CFR 47 FCC PART 15 SUBPART C
ISED RSS-247 ISSUE 2

CERTIFICATION TEST REPORT

For

Home Gateway

MODEL NUMBER: ZXHH H298Q

FCC ID: Q78-ZXHNH298Q

IC: 5200A-H298Q

REPORT NUMBER:4789807223-1

ISSUE DATE: March 31, 2021

Prepared for

ZTE CORPORATION
ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China

Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	03/31/2021	Initial Issue	

Summary of Test Results			
Clause	**Test Items**	**FCC/ISED Rules**	**Test Results**
1	6dB Bandwidth and 99% Occupied Bandwidth	FCC Part 15.247 (a) (2) RSS-247 Clause 5.2 (a) ISED RSS-Gen Clause 6.7	Pass
2	Conducted Output Power	FCC Part 15.247 (b) (3) RSS-247 Clause 5.4 (d)	Pass
3	Power Spectral Density	FCC Part 15.247 (e) RSS-247 Clause 5.2 (b)	Pass
4	Conducted Bandedge and Spurious Emission	FCC Part 15.247 (d) RSS-247 Clause 5.5	Pass
5	Radiated Bandedge and Spurious Emission	FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205 RSS-247 Clause 5.5 RSS-GEN Clause 8.9	Pass
6	Conducted Emission Test for AC Power Port	FCC Part 15.207 RSS-GEN Clause 8.8	Pass
7	Antenna Requirement	FCC Part 15.203 RSS-GEN Clause 6.8	Pass

Note:
1.This test report is only published to and used by the applicant, and it is not for evidence purpose in China.
2. The measurement result for the sample received is <Pass> according to < CFR 47 FCC PART 15 SUBPART C >< ISED RSS-247 > when <Accuracy Method> decision rule is applied.

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	ZTE CORPORATION
Address:	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China

Manufacturer Information

Company Name:	ZTE CORPORATION
Address:	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China

EUT Information

EUT Name:	Home Gateway
Model:	ZXHH H298Q
Sample Received Date:	February 4, 2021
Sample Status:	Normal
Sample ID:	3646283
Date of Tested:	February 4 ~ March 31, 2021

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 FCC PART 15 SUBPART C	PASS
ISED RSS-247 Issue 2	PASS
ISED RSS-GEN Issue 5	PASS

Prepared By:

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Laboratory Manager

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, CFR 47 FCC Part 2, CFR 47 FCC Part 15, ANSI C63.10-2013, ISED RSS-247 Issue 2 and ISED RSS-GEN Issue 5.

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 Delcaration 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

Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: 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.

Note 3: 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.

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 recognize 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.	

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	Home Gateway
Model	ZXHH H298Q
Radio Technology	IEEE802.11b/g/n HT20/HT40
Operation frequency	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz IEEE 802.11n HT40: 2422MHz—2452MHz
Modulation	IEEE 802.11b: DSSS(CCK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK,BPSK) IEEE 802.11n HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)
Supply Voltage	AC 120V,60Hz

5.2. CHANNEL LIST

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

Channel List for 802.11n (40 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	5	2432	7	2442	9	2452
4	2427	6	2437	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]	13.17
g	2412 ~ 2462	1-11[11]	19.21
n HT20	2412 ~ 2462	1-11[11]	18.55
n HT40	2422 ~ 2452	3-9[7]	15.27

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
n HT40	CH 3(Low Channel), CH 6(MID Channel), CH 9(High Channel)	2422 MHz, 2437 MHz, 2452 MHz

5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band							
Test Software		QA tool					
Modulation Mode	Transmit Antenna Number	Test Software setting value					
		NCB: 20MHz			NCB: 40MHz		
		CH 1	CH 6	CH 11	CH 3	CH 6	CH 9
802.11b	2	0E	0E	0E	/		
802.11g	2	19	19	19			
802.11n HT20	2	17	17	17			
802.11n HT40	2	/			11	11	11

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 5.4.

Maximum power setting referring to section 5.5.

Worst case Data Rates declared by the customer:

IEEE 802.11b / 1 Mbps
IEEE 802.11g / 6 Mbps
IEEE 802.11n HT20 / MCS0
IEEE 802.11n HT40 / MCS0

The EUT has 2 separate antennas which correspond to 2 separate antenna ports. Core 1 and Core 2 correspond to antenna 1 and antenna 2 respectively.

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

Duty cycle and occupied channel bandwidth tests, only SISO mode and one chain were tested since the duty cycle and bandwidth does not change depending on chains used.

Conducted unwanted emissions tests and out of band conducted unwanted emissions tests were performed with SISO mode, as this port was found to have the worst case in terms of power settings amongst all supported possible SISO & MIMO port combinations.

Radiated unwanted emissions tests were performed with the MIMO modes if supported. These were found to be the worst modulation scheme with regards to emissions after preliminary investigations and, as this mode emits the highest conducted output power level, it was deemed to be the worst case.

The EUT support Cyclic Shift Diversity(CDD), They use the same conducted power per chain in any given mode, so we only chose the worst-case mode CDD 2TX for final testing.

5.7. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	P/N	Antenna Type	MAX Antenna Gain (dBi)
1	2412-2462	P243019-E50G13U1S	PCB antenna	4.8
2	2412-2462	P242002-E60B13U1S	PCB antenna	4.5

The EUT support Cyclic Shift Diversity(CDD) mode.

MIMO output power port and MIMO PSD port summing was performed in accordance with KDB 662911 D01. For the CDD results the Directional Gain was calculated in accordance with the following mothed.

For output power measurements:
Directional gain= G_{ANT+} Array Gain = 4.8 dBi
G_{ANT} : equal to the gain of the antenna having the highest gain
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$

For power spectral density (PSD) measurements:
Directional gain= G_{ANT+} Array Gain = 7.7 dBi
Array Gain = 10 log(N_{ANT}/N_{SS}) dB.
N_{ANT} : number of transmit antennas
N_{SS} : number of spatial streams, The worst case directional gain will occur when N_{SS} = 1

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

Test Mode	Transmit and Receive Mode	Description
IEEE 802.11b	☒2TX, 2RX	ANT 1, 2 can be used as transmitting/receiving antenna.
IEEE 802.11g	☒2TX, 2RX	ANT 1, 2 can be used as transmitting/receiving antenna.
IEEE 802.11n HT20	☒2TX, 2RX	ANT 1, 2 can be used as transmitting/receiving antenna.
IEEE 802.11n HT40	☒2TX, 2RX	ANT 1, 2 can be used as transmitting/receiving antenna.

5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	Remarks
1	Laptop	Lenovo	ThinkPad E480	/
2	Power Adapter	N/A	RD120200-C55-154MG	Input: 100-240V~ 50/60Hz 1.0A MAX Output: 12 V⎓2 A
3	RJ45 Terminal load	Adafruit	485-4511	/
4	Telephone	GAOKE	N/A	N/A
5	Telephone	GAOKE	N/A	N/A

I/O CABLES

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	RJ 45 Cable	Unshielded	NO	1.0 m	/
2	RJ 45 Cable	Unshielded	NO	1.0 m	/
3	RJ 45 Cable	Unshielded	NO	1.0 m	/
4	RJ 45 Cable	Unshielded	NO	1.0 m	/

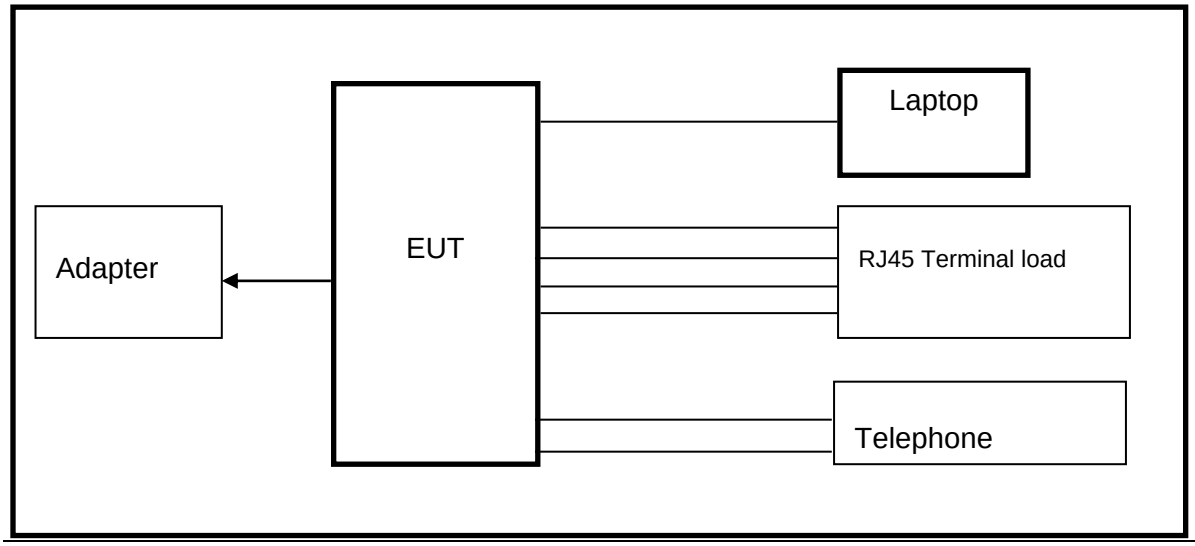
ACCESSORIES

Item	Accessory	Brand Name	Model Name	Description
/	/	/	/	/

TEST SETUP

The EUT can work in engineering mode with a software.

SETUP DIAGRAM FOR TESTS



6. MEASURING INSTRUMENT AND SOFTWARE USED

Conducted Emissions						
Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	EMI Test Receiver	R&S	ESR3	101961	Nov. 12, 2020	Nov. 11, 2021
☑	Two-Line V-Network	R&S	ENV216	101983	Nov. 12, 2020	Nov. 11, 2021
Software						
Used	Description		Manufacturer	Name	Version	
☑	Test Software for Conducted disturbance		Farad	EZ-EMC	Ver. UL-3A1	
Radiated Emissions						
Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Nov. 12, 2020	Nov. 11, 2021
☑	Hybrid Log Periodic Antenna	TDK	HLP-3003C	130960	Aug. 11, 2018	Aug. 10, 2021
☑	Preamplifier	HP	8447D	2944A09099	Nov. 12, 2020	Nov. 11, 2021
☑	EMI Measurement Receiver	R&S	ESR26	101377	Nov. 12, 2020	Nov. 11, 2021
☑	Horn Antenna	TDK	HRN-0118	130939	Sept. 17, 2018	Sept. 17, 2021
☑	Preamplifier	TDK	PA-02-0118	TRS-305-00067	Nov. 20, 2020	Nov. 19, 2021
☑	Horn Antenna	Schwarzbeck	BBHA9170	#691	Aug. 11, 2018	Aug. 11, 2021
☑	Preamplifier	TDK	PA-02-2	TRS-307-00003	Nov. 12, 2020	Nov. 11, 2021
☑	Loop antenna	Schwarzbeck	1519B	00008	Jan.17, 2019	Jan.17,2022
☑	Preamplifier	TDK	PA-02-001-3000	TRS-302-00050	Nov. 12, 2020	Nov. 11, 2021
☑	Preamplifier	Mini-Circuits	ZX60-83LN-S+	SUP01201941	Nov. 20, 2020	Nov. 19, 2021
☑	High Pass Filter	Wi	WHKX10-2700-3000-18000-40SS	23	Nov. 12, 2020	Nov. 11, 2021
Software						
Used	Description		Manufacturer	Name	Version	
☑	Test Software for Radiated disturbance		Farad	EZ-EMC	Ver. UL-3A1	
Other instruments						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	Spectrum Analyzer	Keysight	N9030A	MY55410512	Nov. 20, 2020	Nov. 19, 2021

☑	Dual Channel Power Meter	Keysight	N1912A	MY55416024	Nov. 20, 2020	Nov. 19, 2021
☑	Power Sensor	Keysight	USB Wideband Power Sensor	MY5100022	Nov. 20, 2020	Nov. 19, 2021

7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

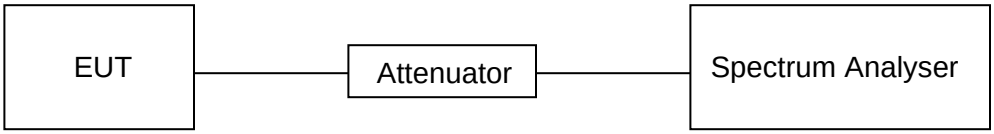
LIMITS

None; for reporting purposes only

PROCEDURE

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

TEST SETUP



TEST ENVIRONMENT

Temperature	23.2 °C	Relative Humidity	54.3 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V / 60 Hz

RESULTS

Please refer to appendix G.

7.2. 6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(a)(2) ISED RSS-247 5.2 (a)	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

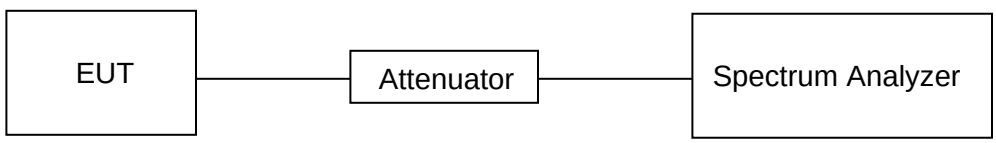
Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Frequency Span	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.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.2 °C	Relative Humidity	54.3 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V / 60 Hz

RESULTS

Please refer to appendix A & B.

7.3. CONDUCTED OUTPUT POWER

LIMITS

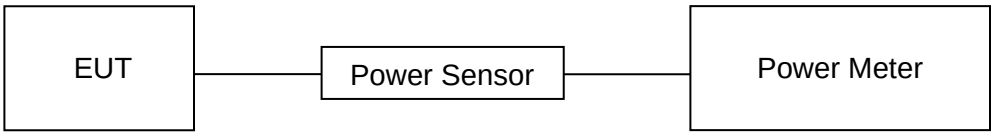
CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(b)(3) ISED RSS-247 5.4 (d)	AVG Output Power	1 watt or 30 dBm	2400-2483.5

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause in 11.9.2.

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.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.2 °C	Relative Humidity	54.3 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V / 60 Hz

RESULTS

Please refer to appendix C.

7.4. POWER SPECTRAL DENSITY

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC §15.247 (e) ISED RSS-247 5.2 (b)	Power Spectral Density	8 dBm/3 kHz	2400-2483.5

TEST PROCEDURE

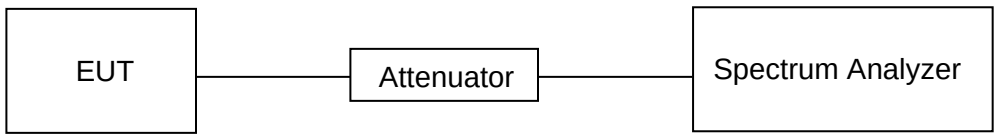
Refer to ANSI C63.10-2013 clause 11.10.

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

Center Frequency	The center frequency of the channel under test
Detector	PEAK
RBW	3 kHz ≤ 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 amplitude level within the RBW.
If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.2 °C	Relative Humidity	54.3 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V / 60 Hz

RESULTS

Please refer to appendix D.

7.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2		
Section	Test Item	Limit
CFR 47 FCC §15.247 (d) ISED RSS-247 5.5	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:

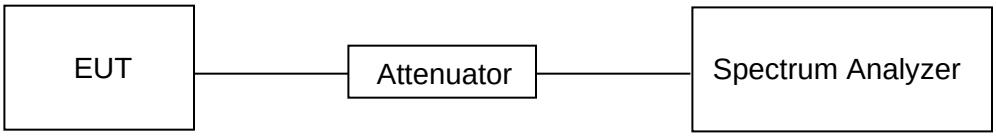
Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	100 kHz
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

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.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.2 °C	Relative Humidity	54.3 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V / 60 Hz

RESULTS

Please refer to appendix E & F.

8. RADIATED TEST RESULTS

LIMITS

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

Please refer to ISED RSS-GEN Clause 8.9 and Clause 8.10.

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

ISED General field strength limits at frequencies below 30 MHz

Table 6 – General field strength limits at frequencies below 30 MHz

Frequency	Magnetic field strength (H-Field) (µA/m)	Measurement distance (m)
9 - 490 kHz[Note 1]	6.37/F (F in kHz)	300
490 - 1705 kHz	63.7/F (F in kHz)	30
1.705 - 30 MHz	0.08	30

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

ISED Restricted bands please refer to ISED RSS-GEN Clause 8.10

Table 7 – Restricted frequency bands[Note 1]		
MHz	MHz	GHz
0.090 - 0.110	149.9 - 150.05	9.0 - 9.2
0.495 - 0.505	156.52475 - 156.52525	9.3 - 9.5
2.1735 - 2.1905	156.7 - 156.9	10.6 - 12.7
3.020 - 3.026	162.0125 - 167.17	13.25 - 13.4
4.125 - 4.128	167.72 - 173.2	14.47 - 14.5
4.17725 - 4.17775	240 – 285	15.35 - 16.2
4.20725 - 4.20775	322 - 335.4	17.7 - 21.4
5.677 - 5.683	399.9 - 410	22.01 - 23.12
6.215 - 6.218	608 - 614	23.6 - 24.0
6.26775 - 6.26825	960 - 1427	31.2 - 31.8
6.31175 - 6.31225	1435 - 1626.5	36.43 - 36.5
8.291 - 8.294	1645.5 - 1646.5	Above 38.6
8.362 - 8.366	1660 - 1710	
8.37625 - 8.38675	1718.8 - 1722.2	
8.41425 - 8.41475	2200 - 2300	
12.29 - 12.293	2310 - 2390	
12.51975 - 12.52025	2483.5 - 2500	
12.57675 - 12.57725	2655 - 2900	
13.36 - 13.41	3260 – 3267	
16.42 - 16.423	3332 - 3339	
16.69475 - 16.69525	3345.8 - 3358	
16.80425 - 16.80475	3500 - 4400	
25.5 - 25.67	4500 - 5150	
37.5 - 38.25	5350 - 5460	
73 - 74.6	7250 - 7750	
74.8 - 75.2	8025 – 8500	
108 – 138		

Note 1: Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

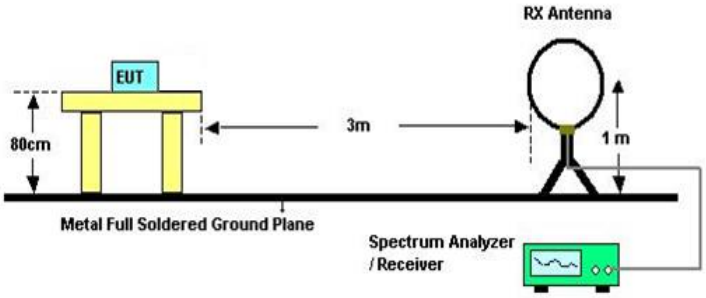
FCC Restricted bands of operation refer to FCC §15.205 (a):

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

TEST SETUP AND 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
Trace	Max hold

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.

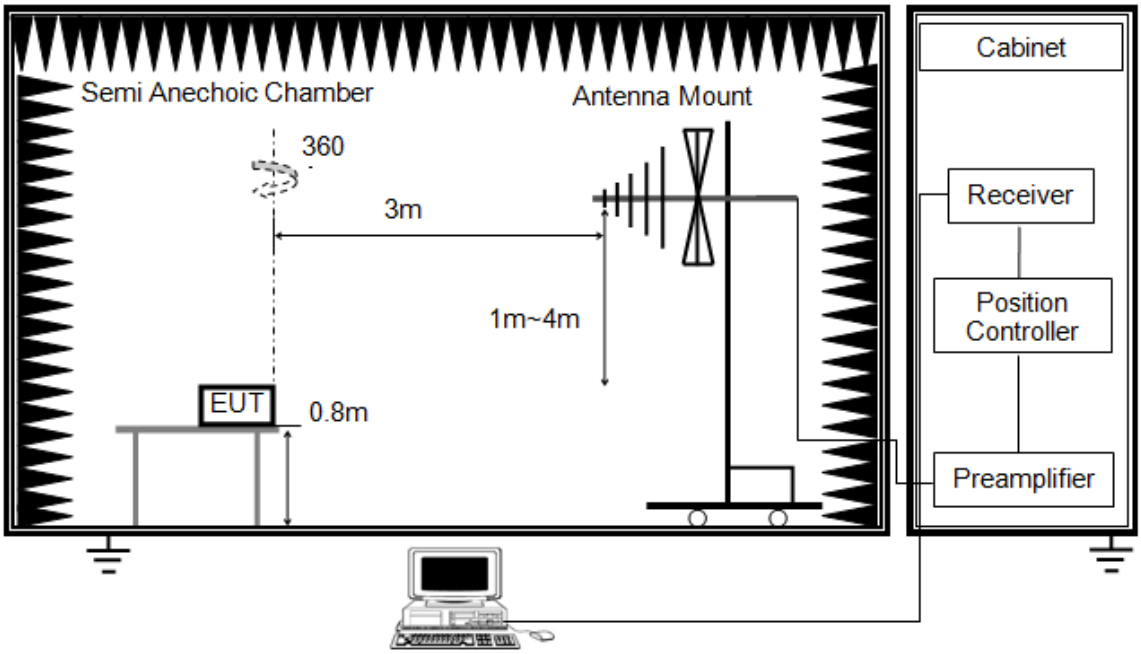
5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

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.

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.

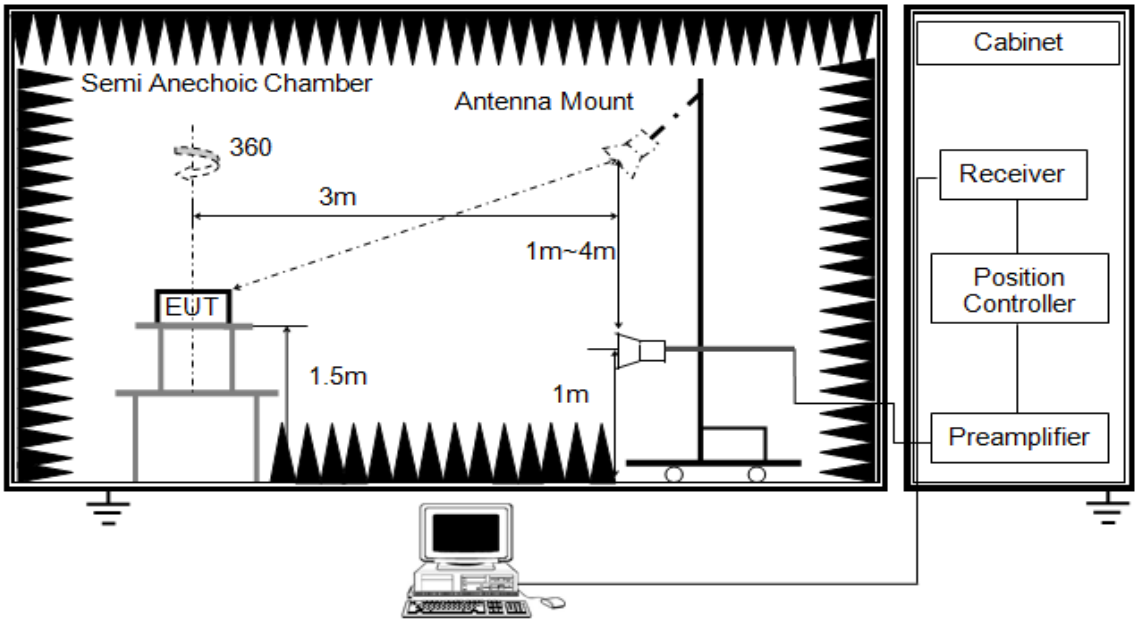
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations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

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.

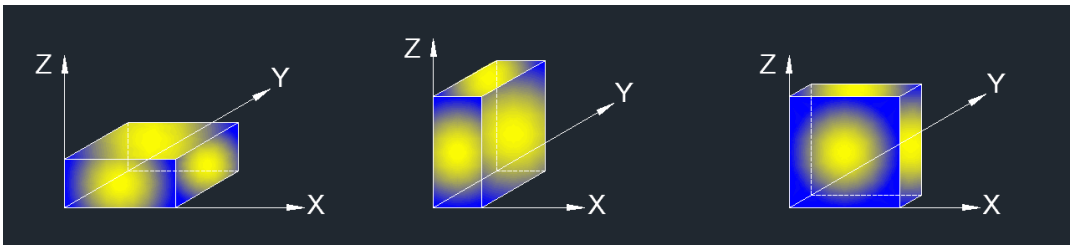
3. The EUT was placed on a turntable with 1.5 m above ground.

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 7.1.ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:



Note: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

TEST ENVIRONMENT

Temperature	23.2 °C	Relative Humidity	54.3 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V / 60 Hz

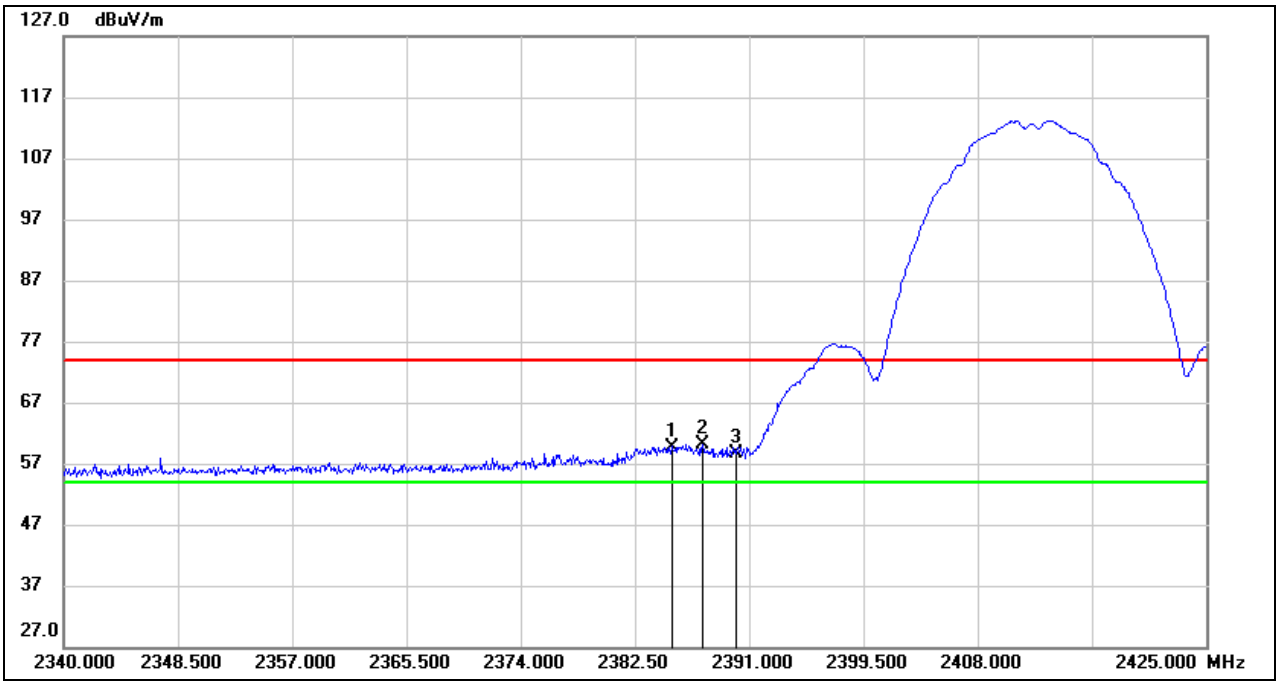
RESULTS

8.1. RESTRICTED BANDEDGE

8.1.1. 802.11b CDD MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

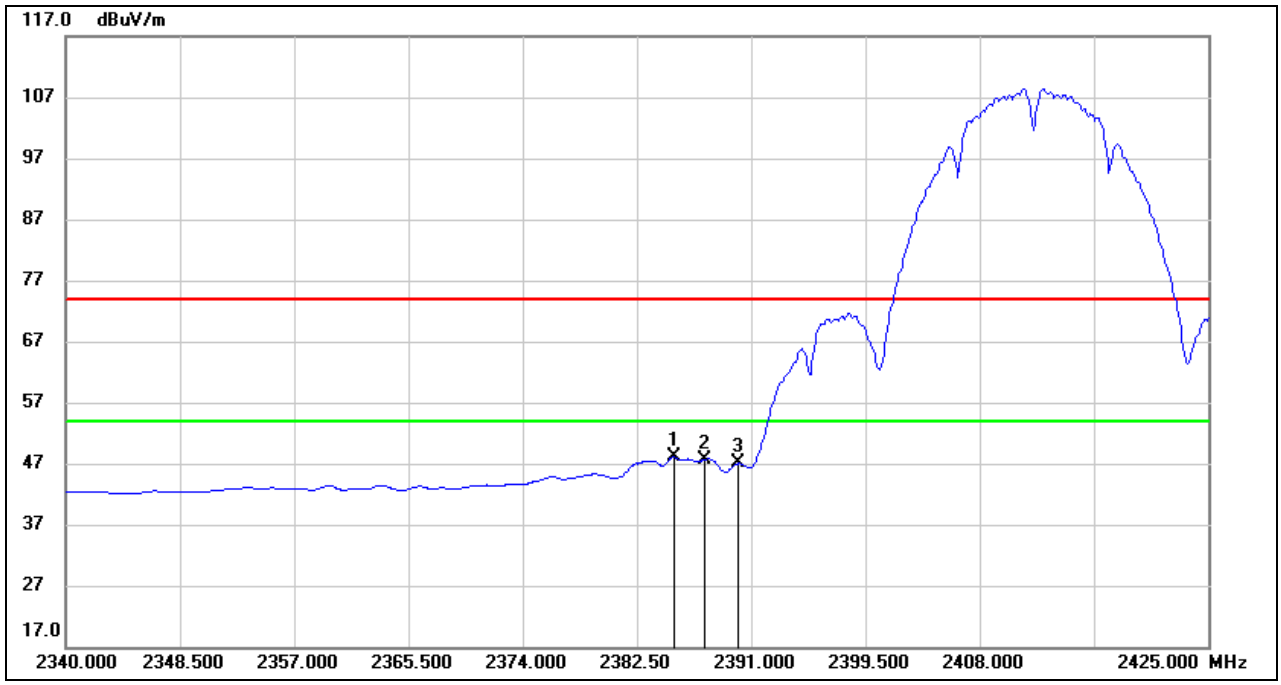
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2385.220	48.19	11.56	59.75	74.00	-14.25	peak
2	2387.515	48.59	11.58	60.17	74.00	-13.83	peak
3	2390.000	46.96	11.59	58.55	74.00	-15.45	peak

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. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

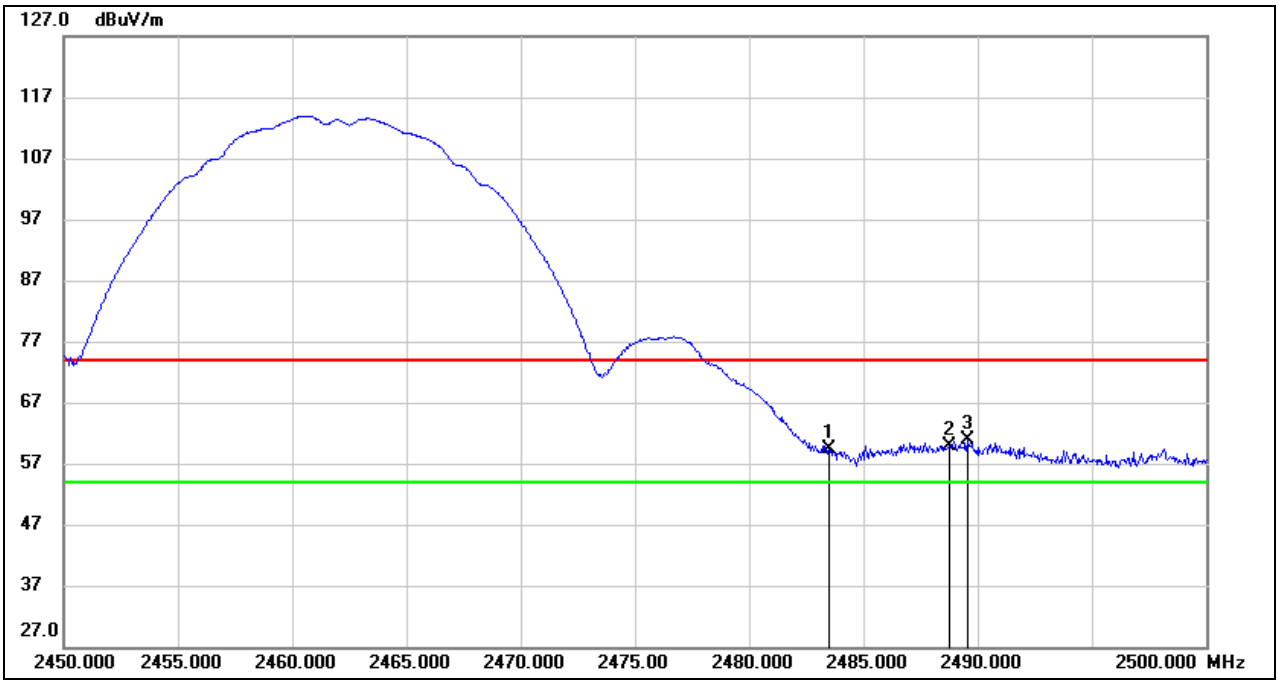


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2385.220	36.47	11.56	48.03	54.00	-5.97	AVG
2	2387.515	36.12	11.58	47.70	54.00	-6.30	AVG
3	2390.000	35.44	11.59	47.03	54.00	-6.97	AVG

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. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

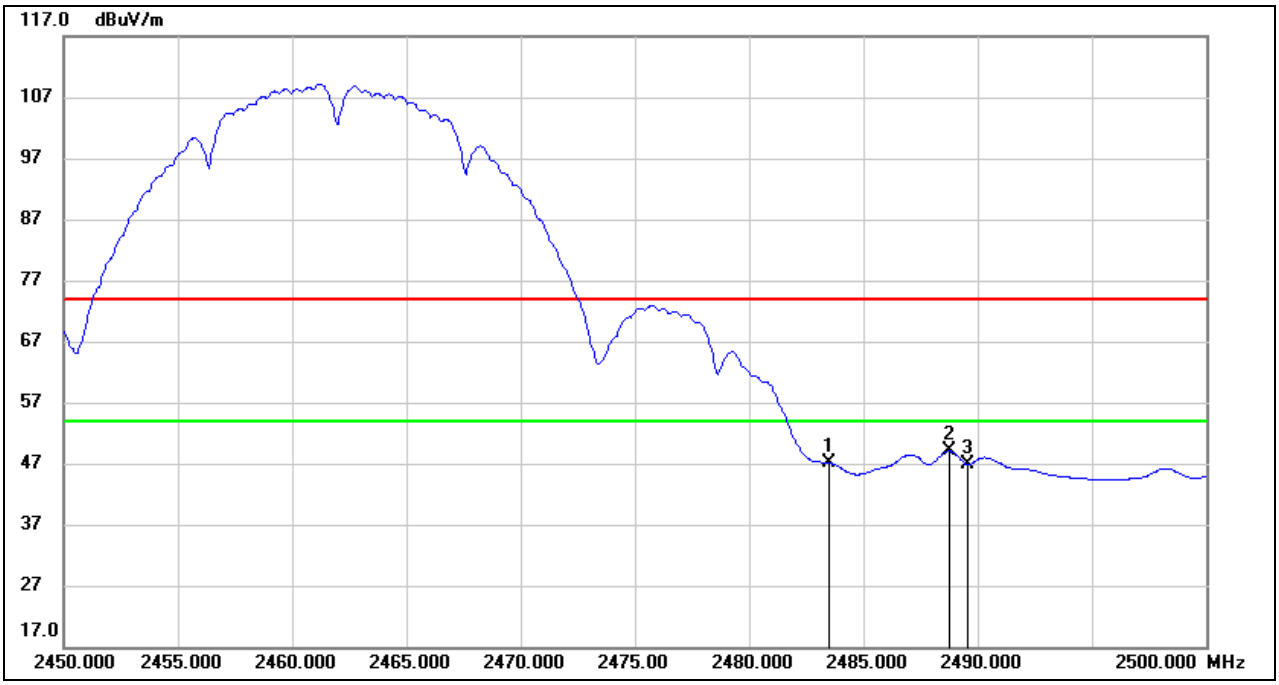
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	47.43	11.97	59.40	74.00	-14.60	peak
2	2488.750	47.79	12.00	59.79	74.00	-14.21	peak
3	2489.550	48.89	12.00	60.89	74.00	-13.11	peak

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. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	35.11	11.97	47.08	54.00	-6.92	AVG
2	2488.750	37.06	12.00	49.06	54.00	-4.94	AVG
3	2489.550	34.91	12.00	46.91	54.00	-7.09	AVG

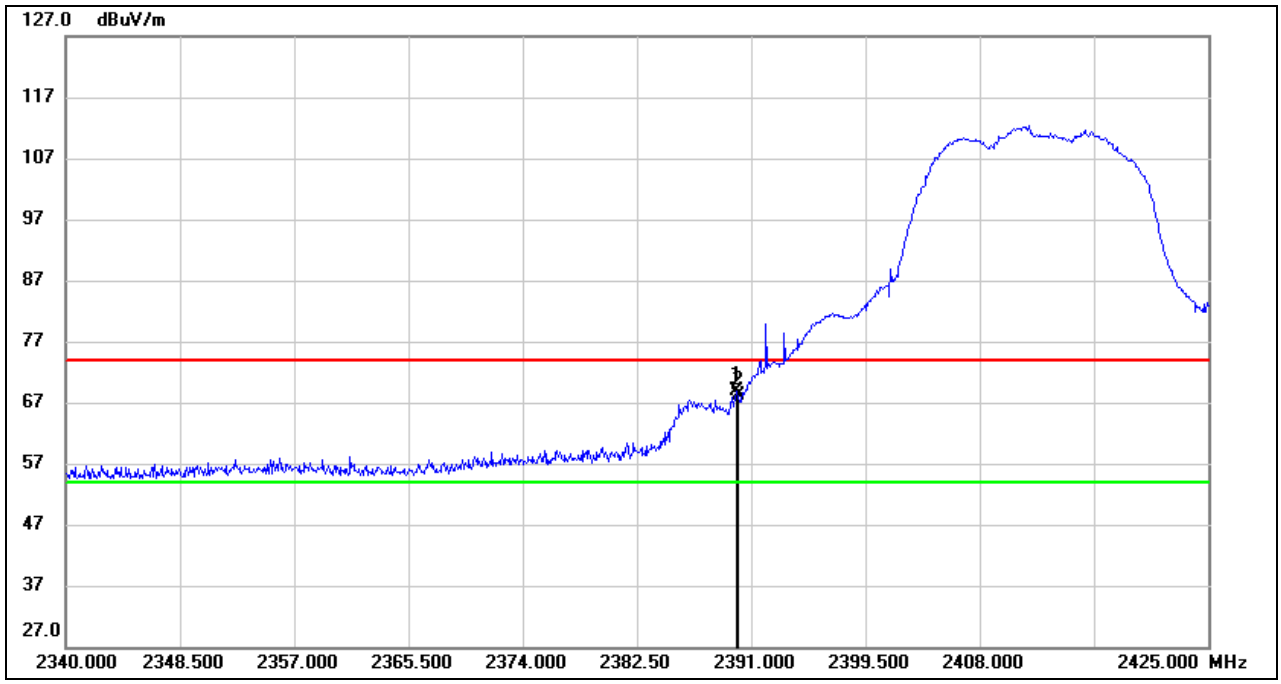
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: Horizontal and Vertical have been tested, only the worst data was recorded in the report.

8.1.2. 802.11g CDD MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

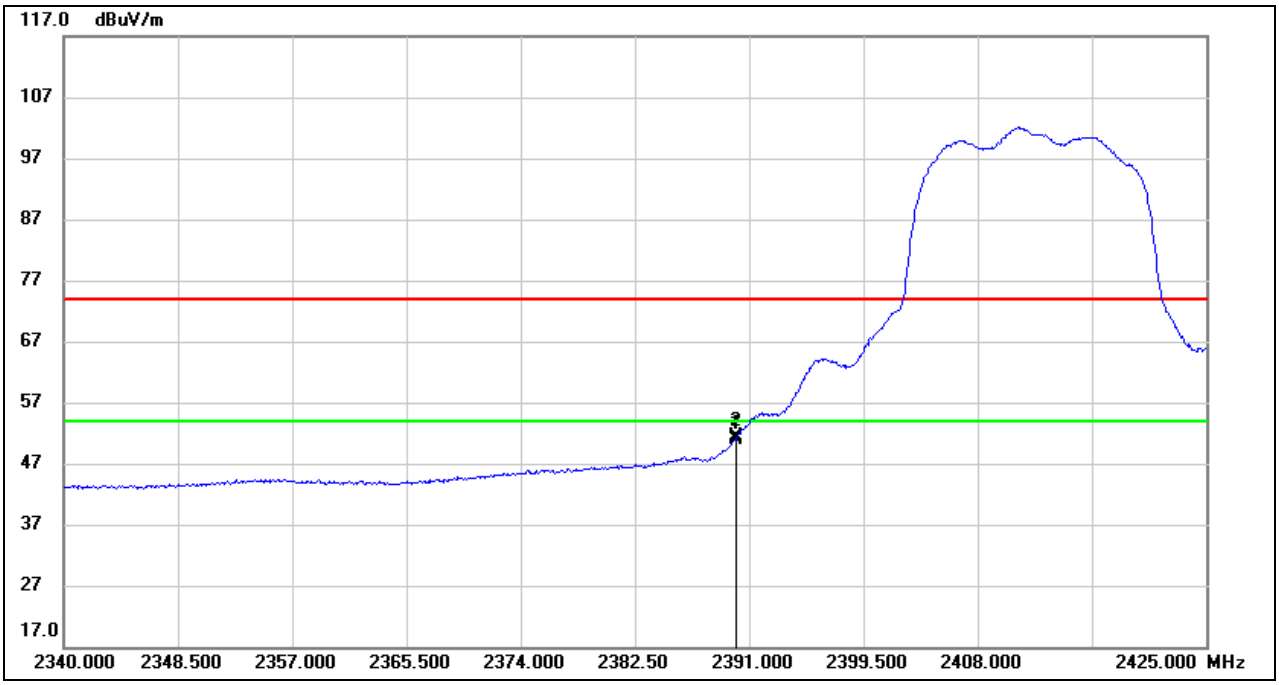
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.895	57.17	11.59	68.76	74.00	-5.24	peak
2	2390.000	56.50	11.59	68.09	74.00	-5.91	peak

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. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

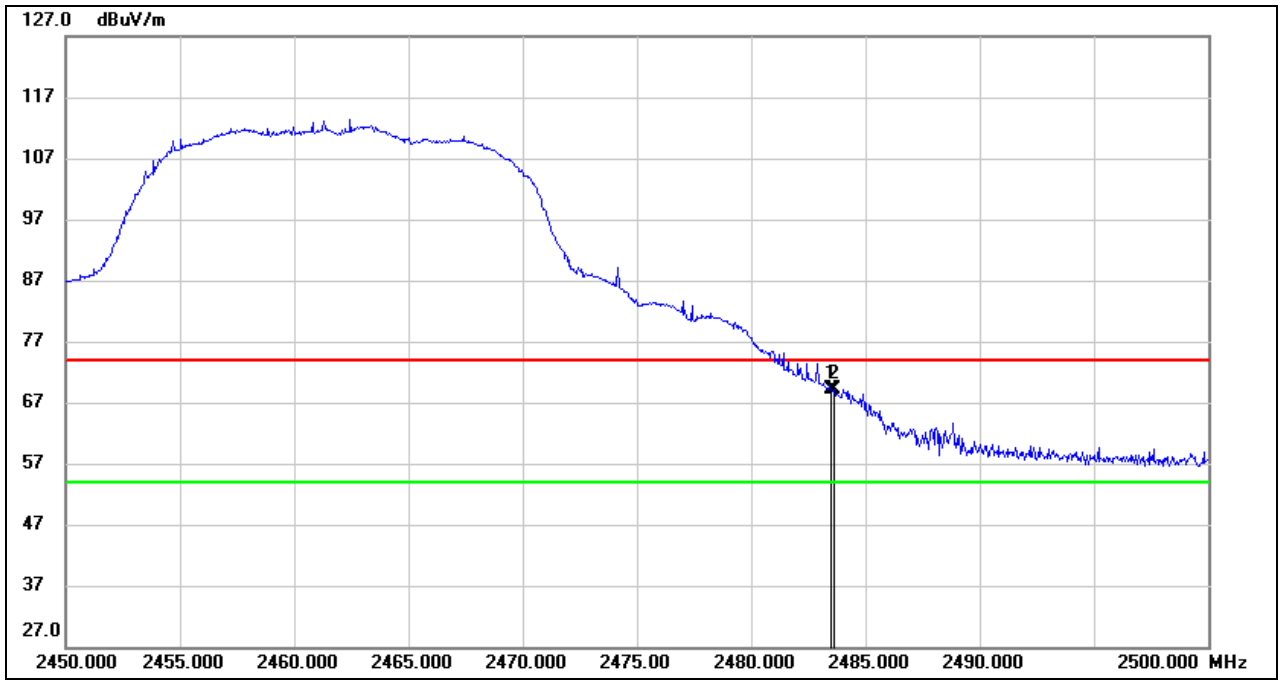


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.895	39.30	11.59	50.89	54.00	-3.11	AVG
2	2390.000	39.74	11.59	51.33	54.00	-2.67	AVG

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. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

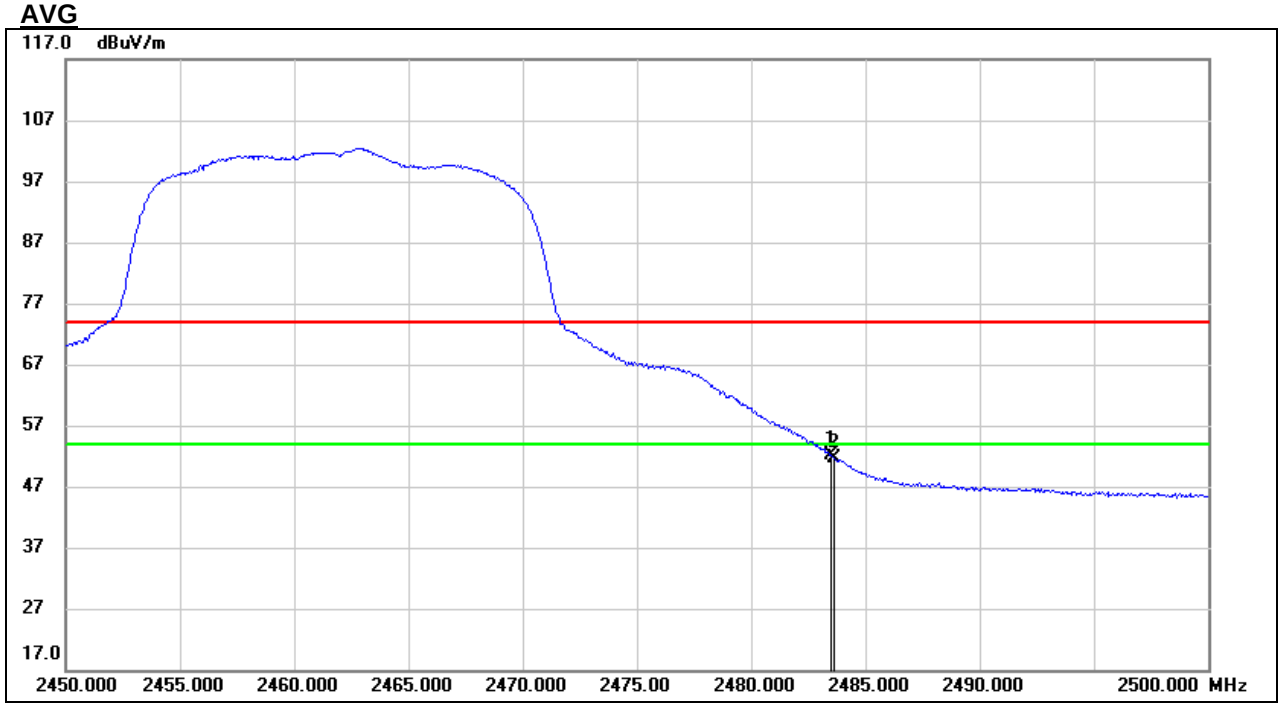
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	57.21	11.97	69.18	74.00	-4.82	peak
2	2483.600	57.25	11.97	69.22	74.00	-4.78	peak

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. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	40.10	11.97	52.07	54.00	-1.93	AVG
2	2483.600	39.76	11.97	51.73	54.00	-2.27	AVG

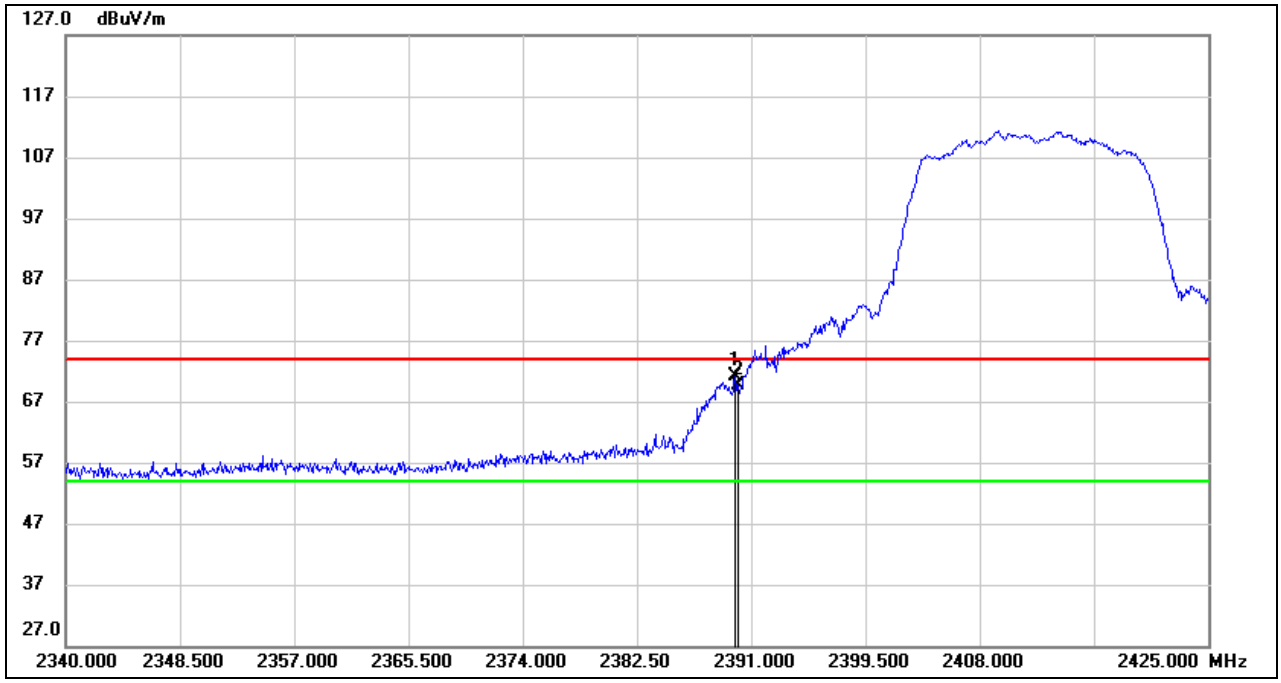
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: Horizontal and Vertical have been tested, only the worst data was recorded in the report.

8.1.3. 802.11n HT20 CDD MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

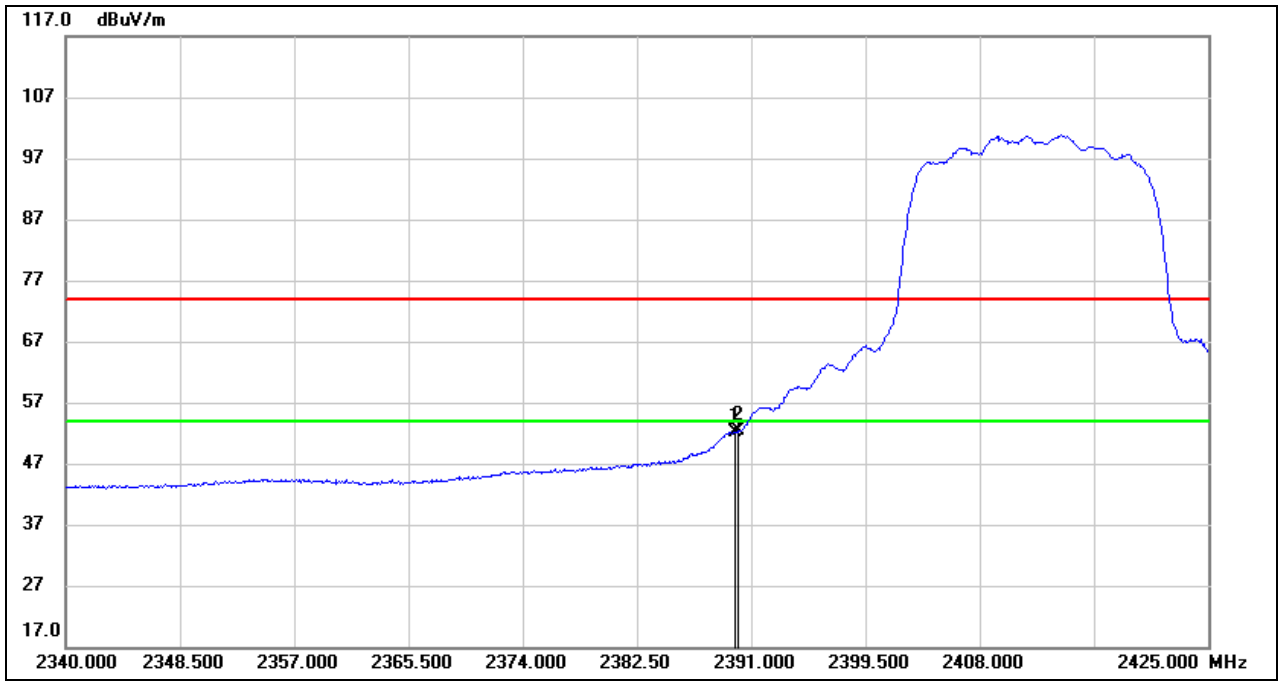
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.810	59.45	11.59	71.04	74.00	-2.96	peak
2	2390.000	57.95	11.59	69.54	74.00	-4.46	peak

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. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

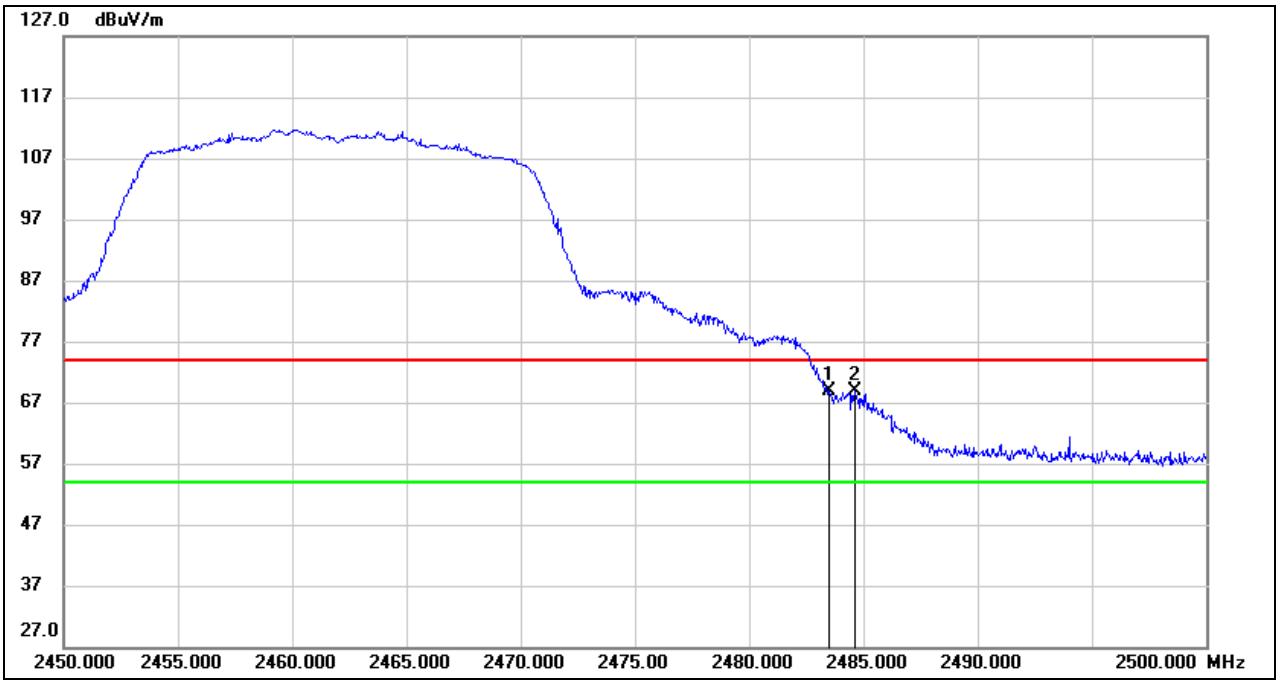


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.810	40.58	11.59	52.17	54.00	-1.83	AVG
2	2390.000	40.68	11.59	52.27	54.00	-1.73	AVG

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. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

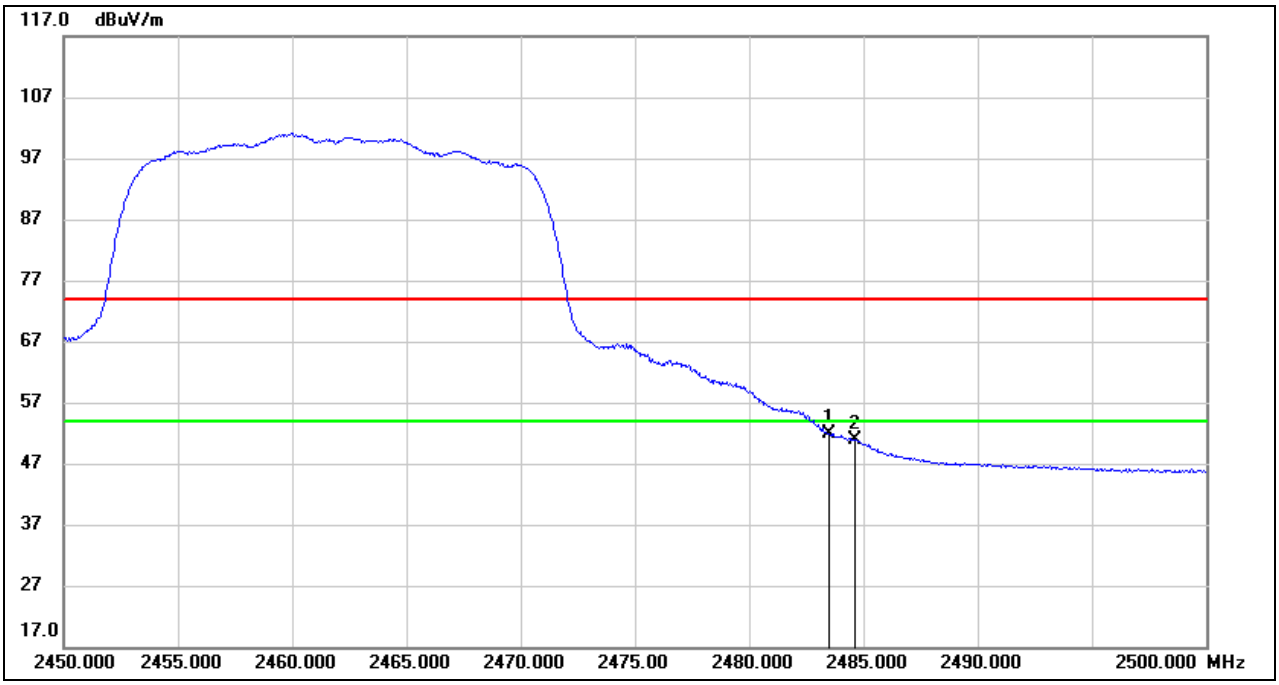
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	56.81	11.97	68.78	74.00	-5.22	peak
2	2484.600	56.89	11.97	68.86	74.00	-5.14	peak

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. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	39.87	11.97	51.84	54.00	-2.16	AVG
2	2484.600	38.90	11.97	50.87	54.00	-3.13	AVG

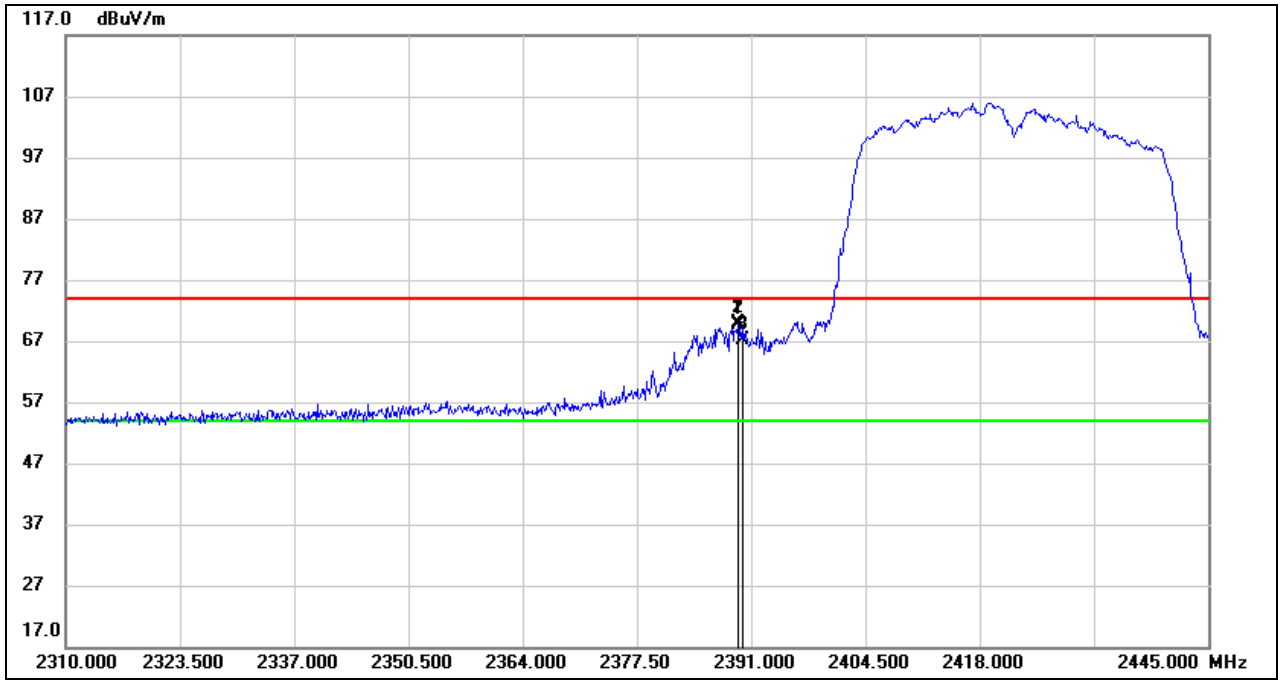
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: Horizontal and Vertical have been tested, only the worst data was recorded in the report.

8.1.4. 802.11n HT40 CDD MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

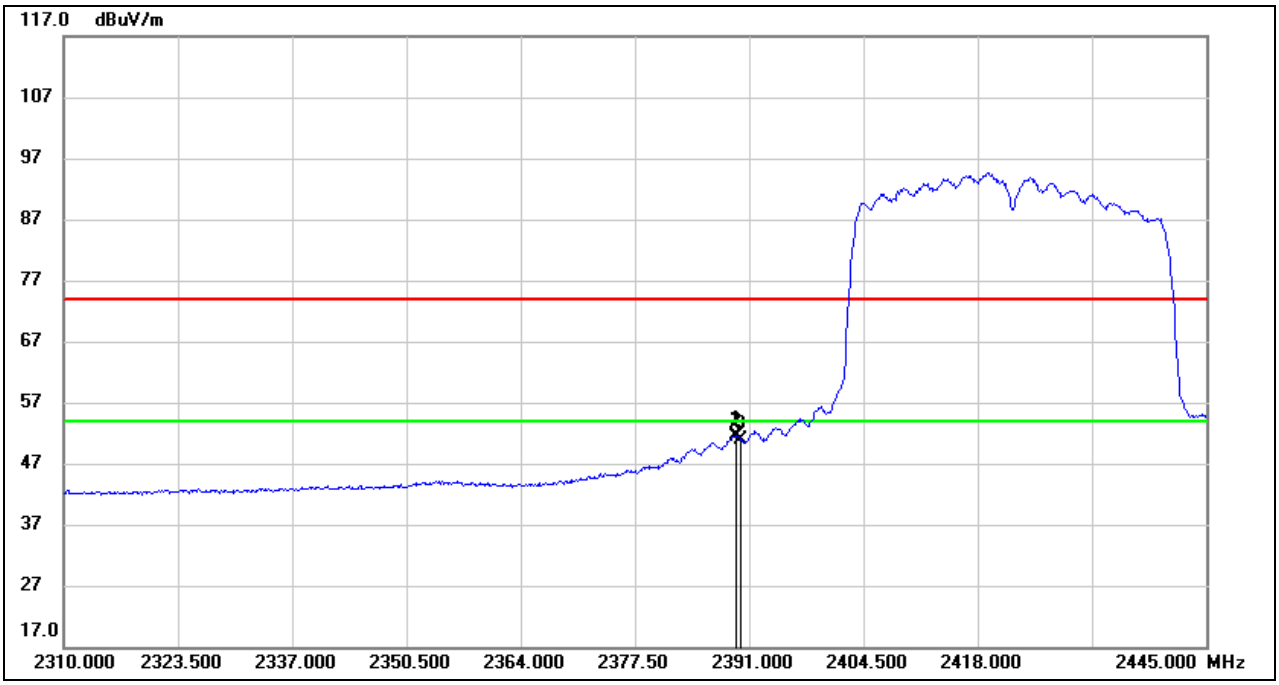
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.380	58.14	11.59	69.73	74.00	-4.27	peak
2	2389.515	58.28	11.59	69.87	74.00	-4.13	peak
3	2390.000	55.66	11.59	67.25	74.00	-6.75	peak

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. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

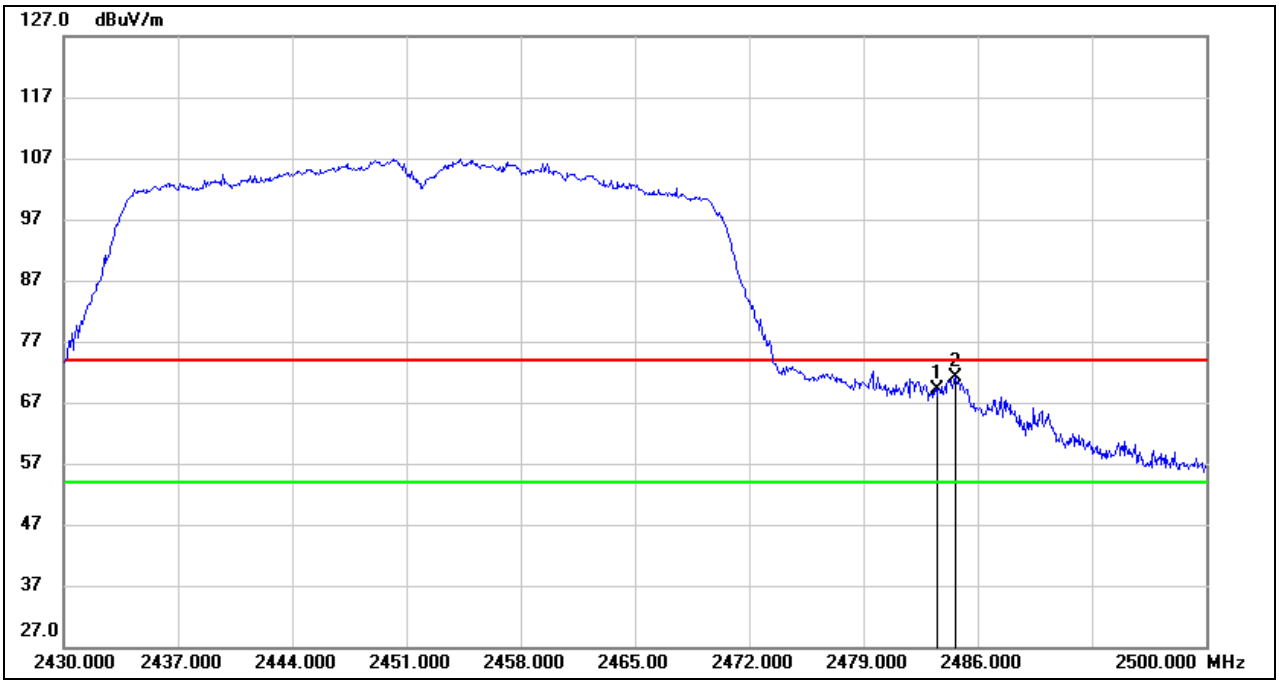


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.380	40.15	11.59	51.74	54.00	-2.26	AVG
2	2389.515	39.69	11.59	51.28	54.00	-2.72	AVG
3	2390.000	39.27	11.59	50.86	54.00	-3.14	AVG

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. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

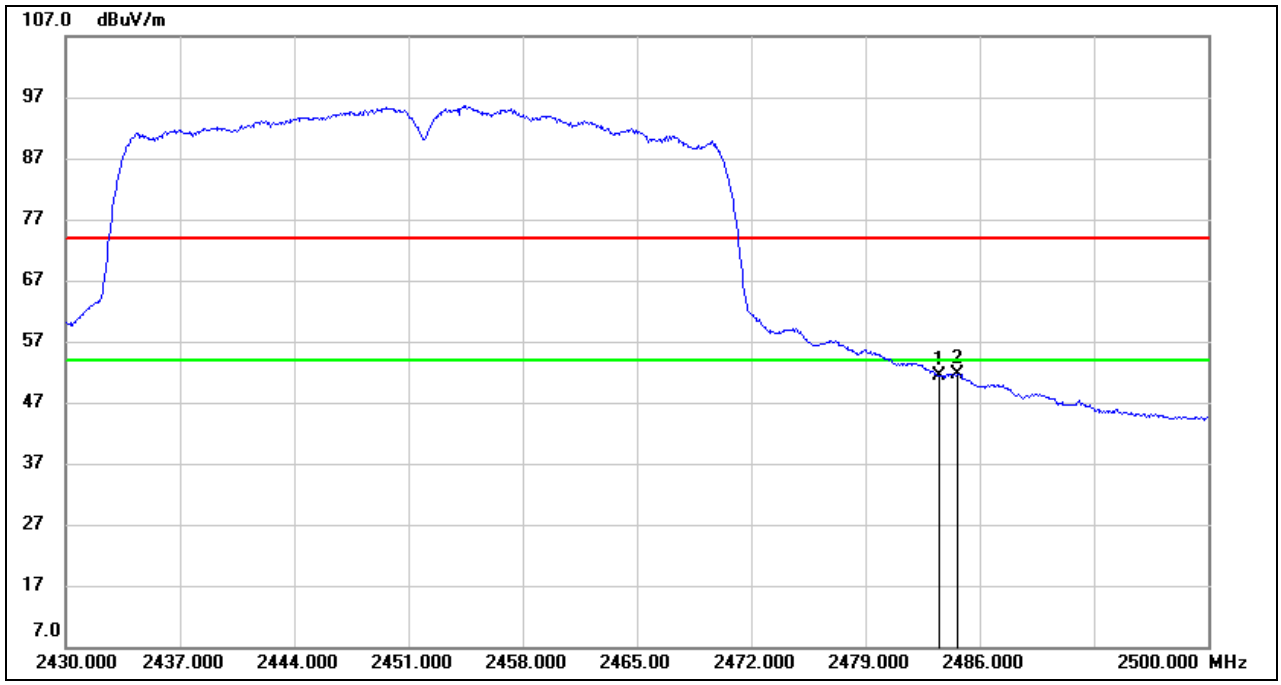
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	57.13	11.97	69.10	74.00	-4.90	peak
2	2484.600	59.28	11.97	71.25	74.00	-2.75	peak

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. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	39.45	11.97	51.42	54.00	-2.58	AVG
2	2484.600	39.57	11.97	51.54	54.00	-2.46	AVG

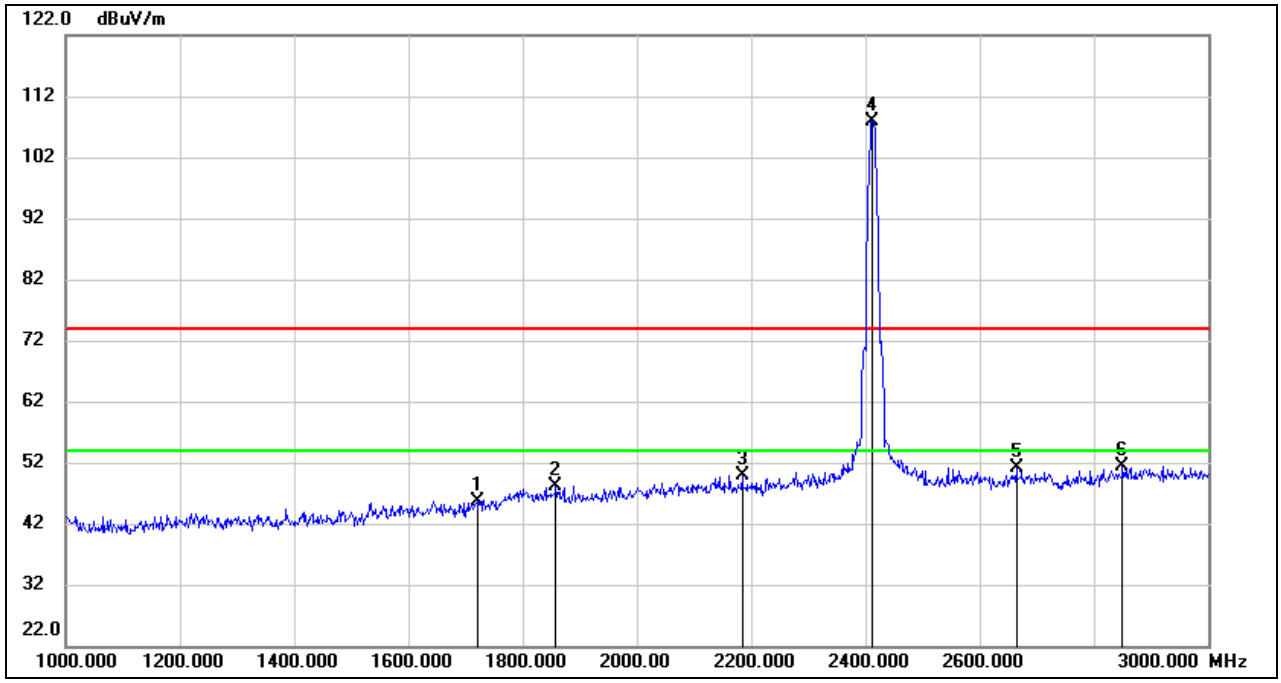
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: Horizontal and Vertical have been tested, only the worst data was recorded in the report.

8.2. SPURIOUS EMISSIONS (1 GHz ~ 3 GHz)

8.2.1. 802.11b CDD MODE

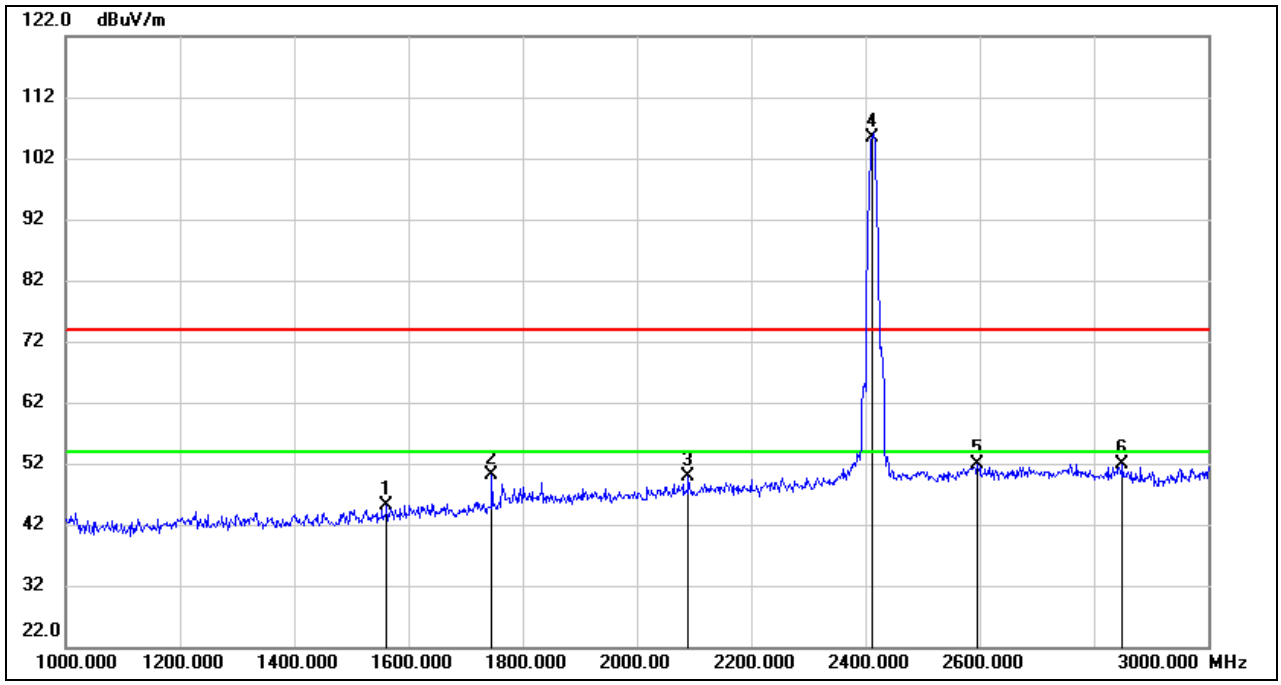
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1720.000	37.18	8.41	45.59	74.00	-28.41	peak
2	1858.000	38.50	9.73	48.23	74.00	-25.77	peak
3	2184.000	38.84	10.98	49.82	74.00	-24.18	peak
4	2412.000	96.23	11.71	107.94	/	/	fundamental
5	2664.000	38.74	12.31	51.05	74.00	-22.95	peak
6	2850.000	37.99	13.35	51.34	74.00	-22.66	peak

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.

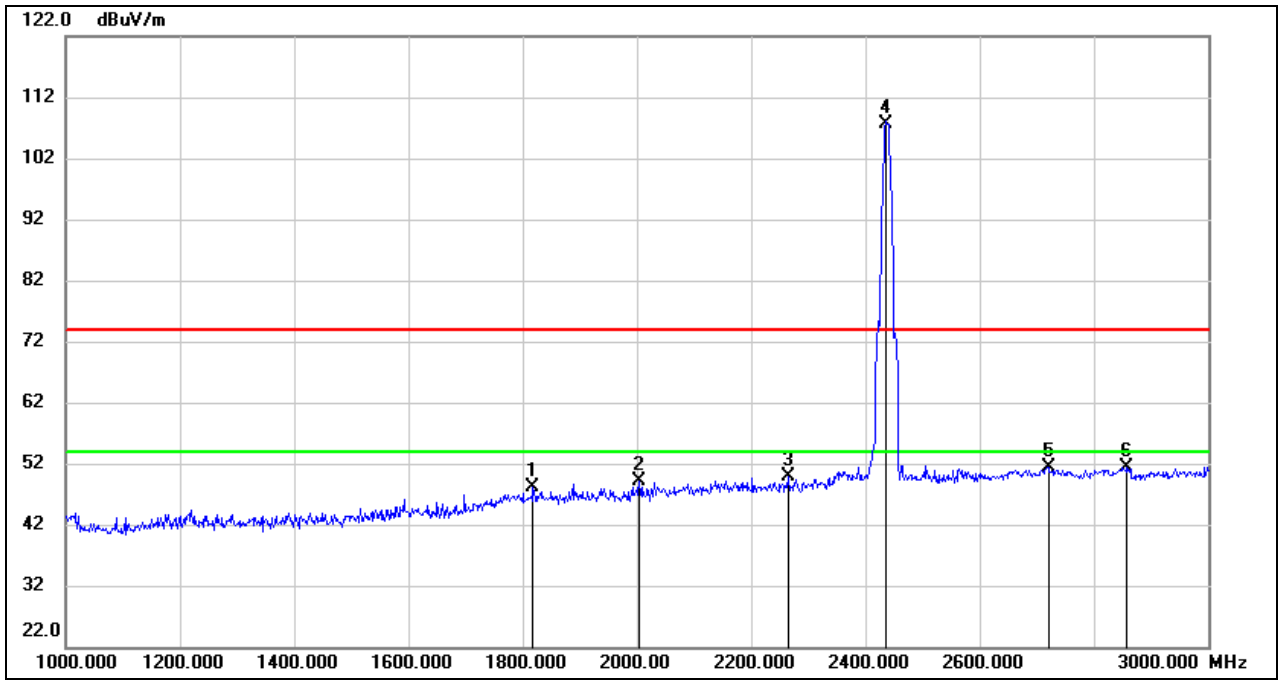
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1562.000	37.65	7.55	45.20	74.00	-28.80	peak
2	1746.000	41.31	8.81	50.12	74.00	-23.88	peak
3	2090.000	39.08	10.70	49.78	74.00	-24.22	peak
4	2412.000	93.66	11.71	105.37	/	/	fundamental
5	2596.000	40.01	11.97	51.98	74.00	-22.02	peak
6	2850.000	38.41	13.35	51.76	74.00	-22.24	peak

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.

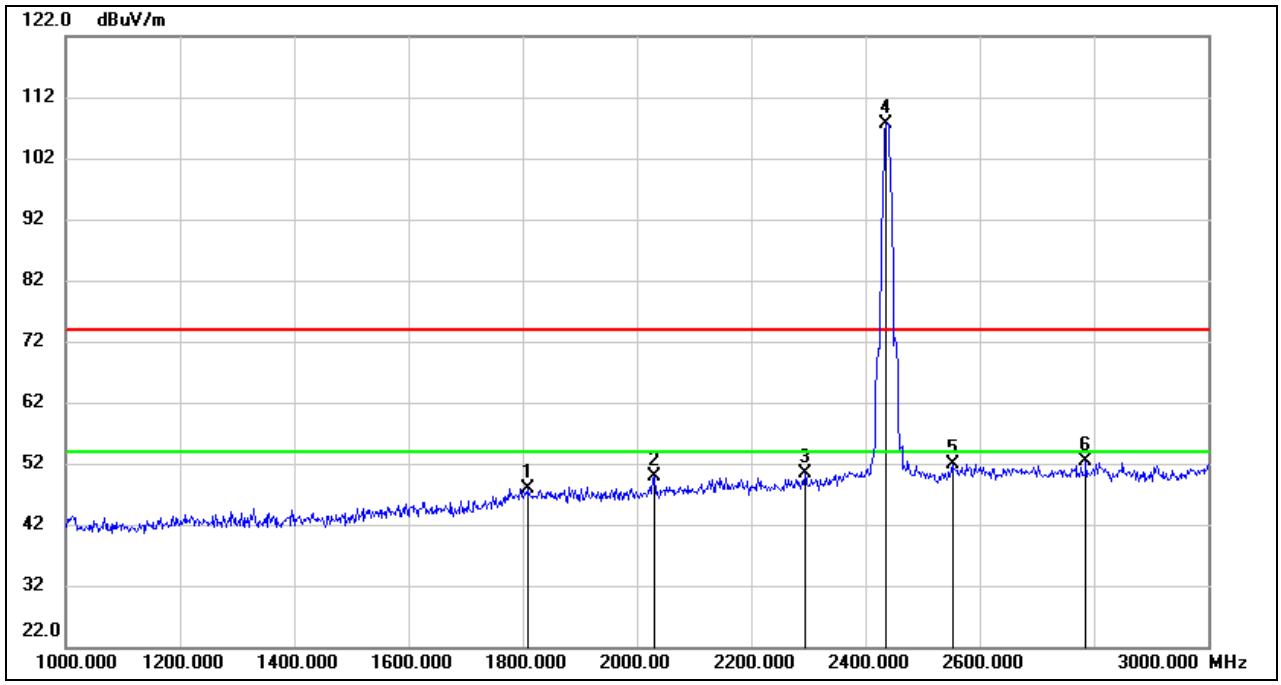
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1818.000	38.39	9.67	48.06	74.00	-25.94	peak
2	2004.000	39.04	10.06	49.10	74.00	-24.90	peak
3	2264.000	38.86	11.01	49.87	74.00	-24.13	peak
4	2437.000	95.94	11.80	107.74	/	/	fundamental
5	2720.000	38.67	12.65	51.32	74.00	-22.68	peak
6	2858.000	38.09	13.37	51.46	74.00	-22.54	peak

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.

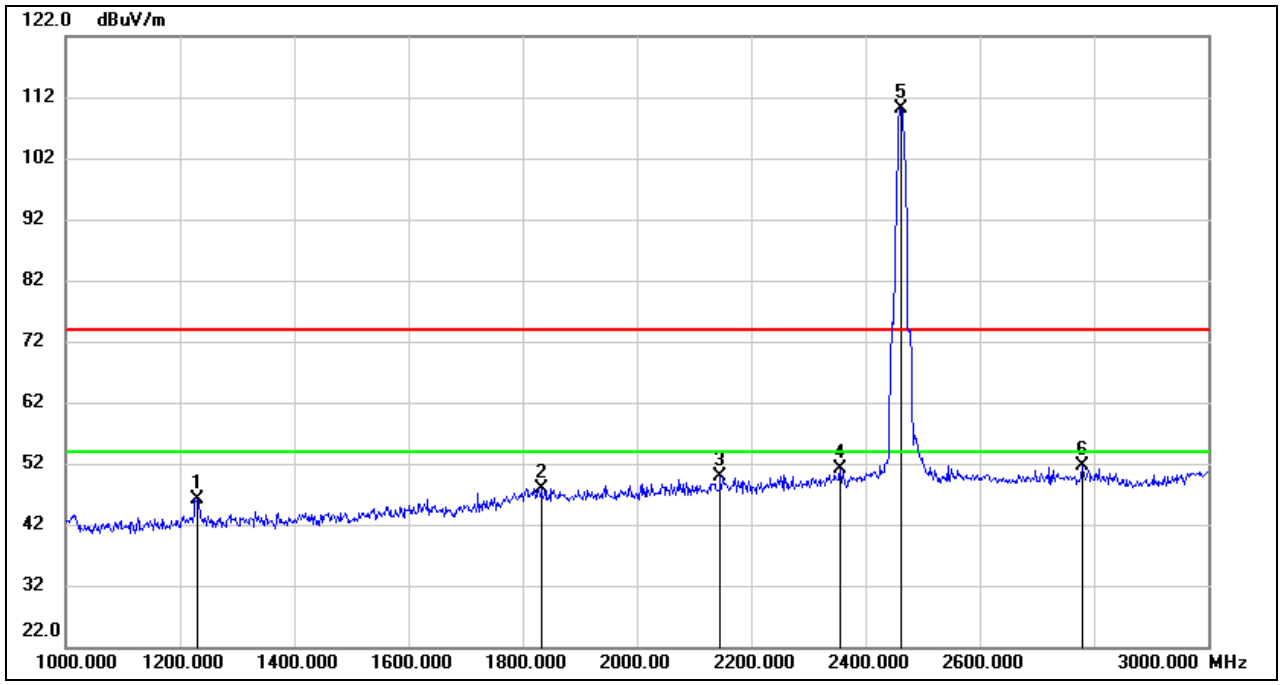
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1810.000	38.19	9.66	47.85	74.00	-26.15	peak
2	2030.000	39.75	10.25	50.00	74.00	-24.00	peak
3	2294.000	39.39	11.00	50.39	74.00	-23.61	peak
4	2437.000	95.87	11.80	107.67	/	/	fundamental
5	2552.000	39.97	12.00	51.97	74.00	-22.03	peak
6	2786.000	39.20	13.14	52.34	74.00	-21.66	peak

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.

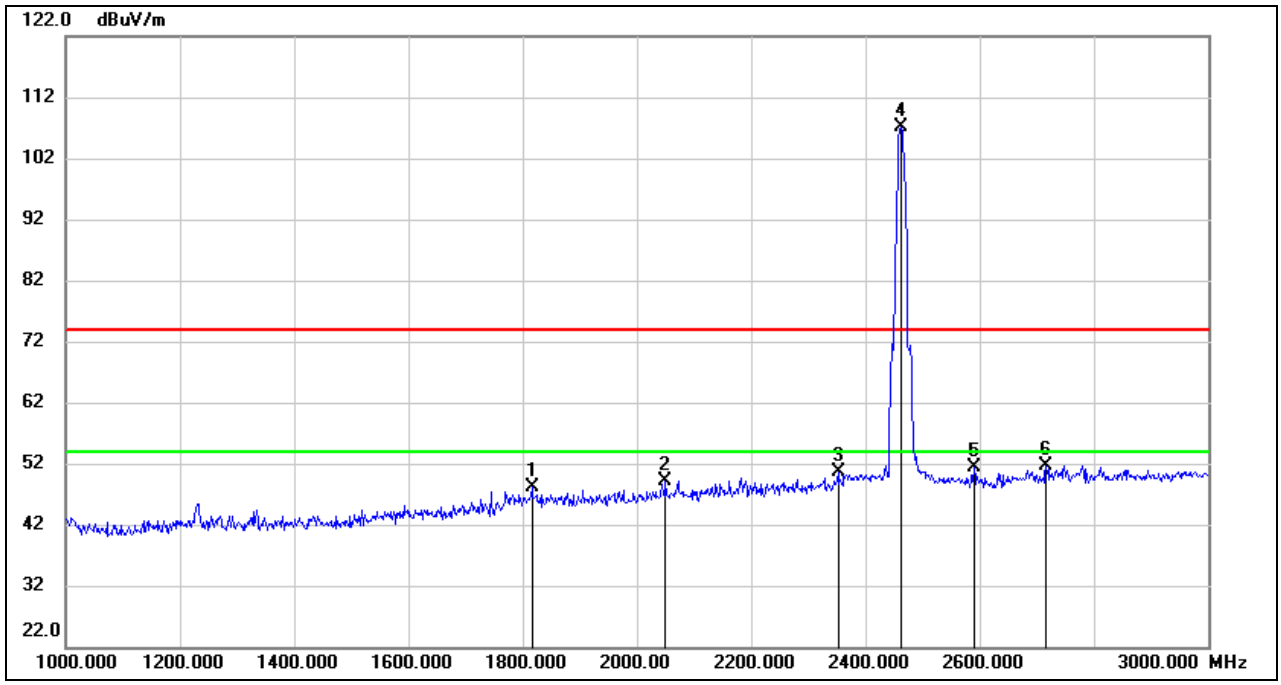
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1230.000	39.60	6.55	46.15	74.00	-27.85	peak
2	1832.000	38.29	9.69	47.98	74.00	-26.02	peak
3	2146.000	38.94	10.89	49.83	74.00	-24.17	peak
4	2356.000	39.78	11.37	51.15	74.00	-22.85	peak
5	2462.000	98.33	11.89	110.22	/	/	fundamental
6	2780.000	38.56	13.09	51.65	74.00	-22.35	peak

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.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1816.000	38.53	9.67	48.20	74.00	-25.80	peak
2	2050.000	38.66	10.40	49.06	74.00	-24.94	peak
3	2352.000	39.30	11.34	50.64	74.00	-23.36	peak
4	2462.000	95.19	11.89	107.08	/	/	fundamental
5	2590.000	39.37	11.97	51.34	74.00	-22.66	peak
6	2716.000	39.06	12.63	51.69	74.00	-22.31	peak

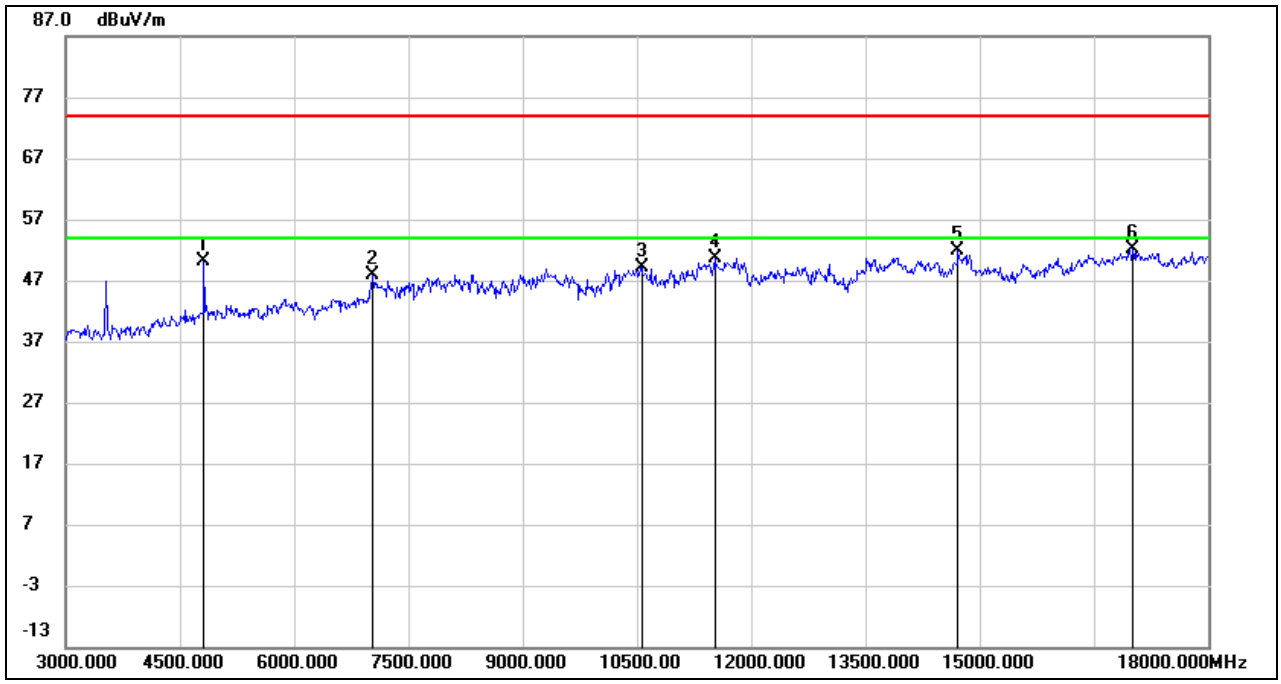
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

Note: All the modes and channels had been tested, but only the worst data was recorded in the report.

8.3. SPURIOUS EMISSIONS (3 GHz ~ 18 GHz)

8.3.1. 802.11b CDD MODE

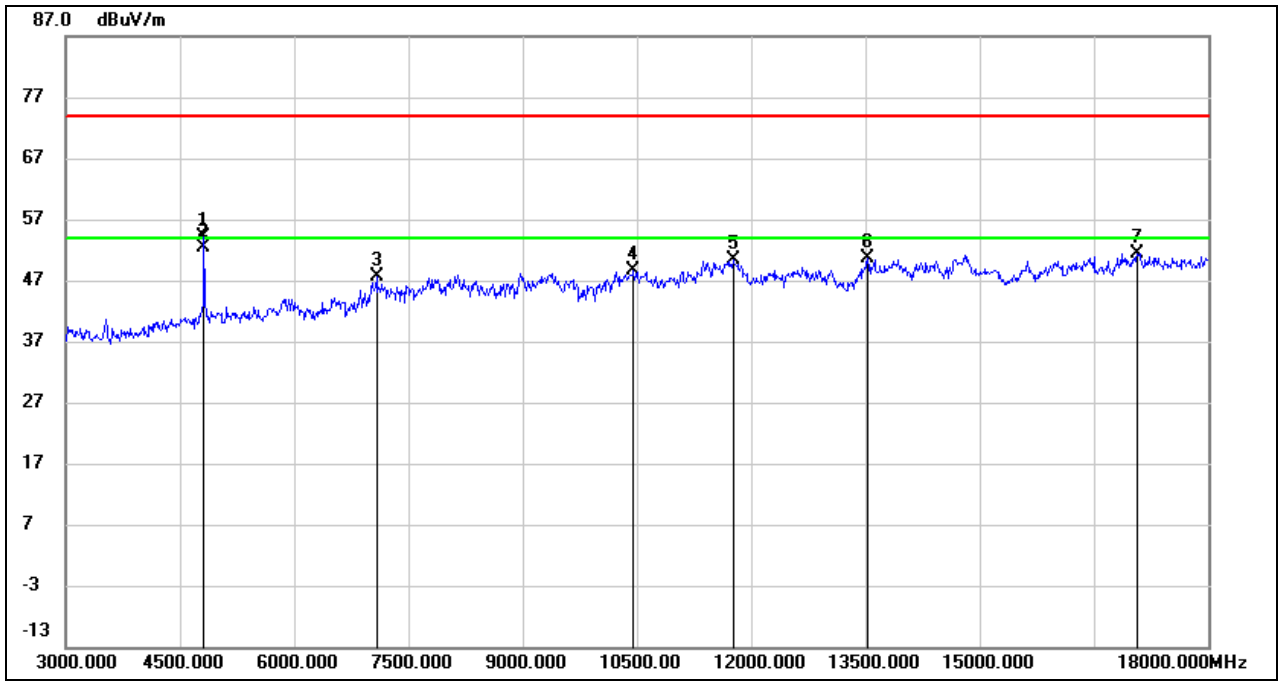
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	48.71	1.38	50.09	74.00	-23.91	peak
2	7035.000	40.26	7.62	47.88	74.00	-26.12	peak
3	10560.000	36.69	12.56	49.25	74.00	-24.75	peak
4	11520.000	35.98	14.66	50.64	74.00	-23.36	peak
5	14715.000	34.04	17.74	51.78	74.00	-22.22	peak
6	17010.000	30.82	21.31	52.13	74.00	-21.87	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

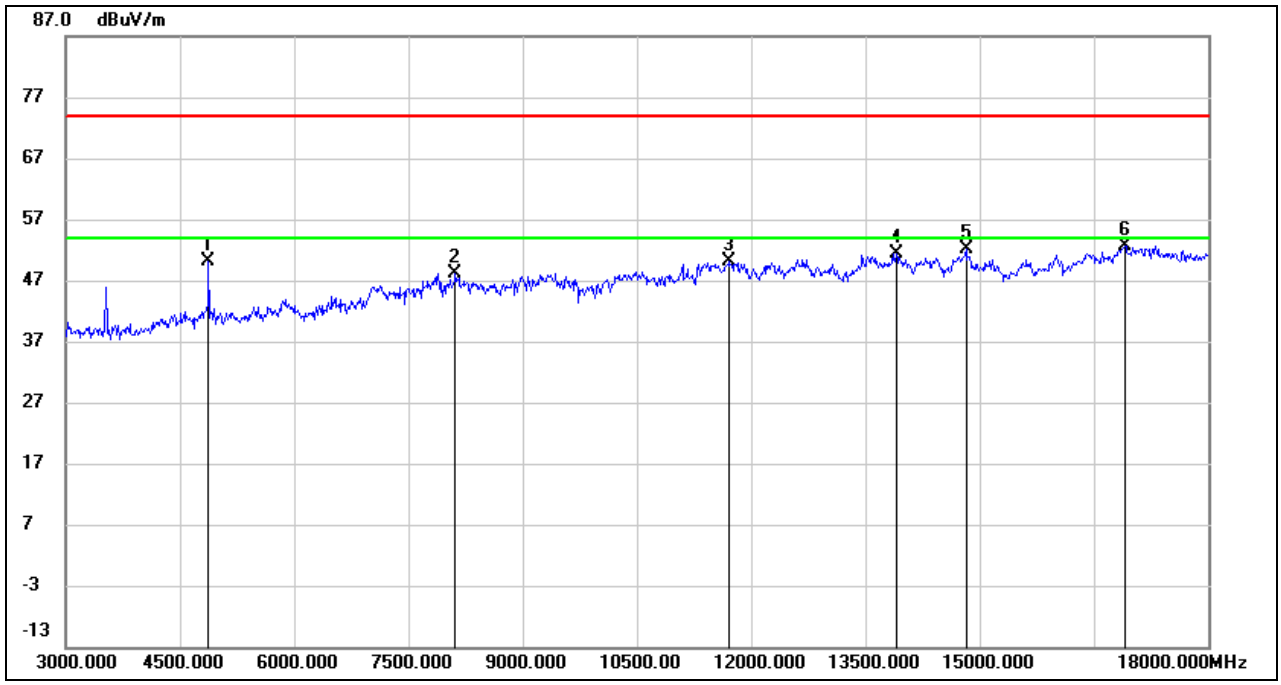
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	52.85	1.38	54.23	74.00	-19.77	peak
2	4815.000	50.95	1.38	52.33	54.00	-1.67	AVG
3	7080.000	40.04	7.65	47.69	74.00	-26.31	peak
4	10455.000	36.28	12.31	48.59	74.00	-25.41	peak
5	11760.000	35.19	15.29	50.48	74.00	-23.52	peak
6	13530.000	33.34	17.19	50.53	74.00	-23.47	peak
7	17070.000	29.76	21.71	51.47	74.00	-22.53	peak

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 7.1.
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.

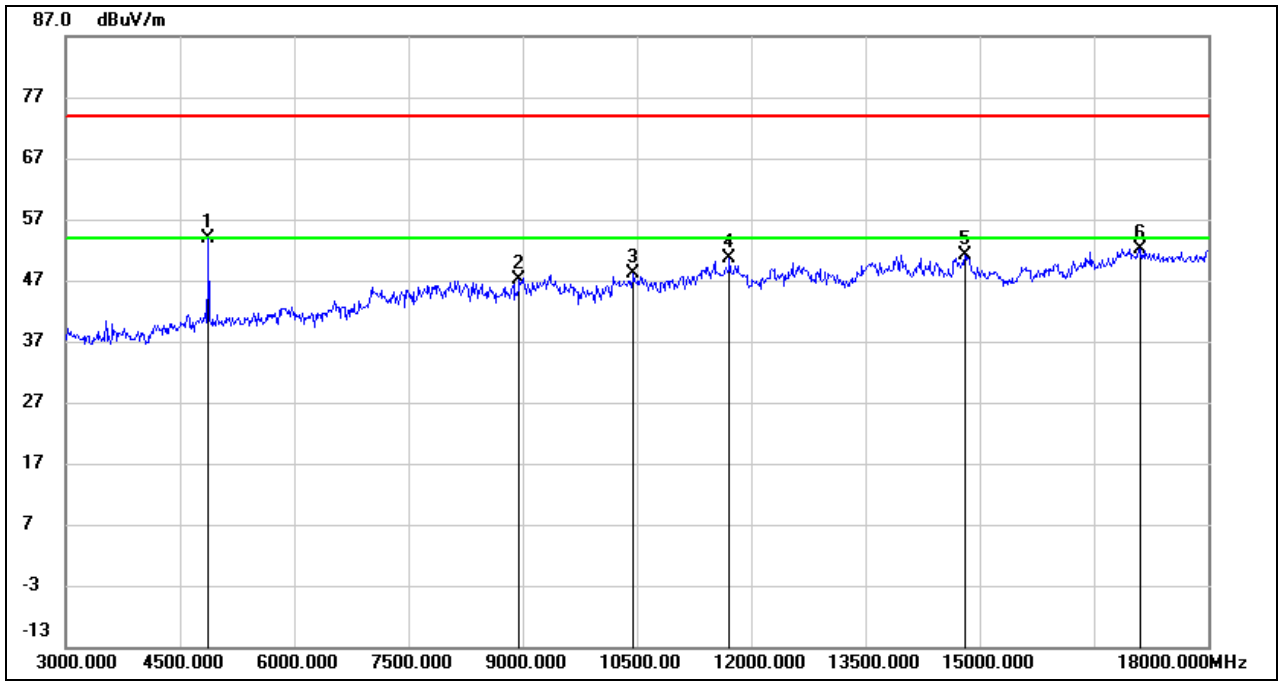
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	48.85	1.32	50.17	74.00	-23.83	peak
2	8115.000	38.05	10.13	48.18	74.00	-25.82	peak
3	11715.000	34.81	15.34	50.15	74.00	-23.85	peak
4	13905.000	33.86	17.54	51.40	74.00	-22.60	peak
5	14820.000	34.17	17.91	52.08	74.00	-21.92	peak
6	16905.000	31.09	21.55	52.64	74.00	-21.36	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

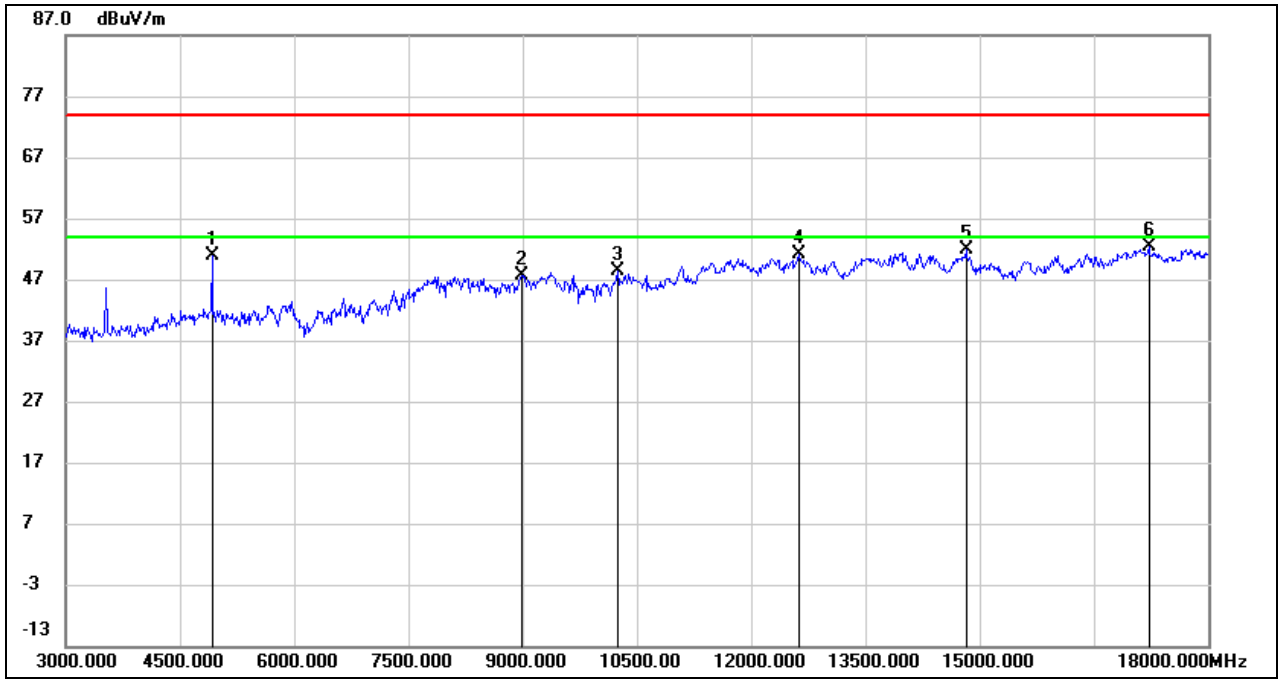
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	52.56	1.32	53.88	74.00	-20.12	peak
2	8955.000	36.71	10.41	47.12	74.00	-26.88	peak
3	10455.000	35.71	12.31	48.02	74.00	-25.98	peak
4	11715.000	35.19	15.34	50.53	74.00	-23.47	peak
5	14805.000	33.18	18.00	51.18	74.00	-22.82	peak
6	17115.000	30.16	21.91	52.07	74.00	-21.93	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

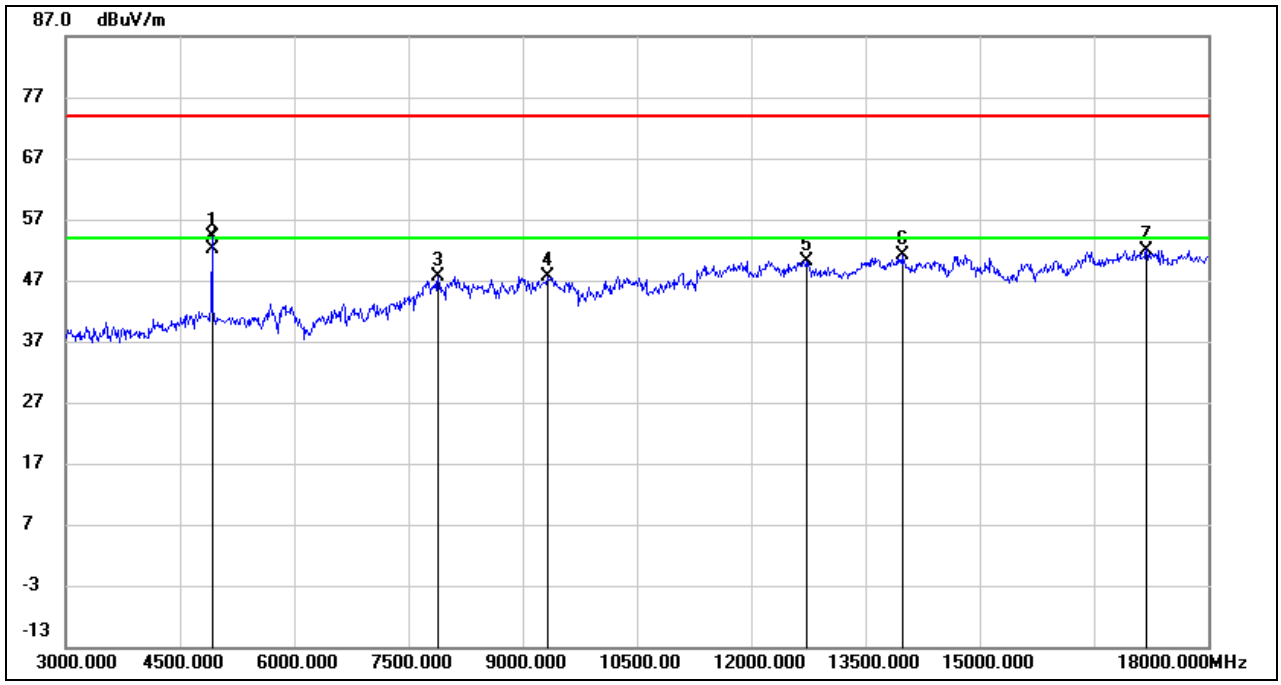
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	49.33	1.45	50.78	74.00	-23.22	peak
2	8985.000	36.64	10.99	47.63	74.00	-26.37	peak
3	10245.000	36.77	11.63	48.40	74.00	-25.60	peak
4	12630.000	35.47	15.72	51.19	74.00	-22.81	peak
5	14820.000	33.94	17.91	51.85	74.00	-22.15	peak
6	17220.000	30.22	22.12	52.34	74.00	-21.66	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)

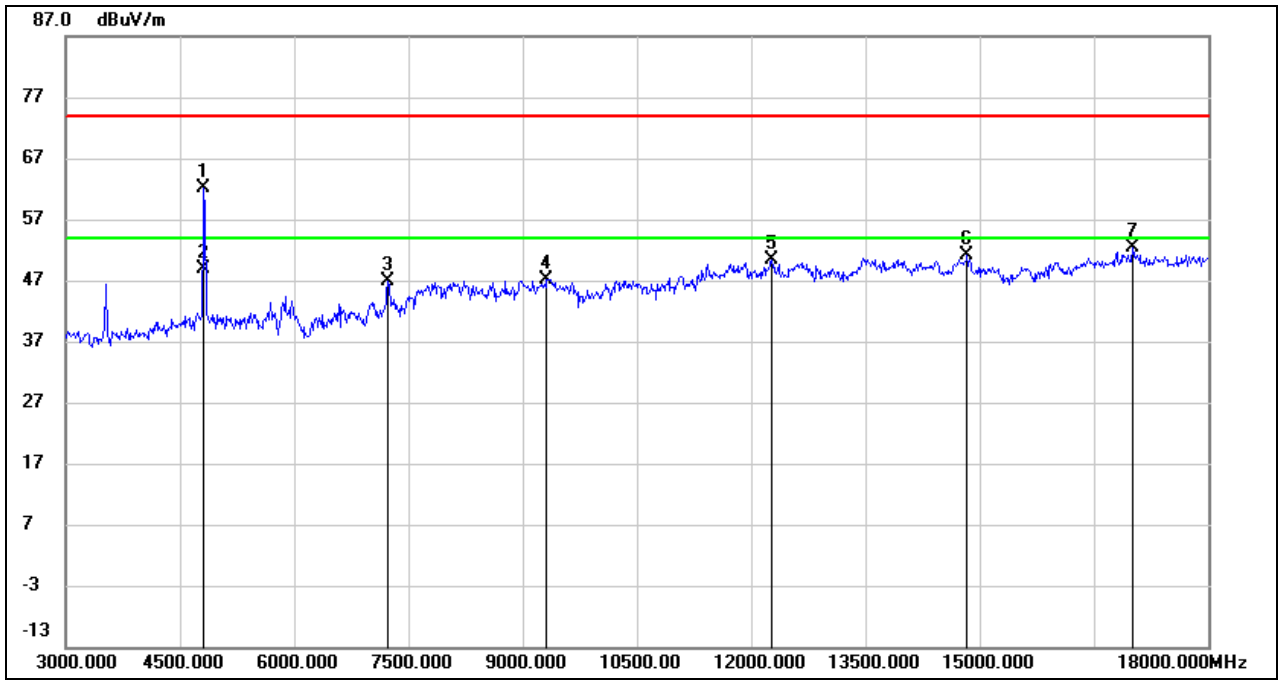


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	52.56	1.45	54.01	74.00	-19.99	peak
2	4920.000	50.78	1.45	52.23	54.00	-1.77	AVG
3	7890.000	38.60	8.91	47.51	74.00	-26.49	peak
4	9330.000	37.03	10.57	47.60	74.00	-26.40	peak
5	12720.000	34.54	15.70	50.24	74.00	-23.76	peak
6	13980.000	33.38	17.64	51.02	74.00	-22.98	peak
7	17190.000	30.02	21.98	52.00	74.00	-22.00	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

8.3.2. 802.11g CDD MODE

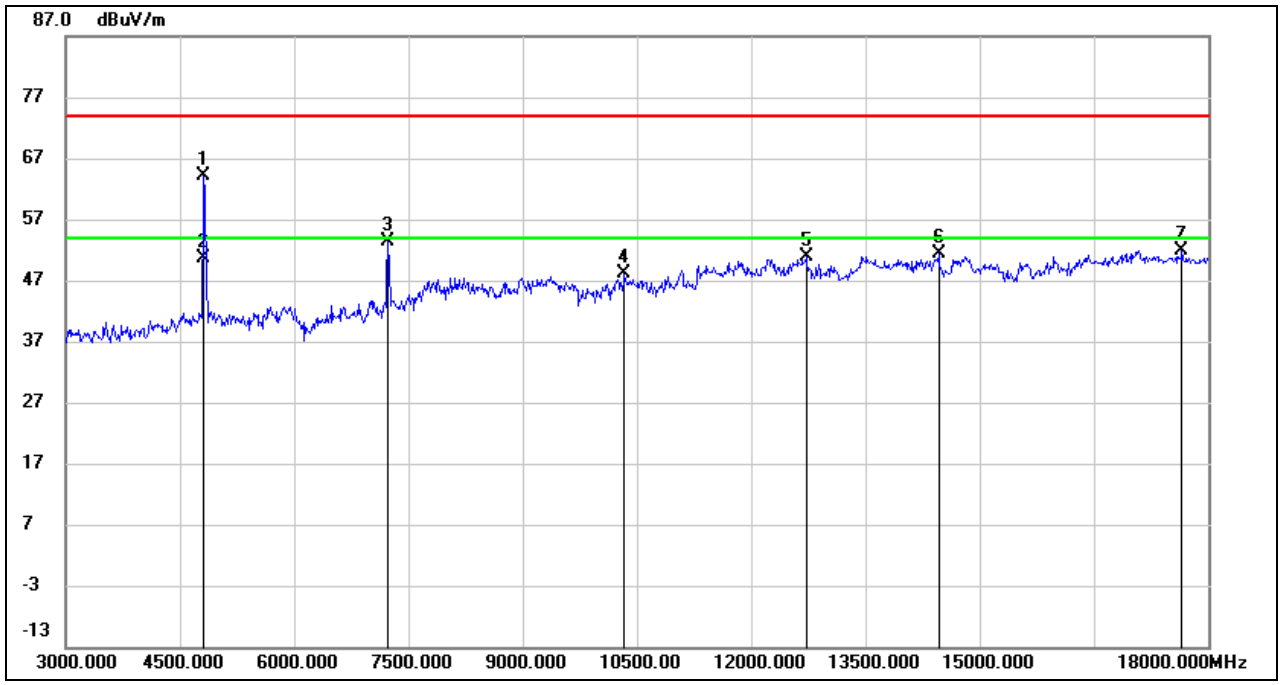
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	60.67	1.38	62.05	74.00	-11.95	peak
2	4815.000	47.59	1.38	48.97	54.00	-5.03	AVG
3	7230.000	39.68	7.28	46.96	74.00	-27.04	peak
4	9315.000	36.76	10.48	47.24	74.00	-26.76	peak
5	12270.000	34.32	16.04	50.36	74.00	-23.64	peak
6	14835.000	33.43	17.80	51.23	74.00	-22.77	peak
7	17010.000	31.17	21.31	52.48	74.00	-21.52	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

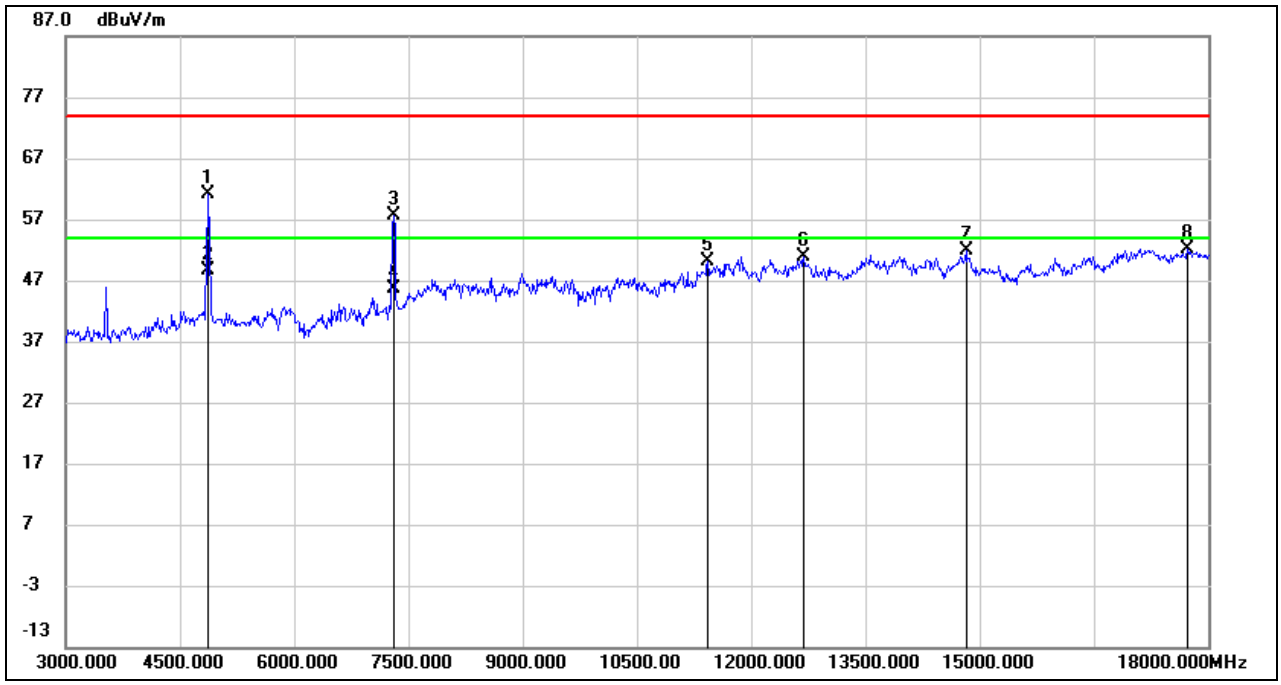
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	62.79	1.38	64.17	74.00	-9.83	peak
2	4815.000	49.34	1.38	50.72	54.00	-3.28	AVG
3	7230.000	46.13	7.28	53.41	74.00	-20.59	peak
4	10335.000	36.15	11.96	48.11	74.00	-25.89	peak
5	12720.000	35.06	15.70	50.76	74.00	-23.24	peak
6	14460.000	34.05	17.28	51.33	74.00	-22.67	peak
7	17655.000	28.72	23.14	51.86	74.00	-22.14	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

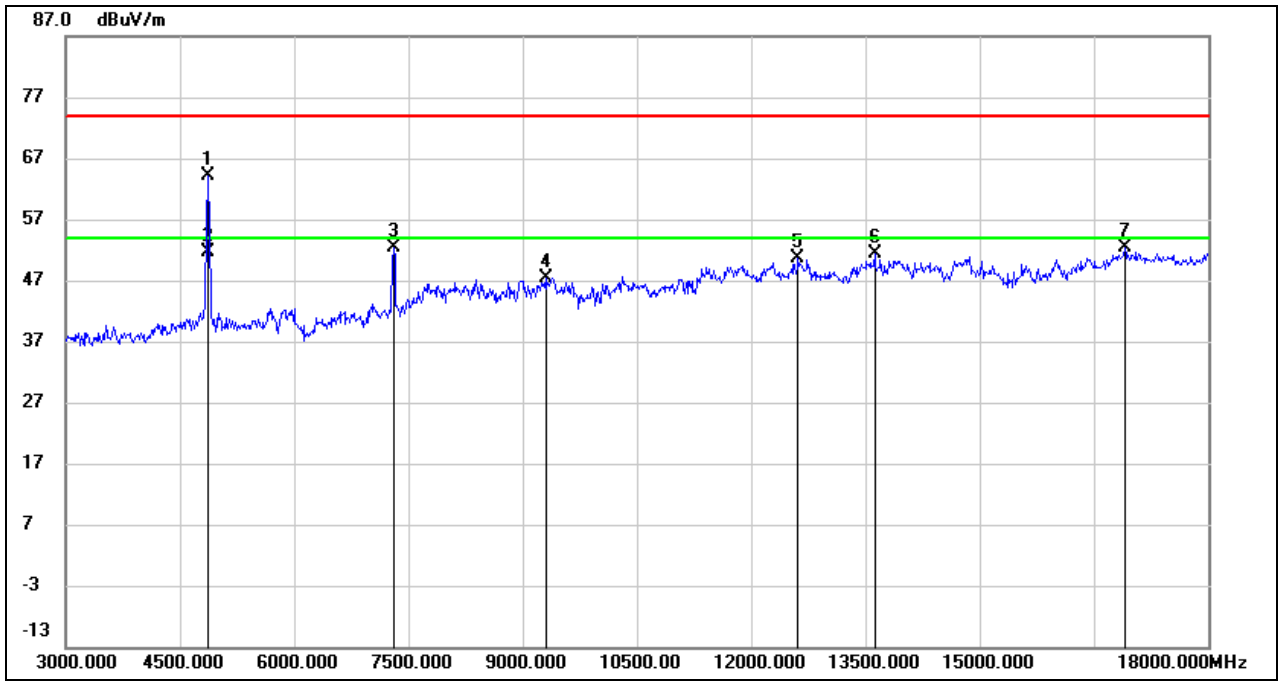
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	59.70	1.32	61.02	74.00	-12.98	peak
2	4875.000	47.37	1.32	48.69	54.00	-5.31	AVG
3	7305.000	50.49	7.14	57.63	74.00	-16.37	peak
4	7305.000	38.51	7.14	45.65	54.00	-8.35	AVG
5	11430.000	35.42	14.72	50.14	74.00	-23.86	peak
6	12690.000	35.30	15.64	50.94	74.00	-23.06	peak
7	14820.000	33.86	17.91	51.77	74.00	-22.23	peak
8	17730.000	28.56	23.64	52.20	74.00	-21.80	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

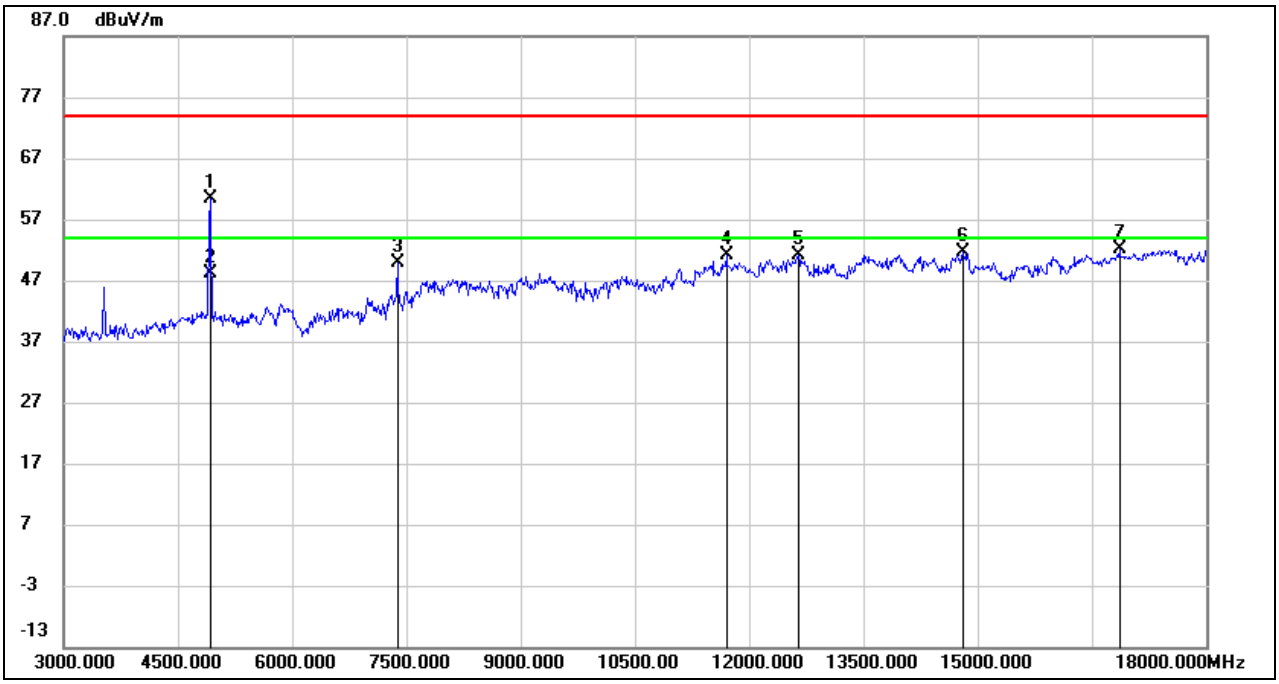
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	62.79	1.33	64.12	74.00	-9.88	peak
2	4860.000	50.33	1.33	51.66	54.00	-2.34	AVG
3	7305.000	45.23	7.14	52.37	74.00	-21.63	peak
4	9300.000	37.10	10.40	47.50	74.00	-26.50	peak
5	12615.000	34.89	15.75	50.64	74.00	-23.36	peak
6	13620.000	34.27	17.19	51.46	74.00	-22.54	peak
7	16905.000	30.75	21.55	52.30	74.00	-21.70	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

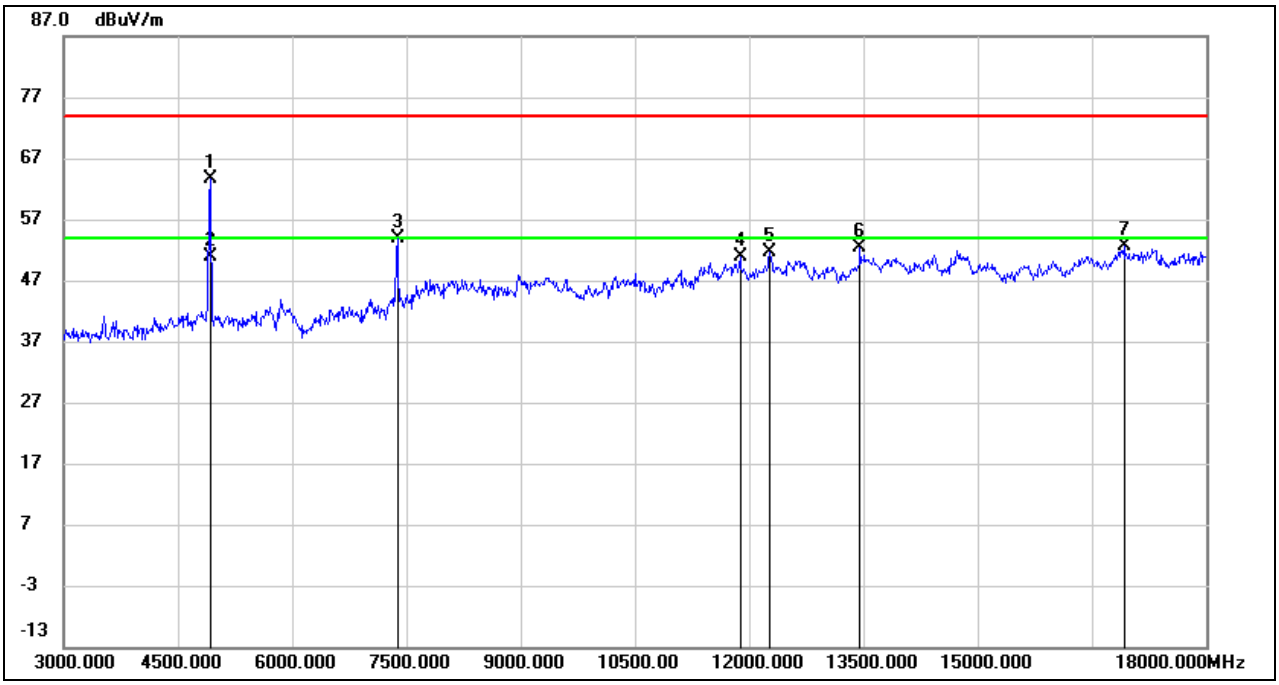
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	58.96	1.45	60.41	74.00	-13.59	peak
2	4920.000	46.58	1.45	48.03	54.00	-5.97	AVG
3	7380.000	42.09	7.79	49.88	74.00	-24.12	peak
4	11700.000	35.66	15.35	51.01	74.00	-22.99	peak
5	12645.000	35.54	15.71	51.25	74.00	-22.75	peak
6	14805.000	33.52	18.00	51.52	74.00	-22.48	peak
7	16860.000	30.84	21.22	52.06	74.00	-21.94	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)

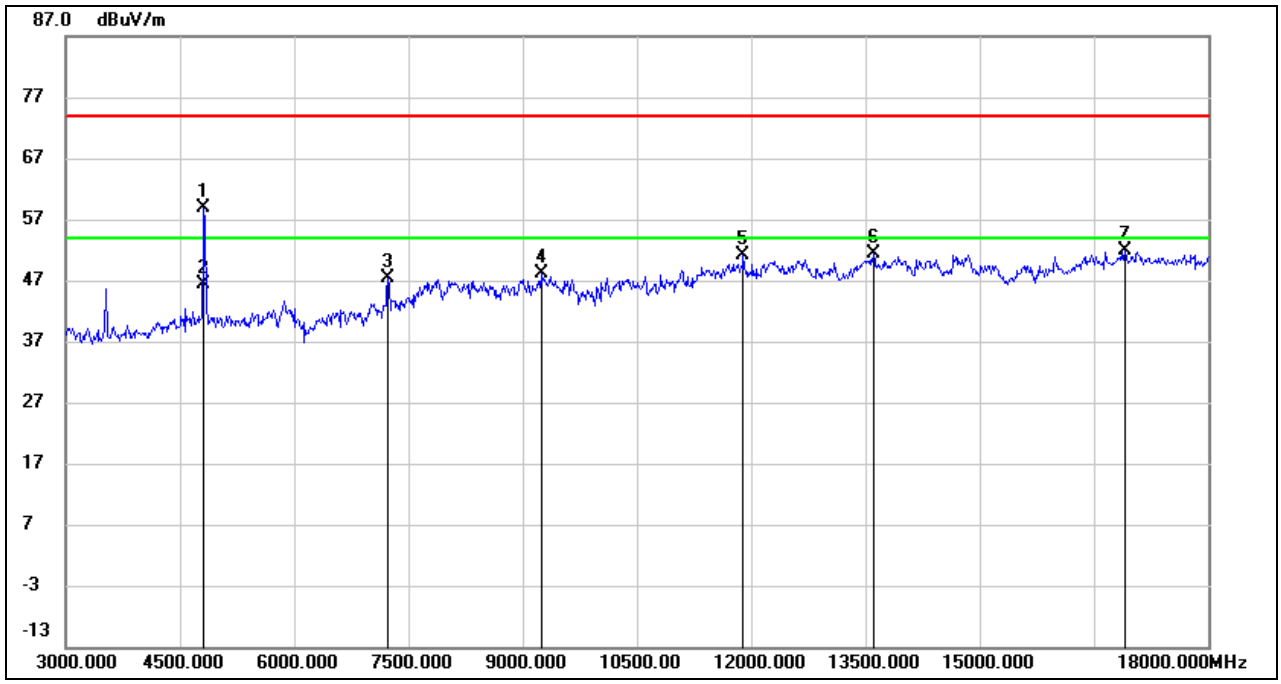


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	62.25	1.45	63.70	74.00	-10.30	peak
2	4920.000	49.41	1.45	50.86	54.00	-3.14	AVG
3	7380.000	46.14	7.79	53.93	74.00	-20.07	peak
4	11880.000	35.42	15.46	50.88	74.00	-23.12	peak
5	12270.000	35.48	16.04	51.52	74.00	-22.48	peak
6	13455.000	35.35	17.14	52.49	74.00	-21.51	peak
7	16920.000	31.23	21.51	52.74	74.00	-21.26	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

8.3.3. 802.11n HT20 CDD MODE

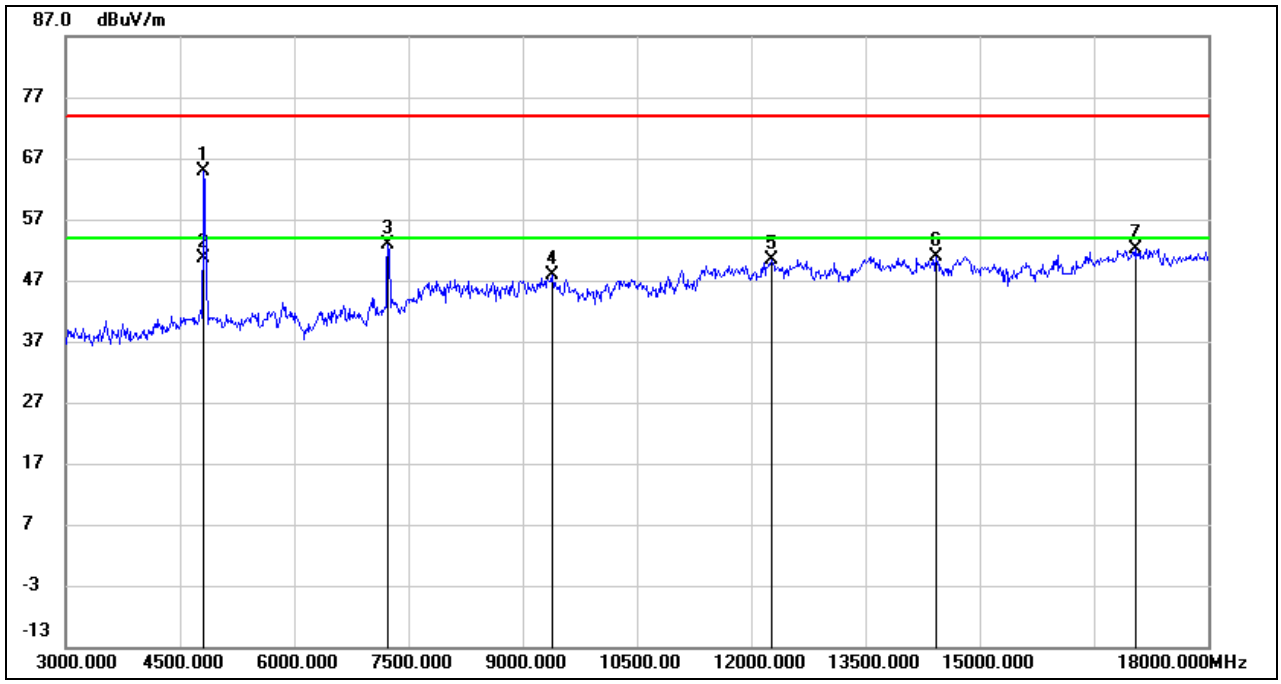
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	57.54	1.38	58.92	74.00	-15.08	peak
2	4815.000	45.06	1.38	46.44	54.00	-7.56	AVG
3	7230.000	40.17	7.28	47.45	74.00	-26.55	peak
4	9240.000	38.00	10.10	48.10	74.00	-25.90	peak
5	11895.000	35.56	15.50	51.06	74.00	-22.94	peak
6	13605.000	34.19	17.12	51.31	74.00	-22.69	peak
7	16905.000	30.26	21.55	51.81	74.00	-22.19	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

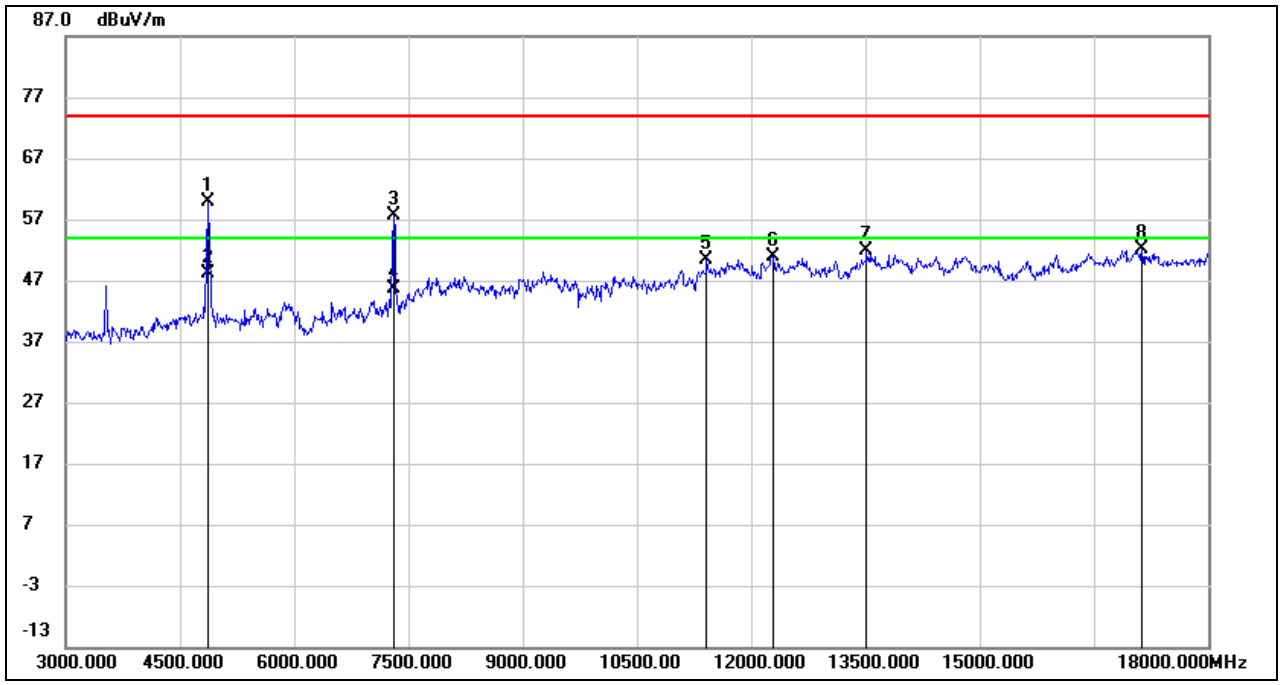
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	63.45	1.38	64.83	74.00	-9.17	peak
2	4815.000	49.13	1.38	50.51	54.00	-3.49	AVG
3	7230.000	45.62	7.28	52.90	74.00	-21.10	peak
4	9390.000	36.88	10.92	47.80	74.00	-26.20	peak
5	12270.000	34.37	16.04	50.41	74.00	-23.59	peak
6	14430.000	33.63	17.34	50.97	74.00	-23.03	peak
7	17055.000	30.60	21.60	52.20	74.00	-21.80	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

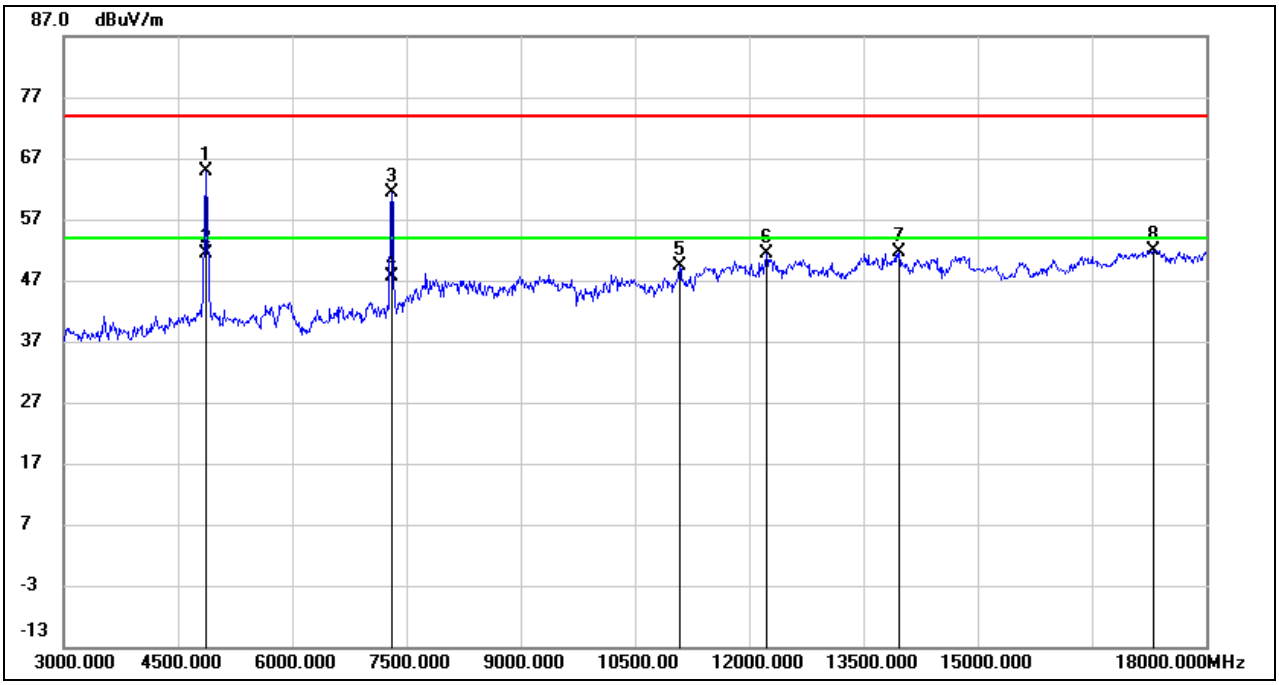
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	58.62	1.33	59.95	74.00	-14.05	peak
2	4860.000	46.69	1.33	48.02	54.00	-5.98	AVG
3	7305.000	50.55	7.14	57.69	74.00	-16.31	peak
4	7305.000	38.48	7.14	45.62	54.00	-8.38	AVG
5	11415.000	35.62	14.74	50.36	74.00	-23.64	peak
6	12285.000	34.90	16.08	50.98	74.00	-23.02	peak
7	13515.000	34.59	17.19	51.78	74.00	-22.22	peak
8	17130.000	30.14	21.92	52.06	74.00	-21.94	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

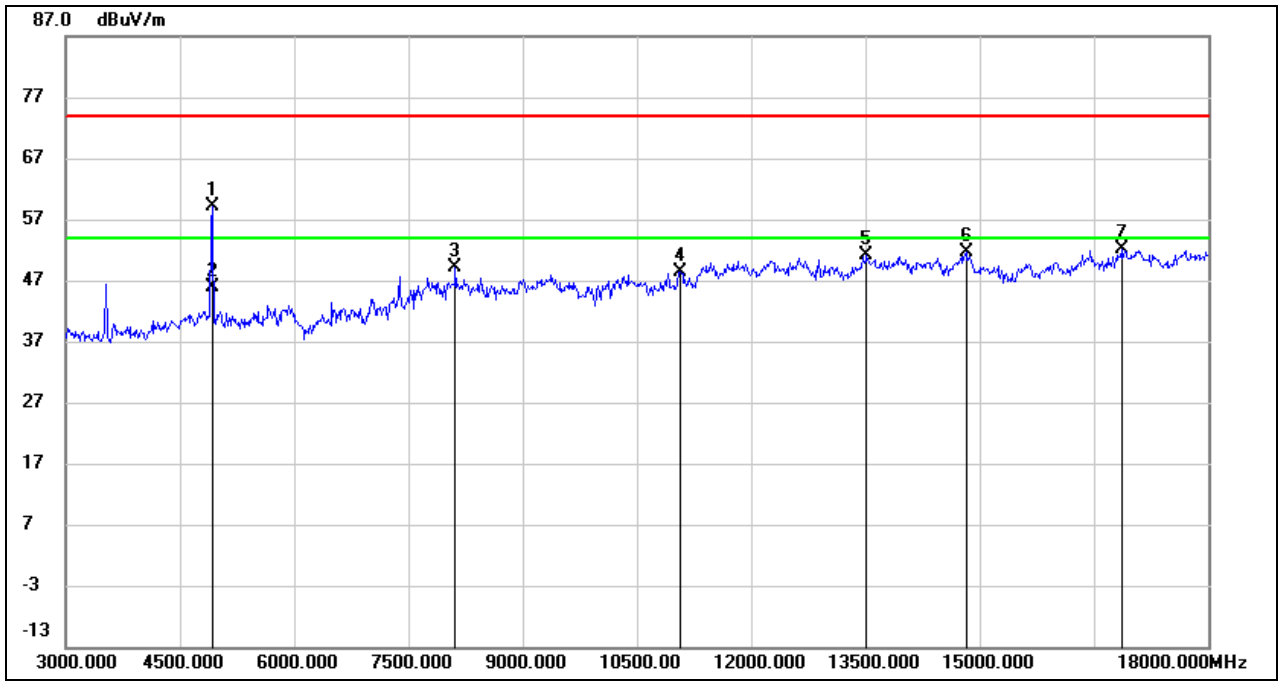
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	63.44	1.33	64.77	74.00	-9.23	peak
2	4860.000	49.95	1.33	51.28	54.00	-2.72	AVG
3	7305.000	54.36	7.14	61.50	74.00	-12.50	peak
4	7305.000	40.38	7.14	47.52	54.00	-6.48	AVG
5	11085.000	35.60	13.72	49.32	74.00	-24.68	peak
6	12225.000	35.35	15.99	51.34	74.00	-22.66	peak
7	13965.000	33.89	17.62	51.51	74.00	-22.49	peak
8	17310.000	29.45	22.54	51.99	74.00	-22.01	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

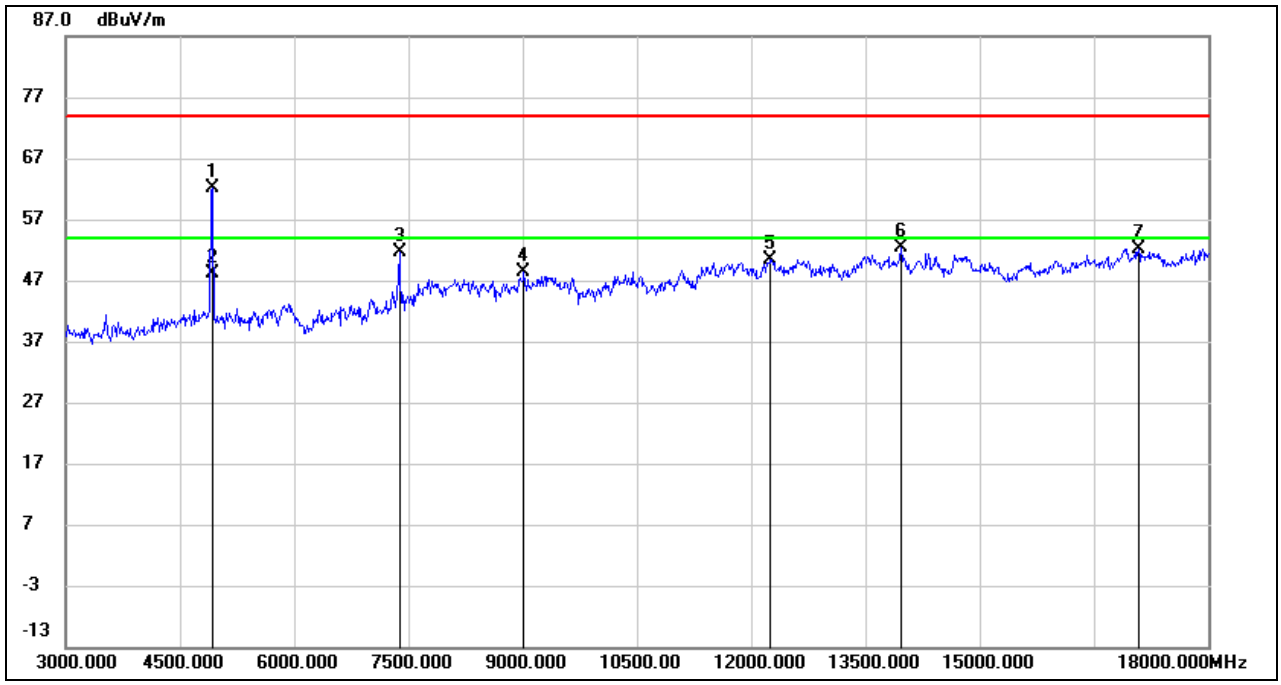
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	57.63	1.45	59.08	74.00	-14.92	peak
2	4920.000	44.38	1.45	45.83	54.00	-8.17	AVG
3	8115.000	39.00	10.13	49.13	74.00	-24.87	peak
4	11070.000	34.71	13.65	48.36	74.00	-25.64	peak
5	13515.000	34.05	17.19	51.24	74.00	-22.76	peak
6	14820.000	33.63	17.91	51.54	74.00	-22.46	peak
7	16860.000	30.98	21.22	52.20	74.00	-21.80	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



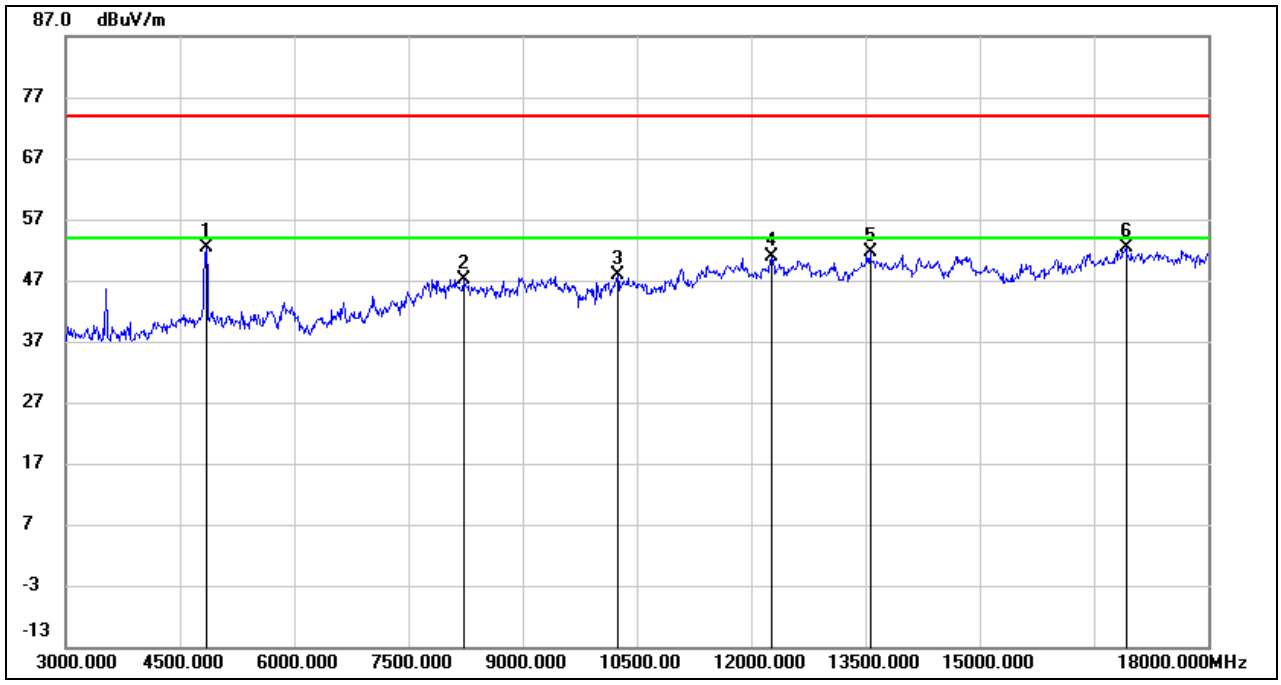
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	60.74	1.45	62.19	74.00	-11.81	peak
2	4920.000	46.64	1.45	48.09	54.00	-5.91	AVG
3	7380.000	43.86	7.79	51.65	74.00	-22.35	peak
4	9015.000	37.24	11.10	48.34	74.00	-25.66	peak
5	12255.000	34.26	16.03	50.29	74.00	-23.71	peak
6	13965.000	34.74	17.62	52.36	74.00	-21.64	peak
7	17085.000	30.32	21.80	52.12	74.00	-21.88	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

Note: All the modes and channels had been tested, but only the worst data was recorded in the report.

8.3.4. 802.11n HT40 CDD MODE

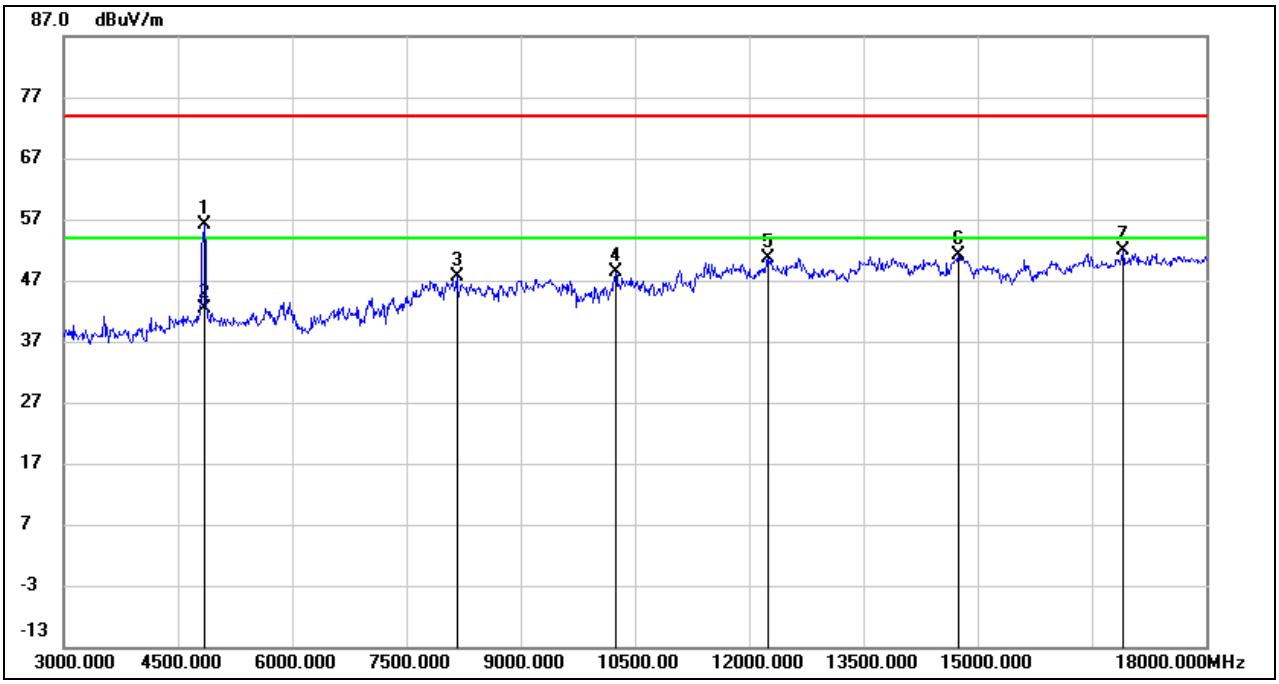
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4845.000	51.12	1.35	52.47	74.00	-21.53	peak
2	8220.000	37.29	9.79	47.08	74.00	-26.92	peak
3	10245.000	36.23	11.63	47.86	74.00	-26.14	peak
4	12270.000	34.72	16.04	50.76	74.00	-23.24	peak
5	13560.000	34.45	17.15	51.60	74.00	-22.40	peak
6	16920.000	30.77	21.51	52.28	74.00	-21.72	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

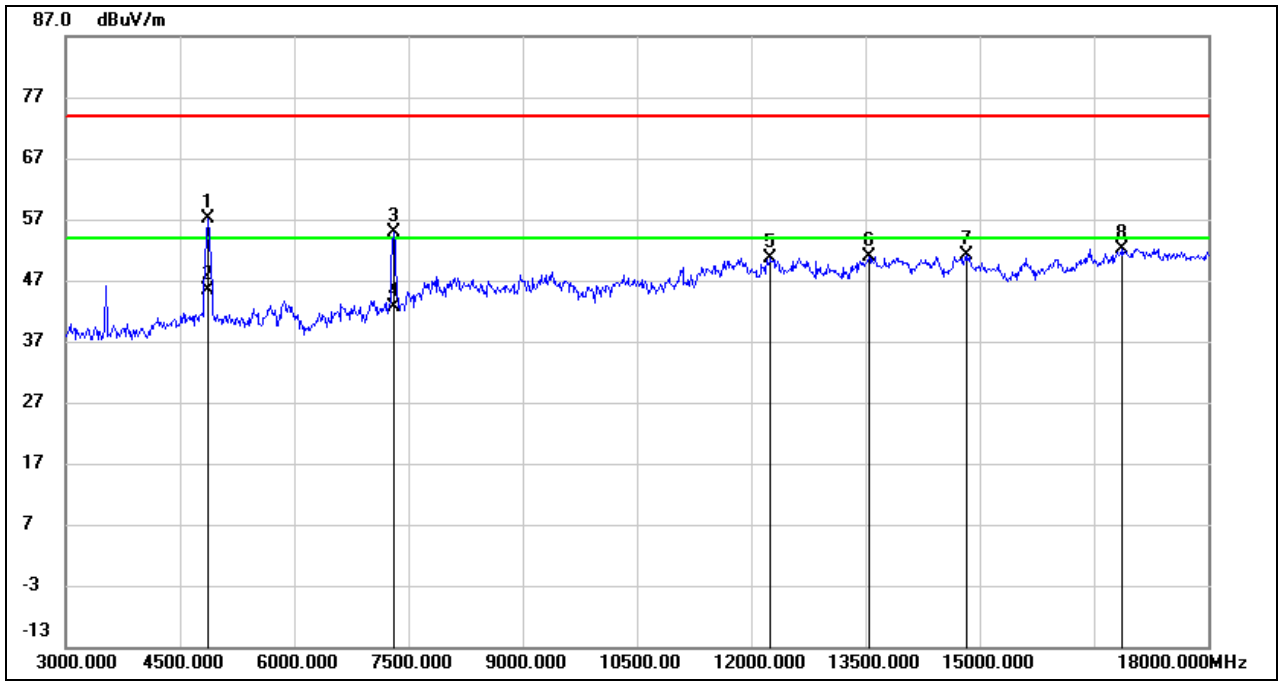
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4845.000	54.89	1.35	56.24	74.00	-17.76	peak
2	4845.000	41.15	1.35	42.50	54.00	-11.50	AVG
3	8160.000	37.55	9.96	47.51	74.00	-26.49	peak
4	10245.000	36.73	11.63	48.36	74.00	-25.64	peak
5	12240.000	34.59	16.01	50.60	74.00	-23.40	peak
6	14745.000	33.26	17.84	51.10	74.00	-22.90	peak
7	16905.000	30.26	21.55	51.81	74.00	-22.19	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

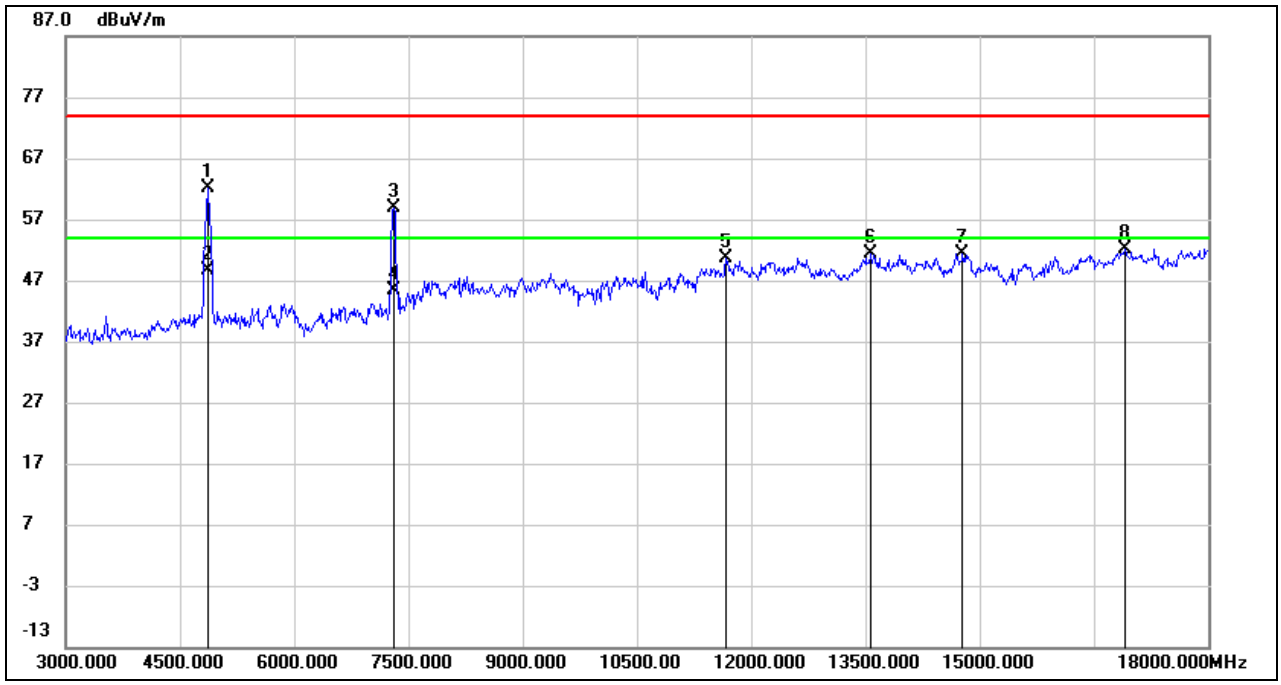
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	55.83	1.32	57.15	74.00	-16.85	peak
2	4875.000	44.08	1.32	45.40	54.00	-8.60	AVG
3	7305.000	47.70	7.14	54.84	74.00	-19.16	peak
4	7305.000	35.53	7.14	42.67	54.00	-11.33	AVG
5	12255.000	34.72	16.03	50.75	74.00	-23.25	peak
6	13545.000	33.62	17.16	50.78	74.00	-23.22	peak
7	14820.000	33.12	17.91	51.03	74.00	-22.97	peak
8	16860.000	31.01	21.22	52.23	74.00	-21.77	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

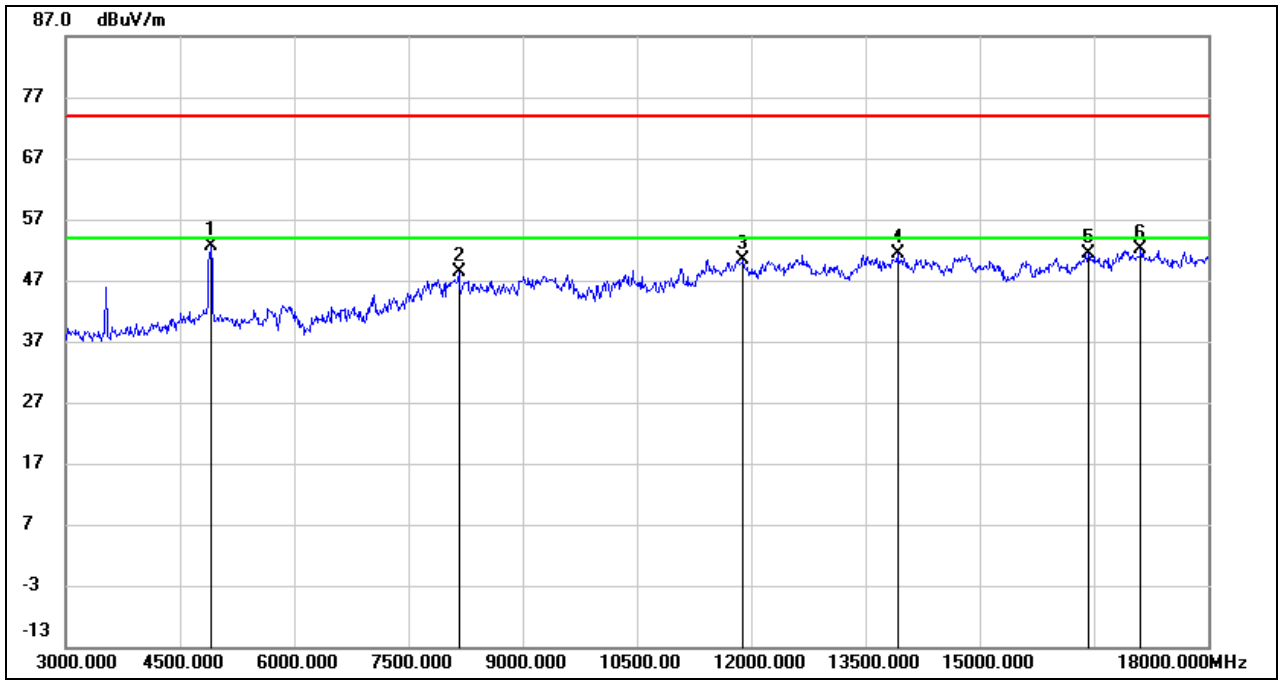
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	60.83	1.33	62.16	74.00	-11.84	peak
2	4860.000	47.28	1.33	48.61	54.00	-5.39	AVG
3	7305.000	51.77	7.14	58.91	74.00	-15.09	peak
4	7305.000	38.29	7.14	45.43	54.00	-8.57	AVG
5	11670.000	35.48	15.16	50.64	74.00	-23.36	peak
6	13575.000	34.35	17.13	51.48	74.00	-22.52	peak
7	14775.000	33.34	17.95	51.29	74.00	-22.71	peak
8	16905.000	30.56	21.55	52.11	74.00	-21.89	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

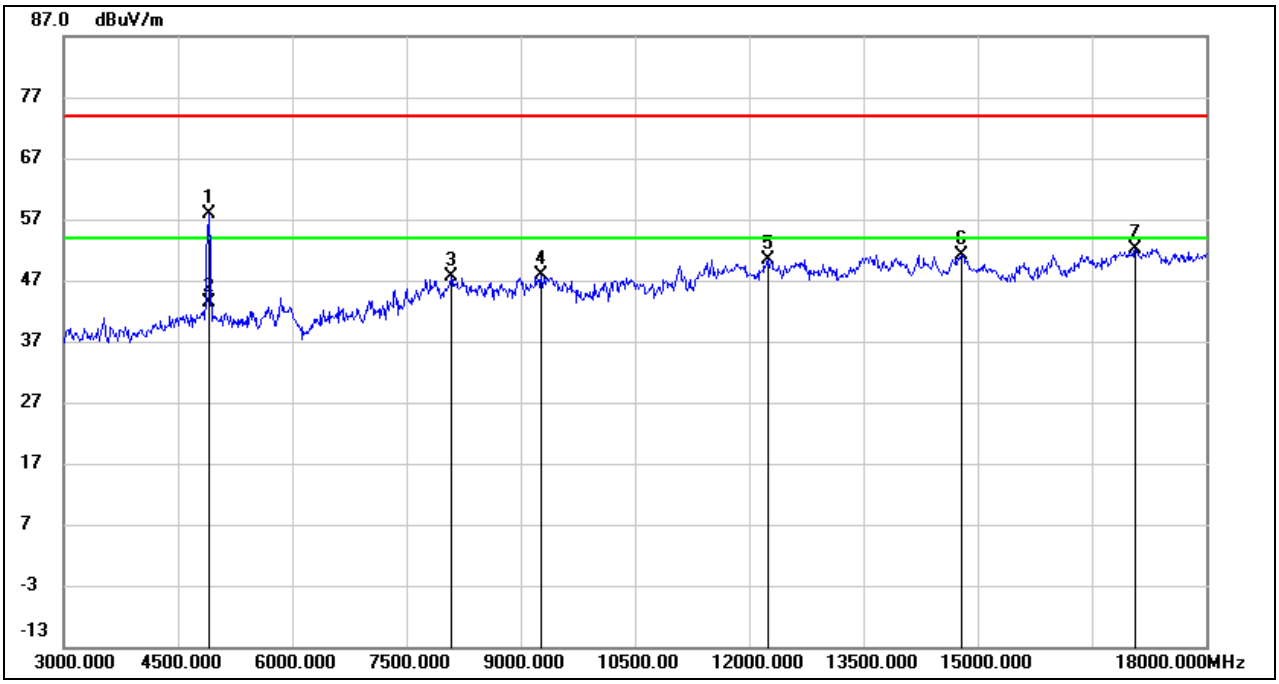
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4905.000	51.38	1.33	52.71	74.00	-21.29	peak
2	8160.000	38.51	9.96	48.47	74.00	-25.53	peak
3	11895.000	34.90	15.50	50.40	74.00	-23.60	peak
4	13920.000	33.71	17.55	51.26	74.00	-22.74	peak
5	16425.000	31.70	19.68	51.38	74.00	-22.62	peak
6	17115.000	30.22	21.91	52.13	74.00	-21.87	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4905.000	56.53	1.33	57.86	74.00	-16.14	peak
2	4905.000	42.11	1.33	43.44	54.00	-10.56	AVG
3	8085.000	37.65	9.94	47.59	74.00	-26.41	peak
4	9270.000	37.62	10.25	47.87	74.00	-26.13	peak
5	12240.000	34.45	16.01	50.46	74.00	-23.54	peak
6	14790.000	33.19	18.01	51.20	74.00	-22.80	peak
7	17070.000	30.51	21.71	52.22	74.00	-21.78	peak

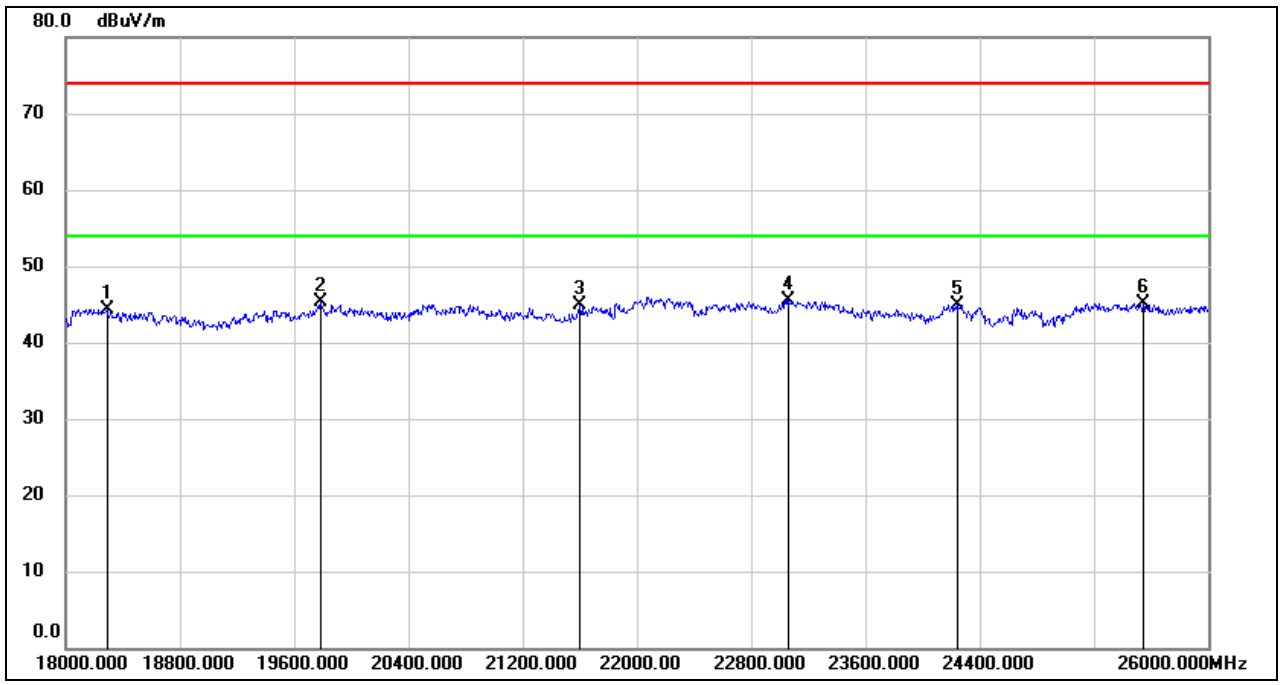
Note: 1. Peak Result = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

Note: All the modes and channels had been tested, but only the worst data was recorded in the report.

8.5. SPURIOUS EMISSIONS (18 GHz ~ 26 GHz)

8.5.1. 802.11g CDD MODE

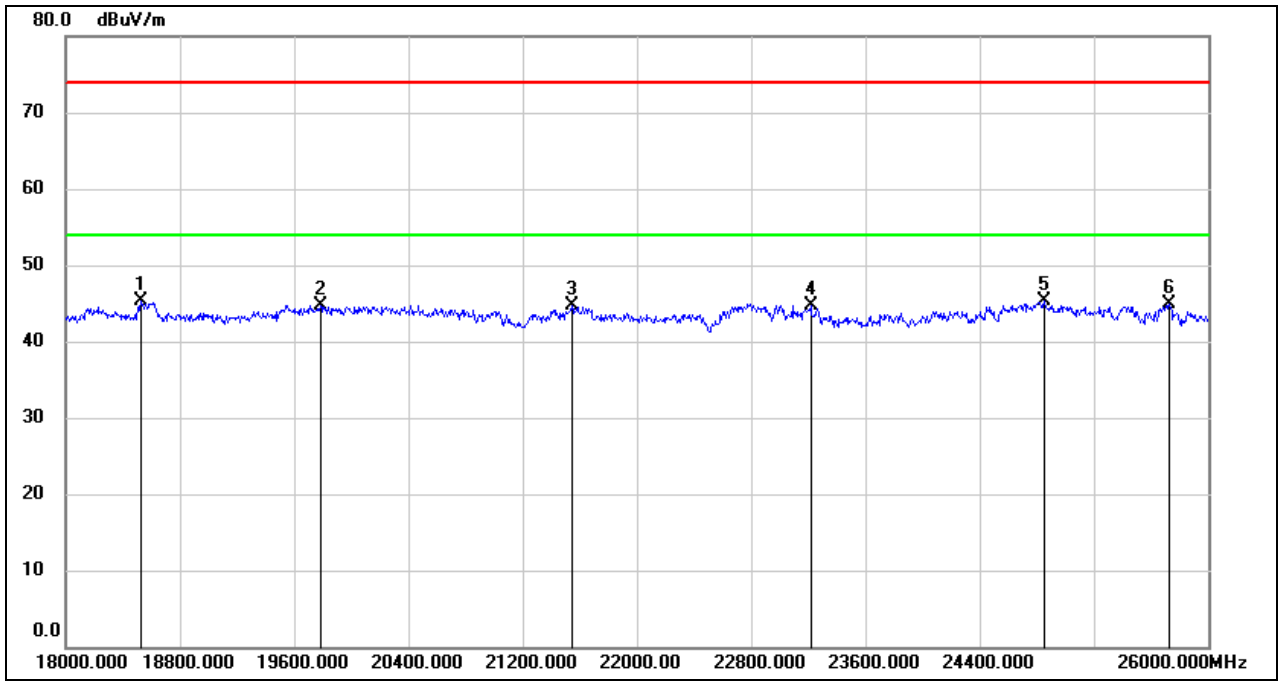
SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18288.000	49.85	-5.50	44.35	74.00	-29.65	peak
2	19784.000	50.58	-5.28	45.30	74.00	-28.70	peak
3	21600.000	49.52	-4.54	44.98	74.00	-29.02	peak
4	23064.000	48.99	-3.42	45.57	74.00	-28.43	peak
5	24248.000	47.82	-2.83	44.99	74.00	-29.01	peak
6	25544.000	46.67	-1.58	45.09	74.00	-28.91	peak

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.

SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18528.000	50.61	-5.26	45.35	74.00	-28.65	peak
2	19784.000	50.07	-5.28	44.79	74.00	-29.21	peak
3	21544.000	49.26	-4.63	44.63	74.00	-29.37	peak
4	23216.000	48.01	-3.38	44.63	74.00	-29.37	peak
5	24848.000	47.46	-2.23	45.23	74.00	-28.77	peak
6	25728.000	45.61	-0.72	44.89	74.00	-29.11	peak

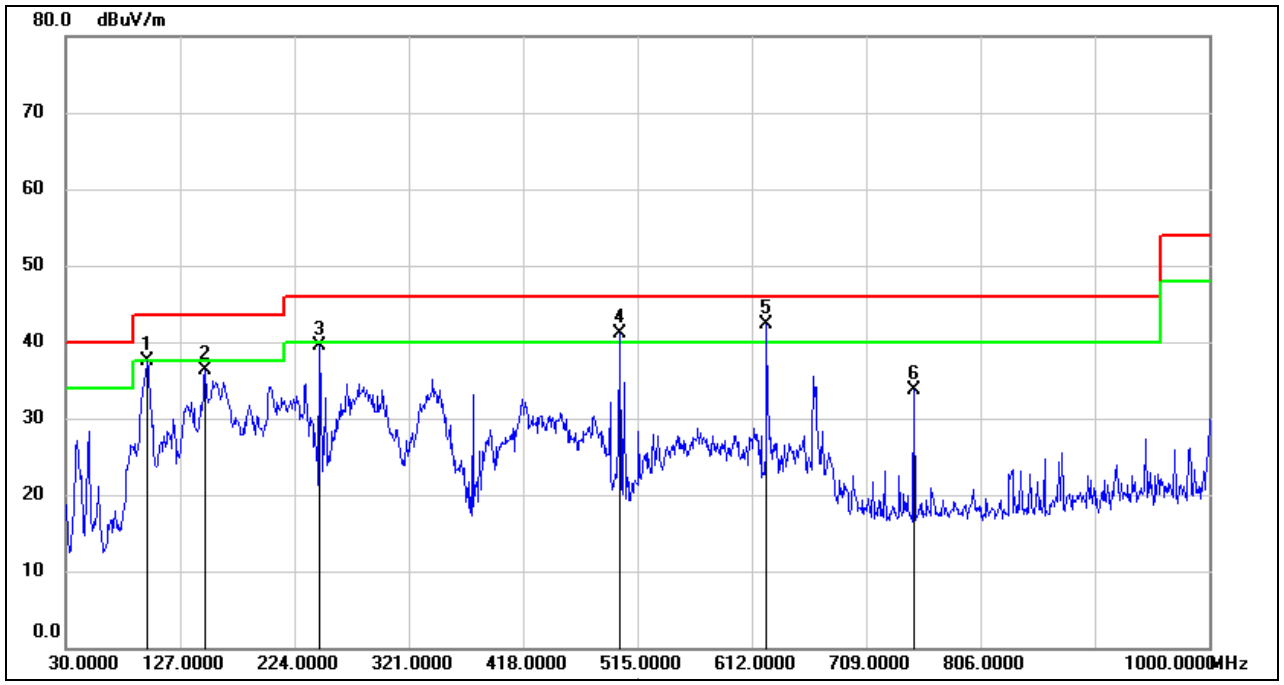
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

Note: All the modes and channels had been tested, but only the worst data was recorded in the report.

8.6. SPURIOUS EMISSIONS (30 MHz ~ 1 GHz)

8.6.1. 802.11g CDD MODE

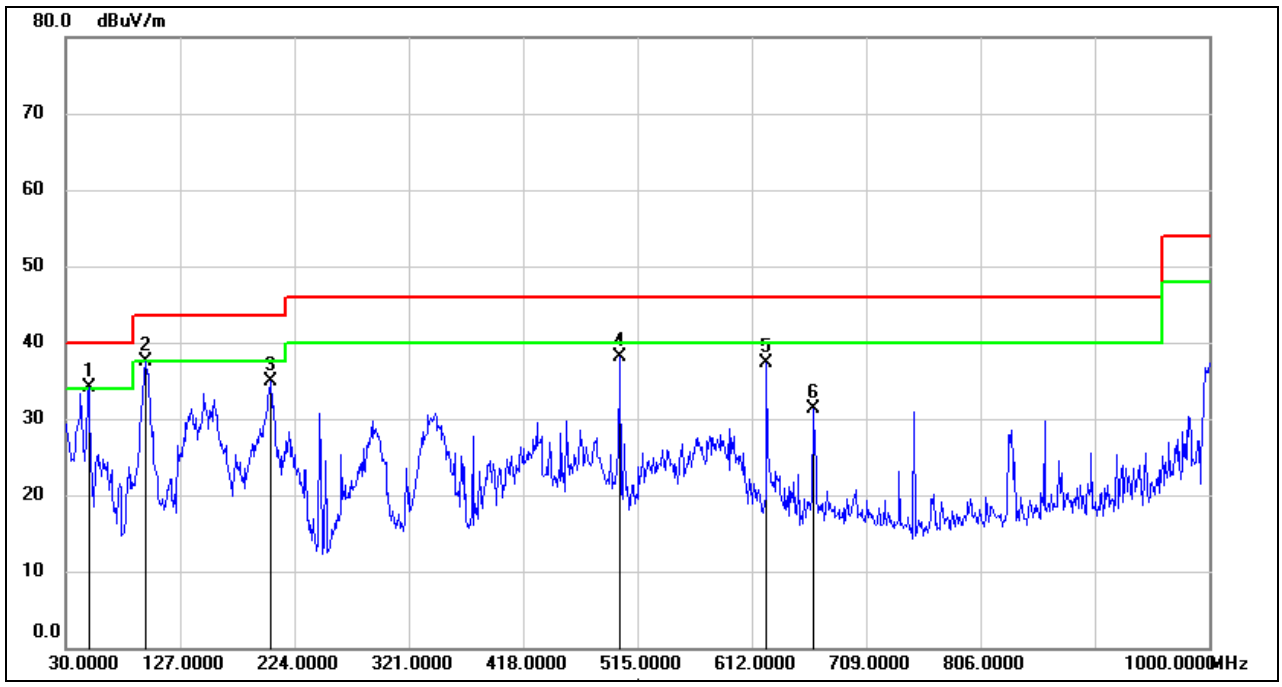
SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	98.8700	58.65	-21.23	37.42	43.50	-6.08	QP
2	148.3400	54.68	-18.36	36.32	43.50	-7.18	QP
3	245.3400	58.49	-19.04	39.45	46.00	-6.55	QP
4	500.4500	52.56	-11.46	41.10	46.00	-4.90	QP
5	624.6100	51.60	-9.31	42.29	46.00	-3.71	QP
6	749.7400	41.60	-7.94	33.66	46.00	-12.34	QP

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. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	49.4000	54.85	-20.72	34.13	40.00	-5.87	QP
2	97.9000	58.72	-21.30	37.42	43.50	-6.08	QP
3	203.6300	51.58	-16.70	34.88	43.50	-8.62	QP
4	500.4500	49.57	-11.46	38.11	46.00	-7.89	QP
5	624.6100	46.55	-9.31	37.24	46.00	-8.76	QP
6	664.3800	39.87	-8.66	31.21	46.00	-14.79	QP

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. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto

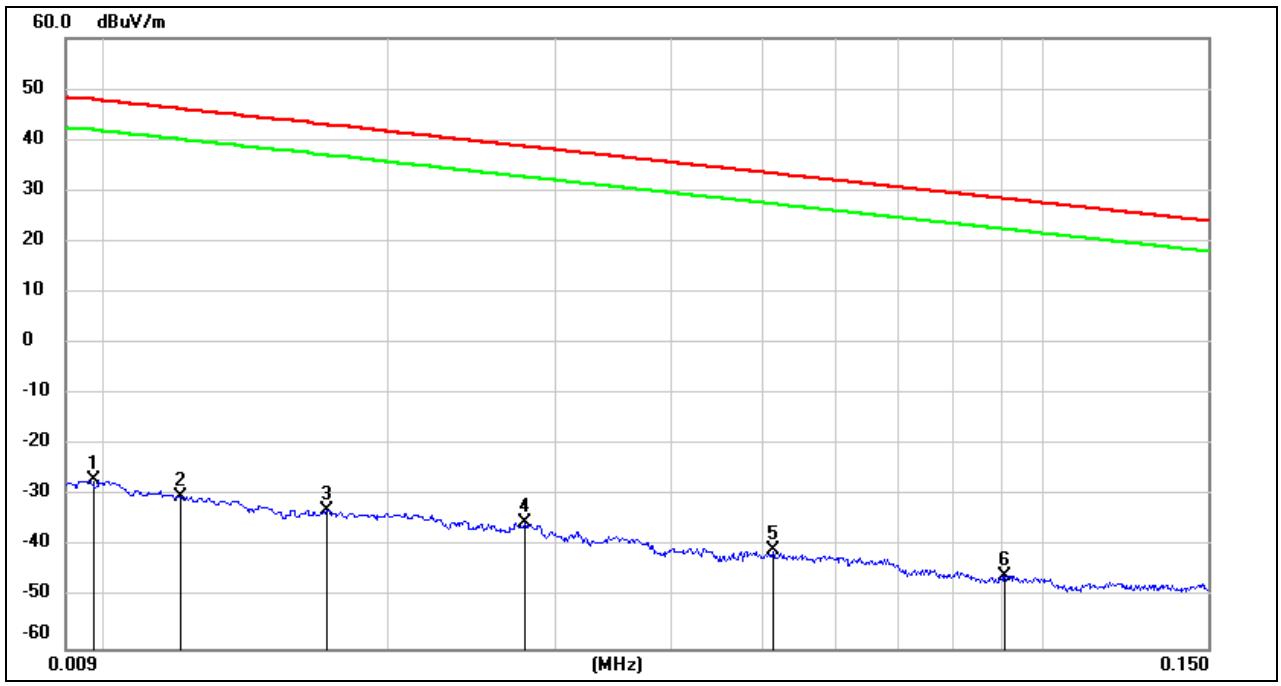
Note: All the modes and channels had been tested, but only the worst data was recorded in the report.

8.7. SPURIOUS EMISSIONS BELOW 30 MHz

8.7.1. 802.11g CDD MODE

SPURIOUS EMISSIONS (LOW CHANNEL, LOOP ANTENNA FACE ON TO THE EUT, WORST-CASE CONFIGURATION)

9 kHz~ 150 kHz



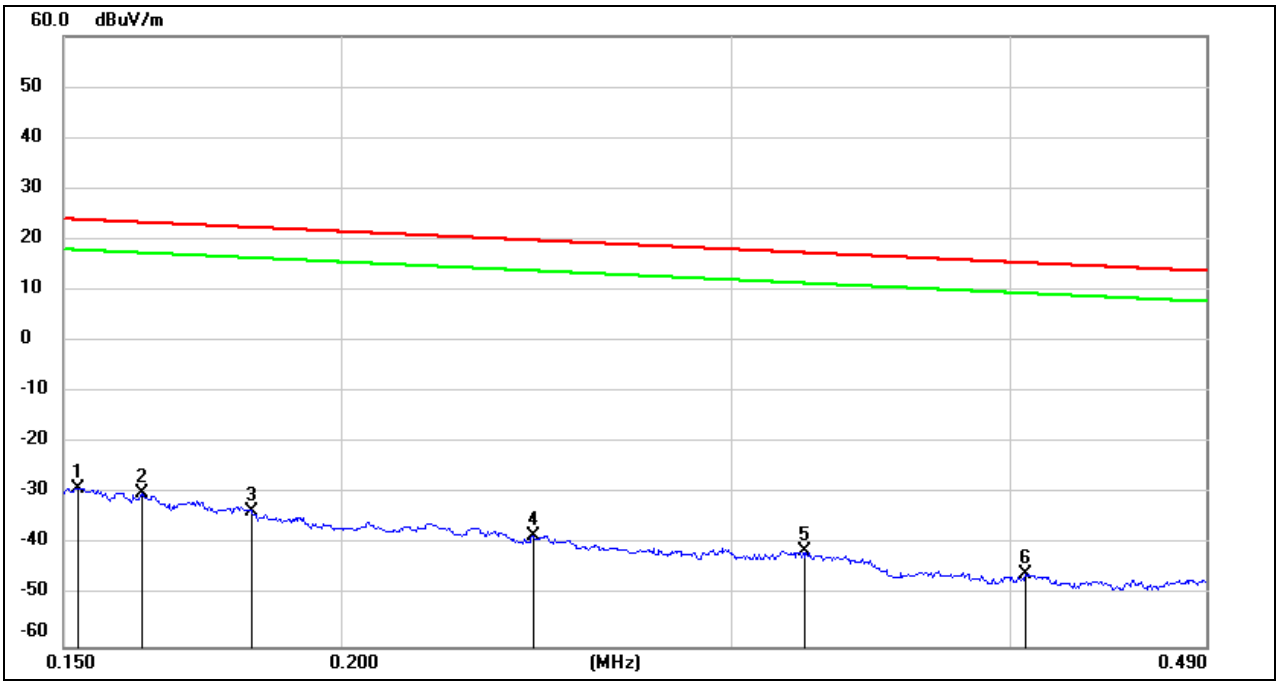
No.	Frequency	Reading	Correct	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.0097	74.43	-101.38	-26.95	47.82	-78.45	-3.68	-74.77	peak
2	0.0120	71.36	-101.39	-30.03	46.02	-81.53	-5.48	-76.05	peak
3	0.0171	68.38	-101.36	-32.98	42.94	-84.48	-8.56	-75.92	peak
4	0.0279	66.17	-101.38	-35.21	38.69	-86.71	-12.81	-73.90	peak
5	0.0514	60.68	-101.48	-40.8	33.38	-92.30	-18.12	-74.18	peak
6	0.0911	56.11	-101.72	-45.61	28.41	-97.11	-23.09	-74.02	peak

Note: 1. Measurement = Reading Level + Correct Factor (dBuA/m= dBuV/m- 20Log10[120π] = dBuV/m- 51.5).

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.

150 kHz ~ 490 kHz



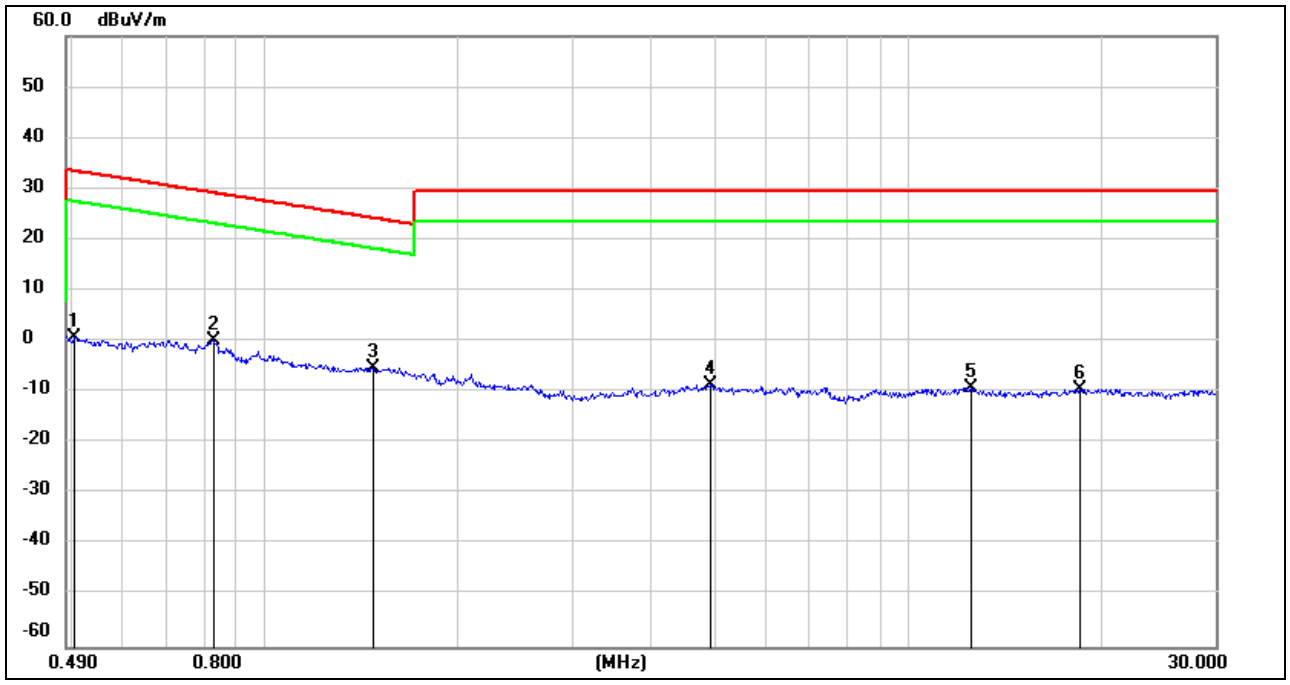
No.	Frequency	Reading	Correct	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.1524	72.80	-101.63	-28.83	23.94	-80.33	-27.56	-52.77	peak
2	0.1625	71.89	-101.65	-29.76	23.39	-81.26	-28.11	-53.15	peak
3	0.1824	68.34	-101.68	-33.34	22.38	-84.84	-29.12	-55.72	peak
4	0.2442	63.53	-101.79	-38.26	19.85	-89.76	-31.65	-58.11	peak
5	0.3234	60.48	-101.88	-41.4	17.41	-92.90	-34.09	-58.81	peak
6	0.4062	56.14	-101.96	-45.82	15.43	-97.32	-36.07	-61.25	peak

Note: 1. Measurement = Reading Level + Correct Factor (dBuA/m= dBuV/m- 20Log10[120π] = dBuV/m- 51.5).

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.

490 kHz ~ 30 MHz



No.	Frequency	Reading	Correct	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.5039	62.94	-62.07	0.87	33.56	-50.63	-17.94	-32.69	peak
2	0.8296	62.44	-62.17	0.27	29.23	-51.23	-22.27	-28.96	peak
3	1.4700	56.89	-62.05	-5.16	24.26	-56.66	-27.24	-29.42	peak
4	4.9165	52.88	-61.48	-8.6	29.54	-60.10	-21.96	-38.14	peak
5	12.5006	51.82	-60.91	-9.09	29.54	-60.59	-21.96	-38.63	peak
6	18.4908	51.55	-60.89	-9.34	29.54	-60.84	-21.96	-38.88	peak

Note: 1. Measurement = Reading Level + Correct Factor (dBuA/m= dBuV/m- 20Log10[120π] = dBuV/m- 51.5).

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.

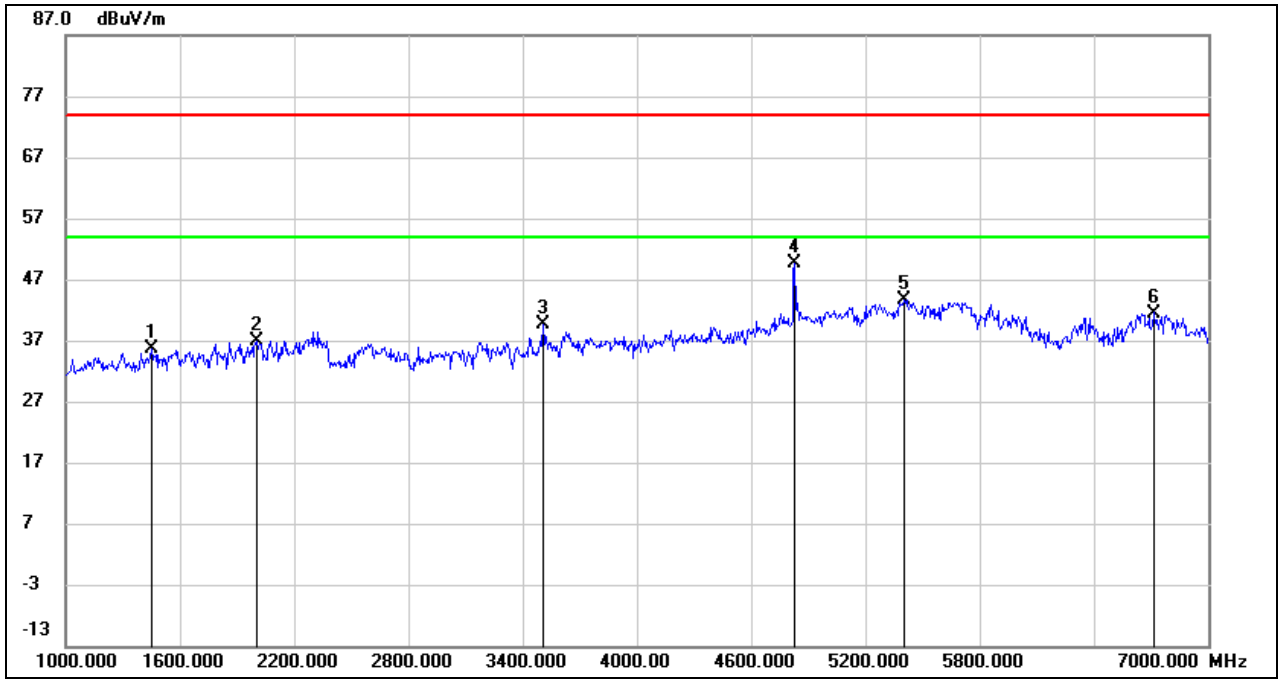
Note: All the modes and channels had been tested, but only the worst data was recorded in the report.

9. SPURIOUS EMISSIONS FOR SIMULTANEOUS TRANSMISSION

9.1.1. UNII-2A 802.11a 4TX MODE AND 802.11b MODE (TRANSMIT SIMULTANEOUSLY)

SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)

1-7GHz

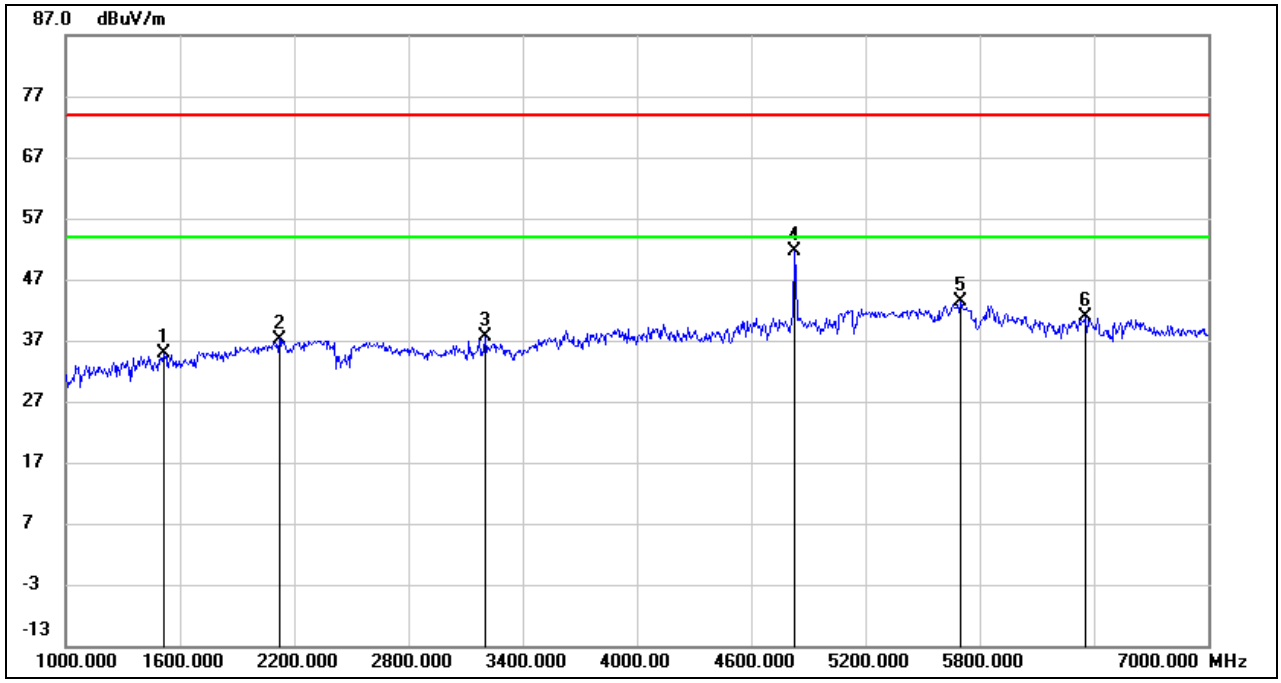


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1450.000	48.17	-12.46	35.71	74.00	-38.29	peak
2	2002.000	47.17	-10.18	36.99	74.00	-37.01	peak
3	3508.000	44.28	-4.67	39.61	74.00	-34.39	peak
4	4828.000	48.93	0.63	49.56	74.00	-24.44	peak
5	5404.000	41.79	1.89	43.68	74.00	-30.32	peak
6	6712.000	35.96	5.54	41.50	74.00	-32.50	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)

1-7GHz

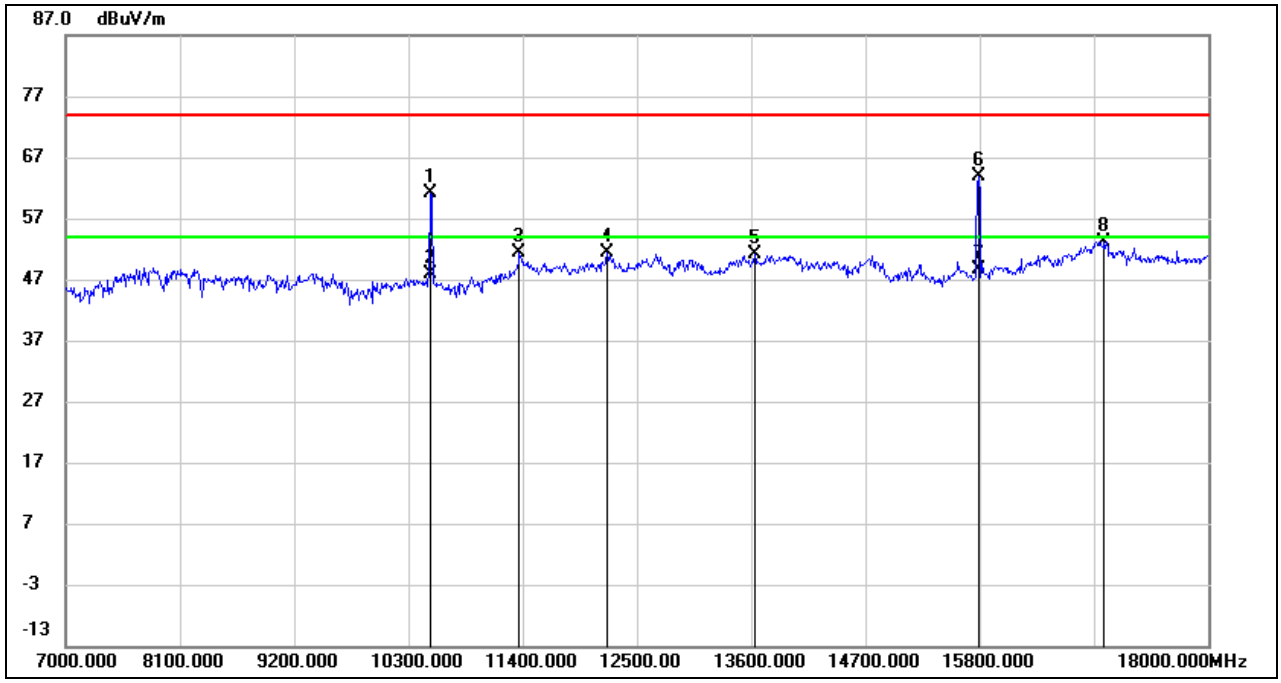


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1516.000	46.92	-12.12	34.80	74.00	-39.20	peak
2	2122.000	46.74	-9.49	37.25	74.00	-36.75	peak
3	3202.000	42.78	-5.25	37.53	74.00	-36.47	peak
4	4828.000	50.88	0.63	51.51	74.00	-22.49	peak
5	5698.000	40.84	2.49	43.33	74.00	-30.67	peak
6	6352.000	36.88	4.10	40.98	74.00	-33.02	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)

7-18GHz

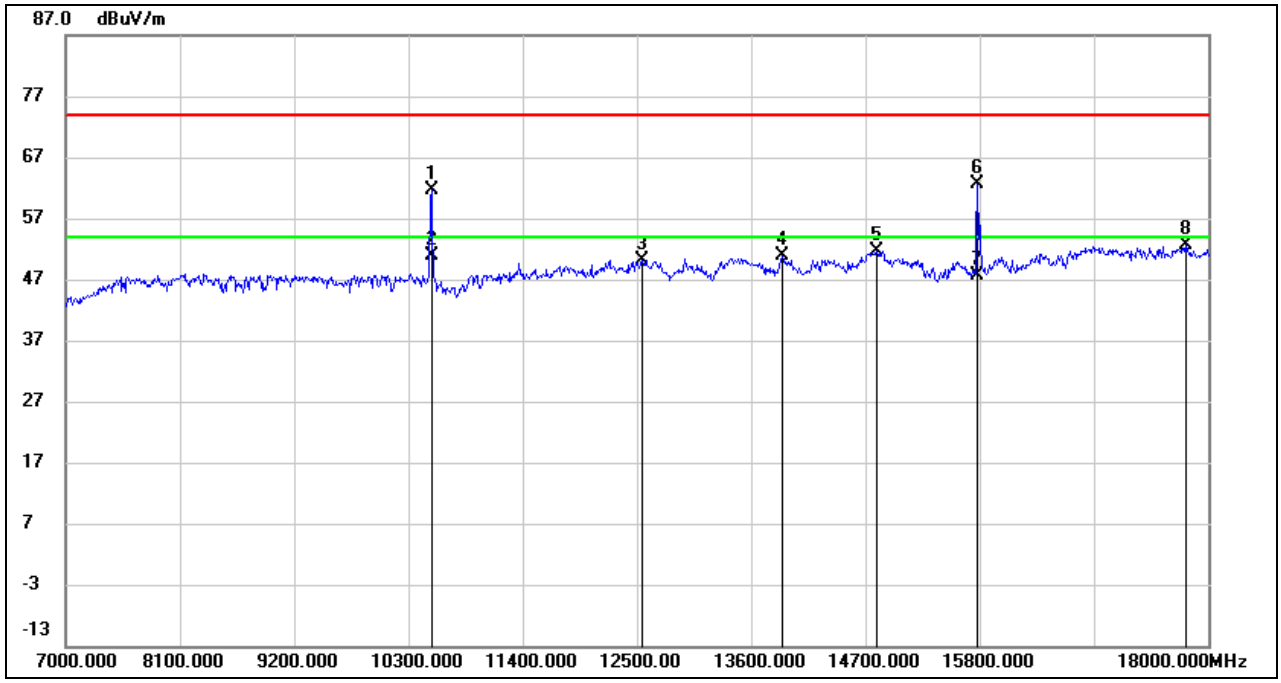


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10509.000	48.84	12.39	61.23	68.2	-6.97	peak
2	10509.000	35.47	12.39	47.86	/	/	AVG
3	11367.000	36.98	14.45	51.43	74.00	-22.57	peak
4	12214.000	35.30	15.97	51.27	74.00	-22.73	peak
5	13633.000	33.76	17.26	51.02	74.00	-22.98	peak
6	15789.000	45.93	17.97	63.90	74.00	-10.10	peak
7	15789.000	30.70	17.97	48.67	54.00	-5.33	AVG
8	16999.000	31.99	21.25	53.24	74.00	-20.76	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

SPURIOUS EMISSIONS (LOW CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)

7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10520.000	49.28	12.43	61.71	68.2	-6.49	peak
2	10520.000	38.54	12.43	50.97	/	/	AVG
3	12555.000	34.47	15.73	50.20	74.00	-23.80	peak
4	13897.000	33.32	17.52	50.84	74.00	-23.16	peak
5	14810.000	33.59	17.97	51.56	74.00	-22.44	peak
6	15778.000	44.69	17.96	62.65	74.00	-11.35	peak
7	15778.000	29.60	17.96	47.56	54.00	-6.44	AVG
8	17780.000	28.65	23.94	52.59	74.00	-21.41	peak

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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for HPF losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

Note: All the modes and antennas had been tested, but only the worst data was recorded in the report.

10. AC POWER LINE CONDUCTED EMISSIONS

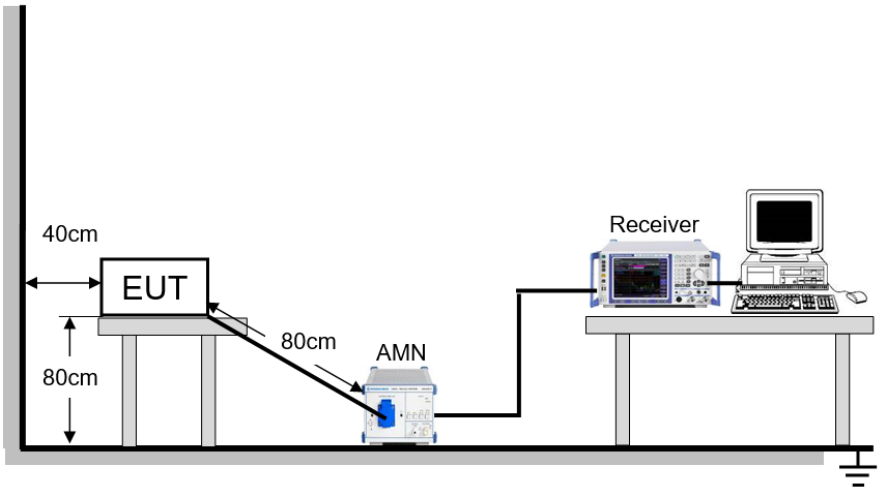
LIMITS

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

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 SETUP AND PROCEDURE

Refer to ANSI C63.10-2013 clause 6.2.



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.

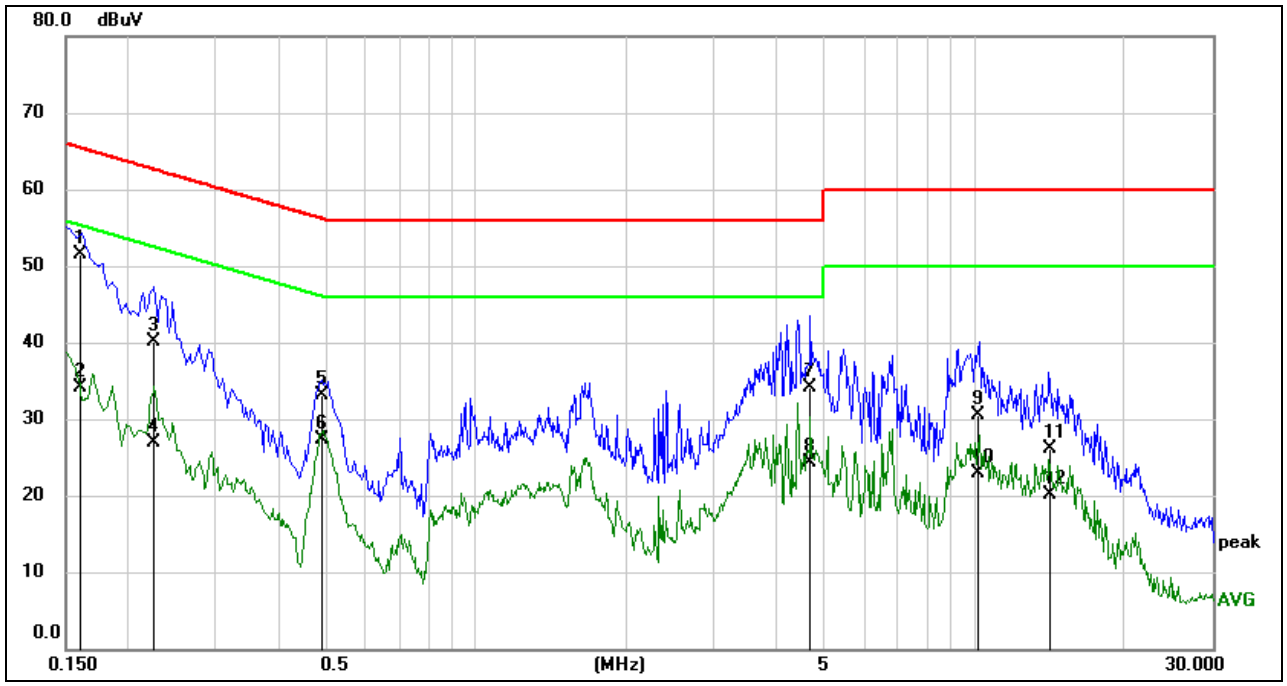
TEST ENVIRONMENT

Temperature	23.6 °C	Relative Humidity	59.1 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

RESULTS

10.1. 802.11b CDD MODE

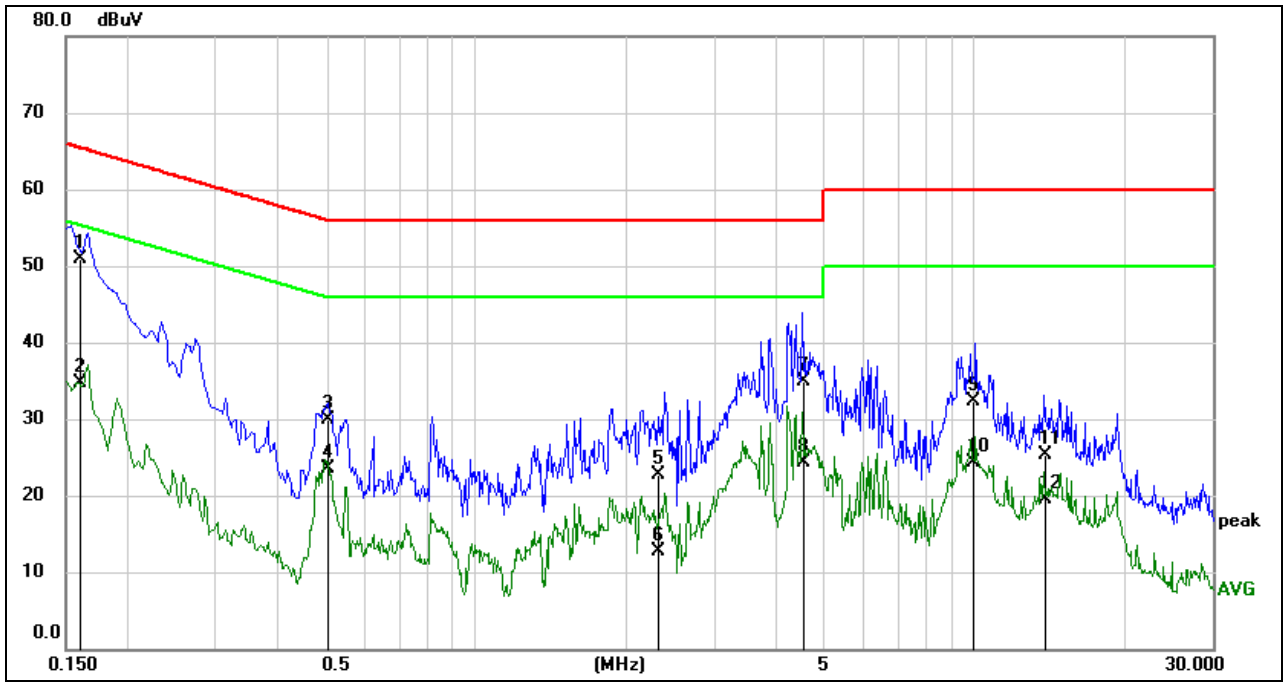
LINE N RESULTS (LOW CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1592	41.87	9.59	51.46	65.51	-14.05	QP
2	0.1592	24.43	9.59	34.02	55.51	-21.49	AVG
3	0.2241	30.57	9.59	40.16	62.67	-22.51	QP
4	0.2241	17.41	9.59	27.00	52.67	-25.67	AVG
5	0.4916	23.50	9.60	33.10	56.14	-23.04	QP
6	0.4916	17.70	9.60	27.30	46.14	-18.84	AVG
7	4.6674	24.59	9.61	34.20	56.00	-21.80	QP
8	4.6674	14.78	9.61	24.39	46.00	-21.61	AVG
9	10.1465	20.98	9.62	30.60	60.00	-29.40	QP
10	10.1465	13.27	9.62	22.89	50.00	-27.11	AVG
11	14.1557	16.50	9.66	26.16	60.00	-33.84	QP
12	14.1557	10.37	9.66	20.03	50.00	-29.97	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.

LINE L RESULTS (LOW CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1614	41.30	9.59	50.89	65.39	-14.50	QP
2	0.1614	25.21	9.59	34.80	55.39	-20.59	AVG
3	0.5010	20.27	9.60	29.87	56.00	-26.13	QP
4	0.5010	13.99	9.60	23.59	46.00	-22.41	AVG
5	2.3121	13.02	9.63	22.65	56.00	-33.35	QP
6	2.3121	3.12	9.63	12.75	46.00	-33.25	AVG
7	4.5450	25.21	9.61	34.82	56.00	-21.18	QP
8	4.5450	14.78	9.61	24.39	46.00	-21.61	AVG
9	10.0161	22.73	9.62	32.35	60.00	-27.65	QP
10	10.0161	14.64	9.62	24.26	50.00	-25.74	AVG
11	13.8630	15.72	9.66	25.38	60.00	-34.62	QP
12	13.8630	9.86	9.66	19.52	50.00	-30.48	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 and channels had been tested, but only the worst data was recorded in the report.

11. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

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

12. Appendix

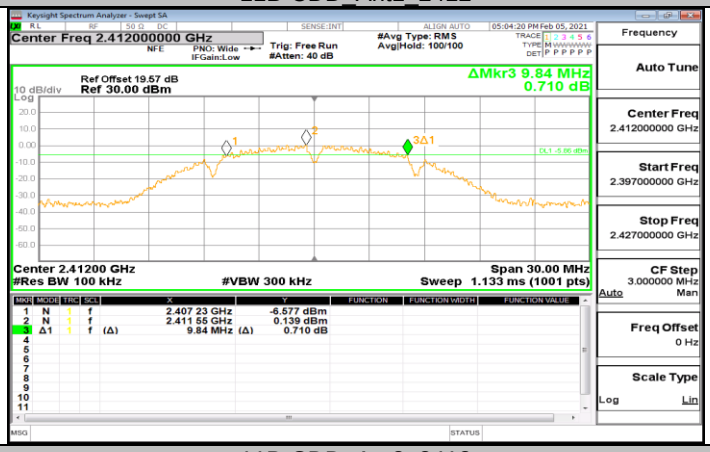
12.1. Appendix A: 6dB DTS Bandwidth

12.1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-CDD	Ant1	2412	9.600	2407.470	2417.070	0.5	PASS
	Ant2	2412	9.840	2407.230	2417.070	0.5	PASS
	Ant1	2437	9.630	2431.990	2441.620	0.5	PASS
	Ant2	2437	10.080	2431.990	2442.070	0.5	PASS
	Ant1	2462	9.150	2457.440	2466.590	0.5	PASS
	Ant2	2462	9.150	2457.470	2466.620	0.5	PASS
11G-CDD	Ant1	2412	15.180	2404.440	2418.330	0.5	PASS
	Ant2	2412	16.350	2403.870	2420.220	0.5	PASS
	Ant1	2437	15.090	2430.670	2442.730	0.5	PASS
	Ant2	2437	15.120	2429.440	2444.560	0.5	PASS
	Ant1	2462	15.330	2455.670	2469.620	0.5	PASS
	Ant2	2462	16.320	2453.870	2470.190	0.5	PASS
11N20-CDD	Ant1	2412	15.210	2404.440	2418.360	0.5	PASS
	Ant2	2412	15.150	2404.470	2419.620	0.5	PASS
	Ant1	2437	15.060	2430.730	2444.560	0.5	PASS
	Ant2	2437	15.090	2430.700	2444.620	0.5	PASS
	Ant1	2462	15.120	2454.440	2469.560	0.5	PASS
	Ant2	2462	17.010	2453.210	2470.220	0.5	PASS
11N40-CDD	Ant1	2422	35.220	2404.420	2438.380	0.5	PASS
	Ant2	2422	35.160	2404.480	2439.640	0.5	PASS
	Ant1	2437	35.160	2419.480	2454.640	0.5	PASS
	Ant2	2437	35.220	2420.680	2454.580	0.5	PASS
	Ant1	2452	35.220	2435.680	2465.920	0.5	PASS
	Ant2	2452	35.220	2435.680	2469.580	0.5	PASS

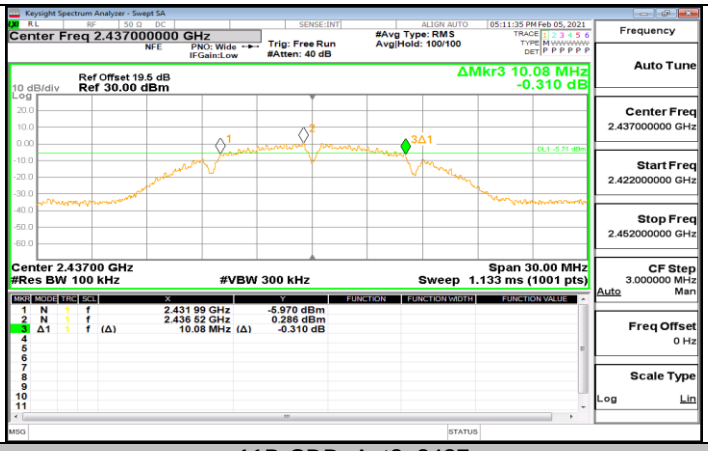
12.1.2. Test Graphs

11B-CDD_Ant1_2412



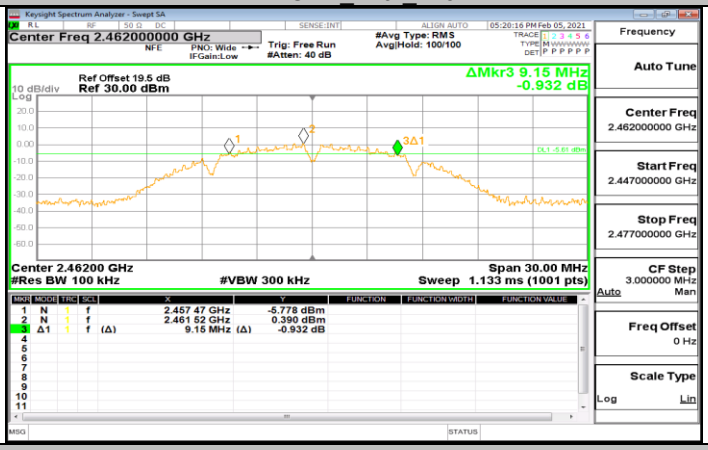
11B-CDD_Ant2_2412

11B-CDD_Ant1_2437



11B-CDD_Ant2_2437

11B-CDD_Ant1_2462



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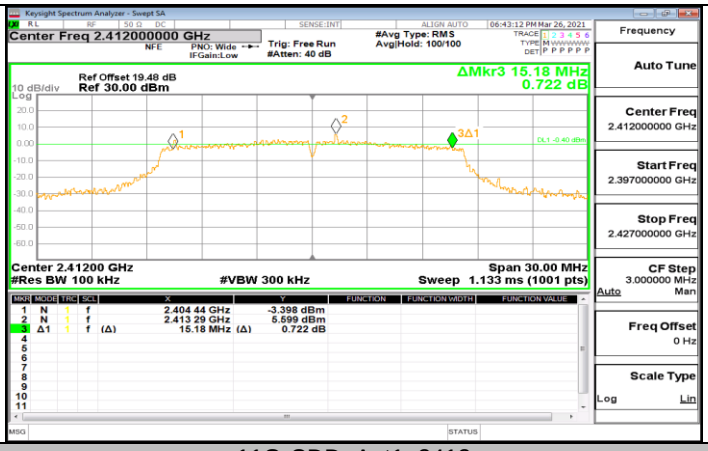
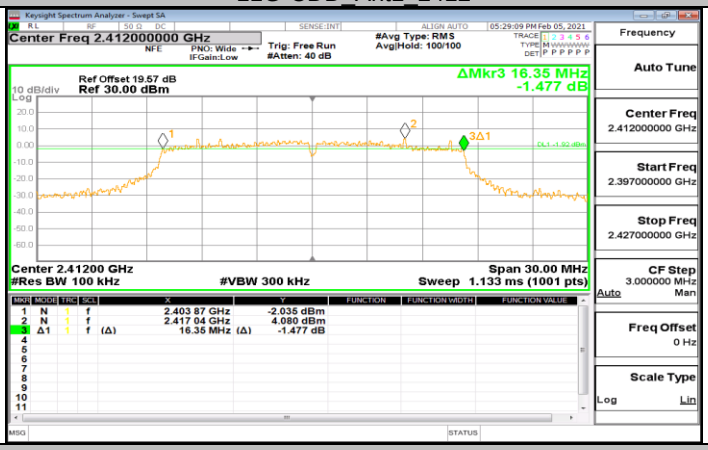
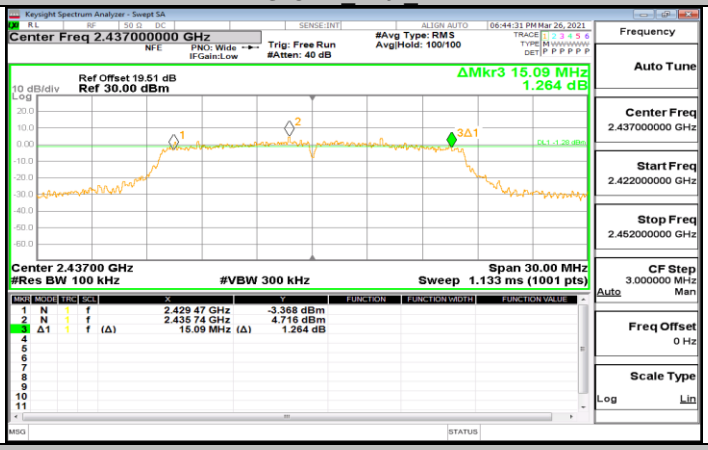


11G-CDD_Ant1_2412



11G-CDD_Ant2_2412



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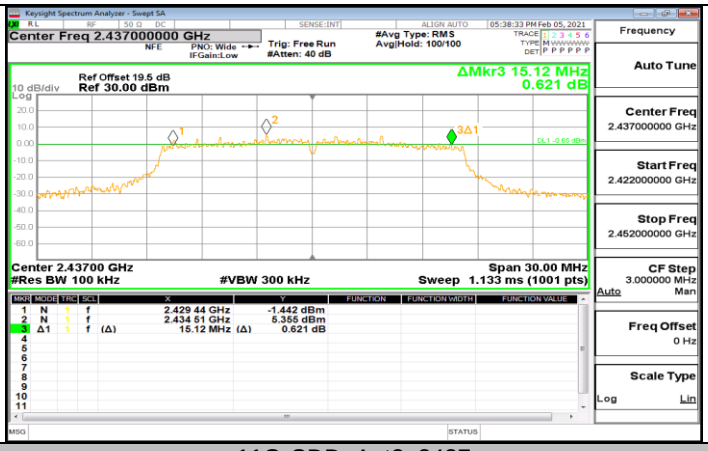

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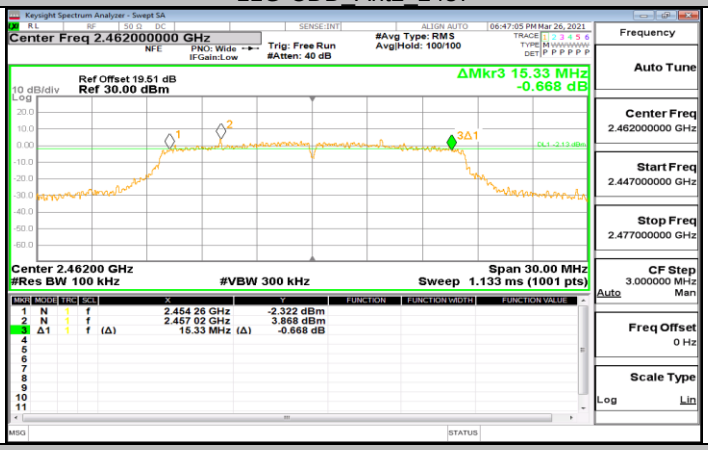
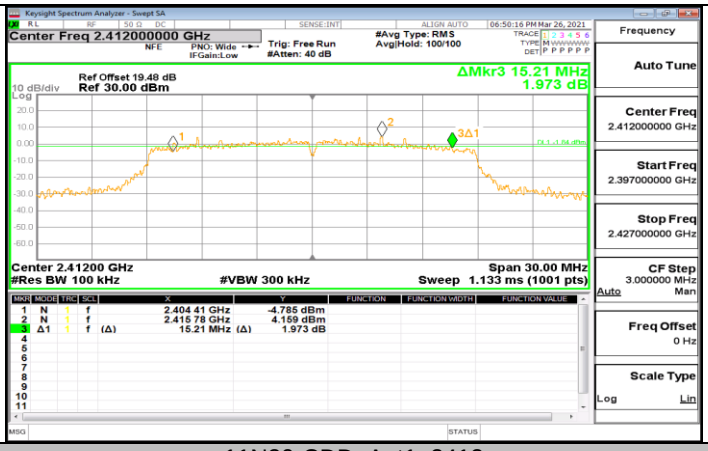
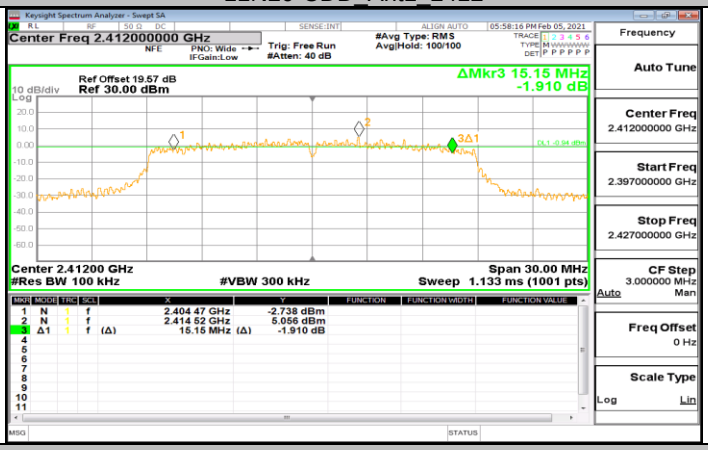


11G-CDD_Ant1_2462

11G-CDD_Ant2_2462



11N20-CDD_Ant1_2412



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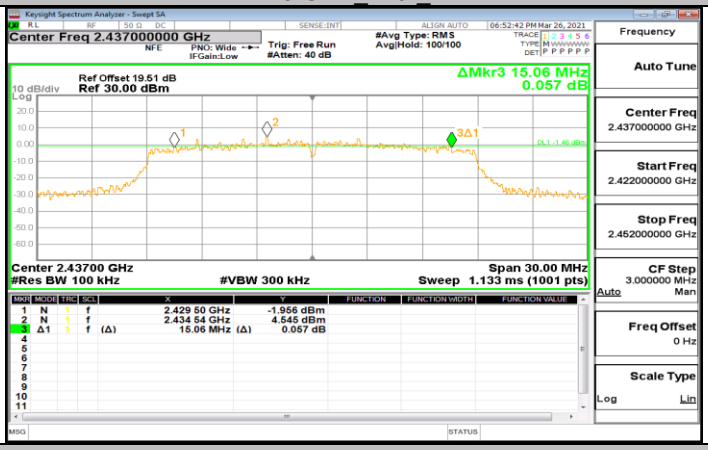

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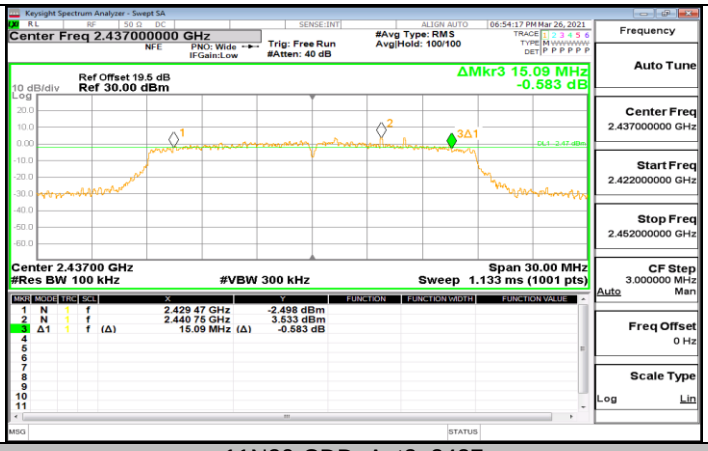

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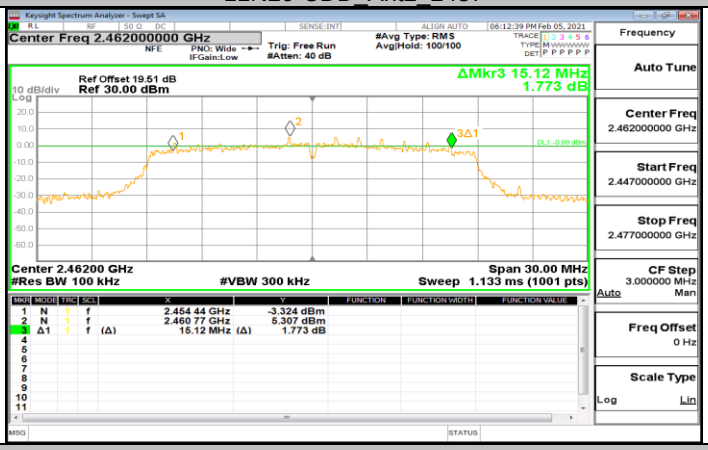

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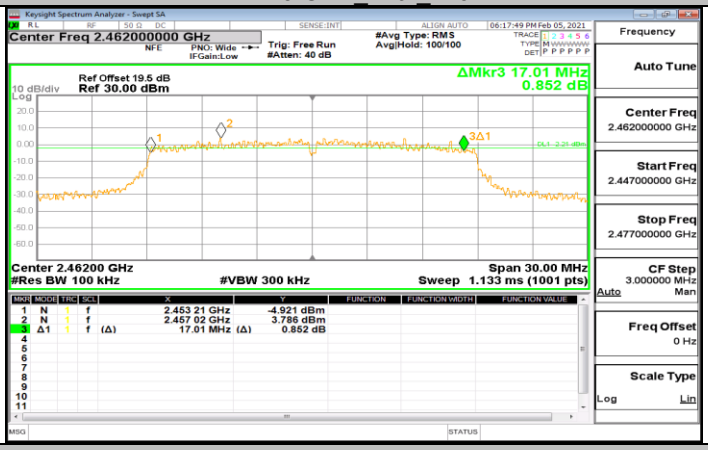

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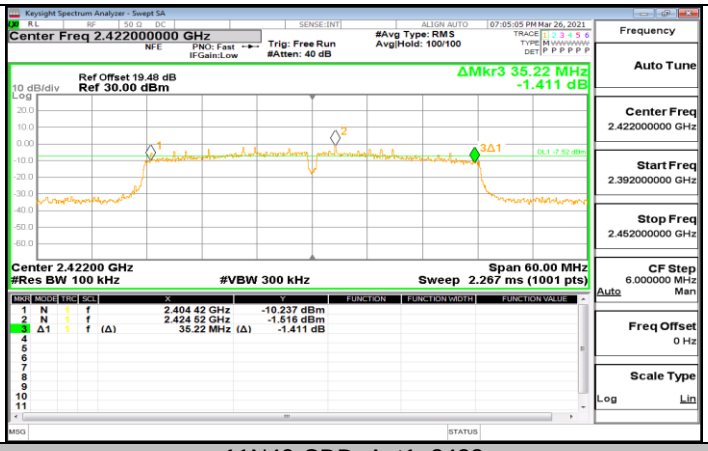
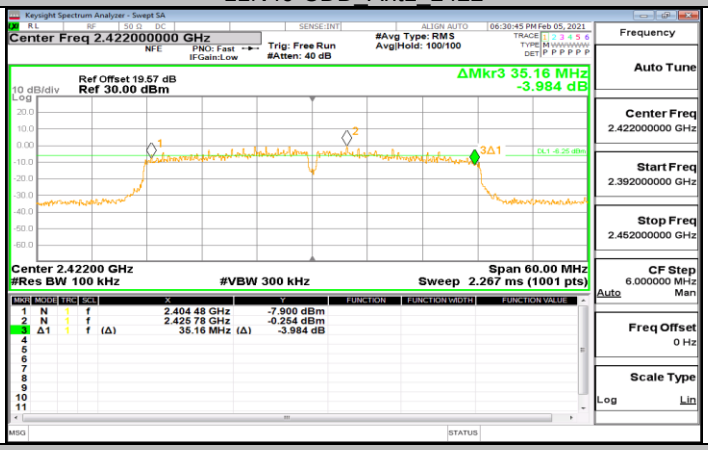
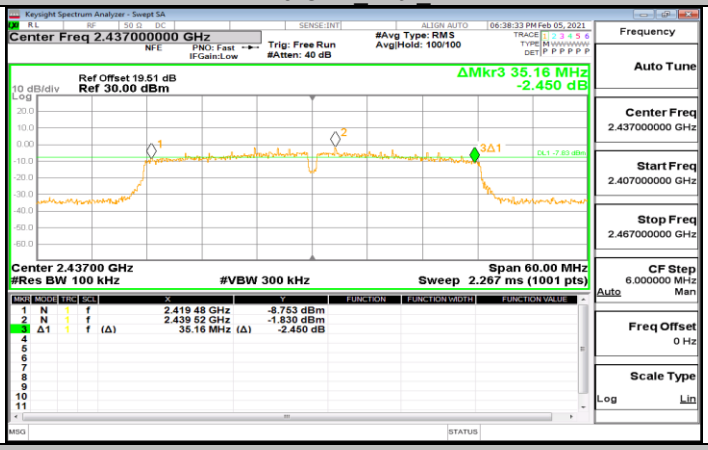


11N40-CDD_Ant1_2422



11N40-CDD_Ant2_2422



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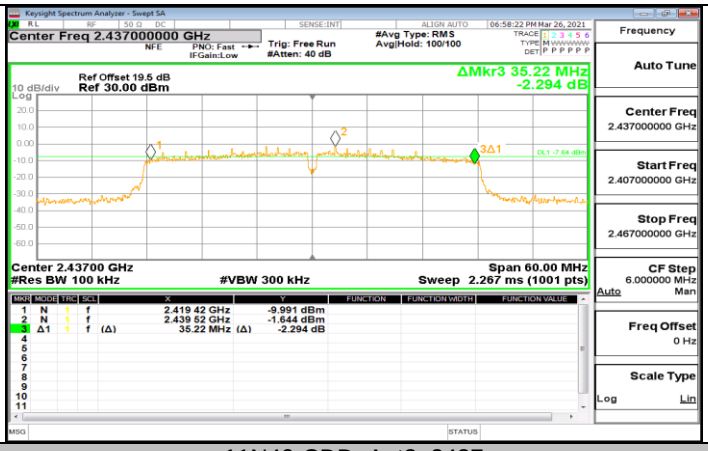

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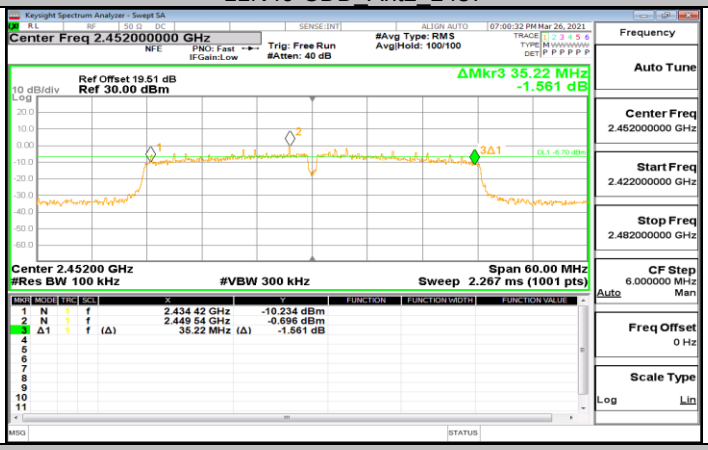


11N40-CDD_Ant1_2452

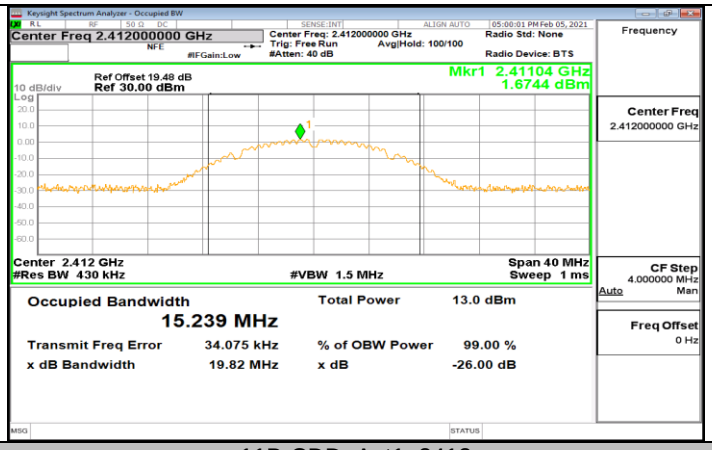
11N40-CDD_Ant2_2452

12.2. Appendix B: 99% Occupied Channel Bandwidth

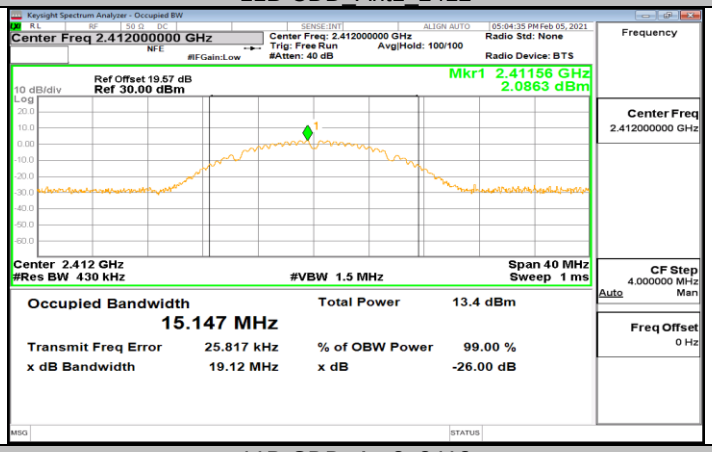
12.2.1. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Verdict
11B-CDD	Ant1	2412	15.239	2404.415	2419.654	PASS
	Ant2	2412	15.147	2404.452	2419.599	PASS
	Ant1	2437	15.357	2429.361	2444.718	PASS
	Ant2	2437	15.148	2429.437	2444.585	PASS
	Ant1	2462	15.307	2454.384	2469.691	PASS
	Ant2	2462	15.184	2454.431	2469.615	PASS
11G-CDD	Ant1	2412	16.893	2403.556	2420.449	PASS
	Ant2	2412	16.590	2403.715	2420.305	PASS
	Ant1	2437	16.940	2428.511	2445.451	PASS
	Ant2	2437	16.654	2428.678	2445.332	PASS
	Ant1	2462	16.864	2453.520	2470.384	PASS
	Ant2	2462	16.652	2453.699	2470.351	PASS
11N20-CDD	Ant1	2412	17.764	2403.147	2420.911	PASS
	Ant2	2412	17.619	2403.216	2420.835	PASS
	Ant1	2437	17.854	2428.080	2445.934	PASS
	Ant2	2437	17.615	2428.201	2445.816	PASS
	Ant1	2462	17.792	2453.107	2470.899	PASS
	Ant2	2462	17.618	2453.223	2470.841	PASS
11N40-CDD	Ant1	2422	36.059	2404.018	2440.077	PASS
	Ant2	2422	36.161	2403.959	2440.120	PASS
	Ant1	2437	36.177	2418.986	2455.163	PASS
	Ant2	2437	36.182	2418.894	2455.076	PASS
	Ant1	2452	36.071	2434.024	2470.095	PASS
	Ant2	2452	36.212	2433.900	2470.112	PASS

12.2.2. Test Graphs



11B-CDD_Ant1_2412



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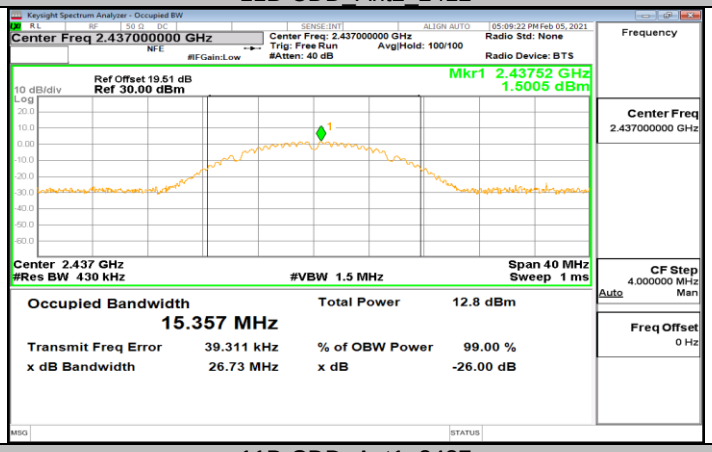

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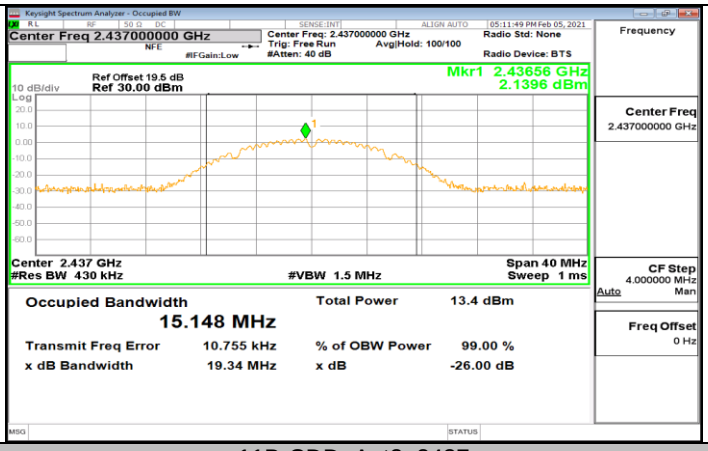

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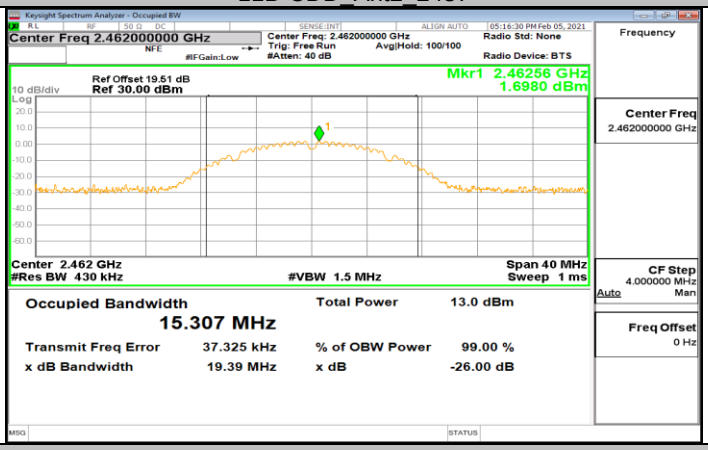

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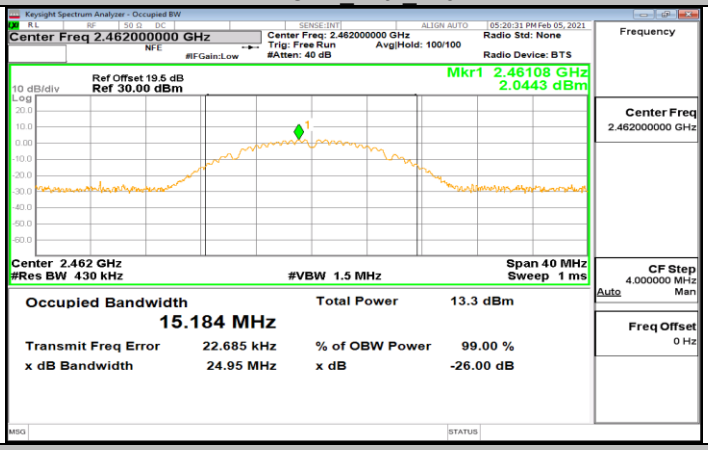

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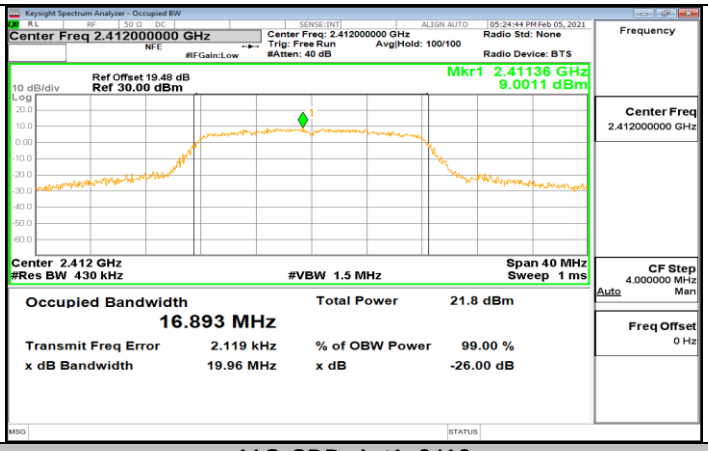

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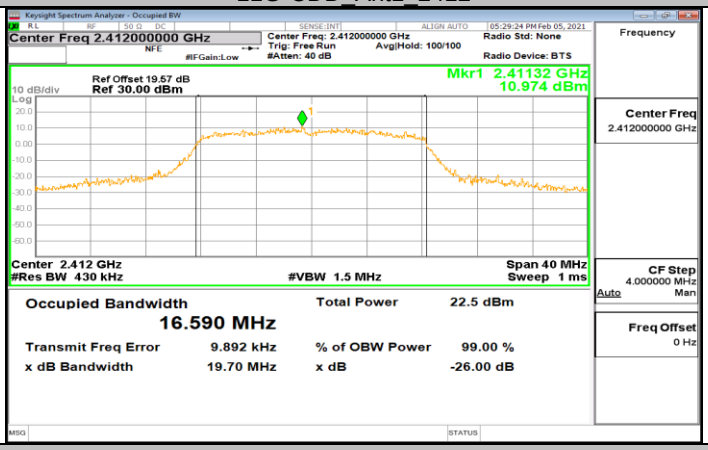
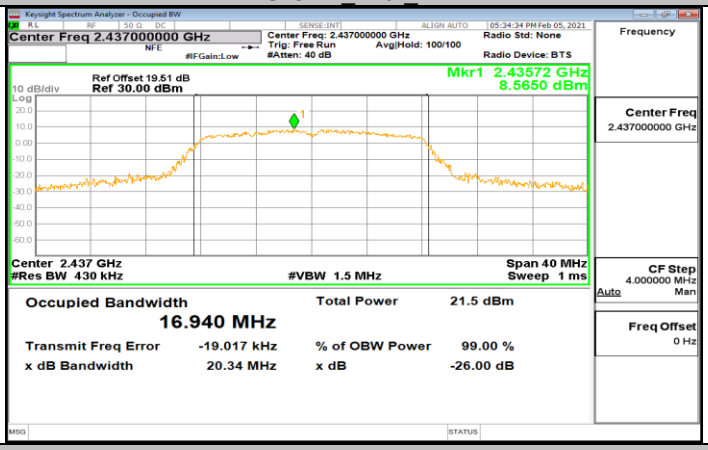


11G-CDD_Ant2_2412



11G-CDD_Ant1_2437