



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

CERTIFICATION TEST REPORT

For

Home Gateway

MODEL NUMBER: ZXHH H196Q

FCC ID: Q78-ZXHNH196Q

IC: 5200A- H196Q

REPORT NUMBER: 4789807220-2

ISSUE DATE: March 31, 2021

Prepared for

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Revision History

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



Summary of Test Results			
Clause	Test Items	FCC/ISED Rules	Test Results
1	6dB Bandwidth and 99% Occupied Bandwidth	FCC Part 15.247 (a) (2) RSS-247 Clause 5.2 (a) ISED RSS-Gen Clause 6.7	Pass
2	Conducted Output Power	FCC Part 15.247 (b) (3) RSS-247 Clause 5.4 (d)	Pass
3	Power Spectral Density	FCC Part 15.247 (e) RSS-247 Clause 5.2 (b)	Pass
4	Conducted Bandedge and Spurious Emission	FCC Part 15.247 (d) RSS-247 Clause 5.5	Pass
5	Radiated Bandedge and Spurious Emission	FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205 RSS-247 Clause 5.5 RSS-GEN Clause 8.9	Pass
6	Conducted Emission Test for AC Power Port	FCC Part 15.207 RSS-GEN Clause 8.8	Pass
7	Antenna Requirement	FCC Part 15.203 RSS-GEN Clause 6.8	Pass
<p>Note:</p> <p>1. This test report is only published to and used by the applicant, and it is not for evidence purpose in China.</p> <p>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.</p>			

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1. ATTESTATION OF TEST RESULTS

Applicant Information

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

Manufacturer Information

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

EUT Information

EUT Name: Home Gateway
Model: ZXHH H196Q
Sample Received Date: February 4, 2021
Sample Status: Normal
Sample ID: 3615510
Date of Tested: February 4 ~ March 31, 2021

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

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2. TEST METHODOLOGY

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

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p>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.</p> <p>FCC (FCC Designation No.: CN1187) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules</p> <p>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.</p> <p>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</p>
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Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30 MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30 MHz had been correlated to measurements performed on an OFS.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. MEASUREMENT UNCERTAINTY

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

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



5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	Home Gateway
Model	ZXHH H196Q
Radio Technology	IEEE802.11b/g/n HT20/HT40
Operation frequency	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz IEEE 802.11n HT40: 2422MHz—2452MHz
Modulation	IEEE 802.11b: DSSS(CCK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK,BPSK) IEEE 802.11n HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)
Supply Voltage	AC 120V,60Hz

5.2. CHANNEL LIST

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

Channel List for 802.11n (40 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	5	2432	7	2442	9	2452
4	2427	6	2437	8	2447	/	/



5.3. MAXIMUM OUTPUT POWER

IEEE Std. 802.11	Frequency (MHz)	Channel Number	Maximum Conducted AVG Output Power (dBm)
b	2412 ~ 2462	1-11[11]	18.01
g	2412 ~ 2462	1-11[11]	17.91
n HT20	2412 ~ 2462	1-11[11]	17.68
n HT40	2422 ~ 2452	3-9[7]	14.97

5.4. TEST CHANNEL CONFIGURATION

IEEE Std. 802.11	Test Channel Number	Frequency
b	CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel)	2412 MHz, 2437 MHz, 2462 MHz
g	CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel)	2412 MHz, 2437 MHz, 2462 MHz
n HT20	CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel)	2412 MHz, 2437 MHz, 2462 MHz
n HT40	CH 3(Low Channel), CH 6(MID Channel), CH 9(High Channel)	2422 MHz, 2437 MHz, 2452 MHz

5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band							
Test Software		QA tool					
Modulation Mode	Transmit Antenna Number	Test Software setting value					
		NCB: 20MHz			NCB: 40MHz		
		CH 1	CH 6	CH 11	CH 3	CH 6	CH 9
802.11b	2	17	17	16	/		
802.11g	2	1B	1B	1B			
802.11n HT20	2	17	17	17			
802.11n HT40	2	/			11	11	11

5.6. THE WORSE CASE CONFIGURATIONS

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

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

Test channels referring to section 5.4.

Maximum power setting referring to section 5.5.

Worst case Data Rates declared by the customer:

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

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

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

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

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

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

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

5.7. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	P/N	Antenna Type	MAX Antenna Gain (dBi)
1	2412-2462	RFPCA453310IMLB301	PCB antenna	4.24
2	2412-2462	RFPCA470910IMLB302	PCB antenna	4.31

The EUT support Cyclic Shift Diversity(CDD) mode.

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

For output power measurements:

Directional gain= $G_{ANT} + \text{Array Gain} = 4.31 \text{ dBi}$

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= $G_{ANT} + \text{Array Gain} = 7.7 \text{ dBi}$

Array Gain = $10 \log(N_{ANT}/N_{SS}) \text{ dB}$.

N_{ANT} : number of transmit antennas

N_{SS} : number of spatial streams, The worst case directional gain will occur when $N_{SS} = 1$

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

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

5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	Remarks
1	Laptop	Lenovo	ThinkPad E480	/
2	Power Adapter	N/A	RD1201500-C55-153MG	Input: 100-240 V ~ 50/60 Hz, 0.6 A Output: 12 V $\overline{=}$ 1.5 A
3	USB Disk	Kingston	DataTraveler 100 G3	USB 3.0, 32 GB
4	RJ45 Terminal load	Adafruit	485-4511	/

I/O CABLES

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

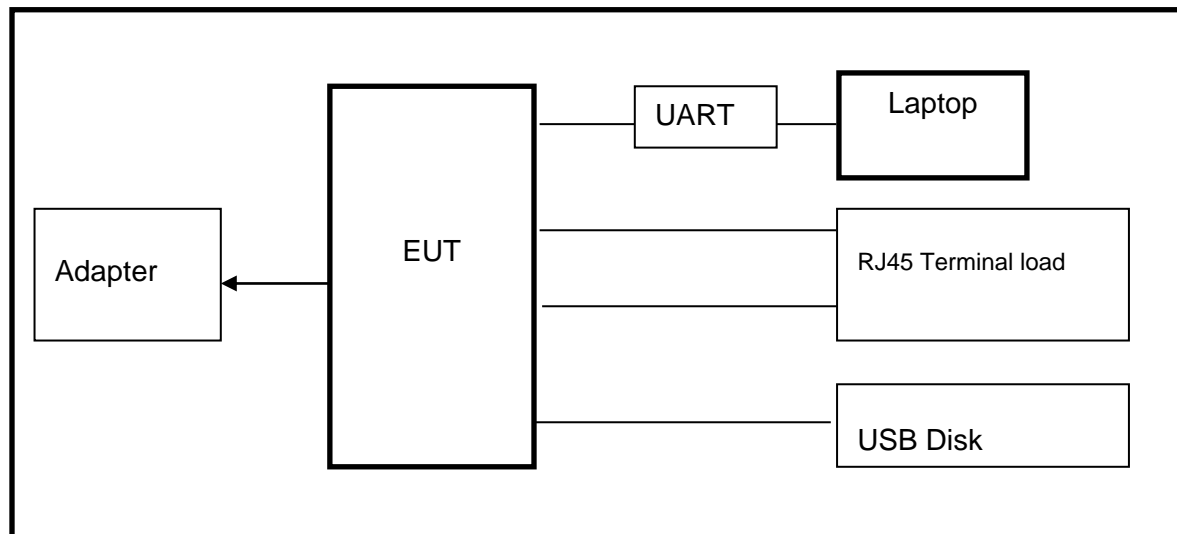
ACCESSORIES

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

TEST SETUP

The EUT can work in engineering mode with a software.

SETUP DIAGRAM FOR TESTS



6. MEASURING INSTRUMENT AND SOFTWARE USED

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



<input checked="" type="checkbox"/>	Spectrum Analyzer	Keysight	N9030A	MY55410512	Nov. 20, 2020	Nov. 19, 2021
<input checked="" type="checkbox"/>	Dual Channel Power Meter	Keysight	N1912A	MY55416024	Nov. 20, 2020	Nov. 19, 2021
<input checked="" type="checkbox"/>	Power Sensor	Keysight	USB Wideband Power Sensor	MY5100022	Nov. 20, 2020	Nov. 19, 2021



7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

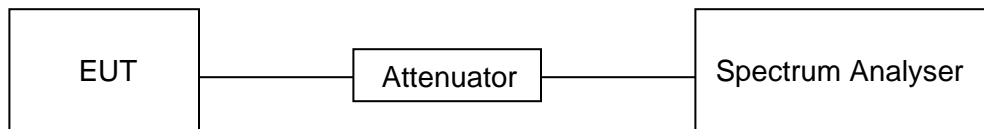
LIMITS

None; for reporting purposes only

PROCEDURE

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

TEST SETUP



TEST ENVIRONMENT

Temperature	25.2 °C	Relative Humidity	54.6 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V / 60 Hz

RESULTS

Please refer to appendix G.



7.2. 6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(a)(2) ISED RSS-247 5.2 (a)	6 dB Bandwidth	≥ 500 kHz	2400-2483.5
ISED RSS-Gen Clause 6.7	99 % Occupied Bandwidth	For reporting purposes only.	2400-2483.5

TEST PROCEDURE

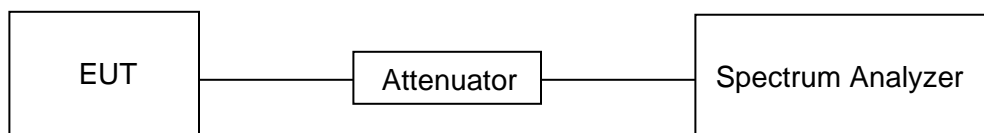
Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Frequency Span	Between 1.5 times and 5.0 times the OBW
Detector	Peak
RBW	For 6 dB Bandwidth: 100 kHz For 99 % Occupied Bandwidth: 1 % to 5 % of the occupied bandwidth
VBW	For 6 dB Bandwidth: $\geq 3 \times$ RBW For 99 % Occupied Bandwidth: $\geq 3 \times$ 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	25.2 °C	Relative Humidity	54.6 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V / 60 Hz

RESULTS

Please refer to appendix A & B.



7.3. CONDUCTED OUTPUT POWER

LIMITS

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

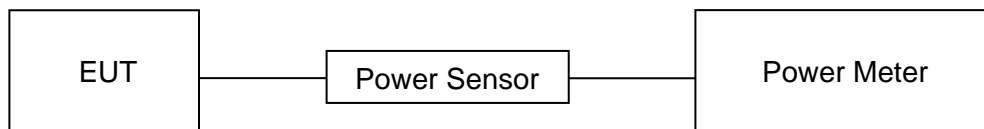
TEST PROCEDURE

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

Connect the EUT to a low loss RF cable from the antenna port to the power sensor (video bandwidth is greater than the occupied bandwidth).

Measure peak emission level, the indicated level is the average output power, after any corrections for external attenuators and cables.

TEST SETUP



TEST ENVIRONMENT

Temperature	25.2 °C	Relative Humidity	54.6 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V / 60 Hz

RESULTS

Please refer to appendix C.



7.4. POWER SPECTRAL DENSITY

LIMITS

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

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.10.

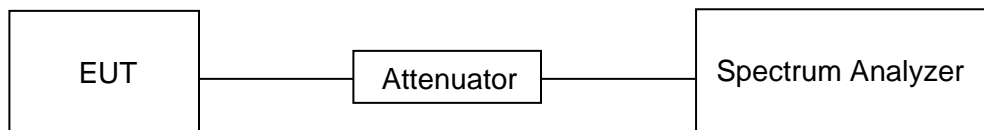
Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	PEAK
RBW	$3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
VBW	$\geq 3 \times \text{RBW}$
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	25.2 °C	Relative Humidity	54.6 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V / 60 Hz



RESULTS

Please refer to appendix D.

7.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2		
Section	Test Item	Limit
CFR 47 FCC §15.247 (d) ISED RSS-247 5.5	Conducted Bandedge and Spurious Emissions	at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

TEST PROCEDURE

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

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

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	100 kHz
VBW	$\geq 3 \times \text{RBW}$
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.

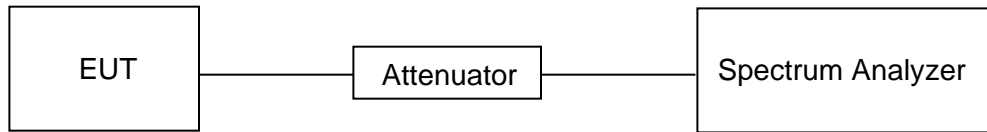
Change the settings for emission level measurement:

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100 kHz
VBW	$\geq 3 \times \text{RBW}$
measurement points	$\geq \text{span}/\text{RBW}$
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	25.2 °C	Relative Humidity	54.6 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V / 60 Hz

RESULTS

Please refer to appendix E & F.



8. RADIATED TEST RESULTS

LIMITS

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

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

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

Emissions radiated outside of the specified frequency bands above 30 MHz			
Frequency Range (MHz)	Field Strength Limit ($\mu\text{V}/\text{m}$) 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	$2400/F(\text{kHz})$	300
0.490-1.705	$24000/F(\text{kHz})$	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) ($\mu\text{A}/\text{m}$)	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

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):

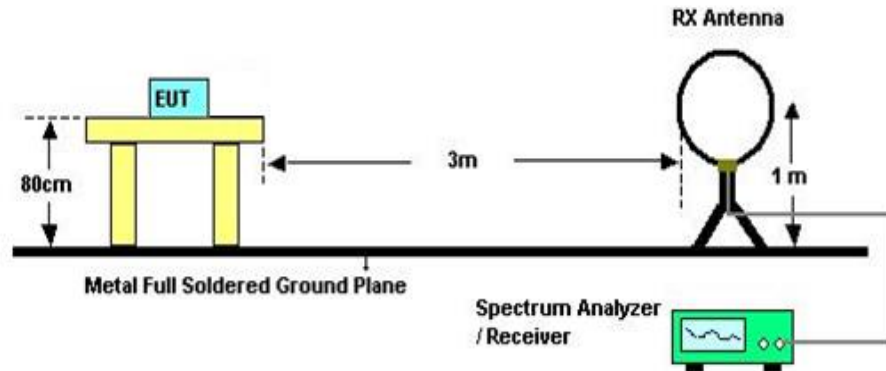
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	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: ¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

²Above 38.6c

TEST SETUP AND PROCEDURE

Below 30 MHz

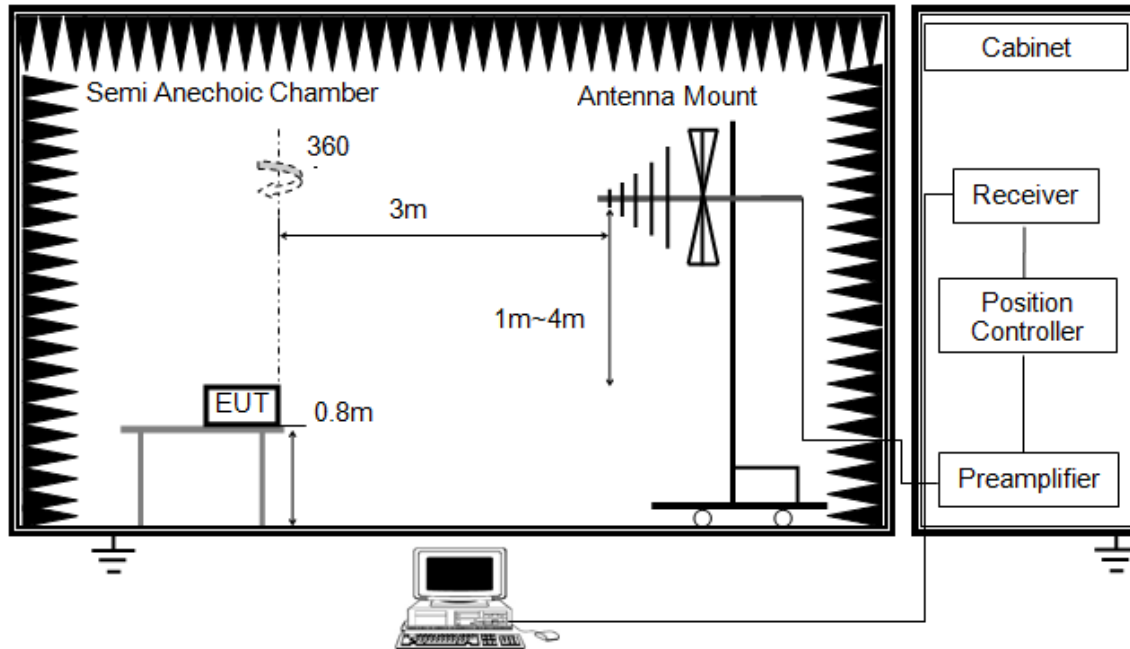


The setting of the spectrum analyser

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

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.4.
2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 80cm 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 30 m 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.

Below 1 GHz and above 30 MHz

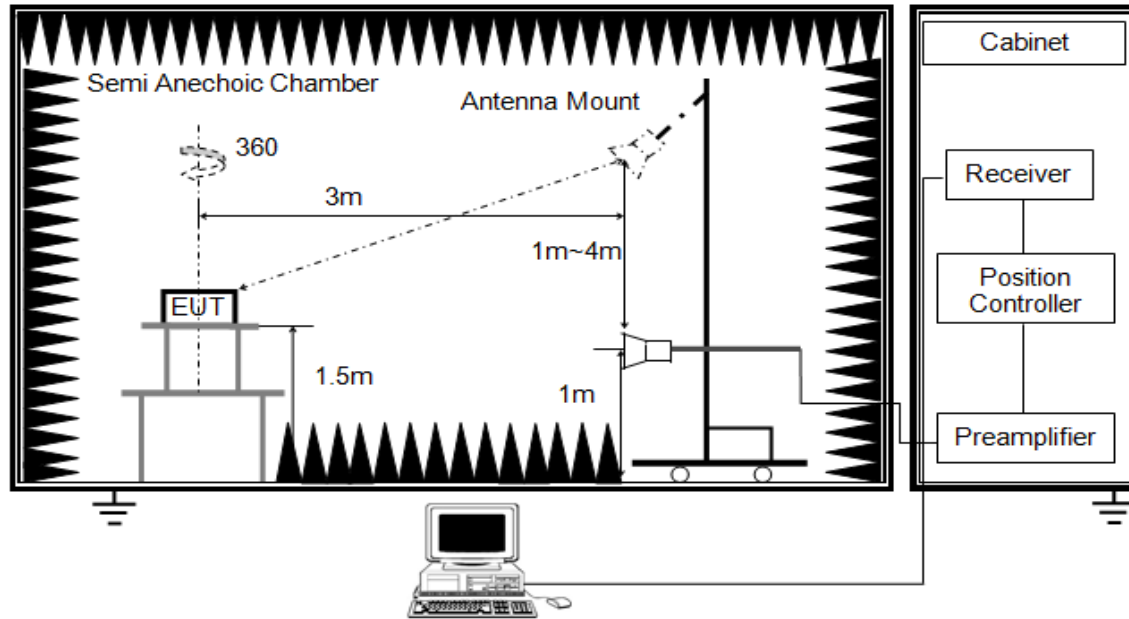


The setting of the spectrum analyser

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

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.5.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 80 cm above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

Above 1 GHz

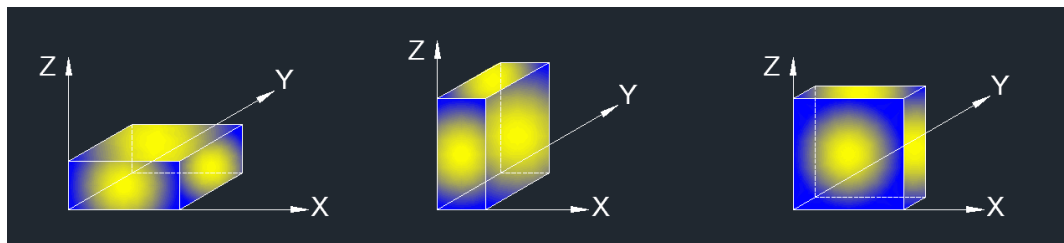


The setting of the spectrum analyser

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

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.6.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 1.5 m above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement above 1 GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.1.ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:



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

TEST ENVIRONMENT

Temperature	22.1°C	Relative Humidity	62.7 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V / 60 Hz

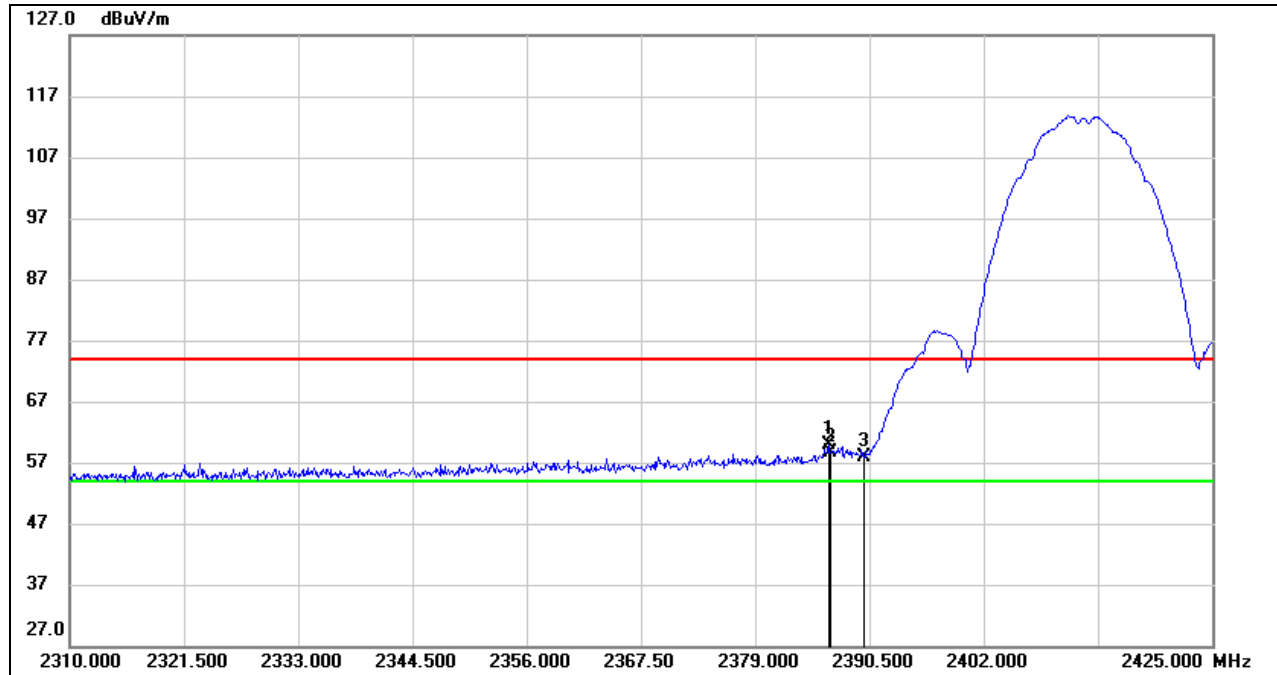
RESULTS

8.1. RESTRICTED BANDEDGE

8.1.1. 802.11b CDD MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.360	48.28	11.57	59.85	74.00	-14.15	peak
2	2386.590	47.15	11.57	58.72	74.00	-15.28	peak
3	2390.000	46.17	11.59	57.76	74.00	-16.24	peak

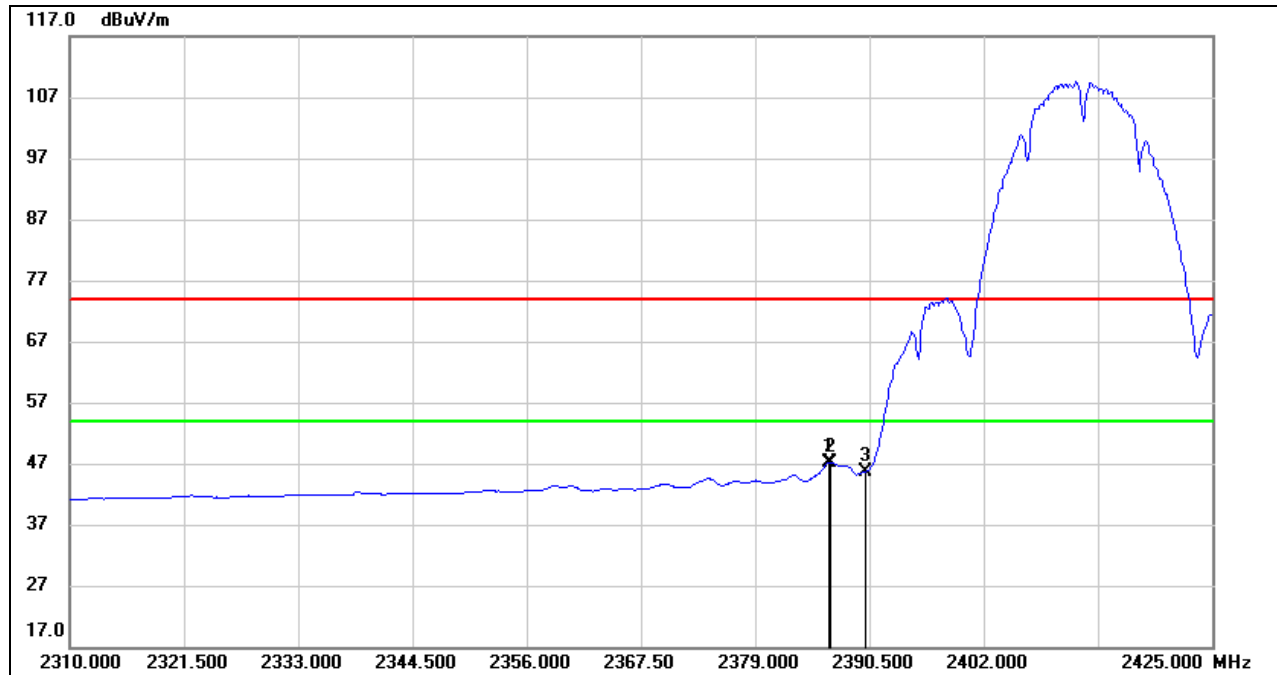
Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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

AVG

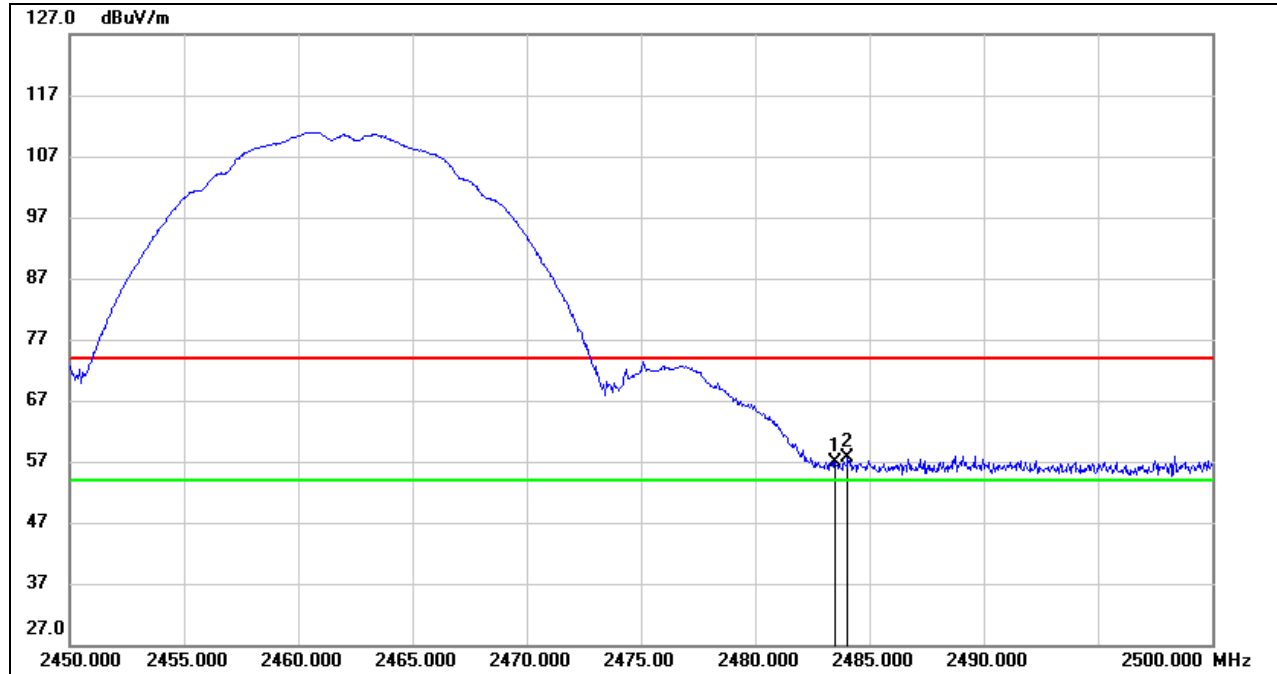


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.360	35.58	11.57	47.15	54.00	-6.85	AVG
2	2386.590	35.68	11.57	47.25	54.00	-6.75	AVG
3	2390.000	34.05	11.59	45.64	54.00	-8.36	AVG

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

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

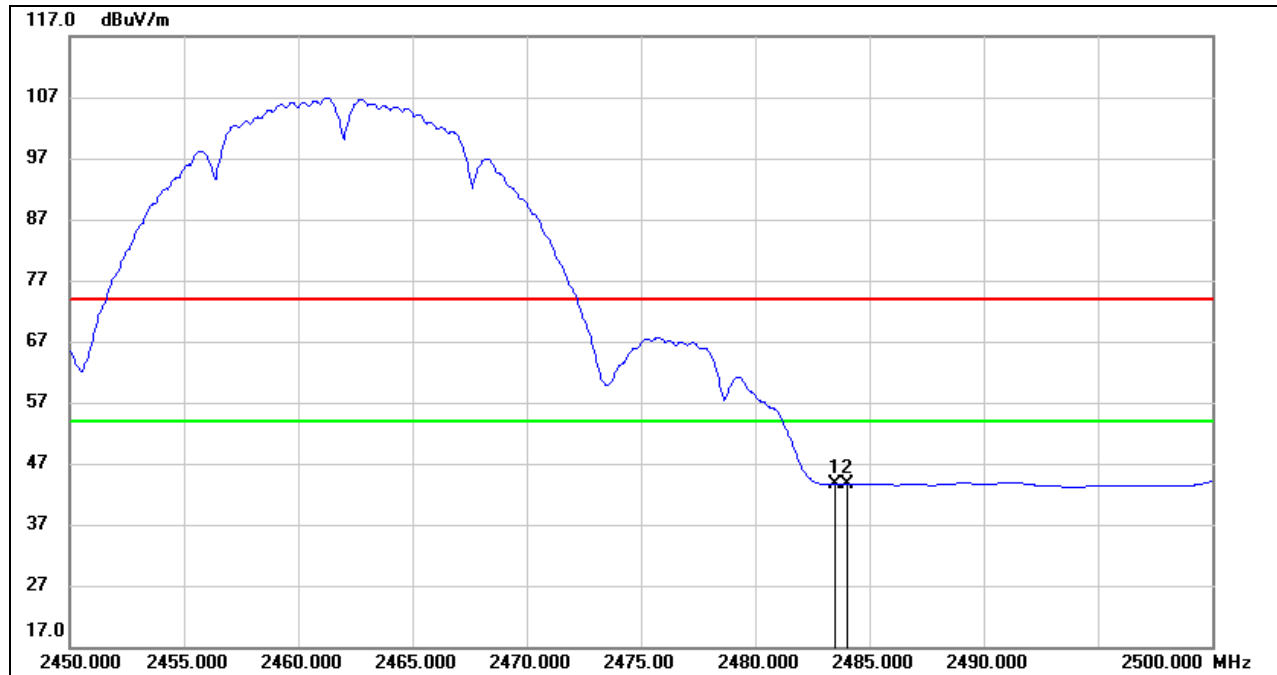
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	44.83	11.97	56.80	74.00	-17.20	peak
2	2484.050	45.57	11.97	57.54	74.00	-16.46	peak

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

AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	31.62	11.97	43.59	54.00	-10.41	AVG
2	2484.050	31.76	11.97	43.73	54.00	-10.27	AVG

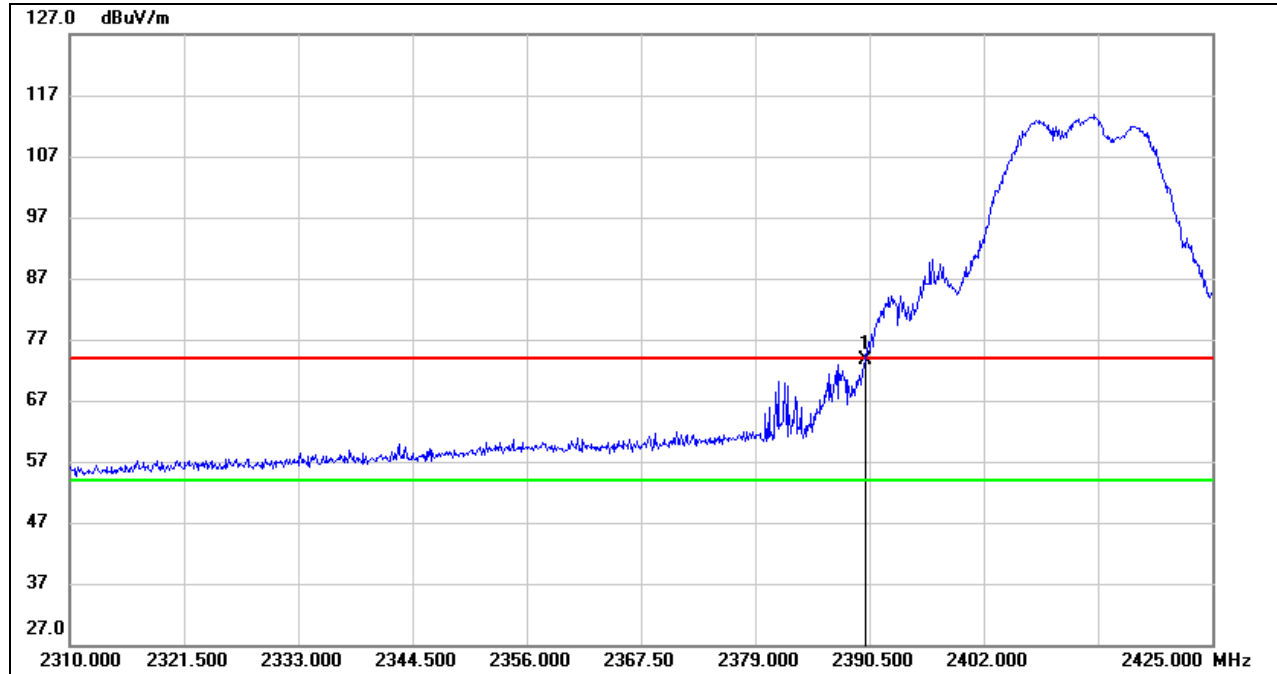
- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded,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

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

8.1.2. 802.11g CDD MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	62.16	11.59	73.75	74.00	-0.25	peak

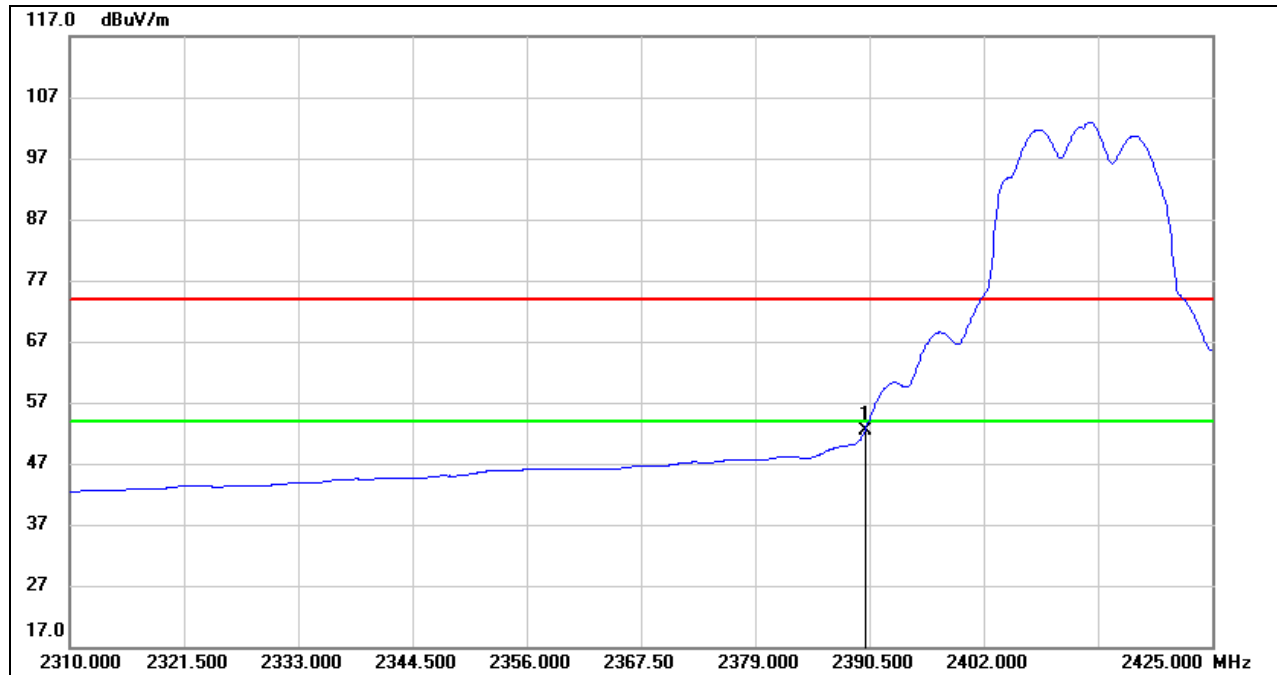
Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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

AVG

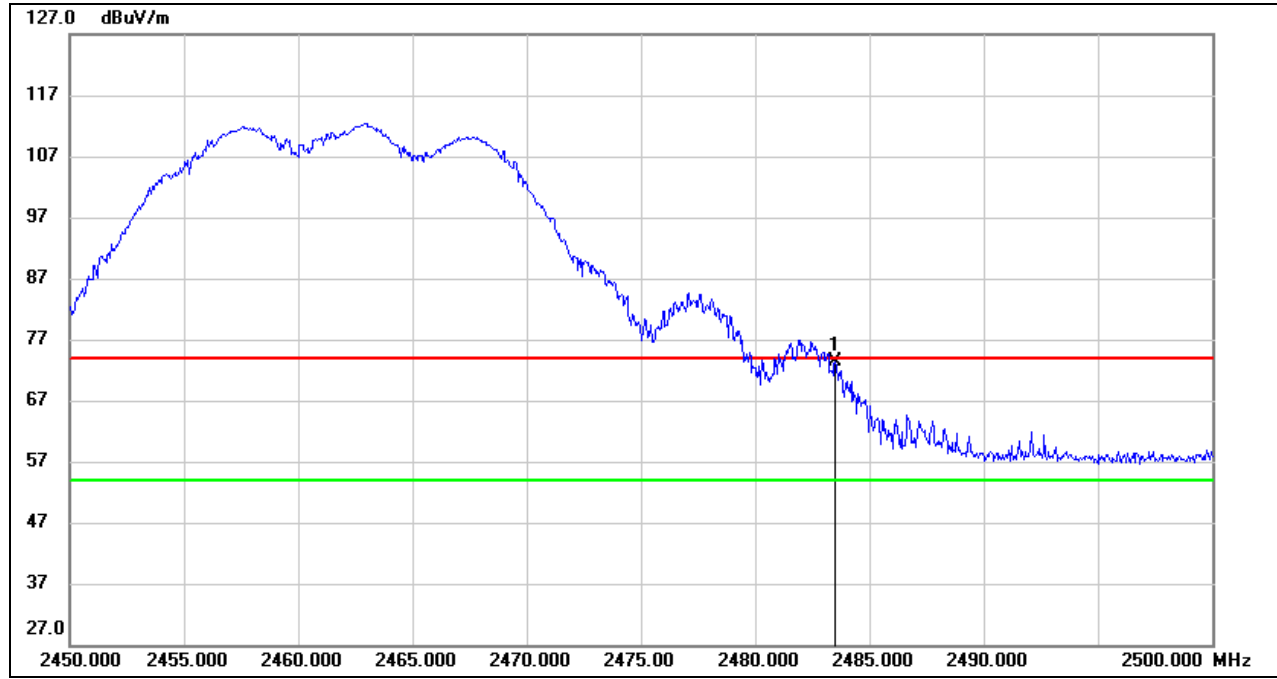


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	40.81	11.59	52.40	54.00	-1.60	AVG

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

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

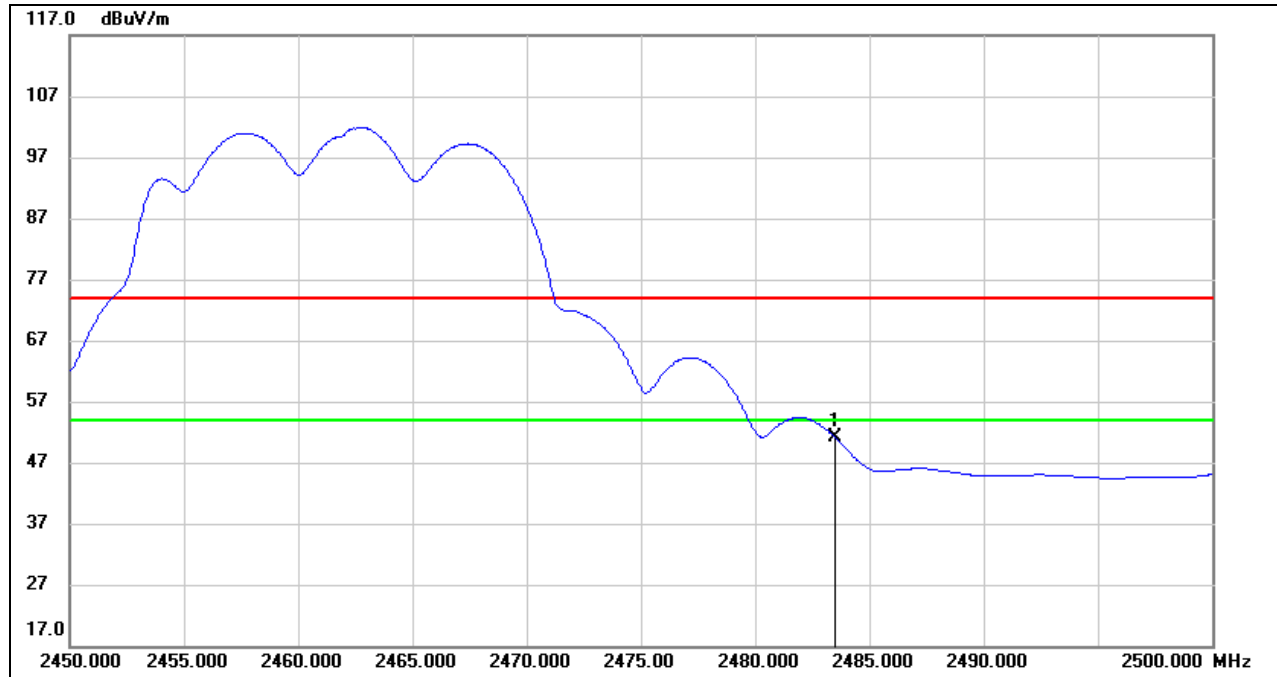
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	61.39	11.97	73.36	74.00	-0.64	peak

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

AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	39.12	11.97	51.09	54.00	-2.91	AVG

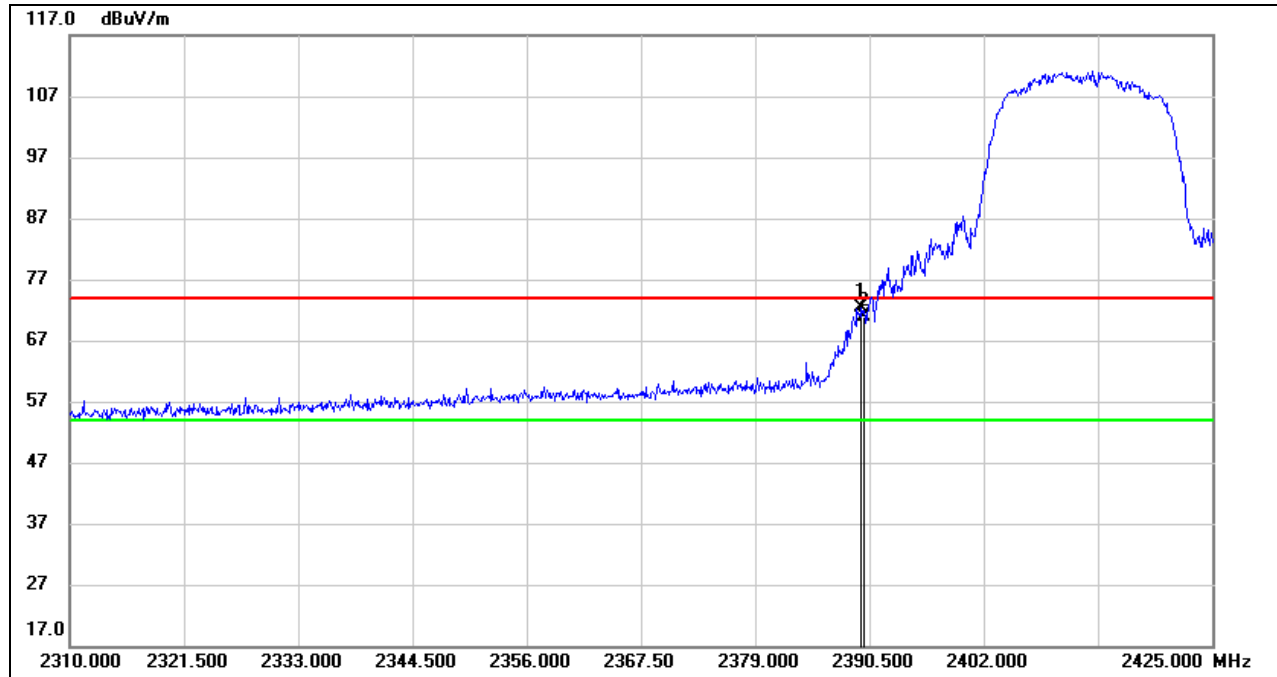
- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: $VBW=1/Ton$, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded,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

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

8.1.3. 802.11n HT20 CDD MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

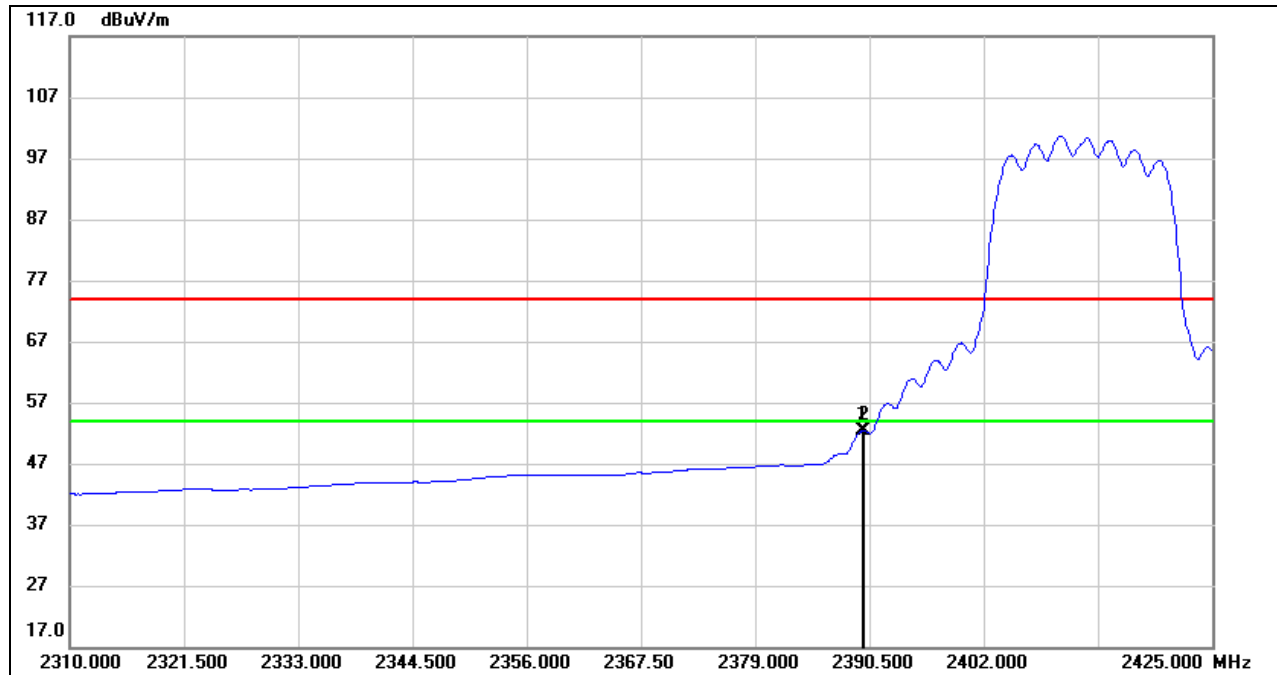
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.695	60.88	11.59	72.47	74.00	-1.53	peak
2	2390.000	59.26	11.59	70.85	74.00	-3.15	peak

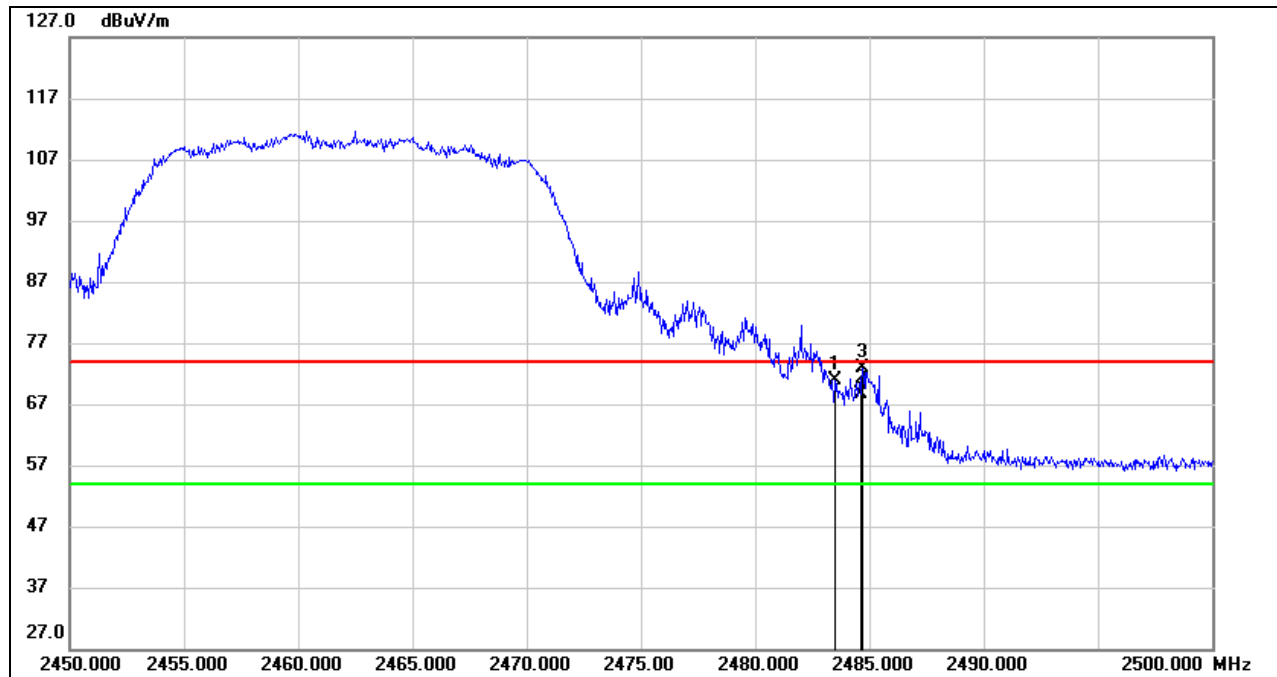
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.810	40.83	11.59	52.42	54.00	-1.58	AVG
2	2390.000	40.77	11.59	52.36	54.00	-1.64	AVG

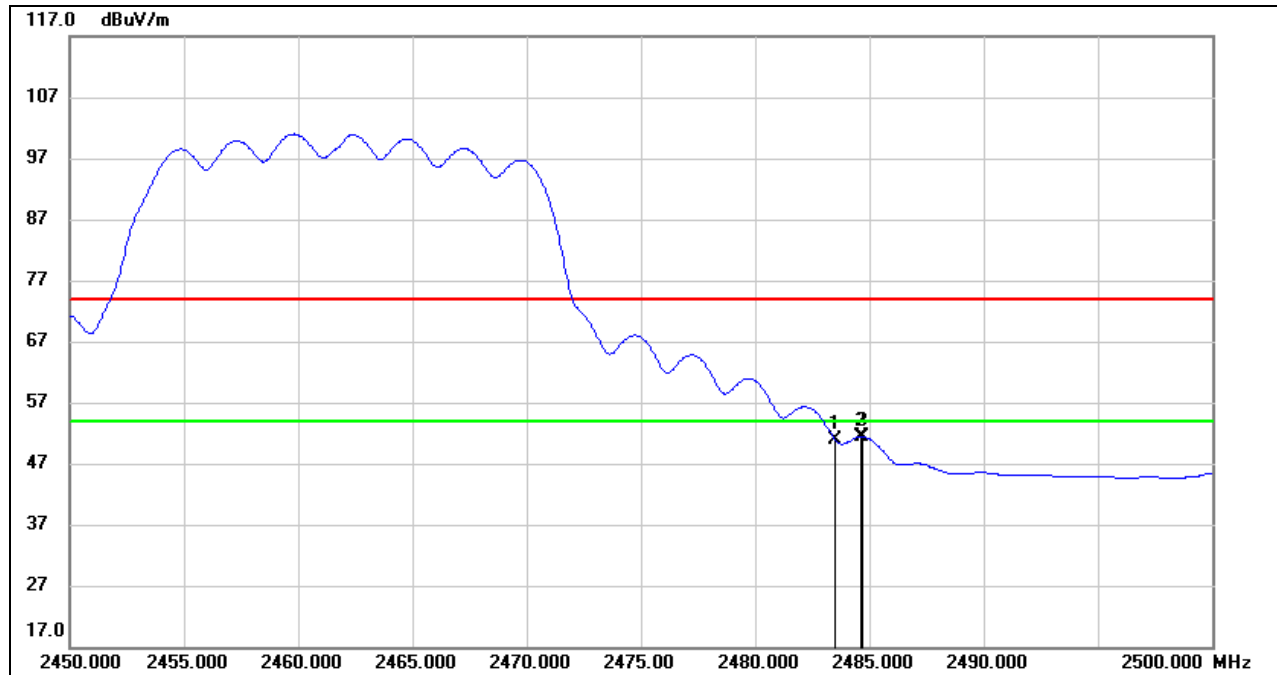
- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: $VBW=1/Ton$, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded,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

**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)****PEAK**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	58.82	11.97	70.79	74.00	-3.21	peak
2	2484.600	56.78	11.97	68.75	74.00	-5.25	peak
3	2484.700	60.95	11.97	72.92	74.00	-1.08	peak

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

AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	38.97	11.97	50.94	54.00	-3.06	AVG
2	2484.600	39.36	11.97	51.33	54.00	-2.67	AVG
3	2484.700	39.32	11.97	51.29	54.00	-2.71	AVG

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. AVG: $VBW=1/Ton$, where: Ton is the transmitting duration.

4. For the transmitting duration, please refer to clause 7.1.

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

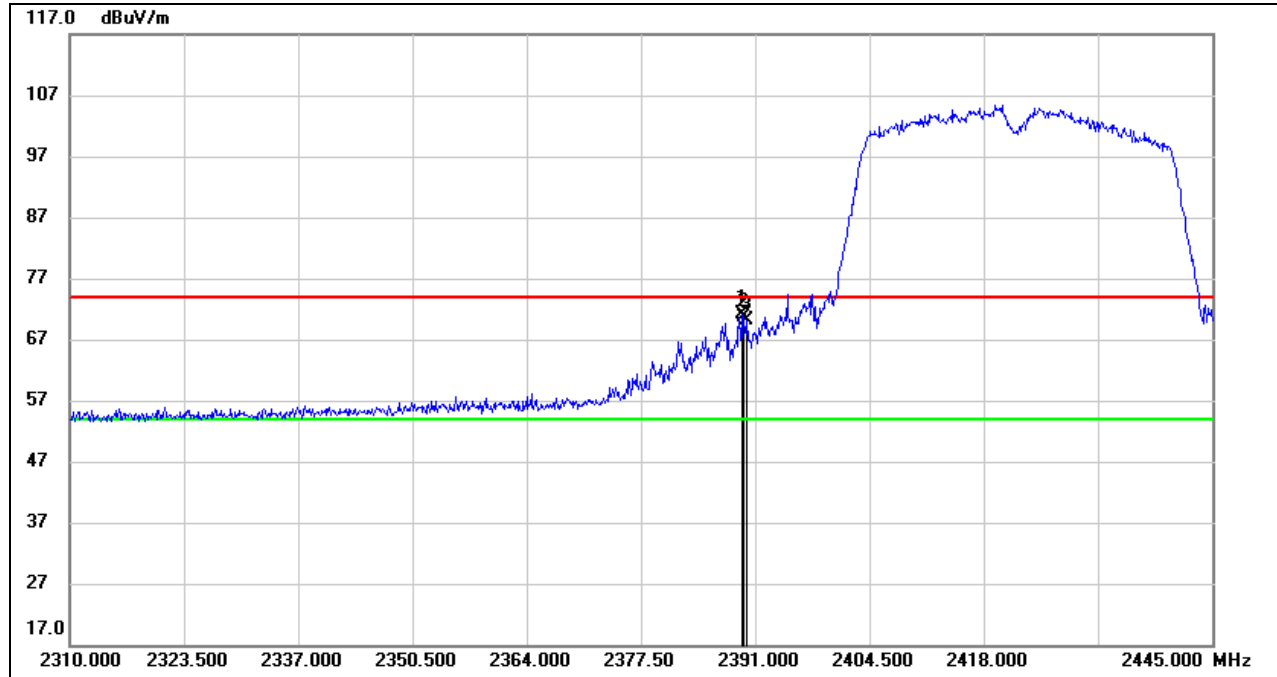
Note: Horizontal and Vertical have been tested, only the worst data was recorded in the report.

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

8.1.4. 802.11n HT40 CDD MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

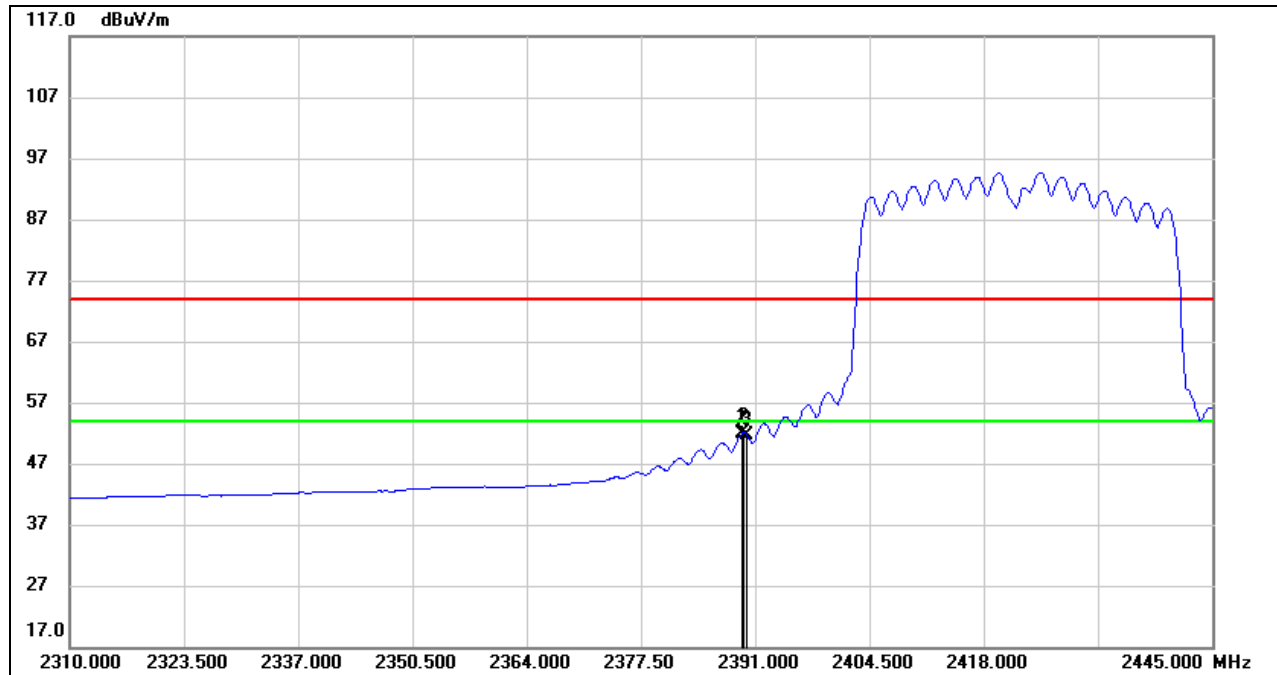
PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.380	59.46	11.59	71.05	74.00	-2.95	peak
2	2389.650	59.10	11.59	70.69	74.00	-3.31	peak
3	2390.000	58.54	11.59	70.13	74.00	-3.87	peak

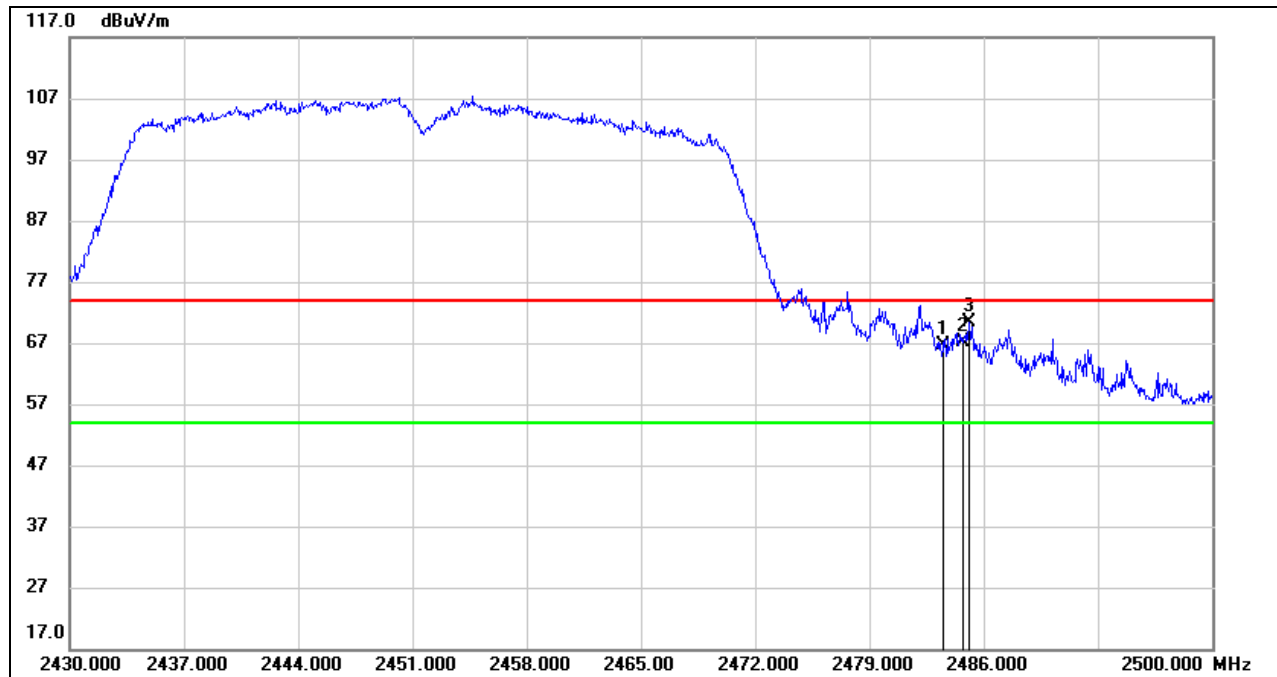
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded,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

AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.380	40.37	11.59	51.96	54.00	-2.04	AVG
2	2389.650	40.50	11.59	52.09	54.00	-1.91	AVG
3	2390.000	40.04	11.59	51.63	54.00	-2.37	AVG

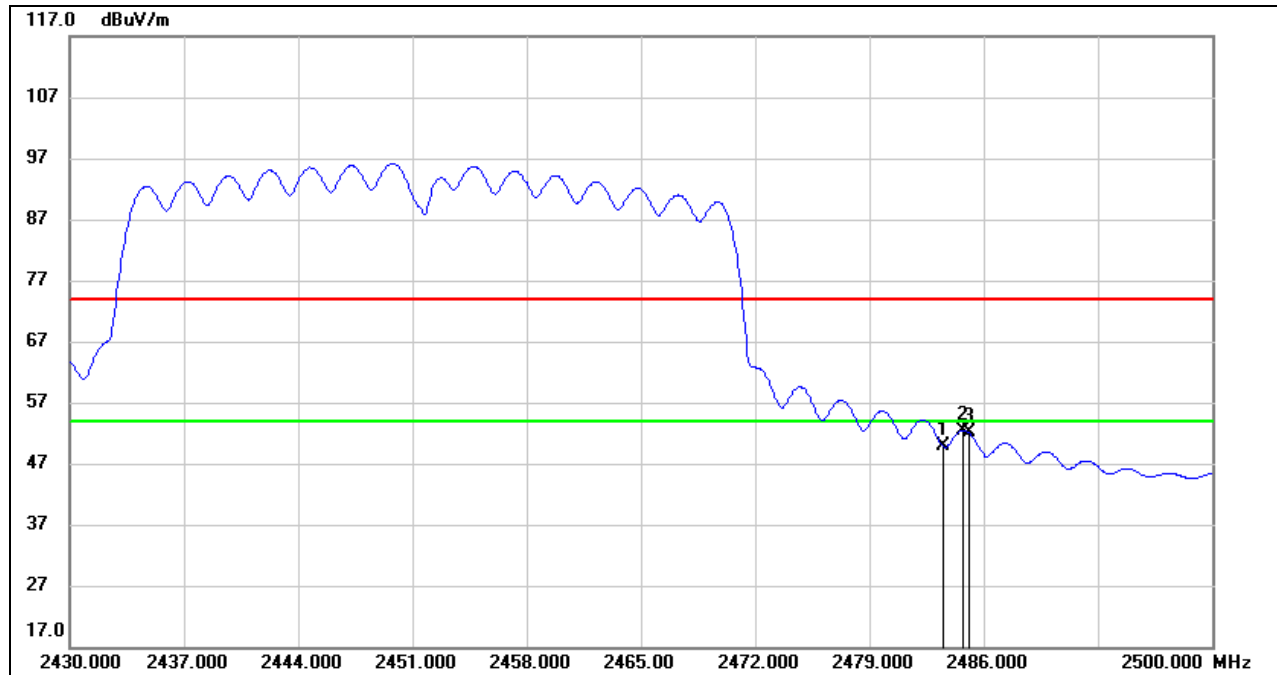
- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
4. For the transmitting duration, please refer to clause 7.1.
5. Only the worst data was recorded,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

**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)****PEAK**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	54.77	11.97	66.74	74.00	-7.26	peak
2	2484.740	55.27	11.97	67.24	74.00	-6.76	peak
3	2485.090	58.51	11.98	70.49	74.00	-3.51	peak

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

AVG



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	37.81	11.97	49.78	54.00	-4.22	AVG
2	2484.740	40.47	11.97	52.44	54.00	-1.56	AVG
3	2485.090	40.12	11.98	52.10	54.00	-1.90	AVG

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

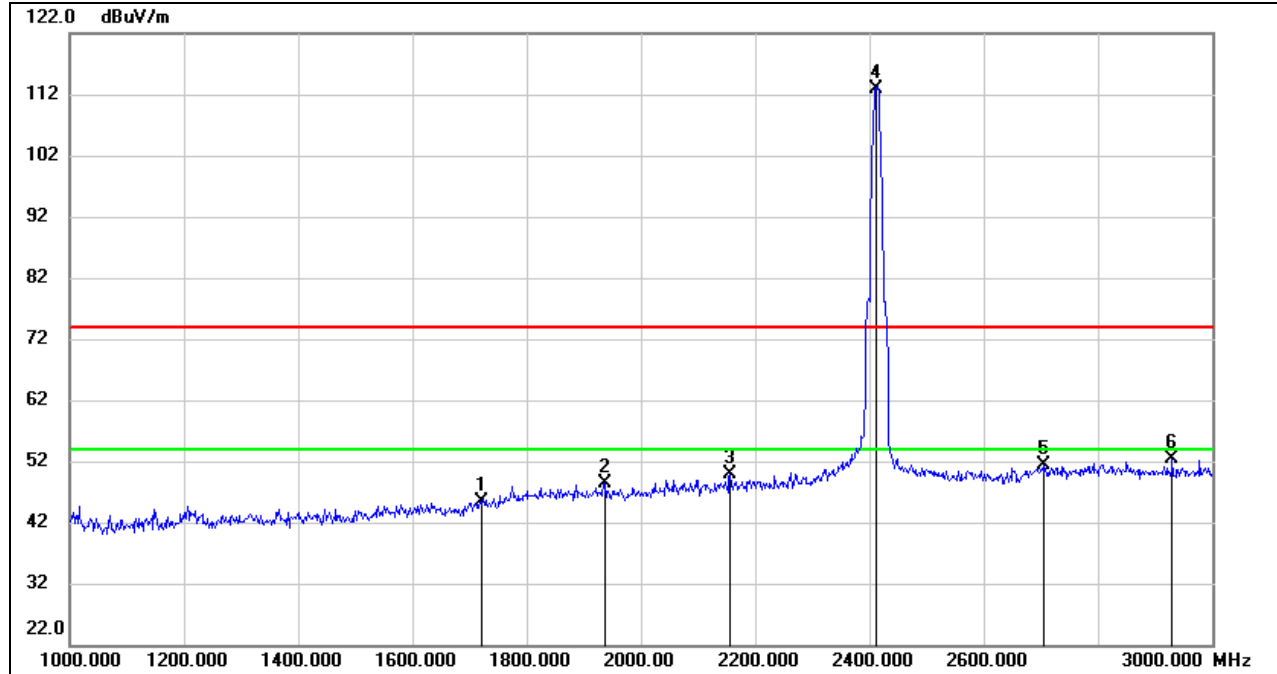
Note: Horizontal and Vertical have been tested, only the worst data was recorded in the report.

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

8.2. SPURIOUS EMISSIONS (1 GHz ~ 3 GHz)

8.2.1. 802.11b CDD MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

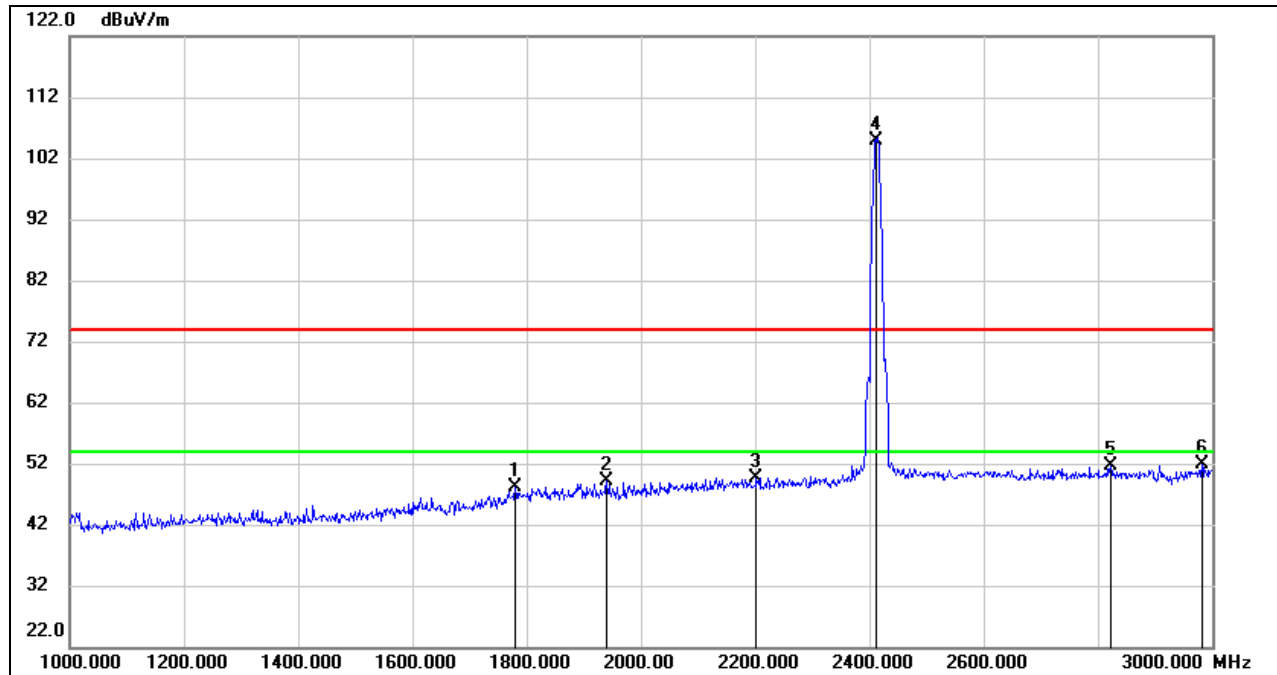


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1720.000	37.08	8.41	45.49	74.00	-28.51	peak
2	1938.000	38.50	9.87	48.37	74.00	-25.63	peak
3	2156.000	38.91	10.91	49.82	74.00	-24.18	peak
4	2412.000	101.20	11.71	112.91	/	/	fundamental
5	2706.000	38.80	12.55	51.35	74.00	-22.65	peak
6	2930.000	38.76	13.66	52.42	74.00	-21.58	peak

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

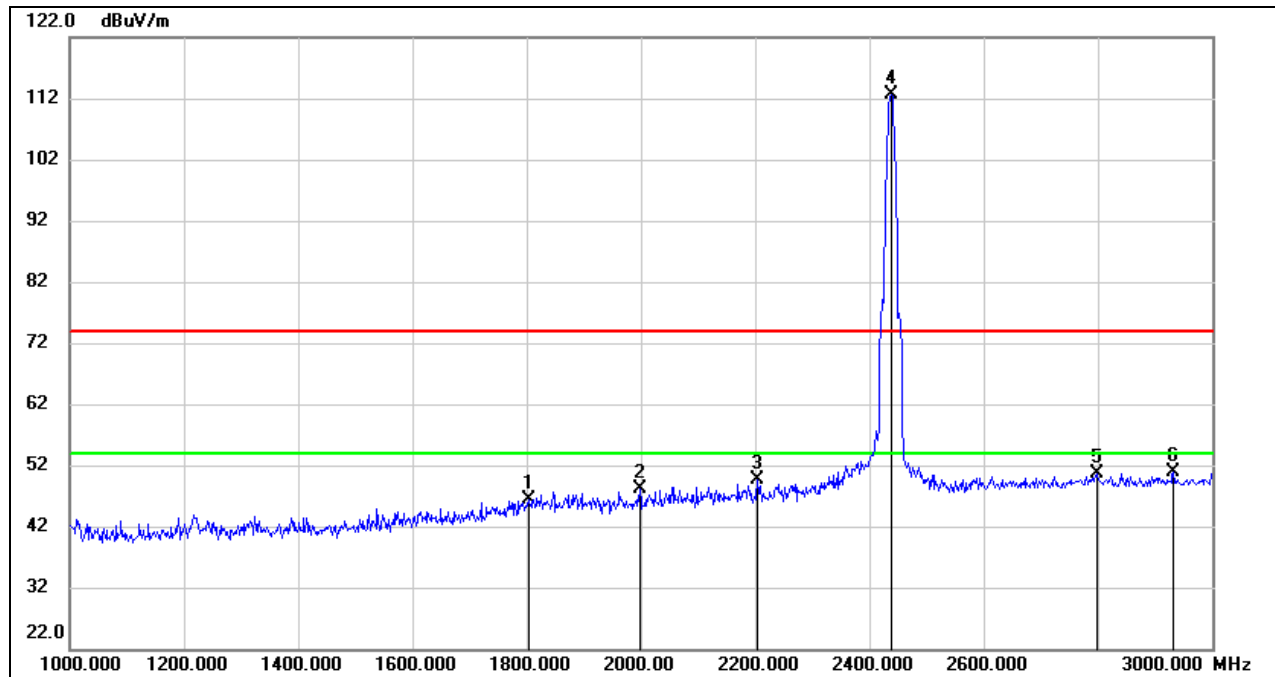
**HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1780.000	38.77	9.34	48.11	74.00	-25.89	peak
2	1940.000	39.25	9.88	49.13	74.00	-24.87	peak
3	2202.000	38.62	11.02	49.64	74.00	-24.36	peak
4	2412.000	93.23	11.71	104.94	74.00	30.94	peak
5	2822.000	38.28	13.29	51.57	74.00	-22.43	peak
6	2982.000	37.78	13.99	51.77	74.00	-22.23	peak

Note: 1. Measurement = Reading Level + Correct Factor.

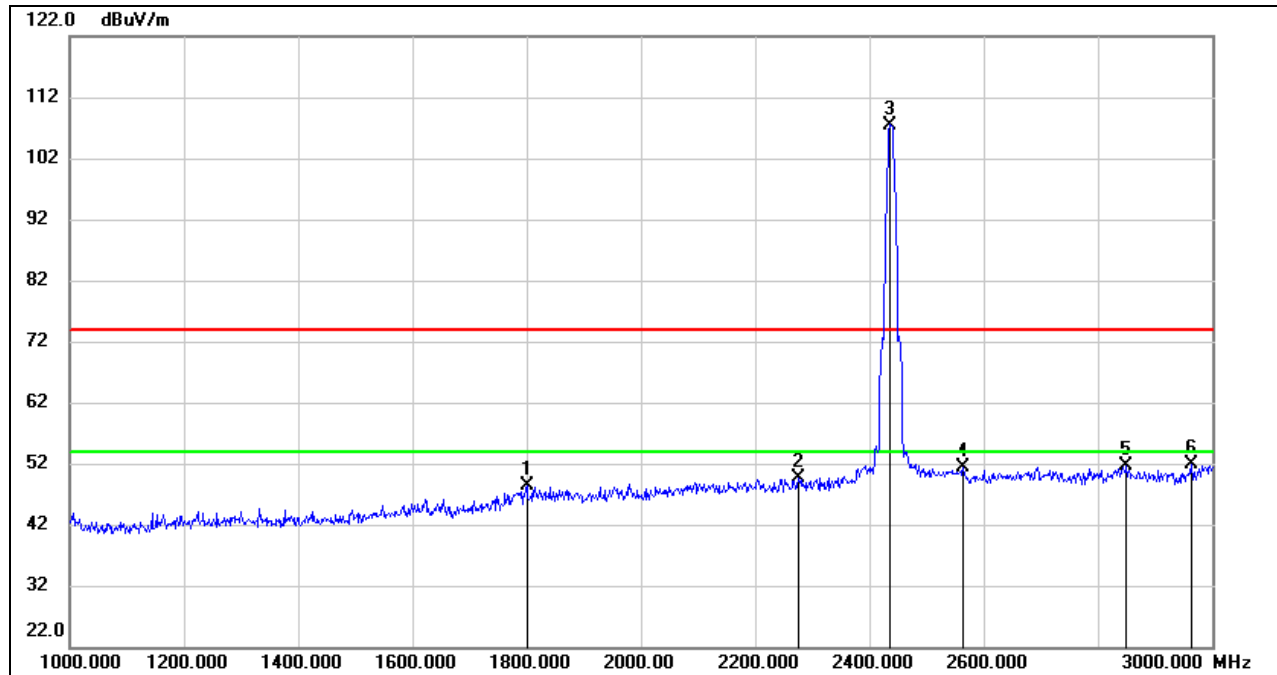
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

**HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1804.000	36.67	9.66	46.33	74.00	-27.67	peak
2	1998.000	38.09	10.02	48.11	74.00	-25.89	peak
3	2204.000	38.62	11.03	49.65	74.00	-24.35	peak
4	2437.000	100.93	11.80	112.73	/	/	fundamental
5	2798.000	37.45	13.21	50.66	74.00	-23.34	peak
6	2932.000	37.16	13.67	50.83	74.00	-23.17	peak

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

**HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)**

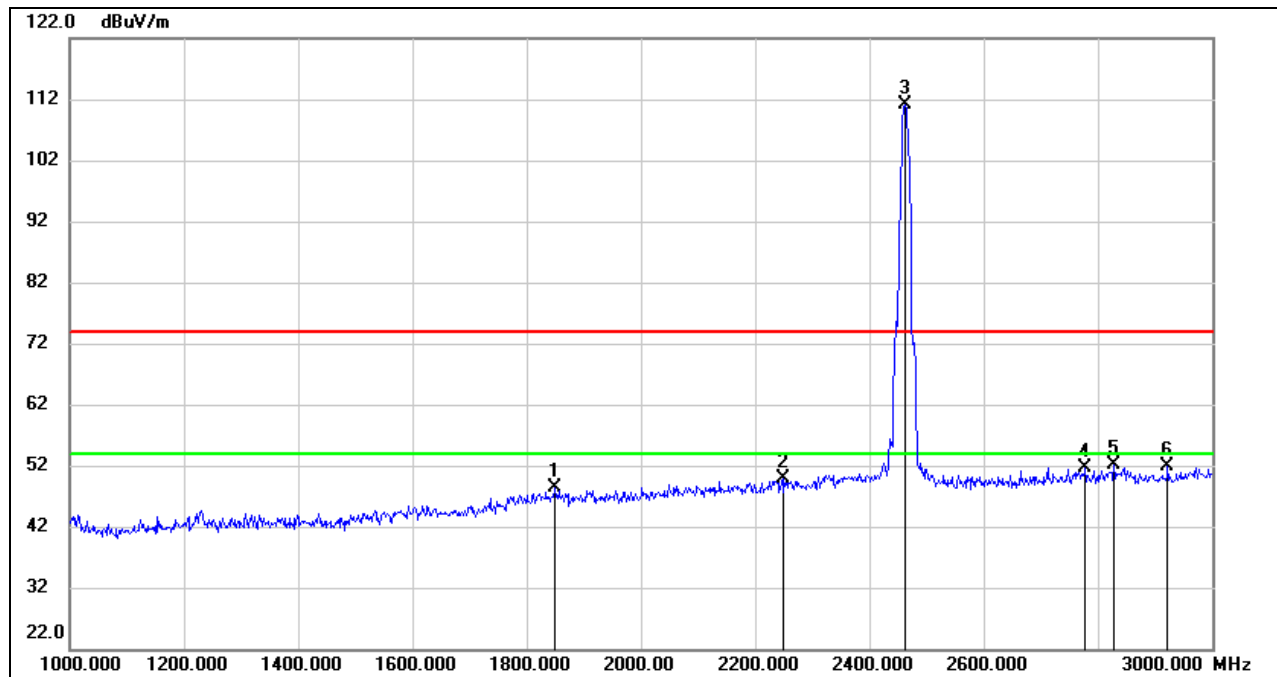
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1800.000	38.61	9.65	48.26	74.00	-25.74	peak
2	2276.000	38.60	11.00	49.60	74.00	-24.40	peak
3	2437.000	95.68	11.80	107.48	/	/	fundamental
4	2564.000	39.47	11.99	51.46	74.00	-22.54	peak
5	2850.000	38.16	13.35	51.51	74.00	-22.49	peak
6	2964.000	37.96	13.87	51.83	74.00	-22.17	peak

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

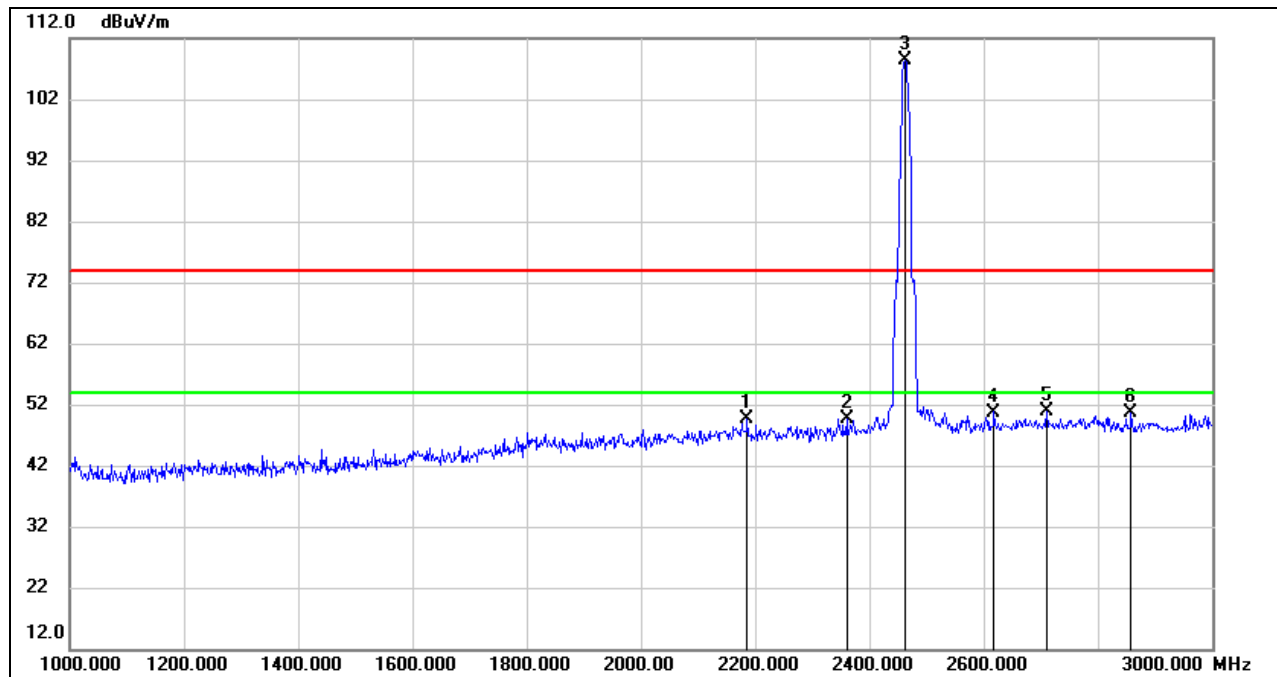
3. Peak: Peak detector.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1850.000	38.68	9.72	48.40	74.00	-25.60	peak
2	2248.000	38.89	11.02	49.91	74.00	-24.09	peak
3	2462.000	99.14	11.89	111.03	/	/	fundamental
4	2778.000	38.60	13.07	51.67	74.00	-22.33	peak
5	2828.000	38.92	13.30	52.22	74.00	-21.78	peak
6	2922.000	38.19	13.61	51.80	74.00	-22.20	peak

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

**HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2186.000	38.66	10.98	49.64	74.00	-24.36	peak
2	2360.000	38.28	11.39	49.67	74.00	-24.33	peak
3	2462.000	96.41	11.89	108.30	/	/	fundamental
4	2618.000	38.70	12.05	50.75	74.00	-23.25	peak
5	2710.000	38.30	12.59	50.89	74.00	-23.11	peak
6	2858.000	37.17	13.37	50.54	74.00	-23.46	peak

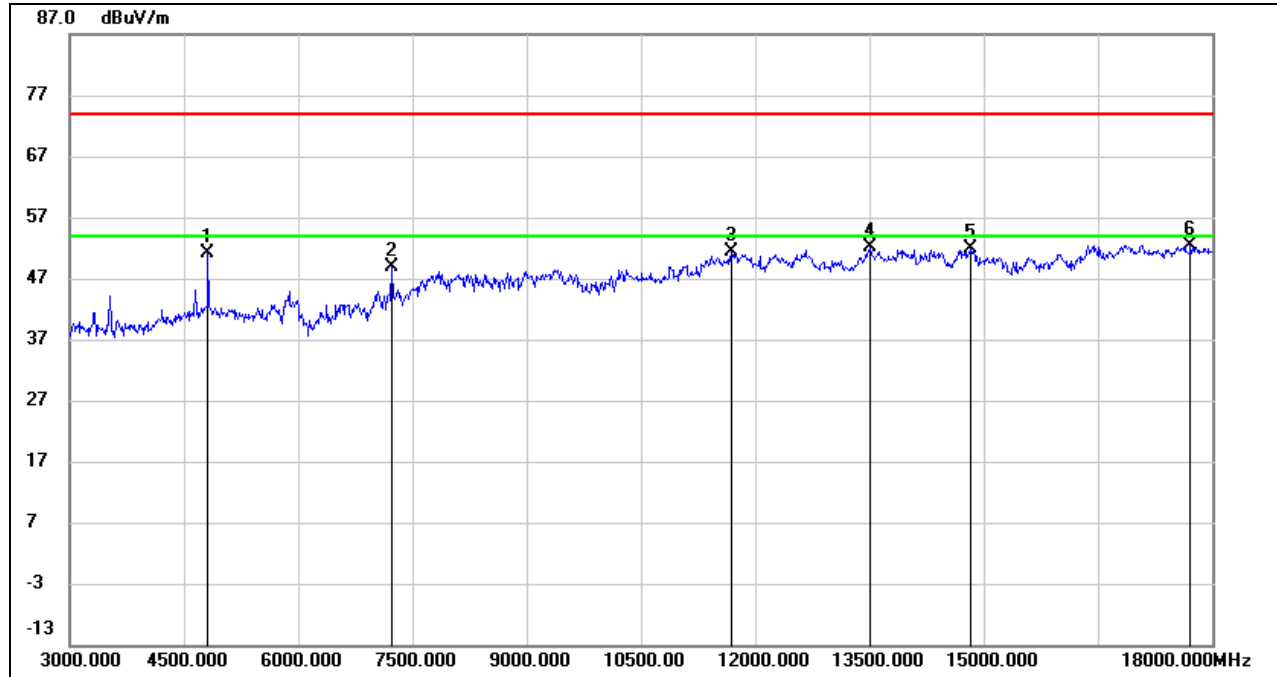
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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

8.3. SPURIOUS EMISSIONS (3 GHz ~ 18 GHz)

8.3.1. 802.11b CDD MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	49.65	1.38	51.03	74.00	-22.97	peak
2	7230.000	41.56	7.28	48.84	74.00	-25.16	peak
3	11685.000	36.12	15.26	51.38	74.00	-22.62	peak
4	13515.000	35.00	17.19	52.19	74.00	-21.81	peak
5	14820.000	33.95	17.91	51.86	74.00	-22.14	peak
6	17715.000	28.93	23.56	52.49	74.00	-21.51	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

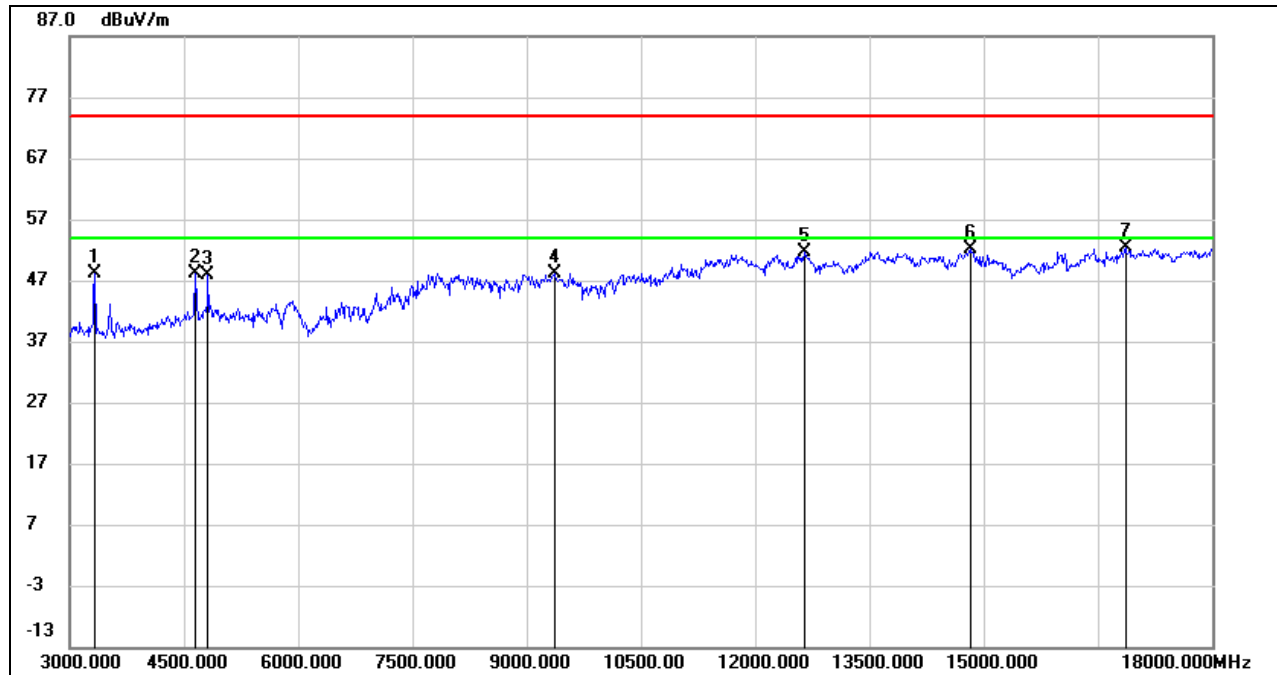
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

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	3330.000	51.78	-3.70	48.08	74.00	-25.92	peak
2	4650.000	47.88	0.25	48.13	74.00	-25.87	peak
3	4815.000	46.40	1.38	47.78	74.00	-26.22	peak
4	9360.000	37.41	10.75	48.16	74.00	-25.84	peak
5	12645.000	35.80	15.71	51.51	74.00	-22.49	peak
6	14820.000	34.11	17.91	52.02	74.00	-21.98	peak
7	16860.000	31.27	21.22	52.49	74.00	-21.51	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

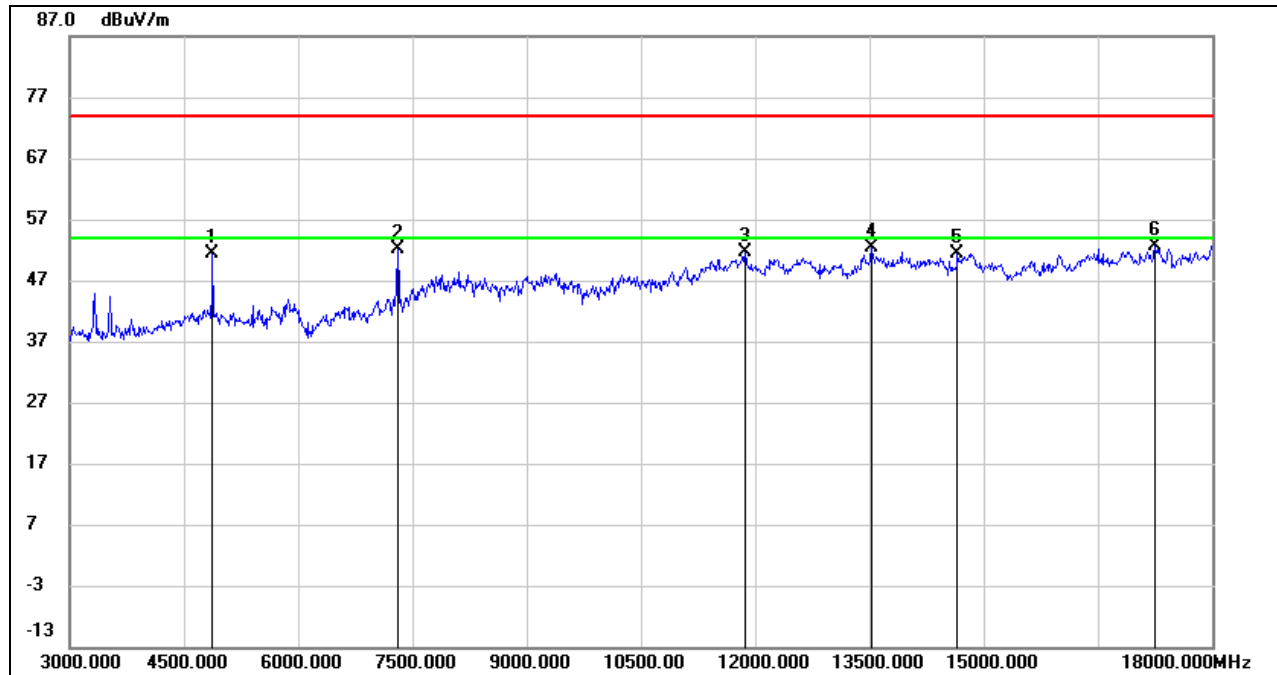
4. AVG: $VBW=1/Ton$, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

7. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	50.08	1.32	51.40	74.00	-22.60	peak
2	7305.000	44.98	7.14	52.12	74.00	-21.88	peak
3	11865.000	36.20	15.42	51.62	74.00	-22.38	peak
4	13530.000	35.17	17.19	52.36	74.00	-21.64	peak
5	14655.000	33.80	17.54	51.34	74.00	-22.66	peak
6	17250.000	30.23	22.30	52.53	74.00	-21.47	peak

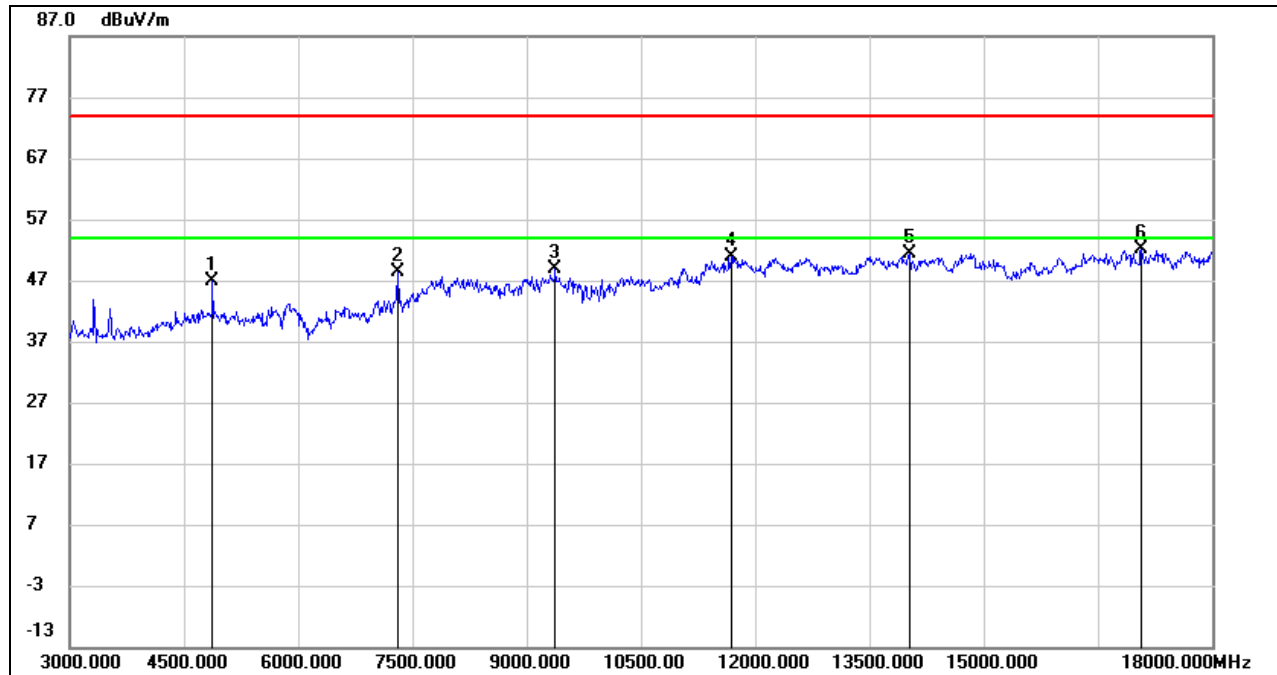
Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

**HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	45.45	1.32	46.77	74.00	-27.23	peak
2	7305.000	41.22	7.14	48.36	74.00	-25.64	peak
3	9375.000	37.94	10.83	48.77	74.00	-25.23	peak
4	11685.000	35.66	15.26	50.92	74.00	-23.08	peak
5	14025.000	33.84	17.61	51.45	74.00	-22.55	peak
6	17070.000	30.45	21.71	52.16	74.00	-21.84	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

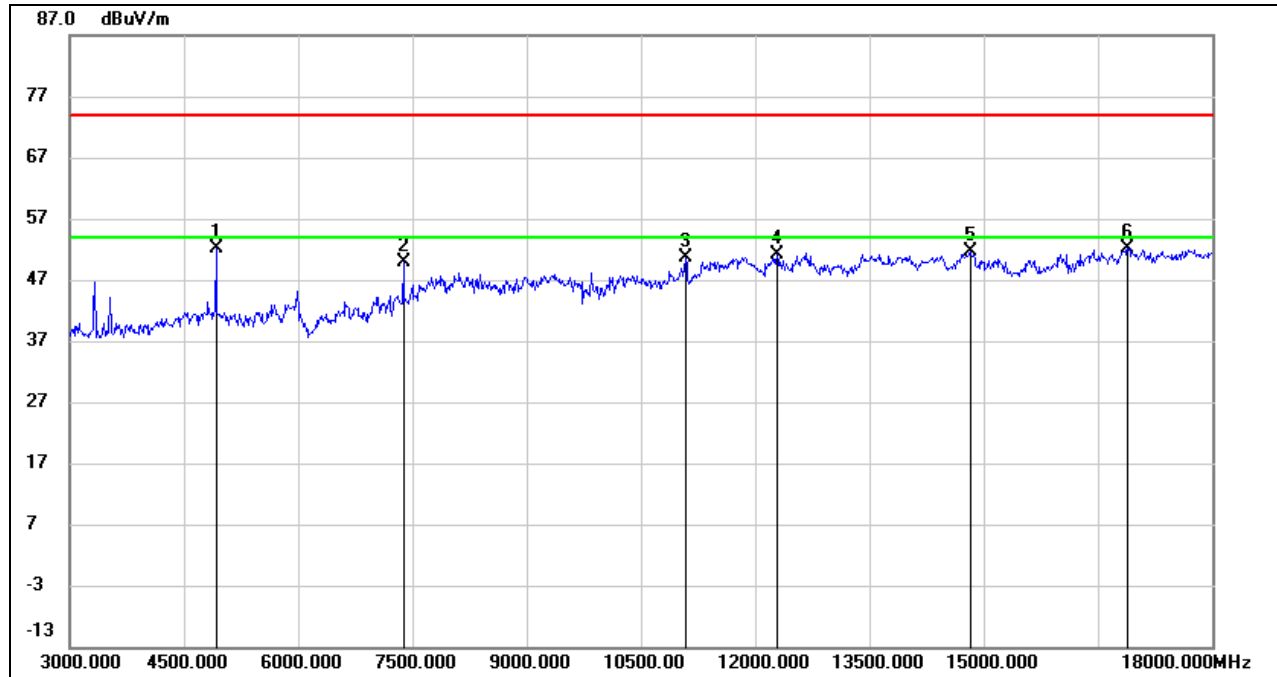
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	50.74	1.45	52.19	74.00	-21.81	peak
2	7380.000	41.98	7.79	49.77	74.00	-24.23	peak
3	11085.000	36.86	13.72	50.58	74.00	-23.42	peak
4	12285.000	35.13	16.08	51.21	74.00	-22.79	peak
5	14820.000	33.70	17.91	51.61	74.00	-22.39	peak
6	16890.000	30.69	21.49	52.18	74.00	-21.82	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

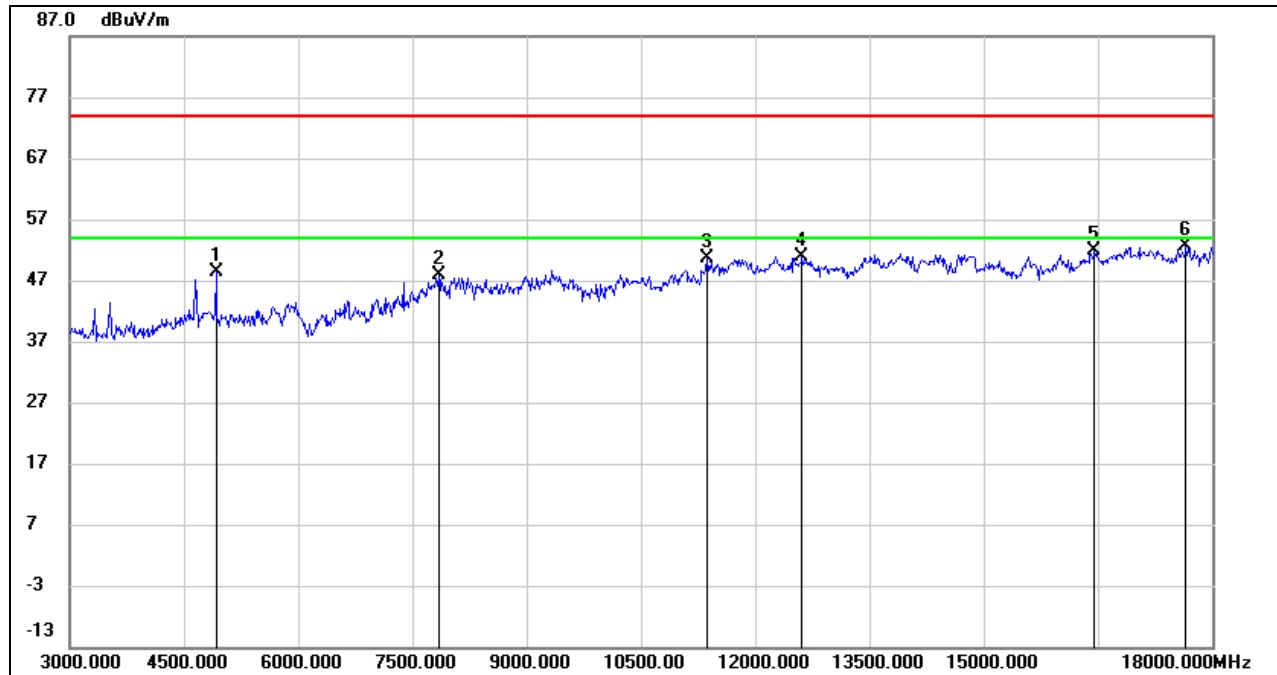
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	47.01	1.45	48.46	74.00	-25.54	peak
2	7845.000	38.74	9.14	47.88	74.00	-26.12	peak
3	11370.000	36.19	14.49	50.68	74.00	-23.32	peak
4	12615.000	35.22	15.75	50.97	74.00	-23.03	peak
5	16455.000	32.09	19.68	51.77	74.00	-22.23	peak
6	17655.000	29.45	23.14	52.59	74.00	-21.41	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

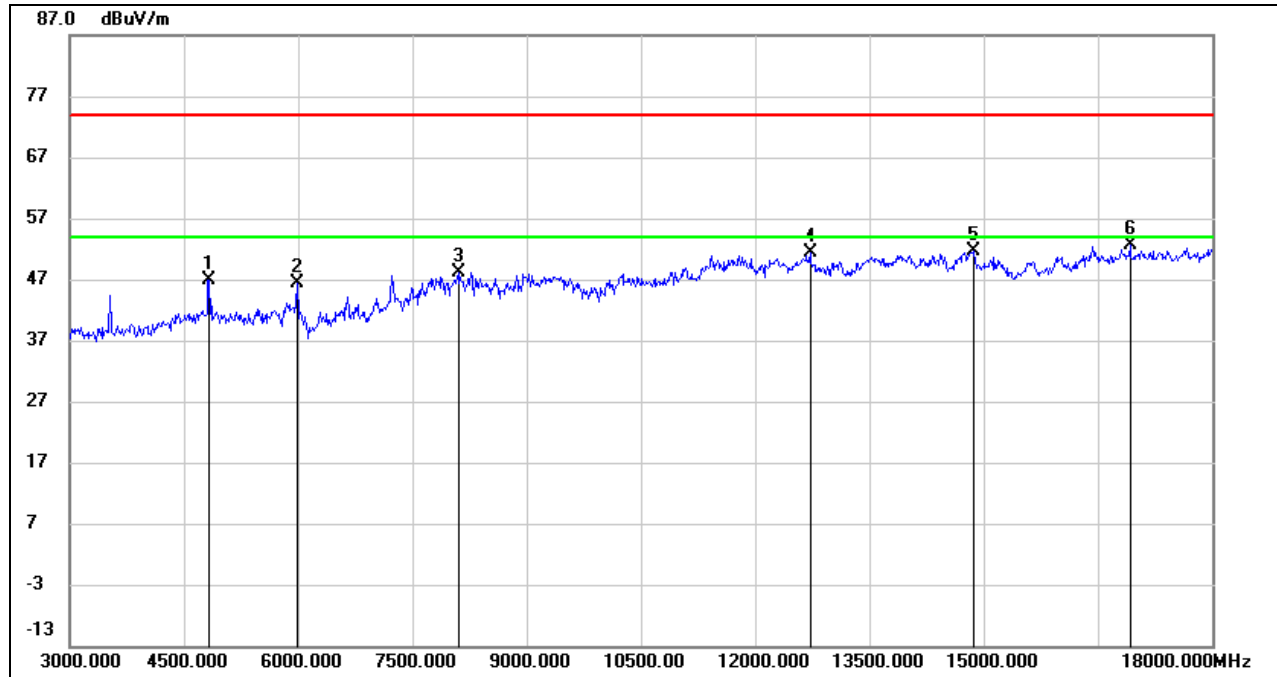
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



8.3.2. 802.11g CDD MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4830.000	45.54	1.37	46.91	74.00	-27.09	peak
2	5985.000	42.22	4.08	46.30	74.00	-27.70	peak
3	8115.000	38.03	10.13	48.16	74.00	-25.84	peak
4	12720.000	35.58	15.70	51.28	74.00	-22.72	peak
5	14865.000	34.00	17.61	51.61	74.00	-22.39	peak
6	16920.000	31.24	21.51	52.75	74.00	-21.25	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

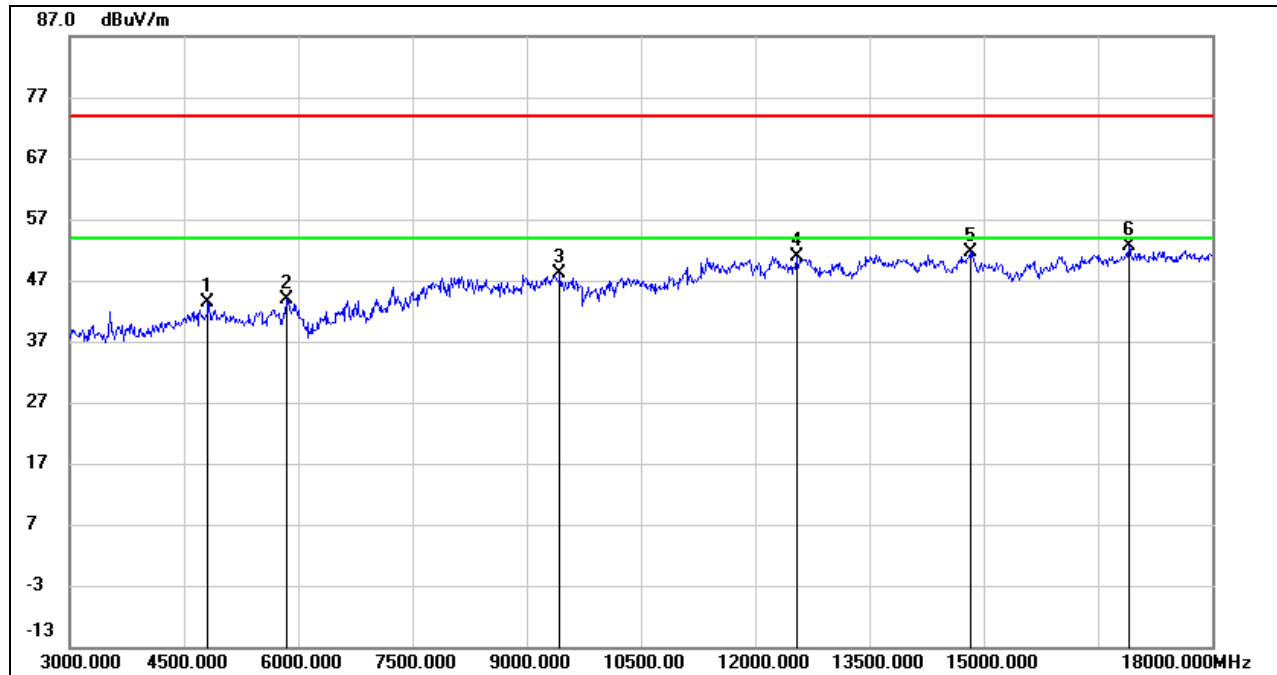
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	41.96	1.38	43.34	74.00	-30.66	peak
2	5850.000	39.85	4.00	43.85	74.00	-30.15	peak
3	9435.000	37.27	10.81	48.08	74.00	-25.92	peak
4	12540.000	35.19	15.72	50.91	74.00	-23.09	peak
5	14820.000	33.70	17.91	51.61	74.00	-22.39	peak
6	16905.000	31.11	21.55	52.66	74.00	-21.34	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

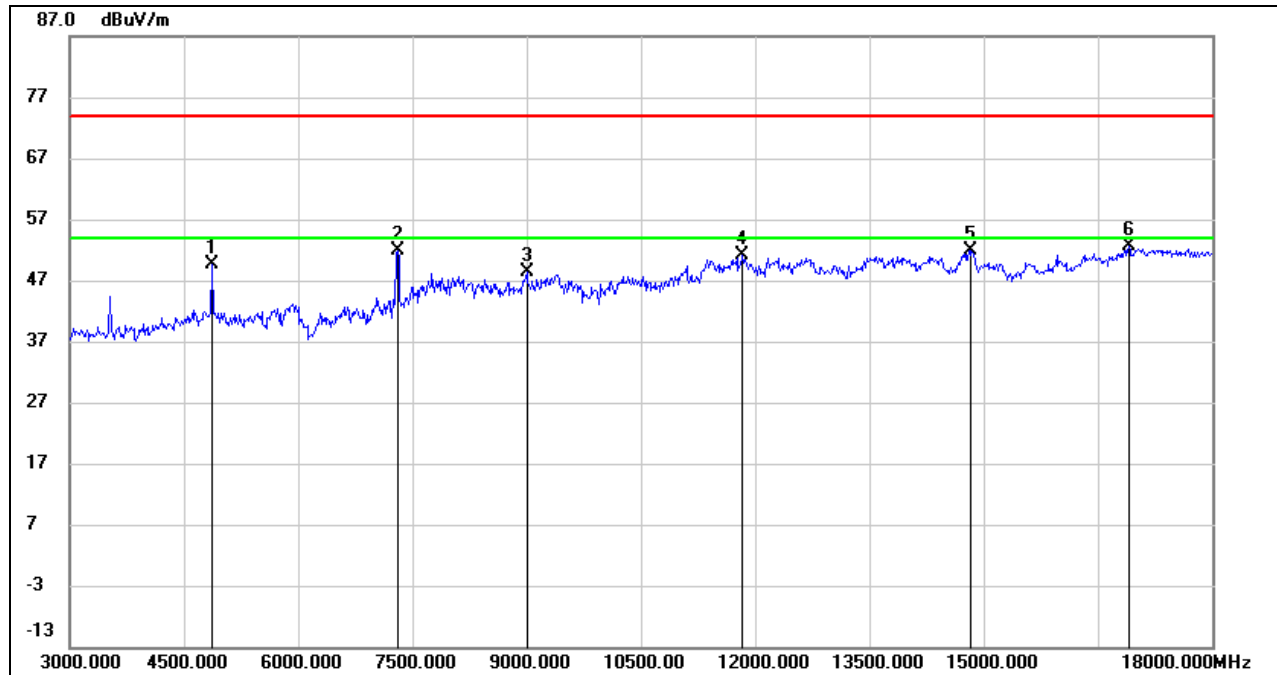
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	48.37	1.32	49.69	74.00	-24.31	peak
2	7305.000	44.63	7.14	51.77	74.00	-22.23	peak
3	9000.000	37.09	11.27	48.36	74.00	-25.64	peak
4	11835.000	35.86	15.34	51.20	74.00	-22.80	peak
5	14820.000	34.03	17.91	51.94	74.00	-22.06	peak
6	16905.000	31.04	21.55	52.59	74.00	-21.41	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

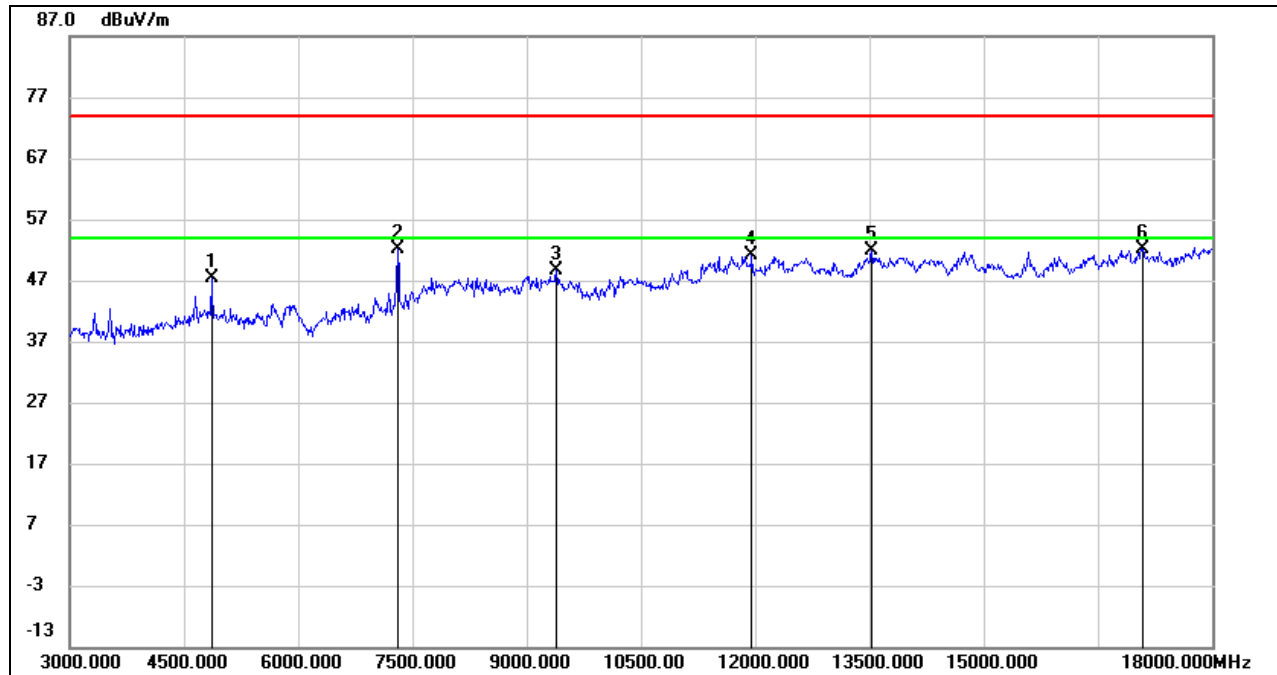
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for 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	46.02	1.33	47.35	74.00	-26.65	peak
2	7305.000	44.94	7.14	52.08	74.00	-21.92	peak
3	9390.000	37.61	10.92	48.53	74.00	-25.47	peak
4	11955.000	35.65	15.54	51.19	74.00	-22.81	peak
5	13530.000	34.75	17.19	51.94	74.00	-22.06	peak
6	17085.000	30.26	21.80	52.06	74.00	-21.94	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

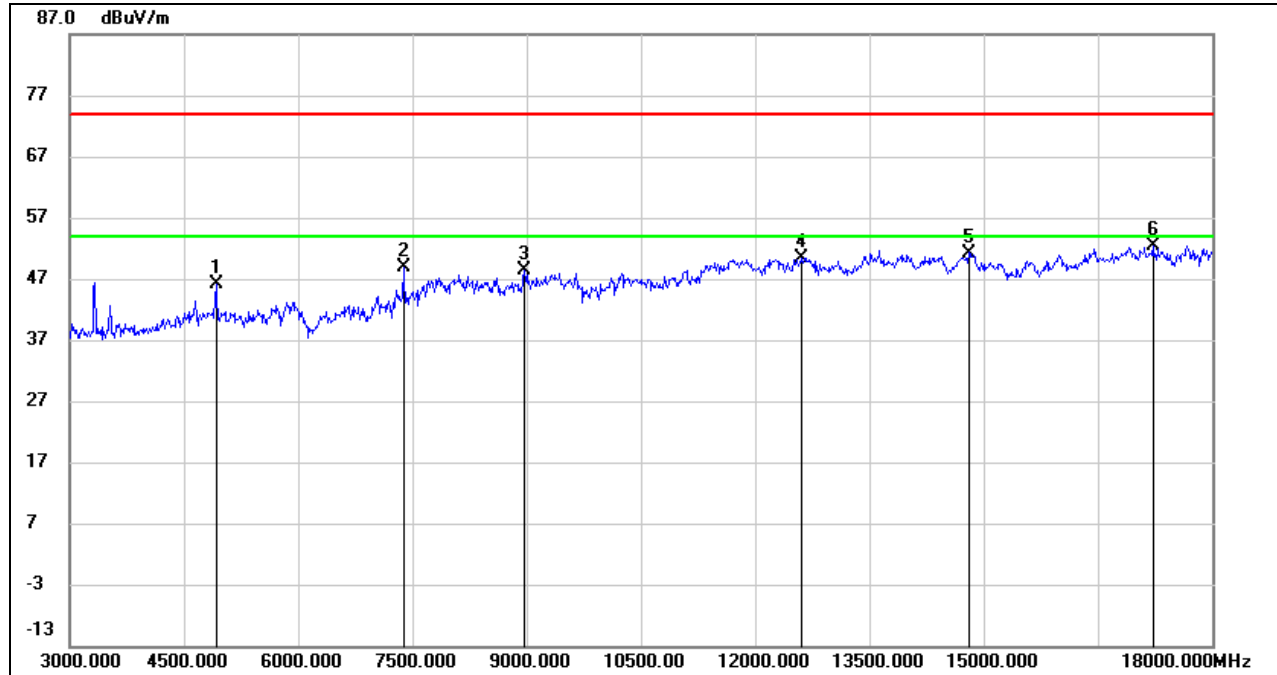
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	44.77	1.45	46.22	74.00	-27.78	peak
2	7380.000	40.97	7.79	48.76	74.00	-25.24	peak
3	8970.000	37.59	10.70	48.29	74.00	-25.71	peak
4	12615.000	34.64	15.75	50.39	74.00	-23.61	peak
5	14805.000	33.25	18.00	51.25	74.00	-22.75	peak
6	17220.000	30.15	22.12	52.27	74.00	-21.73	peak

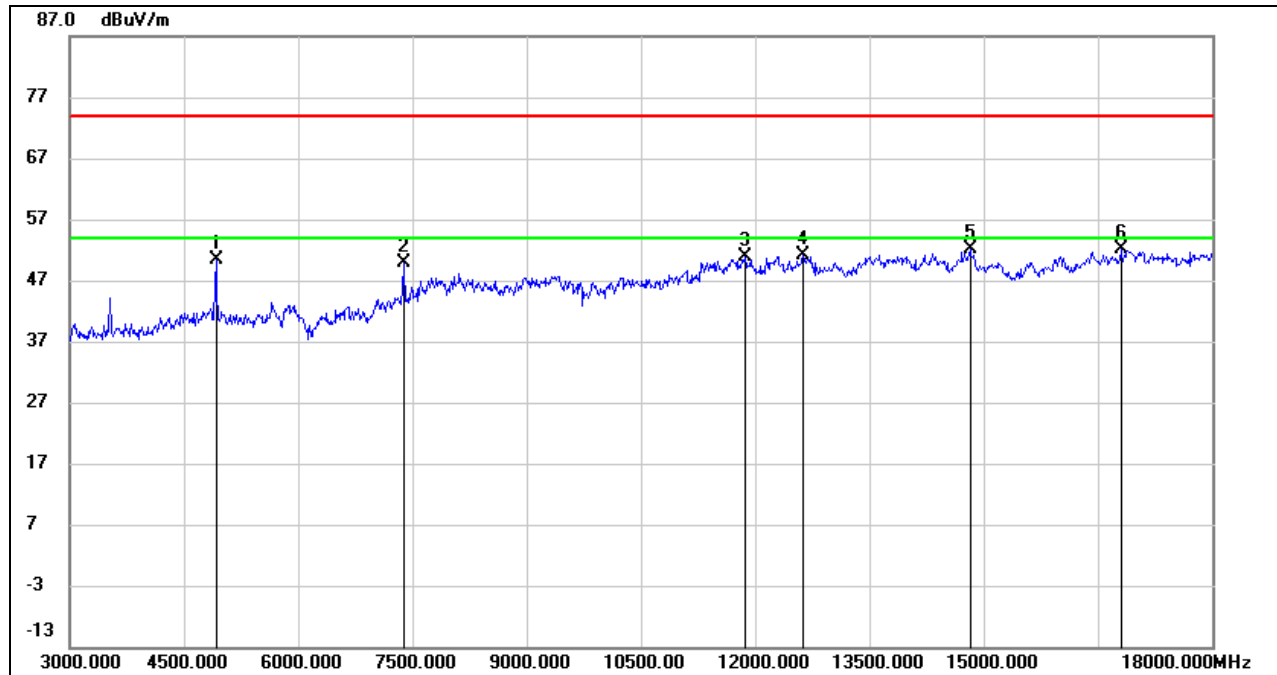
Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

**HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	49.05	1.45	50.50	74.00	-23.50	peak
2	7380.000	41.97	7.79	49.76	74.00	-24.24	peak
3	11865.000	35.58	15.42	51.00	74.00	-23.00	peak
4	12630.000	35.42	15.72	51.14	74.00	-22.86	peak
5	14820.000	34.21	17.91	52.12	74.00	-21.88	peak
6	16800.000	31.31	20.71	52.02	74.00	-21.98	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

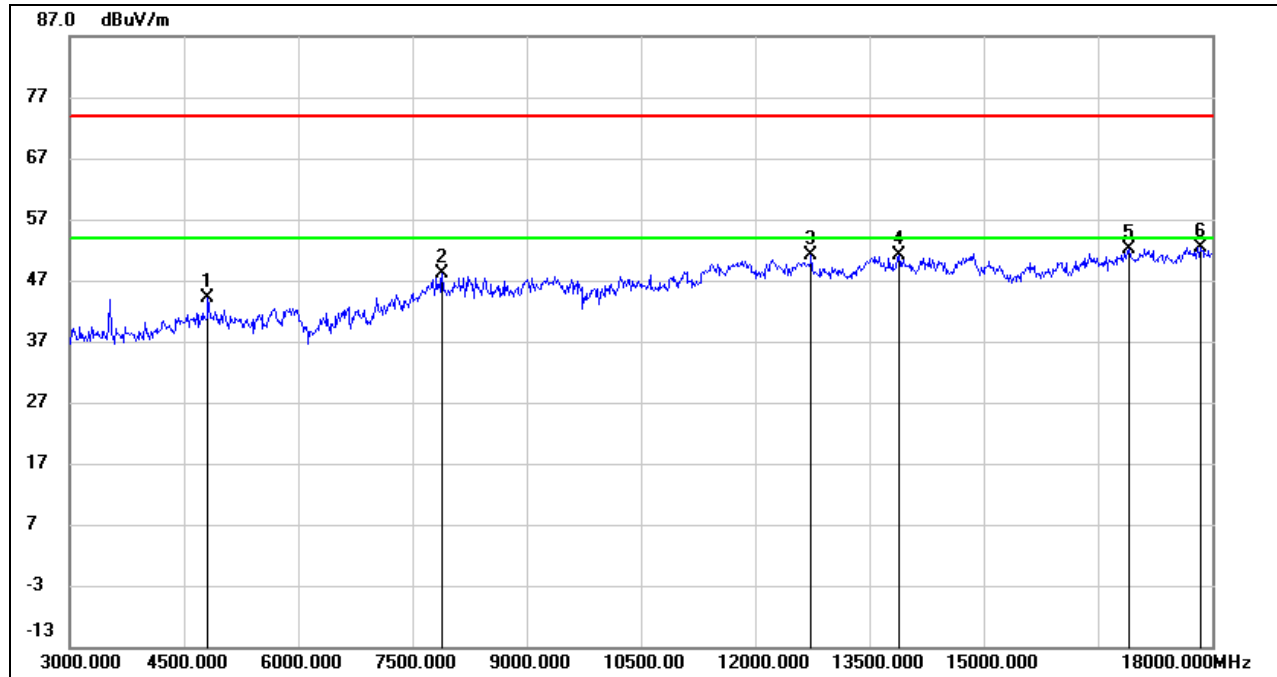
3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

8.3.3. 802.11n HT20 CDD MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4815.000	42.66	1.38	44.04	74.00	-29.96	peak
2	7890.000	39.34	8.91	48.25	74.00	-25.75	peak
3	12735.000	35.36	15.75	51.11	74.00	-22.89	peak
4	13890.000	33.58	17.53	51.11	74.00	-22.89	peak
5	16905.000	30.63	21.55	52.18	74.00	-21.82	peak
6	17850.000	28.34	23.97	52.31	74.00	-21.69	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

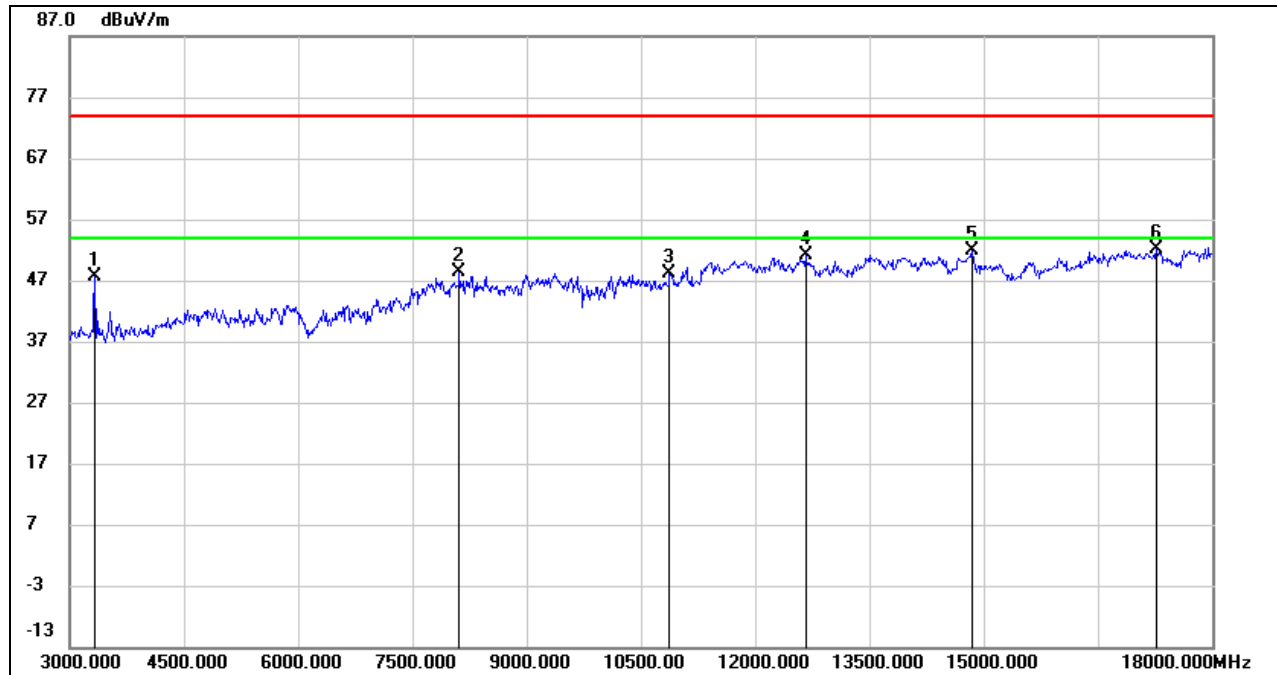
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. 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	3330.000	51.21	-3.70	47.51	74.00	-26.49	peak
2	8115.000	38.26	10.13	48.39	74.00	-25.61	peak
3	10875.000	34.93	13.26	48.19	74.00	-25.81	peak
4	12660.000	35.33	15.69	51.02	74.00	-22.98	peak
5	14850.000	34.29	17.71	52.00	74.00	-22.00	peak
6	17265.000	29.64	22.39	52.03	74.00	-21.97	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

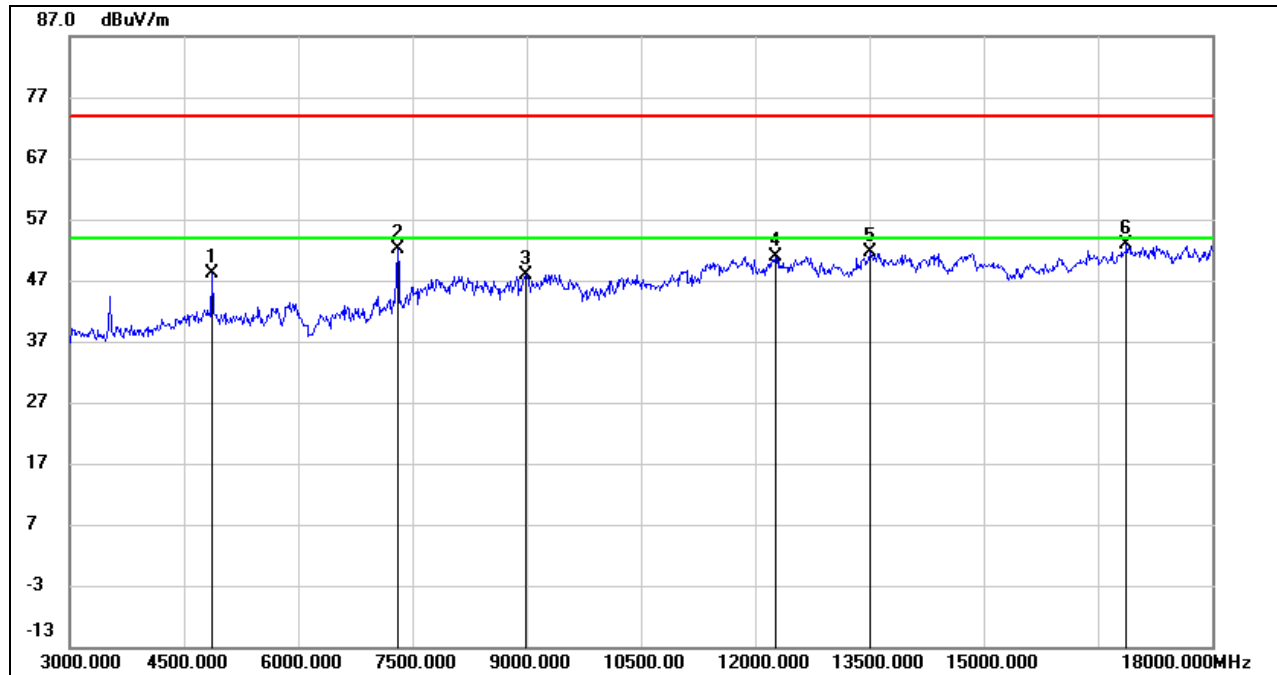
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	46.72	1.32	48.04	74.00	-25.96	peak
2	7305.000	44.95	7.14	52.09	74.00	-21.91	peak
3	8985.000	37.00	10.99	47.99	74.00	-26.01	peak
4	12270.000	34.95	16.04	50.99	74.00	-23.01	peak
5	13500.000	34.49	17.22	51.71	74.00	-22.29	peak
6	16875.000	31.64	21.35	52.99	74.00	-21.01	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

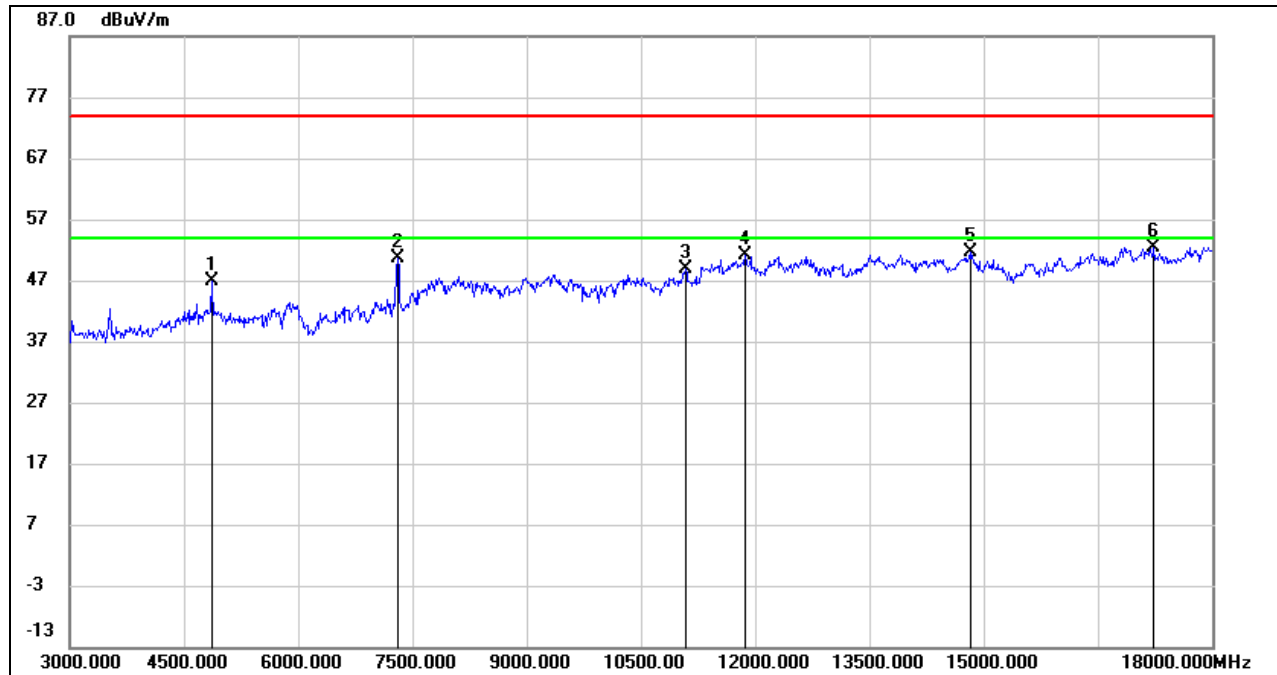
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	45.65	1.33	46.98	74.00	-27.02	peak
2	7305.000	43.42	7.14	50.56	74.00	-23.44	peak
3	11085.000	35.07	13.72	48.79	74.00	-25.21	peak
4	11865.000	35.62	15.42	51.04	74.00	-22.96	peak
5	14820.000	33.77	17.91	51.68	74.00	-22.32	peak
6	17235.000	30.26	22.21	52.47	74.00	-21.53	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

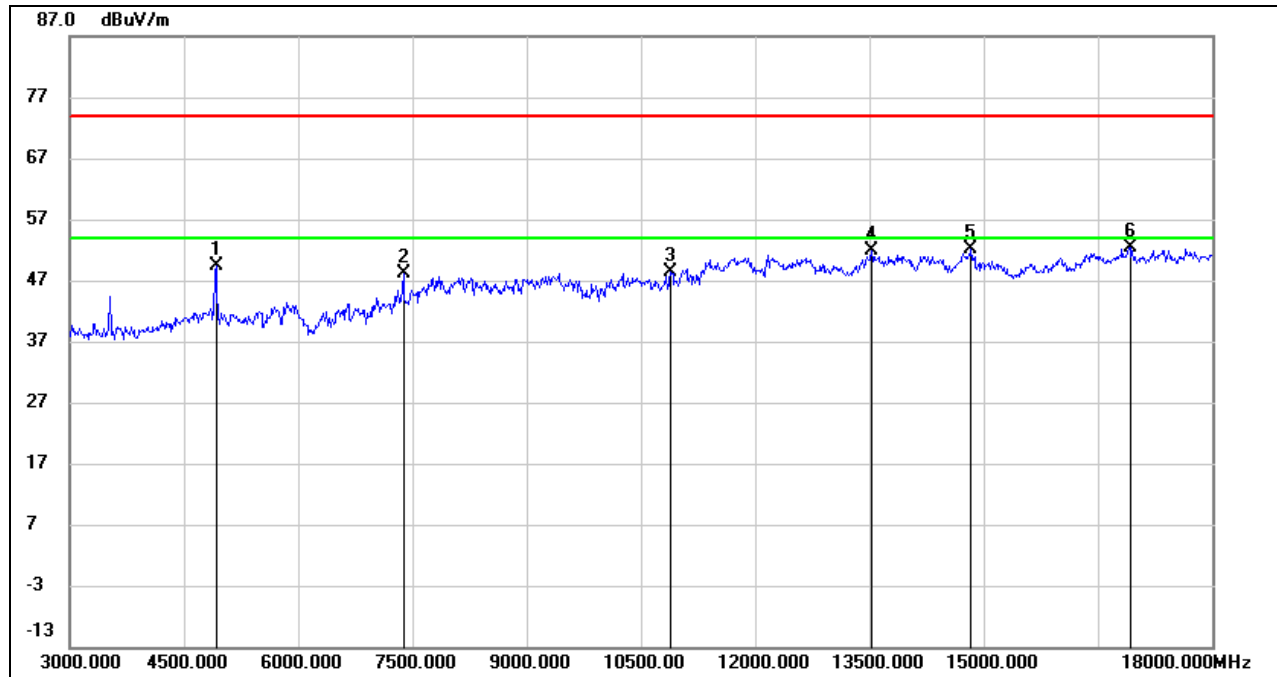
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	48.04	1.45	49.49	74.00	-24.51	peak
2	7380.000	40.31	7.79	48.10	74.00	-25.90	peak
3	10890.000	34.95	13.31	48.26	74.00	-25.74	peak
4	13530.000	34.80	17.19	51.99	74.00	-22.01	peak
5	14835.000	34.23	17.80	52.03	74.00	-21.97	peak
6	16920.000	30.86	21.51	52.37	74.00	-21.63	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

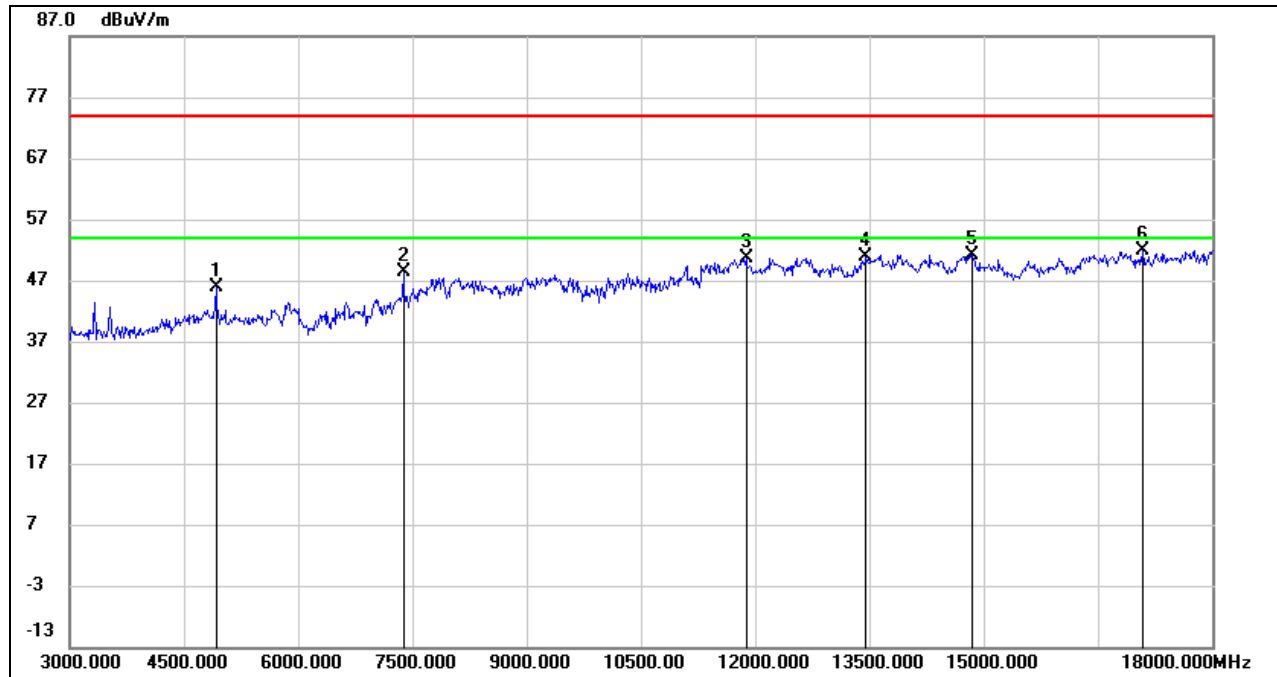
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	44.33	1.45	45.78	74.00	-28.22	peak
2	7380.000	40.68	7.79	48.47	74.00	-25.53	peak
3	11880.000	35.06	15.46	50.52	74.00	-23.48	peak
4	13455.000	33.72	17.14	50.86	74.00	-23.14	peak
5	14850.000	33.52	17.71	51.23	74.00	-22.77	peak
6	17085.000	30.15	21.80	51.95	74.00	-22.05	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

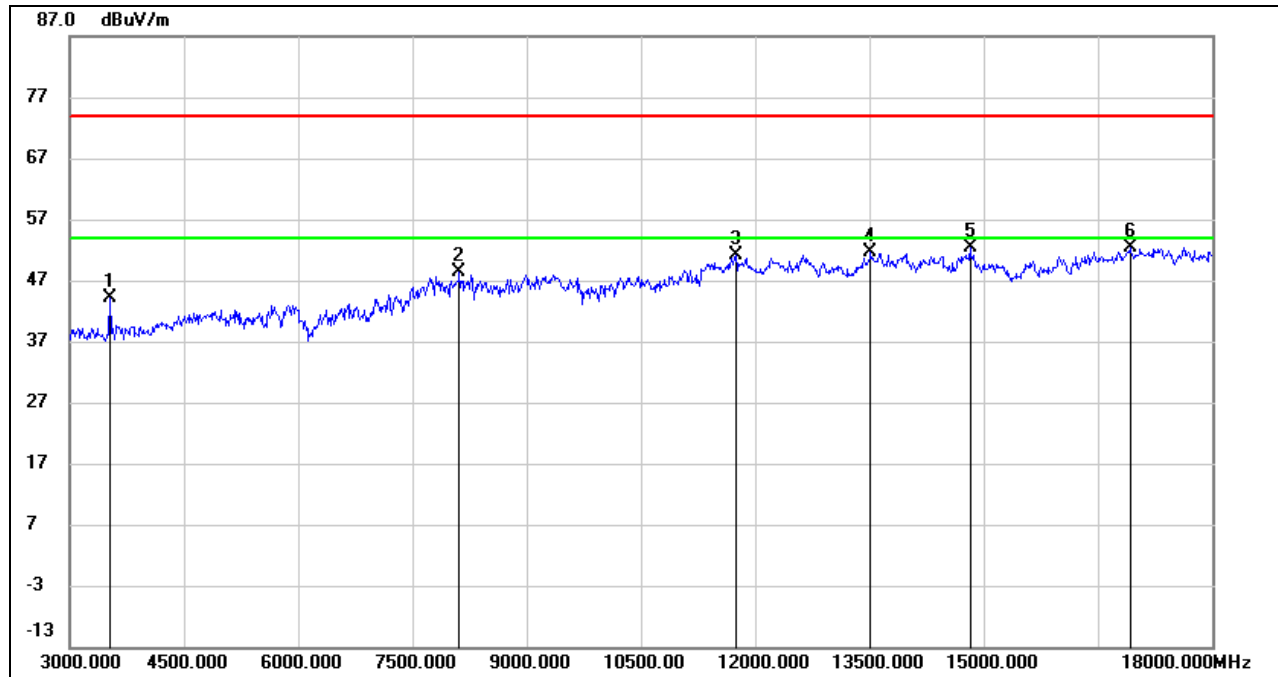
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

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

8.3.4. 802.11n HT40 CDD MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3525.000	47.78	-3.65	44.13	74.00	-29.87	peak
2	8115.000	38.34	10.13	48.47	74.00	-25.53	peak
3	11745.000	35.93	15.30	51.23	74.00	-22.77	peak
4	13515.000	34.38	17.19	51.57	74.00	-22.43	peak
5	14820.000	34.39	17.91	52.30	74.00	-21.70	peak
6	16920.000	30.85	21.51	52.36	74.00	-21.64	peak

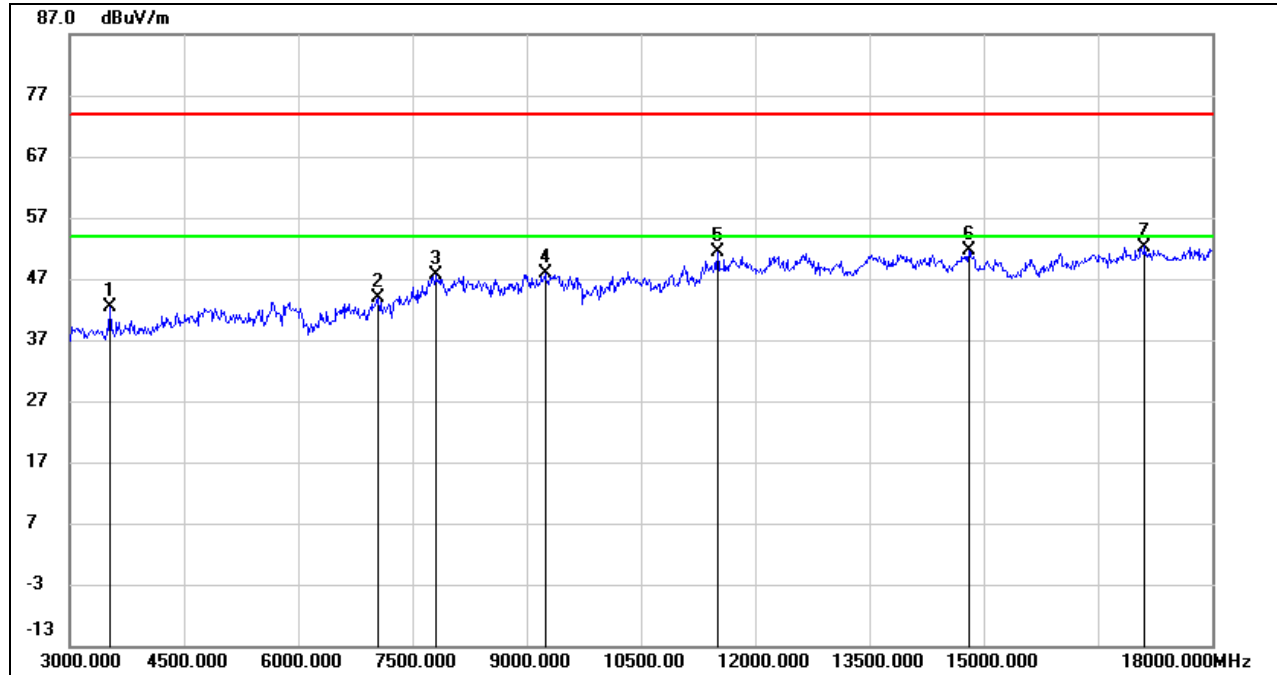
Note: 1. Peak Result = Reading Level + Correct Factor.

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.

**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	3525.000	45.94	-3.65	42.29	74.00	-31.71	peak
2	7050.000	36.35	7.63	43.98	74.00	-30.02	peak
3	7815.000	38.45	9.28	47.73	74.00	-26.27	peak
4	9240.000	37.73	10.10	47.83	74.00	-26.17	peak
5	11505.000	36.66	14.66	51.32	74.00	-22.68	peak
6	14805.000	33.59	18.00	51.59	74.00	-22.41	peak
7	17115.000	30.34	21.91	52.25	74.00	-21.75	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

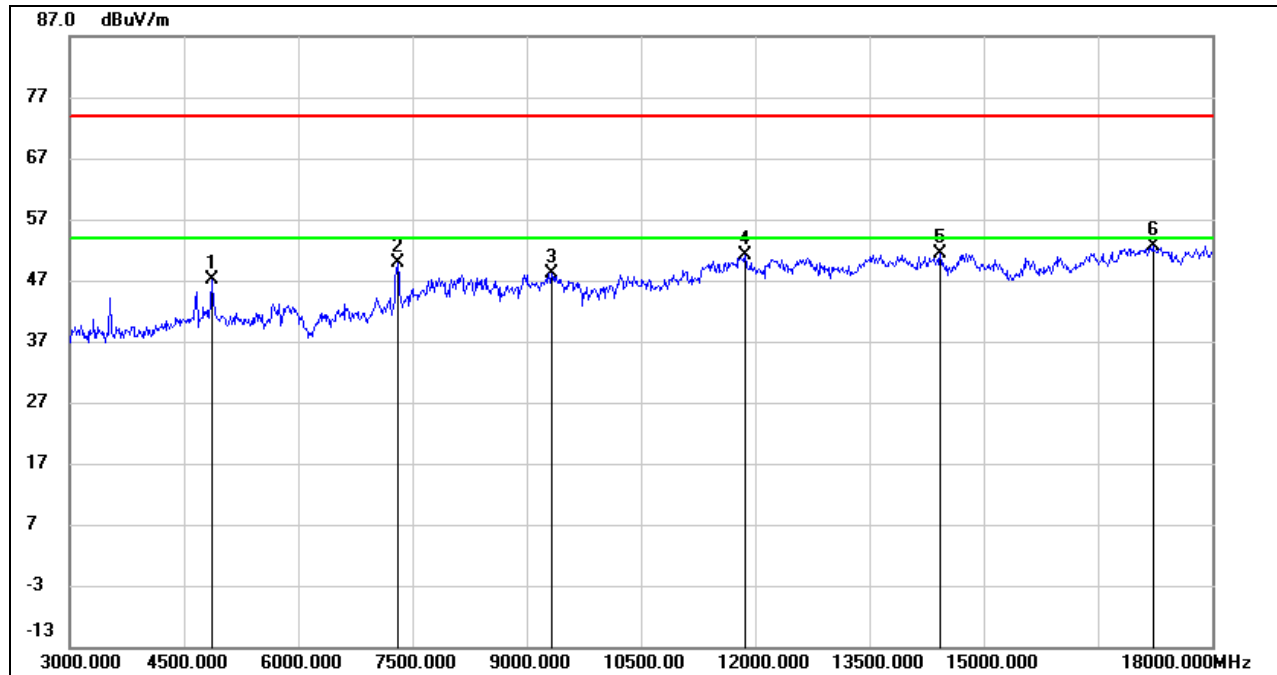
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4860.000	45.74	1.33	47.07	74.00	-26.93	peak
2	7305.000	42.74	7.14	49.88	74.00	-24.12	peak
3	9330.000	37.50	10.57	48.07	74.00	-25.93	peak
4	11865.000	35.61	15.42	51.03	74.00	-22.97	peak
5	14430.000	34.07	17.34	51.41	74.00	-22.59	peak
6	17220.000	30.45	22.12	52.57	74.00	-21.43	peak

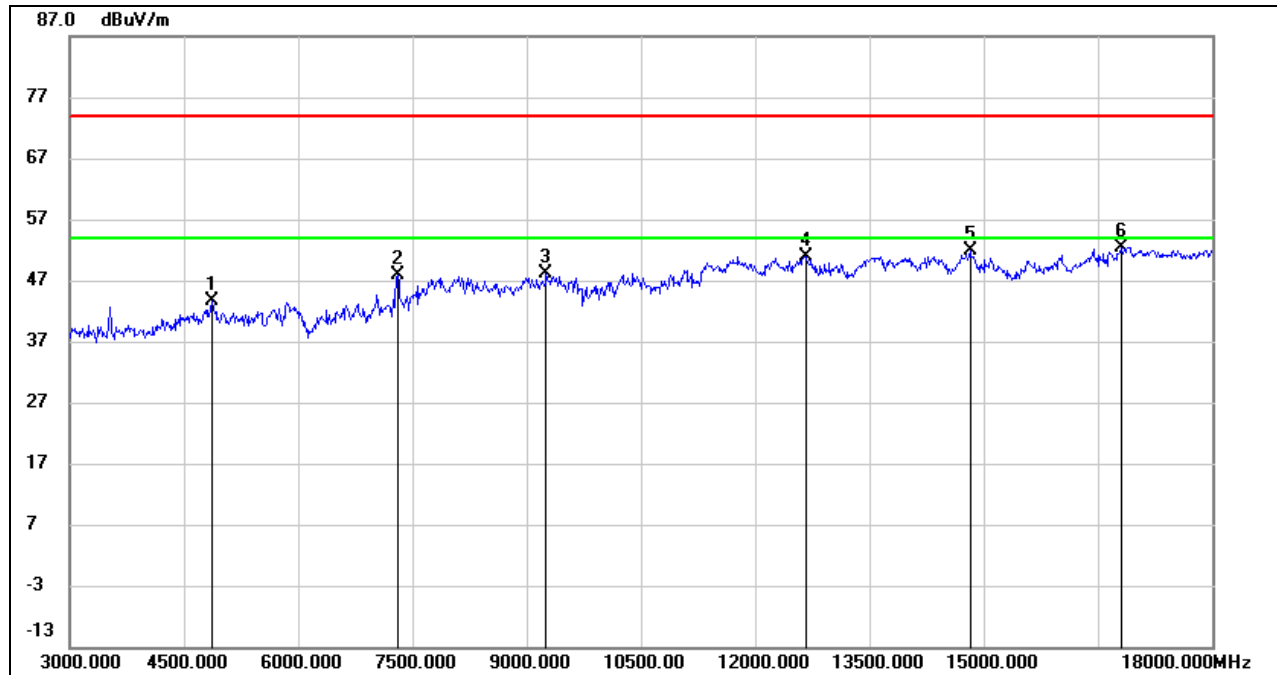
Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

**HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.000	42.24	1.32	43.56	74.00	-30.44	peak
2	7305.000	40.82	7.14	47.96	74.00	-26.04	peak
3	9255.000	38.00	10.17	48.17	74.00	-25.83	peak
4	12660.000	35.25	15.69	50.94	74.00	-23.06	peak
5	14820.000	33.88	17.91	51.79	74.00	-22.21	peak
6	16800.000	31.67	20.71	52.38	74.00	-21.62	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

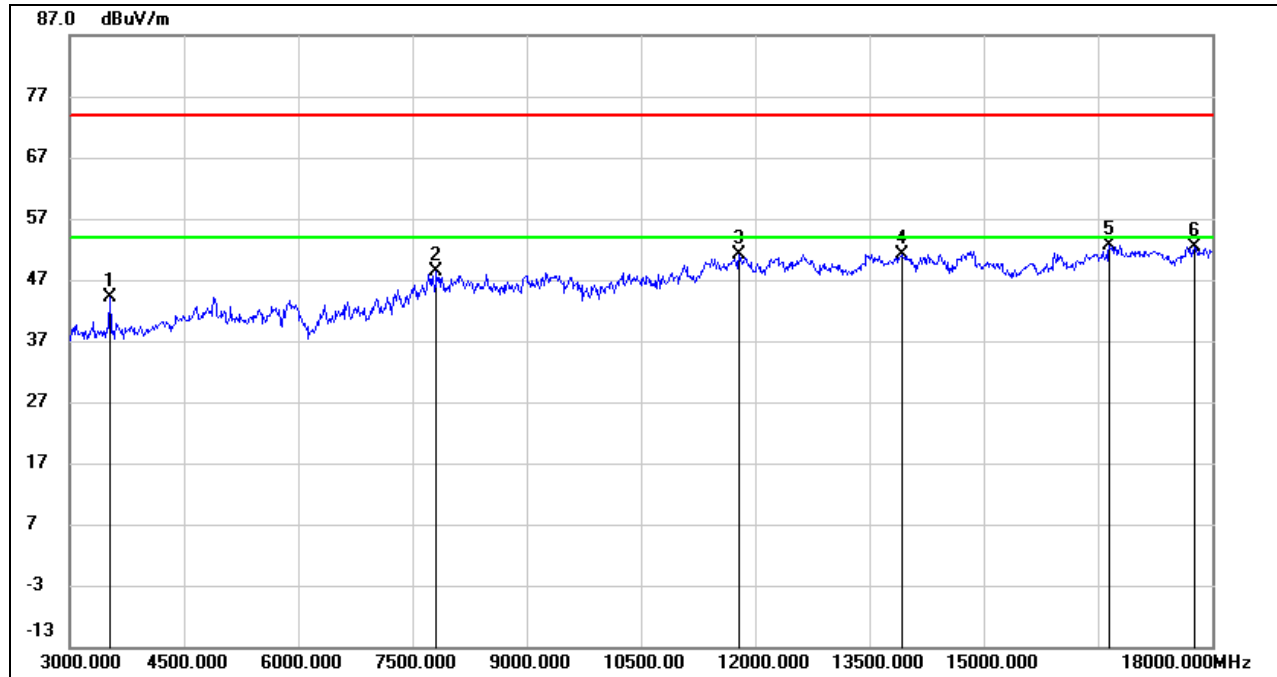
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

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, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3525.000	47.85	-3.65	44.20	74.00	-29.80	peak
2	7815.000	39.02	9.28	48.30	74.00	-25.70	peak
3	11790.000	35.85	15.26	51.11	74.00	-22.89	peak
4	13920.000	33.66	17.55	51.21	74.00	-22.79	peak
5	16650.000	32.65	19.98	52.63	74.00	-21.37	peak
6	17760.000	28.58	23.82	52.40	74.00	-21.60	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

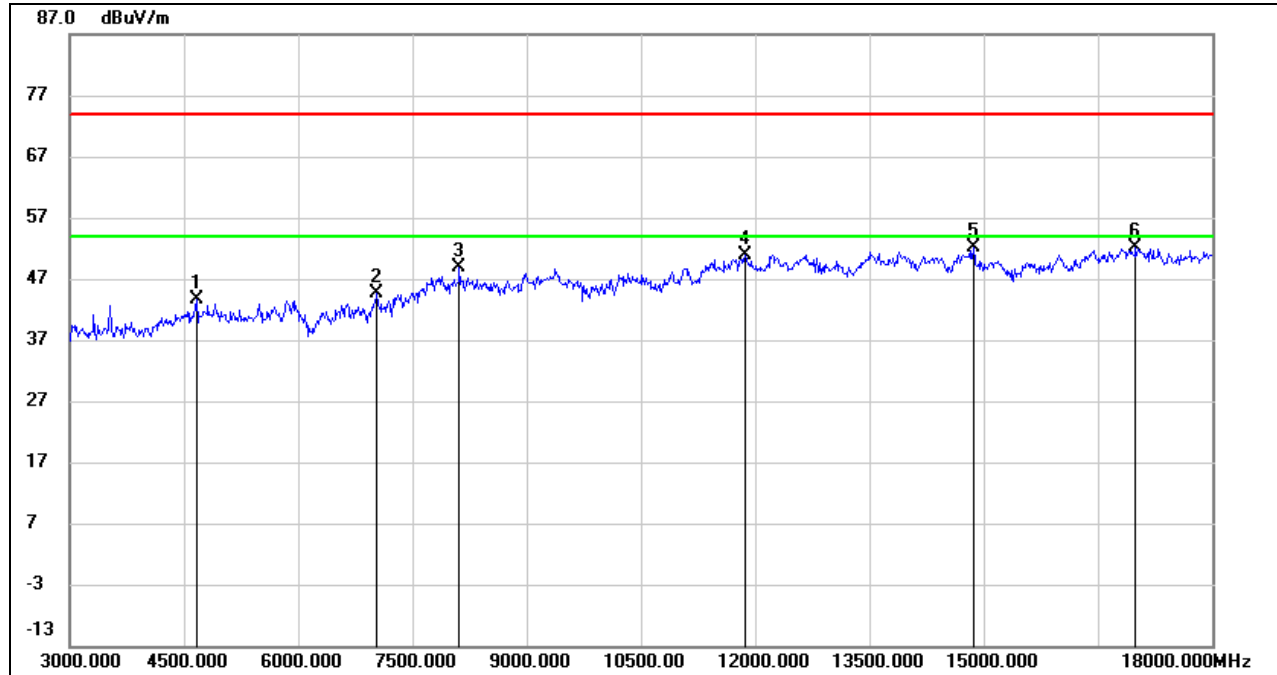
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

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 (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4665.000	43.37	0.25	43.62	74.00	-30.38	peak
2	7035.000	37.05	7.62	44.67	74.00	-29.33	peak
3	8115.000	38.70	10.13	48.83	74.00	-25.17	peak
4	11865.000	35.44	15.42	50.86	74.00	-23.14	peak
5	14865.000	34.45	17.61	52.06	74.00	-21.94	peak
6	16995.000	30.99	21.26	52.25	74.00	-21.75	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

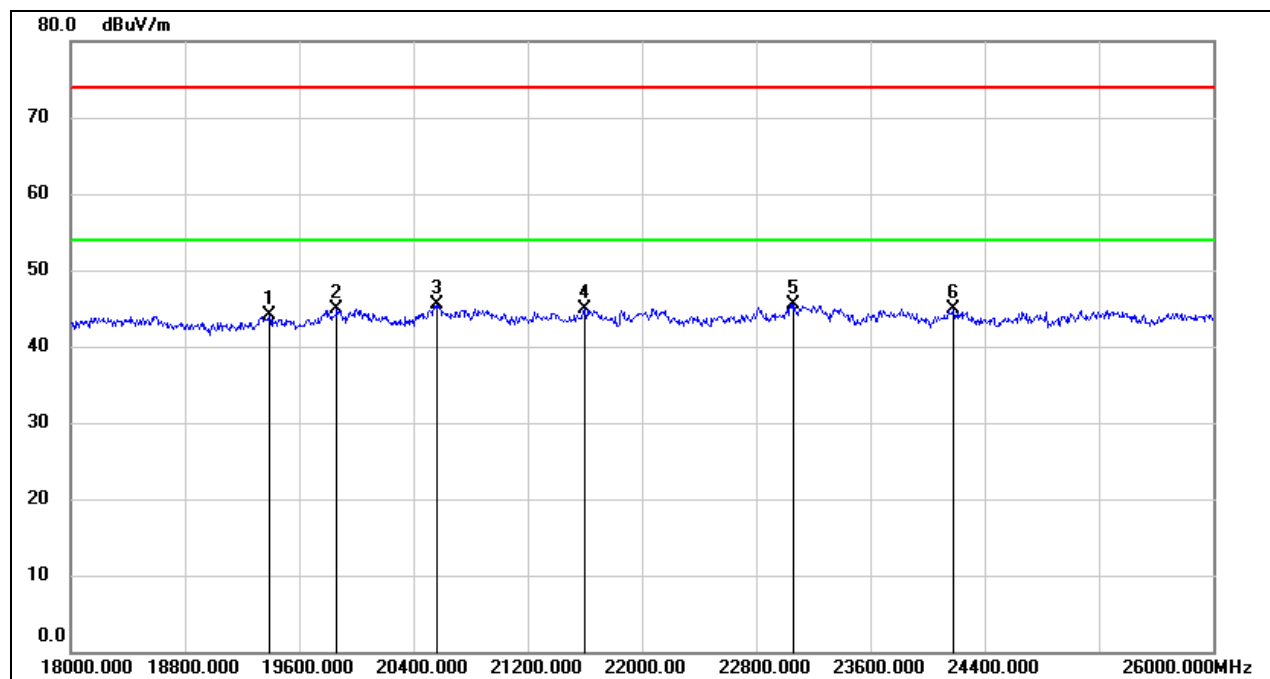
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

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

8.5. SPURIOUS EMISSIONS (18 GHz ~ 26 GHz)

8.5.1. 802.11g CDD MODE

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

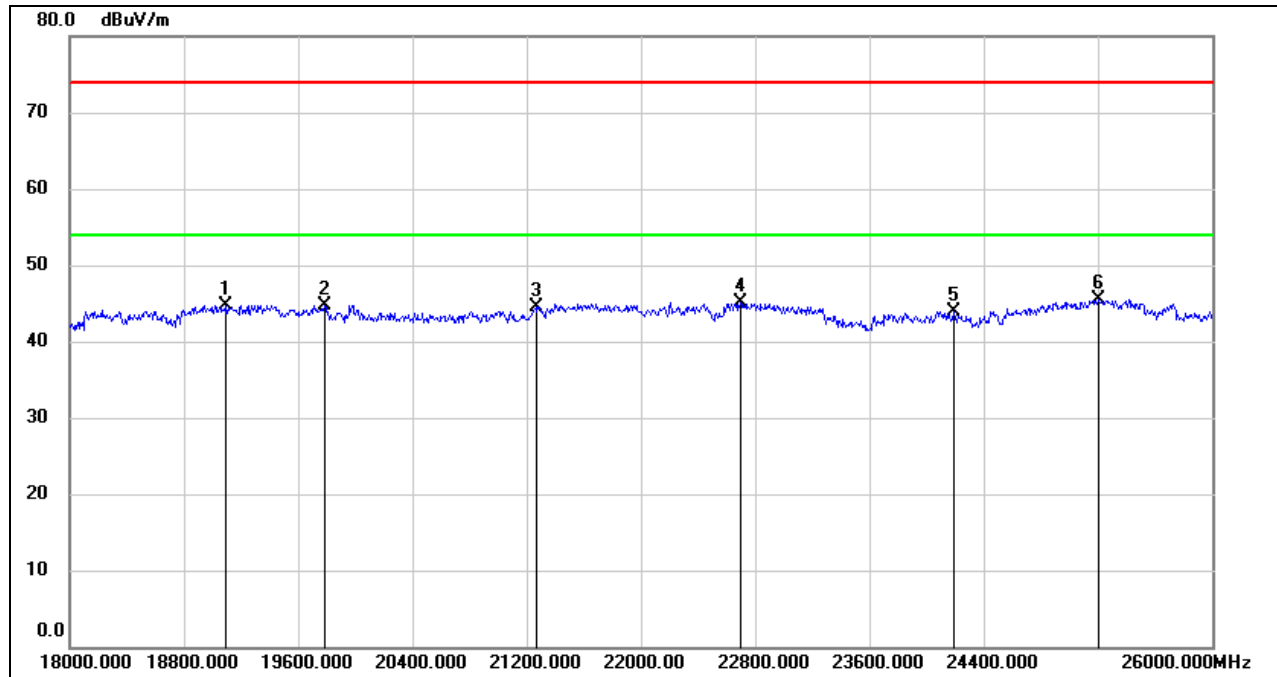


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	19392.000	49.62	-5.57	44.05	74.00	-29.95	peak
2	19864.000	50.29	-5.34	44.95	74.00	-29.05	peak
3	20560.000	50.73	-5.30	45.43	74.00	-28.57	peak
4	21600.000	49.52	-4.54	44.98	74.00	-29.02	peak
5	23064.000	48.99	-3.42	45.57	74.00	-28.43	peak
6	24176.000	47.69	-2.80	44.89	74.00	-29.11	peak

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

**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	19096.000	50.03	-5.36	44.67	74.00	-29.33	peak
2	19784.000	50.07	-5.28	44.79	74.00	-29.21	peak
3	21264.000	49.35	-4.76	44.59	74.00	-29.41	peak
4	22696.000	48.80	-3.73	45.07	74.00	-28.93	peak
5	24192.000	46.71	-2.81	43.90	74.00	-30.10	peak
6	25208.000	47.24	-1.74	45.50	74.00	-28.50	peak

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

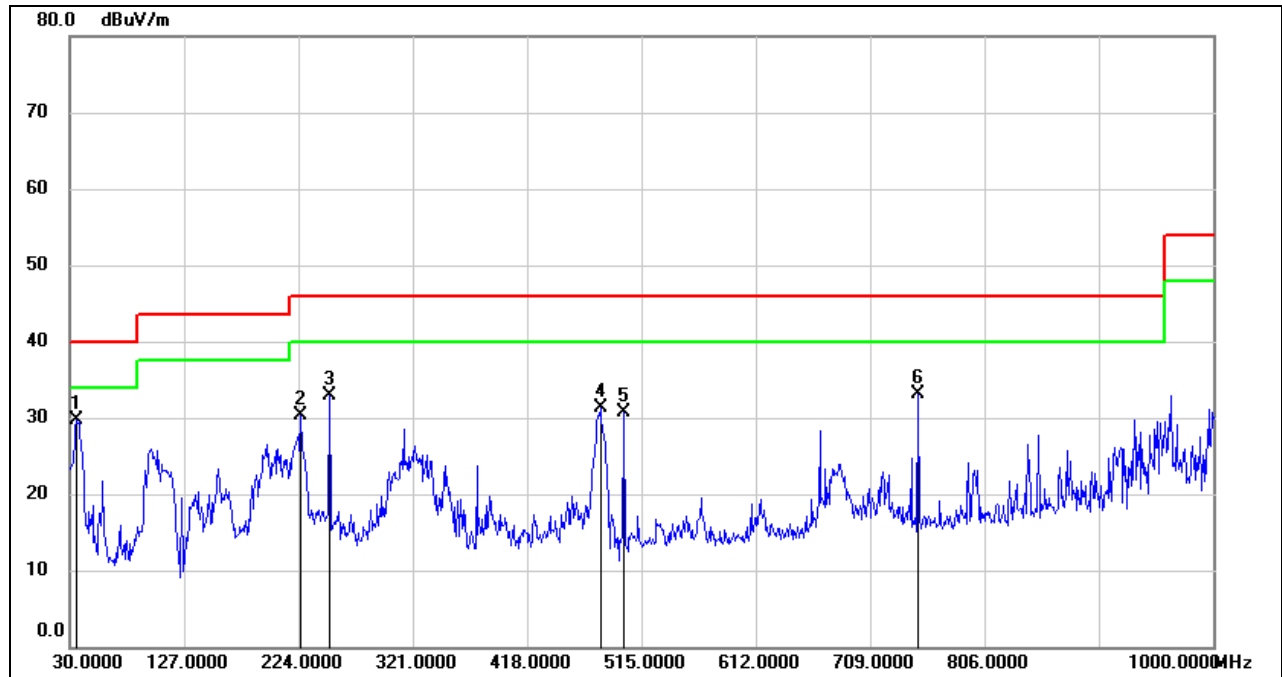
Note: All the modes and channels had been tested, but only the worst data was recorded in the report.



8.6. SPURIOUS EMISSIONS (30 MHz ~ 1 GHz)

8.6.1. 802.11g CDD MODE

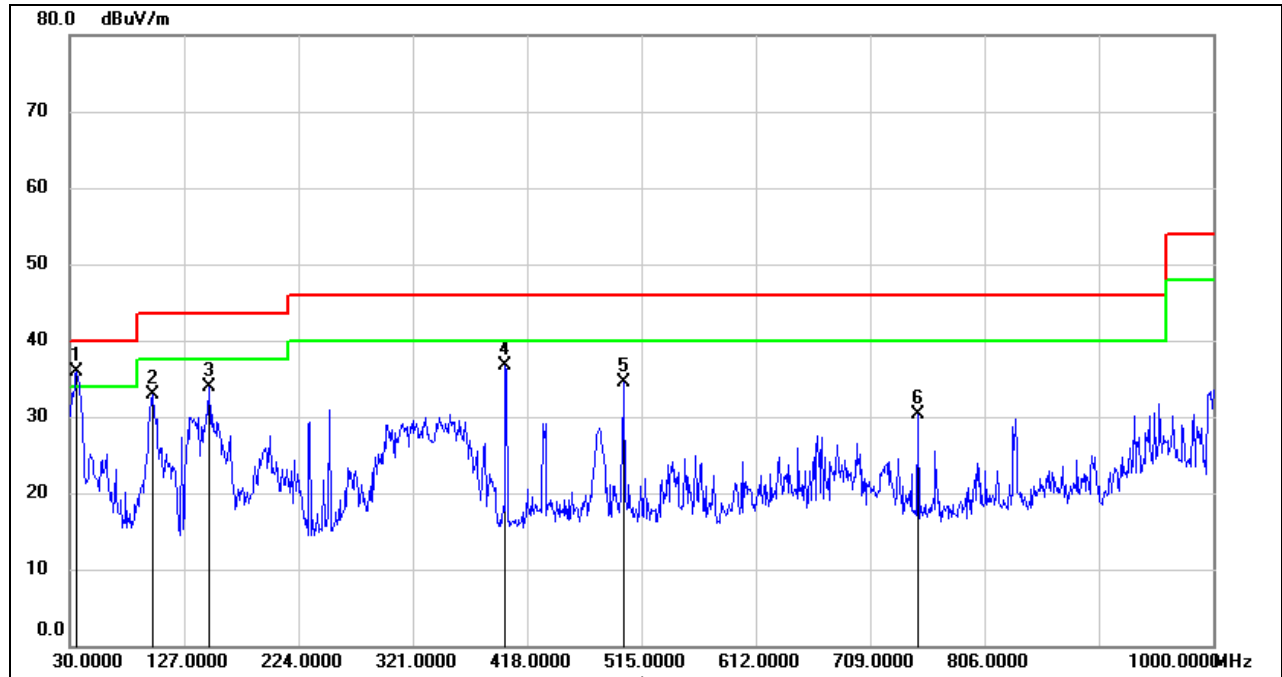
SPURIOUS EMISSIONS (MID CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	35.8200	49.15	-19.50	29.65	40.00	-10.35	QP
2	225.9400	48.69	-18.47	30.22	46.00	-15.78	QP
3	250.1900	51.90	-18.91	32.99	46.00	-13.01	QP
4	480.0800	43.15	-11.79	31.36	46.00	-14.64	QP
5	500.4500	42.15	-11.46	30.69	46.00	-15.31	QP
6	749.7400	41.09	-7.94	33.15	46.00	-12.85	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	35.8200	55.38	-19.50	35.88	40.00	-4.12	QP
2	99.8399	54.10	-21.15	32.95	43.50	-10.55	QP
3	148.3400	52.30	-18.36	33.94	43.50	-9.56	QP
4	399.5700	50.11	-13.37	36.74	46.00	-9.26	QP
5	500.4500	45.89	-11.46	34.43	46.00	-11.57	QP
6	749.7400	38.16	-7.94	30.22	46.00	-15.78	QP

Note: 1. Result Level = Read Level + Correct Factor.

2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

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

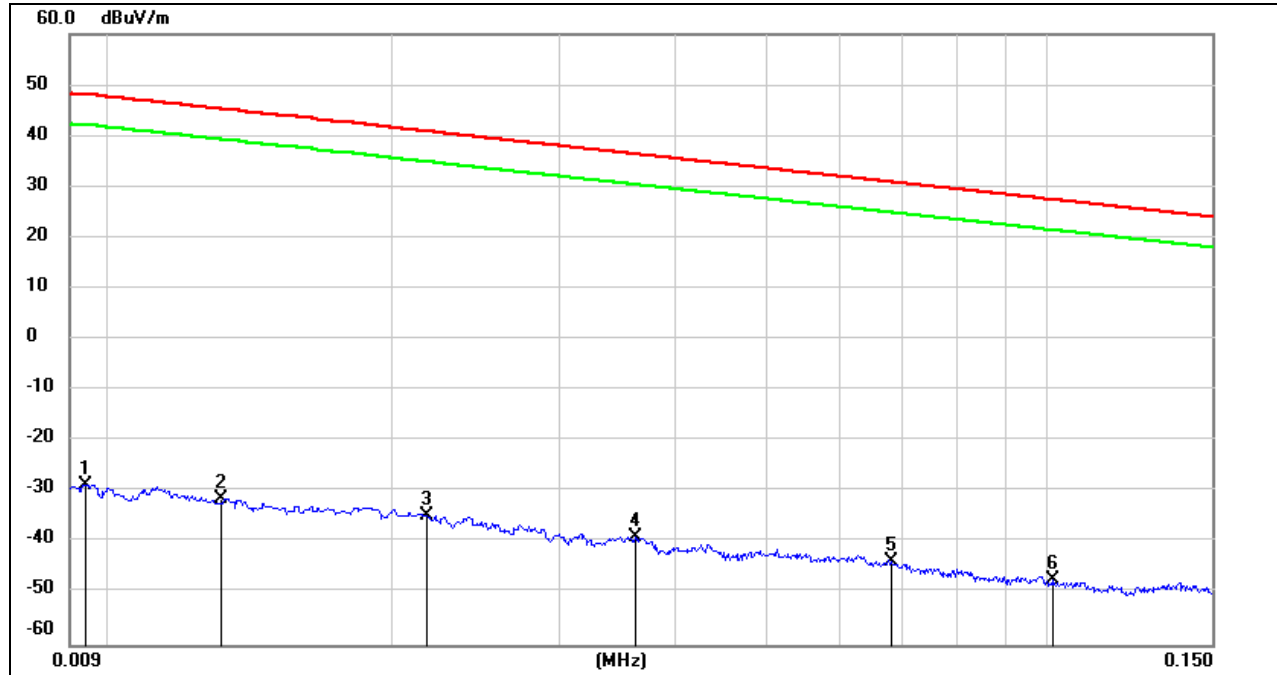
Note: All the modes and channels had been tested, but only the worst data was recorded in the report.

8.7. SPURIOUS EMISSIONS BELOW 30 MHz

8.7.1. 802.11g CDD MODE

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

9 kHz~ 150 kHz



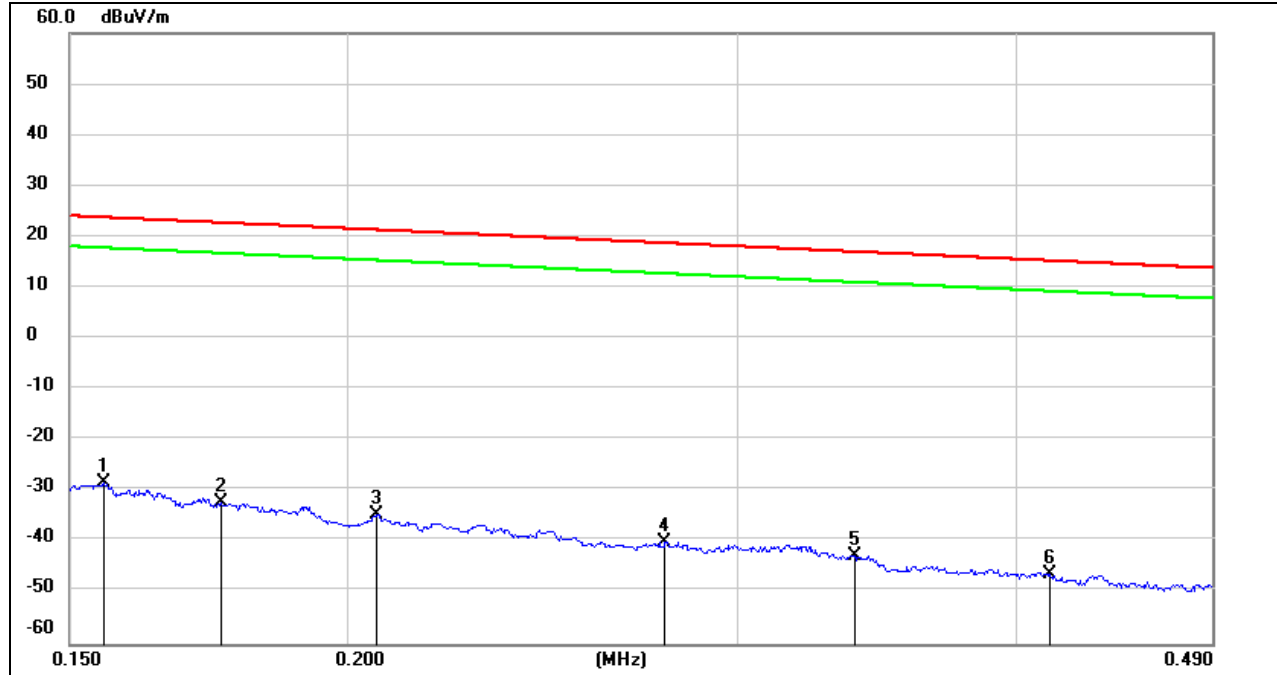
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	FCC Result (dBuV/m)	FCC Limit (dBuV/m)	ISED Result (dBuA/m)	ISED Limit (dBuA/m)	Margin (dB)	Remark
1	0.0094	72.66	-101.35	-28.69	48.05	-80.19	-3.45	-76.74	peak
2	0.0131	69.97	-101.38	-31.41	45.25	-82.91	-6.25	-76.66	peak
3	0.0217	66.69	-101.35	-34.66	40.87	-86.16	-10.63	-75.53	peak
4	0.0362	62.51	-101.42	-38.91	36.43	-90.41	-15.07	-75.34	peak
5	0.0680	58.04	-101.56	-43.52	30.95	-95.02	-20.55	-74.47	peak
6	0.1014	54.56	-101.79	-47.23	27.48	-98.73	-24.02	-74.71	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



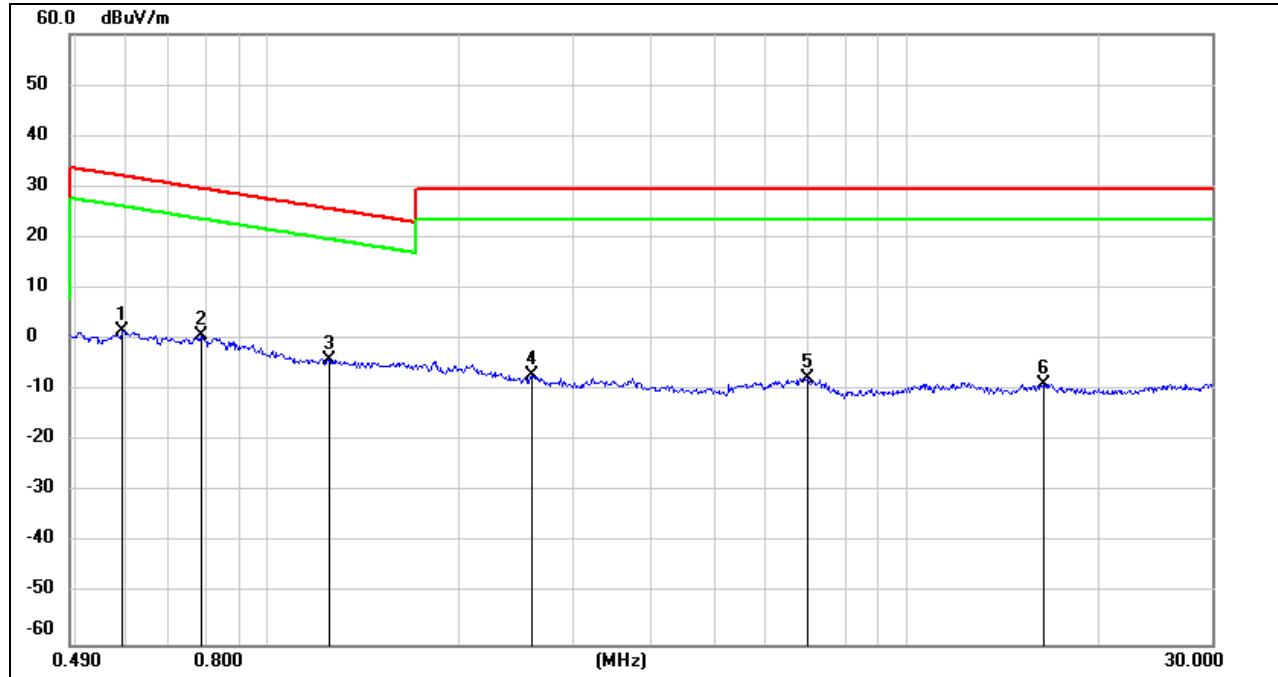
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	FCC Result (dBuV/m)	FCC Limit (dBuV/m)	ISED Result (dBuA/m)	ISED Limit (dBuA/m)	Margin (dB)	Remark
1	0.1554	73.27	-101.65	-28.38	23.77	-79.88	-27.73	-52.15	peak
2	0.1756	69.34	-101.68	-32.34	22.72	-83.84	-28.78	-55.06	peak
3	0.2064	67.08	-101.73	-34.65	21.31	-86.15	-30.19	-55.96	peak
4	0.2782	61.79	-101.83	-40.04	18.71	-91.54	-32.79	-58.75	peak
5	0.3382	59.23	-101.90	-42.67	17.02	-94.17	-34.48	-59.69	peak
6	0.4142	55.73	-101.98	-46.25	15.26	-97.75	-36.24	-61.51	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.

490 kHz ~ 30 MHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	FCC Result (dBuV/m)	FCC Limit (dBuV/m)	ISED Result (dBuA/m)	ISED Limit (dBuA/m)	Margin (dB)	Remark
1	0.5917	63.74	-62.08	1.66	32.16	-49.84	-19.34	-30.50	peak
2	0.7861	62.83	-62.14	0.69	29.69	-50.81	-21.81	-29.00	peak
3	1.2459	58.25	-62.16	-3.91	25.7	-55.41	-25.80	-29.61	peak
4	2.5935	54.61	-61.68	-7.07	29.54	-58.57	-21.96	-36.61	peak
5	7.0117	53.42	-61.21	-7.79	29.54	-59.29	-21.96	-37.33	peak
6	16.3959	52.17	-60.96	-8.79	29.54	-60.29	-21.96	-38.33	peak

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

2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

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

9. AC POWER LINE CONDUCTED EMISSIONS

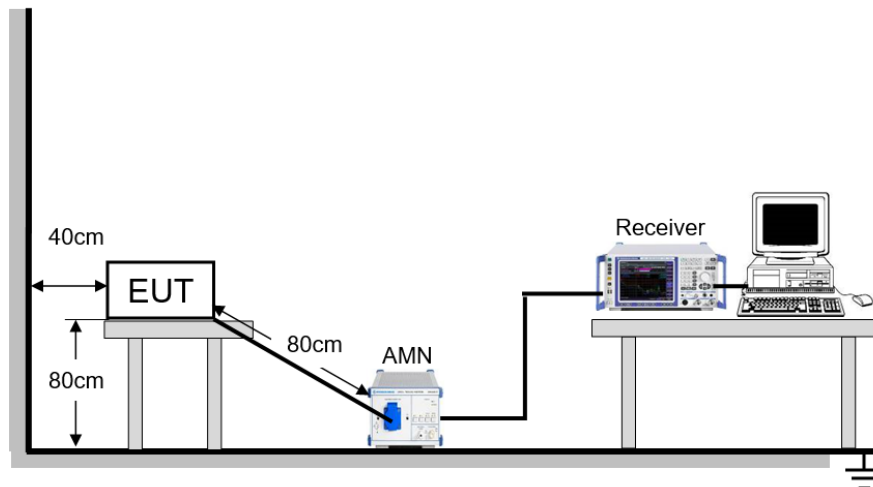
LIMITS

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.

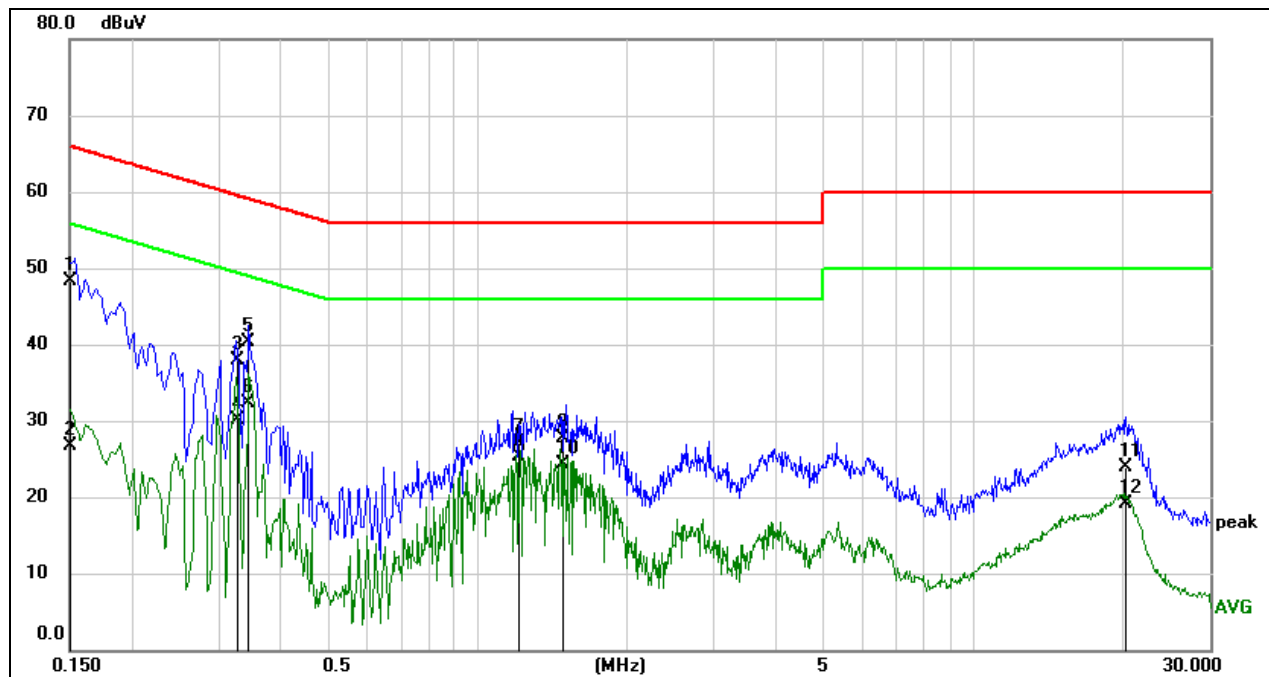
TEST ENVIRONMENT

Temperature	25.2 °C	Relative Humidity	54.6 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120 V / 60 Hz

RESULTS

9.1. 802.11b CDD MODE

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1501	38.74	9.59	48.33	65.99	-17.66	QP
2	0.1501	17.15	9.59	26.74	55.99	-29.25	AVG
3	0.3273	28.26	9.59	37.85	59.52	-21.67	QP
4	0.3273	20.55	9.59	30.14	49.52	-19.38	AVG
5	0.3441	30.65	9.59	40.24	59.10	-18.86	QP
6	0.3441	22.65	9.59	32.24	49.10	-16.86	AVG
7	1.2197	17.48	9.61	27.09	56.00	-28.91	QP
8	1.2197	15.68	9.61	25.29	46.00	-20.71	AVG
9	1.4936	18.17	9.62	27.79	56.00	-28.21	QP
10	1.4936	14.67	9.62	24.29	46.00	-21.71	AVG
11	20.2759	14.12	9.74	23.86	60.00	-36.14	QP
12	20.2759	9.39	9.74	19.13	50.00	-30.87	AVG

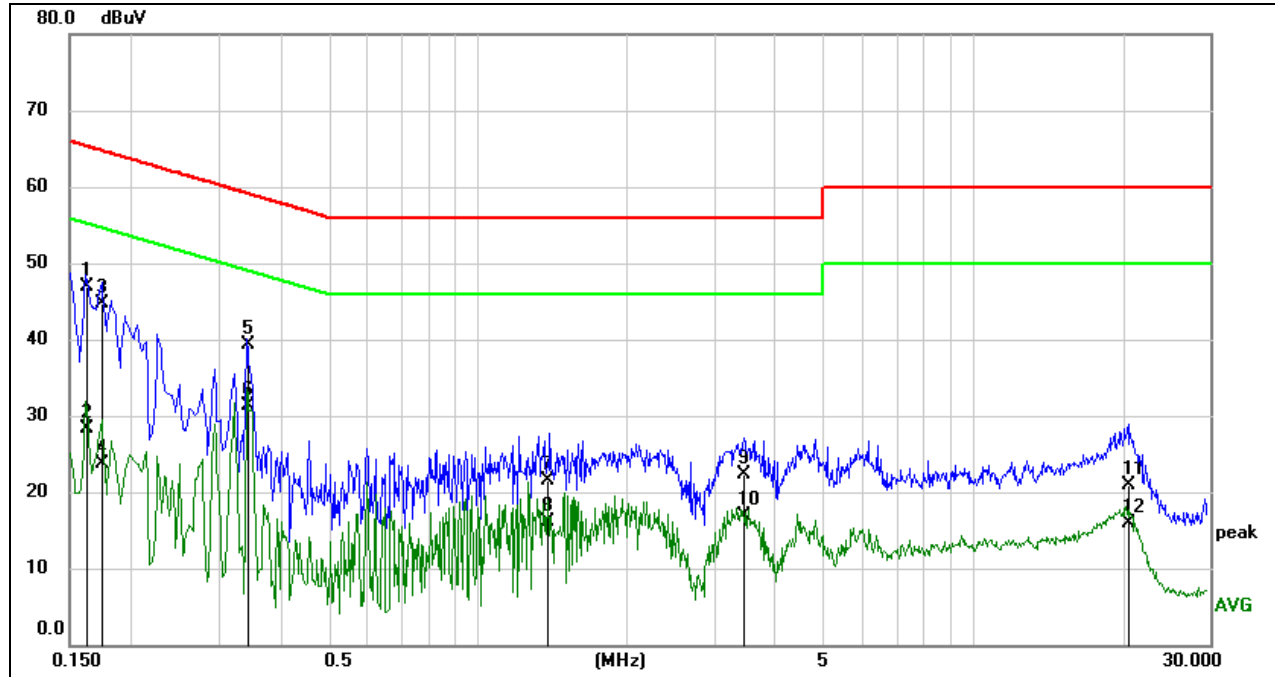
Note: 1. Result = Reading +Correct Factor.

2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).

4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1629	37.41	9.59	47.00	65.31	-18.31	QP
2	0.1629	18.67	9.59	28.26	55.31	-27.05	AVG
3	0.1737	35.03	9.59	44.62	64.78	-20.16	QP
4	0.1737	14.16	9.59	23.75	54.78	-31.03	AVG
5	0.3450	29.73	9.59	39.32	59.08	-19.76	QP
6	0.3450	21.62	9.59	31.21	49.08	-17.87	AVG
7	1.3821	11.99	9.61	21.60	56.00	-34.40	QP
8	1.3821	6.44	9.61	16.05	46.00	-29.95	AVG
9	3.4513	12.74	9.61	22.35	56.00	-33.65	QP
10	3.4513	7.23	9.61	16.84	46.00	-29.16	AVG
11	20.5583	11.09	9.84	20.93	60.00	-39.07	QP
12	20.5583	5.97	9.84	15.81	50.00	-34.19	AVG

Note: 1. Result = Reading +Correct Factor.

2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).

4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

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



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: 6dB DTS Bandwidth

11.1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-CDD	Ant2	2412	9.120	2407.440	2416.560	0.5	PASS
	Ant2	2437	9.570	2432.230	2441.800	0.5	PASS
	Ant2	2462	9.600	2456.990	2466.590	0.5	PASS
11G-CDD	Ant2	2412	16.350	2405.460	2419.530	0.5	PASS
	Ant2	2437	15.150	2429.440	2444.590	0.5	PASS
	Ant2	2462	16.380	2455.730	2468.360	0.5	PASS
11N20-CDD	Ant2	2412	16.590	2403.600	2420.190	0.5	PASS
	Ant2	2437	15.750	2428.840	2444.590	0.5	PASS
	Ant2	2462	15.960	2453.600	2469.560	0.5	PASS
11N40-CDD	Ant2	2422	35.820	2408.140	2439.580	0.5	PASS
	Ant2	2437	35.160	2419.420	2454.580	0.5	PASS
	Ant2	2452	35.760	2433.820	2469.580	0.5	PASS

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



11.1.2. Test Graphs









**11.2. Appendix B: 99% Occupied Channel Bandwidth****11.2.1. Test Result**

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Verdict
11B-CDD	Ant2	2412	14.685	2404.732	2419.417	PASS
	Ant2	2437	14.750	2429.657	2444.407	PASS
	Ant2	2462	14.801	2454.599	2469.400	PASS
11G-CDD	Ant2	2412	16.618	2403.719	2420.337	PASS
	Ant2	2437	16.698	2428.649	2445.347	PASS
	Ant2	2462	16.786	2453.578	2470.364	PASS
11N20-CDD	Ant2	2412	17.584	2403.250	2420.834	PASS
	Ant2	2437	17.650	2428.207	2445.857	PASS
	Ant2	2462	17.614	2453.216	2470.830	PASS
11N40-CDD	Ant2	2422	36.267	2403.951	2440.218	PASS
	Ant2	2437	36.290	2418.915	2455.205	PASS
	Ant2	2452	36.297	2433.901	2470.198	PASS

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



11.2.2. Test Graphs









11.3. Appendix C: Maximum AVG conducted output power

11.3.1. Test Result

Test Mode	Antenna	Channel	Power [dBm]	Limit [dBm]	Limit [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
11B-CDD	Ant1	2412	14.20	<=30	<=30	18.44	<=36	PASS
	Ant2	2412	14.74	<=30	<=30	19.05	<=36	PASS
	total	2412	17.49	<=30	<=30	21.77	<=36	PASS
	Ant1	2437	14.60	<=30	<=30	18.84	<=36	PASS
	Ant2	2437	15.36	<=30	<=30	19.67	<=36	PASS
	total	2437	18.01	<=30	<=30	22.29	<=36	PASS
	Ant1	2462	14.11	<=30	<=30	18.35	<=36	PASS
	Ant2	2462	15.02	<=30	<=30	19.33	<=36	PASS
11G-CDD	total	2462	17.60	<=30	<=30	21.88	<=36	PASS
	Ant1	2412	16.01	<=30	<=30	20.25	<=36	PASS
	Ant2	2412	16.36	<=30	<=30	20.67	<=36	PASS
	total	2412	17.80	<=30	<=30	22.09	<=36	PASS
	Ant1	2437	16.49	<=30	<=30	20.73	<=36	PASS
	Ant2	2437	16.52	<=30	<=30	20.83	<=36	PASS
	total	2437	17.91	<=30	<=30	22.20	<=36	PASS
	Ant1	2462	16.13	<=30	<=30	20.37	<=36	PASS
11N20-CDD	Ant2	2462	16.52	<=30	<=30	20.83	<=36	PASS
	total	2462	17.85	<=30	<=30	22.14	<=36	PASS
	Ant1	2412	14.50	<=30	<=30	18.74	<=36	PASS
	Ant2	2412	14.61	<=30	<=30	18.92	<=36	PASS
	total	2412	17.57	<=30	<=30	21.84	<=36	PASS
	Ant1	2437	14.33	<=30	<=30	18.57	<=36	PASS
	Ant2	2437	14.80	<=30	<=30	19.11	<=36	PASS
	total	2437	17.58	<=30	<=30	21.86	<=36	PASS
11N40-CDD	Ant1	2462	14.45	<=30	<=30	18.69	<=36	PASS
	Ant2	2462	14.87	<=30	<=30	19.18	<=36	PASS
	total	2462	17.68	<=30	<=30	21.95	<=36	PASS
	Ant1	2422	11.48	<=30	<=30	15.72	<=36	PASS
	Ant2	2422	11.69	<=30	<=30	16.00	<=36	PASS
	total	2422	14.60	<=30	<=30	18.87	<=36	PASS
	Ant1	2437	11.59	<=30	<=30	15.83	<=36	PASS
	Ant2	2437	11.93	<=30	<=30	16.24	<=36	PASS
	total	2437	14.77	<=30	<=30	19.05	<=36	PASS
	Ant1	2452	11.94	<=30	<=30	16.18	<=36	PASS
	Ant2	2452	11.97	<=30	<=30	16.28	<=36	PASS
	total	2452	14.97	<=30	<=30	19.24	<=36	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/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B-CDD	Ant1	2412	3.56	<=8	PASS
	Ant2	2412	4.12	<=8	PASS
	total	2412	6.86	<=8	PASS
	Ant1	2437	3.34	<=8	PASS
	Ant2	2437	3.37	<=8	PASS
	total	2437	6.37	<=8	PASS
	Ant1	2462	2.18	<=8	PASS
	Ant2	2462	4.42	<=8	PASS
	total	2462	6.45	<=8	PASS
11G-CDD	Ant1	2412	-8.95	<=8	PASS
	Ant2	2412	-9.62	<=8	PASS
	total	2412	-7.41	<=8	PASS
	Ant1	2437	-9.29	<=8	PASS
	Ant2	2437	-8.56	<=8	PASS
	total	2437	-7.41	<=8	PASS
	Ant1	2462	-9.35	<=8	PASS
	Ant2	2462	-8.67	<=8	PASS
	total	2462	-7.31	<=8	PASS
11N20-CDD	Ant1	2412	-10.79	<=8	PASS
	Ant2	2412	-10.75	<=8	PASS
	total	2412	-7.76	<=8	PASS
	Ant1	2437	-10.23	<=8	PASS
	Ant2	2437	-10.62	<=8	PASS
	total	2437	-7.41	<=8	PASS
	Ant1	2462	-11.29	<=8	PASS
	Ant2	2462	-10.1	<=8	PASS
	total	2462	-7.64	<=8	PASS
11N40-CDD	Ant1	2422	-16.42	<=8	PASS
	Ant2	2422	-16.42	<=8	PASS
	total	2422	-13.41	<=8	PASS
	Ant1	2437	-16.81	<=8	PASS
	Ant2	2437	-16.2	<=8	PASS
	total	2437	-13.48	<=8	PASS
	Ant1	2452	-16.63	<=8	PASS
	Ant2	2452	-15.49	<=8	PASS
	total	2452	-13.01	<=8	PASS