TEST REPORT

Applicant:	Shenzhen Golden Vision Technology Development Co., Ltd
Address of Applicant:	No.6 Bao Fu Road，Bao Lai industrial Park, Shang Mu Gu Villiage，Pinghu Street, Longgang District, Shenzhen City, Guangdong Province, 518000, China
Manufacturer:	Shenzhen Golden Vision Technology Development Co., Ltd
Address of Manufacturer:	No.6 Bao Fu Road，Bao Lai industrial Park, Shang Mu Gu Villiage，Pinghu Street, Longgang District, Shenzhen City, Guangdong Province, 518000, China
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:	Smart camera
Model No.:	Y3, Y1, Y2, Y4, Y5, Y6, Y7, Y8, Y9, Y10
Trade Mark:	N/A
FCC ID:	2APD7-Y3
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.247
Date of sample receipt:	2024-08-05
Date of Test:	2024-08-09 to 2024-08-21
Date of report issued:	2024-08-30
Test Result :	PASS *

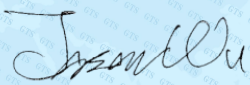
* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Robinson Luo
Laboratory Manager

2 Version

Version No.	Date	Description
00	2024-08-30	*Original*

Prepared By:  ***Date:*** *2024-08-30*

Project Engineer

Check By:  ***Date:*** *2024-08-30*

Reviewer

3 Contents

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	$\pm 7.25\times10^{-8}$
2	Duty cycle	±0.37%
3	Occupied Bandwidth	±3%
4	RF conducted power	±0.75dB
5	RF power density	±3dB
6	Conducted Spurious emissions	±2.58dB
7	AC Power Line Conducted Emission	±3.44dB (0.15MHz ~ 30MHz)
8	Radiated Spurious emission test	±3.1dB (9kHz-30MHz)
		±3.8039dB (30MHz-200MHz)
		±3.9679dB (200MHz-1GHz)
		±4.29dB (1GHz-18GHz)
		±3.30dB (18GHz-40GHz)
9	Temperature test	±1°C
10	Humidity test	±3%
11	Time	±3%

5 General Information

5.1 General Description of EUT

Product Name:	Smart camera
Model No.:	Y3, Y1, Y2, Y4, Y5, Y6, Y7, Y8, Y9, Y10
Test sample(s) ID:	GTSL2024080295-1
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:	2.0 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

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.

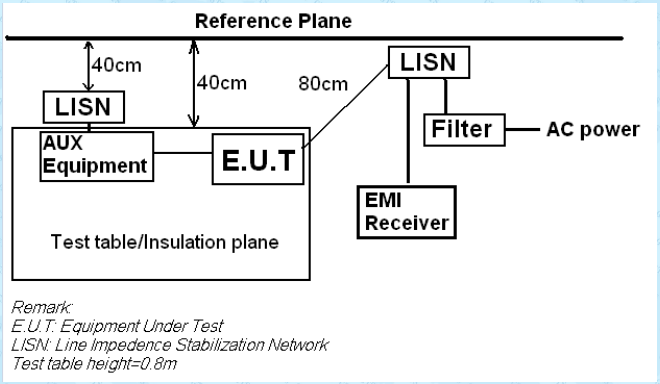
15.247(c) (1)(i) requirement:

(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.

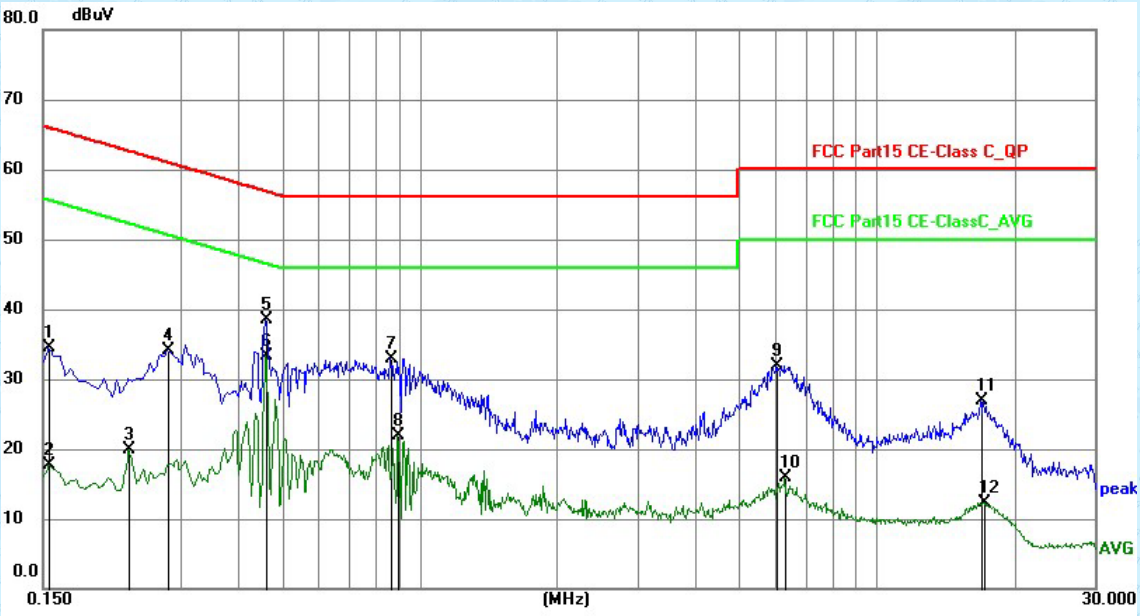
EUT Antenna:

The antennas are PCB Antenna, the best case gain of the antennas are 2.0dBi, reference to the appendix II for details

7.2 Conducted Emissions

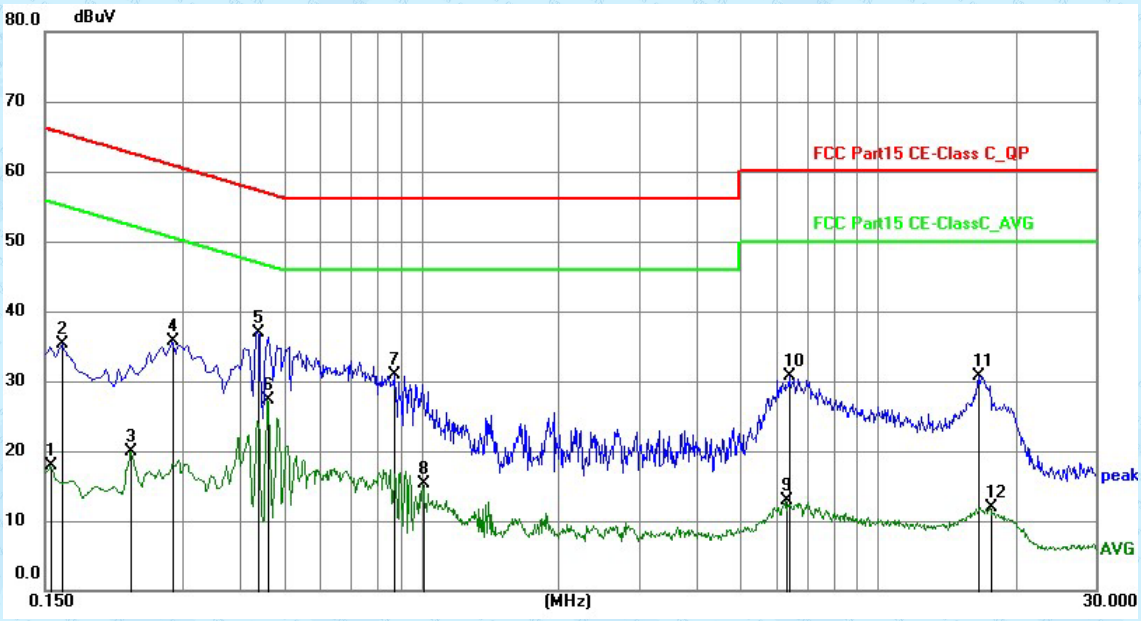
Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto
Limit:	Frequency range (MHz) / Limit (dBuV): Quasi-peak / Average 0.15-0.5: 66 to 56* / 56 to 46* 0.5-5: 56 / 46 5-30: 60 / 50 * Decreases with the logarithm of the frequency.
Test setup:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*
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.). 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.: 25°C / Humid.: 49% / 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	0.1545	24.79	9.80	34.59	65.75	-31.16	QP	P
2	0.1545	7.85	9.80	17.65	55.75	-38.10	AVG	P
3	0.2310	10.10	9.75	19.85	52.41	-32.56	AVG	P
4	0.2805	24.31	9.74	34.05	60.80	-26.75	QP	P
5	0.4605	28.69	9.72	38.41	56.68	-18.27	QP	P
6	0.4605	23.51	9.72	33.23	46.68	-13.45	AVG	P
7	0.8655	23.20	9.67	32.87	56.00	-23.13	QP	P
8	0.8970	12.25	9.66	21.91	46.00	-24.09	AVG	P
9	6.0270	22.19	9.74	31.93	60.00	-28.07	QP	P
10	6.2880	6.10	9.74	15.84	50.00	-34.16	AVG	P
11	16.8405	17.08	9.92	27.00	60.00	-33.00	QP	P
12	17.1375	2.40	9.93	12.33	50.00	-37.67	AVG	P

Neutral:

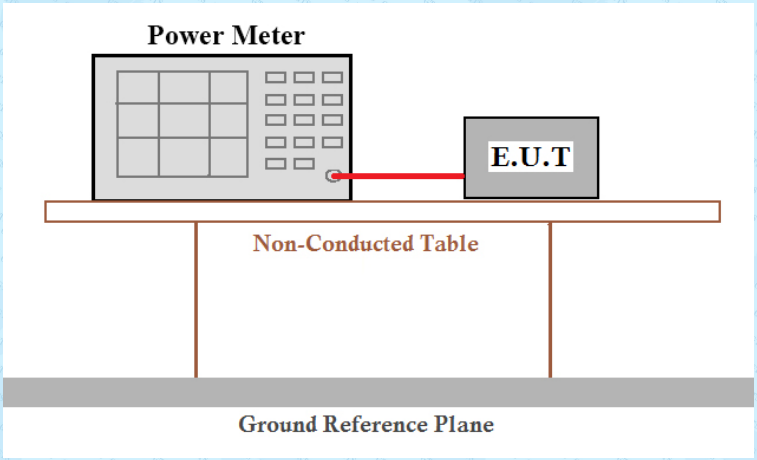


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1545	8.11	9.82	17.93	55.75	-37.82	AVG	P
2	0.1635	25.46	9.81	35.27	65.28	-30.01	QP	P
3	0.2310	10.18	9.76	19.94	52.41	-32.47	AVG	P
4	0.2850	25.98	9.74	35.72	60.67	-24.95	QP	P
5	0.4380	27.20	9.72	36.92	57.10	-20.18	QP	P
6	0.4605	17.66	9.72	27.38	46.68	-19.30	AVG	P
7	0.8745	21.28	9.67	30.95	56.00	-25.05	QP	P
8	1.0095	5.68	9.64	15.32	46.00	-30.68	AVG	P
9	6.2880	3.25	9.74	12.99	50.00	-37.01	AVG	P
10	6.3960	20.90	9.74	30.64	60.00	-29.36	QP	P
11	16.6425	20.81	9.93	30.74	60.00	-29.26	QP	P
12	17.6279	2.00	9.95	11.95	50.00	-38.05	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.*

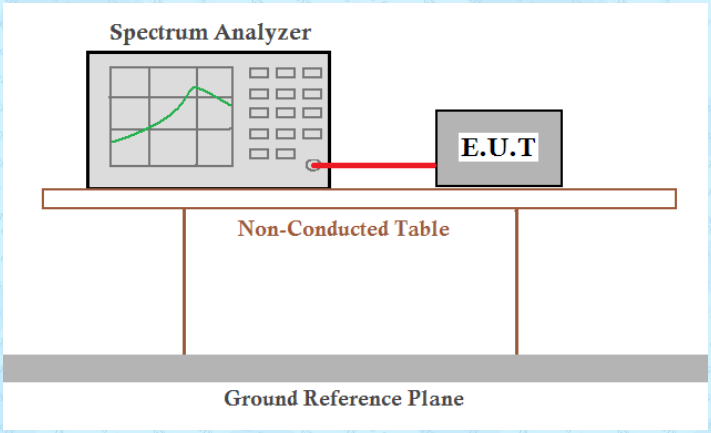
7.3 Conducted Output Power

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	16.59	15.23	30.00	Pass
Middle	16.88	15.85	14.89		
Highest	17.31	16.29	14.90		

7.4 Channel Bandwidth

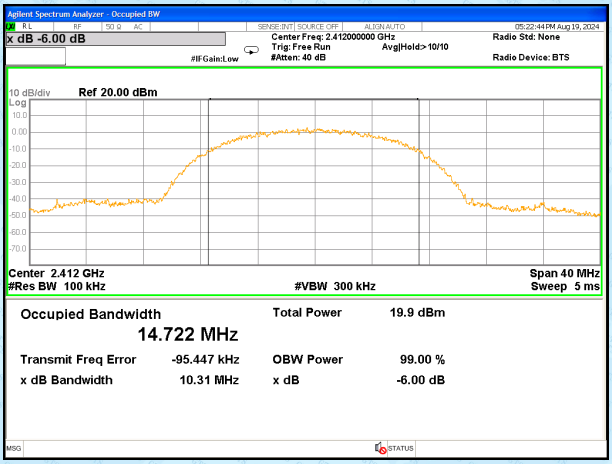
Test Requirement :	FCC Part15 C Section 15.247 (a)(2)
Test Method :	ANSI C63.10:2013
Limit:	>500KHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

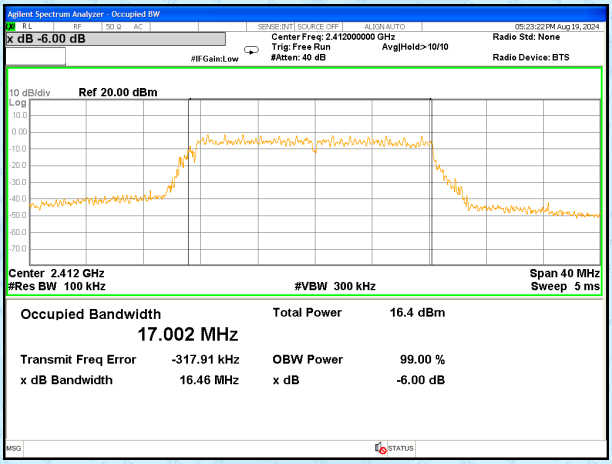
Measurement Data

Test CH	Channel Bandwidth (MHz)			Limit(KHz)	Result
	802.11b	802.11g	802.11n(HT20)		
Lowest	10.31	16.46	17.59	>500	Pass
Middle	10.71	16.45	17.58		
Highest	9.87	16.41	17.28		

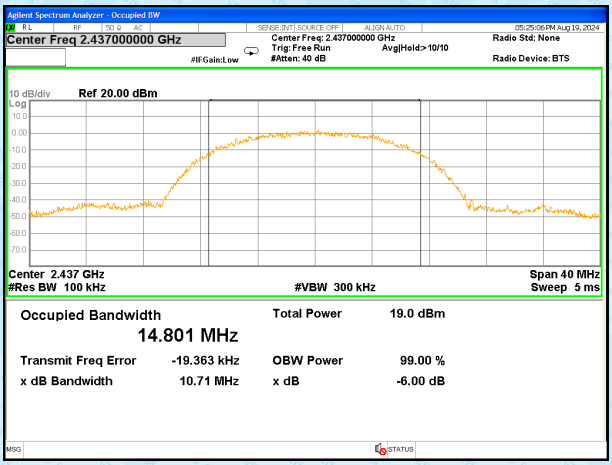
Test plot as follows:

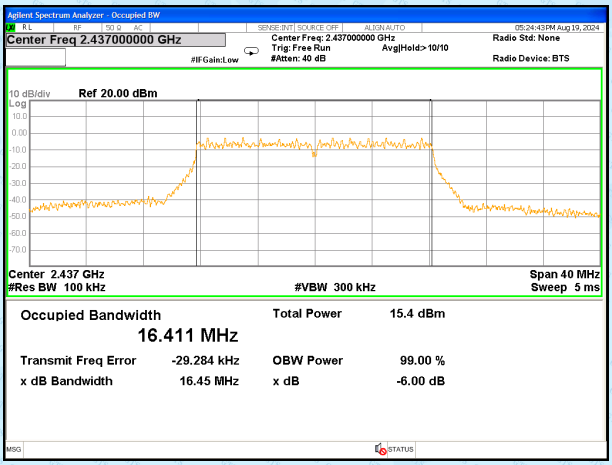
802.11b	802.11g



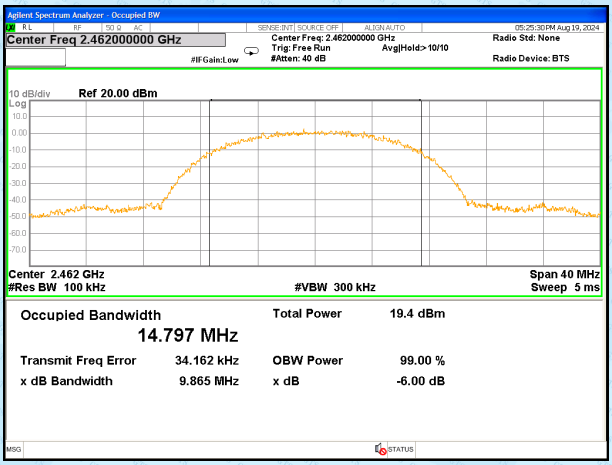


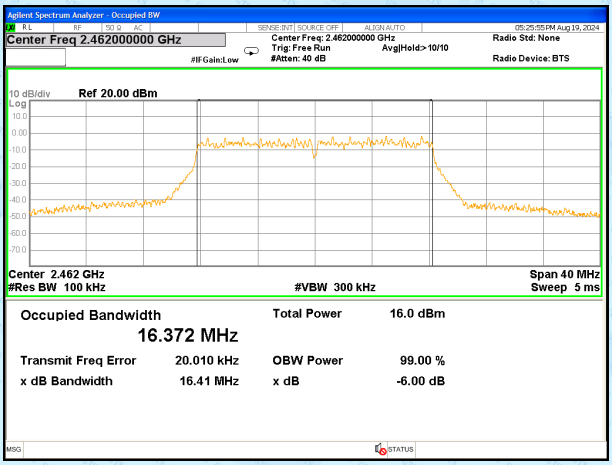
Lowest channel





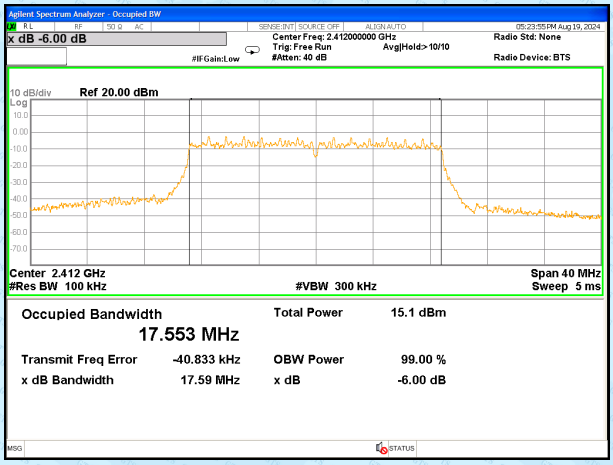
Middle channel



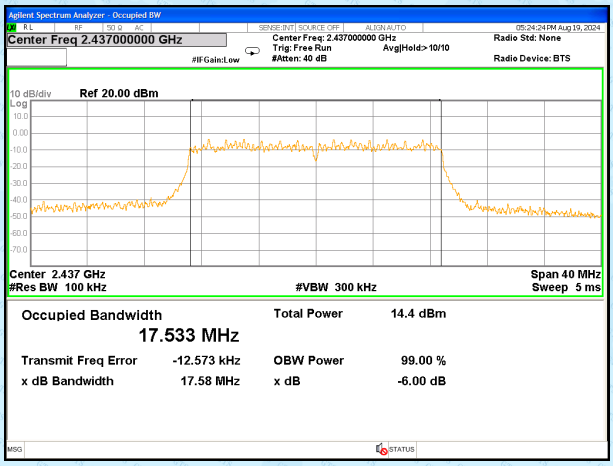


Highest channel

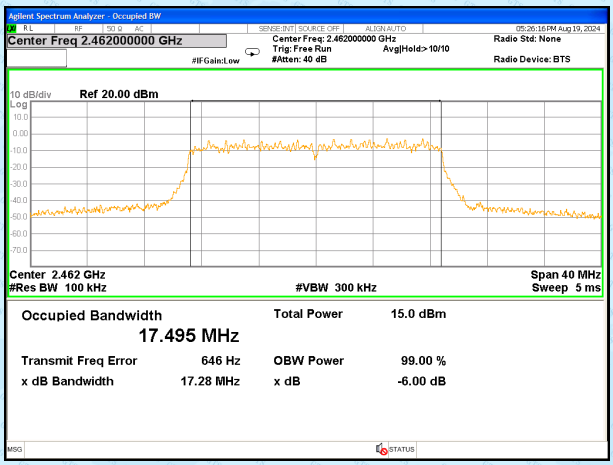
802.11n(HT20)



Lowest channel

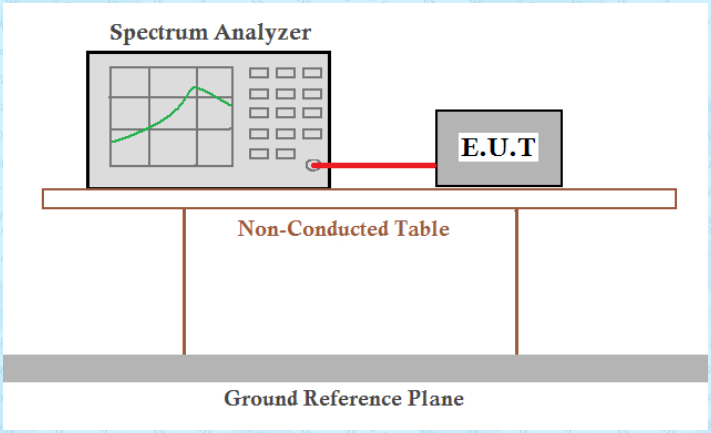


Middle channel



Highest channel

7.5 Power Spectral Density

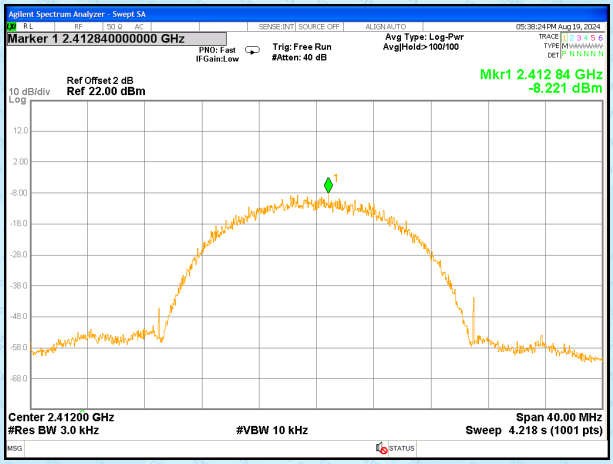
Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	ANSI C63.10:2013
Limit:	8dBm/3kHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

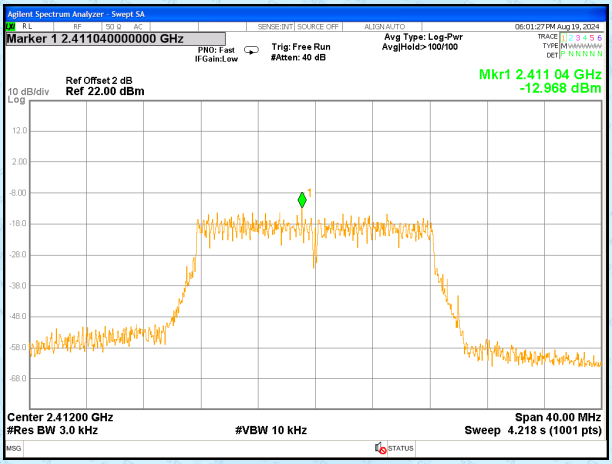
Measurement Data

Test CH	Power Spectral Density (dBm/3kHz)			Limit (dBm/3kHz)	Result
	802.11b	802.11g	802.11n(HT20)		
Lowest	-8.221	-12.968	-14.563	8.00	Pass
Middle	-8.745	-13.230	-14.764		
Highest	-8.525	-14.665	-15.126		

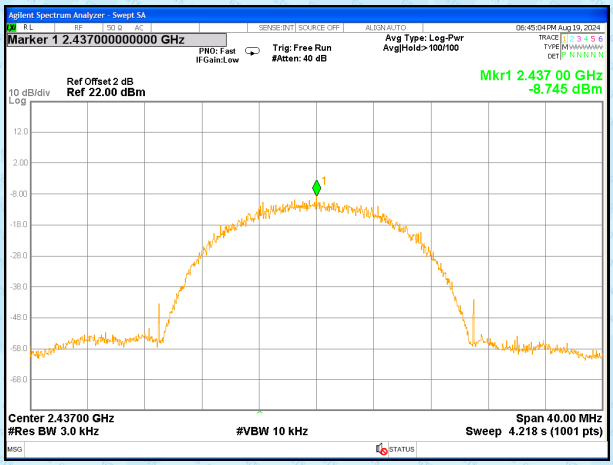
Test plot as follows:

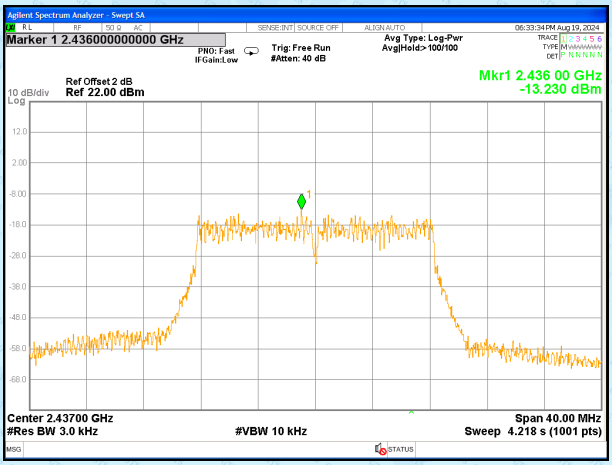
802.11b	802.11g



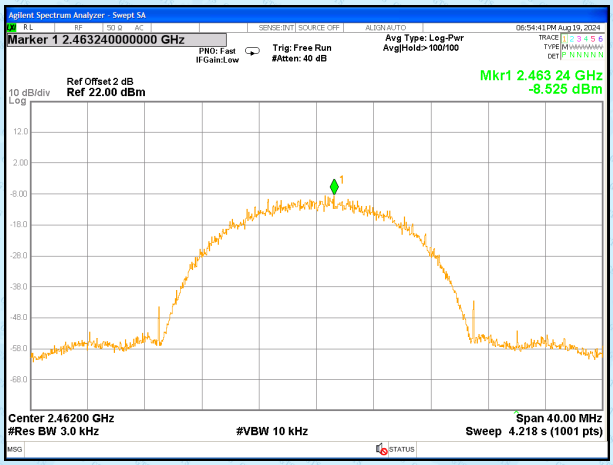


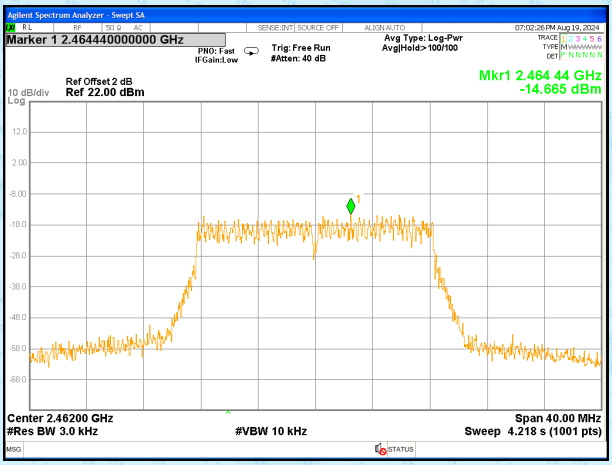
Lowest channel





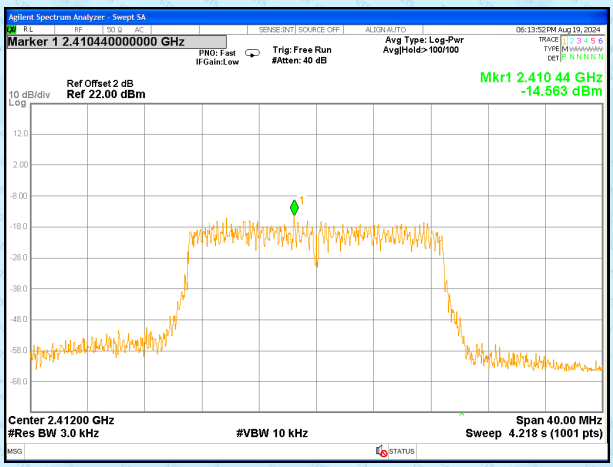
Middle channel



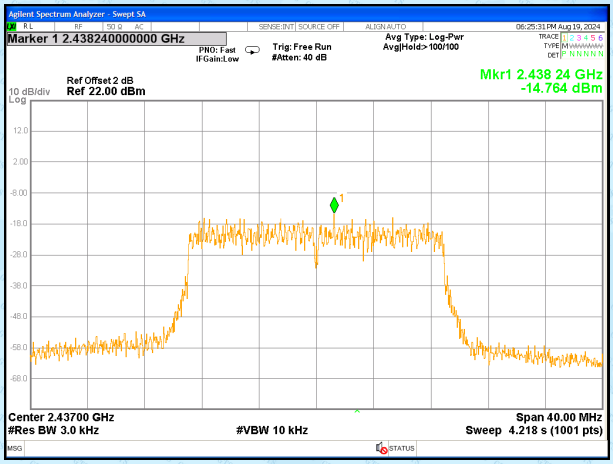


Highest channel

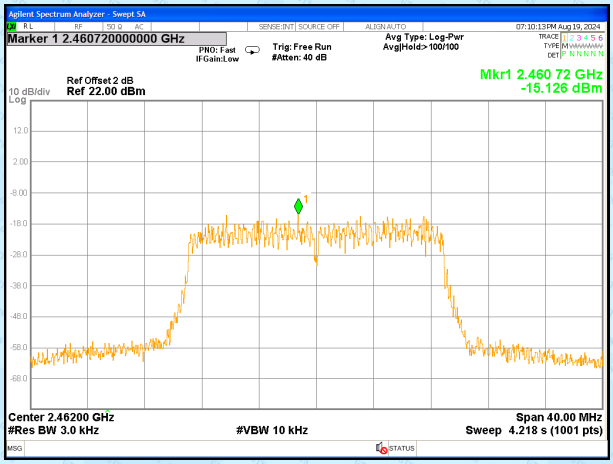
802.11n(HT20)



Lowest channel



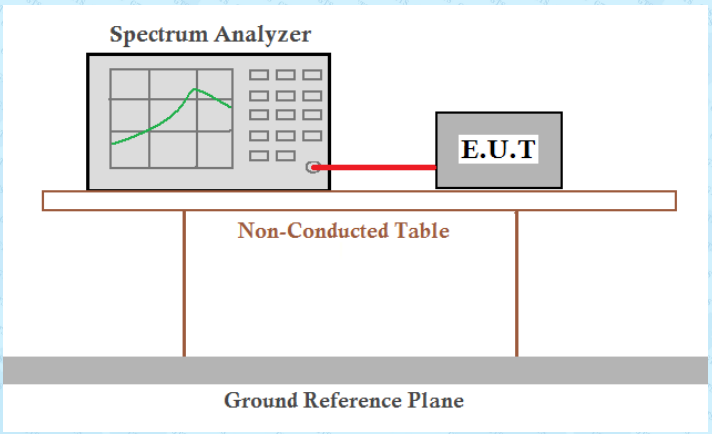
Middle channel



Highest channel

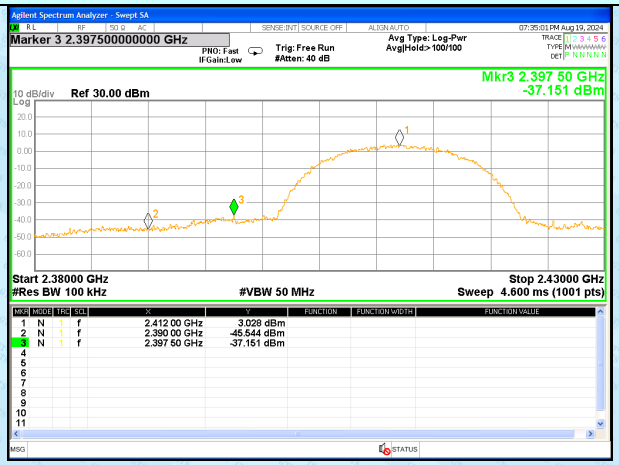
7.6 Bands edges

7.6.1 Conducted Emission Method

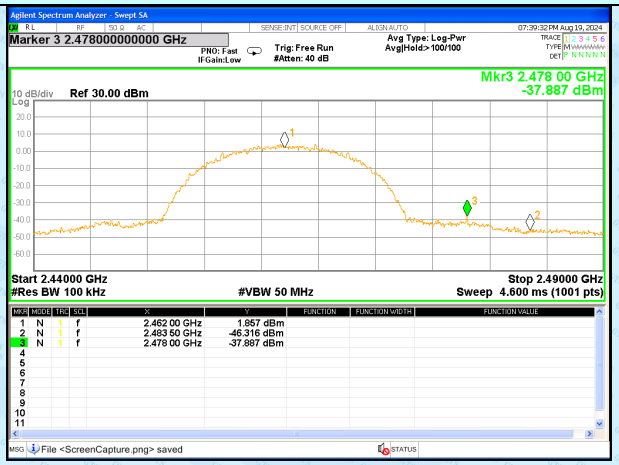
Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below 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:	802.11b

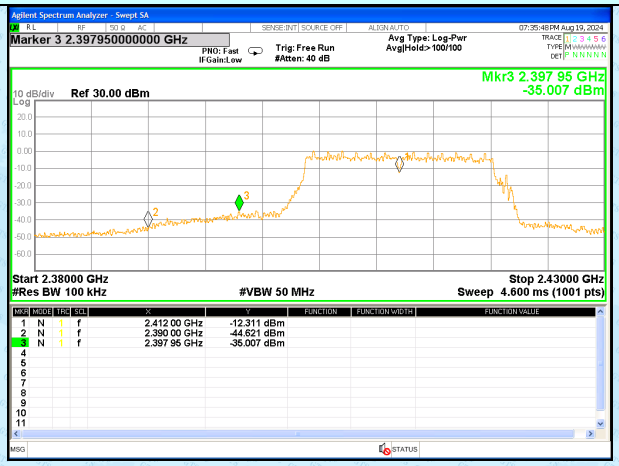


Lowest channel

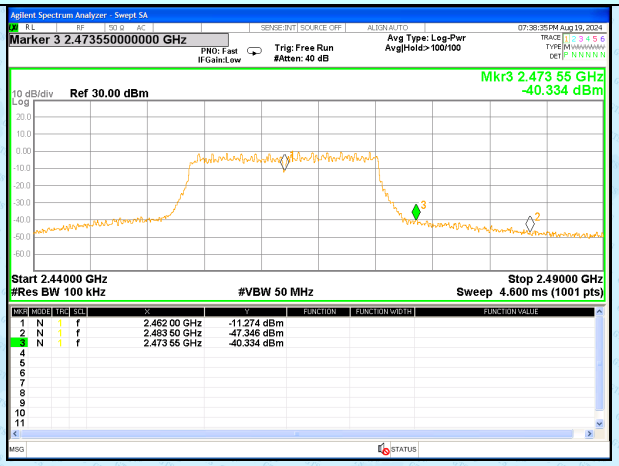


Highest channel

Test mode:	802.11g

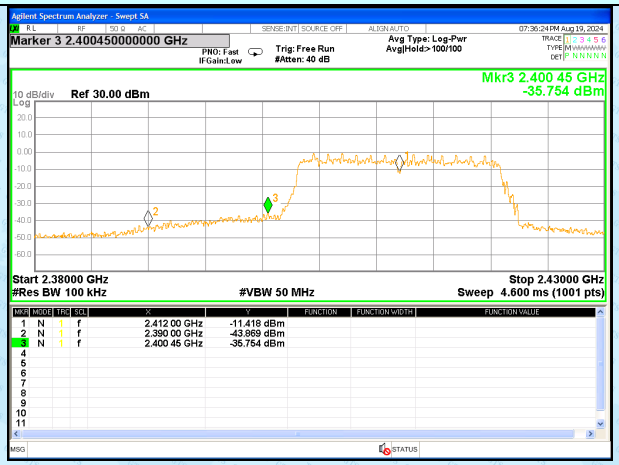


Lowest channel

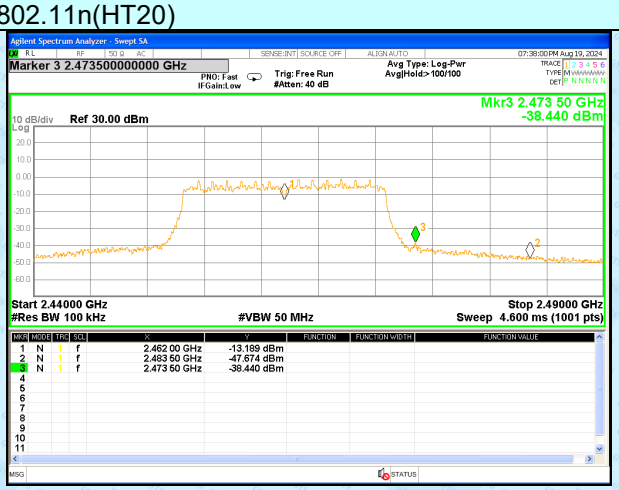


Highest channel

Test mode:	802.11n(HT20)

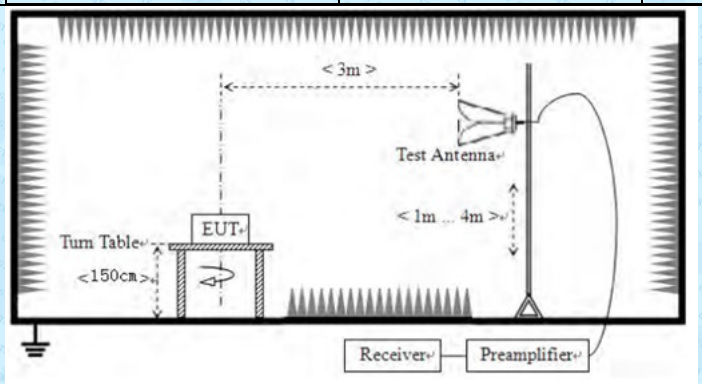


Lowest channel



Highest channel

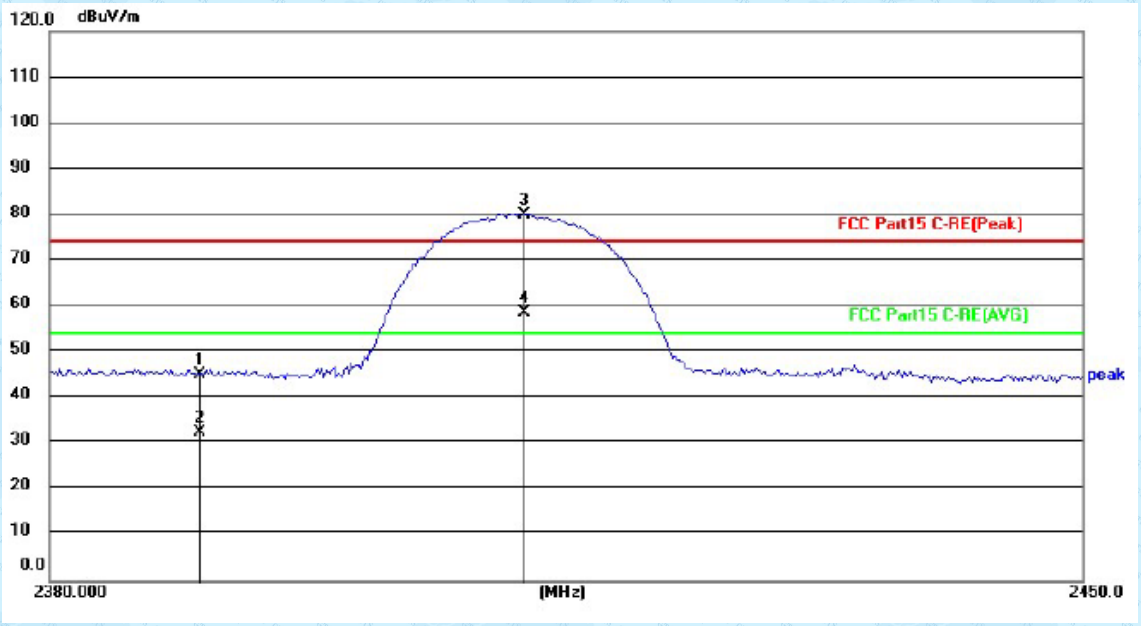
7.6.2 Radiated Emission Method

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 Above 1GHz / Average / 1MHz / 3MHz / Average
Limit:	Frequency / Limit (dBuV/m @3m) / Value Above 1GHz / 54.00 / Average Above 1GHz / 74.00 / Peak
Test setup:	
Test Procedure:	1. 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. 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. 7. 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:

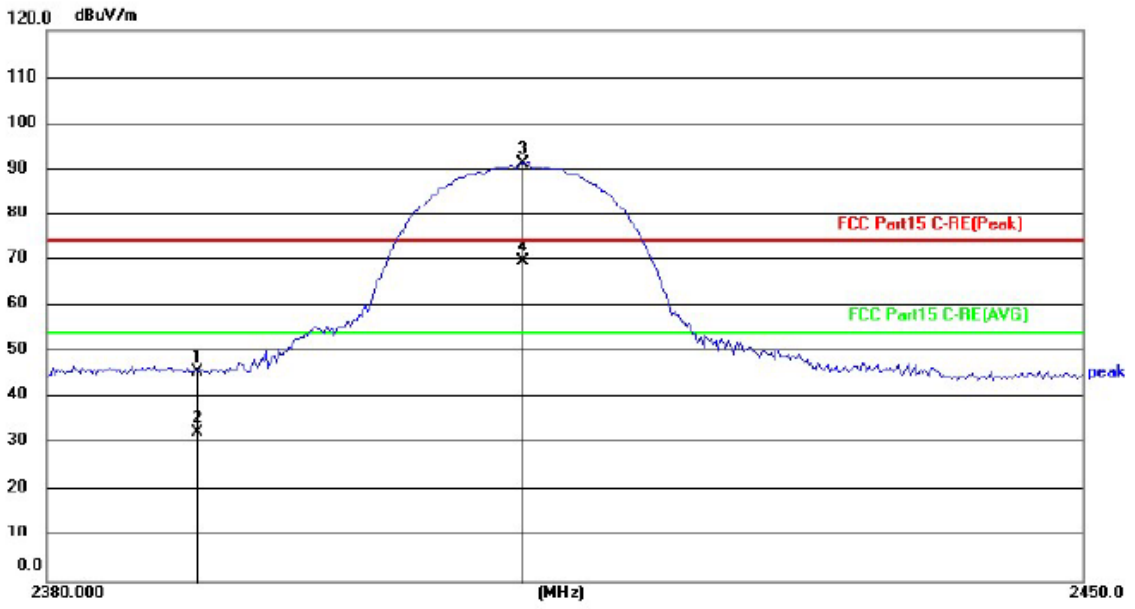
Test mode:	802.11b 2412MHz	Test channel:	Lowest

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	18.70	26.32	45.02	74.00	-28.98	peak
2	2390.000	6.37	26.32	32.69	54.00	-21.31	AVG
3	2412.000	53.54	26.36	79.90	74.00	5.90	peak
4	2412.000	32.24	26.36	58.60	54.00	4.60	AVG

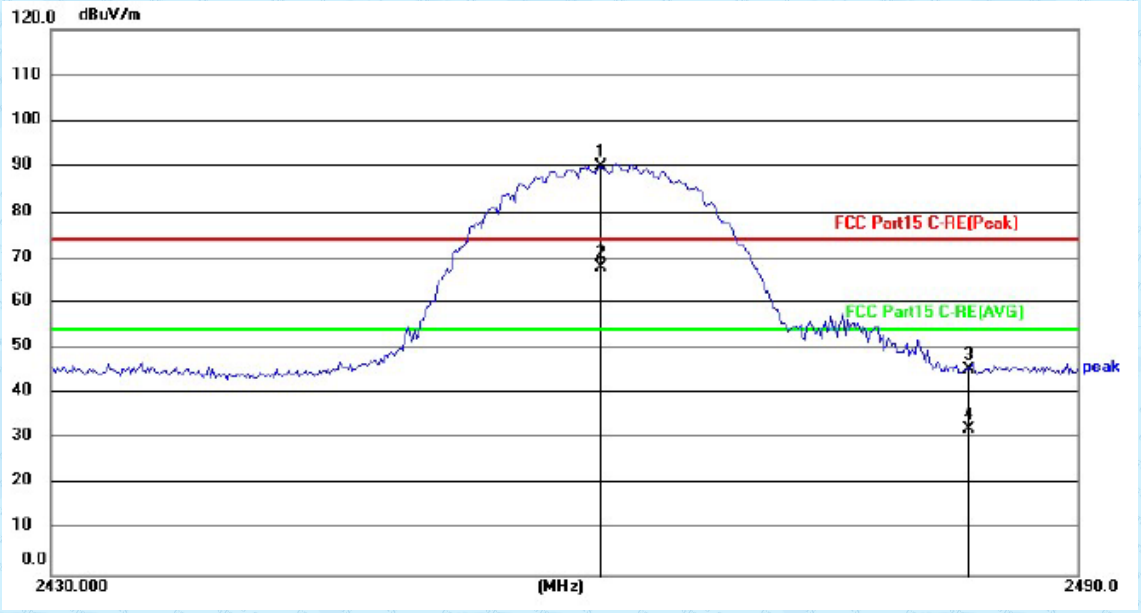
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	19.58	26.32	45.90	74.00	-28.10	peak
2	2390.000	6.17	26.32	32.49	54.00	-21.51	AVG
3	2412.000	65.06	26.36	91.42	74.00	17.42	peak
4	2412.000	43.37	26.36	69.73	54.00	15.73	AVG

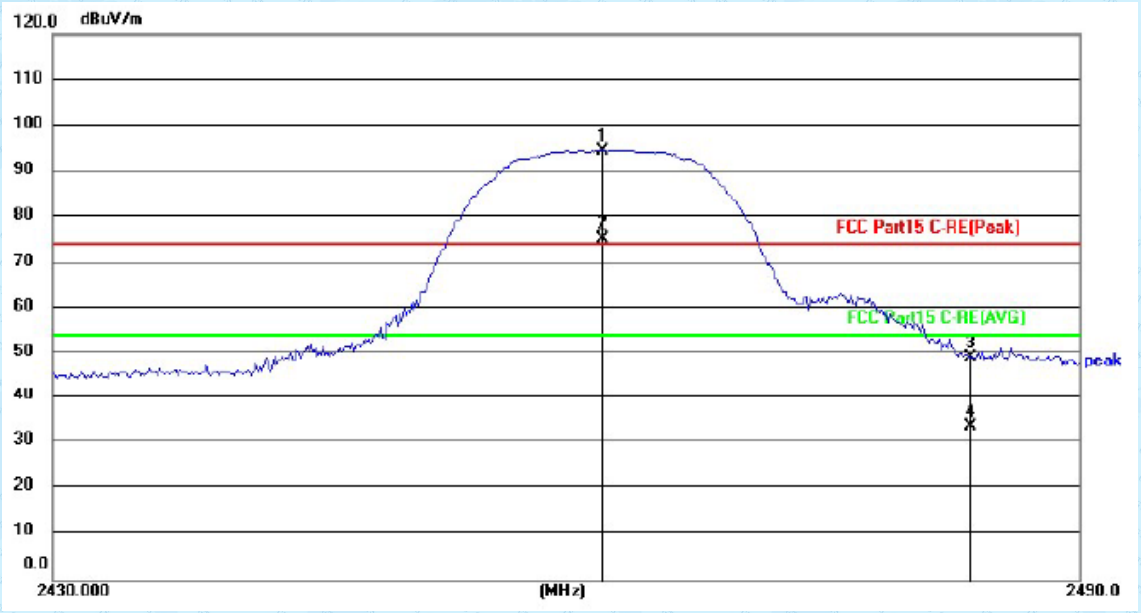
Test mode:	802.11b 2462MHz	Test channel:	Highest

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	63.48	26.44	89.92	74.00	15.92	peak
2	2462.000	41.88	26.44	68.32	54.00	14.32	AVG
3	2483.500	18.84	26.47	45.31	74.00	-28.69	peak
4	2483.500	5.69	26.47	32.16	54.00	-21.84	AVG

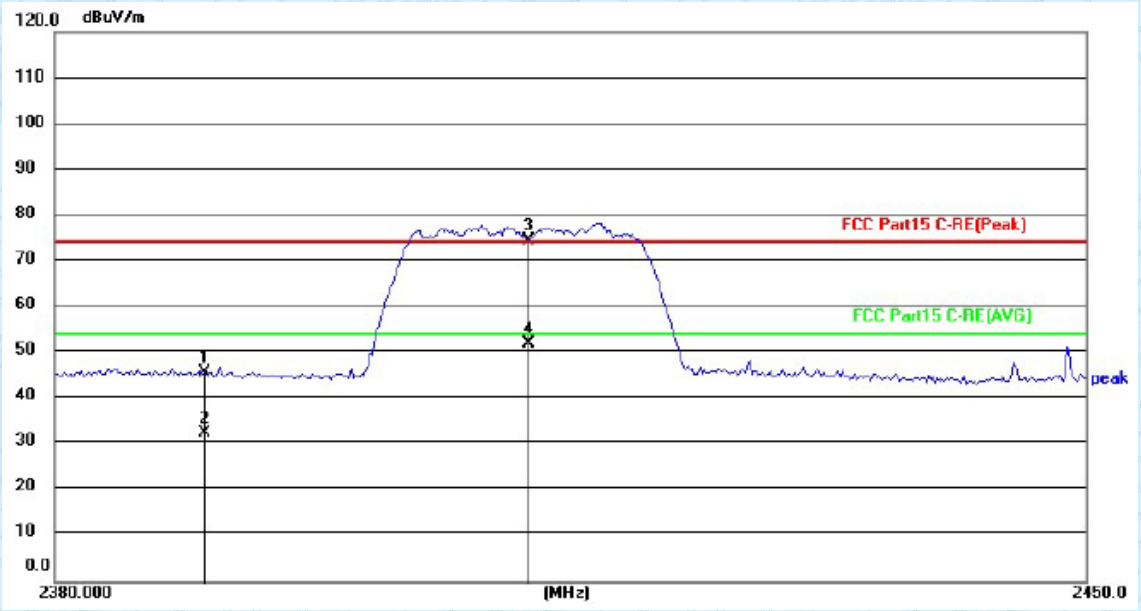
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	67.84	26.44	94.28	74.00	20.28	peak
2	2462.000	48.88	26.44	75.32	54.00	21.32	AVG
3	2483.500	22.87	26.47	49.34	74.00	-24.66	peak
4	2483.500	7.39	26.47	33.86	54.00	-20.14	AVG

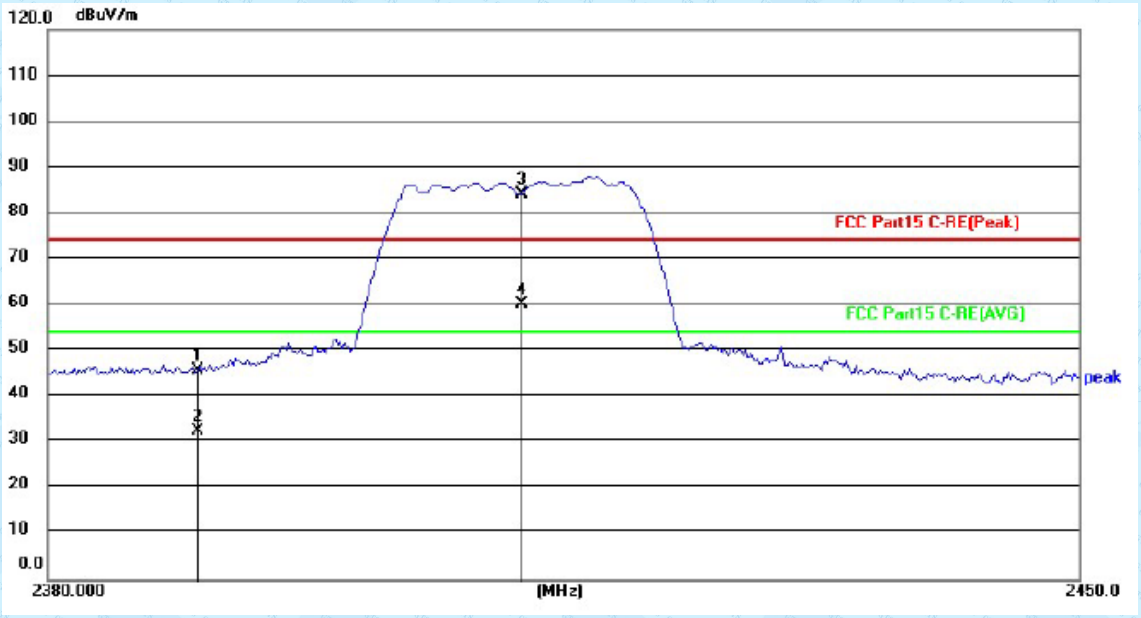
Test mode:	802.11g 2412MHz	Test channel:	Lowest

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	19.36	26.32	45.68	74.00	-28.32	peak
2	2390.000	6.28	26.32	32.60	54.00	-21.40	AVG
3	2412.000	48.14	26.36	74.50	74.00	0.50	peak
4	2412.000	25.82	26.36	52.18	54.00	-1.82	AVG

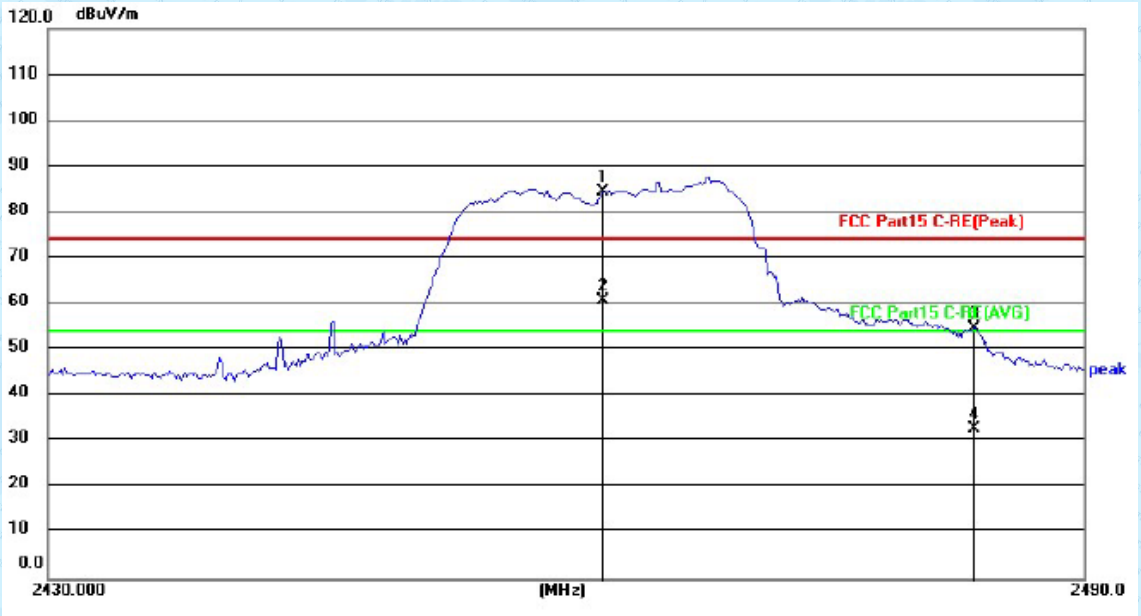
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	19.54	26.32	45.86	74.00	-28.14	peak
2	2390.000	6.37	26.32	32.69	54.00	-21.31	AVG
3	2412.000	57.94	26.36	84.30	74.00	10.30	peak
4	2412.000	33.66	26.36	60.02	54.00	6.02	AVG

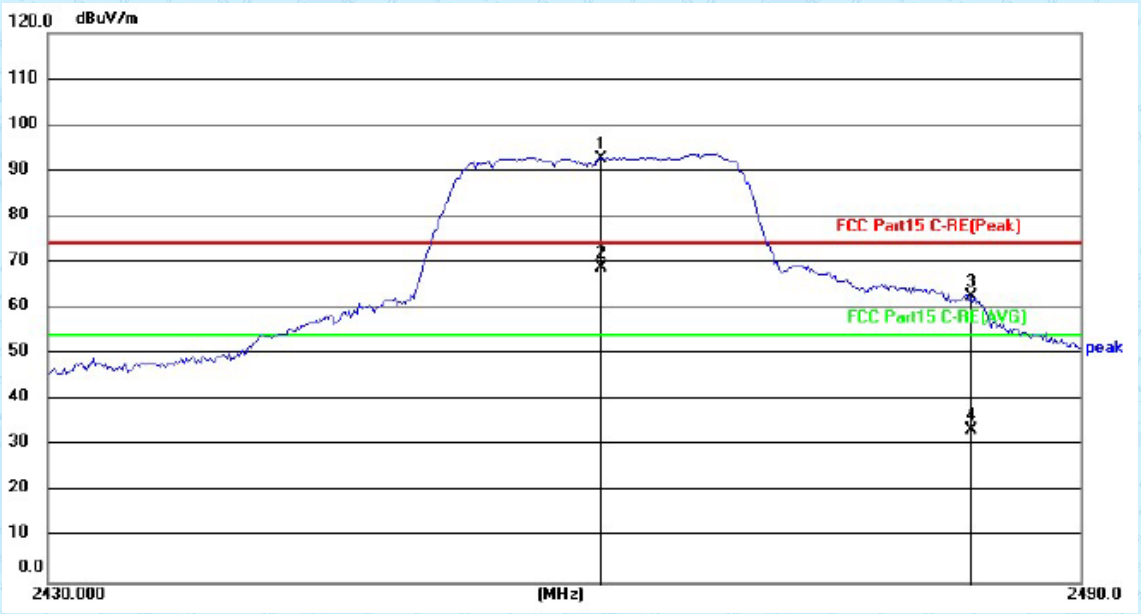
Test mode:	802.11g 2462MHz	Test channel:	Highest

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	57.92	26.44	84.36	74.00	10.36	peak
2	2462.000	34.32	26.44	60.76	54.00	6.76	AVG
3	2483.500	28.19	26.47	54.66	74.00	-19.34	peak
4	2483.500	6.28	26.47	32.75	54.00	-21.25	AVG

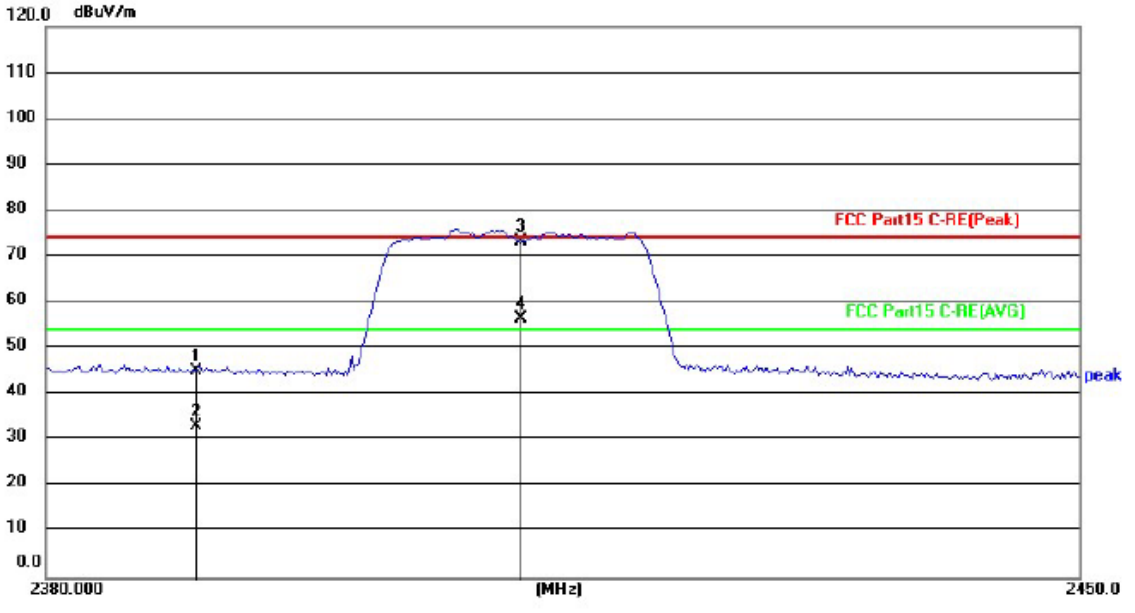
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	66.24	26.44	92.68	74.00	18.68	peak
2	2462.000	42.37	26.44	68.81	54.00	14.81	AVG
3	2483.500	35.94	26.47	62.41	74.00	-11.59	peak
4	2483.500	7.01	26.47	33.48	54.00	-20.52	AVG

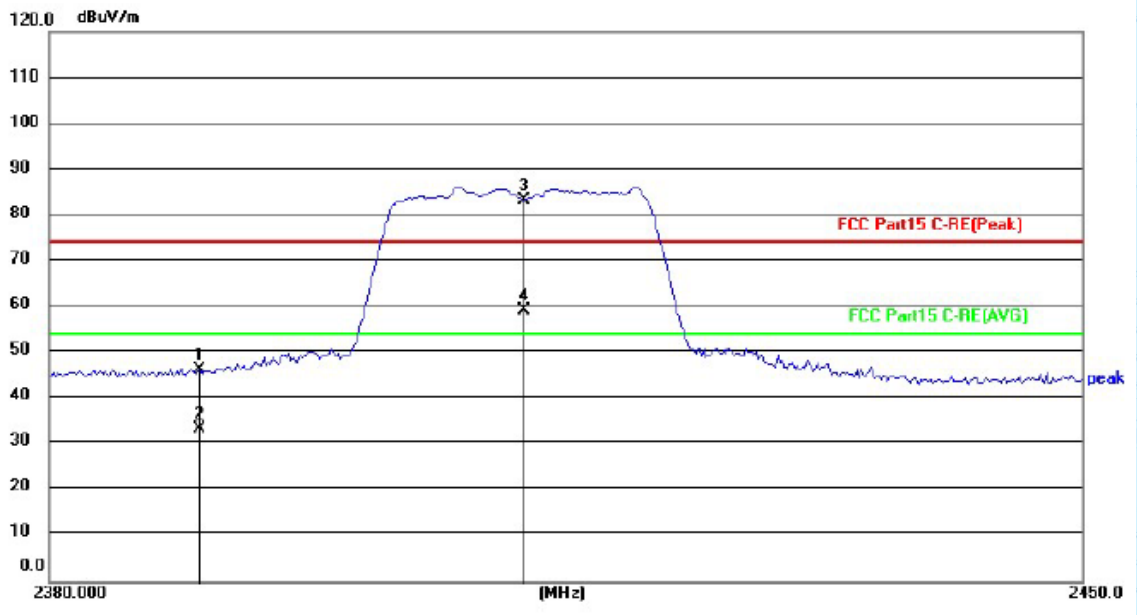
Test mode:	802.11n(HT20) 2412MHz	Test channel:	Lowest

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	18.76	26.32	45.08	74.00	-28.92	peak
2	2390.000	6.76	26.32	33.08	54.00	-20.92	AVG
3	2412.000	47.08	26.36	73.44	74.00	-0.56	peak
4	2412.000	30.32	26.36	56.68	54.00	2.68	AVG

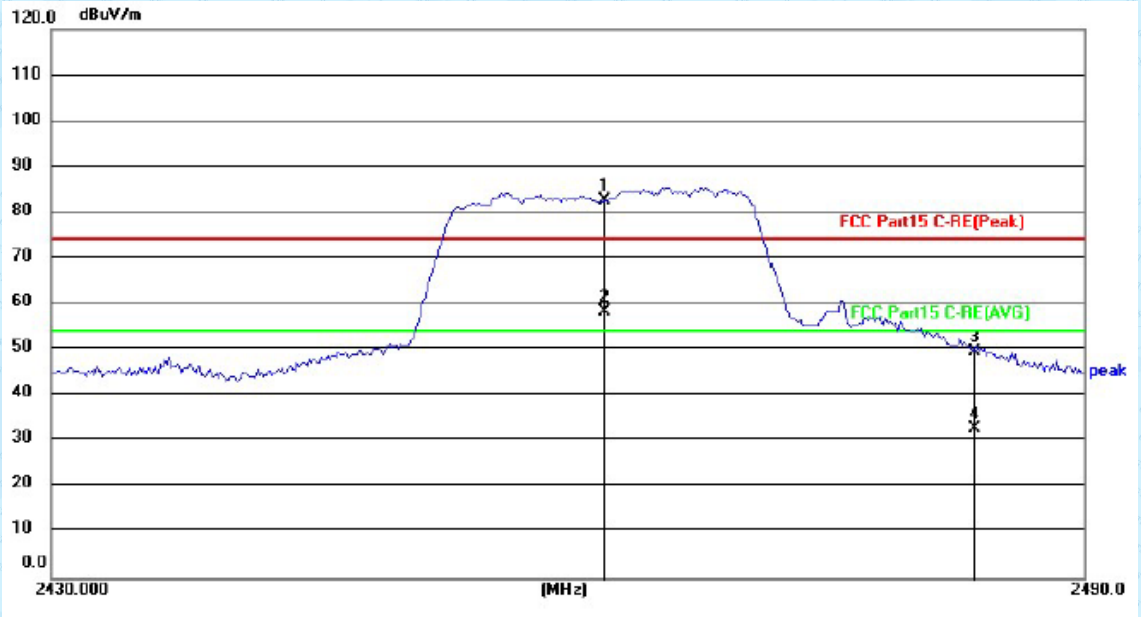
Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	20.08	26.32	46.40	74.00	-27.60	peak
2	2390.000	7.09	26.32	33.41	54.00	-20.59	AVG
3	2412.000	56.92	26.36	83.28	74.00	9.28	peak
4	2412.000	32.87	26.36	59.23	54.00	5.23	AVG

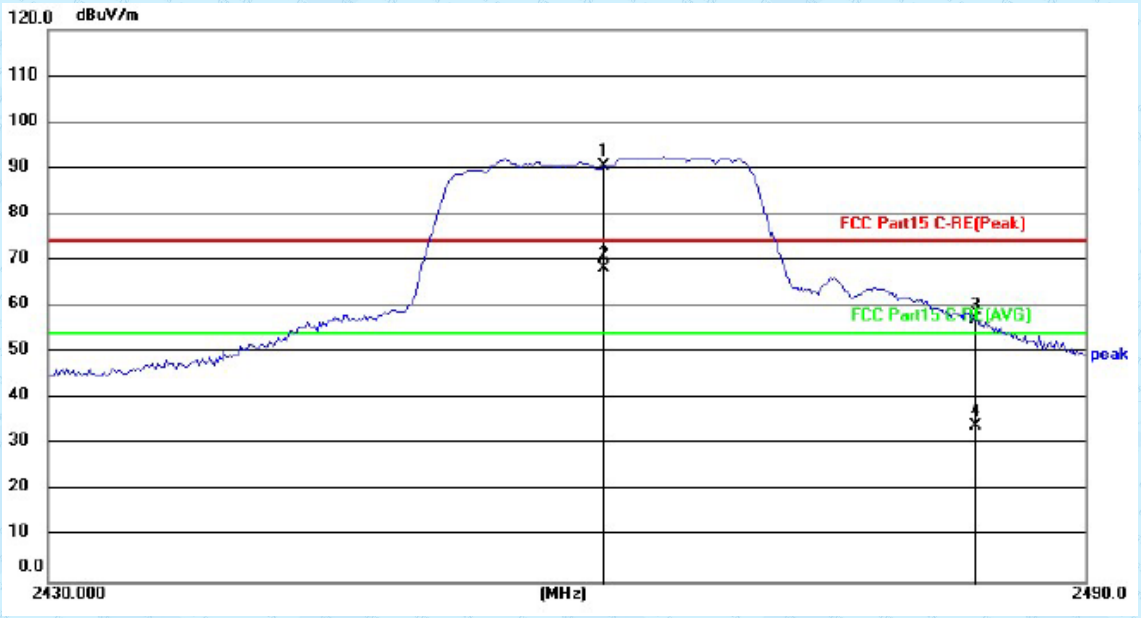
Test mode:	802.11n(HT20 2462MHz	Test channel:	Highest

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	56.33	26.44	82.77	74.00	8.77	peak
2	2462.000	31.79	26.44	58.23	54.00	4.23	AVG
3	2483.500	23.32	26.47	49.79	74.00	-24.21	peak
4	2483.500	6.42	26.47	32.89	54.00	-21.11	AVG

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	63.95	26.44	90.39	74.00	16.39	peak
2	2462.000	41.90	26.44	68.34	54.00	14.34	AVG
3	2483.500	30.56	26.47	57.03	74.00	-16.97	peak
4	2483.500	7.59	26.47	34.06	54.00	-19.94	AVG

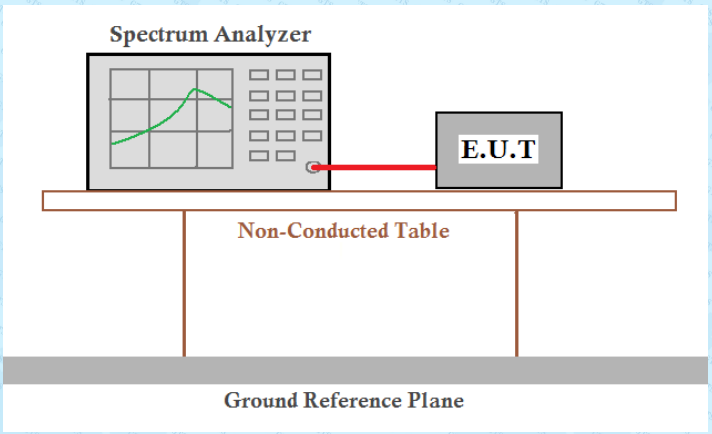
Remarks:

1. *Only the worst case Main Antenna test data.*
2. *The pre-test were performed on lowest, middle and highest frequencies, only the worst case's (lowest and highest frequencies) data was showed.*
3. *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

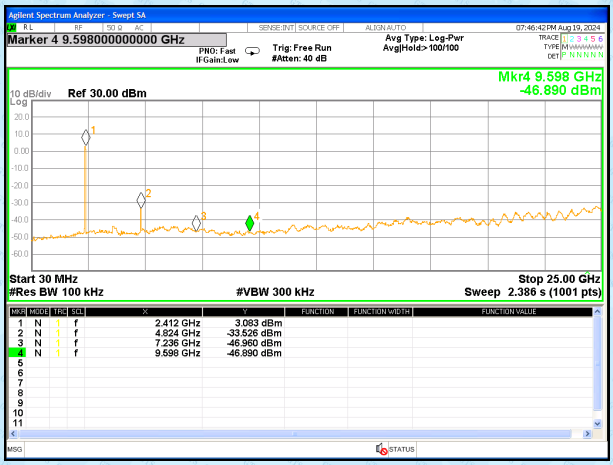
7.7.1 Conducted Emission Method

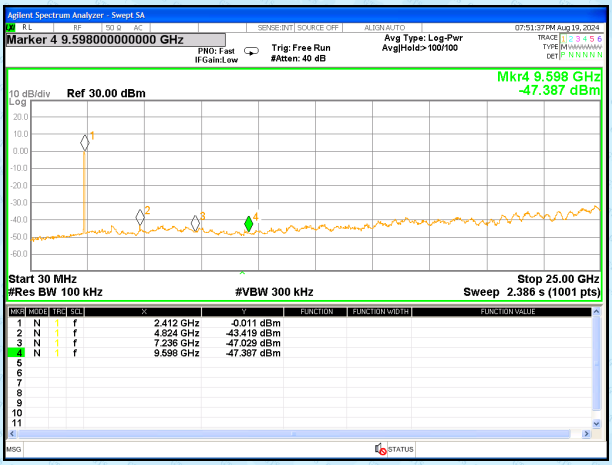
Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below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

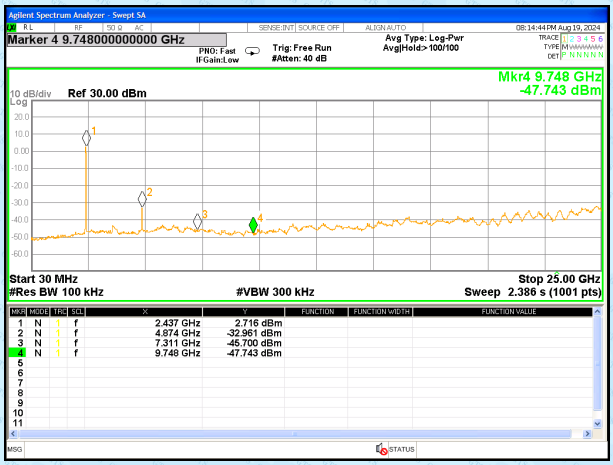
Lowest channel

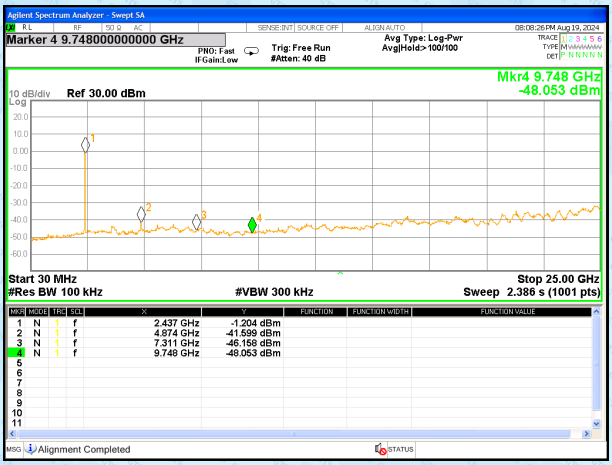




30MHz~25GHz

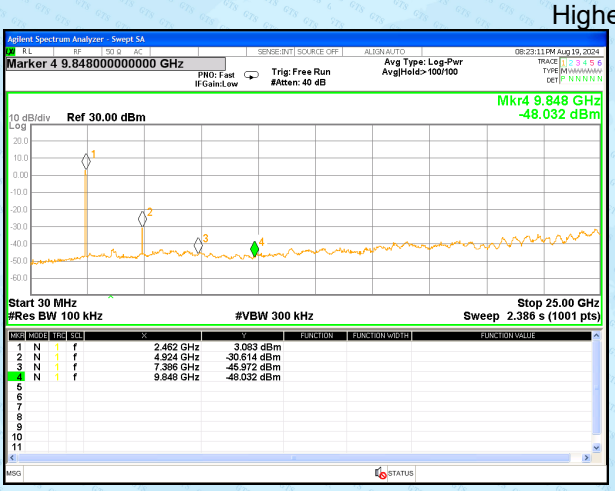
Middle channel

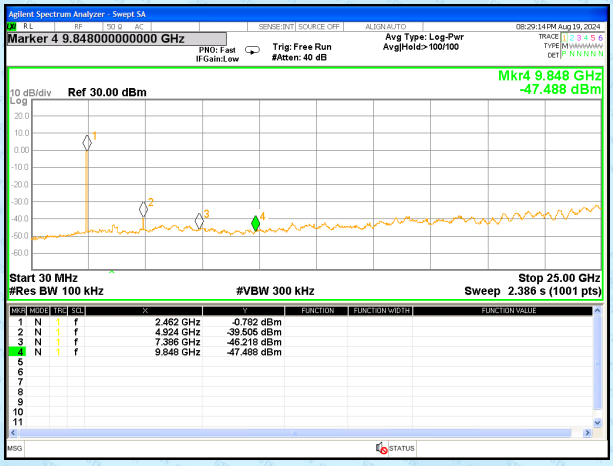




30MHz~25GHz

Highest channel

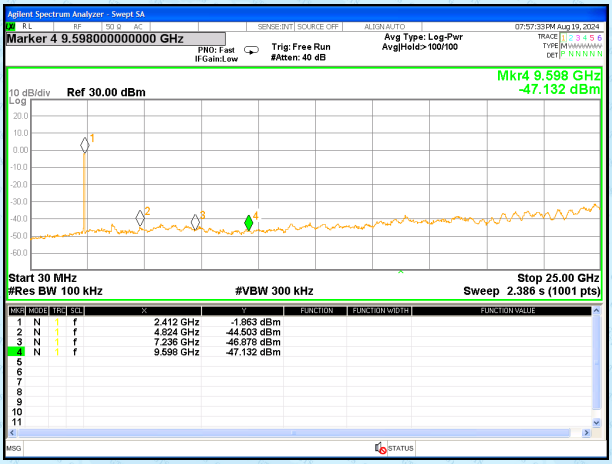




30MHz~25GHz

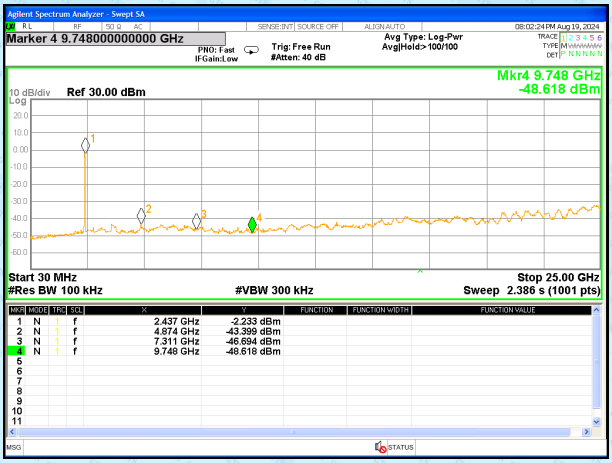
802.11n(HT20)__

Lowest channel



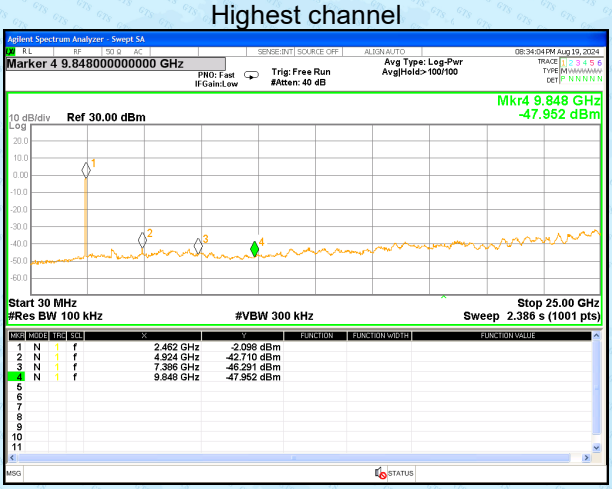
30MHz~25GHz

Middle channel



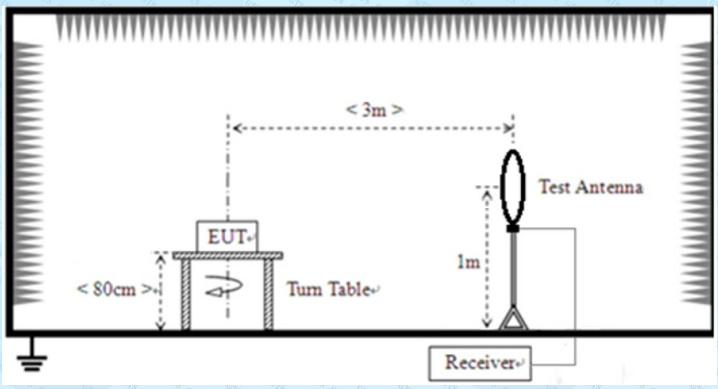
30MHz~25GHz

Highest channel

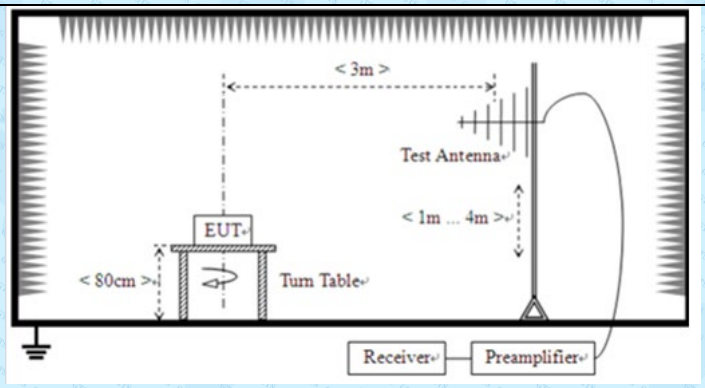


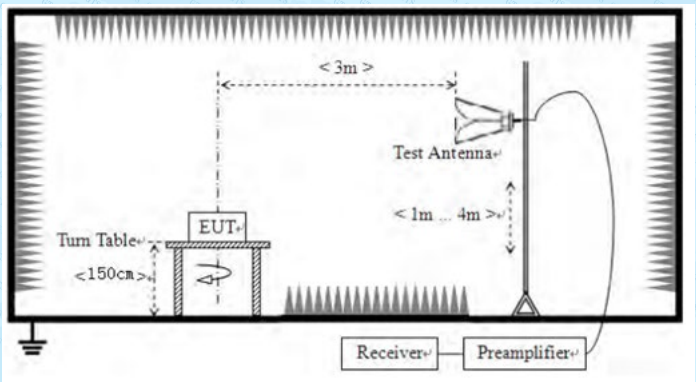
30MHz~25GHz

7.7.2 Radiated Emission Method

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 C Section 15.209</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10:2013</td></tr>
<tr><td>Test Frequency Range:</td><td>9kHz to 25GHz</td></tr>
<tr><td>Test site:</td><td>Measurement Distance: 3m</td></tr>
<tr><td>Receiver setup:</td><td>
<table>
<tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Value</th></tr>
<tr><td>9KHz-150KHz</td><td>Quasi-peak</td><td>200Hz</td><td>600Hz</td><td>Quasi-peak</td></tr>
<tr><td>150KHz-30MHz</td><td>Quasi-peak</td><td>9KHz</td><td>30KHz</td><td>Quasi-peak</td></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak</td></tr>
<tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average</td></tr>
<tr><td colspan="5">Note: For Duty cycle ≥ 98%, average detector set as above For Duty cycle < 98%, average detector set as below: VBW ≥ 1 / T</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><th>Frequency</th><th>Limit (uV/m)</th><th>Value</th><th>Measurement Distance</th></tr>
<tr><td>0.009MHz-0.490MHz</td><td>2400/F(KHz)</td><td>PK/QP/AV</td><td>300m</td></tr>
<tr><td>0.490MHz-1.705MHz</td><td>24000/F(KHz)</td><td>QP</td><td>30m</td></tr>
<tr><td>1.705MHz-30MHz</td><td>30</td><td>QP</td><td>30m</td></tr>
<tr><td>30MHz-88MHz</td><td>100</td><td>QP</td><td rowspan="6">3m</td></tr>
<tr><td>88MHz-216MHz</td><td>150</td><td>QP</td></tr>
<tr><td>216MHz-960MHz</td><td>200</td><td>QP</td></tr>
<tr><td>960MHz-1GHz</td><td>500</td><td>QP</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>500</td><td>Average</td></tr>
<tr><td>5000</td><td>Peak</td></tr>
</table>
</td></tr>
<tr><td>Test setup:</td><td>For radiated emissions from 9kHz to 30MHz
 

For radiated emissions from 30MHz to1GHz</td></tr>
</table>

<table>
<tr><td></td><td> 

For radiated emissions above 1GHz

</td></tr>
<tr><td>Test Procedure:</td><td>1. 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.
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.</td></tr>
<tr><td>Test Instruments:</td><td colspan="5">Refer to section 6.0 for details</td></tr>
<tr><td>Test mode:</td><td colspan="5">Refer to section 5.2 for details</td></tr>
<tr><td>Test environment:</td><td>Temp.:</td><td>24.1 °C</td><td>Humid.:</td><td>50%</td><td>Press.:</td><td>1010mbar</td></tr>
</table>

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**

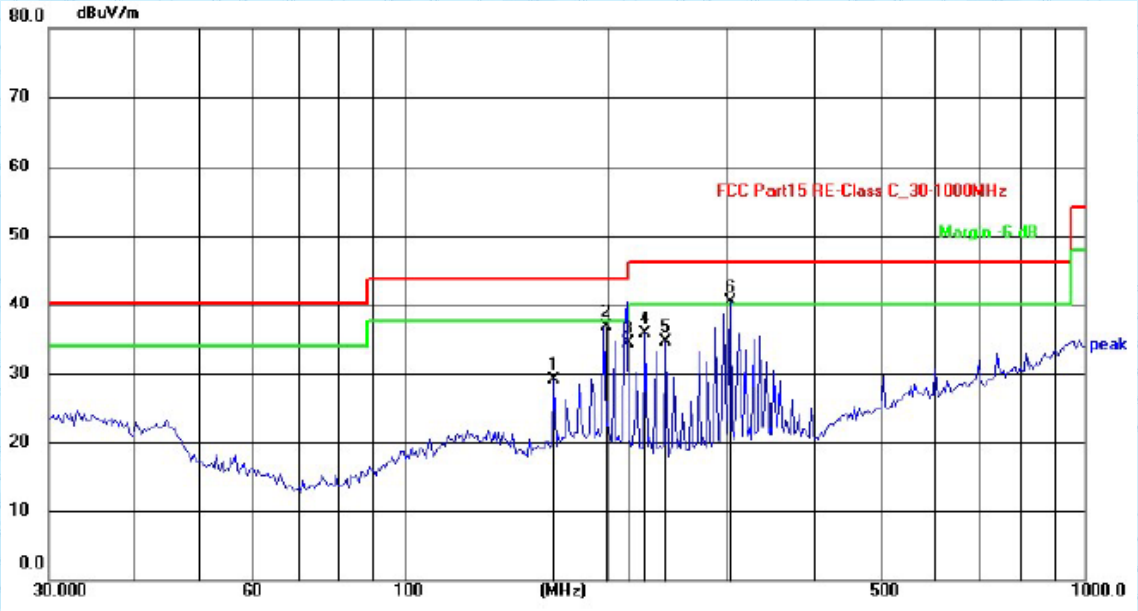
  The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o), the test result no need to reported.

- **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.

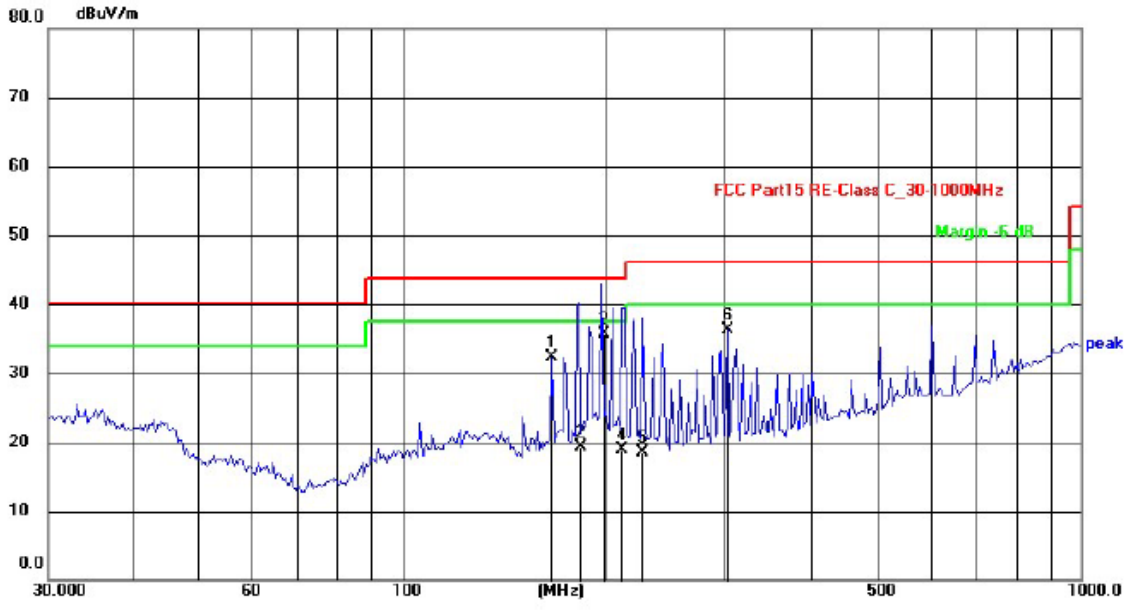
Below 1GHz

Ant. Pol.	Horizontal
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	166.6385	35.82	-6.80	29.02	43.50	-14.48	QP
2	197.2514	41.99	-5.23	36.76	43.50	-6.74	QP
3	213.1035	39.40	-5.14	34.26	43.50	-9.24	QP
4	227.0164	41.33	-5.54	35.79	46.00	-10.21	QP
5	243.5431	40.48	-6.03	34.45	46.00	-11.55	QP
6	302.8193	44.95	-4.57	40.38	46.00	-5.62	QP

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

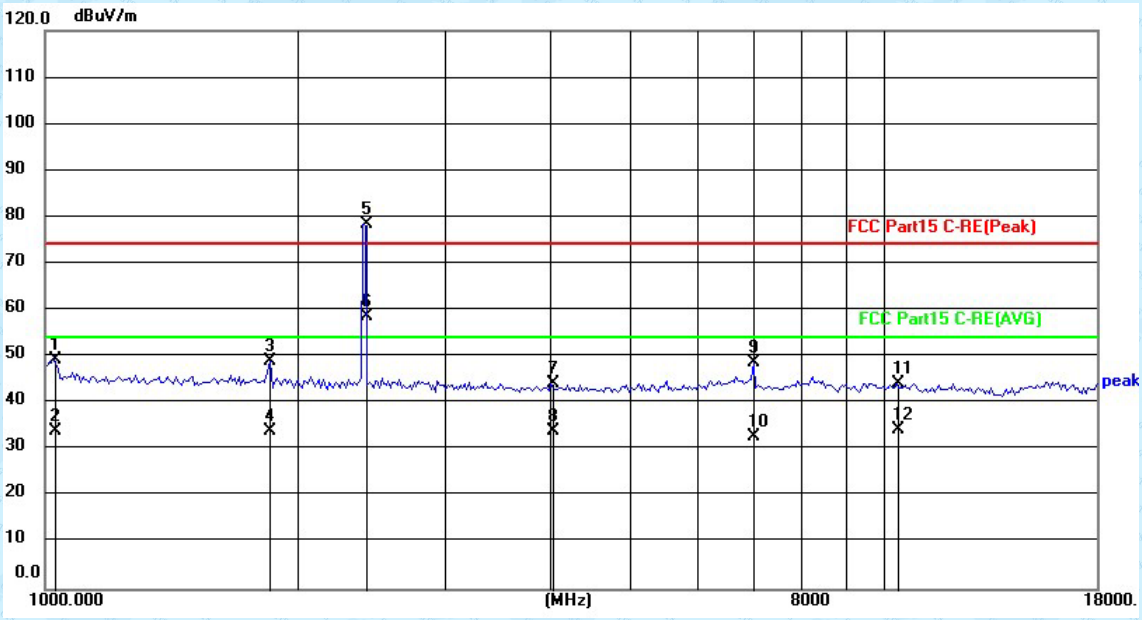


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	166.6385	39.06	-6.80	32.26	43.50	-11.24	QP
2	182.5785	24.92	-5.55	19.37	43.50	-24.13	QP
3	197.2514	39.11	-3.46	35.65	43.50	-7.85	QP
4	211.6112	22.59	-3.63	18.96	43.50	-24.54	QP
5	227.0164	22.80	-4.27	18.53	46.00	-27.47	QP
6	302.8193	40.80	-4.57	36.23	46.00	-9.77	QP

Above 1GHz

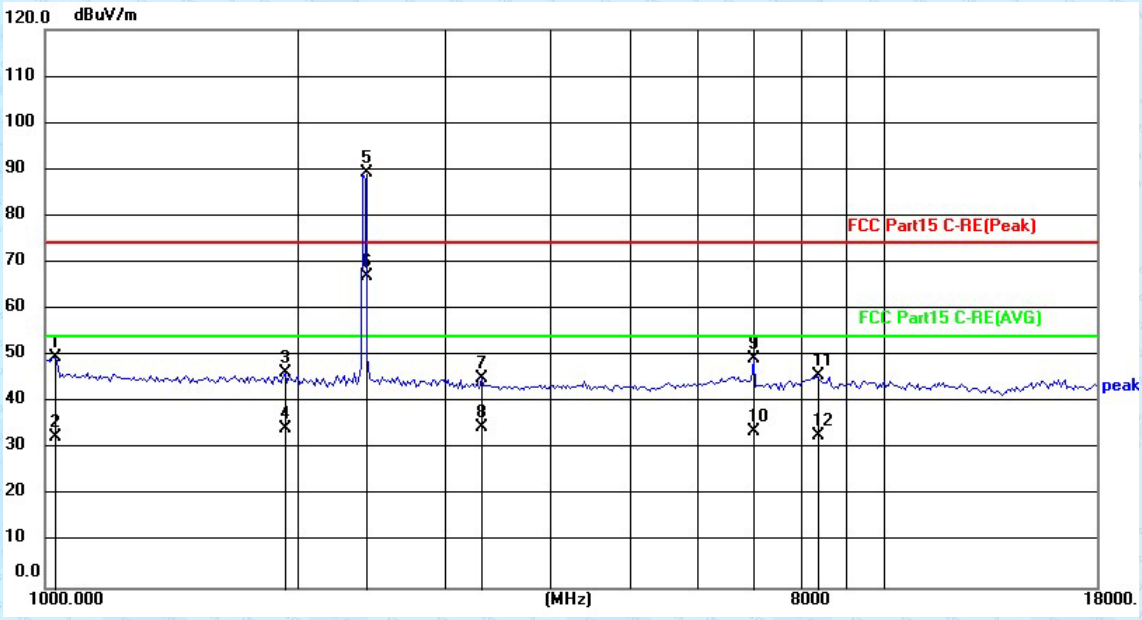
Test mode:	802.11b 2412MHz	Test channel:	Lowest

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1023.440	47.59	1.76	49.35	74.00	-24.65	peak
2	1023.440	32.40	1.76	34.16	54.00	-19.84	AVG
3	1858.517	23.81	25.28	49.09	74.00	-24.91	peak
4	1858.517	8.70	25.28	33.98	54.00	-20.02	AVG
5	2412.000	51.96	26.36	78.32	74.00	4.32	peak
6	2412.000	32.32	26.36	58.68	54.00	4.68	AVG
7	4015.488	15.26	28.92	44.18	74.00	-29.82	peak
8	4015.488	5.02	28.92	33.94	54.00	-20.06	AVG
9	7002.185	12.96	35.80	48.76	74.00	-25.24	peak
10	7002.185	-2.94	35.80	32.86	54.00	-21.14	AVG
11	10382.281	4.87	39.47	44.34	74.00	-29.66	peak
12	10382.281	-5.15	39.47	34.32	54.00	-19.68	AVG

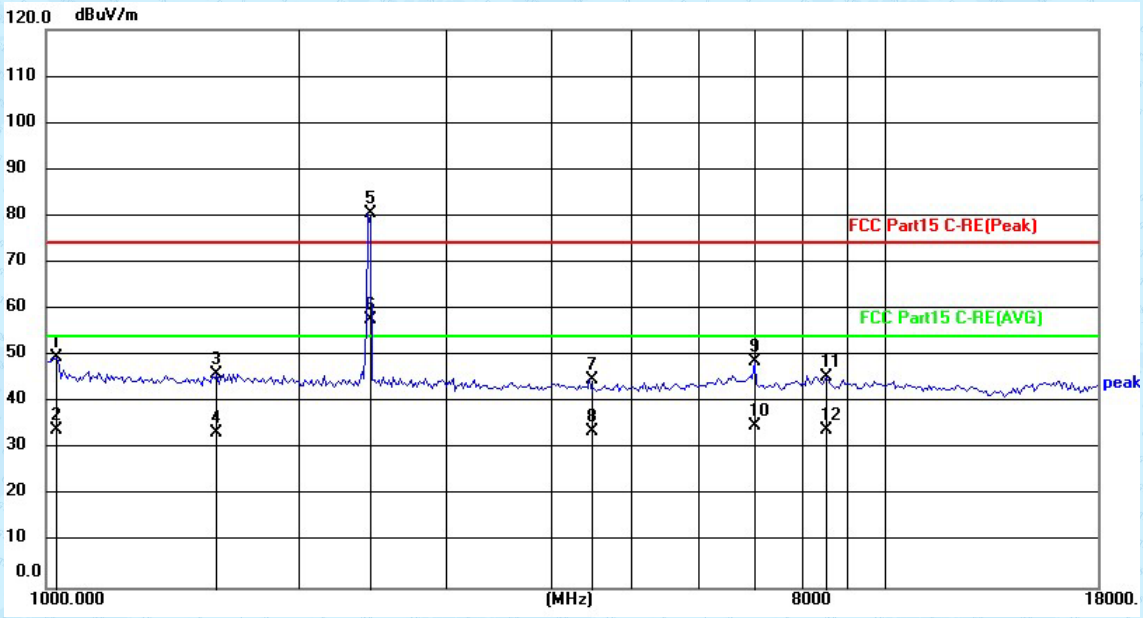
Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1023.440	48.02	1.76	49.78	74.00	-24.22	peak
2	1023.440	30.93	1.76	32.69	54.00	-21.31	AVG
3	1935.422	20.83	25.51	46.34	74.00	-27.66	peak
4	1935.422	8.76	25.51	34.27	54.00	-19.73	AVG
5	2412.000	62.89	26.36	89.25	74.00	15.25	peak
6	2412.000	40.81	26.36	67.17	54.00	13.17	AVG
7	3316.838	17.04	27.97	45.01	74.00	-28.99	peak
8	3316.838	6.61	27.97	34.58	54.00	-19.42	AVG
9	7002.185	13.53	35.80	49.33	74.00	-24.67	peak
10	7002.185	-1.98	35.80	33.82	54.00	-20.18	AVG
11	8331.072	8.92	36.73	45.65	74.00	-28.35	peak
12	8331.072	-3.79	36.73	32.94	54.00	-21.06	AVG

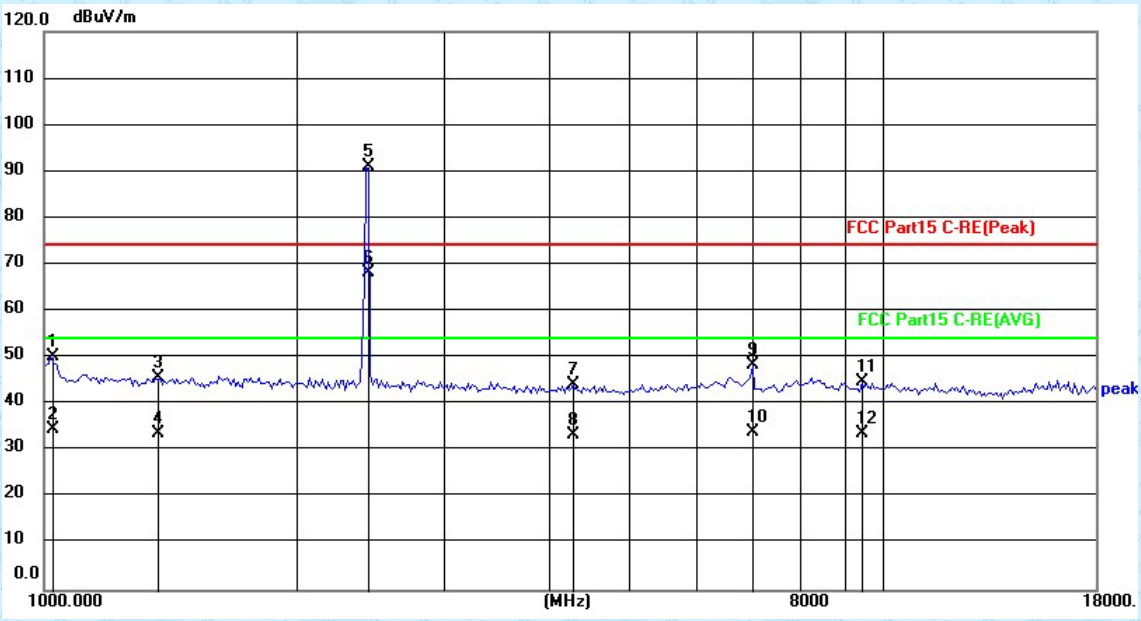
Test mode:	802.11b 2437MHz	Test channel:	Middle

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1029.385	47.69	1.86	49.55	74.00	-24.45	peak
2	1029.385	32.29	1.86	34.15	54.00	-19.85	AVG
3	1598.680	21.52	24.50	46.02	74.00	-27.98	peak
4	1598.680	8.97	24.50	33.47	54.00	-20.53	AVG
5	2437.000	54.14	26.40	80.54	74.00	6.54	peak
6	2437.000	31.44	26.40	57.84	54.00	3.84	AVG
7	4456.754	15.63	29.36	44.99	74.00	-29.01	peak
8	4456.754	4.26	29.36	33.62	54.00	-20.38	AVG
9	7002.185	13.06	35.80	48.86	74.00	-25.14	peak
10	7002.185	-0.87	35.80	34.93	54.00	-19.07	AVG
11	8526.350	8.82	36.75	45.57	74.00	-28.43	peak
12	8526.350	-2.63	36.75	34.12	54.00	-19.88	AVG

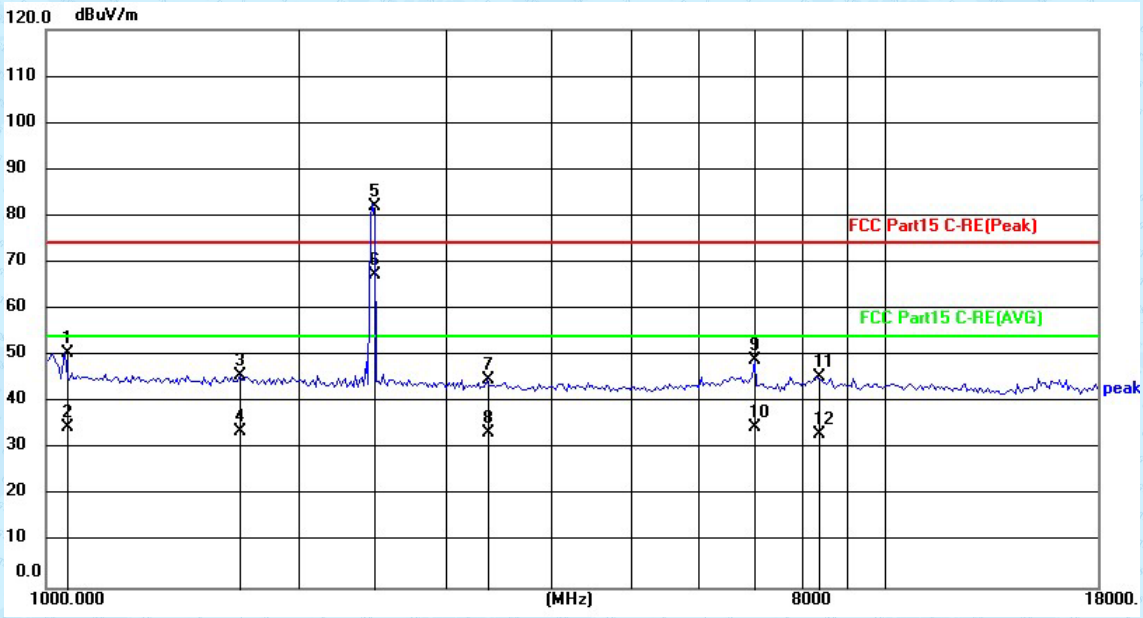
Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1017.529	48.52	1.67	50.19	74.00	-23.81	peak
2	1017.529	33.02	1.67	34.69	54.00	-19.31	AVG
3	1359.332	21.58	24.26	45.84	74.00	-28.16	peak
4	1359.332	9.56	24.26	33.82	54.00	-20.18	AVG
5	2437.000	64.67	26.40	91.07	74.00	17.07	peak
6	2437.000	41.74	26.40	68.14	54.00	14.14	AVG
7	4279.663	15.19	29.18	44.37	74.00	-29.63	peak
8	4279.663	4.13	29.18	33.31	54.00	-20.69	AVG
9	7002.185	12.63	35.80	48.43	74.00	-25.57	peak
10	7002.185	-1.64	35.80	34.16	54.00	-19.84	AVG
11	9463.320	6.88	37.91	44.79	74.00	-29.21	peak
12	9463.320	-4.24	37.91	33.67	54.00	-20.33	AVG

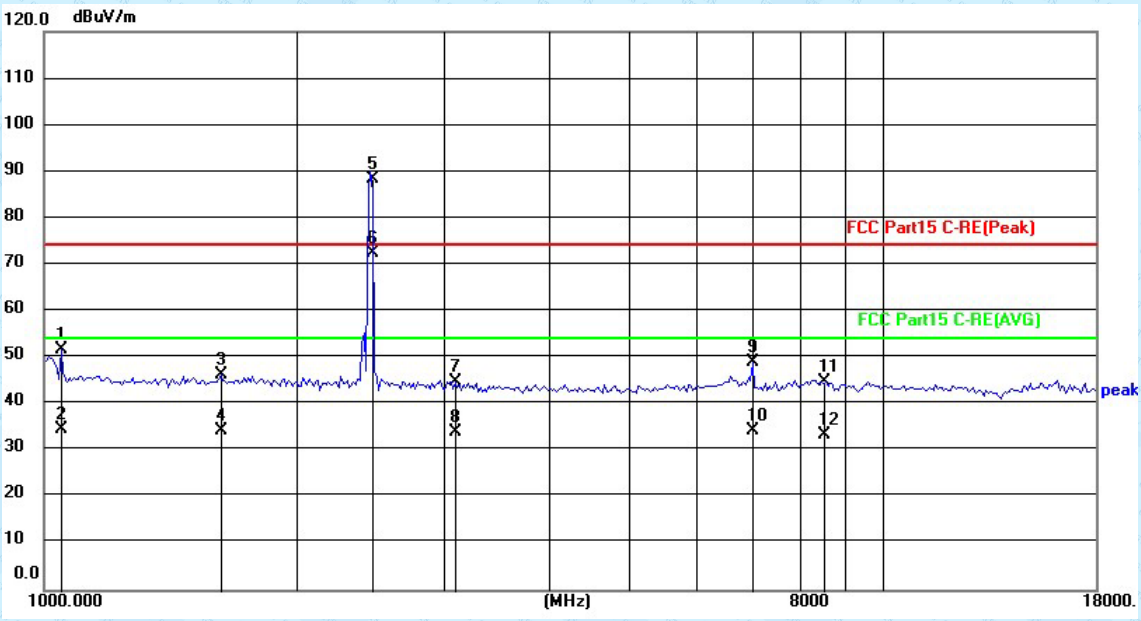
Test mode:	802.11b 2462MHz	Test channel:	Highest

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1053.514	26.88	23.66	50.54	74.00	-23.46	peak
2	1053.514	11.09	23.66	34.75	54.00	-19.25	AVG
3	1703.856	21.03	24.81	45.84	74.00	-28.16	peak
4	1703.856	9.01	24.81	33.82	54.00	-20.18	AVG
5	2462.000	55.49	26.44	81.93	74.00	7.93	peak
6	2462.000	41.03	26.44	67.47	54.00	13.47	AVG
7	3355.486	16.96	28.04	45.00	74.00	-29.00	peak
8	3355.486	5.54	28.04	33.58	54.00	-20.42	AVG
9	7002.185	13.16	35.80	48.96	74.00	-25.04	peak
10	7002.185	-1.27	35.80	34.53	54.00	-19.47	AVG
11	8331.072	8.67	36.73	45.40	74.00	-28.60	peak
12	8331.072	-3.45	36.73	33.28	54.00	-20.72	AVG

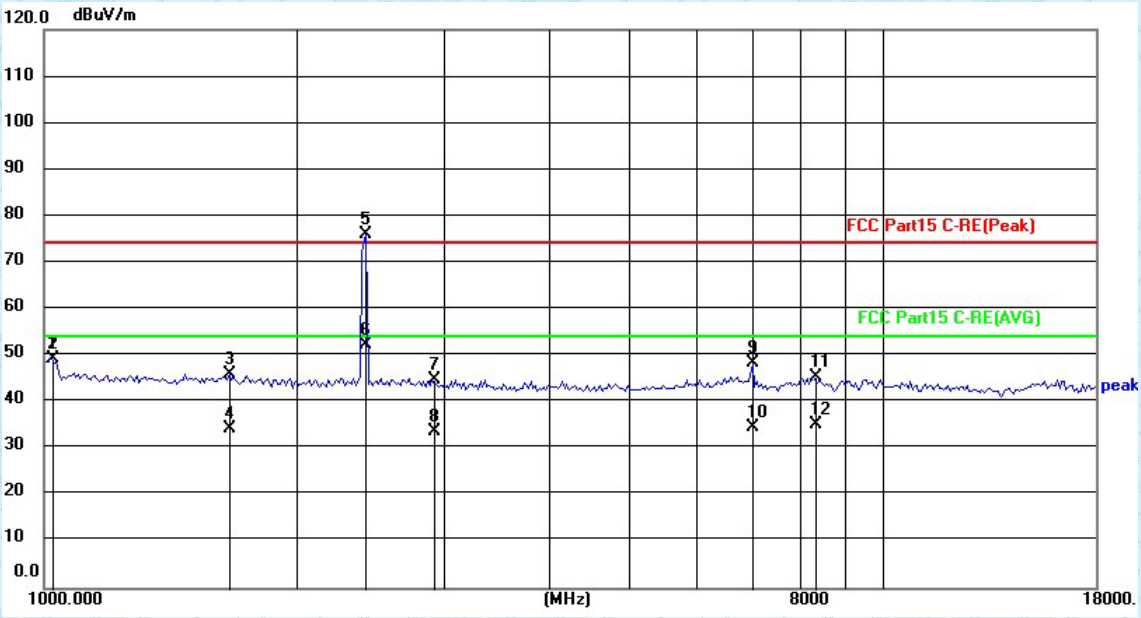
Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1047.429	27.99	23.64	51.63	74.00	-22.37	peak
2	1047.429	10.98	23.64	34.62	54.00	-19.38	AVG
3	1626.703	21.92	24.58	46.50	74.00	-27.50	peak
4	1626.703	9.74	24.58	34.32	54.00	-19.68	AVG
5	2462.000	61.81	26.44	88.25	74.00	14.25	peak
6	2462.000	46.16	26.44	72.60	54.00	18.60	AVG
7	3094.121	17.40	27.57	44.97	74.00	-29.03	peak
8	3094.121	6.38	27.57	33.95	54.00	-20.05	AVG
9	7002.185	13.23	35.80	49.03	74.00	-24.97	peak
10	7002.185	-1.48	35.80	34.32	54.00	-19.68	AVG
11	8477.106	8.03	36.75	44.78	74.00	-29.22	peak
12	8477.106	-3.27	36.75	33.48	54.00	-20.52	AVG

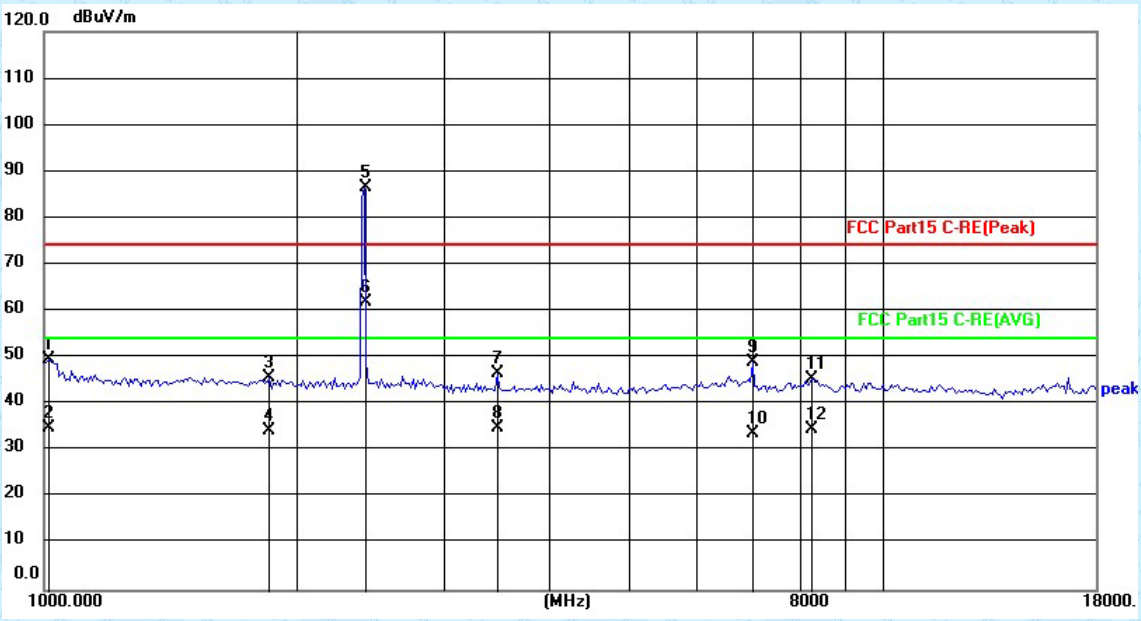
Test mode:	802.11g 2412MHz	Test channel:	lowest

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1017.529	47.74	1.67	49.41	74.00	-24.59	peak
2	1017.529	47.74	1.67	49.41	74.00	-24.59	peak
3	1664.833	21.45	24.69	46.14	74.00	-27.86	peak
4	1664.833	9.78	24.69	34.47	54.00	-19.53	AVG
5	2412.000	49.58	26.36	75.94	74.00	1.94	peak
6	2412.000	25.84	26.36	52.20	54.00	-1.80	AVG
7	2903.127	17.68	27.23	44.91	74.00	-29.09	peak
8	2903.127	6.66	27.23	33.89	54.00	-20.11	AVG
9	7002.185	12.62	35.80	48.42	74.00	-25.58	peak
10	7002.185	-1.26	35.80	34.54	54.00	-19.46	AVG
11	8282.955	8.69	36.73	45.42	74.00	-28.58	peak
12	8282.955	-1.61	36.73	35.12	54.00	-18.88	AVG

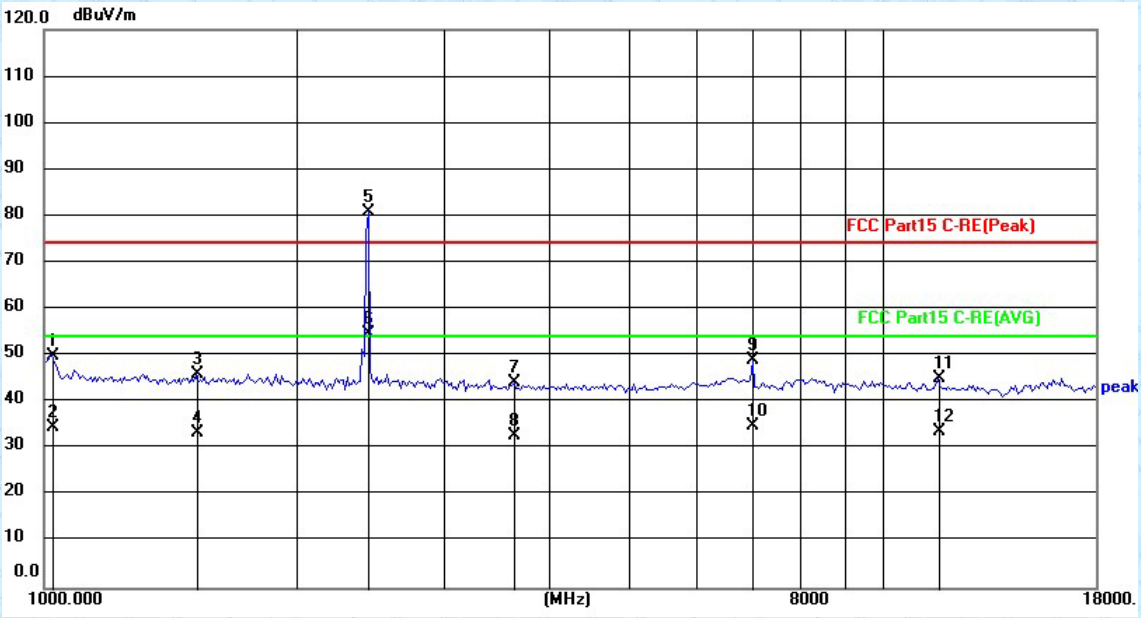
Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	48.18	1.58	49.76	74.00	-24.24	peak
2	1011.652	33.46	1.58	35.04	54.00	-18.96	AVG
3	1858.517	20.47	25.28	45.75	74.00	-28.25	peak
4	1858.517	9.00	25.28	34.28	54.00	-19.72	AVG
5	2412.000	60.09	26.36	86.45	74.00	12.45	peak
6	2412.000	35.49	26.36	61.85	54.00	7.85	AVG
7	3474.152	18.41	28.25	46.66	74.00	-27.34	peak
8	3474.152	6.60	28.25	34.85	54.00	-19.15	AVG
9	7002.185	13.28	35.80	49.08	74.00	-24.92	peak
10	7002.185	-2.13	35.80	33.67	54.00	-20.33	AVG
11	8235.116	8.67	36.72	45.39	74.00	-28.61	peak
12	8235.116	-2.14	36.72	34.58	54.00	-19.42	AVG

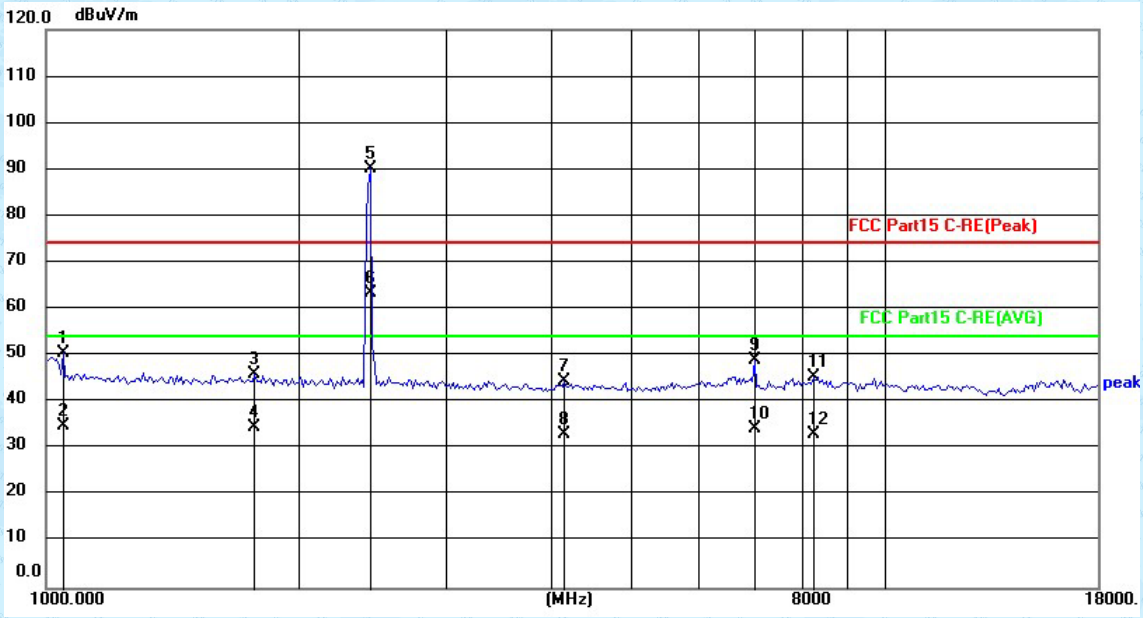
Test mode:	802.11g 2437MHz	Test channel:	Middle

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1017.529	48.32	1.67	49.99	74.00	-24.01	peak
2	1017.529	33.00	1.67	34.67	54.00	-19.33	AVG
3	1517.475	21.74	24.42	46.16	74.00	-27.84	peak
4	1517.475	9.15	24.42	33.57	54.00	-20.43	AVG
5	2437.000	54.60	26.40	81.00	74.00	7.00	peak
6	2437.000	28.32	26.40	54.72	54.00	0.72	AVG
7	3638.928	15.65	28.47	44.12	74.00	-29.88	peak
8	3638.928	4.32	28.47	32.79	54.00	-21.21	AVG
9	7002.185	13.19	35.80	48.99	74.00	-25.01	peak
10	7002.185	-0.83	35.80	34.97	54.00	-19.03	AVG
11	11657.470	4.72	40.29	45.01	74.00	-28.99	peak
12	11657.470	-6.65	40.29	33.64	54.00	-20.36	AVG

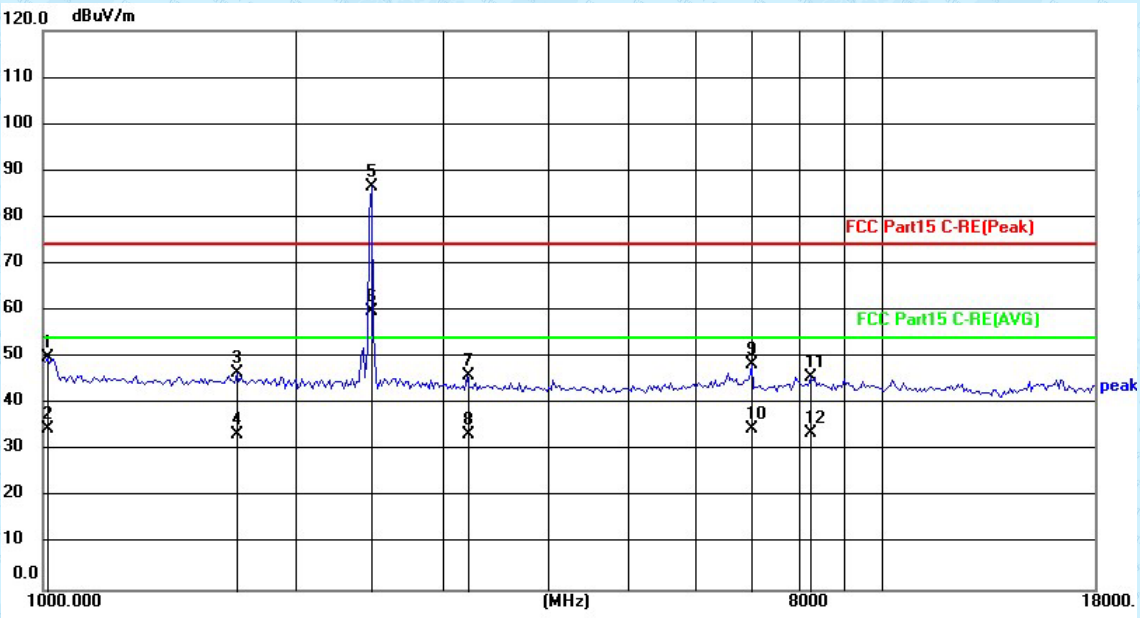
Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1047.429	26.84	23.64	50.48	74.00	-23.52	peak
2	1047.429	11.39	23.64	35.03	54.00	-18.97	AVG
3	1774.361	21.04	25.02	46.06	74.00	-27.94	peak
4	1774.361	9.74	25.02	34.76	54.00	-19.24	AVG
5	2437.000	63.73	26.40	90.13	74.00	16.13	peak
6	2437.000	37.15	26.40	63.55	54.00	9.55	AVG
7	4157.495	15.40	29.06	44.46	74.00	-29.54	peak
8	4157.495	4.06	29.06	33.12	54.00	-20.88	AVG
9	7002.185	13.12	35.80	48.92	74.00	-25.08	peak
10	7002.185	-1.57	35.80	34.23	54.00	-19.77	AVG
11	8235.116	8.72	36.72	45.44	74.00	-28.56	peak
12	8235.116	-3.56	36.72	33.16	54.00	-20.84	AVG

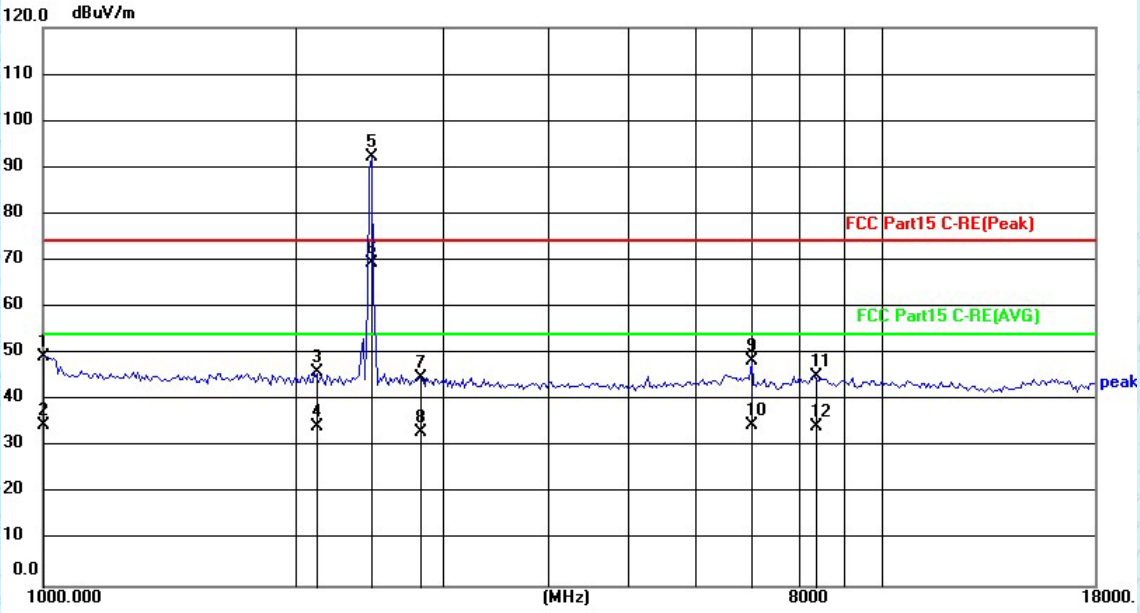
Test mode:	802.11g 2462MHz	Test channel:	Highest

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	48.28	1.58	49.86	74.00	-24.14	peak
2	1011.652	32.99	1.58	34.57	54.00	-19.43	AVG
3	1703.856	21.72	24.81	46.53	74.00	-27.47	peak
4	1703.856	8.73	24.81	33.54	54.00	-20.46	AVG
5	2462.000	60.01	26.44	86.45	74.00	12.45	peak
6	2462.000	33.42	26.44	59.86	54.00	5.86	AVG
7	3203.545	18.23	27.77	46.00	74.00	-28.00	peak
8	3203.545	5.55	27.77	33.32	54.00	-20.68	AVG
9	7002.185	12.66	35.80	48.46	74.00	-25.54	peak
10	7002.185	-1.15	35.80	34.65	54.00	-19.35	AVG
11	8235.116	9.17	36.72	45.89	74.00	-28.11	peak
12	8235.116	-2.86	36.72	33.86	54.00	-20.14	AVG

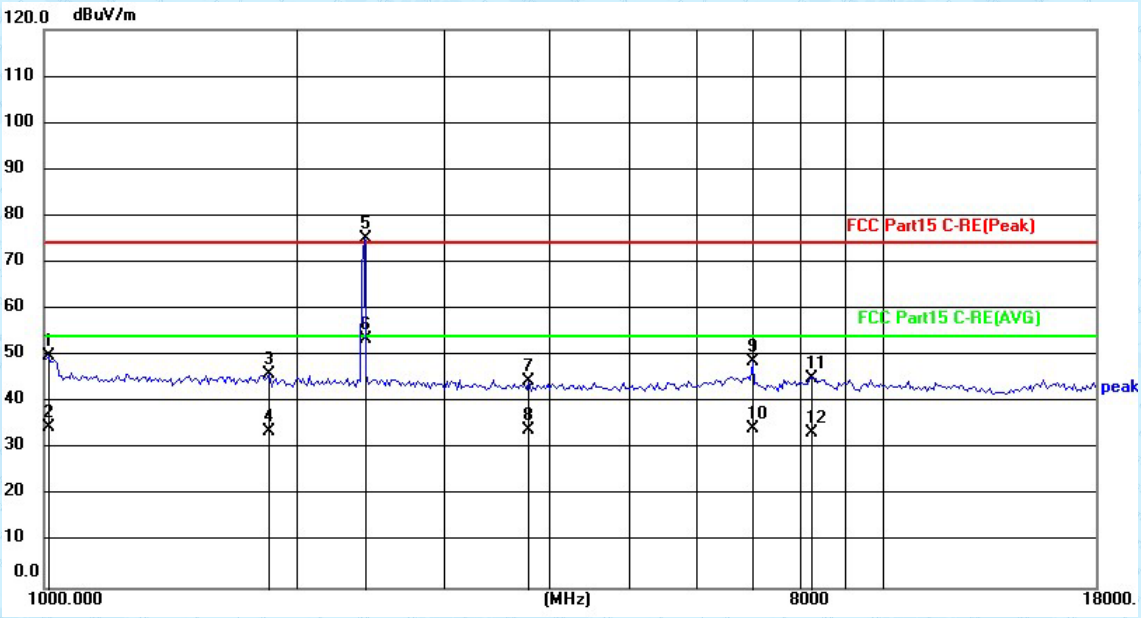
Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1005.809	47.75	1.49	49.24	74.00	-24.76	peak
2	1005.809	33.27	1.49	34.76	54.00	-19.24	AVG
3	2111.103	20.17	25.88	46.05	74.00	-27.95	peak
4	2111.103	8.62	25.88	34.50	54.00	-19.50	AVG
5	2462.000	65.92	26.44	92.36	74.00	18.36	peak
6	2462.000	42.92	26.44	69.36	54.00	15.36	AVG
7	2820.253	17.83	27.08	44.91	74.00	-29.09	peak
8	2820.253	6.12	27.08	33.20	54.00	-20.80	AVG
9	7002.185	12.67	35.80	48.47	74.00	-25.53	peak
10	7002.185	-1.00	35.80	34.80	54.00	-19.20	AVG
11	8331.072	8.34	36.73	45.07	74.00	-28.93	peak
12	8331.072	-2.36	36.73	34.37	54.00	-19.63	AVG

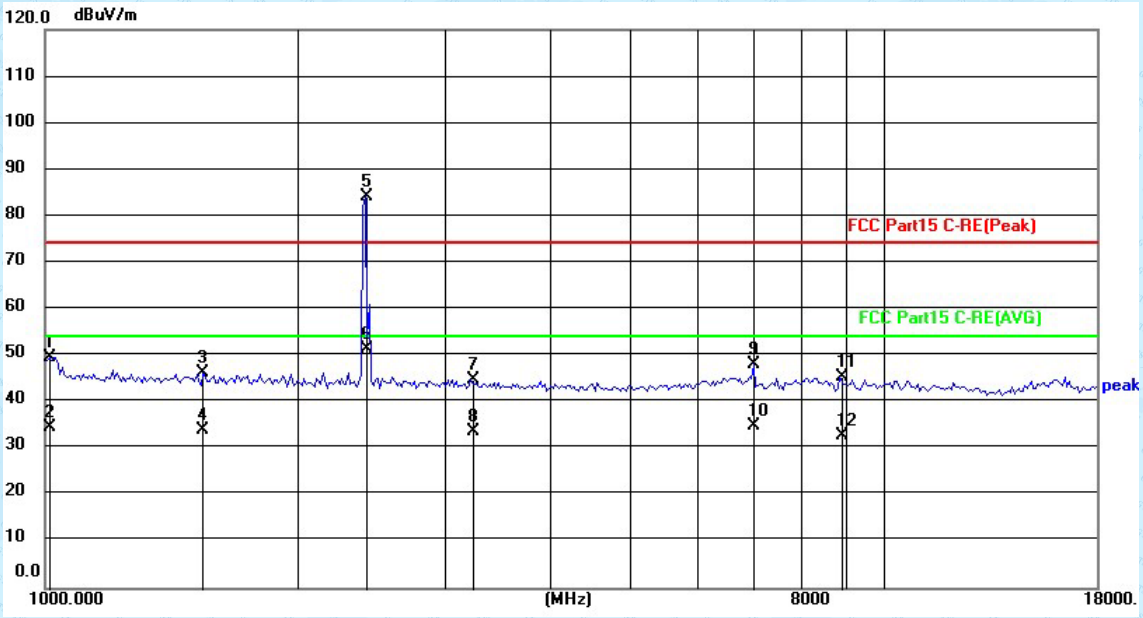
Test mode:	802.11n(HT20) 2412MHz	Test channel:	Lowest

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	48.26	1.58	49.84	74.00	-24.16	peak
2	1011.652	32.97	1.58	34.55	54.00	-19.45	AVG
3	1858.517	20.73	25.28	46.01	74.00	-27.99	peak
4	1858.517	8.48	25.28	33.76	54.00	-20.24	AVG
5	2412.000	48.89	26.36	75.25	74.00	1.25	peak
6	2412.000	27.11	26.36	53.47	54.00	-0.53	AVG
7	3789.505	15.89	28.65	44.54	74.00	-29.46	peak
8	3789.505	5.53	28.65	34.18	54.00	-19.82	AVG
9	7002.185	13.01	35.80	48.81	74.00	-25.19	peak
10	7002.185	-1.42	35.80	34.38	54.00	-19.62	AVG
11	8235.116	8.55	36.72	45.27	74.00	-28.73	peak
12	8235.116	-3.18	36.72	33.54	54.00	-20.46	AVG

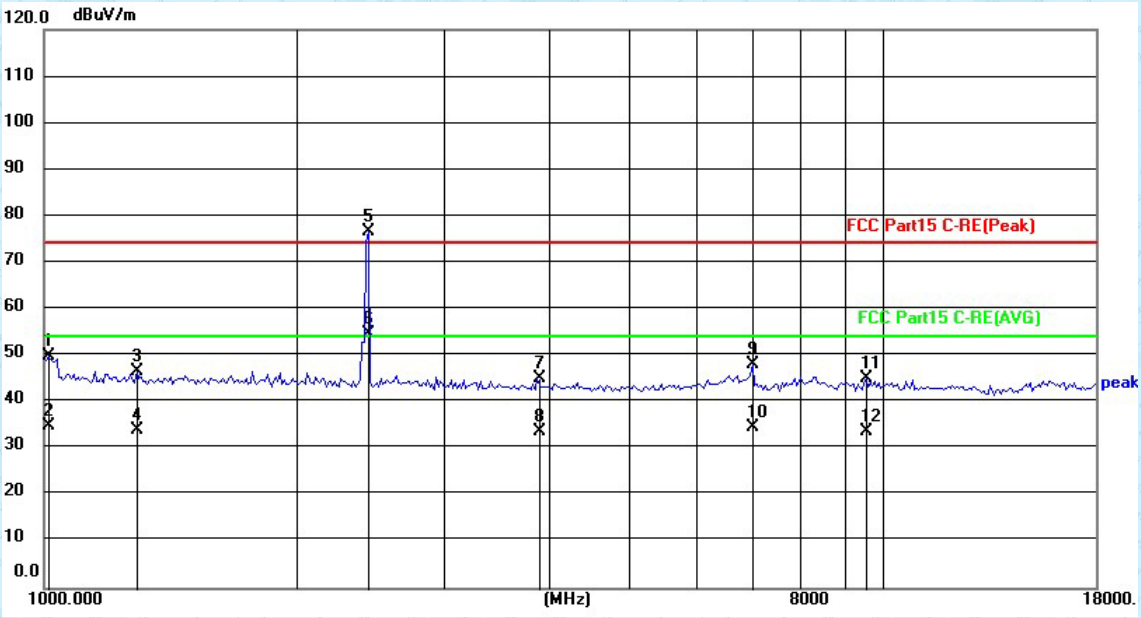
Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	48.08	1.58	49.66	74.00	-24.34	peak
2	1011.652	33.04	1.58	34.62	54.00	-19.38	AVG
3	1544.074	21.93	24.44	46.37	74.00	-27.63	peak
4	1544.074	9.73	24.44	34.17	54.00	-19.83	AVG
5	2412.000	57.87	26.36	84.23	74.00	10.23	peak
6	2412.000	24.96	26.36	51.32	54.00	-2.68	AVG
7	3222.155	16.98	27.80	44.78	74.00	-29.22	peak
8	3222.155	6.05	27.80	33.85	54.00	-20.15	AVG
9	7002.185	12.22	35.80	48.02	74.00	-25.98	peak
10	7002.185	-0.85	35.80	34.95	54.00	-19.05	AVG
11	8879.167	8.69	36.79	45.48	74.00	-28.52	peak
12	8879.167	-3.93	36.79	32.86	54.00	-21.14	AVG

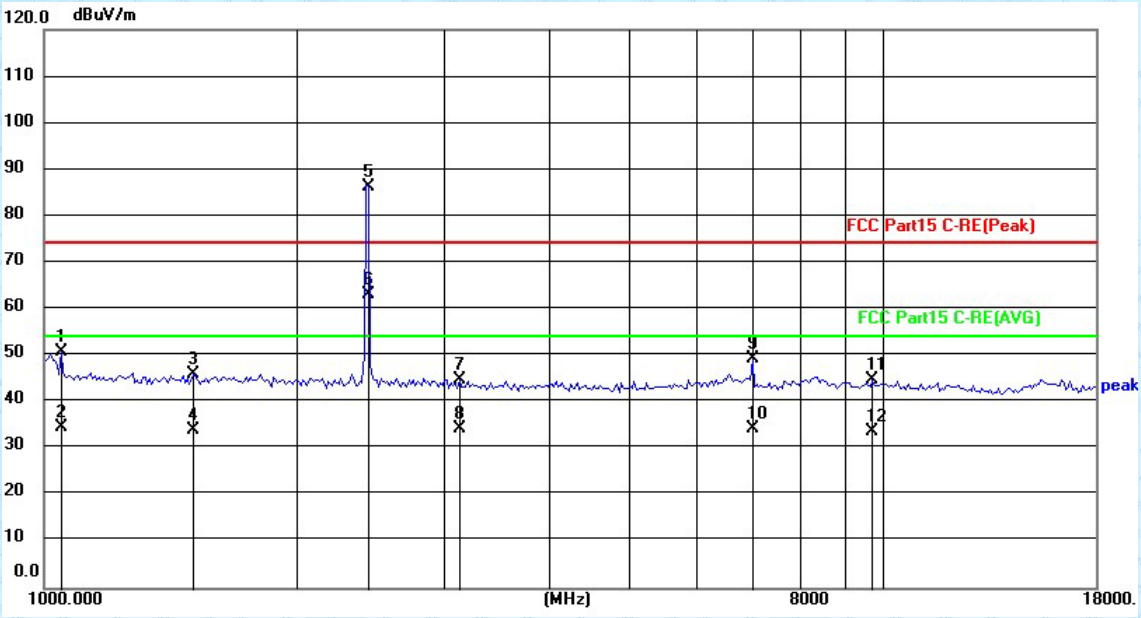
Test mode:	802.11n(HT20 2437MHz	Test channel:	Middle

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	48.45	1.58	50.03	74.00	-23.97	peak
2	1011.652	33.50	1.58	35.08	54.00	-18.92	AVG
3	1290.284	22.59	24.19	46.78	74.00	-27.22	peak
4	1290.284	9.94	24.19	34.13	54.00	-19.87	AVG
5	2437.000	50.24	26.40	76.64	74.00	2.64	peak
6	2437.000	28.42	26.40	54.82	54.00	0.82	AVG
7	3878.331	16.27	28.75	45.02	74.00	-28.98	peak
8	3878.331	5.07	28.75	33.82	54.00	-20.18	AVG
9	7002.185	12.35	35.80	48.15	74.00	-25.85	peak
10	7002.185	-1.24	35.80	34.56	54.00	-19.44	AVG
11	9573.587	6.92	38.18	45.10	74.00	-28.90	peak
12	9573.587	-4.45	38.18	33.73	54.00	-20.27	AVG

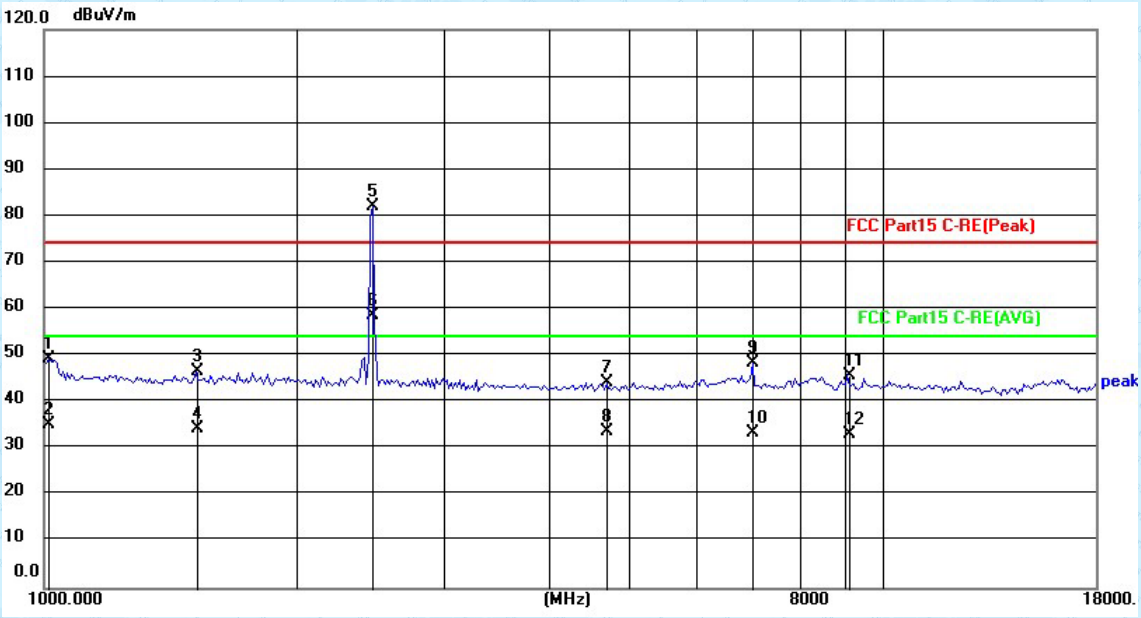
Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1047.429	27.30	23.64	50.94	74.00	-23.06	peak
2	1047.429	11.11	23.64	34.75	54.00	-19.25	AVG
3	1508.710	21.61	24.41	46.02	74.00	-27.98	peak
4	1508.710	9.55	24.41	33.96	54.00	-20.04	AVG
5	2437.000	59.80	26.40	86.20	74.00	12.20	peak
6	2437.000	36.75	26.40	63.15	54.00	9.15	AVG
7	3130.174	17.32	27.63	44.95	74.00	-29.05	peak
8	3130.174	6.78	27.63	34.41	54.00	-19.59	AVG
9	7002.185	13.51	35.80	49.31	74.00	-24.69	peak
10	7002.185	-1.52	35.80	34.28	54.00	-19.72	AVG
11	9741.401	6.13	38.58	44.71	74.00	-29.29	peak
12	9741.401	-4.78	38.58	33.80	54.00	-20.20	AVG

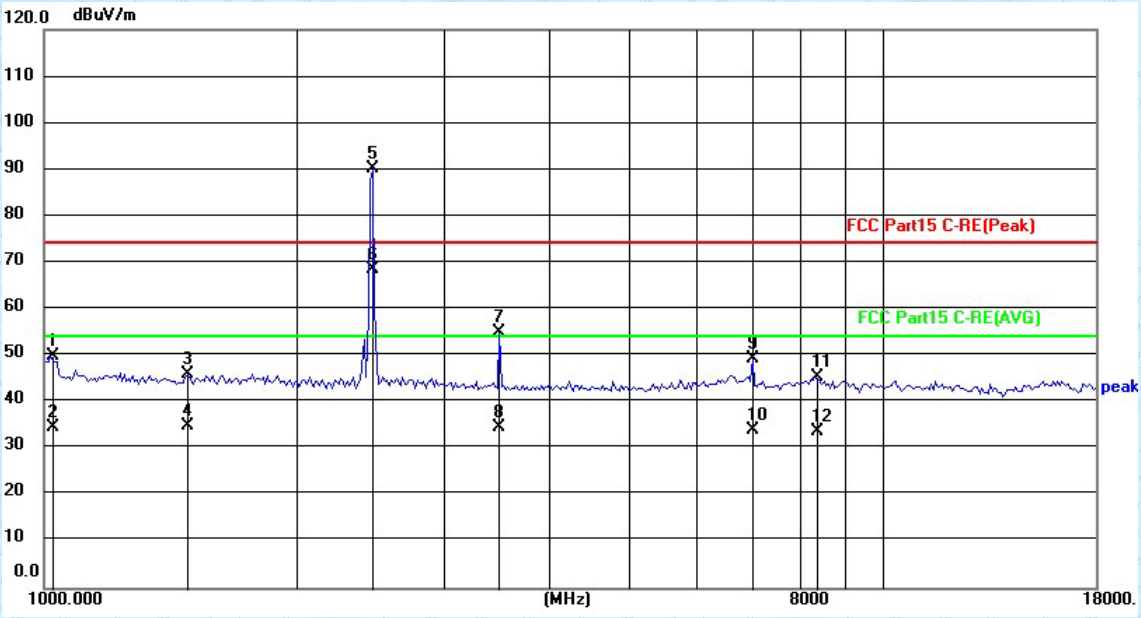
Test mode:	802.11n(HT20 2462MHz	Test channel:	Highest

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1011.652	47.68	1.58	49.26	74.00	-24.74	peak
2	1011.652	33.71	1.58	35.29	54.00	-18.71	AVG
3	1517.475	22.30	24.42	46.72	74.00	-27.28	peak
4	1517.475	9.81	24.42	34.23	54.00	-19.77	AVG
5	2462.000	55.69	26.44	82.13	74.00	8.13	peak
6	2462.000	32.30	26.44	58.74	54.00	4.74	AVG
7	4695.251	14.41	29.83	44.24	74.00	-29.76	peak
8	4695.251	3.84	29.83	33.67	54.00	-20.33	AVG
9	7002.185	12.62	35.80	48.42	74.00	-25.58	peak
10	7002.185	-2.26	35.80	33.54	54.00	-20.46	AVG
11	9087.293	8.89	37.01	45.90	74.00	-28.10	peak
12	9087.293	-3.83	37.01	33.18	54.00	-20.82	AVG

Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1017.529	48.17	1.67	49.84	74.00	-24.16	peak
2	1017.529	32.97	1.67	34.64	54.00	-19.36	AVG
3	1482.720	21.67	24.38	46.05	74.00	-27.95	peak
4	1482.720	10.53	24.38	34.91	54.00	-19.09	AVG
5	2462.000	63.65	26.44	90.09	74.00	16.09	peak
6	2462.000	42.22	26.44	68.66	54.00	14.66	AVG
7	3494.334	26.66	28.29	54.95	74.00	-19.05	peak
8	3494.334	6.23	28.29	34.52	54.00	-19.48	AVG
9	7002.185	13.46	35.80	49.26	74.00	-24.74	peak
10	7002.185	-1.89	35.80	33.91	54.00	-20.09	AVG
11	8331.072	8.61	36.73	45.34	74.00	-28.66	peak
12	8331.072	-3.11	36.73	33.62	54.00	-20.38	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.

------End------