CFR 47 FCC PART 15 SUBPART C

TEST REPORT

For

Smart Home Camera

MODEL NUMBER: CS-H6, CS-H6 (4WF,4mm), CS-H6-R100-1J4WF

REPORT NUMBER: 4790559314-RF-5

ISSUE DATE: September 27, 2022

FCC ID:2APV2-CSH61J4

Prepared for

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The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products.

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	09/27/2022	Initial Issue	

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Summary of Test Results

Test Item	Clause	Limit/Requirement	Result
Antenna Requirement	/	FCC Part 15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	ANSI C63.10-2013, Clause 6.2	FCC Part 15.207	Pass
Conducted Output Power	ANSI C63.10-2013, Clause 11.9.1.3	FCC Part 15.247 (b)(3)	Pass
6dB Bandwidth and 99% Occupied Bandwidth	ANSI C63.10-2013, Clause 11.8.1	FCC Part 15.247 (a)(2)	Pass
Power Spectral Density	ANSI C63.10-2013, Clause 11.10.2	FCC Part 15.247 (e)	Pass
Conducted Band edge and spurious emission	ANSI C63.10-2013, Clause 11.11	FCC Part 15.247(d)	Pass
Radiated Bandedge and Spurious Emission	ANSI C63.10-2013, Clause 6.4 to 6.6	FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205	Pass

*This test report is only published to and used by the applicant, and it is not for evidence purpose in China.
*The measurement result for the sample received is <Pass> according to <CFR 47 FCC PART 15 SUBPART C > when <Accuracy Method> decision rule is applied.

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	Hangzhou Ezviz Software Co., Ltd.
Address:	Room 302,Unit B,Building 2,399 Danfeng Road,Binjiang District,Hangzhou,Zhejiang

Manufacturer Information

Company Name:	Hangzhou Ezviz Software Co., Ltd.
Address:	Room 302,Unit B,Building 2,399 Danfeng Road,Binjiang District,Hangzhou,Zhejiang

EUT Information

EUT Name:	Smart Home Camera
Model:	CS-H6, CS-H6 (4WF,4mm), CS-H6-R100-1J4WF
Model Difference:	All the same except for the model name.
Brand:	EZVIZ
Sample Received Date:	September 9, 2022
Sample Status:	Normal
Sample ID:	5321647
Date of Tested:	September 12, 2022 ~ September 26, 2022

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 FCC PART 15 SUBPART C	PASS

Prepared By:

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Senior Project Engineer

Checked By:

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Senior Project Engineer

Approved By:

Stephen Guo

Operations Manager

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2. TEST METHODOLOGY

All tests were performed in accordance with the standard CFR 47 FCC PART 15 SUBPART C ISED RSS-247 ISSUE 2, KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, KDB 662911 D01 Multiple Transmitter Output v02r01, CFR 47 FCC Part 2, CFR 47 FCC Part 15, ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	**A2LA (Certificate No.: 4102.01)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. **FCC (FCC Designation No.: CN1187)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules **ISED (Company No.: 21320)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046. **VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011

Note1:
All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People’s Republic of China.

Note2:
The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd.
Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note3:
For below 30 MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30 MHz had been correlated to measurements performed on an OFS.

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4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
Conduction emission	3.62 dB
Radiated Emission (Included Fundamental Emission) (9 kHz ~ 30 MHz)	2.2 dB
Radiated Emission (Included Fundamental Emission) (30 MHz ~ 1 GHz)	4.00 dB
Radiated Emission (Included Fundamental Emission) (1 GHz to 26 GHz)	5.78 dB (1 GHz ~ 18 GHz)
	5.23 dB (18 GHz ~ 26 GHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	Smart Home Camera
Model	CS-H6, CS-H6 (4WF,4mm), CS-H6-R100-1J4WF
Model Difference	All the same except for the model name.
Radio Technology	WLAN (IEEE 802.11b/g/n HT20)
Operation frequency	IEEE 802.11b: 2412MHz ~ 2462MHz IEEE 802.11g: 2412MHz ~ 2462MHz IEEE 802.11n HT20: 2412MHz ~ 2462MHz
Modulation	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Ratings	DC 5 V, 2 A

5.2. CHANNEL LIST

Channel List for IEEE 802.11b/g/n (20 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	5	2432	9	2452	/	/
2	2417	6	2437	10	2457	/	/
3	2422	7	2442	11	2462	/	/
4	2427	8	2447	/	/	/	/

5.3. MAXIMUM OUTPUT POWER

IEEE Std. 802.11	Frequency (MHz)	Channel Number	Maximum Conducted AVG Output Power (dBm)
b	2412 ~ 2462	1-11[11]	11.88
g	2412 ~ 2462	1-11[11]	14.22
n HT20	2412 ~ 2462	1-11[11]	14.07

5.4. TEST CHANNEL CONFIGURATION

IEEE Std. 802.11	Test Channel Number	Frequency
b	CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel)	2412 MHz, 2437 MHz, 2462 MHz
g	CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel)	2412 MHz, 2437 MHz, 2462 MHz
n HT20	CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel)	2412 MHz, 2437 MHz, 2462 MHz

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5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2400 ~ 2483.5 MHz Band							
Test Software		adb					
Modulation Mode	Transmit Antenna Number	Test Channel					
		NCB: 20MHz			NCB: 40MHz		
		CH 1	CH 7	CH 13	CH 3	CH 7	CH 13
802.11b	1	30	30	30	/		
802.11g	1	10	10	10			
802.11n HT20	1	15	15	15			

5.6. THE WORSE CASE CONFIGURATIONS

The EUT was tested in the following configuration(s):

Controlled in test mode using a software application on the EUT supplied by customer. The application was used to enable a continuous transmission and to select the mode, test channels, bandwidth, data rates as required.

Test channels referring to section 5.5.

Maximum power setting referring to section 5.7.

Worst case Data Rates declared by the customer:

IEEE 802.11b / SISO – DBPSK / 1 Mbps
IEEE 802.11g / SISO – BPSK / 6 Mbps
IEEE 802.11n HT20 / SISO – BPSK / MCS0

The measured additional path loss was included in any path loss calculations for all RF cable used during tested.

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5.7. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
1	2412-2462	PIFA	3.83

Test Mode	Transmit and Receive Mode	Description
IEEE 802.11b	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
IEEE 802.11g	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
IEEE 802.11n HT20	☒1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.

Note: The value of the antenna gain was declared by customer.

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5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	Remarks
1	Laptop	Lenovo	XIAOXIN 5000	/

I/O CABLES

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	USB	/	/	3	/

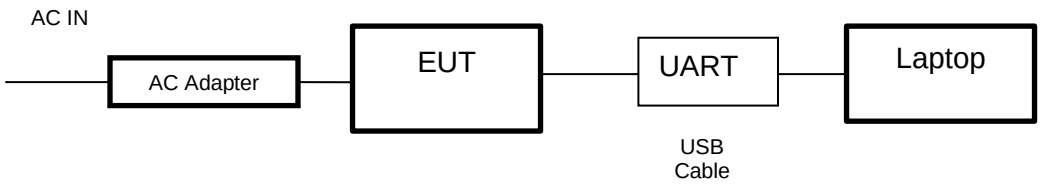
ACCESSORIES

Item	Accessory	Brand Name	Model Name	Description
1	Adapter	/	DYS05200CQ-E	Input: AC 100-240 V, 50/60 Hz Output: DC 5 V, 2 A, 10 W

TEST SETUP

The EUT can work in engineering mode with a software through a Laptop.

SETUP DIAGRAM FOR TESTS



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6. MEASURING EQUIPMENT AND SOFTWARE USED

R&S TS 8997 Test System					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
Power sensor, Power Meter	R&S	OSP120	100921	Apr.02,2022	Apr.01,2023
Vector Signal Generator	R&S	SMBV100A	261637	Oct.30, 2021	Oct.29, 2022
Signal Generator	R&S	SMB100A	178553	Oct.30, 2021	Oct.29, 2022
Signal Analyzer	R&S	FSV40	101118	Oct.30, 2021	Oct.29, 2022

Software			
Description	Manufacturer	Name	Version
For R&S TS 8997 Test System	Rohde & Schwarz	EMC 32	10.60.10

Tonsend RF Test System					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
Wideband Radio Communication Tester	R&S	CMW500	155523	Oct.30, 2021	Oct.29, 2022
Wireless Connectivity Tester	R&S	CMW270	1201.0002N75-102	Sep.29, 2021	Sep.28, 2022
PXA Signal Analyzer	Keysight	N9030A	MY55410512	Oct.30, 2021	Oct.29, 2022
MXG Vector Signal Generator	Keysight	N5182B	MY56200284	Oct.30, 2021	Oct.29, 2022
MXG Vector Signal Generator	Keysight	N5172B	MY56200301	Oct.30, 2021	Oct.29, 2022
DC power supply	Keysight	E3642A	MY55159130	Oct.30, 2021	Oct.29, 2022
Temperature & Humidity Chamber	SANMOOD	SG-80-CC-2	2088	Nov.20,2020	Nov.19,2022

Software			
Description	Manufacturer	Name	Version
Tonsend SRD Test System	Tonsend	JS1120-3 RF Test System	2.6.77.0518

Conducted Emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
EMI Test Receiver	R&S	ESR3	101961	Oct.30, 2021	Oct.29, 2022
Two-Line V-Network	R&S	ENV216	101983	Oct.30, 2021	Oct.29, 2022

Software			
Description	Manufacturer	Name	Version
Test Software for Conducted Emissions	Farad	EZ-EMC	Ver. UL-3A1

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Radiated Emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Oct.30, 2021	Oct.29, 2022
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130959	Aug.02, 2021	Aug.01, 2024
Preamplifier	HP	8447D	2944A09099	Oct.30, 2021	Oct.29, 2022
EMI Measurement Receiver	R&S	ESR26	101377	Oct.30, 2021	Oct.29, 2022
Horn Antenna	TDK	HRN-0118	130940	July 20, 2021	July 19, 2024
Preamplifier	TDK	PA-02-0118	TRS-305-00067	Oct.30, 2021	Oct.29, 2022
Horn Antenna	Schwarzbeck	BBHA9170	697	July 20, 2021	July 19, 2024
Preamplifier	TDK	PA-02-2	TRS-307-00003	Oct.31, 2021	Oct.30, 2022
Preamplifier	TDK	PA-02-3	TRS-308-00002	Oct.31, 2021	Oct.30, 2022
Loop antenna	Schwarzbeck	1519B	00008	Dec.14, 2021	Dec.13, 2024
Preamplifier	TDK	PA-02-001-3000	TRS-302-00050	Oct.31, 2021	Oct.30, 2022
High Pass Filter	Wi	WHKX10-2700-3000-18000-40SS	23	Oct.31, 2021	Oct.30, 2022
Band Reject Filter	Wainwright	WRCJV8-2350-2400-2483.5-2533.5-40SS	4	Oct.31, 2021	Oct.30, 2022

Software			
Description	Manufacturer	Name	Version
Test Software for Radiated Emissions	Farad	EZ-EMC	Ver. UL-3A1

Other Instrument					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Dual Channel Power Meter	Keysight	N1912A	MY55416024	Oct.30, 2021	Oct.29, 2022
Power Sensor	Keysight	USB Wideband Power Sensor	MY5100022	Oct.30, 2021	Oct.29, 2022

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7. ANTENNA PORT TEST RESULTS

7.1. CONDUCTED OUTPUT POWER

LIMITS

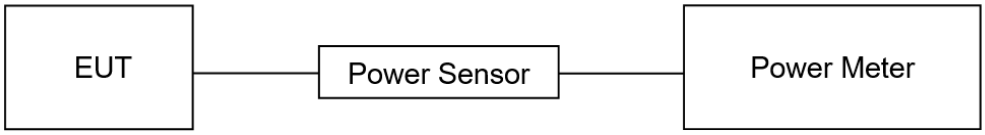
CFR 47 FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(b)(3)	AVG Output Power	1 watt or 30 dBm	2400-2483.5

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.9.2.3.1.

Connect the EUT to a low loss RF cable from the antenna port to the power sensor (video bandwidth is greater than the occupied bandwidth).
Measure peak emission level, the indicated level is the average output power, after any corrections for external attenuators and cables.
The test result in dBm by adding [10 log (1 / D)], where D is the duty cycle.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.8 °C	Relative Humidity	54%
Atmosphere Pressure	101 kPa	Test Voltage	5 V

TEST RESULTS

Please refer to section "Test Data" - Appendix C

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7.2. 6DB BANDWIDTH AND 99% OCCUPIED BANDWIDTH

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(a)(2)	6 dB Bandwidth	≥ 500 kHz	2400-2483.5
ISED RSS-Gen Clause 6.7	99 % Occupied Bandwidth	For reporting purposes only.	2400-2483.5

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.8 for DTS bandwidth and clause 6.9 for Occupied Bandwidth.

Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Frequency Span	For 6 dB Bandwidth: Enough to capture all products of the modulation carrier emission For 99 % Occupied Bandwidth: Between 1.5 times and 5.0 times the OBW
Detector	Peak
RBW	For 6 dB Bandwidth: 100 kHz For 99 % Occupied Bandwidth: 1 % to 5 % of the occupied bandwidth
VBW	For 6 dB Bandwidth: ≥3 × RBW For 99 % Occupied Bandwidth: ≥3 × RBW
Trace	Max hold
Sweep	Auto couple

a) Use the 99 % power bandwidth function of the instrument, allow the trace to stabilize and report the measured bandwidth.

b) Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

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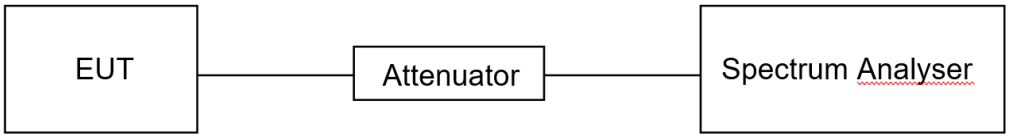
TEST SETUP



TEST ENVIRONMENT

Temperature	23.8 °C	Relative Humidity	54%
Atmosphere Pressure	101 kPa	Test Voltage	5 V

TEST RESULTS

Please refer to section "Test Data" - Appendix A & B

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7.3. POWER SPECTRAL DENSITY

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC §15.247 (e)	Power Spectral Density	8 dBm in any 3 kHz band	2400-2483.5

TEST PROCEDURE

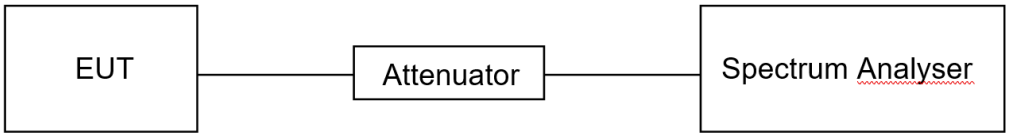
Refer to ANSI C63.10-2013 clause 11.10.5.

Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	power averaging (rms) or sample detector
RBW	3 kHz ≤ RBW ≤ 100 kHz
VBW	≥3 × RBW
Span	1.5 x OBW bandwidth
Trace	Average
Sweep time	Auto couple

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.
If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.8 °C	Relative Humidity	54%
Atmosphere Pressure	101 kPa	Test Voltage	5 V

TEST RESULTS

Please refer to section "Test Data" - Appendix D

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7.4. CONDUCTED BAND EDGE AND SPURIOUS EMISSION

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C		
Section	Test Item	Limit
CFR 47 FCC §15.247 (d)	Conducted Bandedge and Spurious Emissions	at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.11 and 11.13.

Connect the EUT to the spectrum analyser and use the following settings for reference level measurement:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	100 kHz
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level.
Change the settings for emission level measurement:

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100 kHz
VBW	≥3 × RBW
measurement points	≥span/RBW
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11.

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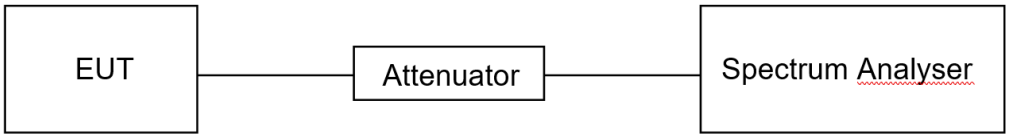
TEST SETUP



TEST ENVIRONMENT

Temperature	23.8 °C	Relative Humidity	54%
Atmosphere Pressure	101 kPa	Test Voltage	5 V

TEST RESULTS

Please refer to section "Test Data" - Appendix E & F

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7.5. DUTY CYCLE

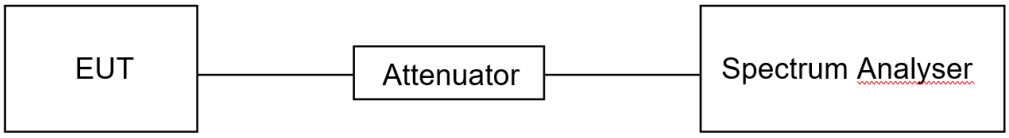
LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.6 Zero – Span Spectrum Analyzer method.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.8 °C	Relative Humidity	54%
Atmosphere Pressure	101 kPa	Test Voltage	5 V

TEST RESULTS

Please refer to section "Test Data" - Appendix G

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8. RADIATED TEST RESULTS

LIMITS

Please refer to CFR 47 FCC §15.205 and §15.209.

Radiation Disturbance Test Limit for FCC (Class B) (9 kHz ~ 1 GHz)

Emissions radiated outside of the specified frequency bands above 30 MHz			
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m	
		Quasi-Peak	
30 - 88	100	40	
88 - 216	150	43.5	
216 - 960	200	46	
Above 960	500	54	
Above 1000	500	Peak	Average
		74	54

FCC Emissions radiated outside of the specified frequency bands below 30 MHz		
Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30

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FCC Restricted bands of operation refer to FCC §15.205 (a):

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41			

Note: [1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
[2]Above 38.6c

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TEST PROCEDURE

Below 30 MHz

The setting of the spectrum analyser

RBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
VBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
Sweep	Auto

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.4.

2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1 m height antenna tower.

5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.

7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.

8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω. For example, the measurement frequency X KHz resulted in a level of Y dBuV/m, which is equivalent to Y-51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.

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Below 1 GHz and above 30 MHz

The setting of the spectrum analyser

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.5.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

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Above 1 GHz

The setting of the spectrum analyser

RBW	1 MHz
VBW	PEAK: 3 MHz AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.6.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 1.5 m above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement above 1 GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.

6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.5.ON TIME AND DUTY CYCLE.

Note: The EUT was fully exercised with external accessories during the test. In the case of multiple accessory external ports, an external accessory shall be connected to one of each type of port.

For Restricted Bandedge:
Note:
1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
5. For the transmitting duration, please refer to clause 7.5.
6. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.
7. Both horizontal and vertical have been tested, only the worst data was recorded in the report.
8. All modes, channels and antennas have been tested, only the worst data was recorded in the report.

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For Radiate Spurious emission (9 kHz ~ 30 MHz):
Note:
1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.
4. All modes, channels and antennas have been tested, only the worst data was recorded in the report.

For Radiate Spurious Emission (30 MHz ~ 1 GHz):
Note:
1. Result Level = Read Level + Correct Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. All modes, channels and antennas have been tested, only the worst data was recorded in the report.

For Radiate Spurious Emission (1 GHz ~ 3 GHz):
1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
5. For the transmitting duration, please refer to clause 7.5.
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
8. All modes, channels and antennas have been tested, only the worst data was recorded in the report.

For Radiate Spurious Emission (3 GHz ~ 18 GHz):
Note:
1. Peak Result = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
5. For the transmitting duration, please refer to clause 7.5.
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
8. All modes, channels and antennas have been tested, only the worst data was recorded in the report.

For Radiate Spurious emission (18 GHz ~ 26 GHz):
Note:
1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. All modes, channels and antennas have been tested, only the worst data was recorded in the report.

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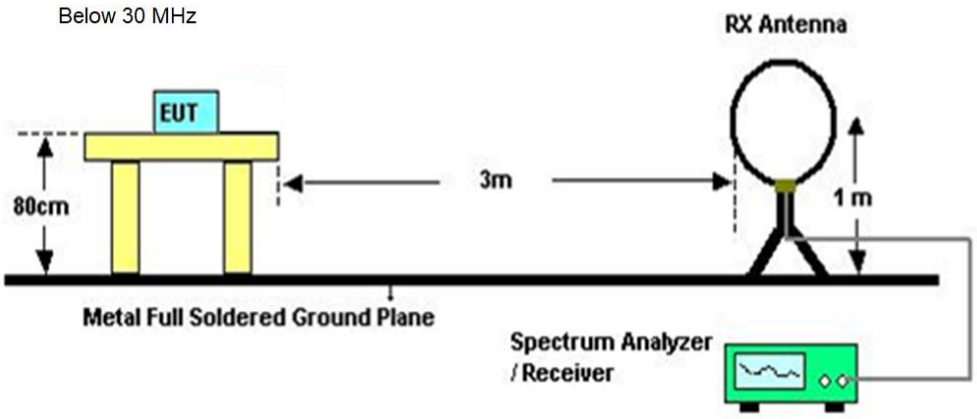
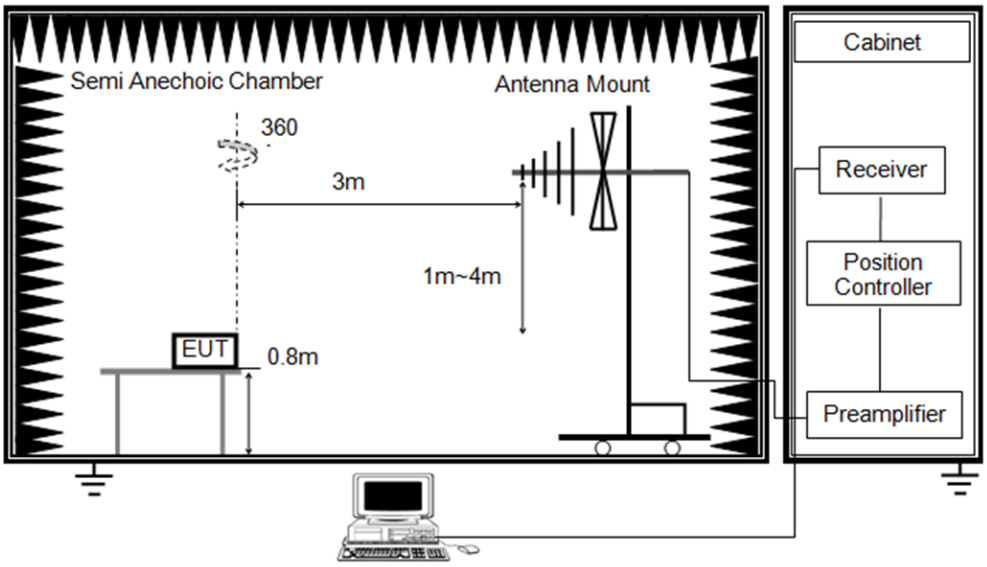
TEST SETUP

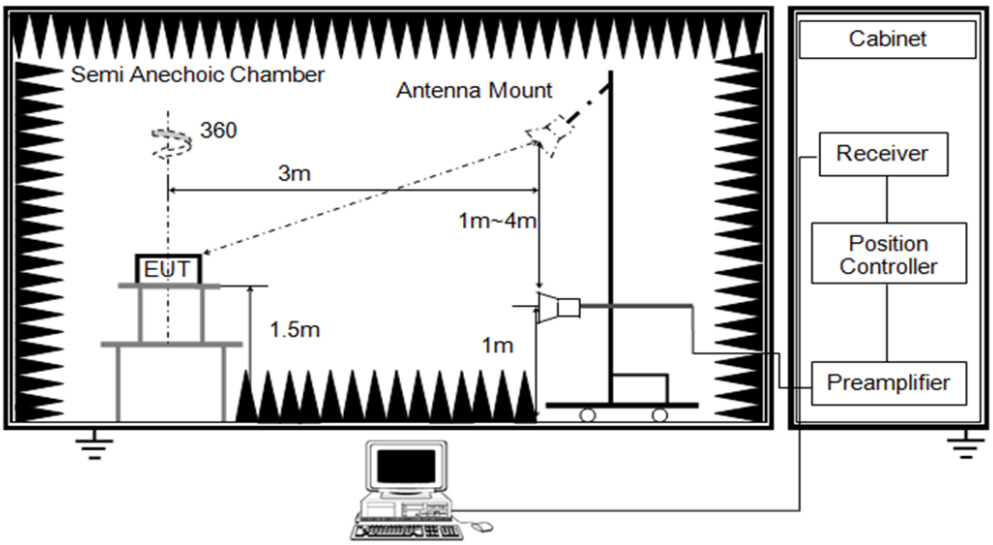
Below 30 MHz



Below 1 GHz and above 30 MHz



Above 1 GHz



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TEST ENVIRONMENT

Temperature	25.1 °C	Relative Humidity	58%
Atmosphere Pressure	101 kPa	Test Voltage	5 V

TEST RESULTS

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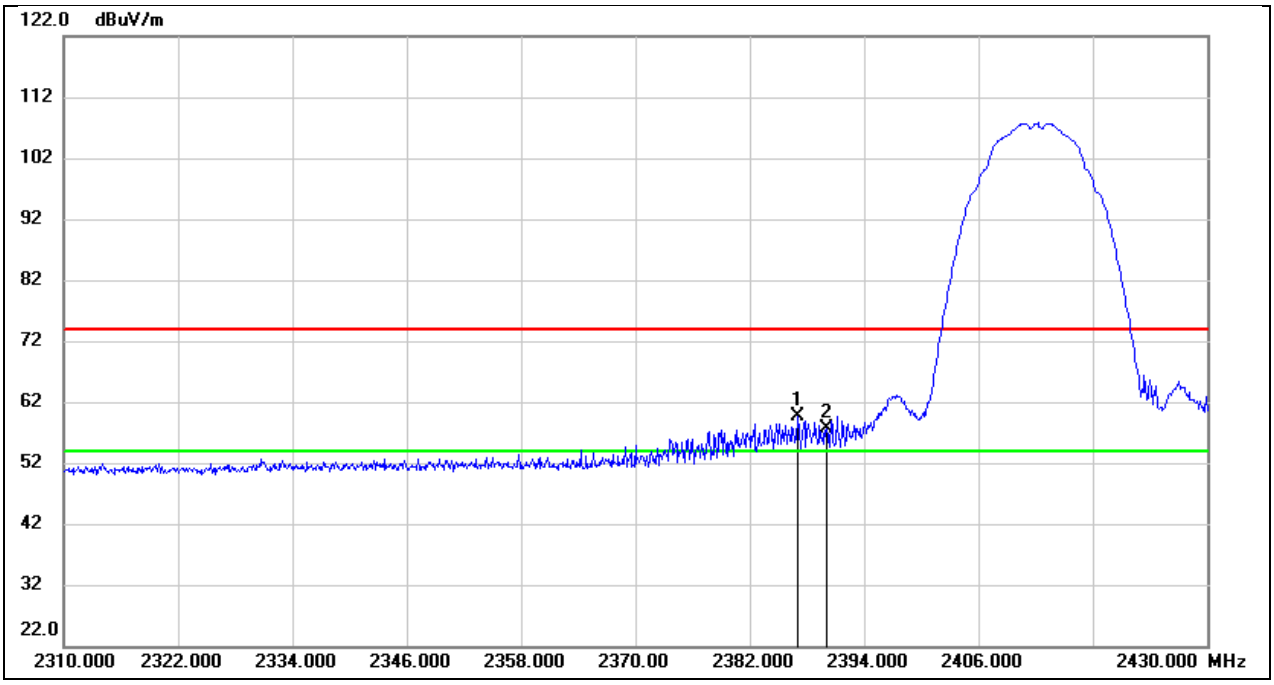
8.1. RESTRICTED BANDEDGE

Test Mode:	802.11b Peak	Channel:	2412 MHz
Polarity:	Vertical	Test Voltage:	5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.040	27.58	32.15	59.73	74.00	-14.27	peak
2	2390.000	25.37	32.16	57.53	74.00	-16.47	peak

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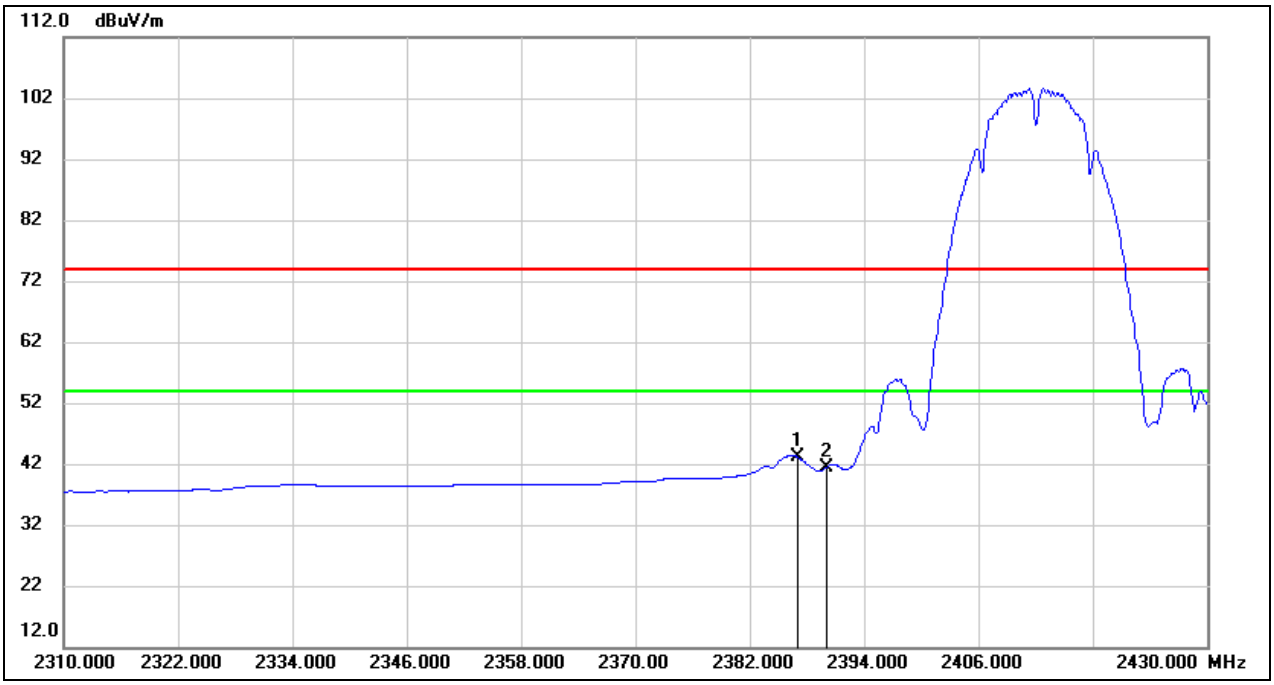
Test Mode:	802.11b Average	Channel:	2412 MHz
Polarity:	Vertical	Test Voltage:	5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.040	10.97	32.15	43.12	54.00	-10.88	AVG
2	2390.000	9.28	32.16	41.44	54.00	-12.56	AVG

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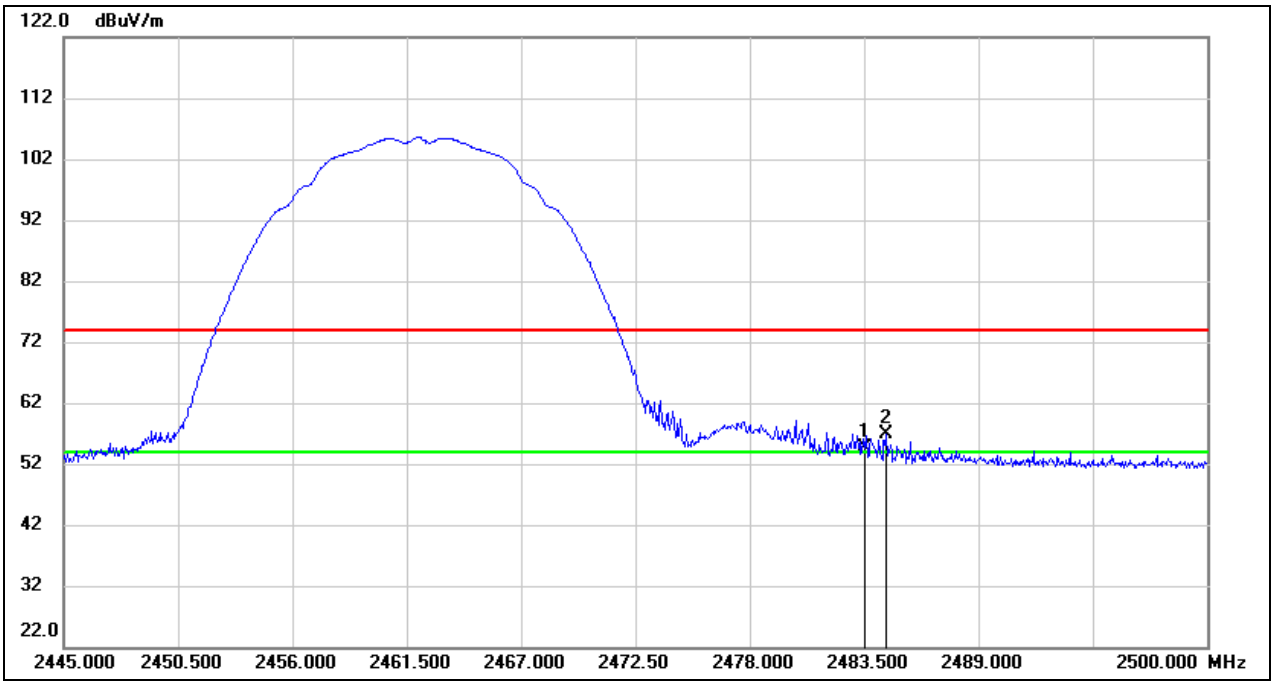
Test Mode:	802.11b Peak	Channel:	2462 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	22.18	32.44	54.62	74.00	-19.38	peak
2	2484.545	24.33	32.44	56.77	74.00	-17.23	peak

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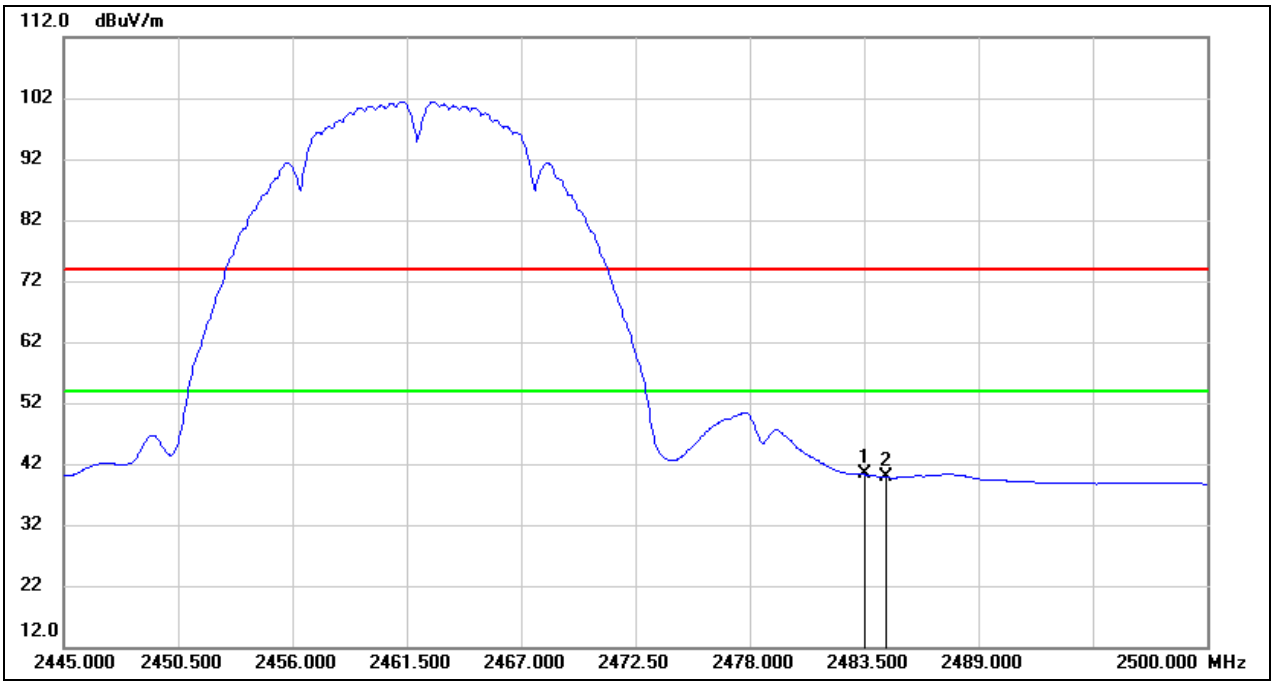
Test Mode:	802.11b Average	Channel:	2462 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	7.83	32.44	40.27	54.00	-13.73	AVG
2	2484.545	7.38	32.44	39.82	54.00	-14.18	AVG

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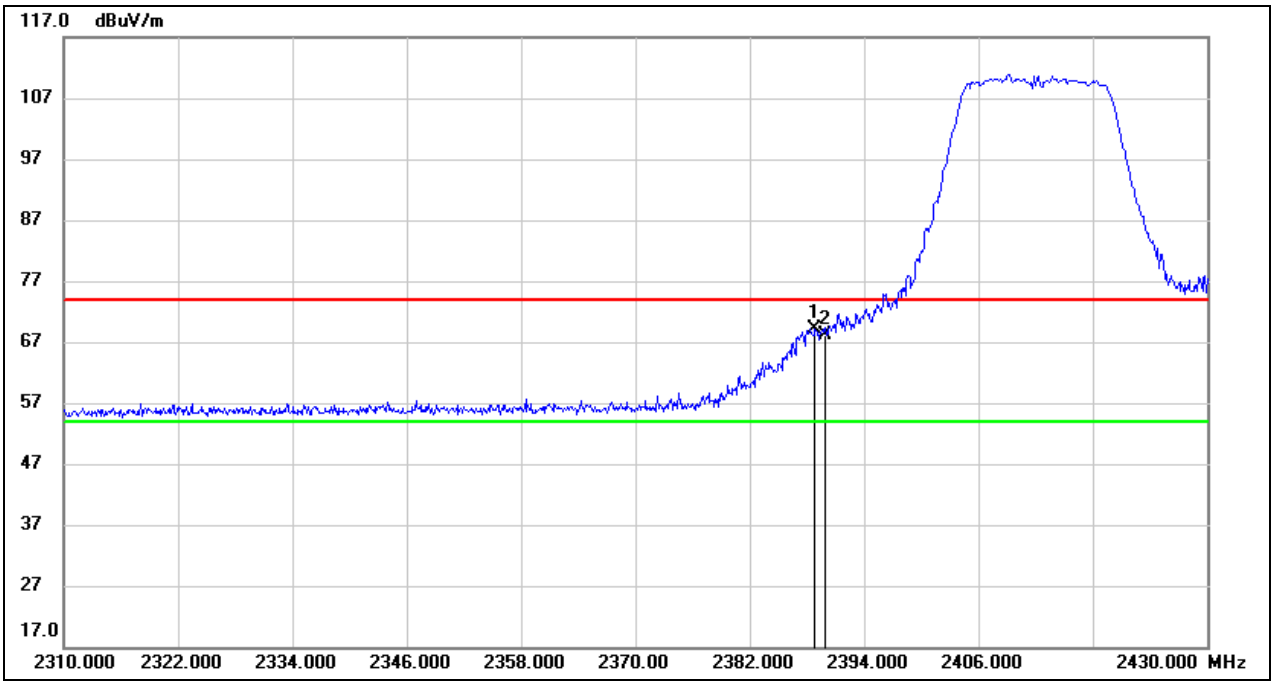
Test Mode:	802.11g Peak	Channel:	2412 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.840	36.91	32.16	69.07	74.00	-4.93	peak
2	2390.000	35.89	32.16	68.05	74.00	-5.95	peak

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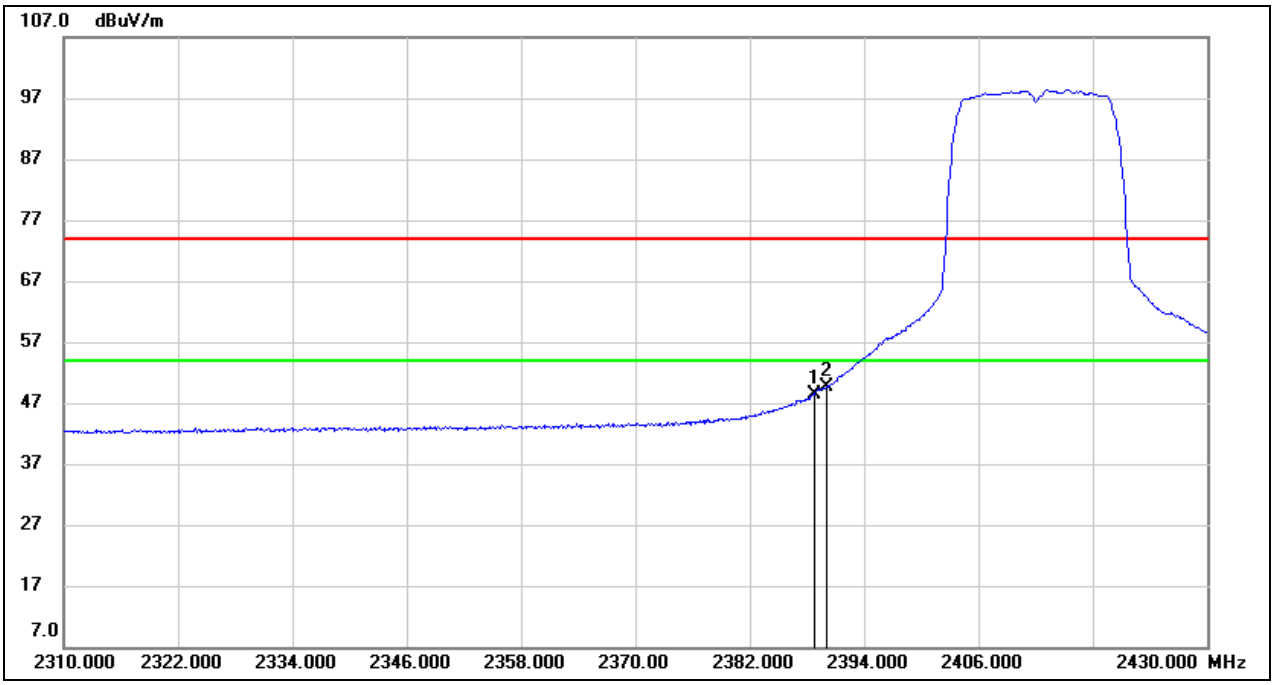
Test Mode:	802.11g Average	Channel:	2412 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.840	16.10	32.16	48.26	54.00	-5.74	AVG
2	2390.000	17.45	32.16	49.61	54.00	-4.39	AVG

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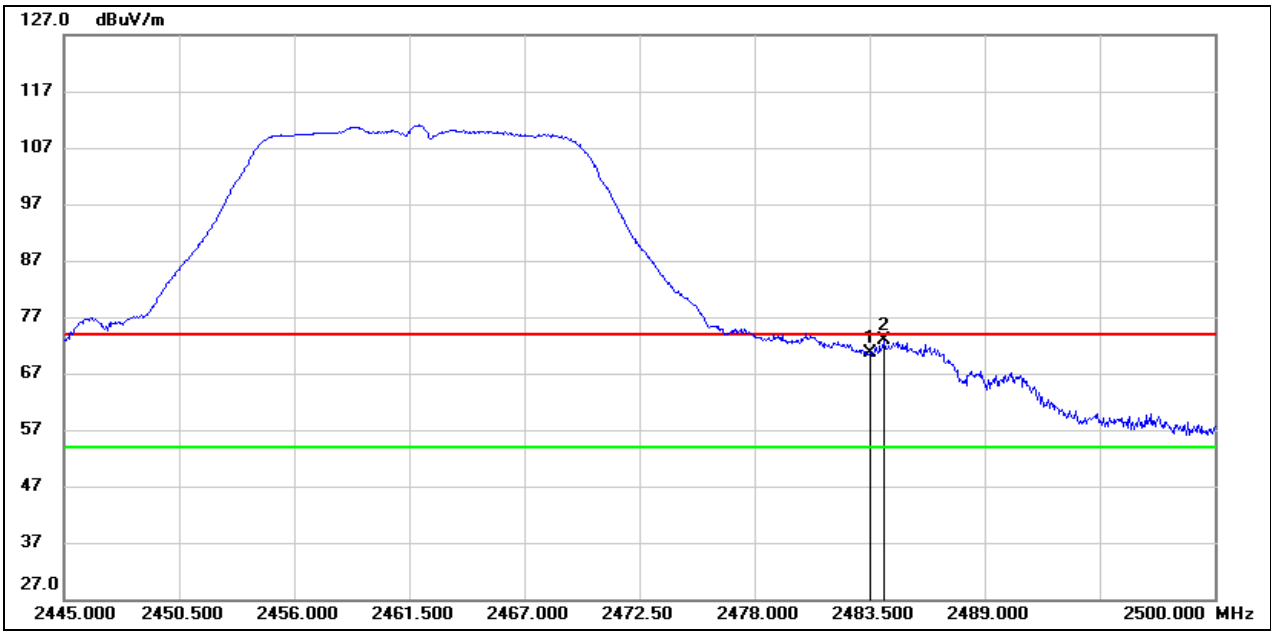
Test Mode:	802.11g Peak	Channel:	2462 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	38.22	32.44	70.66	74.00	-3.34	peak
2	2484.215	40.50	32.44	72.94	74.00	-1.06	peak

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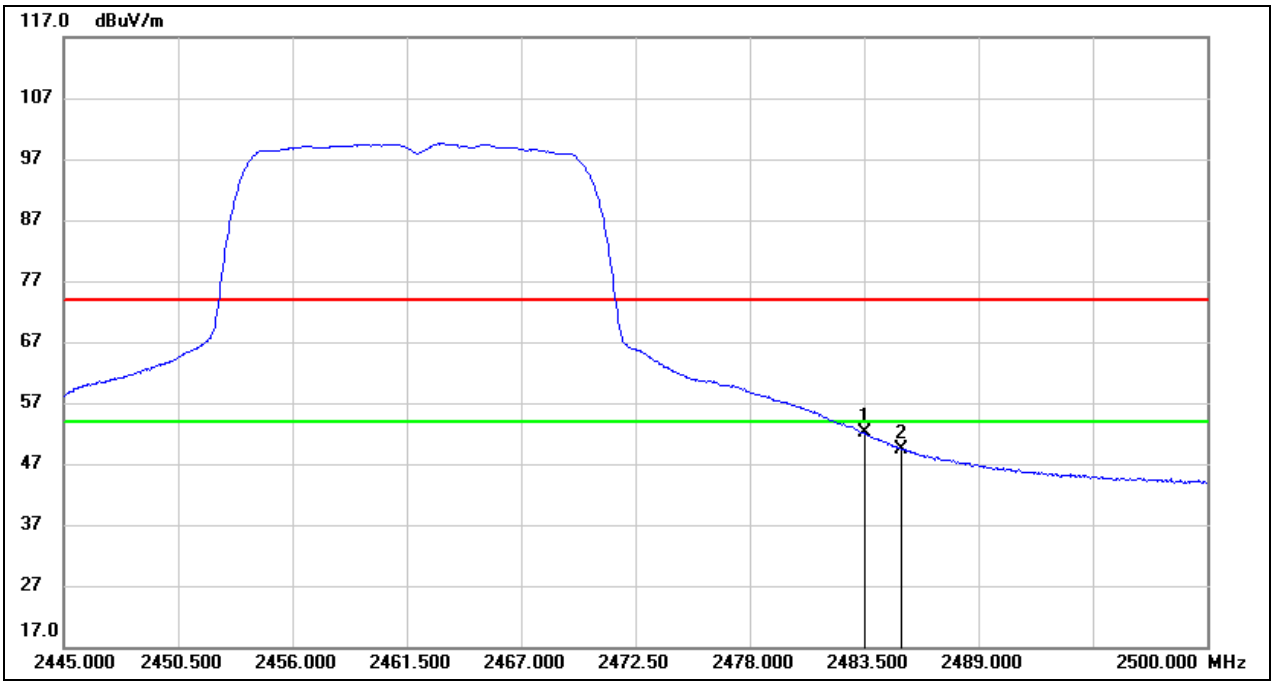
Test Mode:	802.11g Average	Channel:	2462 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	19.59	32.44	52.03	54.00	-1.97	AVG
2	2485.260	16.95	32.44	49.39	54.00	-4.61	AVG

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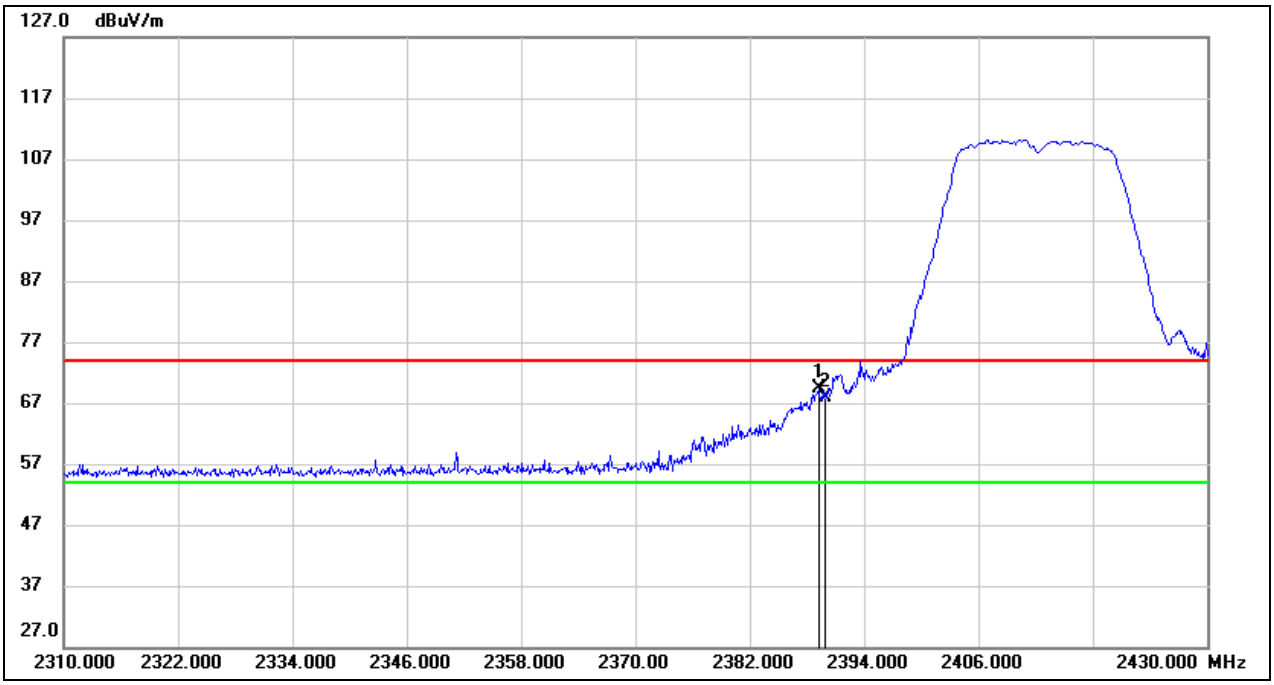
Test Mode:	802.11n HT20 Peak	Channel:	2412 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.200	37.15	32.16	69.31	74.00	-4.69	peak
2	2390.000	35.65	32.16	67.81	74.00	-6.19	peak

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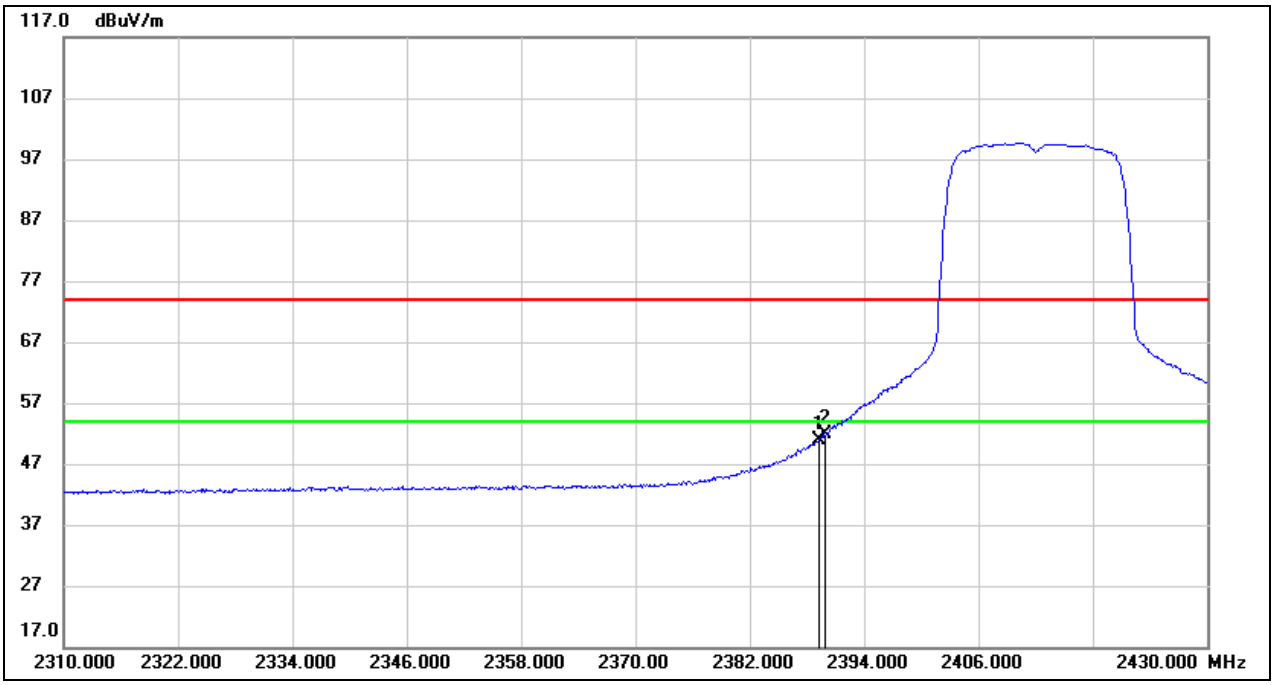
Test Mode:	802.11n HT20 Average	Channel:	2412 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.200	18.76	32.16	50.92	54.00	-3.08	AVG
2	2390.000	19.72	32.16	51.88	54.00	-2.12	AVG

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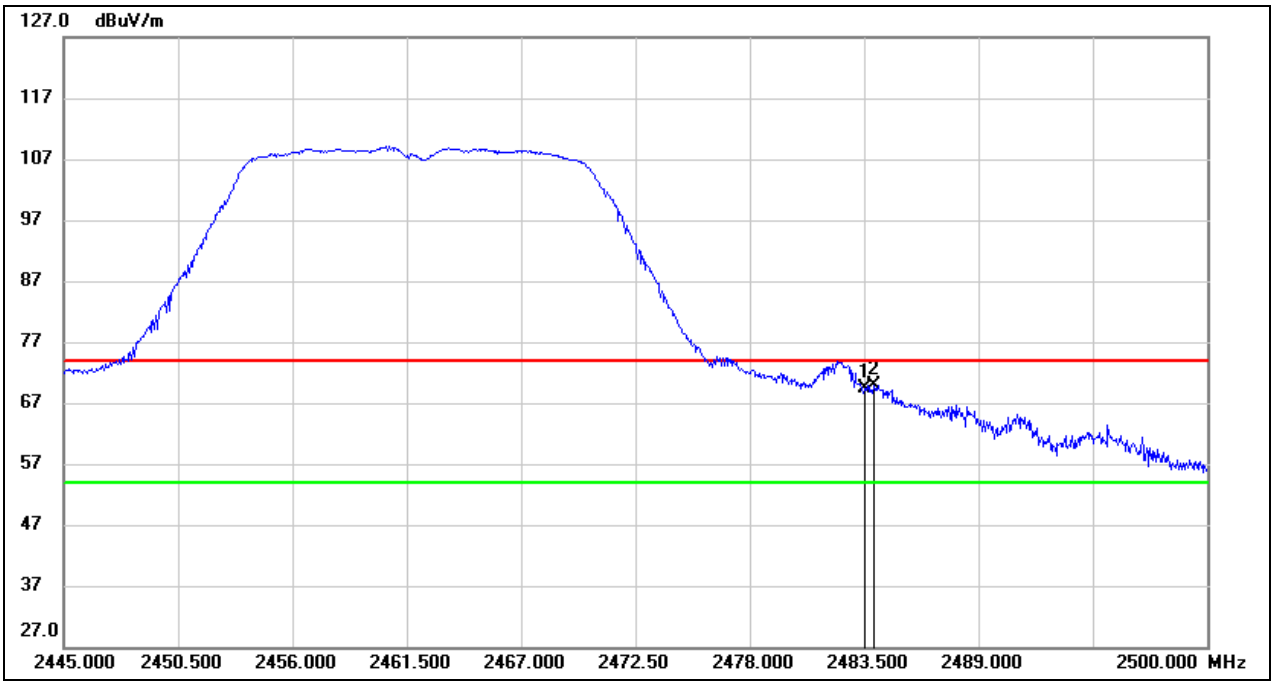
Test Mode:	802.11n HT20 Peak	Channel:	2462 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	36.90	32.44	69.34	74.00	-4.66	peak
2	2483.995	37.54	32.44	69.98	74.00	-4.02	peak

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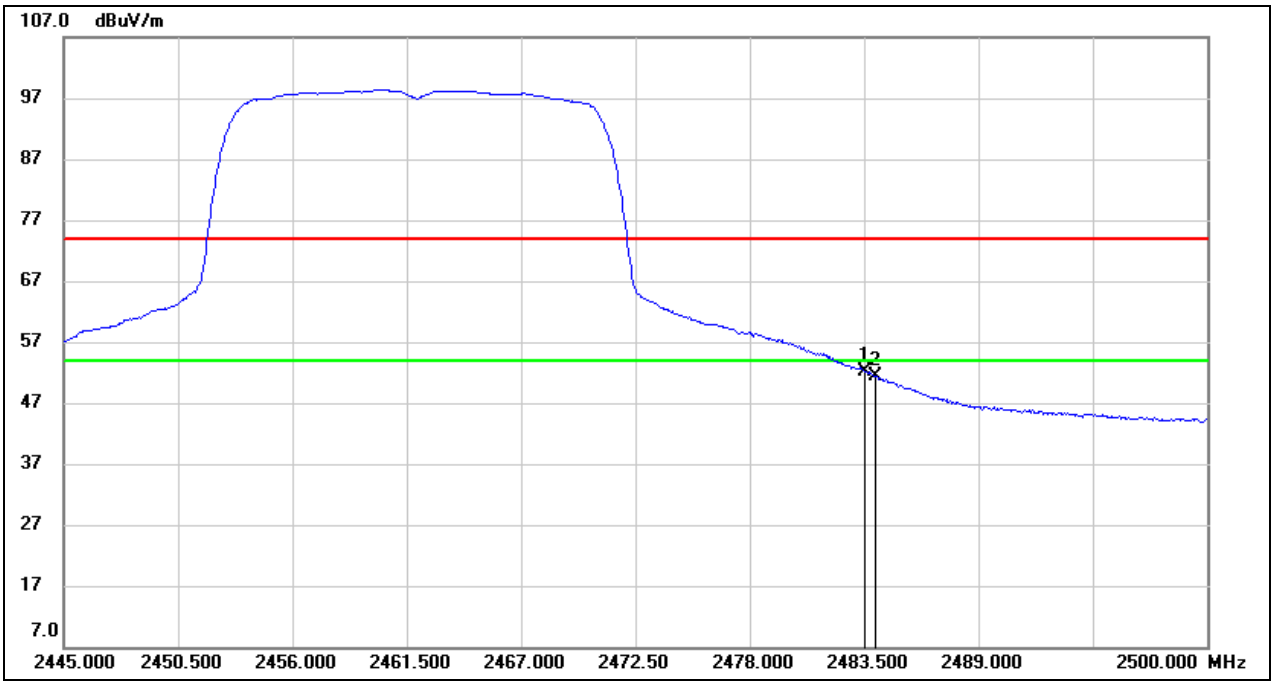
Test Mode:	802.11n HT20 Average	Channel:	2462 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	19.76	32.44	52.20	54.00	-1.80	AVG
2	2483.995	19.05	32.44	51.49	54.00	-2.51	AVG

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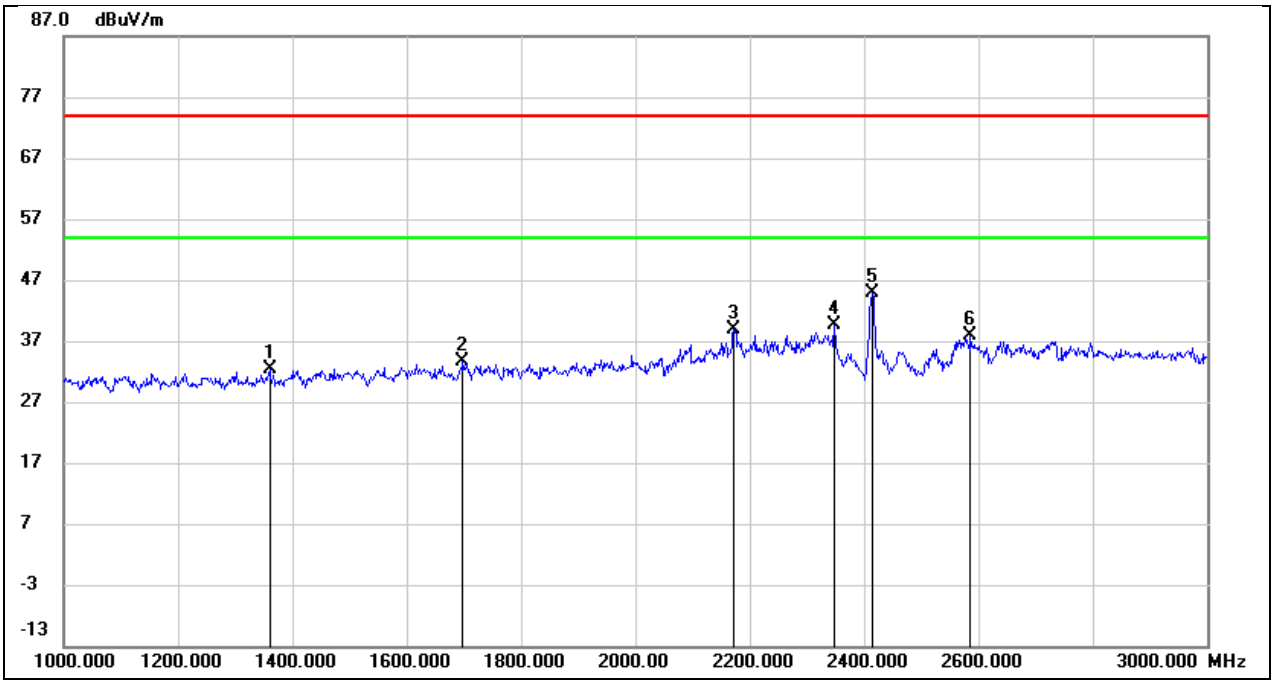
8.2. SPURIOUS EMISSIONS (1 GHZ ~ 3 GHZ)

Test Mode:	802.11g	Channel:	2412 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1360.000	45.63	-13.36	32.27	74.00	-41.73	peak
2	1698.000	45.58	-12.05	33.53	74.00	-40.47	peak
3	2172.000	49.15	-10.17	38.98	74.00	-35.02	peak
4	2348.000	48.85	-9.28	39.57	74.00	-34.43	peak
5	2412.000	53.77	-8.93	44.84	/	/	Fundamental
6	2586.000	46.13	-8.24	37.89	74.00	-36.11	peak

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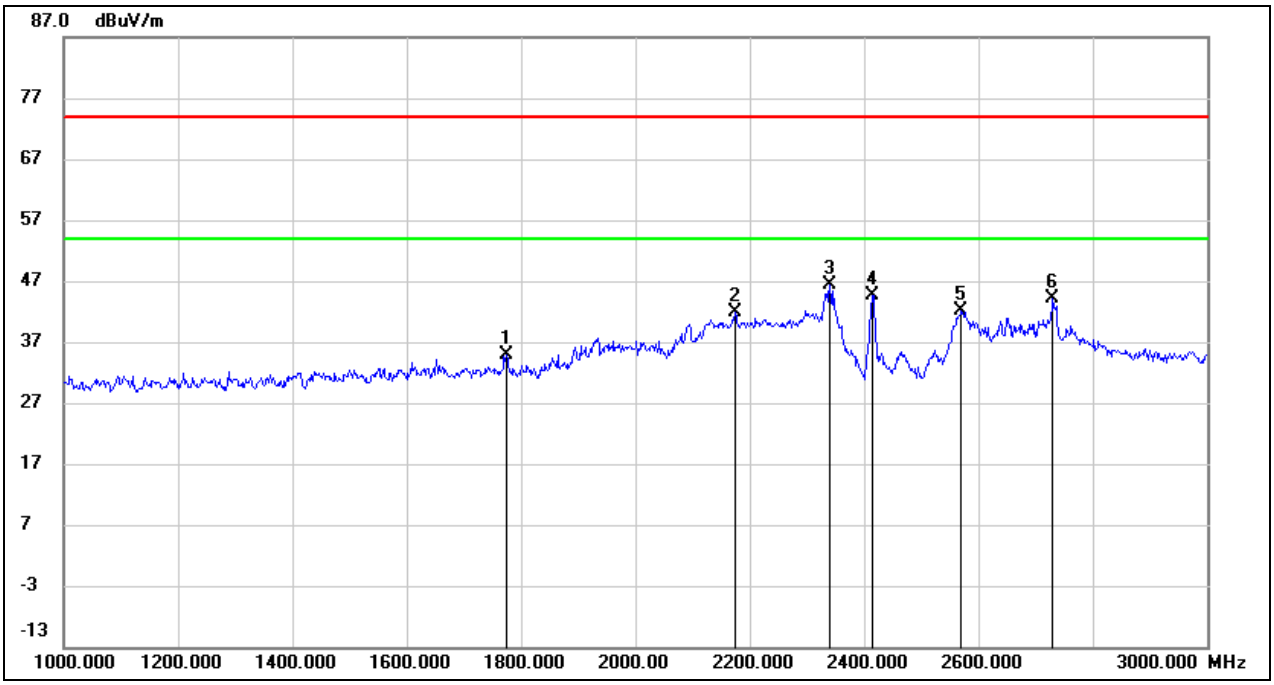
Test Mode:	802.11g	Channel:	2412 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1774.000	46.77	-11.80	34.97	74.00	-39.03	peak
2	2174.000	51.95	-10.17	41.78	74.00	-32.22	peak
3	2340.000	55.65	-9.31	46.34	74.00	-27.66	peak
4	2412.000	53.66	-8.93	44.73	/	/	Fundamental
5	2570.000	50.34	-8.27	42.07	74.00	-31.93	peak
6	2730.000	51.98	-7.80	44.18	74.00	-29.82	peak

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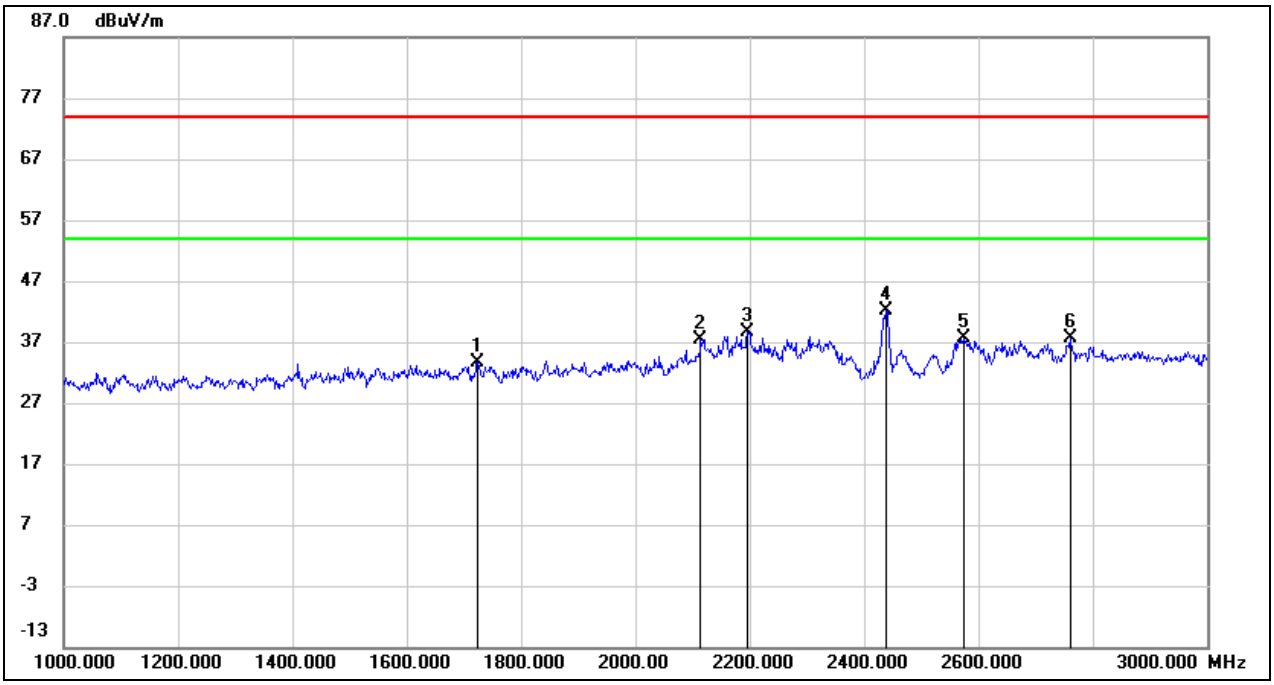
Test Mode:	802.11g	Channel:	2437 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1724.000	45.71	-11.97	33.74	74.00	-40.26	peak
2	2114.000	47.88	-10.47	37.41	74.00	-36.59	peak
3	2196.000	48.72	-10.05	38.67	74.00	-35.33	peak
4	2437.000	50.96	-8.80	42.16	/	/	Fundamental
5	2574.000	45.97	-8.27	37.70	74.00	-36.30	peak
6	2760.000	45.28	-7.70	37.58	74.00	-36.42	peak

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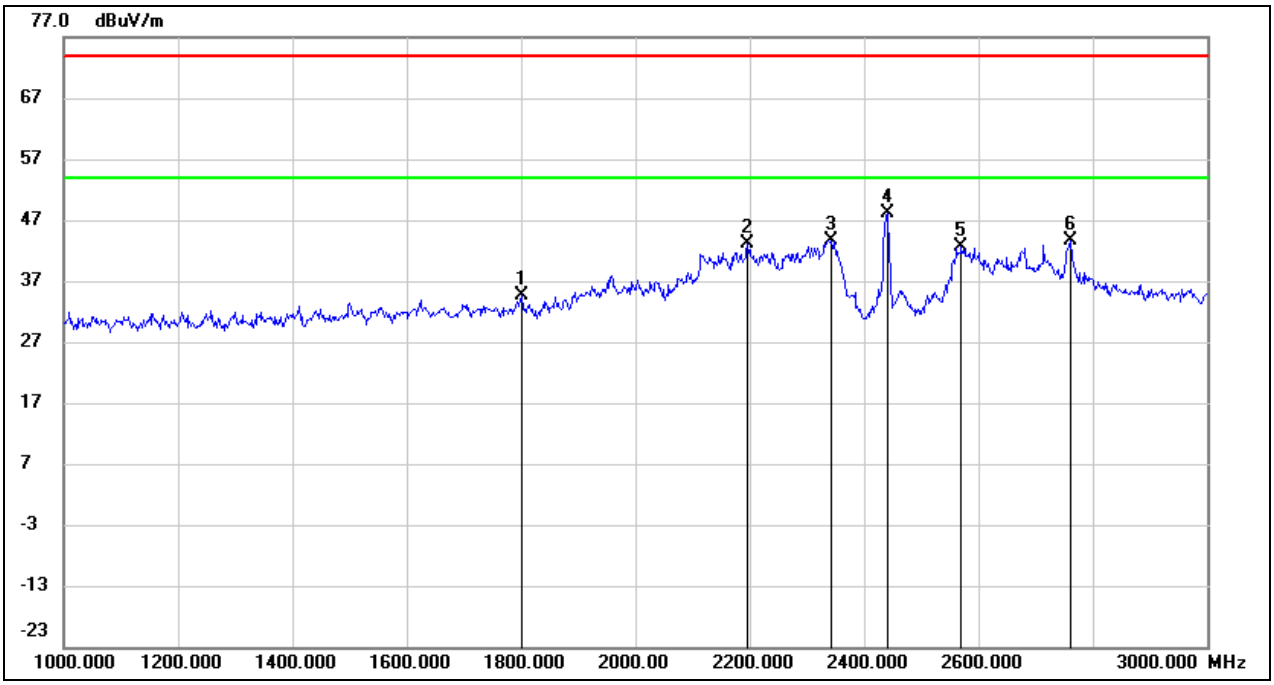
Test Mode:	802.11g	Channel:	2437 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1802.000	46.41	-11.72	34.69	74.00	-39.31	peak
2	2196.000	53.07	-10.05	43.02	74.00	-30.98	peak
3	2342.000	53.03	-9.30	43.73	74.00	-30.27	peak
4	2437.000	56.93	-8.80	48.13	/	/	Fundamental
5	2570.000	51.00	-8.27	42.73	74.00	-31.27	peak
6	2762.000	51.38	-7.70	43.68	74.00	-30.32	peak

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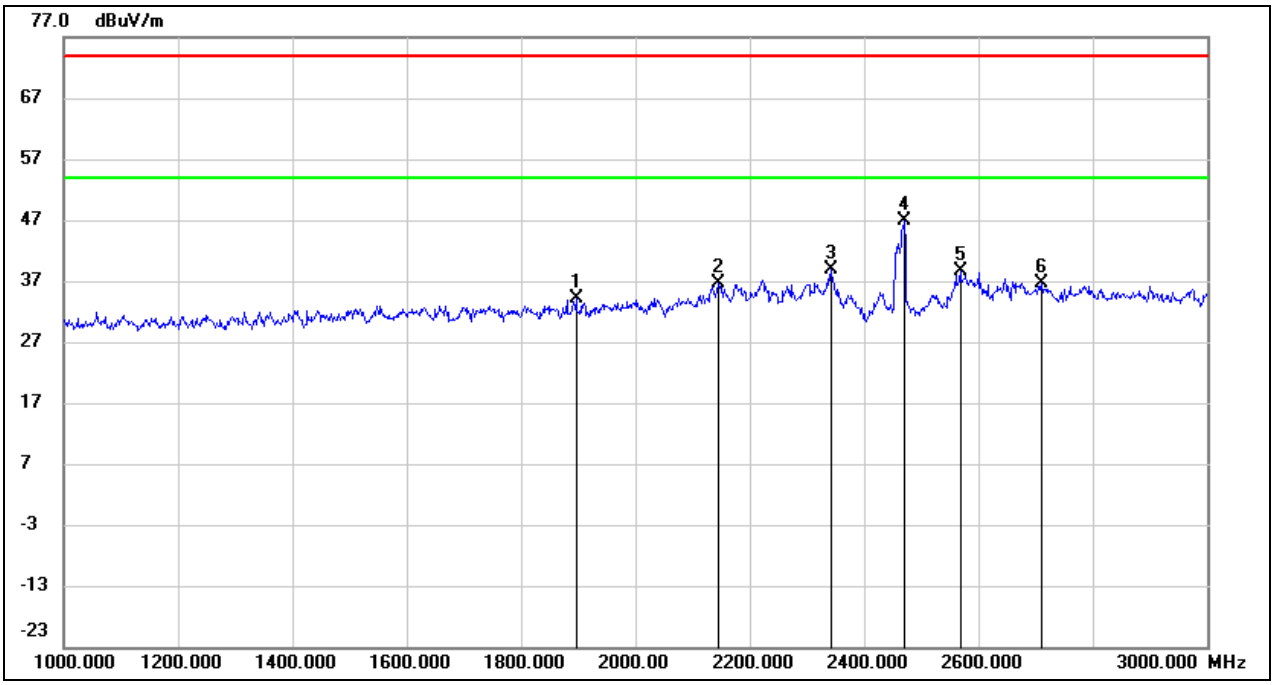
Test Mode:	802.11g	Channel:	2462 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1896.000	45.62	-11.40	34.22	74.00	-39.78	peak
2	2146.000	46.83	-10.31	36.52	74.00	-37.48	peak
3	2342.000	48.10	-9.30	38.80	74.00	-35.20	peak
4	2462.000	55.41	-8.65	46.76	/	/	Fundamental
5	2568.000	46.95	-8.28	38.67	74.00	-35.33	peak
6	2710.000	44.50	-7.85	36.65	74.00	-37.35	peak

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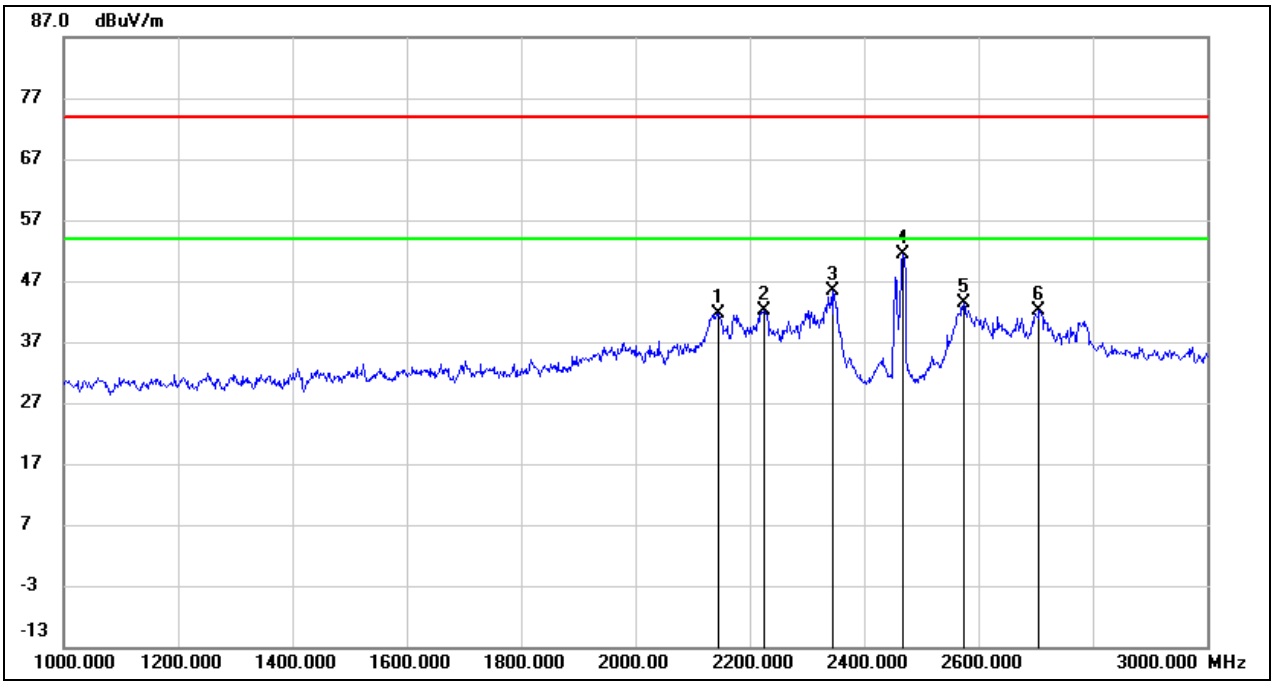
Test Mode:	802.11g	Channel:	2462 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2146.000	51.97	-10.31	41.66	74.00	-32.34	peak
2	2224.000	52.03	-9.91	42.12	74.00	-31.88	peak
3	2346.000	54.68	-9.28	45.40	74.00	-28.60	peak
4	2462.000	59.97	-8.65	51.32	/	/	Fundamental
5	2574.000	51.73	-8.27	43.46	74.00	-30.54	peak
6	2706.000	50.12	-7.87	42.25	74.00	-31.75	peak

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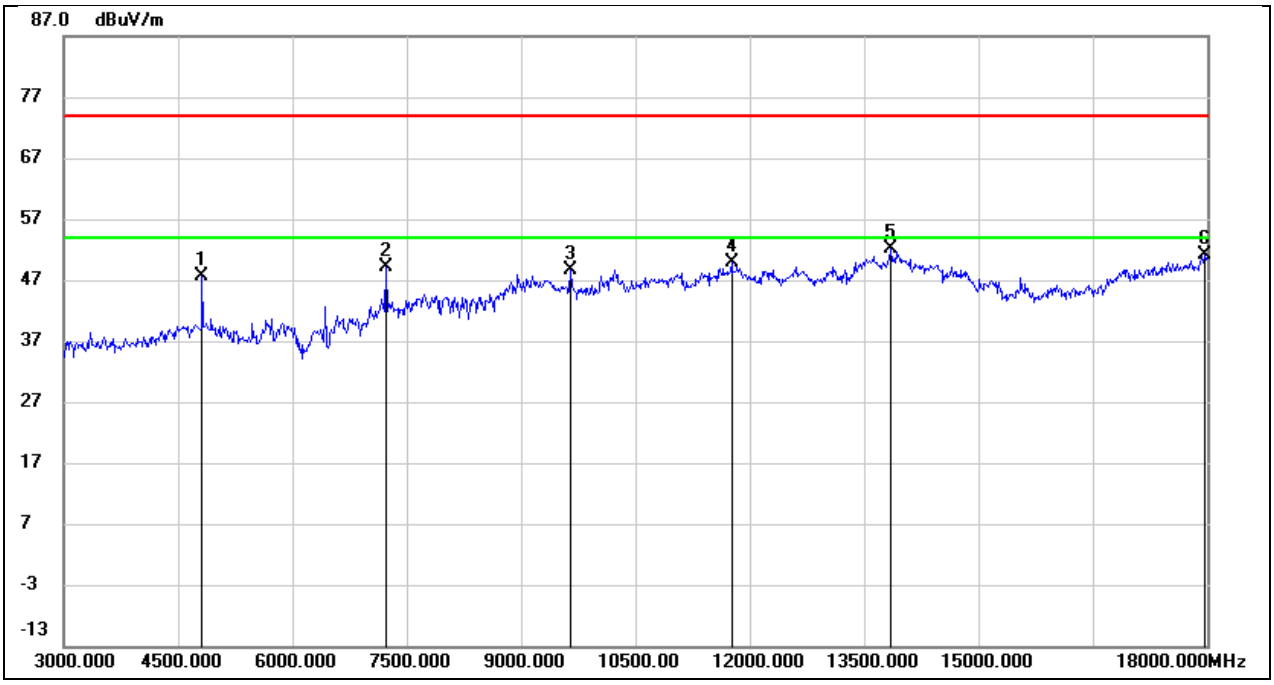
8.3. SPURIOUS EMISSIONS (3 GHZ ~ 18 GHZ)

Test Mode:	802.11b	Channel:	2412 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	48.00	-0.26	47.74	74.00	-26.26	peak
2	7230.000	42.52	6.53	49.05	74.00	-24.95	peak
3	9645.000	37.63	11.08	48.71	74.00	-25.29	peak
4	11760.000	32.59	17.31	49.90	74.00	-24.10	peak
5	13845.000	30.55	21.62	52.17	74.00	-21.83	peak
6	17970.000	25.55	25.51	51.06	74.00	-22.94	peak

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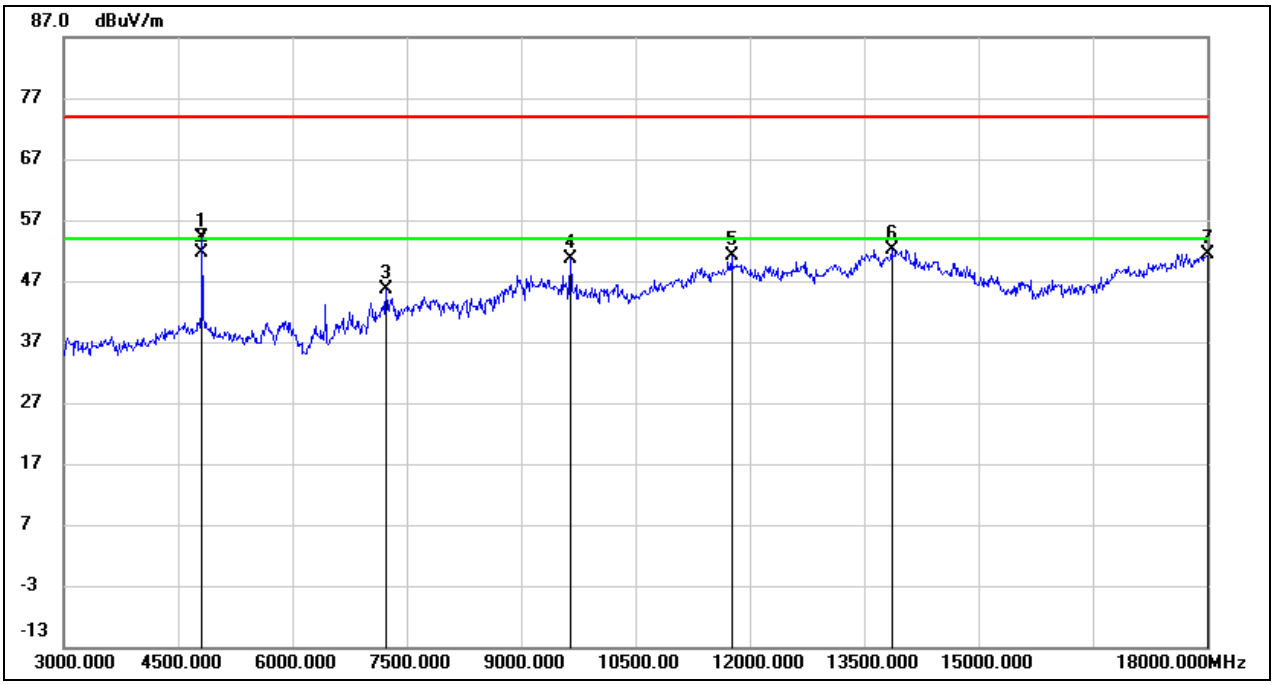
Test Mode:	802.11b	Channel:	2412 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	54.50	-0.26	54.24	74.00	-19.76	peak
2	4815.000	51.96	-0.26	51.70	54.00	-2.30	AVG
3	7230.000	39.00	6.53	45.53	74.00	-28.47	peak
4	9645.000	39.66	11.08	50.74	74.00	-23.26	peak
5	11760.000	33.86	17.31	51.17	74.00	-22.83	peak
6	13860.000	30.55	21.67	52.22	74.00	-21.78	peak
7	18000.000	25.74	25.69	51.43	74.00	-22.57	peak

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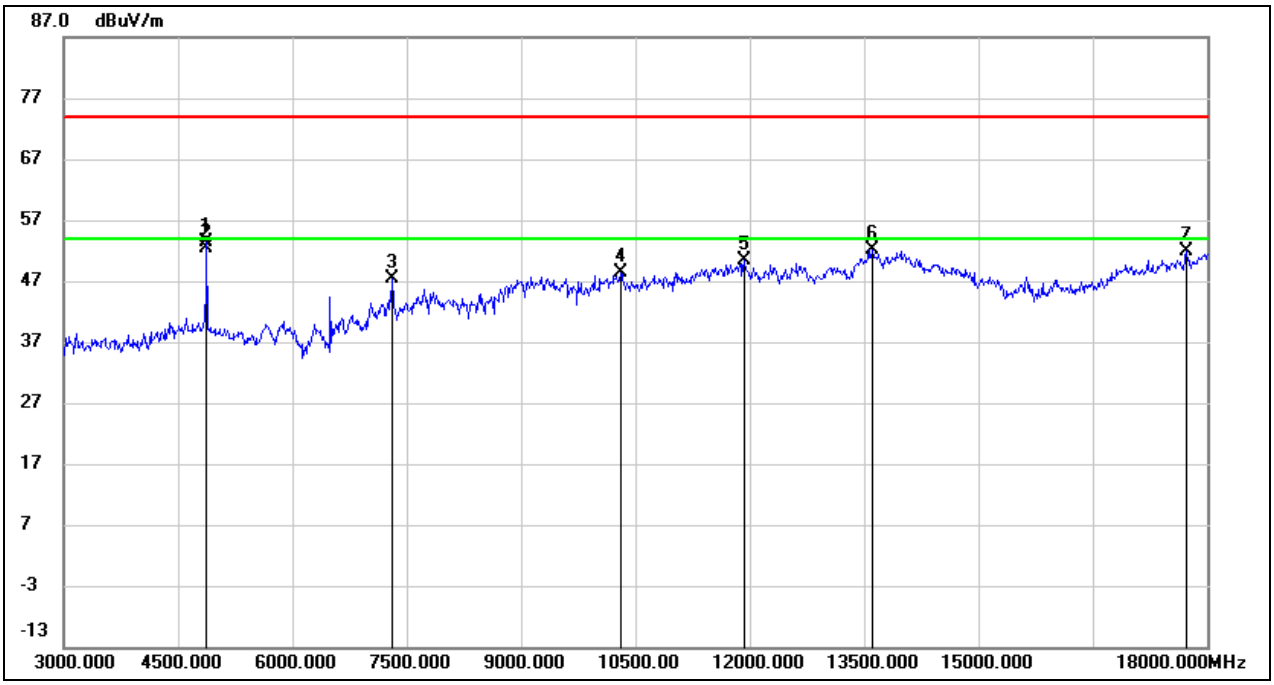
Test Mode:	802.11b	Channel:	2437 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	53.40	-0.03	53.37	74.00	-20.63	peak
2	4875.000	52.42	-0.03	52.39	54.00	-1.61	AVG
3	7305.000	41.02	6.47	47.49	74.00	-26.51	peak
4	10305.000	35.78	12.61	48.39	74.00	-25.61	peak
5	11925.000	32.69	17.75	50.44	74.00	-23.56	peak
6	13605.000	31.01	21.12	52.13	74.00	-21.87	peak
7	17730.000	27.83	24.09	51.92	74.00	-22.08	peak

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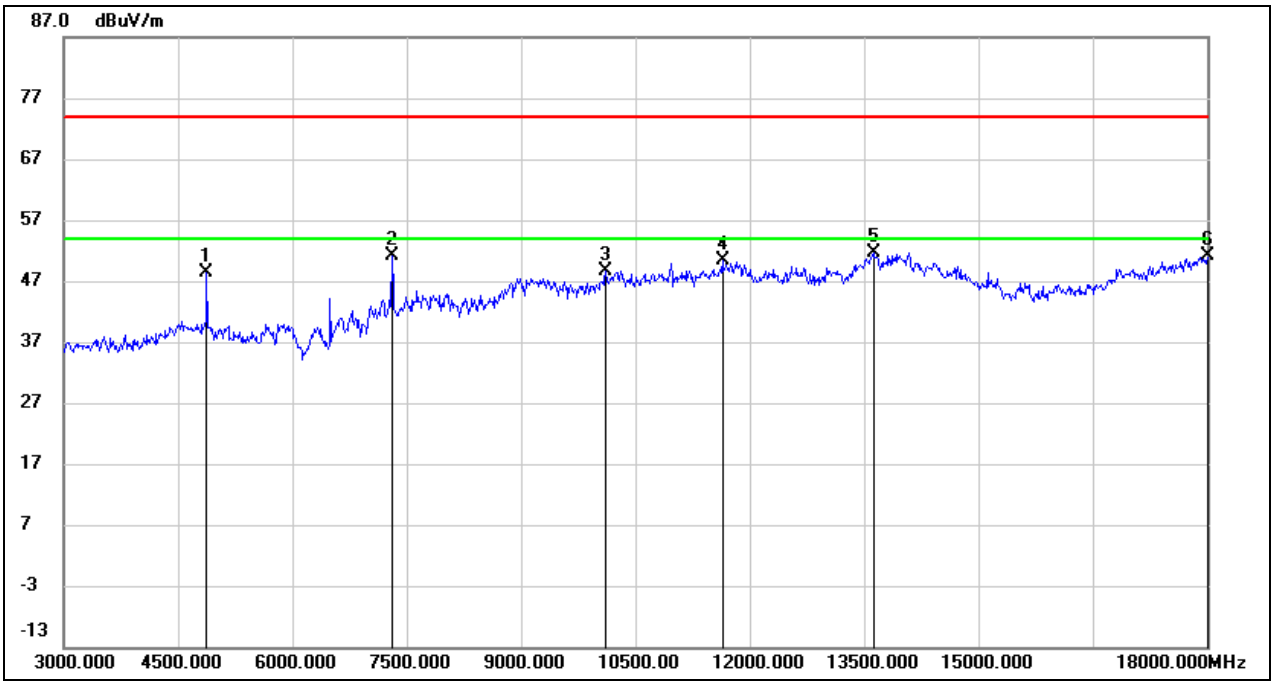
Test Mode:	802.11b	Channel:	2437 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	48.30	-0.03	48.27	74.00	-25.73	peak
2	7305.000	44.76	6.47	51.23	74.00	-22.77	peak
3	10110.000	36.48	12.22	48.70	74.00	-25.30	peak
4	11640.000	33.50	16.98	50.48	74.00	-23.52	peak
5	13620.000	30.57	21.15	51.72	74.00	-22.28	peak
6	18000.000	25.34	25.69	51.03	74.00	-22.97	peak

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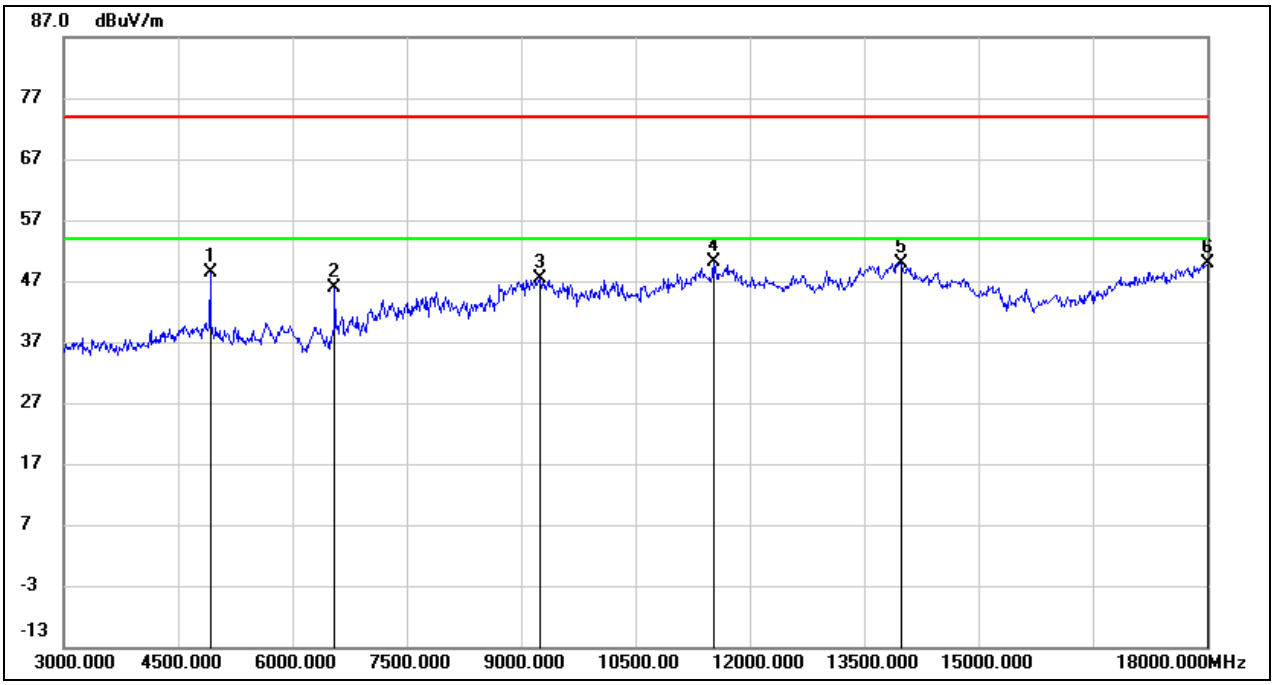
Test Mode:	802.11b	Channel:	2462 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	48.31	0.14	48.45	74.00	-25.55	peak
2	6555.000	41.31	4.49	45.80	74.00	-28.20	peak
3	9255.000	36.72	10.59	47.31	74.00	-26.69	peak
4	11520.000	33.40	16.65	50.05	74.00	-23.95	peak
5	13980.000	28.00	21.92	49.92	74.00	-24.08	peak
6	18000.000	24.15	25.69	49.84	74.00	-24.16	peak

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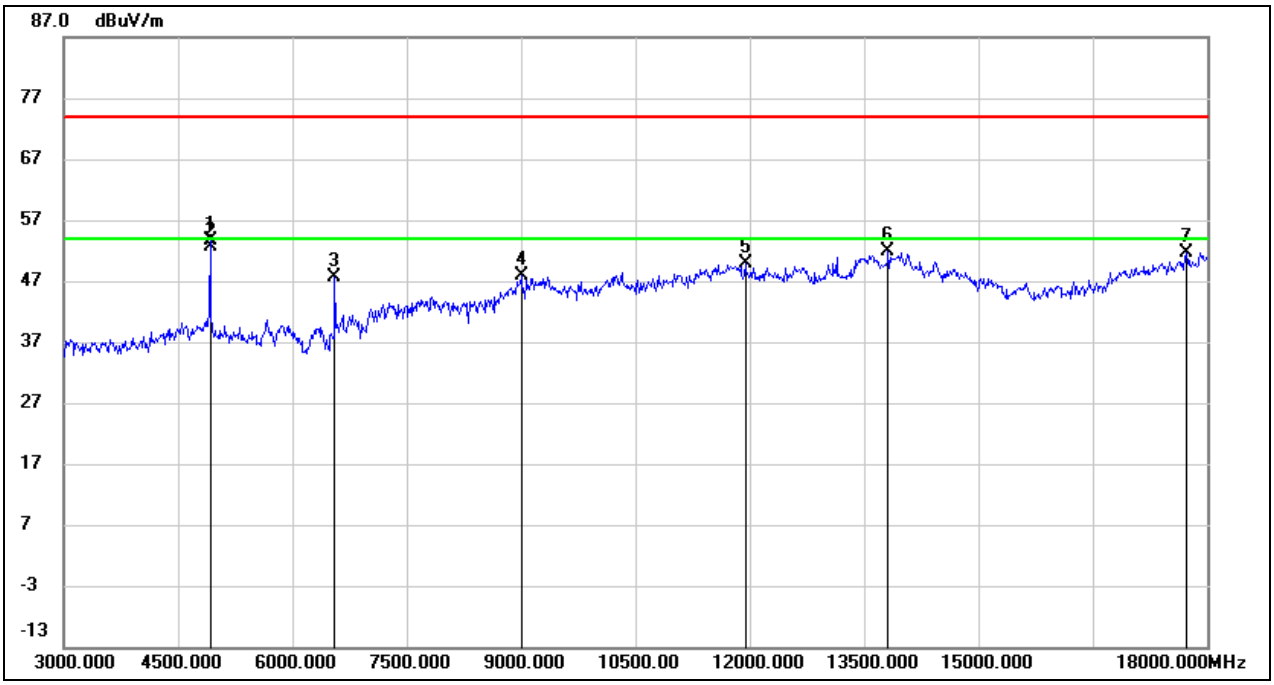
Test Mode:	802.11b	Channel:	2462 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	53.60	0.14	53.74	74.00	-20.26	peak
2	4920.000	52.46	0.14	52.60	54.00	-1.40	AVG
3	6555.000	43.07	4.49	47.56	74.00	-26.44	peak
4	9000.000	37.37	10.48	47.85	74.00	-26.15	peak
5	11940.000	32.00	17.80	49.80	74.00	-24.20	peak
6	13815.000	30.33	21.56	51.89	74.00	-22.11	peak
7	17730.000	27.60	24.09	51.69	74.00	-22.31	peak

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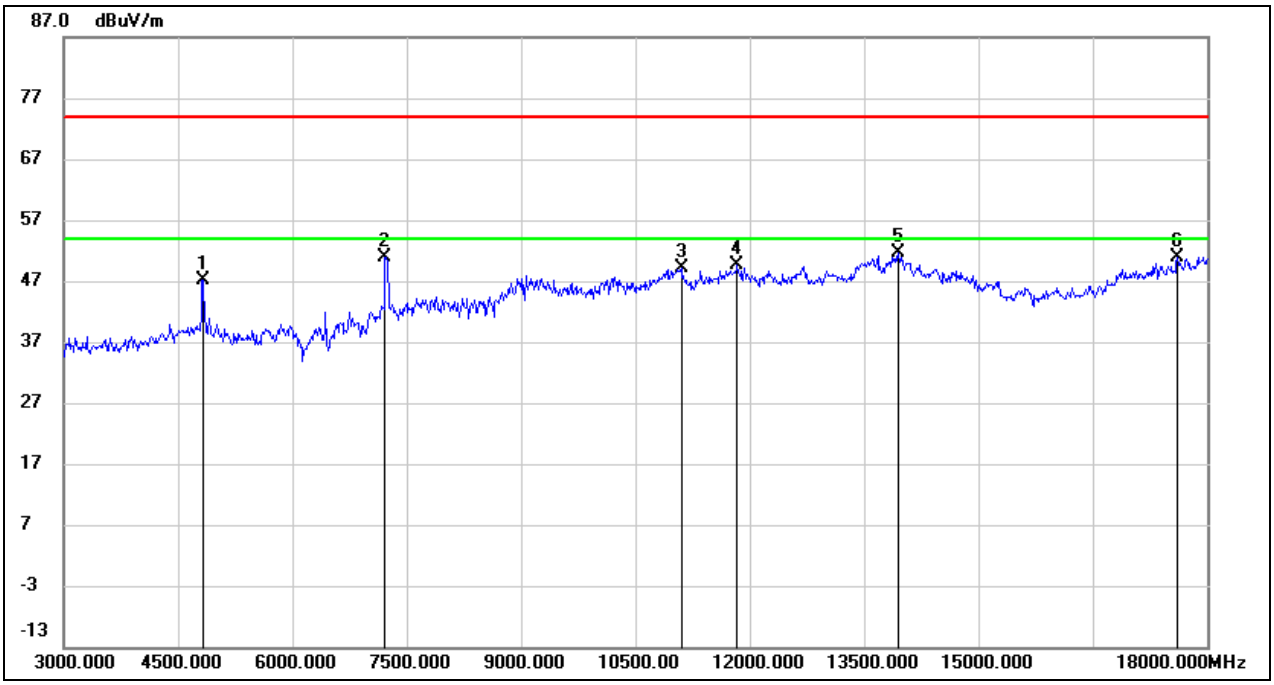
Test Mode:	802.11g	Channel:	2412 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4830.000	47.40	-0.20	47.20	74.00	-26.80	peak
2	7215.000	44.37	6.54	50.91	74.00	-23.09	peak
3	11100.000	33.98	15.14	49.12	74.00	-24.88	peak
4	11835.000	32.18	17.51	49.69	74.00	-24.31	peak
5	13950.000	29.80	21.86	51.66	74.00	-22.34	peak
6	17610.000	27.52	23.38	50.90	74.00	-23.10	peak

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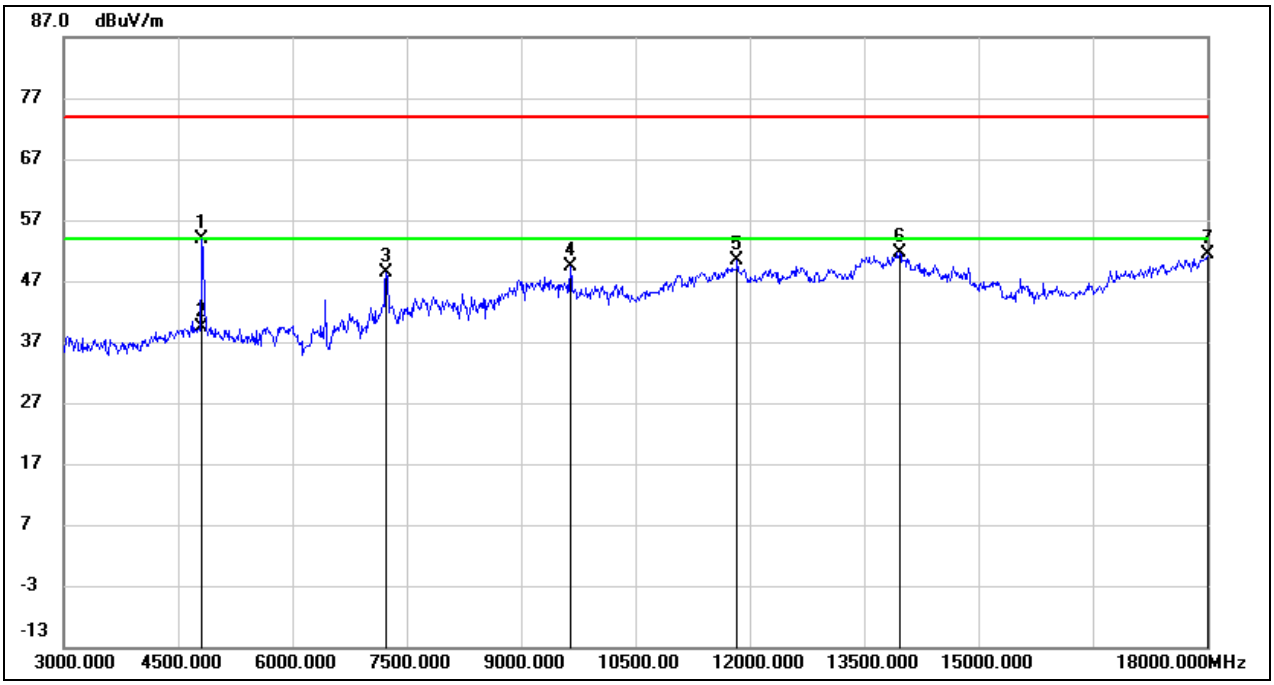
Test Mode:	802.11g	Channel:	2412 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	54.21	-0.26	53.95	74.00	-20.05	peak
2	4815.000	39.76	-0.26	39.50	54.00	-14.50	AVG
3	7230.000	41.76	6.53	48.29	74.00	-25.71	peak
4	9645.000	38.39	11.08	49.47	74.00	-24.53	peak
5	11835.000	32.78	17.51	50.29	74.00	-23.71	peak
6	13965.000	29.64	21.89	51.53	74.00	-22.47	peak
7	18000.000	25.74	25.69	51.43	74.00	-22.57	peak

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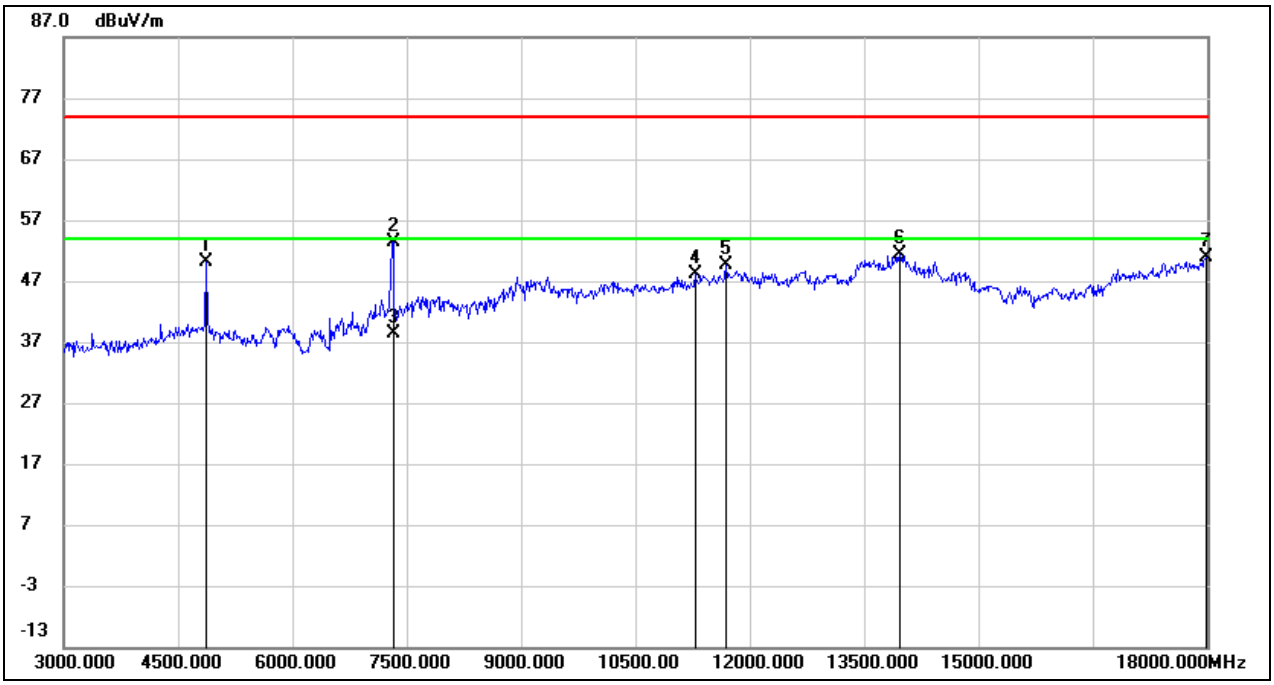
Test Mode:	802.11g	Channel:	2437 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	50.29	-0.09	50.20	74.00	-23.80	peak
2	7320.000	46.95	6.46	53.41	74.00	-20.59	peak
3	7320.000	32.00	6.46	38.46	54.00	-15.54	AVG
4	11280.000	32.33	15.80	48.13	74.00	-25.87	peak
5	11685.000	32.53	17.10	49.63	74.00	-24.37	peak
6	13965.000	29.41	21.89	51.30	74.00	-22.70	peak
7	17985.000	25.24	25.60	50.84	74.00	-23.16	peak

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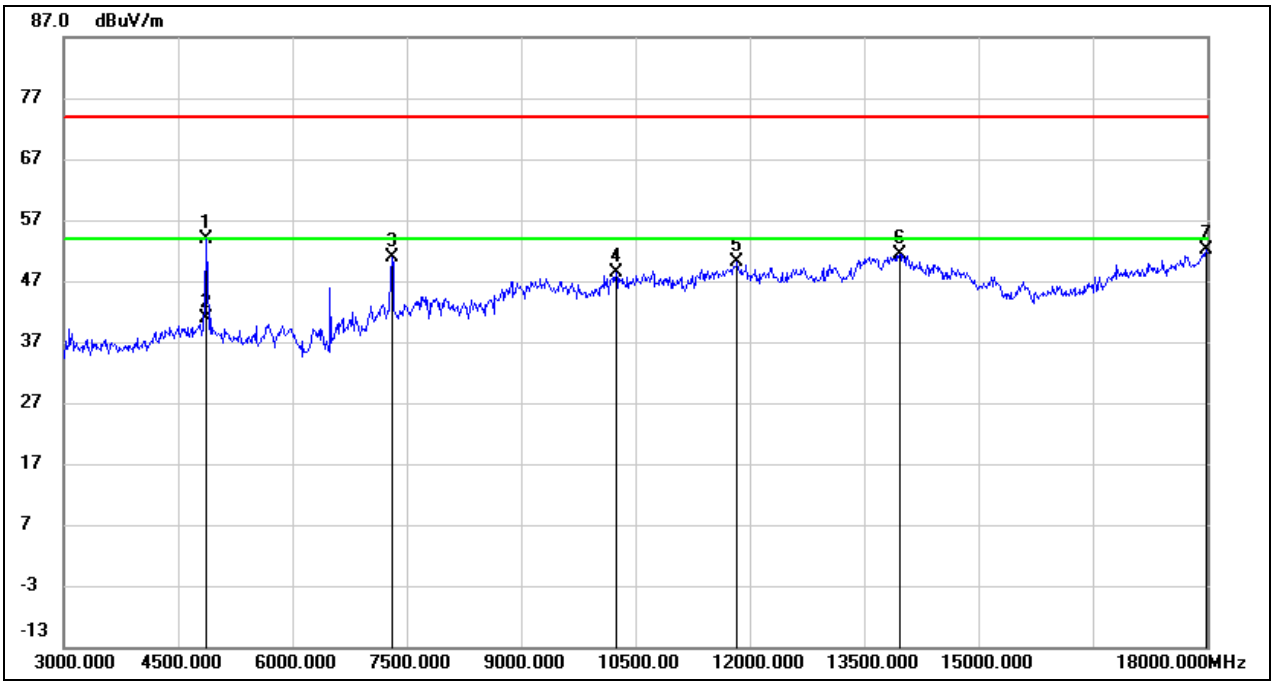
Test Mode:	802.11g	Channel:	2437 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	53.91	-0.03	53.88	74.00	-20.12	peak
2	4875.000	40.83	-0.03	40.80	54.00	-13.20	AVG
3	7305.000	44.33	6.47	50.80	74.00	-23.20	peak
4	10245.000	35.84	12.48	48.32	74.00	-25.68	peak
5	11835.000	32.58	17.51	50.09	74.00	-23.91	peak
6	13965.000	29.45	21.89	51.34	74.00	-22.66	peak
7	17985.000	26.63	25.60	52.23	74.00	-21.77	peak

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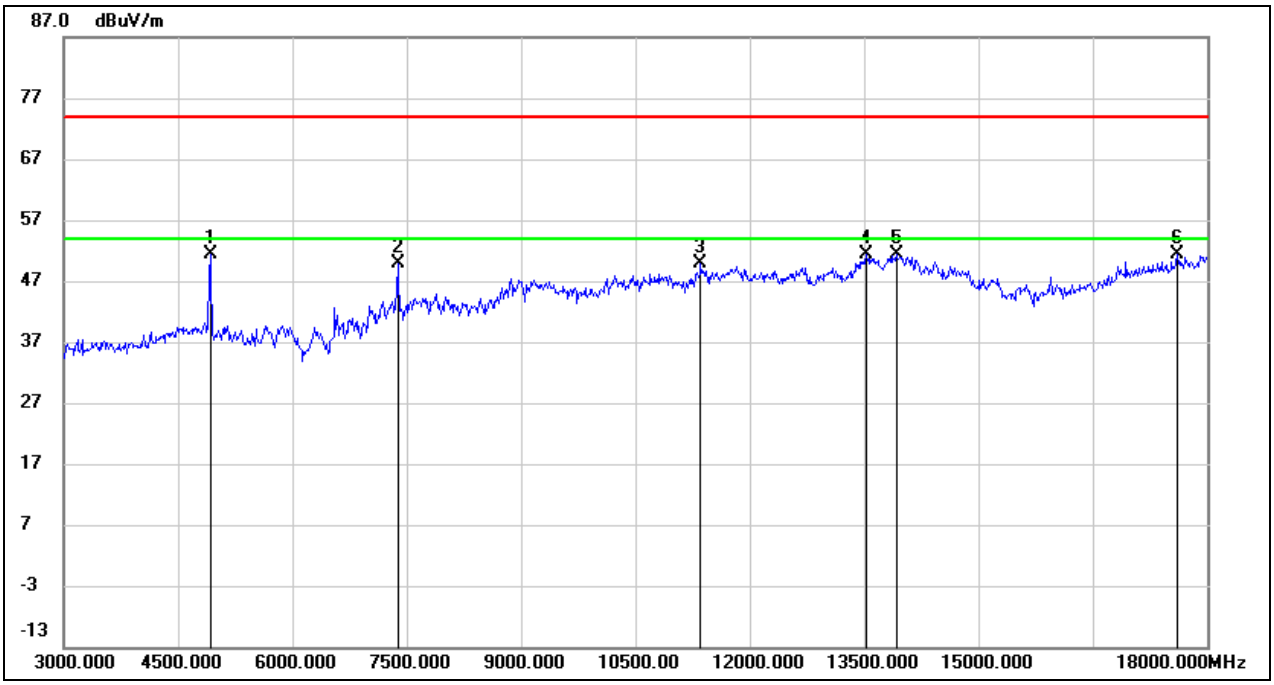
Test Mode:	802.11g	Channel:	2462 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	51.16	0.14	51.30	74.00	-22.70	peak
2	7380.000	43.50	6.42	49.92	74.00	-24.08	peak
3	11355.000	33.85	16.06	49.91	74.00	-24.09	peak
4	13530.000	30.32	20.96	51.28	74.00	-22.72	peak
5	13920.000	29.47	21.79	51.26	74.00	-22.74	peak
6	17610.000	28.06	23.38	51.44	74.00	-22.56	peak

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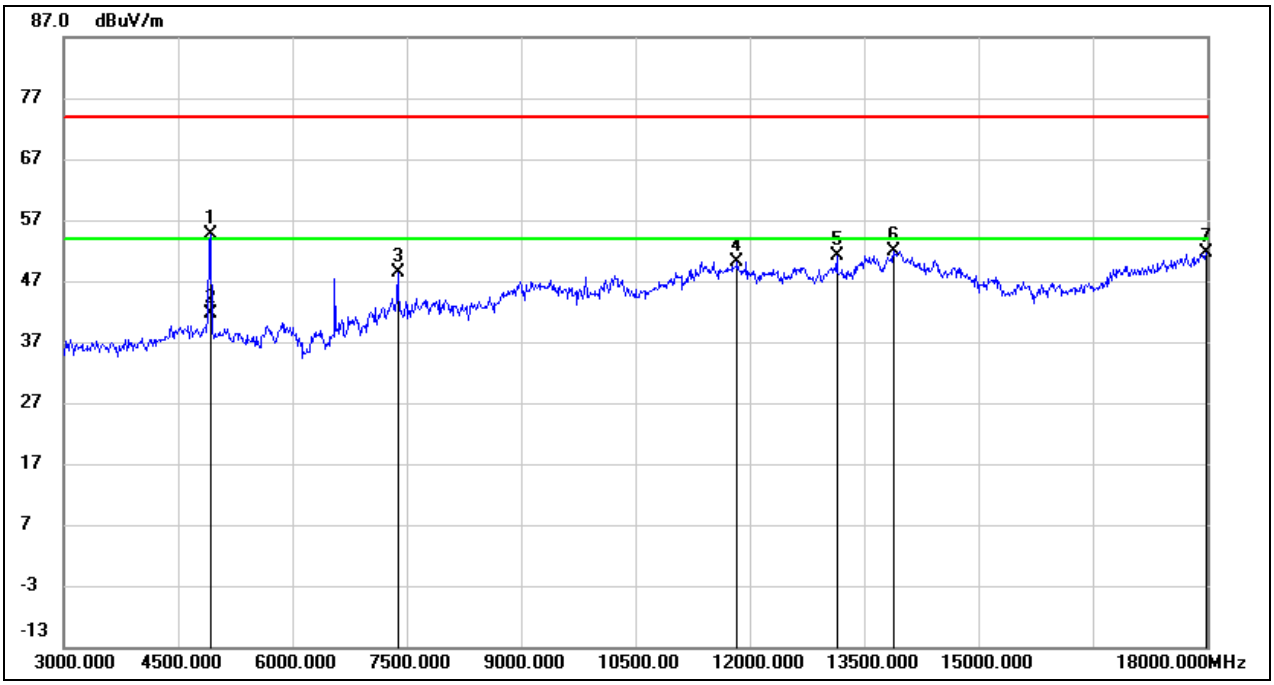
Test Mode:	802.11g	Channel:	2462 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	54.51	0.14	54.65	74.00	-19.35	peak
2	4920.000	41.56	0.14	41.70	54.00	-12.30	AVG
3	7380.000	42.05	6.42	48.47	74.00	-25.53	peak
4	11835.000	32.65	17.51	50.16	74.00	-23.84	peak
5	13140.000	31.89	19.33	51.22	74.00	-22.78	peak
6	13890.000	30.10	21.72	51.82	74.00	-22.18	peak
7	17985.000	26.02	25.60	51.62	74.00	-22.38	peak

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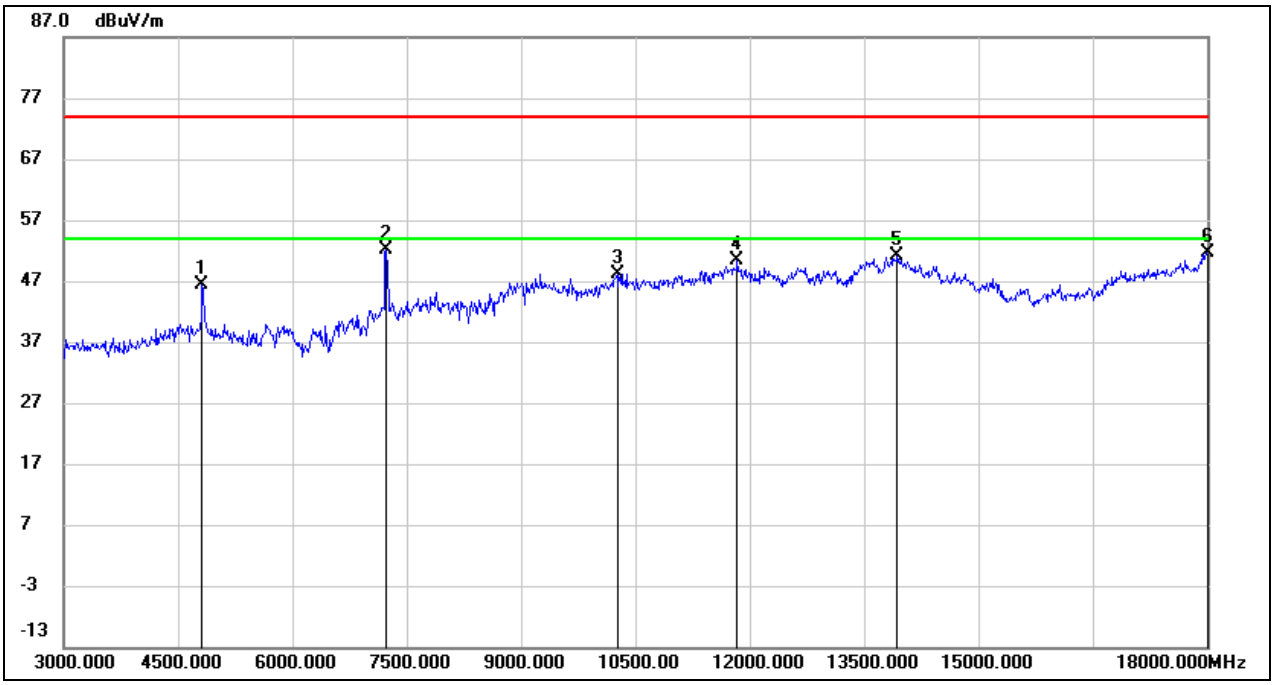
Test Mode:	802.11n HT20	Channel:	2412 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	46.55	-0.26	46.29	74.00	-27.71	peak
2	7230.000	45.70	6.53	52.23	74.00	-21.77	peak
3	10260.000	35.72	12.52	48.24	74.00	-25.76	peak
4	11835.000	32.78	17.51	50.29	74.00	-23.71	peak
5	13935.000	29.26	21.82	51.08	74.00	-22.92	peak
6	18000.000	25.97	25.69	51.66	74.00	-22.34	peak

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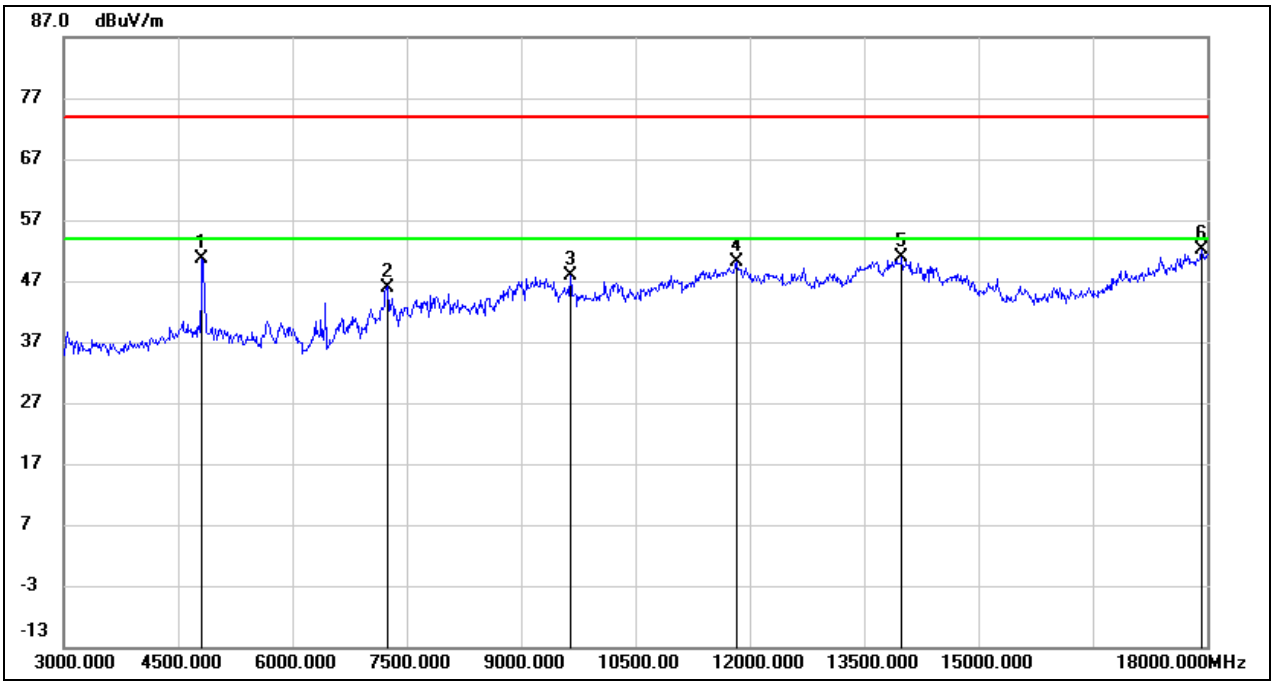
Test Mode:	802.11n HT20	Channel:	2412 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	50.87	-0.26	50.61	74.00	-23.39	peak
2	7245.000	39.49	6.51	46.00	74.00	-28.00	peak
3	9645.000	36.80	11.08	47.88	74.00	-26.12	peak
4	11820.000	32.63	17.47	50.10	74.00	-23.90	peak
5	13995.000	28.92	21.95	50.87	74.00	-23.13	peak
6	17925.000	26.82	25.25	52.07	74.00	-21.93	peak

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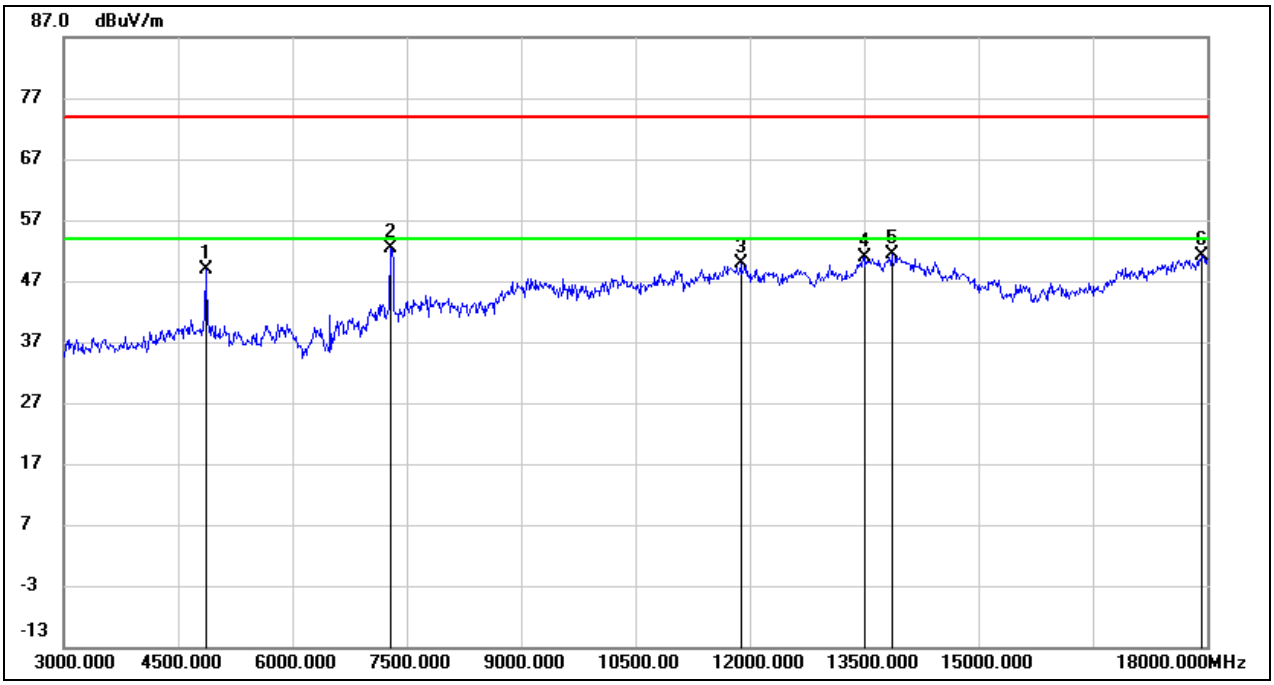
Test Mode:	802.11n HT20	Channel:	2437 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	48.91	-0.09	48.82	74.00	-25.18	peak
2	7290.000	45.87	6.48	52.35	74.00	-21.65	peak
3	11880.000	32.31	17.63	49.94	74.00	-24.06	peak
4	13500.000	29.98	20.90	50.88	74.00	-23.12	peak
5	13860.000	29.82	21.67	51.49	74.00	-22.51	peak
6	17925.000	25.99	25.25	51.24	74.00	-22.76	peak

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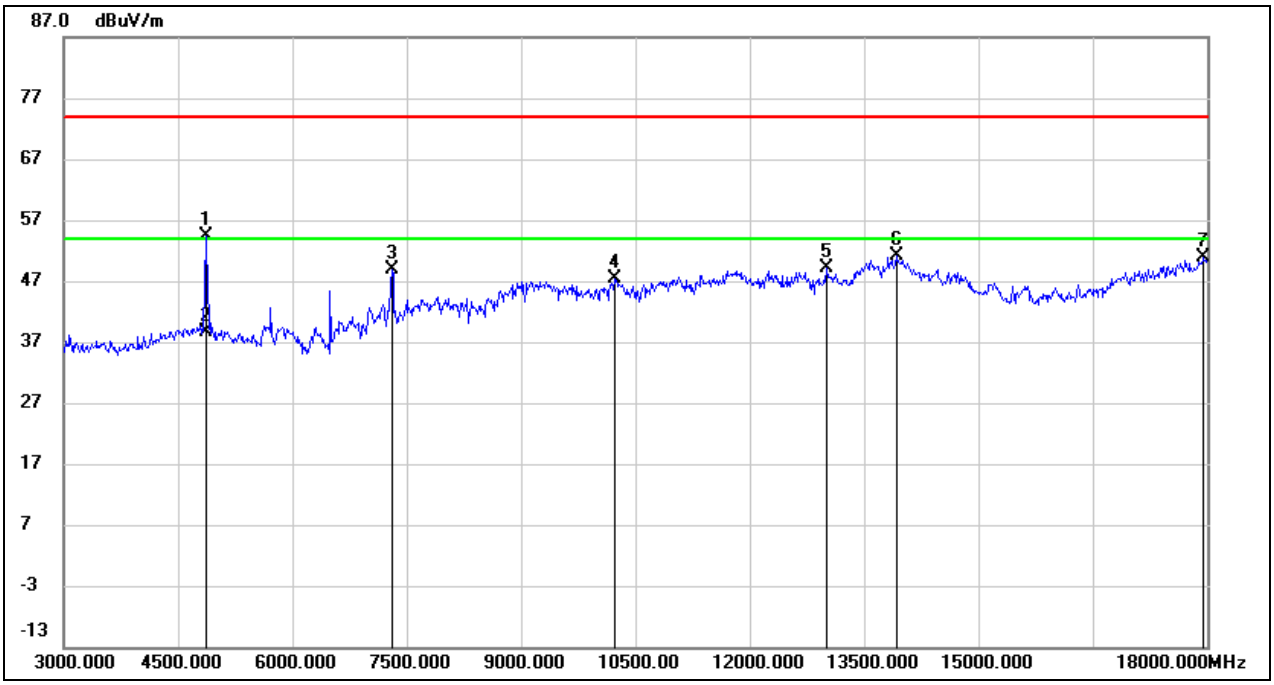
Test Mode:	802.11n HT20	Channel:	2437 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	54.43	-0.09	54.34	74.00	-19.66	peak
2	4860.000	38.69	-0.09	38.60	54.00	-15.40	AVG
3	7305.000	42.42	6.47	48.89	74.00	-25.11	peak
4	10230.000	34.80	12.46	47.26	74.00	-26.74	peak
5	13005.000	30.42	18.74	49.16	74.00	-24.84	peak
6	13920.000	29.37	21.79	51.16	74.00	-22.84	peak
7	17955.000	25.50	25.42	50.92	74.00	-23.08	peak

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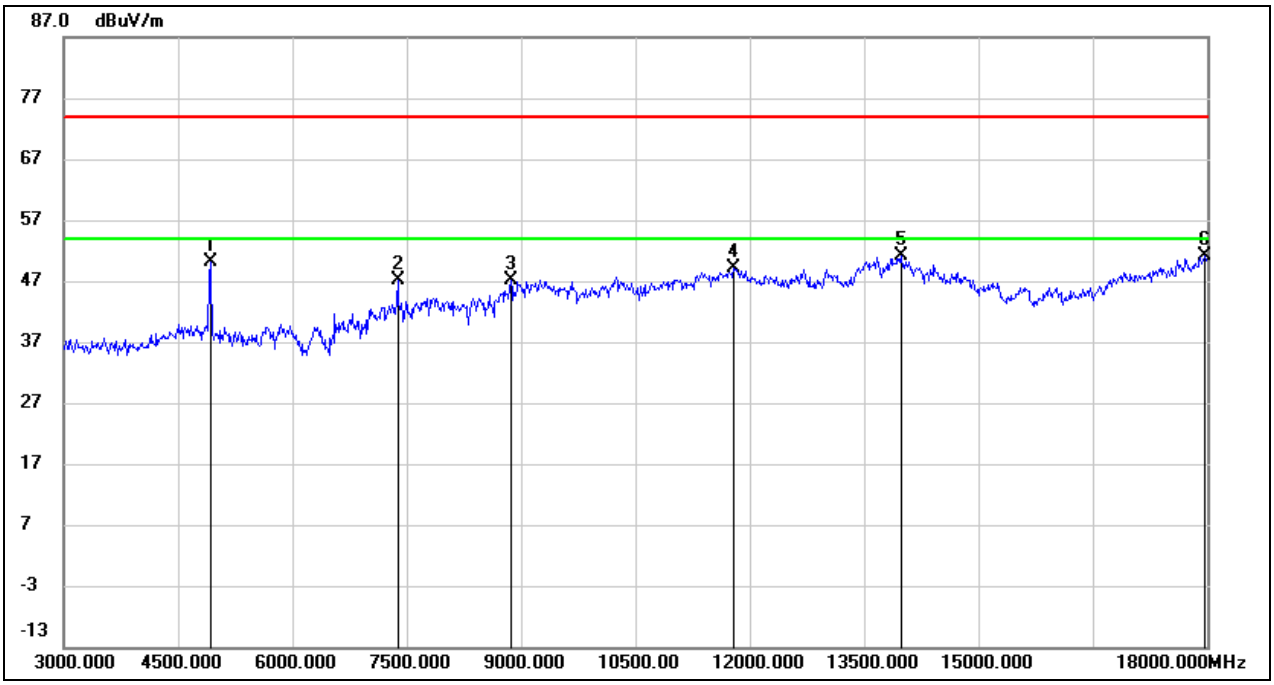
Test Mode:	802.11n HT20	Channel:	2462 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	49.92	0.14	50.06	74.00	-23.94	peak
2	7380.000	40.79	6.42	47.21	74.00	-26.79	peak
3	8865.000	37.66	9.50	47.16	74.00	-26.84	peak
4	11790.000	31.76	17.38	49.14	74.00	-24.86	peak
5	13980.000	29.16	21.92	51.08	74.00	-22.92	peak
6	17970.000	25.54	25.51	51.05	74.00	-22.95	peak

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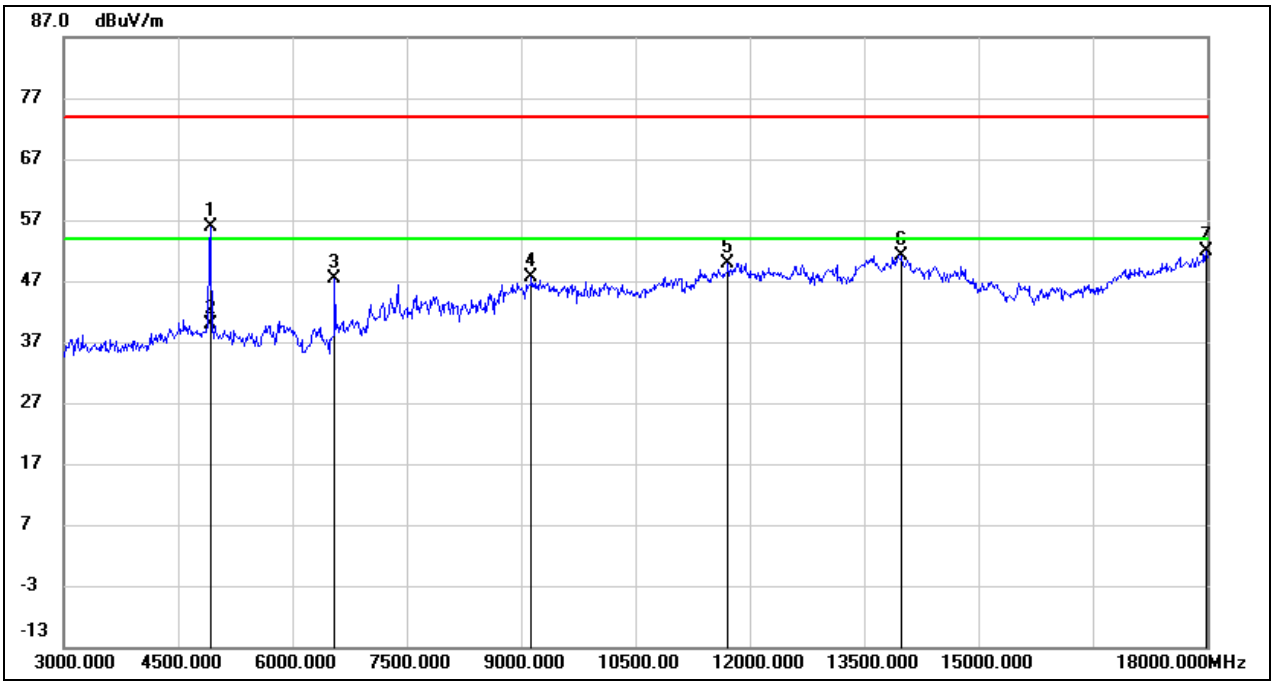
Test Mode:	802.11n HT20	Channel:	2462 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	55.67	0.14	55.81	74.00	-18.19	peak
2	4920.000	39.75	0.14	39.89	54.00	-14.11	AVG
3	6555.000	42.80	4.49	47.29	74.00	-26.71	peak
4	9135.000	36.96	10.55	47.51	74.00	-26.49	peak
5	11715.000	32.80	17.19	49.99	74.00	-24.01	peak
6	13995.000	29.27	21.95	51.22	74.00	-22.78	peak
7	17985.000	26.30	25.60	51.90	74.00	-22.10	peak

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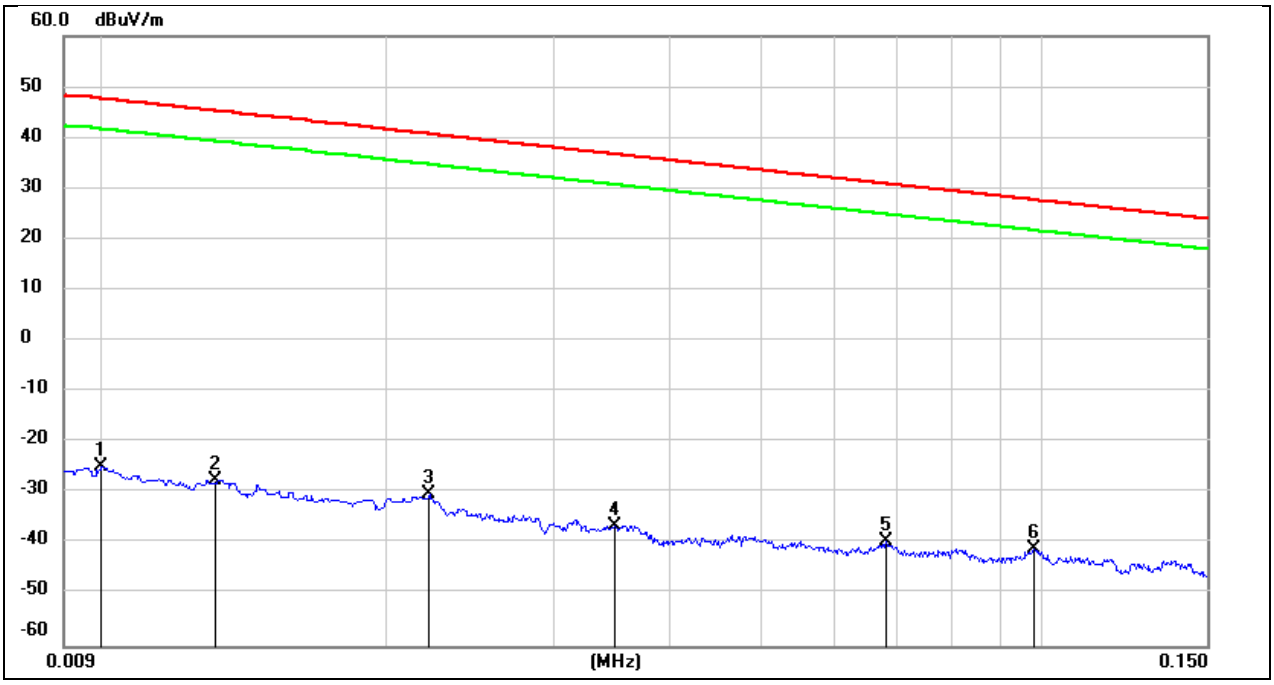
8.4. SPURIOUS EMISSIONS (9 KHZ ~ 30 MHZ)

Test Mode:	802.11g	Channel:	2437 MHz
Polarity:	Loop Antenna Face On To The EUT	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0100	76.72	-101.40	-24.68	47.60	-72.28	peak
2	0.0131	73.97	-101.38	-27.41	45.25	-72.66	peak
3	0.0221	71.13	-101.35	-30.22	40.71	-70.93	peak
4	0.0349	65.03	-101.41	-36.38	36.75	-73.13	peak
5	0.0680	62.04	-101.56	-39.52	30.95	-70.47	peak
6	0.0981	60.77	-101.78	-41.01	27.77	-68.78	peak

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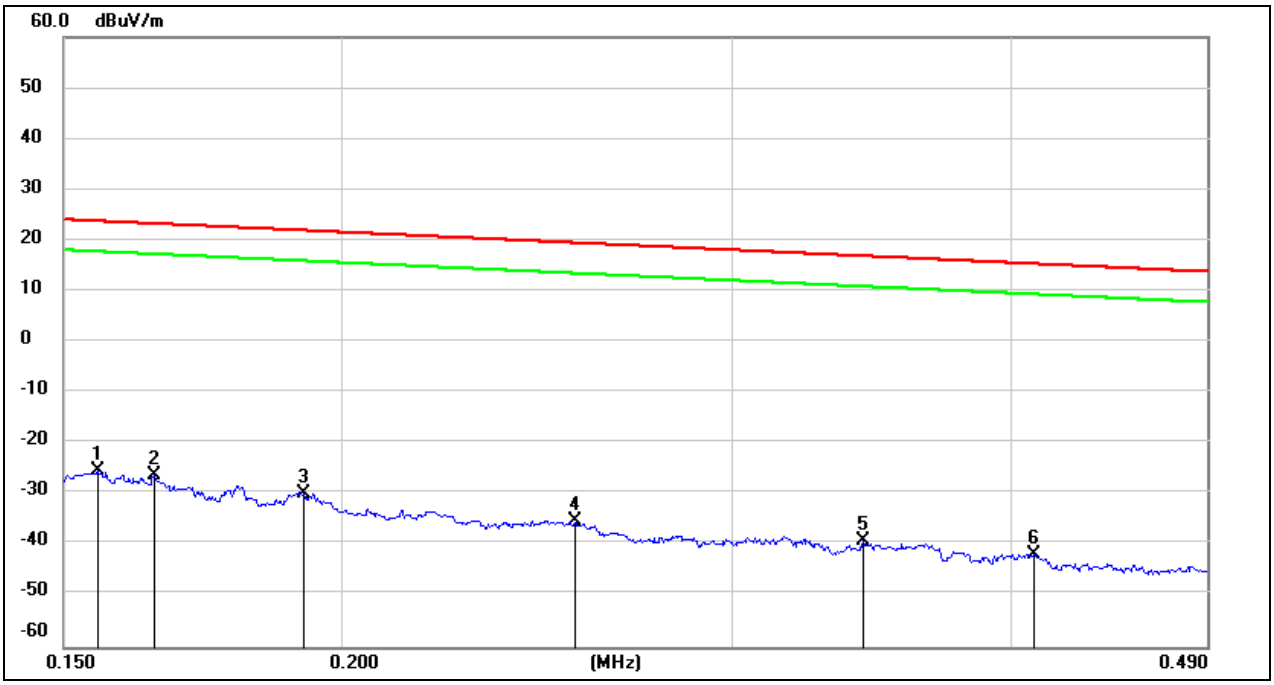
Test Mode:	802.11g	Channel:	2437 MHz
Polarity:	Loop Antenna Face On To The EUT	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1554	76.27	-101.65	-25.38	23.77	-49.15	peak
2	0.1647	75.26	-101.66	-26.40	23.27	-49.67	peak
3	0.1925	71.96	-101.70	-29.74	21.92	-51.66	peak
4	0.2545	66.40	-101.80	-35.40	19.49	-54.89	peak
5	0.3431	62.67	-101.90	-39.23	16.89	-56.12	peak
6	0.4097	60.02	-101.97	-41.95	15.35	-57.30	peak

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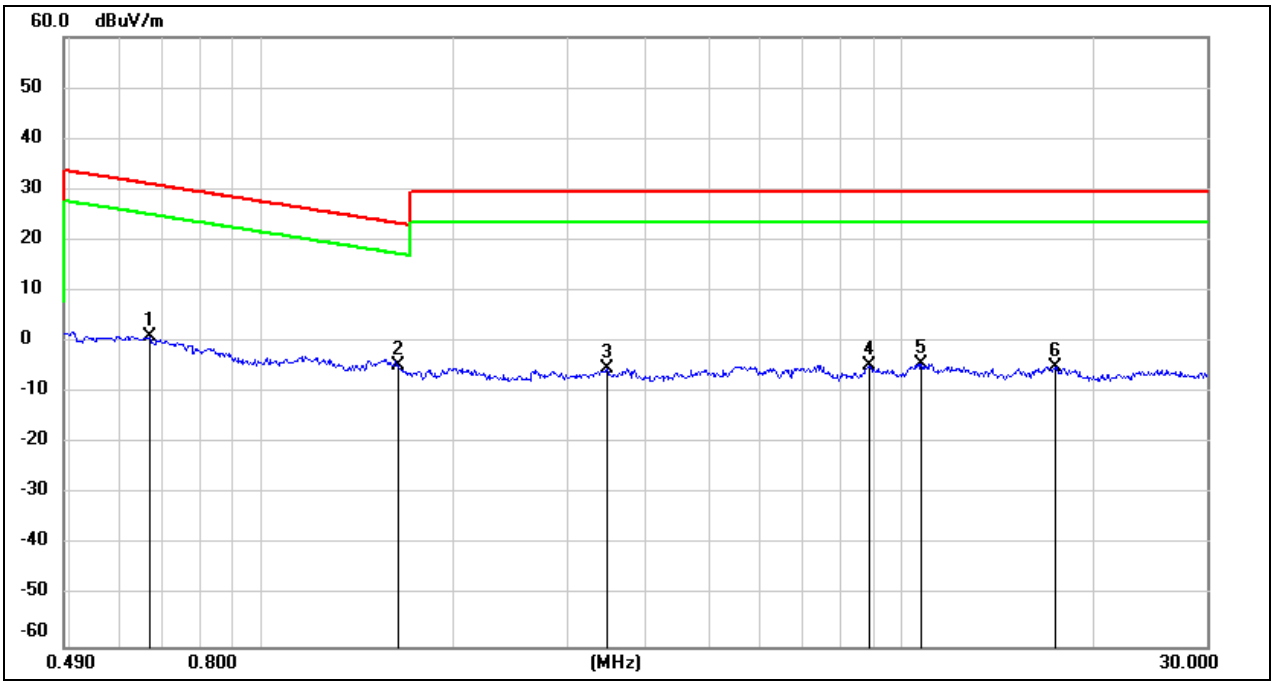
Test Mode:	802.11g	Channel:	2437 MHz
Polarity:	Loop Antenna Face On To The EUT	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.6671	63.25	-62.10	1.15	31.12	-29.97	peak
2	1.6409	57.24	-61.98	-4.74	23.30	-28.04	peak
3	3.4704	56.35	-61.46	-5.11	29.54	-34.65	peak
4	8.9001	56.41	-60.95	-4.54	29.54	-34.08	peak
5	10.7299	56.48	-60.83	-4.35	29.54	-33.89	peak
6	17.3992	55.93	-60.92	-4.99	29.54	-34.53	peak

Note: All the modes have been tested, only the worst data was recorded in the report.

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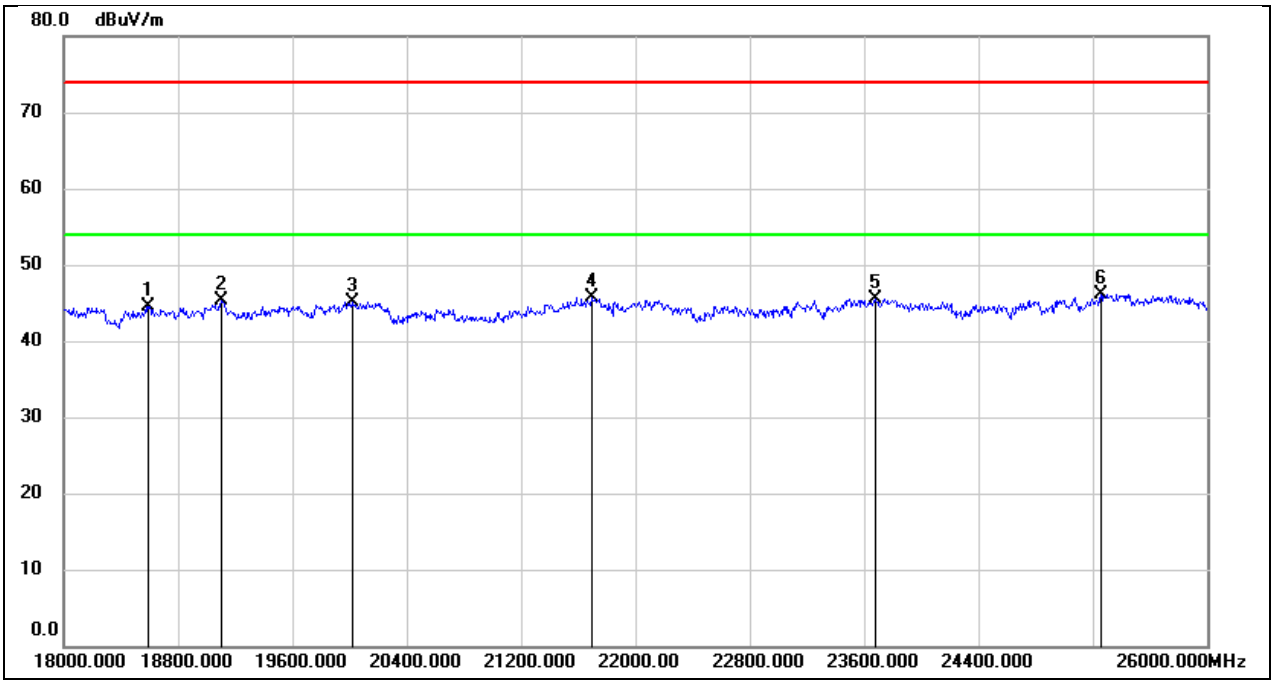
8.5. SPURIOUS EMISSIONS (18 GHZ ~ 26 GHZ)

Test Mode:	802.11g	Channel:	2437 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18592.000	49.75	-5.31	44.44	74.00	-29.56	peak
2	19104.000	50.62	-5.37	45.25	74.00	-28.75	peak
3	20016.000	50.56	-5.47	45.09	74.00	-28.91	peak
4	21696.000	50.03	-4.40	45.63	74.00	-28.37	peak
5	23680.000	48.66	-3.18	45.48	74.00	-28.52	peak
6	25256.000	47.79	-1.67	46.12	74.00	-27.88	peak

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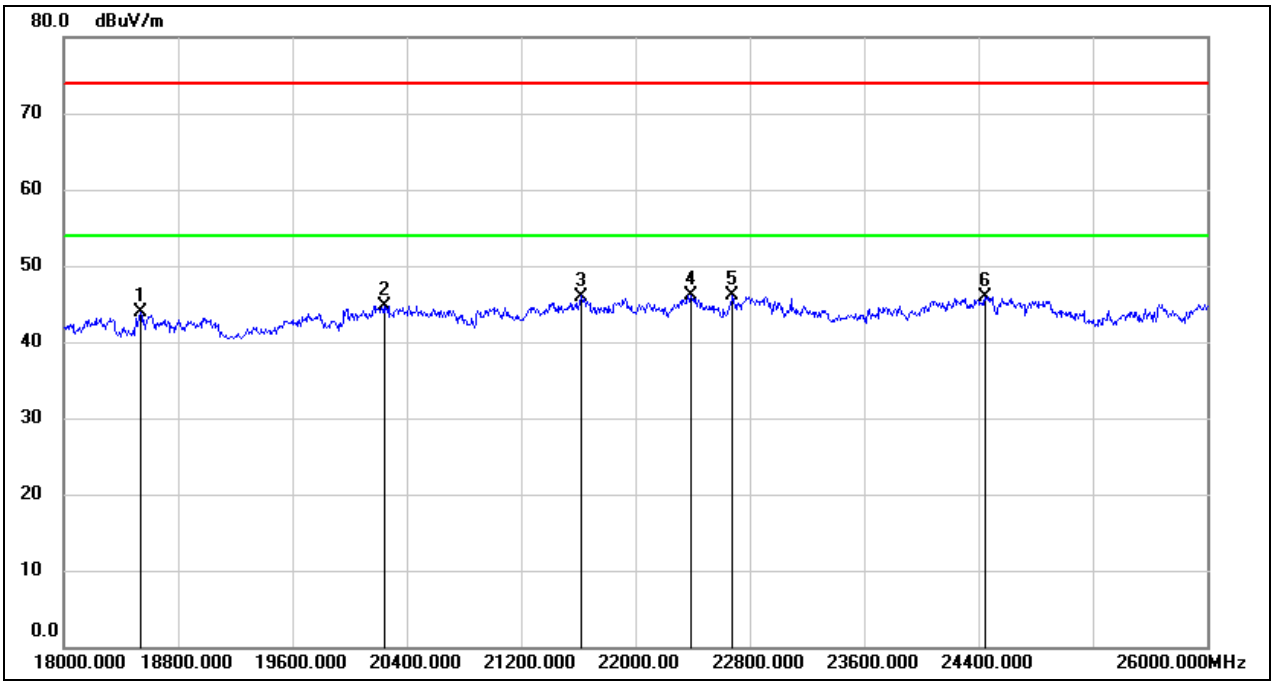
Test Mode:	802.11g	Channel:	2437 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18536.000	49.10	-5.27	43.83	74.00	-30.17	peak
2	20240.000	50.32	-5.61	44.71	74.00	-29.29	peak
3	21624.000	50.51	-4.51	46.00	74.00	-28.00	peak
4	22392.000	50.11	-4.02	46.09	74.00	-27.91	peak
5	22680.000	49.85	-3.74	46.11	74.00	-27.89	peak
6	24448.000	48.42	-2.42	46.00	74.00	-28.00	peak

Note: All the modes have been tested, only the worst data was recorded in the report.

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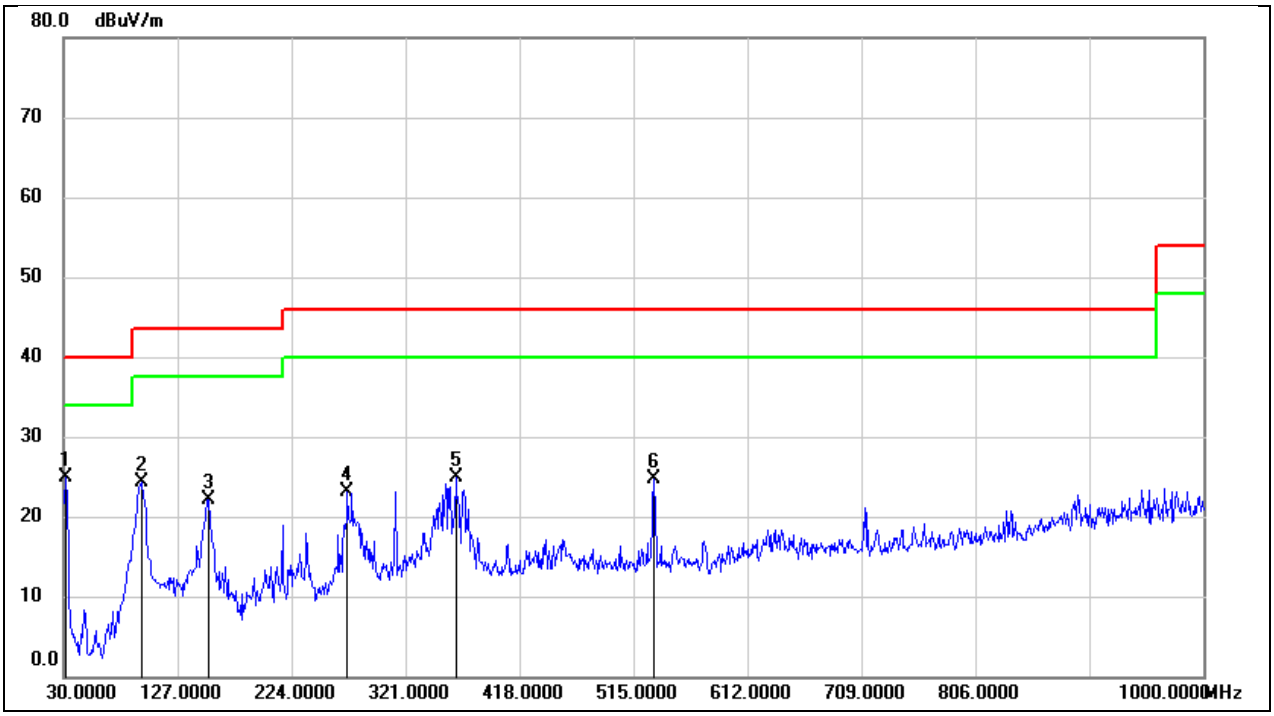
8.6. SPURIOUS EMISSIONS (30 MHZ ~ 1 GHZ)

Test Mode:	802.11g	Channel:	2437 MHz
Polarity:	Horizontal	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	31.9400	44.11	-19.13	24.98	40.00	-15.02	QP
2	95.9600	45.66	-21.44	24.22	43.50	-19.28	QP
3	153.1900	40.29	-18.10	22.19	43.50	-21.31	QP
4	271.5300	40.59	-17.58	23.01	46.00	-22.99	QP
5	363.6800	38.97	-14.05	24.92	46.00	-21.08	QP
6	532.4600	35.47	-10.73	24.74	46.00	-21.26	QP

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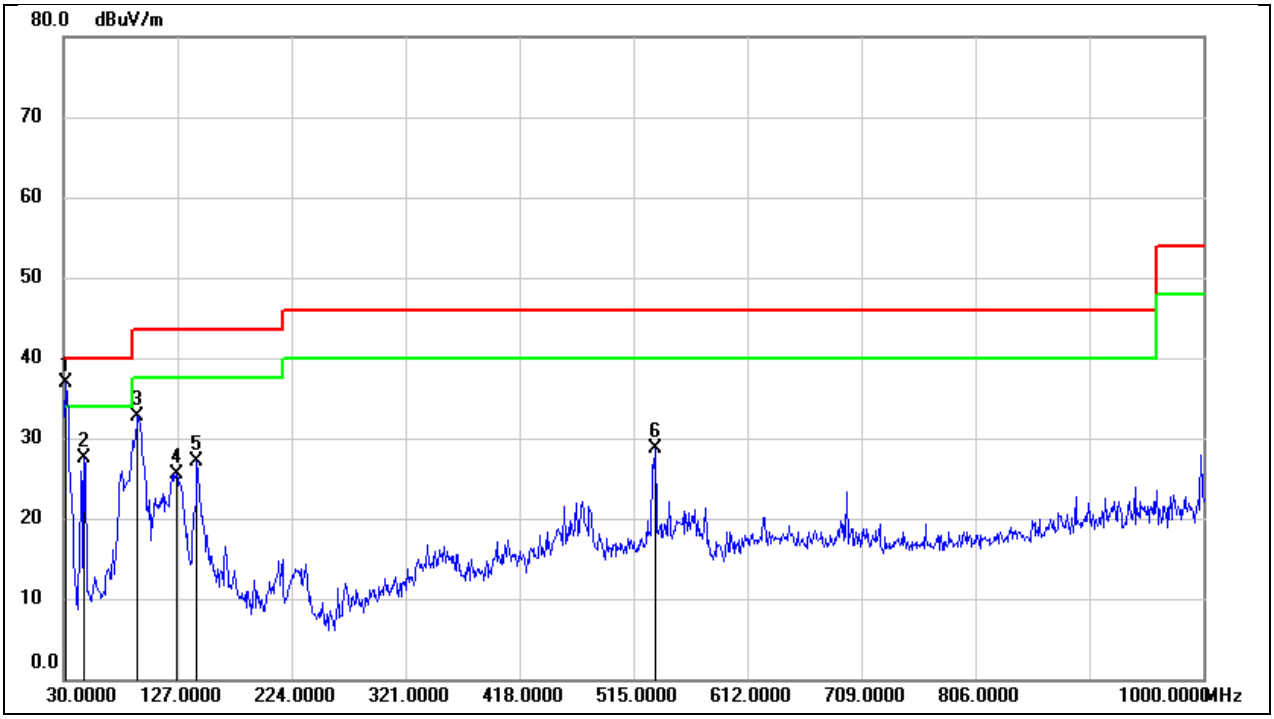
Test Mode:	802.11g	Channel:	2437 MHz
Polarity:	Vertical	Test Voltage:	DC 5 V



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	31.9400	55.99	-19.13	36.86	40.00	-3.14	QP
2	47.4600	48.11	-20.55	27.56	40.00	-12.44	QP
3	93.0500	54.43	-21.69	32.74	43.50	-10.76	QP
4	126.0300	45.08	-19.56	25.52	43.50	-17.98	QP
5	143.4900	45.85	-18.66	27.19	43.50	-16.31	QP
6	533.4300	39.49	-10.70	28.79	46.00	-17.21	QP

Note: All the modes have been tested, only the worst data was recorded in the report.

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9. ANTENNA REQUIREMENT

REQUIREMENT

Please refer to FCC §15.203
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 shall be considered sufficient to comply with the provisions of this section. 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.

Please refer to FCC §15.247(b)(4)
The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Complies

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10. AC POWER LINE CONDUCTED EMISSION

LIMITS

Please refer to CFR 47 FCC §15.207 (a)

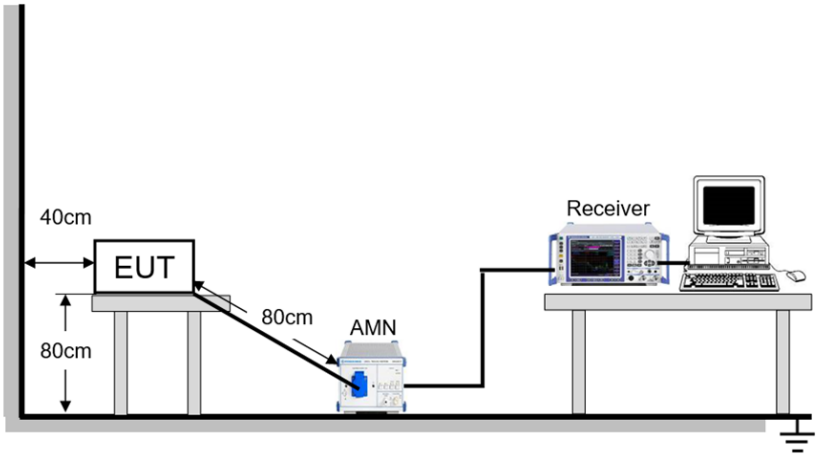
FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

TEST PROCEDURE

The EUT is put on a table of non-conducting material that is 80 cm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST SETUP



TEST ENVIRONMENT

Temperature	25.3℃	Relative Humidity	55%
Atmosphere Pressure	101kPa	Test Voltage	AC 120 V/60 Hz

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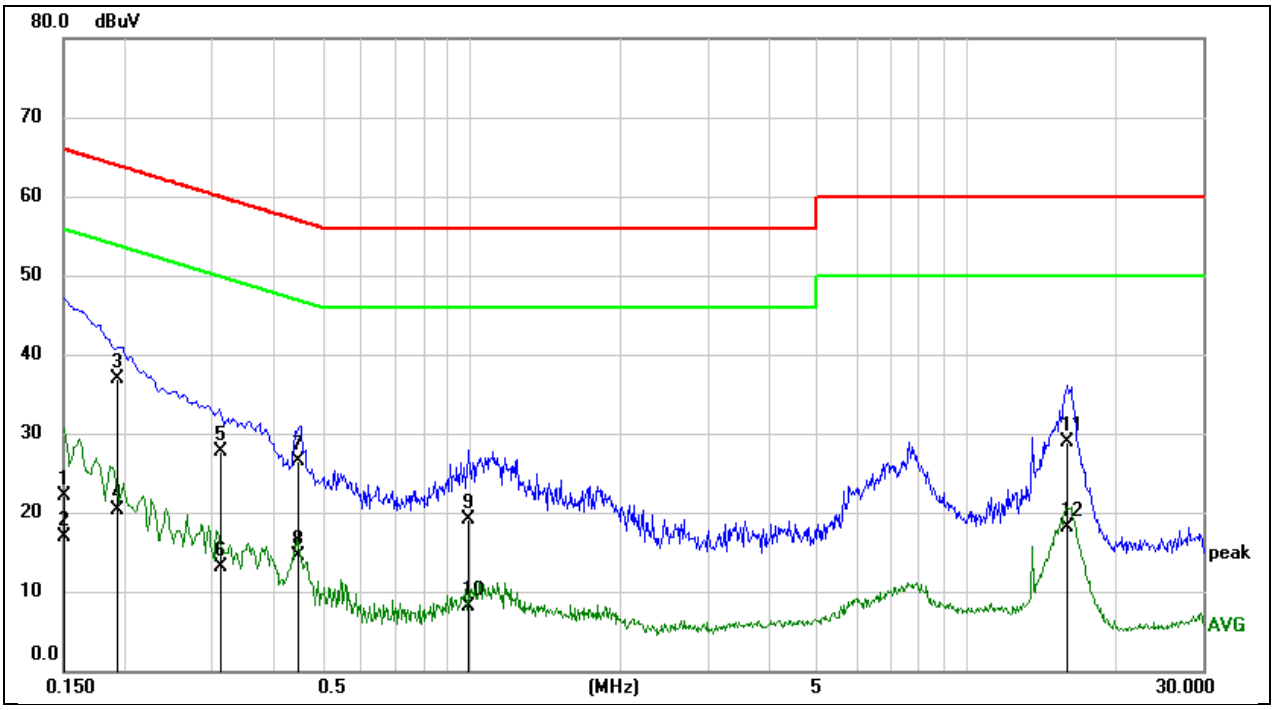
TEST RESULTS

Test Mode:	802.11g	Line:	Line
Channel:	2437 MHz	Test Voltage:	AC 120 V/60 Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	12.46	9.59	22.05	66.00	-43.95	QP
2	0.1500	7.22	9.59	16.81	56.00	-39.19	AVG
3	0.1920	27.39	9.59	36.98	63.95	-26.97	QP
4	0.1920	10.69	9.59	20.28	53.95	-33.67	AVG
5	0.3129	18.30	9.48	27.78	59.89	-32.11	QP
6	0.3129	3.61	9.48	13.09	49.89	-36.80	AVG
7	0.4464	17.19	9.35	26.54	56.94	-30.40	QP
8	0.4464	5.19	9.35	14.54	46.94	-32.40	AVG
9	0.9872	9.55	9.61	19.16	56.00	-36.84	QP
10	0.9872	-1.58	9.61	8.03	46.00	-37.97	AVG
11	16.0725	19.20	9.73	28.93	60.00	-31.07	QP
12	16.0725	8.46	9.73	18.19	50.00	-31.81	AVG

Note:
1. Result = Reading + Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

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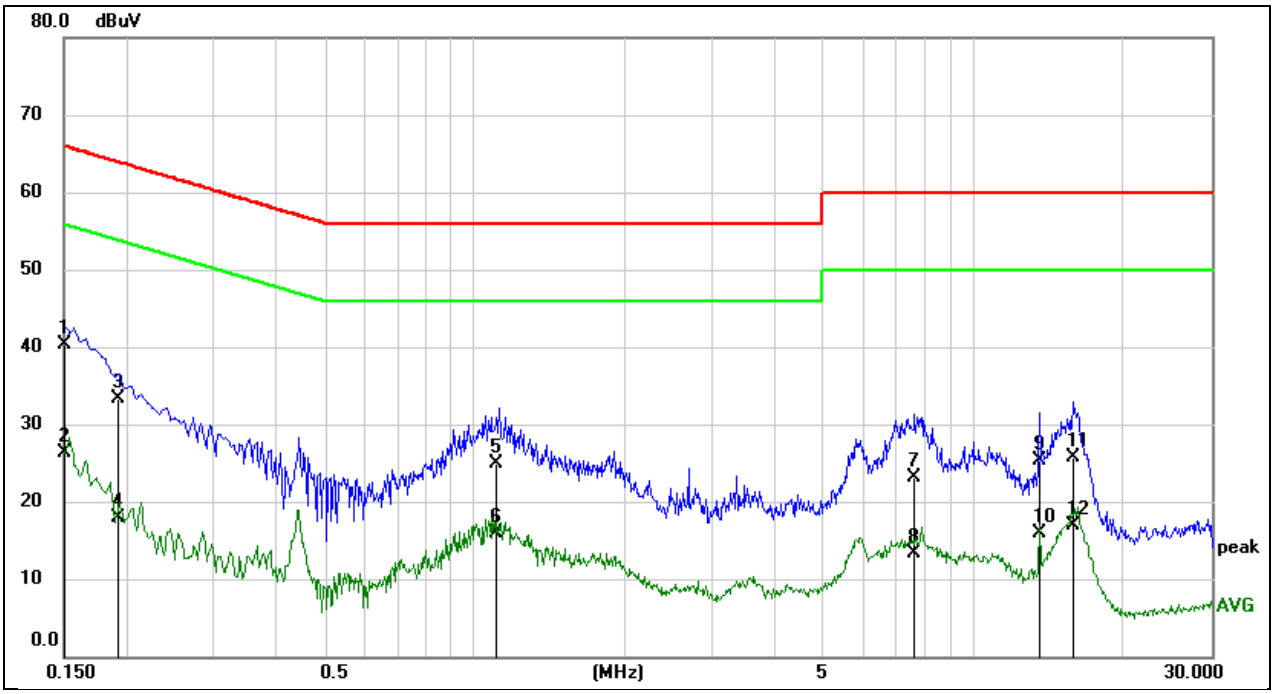
Test Mode:	802.11g	Line:	Neutral
Channel:	2437 MHz	Test Voltage:	AC 120 V/60 Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1508	30.81	9.59	40.40	65.96	-25.56	QP
2	0.1508	16.80	9.59	26.39	55.96	-29.57	AVG
3	0.1923	23.80	9.59	33.39	63.94	-30.55	QP
4	0.1923	8.37	9.59	17.96	53.94	-35.98	AVG
5	1.0972	15.21	9.61	24.82	56.00	-31.18	QP
6	1.0972	6.21	9.61	15.82	46.00	-30.18	AVG
7	7.6301	13.49	9.64	23.13	60.00	-36.87	QP
8	7.6301	3.73	9.64	13.37	50.00	-36.63	AVG
9	13.5601	15.55	9.76	25.31	60.00	-34.69	QP
10	13.5601	6.08	9.76	15.84	50.00	-34.16	AVG
11	15.9072	15.89	9.73	25.62	60.00	-34.38	QP
12	15.9072	7.27	9.73	17.00	50.00	-33.00	AVG

Note:
1. Result = Reading + Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

Note: All the modes have been tested, only the worst data was recorded in the report.

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11. TEST DATA

11.1. APPENDIX A: DTS BANDWIDTH

11.1.1. Test Result

Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.52	2407.48	2417.00	0.5	PASS
11B	Ant1	2437	10.00	2432.00	2442.00	0.5	PASS
11B	Ant1	2462	9.60	2456.96	2466.56	0.5	PASS
11G	Ant1	2412	16.28	2403.88	2420.16	0.5	PASS
11G	Ant1	2437	16.28	2428.88	2445.16	0.5	PASS
11G	Ant1	2462	16.28	2453.84	2470.12	0.5	PASS
11N20SISO	Ant1	2412	16.92	2403.60	2420.52	0.5	PASS
11N20SISO	Ant1	2437	16.92	2428.60	2445.52	0.5	PASS
11N20SISO	Ant1	2462	17.04	2453.48	2470.52	0.5	PASS

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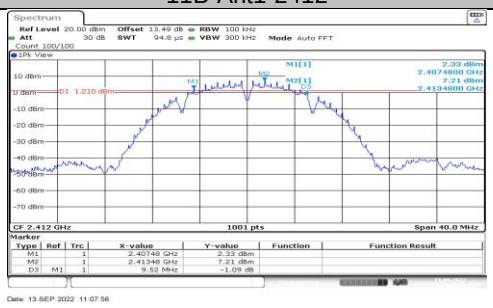
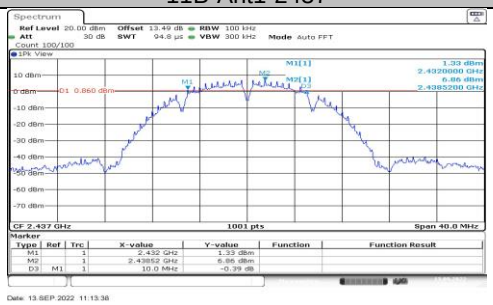
11.1.2. Test Graphs

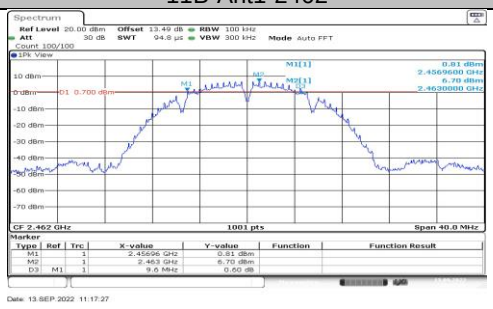
11B-Ant1-2412



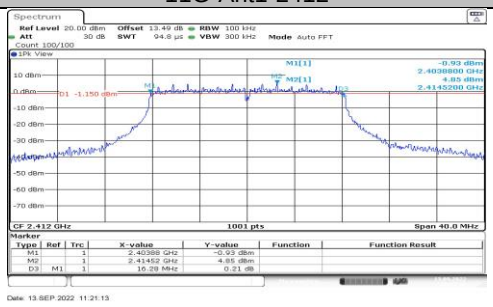
11B-Ant1-2437



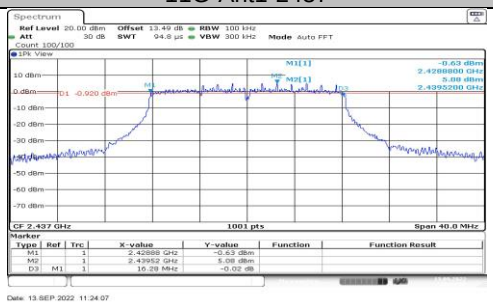
11B-Ant1-2462



11G-Ant1-2412



11G-Ant1-2437



11G-Ant1-2462

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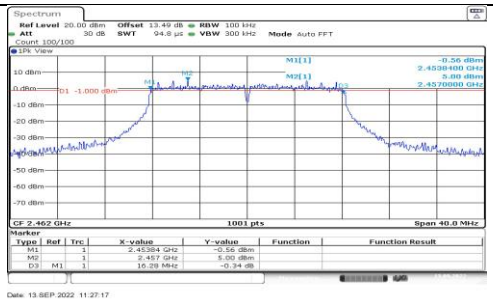
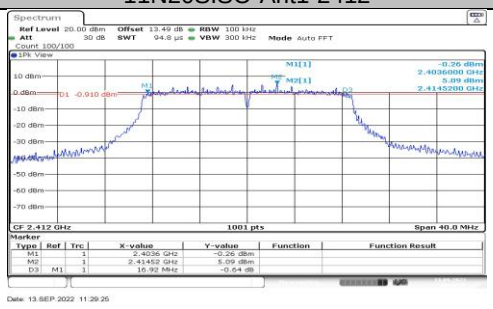
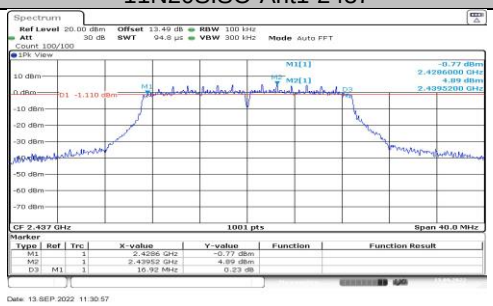


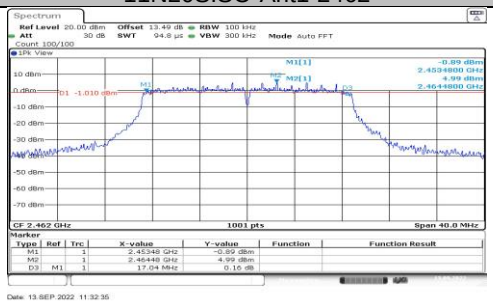
11N20SISO-Ant1-2412



11N20SISO-Ant1-2437



11N20SISO-Ant1-2462



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11.2. APPENDIX B: OCCUPIED CHANNEL BANDWIDTH

11.2.1. Test Result

Test Mode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Verdict
11B	Ant1	2412	13.866	2405.0869	2418.9530	PASS
11B	Ant1	2437	13.986	2430.0070	2443.9930	PASS
11B	Ant1	2462	13.986	2455.0070	2468.9930	PASS
11G	Ant1	2412	17.103	2403.5285	2420.6314	PASS
11G	Ant1	2437	17.063	2428.5285	2445.5914	PASS
11G	Ant1	2462	17.063	2453.5285	2470.5914	PASS
11N20SISO	Ant1	2412	18.302	2402.9291	2421.2308	PASS
11N20SISO	Ant1	2437	18.222	2427.9690	2446.1908	PASS
11N20SISO	Ant1	2462	18.222	2452.9690	2471.1908	PASS

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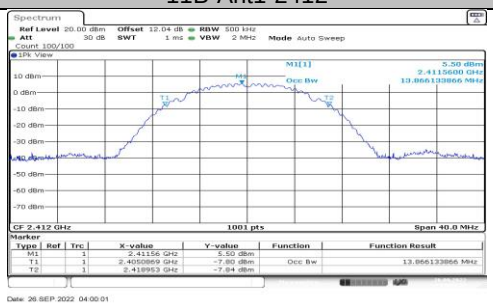
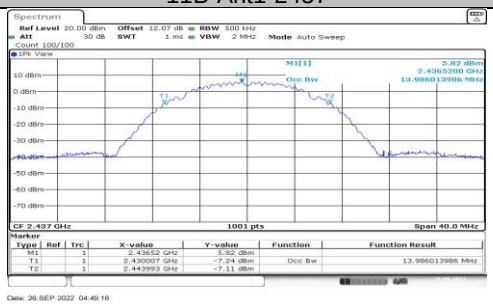
11.2.2. Test Graphs

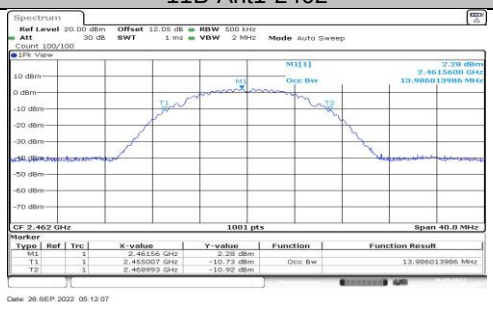
11B-Ant1-2412



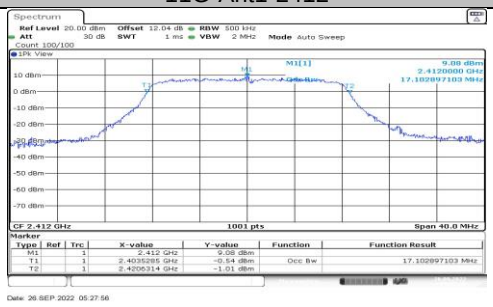
11B-Ant1-2437



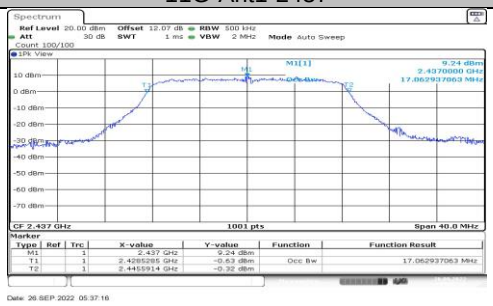
11B-Ant1-2462



11G-Ant1-2412



11G-Ant1-2437



11G-Ant1-2462

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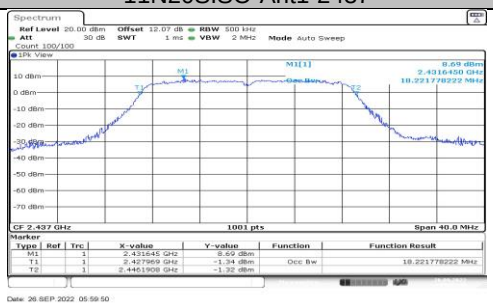
11N20SISO-Ant1-2412

11N20SISO-Ant1-2437



11N20SISO-Ant1-2462

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11.3. APPENDIX C: MAXIMUM AVERAGE CONDUCTED OUTPUT POWER

11.3.1. Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Power [dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	11.74	≤30.00	PASS
11B	Ant1	2437	11.88	≤30.00	PASS
11B	Ant1	2462	10.17	≤30.00	PASS
11G	Ant1	2412	14.08	≤30.00	PASS
11G	Ant1	2437	14.22	≤30.00	PASS
11G	Ant1	2462	13.10	≤30.00	PASS
11N20SISO	Ant1	2412	14.07	≤30.00	PASS
11N20SISO	Ant1	2437	14.03	≤30.00	PASS
11N20SISO	Ant1	2462	12.74	≤30.00	PASS

Note: 1. Conducted Power=Meas. Level+ Correction Factor
2. The Duty Cycle Factor (refer to section 7.1) had already compensated to the test data.

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11.4. APPENDIX D: MAXIMUM POWER SPECTRAL DENSITY

11.4.1. Test Result

Test Mode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-16.85	≤8.00	PASS
11B	Ant1	2437	-17.09	≤8.00	PASS
11B	Ant1	2462	-20.85	≤8.00	PASS
11G	Ant1	2412	-16.17	≤8.00	PASS
11G	Ant1	2437	-16.95	≤8.00	PASS
11G	Ant1	2462	-17.88	≤8.00	PASS
11N20SISO	Ant1	2412	-16.77	≤8.00	PASS
11N20SISO	Ant1	2437	-16.08	≤8.00	PASS
11N20SISO	Ant1	2462	-18.24	≤8.00	PASS

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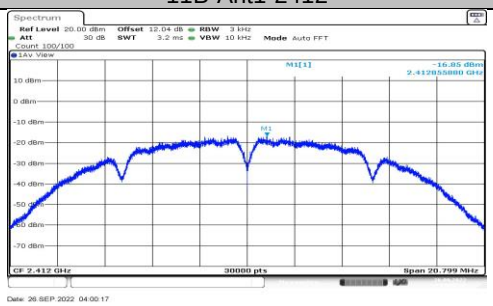
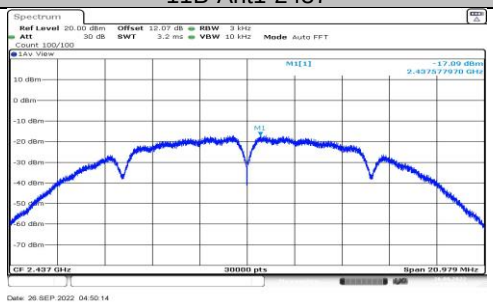
11.4.2. Test Graphs

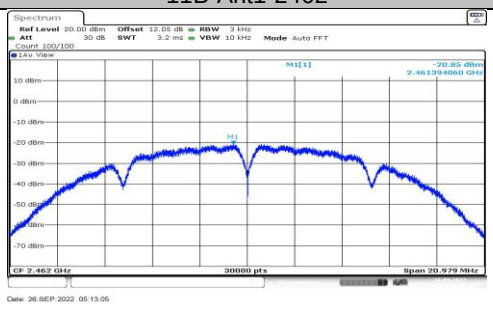
11B-Ant1-2412



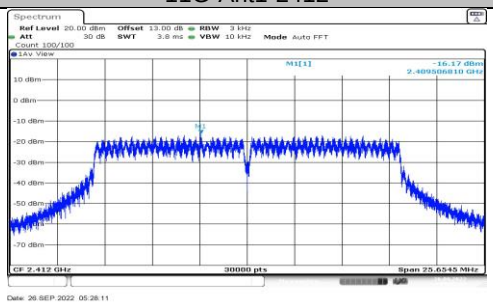
11B-Ant1-2437



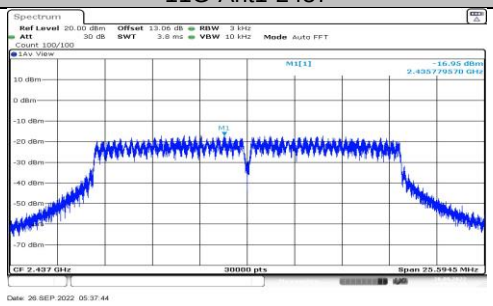
11B-Ant1-2462



11G-Ant1-2412



11G-Ant1-2437



11G-Ant1-2462

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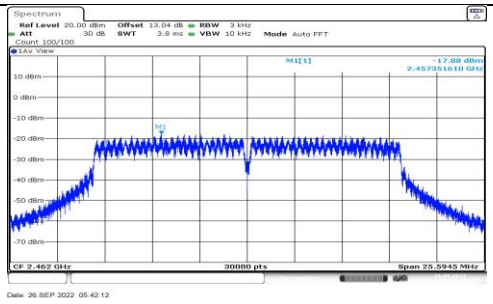
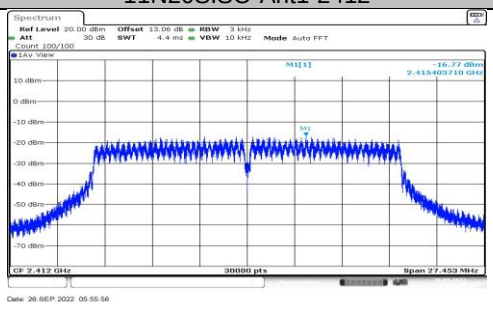
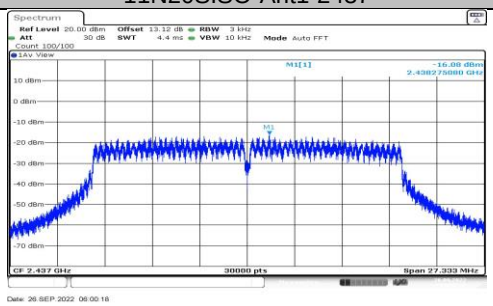


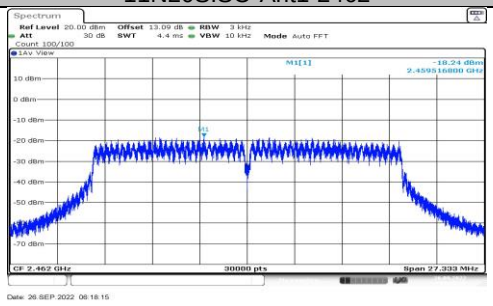
11N20SISO-Ant1-2412



11N20SISO-Ant1-2437



11N20SISO-Ant1-2462



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11.5. APPENDIX E: BAND EDGE MEASUREMENTS

11.5.1. Test Result

Test Mode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.17	-42.89	≤-25.83	PASS
11B	Ant1	High	2462	1.13	-46.6	≤-28.87	PASS
11G	Ant1	Low	2412	0.58	-34.23	≤-29.42	PASS
11G	Ant1	High	2462	1.92	-43.81	≤-28.08	PASS
11N20SISO	Ant1	Low	2412	0.93	-34.98	≤-29.07	PASS
11N20SISO	Ant1	High	2462	0.92	-45.55	≤-29.08	PASS

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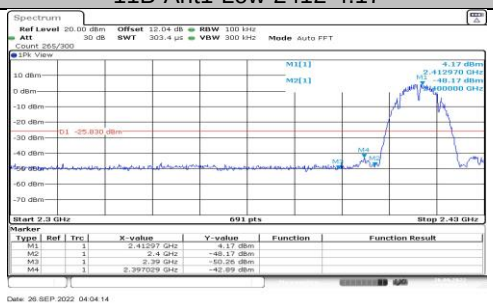
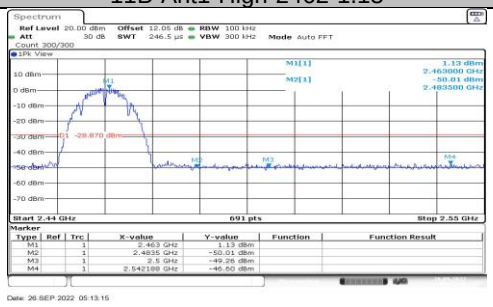
11.5.2. Test Graphs

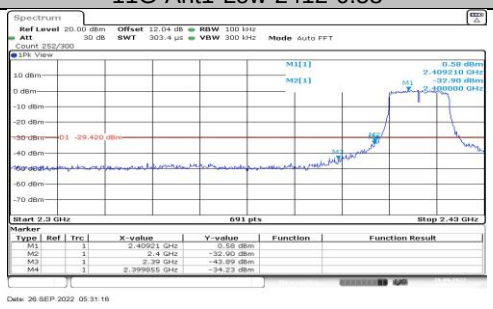
11B-Ant1-Low-2412-4.17



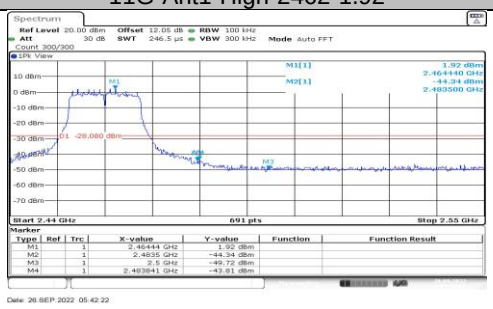
11B-Ant1-High-2462-1.13



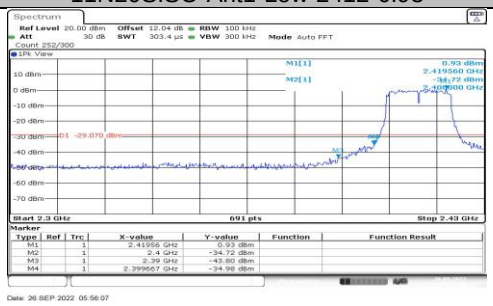
11G-Ant1-Low-2412-0.58



11G-Ant1-High-2462-1.92



11N20SISO-Ant1-Low-2412-0.93



11N20SISO-Ant1-High-2462-0.92

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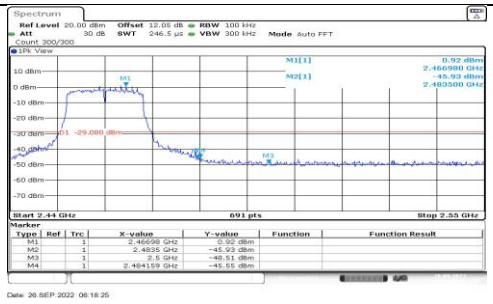

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11.6. APPENDIX F: CONDUCTED SPURIOUS EMISSION

11.6.1. Test Result

Test Mode	Antenna	Frequency[MHz]	FreqRange [Mhz]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	0~Reference	4.83	---	PASS
11B	Ant1	2412	30~1000	-56.01	≤-25.17	PASS
11B	Ant1	2412	1000~26500	-45.53	≤-25.17	PASS
11B	Ant1	2437	0~Reference	5.51	---	PASS
11B	Ant1	2437	30~1000	-55.25	≤-24.49	PASS
11B	Ant1	2437	1000~26500	-47.33	≤-24.49	PASS
11B	Ant1	2462	0~Reference	1.58	---	PASS
11B	Ant1	2462	30~1000	-55.58	≤-28.42	PASS
11B	Ant1	2462	1000~26500	-47.89	≤-28.42	PASS
11G	Ant1	2412	0~Reference	3.05	---	PASS
11G	Ant1	2412	30~1000	-56.09	≤-26.95	PASS
11G	Ant1	2412	1000~26500	-50.06	≤-26.95	PASS
11G	Ant1	2437	0~Reference	3.45	---	PASS
11G	Ant1	2437	30~1000	-56.08	≤-26.55	PASS
11G	Ant1	2437	1000~26500	-50.42	≤-26.55	PASS
11G	Ant1	2462	0~Reference	2.47	---	PASS
11G	Ant1	2462	30~1000	-55.67	≤-27.53	PASS
11G	Ant1	2462	1000~26500	-50.29	≤-27.53	PASS
11N20SISO	Ant1	2412	0~Reference	3.36	---	PASS
11N20SISO	Ant1	2412	30~1000	-55.37	≤-26.64	PASS
11N20SISO	Ant1	2412	1000~26500	-50.86	≤-26.64	PASS
11N20SISO	Ant1	2437	0~Reference	3.50	---	PASS
11N20SISO	Ant1	2437	30~1000	-56.27	≤-26.5	PASS
11N20SISO	Ant1	2437	1000~26500	-50.31	≤-26.5	PASS
11N20SISO	Ant1	2462	0~Reference	1.77	---	PASS
11N20SISO	Ant1	2462	30~1000	-55.42	≤-28.23	PASS
11N20SISO	Ant1	2462	1000~26500	-49.55	≤-28.23	PASS

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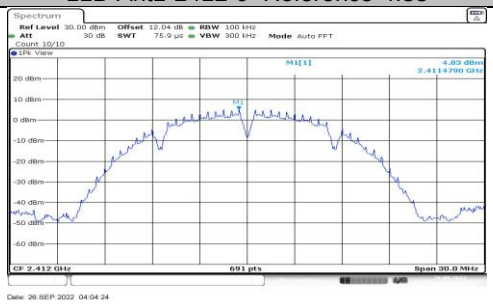
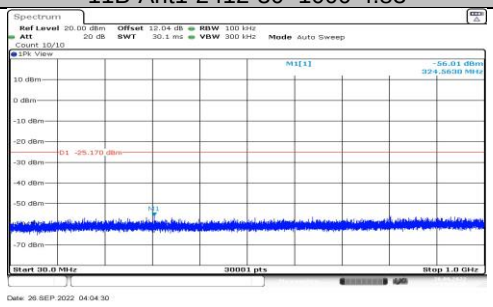
11.6.2. Test Graphs

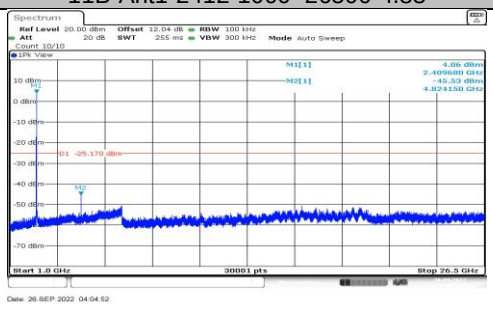
11B-Ant1-2412-0~Reference-4.83



11B-Ant1-2412-30~1000-4.83



11B-Ant1-2412-1000~26500-4.83



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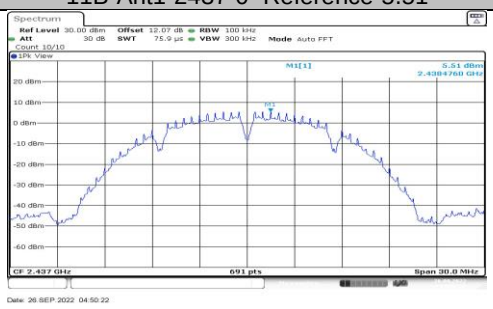

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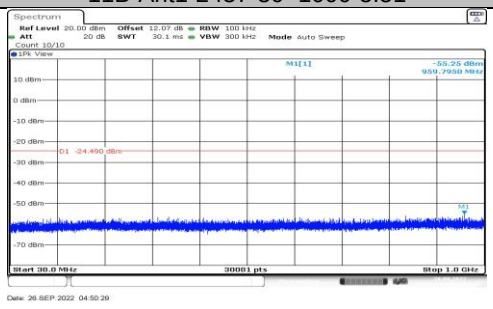

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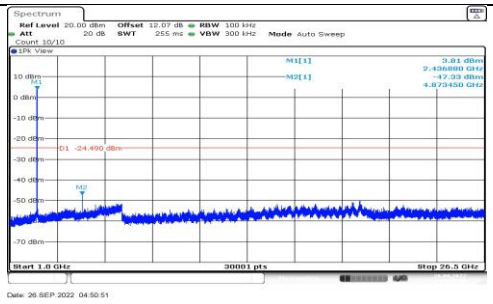

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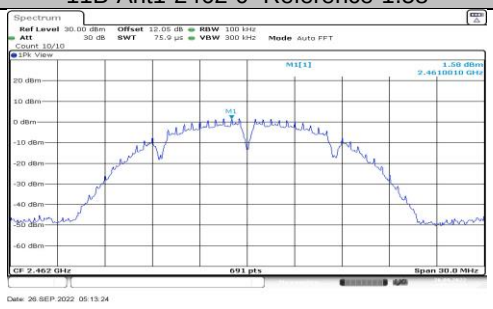

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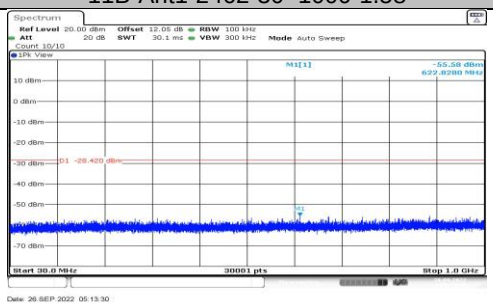

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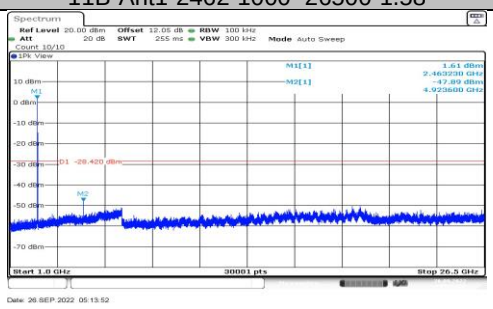

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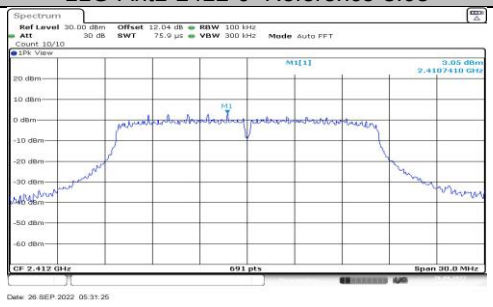

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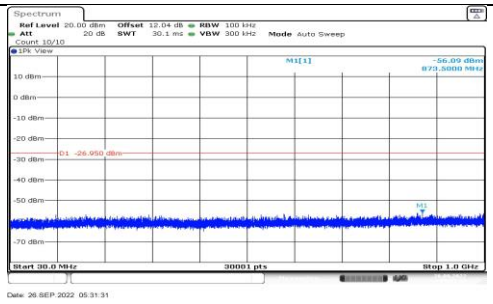

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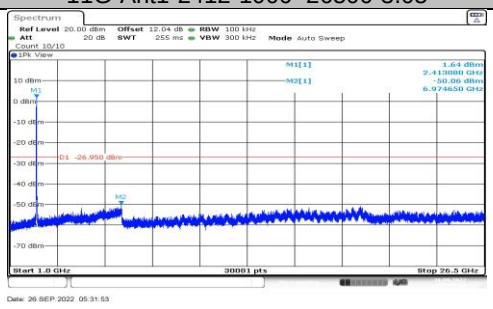

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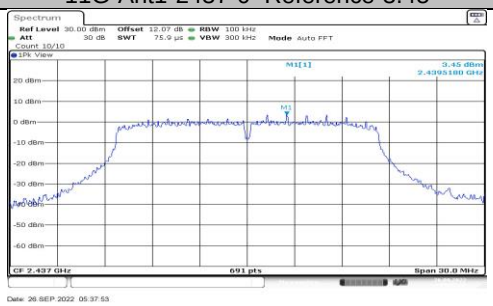

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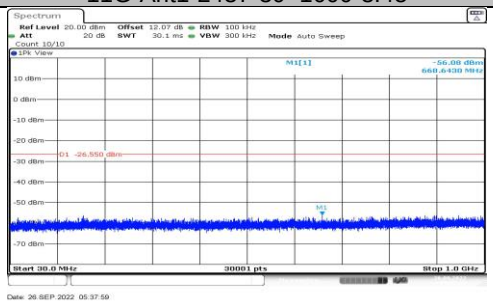

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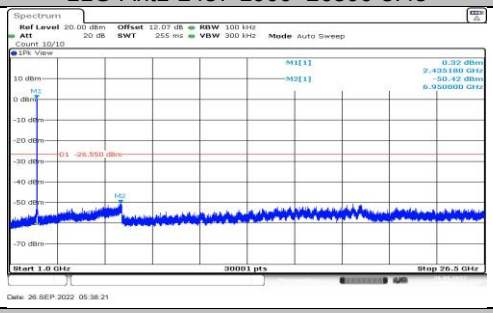

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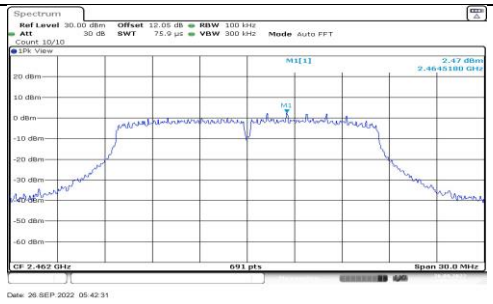

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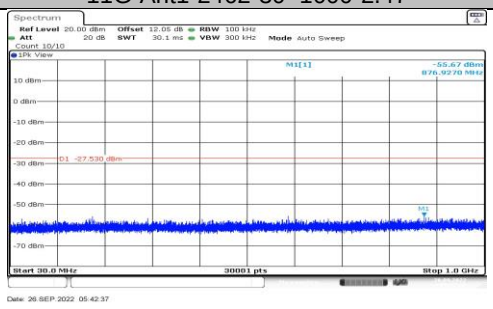

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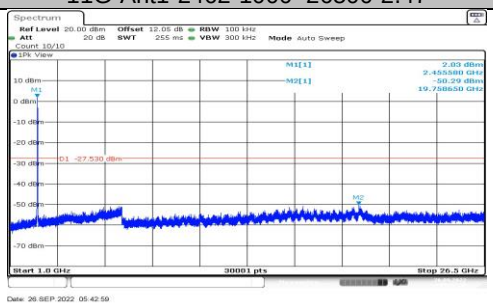

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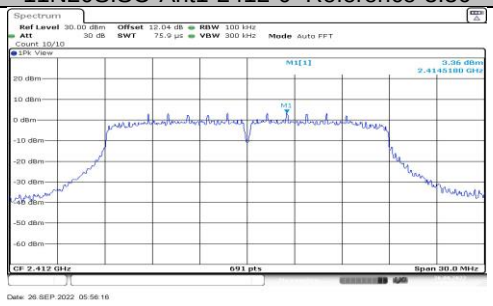

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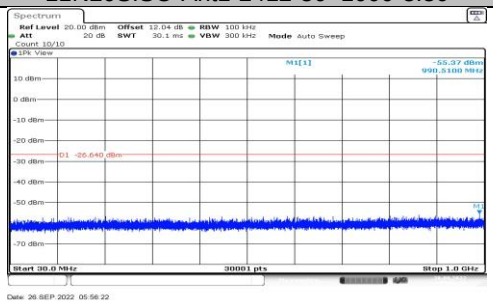

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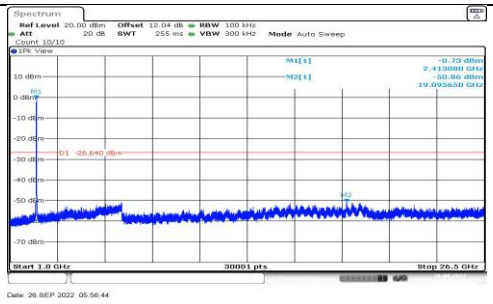

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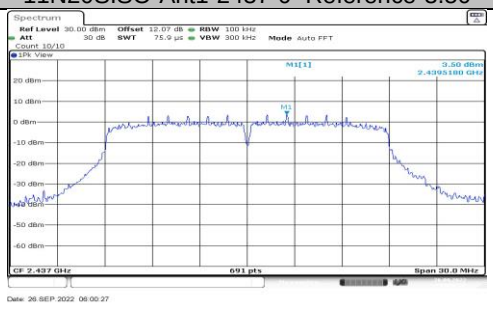

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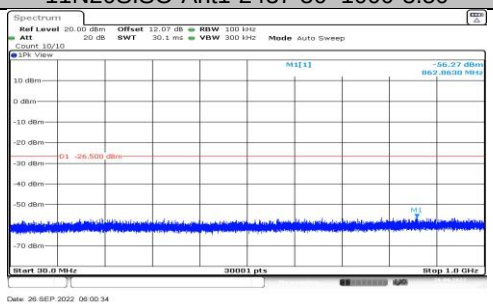

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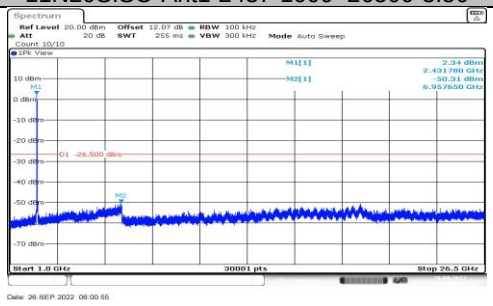

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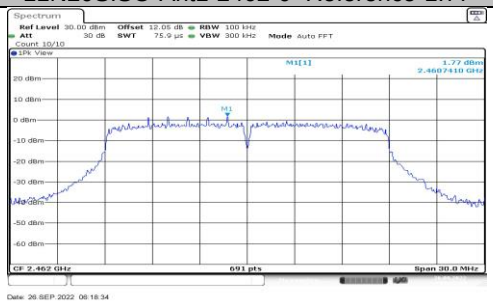

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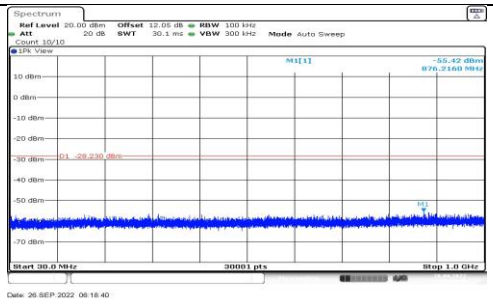

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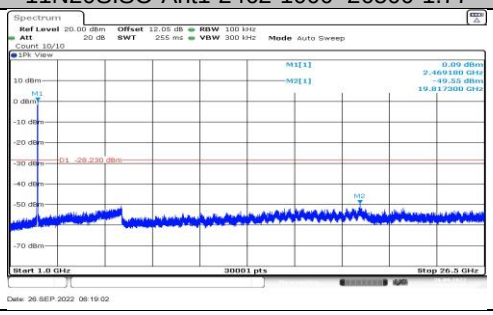

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11.7. APPENDIX G: DUTY CYCLE

11.7.1. Test Result

Test Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
11B	12.16	12.17	0.9992	99.92	0.00	0.08	0.01
11G	2.02	2.52	0.8016	80.16	0.96	0.50	1
11N20SISO	1.88	2.38	0.7899	78.99	1.02	0.53	1

Note:
Duty Cycle Correction Factor=10log (1/x).
Where: x is Duty Cycle (Linear)
Where: T is On Time
If that calculated VBW is not available on the analyzer then the next higher value should be used.

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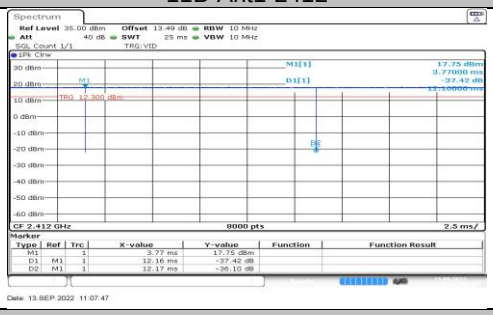
11.7.2. Test Graphs

11B-Ant1-2412

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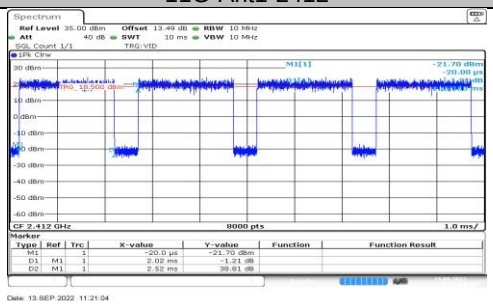
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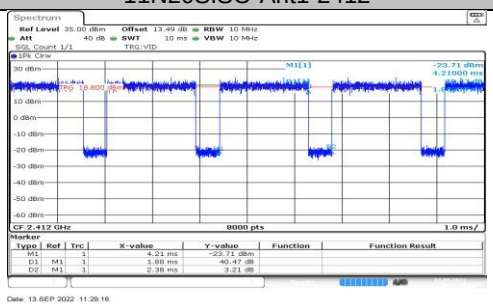

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