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

CERTIFICATION TEST REPORT

For

X2D 100C

MODEL NUMBER: X2D 100C

FCC ID: 2AEFA-X2D100C2106
IC: 20193-X2D100C2106

REPORT NUMBER: 4790183964.4-5

ISSUE DATE: January 25, 2022

Prepared for

VICTOR HASSELBLAD AB
Utvecklingsgatan 2 SE-417 56 Gothenburg Sweden

Prepared by

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch

Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China

Tel: +86 769 22038881
Fax: +86 769 33244054
Website: www.ul.com

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	01/25/2022	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:	VICTOR HASSELBLAD AB
Address:	Utvecklingsgatan 2 SE-417 56 Gothenburg Sweden

Manufacturer Information

Company Name:	VICTOR HASSELBLAD AB
Address:	Utvecklingsgatan 2 SE-417 56 Gothenburg Sweden

EUT Information

EUT Name:	X2D 100C
Model:	X2D 100C
Brand:	HASSELBLAD
Sample Received Date:	November 18, 2021
Sample Status:	Normal
Sample ID:	4401571
Date of Tested:	November 18, 2021, ~ January 21, 2022

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:

Kebo Zhang
Project Engineer

Checked By:

Shawn Wen
Laboratory Leader

Approved By:

Stephen Guo
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, KDB 662911 D01 Multiple Transmitter Output v02r01, 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)
Duty Cycle	±0.028%
DTS and 99% Occupied Bandwidth	±0.0196%
Maximum Conducted Output Power	±0.686 dB
Maximum Power Spectral Density Level	±0.743 dB
Conducted Band-edge Compliance	±1.328 dB
Conducted Unwanted Emissions In Non-restricted Frequency Bands	±0.746 dB (9 kHz ~ 1 GHz)
	±1.328dB (1 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	X2D 100C
Model Name	X2D 100C
Radio Technology	IEEE802.11b/g/n HT20/n HT40/ ax HE20/ax HE40
Operation frequency	IEEE 802.11b: 2412 MHz ~ 2462 MHz IEEE 802.11g: 2412 MHz ~ 2462 MHz IEEE 802.11n HT20: 2412 MHz ~ 2462 MHz IEEE 802.11n HT40: 2422 MHz ~ 2452 MHz IEEE 802.11ax HE20: 2412MHz ~ 2462MHz IEEE 802.11ax HE40: 2422MHz ~ 2452MHz
Modulation	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) 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) IEEE 802.11ax HE20: OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax HE40: OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
Ratings	DC 5V: charging via non-standard adapter or personal computer DC 15V: charging via standard adapter
Note	Both input voltages are considered, only the worst voltage data (DC 5V) is recorded in this report.
Battery	Max charge voltage: 8.4V Nominal capacity: 7.27Vdc Rated capacity: 3400mAh, 24.7Wh

5.2. CHANNEL LIST

Channel List for 802.11b/g/n/ax (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/ax (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]	17.40
g	2412 ~ 2462	1-11[11]	16.72
n HT20	2412 ~ 2462	1-11[11]	16.24
n HT40	2422 ~ 2452	3-9[7]	14.97
ax HE20	2412 ~ 2462	1-11[11]	16.02
ax HE40	2422 ~ 2452	3-9[7]	14.77

5.4. TEST CHANNEL CONFIGURATION

IEEE Std. 802.11	Test Channel	Frequency
b	CH 1, CH 6, CH 11/ Low, Middle, High	2412MHz, 2437MHz, 2462MHz
g	CH 1, CH 6, CH 11/ Low, Middle, High	2412MHz, 2437MHz, 2462MHz
n HT20	CH 1, CH 6, CH 11/ Low, Middle, High	2412MHz, 2437MHz, 2462MHz
n HT40	CH 3, CH 6, CH 9/ Low, Middle, High	2422MHz, 2437MHz, 2452MHz
ax HE20	CH 1, CH 6, CH 11/ Low, Middle, High	2412MHz, 2437MHz, 2462MHz
ax HE40	CH 3, CH 6, CH 9/ Low, Middle, High	2422MHz, 2437MHz, 2452MHz

5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band							
Test Software		WiFi Certify					
IEEE Std. 802.11	Transmit Antenna Number	Test Channel					
		NCB: 20MHz			NCB: 40MHz		
		CH 1	CH 6	CH 11	CH 3	CH 6	CH 9
b	1	16	16	16	/		
	2	16	16	16			
g	1	16	16	16			
	2	16	16	16			
n HT20	1	12	12	12			
	2	12	12	12			
n HT40	1	/			10	10	10
	2	/			10	10	10
ax HE20	1	12	12	12	/		
	2	12	12	12			
ax HE40	1	/			10	10	10
	2	/			10	10	10

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 as provided by the client were:

802.11b mode: 1 Mbps
802.11g mode: 6 Mbps
802.11n HT20 mode: MCS0
802.11n HT40 mode: MCS0
802.11ax HE20 mode: MCS0
802.11ax HE40 mode: MCS0

802.11b/g only support SISO mode.
802.11 n HT20/HT40 and 802.11 ax HE20/HE40 support SISO and MIMO mode.

802.11b SISO mode, Antenna 1 and Antenna 2 has the same power setting, so only Antenna 1 worst case test data were recorded in the report.

802.11n/ax SISO mode and MIMO mode have the same power setting, so only the worst case power mode(MIMO) will be record in the report.

The EUT has 2 separate antennas which correspond to 2 separate antenna ports. Core 0 and Core 1 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.

Conducted output power, power spectral density tests separately on each port with all supported SISO & MIMO port combinations.

The EUT support Cyclic Shift Diversity(CDD), Space Time Coding(STBC), Spartial Division Multiplexing(SDM) modes. They use the same conducted power per chain in any given mode, CDD mode have the maximum power setting, so we only chose the worst case mode CDD for final testing.

5.7. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
1	2412-2462	PIFA	2.5
2	2412-2462	PIFA	2.5

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 clause F)2)f)(i).

For output power measurements:
Directional gain= G_{ANT} + Array Gain = 2.5 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 = 5.5 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

Test Mode	Transmit and Receive Mode	Description
IEEE 802.11b	☒2TX, 2RX	ANT 1 and ANT 2 can be used as transmitting/receiving antenna.
IEEE 802.11g	☒2TX, 2RX	ANT 1 and ANT 2 can be used as transmitting/receiving antenna.
IEEE 802.11n HT20	☒2TX, 2RX	ANT 1 and ANT 2 can be used as transmitting/receiving antenna.
IEEE 802.11n HT40	☒2TX, 2RX	ANT 1 and ANT 2 can be used as transmitting/receiving antenna.
IEEE 802.11ax HE20	☒2TX, 2RX	ANT 1 and ANT 2 can be used as transmitting/receiving antenna.
IEEE 802.11ax HE40	☒2TX, 2RX	ANT 1 and ANT 2 can be used as transmitting/receiving antenna.
Note: 1.BLE&WLAN 2.4G, BLE & WLAN 5G, WLAN 2.4G & WLAN 5G can't transmit simultaneously. (Declared by client) 2.The value of the antenna gain was declared by customer.		

5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	Remarks
1	Laptop	Lenovo	XIAOXIN 5000	/
2	CF Card	SanDisk	/	32GB

I/O CABLES

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
/	/	/	/	/	/

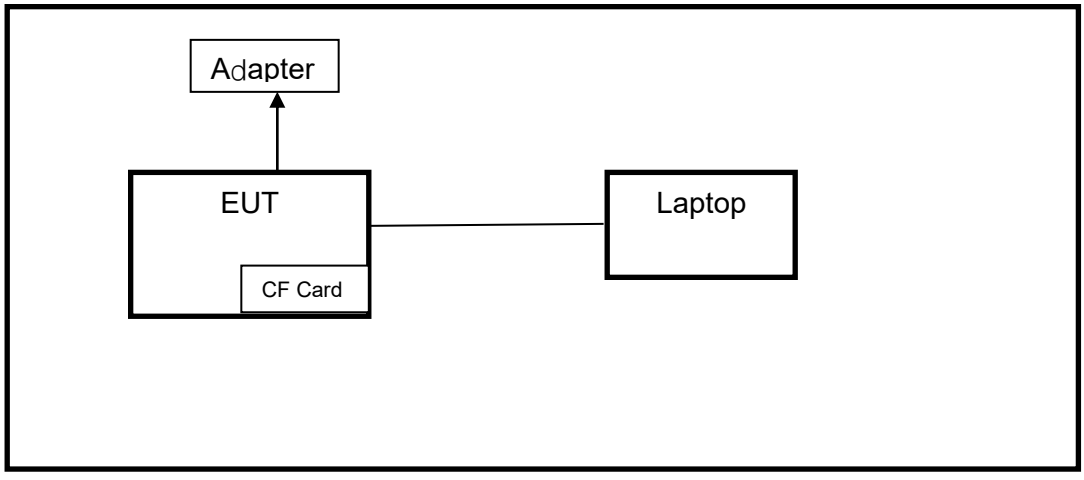
ACCESSORIES

Item	Accessory	Brand Name	Model Name	Description
1	Type-C Cable	HASSELBLAD	N/A	Length: 1.0 m No Ferrite Core shield
2	Battery	HASSELBLAD	VHBI-3400mAh-7.27V	Max charge voltage: 8.4V Nominal capacity: 7.27Vdc Rated capacity: 3400mAh, 24.7Wh
3	Adapter	HASSELBLAD	PD-30US	Input: 100-240V~, 50/60Hz 0.8A Max Output: 3.3-11Vdc, 2.27A, 29.92W or 5Vdc 3A, 15W or 9Vdc 3A, 27W or 12Vdc 2.5A, 30W or 15Vdc 2A, 30W

TEST SETUP

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

SETUP DIAGRAM FOR TESTS



Note: 1. The Adapter use for Ac power line conducted emission testing.
2. The Laptop use for Radiated emission testing.

6. MEASURING INSTRUMENT AND SOFTWARE USED

R&S TS 8997 Test System					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
Power sensor, Power Meter	R&S	OSP120	100921	Mar.23,2021	Mar.22,2022
Vector Signal Generator	R&S	SMBV100A	261637	Oct.30, 2021	Oct.29, 2022
Signal Generator	R&S	SMB100A	178553	Oct.30, 2021	Oct.29, 2022
Signal Analyzer	R&S	FSV40	101118	Oct.30, 2021	Oct.29, 2022
Software					
Description	Manufacturer	Name	Version		
For R&S TS 8997 Test System	Rohde & Schwarz	EMC 32	10.60.10		

Tonsend RF Test System					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
Wideband Radio Communication Tester	R&S	CMW500	155523	Oct.30, 2021	Oct.29, 2022
Wireless Connectivity Tester	R&S	CMW270	1201.0002N75-102	Sep.29, 2021	Sep.28, 2022
PXA Signal Analyzer	Keysight	N9030A	MY55410512	Oct.30, 2021	Oct.29, 2022
MXG Vector Signal Generator	Keysight	N5182B	MY56200284	Oct.30, 2021	Oct.29, 2022
MXG Vector Signal Generator	Keysight	N5172B	MY56200301	Oct.30, 2021	Oct.29, 2022
DC power supply	Keysight	E3642A	MY55159130	Oct.30, 2021	Oct.29, 2022
Temperature & Humidity Chamber	SANMOOD	SG-80-CC-2	2088	Nov.20,2020	Nov.19,2022
Software					
Description	Manufacturer	Name	Version		
Tonsend SRD Test System	Tonsend	JS1120-3 RF Test System	2.6.77.0518		

Radiated Emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Oct.30, 2021	Oct.29, 2022
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130959	Aug.02, 2021	Aug.01, 2024
Preamplifier	HP	8447D	2944A09099	Oct.30, 2021	Oct.29, 2022
EMI Measurement Receiver	R&S	ESR26	101377	Oct.30, 2021	Oct.29, 2022
Horn Antenna	TDK	HRN-0118	130940	July 20, 2021	July 19, 2024
Preamplifier	TDK	PA-02-0118	TRS-305-00067	Oct.30, 2021	Oct.29, 2022
Horn Antenna	Schwarzbeck	BBHA9170	697	July 20, 2021	July 19, 2024
Preamplifier	TDK	PA-02-2	TRS-307-00003	Oct.31, 2021	Oct.30, 2022
Preamplifier	TDK	PA-02-3	TRS-308-00002	Oct.31, 2021	Oct.30, 2022
Loop antenna	Schwarzbeck	1519B	00008	Dec.14, 2021	Dec.13, 2024
Preamplifier	TDK	PA-02-001-3000	TRS-302-00050	Oct.31, 2021	Oct.30, 2022
Preamplifier	Mini-Circuits	ZX60-83LN-S+	SUP01201941	Oct.31, 2021	Oct.30, 2022
High Pass Filter	Wi	WHKX10-2700-3000-18000-40SS	23	Oct.31, 2021	Oct.30, 2022
Band Reject Filter	Wainwright	WRCJV8-2350-2400-2483.5-2533.5-40SS	4	Oct.31, 2021	Oct.30, 2022
Software					
Description			Manufacturer	Name	Version
Test Software for Radiated Emissions			Farad	EZ-EMC	Ver. UL-3A1

Last Calibration time

Radiated Emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Loop antenna	Schwarzbeck	1519B	00008	Jan.17, 2019	Jan.16,2022

7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

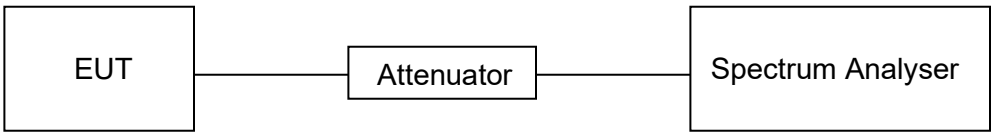
LIMITS

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	43.6 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

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

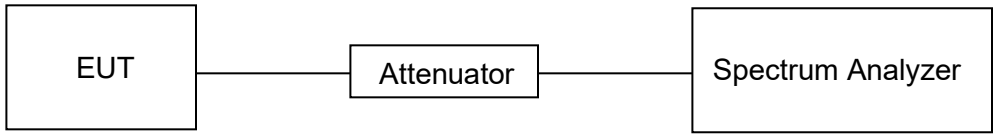
Connect the EUT to the spectrum analyser and use the following settings:

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	43.6 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

RESULTS

Please refer to appendix A & B.

7.3. CONDUCTED OUTPUT POWER

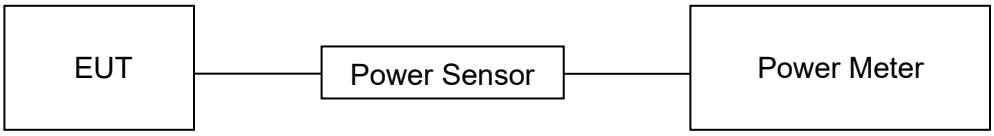
LIMITS

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

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	43.6 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

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

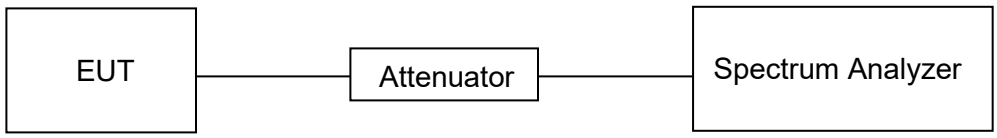
Refer to ANSI C63.10-2013 clause 11.10.

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	43.6 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

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:

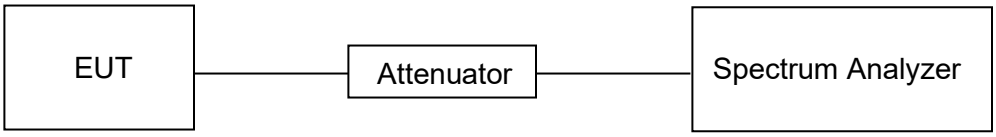
Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	100 kHz
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

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	43.6 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

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.

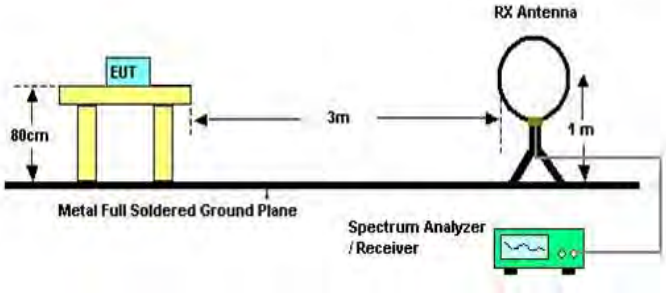
FCC Restricted bands of operation refer to FCC §15.205 (a):

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

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.

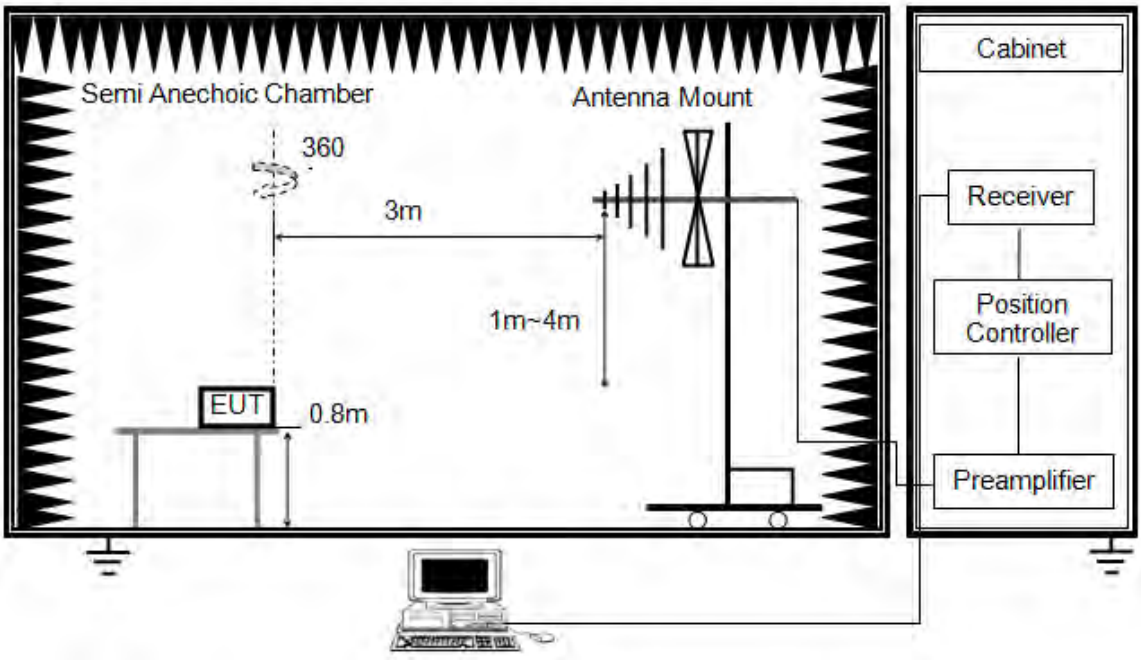
5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

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.

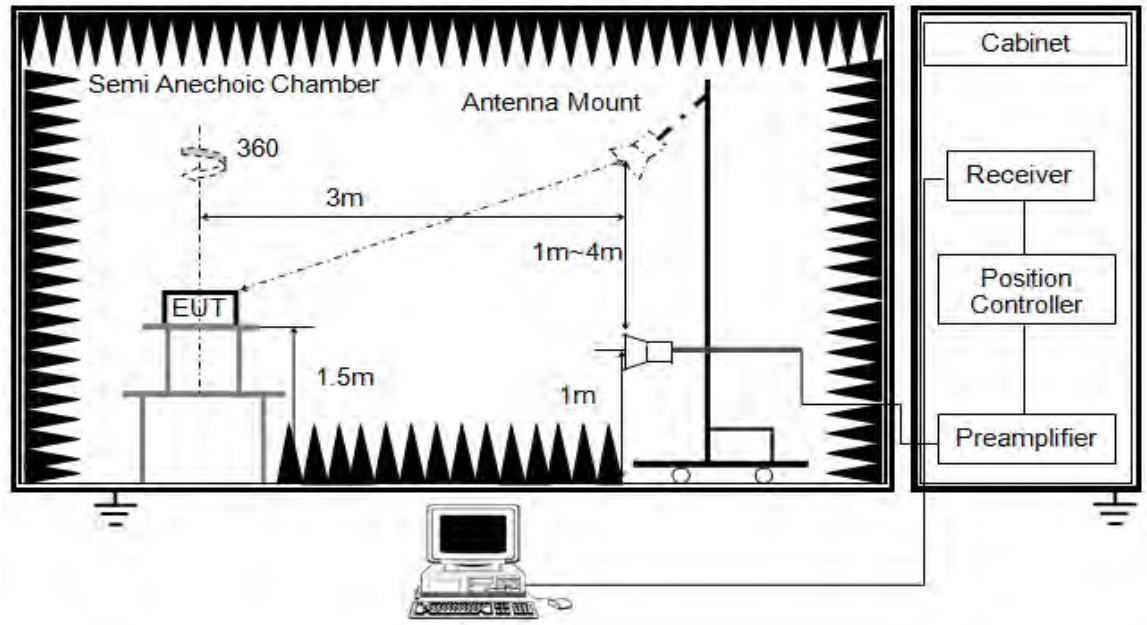
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations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

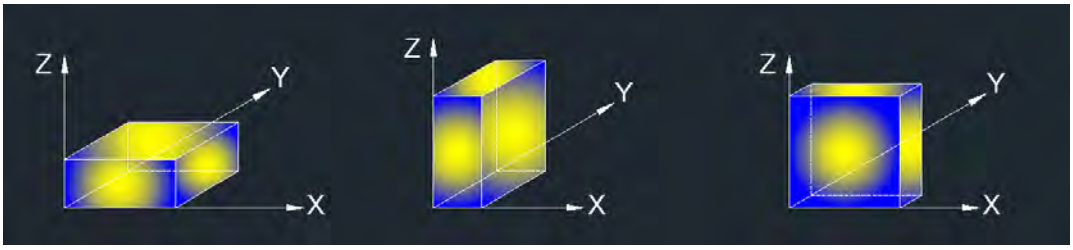
3. The EUT was placed on a turntable with 1.5 m above ground.

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 1: 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	22.5 °C	Relative Humidity	48 %
Atmosphere Pressure	101 kPa	Test Voltage	DC 5 V

RESULTS

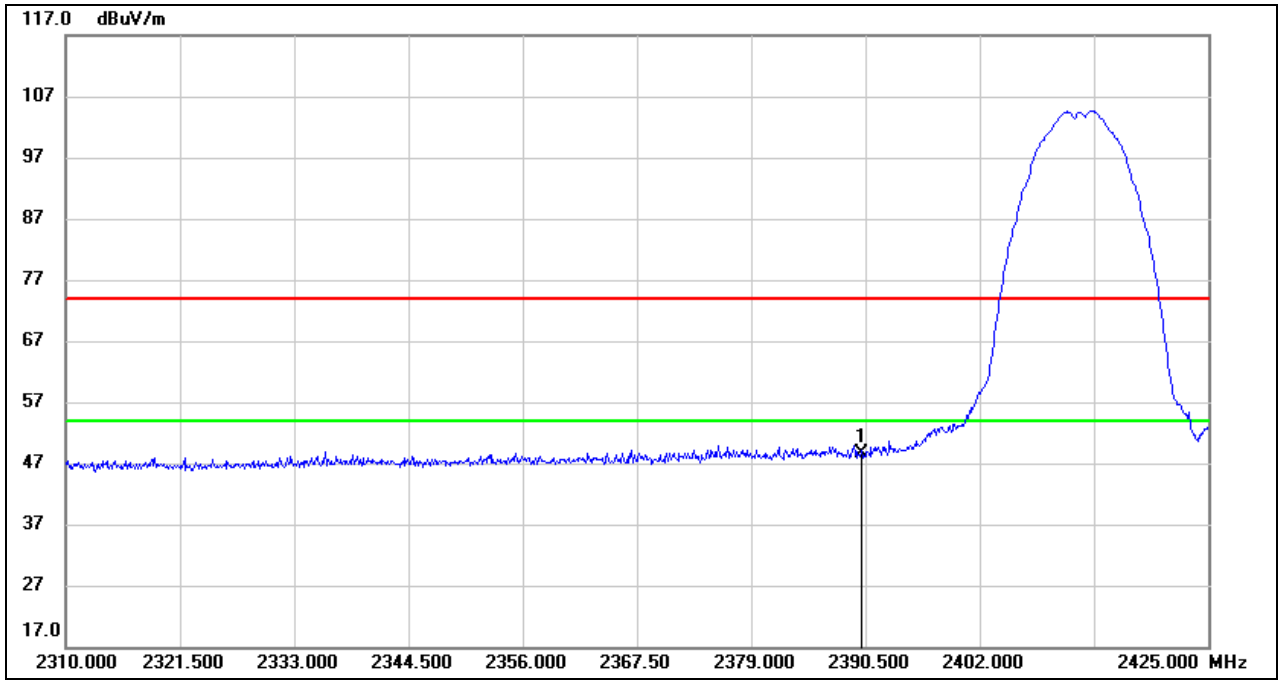
8.1. RESTRICTED BANDEDGE

8.1.1. 802.11b SISO MODE

ANTENNA 1 TEST RESULTS (WORST CASE)

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

PEAK

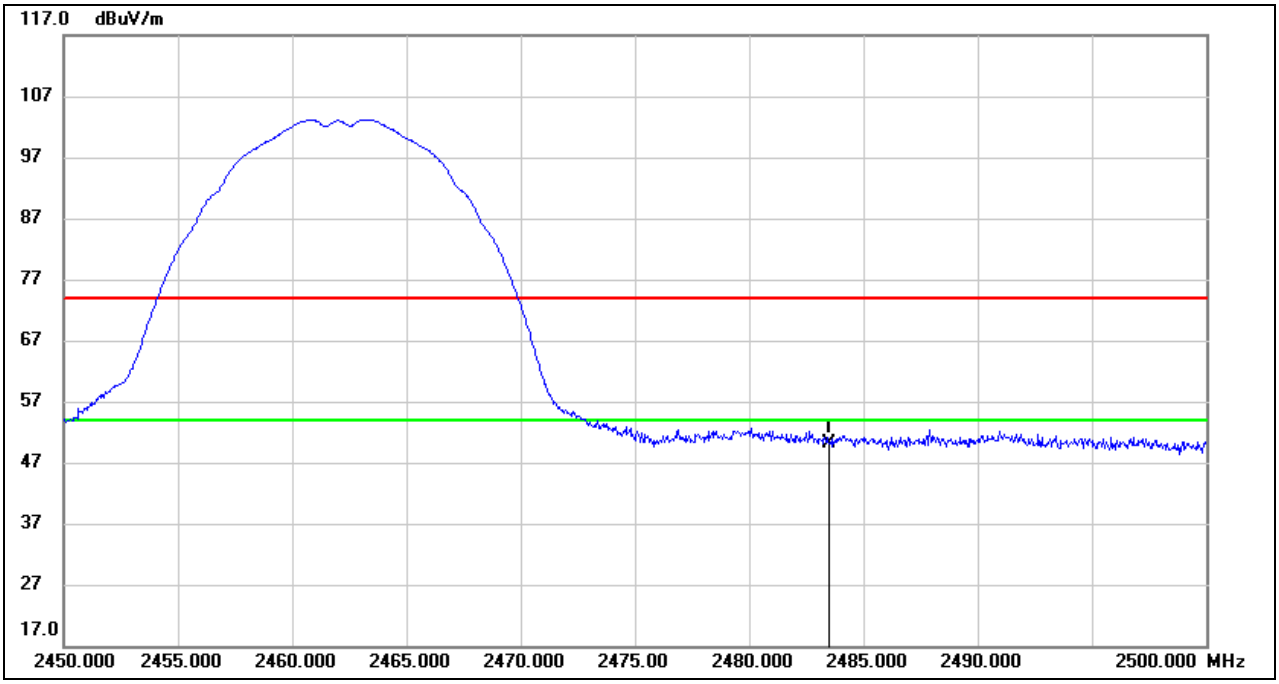


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	15.87	32.66	48.53	74.00	-25.47	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. 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	17.07	33.10	50.17	74.00	-23.83	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

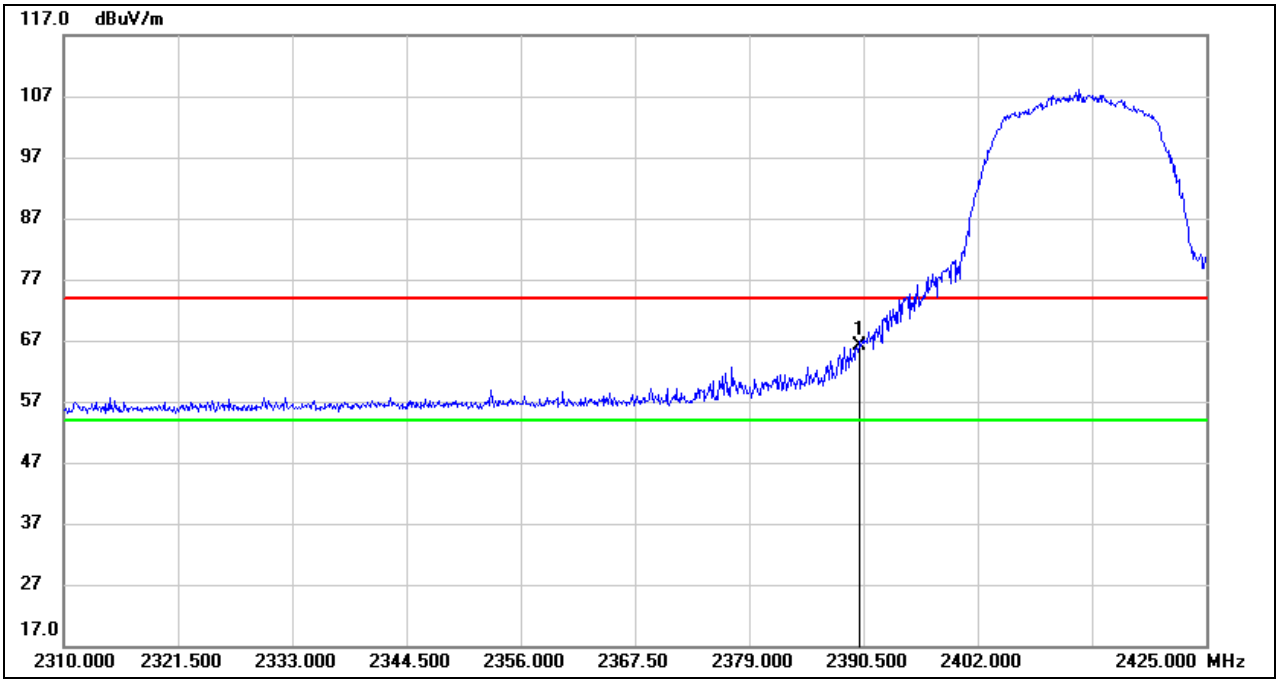
Note: Horizontal and Vertical have been tested, only the worst data was recorded in the report.
Note: Both antennas have been tested, only the worst data was recorded in the report.

8.1.2. 802.11g SISO MODE

ANTENNA 1 TEST RESULTS (WORST CASE)

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

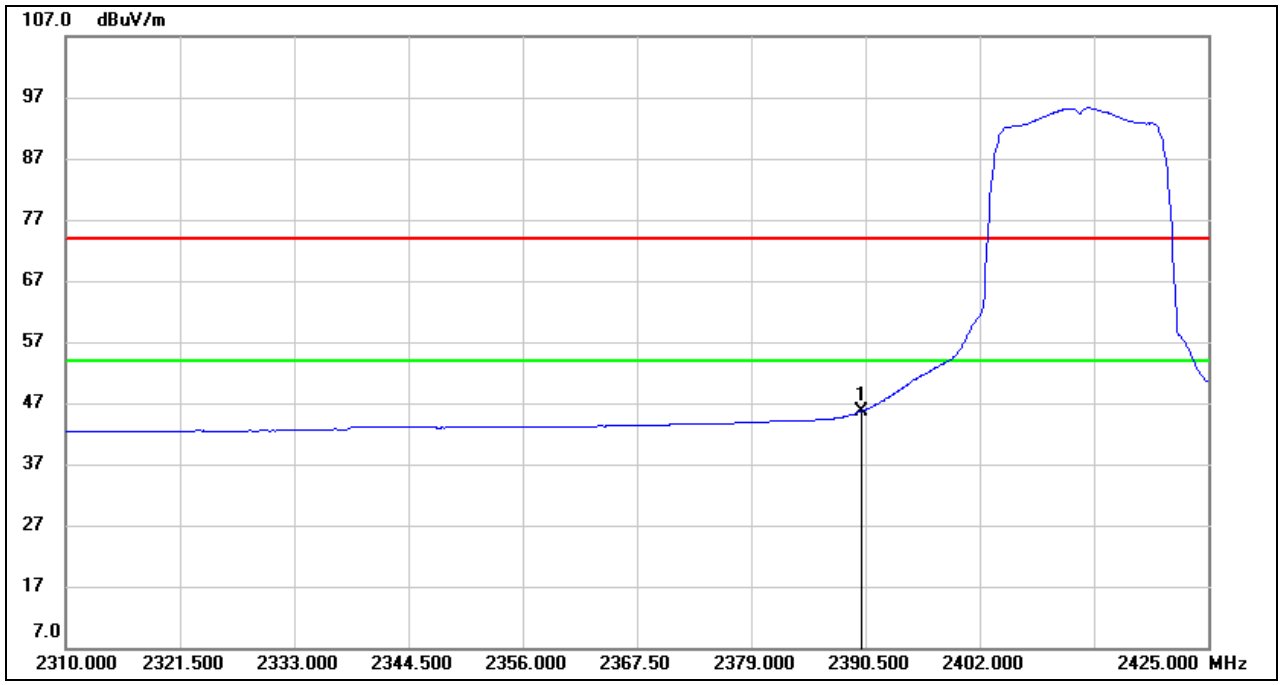
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	33.38	32.66	66.04	74.00	-7.96	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

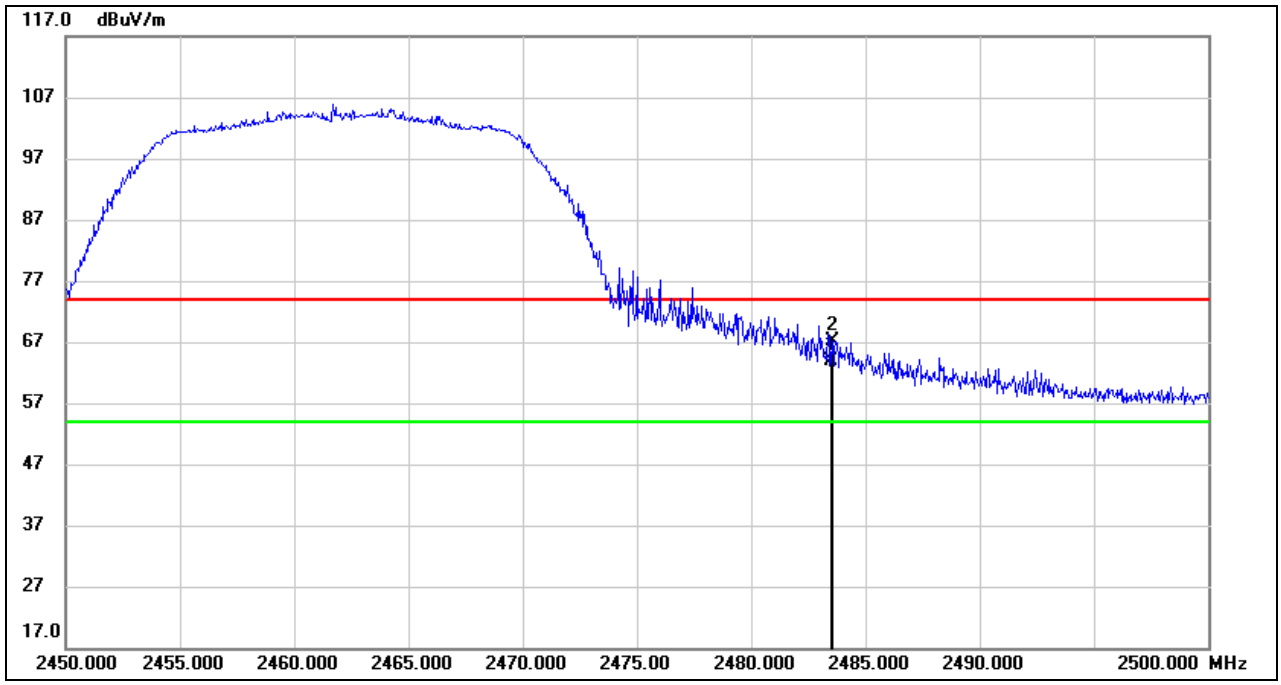


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	13.01	32.66	45.67	54.00	-8.33	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
3. For the transmitting duration, please refer to clause 7.1.
4. 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)

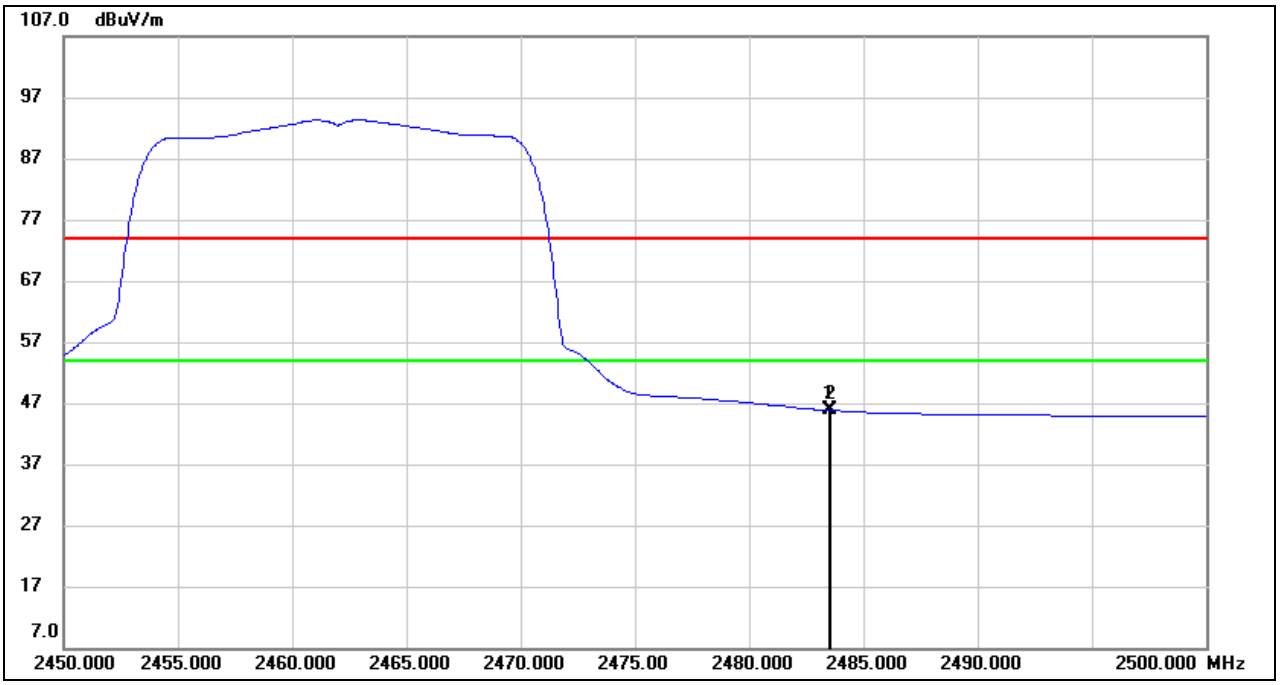
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	30.68	33.10	63.78	74.00	-10.22	peak
2	2483.550	34.07	33.10	67.17	74.00	-6.83	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. 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	12.85	33.10	45.95	54.00	-8.05	AVG
2	2483.550	12.84	33.10	45.94	54.00	-8.06	AVG

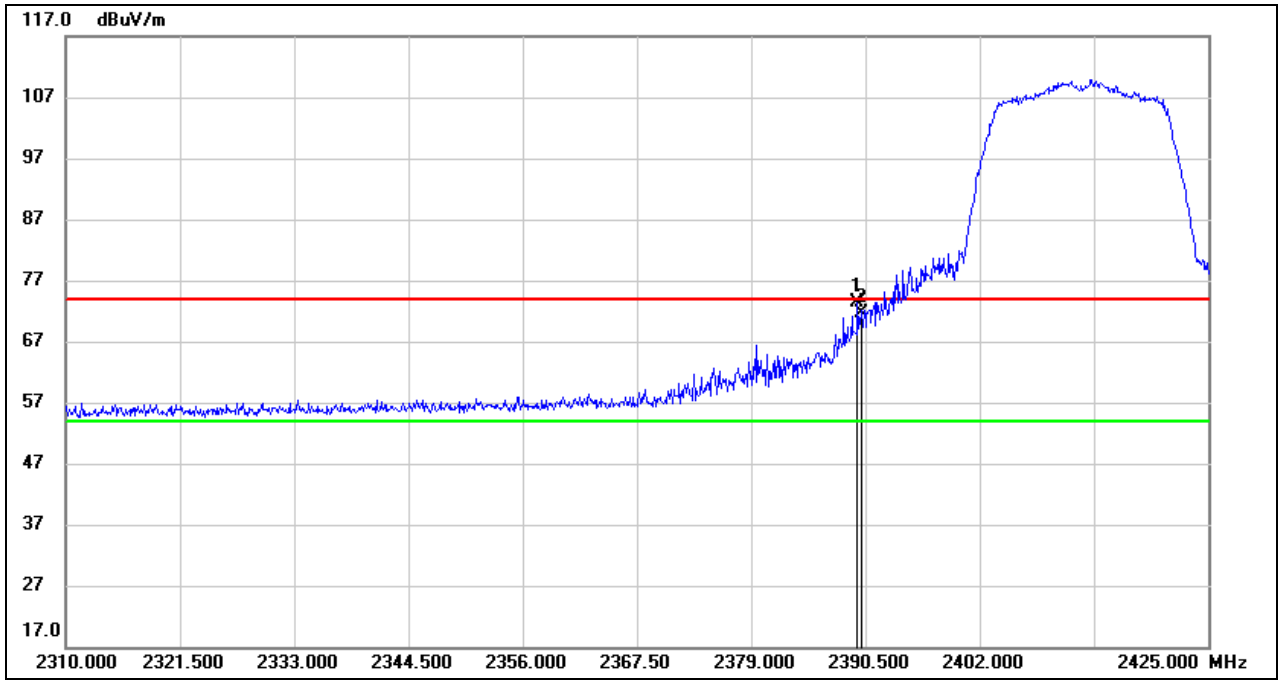
Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
3. For the transmitting duration, please refer to clause 7.1.
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

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

8.1.3. 802.11n HT20 MIMO MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

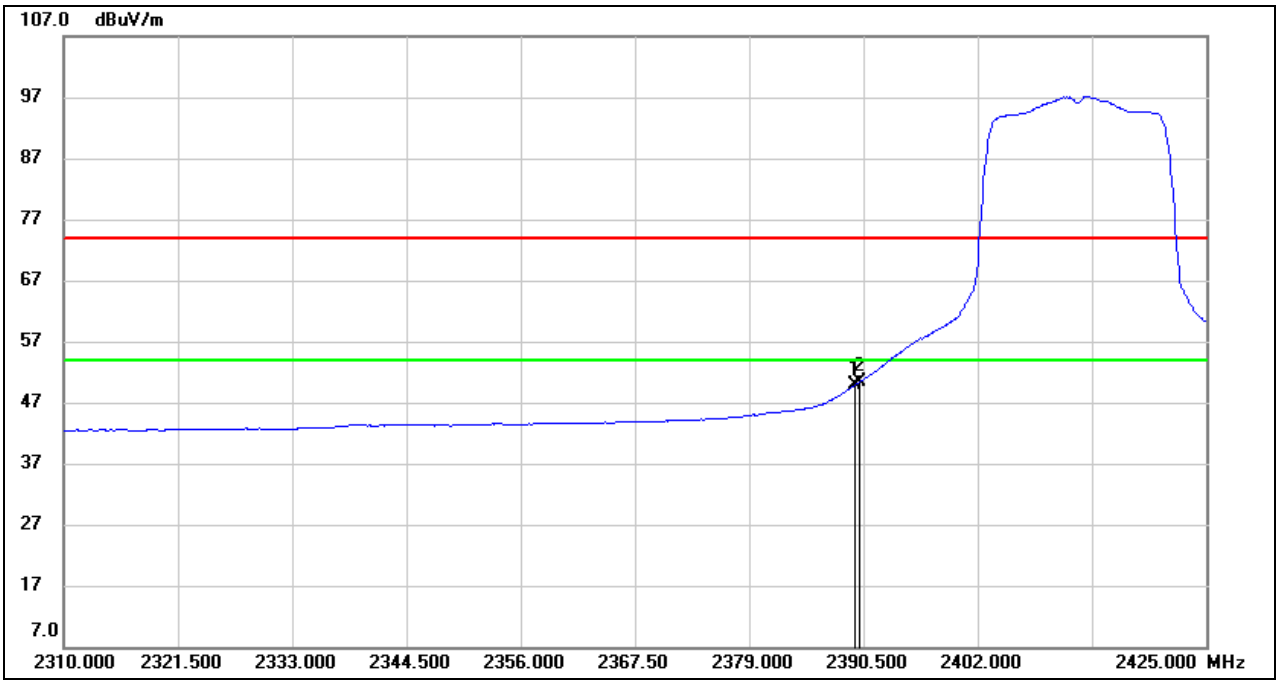
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.695	40.61	32.66	73.27	74.00	-0.73	peak
2	2390.000	38.96	32.66	71.62	74.00	-2.38	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

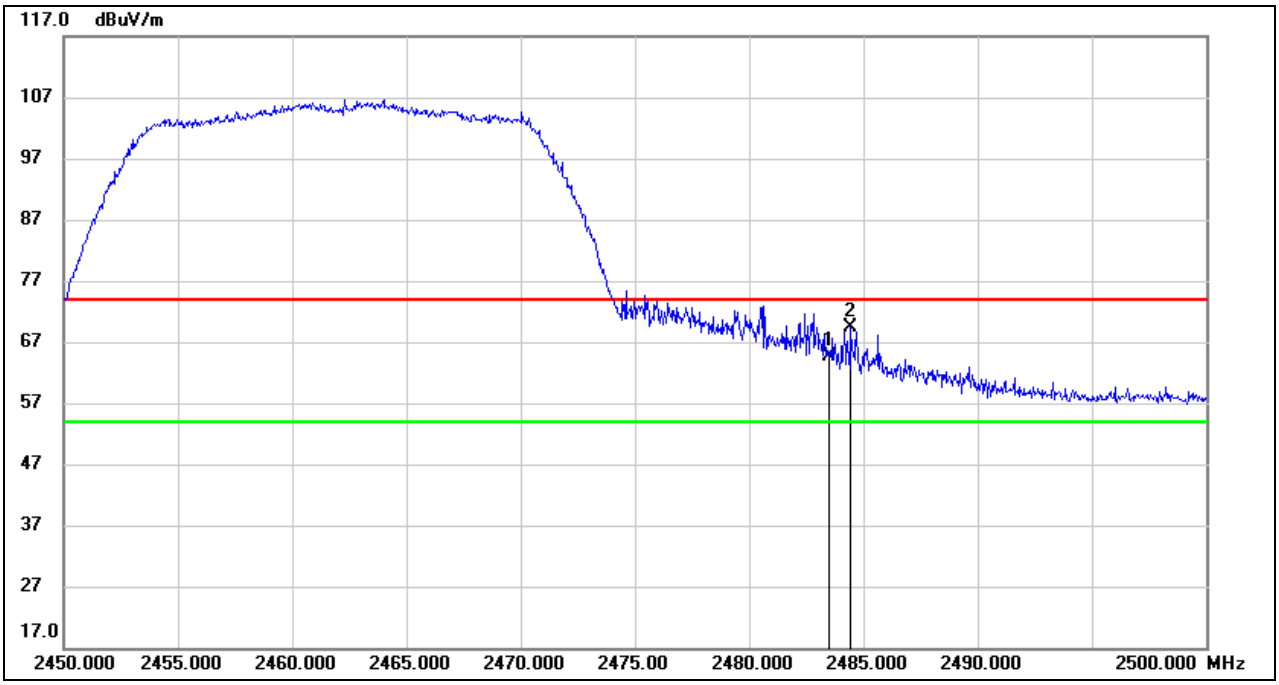


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.695	17.28	32.66	49.94	54.00	-4.06	AVG
2	2390.000	17.65	32.66	50.31	54.00	-3.69	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
3. For the transmitting duration, please refer to clause 7.1.
4. 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)

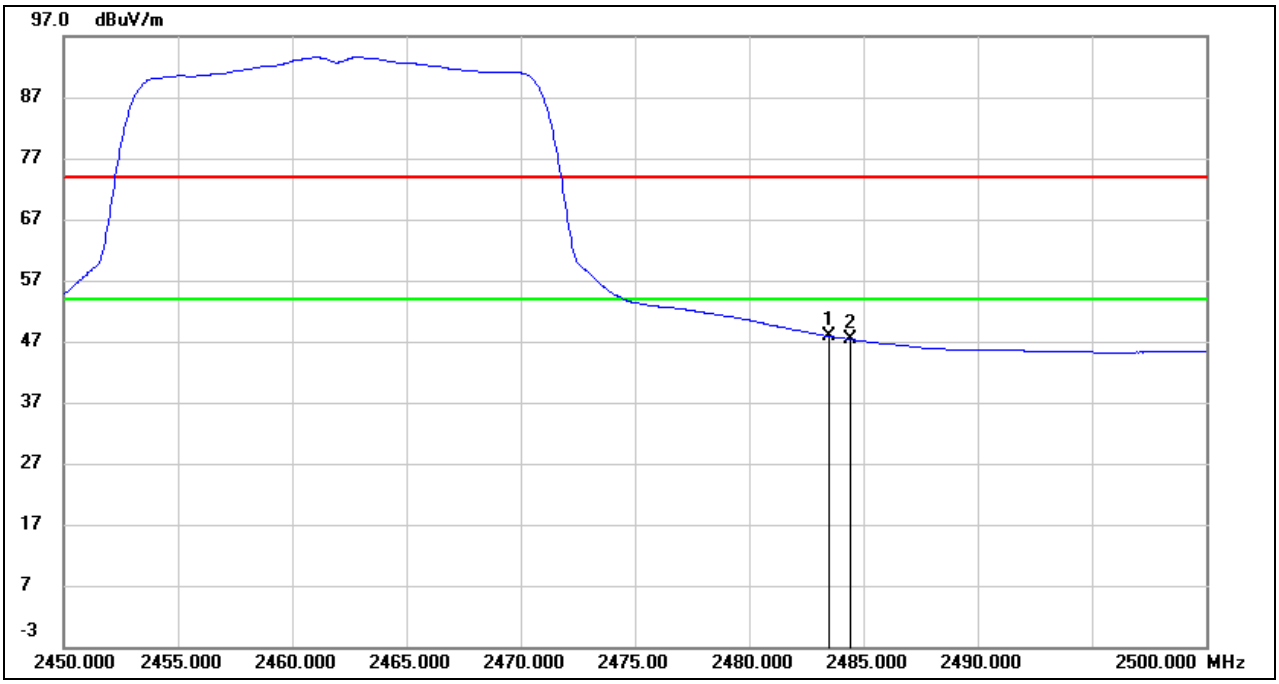
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	31.62	33.10	64.72	74.00	-9.28	peak
2	2484.450	36.35	33.10	69.45	74.00	-4.55	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. 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	14.79	33.10	47.89	54.00	-6.11	AVG
2	2484.450	14.25	33.10	47.35	54.00	-6.65	AVG

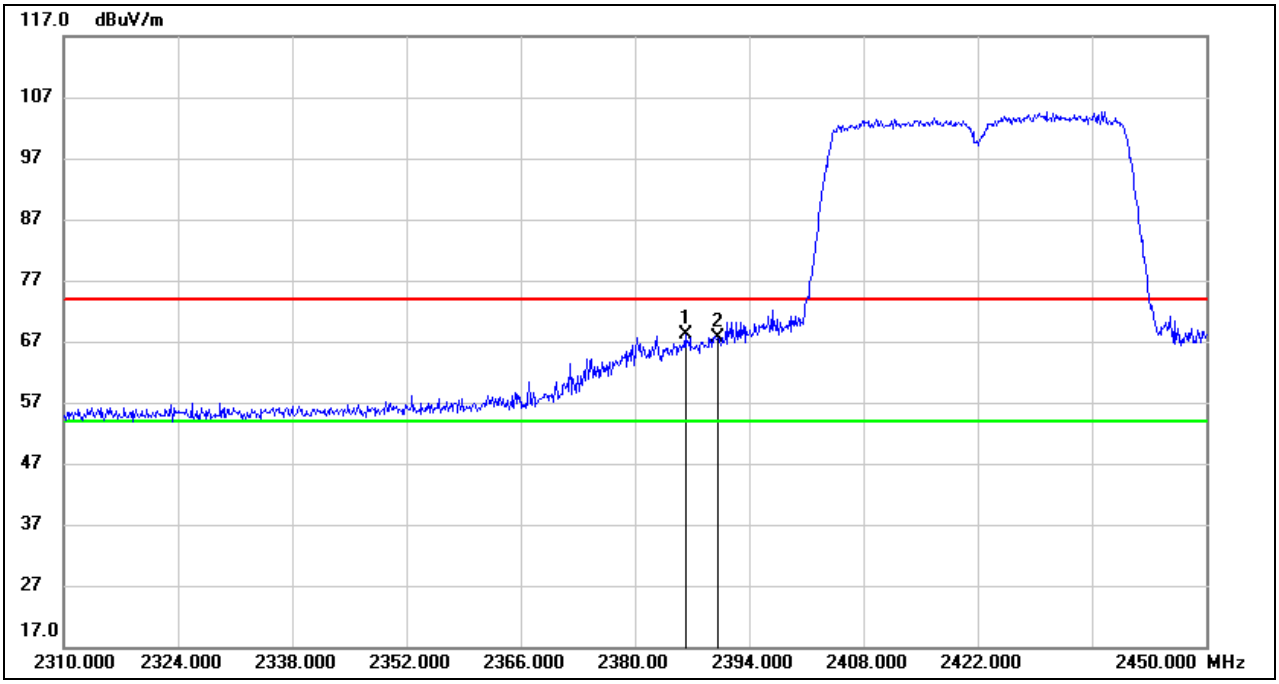
Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
3. For the transmitting duration, please refer to clause 7.1.
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

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

8.1.4. 802.11n HT40 MIMO MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

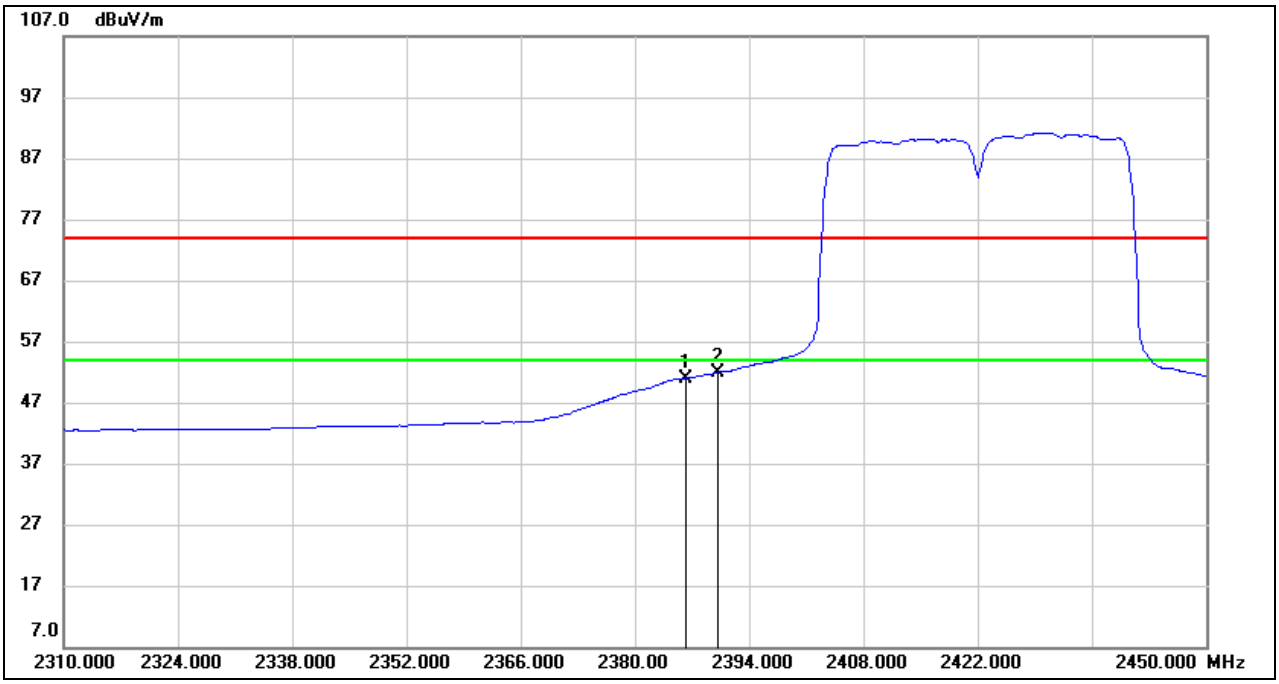
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.160	35.59	32.63	68.22	74.00	-5.78	peak
2	2390.000	34.88	32.66	67.54	74.00	-6.46	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

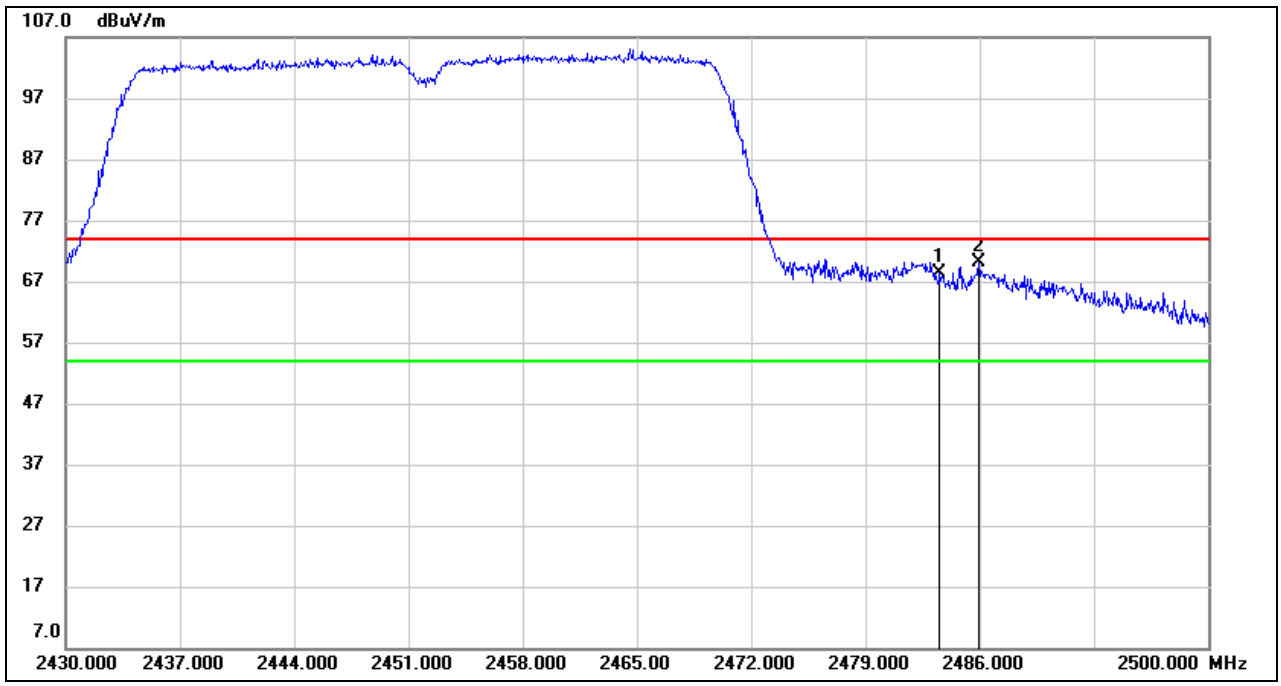


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.160	18.36	32.63	50.99	54.00	-3.01	AVG
2	2390.000	19.25	32.66	51.91	54.00	-2.09	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
3. For the transmitting duration, please refer to clause 7.1.
4. 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)

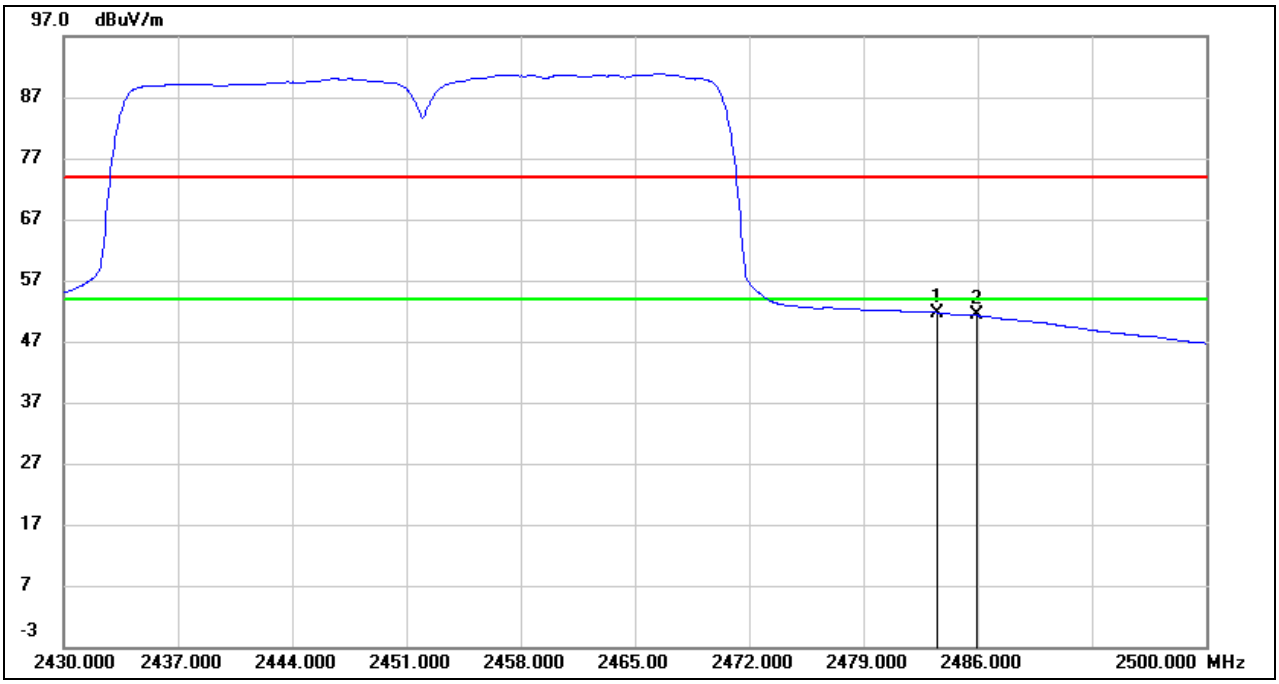
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	35.33	33.10	68.43	74.00	-5.57	peak
2	2485.930	36.99	33.10	70.09	74.00	-3.91	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. 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	18.61	33.10	51.71	54.00	-2.29	AVG
2	2485.930	18.19	33.10	51.29	54.00	-2.71	AVG

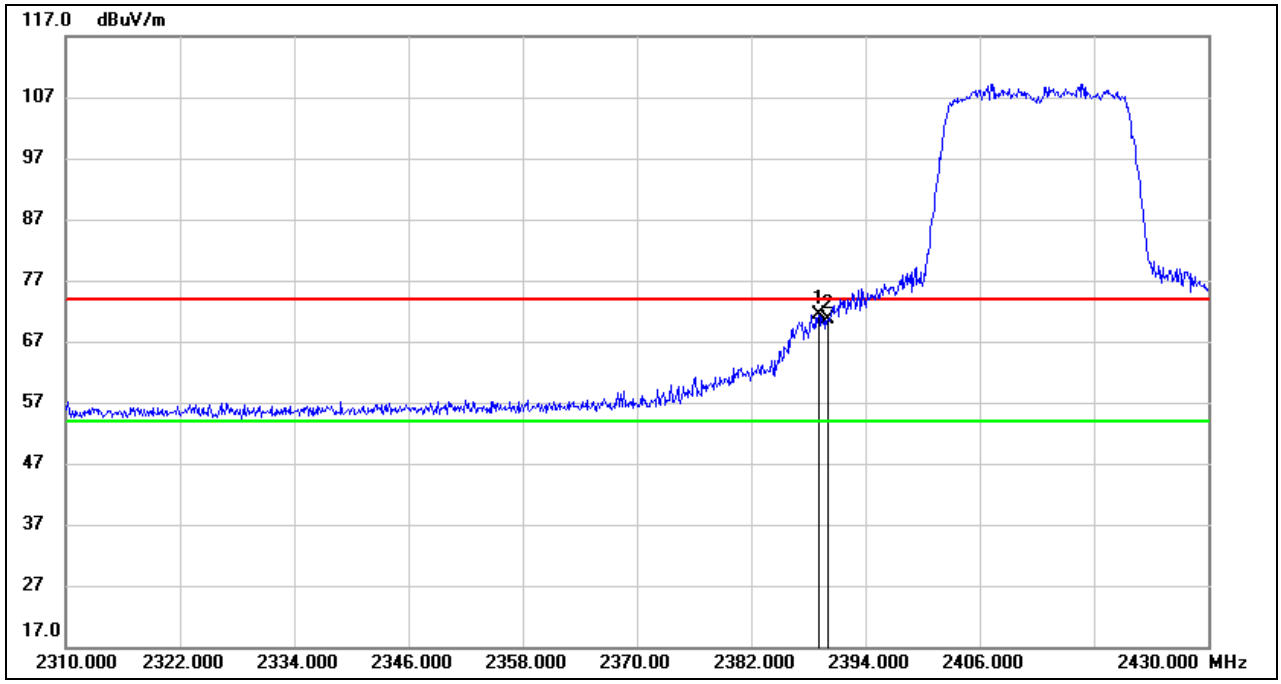
Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
3. For the transmitting duration, please refer to clause 7.1.
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

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

8.1.5. 802.11ax VHT20 MIMO MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

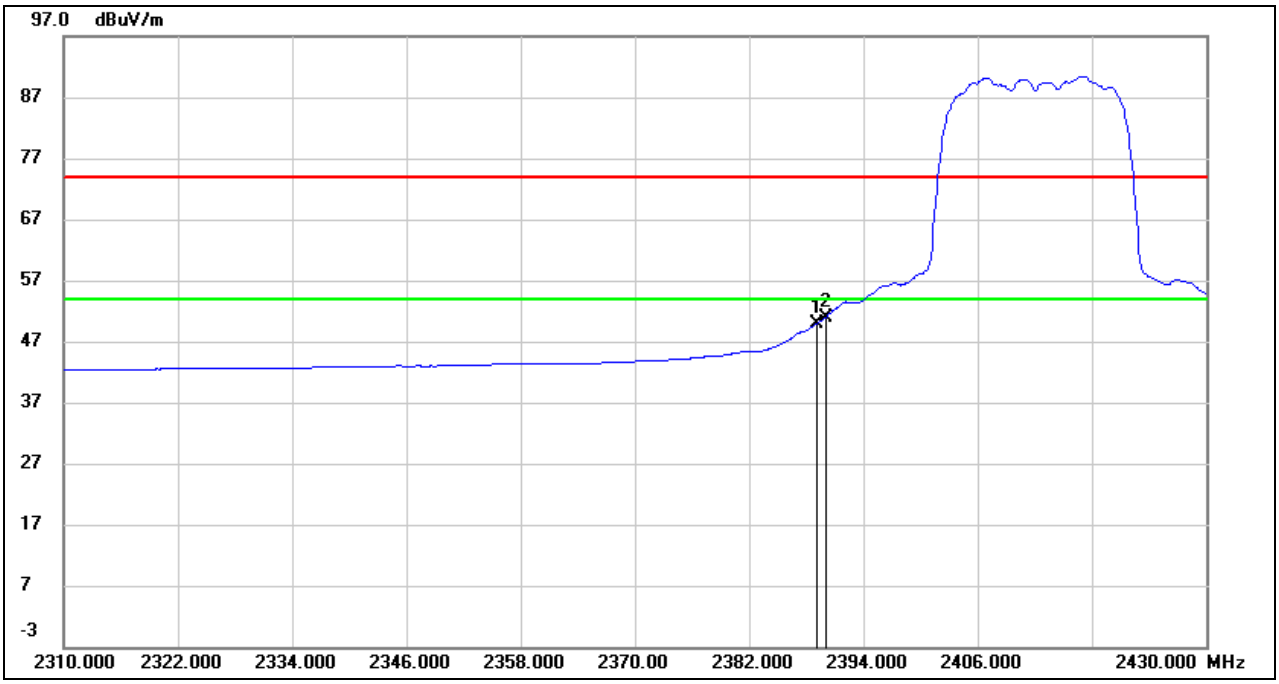
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.080	38.74	32.66	71.40	74.00	-2.60	peak
2	2390.000	37.94	32.66	70.60	74.00	-3.40	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

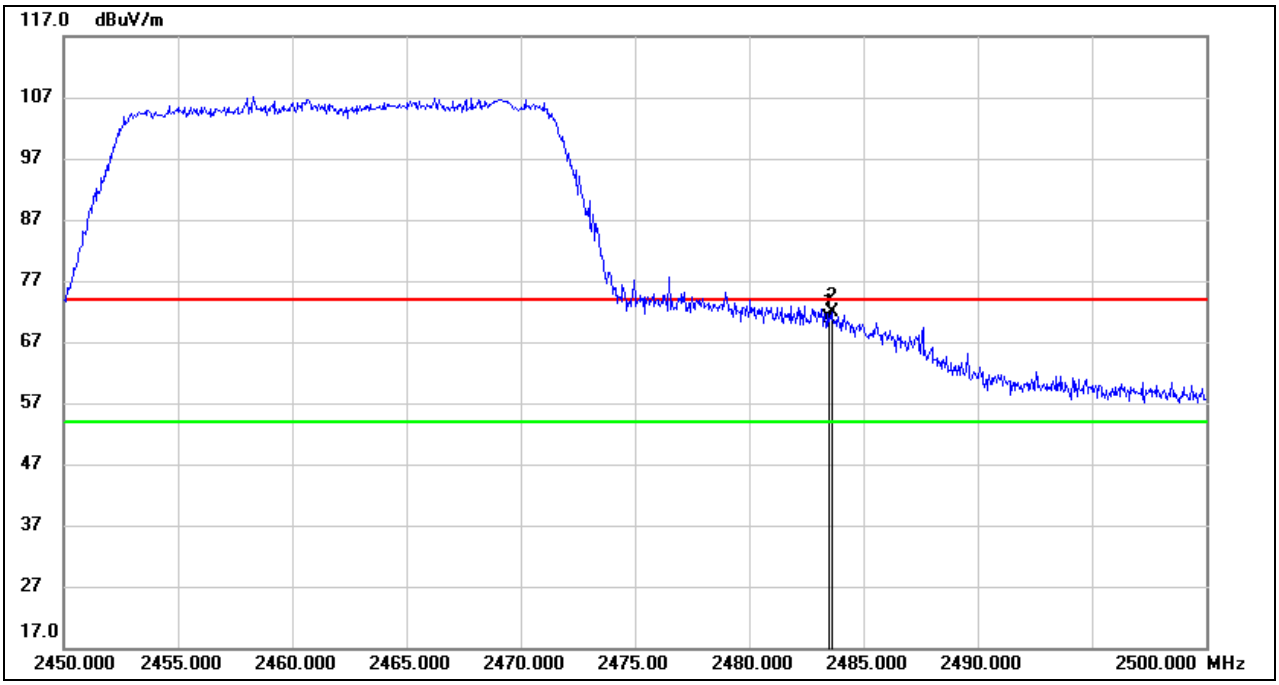


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.080	17.25	32.66	49.91	54.00	-4.09	AVG
2	2390.000	18.28	32.66	50.94	54.00	-3.06	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
3. For the transmitting duration, please refer to clause 7.1.
4. 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)

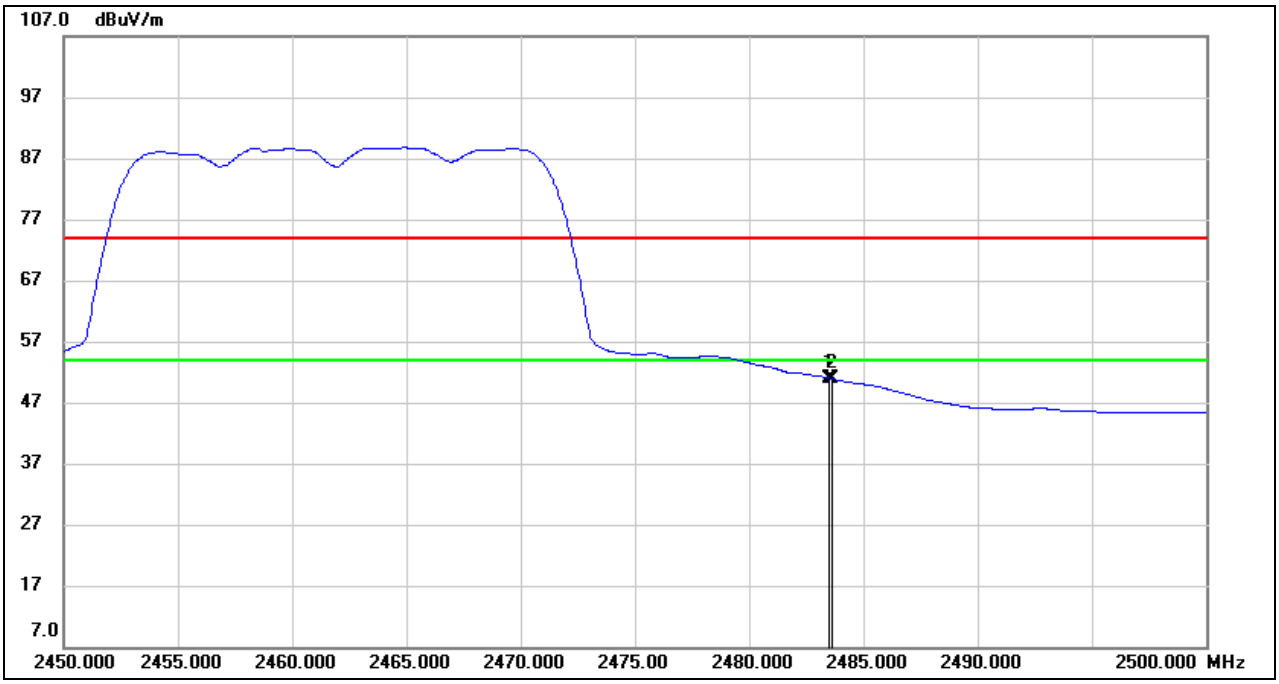
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	37.90	33.10	71.00	74.00	-3.00	peak
2	2483.600	38.70	33.10	71.80	74.00	-2.20	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. 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	17.90	33.10	51.00	54.00	-3.00	AVG
2	2483.600	17.85	33.10	50.95	54.00	-3.05	AVG

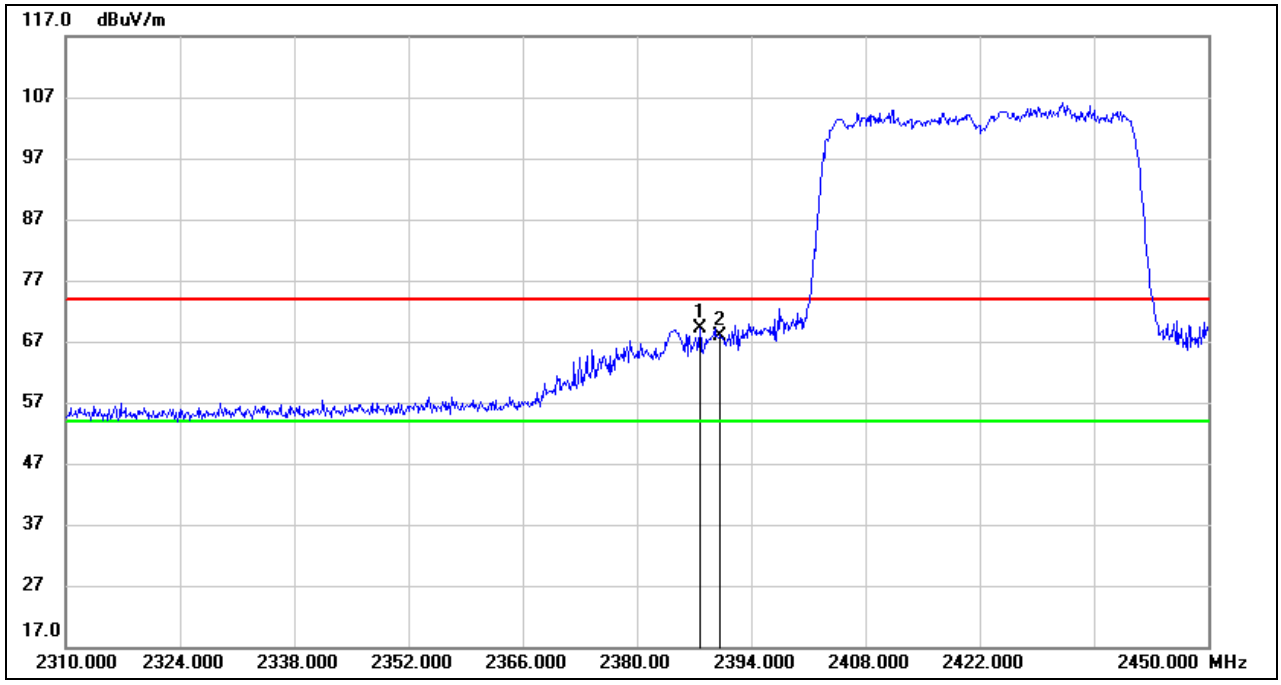
Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
3. For the transmitting duration, please refer to clause 7.1.
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

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

8.1.6. 802.11ax VHT40 MIMO MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

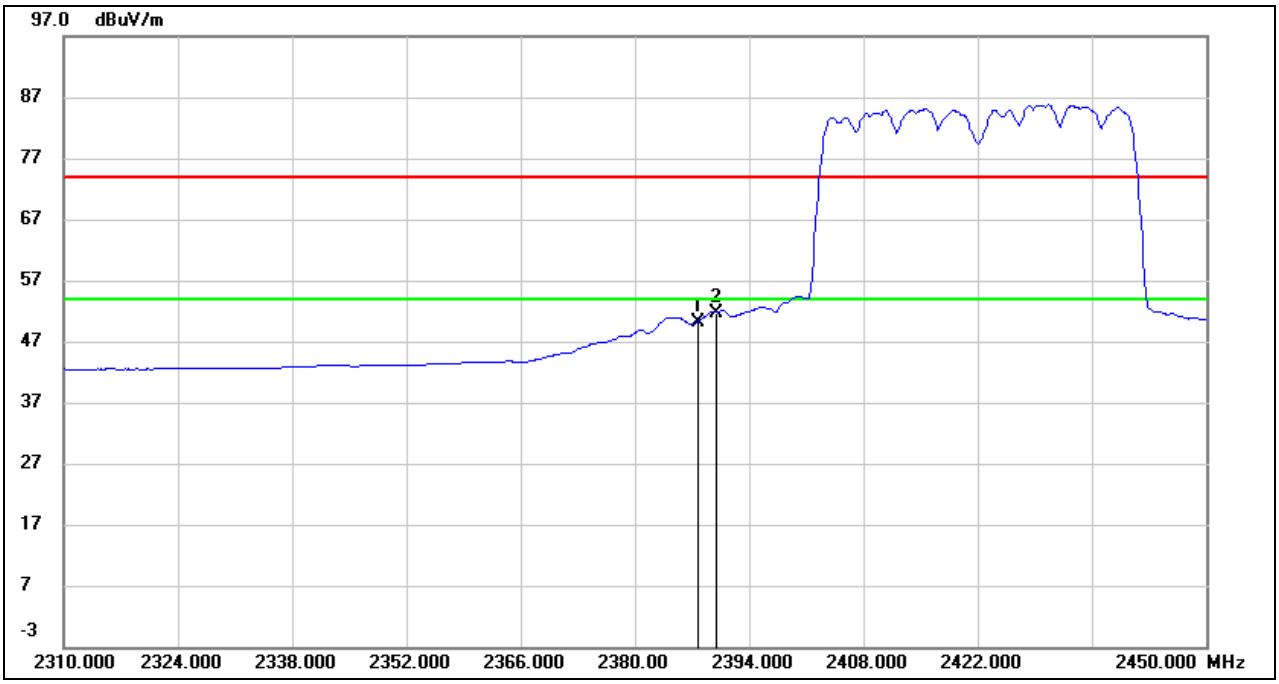
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.700	36.57	32.65	69.22	74.00	-4.78	peak
2	2390.000	35.10	32.66	67.76	74.00	-6.24	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG

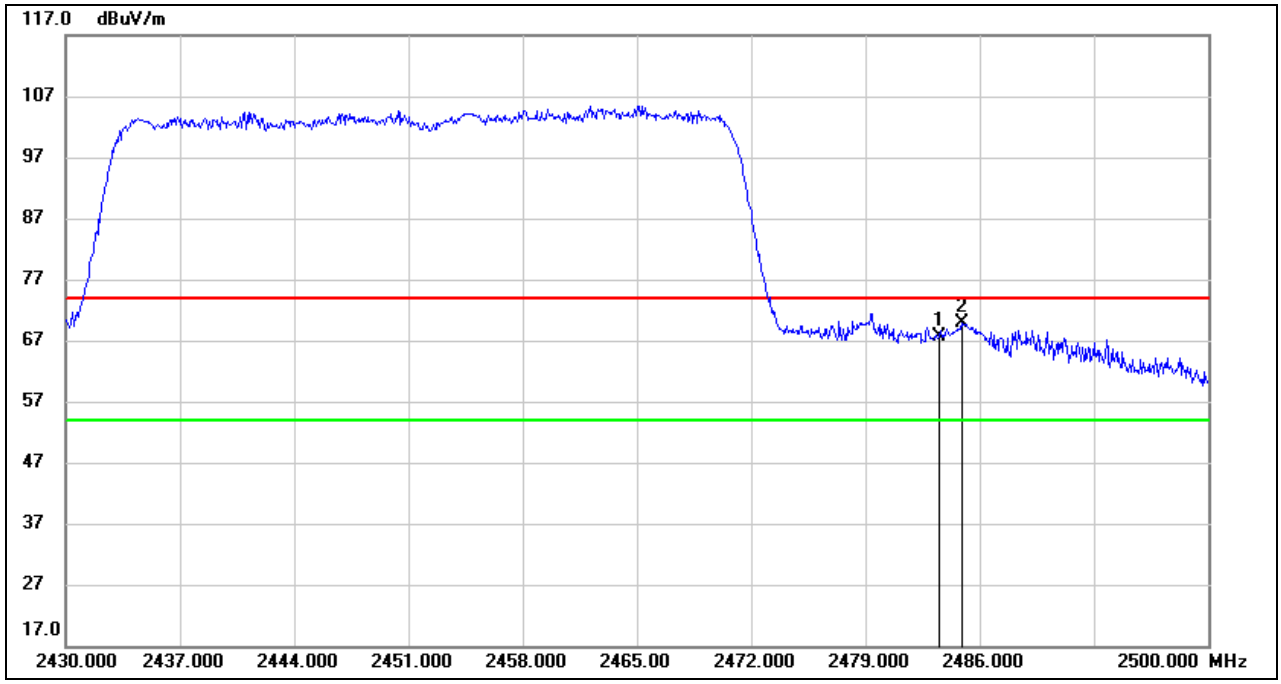


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.700	17.57	32.65	50.22	54.00	-3.78	avg
2	2390.000	19.08	32.66	51.74	54.00	-2.26	avg

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
3. For the transmitting duration, please refer to clause 7.1.
4. 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)

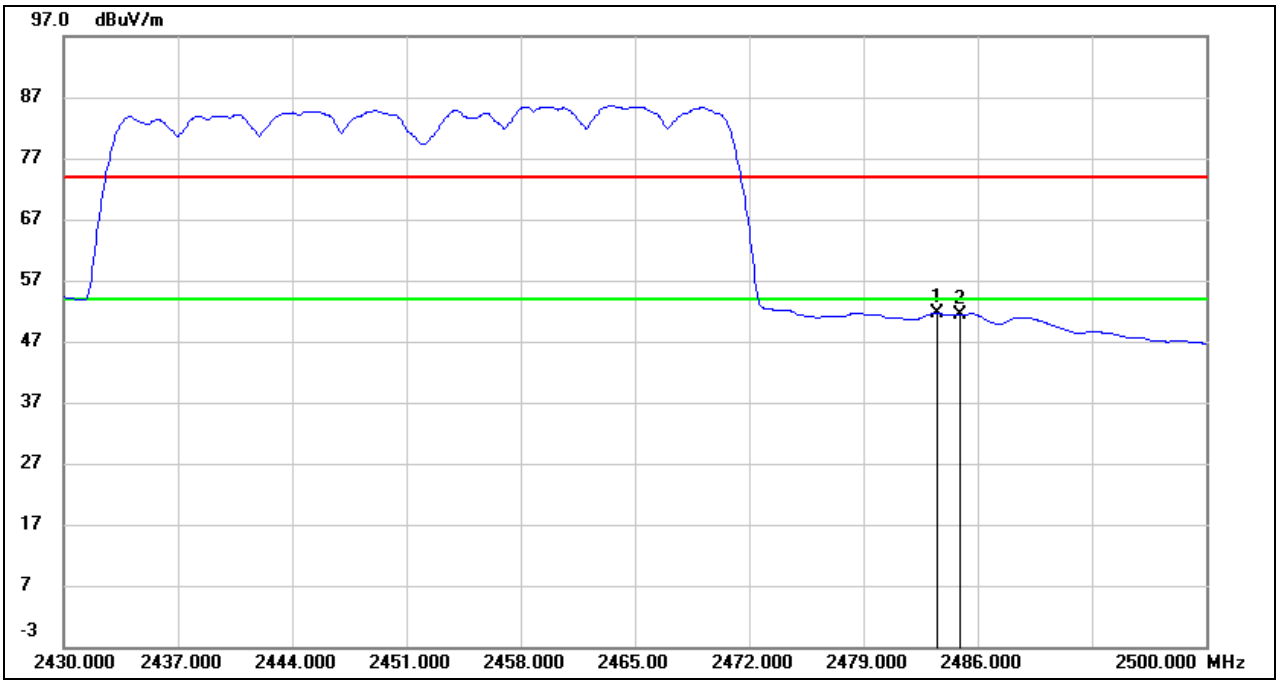
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	34.46	33.10	67.56	74.00	-6.44	peak
2	2484.880	36.71	33.10	69.81	74.00	-4.19	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak: Peak detector.
3. 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	18.43	33.10	51.53	54.00	-2.47	AVG
2	2484.880	18.39	33.10	51.49	54.00	-2.51	AVG

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

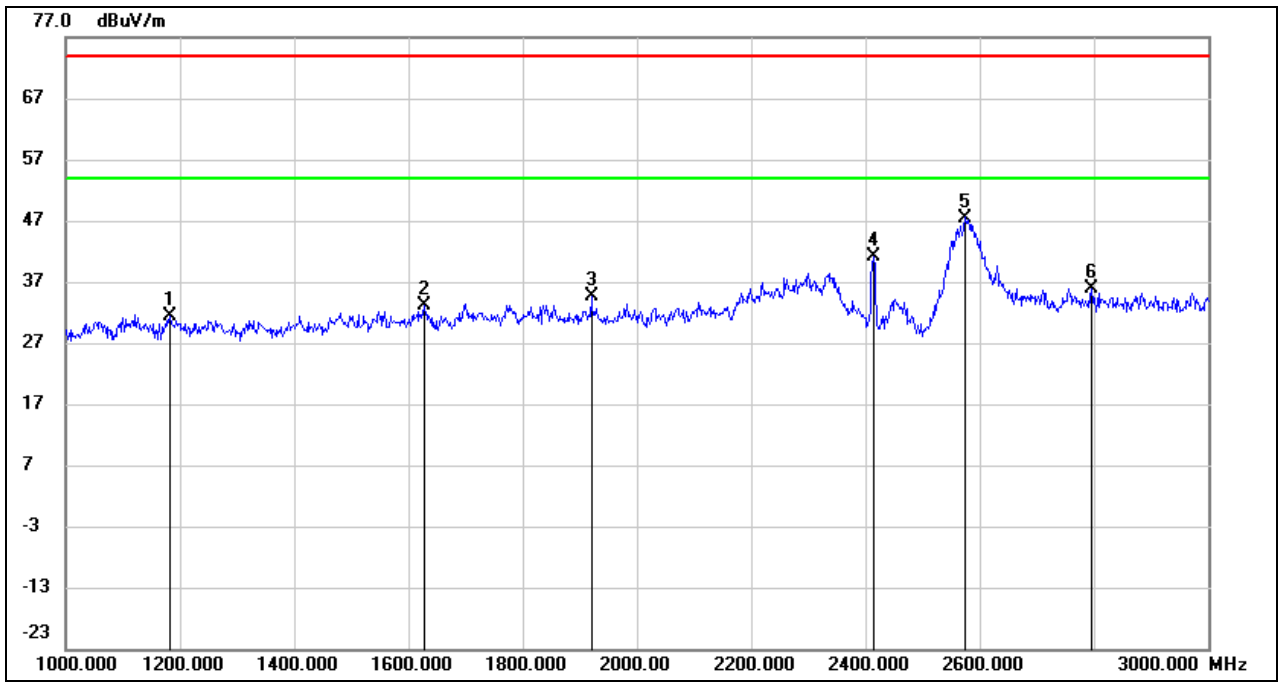
Note: Horizontal and Vertical have been tested, only the worst data was recorded in the report.
Note: All modes have been tested, only the worst data was recorded in the report.

8.2. SPURIOUS EMISSIONS (1 GHz ~ 3 GHz)

8.2.1. 802.11b SISO MODE

ANTENNA 1 TEST RESULTS (WORST CASE)

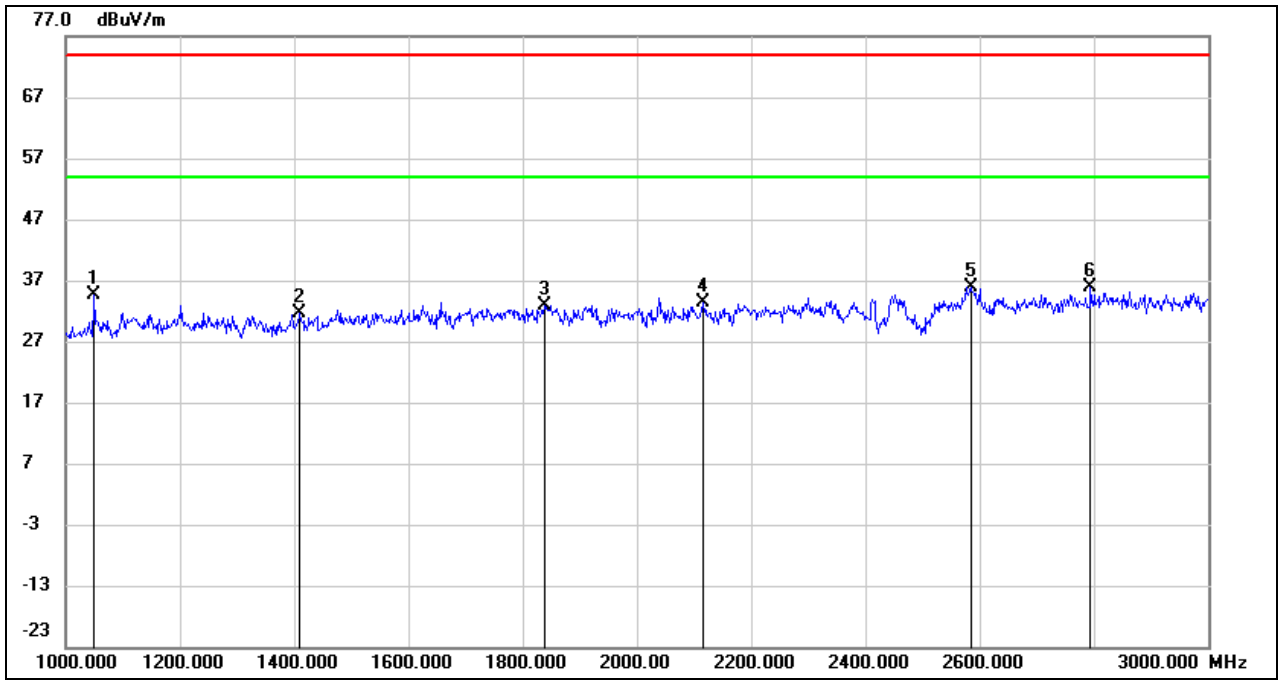
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1182.000	45.16	-13.89	31.27	74.00	-42.73	peak
2	1628.000	45.06	-11.82	33.24	74.00	-40.76	peak
3	1920.000	45.68	-11.02	34.66	74.00	-39.34	peak
4	2412.000	50.26	-9.03	41.23	/	/	Fundamental
5	2574.000	56.19	-8.69	47.50	74.00	-26.50	peak
6	2796.000	43.61	-7.72	35.89	74.00	-38.11	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. 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.

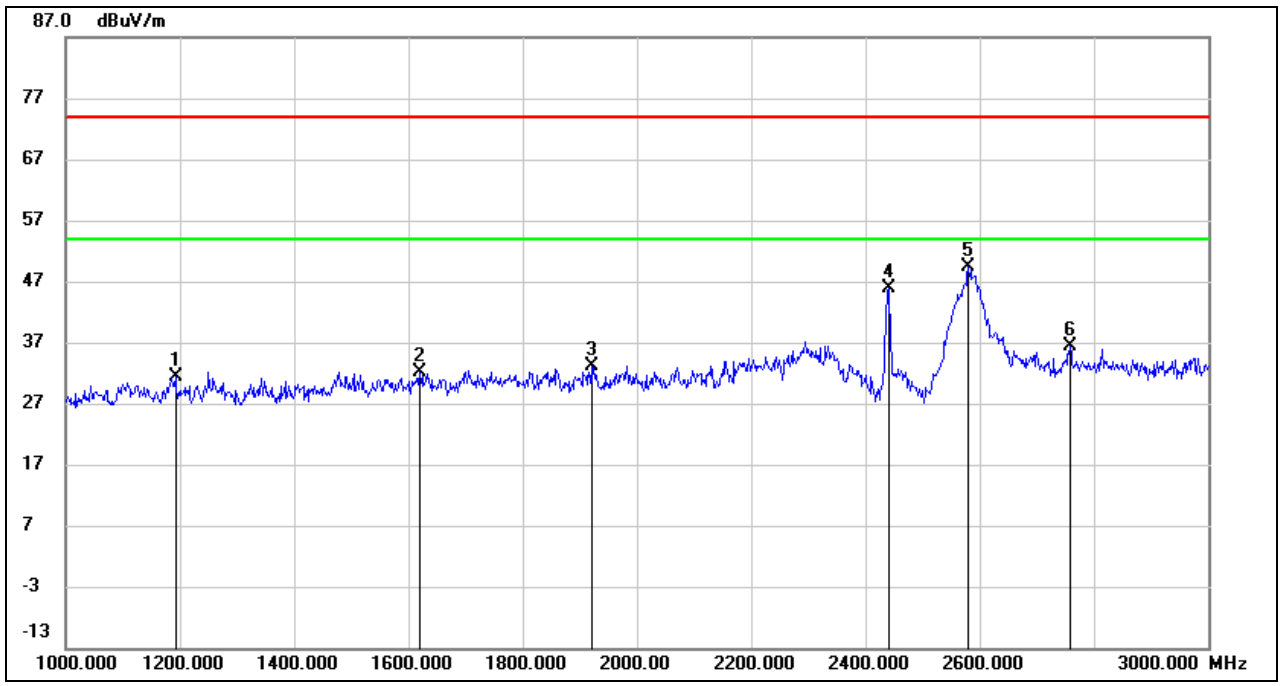
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1050.000	49.42	-14.75	34.67	74.00	-39.33	peak
2	1410.000	44.64	-13.11	31.53	74.00	-42.47	peak
3	1838.000	43.79	-10.85	32.94	74.00	-41.06	peak
4	2116.000	43.74	-10.44	33.30	74.00	-40.70	peak
5	2584.000	44.65	-8.67	35.98	74.00	-38.02	peak
6	2794.000	43.63	-7.72	35.91	74.00	-38.09	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. 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.

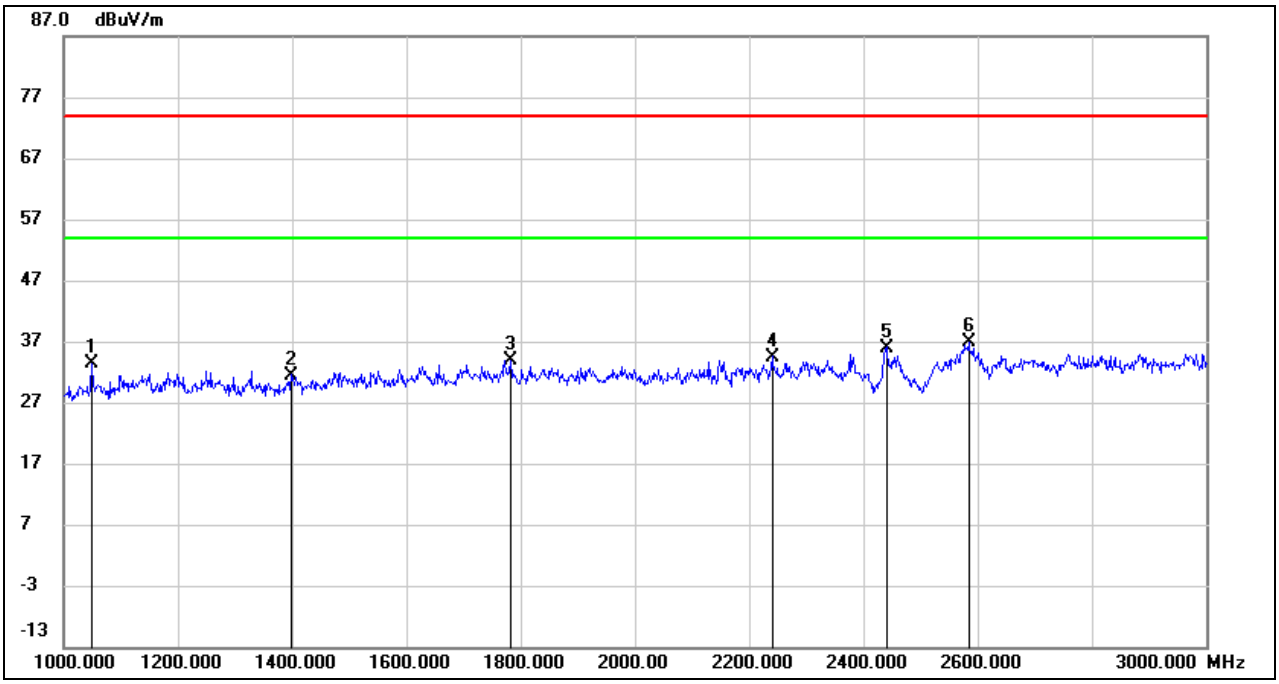
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1192.000	45.29	-13.83	31.46	74.00	-42.54	peak
2	1620.000	43.94	-11.87	32.07	74.00	-41.93	peak
3	1920.000	44.24	-11.02	33.22	74.00	-40.78	peak
4	2437.000	54.81	-8.98	45.83	/	/	Fundamental
5	2580.000	58.08	-8.68	49.40	74.00	-24.60	peak
6	2758.000	44.33	-7.89	36.44	74.00	-37.56	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. 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.

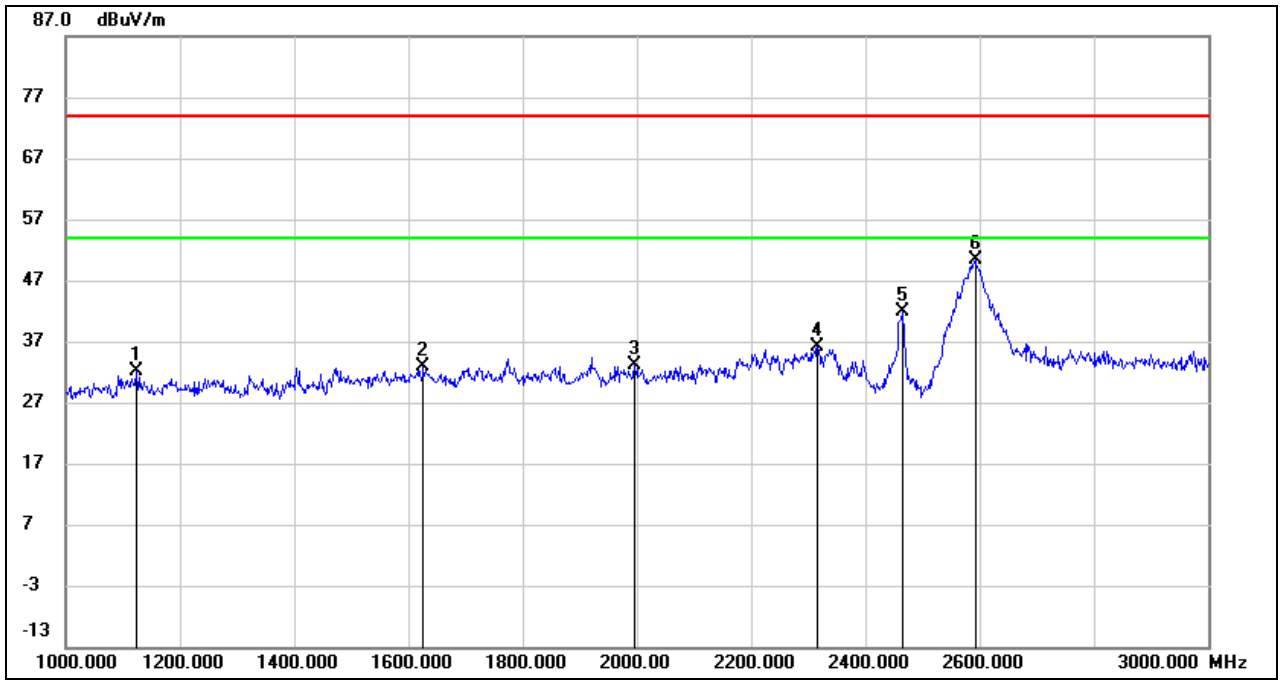
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1048.000	48.13	-14.77	33.36	74.00	-40.64	peak
2	1398.000	44.67	-13.17	31.50	74.00	-42.50	peak
3	1782.000	44.82	-10.87	33.95	74.00	-40.05	peak
4	2240.000	44.23	-9.73	34.50	74.00	-39.50	peak
5	2437.000	44.98	-8.98	36.00	/	/	Fundamental
6	2584.000	45.55	-8.67	36.88	74.00	-37.12	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. 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.

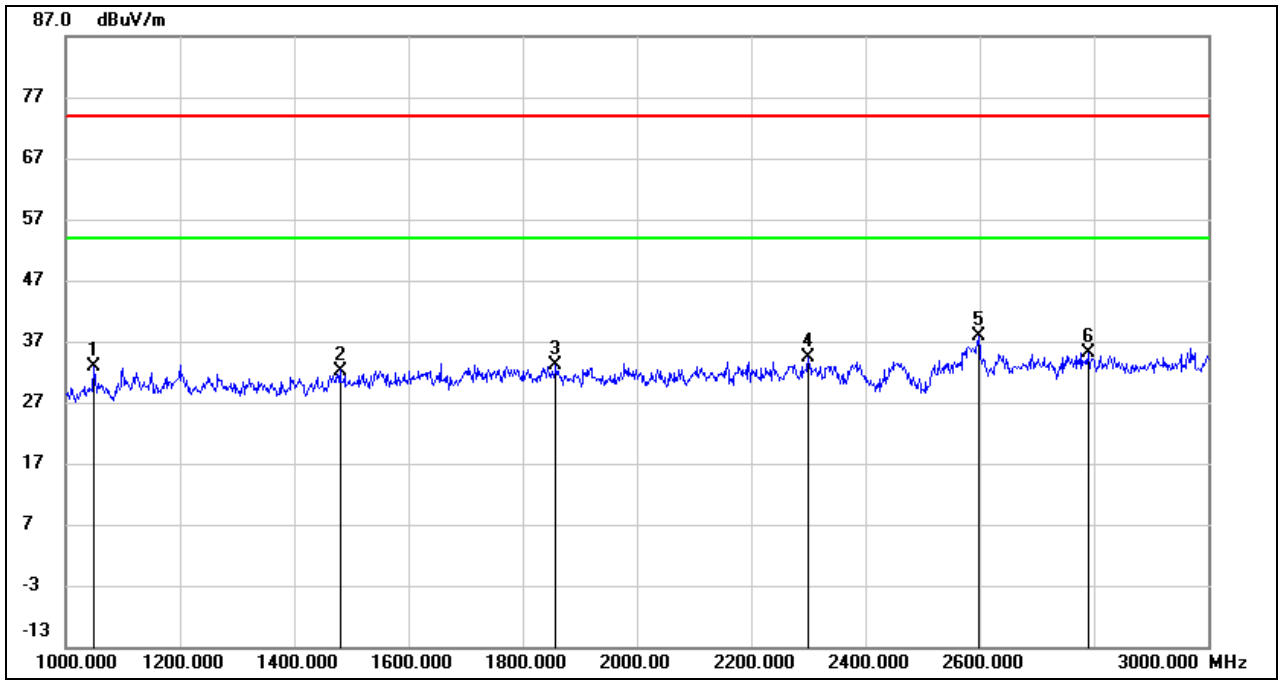
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1124.000	46.31	-14.27	32.04	74.00	-41.96	peak
2	1626.000	44.72	-11.84	32.88	74.00	-41.12	peak
3	1996.000	44.40	-11.18	33.22	74.00	-40.78	peak
4	2316.000	45.58	-9.42	36.16	74.00	-37.84	peak
5	2462.000	50.72	-8.90	41.82	/	/	Fundamental
6	2592.000	58.92	-8.65	50.27	74.00	-23.73	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. 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.

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	1048.000	47.66	-14.77	32.89	74.00	-41.11	peak
2	1480.000	44.91	-12.66	32.25	74.00	-41.75	peak
3	1858.000	43.95	-10.89	33.06	74.00	-40.94	peak
4	2300.000	43.92	-9.48	34.44	74.00	-39.56	peak
5	2598.000	46.55	-8.65	37.90	74.00	-36.10	peak
6	2790.000	42.89	-7.74	35.15	74.00	-38.85	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. 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.

Note: Both the two antennas had been tested, but only the worst data was recorded in the report.

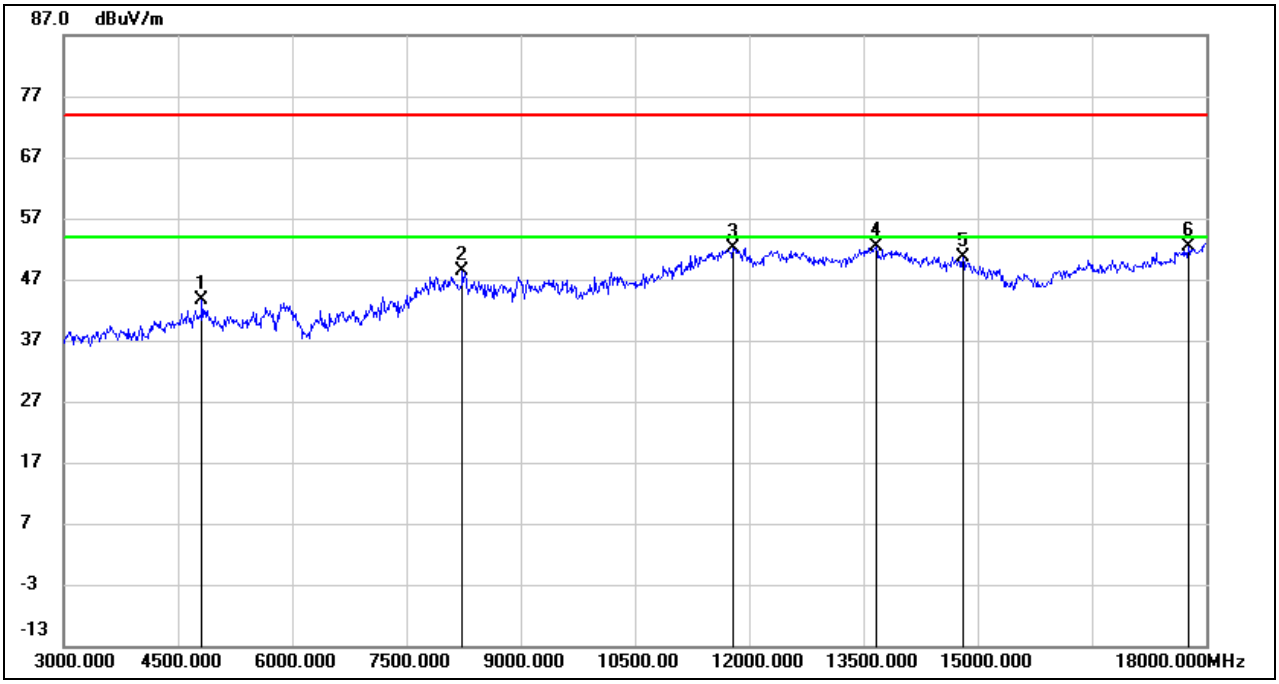
Note: All modes, channels and antenna have been tested, only the worst data was recorded in the report.

8.3. SPURIOUS EMISSIONS (3 GHz ~ 18 GHz)

8.3.1. 802.11b SISO MODE

ANTENNA 1 TEST RESULTS (WORST CASE)

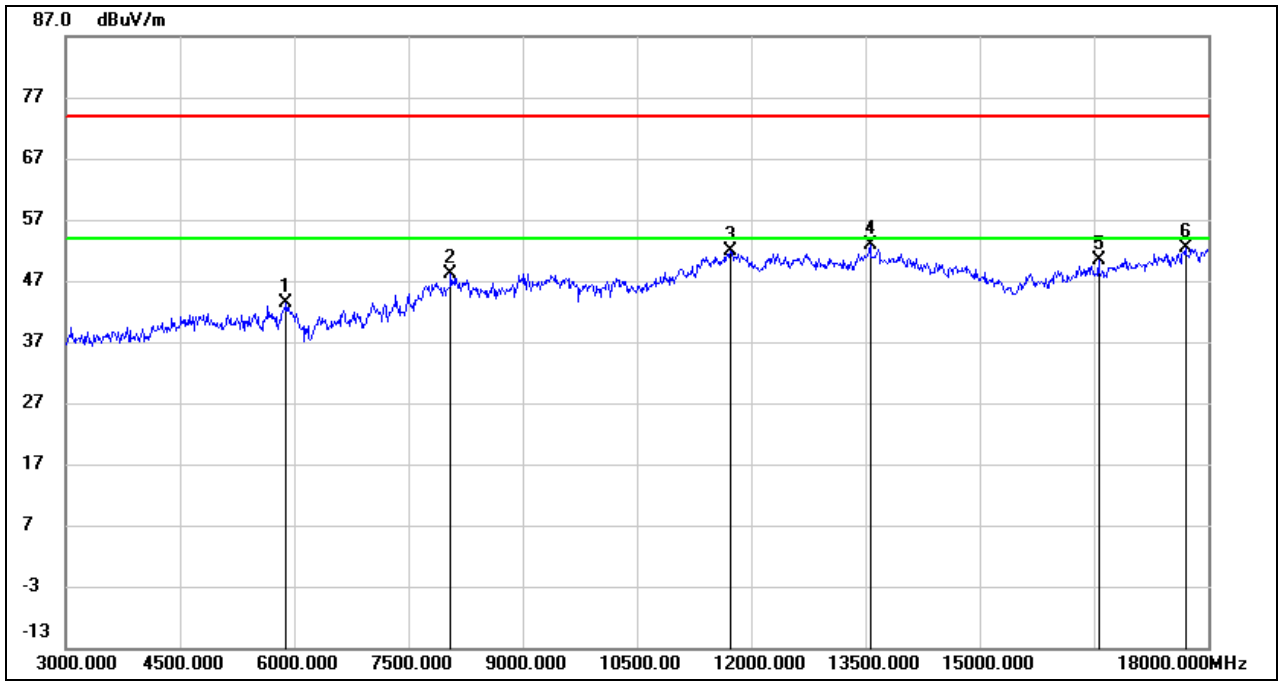
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	43.41	0.13	43.54	74.00	-30.46	peak
2	8235.000	39.34	9.12	48.46	74.00	-25.54	peak
3	11790.000	35.20	17.00	52.20	74.00	-21.80	peak
4	13665.000	33.09	19.33	52.42	74.00	-21.58	peak
5	14805.000	33.05	17.51	50.56	74.00	-23.44	peak
6	17775.000	28.33	23.98	52.31	74.00	-21.69	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.

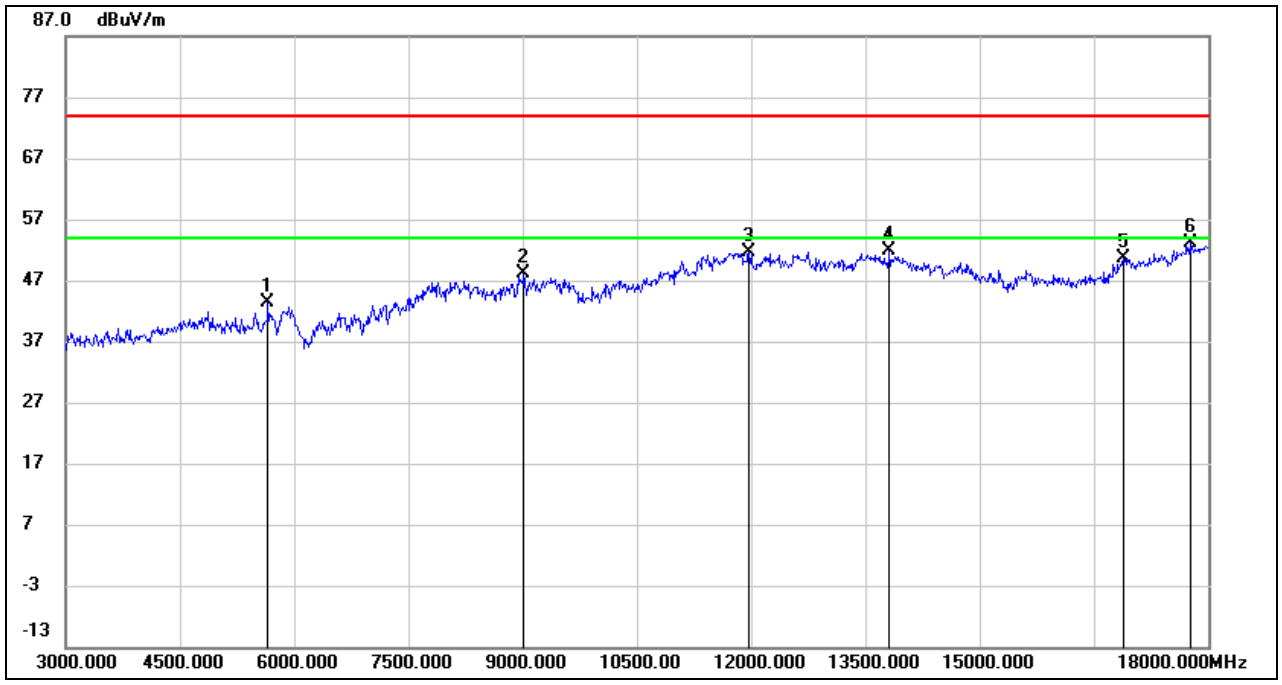
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5895.000	39.93	3.39	43.32	74.00	-30.68	peak
2	8055.000	39.26	8.87	48.13	74.00	-25.87	peak
3	11730.000	34.73	17.07	51.80	74.00	-22.20	peak
4	13560.000	33.72	19.12	52.84	74.00	-21.16	peak
5	16560.000	32.79	17.57	50.36	74.00	-23.64	peak
6	17700.000	29.13	23.33	52.46	74.00	-21.54	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.

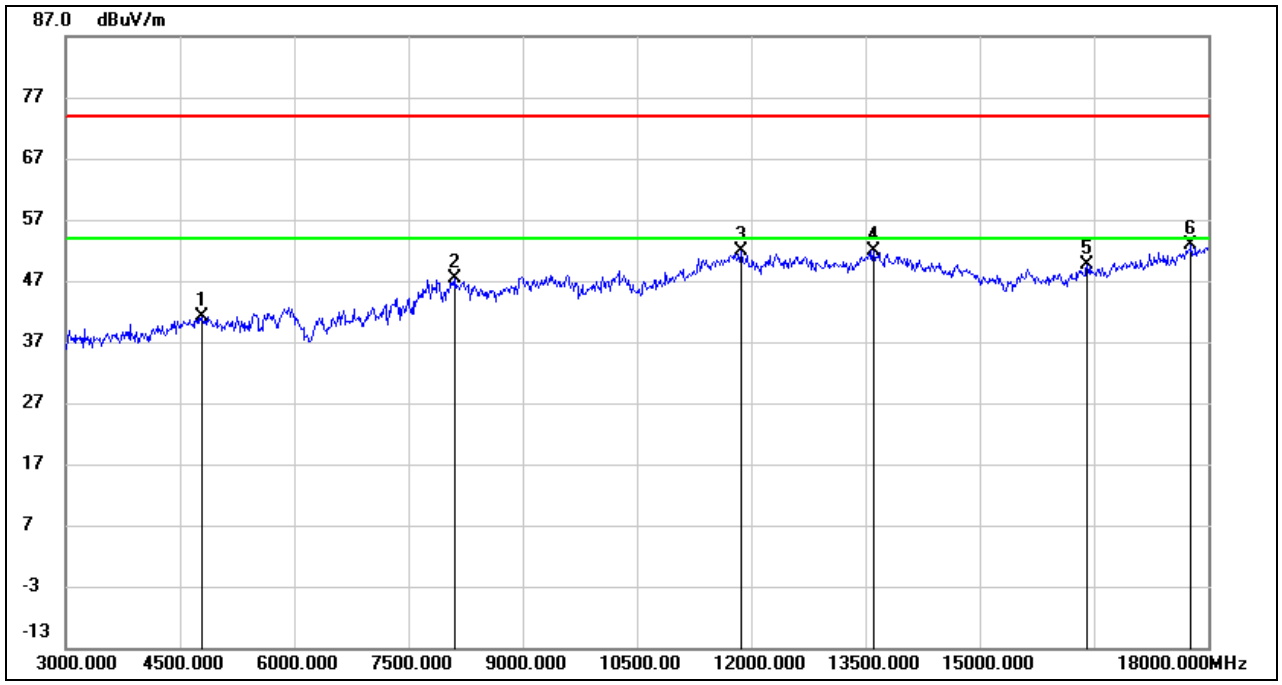
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5655.000	41.44	2.01	43.45	74.00	-30.55	peak
2	9015.000	37.62	10.61	48.23	74.00	-25.77	peak
3	11970.000	34.29	17.26	51.55	74.00	-22.45	peak
4	13815.000	32.58	19.40	51.98	74.00	-22.02	peak
5	16890.000	30.90	19.63	50.53	74.00	-23.47	peak
6	17760.000	29.21	23.85	53.06	74.00	-20.94	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.

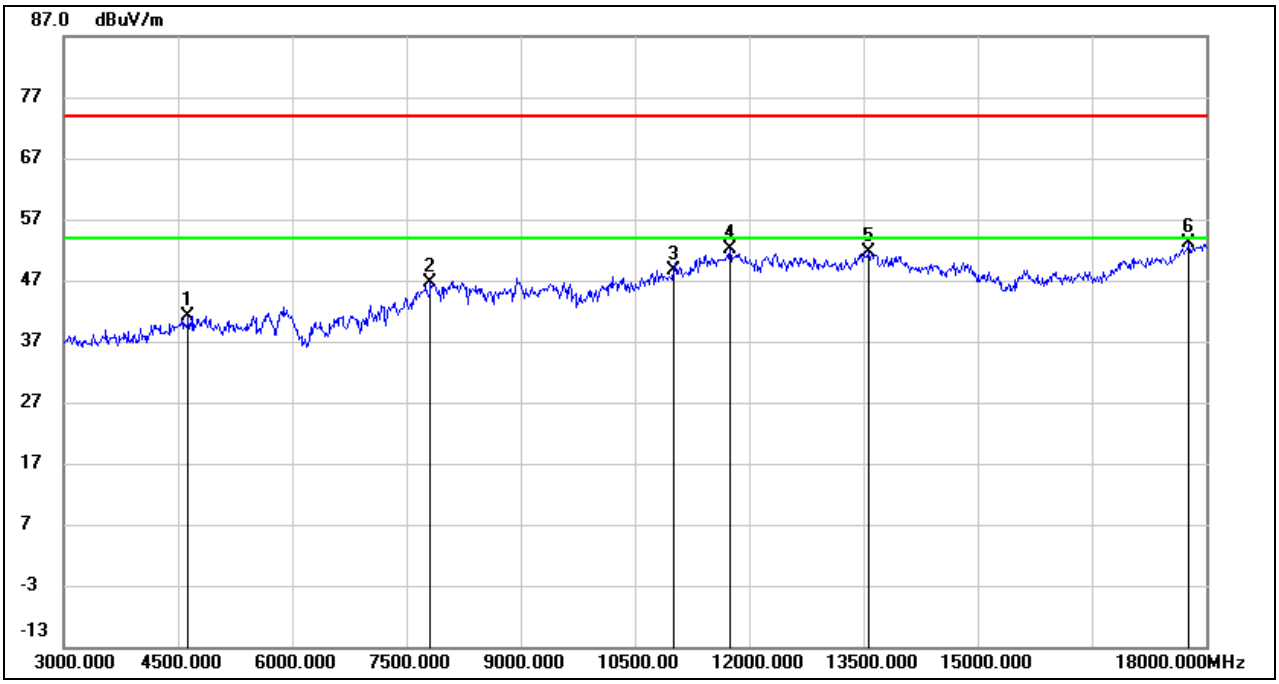
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4785.000	41.12	0.00	41.12	74.00	-32.88	peak
2	8115.000	37.84	9.50	47.34	74.00	-26.66	peak
3	11865.000	34.72	17.14	51.86	74.00	-22.14	peak
4	13605.000	32.84	19.06	51.90	74.00	-22.10	peak
5	16410.000	32.49	17.23	49.72	74.00	-24.28	peak
6	17775.000	28.95	23.98	52.93	74.00	-21.07	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.

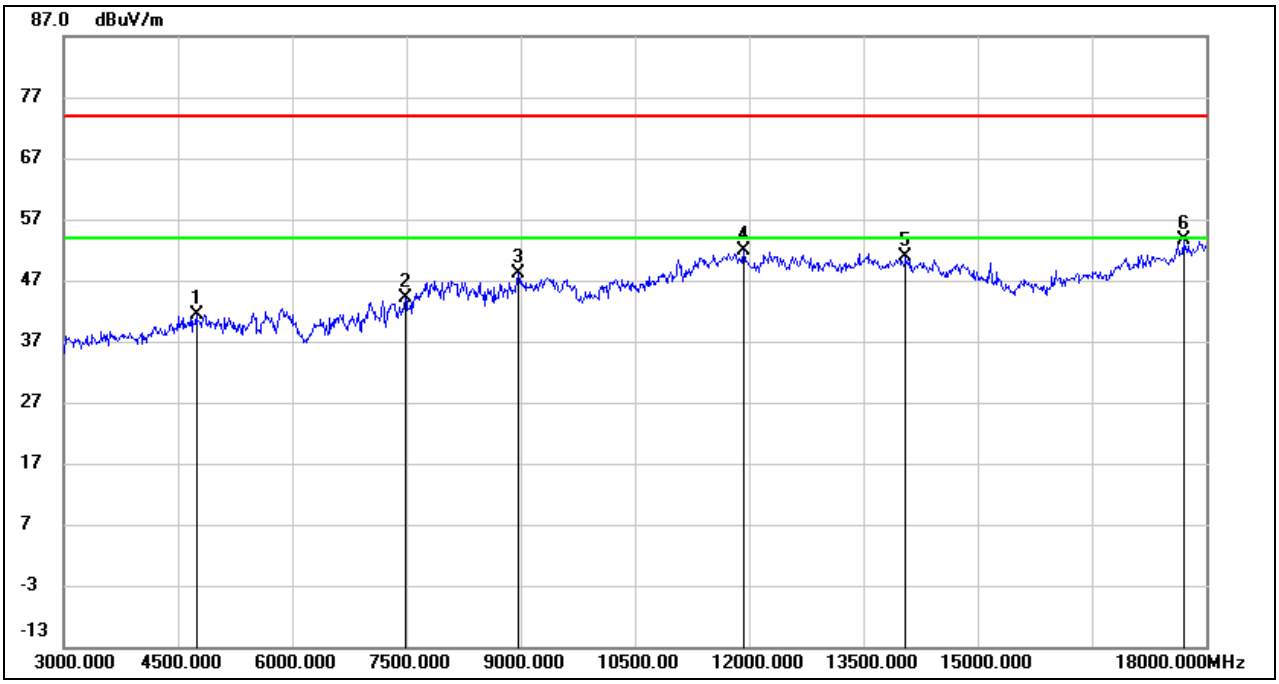
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4635.000	42.07	-0.85	41.22	74.00	-32.78	peak
2	7815.000	38.06	8.64	46.70	74.00	-27.30	peak
3	11010.000	34.37	14.28	48.65	74.00	-25.35	peak
4	11745.000	35.08	17.06	52.14	74.00	-21.86	peak
5	13575.000	32.44	19.08	51.52	74.00	-22.48	peak
6	17775.000	29.26	23.98	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 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	4740.000	41.89	-0.47	41.42	74.00	-32.58	peak
2	7485.000	36.53	7.61	44.14	74.00	-29.86	peak
3	8970.000	38.07	10.18	48.25	74.00	-25.75	peak
4	11925.000	34.59	17.24	51.83	74.00	-22.17	peak
5	14055.000	31.84	19.10	50.94	74.00	-23.06	peak
6	17700.000	30.38	23.33	53.71	74.00	-20.29	peak

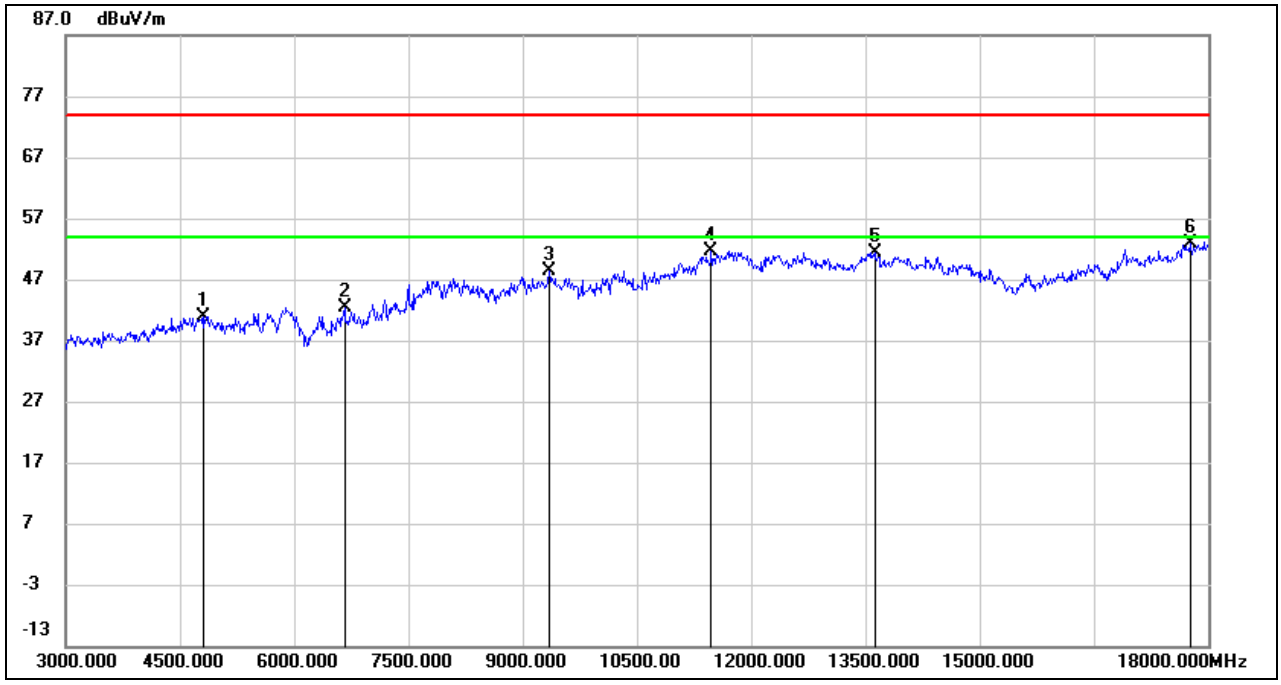
Note: 1. Peak Result = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.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

Note: Both antennas have been tested, only the worst data was recorded in the report.

8.3.2. 802.11g SISO MODE

ANTENNA 1 TEST RESULTS (WORST CASE)

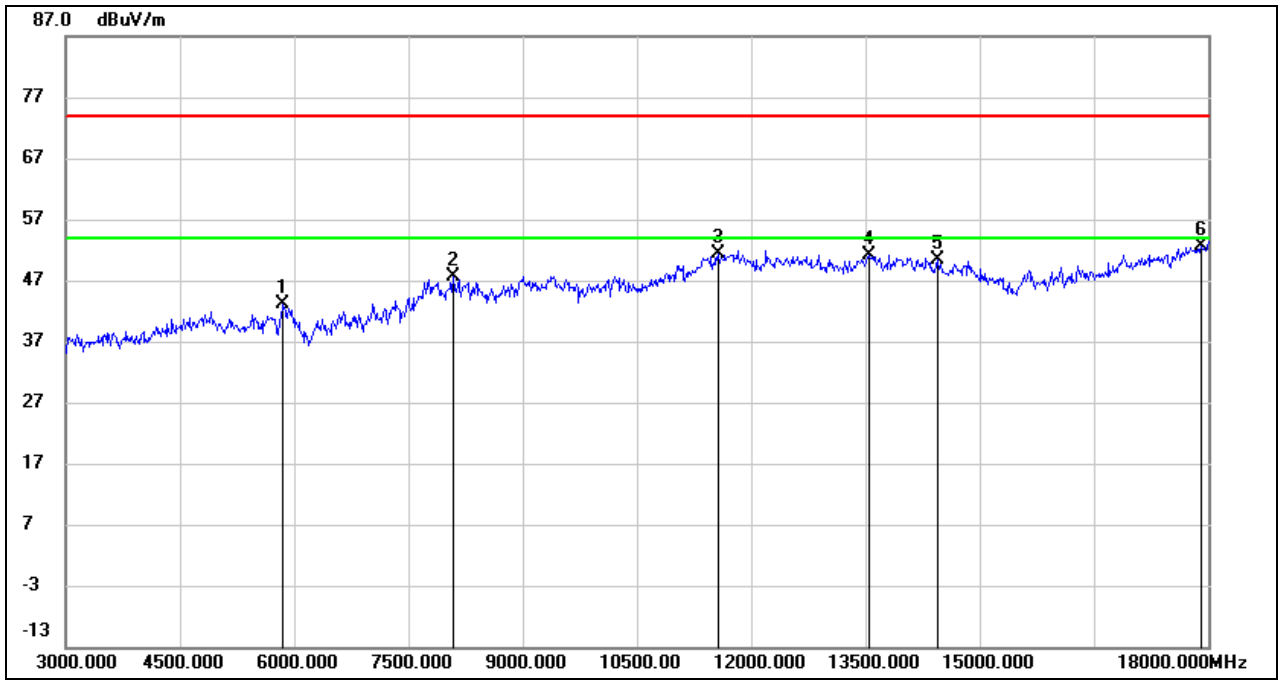
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	40.82	0.13	40.95	74.00	-33.05	peak
2	6660.000	37.48	4.96	42.44	74.00	-31.56	peak
3	9345.000	37.94	10.43	48.37	74.00	-25.63	peak
4	11475.000	35.19	16.42	51.61	74.00	-22.39	peak
5	13620.000	32.26	19.12	51.38	74.00	-22.62	peak
6	17760.000	29.00	23.85	52.85	74.00	-21.15	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.

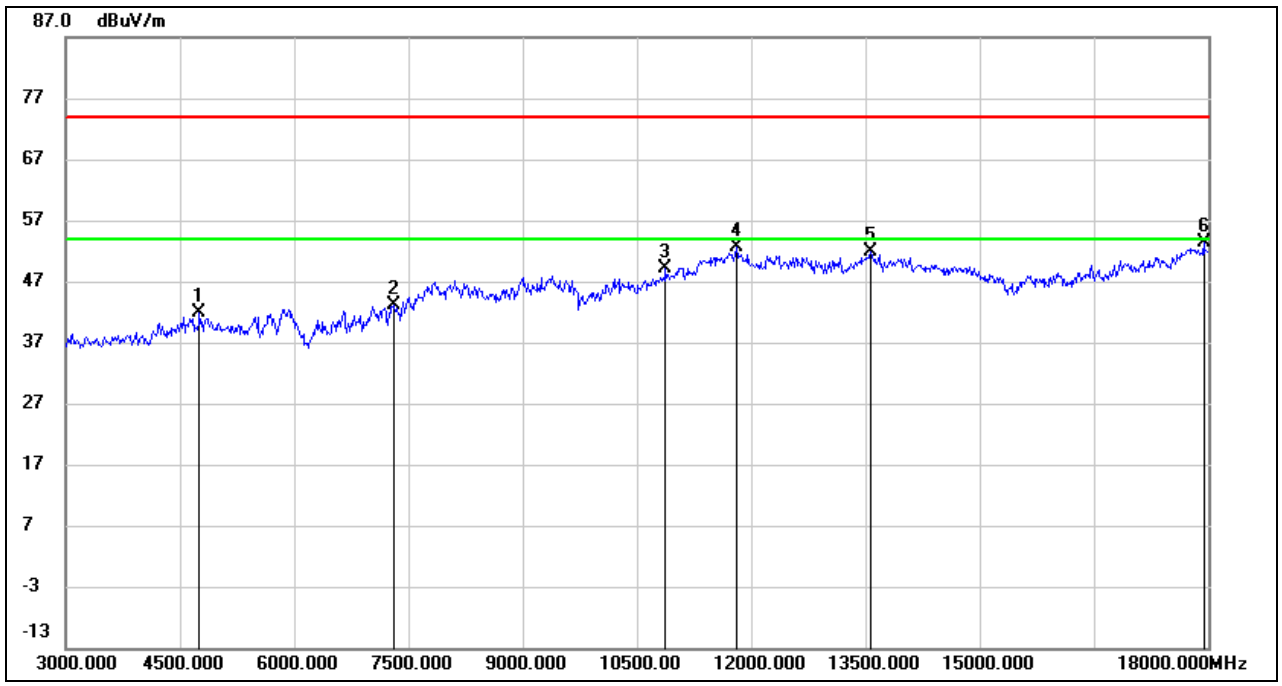
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	40.10	2.93	43.03	74.00	-30.97	peak
2	8085.000	38.25	9.33	47.58	74.00	-26.42	peak
3	11565.000	34.78	16.48	51.26	74.00	-22.74	peak
4	13545.000	32.06	19.13	51.19	74.00	-22.81	peak
5	14445.000	32.59	17.77	50.36	74.00	-23.64	peak
6	17910.000	28.31	24.38	52.69	74.00	-21.31	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.

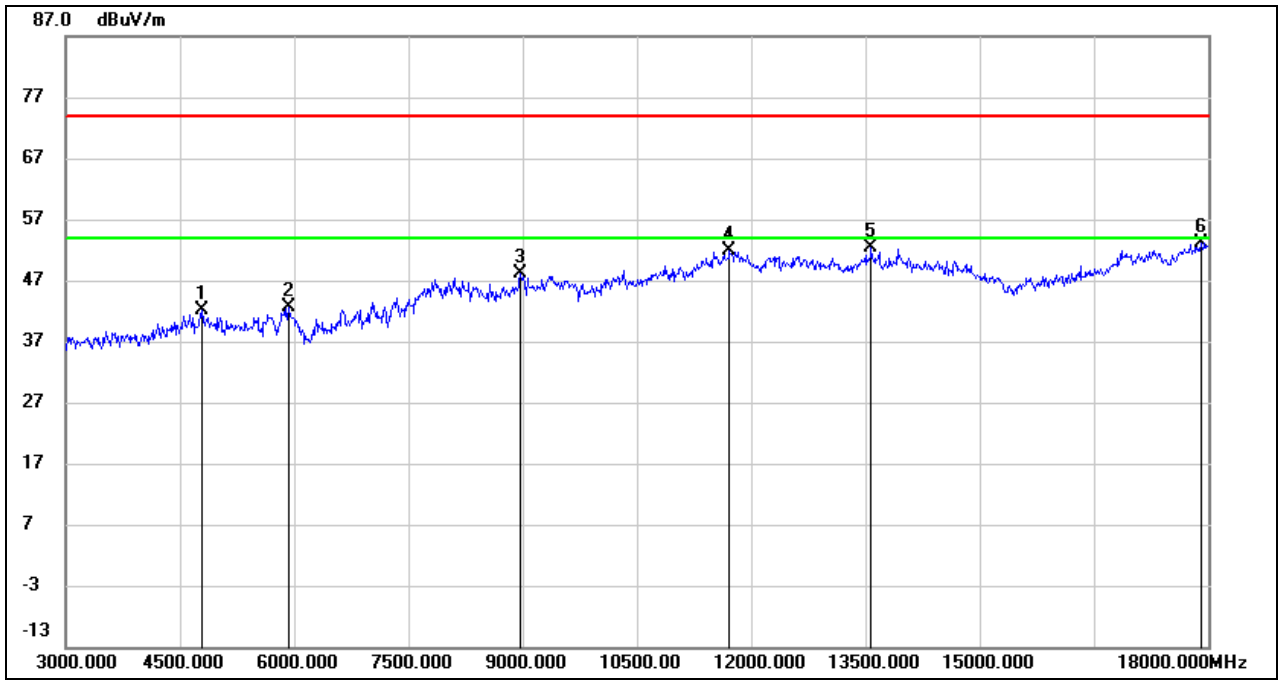
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4755.000	42.22	-0.31	41.91	74.00	-32.09	peak
2	7305.000	36.77	6.33	43.10	74.00	-30.90	peak
3	10875.000	34.99	14.06	49.05	74.00	-24.95	peak
4	11805.000	35.73	17.00	52.73	74.00	-21.27	peak
5	13560.000	32.70	19.12	51.82	74.00	-22.18	peak
6	17940.000	28.83	24.57	53.40	74.00	-20.60	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.

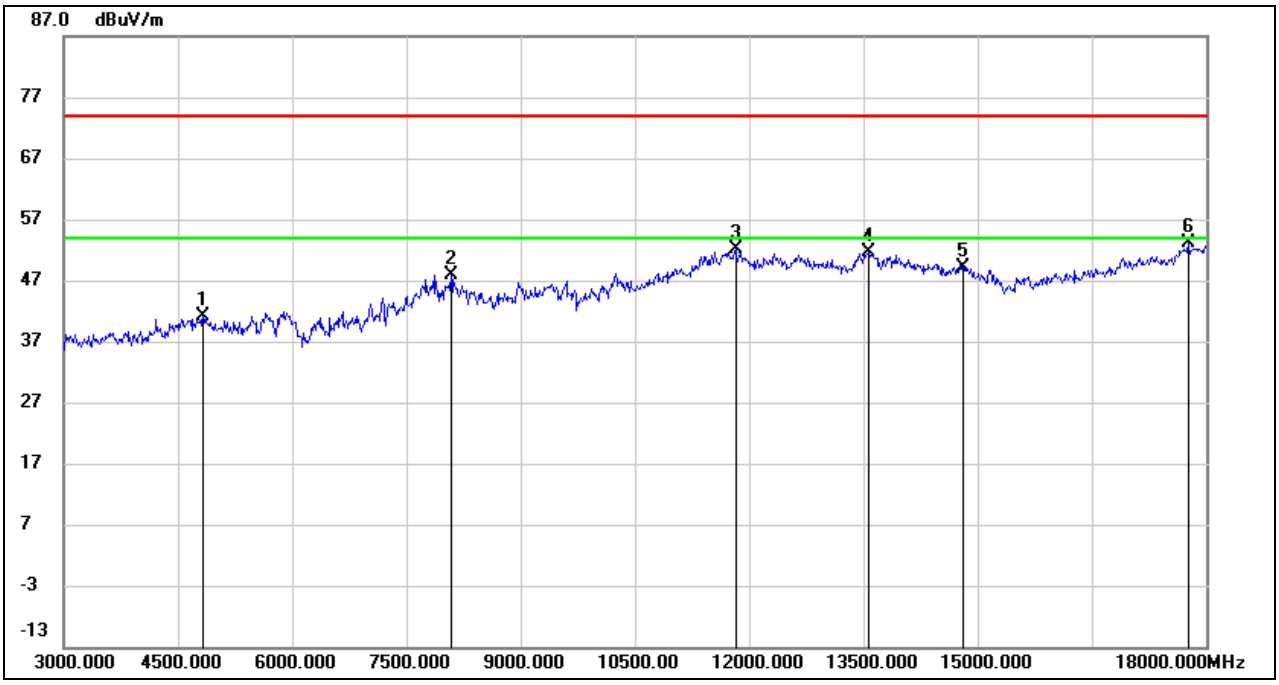
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4785.000	42.15	0.00	42.15	74.00	-31.85	peak
2	5925.000	39.29	3.30	42.59	74.00	-31.41	peak
3	8970.000	37.99	10.18	48.17	74.00	-25.83	peak
4	11715.000	34.70	17.09	51.79	74.00	-22.21	peak
5	13575.000	33.26	19.08	52.34	74.00	-21.66	peak
6	17910.000	28.86	24.38	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 High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

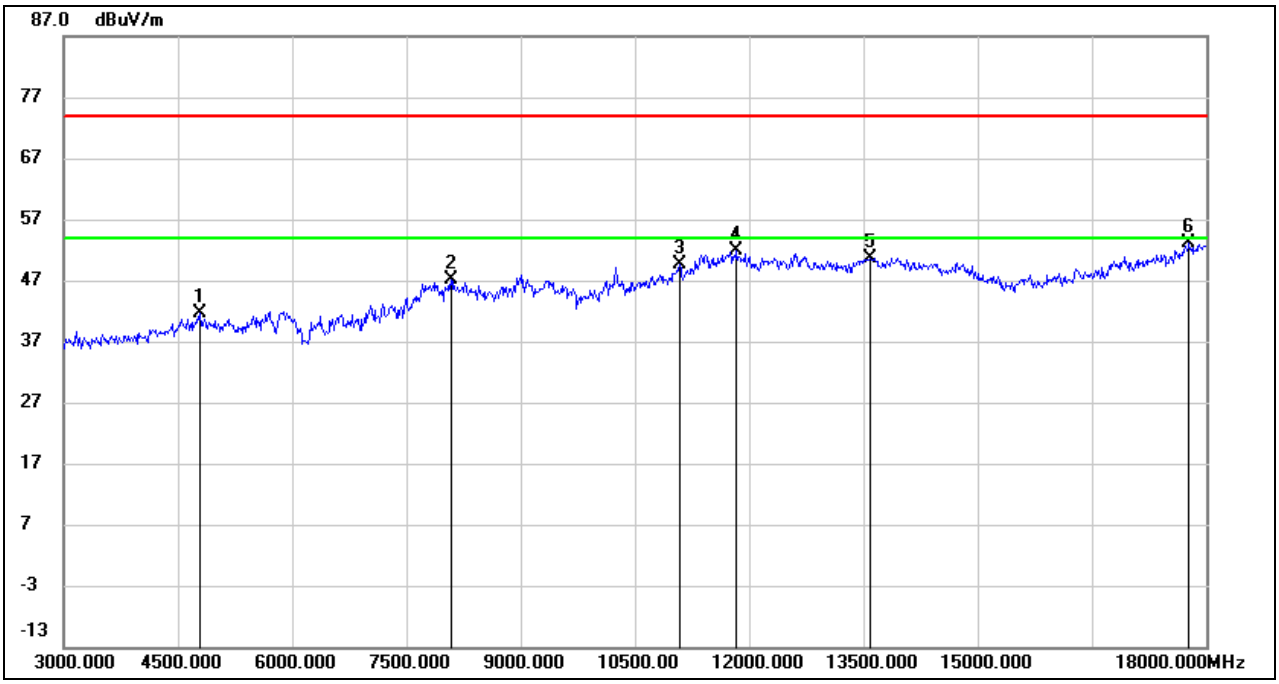
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4830.000	41.11	0.10	41.21	74.00	-32.79	peak
2	8085.000	38.54	9.33	47.87	74.00	-26.13	peak
3	11820.000	34.99	17.03	52.02	74.00	-21.98	peak
4	13575.000	32.63	19.08	51.71	74.00	-22.29	peak
5	14805.000	31.67	17.51	49.18	74.00	-24.82	peak
6	17760.000	29.19	23.85	53.04	74.00	-20.96	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)



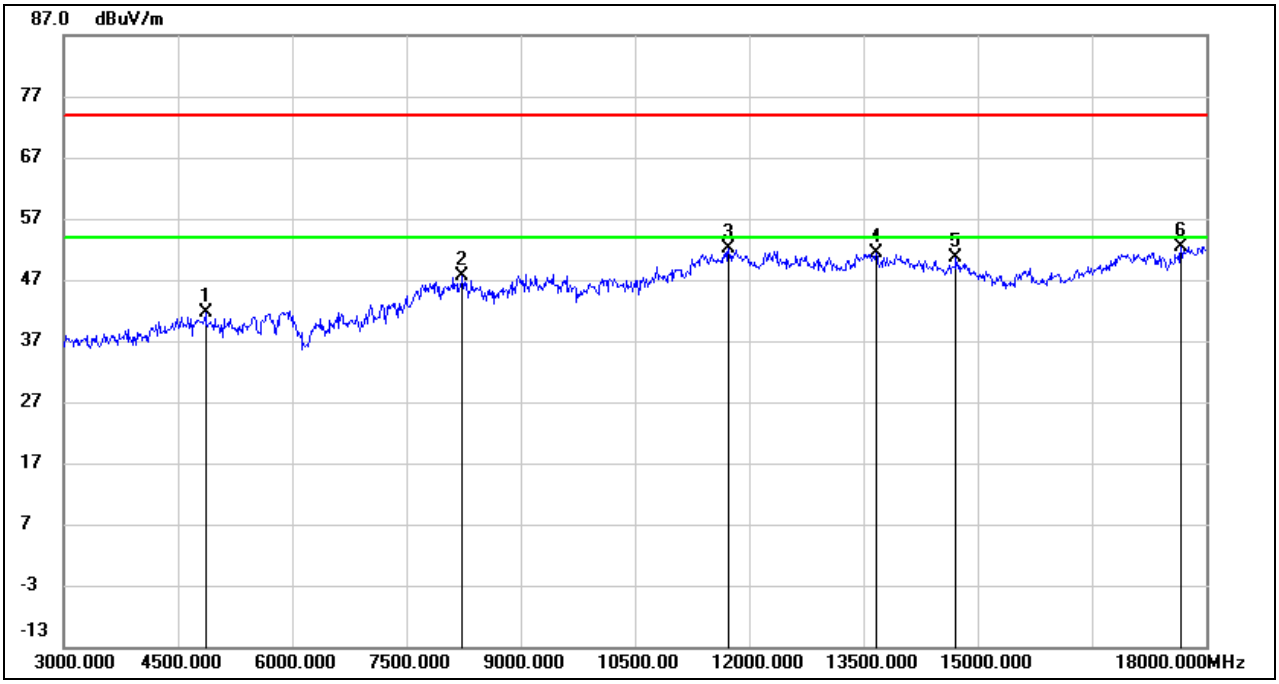
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4785.000	41.73	0.00	41.73	74.00	-32.27	peak
2	8085.000	37.75	9.33	47.08	74.00	-26.92	peak
3	11085.000	34.77	14.77	49.54	74.00	-24.46	peak
4	11835.000	34.78	17.07	51.85	74.00	-22.15	peak
5	13590.000	31.69	19.05	50.74	74.00	-23.26	peak
6	17775.000	29.25	23.98	53.23	74.00	-20.77	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. 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.

Note: Both antennas have been tested, only the worst data was recorded in the report.

8.3.3. 802.11n HT20 MIMO MODE

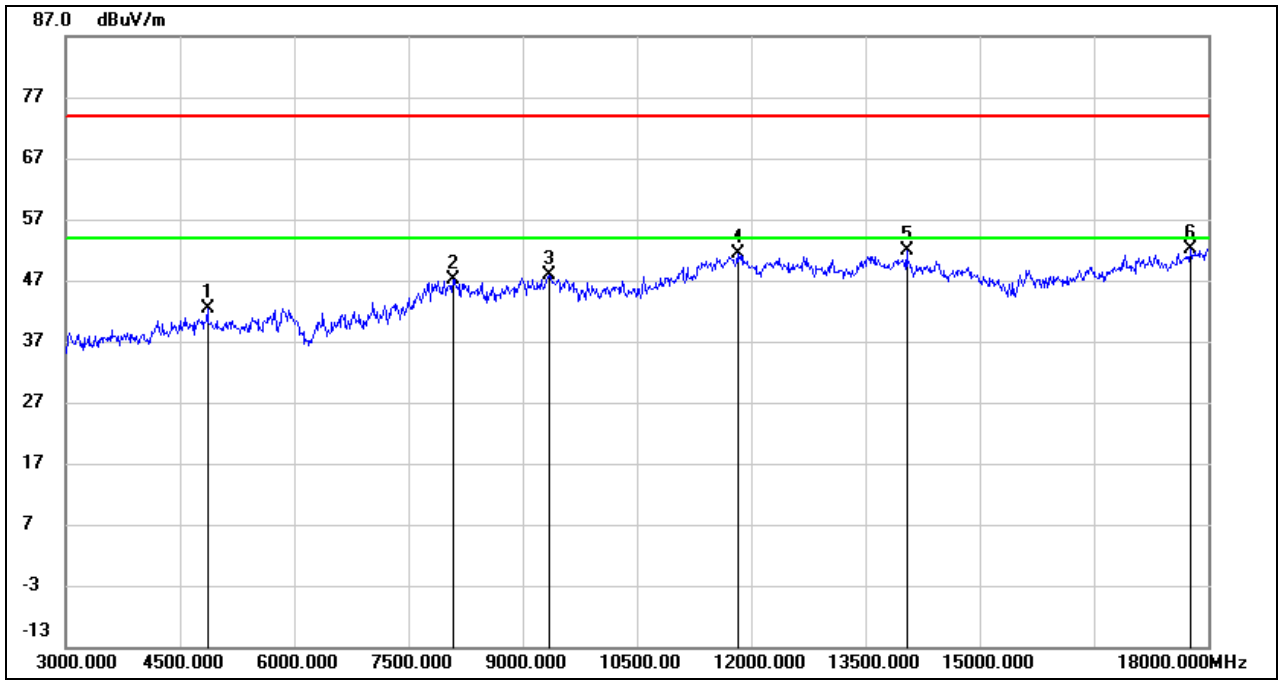
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	41.51	0.04	41.55	74.00	-32.45	peak
2	8235.000	38.52	9.12	47.64	74.00	-26.36	peak
3	11730.000	35.12	17.07	52.19	74.00	-21.81	peak
4	13665.000	32.05	19.33	51.38	74.00	-22.62	peak
5	14715.000	33.04	17.49	50.53	74.00	-23.47	peak
6	17670.000	29.37	23.02	52.39	74.00	-21.61	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.

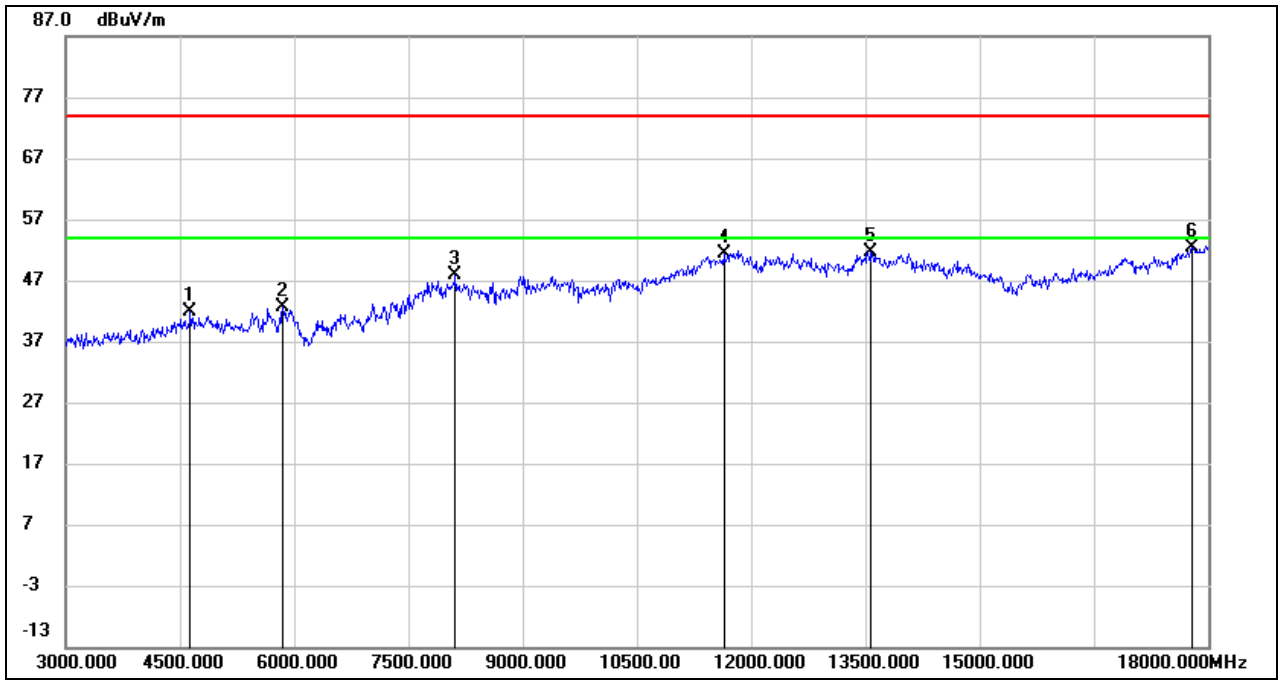
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	42.35	0.04	42.39	74.00	-31.61	peak
2	8085.000	37.91	9.33	47.24	74.00	-26.76	peak
3	9345.000	37.37	10.43	47.80	74.00	-26.20	peak
4	11820.000	34.26	17.03	51.29	74.00	-22.71	peak
5	14040.000	32.64	19.17	51.81	74.00	-22.19	peak
6	17775.000	28.25	23.98	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. 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.

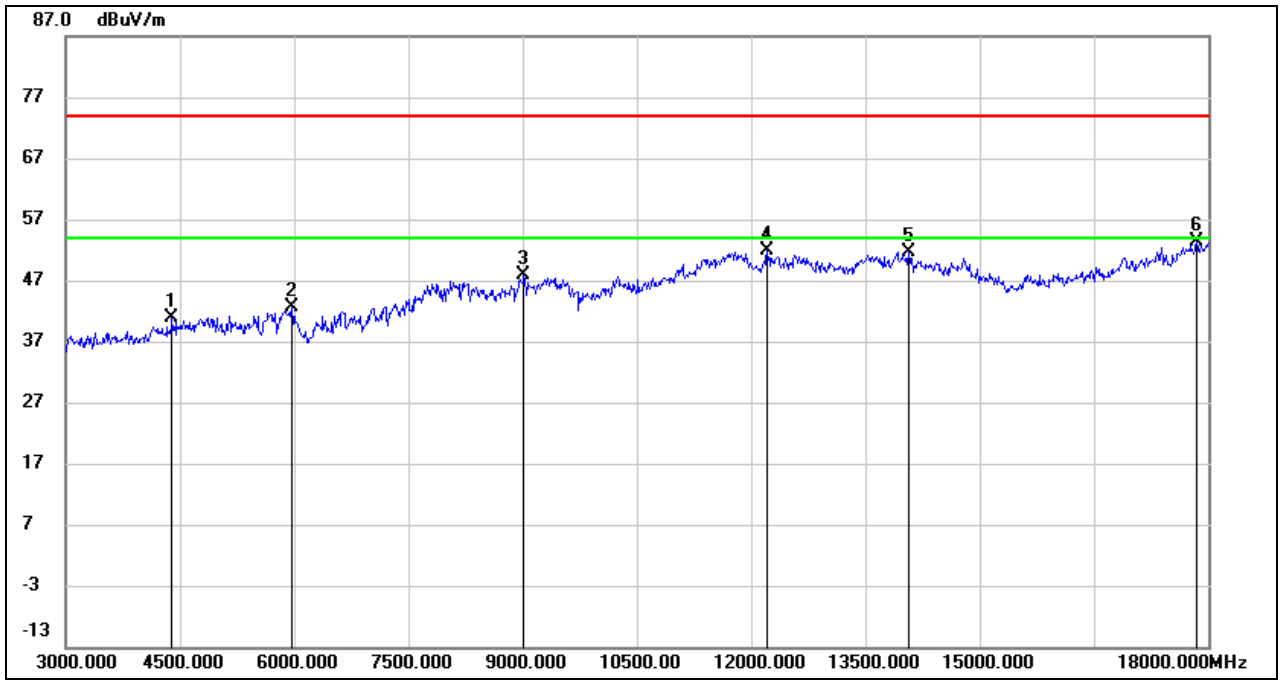
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4635.000	42.66	-0.85	41.81	74.00	-32.19	peak
2	5850.000	39.68	2.93	42.61	74.00	-31.39	peak
3	8115.000	38.48	9.50	47.98	74.00	-26.02	peak
4	11640.000	34.64	16.74	51.38	74.00	-22.62	peak
5	13560.000	32.55	19.12	51.67	74.00	-22.33	peak
6	17790.000	28.40	24.10	52.50	74.00	-21.50	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 High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

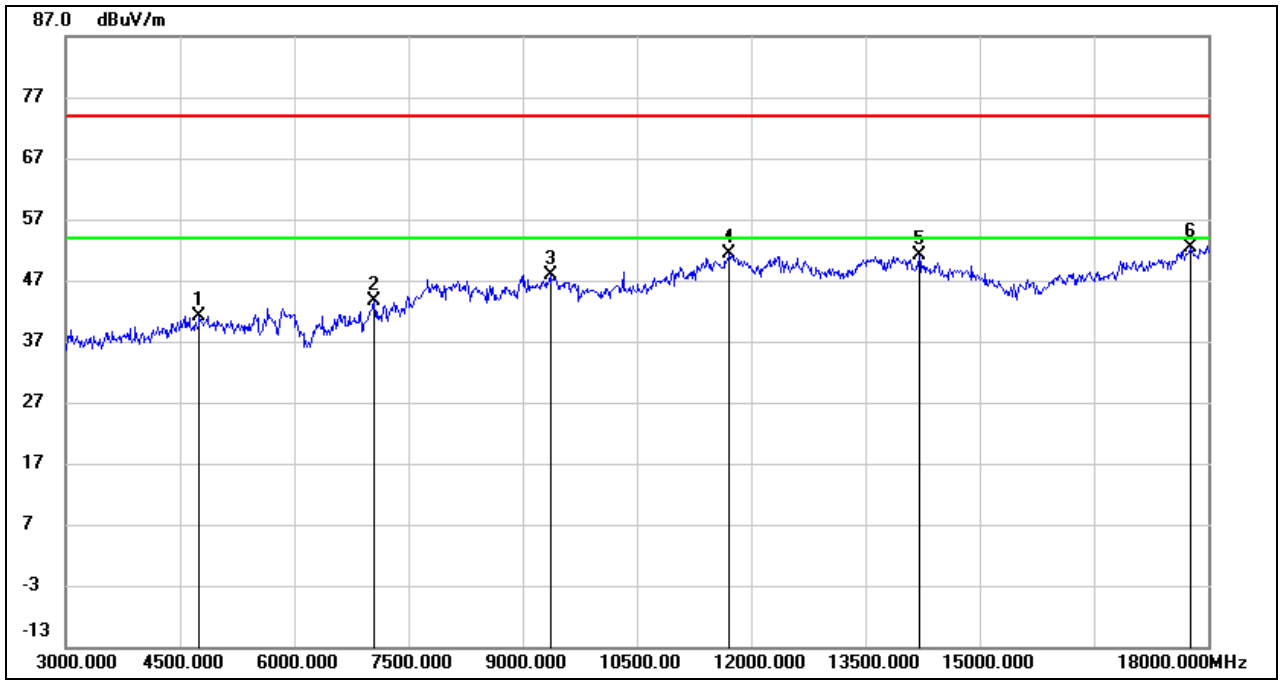
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4395.000	42.86	-1.93	40.93	74.00	-33.07	peak
2	5970.000	39.49	3.06	42.55	74.00	-31.45	peak
3	9015.000	37.19	10.61	47.80	74.00	-26.20	peak
4	12210.000	34.31	17.50	51.81	74.00	-22.19	peak
5	14070.000	32.56	19.02	51.58	74.00	-22.42	peak
6	17850.000	29.10	24.25	53.35	74.00	-20.65	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.

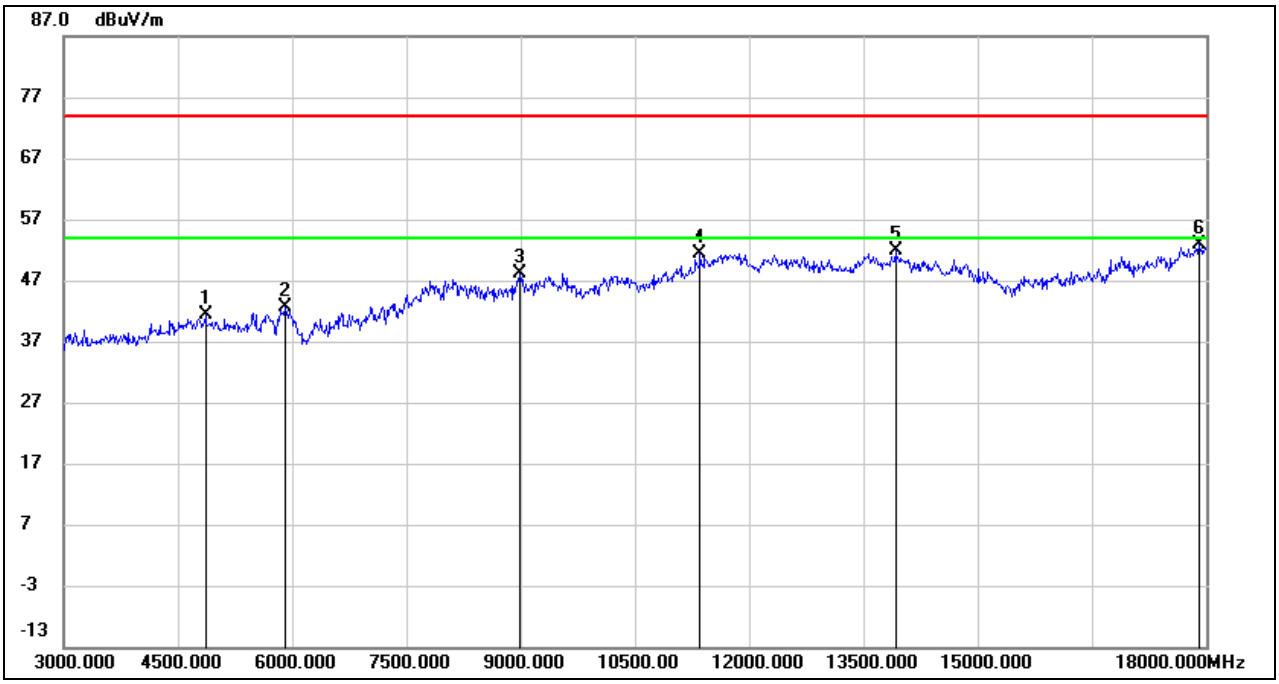
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4755.000	41.55	-0.31	41.24	74.00	-32.76	peak
2	7050.000	36.87	6.66	43.53	74.00	-30.47	peak
3	9360.000	37.37	10.54	47.91	74.00	-26.09	peak
4	11715.000	34.34	17.09	51.43	74.00	-22.57	peak
5	14205.000	32.22	18.93	51.15	74.00	-22.85	peak
6	17760.000	28.47	23.85	52.32	74.00	-21.68	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)

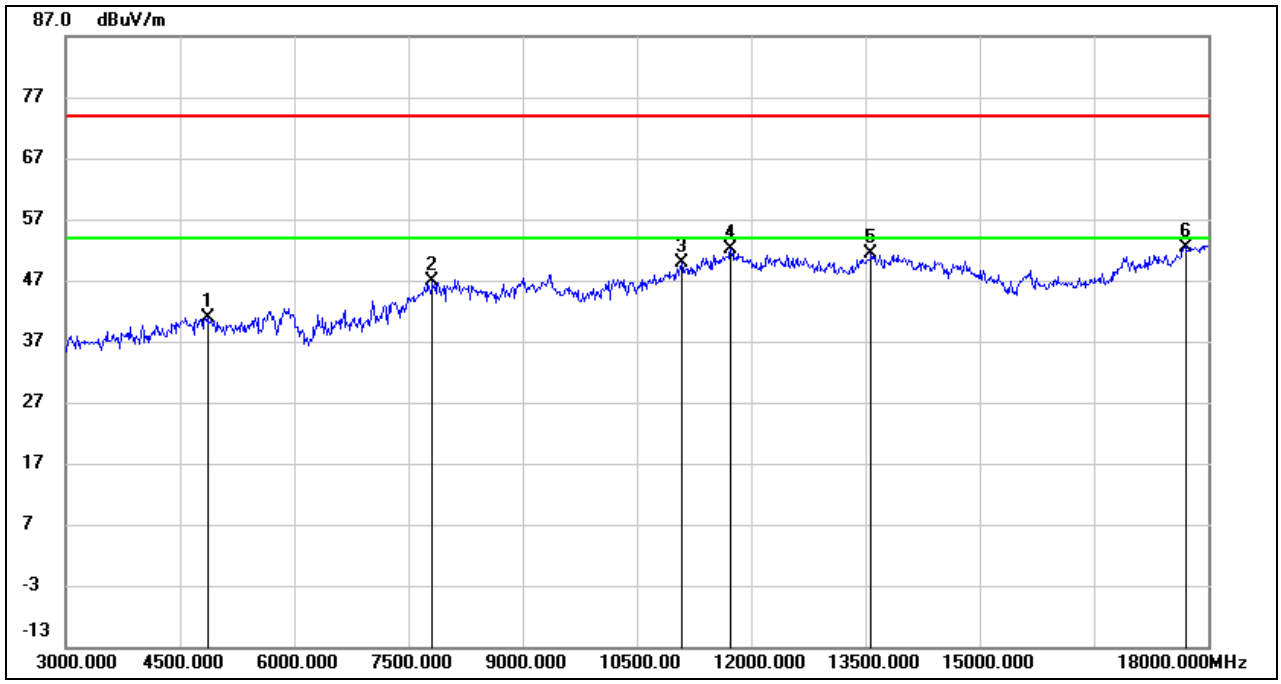


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	41.40	0.04	41.44	74.00	-32.56	peak
2	5910.000	39.24	3.37	42.61	74.00	-31.39	peak
3	8985.000	37.60	10.48	48.08	74.00	-25.92	peak
4	11355.000	35.49	15.88	51.37	74.00	-22.63	peak
5	13920.000	32.57	19.30	51.87	74.00	-22.13	peak
6	17910.000	28.46	24.38	52.84	74.00	-21.16	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.

8.3.4. 802.11n HT40 MIMO MODE

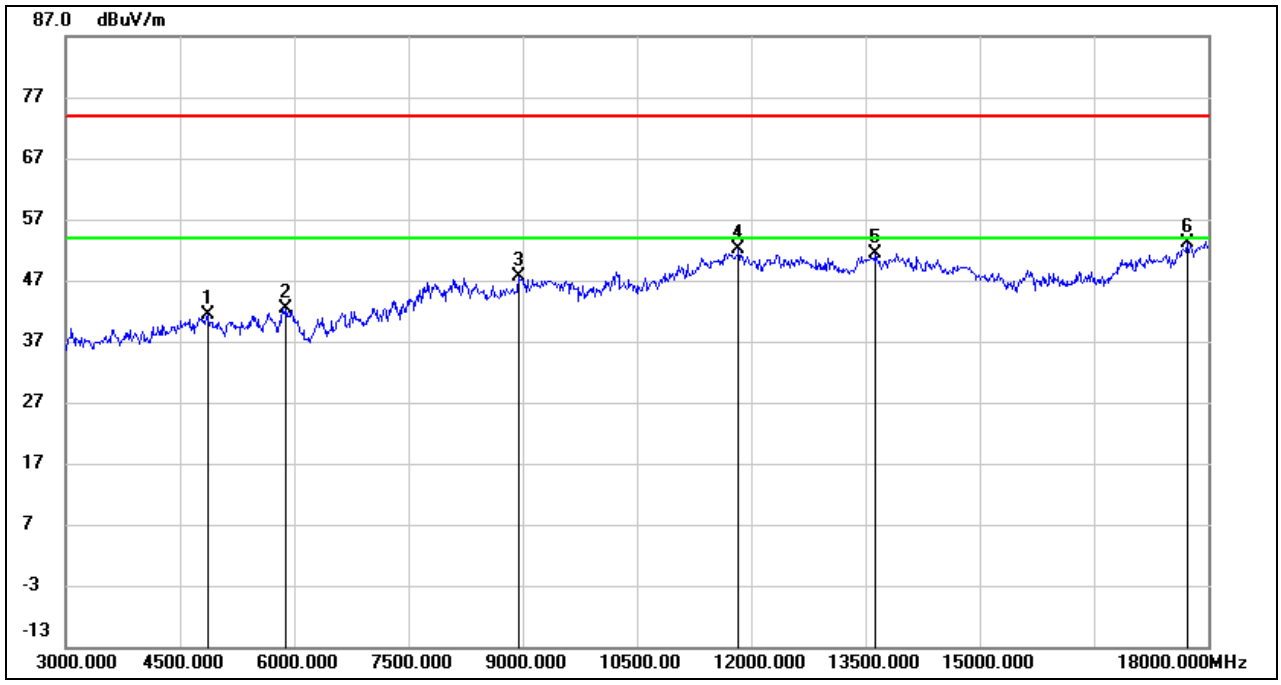
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	40.95	0.04	40.99	74.00	-33.01	peak
2	7815.000	38.15	8.64	46.79	74.00	-27.21	peak
3	11085.000	35.10	14.77	49.87	74.00	-24.13	peak
4	11730.000	35.08	17.07	52.15	74.00	-21.85	peak
5	13575.000	32.28	19.08	51.36	74.00	-22.64	peak
6	17700.000	29.17	23.33	52.50	74.00	-21.50	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 High Pass Filter losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

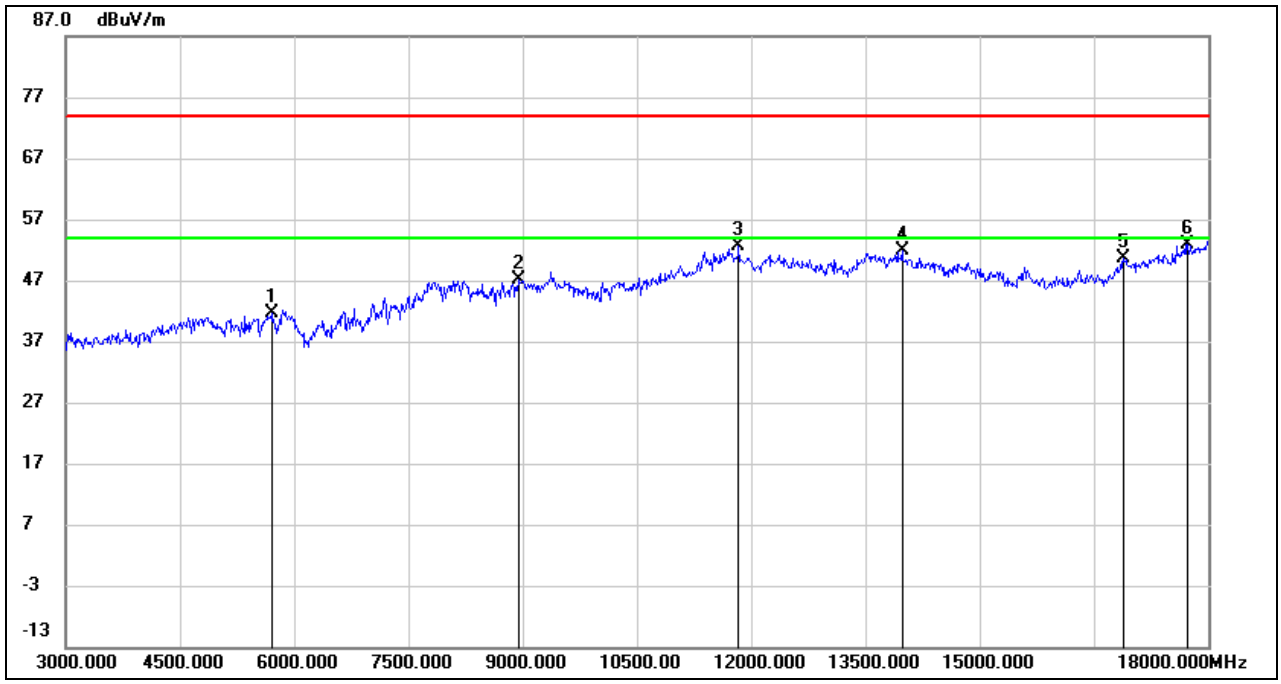
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	41.39	0.04	41.43	74.00	-32.57	peak
2	5895.000	39.08	3.39	42.47	74.00	-31.53	peak
3	8940.000	38.01	9.61	47.62	74.00	-26.38	peak
4	11835.000	35.17	17.07	52.24	74.00	-21.76	peak
5	13635.000	32.20	19.20	51.40	74.00	-22.60	peak
6	17730.000	29.50	23.58	53.08	74.00	-20.92	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.

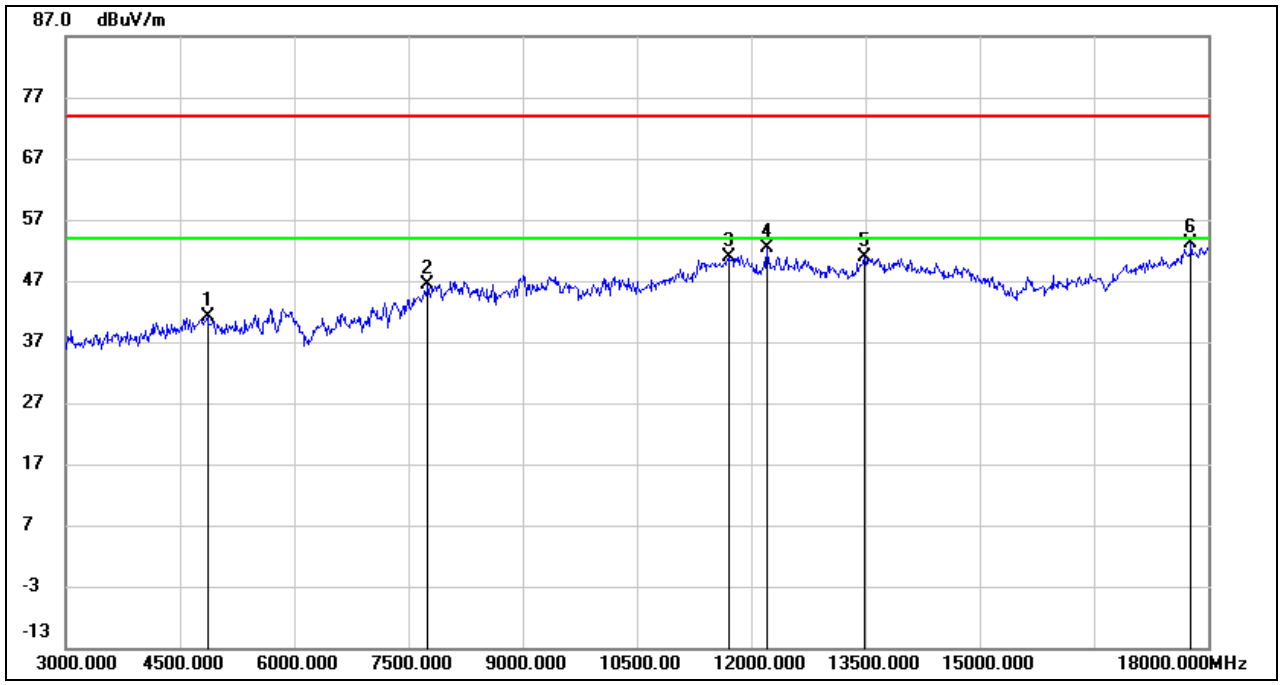
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5700.000	39.54	2.05	41.59	74.00	-32.41	peak
2	8940.000	37.54	9.61	47.15	74.00	-26.85	peak
3	11835.000	35.53	17.07	52.60	74.00	-21.40	peak
4	13980.000	32.45	19.35	51.80	74.00	-22.20	peak
5	16890.000	31.08	19.63	50.71	74.00	-23.29	peak
6	17730.000	29.27	23.58	52.85	74.00	-21.15	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.

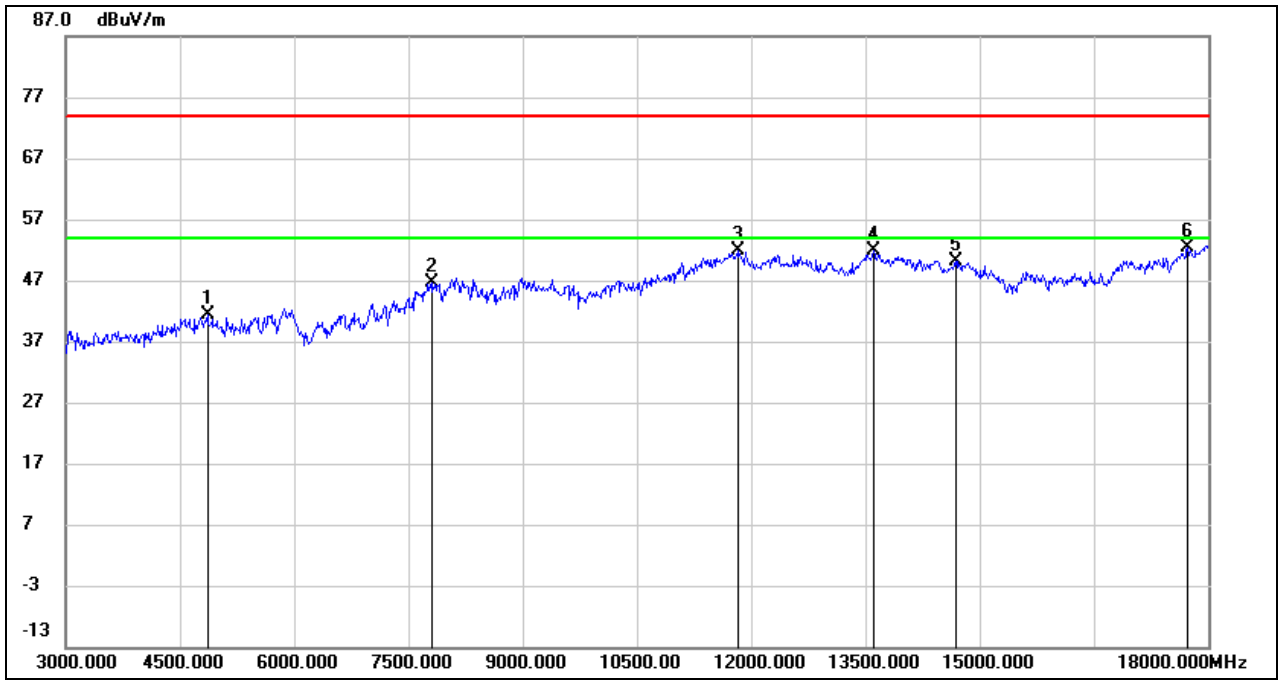
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	41.13	0.04	41.17	74.00	-32.83	peak
2	7755.000	37.97	8.29	46.26	74.00	-27.74	peak
3	11715.000	33.81	17.09	50.90	74.00	-23.10	peak
4	12210.000	34.76	17.50	52.26	74.00	-21.74	peak
5	13485.000	31.60	19.18	50.78	74.00	-23.22	peak
6	17775.000	29.07	23.98	53.05	74.00	-20.95	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.

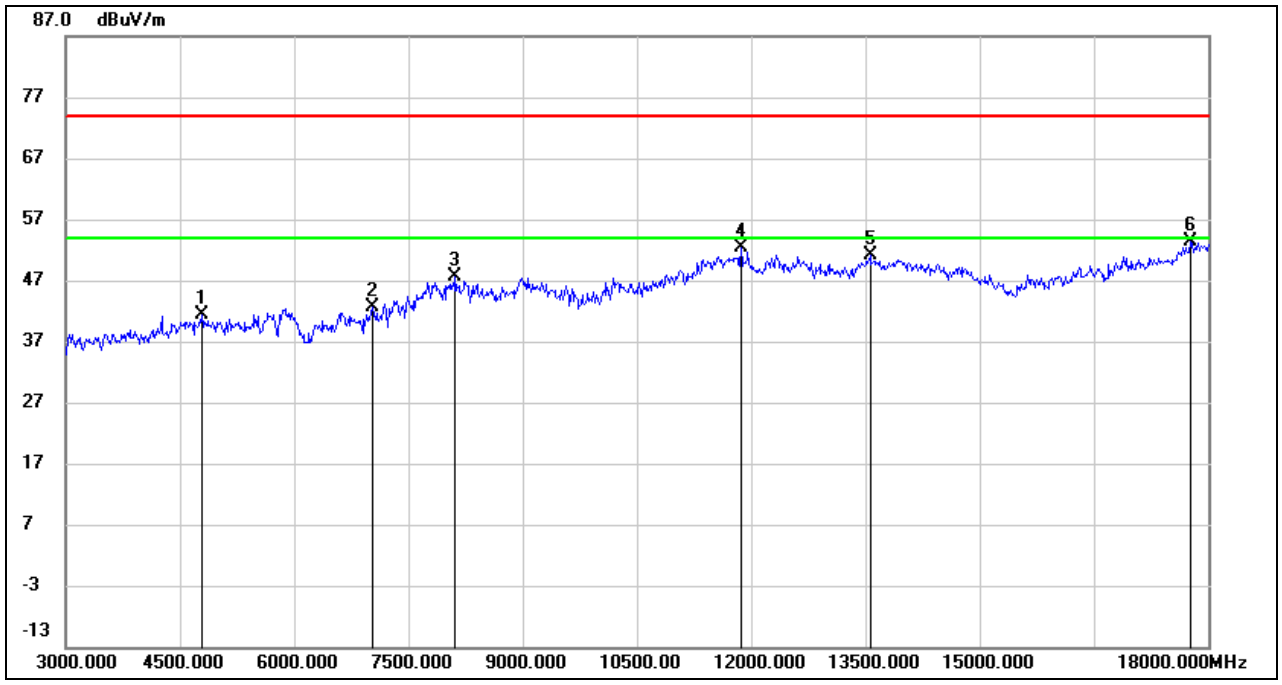
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	41.37	0.04	41.41	74.00	-32.59	peak
2	7815.000	37.95	8.64	46.59	74.00	-27.41	peak
3	11820.000	34.73	17.03	51.76	74.00	-22.24	peak
4	13605.000	32.71	19.06	51.77	74.00	-22.23	peak
5	14685.000	32.76	17.46	50.22	74.00	-23.78	peak
6	17730.000	28.80	23.58	52.38	74.00	-21.62	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)

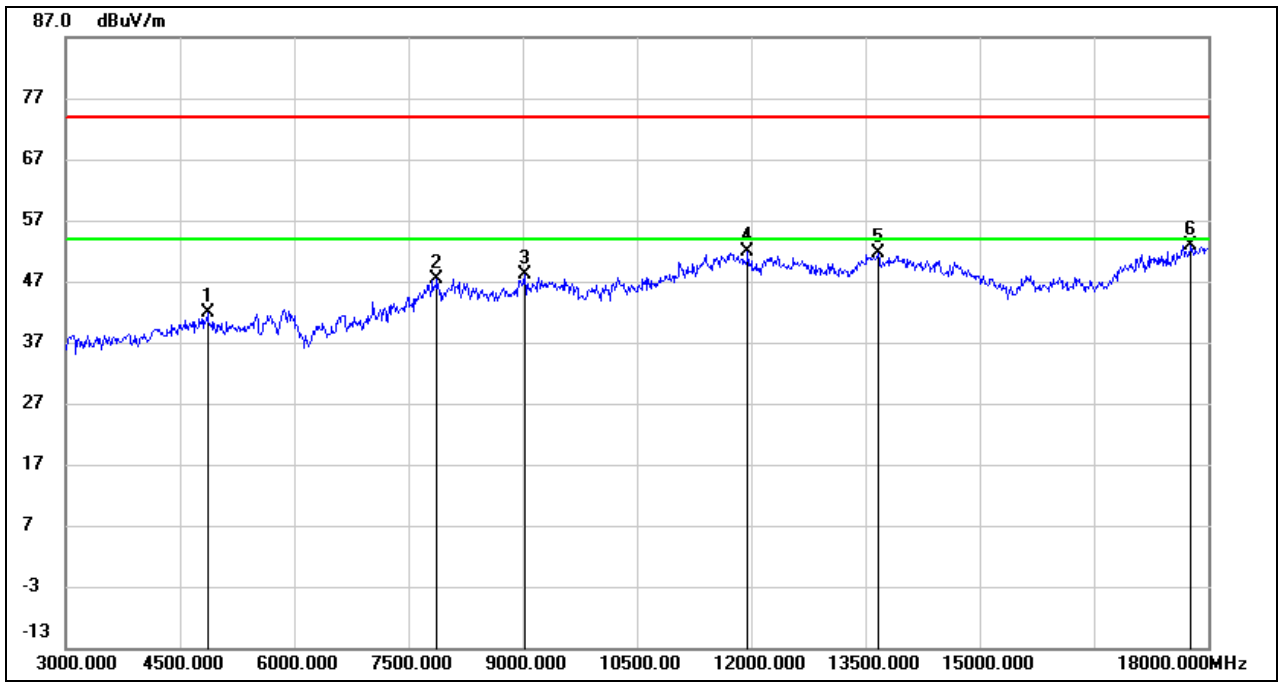


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4785.000	41.45	0.00	41.45	74.00	-32.55	peak
2	7035.000	36.08	6.64	42.72	74.00	-31.28	peak
3	8115.000	38.05	9.50	47.55	74.00	-26.45	peak
4	11865.000	35.17	17.14	52.31	74.00	-21.69	peak
5	13560.000	32.07	19.12	51.19	74.00	-22.81	peak
6	17760.000	29.46	23.85	53.31	74.00	-20.69	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.

8.3.5. 802.11ax VHT20 MIMO MODE

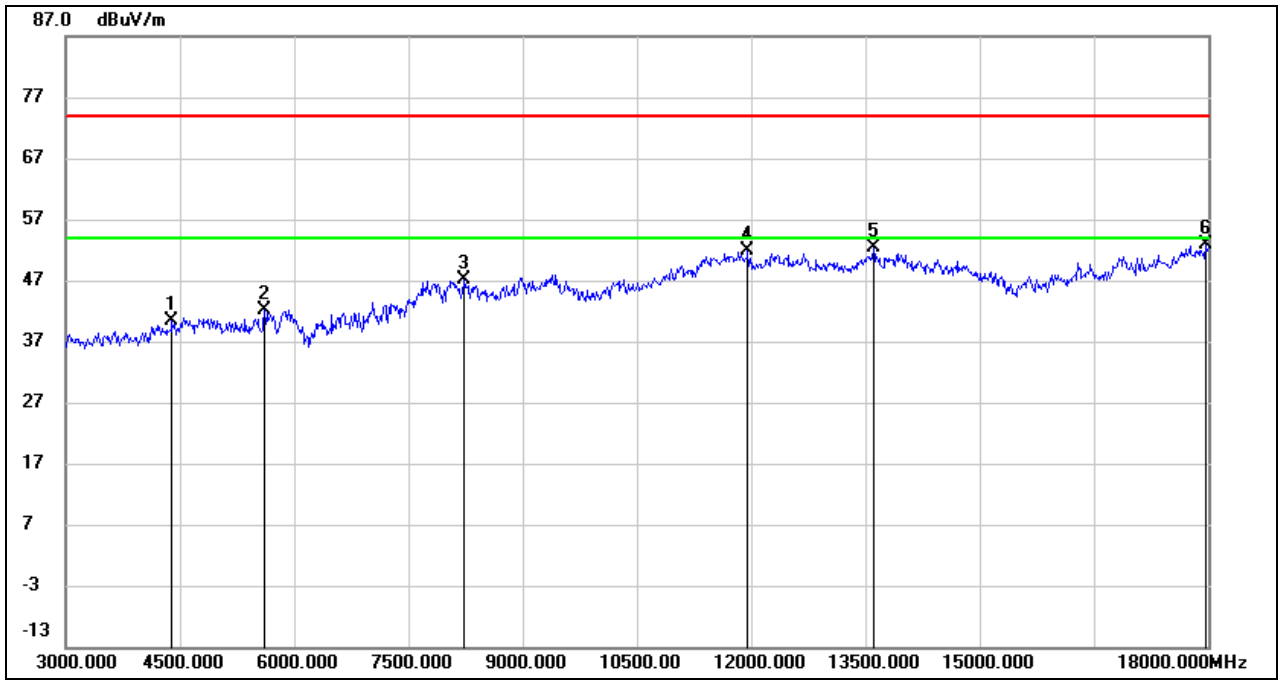
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	41.76	0.04	41.80	74.00	-32.20	peak
2	7875.000	39.13	8.35	47.48	74.00	-26.52	peak
3	9030.000	37.62	10.46	48.08	74.00	-25.92	peak
4	11955.000	34.74	17.25	51.99	74.00	-22.01	peak
5	13665.000	32.37	19.33	51.70	74.00	-22.30	peak
6	17775.000	28.92	23.98	52.90	74.00	-21.10	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.

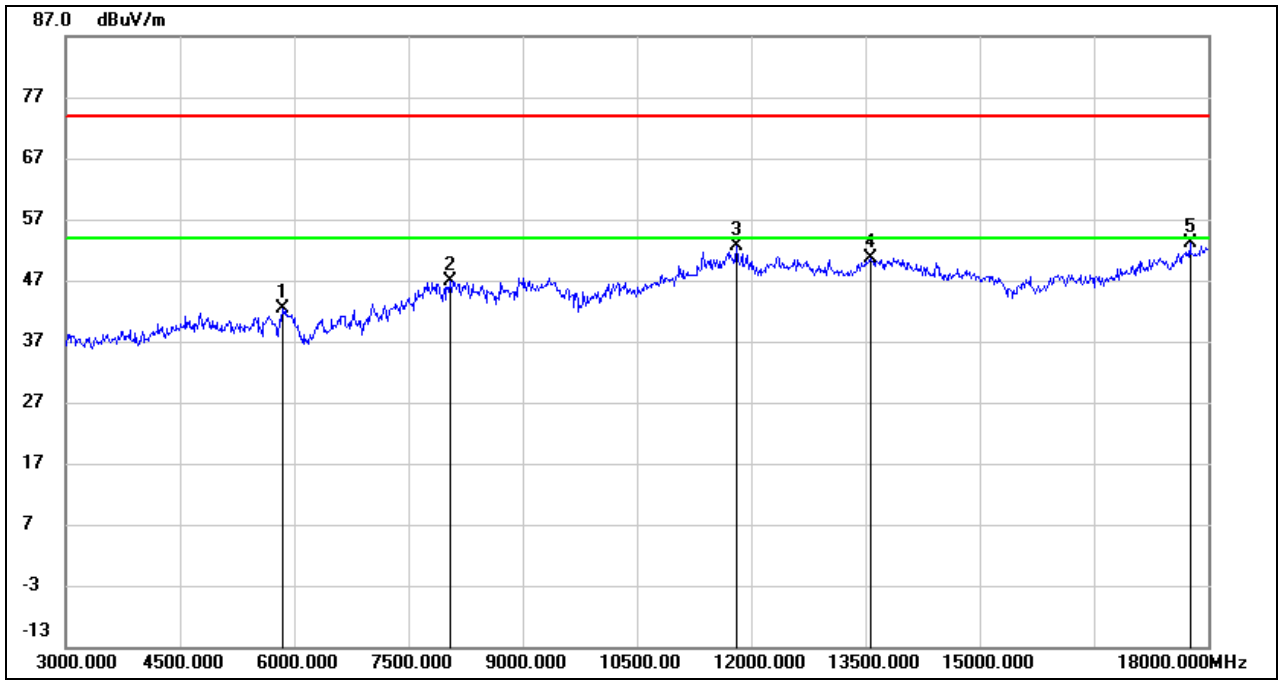
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4395.000	42.19	-1.93	40.26	74.00	-33.74	peak
2	5610.000	40.17	1.98	42.15	74.00	-31.85	peak
3	8235.000	37.99	9.12	47.11	74.00	-26.89	peak
4	11955.000	34.71	17.25	51.96	74.00	-22.04	peak
5	13605.000	33.34	19.06	52.40	74.00	-21.60	peak
6	17970.000	28.05	24.77	52.82	74.00	-21.18	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.

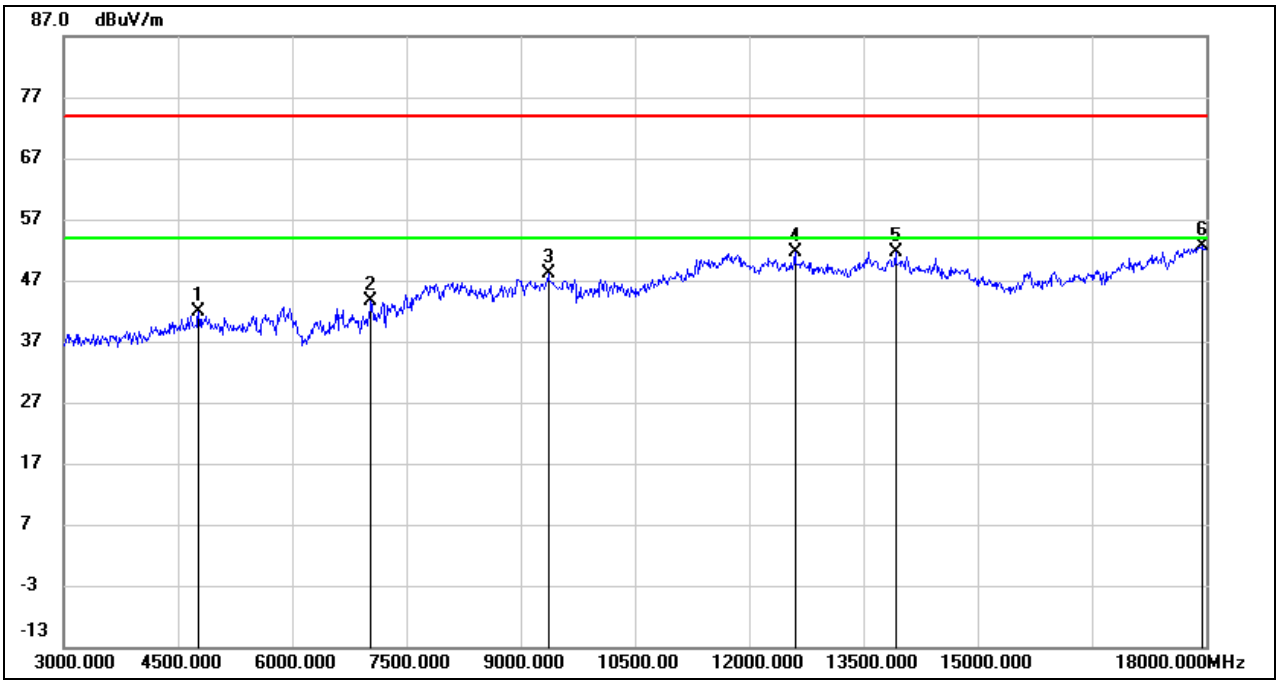
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.000	39.45	2.93	42.38	74.00	-31.62	peak
2	8040.000	38.34	8.64	46.98	74.00	-27.02	peak
3	11805.000	35.57	17.00	52.57	74.00	-21.43	peak
4	13560.000	31.49	19.12	50.61	74.00	-23.39	peak
5	17760.000	29.25	23.85	53.10	74.00	-20.90	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.

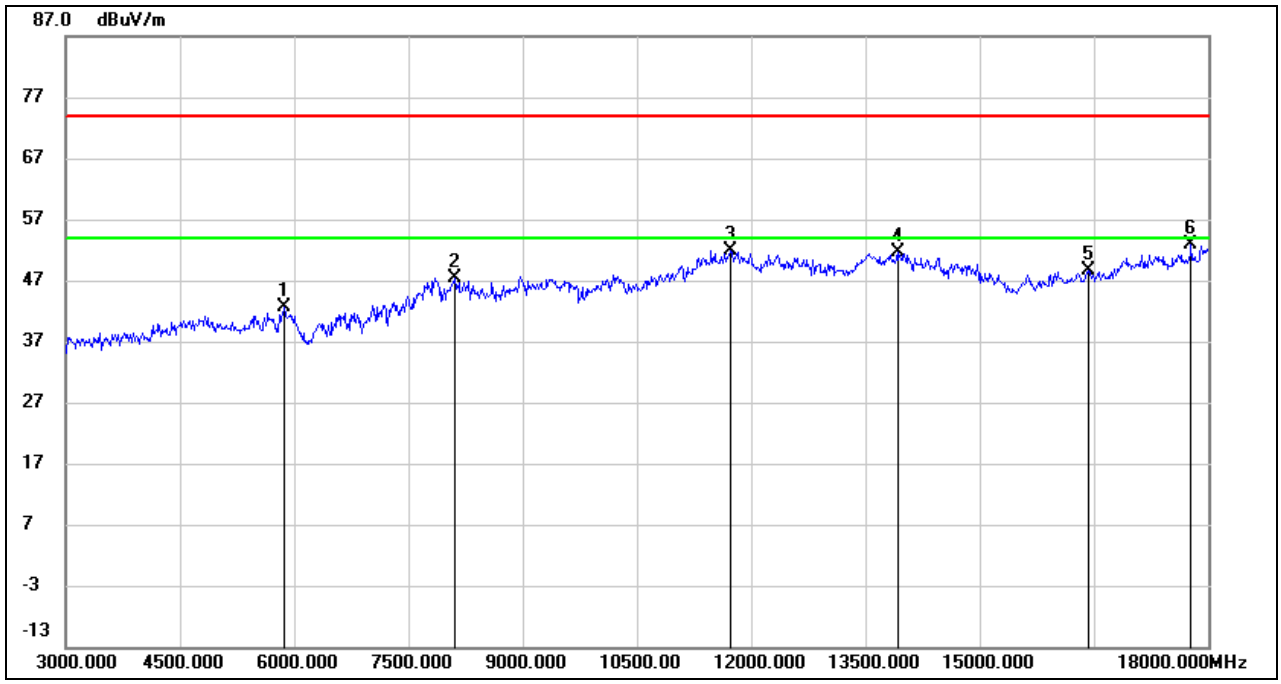
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4770.000	41.91	-0.15	41.76	74.00	-32.24	peak
2	7035.000	36.88	6.64	43.52	74.00	-30.48	peak
3	9360.000	37.65	10.54	48.19	74.00	-25.81	peak
4	12600.000	34.41	17.12	51.53	74.00	-22.47	peak
5	13920.000	32.35	19.30	51.65	74.00	-22.35	peak
6	17955.000	27.96	24.67	52.63	74.00	-21.37	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.

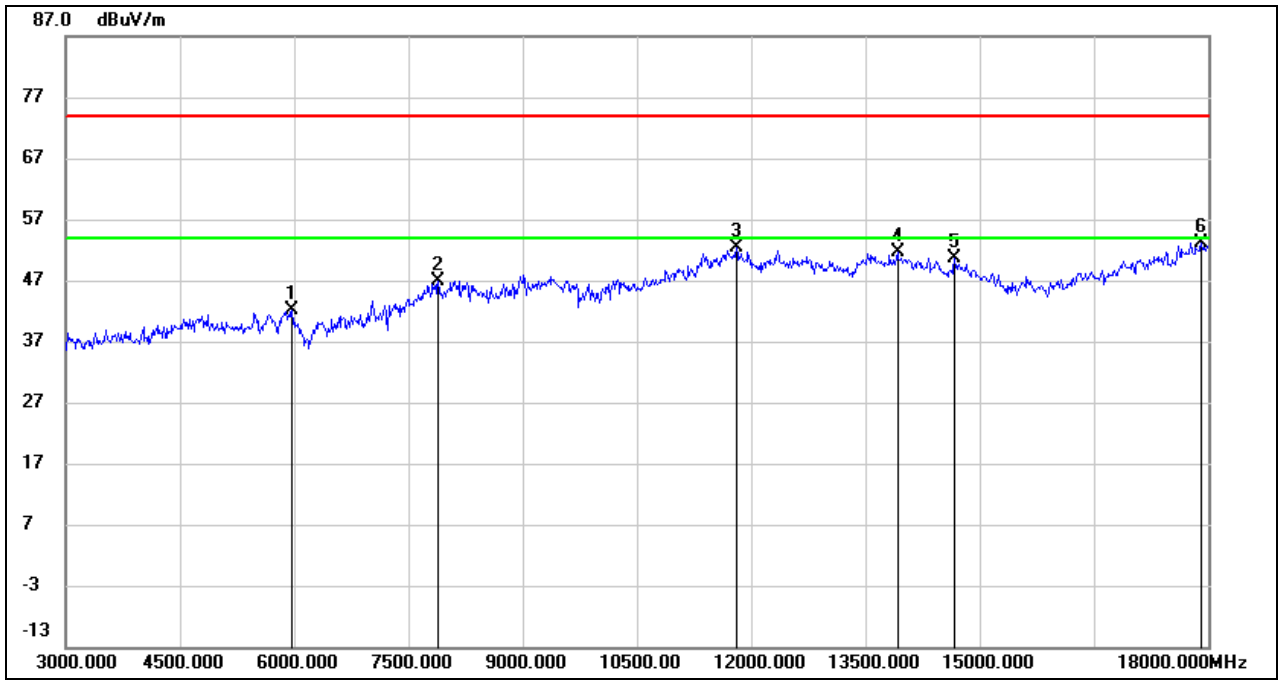
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5865.000	39.57	3.09	42.66	74.00	-31.34	peak
2	8115.000	38.00	9.50	47.50	74.00	-26.50	peak
3	11730.000	34.86	17.07	51.93	74.00	-22.07	peak
4	13920.000	32.38	19.30	51.68	74.00	-22.32	peak
5	16425.000	31.35	17.24	48.59	74.00	-25.41	peak
6	17775.000	28.95	23.98	52.93	74.00	-21.07	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)

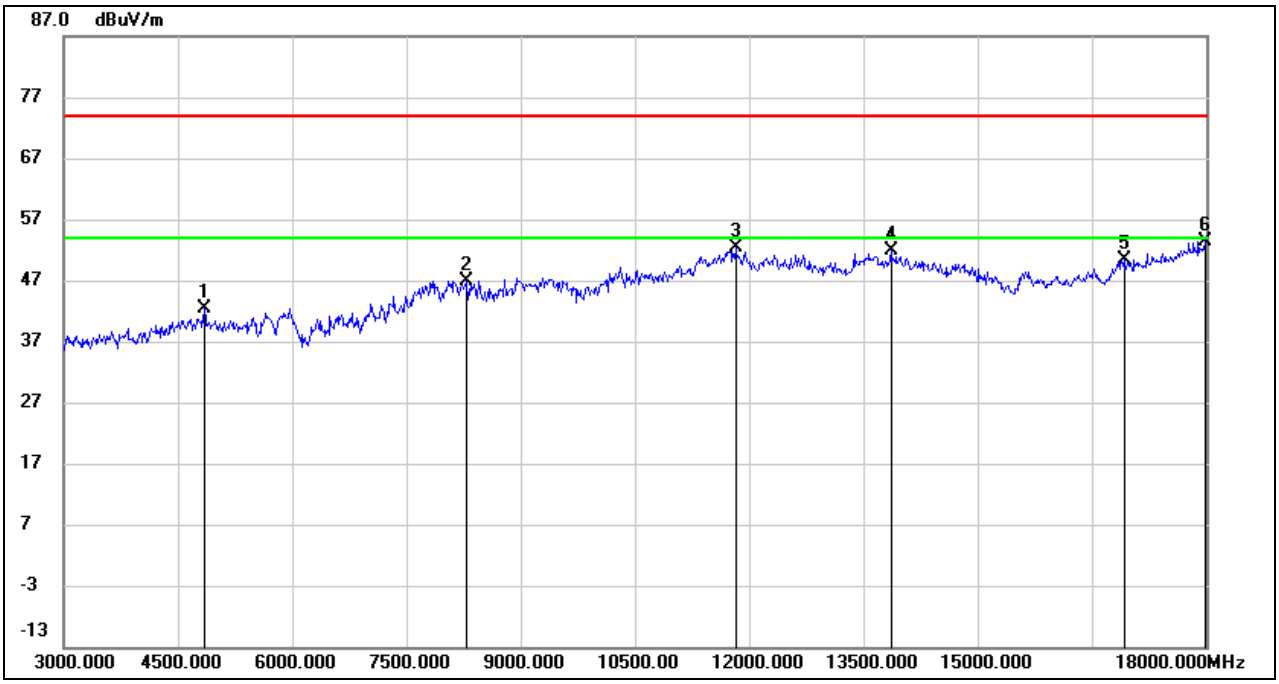


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5970.000	38.95	3.06	42.01	74.00	-31.99	peak
2	7890.000	38.71	8.28	46.99	74.00	-27.01	peak
3	11805.000	35.28	17.00	52.28	74.00	-21.72	peak
4	13920.000	32.24	19.30	51.54	74.00	-22.46	peak
5	14670.000	33.29	17.45	50.74	74.00	-23.26	peak
6	17910.000	28.80	24.38	53.18	74.00	-20.82	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.

8.3.6. 802.11ax VHT40 MIMO MODE

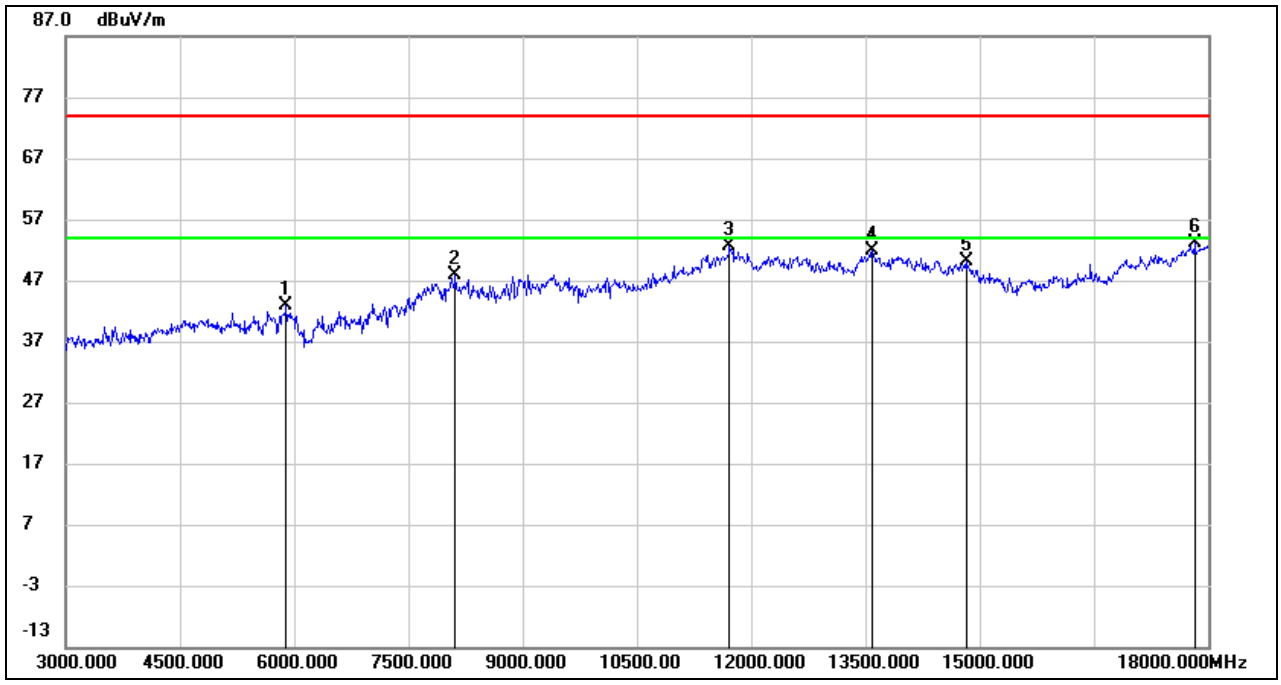
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4845.000	42.23	0.07	42.30	74.00	-31.70	peak
2	8295.000	37.93	9.03	46.96	74.00	-27.04	peak
3	11820.000	35.37	17.03	52.40	74.00	-21.60	peak
4	13860.000	32.48	19.34	51.82	74.00	-22.18	peak
5	16920.000	30.74	19.70	50.44	74.00	-23.56	peak
6	17985.000	28.58	24.87	53.45	74.00	-20.55	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.

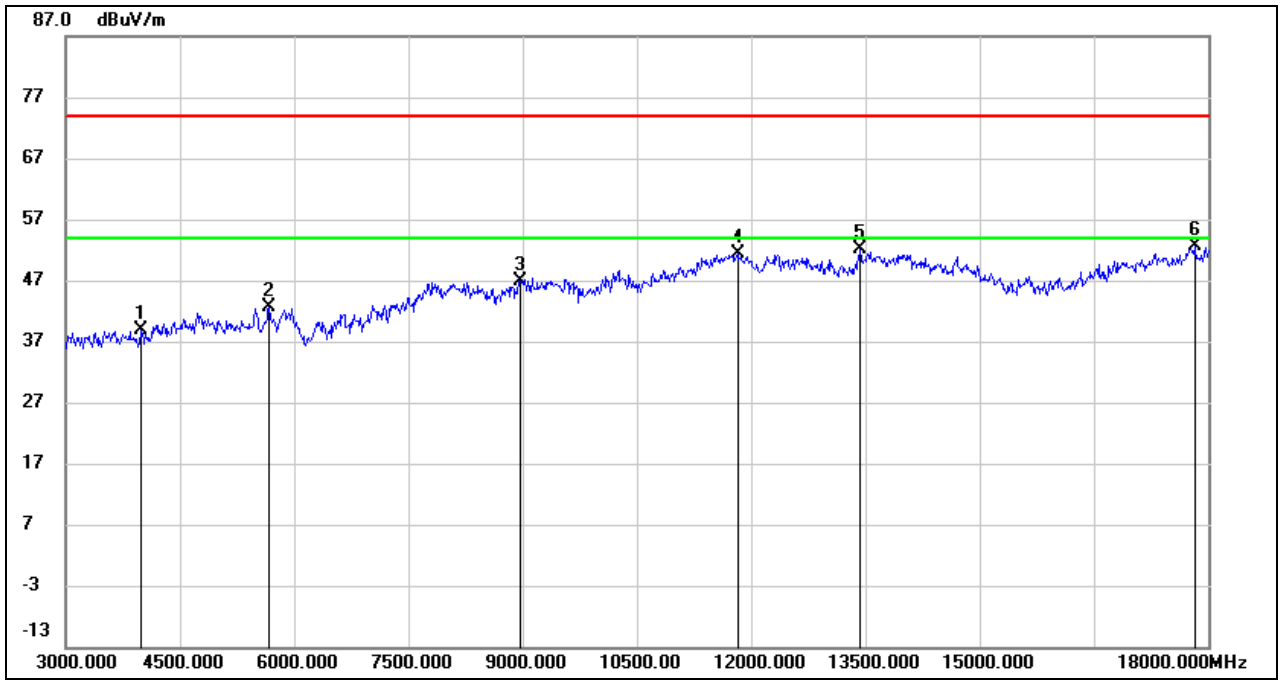
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5895.000	39.42	3.39	42.81	74.00	-31.19	peak
2	8115.000	38.26	9.50	47.76	74.00	-26.24	peak
3	11715.000	35.65	17.09	52.74	74.00	-21.26	peak
4	13590.000	32.85	19.05	51.90	74.00	-22.10	peak
5	14820.000	32.82	17.38	50.20	74.00	-23.80	peak
6	17820.000	28.85	24.21	53.06	74.00	-20.94	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.

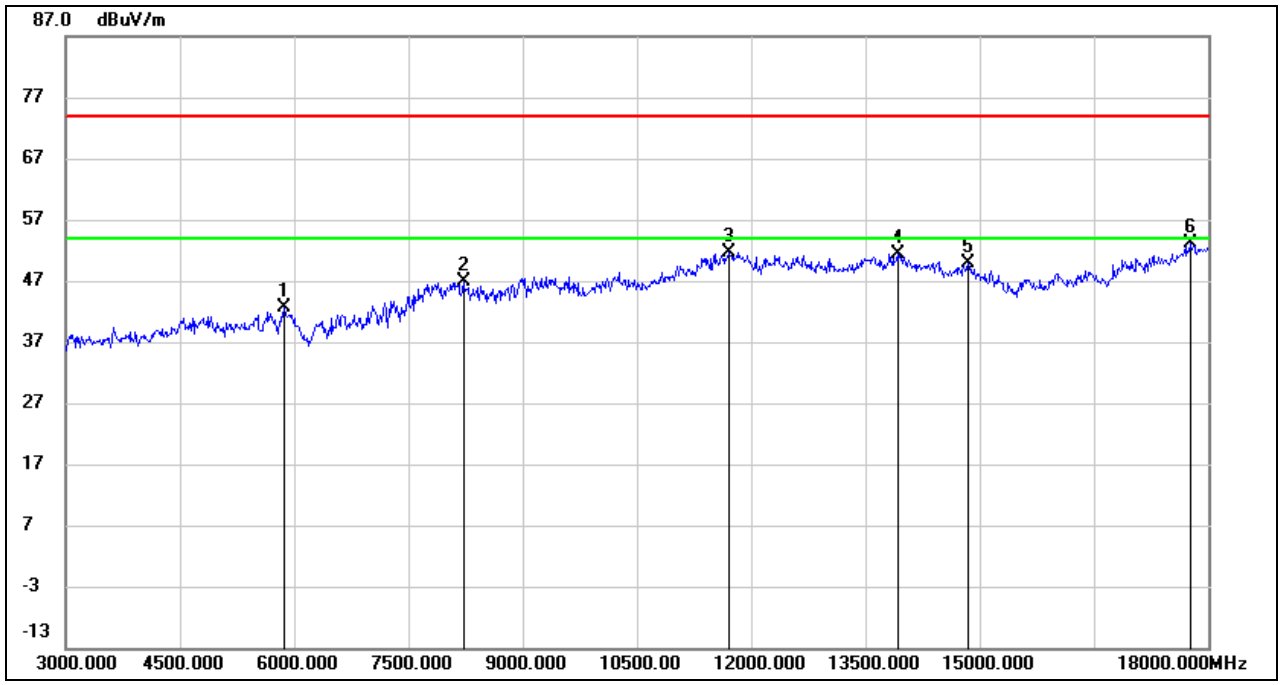
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	42.60	-3.61	38.99	74.00	-35.01	peak
2	5670.000	40.68	2.03	42.71	74.00	-31.29	peak
3	8970.000	36.69	10.18	46.87	74.00	-27.13	peak
4	11820.000	34.29	17.03	51.32	74.00	-22.68	peak
5	13425.000	33.19	19.00	52.19	74.00	-21.81	peak
6	17820.000	28.34	24.21	52.55	74.00	-21.45	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.

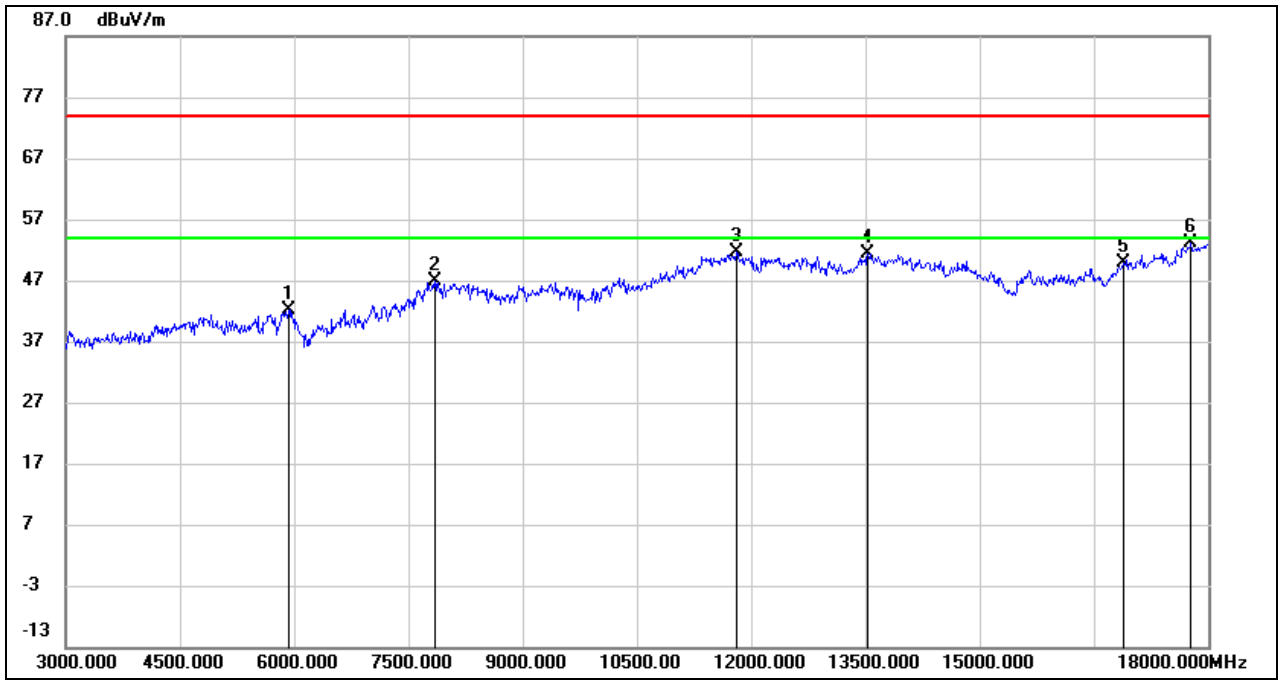
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5865.000	39.55	3.09	42.64	74.00	-31.36	peak
2	8220.000	37.85	9.14	46.99	74.00	-27.01	peak
3	11715.000	34.65	17.09	51.74	74.00	-22.26	peak
4	13920.000	32.14	19.30	51.44	74.00	-22.56	peak
5	14850.000	32.86	17.10	49.96	74.00	-24.04	peak
6	17760.000	29.26	23.85	53.11	74.00	-20.89	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.

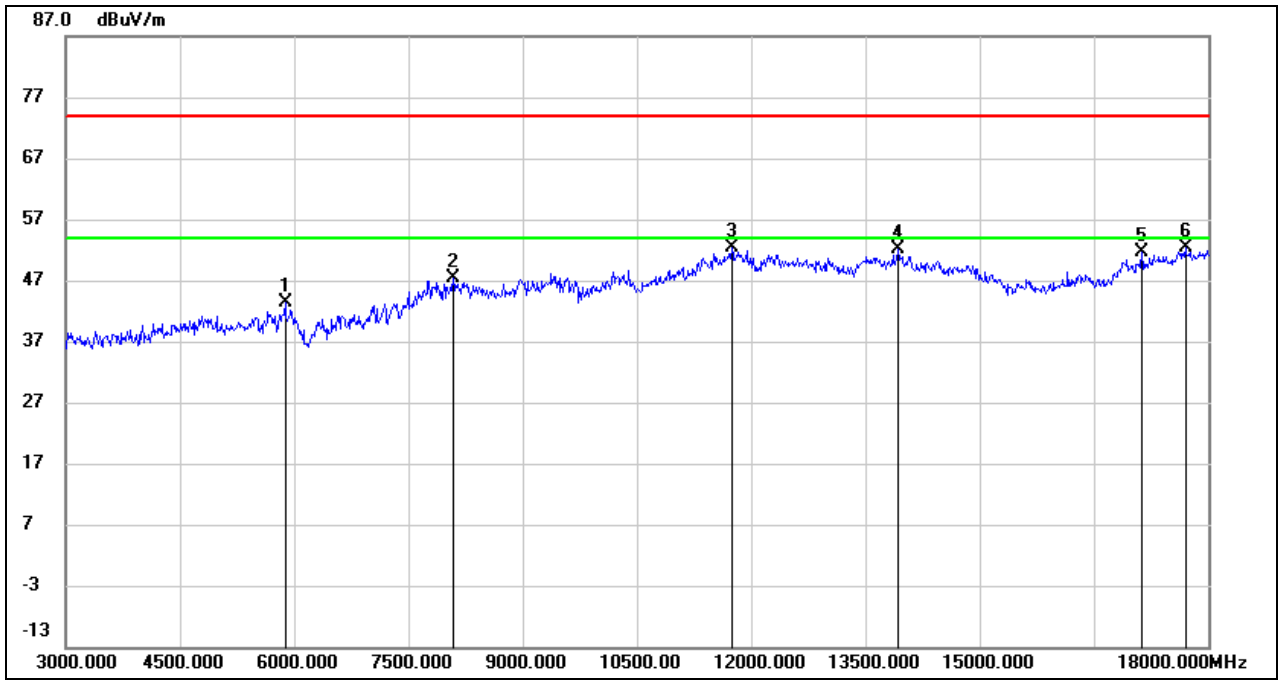
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5925.000	38.89	3.30	42.19	74.00	-31.81	peak
2	7845.000	38.32	8.51	46.83	74.00	-27.17	peak
3	11805.000	34.65	17.00	51.65	74.00	-22.35	peak
4	13530.000	32.29	19.17	51.46	74.00	-22.54	peak
5	16890.000	30.24	19.63	49.87	74.00	-24.13	peak
6	17775.000	29.26	23.98	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 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)



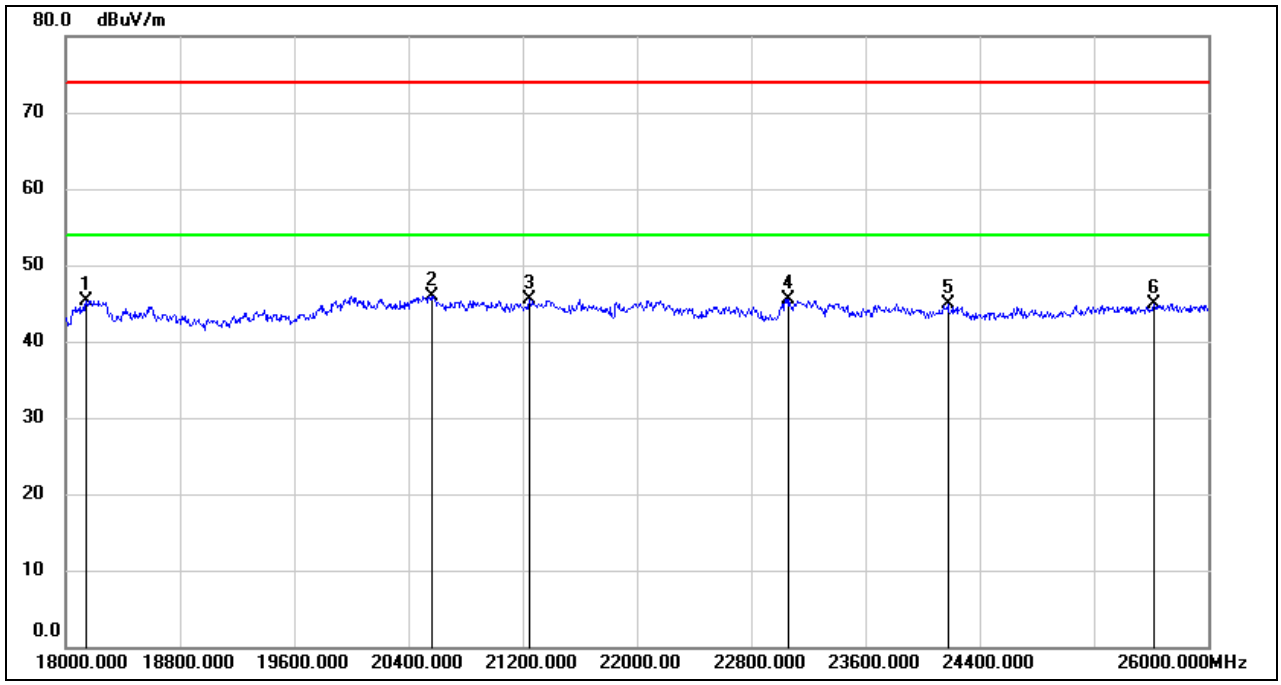
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5880.000	40.26	3.23	43.49	74.00	-30.51	peak
2	8085.000	37.98	9.33	47.31	74.00	-26.69	peak
3	11745.000	35.42	17.06	52.48	74.00	-21.52	peak
4	13935.000	32.78	19.32	52.10	74.00	-21.90	peak
5	17130.000	31.10	20.48	51.58	74.00	-22.42	peak
6	17700.000	29.03	23.33	52.36	74.00	-21.64	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.

8.5. SPURIOUS EMISSIONS (18 GHz ~ 26 GHz)

8.5.1. 802.11b SISO MODE

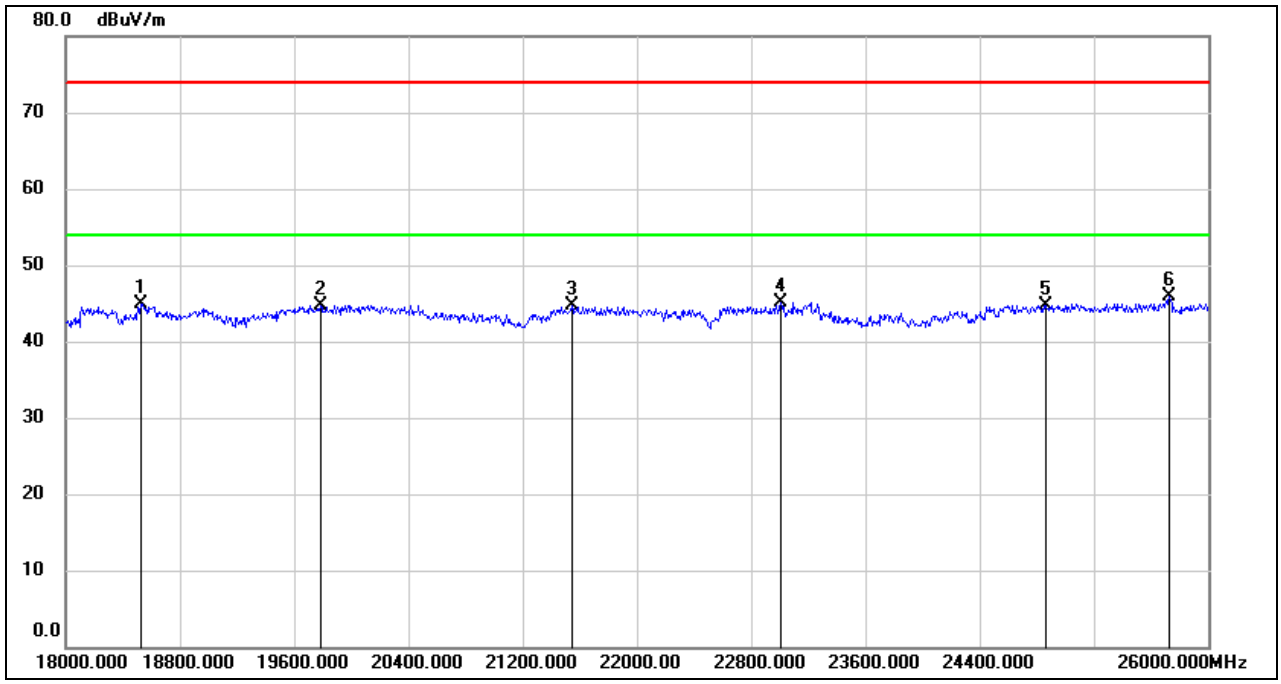
SPURIOUS EMISSIONS (MID CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18144.000	50.77	-5.48	45.29	74.00	-28.71	peak
2	20560.000	51.23	-5.30	45.93	74.00	-28.07	peak
3	21248.000	50.29	-4.77	45.52	74.00	-28.48	peak
4	23064.000	48.99	-3.42	45.57	74.00	-28.43	peak
5	24176.000	47.69	-2.80	44.89	74.00	-29.11	peak
6	25616.000	46.18	-1.24	44.94	74.00	-29.06	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 (MID 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	50.11	-5.26	44.85	74.00	-29.15	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	23008.000	48.60	-3.44	45.16	74.00	-28.84	peak
5	24864.000	47.03	-2.23	44.80	74.00	-29.20	peak
6	25728.000	46.61	-0.72	45.89	74.00	-28.11	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.

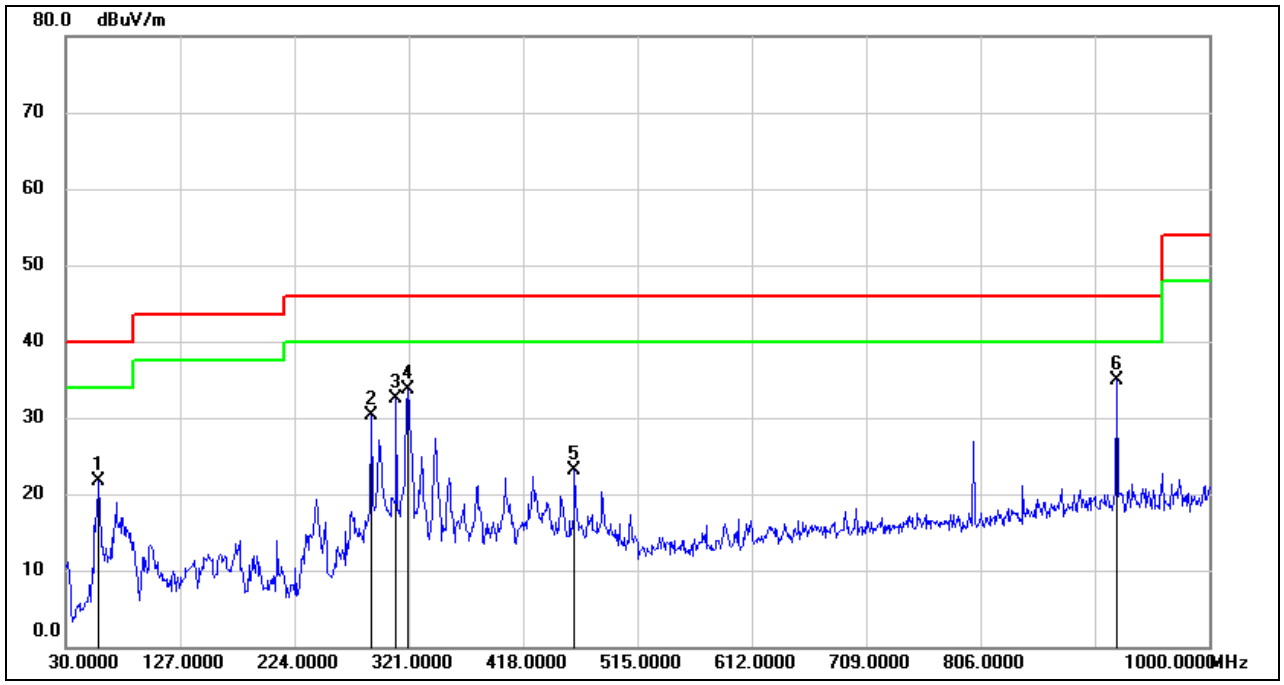
Note: All modes, channels and antenna have been tested, only the worst data was recorded in the report.

8.6. SPURIOUS EMISSIONS (30 MHz ~ 1 GHz)

8.6.1. 802.11b SISO MODE

ANTENNA 1 TEST RESULTS (WORST CASE)

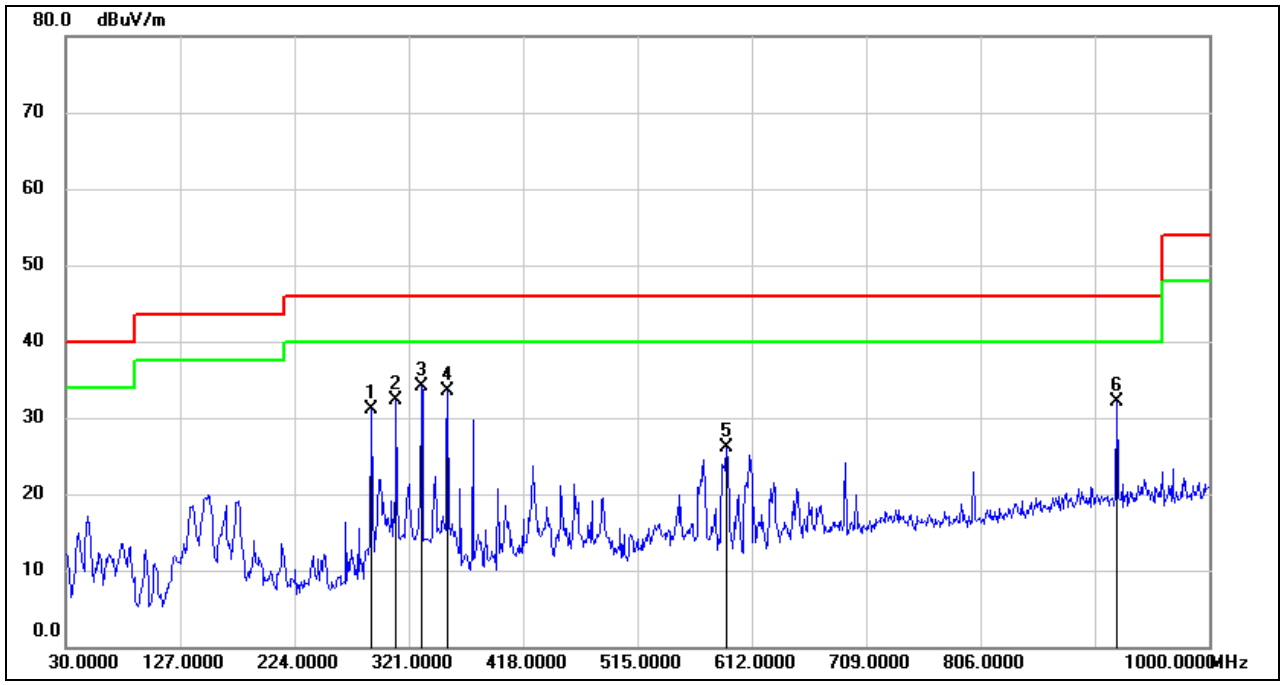
SPURIOUS EMISSIONS (MID CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	58.1300	42.32	-20.55	21.77	40.00	-18.23	QP
2	288.9900	46.32	-15.98	30.34	46.00	-15.66	QP
3	310.3299	47.57	-15.07	32.50	46.00	-13.50	QP
4	320.0300	48.54	-14.78	33.76	46.00	-12.24	QP
5	461.6500	35.24	-12.11	23.13	46.00	-22.87	QP
6	921.4300	39.68	-4.76	34.92	46.00	-11.08	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 (MID CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	288.9900	47.17	-15.98	31.19	46.00	-14.81	QP
2	310.3299	47.29	-15.07	32.22	46.00	-13.78	QP
3	331.6700	48.67	-14.64	34.03	46.00	-11.97	QP
4	353.9800	47.64	-14.23	33.41	46.00	-12.59	QP
5	590.6599	35.86	-9.80	26.06	46.00	-19.94	QP
6	921.4300	36.87	-4.76	32.11	46.00	-13.89	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 modes, channels and antenna have been tested, only the worst data was recorded in the report.

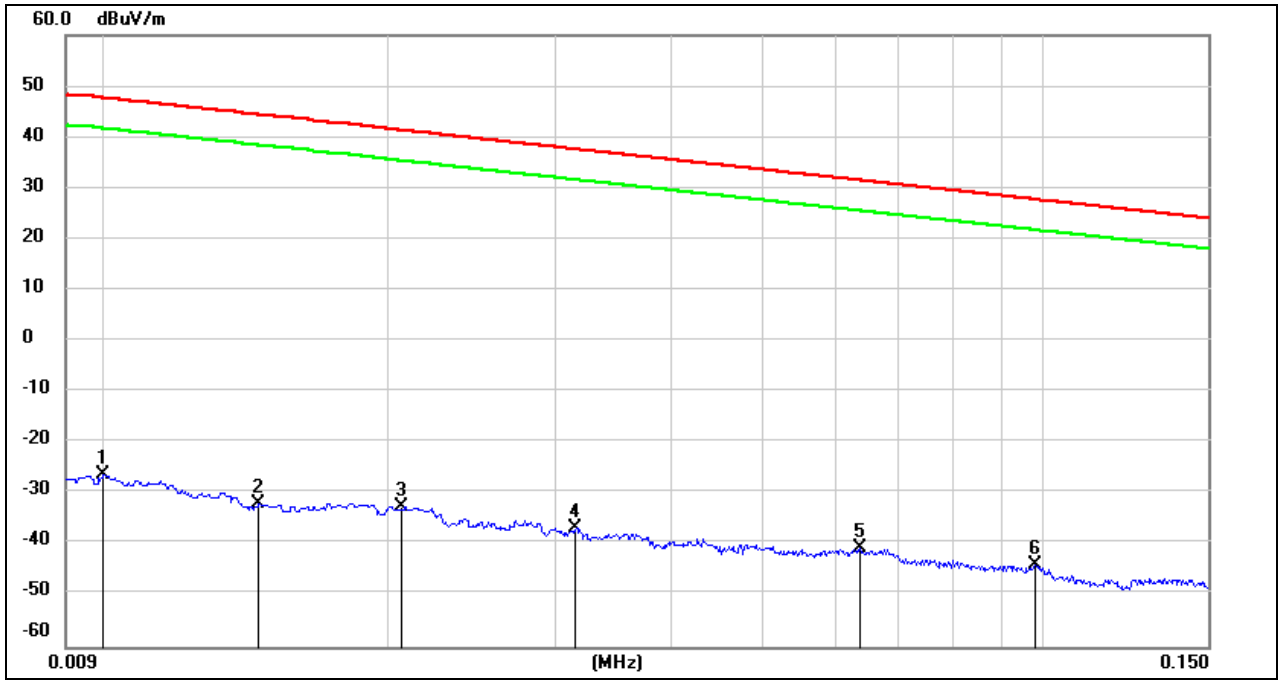
8.7. SPURIOUS EMISSIONS BELOW 30 MHz

8.7.1. 802.11b SISO MODE

ANTENNA 1 TEST RESULTS (WORST CASE)

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

9 kHz~ 150 kHz



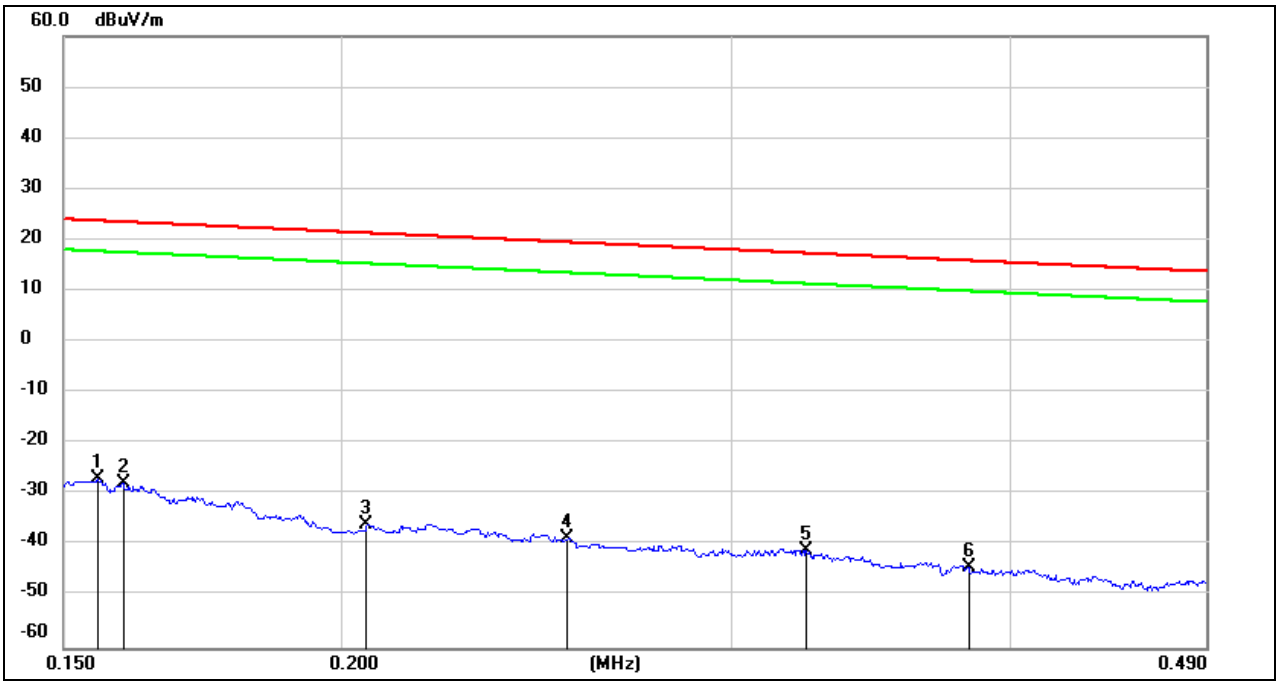
No.	Frequency	Reading	Correct	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.0100	75.22	-101.40	-26.18	47.6	-77.68	-3.90	-73.78	peak
2	0.0145	69.55	-101.38	-31.83	44.37	-83.33	-7.13	-76.20	peak
3	0.0206	68.92	-101.35	-32.43	41.32	-83.93	-10.18	-73.75	peak
4	0.0316	64.74	-101.40	-36.66	37.61	-88.16	-13.89	-74.27	peak
5	0.0636	60.81	-101.54	-40.73	31.53	-92.23	-19.97	-72.26	peak
6	0.0981	57.77	-101.78	-44.01	27.77	-95.51	-23.73	-71.78	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



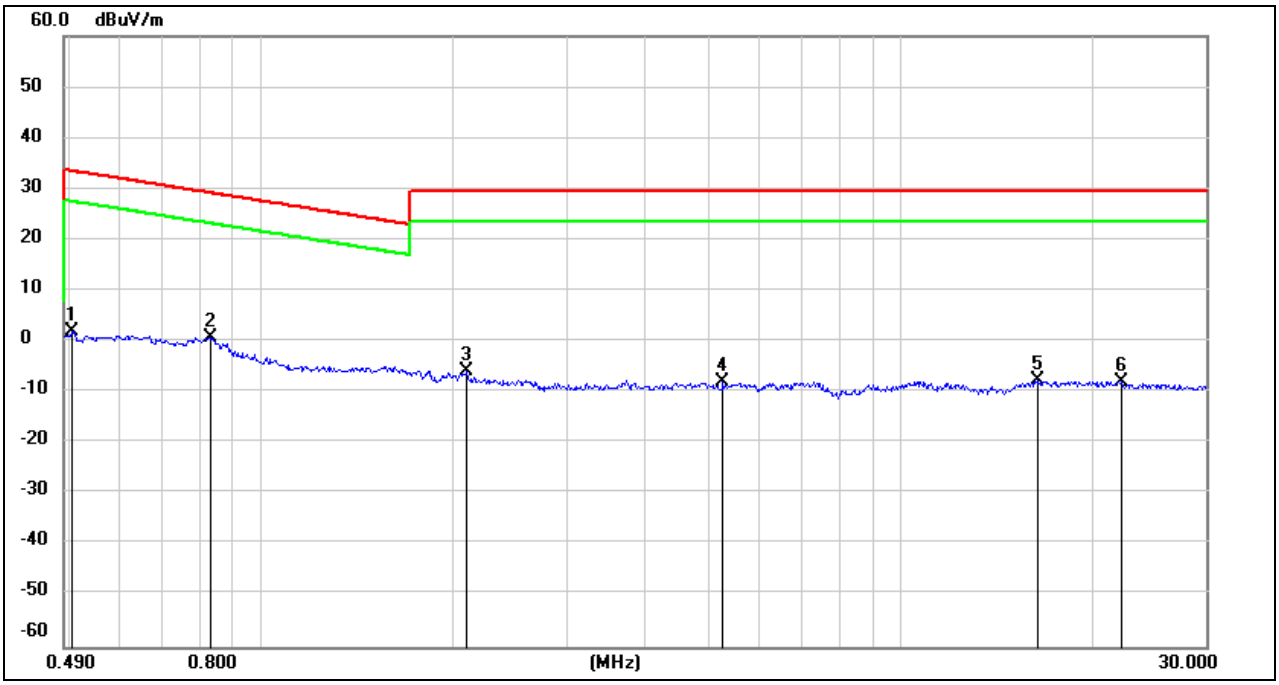
No.	Frequency	Reading	Correct	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.1554	74.77	-101.65	-26.88	23.77	-78.38	-27.73	-50.65	peak
2	0.1595	73.86	-101.65	-27.79	23.55	-79.29	-27.95	-51.34	peak
3	0.2053	65.79	-101.73	-35.94	21.35	-87.44	-30.15	-57.29	peak
4	0.2530	63.14	-101.80	-38.66	19.54	-90.16	-31.96	-58.20	peak
5	0.3240	60.87	-101.88	-41.01	17.39	-92.51	-34.11	-58.40	peak
6	0.3830	57.70	-101.94	-44.24	15.94	-95.74	-35.56	-60.18	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	63.94	-62.07	1.87	33.56	-49.63	-17.94	-31.69	peak
2	0.8296	62.94	-62.17	0.77	29.23	-50.73	-22.27	-28.46	peak
3	2.0939	55.89	-61.79	-5.9	29.54	-57.40	-21.96	-35.44	peak
4	5.2705	53.54	-61.45	-7.91	29.54	-59.41	-21.96	-37.45	peak
5	16.3959	53.17	-60.96	-7.79	29.54	-59.29	-21.96	-37.33	peak
6	22.1503	52.70	-60.67	-7.97	29.54	-59.47	-21.96	-37.51	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 modes, channels and antenna have been tested, only the worst data was recorded in the report.

9. AC POWER LINE CONDUCTED EMISSIONS

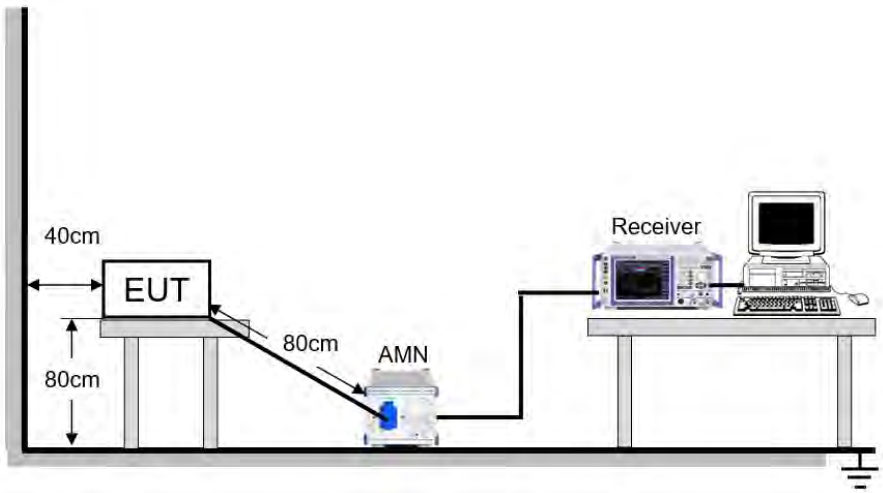
LIMITS

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.

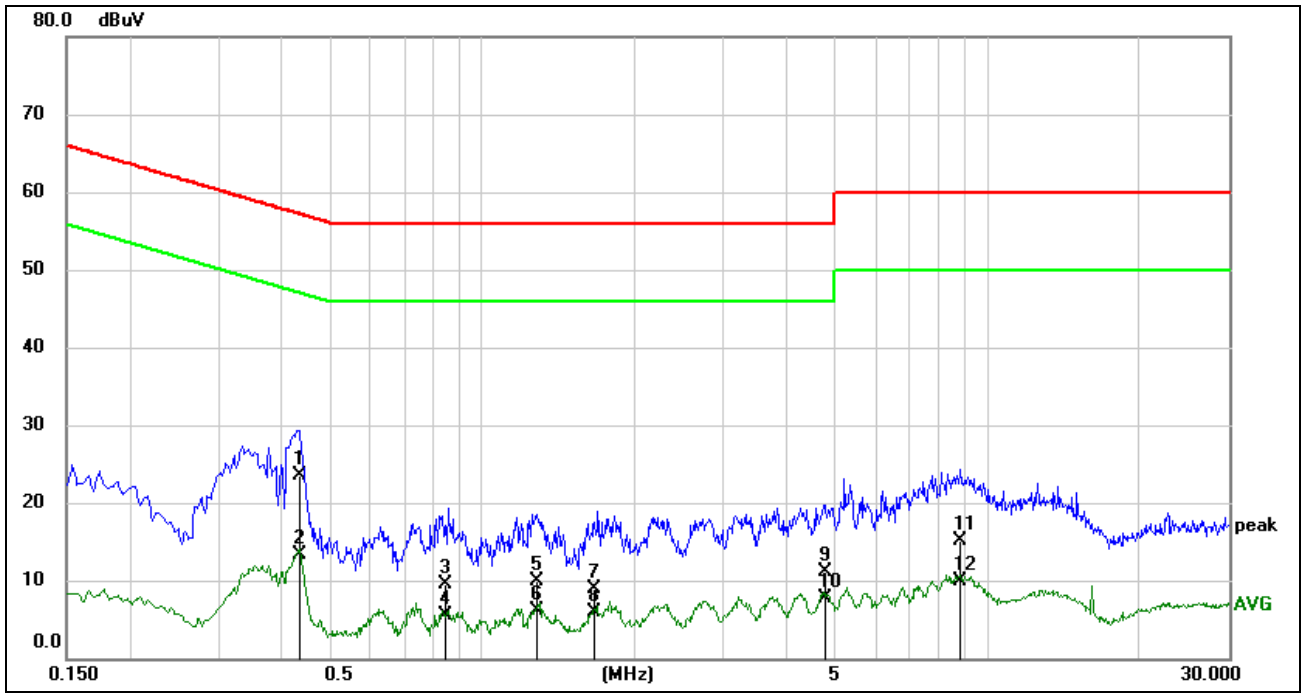
TEST ENVIRONMENT

Temperature	27.6 °C	Relative Humidity	64.8 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V, 60 Hz

RESULTS

9.1.1. 802.11b SISO MODE

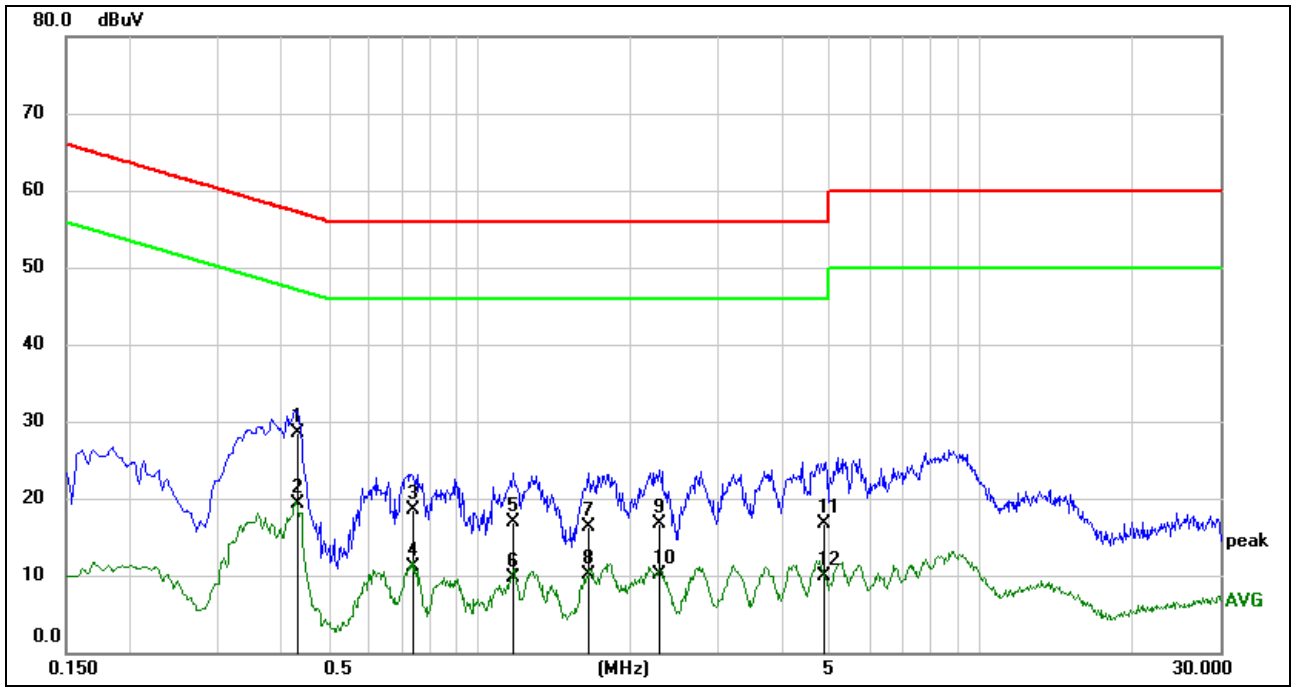
LINE L RESULTS (MID CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.4323	13.98	9.52	23.50	57.21	-33.71	QP
2	0.4323	3.79	9.52	13.31	47.21	-33.90	AVG
3	0.8434	0.08	9.50	9.58	56.00	-46.42	QP
4	0.8434	-4.07	9.50	5.43	46.00	-40.57	AVG
5	1.2872	0.32	9.54	9.86	56.00	-46.14	QP
6	1.2872	-3.52	9.54	6.02	46.00	-39.98	AVG
7	1.6682	-0.65	9.59	8.94	56.00	-47.06	QP
8	1.6682	-3.71	9.59	5.88	46.00	-40.12	AVG
9	4.7660	1.62	9.46	11.08	56.00	-44.92	QP
10	4.7660	-1.73	9.46	7.73	46.00	-38.27	AVG
11	8.8157	5.77	9.37	15.14	60.00	-44.86	QP
12	8.8157	0.55	9.37	9.92	50.00	-40.08	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 N RESULTS (MID CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.4315	19.00	9.52	28.52	57.22	-28.70	QP
2	0.4315	9.84	9.52	19.36	47.22	-27.86	AVG
3	0.7399	9.01	9.50	18.51	56.00	-37.49	QP
4	0.7399	1.54	9.50	11.04	46.00	-34.96	AVG
5	1.1671	7.35	9.53	16.88	56.00	-39.12	QP
6	1.1671	0.19	9.53	9.72	46.00	-36.28	AVG
7	1.6589	6.79	9.59	16.38	56.00	-39.62	QP
8	1.6589	0.60	9.59	10.19	46.00	-35.81	AVG
9	2.2950	7.09	9.63	16.72	56.00	-39.28	QP
10	2.2950	0.50	9.63	10.13	46.00	-35.87	AVG
11	4.8469	7.34	9.44	16.78	56.00	-39.22	QP
12	4.8469	0.39	9.44	9.83	46.00	-36.17	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 modes, channels and antenna have been tested, only the worst data was recorded in the report.

10. 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

11. Appendix

11.1. Appendix A: DTS Bandwidth

11.1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	6.600	2408.520	2415.120	0.5	PASS
	Ant2	2412	7.040	2408.560	2415.600	0.5	PASS
	Ant1	2417	8.040	2413.040	2421.080	0.5	PASS
	Ant2	2417	7.520	2413.560	2421.080	0.5	PASS
	Ant1	2437	7.040	2433.560	2440.600	0.5	PASS
	Ant2	2437	7.560	2433.480	2441.040	0.5	PASS
	Ant1	2457	7.080	2454.000	2461.080	0.5	PASS
	Ant2	2457	8.040	2453.000	2461.040	0.5	PASS
	Ant1	2462	7.560	2458.520	2466.080	0.5	PASS
	Ant2	2462	7.560	2458.000	2465.560	0.5	PASS
11G	Ant1	2412	16.360	2403.840	2420.200	0.5	PASS
	Ant2	2412	16.320	2403.880	2420.200	0.5	PASS
	Ant1	2417	16.320	2408.880	2425.200	0.5	PASS
	Ant2	2417	16.360	2408.880	2425.240	0.5	PASS
	Ant1	2437	16.320	2428.880	2445.200	0.5	PASS
	Ant2	2437	16.360	2428.880	2445.240	0.5	PASS
	Ant1	2457	16.320	2448.880	2465.200	0.5	PASS
	Ant2	2457	16.360	2448.880	2465.240	0.5	PASS
	Ant1	2462	16.360	2453.840	2470.200	0.5	PASS
	Ant2	2462	16.360	2453.880	2470.240	0.5	PASS
11N20MIMO	Ant1	2412	17.560	2403.280	2420.840	0.5	PASS
	Ant2	2412	17.560	2403.280	2420.840	0.5	PASS
	Ant1	2417	17.560	2408.280	2425.840	0.5	PASS
	Ant2	2417	16.920	2408.920	2425.840	0.5	PASS
	Ant1	2437	17.560	2428.280	2445.840	0.5	PASS
	Ant2	2437	17.560	2428.280	2445.840	0.5	PASS
	Ant1	2457	17.160	2448.680	2465.840	0.5	PASS
	Ant2	2457	17.560	2448.280	2465.840	0.5	PASS
	Ant1	2462	17.160	2453.680	2470.840	0.5	PASS
	Ant2	2462	17.600	2453.280	2470.880	0.5	PASS
11N40MIMO	Ant1	2422	36.320	2403.920	2440.240	0.5	PASS
	Ant2	2422	36.320	2403.920	2440.240	0.5	PASS
	Ant1	2427	36.320	2408.920	2445.240	0.5	PASS
	Ant2	2427	36.000	2409.240	2445.240	0.5	PASS
	Ant1	2437	36.320	2418.920	2455.240	0.5	PASS
	Ant2	2437	36.320	2418.920	2455.240	0.5	PASS
	Ant1	2447	36.320	2428.920	2465.240	0.5	PASS
	Ant2	2447	36.320	2428.920	2465.240	0.5	PASS
	Ant1	2452	36.320	2433.920	2470.240	0.5	PASS
	Ant2	2452	36.320	2433.920	2470.240	0.5	PASS
11AX20MIMO	Ant1	2412	17.360	2403.760	2421.120	0.5	PASS
	Ant2	2412	18.120	2403.240	2421.360	0.5	PASS
	Ant1	2417	18.280	2407.640	2425.920	0.5	PASS
	Ant2	2417	18.160	2408.280	2426.440	0.5	PASS
	Ant1	2437	17.600	2428.240	2445.840	0.5	PASS
	Ant2	2437	17.560	2428.240	2445.800	0.5	PASS
	Ant1	2457	17.560	2448.280	2465.840	0.5	PASS
	Ant2	2457	17.560	2448.280	2465.840	0.5	PASS
	Ant1	2462	17.560	2453.280	2470.840	0.5	PASS
	Ant2	2462	17.560	2453.280	2470.840	0.5	PASS
11AX40MIMO	Ant1	2422	36.320	2403.920	2440.240	0.5	PASS
	Ant2	2422	36.320	2403.920	2440.240	0.5	PASS

	Ant1	2427	36.320	2408.920	2445.240	0.5	PASS
	Ant2	2427	36.320	2408.920	2445.240	0.5	PASS
	Ant1	2437	36.320	2418.920	2455.240	0.5	PASS
	Ant2	2437	36.320	2418.920	2455.240	0.5	PASS
	Ant1	2447	36.320	2428.920	2465.240	0.5	PASS
	Ant2	2447	36.320	2428.920	2465.240	0.5	PASS
	Ant1	2452	36.320	2433.920	2470.240	0.5	PASS
	Ant2	2452	36.080	2434.160	2470.240	0.5	PASS

11.1.2. Test Graphs

11B_Ant1_2412

11B_Ant2_2412

11B_Ant1_2417

11B_Ant2_2417

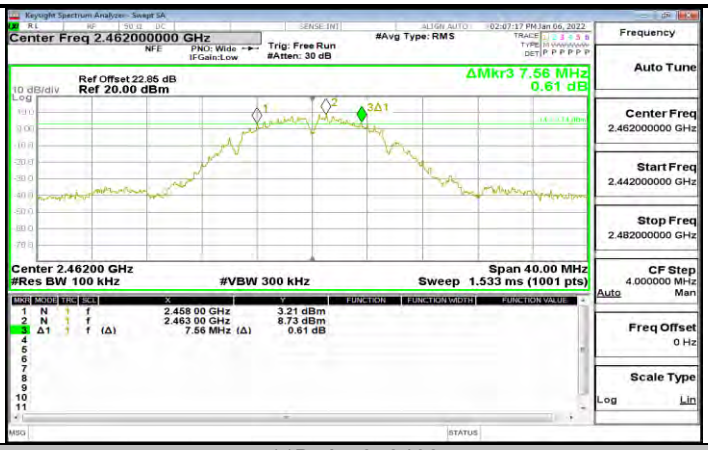
11B_Ant1_2437

11B_Ant2_2437

11B_Ant1_2457

11B_Ant2_2457

11B_Ant1_2462



11B_Ant2_2462

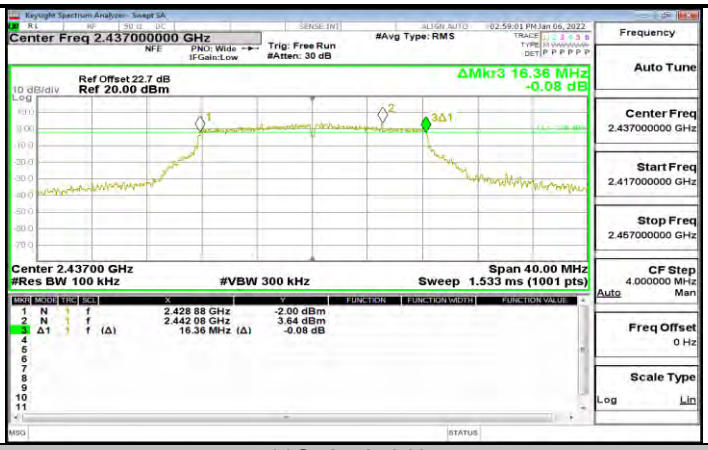
11G_Ant1_2412

11G_Ant2_2412

11G_Ant1_2417

11G_Ant2_2417

11G_Ant1_2437

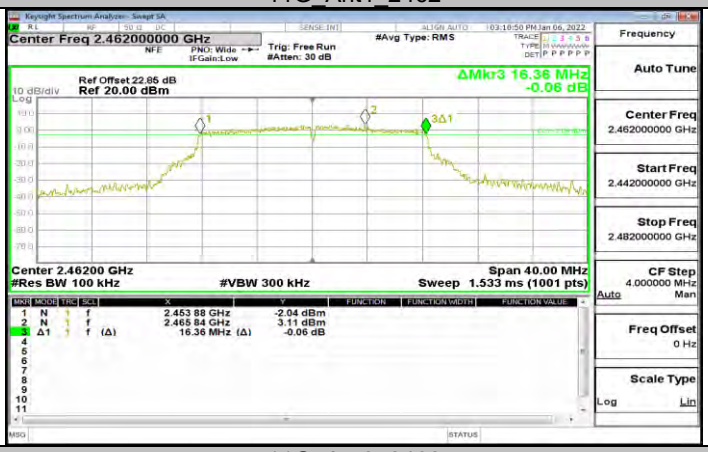


11G_Ant2_2437

11G_Ant1_2457

11G_Ant2_2457

11G_Ant1_2462



11G_Ant2_2462

11N20MIMO_Ant1_2412

11N20MIMO_Ant2_2412

11N20MIMO_Ant1_2417

11N20MIMO_Ant2_2417

11N20MIMO_Ant1_2437

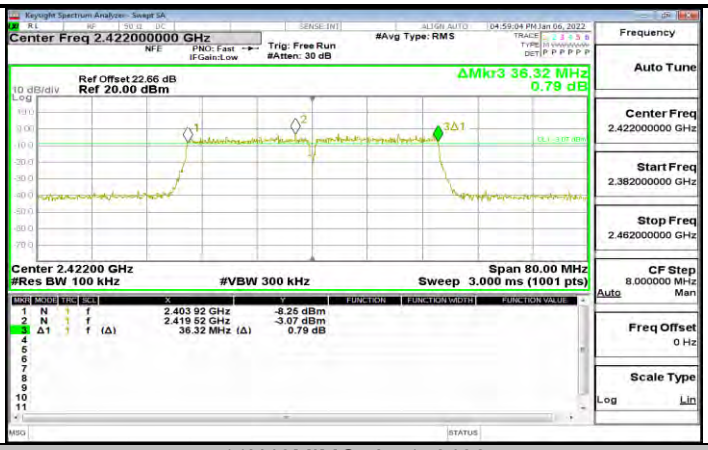
11N20MIMO_Ant2_2437

11N20MIMO_Ant1_2457

11N20MIMO_Ant2_2457

11N20MIMO_Ant1_2462

11N20MIMO_Ant2_2462



11N40MIMO_Ant1_2422

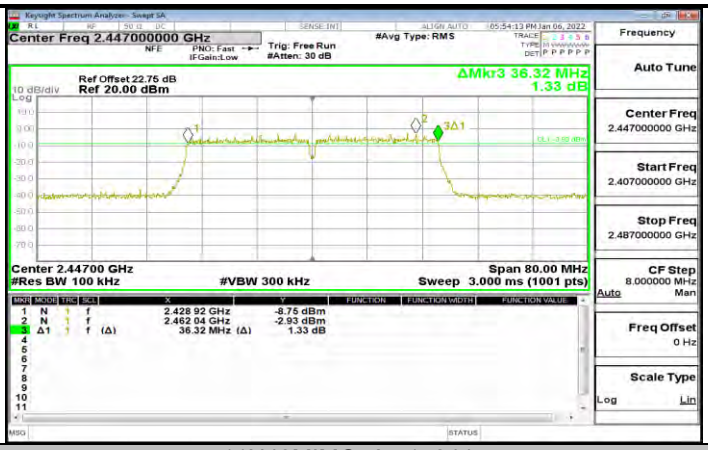
11N40MIMO_Ant2_2422

11N40MIMO_Ant1_2427

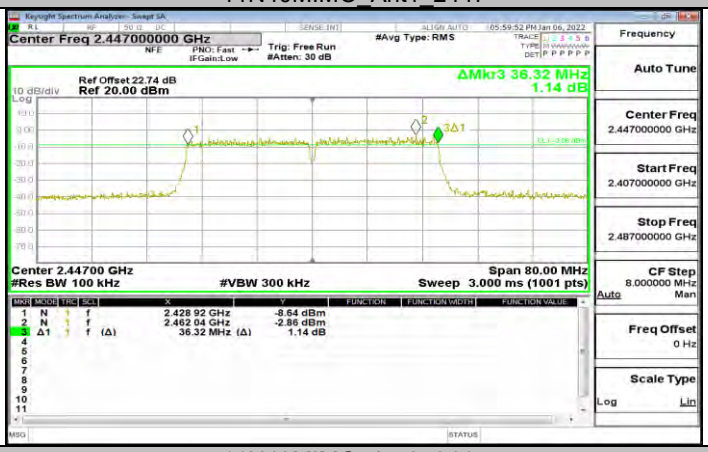
11N40MIMO_Ant2_2427

11N40MIMO_Ant1_2437

11N40MIMO_Ant2_2437

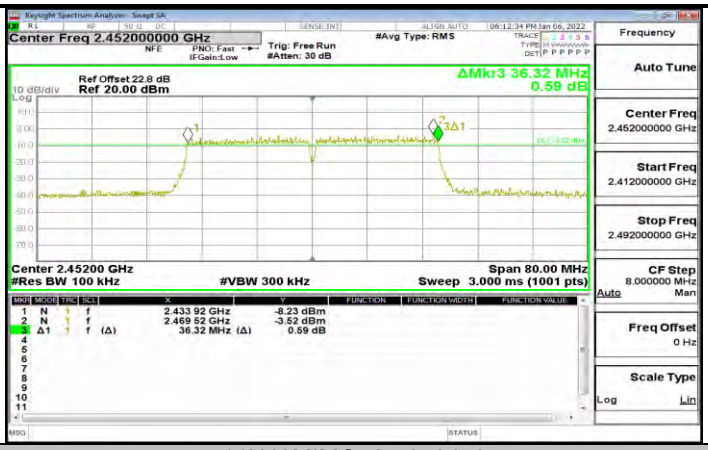


11N40MIMO_Ant1_2447



11N40MIMO_Ant2_2447

11N40MIMO_Ant1_2452



11N40MIMO_Ant2_2452

11AX20MIMO_Ant1_2412

11AX20MIMO_Ant2_2412

11AX20MIMO_Ant1_2417

11AX20MIMO_Ant2_2417

11AX20MIMO_Ant1_2437

11AX20MIMO_Ant2_2437

11AX20MIMO_Ant1_2457

11AX20MIMO_Ant2_2457

11AX20MIMO_Ant1_2462

11AX20MIMO_Ant2_2462

11AX40MIMO_Ant1_2422

11AX40MIMO_Ant2_2422

11AX40MIMO_Ant1_2427

11AX40MIMO_Ant2_2427

11AX40MIMO_Ant1_2437

11AX40MIMO_Ant2_2437

11AX40MIMO_Ant1_2447

11AX40MIMO_Ant2_2447

11AX40MIMO_Ant1_2452

11AX40MIMO_Ant2_2452

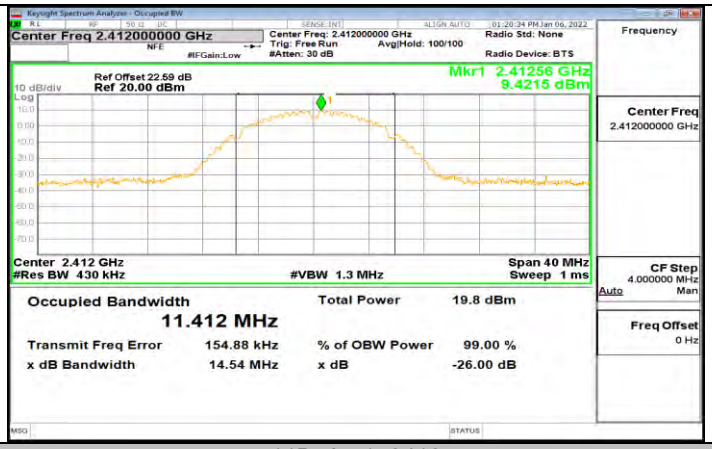
11.2. Appendix B: Occupied Channel Bandwidth

11.2.1. Test Result

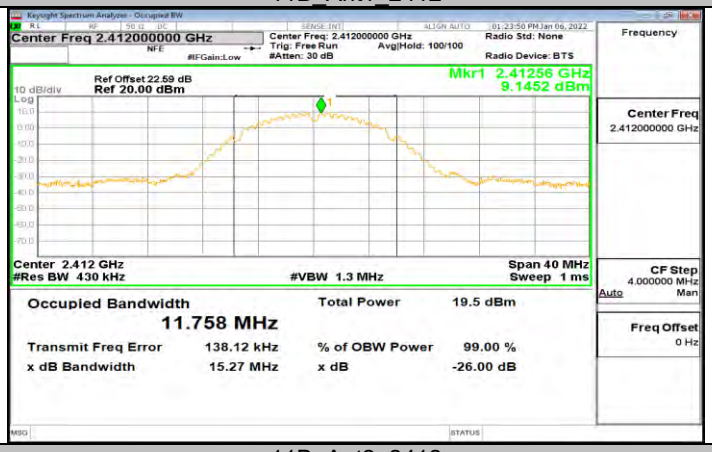
Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	11.412	2406.449	2417.861	---	---
	Ant2	2412	11.758	2406.259	2418.017	---	---
	Ant1	2417	11.543	2411.373	2422.916	---	---
	Ant2	2417	11.743	2411.278	2423.021	---	---
	Ant1	2437	11.596	2431.311	2442.907	---	---
	Ant2	2437	11.870	2431.134	2443.004	---	---
	Ant1	2457	11.672	2451.279	2462.951	---	---
	Ant2	2457	11.917	2451.108	2463.025	---	---
	Ant1	2462	11.710	2456.254	2467.964	---	---
	Ant2	2462	11.945	2456.090	2468.035	---	---
11G	Ant1	2412	17.262	2403.419	2420.681	---	---
	Ant2	2412	17.226	2403.442	2420.668	---	---
	Ant1	2417	17.149	2408.489	2425.638	---	---
	Ant2	2417	17.277	2408.504	2425.781	---	---
	Ant1	2437	17.226	2428.447	2445.673	---	---
	Ant2	2437	17.275	2428.487	2445.762	---	---
	Ant1	2457	17.231	2448.476	2465.707	---	---
	Ant2	2457	17.299	2448.457	2465.756	---	---
	Ant1	2462	17.217	2453.491	2470.708	---	---
	Ant2	2462	17.269	2453.512	2470.781	---	---
11N20MIMO	Ant1	2412	18.150	2403.072	2421.222	---	---
	Ant2	2412	18.060	2403.087	2421.147	---	---
	Ant1	2417	18.284	2407.958	2426.242	---	---
	Ant2	2417	18.020	2408.108	2426.128	---	---
	Ant1	2437	18.204	2428.003	2446.207	---	---
	Ant2	2437	18.009	2428.107	2446.116	---	---
	Ant1	2457	18.099	2448.039	2466.138	---	---
	Ant2	2457	17.921	2448.131	2466.052	---	---
	Ant1	2462	18.204	2452.987	2471.191	---	---
	Ant2	2462	18.000	2453.104	2471.104	---	---
11N40MIMO	Ant1	2422	36.516	2403.888	2440.404	---	---
	Ant2	2422	36.425	2403.965	2440.390	---	---
	Ant1	2427	36.529	2408.971	2445.500	---	---
	Ant2	2427	36.598	2408.890	2445.488	---	---
	Ant1	2437	36.522	2418.937	2455.459	---	---
	Ant2	2437	36.579	2418.924	2455.503	---	---
	Ant1	2447	36.664	2428.779	2465.443	---	---
	Ant2	2447	36.471	2428.956	2465.427	---	---
	Ant1	2452	36.566	2433.921	2470.487	---	---
	Ant2	2452	36.582	2433.982	2470.564	---	---
11AX20MIMO	Ant1	2412	19.052	2402.532	2421.584	---	---
	Ant2	2412	19.085	2402.534	2421.619	---	---
	Ant1	2417	19.012	2407.584	2426.596	---	---
	Ant2	2417	19.015	2407.588	2426.603	---	---
	Ant1	2437	18.213	2427.982	2446.195	---	---
	Ant2	2437	17.979	2428.053	2446.032	---	---
	Ant1	2457	18.118	2448.024	2466.142	---	---
	Ant2	2457	18.041	2448.125	2466.166	---	---
	Ant1	2462	18.195	2453.009	2471.204	---	---
	Ant2	2462	18.003	2453.096	2471.099	---	---
11AX40MIMO	Ant1	2422	36.453	2403.973	2440.426	---	---
	Ant2	2422	36.571	2403.874	2440.445	---	---
	Ant1	2427	36.547	2408.918	2445.465	---	---

	Ant2	2427	36.518	2408.897	2445.415	---	---
	Ant1	2437	36.560	2418.917	2455.477	---	---
	Ant2	2437	36.496	2418.928	2455.424	---	---
	Ant1	2447	36.589	2428.901	2465.490	---	---
	Ant2	2447	36.488	2428.940	2465.428	---	---
	Ant1	2452	36.531	2433.970	2470.501	---	---
	Ant2	2452	36.450	2433.967	2470.417	---	---

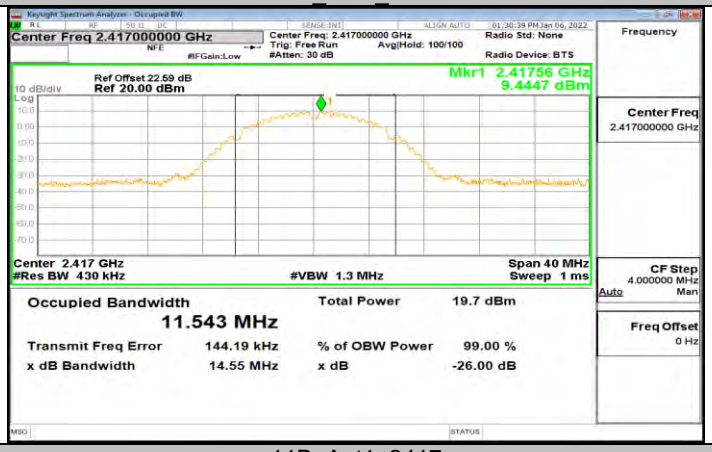
11.2.2. Test Graphs



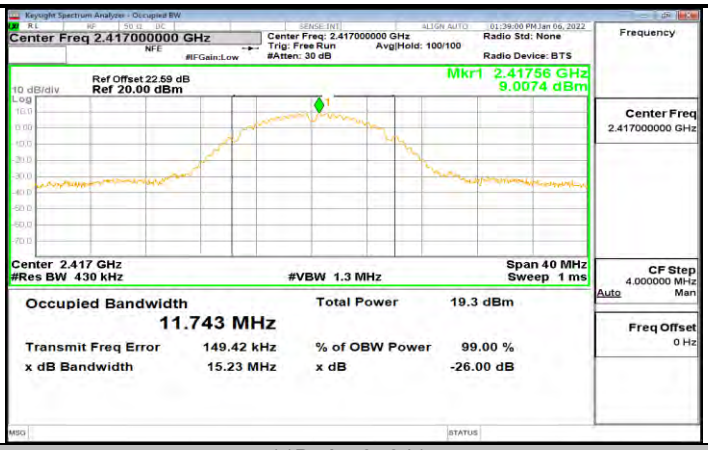
11B_Ant1_2412



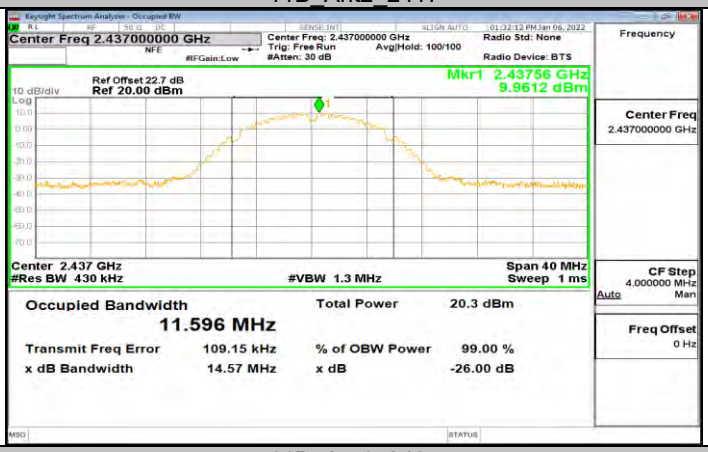
11B_Ant2_2412



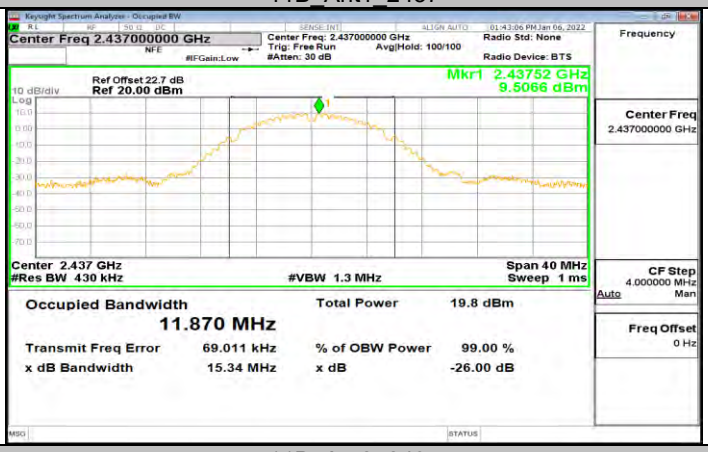
11B_Ant1_2417



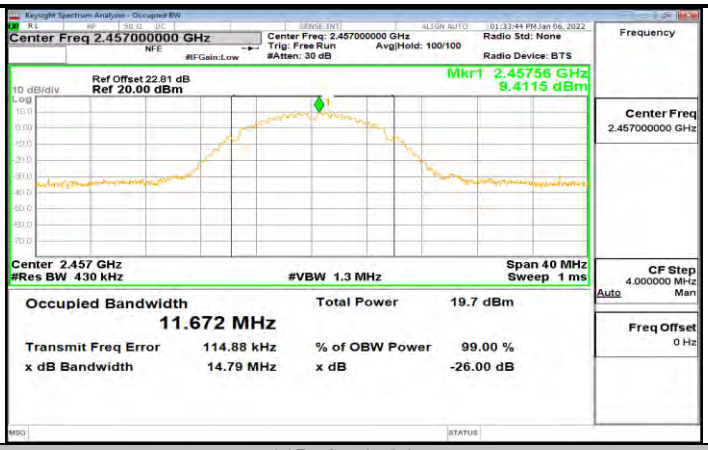
11B_Ant2_2417



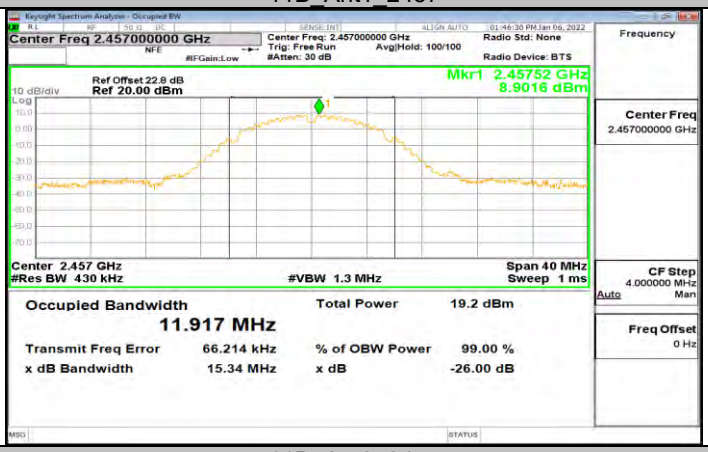
11B_Ant1_2437



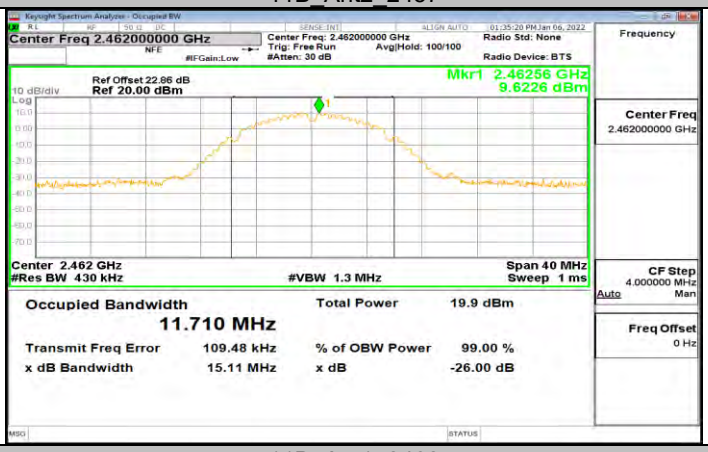
11B_Ant2_2437



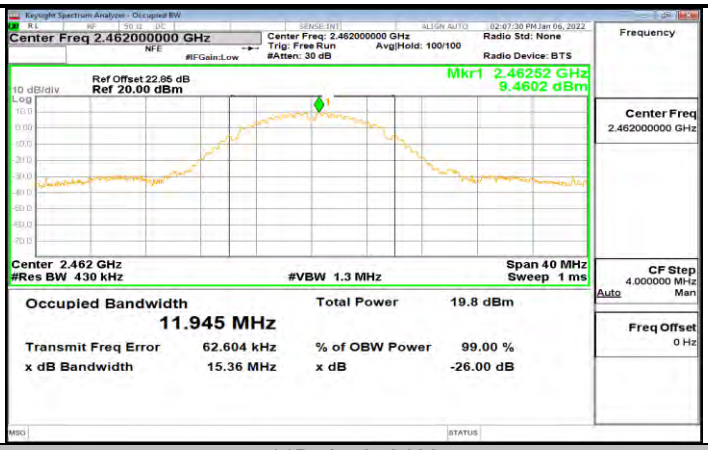
11B_Ant1_2457



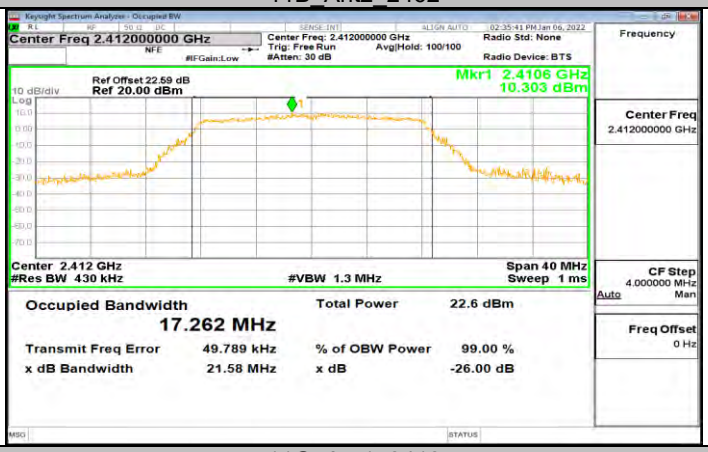
11B_Ant2_2457



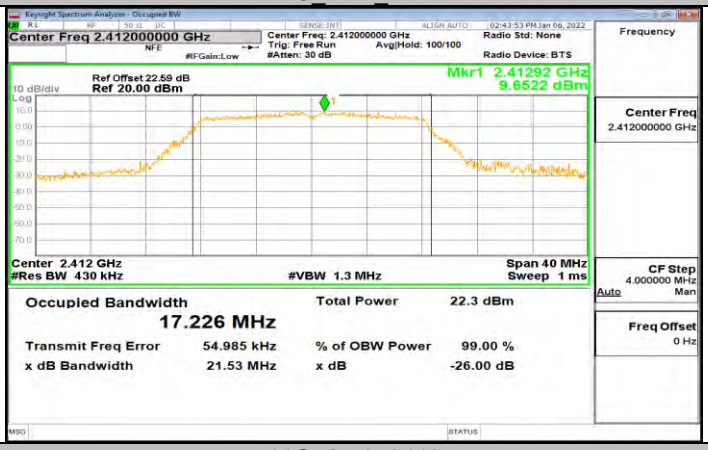
11B_Ant1_2462



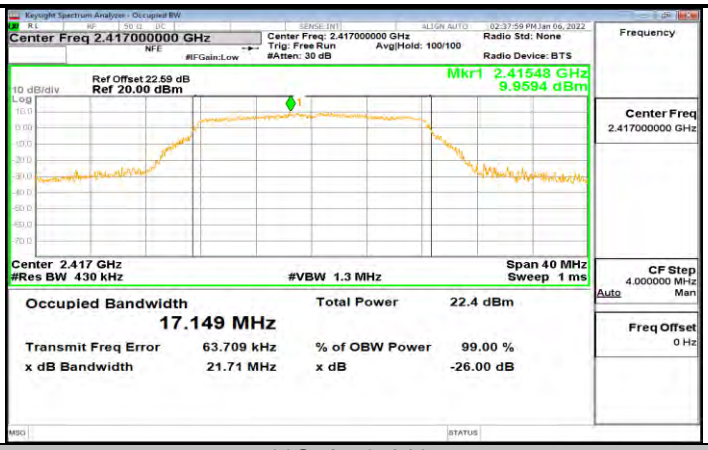
11B_Ant2_2462



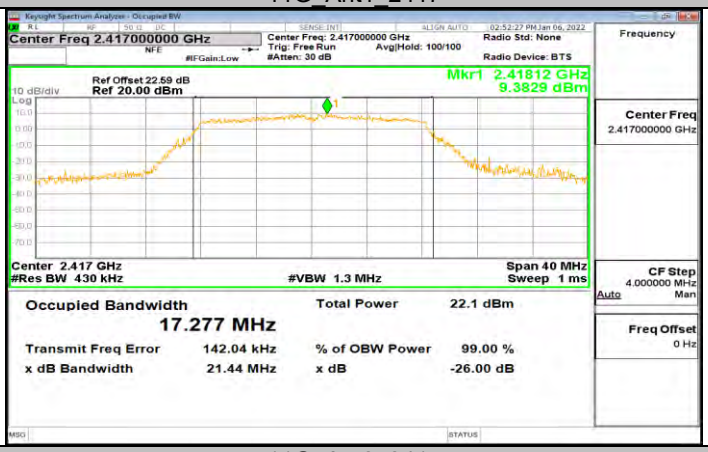
11G_Ant1_2412



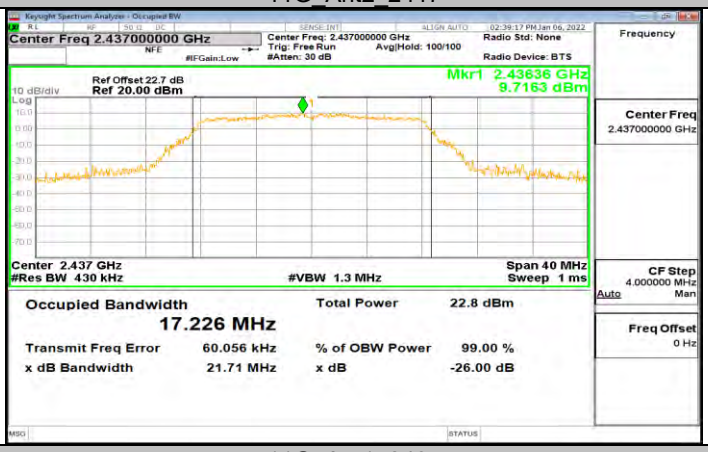
11G_Ant2_2412



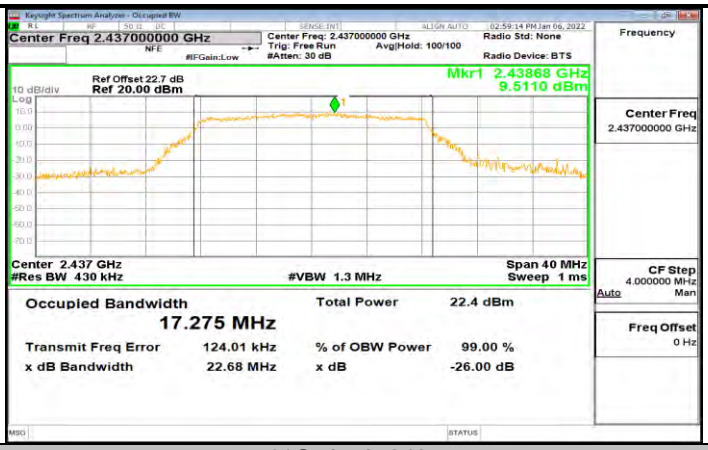
11G_Ant1_2417



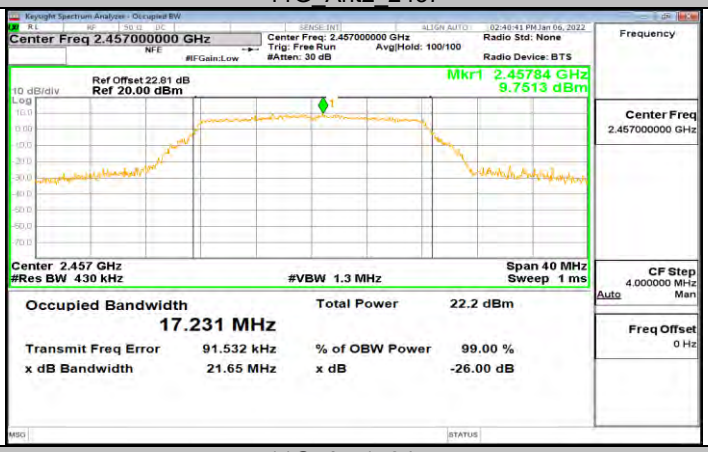
11G_Ant2_2417



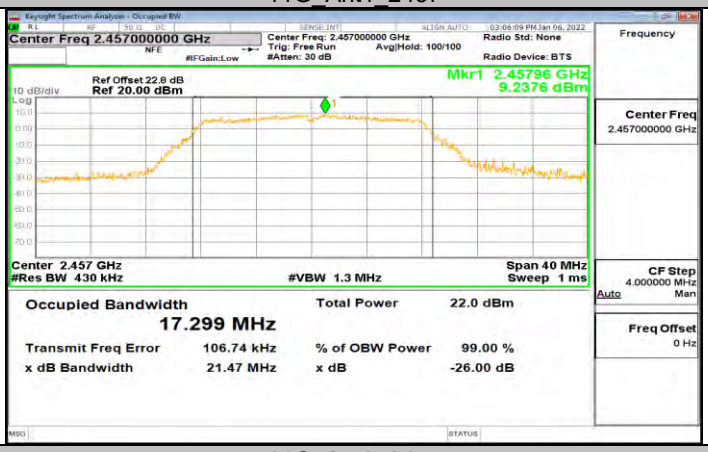
11G_Ant1_2437



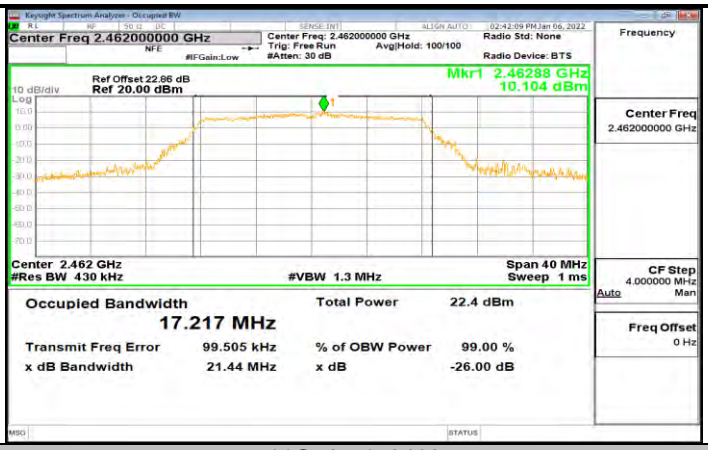
11G_Ant2_2437



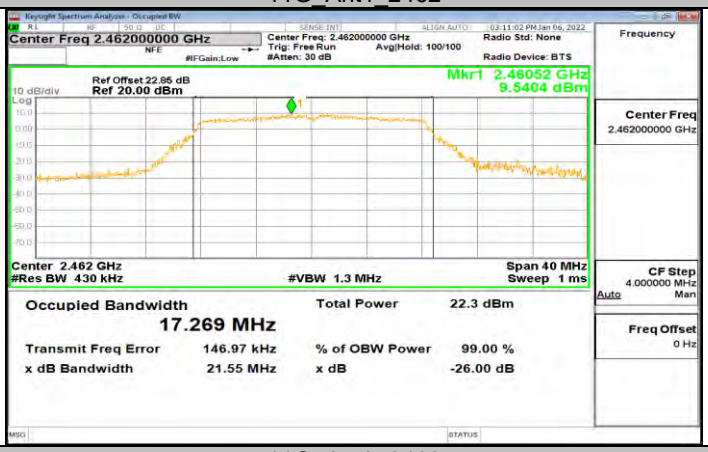
11G_Ant1_2457



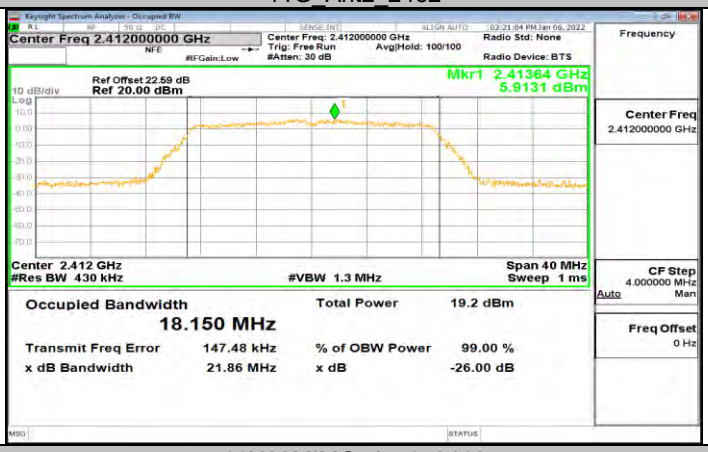
11G_Ant2_2457



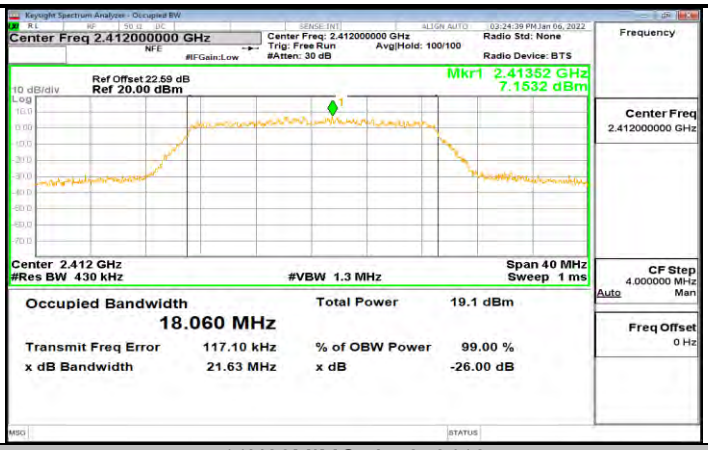
11G_Ant1_2462



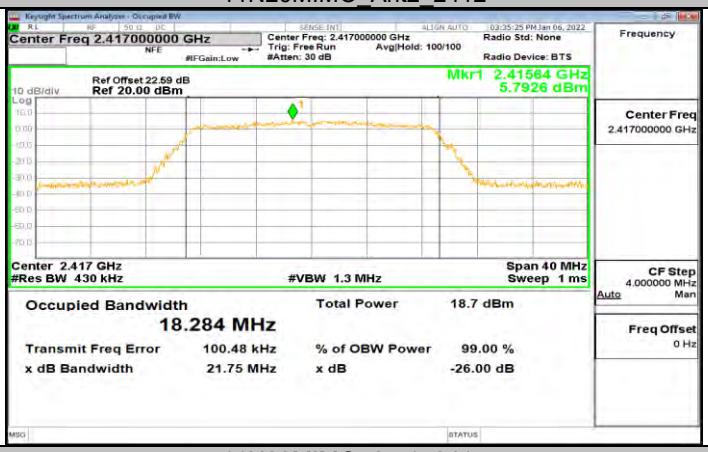
11G_Ant2_2462



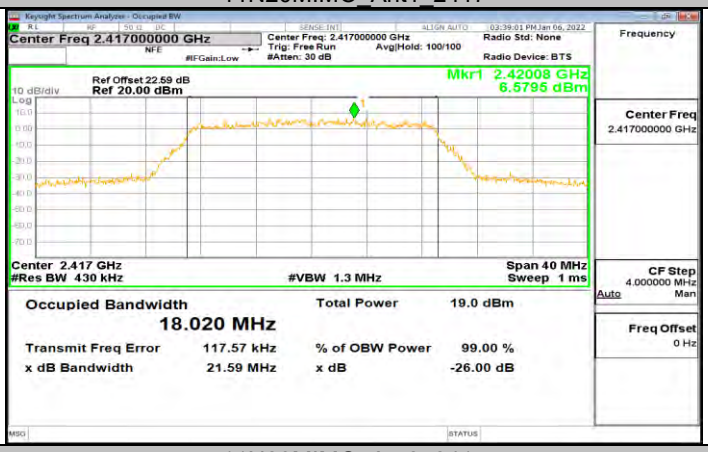
11N20MIMO_Ant1_2412



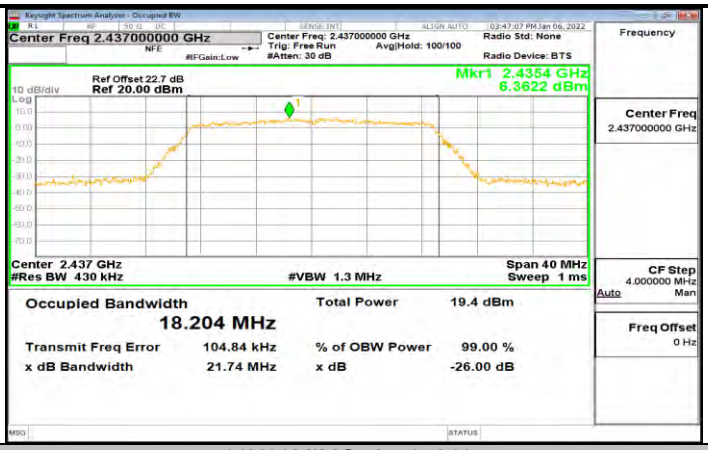
11N20MIMO_Ant2_2412



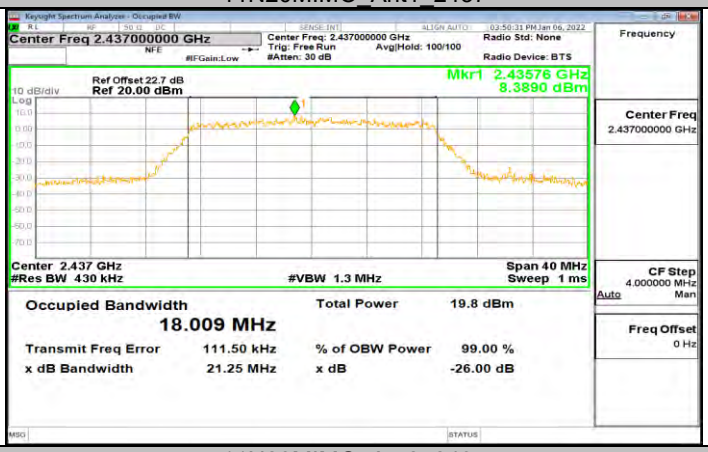
11N20MIMO_Ant1_2417



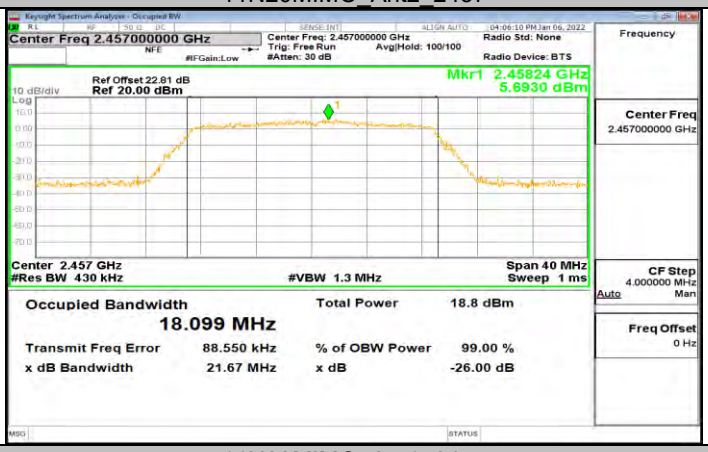
11N20MIMO_Ant2_2417



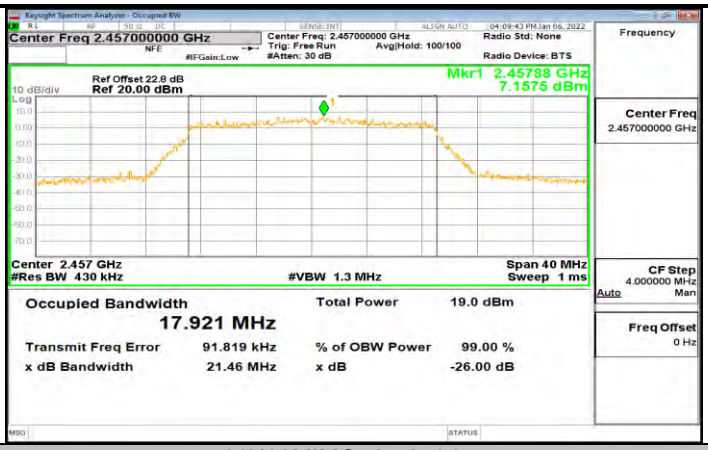
11N20MIMO_Ant1_2437



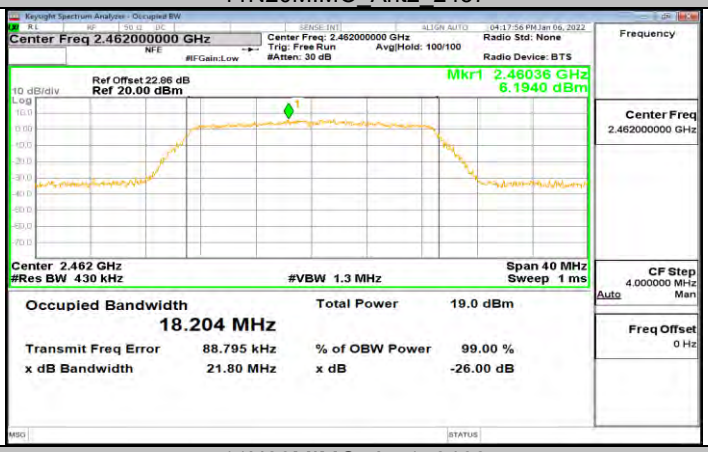
11N20MIMO_Ant2_2437



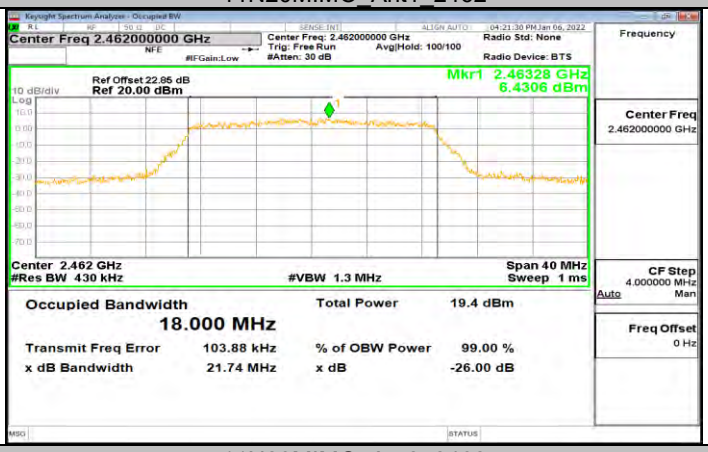
11N20MIMO_Ant1_2457



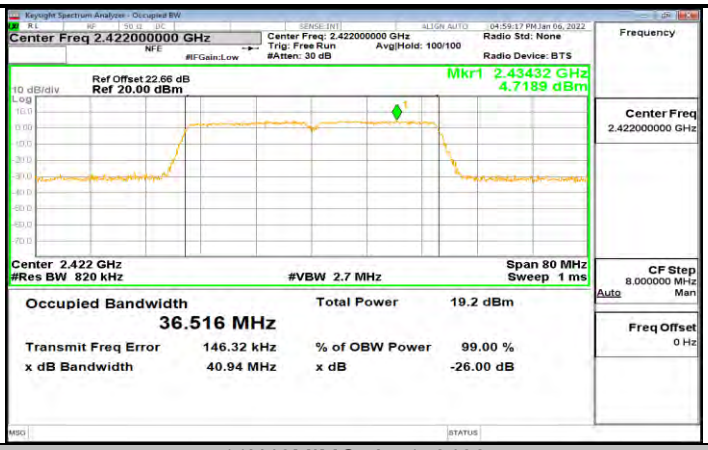
11N20MIMO_Ant2_2457



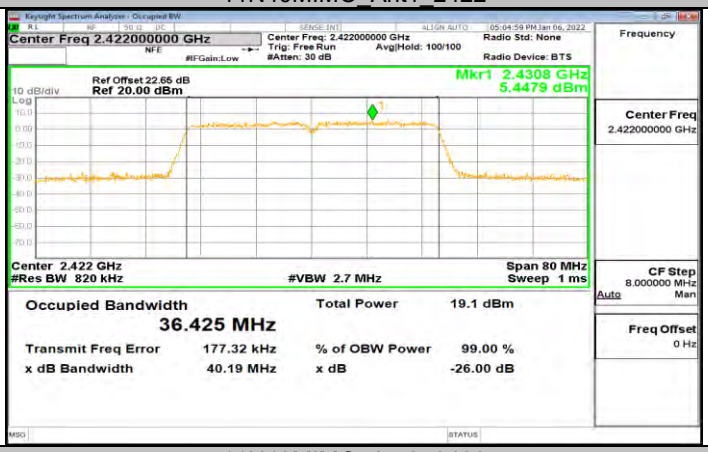
11N20MIMO_Ant1_2462



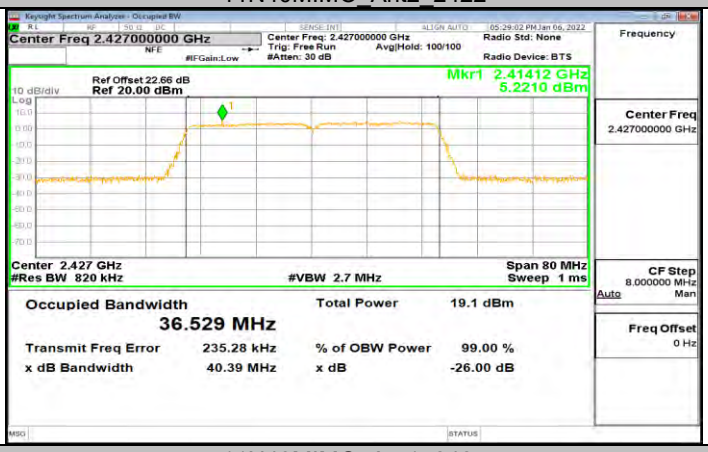
11N20MIMO_Ant2_2462



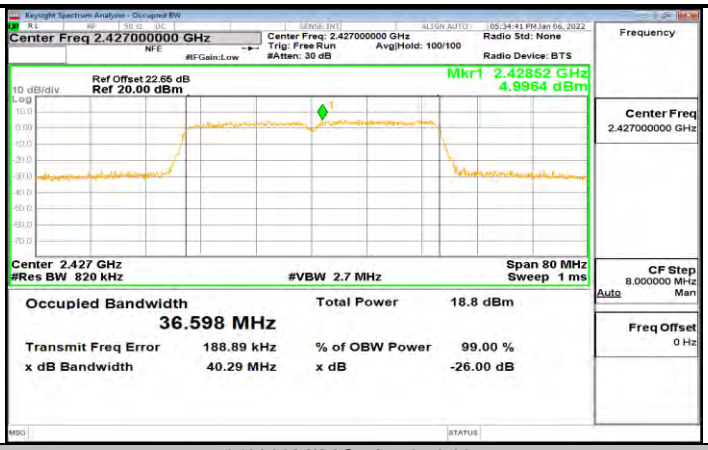
11N40MIMO_Ant1_2422



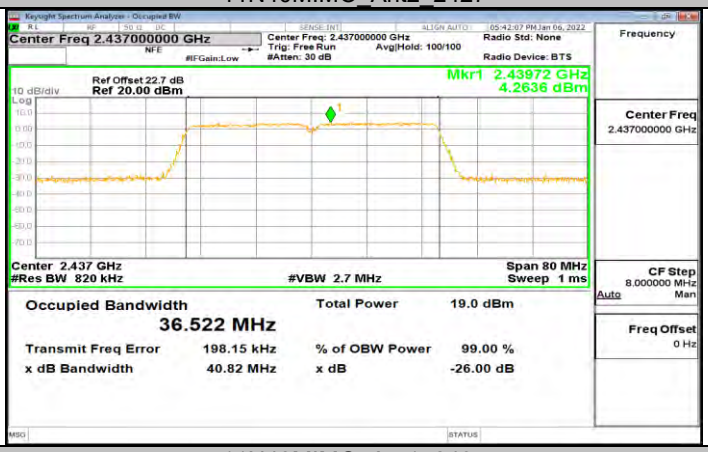
11N40MIMO_Ant2_2422



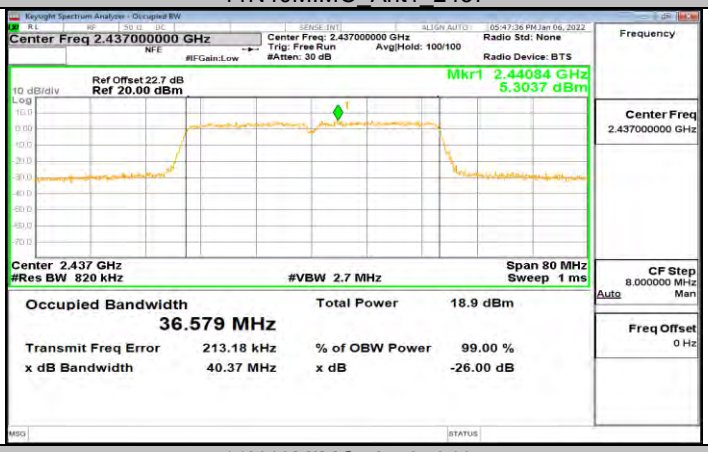
11N40MIMO_Ant1_2427



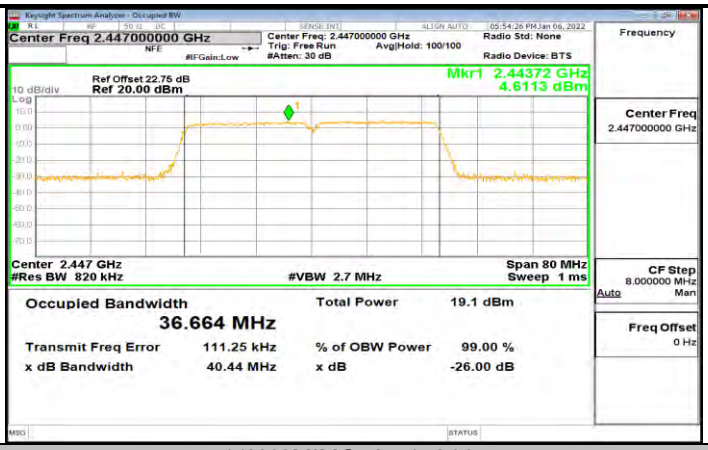
11N40MIMO_Ant2_2427



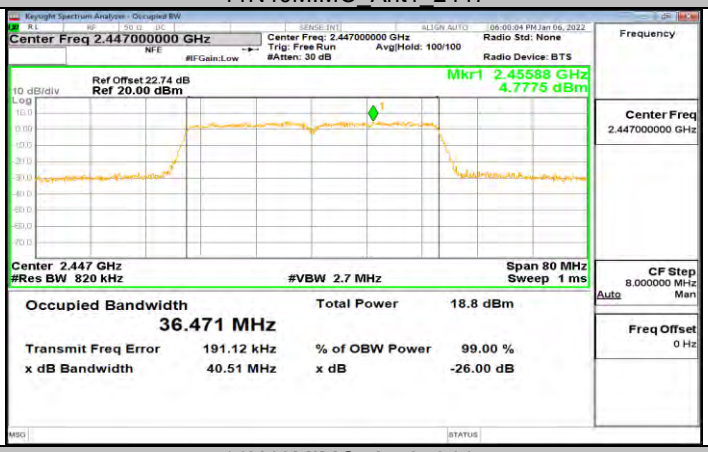
11N40MIMO_Ant1_2437



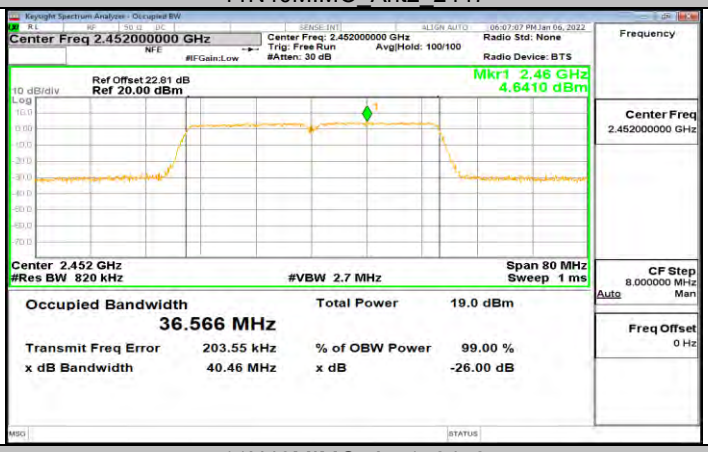
11N40MIMO_Ant2_2437



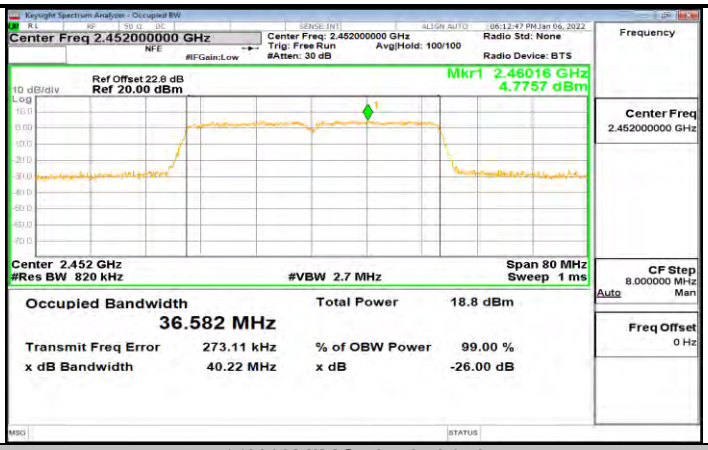
11N40MIMO_Ant1_2447



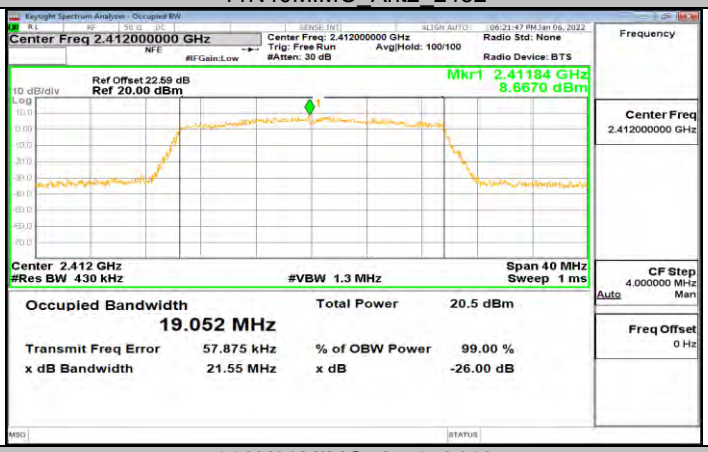
11N40MIMO_Ant2_2447



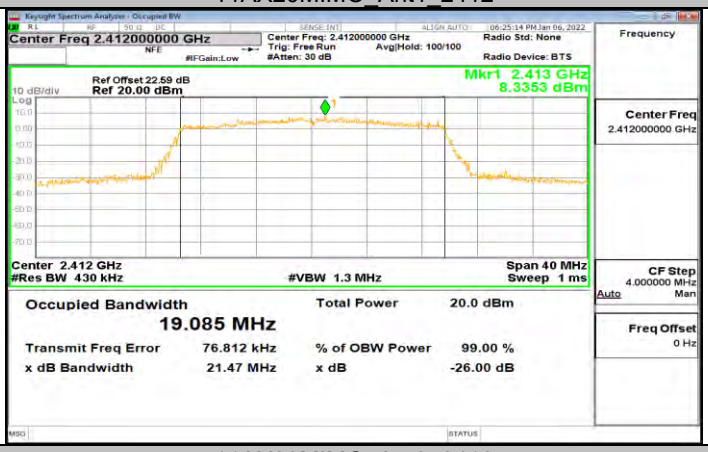
11N40MIMO_Ant1_2452



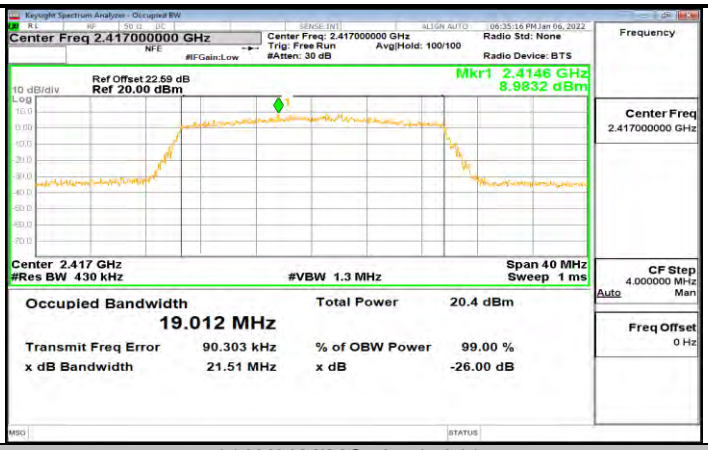
11N40MIMO_Ant2_2452



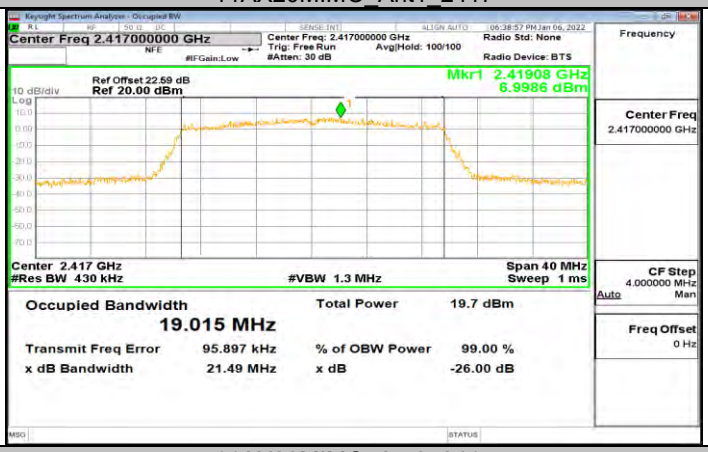
11AX20MIMO_Ant1_2412



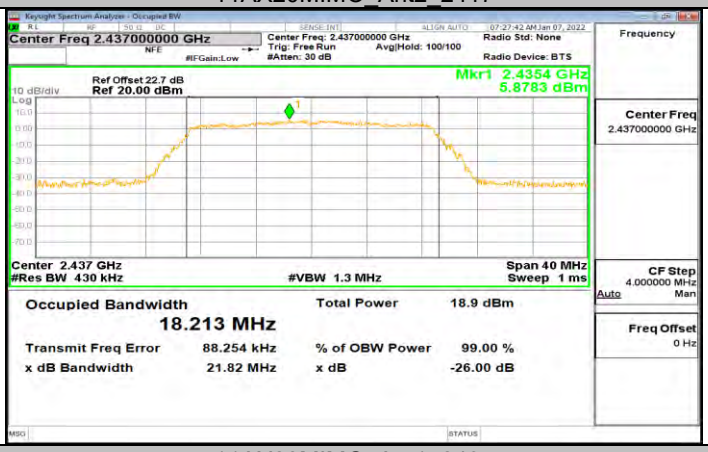
11AX20MIMO_Ant2_2412



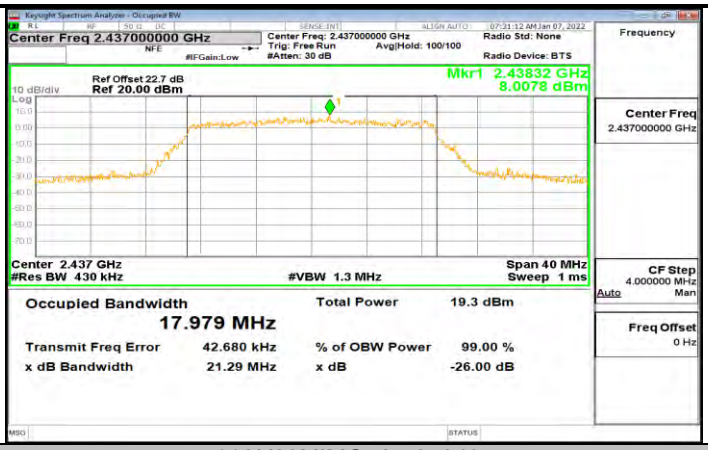
11AX20MIMO_Ant1_2417



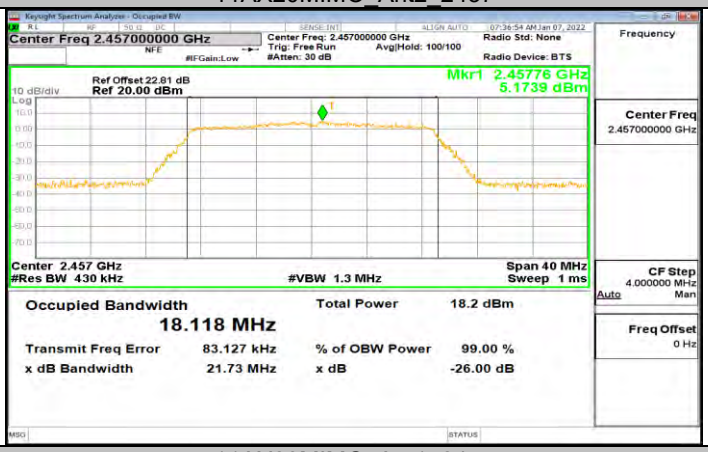
11AX20MIMO_Ant2_2417



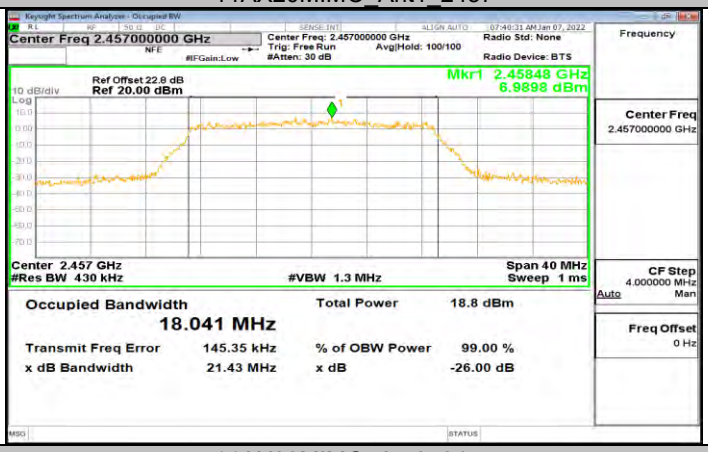
11AX20MIMO_Ant1_2437



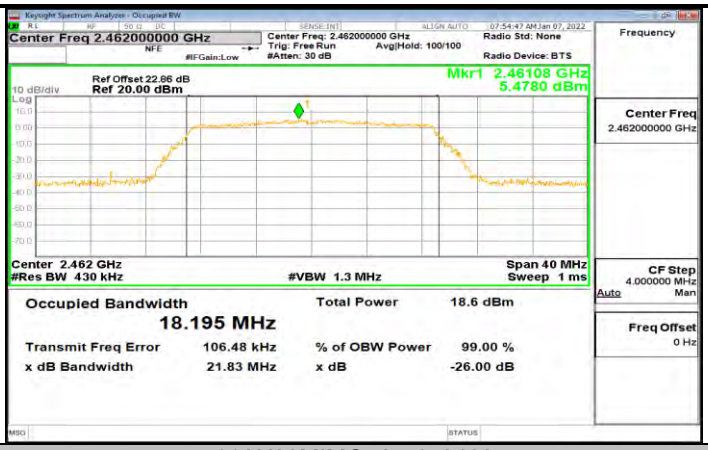
11AX20MIMO_Ant2_2437



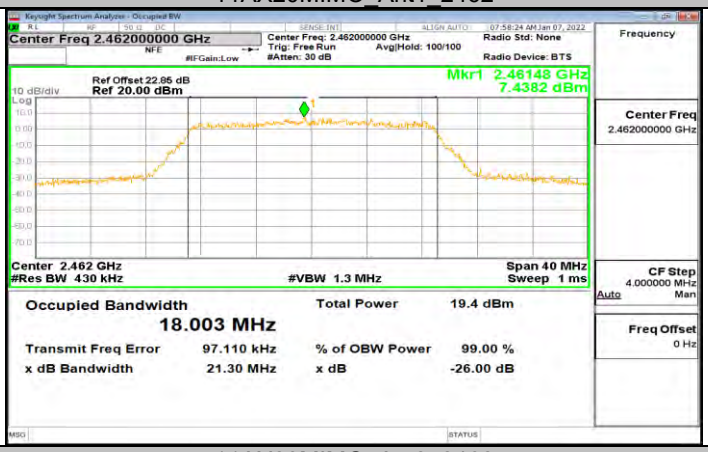
11AX20MIMO_Ant1_2457



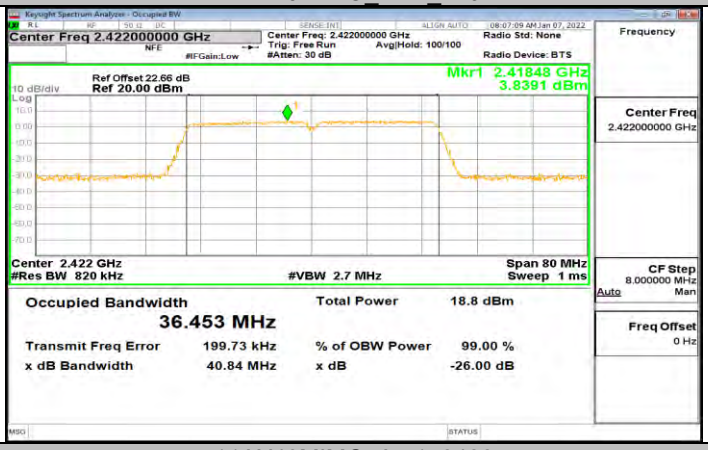
11AX20MIMO_Ant2_2457



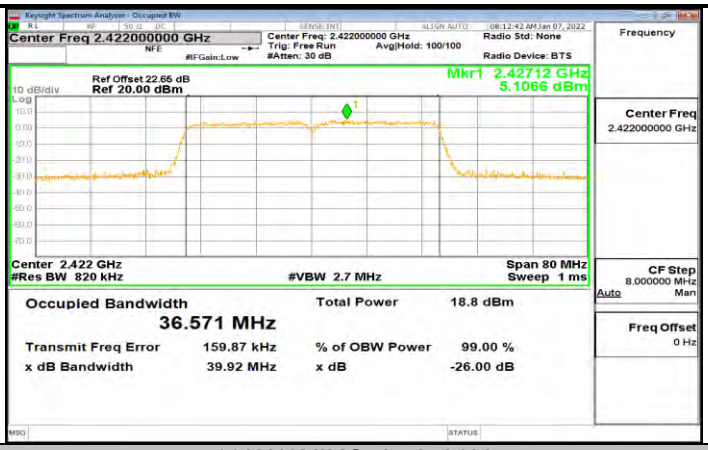
11AX20MIMO_Ant1_2462



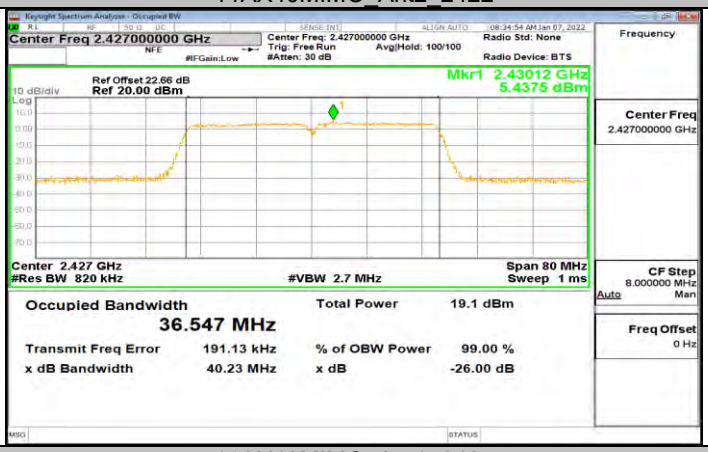
11AX20MIMO_Ant2_2462



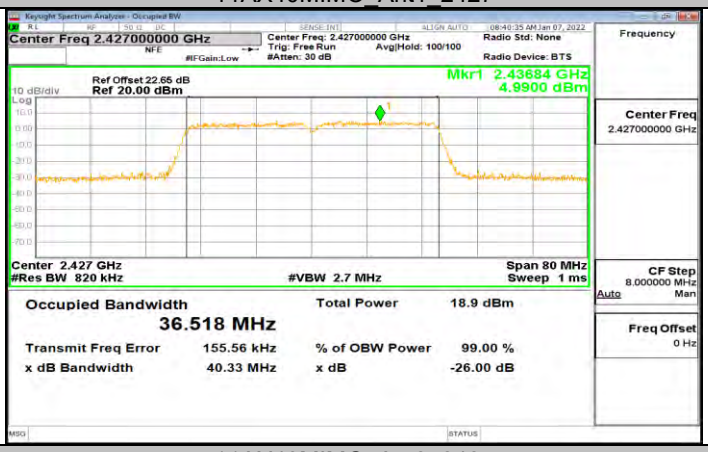
11AX40MIMO_Ant1_2422



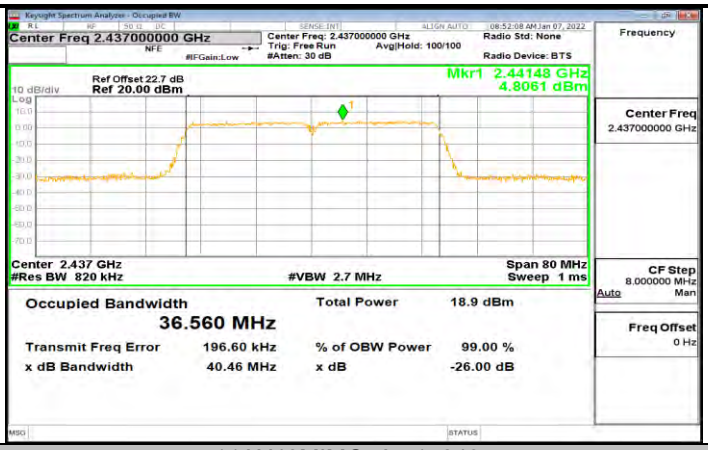
11AX40MIMO_Ant2_2422



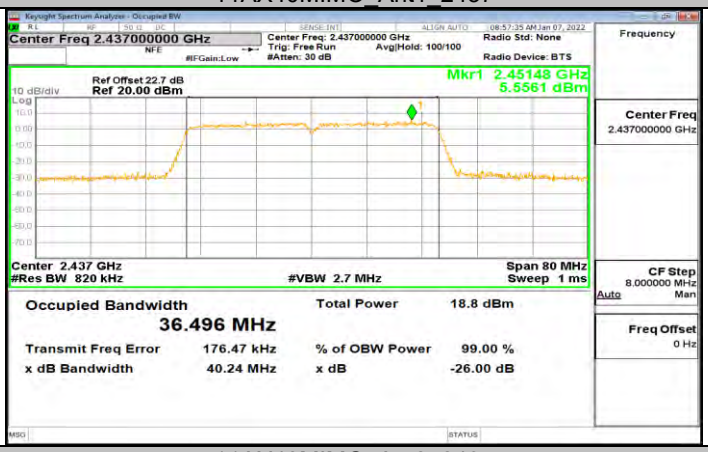
11AX40MIMO_Ant1_2427



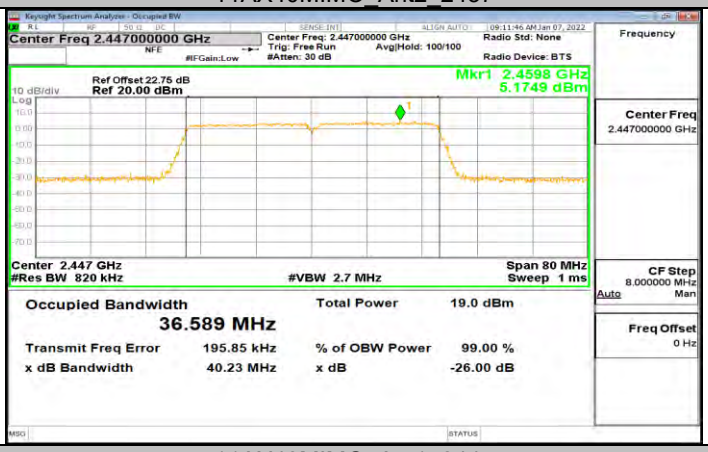
11AX40MIMO_Ant2_2427



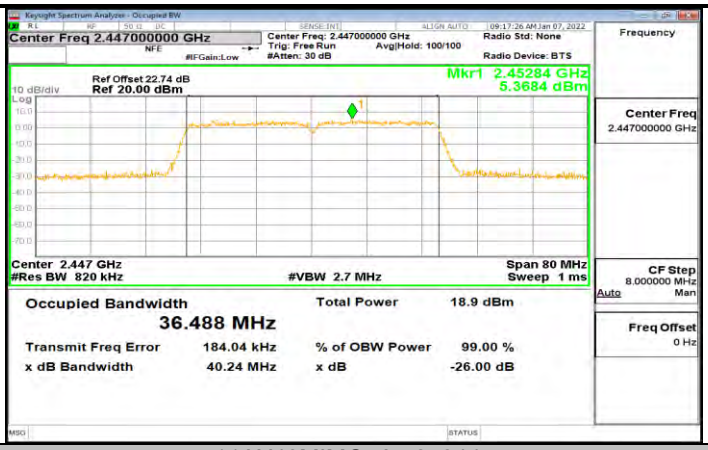
11AX40MIMO_Ant1_2437



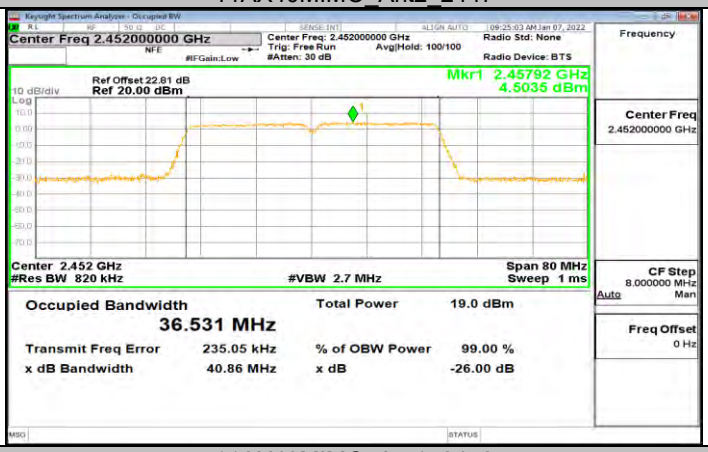
11AX40MIMO_Ant2_2437



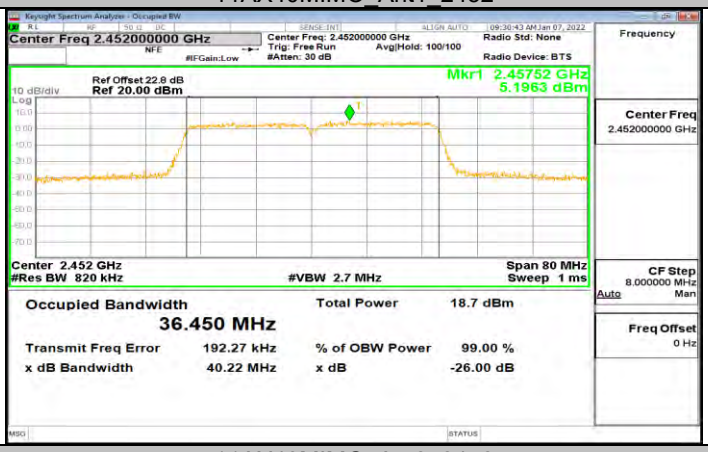
11AX40MIMO_Ant1_2447



11AX40MIMO_Ant2_2447



11AX40MIMO_Ant1_2452



11AX40MIMO_Ant2_2452

11.3. Appendix C: Maximum conducted output power

11.3.1. Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	16.87	≤30.00	PASS
	Ant2	2412	16.61	≤30.00	PASS
	Ant1	2417	16.86	≤30.00	PASS
	Ant2	2417	16.30	≤30.00	PASS
	Ant1	2437	17.40	≤30.00	PASS
	Ant2	2437	16.95	≤30.00	PASS
	Ant1	2457	16.76	≤30.00	PASS
	Ant2	2457	16.28	≤30.00	PASS
	Ant1	2462	17.07	≤30.00	PASS
	Ant2	2462	16.84	≤30.00	PASS
11G	Ant1	2412	16.54	≤30.00	PASS
	Ant2	2412	16.11	≤30.00	PASS
	Ant1	2417	16.22	≤30.00	PASS
	Ant2	2417	15.91	≤30.00	PASS
	Ant1	2437	16.72	≤30.00	PASS
	Ant2	2437	16.44	≤30.00	PASS
	Ant1	2457	16.20	≤30.00	PASS
	Ant2	2457	15.89	≤30.00	PASS
	Ant1	2462	16.36	≤30.00	PASS
	Ant2	2462	16.20	≤30.00	PASS
11N20MIMO	Ant1	2412	13.04	≤30.00	PASS
	Ant2	2412	12.46	≤30.00	PASS
	total	2412	15.77	≤30.00	PASS
	Ant1	2417	12.68	≤30.00	PASS
	Ant2	2417	12.28	≤30.00	PASS
	total	2417	15.49	≤30.00	PASS
	Ant1	2437	13.40	≤30.00	PASS
	Ant2	2437	13.05	≤30.00	PASS
	total	2437	16.24	≤30.00	PASS
	Ant1	2457	12.73	≤30.00	PASS
	Ant2	2457	12.36	≤30.00	PASS
	total	2457	15.56	≤30.00	PASS
	Ant1	2462	12.97	≤30.00	PASS
	Ant2	2462	12.82	≤30.00	PASS
	total	2462	15.91	≤30.00	PASS
11N40MIMO	Ant1	2422	12.24	≤30.00	PASS
	Ant2	2422	11.65	≤30.00	PASS
	total	2422	14.97	≤30.00	PASS
	Ant1	2427	12.14	≤30.00	PASS
	Ant2	2427	11.34	≤30.00	PASS
	total	2427	14.77	≤30.00	PASS
	Ant1	2437	11.97	≤30.00	PASS
	Ant2	2437	11.44	≤30.00	PASS
	total	2437	14.72	≤30.00	PASS
	Ant1	2447	12.04	≤30.00	PASS
	Ant2	2447	11.31	≤30.00	PASS
	total	2447	14.70	≤30.00	PASS
	Ant1	2452	12.10	≤30.00	PASS
	Ant2	2452	11.38	≤30.00	PASS
	total	2452	14.77	≤30.00	PASS
11AX20MIMO	Ant1	2412	13.17	≤30.00	PASS
	Ant2	2412	12.85	≤30.00	PASS
	total	2412	16.02	≤30.00	PASS

	Ant1	2417	13.06	≤30.00	PASS
	Ant2	2417	12.40	≤30.00	PASS
	total	2417	15.75	≤30.00	PASS
	Ant1	2437	12.79	≤30.00	PASS
	Ant2	2437	12.65	≤30.00	PASS
	total	2437	15.74	≤30.00	PASS
	Ant1	2457	12.09	≤30.00	PASS
	Ant2	2457	12.20	≤30.00	PASS
	total	2457	15.16	≤30.00	PASS
	Ant1	2462	12.44	≤30.00	PASS
	Ant2	2462	12.72	≤30.00	PASS
	total	2462	15.59	≤30.00	PASS
11AX40MIMO	Ant1	2422	11.85	≤30.00	PASS
	Ant2	2422	11.39	≤30.00	PASS
	total	2422	14.64	≤30.00	PASS
	Ant1	2427	12.08	≤30.00	PASS
	Ant2	2427	11.41	≤30.00	PASS
	total	2427	14.77	≤30.00	PASS
	Ant1	2437	12.00	≤30.00	PASS
	Ant2	2437	11.44	≤30.00	PASS
	total	2437	14.74	≤30.00	PASS
	Ant1	2447	11.99	≤30.00	PASS
	Ant2	2447	11.38	≤30.00	PASS
	total	2447	14.71	≤30.00	PASS
	Ant1	2452	12.07	≤30.00	PASS
	Ant2	2452	11.24	≤30.00	PASS
	total	2452	14.69	≤30.00	PASS

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

11.4. Appendix D: Maximum power spectral density

11.4.1. Test Result

Test Mode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant2	2412	-4.82	≤8.00	PASS
		2417	-3.44	≤8.00	PASS
		2437	-4.51	≤8.00	PASS
		2457	-4.87	≤8.00	PASS
		2462	-4.35	≤8.00	PASS
11G	Ant2	2412	-7.66	≤8.00	PASS
		2417	-7.82	≤8.00	PASS
		2437	-7.68	≤8.00	PASS
		2457	-7.41	≤8.00	PASS
		2462	-7.44	≤8.00	PASS
11N20MIMO	Ant1	2412	-8.76	≤8.00	PASS
	Ant2	2412	-11.9	≤8.00	PASS
	total	2412	-7.05	≤8.00	PASS
	Ant1	2417	-10.4	≤8.00	PASS
	Ant2	2417	-11.73	≤8.00	PASS
	total	2417	-8.00	≤8.00	PASS
	Ant1	2437	-10.86	≤8.00	PASS
	Ant2	2437	-11.09	≤8.00	PASS
	total	2437	-7.96	≤8.00	PASS
	Ant1	2457	-11.14	≤8.00	PASS
	Ant2	2457	-11.36	≤8.00	PASS
	total	2457	-8.24	≤8.00	PASS
	Ant1	2462	-11.21	≤8.00	PASS
	Ant2	2462	-10.83	≤8.00	PASS
	total	2462	-8.01	≤8.00	PASS
11N40MIMO	Ant1	2422	-15.09	≤8.00	PASS
	Ant2	2422	-16.13	≤8.00	PASS
	total	2422	-12.57	≤8.00	PASS
	Ant1	2427	-15.56	≤8.00	PASS
	Ant2	2427	-16.45	≤8.00	PASS
	total	2427	-12.97	≤8.00	PASS
	Ant1	2437	-15.69	≤8.00	PASS
	Ant2	2437	-15.8	≤8.00	PASS
	total	2437	-12.73	≤8.00	PASS
	Ant1	2447	-14.79	≤8.00	PASS
	Ant2	2447	-15.99	≤8.00	PASS
	total	2447	-12.34	≤8.00	PASS
	Ant1	2452	-15.21	≤8.00	PASS
	Ant2	2452	-15.12	≤8.00	PASS
	total	2452	-12.15	≤8.00	PASS
11AX20MIMO	Ant1	2412	-10.36	≤8.00	PASS
	Ant2	2412	-12	≤8.00	PASS
	total	2412	-8.09	≤8.00	PASS
	Ant1	2417	-11.99	≤8.00	PASS
	Ant2	2417	-12.44	≤8.00	PASS
	total	2417	-9.20	≤8.00	PASS
	Ant1	2437	-11.19	≤8.00	PASS
	Ant2	2437	-11.6	≤8.00	PASS
	total	2437	-8.38	≤8.00	PASS
	Ant1	2457	-11.46	≤8.00	PASS
	Ant2	2457	-11.8	≤8.00	PASS
	total	2457	-8.62	≤8.00	PASS
	Ant1	2462	-11.73	≤8.00	PASS

	Ant2	2462	-11.22	≤8.00	PASS
	total	2462	-8.46	≤8.00	PASS
11AX40MIMO	Ant1	2422	-16.05	≤8.00	PASS
	Ant2	2422	-16.04	≤8.00	PASS
	total	2422	-13.03	≤8.00	PASS
	Ant1	2427	-15.59	≤8.00	PASS
	Ant2	2427	-15.8	≤8.00	PASS
	total	2427	-12.68	≤8.00	PASS
	Ant1	2437	-14.72	≤8.00	PASS
	Ant2	2437	-16.61	≤8.00	PASS
	total	2437	-12.55	≤8.00	PASS
	Ant1	2447	-15.57	≤8.00	PASS
	Ant2	2447	-16.1	≤8.00	PASS
	total	2447	-12.82	≤8.00	PASS
	Ant1	2452	-16.07	≤8.00	PASS
	Ant2	2452	-16.29	≤8.00	PASS
	total	2452	-13.17	≤8.00	PASS

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