

TEST REPORT

Applicant: RADIOSHACK WORLDWIDE CORP.
Address of Applicant: Millennium Tower, 18th floor Paseo General Escalon Number 3675 Col. Escalon, San Salvador, El Salvador
Manufacturer: RADIOSHACK WORLDWIDE CORP.
Address of Manufacturer: Millennium Tower, 18th floor Paseo General Escalon Number 3675 Col. Escalon, San Salvador, El Salvador
Factory: Shenzhen Golden Vision Technology Development Co., Ltd
Address of Factory: No.6 Bao Fu Road, Bao Lai industrial Park, Shang Mu Gu Villiage, Pinghu Street, Longgang District, Shenzhen City, Guangdong Province, 518000, China

Equipment Under Test (EUT)

Product Name: Pet Feeder
Model No.: 6301923
Trade Mark: N/A
FCC ID: 2BDUR-6301923
Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247
Date of sample receipt: 2024-09-23
Date of Test: 2024-09-23 to 2024-09-28
Date of report issued: 2024-10-29
Test Result : PASS *

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

Authorized Signature:



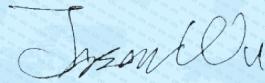
Robinson Luo
Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Version No.	Date	Description
00	2024-10-29	Original

Prepared By:



Date:

2024-10-29

Project Engineer

Check By:



Date:

2024-10-29

Reviewer

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4 Test Summary

Test Item	Section	Result
Antenna requirement	FCC part 15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	FCC part 15.207	Pass
Conducted Peak Output Power	FCC part 15.247 (b)(3)	Pass
Channel Bandwidth & 99% OCB	FCC part 15.247 (a)(2)	Pass
Power Spectral Density	FCC part 15.247 (e)	Pass
Band Edge	FCC part 15.247(d)	Pass
Spurious Emission	FCC part 15.205/15.209	Pass

Remark: Test according to ANSI C63.10:2013

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

Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 7.25 \times 10^{-8}$
2	Duty cycle	$\pm 0.37\%$
3	Occupied Bandwidth	$\pm 3\%$
4	RF conducted power	$\pm 0.75\text{dB}$
5	RF power density	$\pm 3\text{dB}$
6	Conducted Spurious emissions	$\pm 2.58\text{dB}$
7	AC Power Line Conducted Emission	$\pm 3.44\text{dB}$ (0.15MHz ~ 30MHz)
8	Radiated Spurious emission test	$\pm 3.1\text{dB}$ (9kHz-30MHz)
		$\pm 3.8039\text{dB}$ (30MHz-200MHz)
		$\pm 3.9679\text{dB}$ (200MHz-1GHz)
		$\pm 4.29\text{dB}$ (1GHz-18GHz)
		$\pm 3.30\text{dB}$ (18GHz-40GHz)
9	Temperature test	$\pm 1^\circ\text{C}$
10	Humidity test	$\pm 3\%$
11	Time	$\pm 3\%$

5 General Information

5.1 General Description of EUT

Product Name:	Pet Feeder
Model No.:	6301923
Test sample(s) ID:	GTS2024090360-1
Sample(s) Status	Engineer sample
S/N:	N/A
Operation Frequency:	802.11b/802.11g/802.11n(HT20): 2412MHz~2462MHz
Channel numbers:	802.11b/802.11g /802.11n(HT20): 11
Channel separation:	5MHz
Modulation technology:	802.11b: Direct Sequence Spread Spectrum (DSSS) 802.11g/802.11n(HT20): Orthogonal Frequency Division Multiplexing (OFDM)
Antenna Type:	PCB Antenna
Antenna gain:	2.04 dBi
Power supply:	5Vdc,1A

Remark:

1. Antenna gain information provided by the customer
2. The relevant information of the sample is provided by the entrusting company, and the laboratory is not responsible for its authenticity.

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:

Test channel	Frequency (MHz)
802.11b/802.11g/802.11n(HT20)	
Lowest channel	2412MHz
Middle channel	2437MHz
Highest channel	2462MHz

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode
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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:

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

Mode	802.11b	802.11g	802.11n(HT20)
Data rate	1Mbps	6Mbps	6.5Mbps

5.3 Description of Support Units

Manufacturer	Description	Model	Serial Number
SHENZHEN XED POWER SUPPLY CO.,LTD	Power Adapter	XED-UL050100CU	N/A

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

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

- **FCC —Registration No.: 381383**

Designation Number: CN5029

Global United Technology Services 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 files.

- **ISED—Registration No.: 9079A**

CAB identifier: CN0091

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of ISED for radio equipment testing.

- **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.7 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480

Fax: 0755-27798960

5.8 Additional Instructions

Test Software	Special test command provided by manufacturer
Power level setup	Default

6 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	June 22, 2024	June 21, 2027
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	April 11, 2024	April 10, 2025
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	March 19, 2023	March 18, 2025
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	April 17, 2023	April 16, 2025
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	April 11, 2024	April 10, 2025
8	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov. 13, 2023	Nov.12, 2024
9	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	April 11, 2024	April 10, 2025
10	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	April 11, 2024	April 10, 2025
11	Horn Antenna (18-26.5GHz)	/	UG-598A/U	GTS664	Oct. 29, 2023	Oct. 28, 2024
12	Horn Antenna (26.5-40GHz)	A.H Systems	SAS-573	GTS665	Oct. 29, 2023	Oct. 28, 2024
13	FSV·Signal Analyzer (10Hz-40GHz)	Keysight	FSV-40-N	GTS666	March 12, 2024	March 11, 2025
14	Amplifier	/	LNA-1000-30S	GTS650	April 11, 2024	April 10, 2025
15	CDNE M2+M3-16A	HCT	30MHz-300MHz	GTS692	Nov. 08, 2023	Nov.07, 2024
16	Wideband Amplifier	/	WDA-01004000-15P35	GTS602	April 11, 2024	April 10, 2025
17	Thermo meter	JINCHUANG	GSP-8A	GTS643	April 18, 2024	April 17, 2025
18	RE cable 1	GTS	N/A	GTS675	July 02. 2024	July 01. 2025
19	RE cable 2	GTS	N/A	GTS676	July 02. 2024	July 01. 2025
20	RE cable 3	GTS	N/A	GTS677	July 02. 2024	July 01. 2025
21	RE cable 4	GTS	N/A	GTS678	July 02. 2024	July 01. 2025
22	RE cable 5	GTS	N/A	GTS679	July 02. 2024	July 01. 2025
23	RE cable 6	GTS	N/A	GTS680	July 02. 2024	July 01. 2025
24	RE cable 7	GTS	N/A	GTS681	July 05. 2024	July 04. 2025
25	RE cable 8	GTS	N/A	GTS682	July 05. 2024	July 04. 2025

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	7.3(L)x3.1(W)x2.9(H)	GTS252	July 12, 2022	July 11, 2027
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 11, 2024	April 10, 2025
3	LISN	ROHDE & SCHWARZ	ENV216	GTS226	April 11, 2024	April 10, 2025
4	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
5	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
6	Thermo meter	JINCHUANG	GSP-8A	GTS642	April 18, 2024	April 17, 2025
7	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	April 11, 2024	April 10, 2025
8	ISN	SCHWARZBECK	NTFM 8158	GTS565	April 11, 2024	April 10, 2025
9	High voltage probe	SCHWARZBECK	TK9420	GTS537	April 11, 2024	April 10, 2025
10	Antenna end assembly	Weinschel	1870A	GTS560	April 11, 2024	April 10, 2025

RF Conducted Test:						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	April 11, 2024	April 10, 2025
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 11, 2024	April 10, 2025
3	PSA Series Spectrum Analyzer	Agilent	E4440A	GTS536	April 11, 2024	April 10, 2025
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	April 11, 2024	April 10, 2025
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	April 11, 2024	April 10, 2025
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	April 11, 2024	April 10, 2025
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	April 11, 2024	April 10, 2025
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	April 11, 2024	April 10, 2025
9	Thermo meter	JINCHUANG	GSP-8A	GTS641	April 18, 2024	April 17, 2025

General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Barometer	KUMAO	SF132	GTS647	April 18, 2024	April 17, 2025

7 Test results and Measurement Data

7.1 Antenna requirement

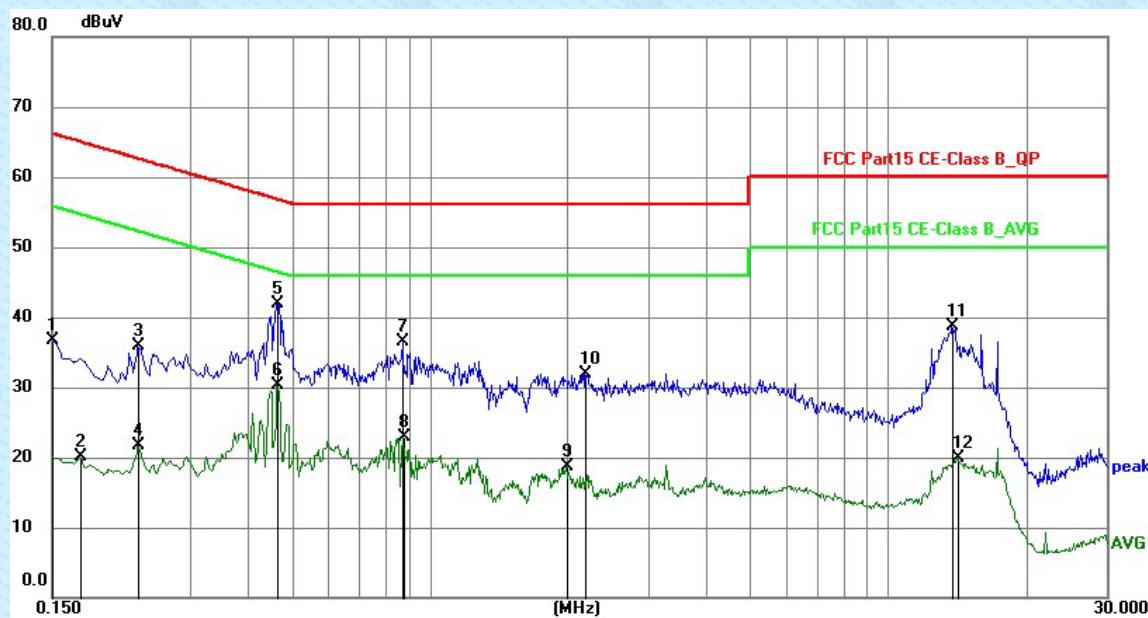
Standard requirement:	FCC Part15 C Section 15.203 /247(c)
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique 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.	
15.247(c) (1)(i) requirement: (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.	
EUT Antenna: <i>The antennas are PCB Antenna, the best case gain of the antennas are 2.04dBi, reference to the appendix II for details</i>	

7.2 Conducted Emissions

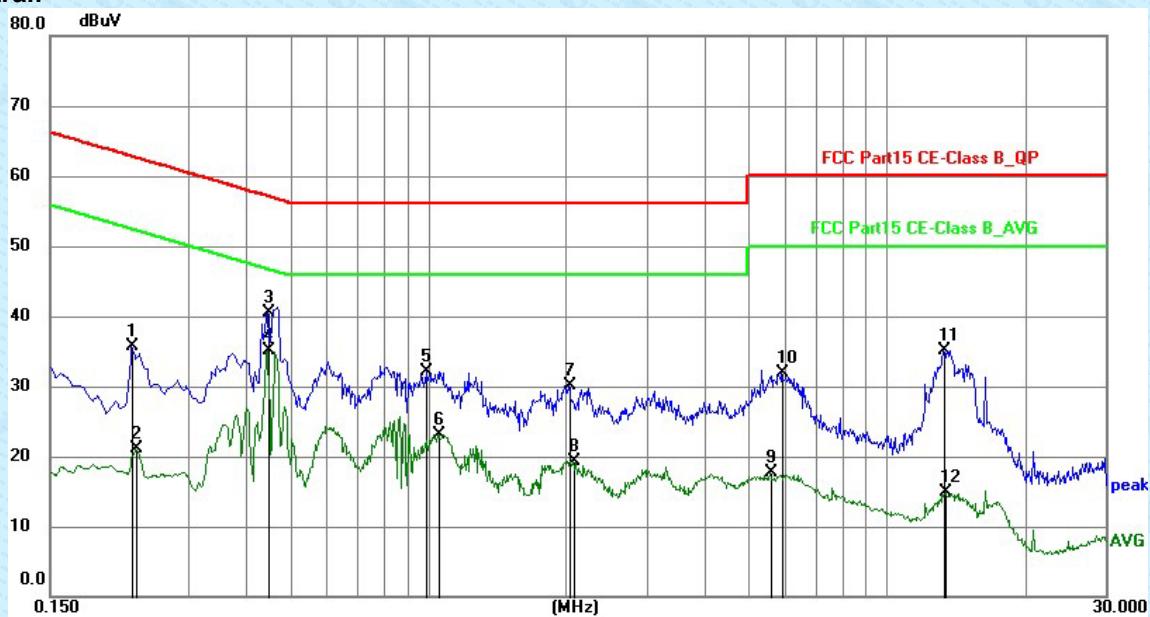
Test Requirement:	FCC Part15 C Section 15.207																
Test Method:	ANSI C63.10:2013																
Test Frequency Range:	150KHz to 30MHz																
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto																
Limit:	<table border="1"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th> <th colspan="2">Limit (dBuV)</th> </tr> <tr> <th>Quasi-peak</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>0.15-0.5</td> <td>66 to 56*</td> <td>56 to 46*</td> </tr> <tr> <td>0.5-5</td> <td>56</td> <td>46</td> </tr> <tr> <td>5-30</td> <td>60</td> <td>50</td> </tr> </tbody> </table>			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
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 setup:	<p>Reference Plane</p> <p>40cm 40cm 80cm</p> <p>LISN</p> <p>AUX Equipment</p> <p>E.U.T.</p> <p>Test table/Insulation plane</p> <p>EMI Receiver</p> <p>Filter</p> <p>AC power</p> <p>Remark E.U.T. Equipment Under Test LISN Line Impedance Stabilization Network Test table height=0.8m</p>																
Test procedure:	<ol style="list-style-type: none"> 1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides 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 refer 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 C63.10:2013 on conducted measurement. 																
Test Instruments:	Refer to section 6.0 for details																
Test mode:	Refer to section 5.2 for details																
Test environment:	Temp.:	24.5°C	Humid.:	50%	Press.:	1010mbar											
Test voltage:	AC 120V, 60Hz																
Test results:	Pass																

Measurement data

Line:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1500	26.86	9.81	36.67	66.00	-29.33	peak	P
2	0.1725	10.34	9.78	20.12	54.84	-34.72	AVG	P
3	0.2310	26.13	9.75	35.88	62.41	-26.53	peak	P
4	0.2310	11.95	9.75	21.70	52.41	-30.71	AVG	P
5	0.4650	32.26	9.71	41.97	56.60	-14.63	peak	P
6	0.4650	20.51	9.71	30.22	46.60	-16.38	AVG	P
7	0.8745	26.93	9.67	36.60	56.00	-19.40	peak	P
8	0.8790	13.29	9.66	22.95	46.00	-23.05	AVG	P
9	1.9815	8.94	9.72	18.66	46.00	-27.34	AVG	P
10	2.1795	22.23	9.72	31.95	56.00	-24.05	peak	P
11	13.7985	28.73	9.88	38.61	60.00	-21.39	peak	P
12	14.1720	10.00	9.89	19.89	50.00	-30.11	AVG	P

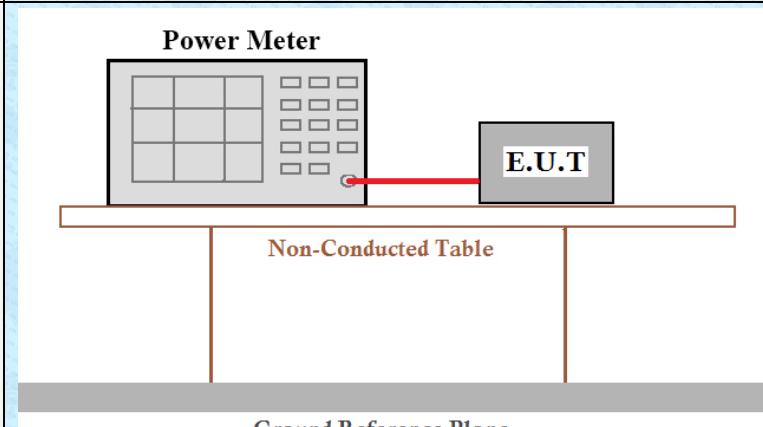
Neutral:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2265	26.04	9.76	35.80	62.58	-26.78	peak	P
2	0.2310	11.38	9.76	21.14	52.41	-31.27	AVG	P
3	0.4470	30.71	9.72	40.43	56.93	-16.50	peak	P
4	0.4470	25.43	9.72	35.15	46.93	-11.78	AVG	P
5	0.9915	22.56	9.64	32.20	56.00	-23.80	peak	P
6	1.0500	13.50	9.64	23.14	46.00	-22.86	AVG	P
7	2.0310	20.47	9.72	30.19	56.00	-25.81	peak	P
8	2.0760	9.61	9.72	19.33	46.00	-26.67	AVG	P
9	5.5725	8.06	9.73	17.79	50.00	-32.21	AVG	P
10	5.9190	22.14	9.74	31.88	60.00	-28.12	peak	P
11	13.2990	25.26	9.88	35.14	60.00	-24.86	peak	P
12	13.4520	4.99	9.88	14.87	50.00	-35.13	AVG	P

Notes:

1. An initial pre-scan was performed on the line 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
4. *If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.*

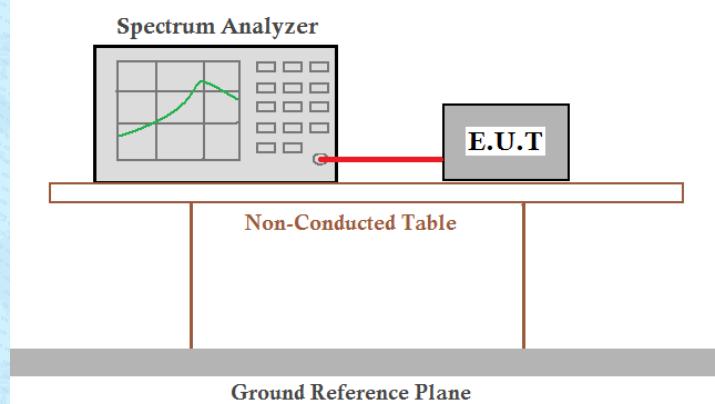
7.3 Conducted Output Power

Test Requirement :	FCC Part15 C Section 15.247 (b)(3)
Test Method :	ANSI C63.10:2013
Limit:	30dBm
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

Test CH	Output Power (dBm)			Limit(dBm)	Result
	802.11b	802.11g	802.11n(HT20)		
Lowest	17.76	15.71	14.34	30.00	Pass
Middle	18.54	16.87	16.42		
Highest	19.10	17.75	16.80		

7.4 Channel Bandwidth

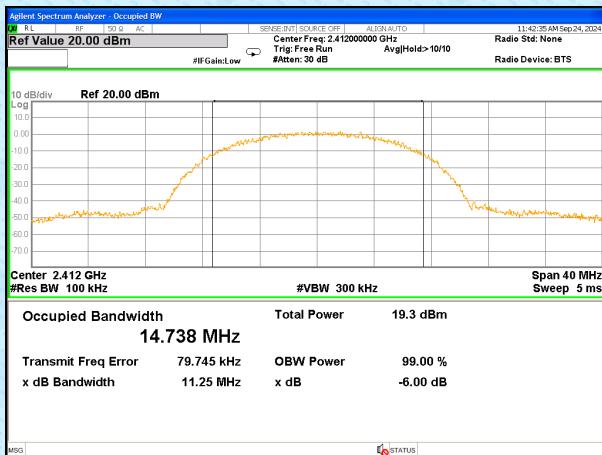
Test Requirement :	FCC Part15 C Section 15.247 (a)(2)
Test Method :	ANSI C63.10:2013
Limit:	>500KHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

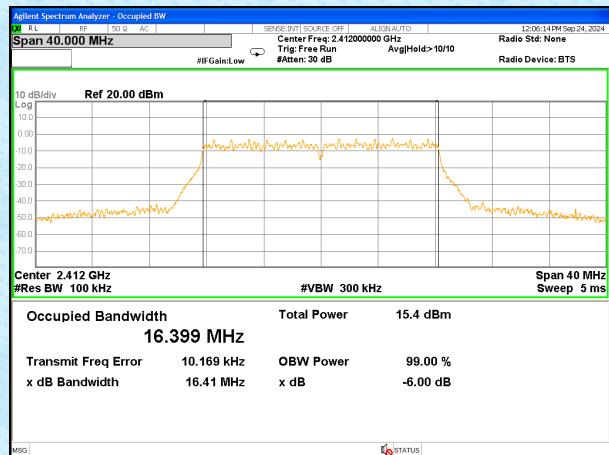
Test CH	Channel Bandwidth (MHz)			Limit(KHz)	Result
	802.11b	802.11g	802.11n(HT20)		
Lowest	11.25	16.41	17.35		
Middle	9.96	16.38	17.42	>500	Pass
Highest	10.01	16.43	17.32		

Test plot as follows:

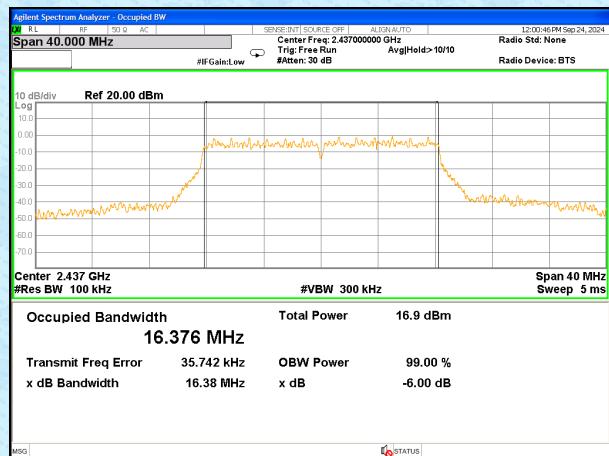
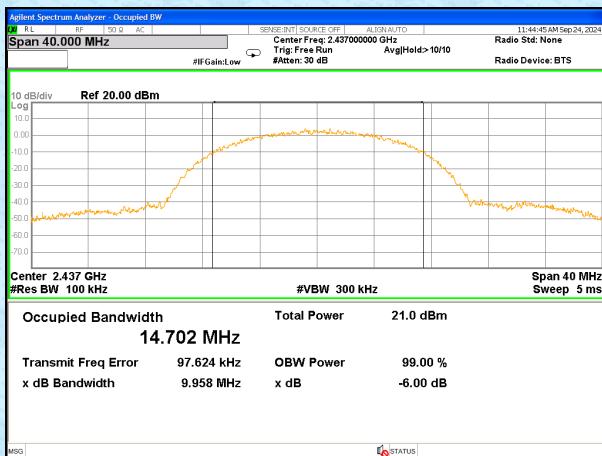
802.11b



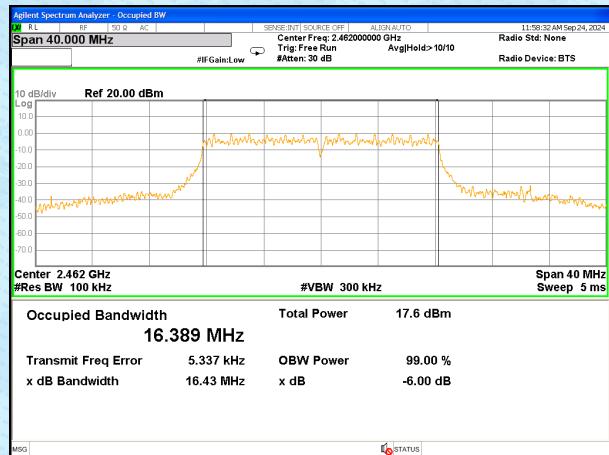
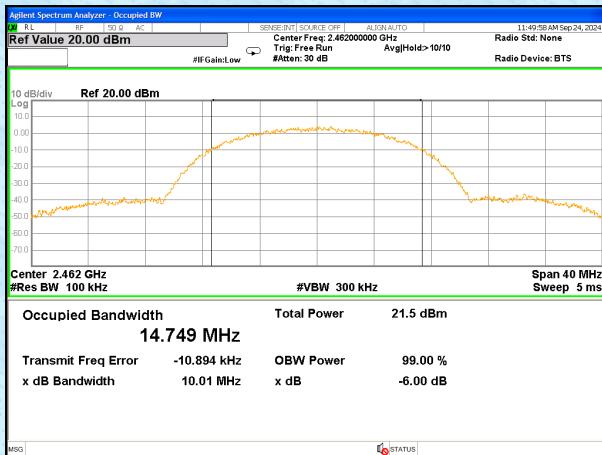
802.11g



Lowest channel



Middle channel



Highest channel

Global United Technology Services Co., Ltd.

No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone,

Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

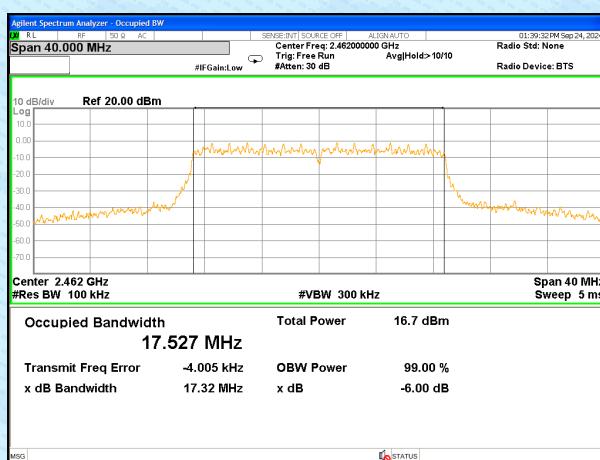
802.11n(HT20)



Lowest channel

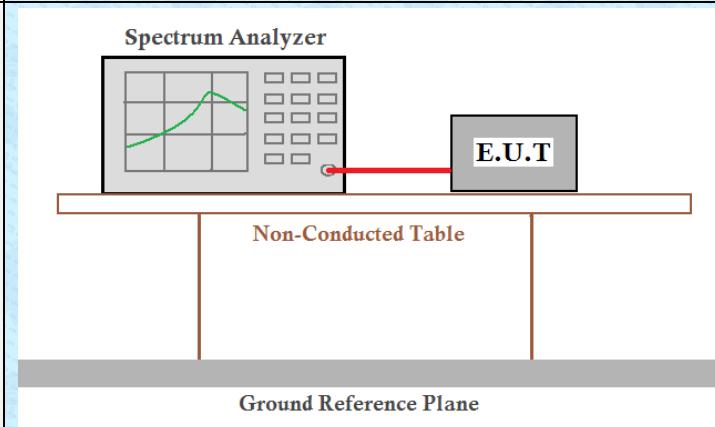


Middle channel



Highest channel

7.5 Power Spectral Density

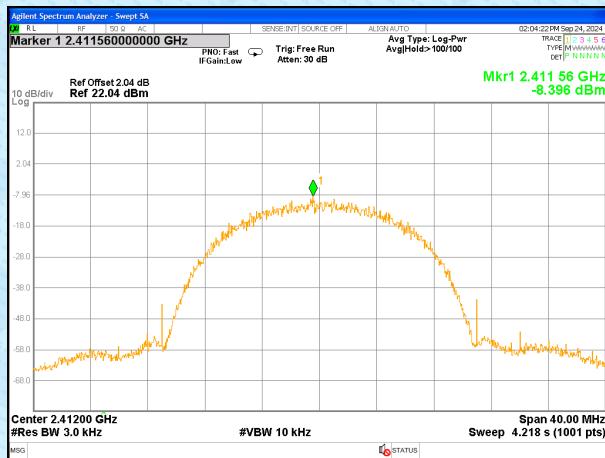
Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	ANSI C63.10:2013
Limit:	8dBm/3kHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

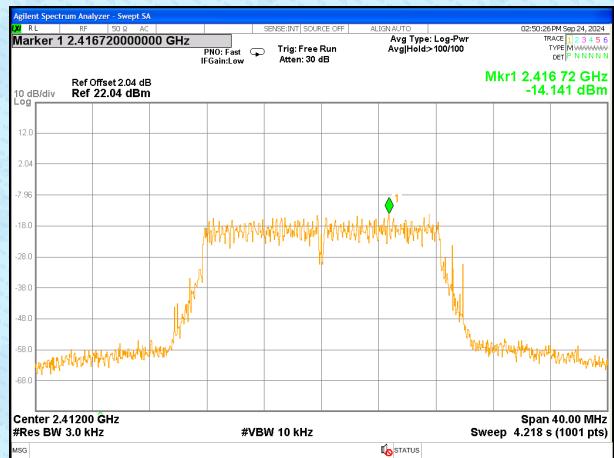
Test CH	Power Spectral Density (dBm/3kHz)			Limit (dBm/3kHz)	Result
	802.11b	802.11g	802.11n(HT20)		
Lowest	-8.396	-14.141	-15.855		
Middle	-6.048	-10.107	-14.254	8.00	Pass
Highest	-7.368	-10.711	-12.927		

Test plot as follows:

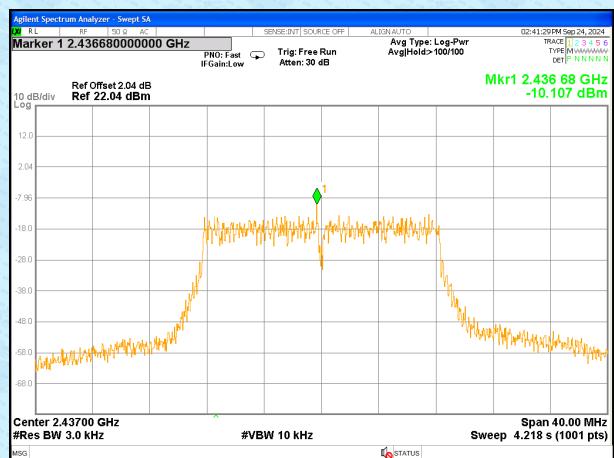
802.11b



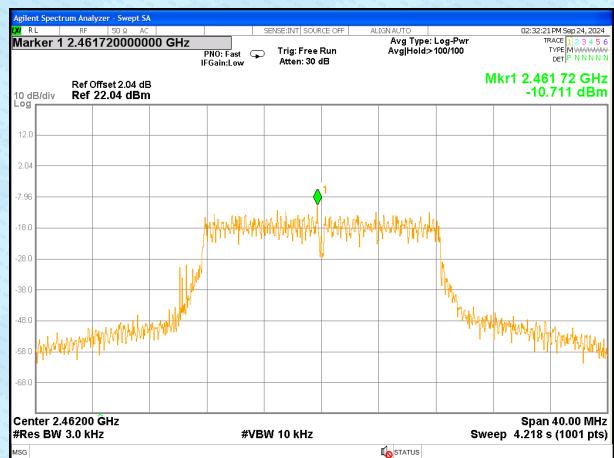
802.11g



Lowest channel

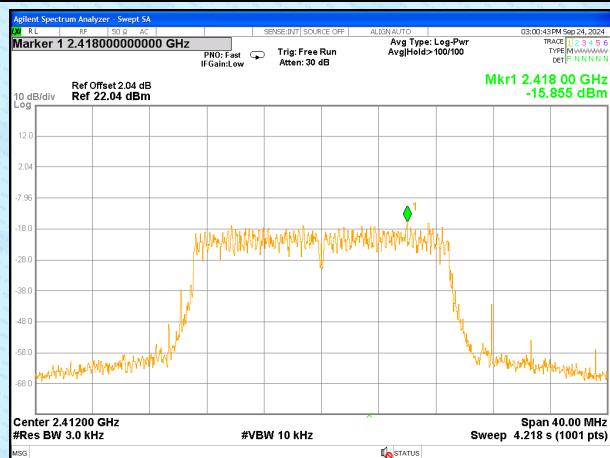


Middle channel

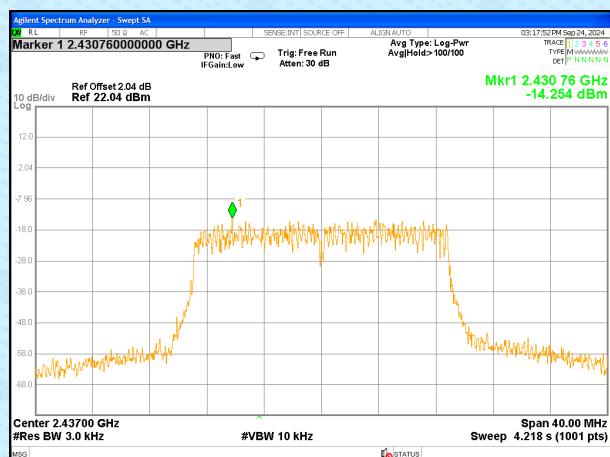


Highest channel

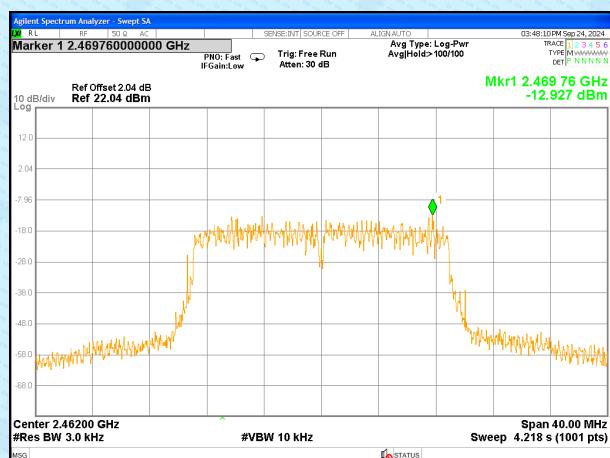
802.11n(HT20)



Lowest channel



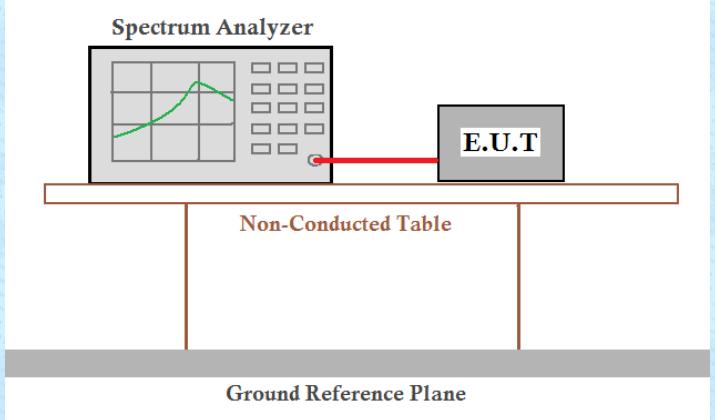
Middle channel



Highest channel

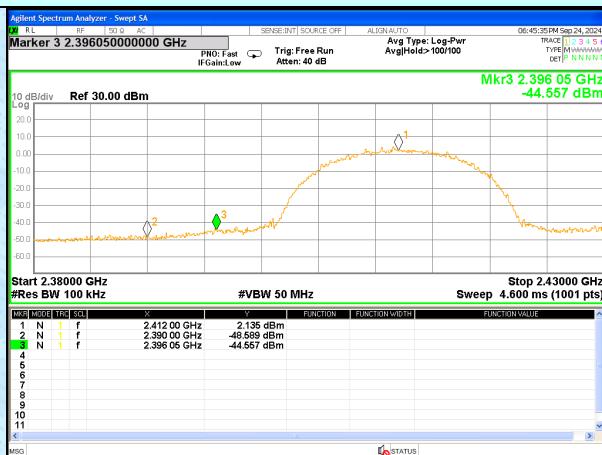
7.6 Bands edges

7.6.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
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:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Test plot as follows:

Test mode:



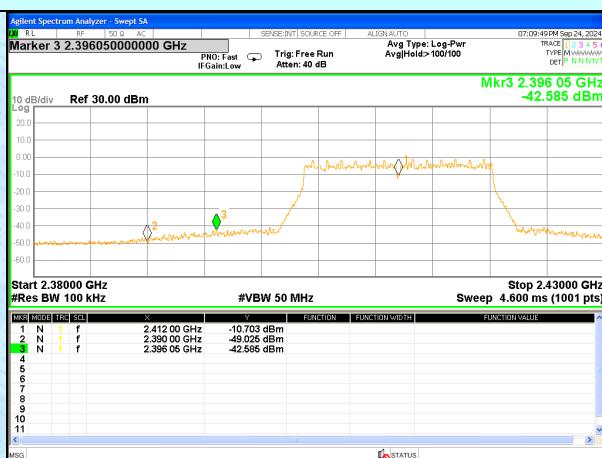
Lowest channel

802.11b



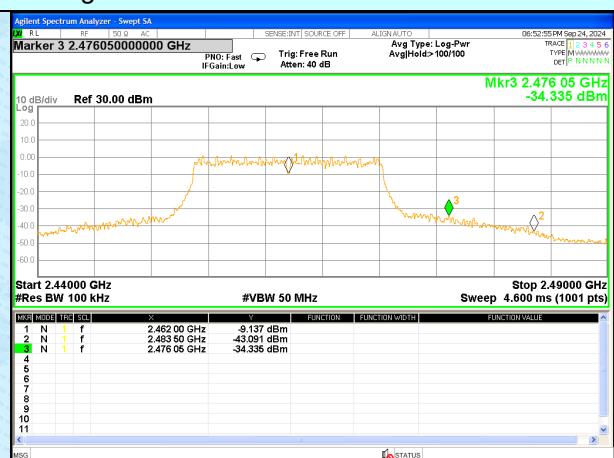
Highest channel

Test mode:



Lowest channel

802.11g



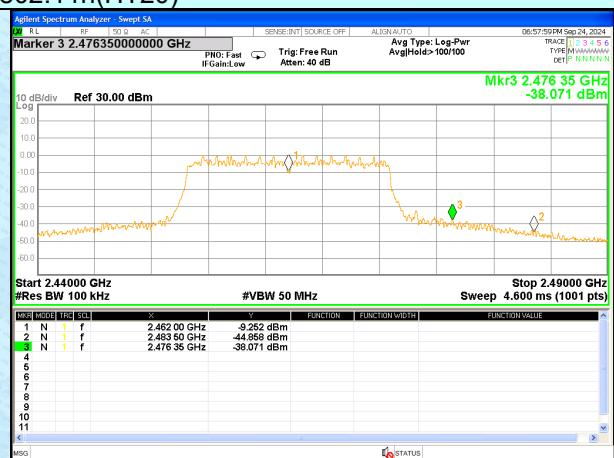
Highest channel

Test mode:



Lowest channel

802.11n(HT20)



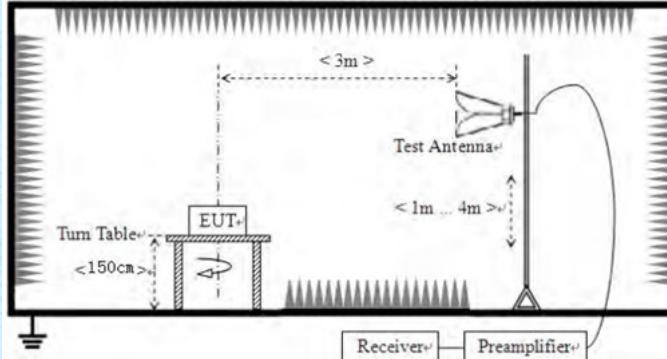
Highest channel

Global United Technology Services Co., Ltd.

No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

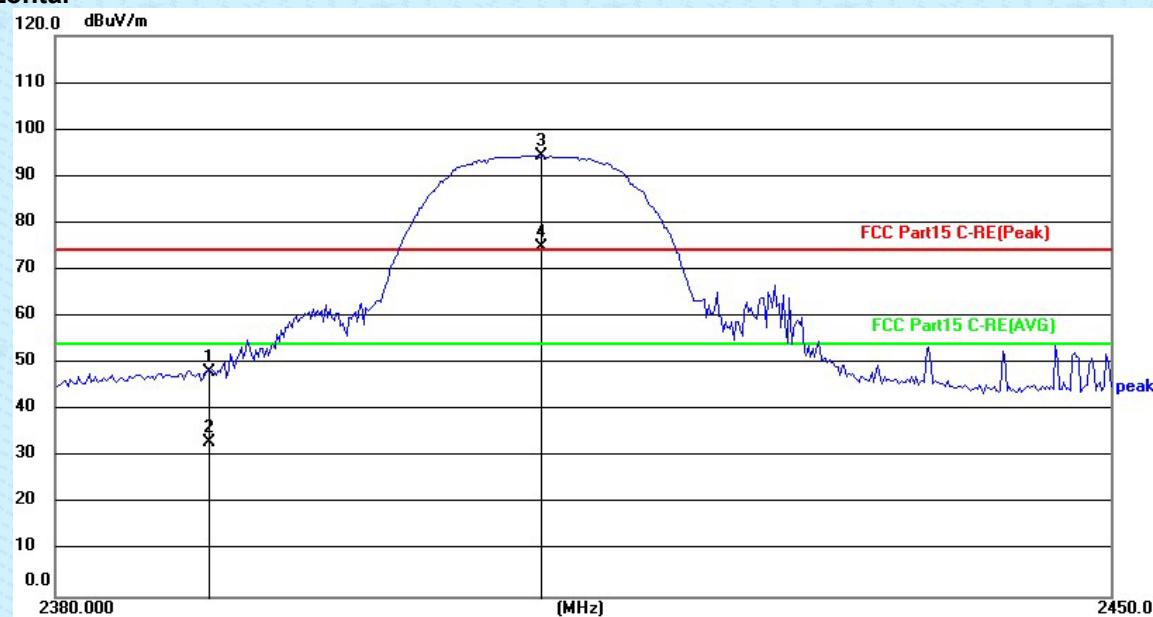
Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

7.6.2 Radiated Emission Method

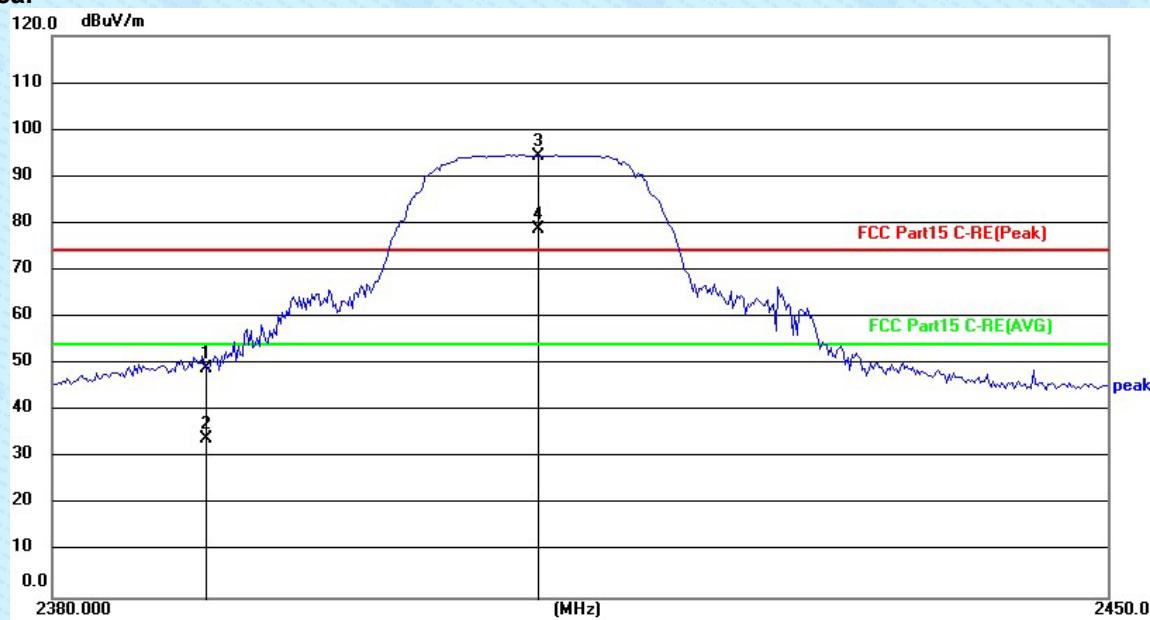
Test Requirement:	FCC Part15 C Section 15.209 and 15.205								
Test Method:	ANSI C63.10: 2013								
Test Frequency Range:	All of the restrict bands were tested, only the worst band's (2310MHz to 2500MHz) data was showed.								
Test site:	Measurement Distance: 3m								
Receiver setup:	Frequency	Detector	RBW	VBW	Value				
	Above 1GHz	Peak	1MHz	3MHz	Peak				
		Average	1MHz	3MHz	Average				
Limit:	Frequency	Limit (dBuV/m @3m)		Value					
	Above 1GHz	54.00		Average					
		74.00		Peak					
Test setup:									
Test Procedure:	<ol style="list-style-type: none"> The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 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. 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. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 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. The radiation measurements are performed in X, Y, Z axis positioning. And found the Y axis positioning which it is worse case, only the test worst case mode is recorded in the report. 								
Test Instruments:	Refer to section 6.0 for details								
Test mode:	Refer to section 5.2 for details								
Test results:	Pass								

Measurement data:

Test mode:	802.11b 2412MHz	Test channel:	Lowest
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Horizontal

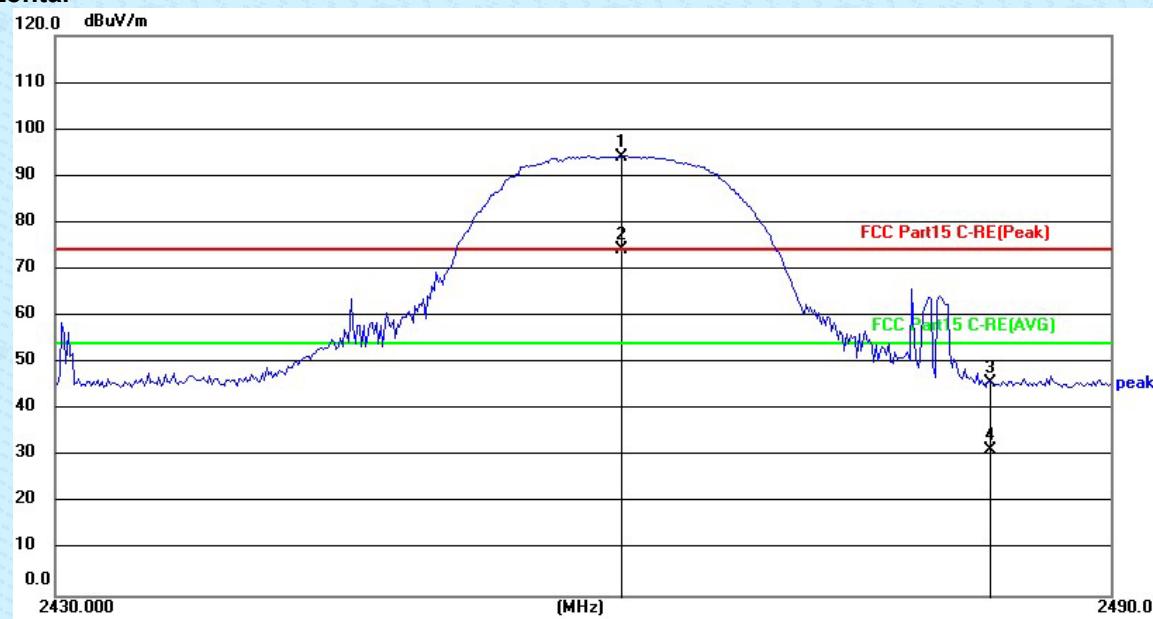
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	21.72	26.32	48.04	74.00	-25.96	peak
2	2390.000	6.80	26.32	33.12	54.00	-20.88	AVG
3	2412.000	67.88	26.36	94.24	74.00	20.24	peak
4	2412.000	48.54	26.36	74.90	54.00	20.90	AVG

Vertical

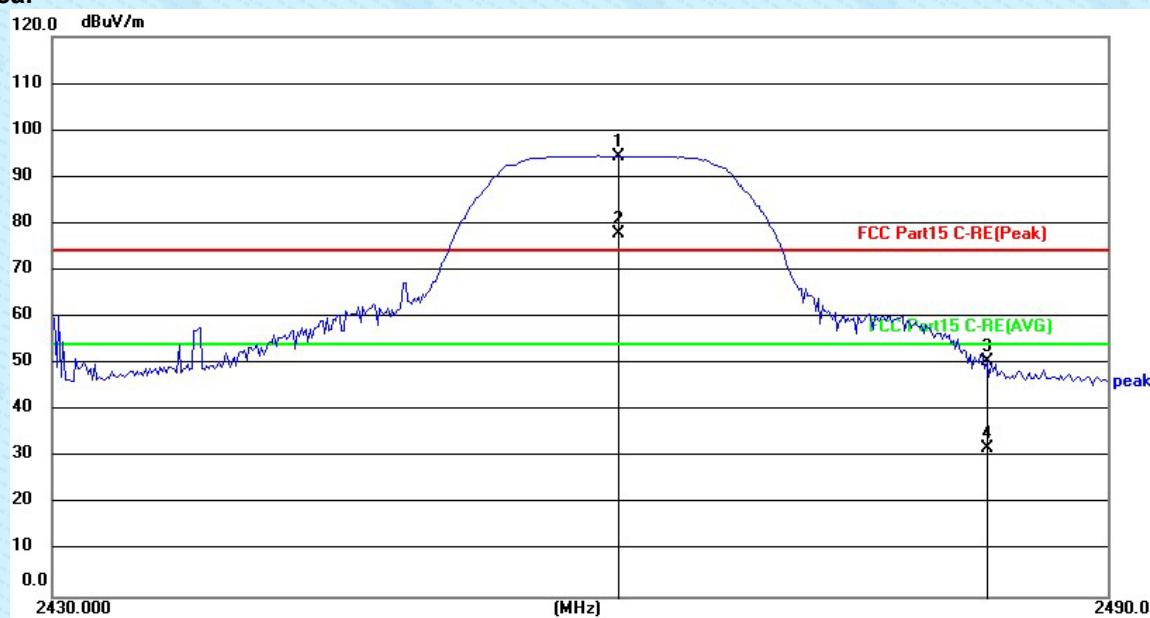
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	22.65	26.32	48.97	74.00	-25.03	peak
2	2390.000	7.72	26.32	34.04	54.00	-19.96	AVG
3	2412.000	67.94	26.36	94.30	74.00	20.30	peak
4	2412.000	52.50	26.36	78.86	54.00	24.86	AVG

Test mode:	802.11b 2462MHz	Test channel:	Highest
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Horizontal



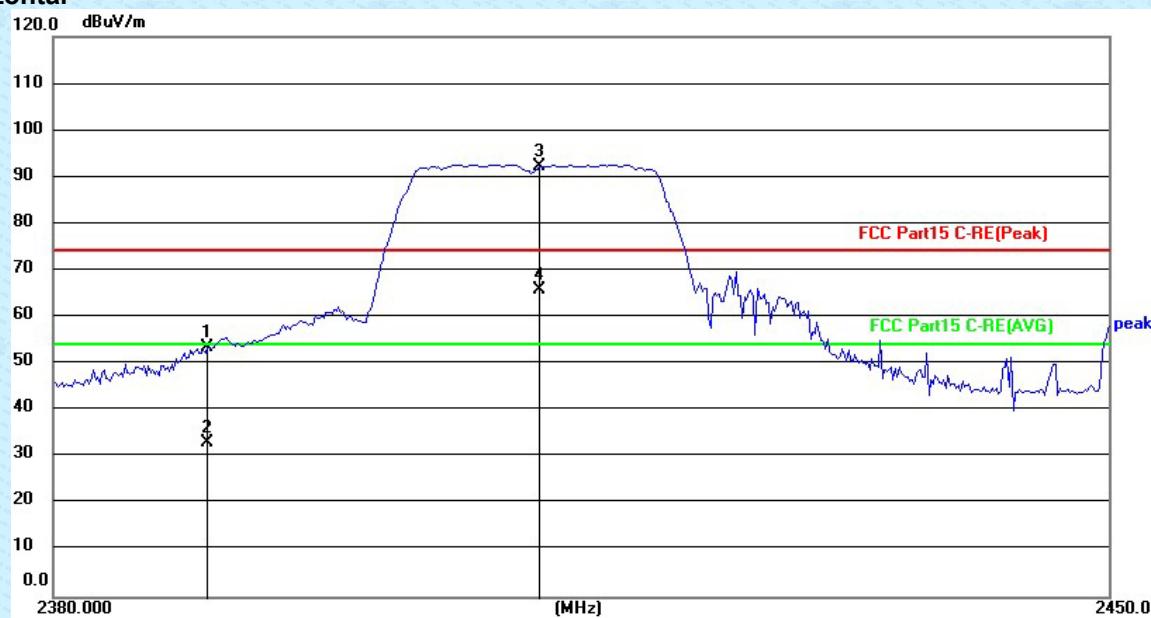
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	67.74	26.44	94.18	74.00	20.18	peak
2	2462.000	47.75	26.44	74.19	54.00	20.19	AVG
3	2483.000	19.31	26.47	45.78	74.00	-28.22	peak
4	2483.000	5.02	26.47	31.49	54.00	-22.51	AVG

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	67.86	26.44	94.30	74.00	20.30	peak
2	2462.000	51.41	26.44	77.85	54.00	23.85	AVG
3	2483.000	24.14	26.47	50.61	74.00	-23.39	peak
4	2483.000	5.61	26.47	32.08	54.00	-21.92	AVG

Test mode:	802.11g 2412MHz	Test channel:	Lowest
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Horizontal



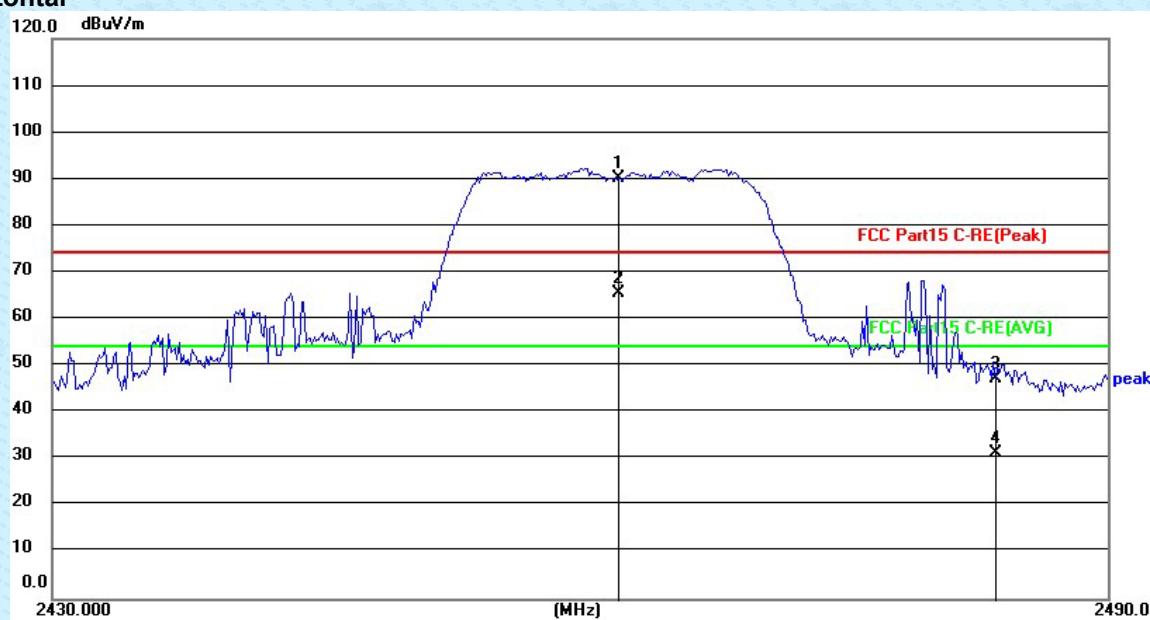
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	27.17	26.32	53.49	74.00	-20.51	peak
2	2390.000	6.98	26.32	33.30	54.00	-20.70	AVG
3	2412.000	65.75	26.36	92.11	74.00	18.11	peak
4	2412.000	39.59	26.36	65.95	54.00	11.95	AVG

Vertical

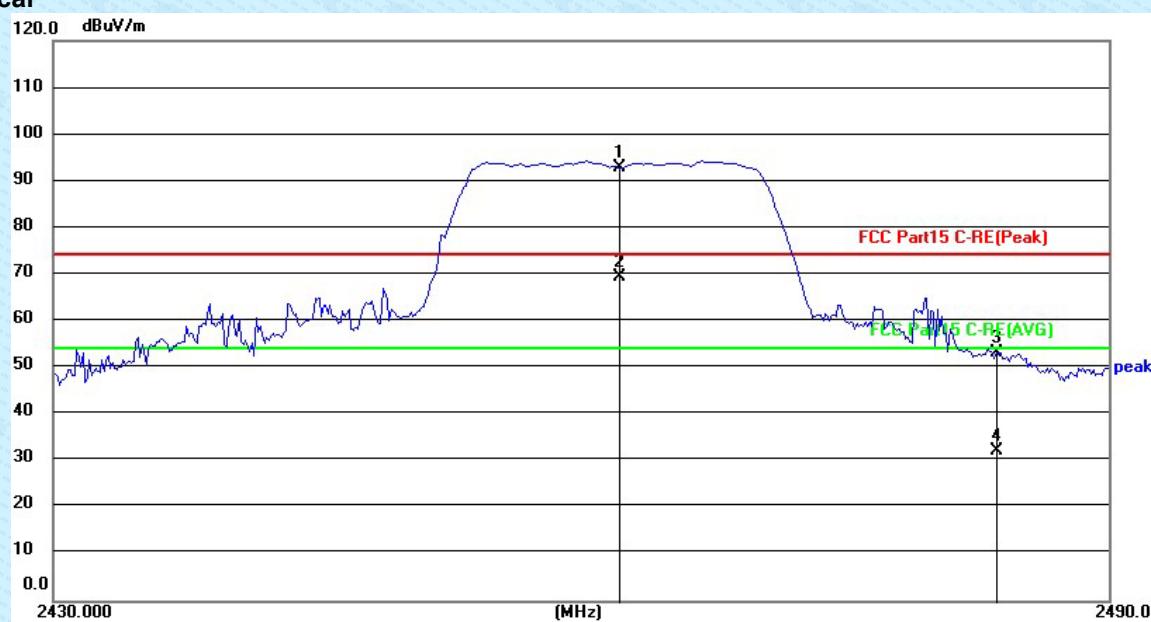
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	29.87	26.32	56.19	74.00	-17.81	peak
2	2390.000	8.35	26.32	34.67	54.00	-19.33	AVG
3	2412.000	66.64	26.36	93.00	74.00	19.00	peak
4	2412.000	43.76	26.36	70.12	54.00	16.12	AVG

Test mode:	802.11g 2462MHz	Test channel:	Highest
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Horizontal



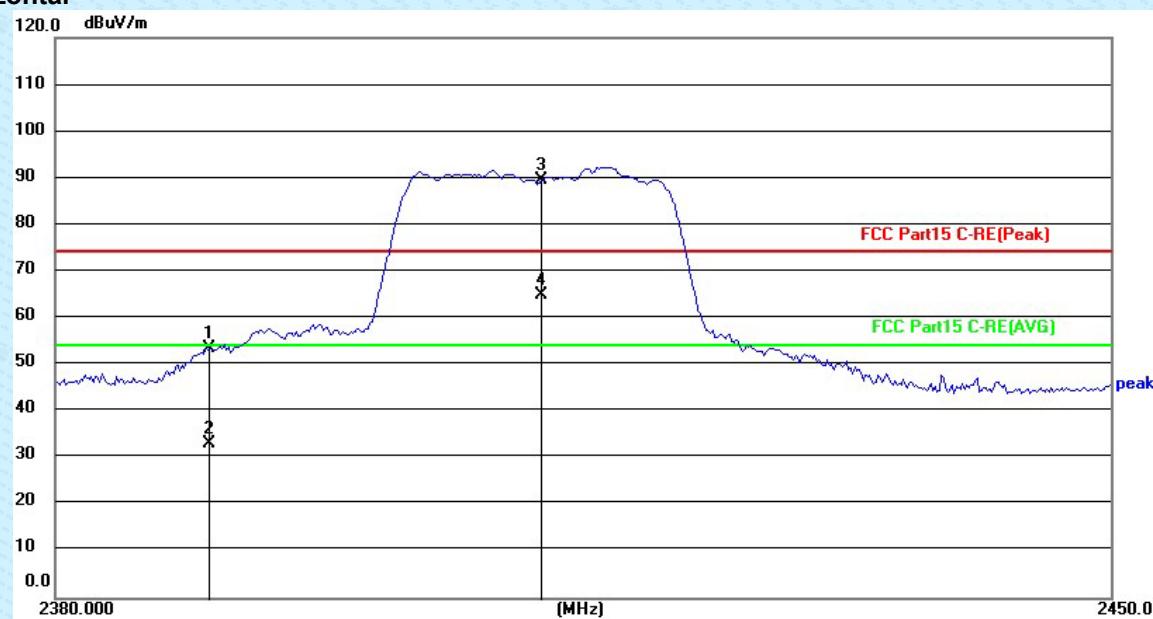
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	63.64	26.44	90.08	74.00	16.08	peak
2	2462.000	39.00	26.44	65.44	54.00	11.44	AVG
3	2483.500	20.88	26.47	47.35	74.00	-26.65	peak
4	2483.500	4.96	26.47	31.43	54.00	-22.57	AVG

Vertical

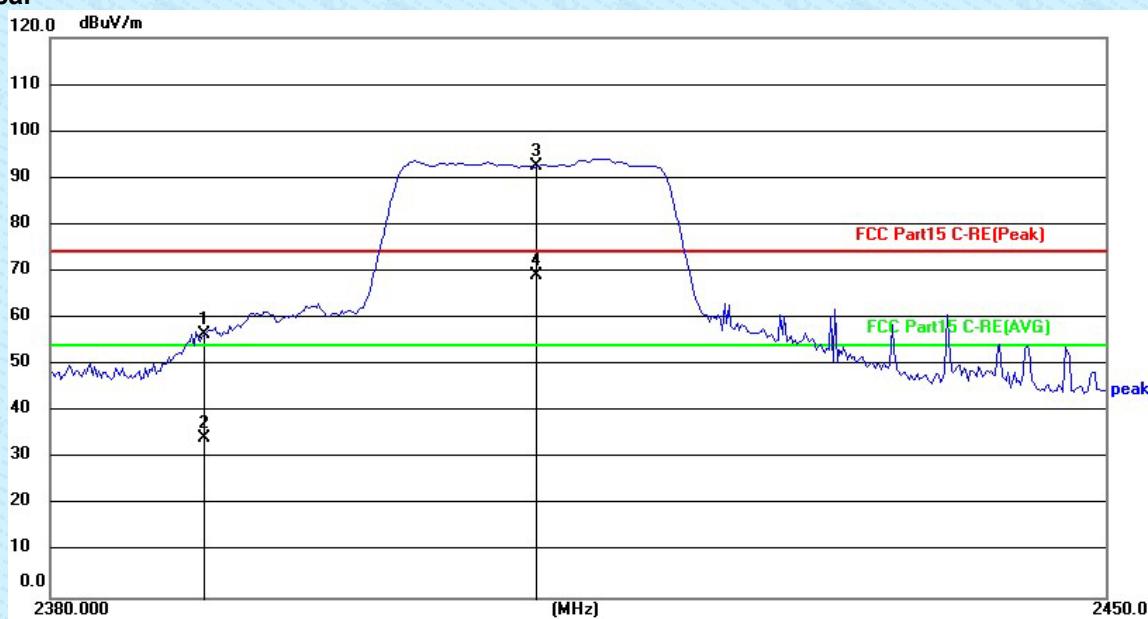
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	66.52	26.44	92.96	74.00	18.96	peak
2	2462.000	42.99	26.44	69.43	54.00	15.43	AVG
3	2483.500	26.82	26.47	53.29	74.00	-20.71	peak
4	2483.500	5.71	26.47	32.18	54.00	-21.82	AVG

Test mode:	802.11n(HT20) 2412MHz	Test channel:	Lowest
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Horizontal



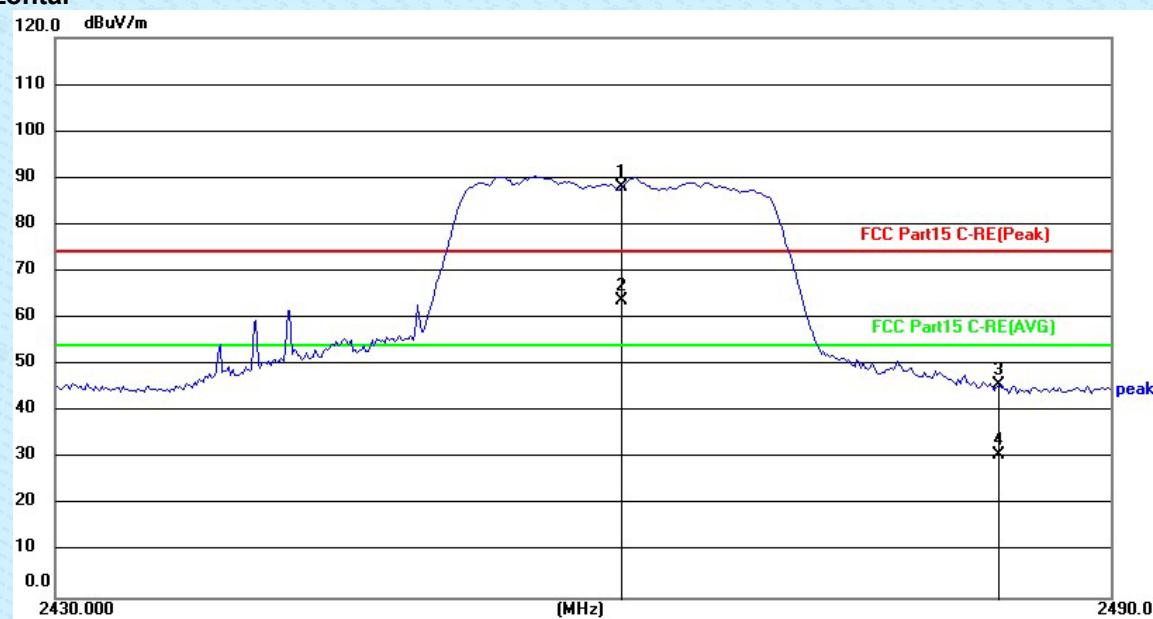
No.	Frequency (MHz)	Reading (dB _{BuV})	Factor (dB/m)	Level (dB _{BuV/m})	Limit (dB _{BuV/m})	Margin (dB)	Detector
1	2390.000	27.25	26.32	53.57	74.00	-20.43	peak
2	2390.000	6.71	26.32	33.03	54.00	-20.97	AVG
3	2412.000	63.28	26.36	89.64	74.00	15.64	peak
4	2412.000	38.71	26.36	65.07	54.00	11.07	AVG

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	30.23	26.32	56.55	74.00	-17.45	peak
2	2390.000	7.96	26.32	34.28	54.00	-19.72	AVG
3	2412.000	66.27	26.36	92.63	74.00	18.63	peak
4	2412.000	42.92	26.36	69.28	54.00	15.28	AVG

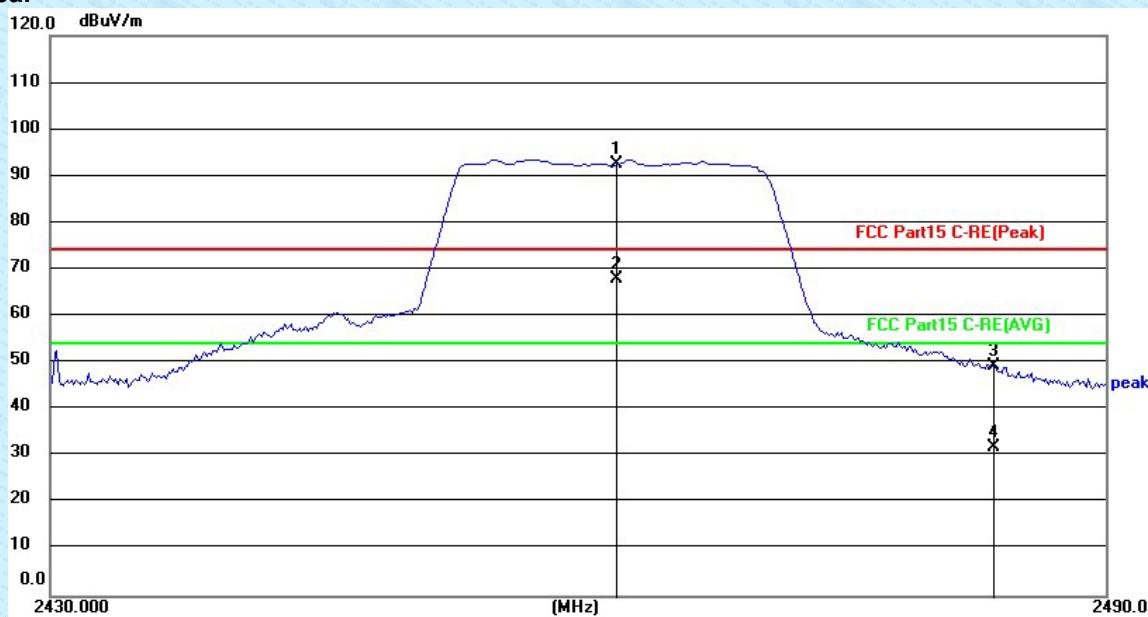
Test mode:	802.11n(HT20 2462MHz)	Test channel:	Highest
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Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	61.50	26.44	87.94	74.00	13.94	peak
2	2462.000	37.46	26.44	63.90	54.00	9.90	AVG
3	2483.500	19.30	26.47	45.77	74.00	-28.23	peak
4	2483.500	4.31	26.47	30.78	54.00	-23.22	AVG

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	66.08	26.44	92.52	74.00	18.52	peak
2	2462.000	41.64	26.44	68.08	54.00	14.08	AVG
3	2483.500	22.99	26.47	49.46	74.00	-24.54	peak
4	2483.500	5.42	26.47	31.89	54.00	-22.11	AVG

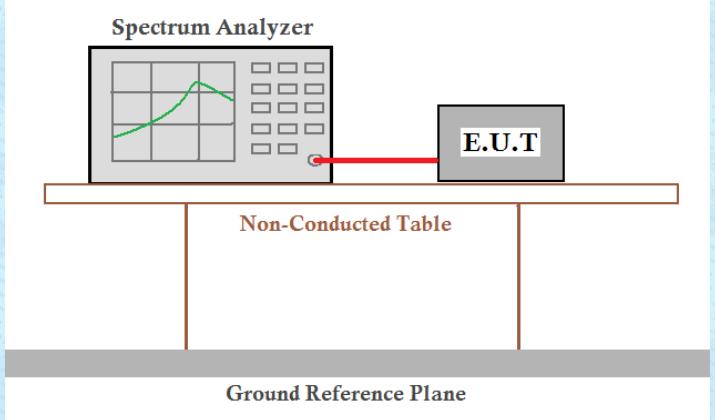
Remarks:

- Only the worst case Main Antenna test data.
- The pre-test were performed on lowest, middle and highest frequencies, only the worst case's (lowest and highest frequencies) data was showed.
- Final Level =Receiver Read level + Antenna Factor

The emission levels of other frequencies are very lower than the limit and not show in test report.

7.7 Spurious Emission

7.7.1 Conducted Emission Method

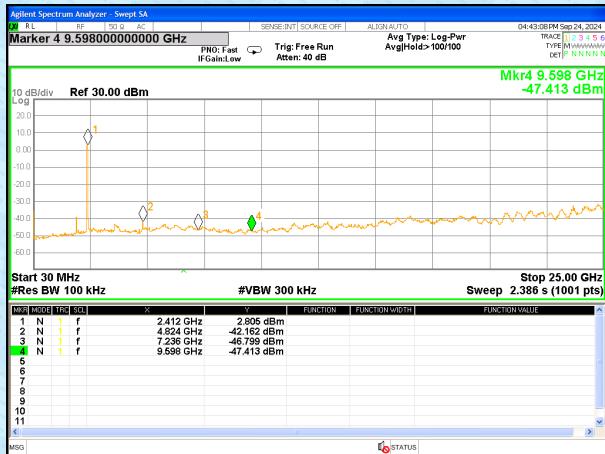
Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below 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:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Test plot as follows:

802.11b

802.11g

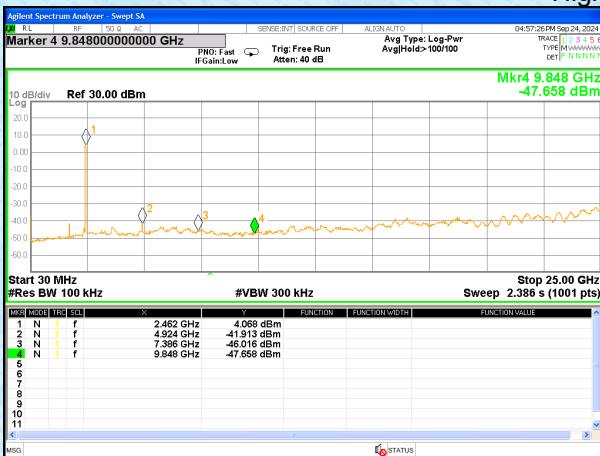
Lowest channel



30MHz~25GHz
Middle channel



30MHz~25GHz
Highest channel



30MHz~25GHz

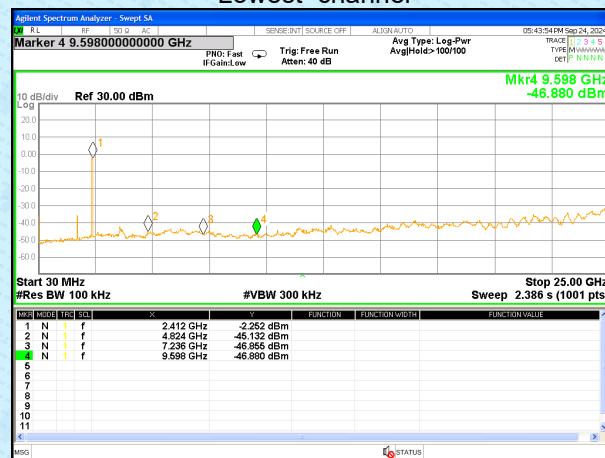
Global United Technology Services Co., Ltd.

No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone,
Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

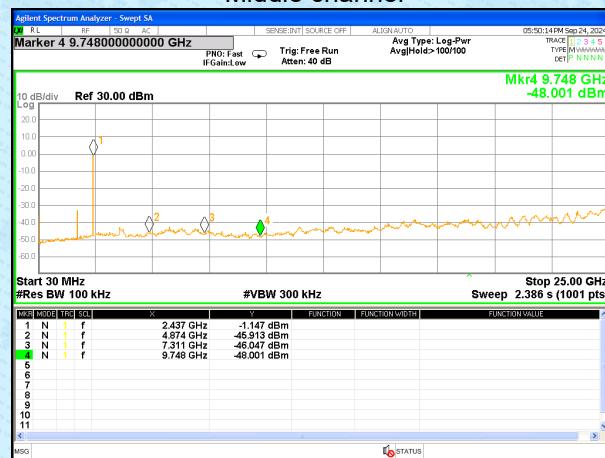
Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

802.11n(HT20)

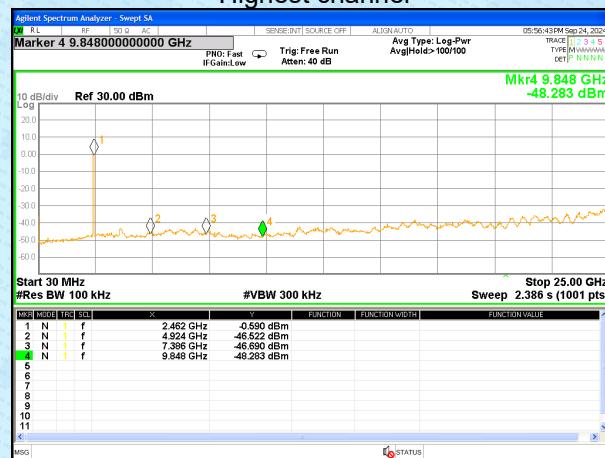
Lowest channel



30MHz~25GHz
Middle channel

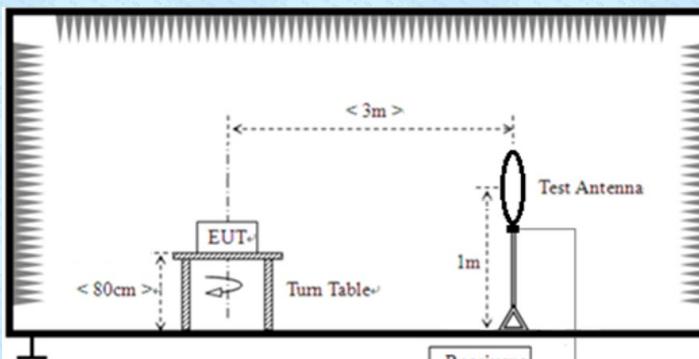


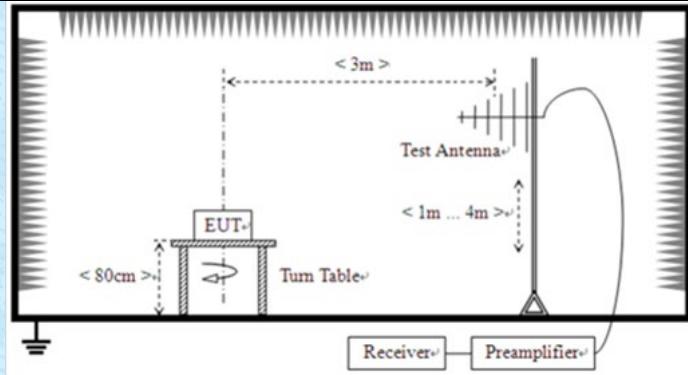
30MHz~25GHz
Highest channel



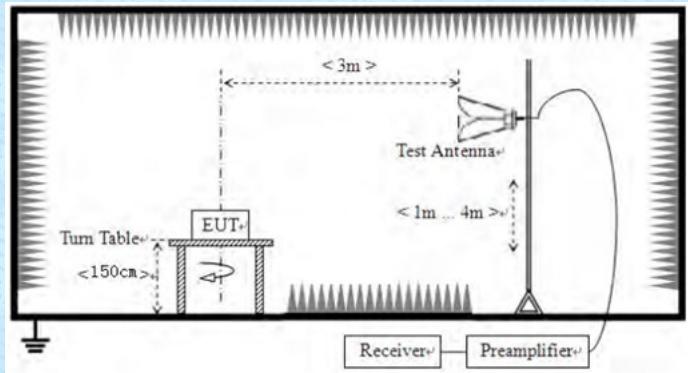
30MHz~25GHz

7.7.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209						
Test Method:	ANSI C63.10:2013						
Test Frequency Range:	9kHz to 25GHz						
Test site:	Measurement Distance: 3m						
Receiver setup:	Frequency	Detector	RBW	VBW	Value		
	9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak		
	150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak		
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak		
	Above 1GHz	Peak	1MHz	3MHz	Peak		
		Peak	1MHz	10Hz	Average		
Note: For Duty cycle \geq 98%, average detector set as above For Duty cycle $<$ 98%, average detector set as below: $VBW \geq 1 / T$							
Limit:	Frequency	Limit (uV/m)	Value	Measurement Distance			
	0.009MHz-0.490MHz	2400/F(KHz)	PK/QP/AV	300m			
	0.490MHz-1.705MHz	24000/F(KHz)	QP	30m			
	1.705MHz-30MHz	30	QP	30m			
	30MHz-88MHz	100	QP	3m			
	88MHz-216MHz	150	QP				
	216MHz-960MHz	200	QP				
	960MHz-1GHz	500	QP				
	Above 1GHz	500	Average				
		5000	Peak				
Test setup:	For radiated emissions from 9kHz to 30MHz						
							
	For radiated emissions from 30MHz to1GHz						



For radiated emissions above 1GHz



Test Procedure:	<ol style="list-style-type: none"> The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 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. 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. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 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 Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test environment:	Temp.: 24.3 °C Humid.: 50% Press.: 1010mbar

Test voltage:	AC 120V, 60Hz
Test results:	Pass

Remarks:

1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.

Measurement data:

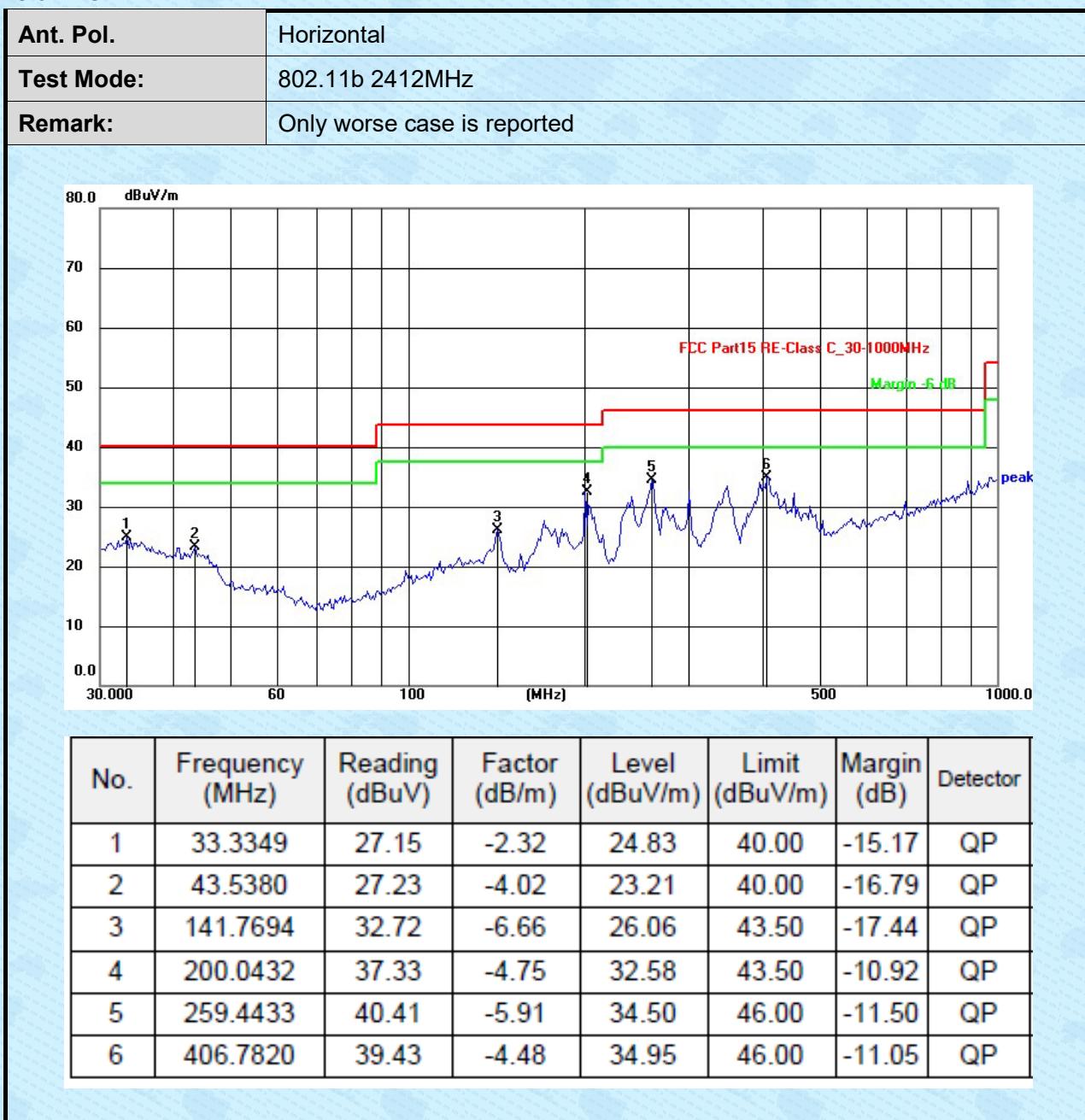
■ **9kHz~30MHz**

The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o), the test result no need to reported.

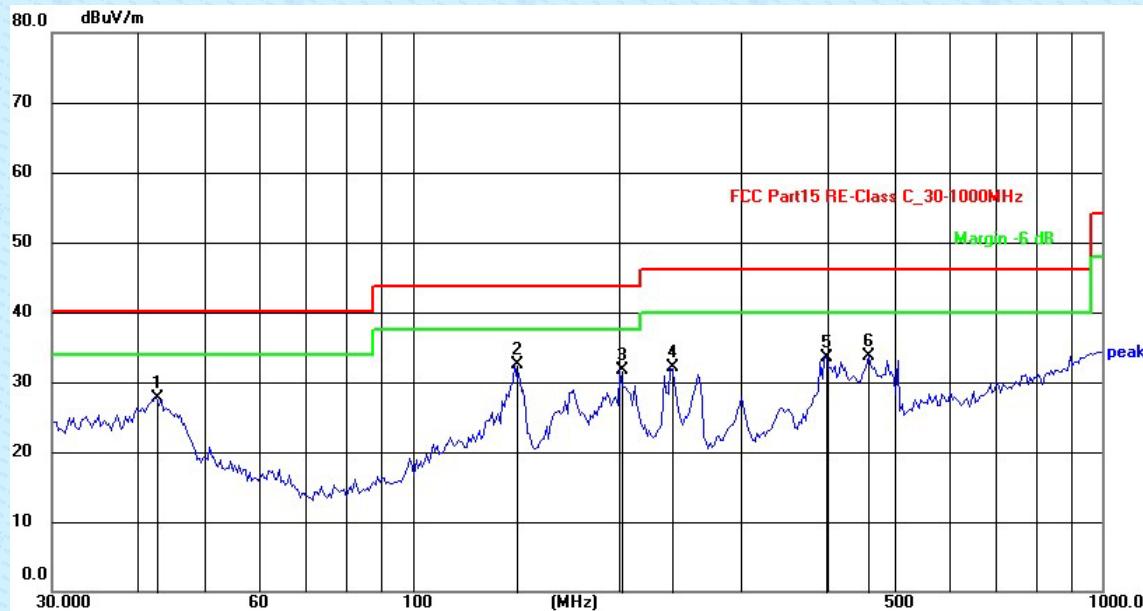
■ **Above 18GHz**

The emission from Above 18GHz was pre-tested and found the result was 20dB lower than the limit, the test result no need to reported.

Below 1GHz



Ant. Pol.	Vertical
Test Mode:	802.11b 2412MHz
Remark:	Only worse case is reported

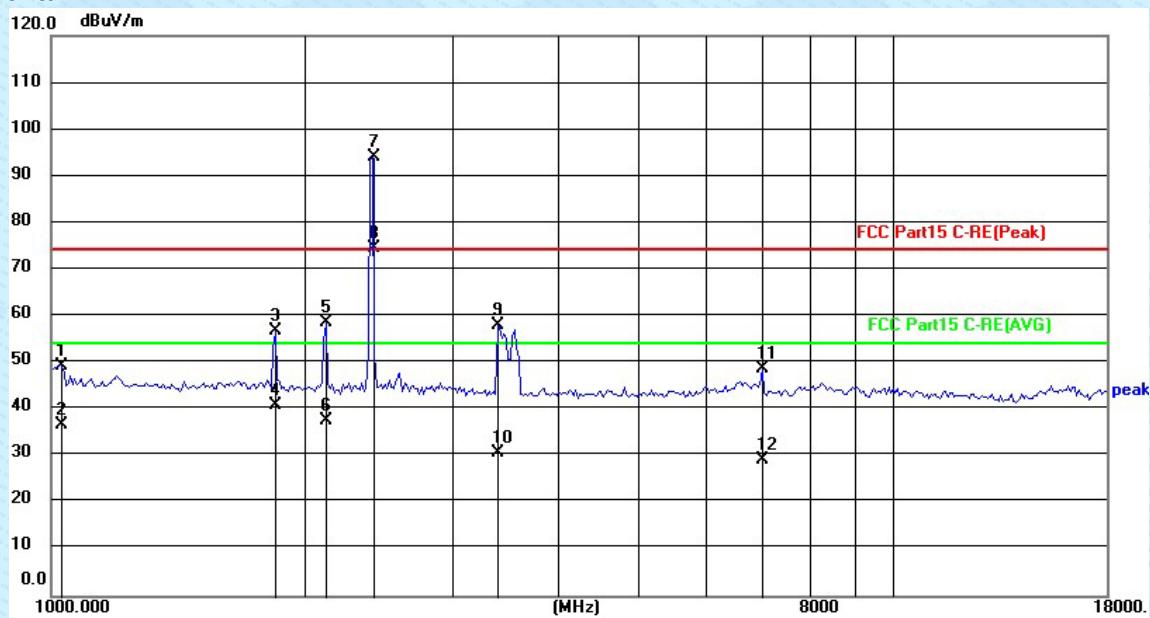


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	42.3314	31.66	-4.03	27.63	40.00	-12.37	QP
2	140.7767	38.88	-6.40	32.48	43.50	-11.02	QP
3	200.0432	34.90	-3.15	31.75	43.50	-11.75	QP
4	236.7928	36.87	-4.68	32.19	46.00	-13.81	QP
5	398.2962	36.46	-2.86	33.60	46.00	-12.40	QP
6	458.3987	35.89	-2.23	33.66	46.00	-12.34	QP

Above 1GHz

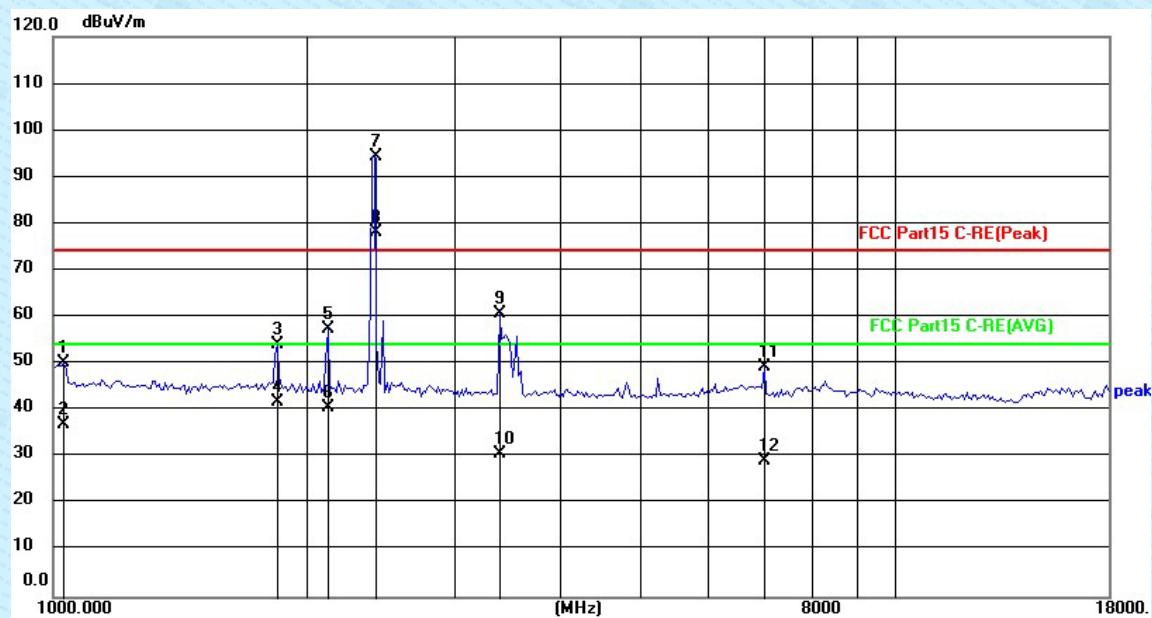
Test mode:	802.11b 2412MHz	Test channel:	Lowest
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Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1023.440	47.74	1.76	49.50	74.00	-24.50	peak
2	1023.440	35.01	1.76	36.77	54.00	-17.23	AVG
3	1847.783	31.63	25.24	56.87	74.00	-17.13	peak
4	1847.783	15.86	25.24	41.10	54.00	-12.90	AVG
5	2123.366	32.83	25.90	58.73	74.00	-15.27	peak
6	2123.366	11.73	25.90	37.63	54.00	-16.37	AVG
7	2411.946	67.67	26.36	94.03	74.00	20.03	peak
8	2411.946	48.19	26.36	74.55	54.00	20.55	AVG
9	3394.584	29.85	28.11	57.96	74.00	-16.04	peak
10	3394.584	2.70	28.11	30.81	54.00	-23.19	AVG
11	7002.185	12.93	35.80	48.73	74.00	-25.27	peak
12	7002.185	-6.49	35.80	29.31	54.00	-24.69	AVG

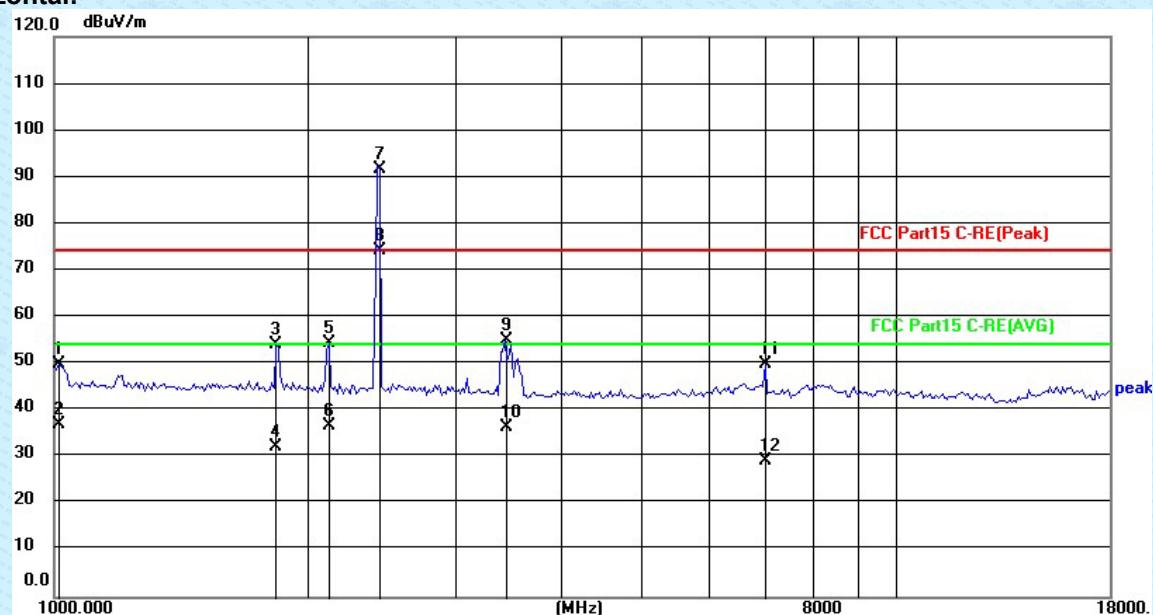
Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1029.385	48.30	1.86	50.16	74.00	-23.84	peak
2	1029.385	35.24	1.86	37.10	54.00	-16.90	AVG
3	1847.783	29.01	25.24	54.25	74.00	-19.75	peak
4	1847.783	16.52	25.24	41.76	54.00	-12.24	AVG
5	2123.366	31.51	25.90	57.41	74.00	-16.59	peak
6	2123.366	14.75	25.90	40.65	54.00	-13.35	AVG
7	2412.000	67.95	26.36	94.31	74.00	20.31	peak
8	2412.000	51.70	26.36	78.06	54.00	24.06	AVG
9	3394.584	32.52	28.11	60.63	74.00	-13.37	peak
10	3394.584	2.73	28.11	30.84	54.00	-23.16	AVG
11	7002.185	13.54	35.80	49.34	74.00	-24.66	peak
12	7002.185	-6.44	35.80	29.36	54.00	-24.64	AVG

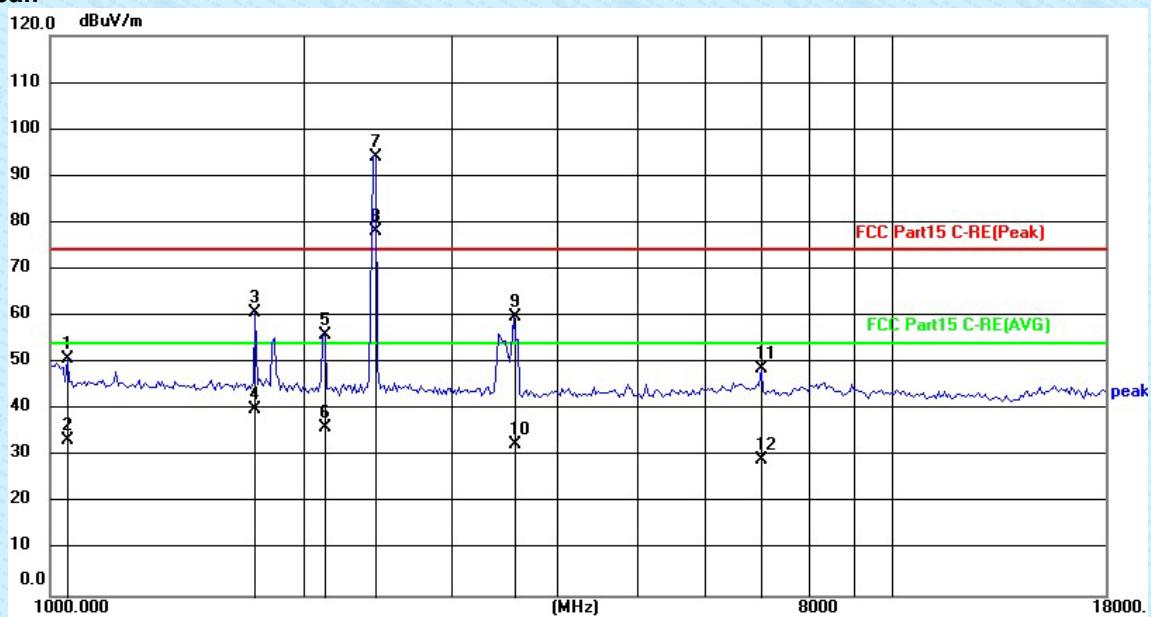
Test mode:	802.11b 2437MHz	Test channel:	Middle
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Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	48.25	1.58	49.83	74.00	-24.17	peak
2	1011.652	35.38	1.58	36.96	54.00	-17.04	AVG
3	1837.111	28.95	25.21	54.16	74.00	-19.84	peak
4	1837.111	6.89	25.21	32.10	54.00	-21.90	AVG
5	2123.366	28.67	25.90	54.57	74.00	-19.43	peak
6	2123.366	10.84	25.90	36.74	54.00	-17.26	AVG
7	2437.000	65.38	26.40	91.78	74.00	17.78	peak
8	2437.000	47.96	26.40	74.36	54.00	20.36	AVG
9	3434.138	26.86	28.18	55.04	74.00	-18.96	peak
10	3434.138	8.16	28.18	36.34	54.00	-17.66	AVG
11	7002.185	14.09	35.80	49.89	74.00	-24.11	peak
12	7002.185	-6.52	35.80	29.28	54.00	-24.72	AVG

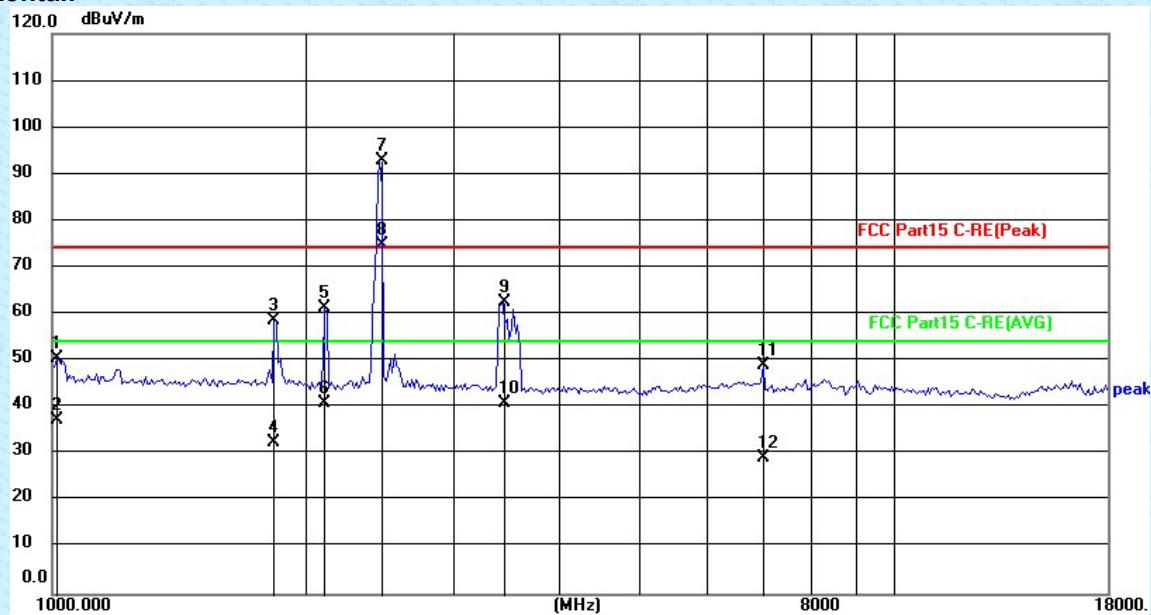
Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1047.429	27.32	23.64	50.96	74.00	-23.04	peak
2	1047.429	9.75	23.64	33.39	54.00	-20.61	AVG
3	1753.924	35.68	24.96	60.64	74.00	-13.36	peak
4	1753.924	15.05	24.96	40.01	54.00	-13.99	AVG
5	2123.366	30.17	25.90	56.07	74.00	-17.93	peak
6	2123.366	10.12	25.90	36.02	54.00	-17.98	AVG
7	2437.000	67.77	26.40	94.17	74.00	20.17	peak
8	2437.000	51.84	26.40	78.24	54.00	24.24	AVG
9	3555.586	31.60	28.37	59.97	74.00	-14.03	peak
10	3555.586	4.16	28.37	32.53	54.00	-21.47	AVG
11	7002.185	12.91	35.80	48.71	74.00	-25.29	peak
12	7002.185	-6.51	35.80	29.29	54.00	-24.71	AVG

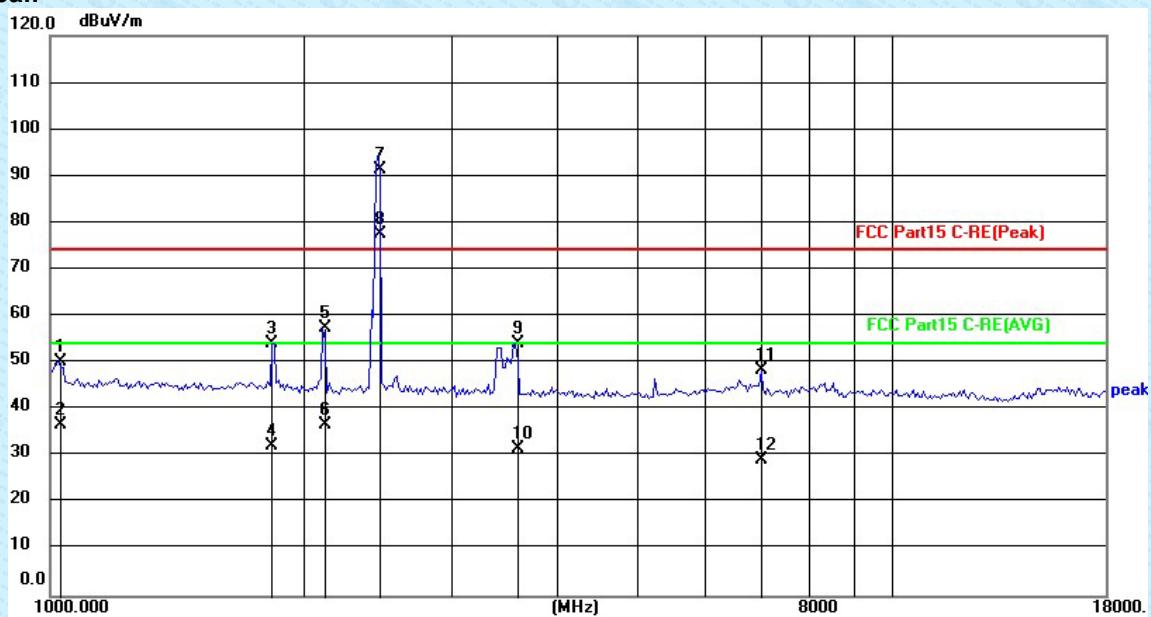
Test mode:	802.11b 2462MHz	Test channel:	Highest
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Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	49.08	1.58	50.66	74.00	-23.34	peak
2	1011.652	35.63	1.58	37.21	54.00	-16.79	AVG
3	1837.111	33.55	25.21	58.76	74.00	-15.24	peak
4	1837.111	7.20	25.21	32.41	54.00	-21.59	AVG
5	2111.102	35.49	25.88	61.37	74.00	-12.63	peak
6	2111.102	15.09	25.88	40.97	54.00	-13.03	AVG
7	2462.000	66.54	26.44	92.98	74.00	18.98	peak
8	2462.000	48.42	26.44	74.86	54.00	20.86	AVG
9	3434.138	34.30	28.18	62.48	74.00	-11.52	peak
10	3434.138	12.67	28.18	40.85	54.00	-13.15	AVG
11	7002.185	13.28	35.80	49.08	74.00	-24.92	peak
12	7002.185	-6.47	35.80	29.33	54.00	-24.67	AVG

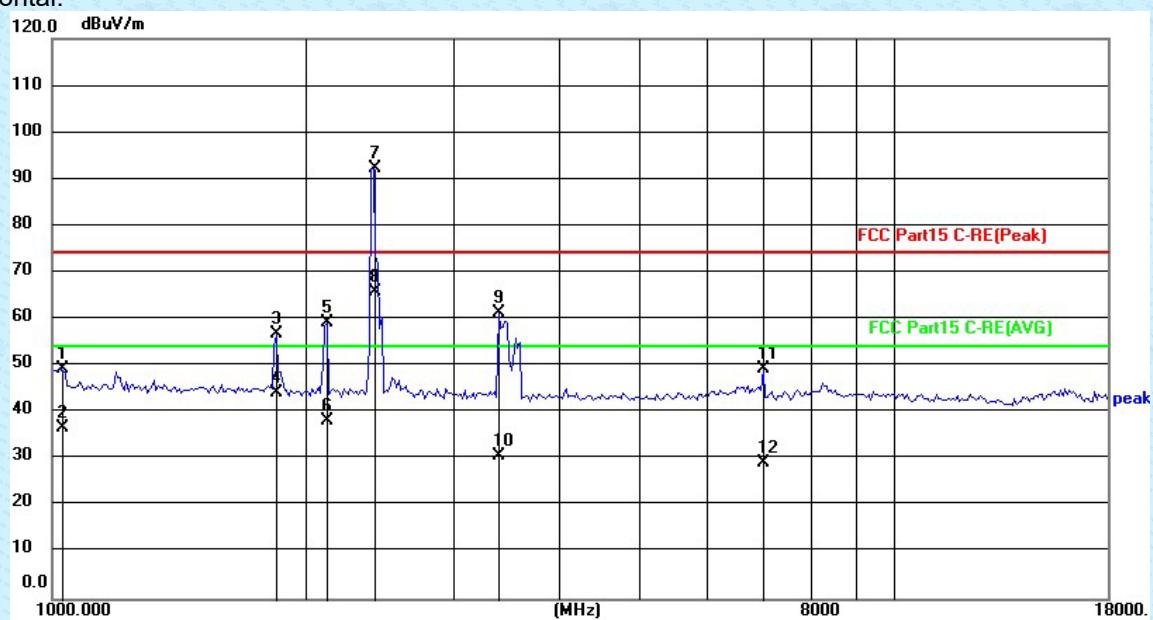
Vertical:



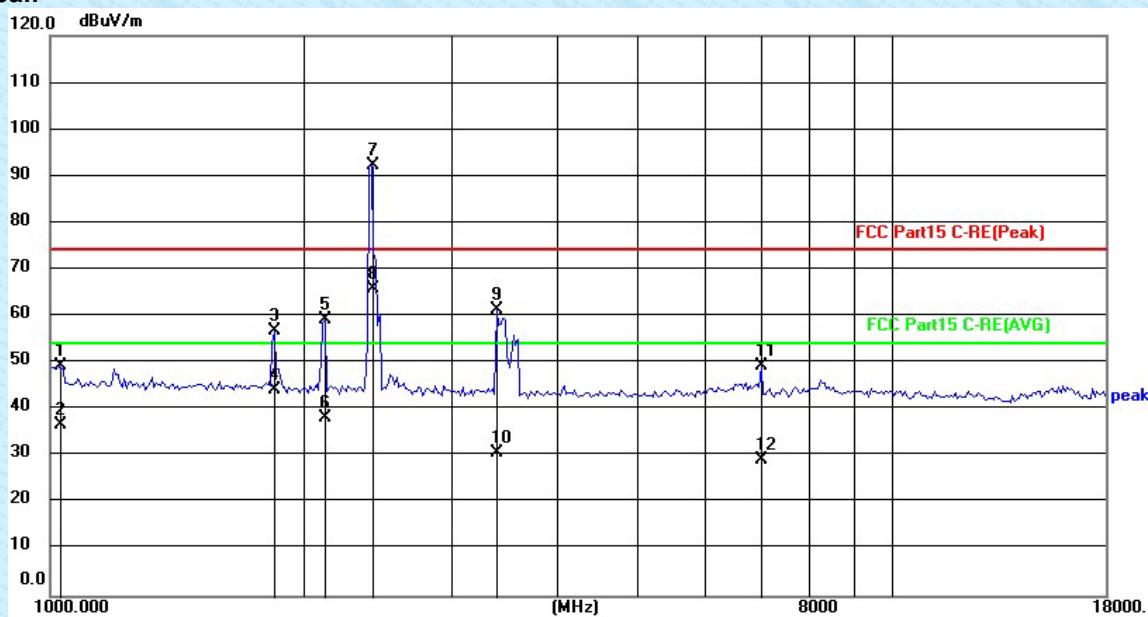
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1023.440	48.41	1.76	50.17	74.00	-23.83	peak
2	1023.440	35.12	1.76	36.88	54.00	-17.12	AVG
3	1837.111	29.02	25.21	54.23	74.00	-19.77	peak
4	1837.111	6.90	25.21	32.11	54.00	-21.89	AVG
5	2111.103	31.52	25.88	57.40	74.00	-16.60	peak
6	2111.103	10.82	25.88	36.70	54.00	-17.30	AVG
7	2462.000	64.80	26.44	91.24	74.00	17.24	peak
8	2462.000	51.20	26.44	77.64	54.00	23.64	AVG
9	3576.241	25.88	28.39	54.27	74.00	-19.73	peak
10	3576.241	3.16	28.39	31.55	54.00	-22.45	AVG
11	7002.185	12.79	35.80	48.59	74.00	-25.41	peak
12	7002.185	-6.52	35.80	29.28	54.00	-24.72	AVG

Test mode:	802.11g 2412MHz	Test channel:	lowest
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Horizontal:



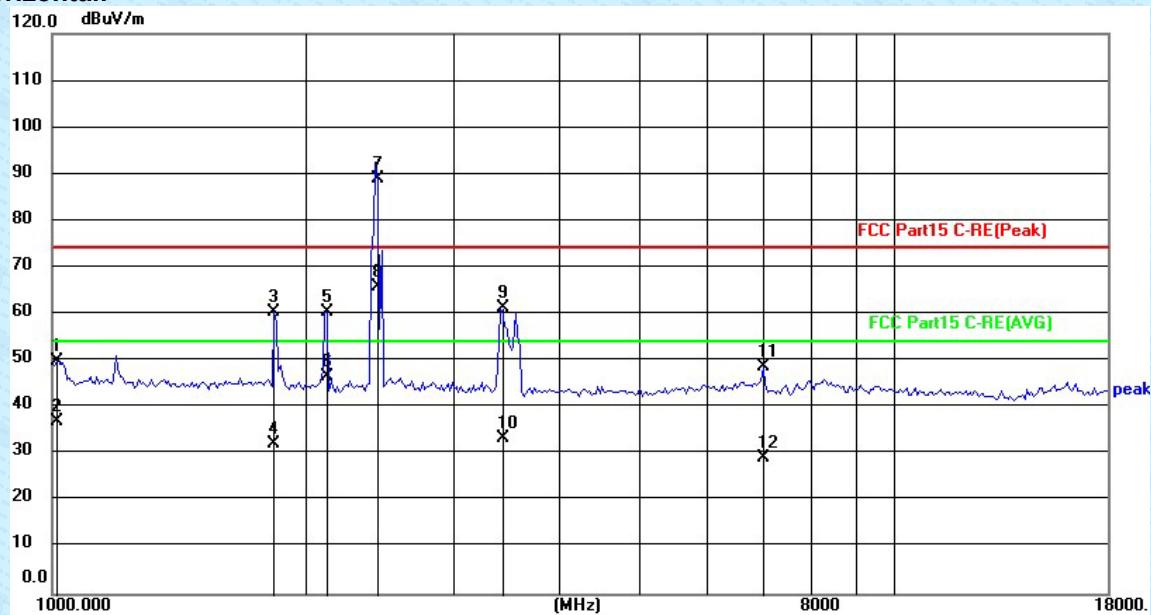
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1023.440	47.64	1.76	49.40	74.00	-24.60	peak
2	1023.440	34.89	1.76	36.65	54.00	-17.35	AVG
3	1847.783	31.48	25.24	56.72	74.00	-17.28	peak
4	1847.783	18.91	25.24	44.15	54.00	-9.85	AVG
5	2123.366	33.38	25.90	59.28	74.00	-14.72	peak
6	2123.366	12.42	25.90	38.32	54.00	-15.68	AVG
7	2412.000	65.77	26.36	92.13	74.00	18.13	peak
8	2412.000	39.42	26.36	65.78	54.00	11.78	AVG
9	3394.584	33.33	28.11	61.44	74.00	-12.56	peak
10	3394.584	2.58	28.11	30.69	54.00	-23.31	AVG
11	7002.185	13.55	35.80	49.35	74.00	-24.65	peak
12	7002.185	-6.58	35.80	29.22	54.00	-24.78	AVG

Vertical:

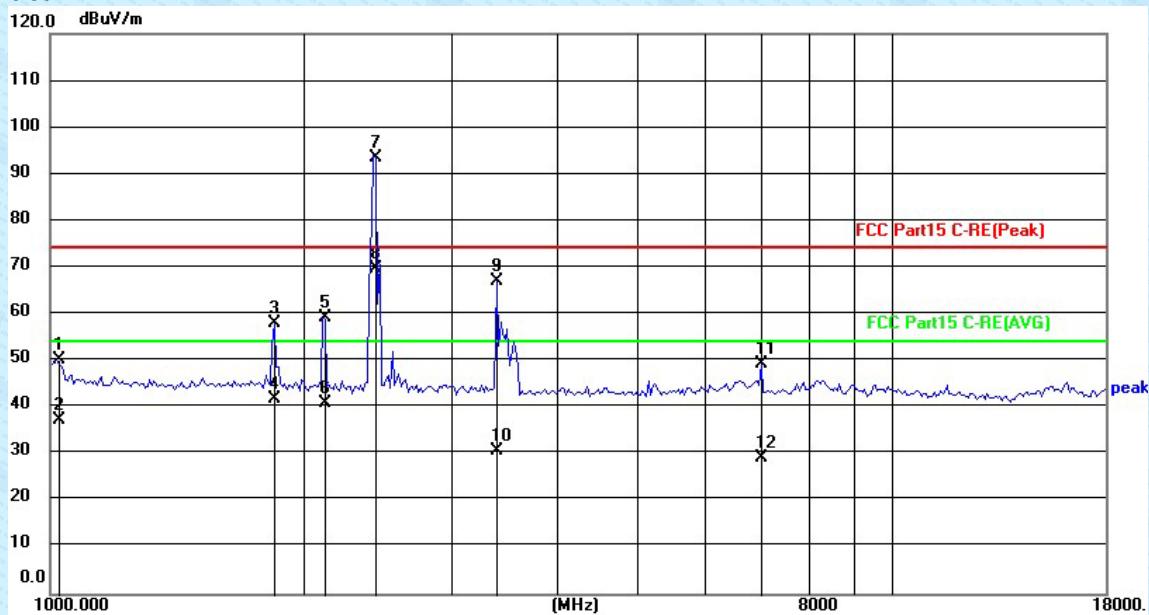
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1023.440	47.64	1.76	49.40	74.00	-24.60	peak
2	1023.440	34.89	1.76	36.65	54.00	-17.35	AVG
3	1847.783	31.48	25.24	56.72	74.00	-17.28	peak
4	1847.783	18.91	25.24	44.15	54.00	-9.85	AVG
5	2123.366	33.38	25.90	59.28	74.00	-14.72	peak
6	2123.366	12.42	25.90	38.32	54.00	-15.68	AVG
7	2412.000	65.77	26.36	92.13	74.00	18.13	peak
8	2412.000	39.42	26.36	65.78	54.00	11.78	AVG
9	3394.584	33.33	28.11	61.44	74.00	-12.56	peak
10	3394.584	2.58	28.11	30.69	54.00	-23.31	AVG
11	7002.185	13.55	35.80	49.35	74.00	-24.65	peak
12	7002.185	-6.58	35.80	29.22	54.00	-24.78	AVG

Test mode:	802.11g 2437MHz	Test channel:	Middle
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Horizontal:



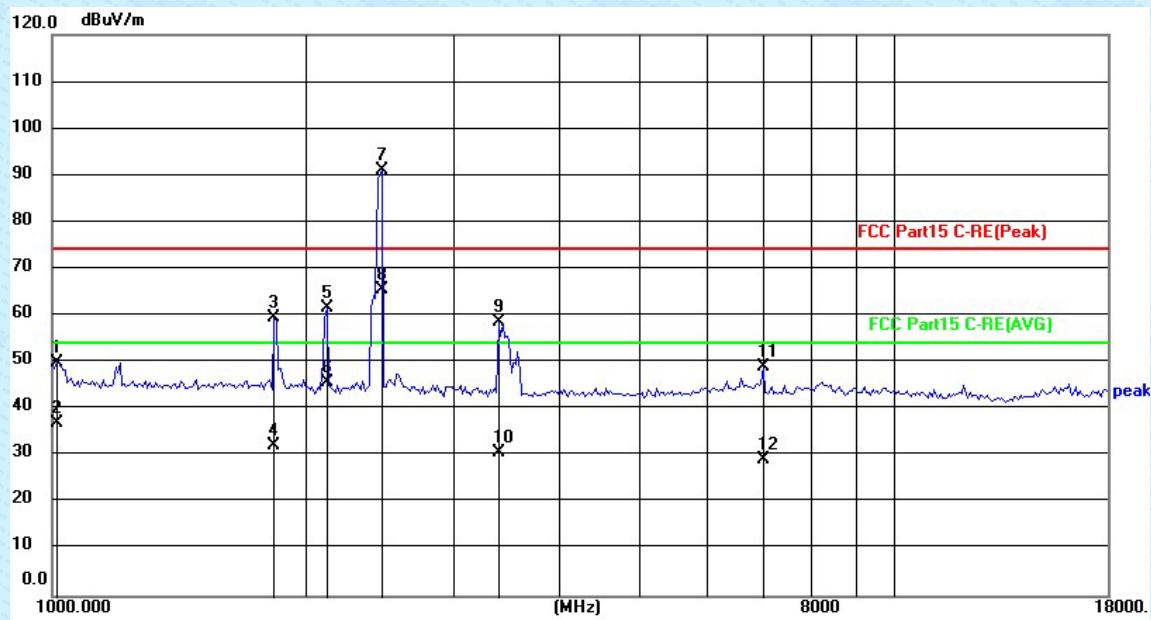
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	48.48	1.58	50.06	74.00	-23.94	peak
2	1011.652	35.61	1.58	37.19	54.00	-16.81	AVG
3	1837.111	35.14	25.21	60.35	74.00	-13.65	peak
4	1837.111	7.06	25.21	32.27	54.00	-21.73	AVG
5	2123.366	34.65	25.90	60.55	74.00	-13.45	peak
6	2123.366	20.65	25.90	46.55	54.00	-7.45	AVG
7	2437.000	62.54	26.40	88.94	74.00	14.94	peak
8	2437.000	39.51	26.40	65.91	54.00	11.91	AVG
9	3414.304	33.06	28.15	61.21	74.00	-12.79	peak
10	3414.304	5.33	28.15	33.48	54.00	-20.52	AVG
11	7002.185	12.87	35.80	48.67	74.00	-25.33	peak
12	7002.185	-6.42	35.80	29.38	54.00	-24.62	AVG

Vertical:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1017.529	48.44	1.67	50.11	74.00	-23.89	peak
2	1017.529	35.73	1.67	37.40	54.00	-16.60	AVG
3	1847.783	32.69	25.24	57.93	74.00	-16.07	peak
4	1847.783	16.68	25.24	41.92	54.00	-12.08	AVG
5	2111.103	33.24	25.88	59.12	74.00	-14.88	peak
6	2111.103	15.21	25.88	41.09	54.00	-12.91	AVG
7	2437.000	67.03	26.40	93.43	74.00	19.43	peak
8	2437.000	43.49	26.40	69.89	54.00	15.89	AVG
9	3394.584	38.96	28.11	67.07	74.00	-6.93	peak
10	3394.584	2.56	28.11	30.67	54.00	-23.33	AVG
11	7002.185	13.42	35.80	49.22	74.00	-24.78	peak
12	7002.185	-6.58	35.80	29.22	54.00	-24.78	AVG

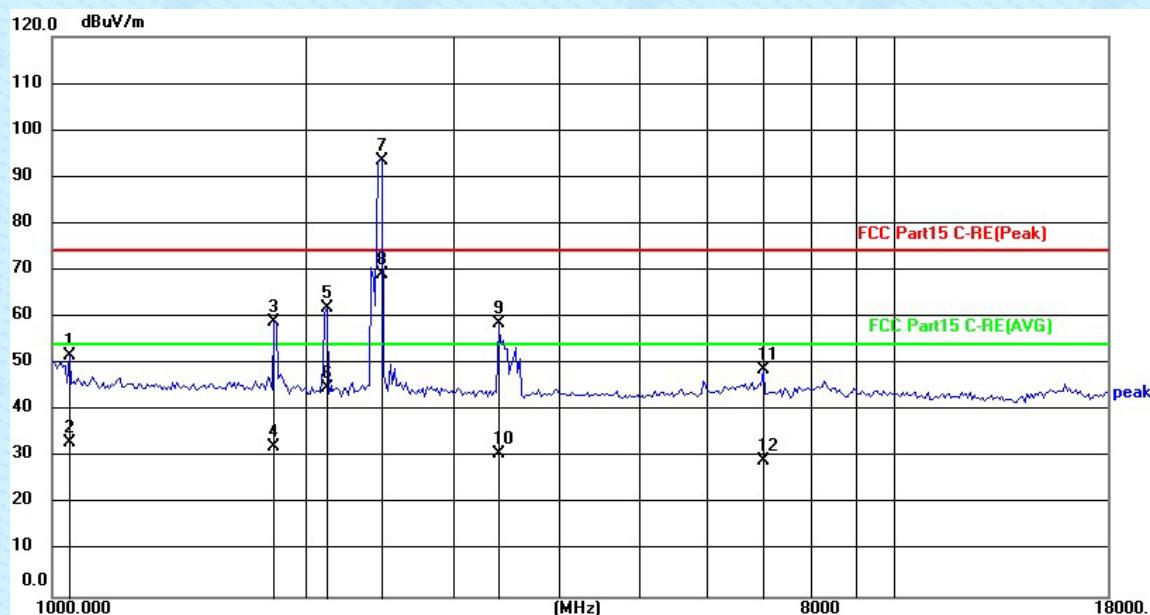
Test mode:	802.11g 2462MHz	Test channel:	Highest
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Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	48.50	1.58	50.08	74.00	-23.92	peak
2	1011.652	35.41	1.58	36.99	54.00	-17.01	AVG
3	1837.111	34.40	25.21	59.61	74.00	-14.39	peak
4	1837.111	6.98	25.21	32.19	54.00	-21.81	AVG
5	2123.366	35.67	25.90	61.57	74.00	-12.43	peak
6	2123.366	19.97	25.90	45.87	54.00	-8.13	AVG
7	2462.000	64.54	26.44	90.98	74.00	16.98	peak
8	2462.000	39.11	26.44	65.55	54.00	11.55	AVG
9	3394.584	30.57	28.11	58.68	74.00	-15.32	peak
10	3394.584	2.62	28.11	30.73	54.00	-23.27	AVG
11	7002.185	13.29	35.80	49.09	74.00	-24.91	peak
12	7002.185	-6.52	35.80	29.28	54.00	-24.72	AVG

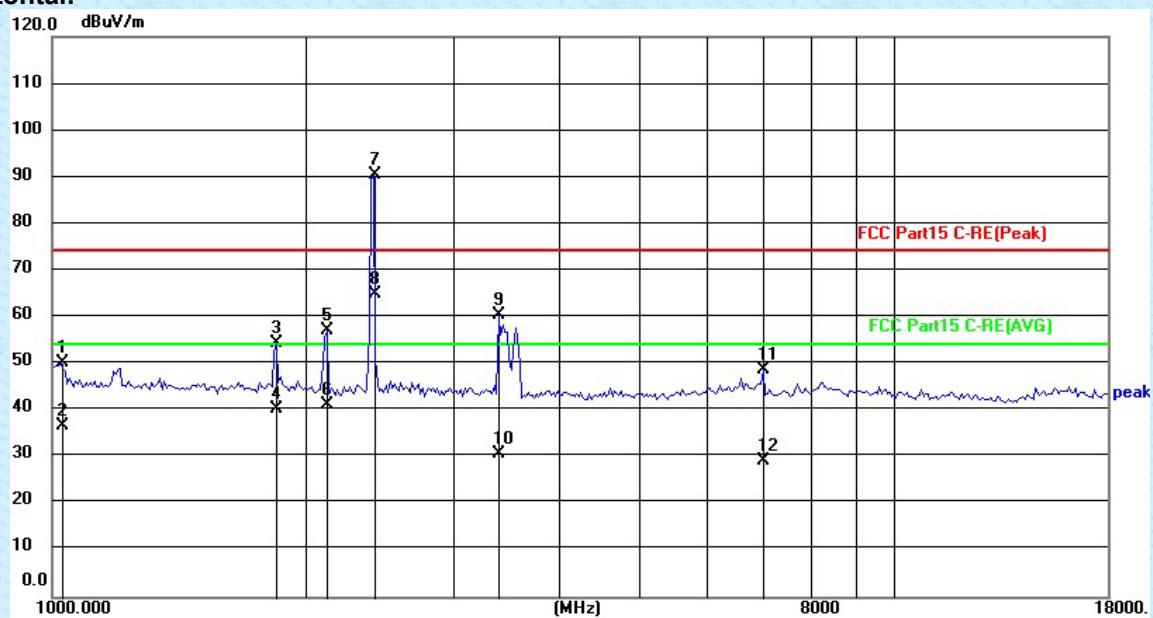
Vertical:



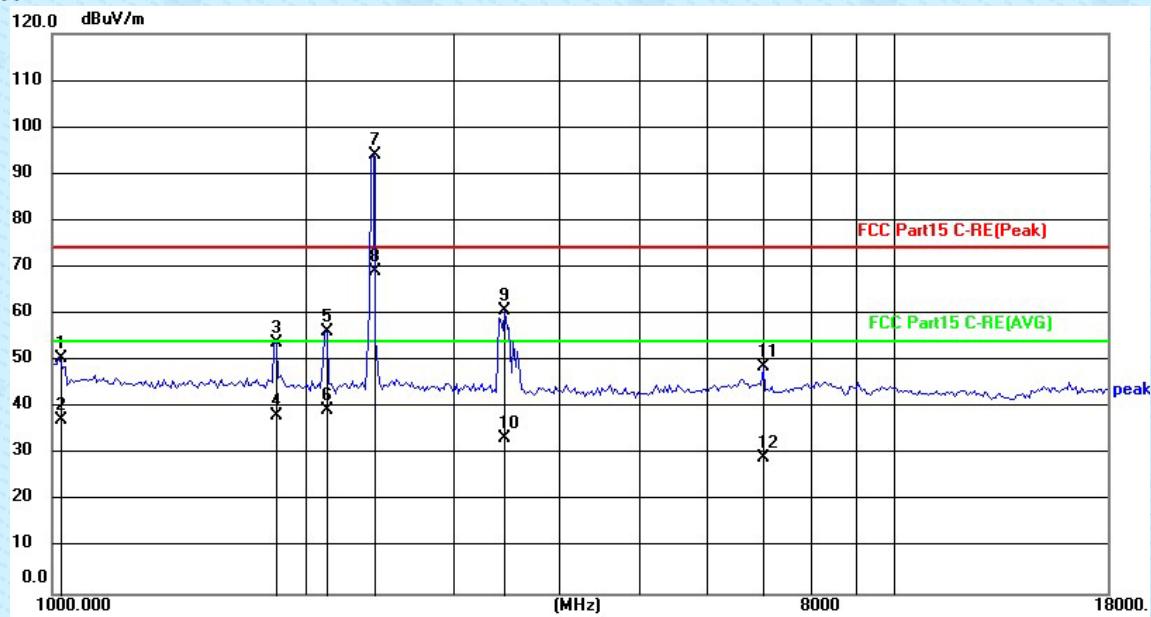
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1047.429	28.01	23.64	51.65	74.00	-22.35	peak
2	1047.429	9.62	23.64	33.26	54.00	-20.74	AVG
3	1837.111	33.83	25.21	59.04	74.00	-14.96	peak
4	1837.111	7.04	25.21	32.25	54.00	-21.75	AVG
5	2123.366	35.95	25.90	61.85	74.00	-12.15	peak
6	2123.366	19.02	25.90	44.92	54.00	-9.08	AVG
7	2462.000	66.87	26.44	93.31	74.00	19.31	peak
8	2462.000	42.86	26.44	69.30	54.00	15.30	AVG
9	3394.584	30.66	28.11	58.77	74.00	-15.23	peak
10	3394.584	2.67	28.11	30.78	54.00	-23.22	AVG
11	7002.185	12.98	35.80	48.78	74.00	-25.22	peak
12	7002.185	-6.47	35.80	29.33	54.00	-24.67	AVG

Test mode:	802.11n(HT20) 2412MHz	Test channel:	Lowest
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Horizontal:



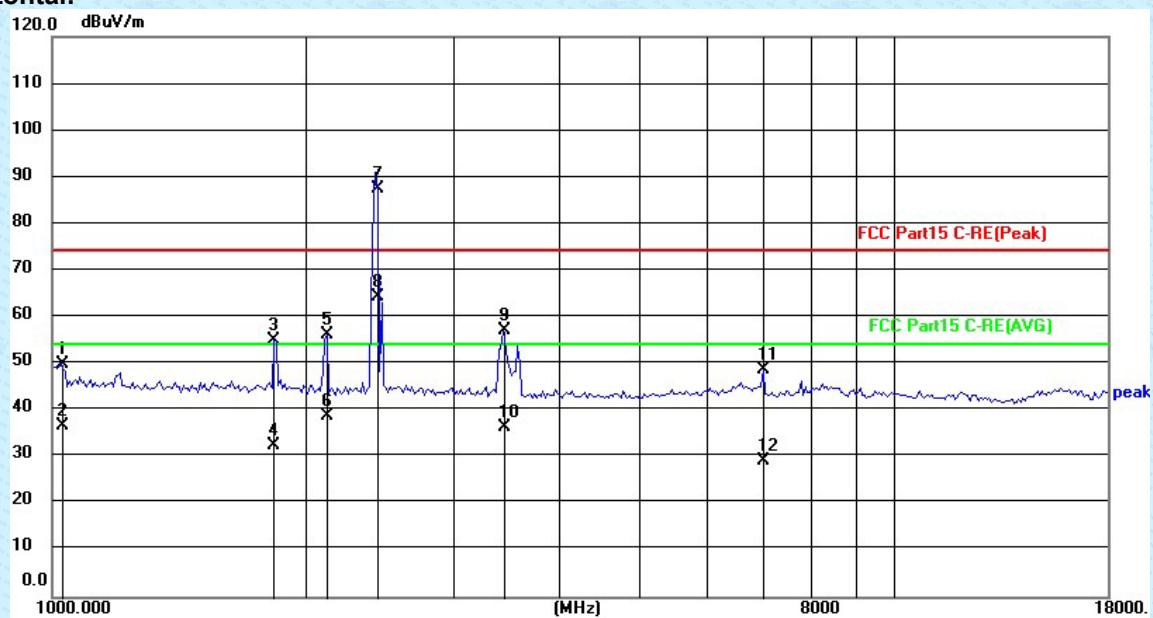
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1023.440	48.60	1.76	50.36	74.00	-23.64	peak
2	1023.440	34.87	1.76	36.63	54.00	-17.37	AVG
3	1847.783	29.35	25.24	54.59	74.00	-19.41	peak
4	1847.783	14.98	25.24	40.22	54.00	-13.78	AVG
5	2123.366	31.37	25.90	57.27	74.00	-16.73	peak
6	2123.366	15.43	25.90	41.33	54.00	-12.67	AVG
7	2412.000	64.22	26.36	90.58	74.00	16.58	peak
8	2412.000	38.52	26.36	64.88	54.00	10.88	AVG
9	3394.584	32.48	28.11	60.59	74.00	-13.41	peak
10	3394.584	2.61	28.11	30.72	54.00	-23.28	AVG
11	7002.185	13.03	35.80	48.83	74.00	-25.17	peak
12	7002.185	-6.62	35.80	29.18	54.00	-24.82	AVG

Vertical:

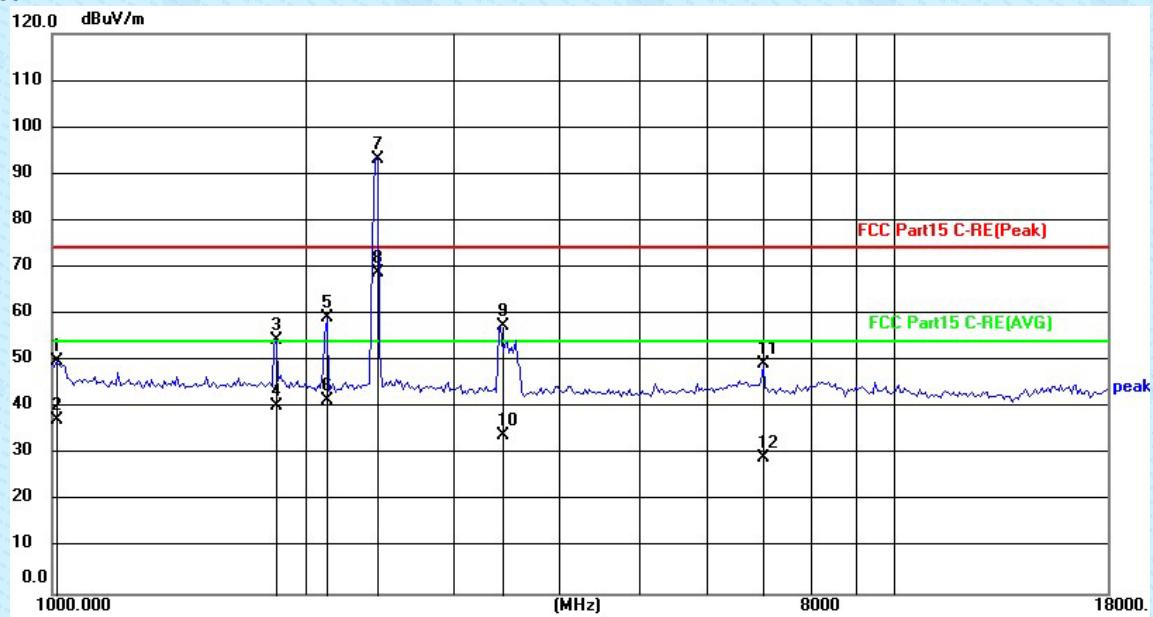
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1017.529	48.91	1.67	50.58	74.00	-23.42	peak
2	1017.529	35.57	1.67	37.24	54.00	-16.76	AVG
3	1847.783	28.72	25.24	53.96	74.00	-20.04	peak
4	1847.783	13.06	25.24	38.30	54.00	-15.70	AVG
5	2123.366	30.44	25.90	56.34	74.00	-17.66	peak
6	2123.366	13.51	25.90	39.41	54.00	-14.59	AVG
7	2412.000	67.56	26.36	93.92	74.00	19.92	peak
8	2412.000	42.91	26.36	69.27	54.00	15.27	AVG
9	3454.087	32.39	28.22	60.61	74.00	-13.39	peak
10	3454.087	5.16	28.22	33.38	54.00	-20.62	AVG
11	7002.185	12.88	35.80	48.68	74.00	-25.32	peak
12	7002.185	-6.61	35.80	29.19	54.00	-24.81	AVG

Test mode:	802.11n(HT20 2437MHz)	Test channel:	Middle
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Horizontal:



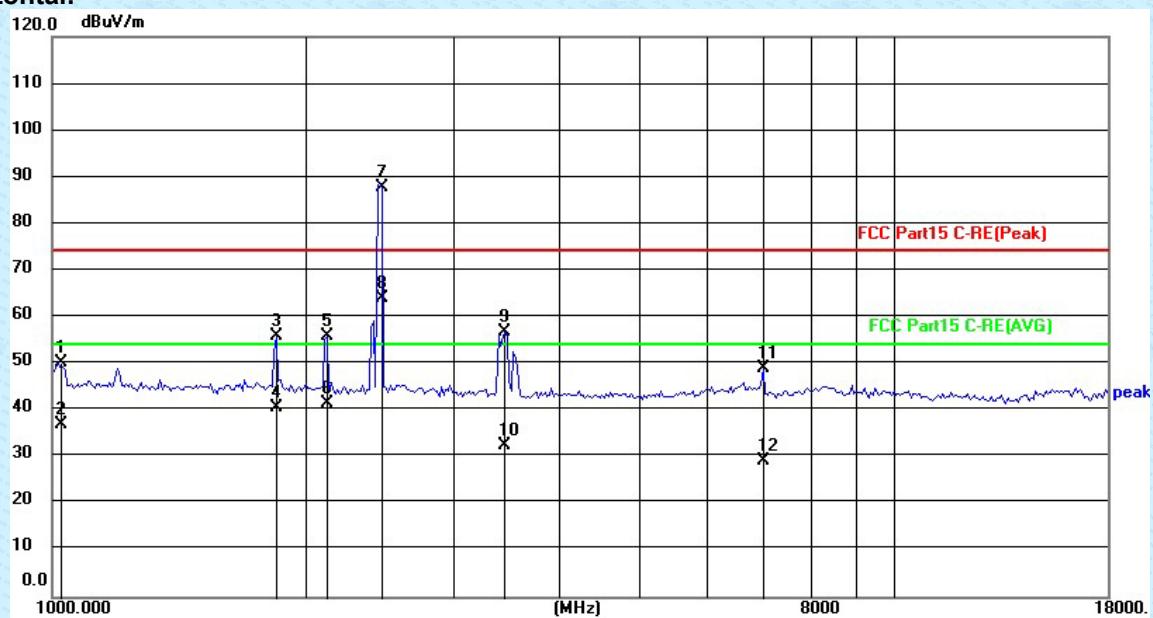
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1023.440	48.34	1.76	50.10	74.00	-23.90	peak
2	1023.440	34.88	1.76	36.64	54.00	-17.36	AVG
3	1837.111	29.87	25.21	55.08	74.00	-18.92	peak
4	1837.111	7.23	25.21	32.44	54.00	-21.56	AVG
5	2123.366	30.23	25.90	56.13	74.00	-17.87	peak
6	2123.366	12.93	25.90	38.83	54.00	-15.17	AVG
7	2437.000	61.05	26.40	87.45	74.00	13.45	peak
8	2437.000	37.97	26.40	64.37	54.00	10.37	AVG
9	3434.138	28.95	28.18	57.13	74.00	-16.87	peak
10	3434.138	8.30	28.18	36.48	54.00	-17.52	AVG
11	7002.185	13.03	35.80	48.83	74.00	-25.17	peak
12	7002.185	-6.62	35.80	29.18	54.00	-24.82	AVG

Vertical:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	48.29	1.58	49.87	74.00	-24.13	peak
2	1011.652	35.81	1.58	37.39	54.00	-16.61	AVG
3	1847.783	29.16	25.24	54.40	74.00	-19.60	peak
4	1847.783	15.02	25.24	40.26	54.00	-13.74	AVG
5	2123.366	33.25	25.90	59.15	74.00	-14.85	peak
6	2123.366	15.56	25.90	41.46	54.00	-12.54	AVG
7	2437.000	66.64	26.40	93.04	74.00	19.04	peak
8	2437.000	42.56	26.40	68.96	54.00	14.96	AVG
9	3414.304	29.18	28.15	57.33	74.00	-16.67	peak
10	3414.304	5.90	28.15	34.05	54.00	-19.95	AVG
11	7002.185	13.50	35.80	49.30	74.00	-24.70	peak
12	7002.185	-6.62	35.80	29.18	54.00	-24.82	AVG

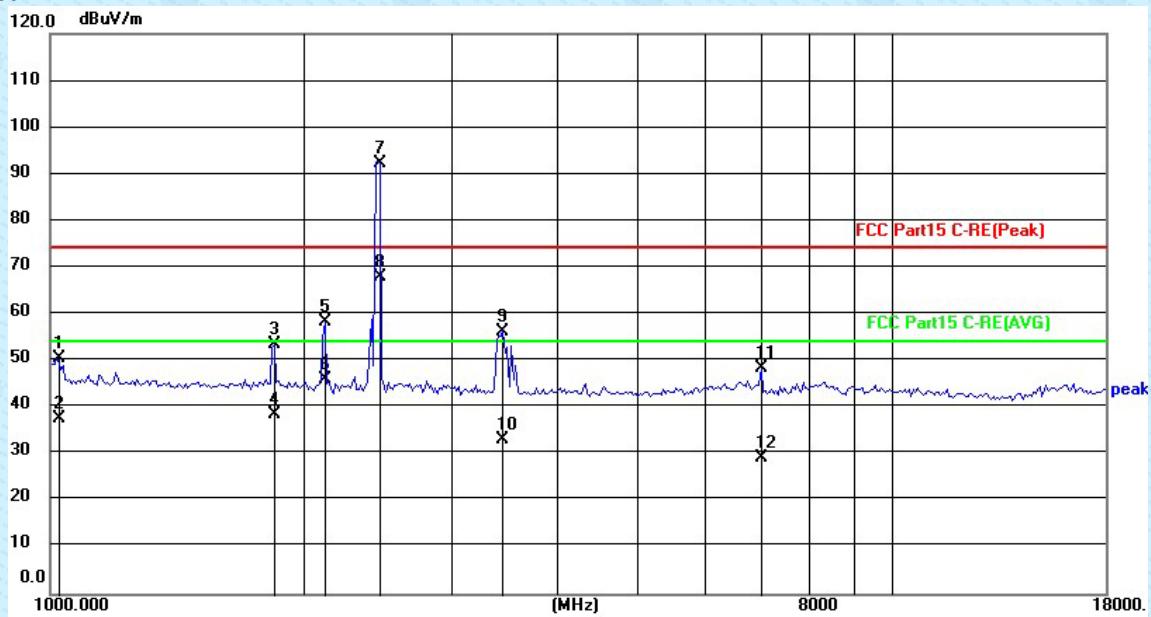
Test mode:	802.11n(HT20 2462MHz)	Test channel:	Highest
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Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1017.529	48.49	1.67	50.16	74.00	-23.84	peak
2	1017.529	35.52	1.67	37.19	54.00	-16.81	AVG
3	1847.783	30.75	25.24	55.99	74.00	-18.01	peak
4	1847.783	15.43	25.24	40.67	54.00	-13.33	AVG
5	2123.366	29.91	25.90	55.81	74.00	-18.19	peak
6	2123.366	15.57	25.90	41.47	54.00	-12.53	AVG
7	2462.000	61.28	26.44	87.72	74.00	13.72	peak
8	2462.000	37.71	26.44	64.15	54.00	10.15	AVG
9	3454.087	28.51	28.22	56.73	74.00	-17.27	peak
10	3454.087	4.34	28.22	32.56	54.00	-21.44	AVG
11	7002.185	13.22	35.80	49.02	74.00	-24.98	peak
12	7002.185	-6.64	35.80	29.16	54.00	-24.84	AVG

Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1017.529	48.90	1.67	50.57	74.00	-23.43	peak
2	1017.529	35.85	1.67	37.52	54.00	-16.48	AVG
3	1847.783	28.18	25.24	53.42	74.00	-20.58	peak
4	1847.783	13.24	25.24	38.48	54.00	-15.52	AVG
5	2123.366	32.31	25.90	58.21	74.00	-15.79	peak
6	2123.366	20.21	25.90	46.11	54.00	-7.89	AVG
7	2462.000	65.77	26.44	92.21	74.00	18.21	peak
8	2462.000	41.49	26.44	67.93	54.00	13.93	AVG
9	3454.087	28.18	28.22	56.40	74.00	-17.60	peak
10	3454.087	4.92	28.22	33.14	54.00	-20.86	AVG
11	7002.185	12.62	35.80	48.42	74.00	-25.58	peak
12	7002.185	-6.62	35.80	29.18	54.00	-24.82	AVG

Remarks:

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.

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** and **appendix III** for details.

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