802.11n (H20)

Test channel:		Lowest			Level:		Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	51.06	27.59	3.33	30.10	51.88	74.00	-22.12	Horizontal
2400.00	56.46	27.58	3.37	30.10	57.31	74.00	-16.69	Horizontal
2390.00	51.62	27.59	3.33	30.10	52.44	74.00	-21.56	Vertical
2400.00	55.53	27.58	3.37	30.10	56.38	74.00	-17.62	Vertical

Test channel:		Lowest			Level:		Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	37.39	27.59	3.33	30.10	38.21	54.00	-15.79	Horizontal
2400.00	41.33	27.58	3.37	30.10	42.18	54.00	-11.82	Horizontal
2390.00	36.95	27.59	3.33	30.10	37.77	54.00	-16.23	Vertical
2400.00	40.67	27.58	3.37	30.10	41.52	54.00	-12.48	Vertical

Test channel:		Highest			Level:		Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	54.58	27.53	3.49	29.93	55.67	74.00	-18.33	Horizontal
2500.00	50.19	27.55	3.52	30.70	50.56	74.00	-23.44	Horizontal
2483.50	54.26	27.53	3.49	29.93	55.35	74.00	-18.65	Vertical
2500.00	49.35	27.55	3.52	30.70	49.72	74.00	-24.28	Vertical

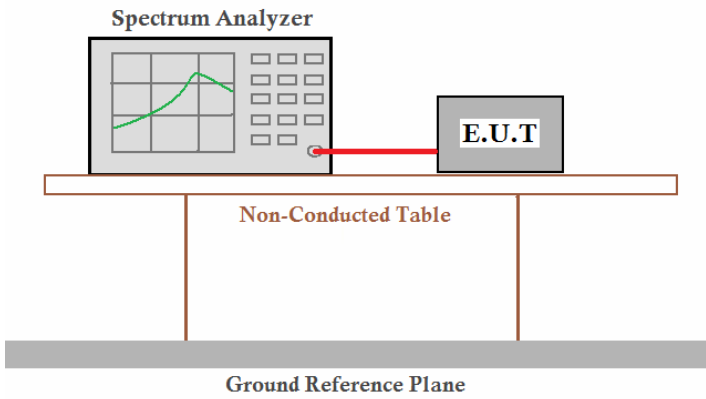
Test channel:		Highest			Level:		Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	40.57	27.53	3.49	29.93	41.66	54.00	-12.34	Horizontal
2500.00	37.44	27.55	3.52	30.70	37.81	54.00	-16.19	Horizontal
2483.50	39.62	27.53	3.49	29.93	40.71	54.00	-13.29	Vertical
2500.00	37.08	27.55	3.52	30.70	37.45	54.00	-16.55	Vertical

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

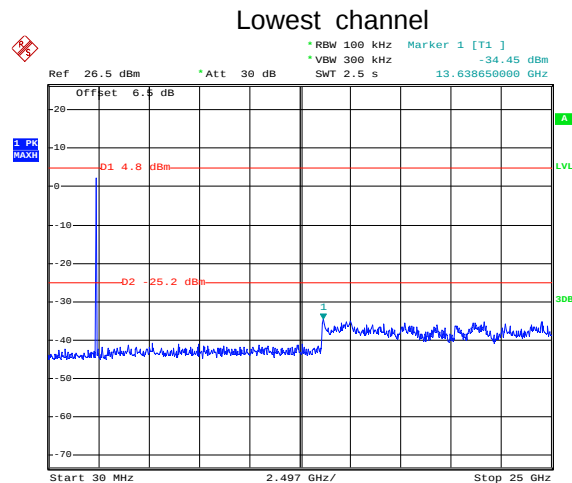
6.7 Spurious Emission

6.7.1 Conducted Emission Method

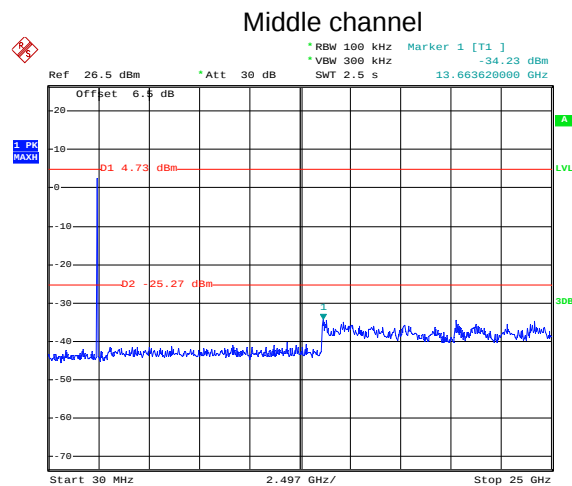
Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.4:2003 and KDB558074
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	 The diagram illustrates the test setup for conducted emission measurement. A Spectrum Analyzer is connected via a red cable to an E.U.T. (Equipment Under Test). Both are placed on a Non-Conducted Table, which sits on a Ground Reference Plane.
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Test plot as follows:

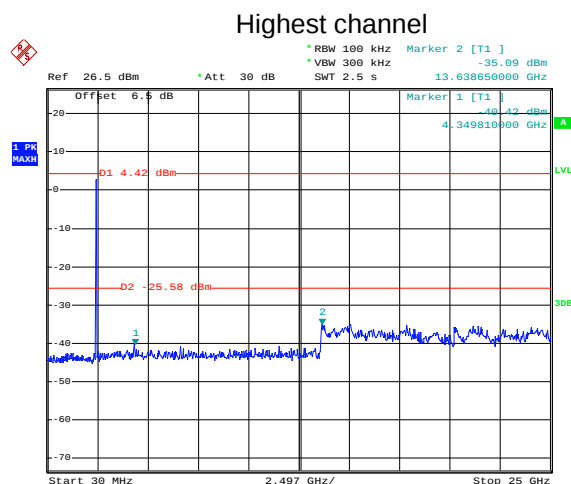
Test mode:	802.11b
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30MHz~25GHz



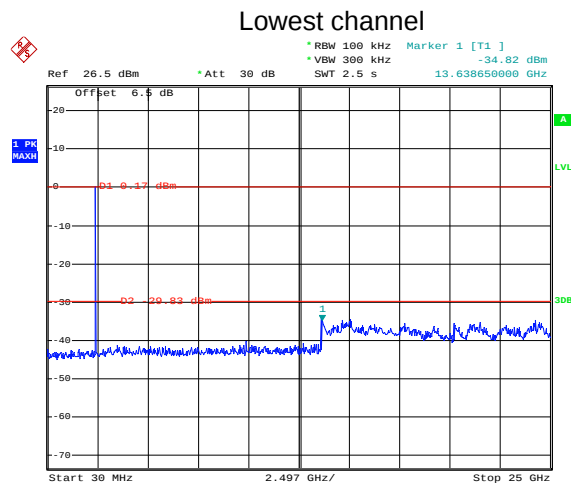
30MHz~25GHz



30MHz~25GHz

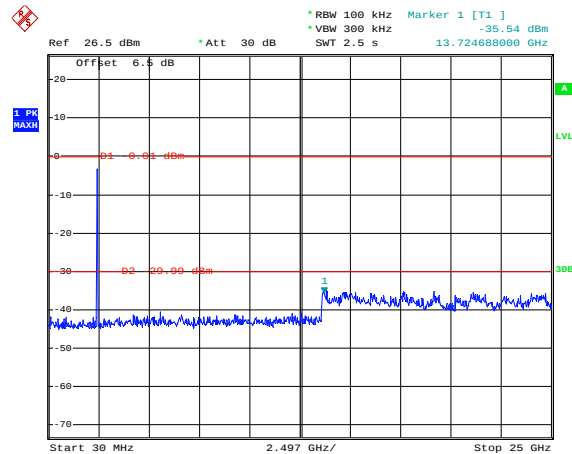
Test mode:

802.11g



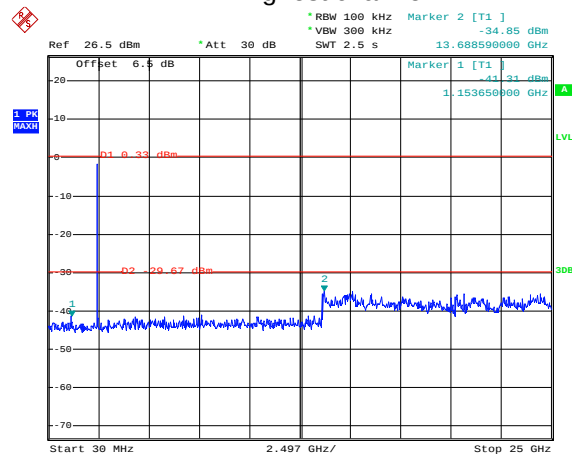
30MHz~25GHz

Middle channel



30MHz~25GHz

Highest channel

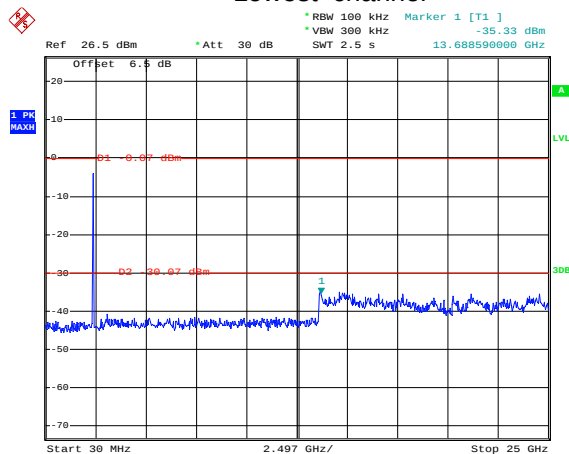


30MHz~25GHz

Test mode:

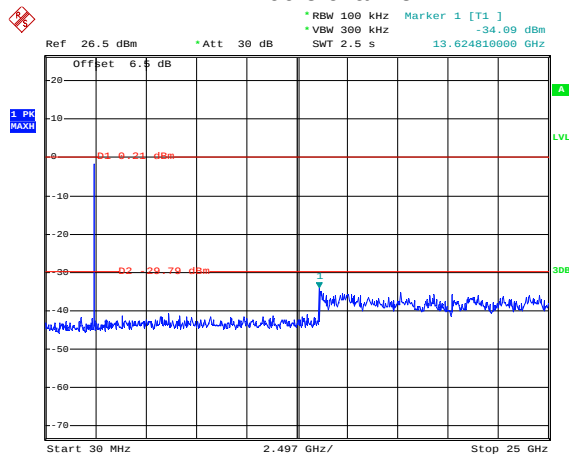
802.11n(H20)

Lowest channel

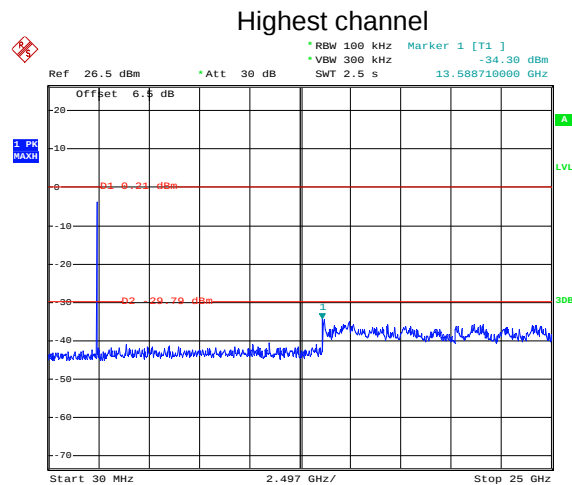


30MHz~25GHz

Middle channel



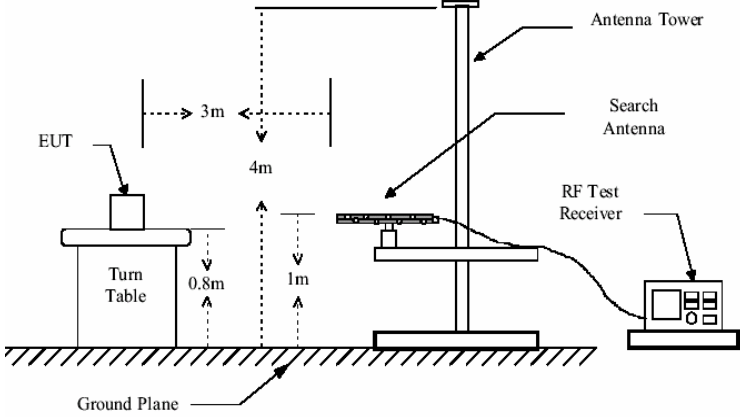
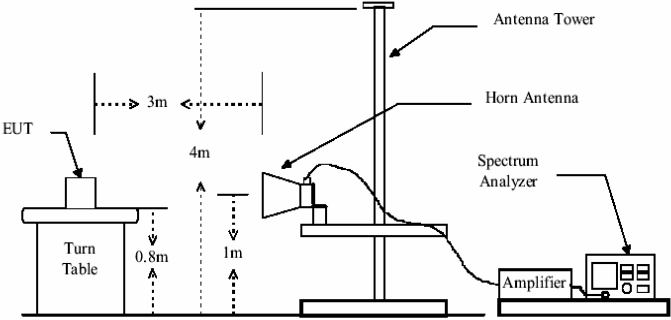
30MHz~25GHz



30MHz~25GHz

6.7.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205				
Test Method:	ANSI C63.4:2003				
Test Frequency Range:	30MHz to 25GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	100kHz	300kHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		Peak	1MHz	10Hz	Average Value
Limit:	Frequency		Limit (dBuV/m @3m)		Remark
	30MHz-88MHz		40.0		Quasi-peak Value
	88MHz-216MHz		43.5		Quasi-peak Value
	216MHz-960MHz		46.0		Quasi-peak Value
	960MHz-1GHz		54.0		Quasi-peak Value
	Above 1GHz		54.0		Average Value
			74.0		Peak Value
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.				

Test setup:	Below 1GHz  Above 1GHz 
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Below 1GHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
32.86	46.09	12.31	0.91	26.58	32.73	40.00	-7.27	Vertical
47.83	47.96	13.38	1.27	28.08	34.53	40.00	-5.47	Vertical
167.82	45.88	8.90	2.64	29.01	28.41	43.50	-15.09	Vertical
480.53	44.68	16.07	3.46	30.52	33.69	46.00	-12.31	Vertical
528.25	42.27	17.15	3.77	30.53	32.66	46.00	-13.34	Vertical
576.64	41.13	18.03	3.92	30.55	32.53	46.00	-13.47	Vertical
167.82	52.83	8.90	2.64	29.01	35.36	43.50	-8.14	Horizontal
287.99	48.64	12.84	2.91	29.47	34.92	46.00	-11.08	Horizontal
383.93	51.92	14.68	3.09	29.83	39.86	46.00	-6.14	Horizontal
432.55	51.87	15.53	3.16	30.31	40.25	46.00	-5.75	Horizontal
480.53	52.01	16.07	3.46	30.52	41.02	46.00	-4.98	Horizontal
528.25	48.75	17.15	3.77	30.53	39.14	46.00	-6.86	Horizontal

Above 1GHz

Test mode:	802.11b		Test channel:	Lowest		Remark:	Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	41.97	31.79	5.34	24.07	55.03	74.00	-18.97	Vertical
7236.00	31.87	36.19	6.88	26.44	48.50	74.00	-25.50	Vertical
9648.00	30.94	38.07	8.96	25.36	52.61	74.00	-21.39	Vertical
12060.00	28.36	39.05	10.35	25.15	52.61	74.00	-21.39	Vertical
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4824.00	43.01	31.79	5.34	24.07	56.07	74.00	-17.93	Horizontal
7236.00	33.56	36.19	6.88	26.44	50.19	74.00	-23.81	Horizontal
9648.00	33.38	38.07	8.96	25.36	55.05	74.00	-18.95	Horizontal
12060.00	31.55	39.05	10.35	25.15	55.80	74.00	-18.20	Horizontal
14472.00	*					74.00		Horizontal
16884.00	*					74.00		Horizontal

Test mode:	802.11b		Test channel:	Lowest		Remark:	Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	22.97	31.79	5.34	24.07	36.03	54.00	-17.97	Vertical
7236.00	16.15	36.19	6.88	26.44	32.78	54.00	-21.22	Vertical
9648.00	15.60	38.07	8.96	25.36	37.27	54.00	-16.73	Vertical
12060.00	14.09	39.05	10.35	25.15	38.34	54.00	-15.66	Vertical
14472.00	*					54.00		Vertical
16884.00	*					54.00		Vertical
4824.00	24.58	31.79	5.34	24.07	37.64	54.00	-16.36	Horizontal
7236.00	17.61	36.19	6.88	26.44	34.24	54.00	-19.76	Horizontal
9648.00	16.91	38.07	8.96	25.36	38.58	54.00	-15.42	Horizontal
12060.00	15.25	39.05	10.35	25.15	39.50	54.00	-14.50	Horizontal
14472.00	*					54.00		Horizontal
16884.00	*					54.00		Horizontal

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor
2. “*”, means this data is too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

Test mode:	802.11b		Test channel:	Middle		Remark:	Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	47.27	31.85	5.40	24.01	60.51	74.00	-13.49	Vertical
7311.00	41.49	36.37	6.90	26.58	58.18	74.00	-15.82	Vertical
9688.00	33.58	38.13	8.98	25.34	55.35	74.00	-18.65	Vertical
12185.00	28.97	38.92	10.38	25.04	53.23	74.00	-20.77	Vertical
14682.00	*					74.00		Vertical
17179.00	*					74.00		Vertical
4874.00	47.51	31.85	5.40	24.01	60.75	74.00	-13.25	Horizontal
7311.00	41.39	36.37	6.90	26.58	58.08	74.00	-15.92	Horizontal
9688.00	34.16	38.13	8.98	25.34	55.93	74.00	-18.07	Horizontal
12185.00	29.81	38.92	10.38	25.04	54.07	74.00	-19.93	Horizontal
14682.00	*					74.00		Horizontal
17179.00	*					74.00		Horizontal

Test mode:	802.11b		Test channel:	Middle		Remark:	Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	26.97	31.85	5.40	24.01	40.21	54.00	-13.79	Vertical
7311.00	21.32	36.37	6.90	26.58	38.01	54.00	-15.99	Vertical
9688.00	15.15	38.13	8.98	25.34	36.92	54.00	-17.08	Vertical
12185.00	9.78	38.92	10.38	25.04	34.04	54.00	-19.96	Vertical
14682.00	*					54.00		Vertical
17179.00	*					54.00		Vertical
4874.00	26.79	31.85	5.40	24.01	40.03	54.00	-13.97	Horizontal
7311.00	21.29	36.37	6.90	26.58	37.98	54.00	-16.02	Horizontal
9688.00	14.67	38.13	8.98	25.34	36.44	54.00	-17.56	Horizontal
12185.00	10.34	38.92	10.38	25.04	34.60	54.00	-19.40	Horizontal
14682.00	*					54.00		Horizontal
17179.00	*					54.00		Horizontal

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

Test mode:	802.11b		Test channel:	Highest		Remark:	Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	46.82	31.89	5.46	23.96	60.21	74.00	-13.79	Vertical
7386.00	42.64	36.49	6.93	26.79	59.27	74.00	-14.73	Vertical
9848.00	34.61	38.24	9.05	25.30	56.60	74.00	-17.40	Vertical
12310.00	30.54	38.83	10.41	24.90	54.88	74.00	-19.12	Vertical
14772.00	*					74.00		Vertical
17234.00	*					74.00		Vertical
4924.00	47.34	31.89	5.46	23.96	60.73	74.00	-13.27	Horizontal
7386.00	42.62	36.49	6.93	26.79	59.25	74.00	-14.75	Horizontal
9848.00	34.97	38.24	9.05	25.30	56.96	74.00	-17.04	Horizontal
12310.00	30.15	38.83	10.41	24.90	54.49	74.00	-19.51	Horizontal
14772.00	*					74.00		Horizontal
17234.00	*					74.00		Horizontal

Test mode:	802.11b		Test channel:	Highest		Remark:	Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	27.19	31.89	5.46	23.96	40.58	54.00	-13.42	Vertical
7386.00	21.45	36.49	6.93	26.79	38.08	54.00	-15.92	Vertical
9848.00	14.33	38.24	9.05	25.30	36.32	54.00	-17.68	Vertical
12310.00	10.35	38.83	10.41	24.90	34.69	54.00	-19.31	Vertical
14772.00	*					54.00		Vertical
17234.00	*					54.00		Vertical
4924.00	27.26	31.89	5.46	23.96	40.65	54.00	-13.35	Horizontal
7386.00	22.42	36.49	6.93	26.79	39.05	54.00	-14.95	Horizontal
9848.00	15.68	38.24	9.05	25.30	37.67	54.00	-16.33	Horizontal
12310.00	10.11	38.83	10.41	24.90	34.45	54.00	-19.55	Horizontal
14772.00	*					54.00		Horizontal
17234.00	*					54.00		Horizontal

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

Test mode:	802.11g		Test channel:	Lowest		Remark:		Peak
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	37.89	31.79	5.34	24.07	50.95	74.00	-23.05	Vertical
7236.00	32.78	36.19	6.88	26.44	49.41	74.00	-24.59	Vertical
9648.00	30.12	38.07	8.96	25.36	51.79	74.00	-22.21	Vertical
12060.00	24.35	39.05	10.35	25.15	48.60	74.00	-25.40	Vertical
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4824.00	38.30	31.79	5.34	24.07	51.36	74.00	-22.64	Horizontal
7236.00	32.14	36.19	6.88	26.44	48.77	74.00	-25.23	Horizontal
9648.00	31.22	38.07	8.96	25.36	52.89	74.00	-21.11	Horizontal
12060.00	26.35	39.05	10.35	25.15	50.60	74.00	-23.40	Horizontal
14472.00	*					74.00		Horizontal
16884.00	*					74.00		Horizontal

Test mode:	802.11g		Test channel:	Lowest		Remark:		Average
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	25.67	31.79	5.34	24.07	38.73	54.00	-15.27	Vertical
7236.00	21.13	36.19	6.88	26.44	37.76	54.00	-16.24	Vertical
9648.00	17.52	38.07	8.96	25.36	39.19	54.00	-14.81	Vertical
12060.00	12.65	39.05	10.35	25.15	36.90	54.00	-17.10	Vertical
14472.00	*					54.00		Vertical
16884.00	*					54.00		Vertical
4824.00	27.28	31.79	5.34	24.07	40.34	54.00	-13.66	Horizontal
7236.00	22.59	36.19	6.88	26.44	39.22	54.00	-14.78	Horizontal
9648.00	18.83	38.07	8.96	25.36	40.50	54.00	-13.50	Horizontal
12060.00	12.35	39.05	10.35	25.15	36.60	54.00	-17.40	Horizontal
14472.00	*					54.00		Horizontal
16884.00	*					54.00		Horizontal

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor
2. “*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

Test mode:	802.11g		Test channel:	Middle		Remark:		Peak
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	34.26	31.85	5.40	24.01	47.50	74.00	-26.50	Vertical
7311.00	27.57	36.37	6.90	26.58	44.26	74.00	-29.74	Vertical
9688.00	24.51	38.13	8.98	25.34	46.28	74.00	-27.72	Vertical
12185.00	24.35	38.92	10.38	25.04	48.61	74.00	-25.39	Vertical
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4874.00	36.39	31.85	5.40	24.01	49.63	74.00	-24.37	Horizontal
7311.00	28.90	36.37	6.90	26.58	45.59	74.00	-28.41	Horizontal
9688.00	24.65	38.13	8.98	25.34	46.42	74.00	-27.58	Horizontal
12185.00	24.30	38.92	10.38	25.04	48.56	74.00	-25.44	Horizontal
14472.00	*					74.00		Horizontal
16884	*					74		Horizontal

Test mode:	802.11g		Test channel:	Middle		Remark:		Average
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	23.32	31.85	5.40	24.01	36.56	54.00	-17.44	Vertical
7311.00	18.09	36.37	6.90	26.58	34.78	54.00	-19.22	Vertical
9688.00	14.14	38.13	8.98	25.34	35.91	54.00	-18.09	Vertical
12185.00	10.23	38.92	10.38	25.04	34.49	54.00	-19.51	Vertical
14472.00	*					54.00		Vertical
16884.00	*					54.00		Vertical
4874.00	25.35	31.85	5.40	24.01	38.59	54.00	-15.41	Horizontal
7311.00	19.97	36.37	6.90	26.58	36.66	54.00	-17.34	Horizontal
9688.00	15.86	38.13	8.98	25.34	37.63	54.00	-16.37	Horizontal
12185.00	10.32	38.92	10.38	25.04	34.58	54.00	-19.42	Horizontal
14472.00	*					54.00		Horizontal
16884.00	*					54.00		Horizontal

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor
2. “*” , means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

Test mode:	802.11g		Test channel:	Highest		Remark:	Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	38.64	31.89	5.46	23.96	52.03	74.00	-21.97	Vertical
7386.00	34.19	36.49	6.93	26.79	50.82	74.00	-23.18	Vertical
9848.00	25.26	38.24	9.05	25.30	47.25	74.00	-26.75	Vertical
12310.00	23.23	38.83	10.41	24.90	47.57	74.00	-26.43	Vertical
14772.00	*					74.00		Vertical
17234.00	*					74.00		Vertical
4924.00	41.36	31.89	5.46	23.96	54.75	74.00	-19.25	Horizontal
7386.00	34.37	36.49	6.93	26.79	51.00	74.00	-23.00	Horizontal
9848.00	32.26	38.24	9.05	25.30	54.25	74.00	-19.75	Horizontal
12310.00	29.33	38.83	10.41	24.90	53.67	74.00	-20.33	Horizontal
14772.00	*					74.00		Horizontal
17234.00	*					74.00		Horizontal

Test mode:	802.11g		Test channel:	Highest		Remark:	Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	24.32	31.89	5.46	23.96	37.71	54.00	-16.29	Vertical
7386.00	22.08	36.49	6.93	26.79	38.71	54.00	-15.29	Vertical
9848.00	12.53	38.24	9.05	25.30	34.52	54.00	-19.48	Vertical
12310.00	12.35	38.83	10.41	24.90	36.69	54.00	-17.31	Vertical
14772.00	*					54.00		Vertical
17234.00	*					54.00		Vertical
4924.00	26.28	31.89	5.46	23.96	39.67	54.00	-14.33	Horizontal
7386.00	23.87	36.49	6.93	26.79	40.50	54.00	-13.50	Horizontal
9848.00	15.32	38.24	9.05	25.30	37.31	54.00	-16.69	Horizontal
12310.00	12.32	38.83	10.41	24.90	36.66	54.00	-17.34	Horizontal
14772.00	*					54.00		Horizontal
17234.00	*					54.00		Horizontal

Remark:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor*
2. *"*" , means this data is too weak instrument of signal is unable to test.*
3. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Test mode:	802.11n(H20)		Test channel:	Lowest		Remark:	Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	42.32	31.79	5.34	24.07	55.38	74.00	-18.62	Vertical
7236.00	35.21	36.19	6.88	26.44	51.84	74.00	-22.16	Vertical
9648.00	31.45	38.07	8.96	25.36	53.12	74.00	-20.88	Vertical
12060.00	26.35	39.05	10.35	25.15	50.60	74.00	-23.40	Vertical
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4824.00	49.32	31.79	5.34	24.07	62.38	74.00	-11.62	Horizontal
7236.00	42.26	36.19	6.88	26.44	58.89	74.00	-15.11	Horizontal
9648.00	32.76	38.07	8.96	25.36	54.43	74.00	-19.57	Horizontal
12060.00	31.17	39.05	10.35	25.15	55.42	74.00	-18.58	Horizontal
14472.00	*					74.00		Horizontal
16884.00	*					74.00		Horizontal

Test mode:	802.11n(H20)		Test channel:	Lowest		Remark:	Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	31.24	31.79	5.34	24.07	44.30	54.00	-9.70	Vertical
7236.00	23.34	36.19	6.88	26.44	39.97	54.00	-14.03	Vertical
9648.00	19.99	38.07	8.96	25.36	41.66	54.00	-12.34	Vertical
12060.00	17.35	39.05	10.35	25.15	41.60	54.00	-12.40	Vertical
14472.00	*					54.00		Vertical
16884.00	*					54.00		Vertical
4824.00	32.25	31.79	5.34	24.07	45.31	54.00	-8.69	Horizontal
7236.00	24.80	36.19	6.88	26.44	41.43	54.00	-12.57	Horizontal
9648.00	21.30	38.07	8.96	25.36	42.97	54.00	-11.03	Horizontal
12060.00	18.51	39.05	10.35	25.15	42.76	54.00	-11.24	Horizontal
14472.00	*					54.00		Horizontal
16884.00	*					54.00		Horizontal

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “*”, means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

Test mode:	802.11n(H20)		Test channel:	Middle		Remark:	Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	35.26	31.85	5.40	24.01	48.50	74.00	-25.50	Vertical
7311.00	28.28	36.37	6.90	26.58	44.97	74.00	-29.03	Vertical
9688.00	24.84	38.13	8.98	25.34	46.61	74.00	-27.39	Vertical
12185.00	23.73	38.92	10.38	25.04	47.99	74.00	-26.01	Vertical
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4874.00	38.26	31.85	5.40	24.01	51.50	74.00	-22.50	Horizontal
7311.00	30.16	36.37	6.90	26.58	46.85	74.00	-27.15	Horizontal
9688.00	26.56	38.13	8.98	25.34	48.33	74.00	-25.67	Horizontal
12185.00	25.29	38.92	10.38	25.04	49.55	74.00	-24.45	Horizontal
14472.00	*					74.00		Horizontal
16884.00	*					74.00		Horizontal

Test mode:	802.11n(H20)		Test channel:	Middle		Remark:	Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	26.35	31.85	5.40	24.01	39.59	54.00	-14.41	Vertical
7311.00	21.05	36.37	6.90	26.58	37.74	54.00	-16.26	Vertical
9688.00	17.58	38.13	8.98	25.34	39.35	54.00	-14.65	Vertical
12185.00	13.10	38.92	10.38	25.04	37.36	54.00	-16.64	Vertical
14472.00	*					54.00		Vertical
16884.00	*					54.00		Vertical
4874.00	29.35	31.85	5.40	24.01	42.59	54.00	-11.41	Horizontal
7311.00	22.93	36.37	6.90	26.58	39.62	54.00	-14.38	Horizontal
9688.00	19.30	38.13	8.98	25.34	41.07	54.00	-12.93	Horizontal
12185.00	16.16	38.92	10.38	25.04	40.42	54.00	-13.58	Horizontal
14472.00	*					54.00		Horizontal
16884.00	*					54.00		Horizontal

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor
2. “*” , means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

Test mode:	802.11n(H20)		Test channel:	Highest		Remark:	Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	35.40	31.89	5.46	23.96	48.79	74.00	-25.21	Vertical
7386.00	31.22	36.49	6.93	26.79	47.85	74.00	-26.15	Vertical
9848.00	29.37	38.24	9.05	25.30	51.36	74.00	-22.64	Vertical
12310.00	26.76	38.83	10.41	24.90	51.10	74.00	-22.90	Vertical
14772.00	*					74.00		Vertical
17234.00	*					74.00		Vertical
4924.00	45.26	31.89	5.46	23.96	58.65	74.00	-15.35	Horizontal
7386.00	38.26	36.49	6.93	26.79	54.89	74.00	-19.11	Horizontal
9848.00	31.09	38.24	9.05	25.30	53.08	74.00	-20.92	Horizontal
12310.00	28.31	38.83	10.41	24.90	52.65	74.00	-21.35	Horizontal
14772.00	*					74.00		Horizontal
17234.00	*					74.00		Horizontal

Test mode:	802.11n(H20)		Test channel:	Highest		Remark:	Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	31.01	31.89	5.46	23.96	44.40	54.00	-9.60	Vertical
7386.00	29.35	36.49	6.93	26.79	45.98	54.00	-8.02	Vertical
9848.00	20.36	38.24	9.05	25.30	42.35	54.00	-11.65	Vertical
12310.00	19.44	38.83	10.41	24.90	43.78	54.00	-10.22	Vertical
14772.00	*					54.00		Vertical
17234.00	*					54.00		Vertical
4924.00	32.15	31.89	5.46	23.96	45.54	54.00	-8.46	Horizontal
7386.00	29.33	36.49	6.93	26.79	45.96	54.00	-8.04	Horizontal
9848.00	16.32	38.24	9.05	25.30	38.31	54.00	-15.69	Horizontal
12310.00	15.68	38.83	10.41	24.90	40.02	54.00	-13.98	Horizontal
14772.00	*					54.00		Horizontal
17234.00	*					54.00		Horizontal

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor
2. “*” , means this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies are very lower than the limit and not show in test report.