



**CFR 47 FCC PART 15 SUBPART C**  
**CERTIFICATION TEST REPORT**

*For*

**wifi module**

**MODEL NUMBER: Sense F2**

**FCC ID: 2AXGW-SENSEF2**

**REPORT NUMBER: 4789589280.1-1**

**ISSUE DATE: August 28, 2020**

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	08/28/2020	Initial Issue	



Summary of Test Results			
Clause	Test Items	FCC Rules	Test Results
1	6dB Bandwidth and 99% Occupied Bandwidth	FCC Part 15.247 (a) (2)	Pass
2	Conducted Output Power	FCC Part 15.247 (b) (3)	Pass
3	Power Spectral Density	FCC Part 15.247 (e)	Pass
4	Conducted Bandedge and Spurious Emission	FCC Part 15.247 (d)	Pass
5	Radiated Bandedge and Spurious Emission	FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205	Pass
6	Conducted Emission Test for AC Power Port	FCC Part 15.207	Pass
7	Antenna Requirement	FCC Part 15.203	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 &lt;Pass&gt; according to &lt; CFR 47 FCC PART 15 SUBPART C &gt;&lt; ISED RSS-247 &gt; when &lt;Accuracy Method&gt; decision rule is applied.</p>			



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## 1. ATTESTATION OF TEST RESULTS

### Applicant Information

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Address: 3002,No.36,Liuxian3rdRoad,BaoanDistrict,Shenzhen 518000  
China

### Manufacturer Information

Company Name: Shenzhen Sugr Technology Co.,LTD.  
Address: 3002,No.36,Liuxian3rdRoad,BaoanDistrict,Shenzhen 518000  
China

### EUT Information

EUT Name: wifi module  
Model: Sense F2  
Sample Received Date: August 11, 2020  
Sample Status: Normal  
Sample ID: 3243395  
Date of Tested: August 11~25, 2020

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 FCC PART 15 SUBPART C	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 and ANSI C63.10-2013.

## 3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p><b>A2LA (Certificate No.: 4102.01)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</p> <p><b>FCC (FCC Designation No.: CN1187)</b> 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><b>ISED (Company No.: 21320)</b> 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.</p> <p><b>VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)</b> 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 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30MHz 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	3.62dB
Radiated Emission (Included Fundamental Emission) (9kHz ~ 30MHz)	2.2dB
Radiated Emission (Included Fundamental Emission) (30MHz ~ 1GHz)	4.00dB
Radiated Emission (Included Fundamental Emission) (1GHz to 26GHz)	5.78dB (1GHz ~ 18GHz)
	5.23dB (18GHz ~ 26GHz)
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	wifi module
Model	Sense F2
Radio Technology	WLAN (IEEE 802.11b/g/n HT20/n 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, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT40: OFDM (64QAM, 16QAM, QPSK, BPSK)
Rated Input	3.3Vdc

### 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]	18.99
g	2412 ~ 2462	1-11[11]	16.51
n HT20	2412 ~ 2462	1-11[11]	15.46
n HT40	2422 ~ 2452	3-9[7]	15.61



#### 5.4. TEST CHANNEL CONFIGURATION

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

#### 5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band							
Test Software		SecureCRT					
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	1	108	108	108	/		
802.11g	1	98	98	95			
802.11n HT20	1	95	95	94			
802.11n HT40	1	/			95	95	90

## 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.

Worst-case data rates as provided by the client were:

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

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



## 5.7. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
1	2412-2462	pcb trace antenna	5.53

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

Test Mode (IEEE Std. 802.11)	Transmit and Receive Mode	Description
11b	<input checked="" type="checkbox"/> 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
11g	<input checked="" type="checkbox"/> 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
HT20	<input checked="" type="checkbox"/> 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.
HT40	<input checked="" type="checkbox"/> 1TX, 1RX	ANT 1 can be used as transmitting/receiving antenna.

Note:

1. BLE & WLAN 2.4G & WLAN 5G can't transmit simultaneously. (declared by client)

## 5.8. DESCRIPTION OF TEST SETUP

Item	Equipment	Brand Name	Model Name	Remarks
1	Laptop	ThinkPad	X230i	/
2	Test fixture	/	/	/
3	AC/DC adapter	/	YJC005Z-0501000U	INPUT: 100-240V~50/60Hz, 0.2A OUTPUT:5V, 1A

### I/O CABLES

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

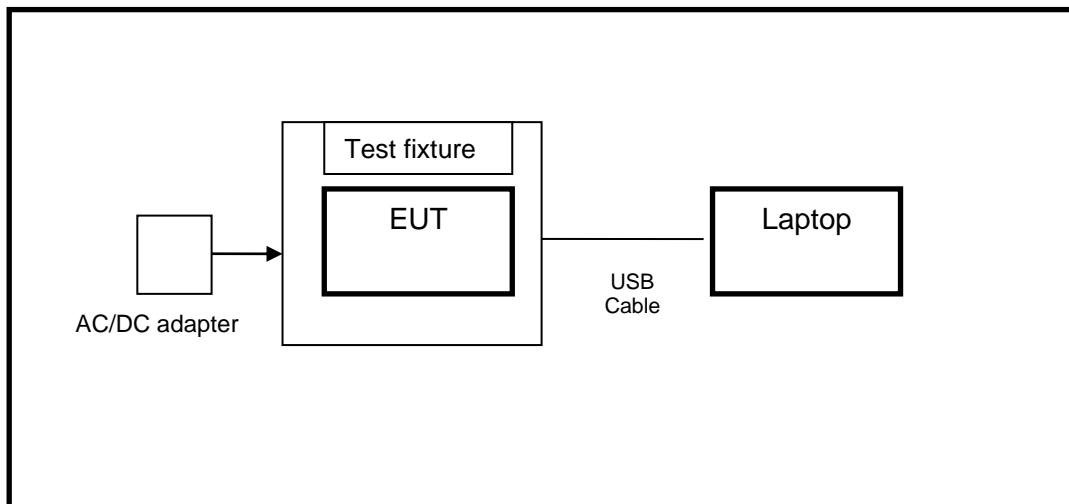
### ACCESSORIES

Item	Accessory	Brand Name	Model Name	Description
1	/	/	/	/

### TEST SETUP

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

### 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	Dec.05,2019	Dec.05,2020
<input checked="" type="checkbox"/>	Two-Line V-Network	R&S	ENV216	101983	Dec.05,2019	Dec.05,2020
<input checked="" type="checkbox"/>	Artificial Mains Networks	Schwarzbeck	NSLK 8126	8126465	Dec.05,2019	Dec.05,2020
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	Dec.06,2019	Dec.06,2020
<input checked="" type="checkbox"/>	Hybrid Log Periodic Antenna	TDK	HLP-3003C	130960	Sep.17, 2018	Sep.17, 2021
<input checked="" type="checkbox"/>	Preamplifier	HP	8447D	2944A09099	Dec.05,2019	Dec.05,2020
<input checked="" type="checkbox"/>	EMI Measurement Receiver	R&S	ESR26	101377	Dec.05,2019	Dec.05,2020
<input checked="" type="checkbox"/>	Horn Antenna	TDK	HRN-0118	130939	Sep.17, 2018	Sep.17, 2021
<input checked="" type="checkbox"/>	High Gain Horn Antenna	Schwarzbeck	BBHA-9170	691	Aug.11, 2018	Aug.11, 2021
<input checked="" type="checkbox"/>	Preamplifier	TDK	PA-02-0118	TRS-305-00066	Dec.05,2019	Dec.05,2020
<input checked="" type="checkbox"/>	Preamplifier	TDK	PA-02-2	TRS-307-00003	Dec.05,2019	Dec.05,2020
<input checked="" type="checkbox"/>	Loop antenna	Schwarzbeck	1519B	00008	Jan.07, 2019	Jan.07, 2022
<input checked="" type="checkbox"/>	Band Reject Filter	Wainwright	WRCJV8-2350-2400-2483.5-2533.5-40SS	4	Dec.05,2019	Dec.05,2020
<input checked="" type="checkbox"/>	High Pass Filter	Wi	WHKX10-2700-3000-18000-40SS	23	Dec.05,2019	Dec.05,2020
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	Dec.06,2019	Dec.06,2020
<input checked="" type="checkbox"/>	Power sensor, Power Meter	R&S	OSP120	100921	Dec.06,2019	Dec.06,2020



## 7. ANTENNA PORT TEST RESULTS

### 7.1. ON TIME AND DUTY CYCLE

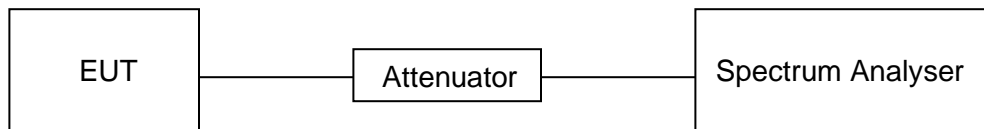
#### LIMITS

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	24.3°C	Relative Humidity	67.6%
Atmosphere Pressure	101kPa	Test Voltage	3Vdc

#### RESULTS

Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
11b	100.1	100.1	1.00	100%	0	0.01	0.01
11g	100.1	100.1	1.00	100%	0	0.01	0.01
11n HT20	100.1	100.1	1.00	100%	0	0.01	0.01
11n HT40	100.1	100.1	1.00	100%	0	0.01	0.01

Note:

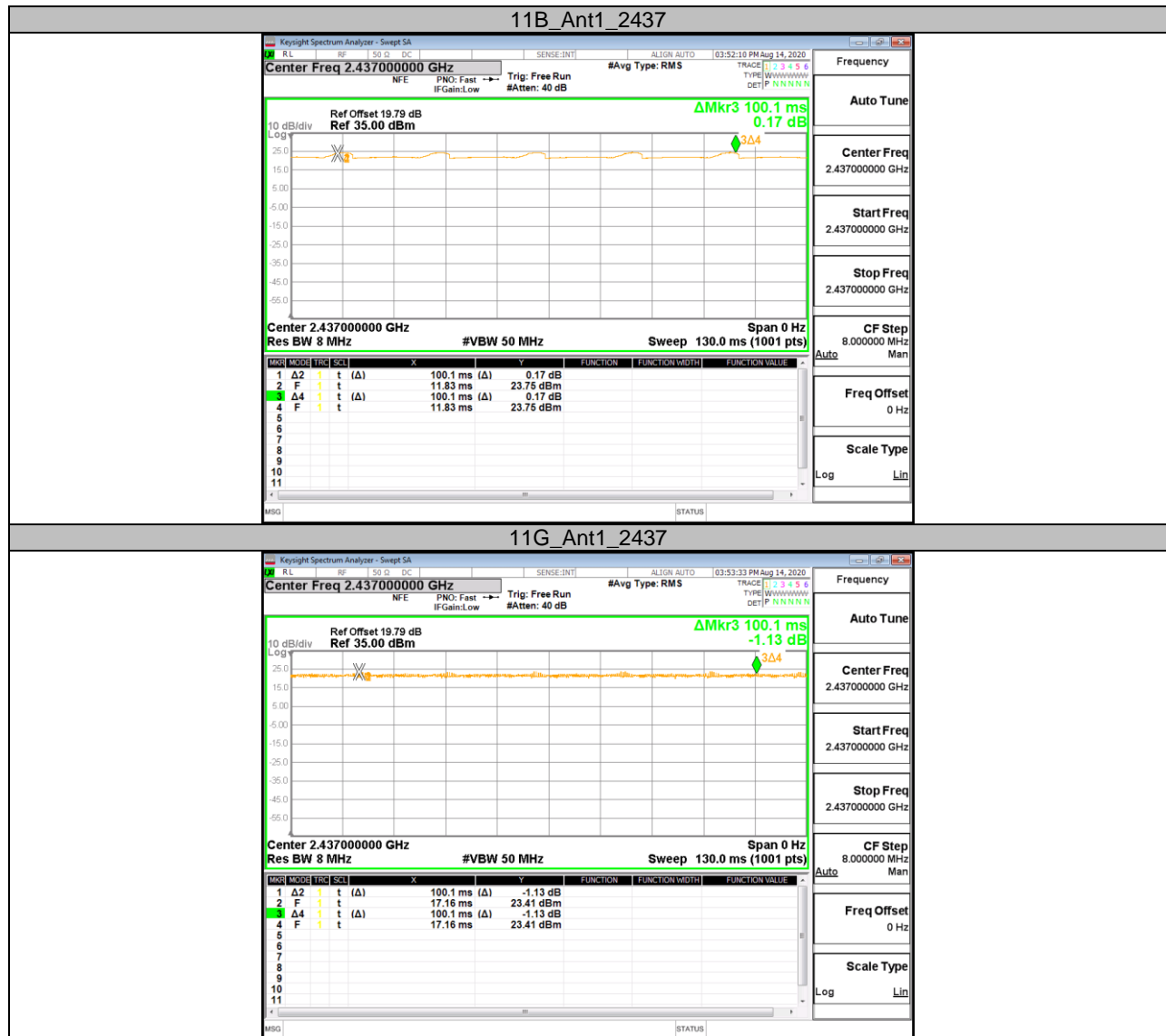
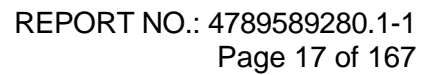
Duty Cycle Correction Factor=10log (1/x).

Where: x is Duty Cycle (Linear)

Where: T is On Time

If that calculated VBW is not available on the analyzer then the next higher value should be used.







## 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	$\geq 500\text{KHz}$	2400-2483.5
ISED RSS-Gen Clause 6.7	99% Occupied Bandwidth	For reporting purposes only.	2400-2483.5

### TEST PROCEDURE

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

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

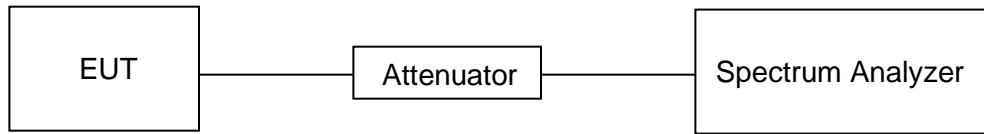
Center Frequency	The center frequency of the channel under test
Frequency Span	Between 1.5 times and 5.0 times the OBW
Detector	Peak
RBW	For 6 dB Bandwidth: 100kHz For 99% Occupied Bandwidth: 1% to 5% of the occupied bandwidth
VBW	For 6dB Bandwidth: $\geq 3 \times \text{RBW}$ For 99% Occupied Bandwidth: $\geq 3 \times \text{RBW}$
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	24.3°C	Relative Humidity	67.6%
Atmosphere Pressure	101kPa	Test Voltage	3Vdc

### **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)	Peak Output Power	1 watt or 30dBm	2400-2483.5

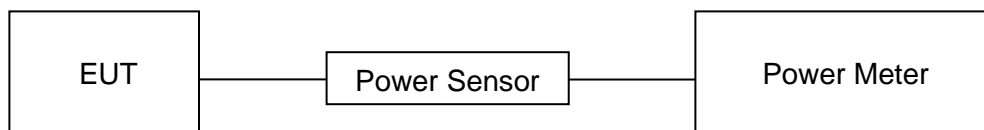
#### TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.9.

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 peak output power, after any corrections for external attenuators and cables.

#### TEST SETUP



#### TEST ENVIRONMENT

Temperature	24.3°C	Relative Humidity	67.6%
Atmosphere Pressure	101kPa	Test Voltage	3Vdc

#### 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.

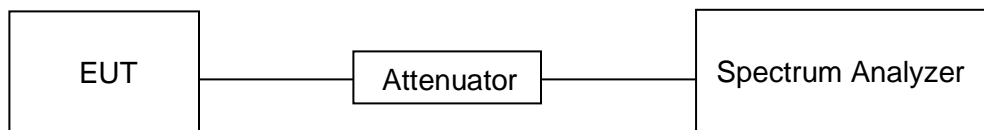
Connect the EUT to the spectrum analyser and use the following settings:

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	$1.5 \times \text{DTS bandwidth}$
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	24.3°C	Relative Humidity	67.6%
Atmosphere Pressure	101kPa	Test Voltage	3Vdc

### RESULTS

Please refer to appendix D.



## 7.5. CONDUCTED BANDEGE 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	100kHz
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.

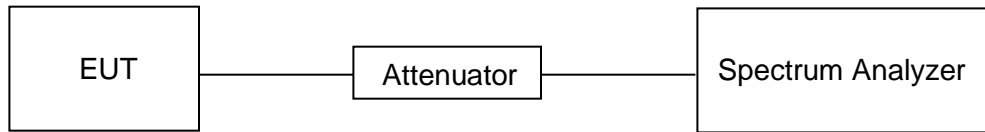
Change the settings for emission level measurement:

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100kHz
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	24.3°C	Relative Humidity	67.6%
Atmosphere Pressure	101kPa	Test Voltage	3Vdc

### **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) (9kHz-1GHz)

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

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

ISED General field strength limits at frequencies below 30 MHz

Table 6 – General field strength limits at frequencies below 30 MHz		
Frequency	Magnetic field strength (H-Field) (μA/m)	Measurement distance (m)
9 - 490 kHz <sup>Note 1</sup>	6.37/F (F in kHz)	300
490 - 1705 kHz	63.7/F (F in kHz)	30
1.705 - 30 MHz	0.08	30

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

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

Table 7 – Restricted frequency bands <sup>Note 1</sup>		
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	23.8 - 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):

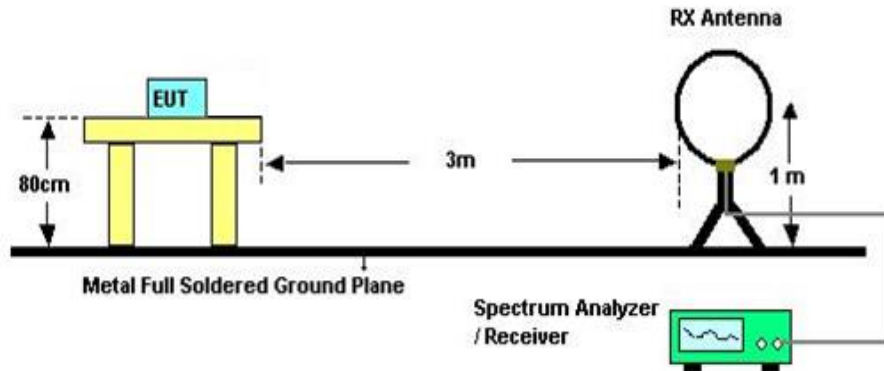
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
<sup>1</sup> 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
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	( <sup>2</sup> )
13.36-13.41			

Note: <sup>1</sup>Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

<sup>2</sup>Above 38.6c

## TEST SETUP AND PROCEDURE

Below 30MHz

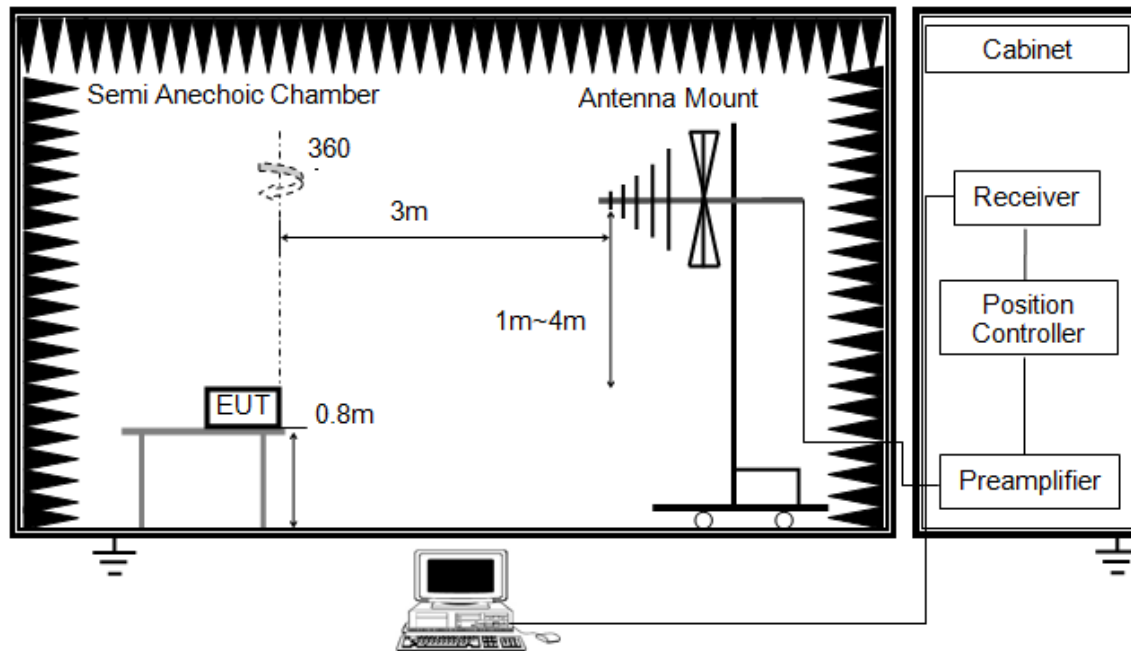


The setting of the spectrum analyser

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

1. The testing follows the guidelines in ANSI C63.10-2013 clause 11.11.
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 variable 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 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.
7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.

Below 1GHz and above 30MHz

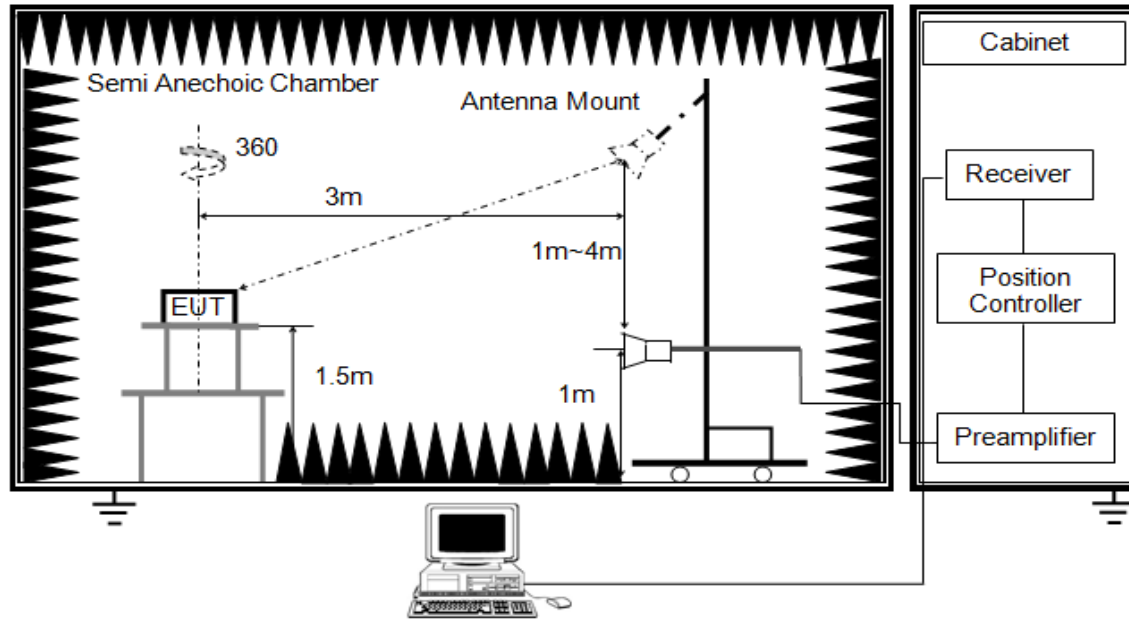


The setting of the spectrum analyser

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

1. The testing follows the guidelines in ANSI C63.10-2013 clause 11.11.
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 80cm 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 1GHz, 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 1GHz

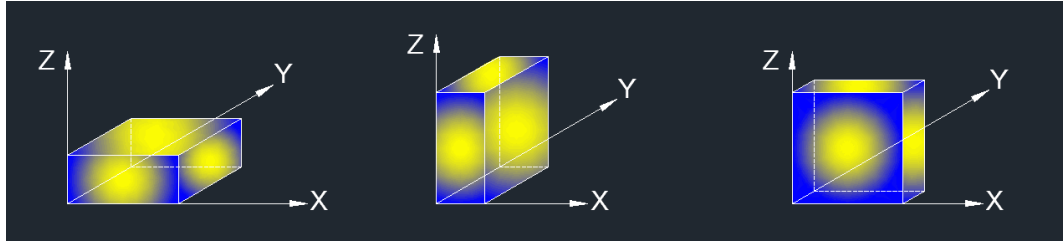


The setting of the spectrum analyser

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

1. The testing follows the guidelines in ANSI C63.10-2013 clause 11.11 and 11.12.
2. The EUT was arranged to its worst case and then tune the antenna tower (1.5 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 1.5m 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 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.1.ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

## TEST ENVIRONMENT

Temperature	23.8°C	Relative Humidity	58.9%
Atmosphere Pressure	101kPa	Test Voltage	3Vdc

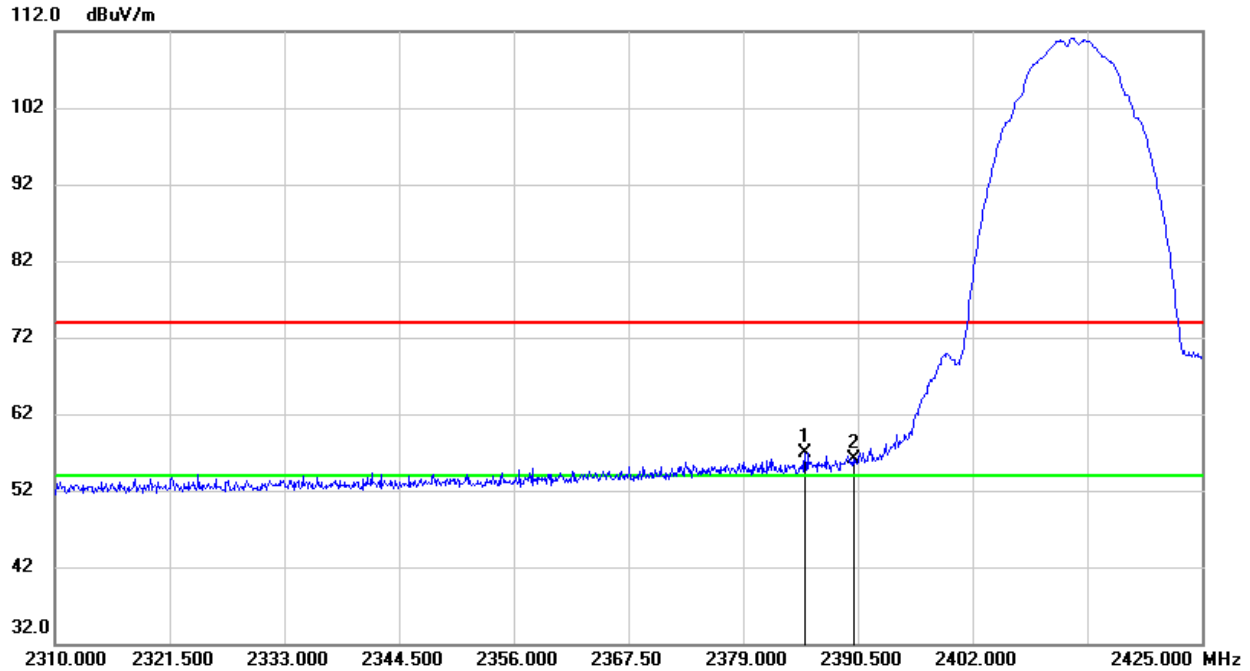
## RESULTS

## 8.1. RESTRICTED BANDEDGE

### 8.1.1. 802.11b MODE

#### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

##### PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2385.210	23.98	32.93	56.91	74.00	-17.09	peak
2	2390.000	23.09	32.94	56.03	74.00	-17.97	peak

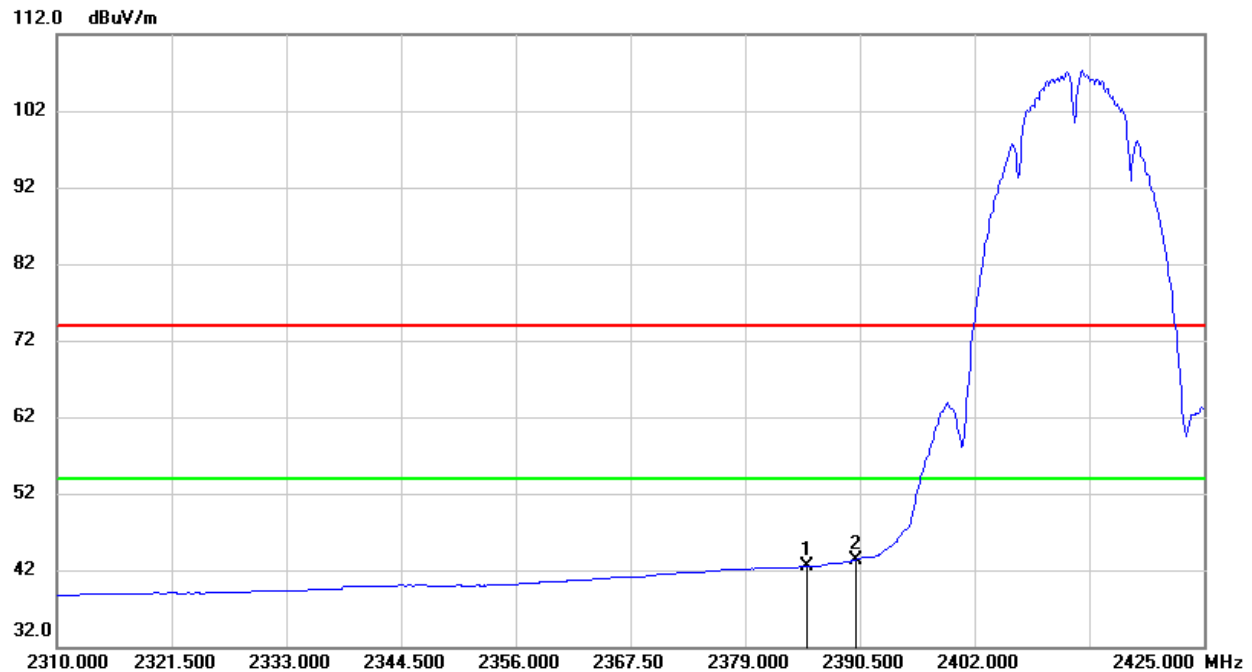
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

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

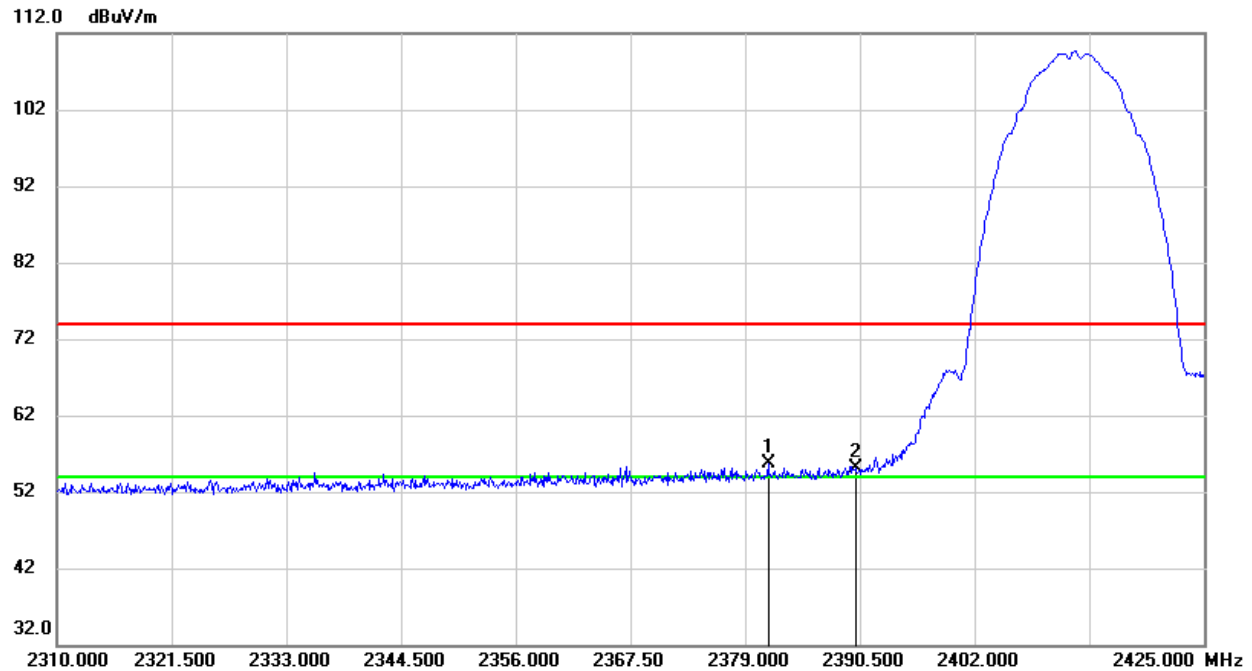
### Avg



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2385.210	9.59	32.93	42.52	54.00	-11.48	AVG
2	2390.000	10.38	32.94	43.32	54.00	-10.68	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 transmit duration.  
4. For transmit duration, please refer to clause 7.1.  
5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

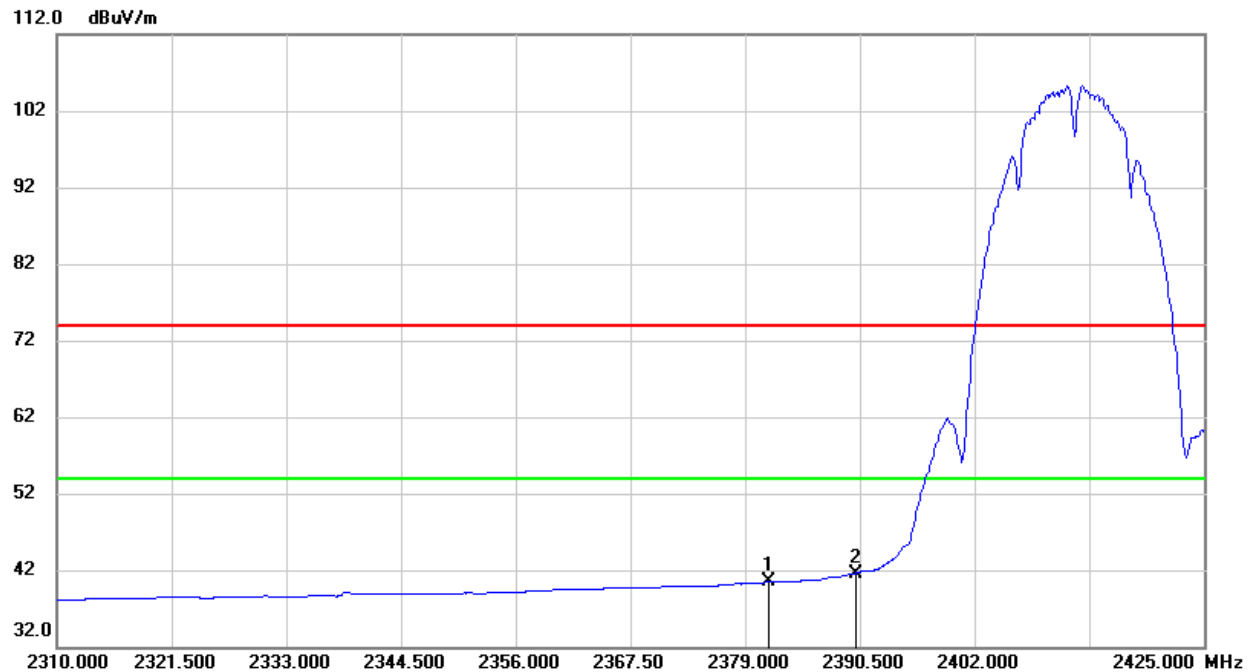


**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)****PEAK**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2381.300	22.83	32.92	55.75	74.00	-18.25	peak
2	2390.000	22.22	32.94	55.16	74.00	-18.84	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

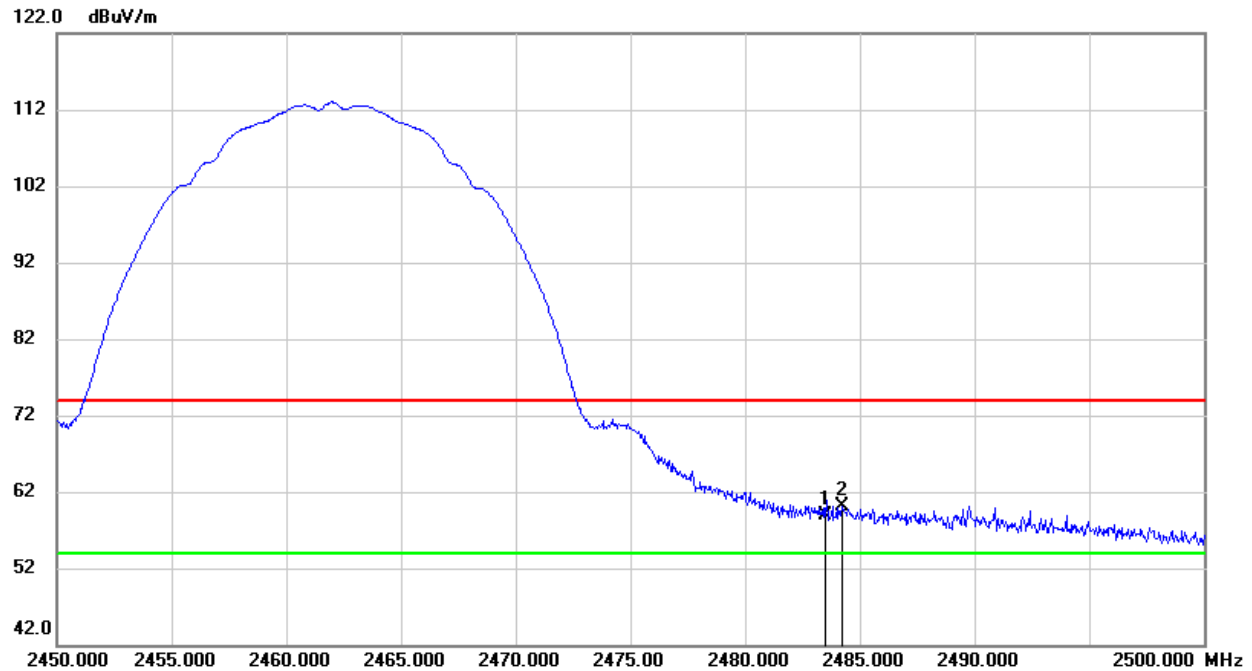


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2381.300	7.53	32.92	40.45	54.00	-13.55	AVG
2	2390.000	8.64	32.94	41.58	54.00	-12.42	AVG

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 transmit duration.  
4. For transmit duration, please refer to clause 7.1.  
5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

# RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

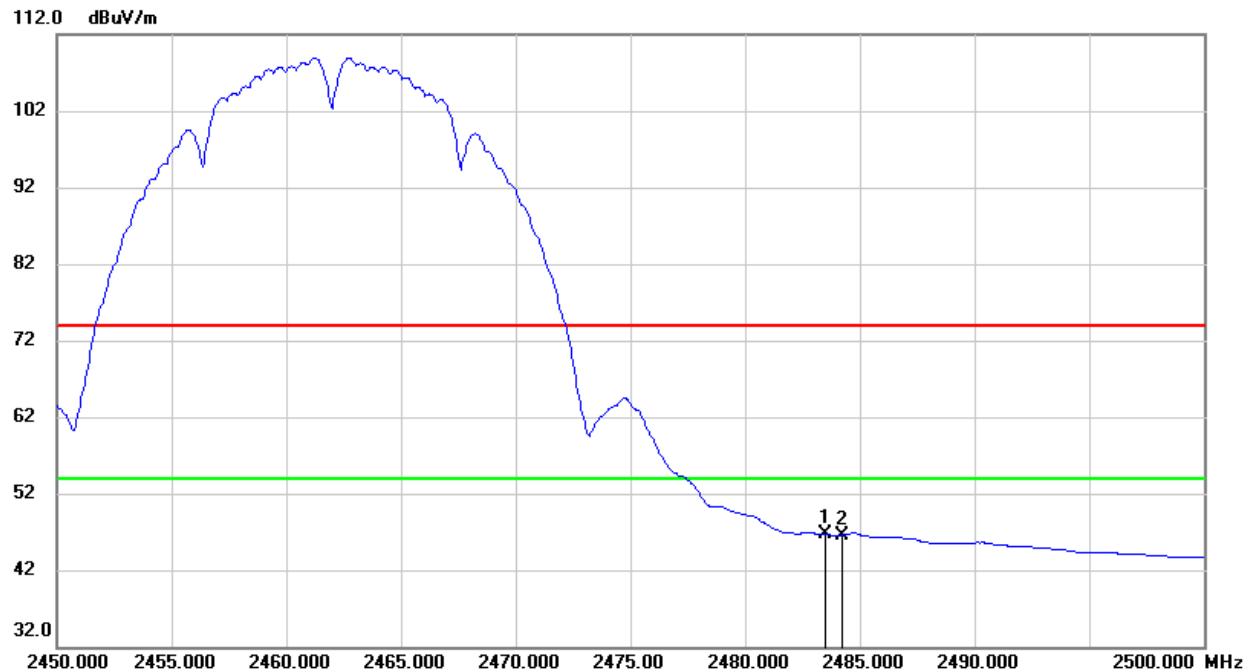
## PEAK



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	25.25	33.58	58.83	74.00	-15.17	peak
2	2484.200	26.61	33.58	60.19	74.00	-13.81	peak

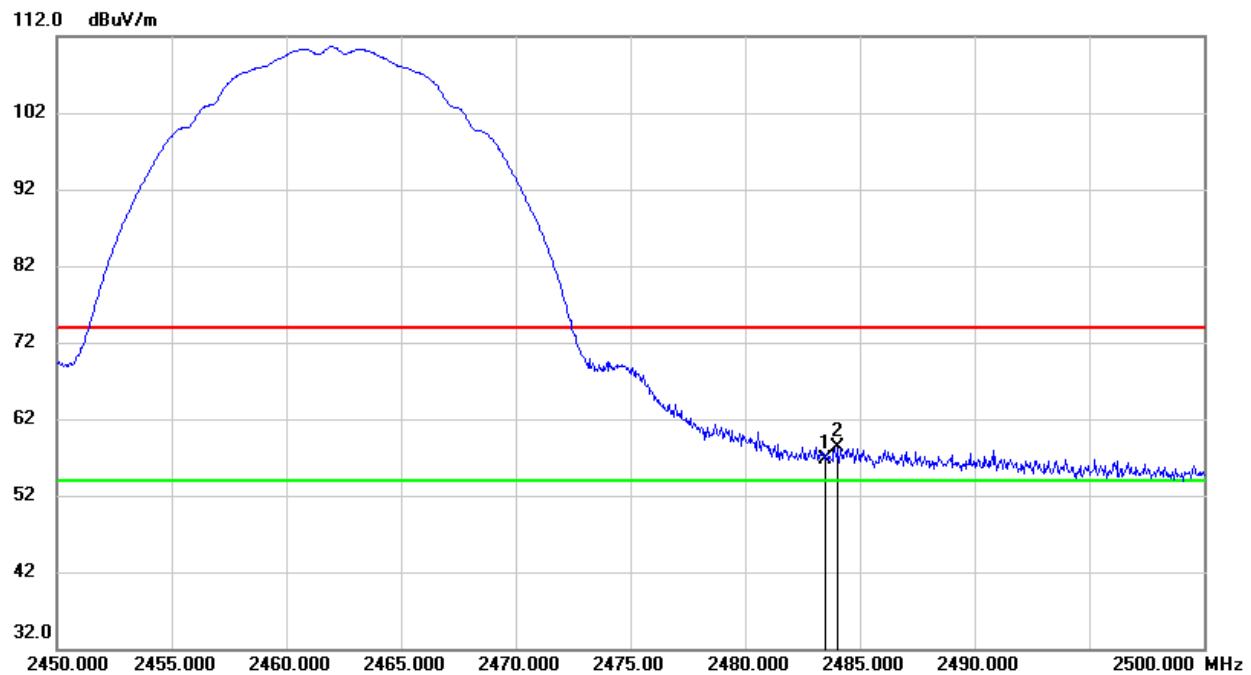
- Note: 1. Measurement = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

### Avg



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	13.16	33.58	46.74	54.00	-7.26	AVG
2	2484.200	13.01	33.58	46.59	54.00	-7.41	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 transmit duration.  
4. For transmit duration, please refer to clause 7.1.  
5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	23.13	33.58	56.71	74.00	-17.29	peak
2	2484.050	24.77	33.58	58.35	74.00	-15.65	peak

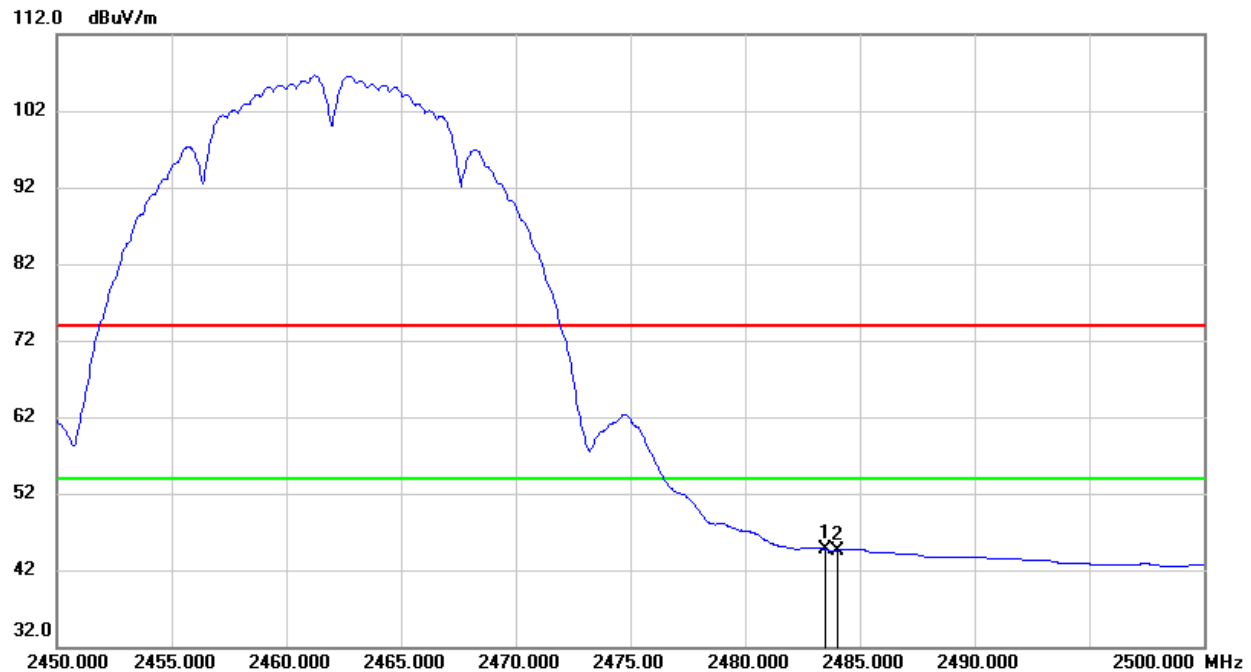
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

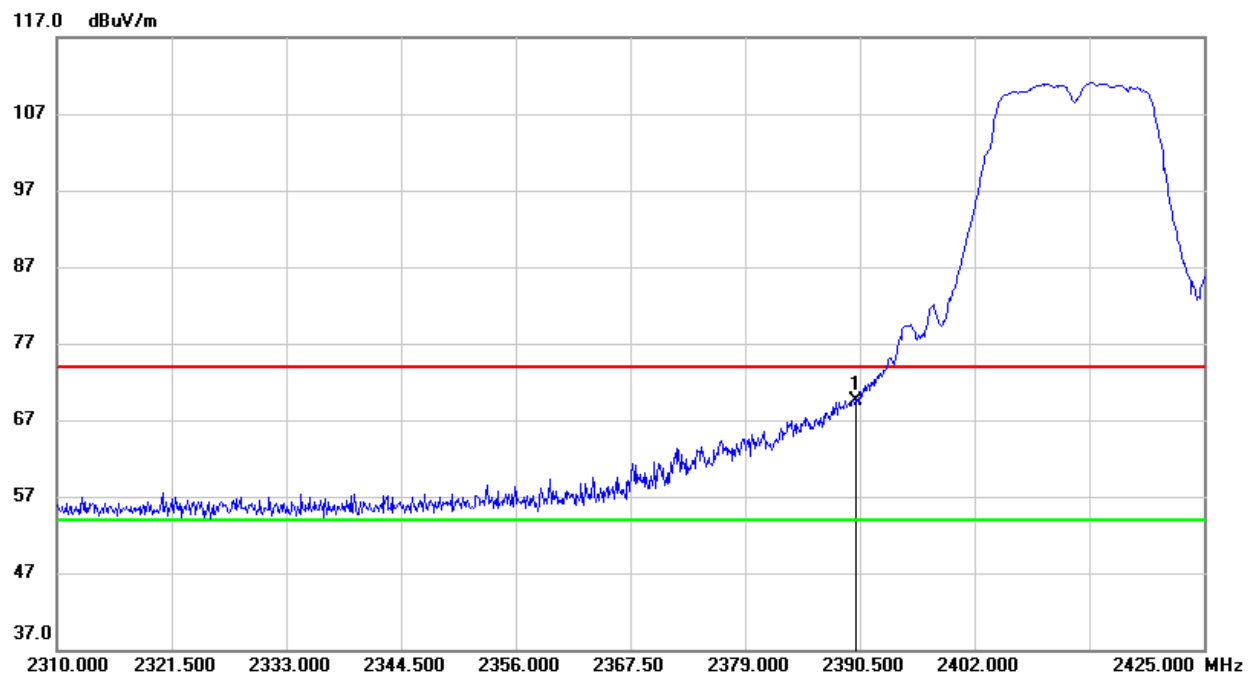
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

### Avg



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	11.14	33.58	44.72	54.00	-9.28	AVG
2	2484.050	11.01	33.58	44.59	54.00	-9.41	AVG

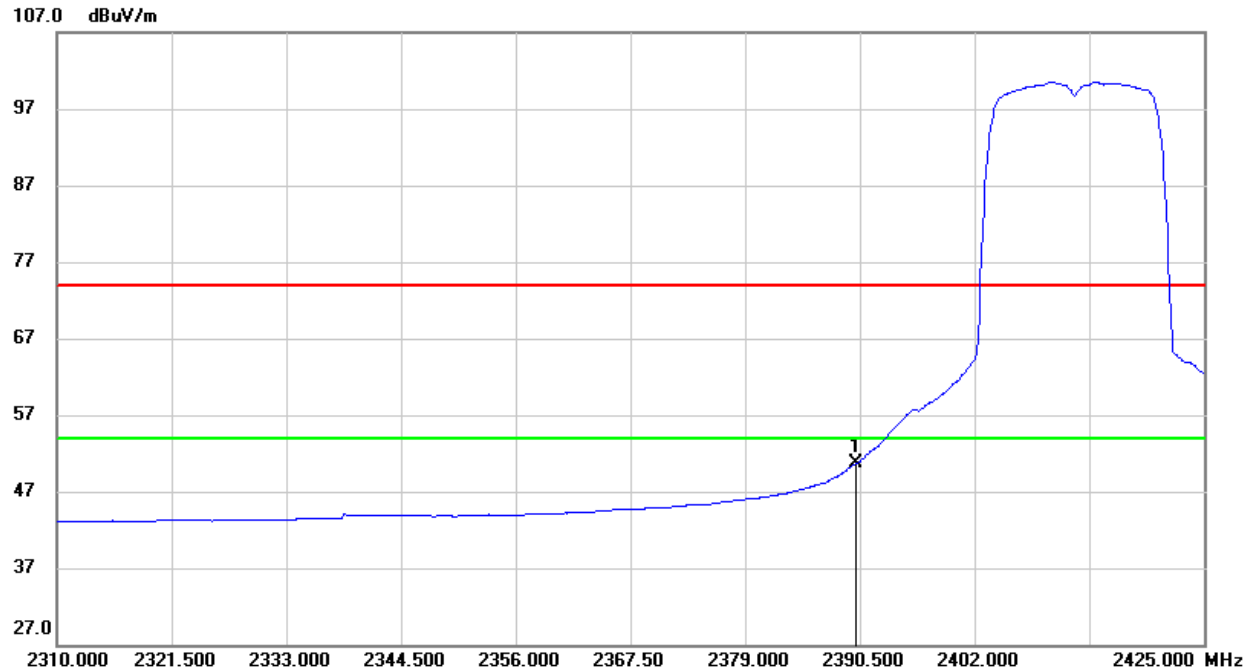
Note: 1. Measurement = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. AVG: VBW=1/Ton where: ton is transmit duration.  
4. For transmit duration, please refer to clause 7.1.  
5. Only the worst case emission was recorded,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

**8.1.2. 802.11g 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	36.48	32.94	69.42	74.00	-4.58	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.  
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

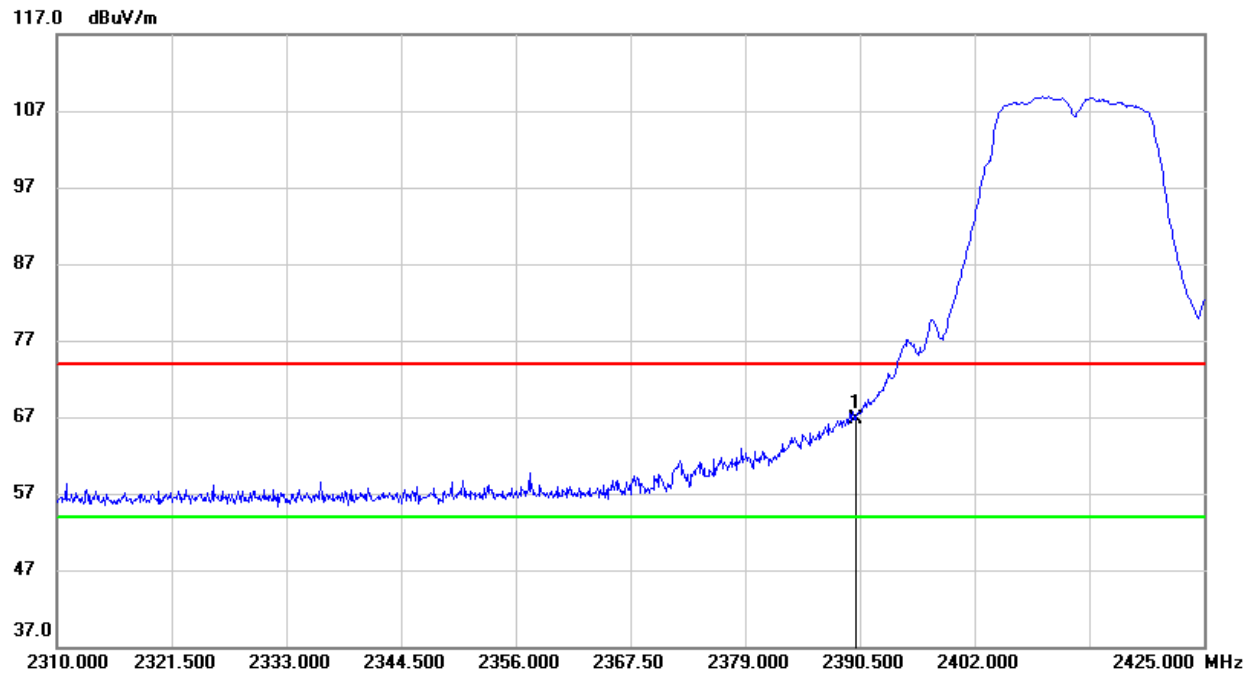
### Avg



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	17.68	32.94	50.62	54.00	-3.38	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 transmit duration.  
4. For transmit duration, please refer to clause 7.1.  
5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

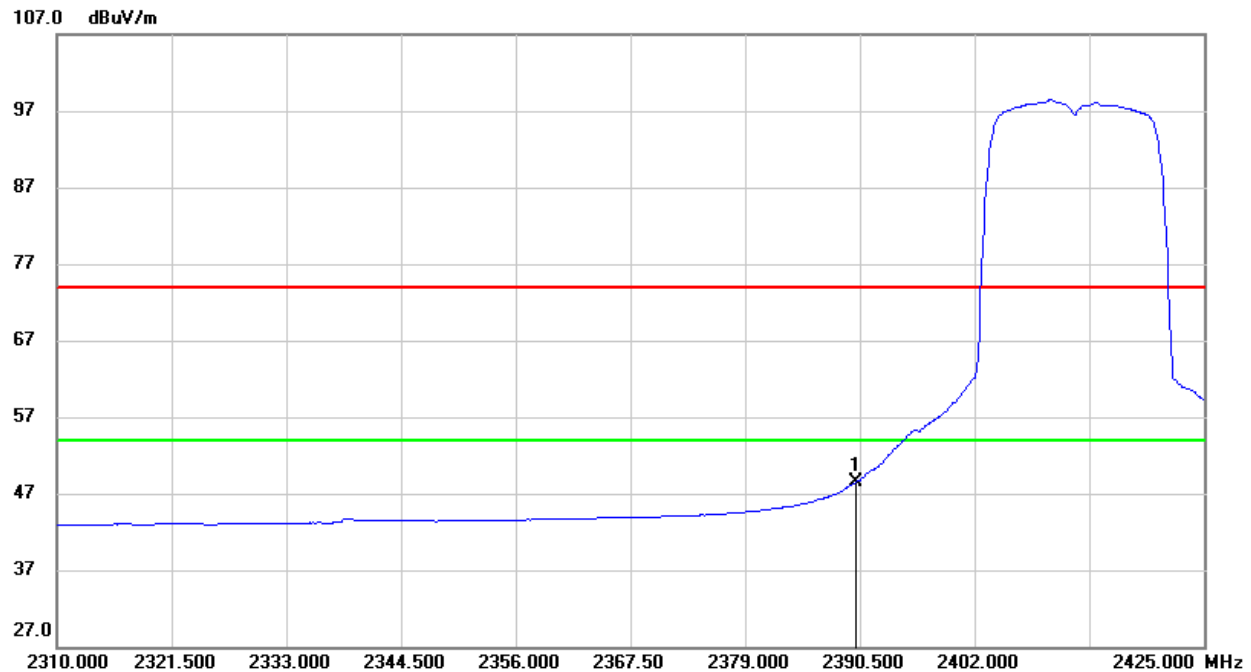


**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)****PEAK**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	33.86	32.94	66.80	74.00	-7.20	peak

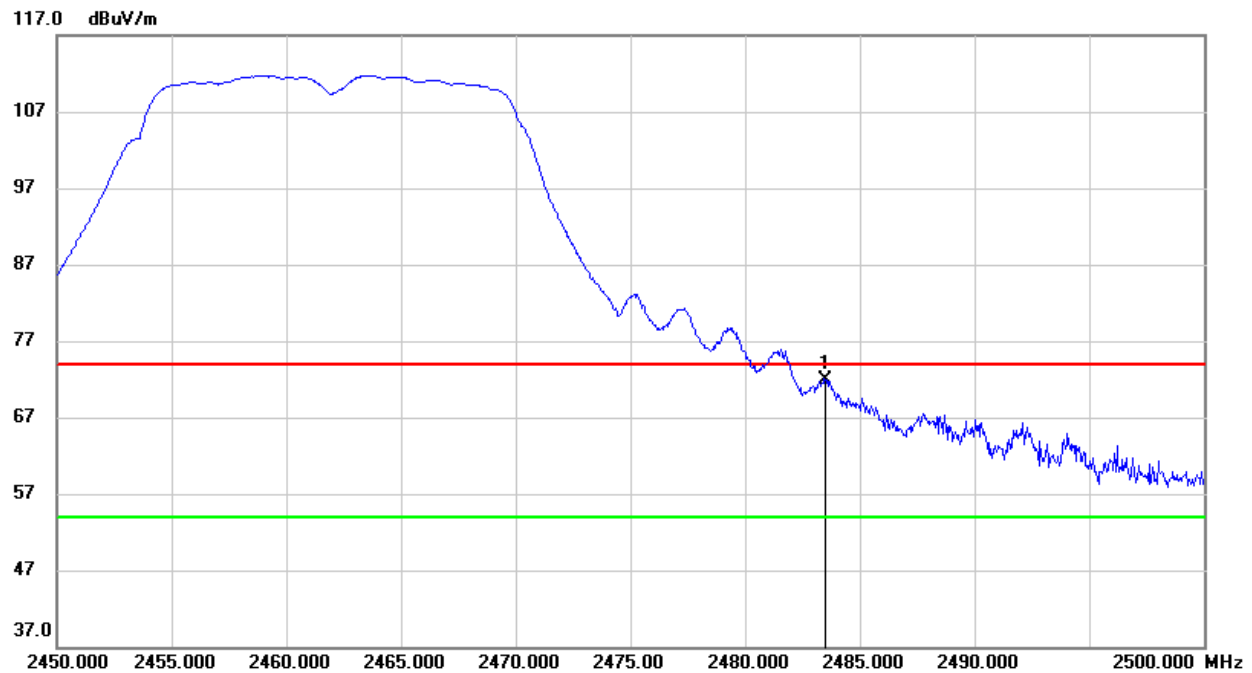
Note: 1. Measurement = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

### Avg



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	15.52	32.94	48.46	54.00	-5.54	AVG

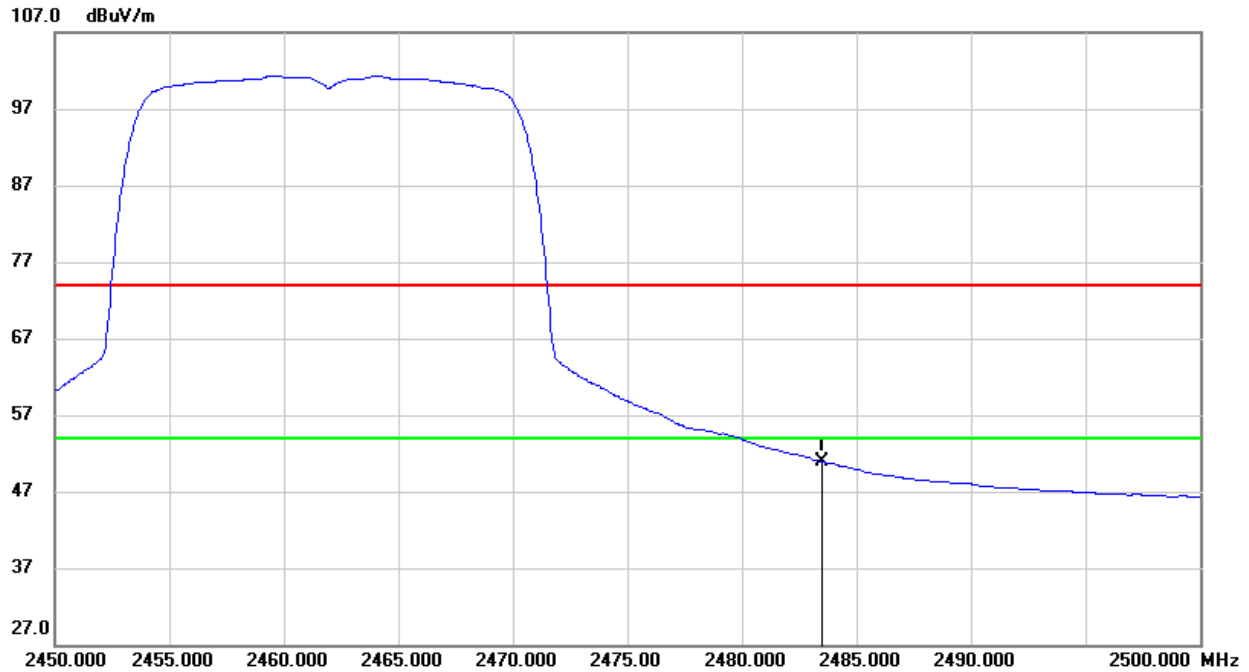
Note: 1. Measurement = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. AVG:  $VBW=1/Ton$  where: ton is transmit duration.  
4. For transmit duration, please refer to clause 7.1.  
5. Only the worst case emission was recorded, 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	38.27	33.58	71.85	74.00	-2.15	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**



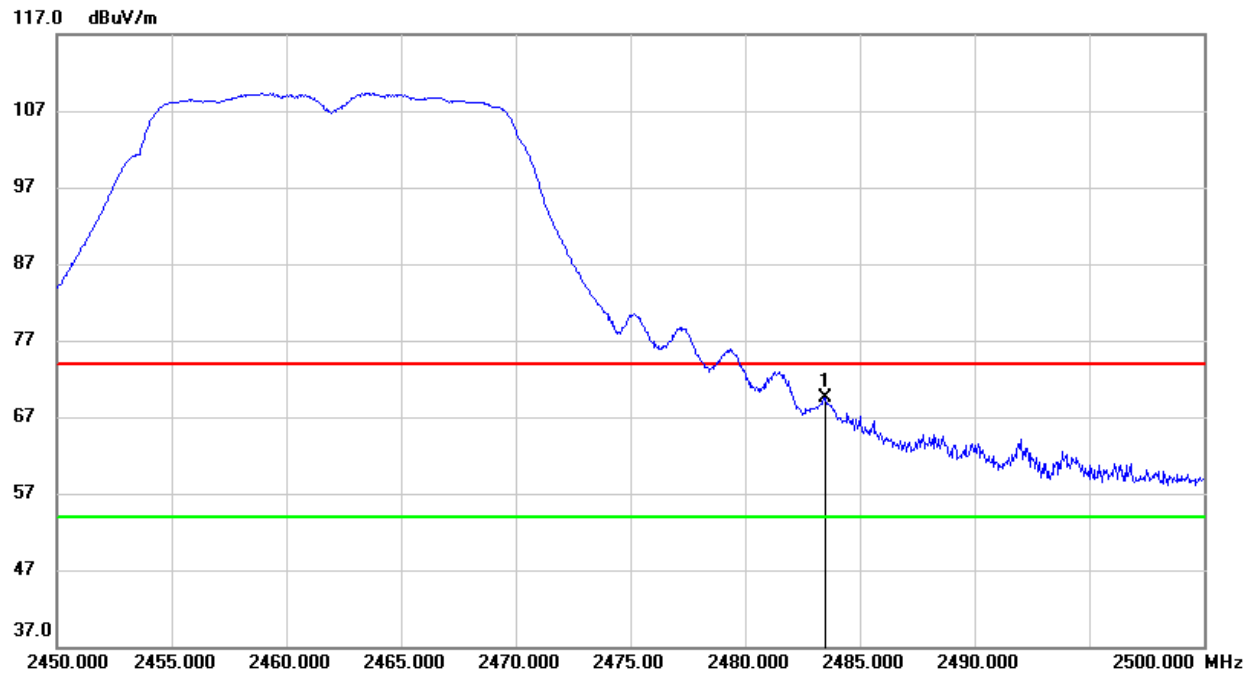
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	17.29	33.58	50.87	54.00	-3.13	AVG

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



**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**

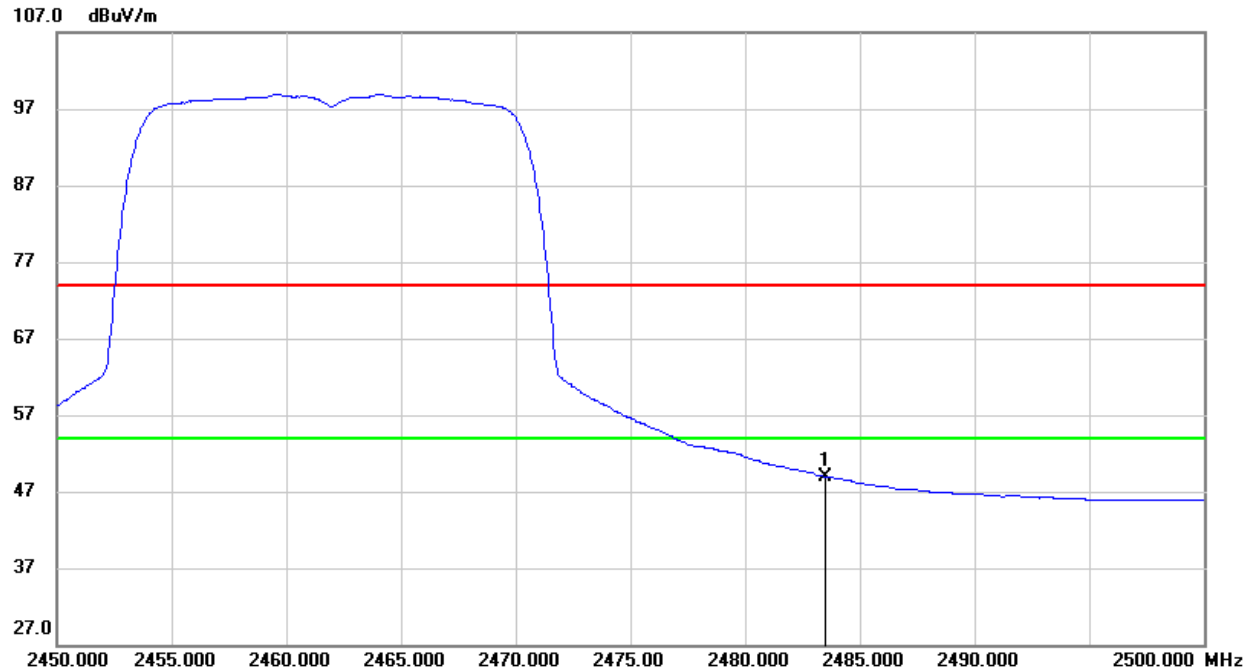
**PEAK**



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	35.85	33.58	69.43	74.00	-4.57	peak

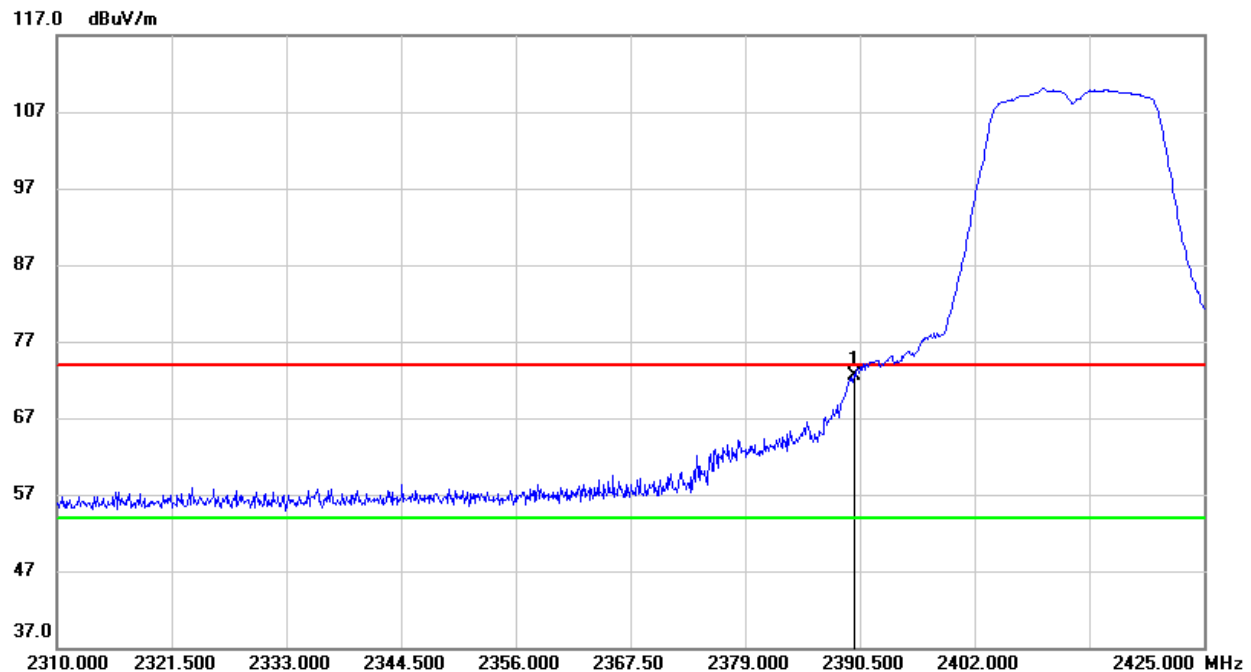
Note: 1. Measurement = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

### Avg



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	15.35	33.58	48.93	54.00	-5.07	AVG

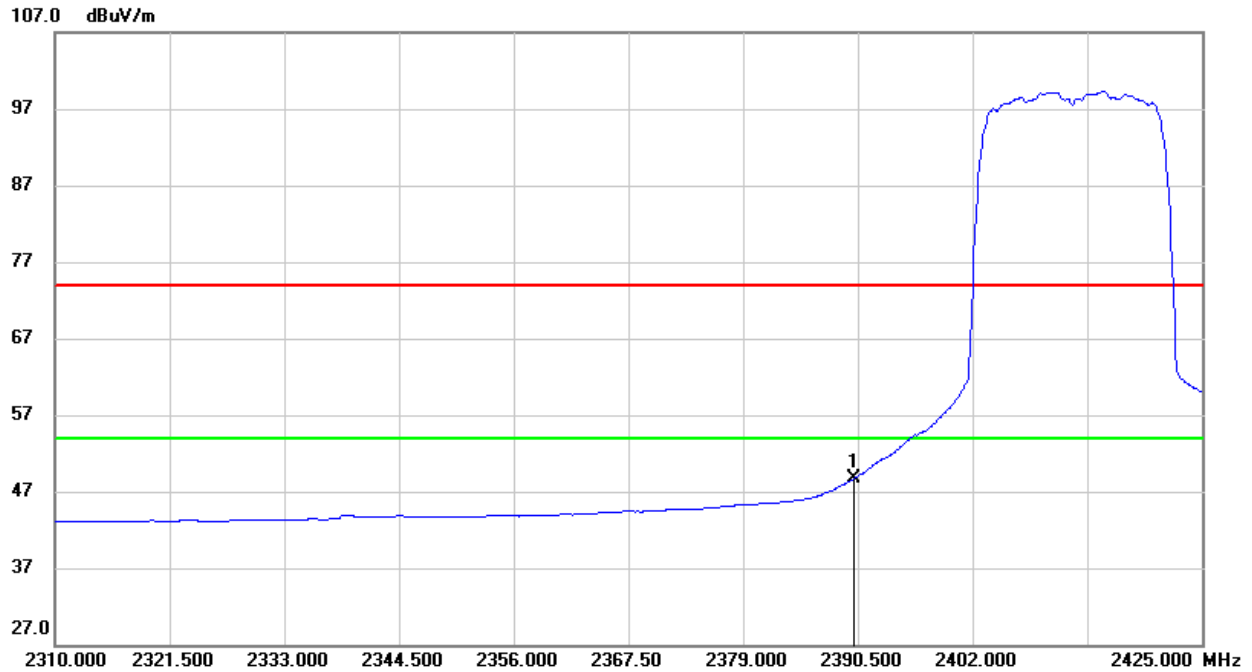
- Note:
1. Measurement = Reading Level + Correct Factor.
  2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
  3. AVG:  $VBW=1/Ton$  where: ton is transmit duration.
  4. For transmit duration, please refer to clause 7.1.
  5. Only the worst case emission was recorded,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

**8.1.3. 802.11n HT20 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	39.62	32.94	72.56	74.00	-1.44	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.

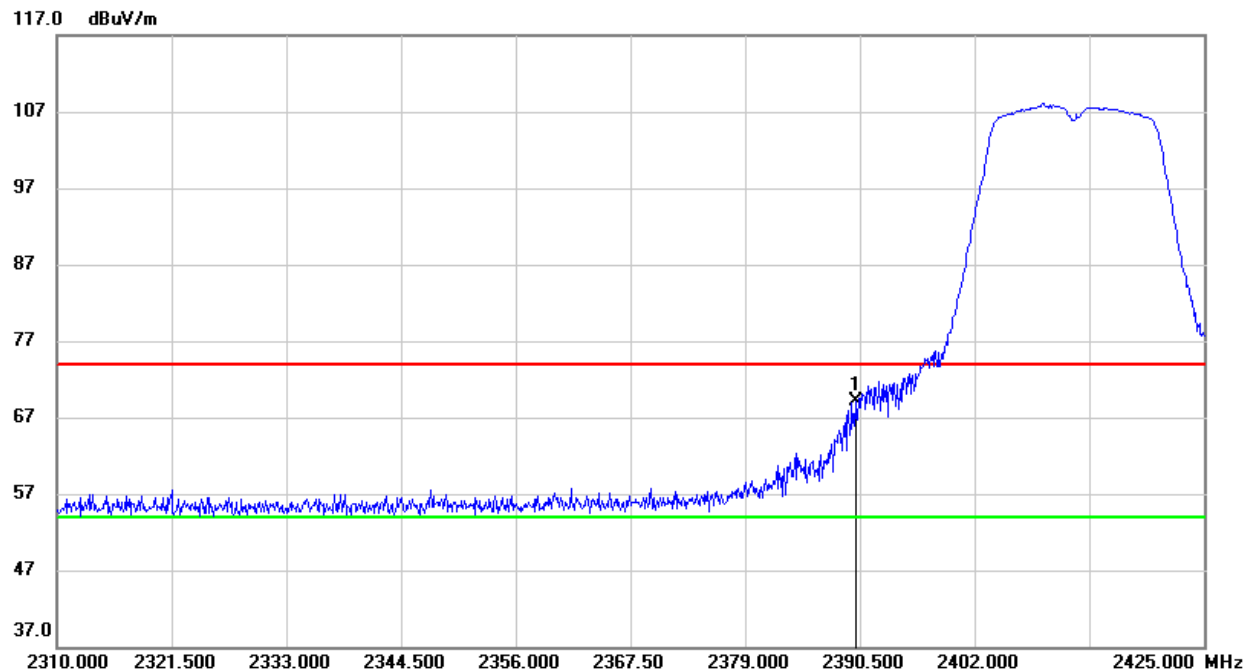
**Avg**



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	15.74	32.94	48.68	54.00	-5.32	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 transmit duration.  
 4. For transmit duration, please refer to clause 7.1.  
 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

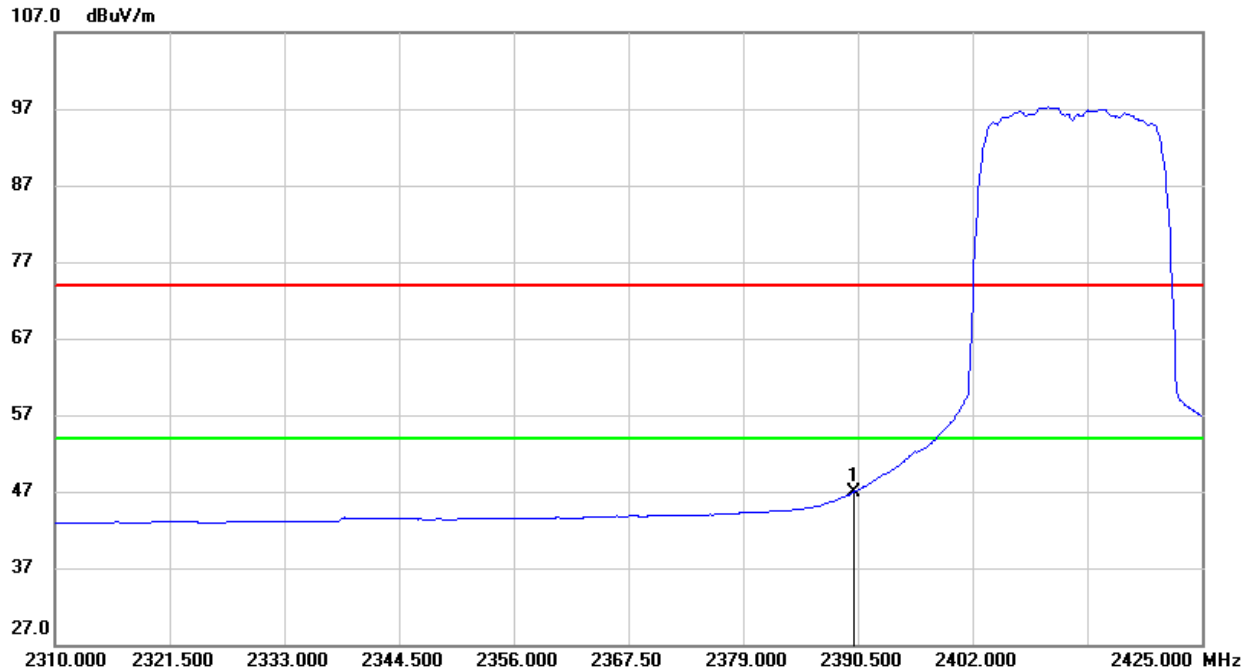


**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)****PEAK**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	36.21	32.94	69.15	74.00	-4.85	peak

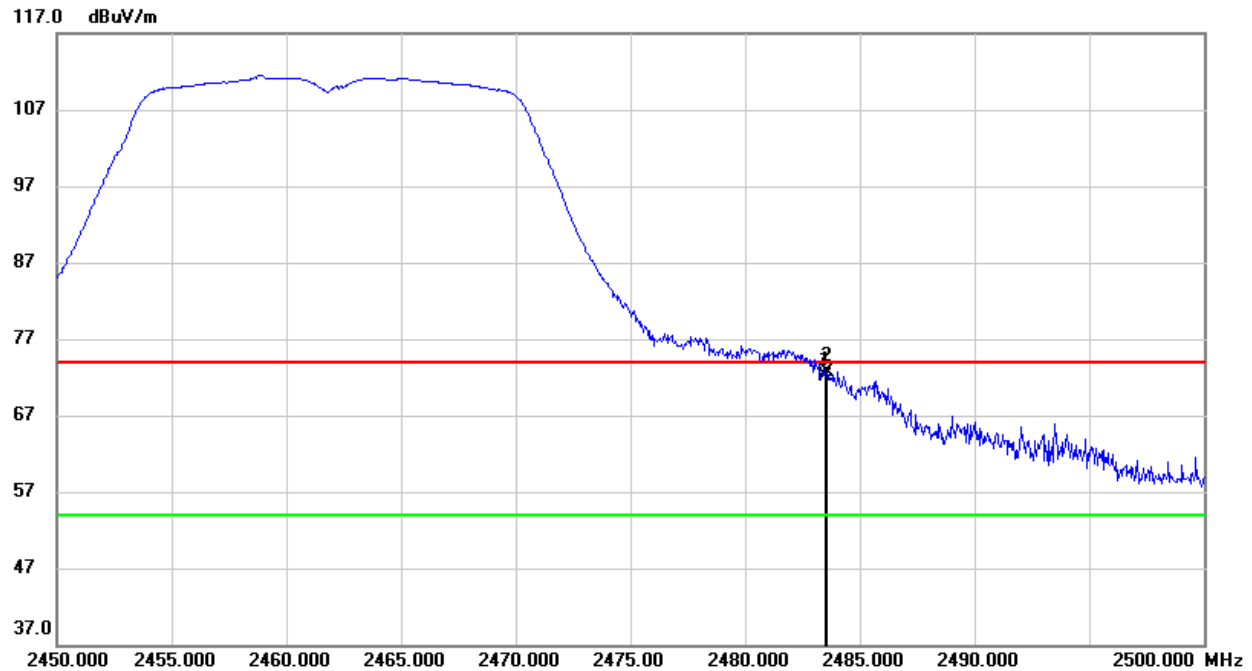
Note: 1. Measurement = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

**Avg**



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	13.99	32.94	46.93	54.00	-7.07	AVG

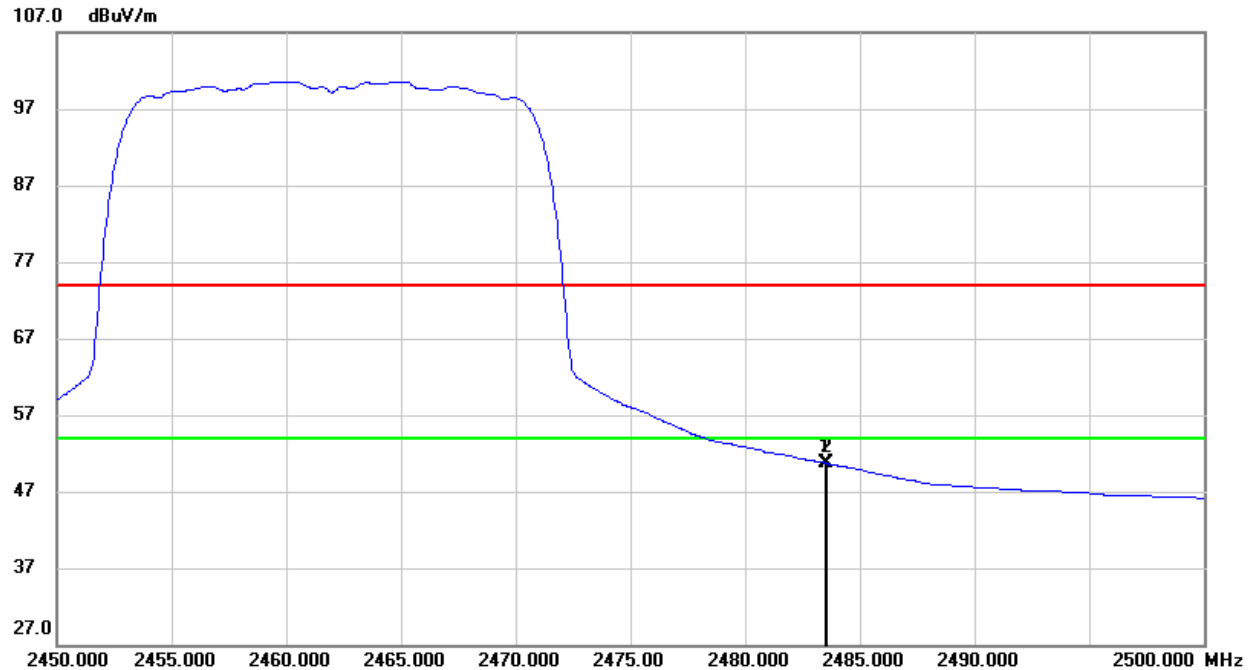
Note: 1. Measurement = Reading Level + Correct Factor.  
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
 3. AVG:  $VBW=1/Ton$  where: ton is transmit duration.  
 4. For transmit duration, please refer to clause 7.1.  
 5. Only the worst case emission was recorded, 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	38.52	33.58	72.10	74.00	-1.90	peak
2	2483.550	39.15	33.58	72.73	74.00	-1.27	peak

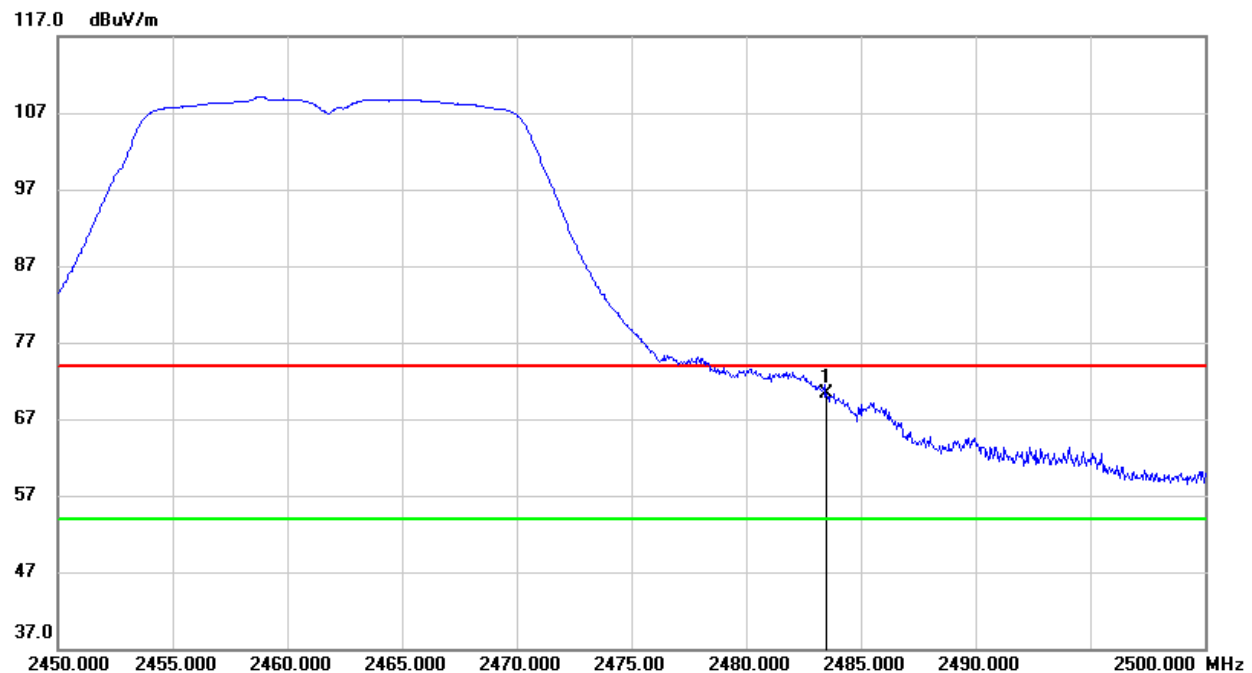
- Note: 1. Measurement = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

### Avg



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	17.14	33.58	50.72	54.00	-3.28	AVG
2	2483.550	17.09	33.58	50.67	54.00	-3.33	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 transmit duration.
  4. For transmit duration, please refer to clause 7.1.
  5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	36.70	33.58	70.28	74.00	-3.72	peak

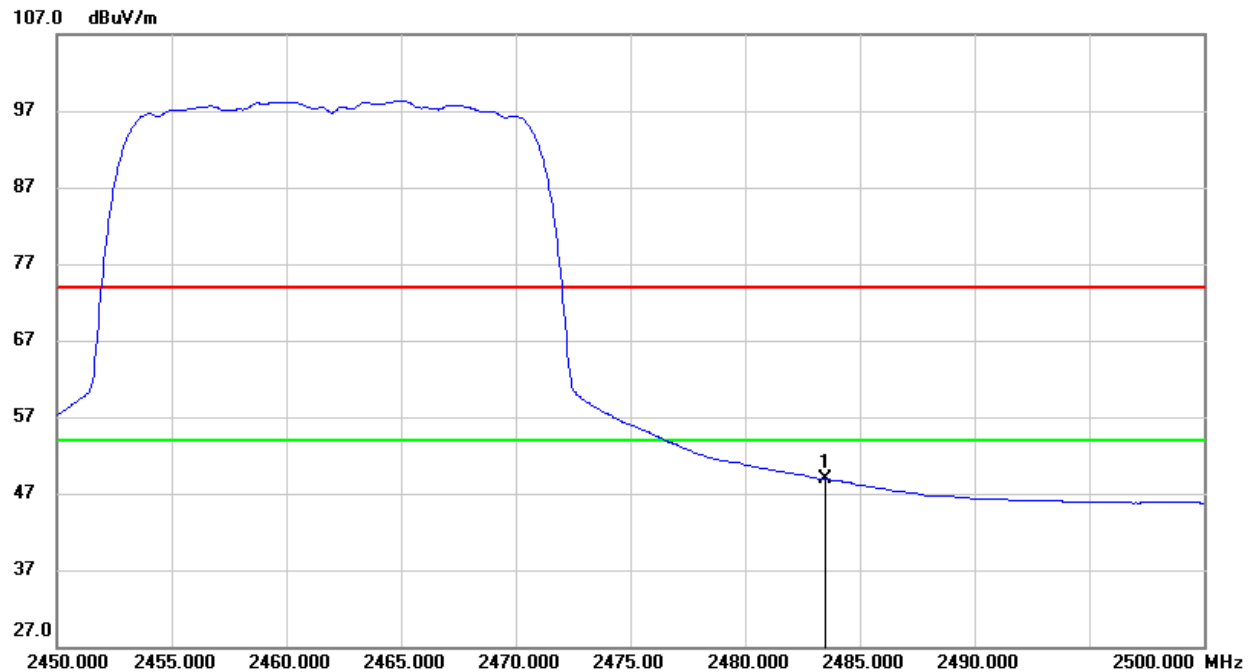
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

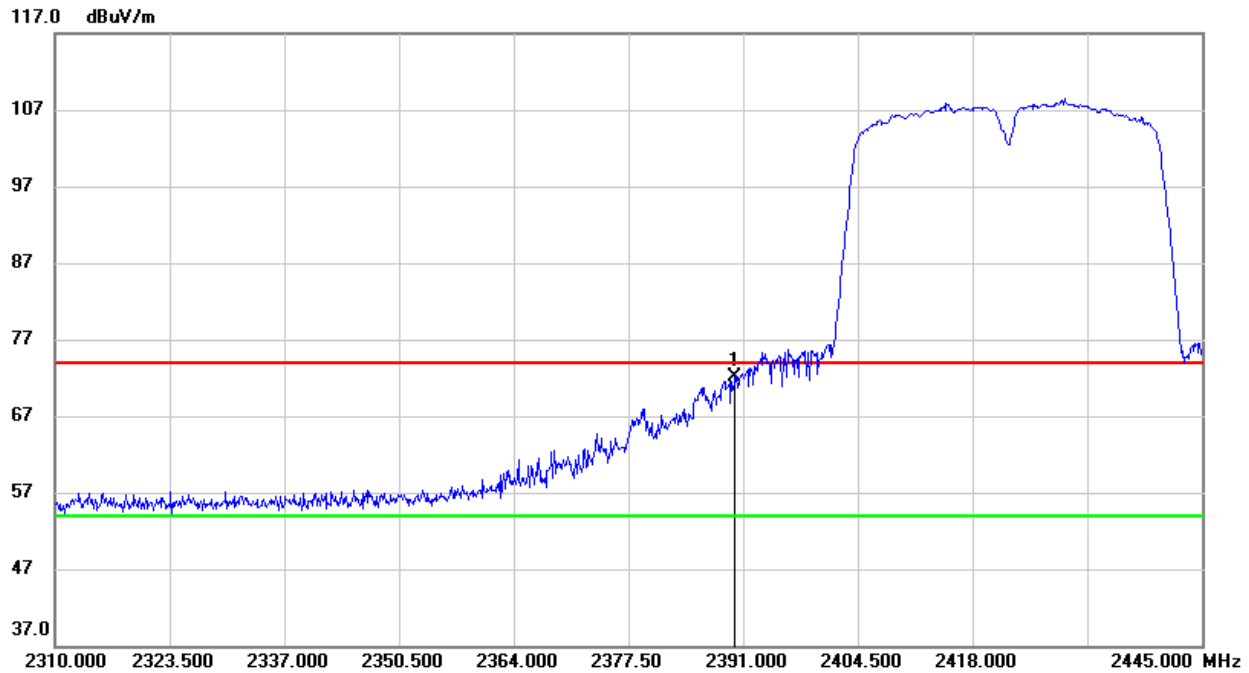
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

### Avg



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	15.34	33.58	48.92	54.00	-5.08	AVG

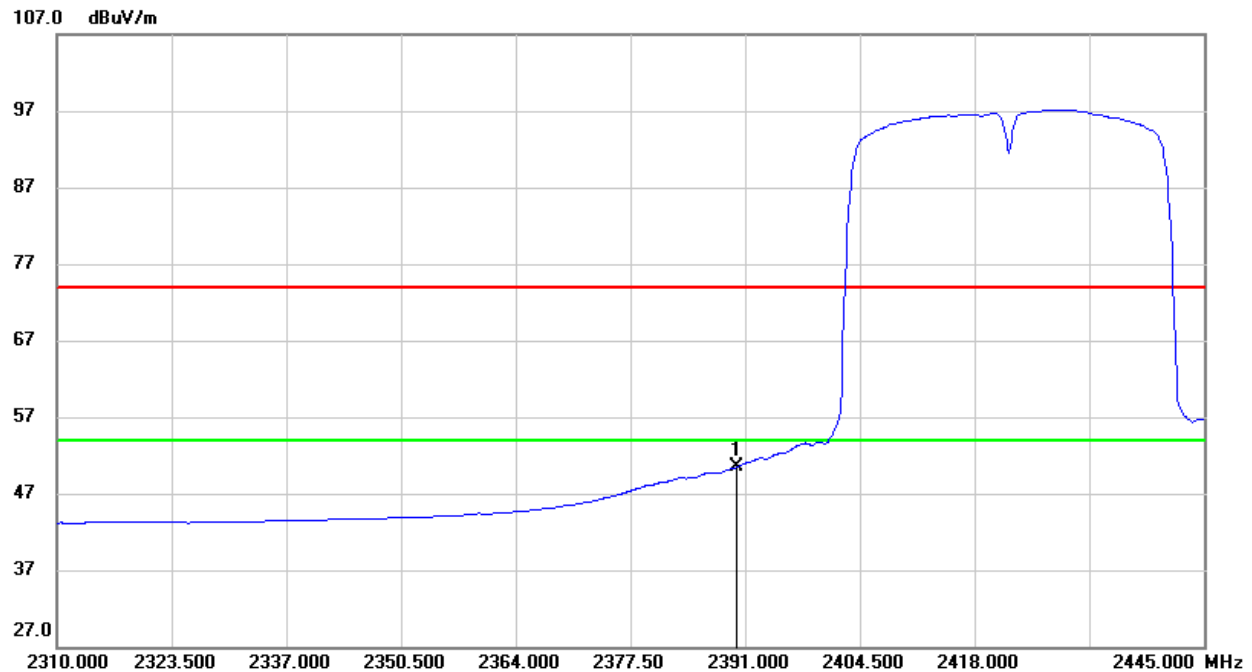
- Note:
1. Measurement = Reading Level + Correct Factor.
  2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
  3. AVG:  $VBW=1/Ton$  where: ton is transmit duration.
  4. For transmit duration, please refer to clause 7.1.
  5. Only the worst case emission was recorded,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

**8.1.4. 802.11n HT40 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	39.09	32.94	72.03	74.00	-1.97	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.

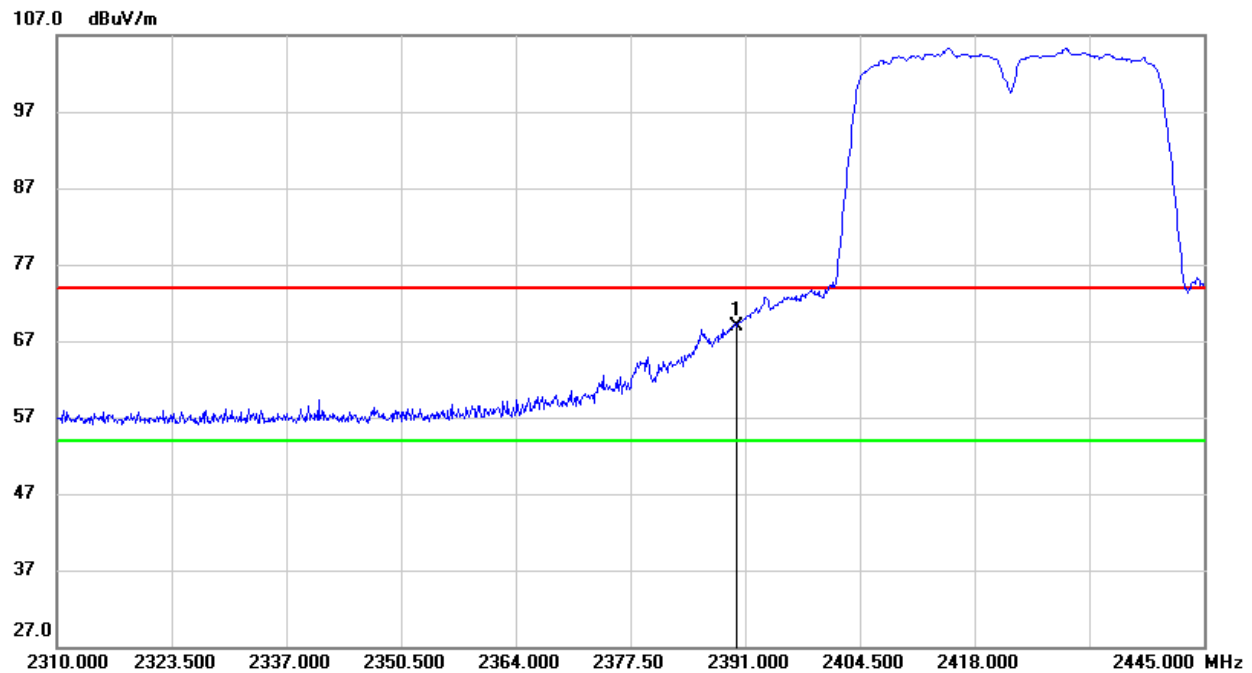
### Avg



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	17.54	32.94	50.48	54.00	-3.52	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 transmit duration.  
4. For transmit duration, please refer to clause 7.1.  
5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

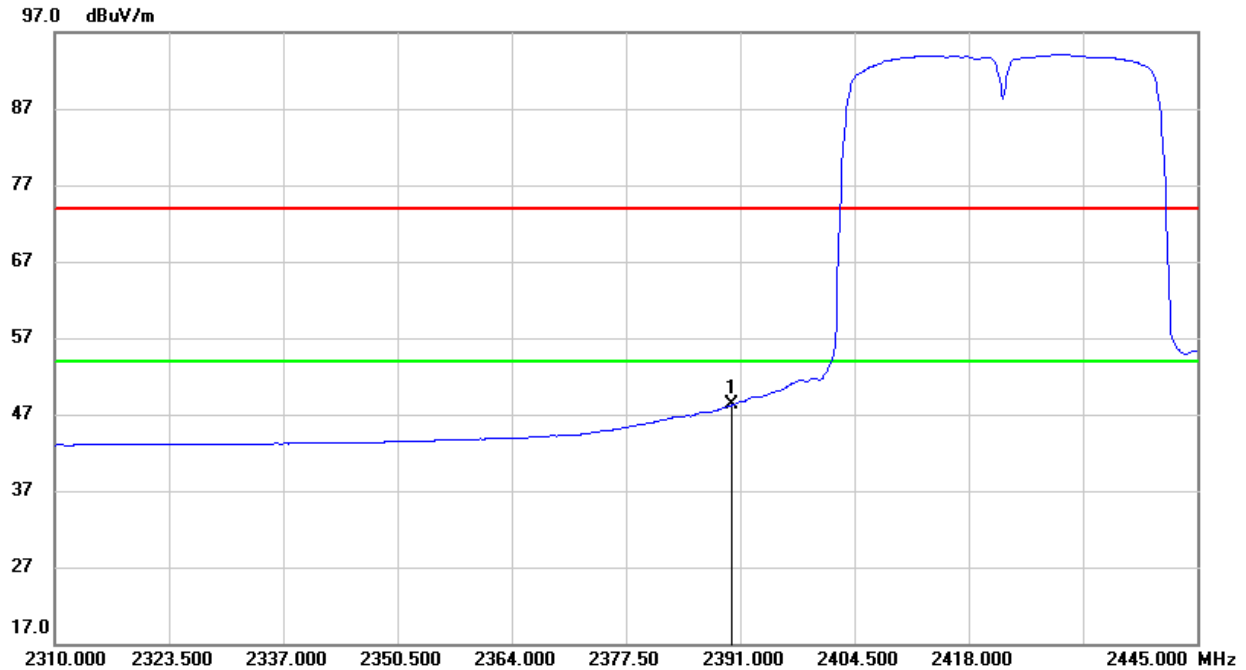


**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)****PEAK**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	36.02	32.94	68.96	74.00	-5.04	peak

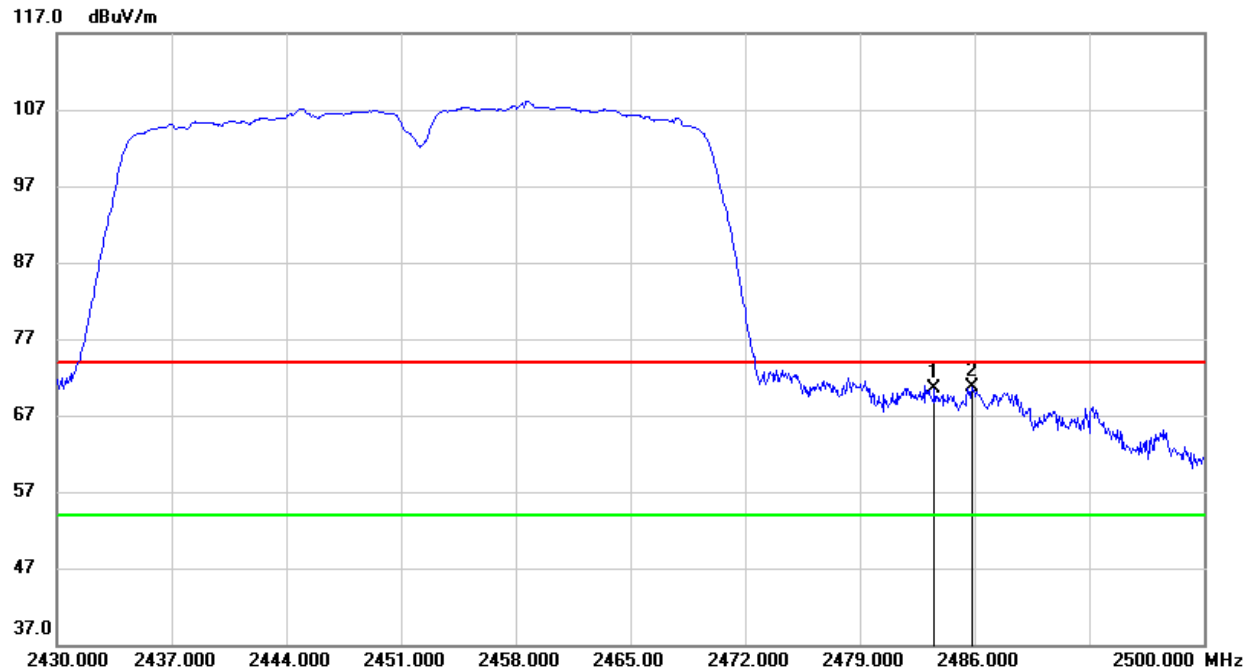
Note: 1. Measurement = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

### Avg



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	15.29	32.94	48.23	54.00	-5.77	AVG

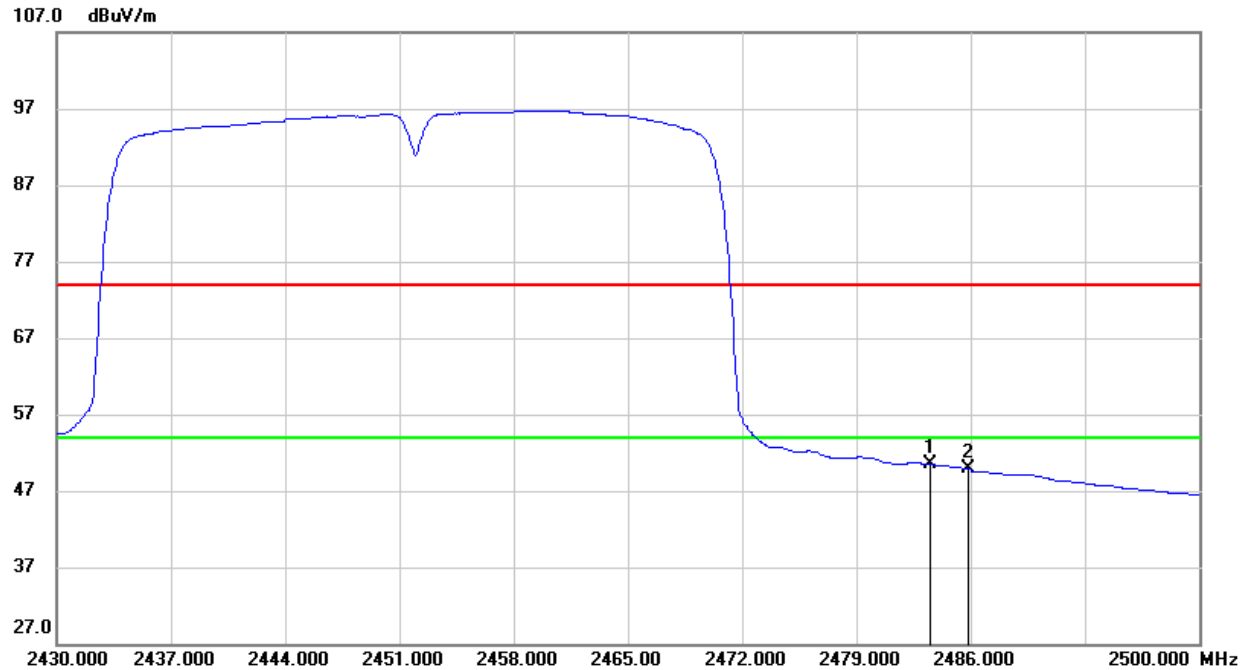
- Note:
1. Measurement = Reading Level + Correct Factor.
  2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
  3. AVG:  $VBW=1/Ton$  where: ton is transmit duration.
  4. For transmit duration, please refer to clause 7.1.
  5. Only the worst case emission was recorded, 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	36.88	33.58	70.46	74.00	-3.54	peak
2	2485.860	37.15	33.59	70.74	74.00	-3.26	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



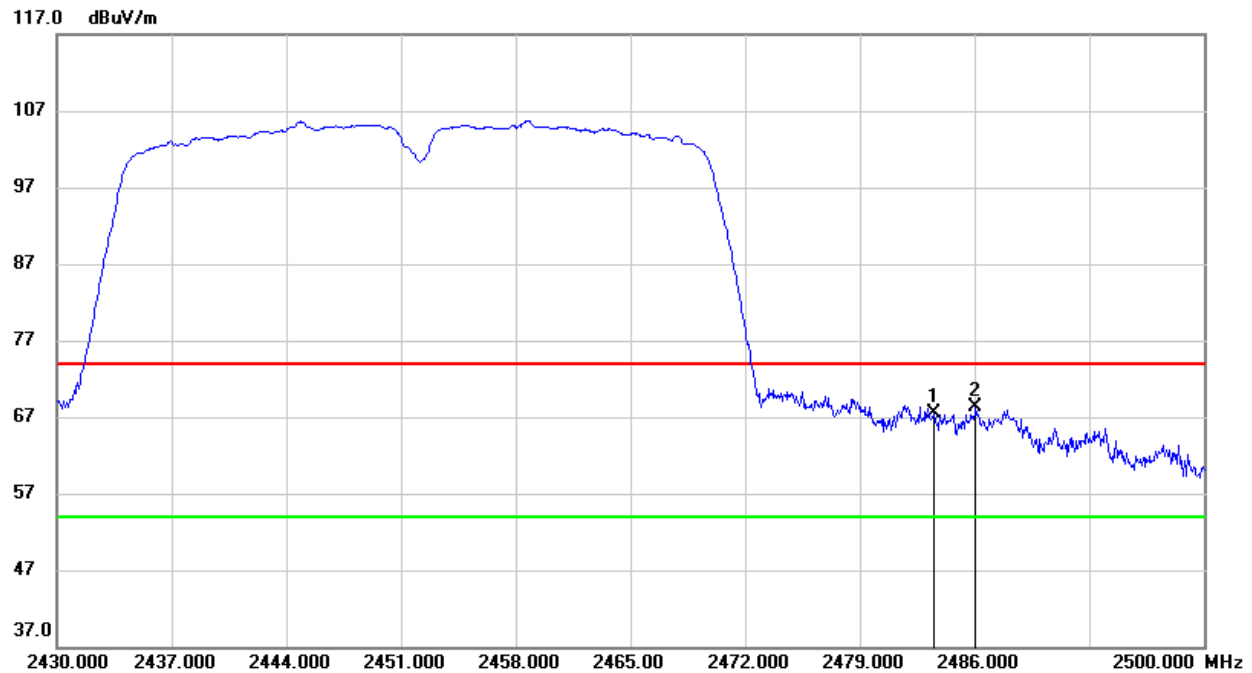
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	17.00	33.58	50.58	54.00	-3.42	AVG
2	2485.860	16.24	33.59	49.83	54.00	-4.17	AVG

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 transmit duration.  
4. For transmit duration, please refer to clause 7.1.  
5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**

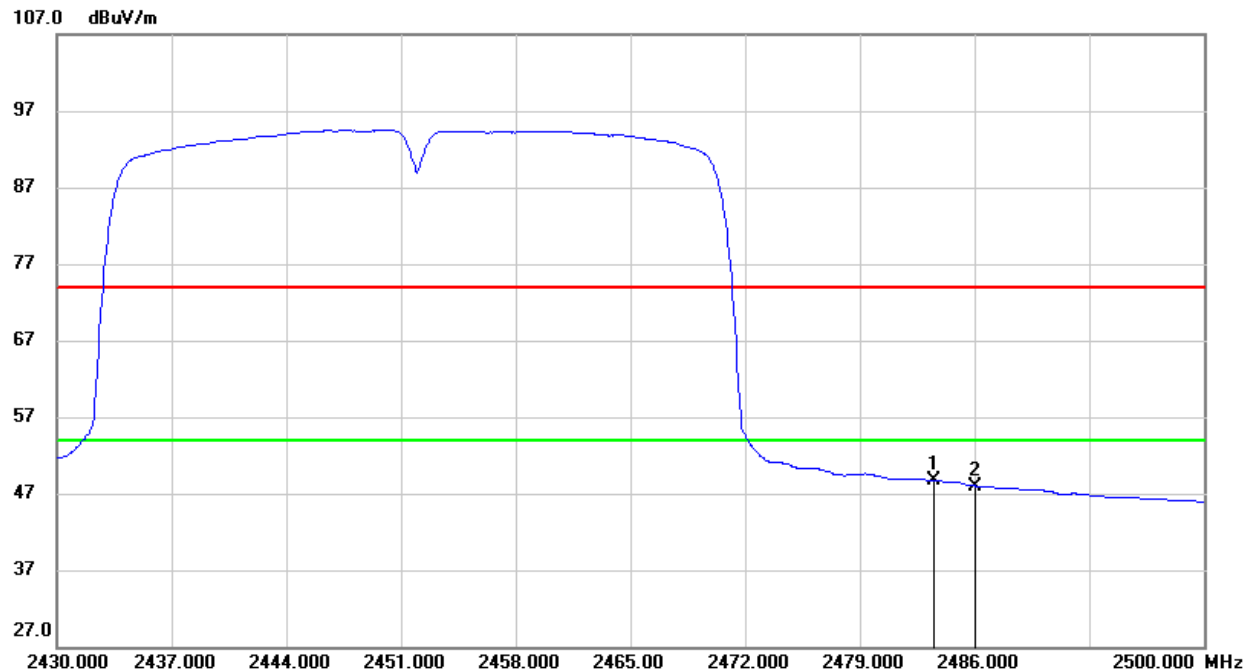
**PEAK**



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	33.91	33.58	67.49	74.00	-6.51	peak
2	2486.070	34.71	33.59	68.30	74.00	-5.70	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



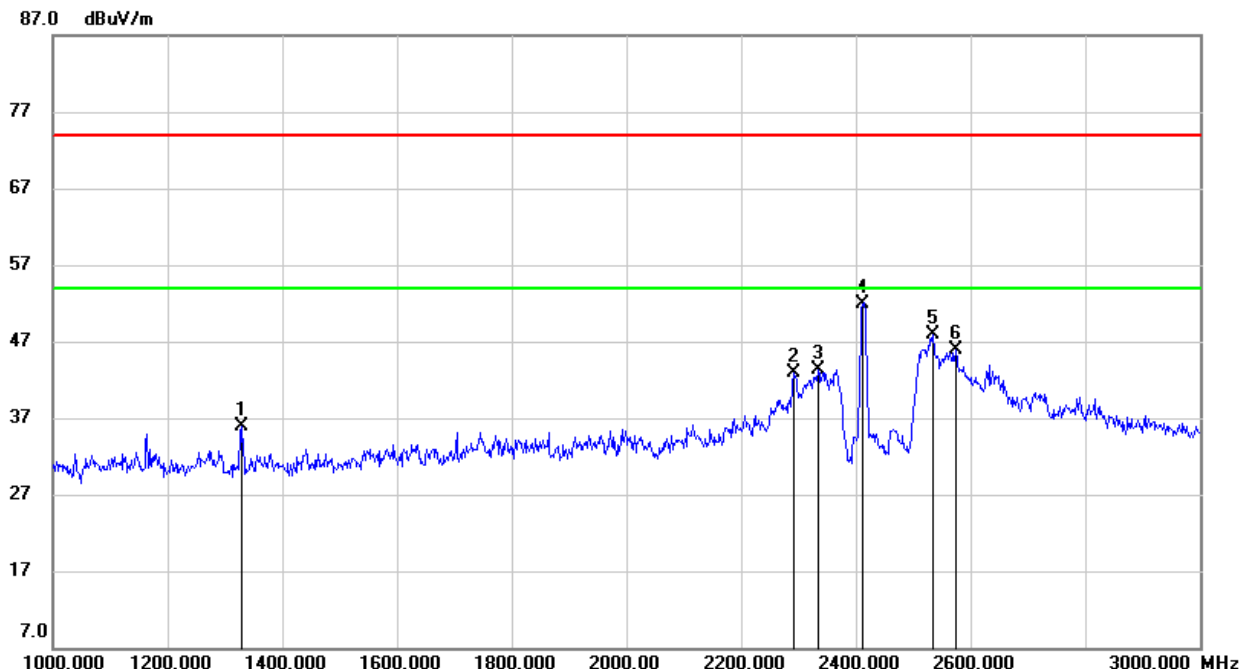
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	15.10	33.58	48.68	54.00	-5.32	AVG
2	2486.070	14.30	33.59	47.89	54.00	-6.11	AVG

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 transmit duration.  
4. For transmit duration, please refer to clause 7.1.  
5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

## 8.2. SPURIOUS EMISSIONS (1GHz ~ 3GHz)

### 8.2.1. 802.11b 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	1328.000	48.31	-12.36	35.95	74.00	-38.05	peak
2	2292.000	51.05	-8.23	42.82	74.00	-31.18	peak
3	2334.000	51.46	-8.08	43.38	74.00	-30.62	peak
4	2412.000	59.77	-7.77	52.00	/	/	fundamental
5	2534.000	55.20	-7.35	47.85	74.00	-26.15	peak
6	2574.000	53.48	-7.56	45.92	74.00	-28.08	peak

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

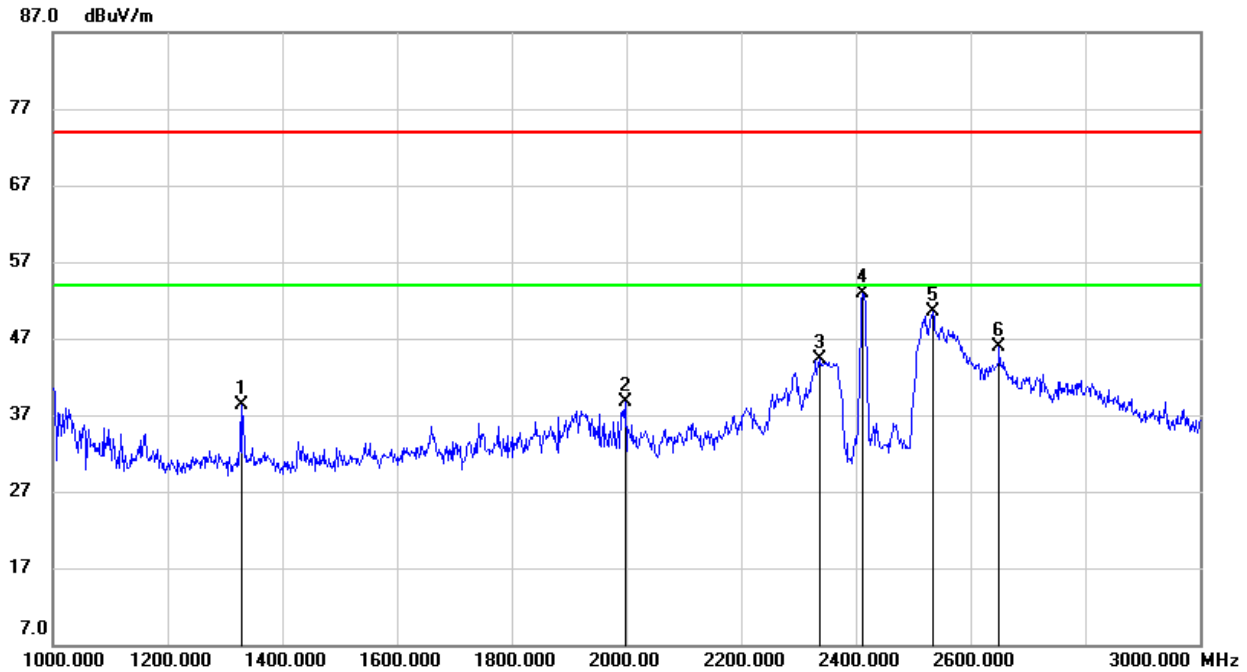
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1328.000	50.75	-12.36	38.39	74.00	-35.61	peak
2	1998.000	48.59	-9.83	38.76	74.00	-35.24	peak
3	2338.000	52.32	-8.06	44.26	74.00	-29.74	peak
4	2412.000	60.63	-7.77	52.86	/	/	fundamental
5	2534.000	57.94	-7.35	50.59	74.00	-23.41	peak
6	2650.000	53.40	-7.42	45.98	74.00	-28.02	peak

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

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

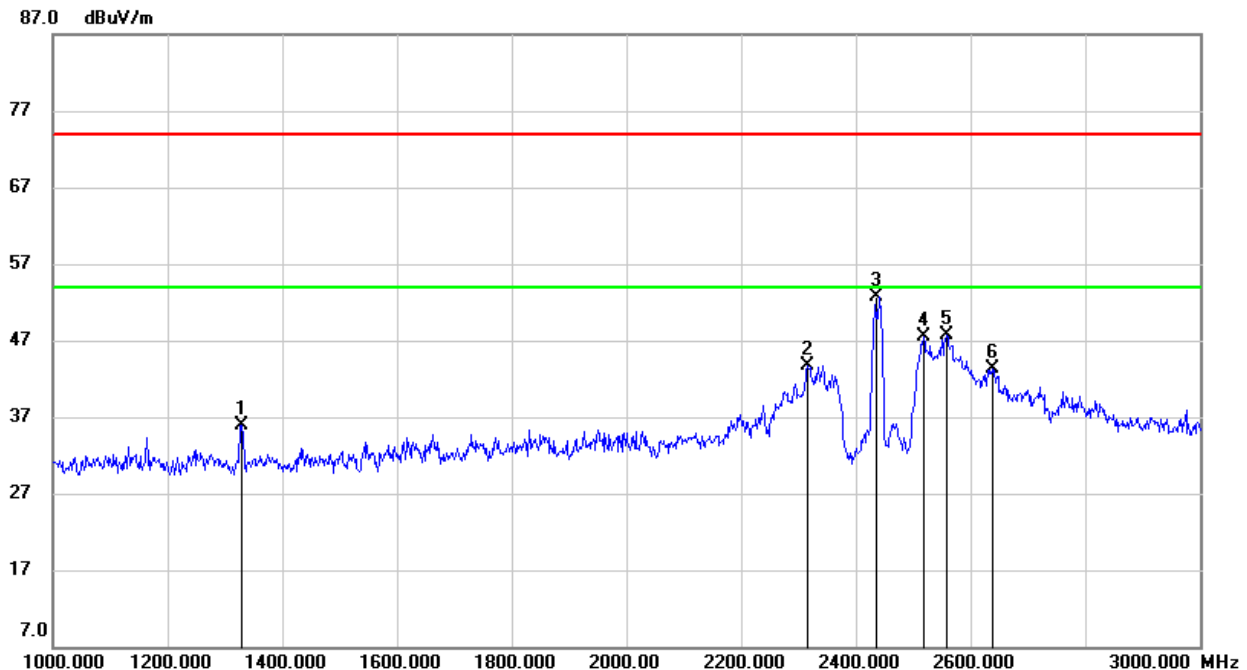
3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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



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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1328.000	48.35	-12.36	35.99	74.00	-38.01	peak
2	2316.000	51.90	-8.13	43.77	74.00	-30.23	peak
3	2437.000	60.30	-7.60	52.70	/	/	fundamental
4	2518.000	54.82	-7.27	47.55	74.00	-26.45	peak
5	2558.000	55.18	-7.47	47.71	74.00	-26.29	peak
6	2638.000	50.79	-7.48	43.31	74.00	-30.69	peak

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

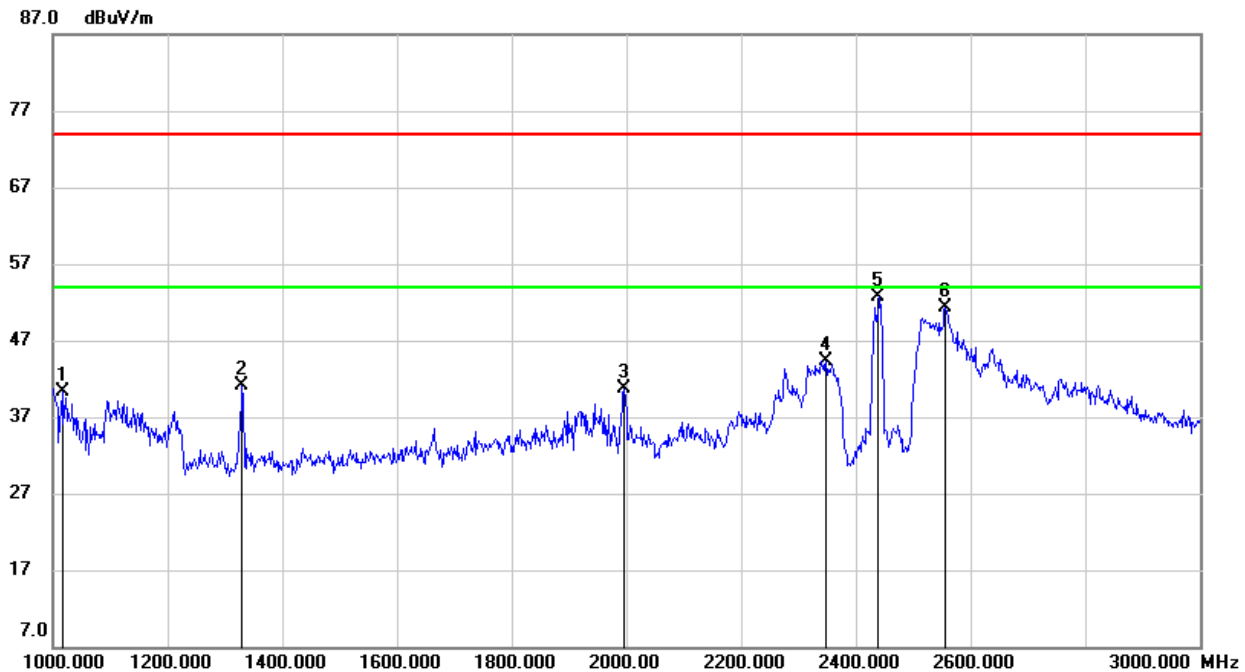
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1016.000	53.85	-13.57	40.28	74.00	-33.72	peak
2	1330.000	53.38	-12.36	41.02	74.00	-32.98	peak
3	1996.000	50.62	-9.83	40.79	74.00	-33.21	peak
4	2348.000	52.42	-8.03	44.39	74.00	-29.61	peak
5	2437.000	60.36	-7.60	52.76	/	/	fundamental
6	2556.000	58.76	-7.47	51.29	74.00	-22.71	peak

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

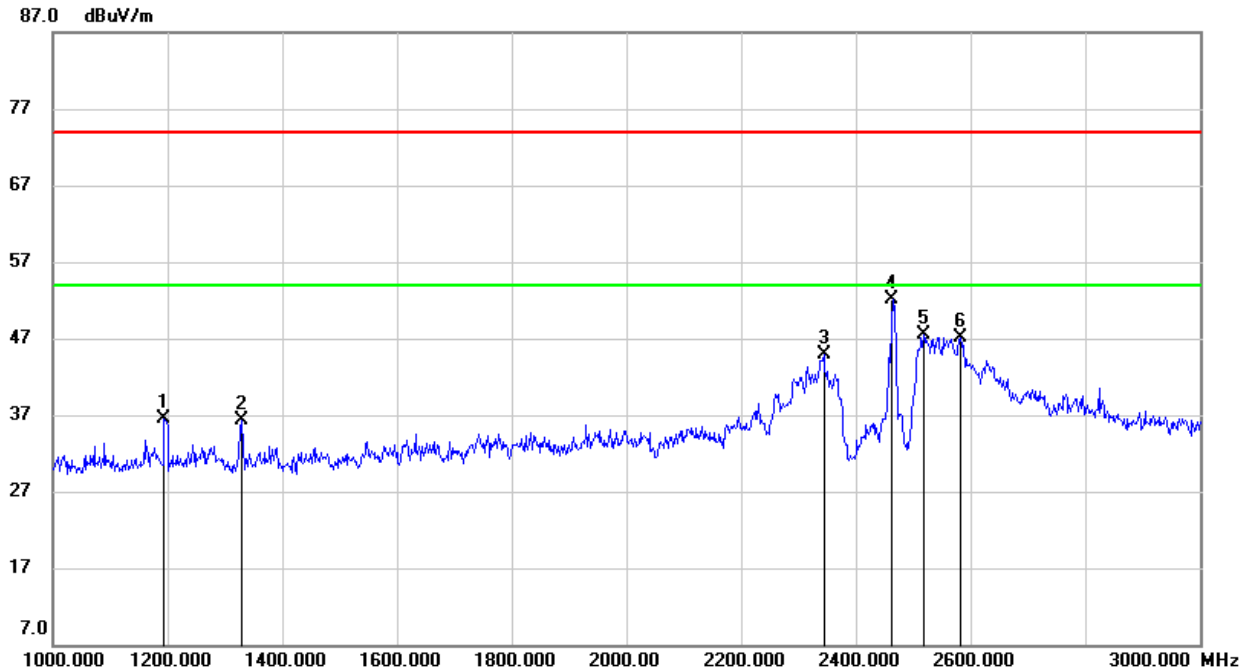
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1194.000	49.31	-12.72	36.59	74.00	-37.41	peak
2	1328.000	48.64	-12.36	36.28	74.00	-37.72	peak
3	2344.000	52.89	-8.05	44.84	74.00	-29.16	peak
4	2462.000	59.56	-7.43	52.13	/	/	fundamental
5	2518.000	54.77	-7.27	47.50	74.00	-26.50	peak
6	2582.000	54.65	-7.60	47.05	74.00	-26.95	peak

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

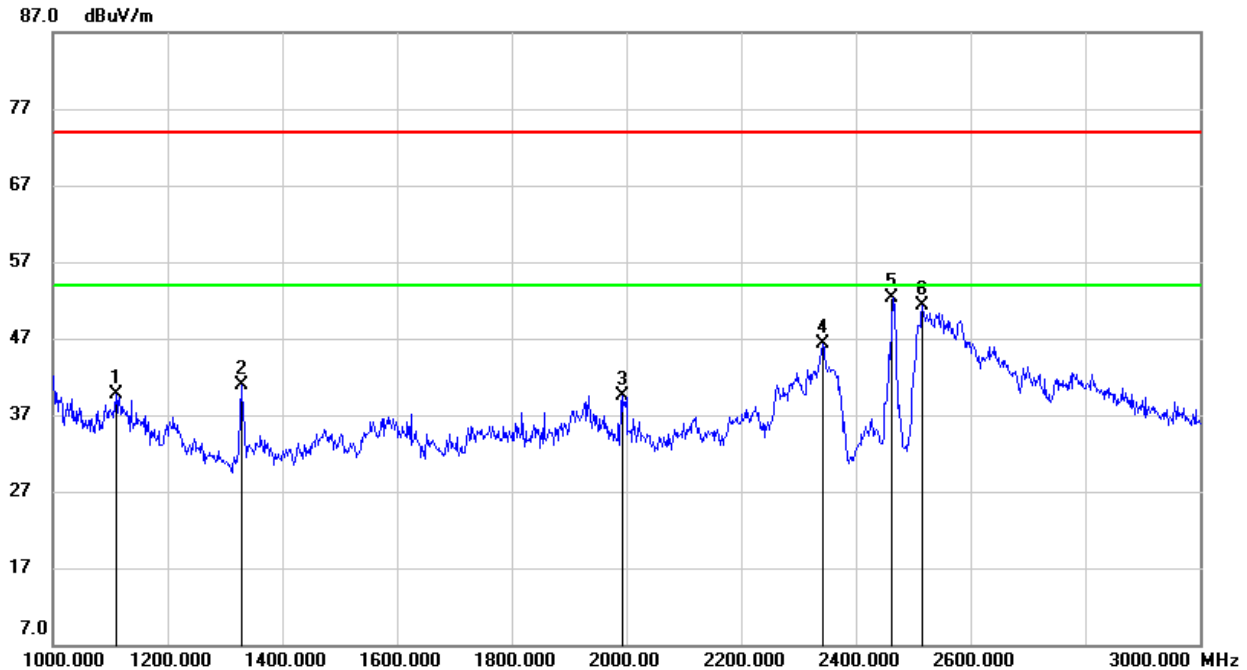
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

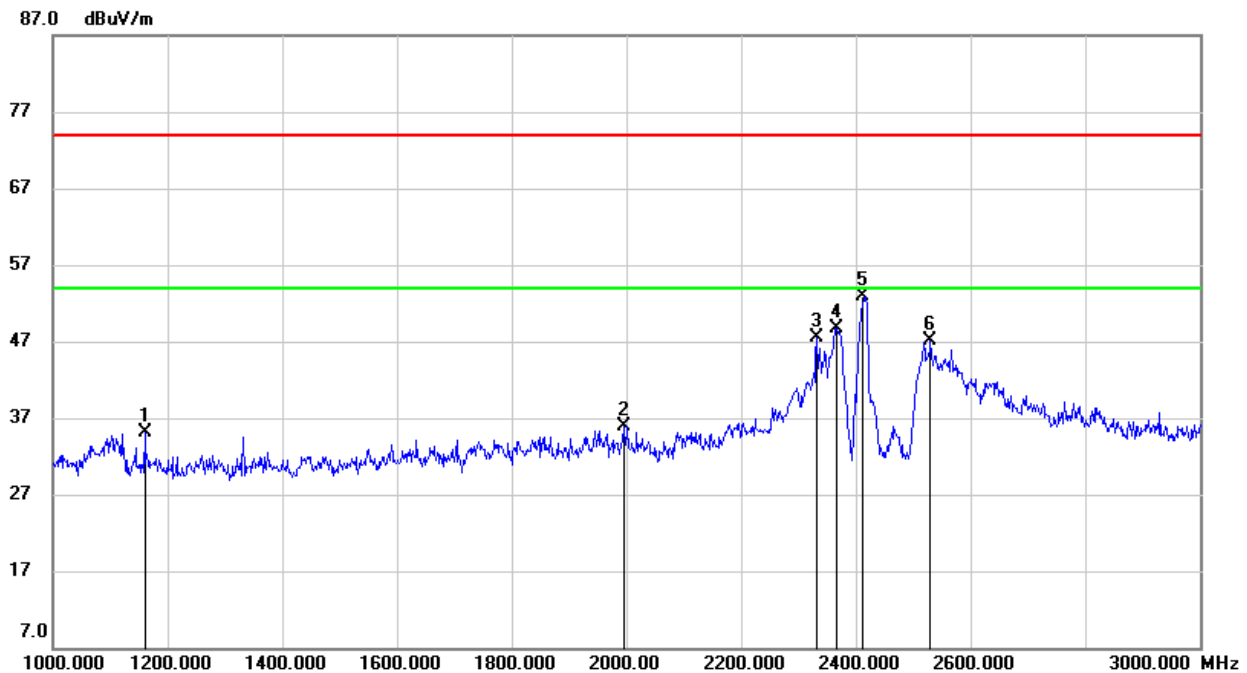
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1110.000	53.12	-13.43	39.69	74.00	-34.31	peak
2	1328.000	53.34	-12.36	40.98	74.00	-33.02	peak
3	1992.000	49.36	-9.83	39.53	74.00	-34.47	peak
4	2342.000	54.39	-8.05	46.34	74.00	-27.66	peak
5	2462.000	59.72	-7.43	52.29	/	/	fundamental
6	2516.000	58.57	-7.25	51.32	74.00	-22.68	peak

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

**8.2.2. 802.11g 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	1160.000	48.02	-13.01	35.01	74.00	-38.99	peak
2	1996.000	45.73	-9.83	35.90	74.00	-38.10	peak
3	2332.000	55.67	-8.08	47.59	74.00	-26.41	peak
4	2366.000	56.59	-7.97	48.62	74.00	-25.38	peak
5	2412.000	60.68	-7.77	52.91	/	/	fundamental
6	2530.000	54.50	-7.32	47.18	74.00	-26.82	peak

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

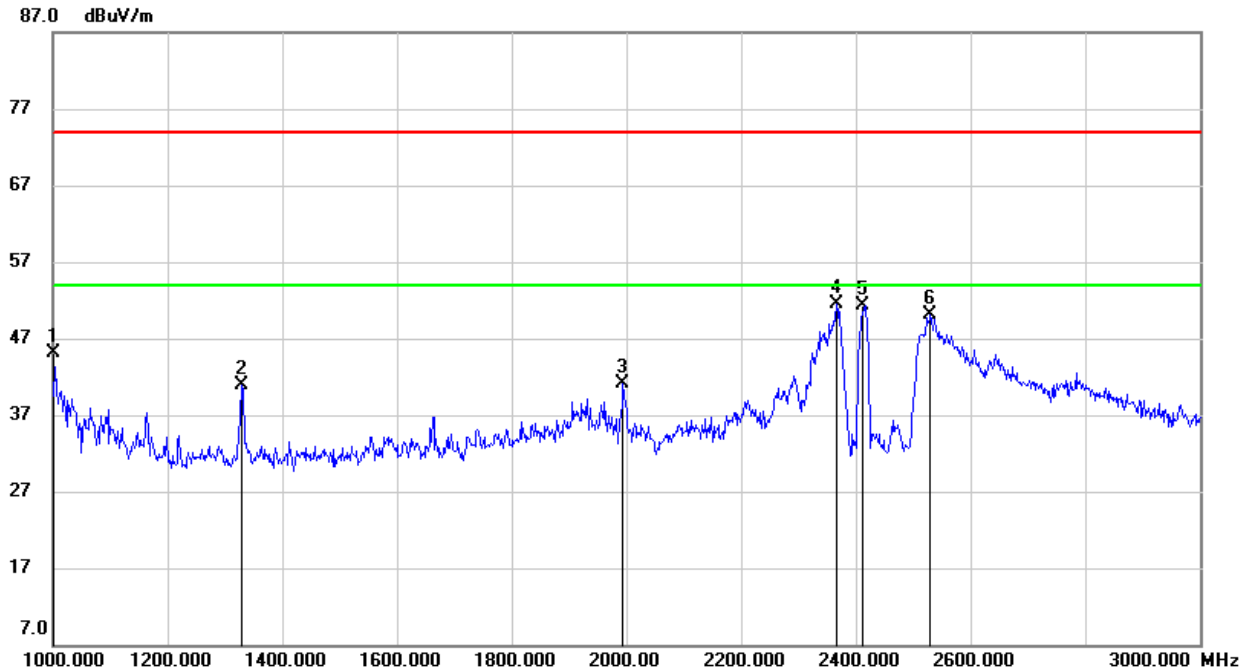
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1000.0000	58.77	-13.59	45.18	74.00	-28.82	peak
2	1330.000	53.23	-12.36	40.87	74.00	-33.13	peak
3	1994.000	50.97	-9.83	41.14	74.00	-32.86	peak
4	2366.000	59.42	-7.97	51.45	74.00	-22.55	peak
5	2412.000	59.07	-7.77	51.30	/	/	fundamental
6	2530.000	57.50	-7.32	50.18	74.00	-23.82	peak

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

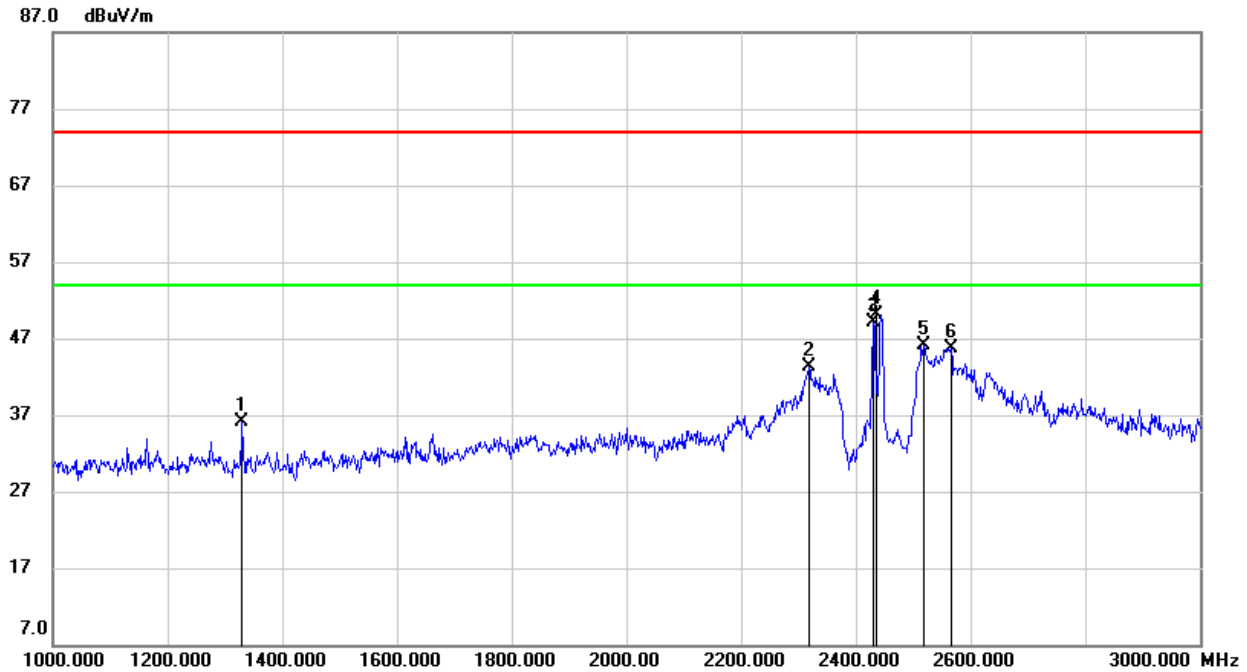
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1330.000	48.51	-12.36	36.15	74.00	-37.85	peak
2	2318.000	51.39	-8.13	43.26	74.00	-30.74	peak
3	2430.000	56.83	-7.65	49.18	74.00	-24.82	peak
4	2437.000	57.64	-7.60	50.04	/	/	fundamental
5	2518.000	53.46	-7.27	46.19	74.00	-27.81	peak
6	2566.000	53.14	-7.52	45.62	74.00	-28.38	peak

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

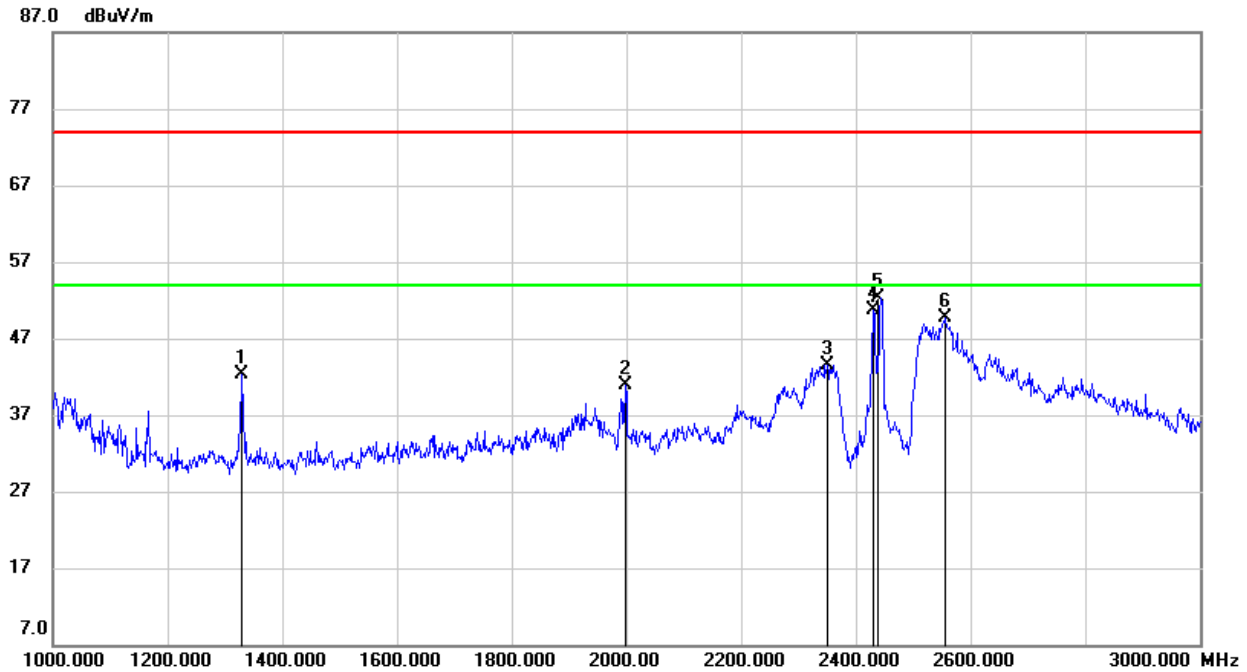
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1330.000	54.68	-12.36	42.32	74.00	-31.68	peak
2	1998.000	50.79	-9.83	40.96	74.00	-33.04	peak
3	2350.000	51.61	-8.02	43.59	74.00	-30.41	peak
4	2430.000	58.35	-7.65	50.70	74.00	-23.30	peak
5	2437.000	59.81	-7.60	52.21	/	/	fundamental
6	2556.000	57.09	-7.47	49.62	74.00	-24.38	peak

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

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

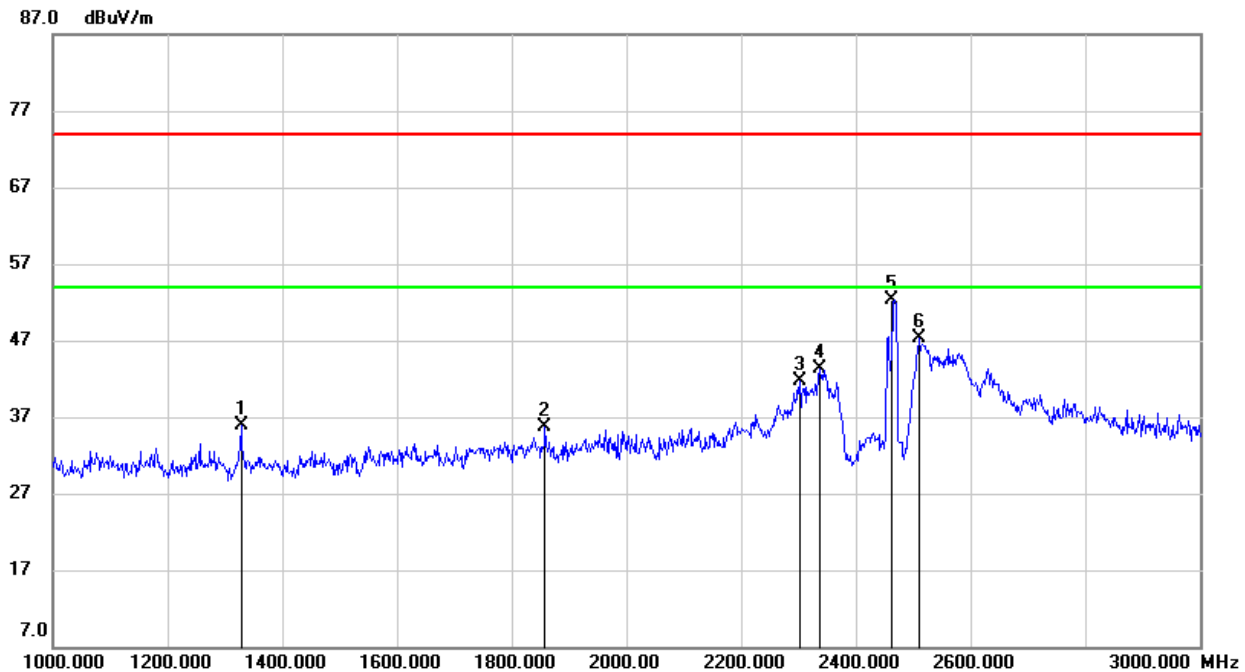
3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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



### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1328.000	48.29	-12.36	35.93	74.00	-38.07	peak
2	1858.000	45.63	-9.93	35.70	74.00	-38.30	peak
3	2302.000	49.82	-8.19	41.63	74.00	-32.37	peak
4	2338.000	51.45	-8.06	43.39	74.00	-30.61	peak
5	2462.000	59.82	-7.43	52.39	/	/	fundamental
6	2510.000	54.60	-7.21	47.39	74.00	-26.61	peak

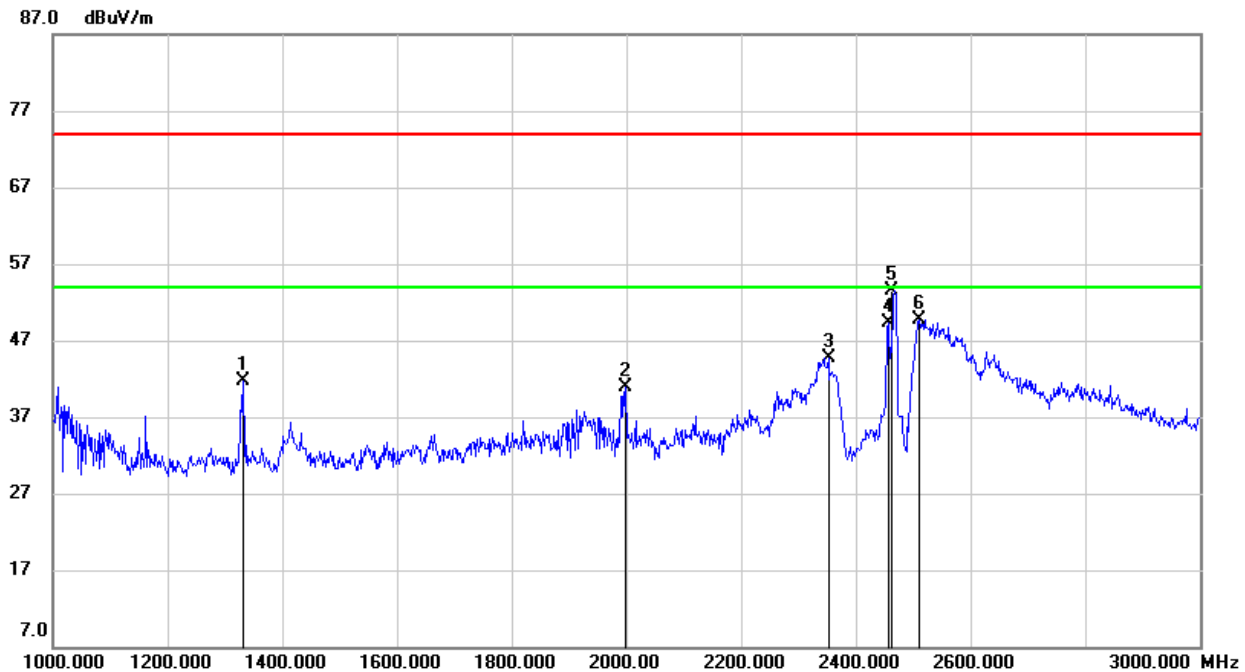
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

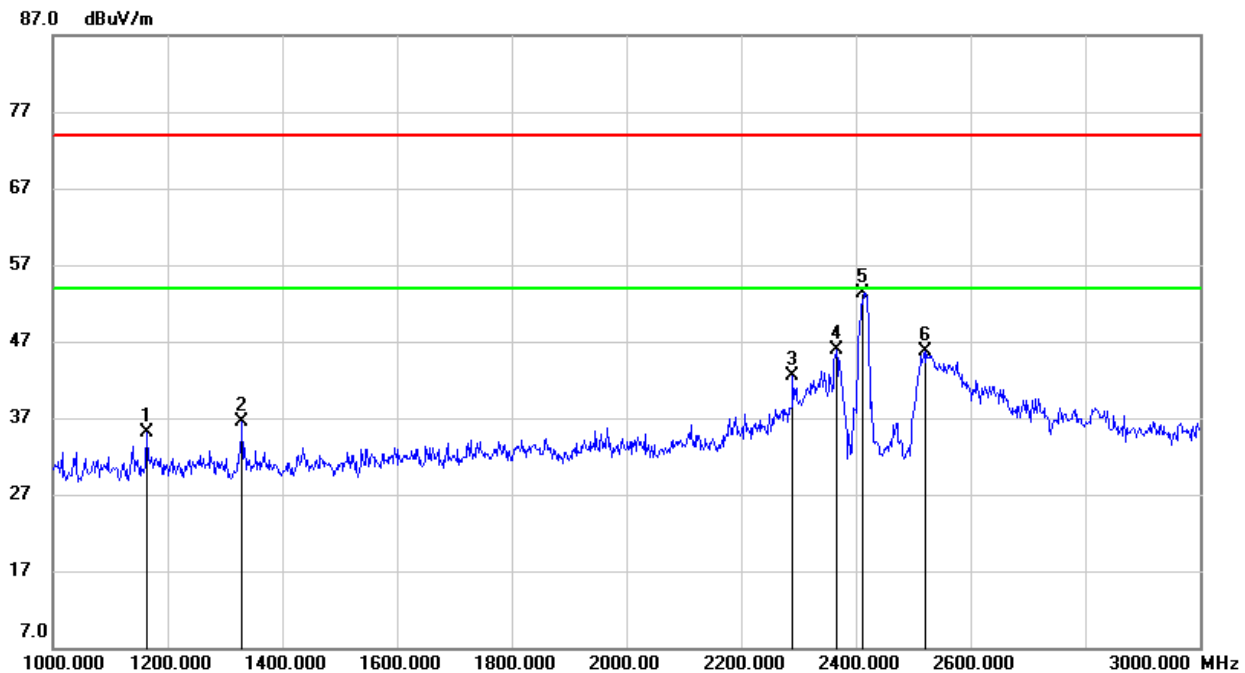
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1332.000	54.07	-12.35	41.72	74.00	-32.28	peak
2	1998.000	50.77	-9.83	40.94	74.00	-33.06	peak
3	2352.000	52.81	-8.02	44.79	74.00	-29.21	peak
4	2456.000	56.68	-7.47	49.21	74.00	-24.79	peak
5	2462.000	60.84	-7.43	53.41	/	/	fundamental
6	2510.000	56.90	-7.21	49.69	74.00	-24.31	peak

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

**8.2.3. 802.11n HT20 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	1164.000	48.00	-12.97	35.03	74.00	-38.97	peak
2	1330.000	48.77	-12.36	36.41	74.00	-37.59	peak
3	2290.000	50.73	-8.24	42.49	74.00	-31.51	peak
4	2366.000	53.90	-7.97	45.93	74.00	-28.07	peak
5	2412.000	61.17	-7.77	53.40	/	/	fundamental
6	2520.000	52.89	-7.27	45.62	74.00	-28.38	peak

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

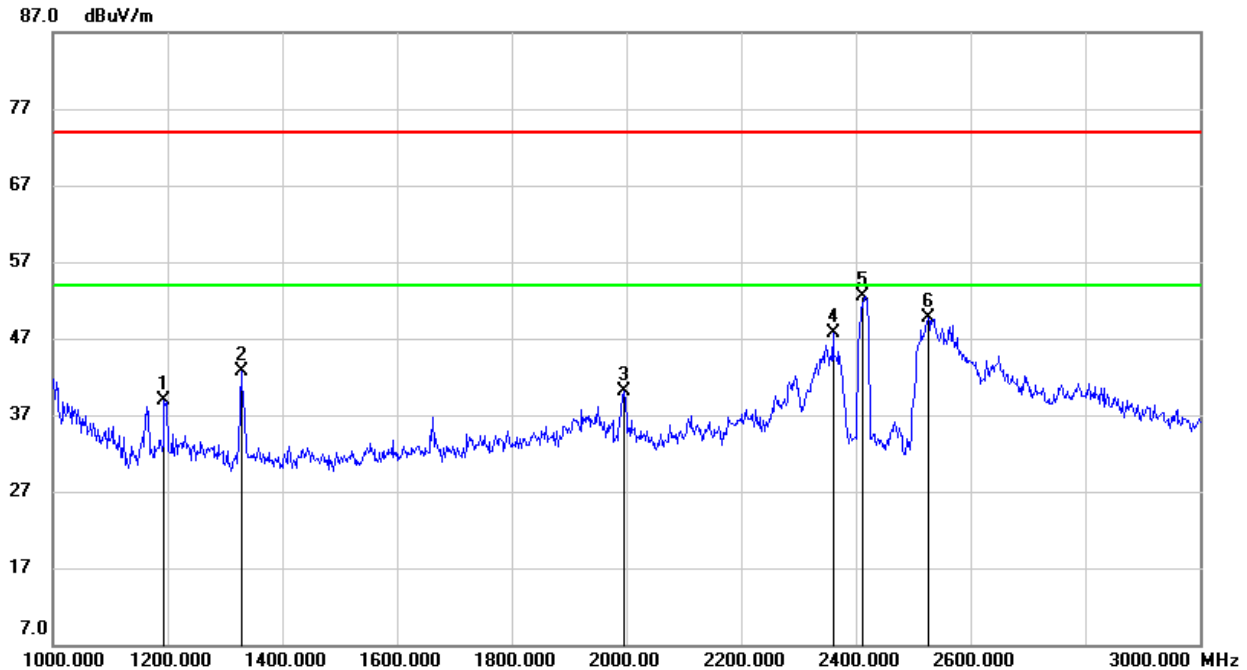
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1194.000	51.70	-12.72	38.98	74.00	-35.02	peak
2	1328.000	55.08	-12.36	42.72	74.00	-31.28	peak
3	1996.000	50.01	-9.83	40.18	74.00	-33.82	peak
4	2360.000	55.68	-7.99	47.69	74.00	-26.31	peak
5	2412.000	60.36	-7.77	52.59	/	/	fundamental
6	2526.000	57.09	-7.31	49.78	74.00	-24.22	peak

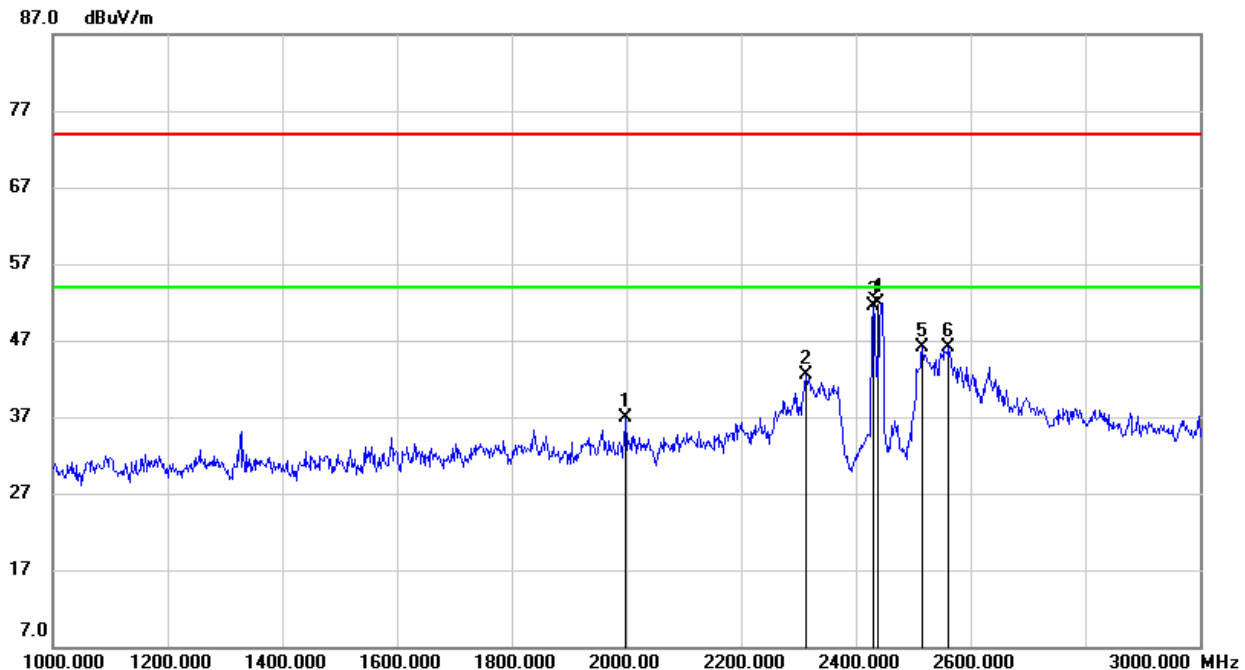
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1998.000	46.64	-9.83	36.81	74.00	-37.19	peak
2	2312.000	50.74	-8.15	42.59	74.00	-31.41	peak
3	2430.000	59.19	-7.65	51.54	74.00	-22.46	peak
4	2437.000	59.54	-7.60	51.94	/	/	fundamental
5	2516.000	53.31	-7.25	46.06	74.00	-27.94	peak
6	2562.000	53.64	-7.50	46.14	74.00	-27.86	peak

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

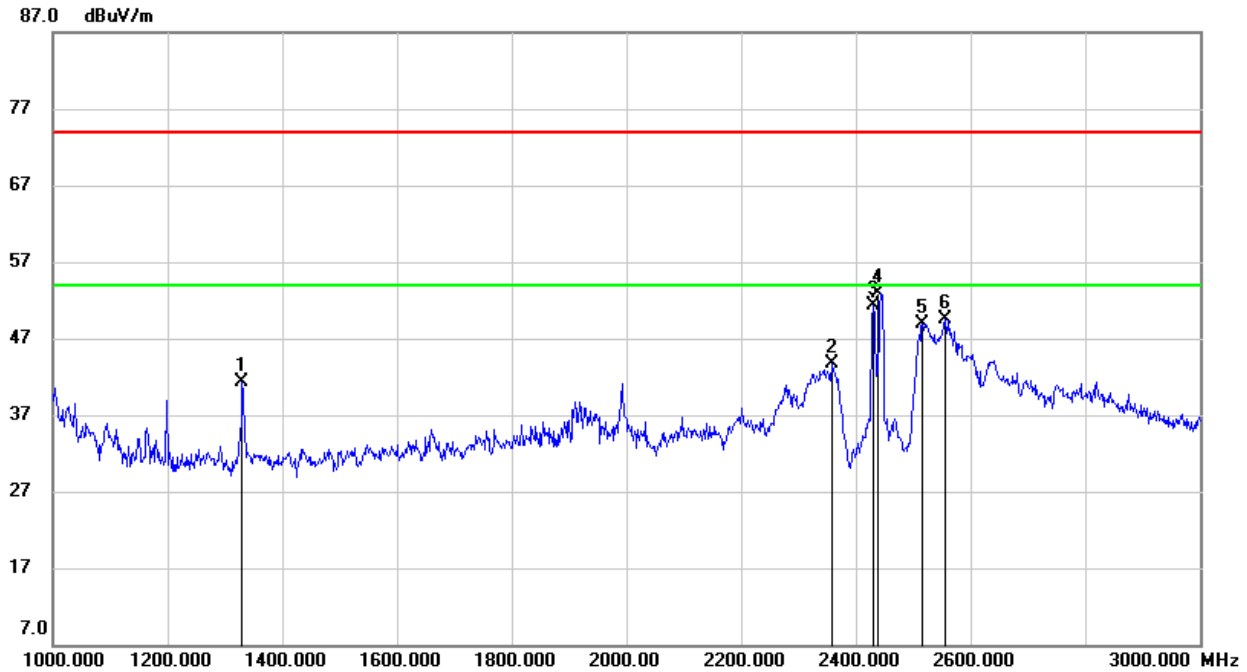
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

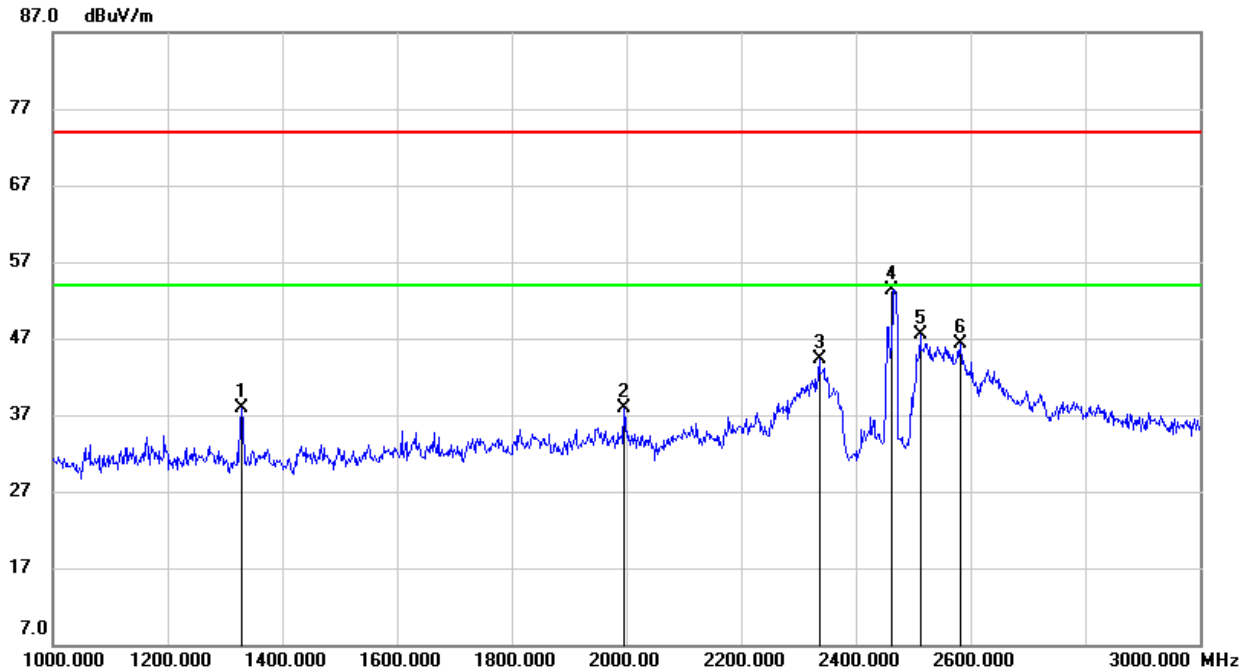
### HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1330.000	53.61	-12.36	41.25	74.00	-32.75	peak
2	2358.000	51.72	-8.00	43.72	74.00	-30.28	peak
3	2430.000	58.98	-7.65	51.33	74.00	-22.67	peak
4	2437.000	60.42	-7.60	52.82	/	/	fundamental
5	2516.000	56.12	-7.25	48.87	74.00	-25.13	peak
6	2556.000	57.01	-7.47	49.54	74.00	-24.46	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. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.  
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1330.000	50.17	-12.36	37.81	74.00	-36.19	peak
2	1996.000	47.80	-9.83	37.97	74.00	-36.03	peak
3	2336.000	52.42	-8.07	44.35	74.00	-29.65	peak
4	2462.000	60.72	-7.43	53.29	/	/	fundamental
5	2512.000	54.69	-7.23	47.46	74.00	-26.54	peak
6	2582.000	53.92	-7.60	46.32	74.00	-27.68	peak

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

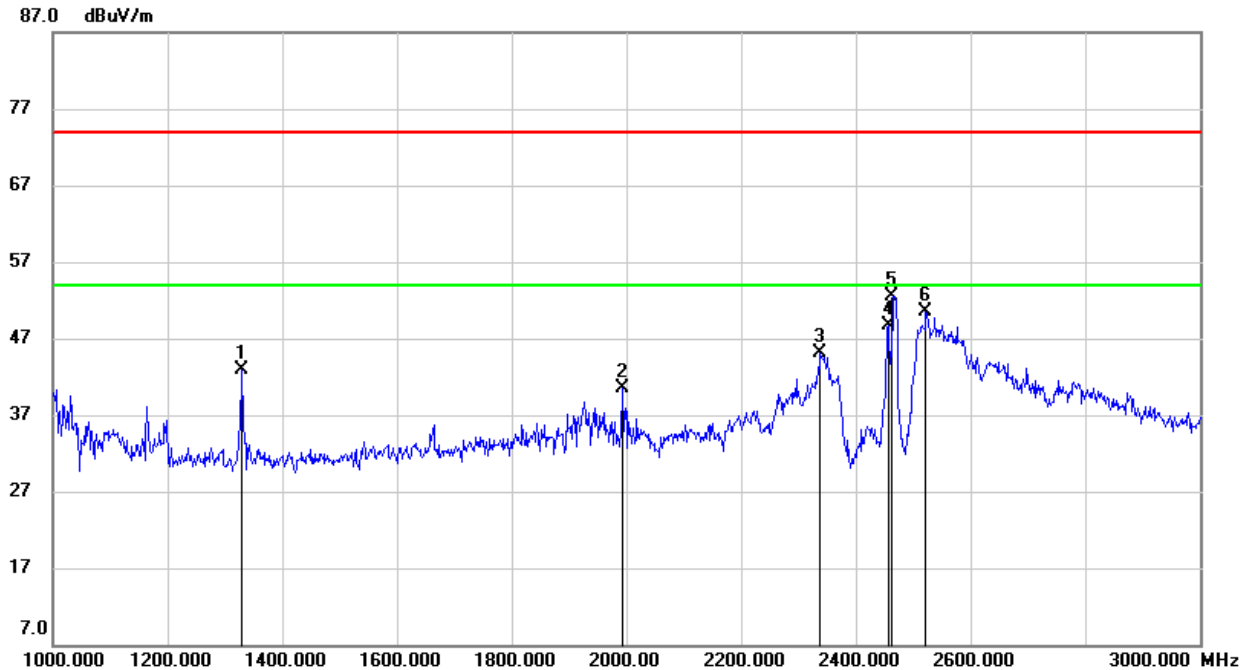
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1330.000	55.20	-12.36	42.84	74.00	-31.16	peak
2	1994.000	50.27	-9.83	40.44	74.00	-33.56	peak
3	2338.000	53.11	-8.06	45.05	74.00	-28.95	peak
4	2456.000	56.17	-7.47	48.70	74.00	-25.30	peak
5	2462.000	60.01	-7.43	52.58	/	/	fundamental
6	2522.000	57.78	-7.28	50.50	74.00	-23.50	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.

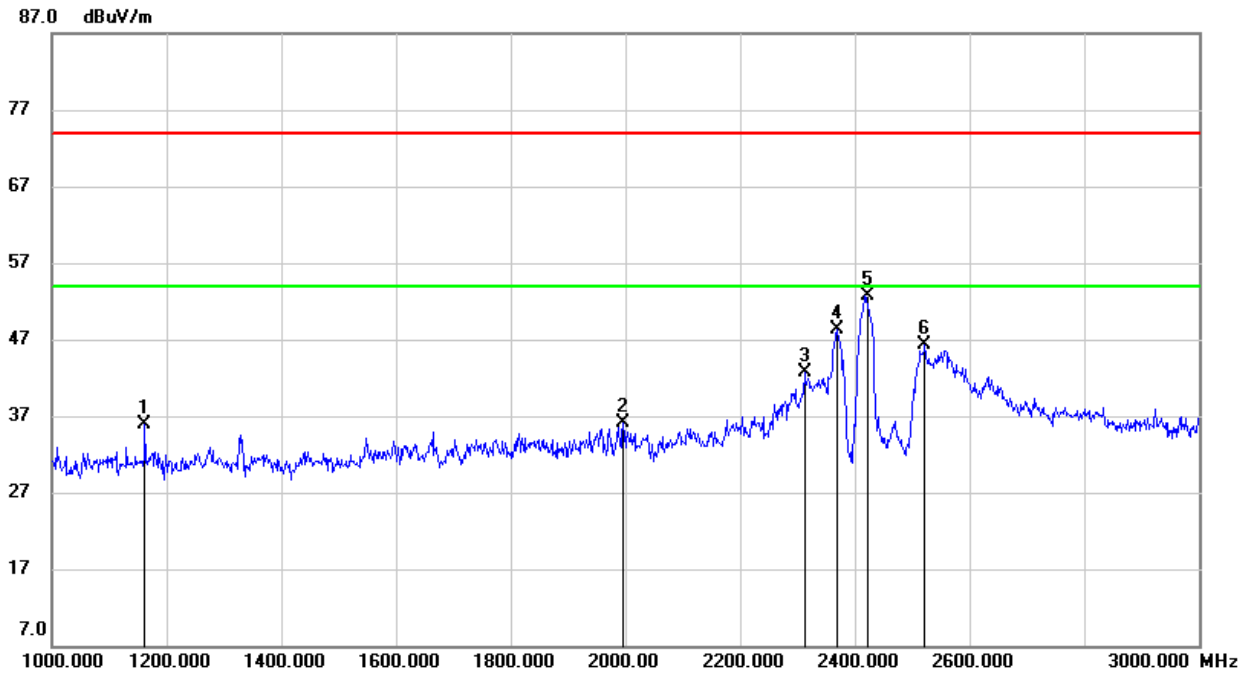
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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



## 8.2.4. 802.11n HT40 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	1162.000	48.98	-13.00	35.98	74.00	-38.02	peak
2	1996.000	45.99	-9.83	36.16	74.00	-37.84	peak
3	2312.000	50.81	-8.15	42.66	74.00	-31.34	peak
4	2368.000	56.20	-7.96	48.24	74.00	-25.76	peak
5	2422.000	60.35	-7.71	52.64	/	/	fundamental
6	2522.000	53.51	-7.28	46.23	74.00	-27.77	peak

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

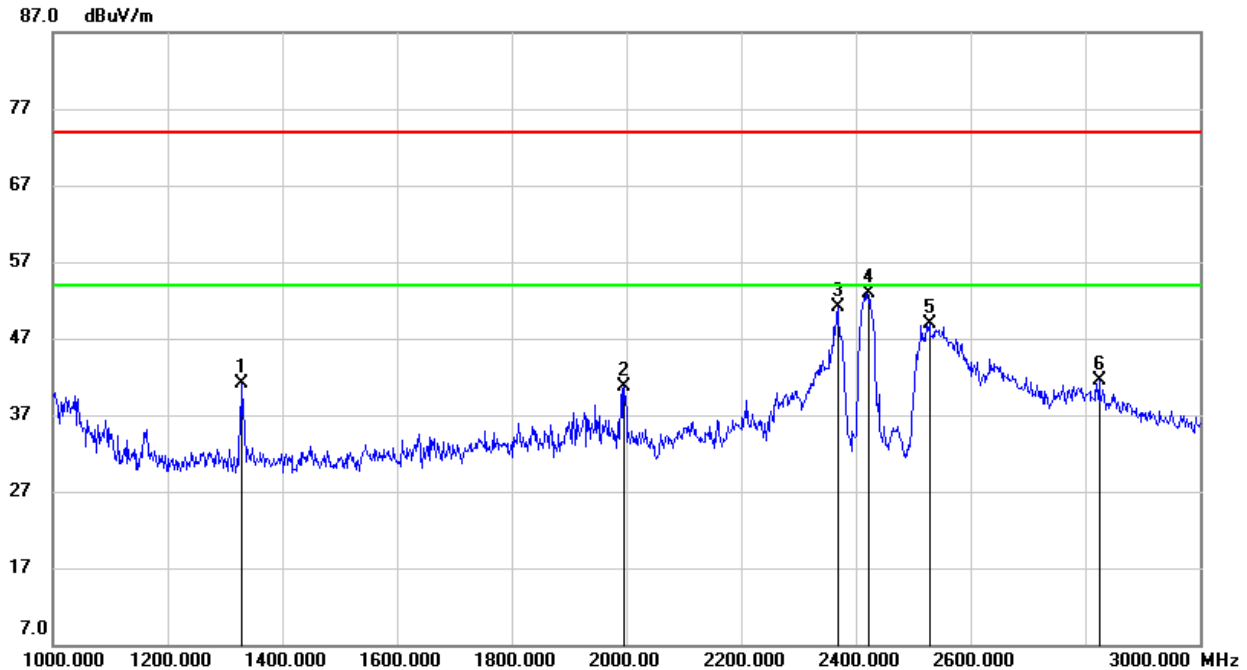
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1330.000	53.51	-12.36	41.15	74.00	-32.85	peak
2	1996.000	50.53	-9.83	40.70	74.00	-33.30	peak
3	2368.000	59.11	-7.96	51.15	74.00	-22.85	peak
4	2422.000	60.69	-7.71	52.98	/	/	fundamental
5	2528.000	56.19	-7.32	48.87	74.00	-25.13	peak
6	2824.000	47.44	-5.92	41.52	74.00	-32.48	peak

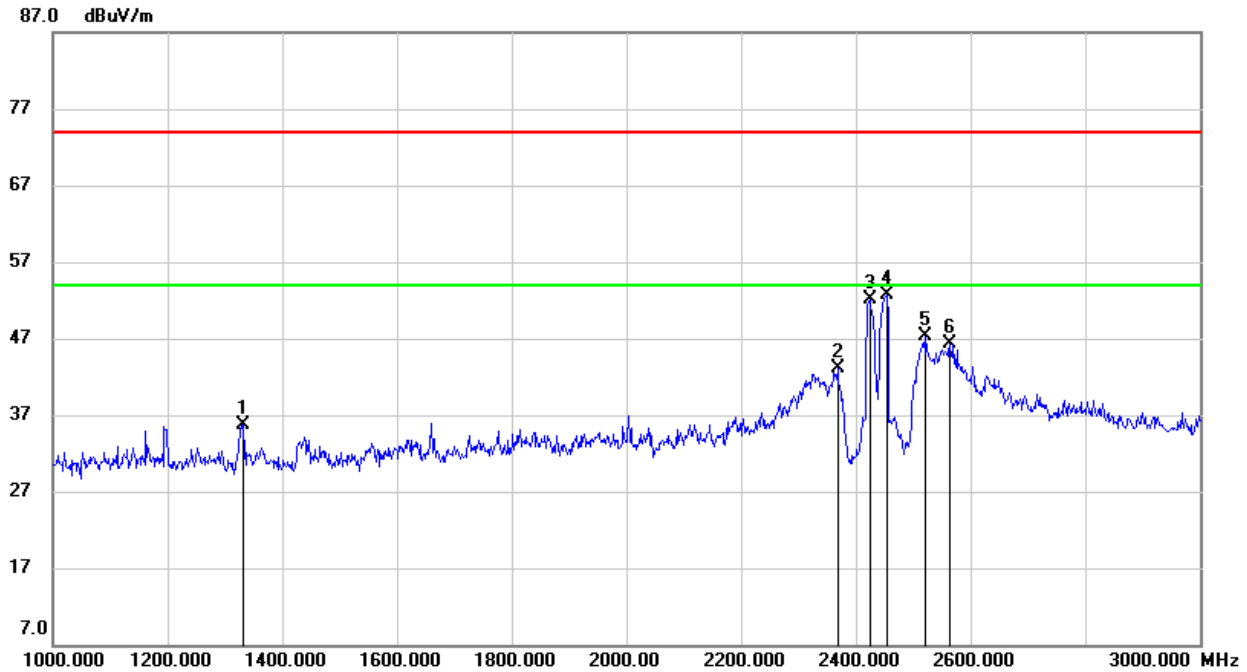
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1332.000	48.03	-12.35	35.68	74.00	-38.32	peak
2	2368.000	50.99	-7.96	43.03	74.00	-30.97	peak
3	2424.000	59.75	-7.70	52.05	74.00	-21.95	peak
4	2454.000	60.19	-7.48	52.71	74.00	-21.29	peak
5	2522.000	54.52	-7.28	47.24	74.00	-26.76	peak
6	2564.000	53.85	-7.51	46.34	74.00	-27.66	peak

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

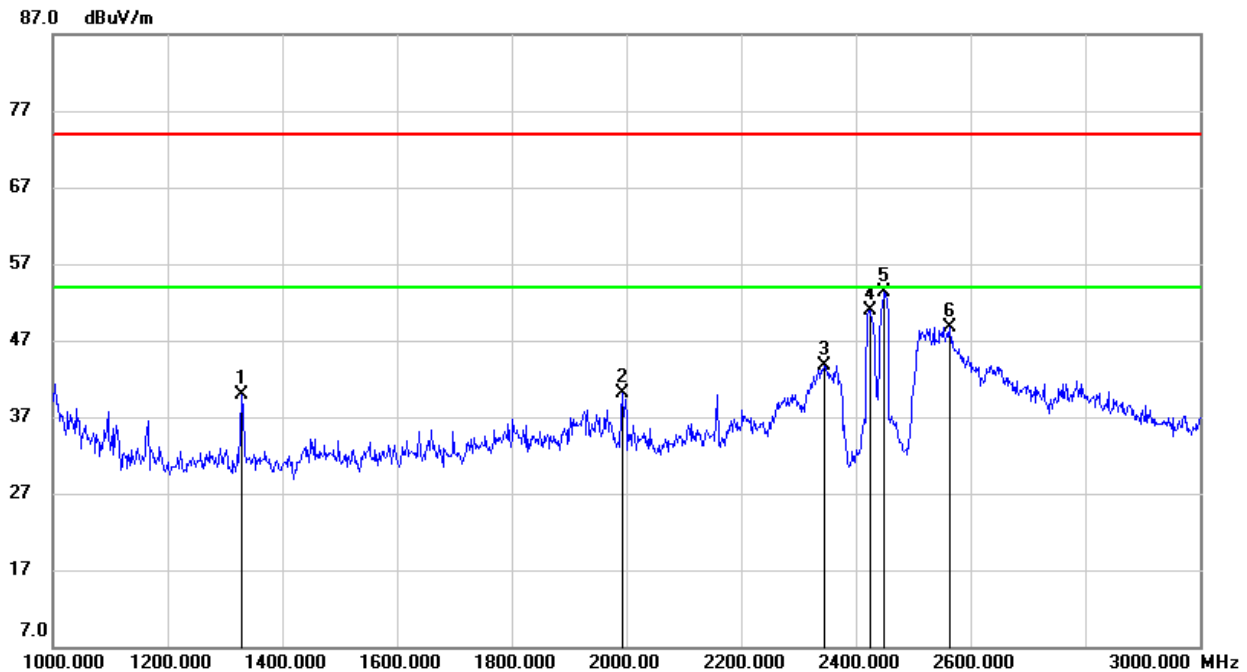
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1328.000	52.20	-12.36	39.84	74.00	-34.16	peak
2	1992.000	49.90	-9.83	40.07	74.00	-33.93	peak
3	2344.000	51.82	-8.05	43.77	74.00	-30.23	peak
4	2424.000	58.60	-7.70	50.90	74.00	-23.10	peak
5	2450.000	60.77	-7.51	53.26	74.00	-20.74	peak
6	2564.000	56.20	-7.51	48.69	74.00	-25.31	peak

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

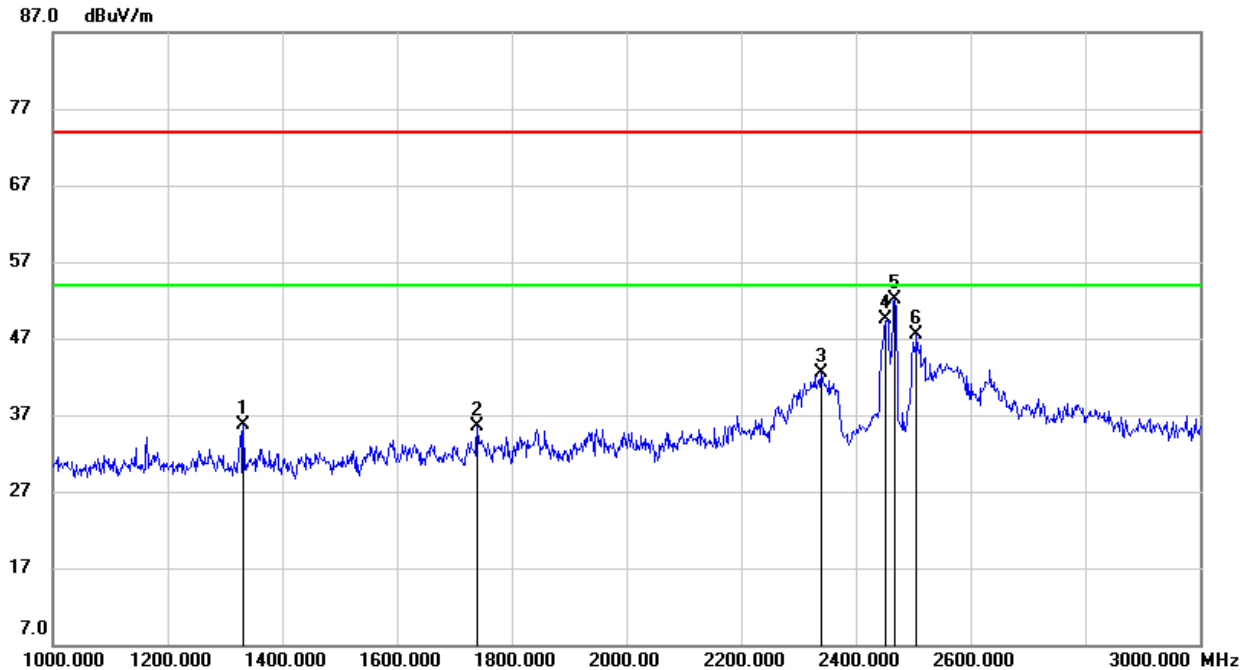
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1332.000	48.12	-12.35	35.77	74.00	-38.23	peak
2	1740.000	46.01	-10.51	35.50	74.00	-38.50	peak
3	2340.000	50.61	-8.06	42.55	74.00	-31.45	peak
4	2452.000	57.09	-7.50	49.59	/	/	fundamental
5	2468.000	59.56	-7.39	52.17	74.00	-21.83	peak
6	2506.000	54.80	-7.20	47.60	74.00	-26.40	peak

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

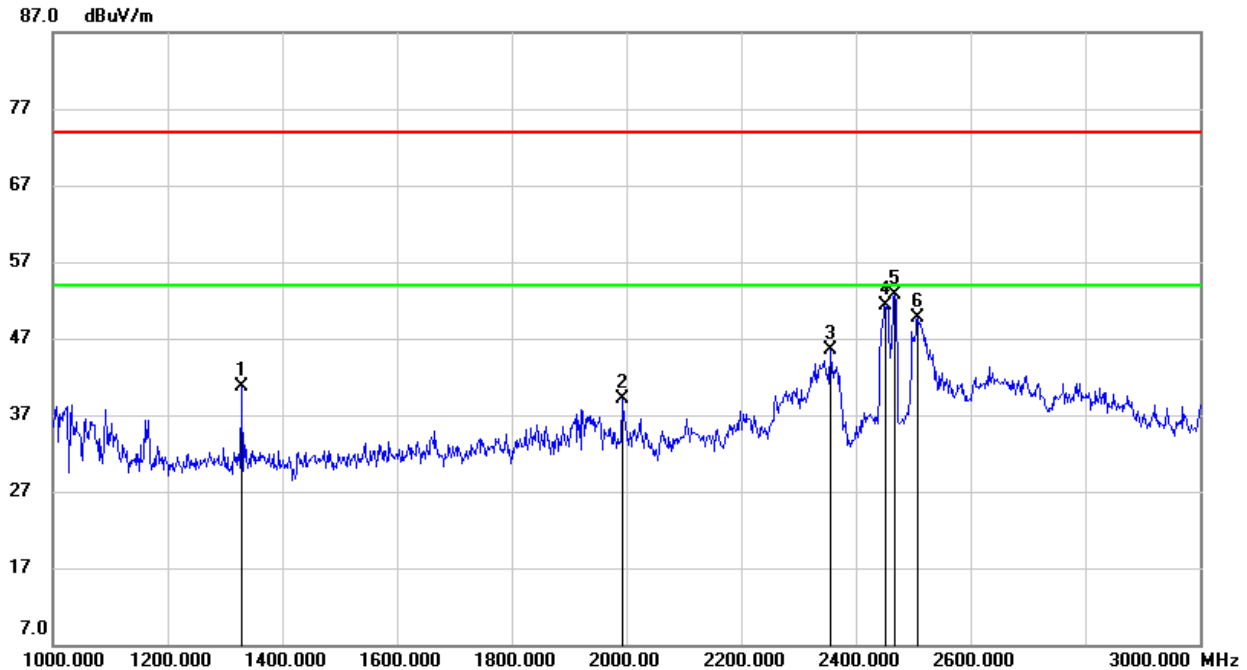
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

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

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1328.000	53.06	-12.36	40.70	74.00	-33.30	peak
2	1992.000	48.92	-9.83	39.09	74.00	-34.91	peak
3	2356.000	53.49	-8.00	45.49	74.00	-28.51	peak
4	2452.000	58.73	-7.50	51.23	/	/	fundamental
5	2468.000	60.02	-7.39	52.63	74.00	-21.37	peak
6	2508.000	56.93	-7.21	49.72	74.00	-24.28	peak

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

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

3. Peak: Peak detector.

4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.

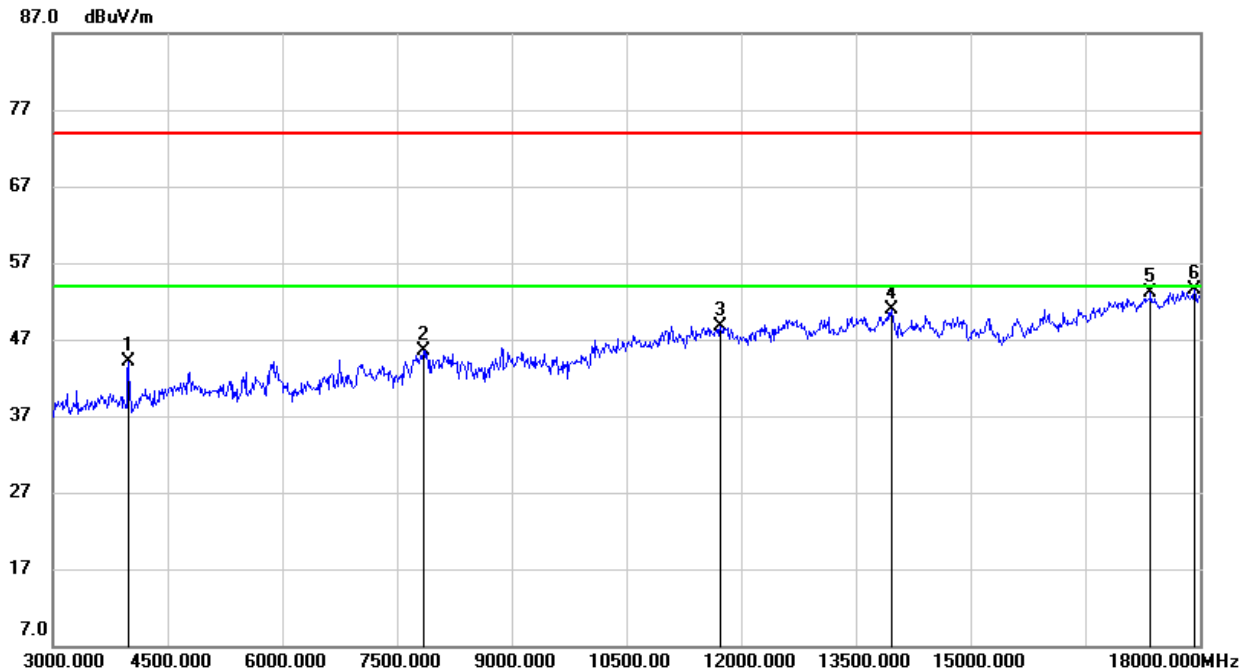
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

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

### 8.3. SPURIOUS EMISSIONS (3GHz ~ 18GHz)

#### 8.3.1. 802.11b 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	3990.000	46.91	-2.89	44.02	74.00	-29.98	peak
2	7845.000	37.95	7.62	45.57	74.00	-28.43	peak
3	11730.000	35.75	13.02	48.77	74.00	-25.23	peak
4	13965.000	34.82	16.09	50.91	74.00	-23.09	peak
5	17355.000	31.49	21.56	53.05	74.00	-20.95	peak
6	17925.000	30.11	23.37	53.48	74.00	-20.52	peak

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

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

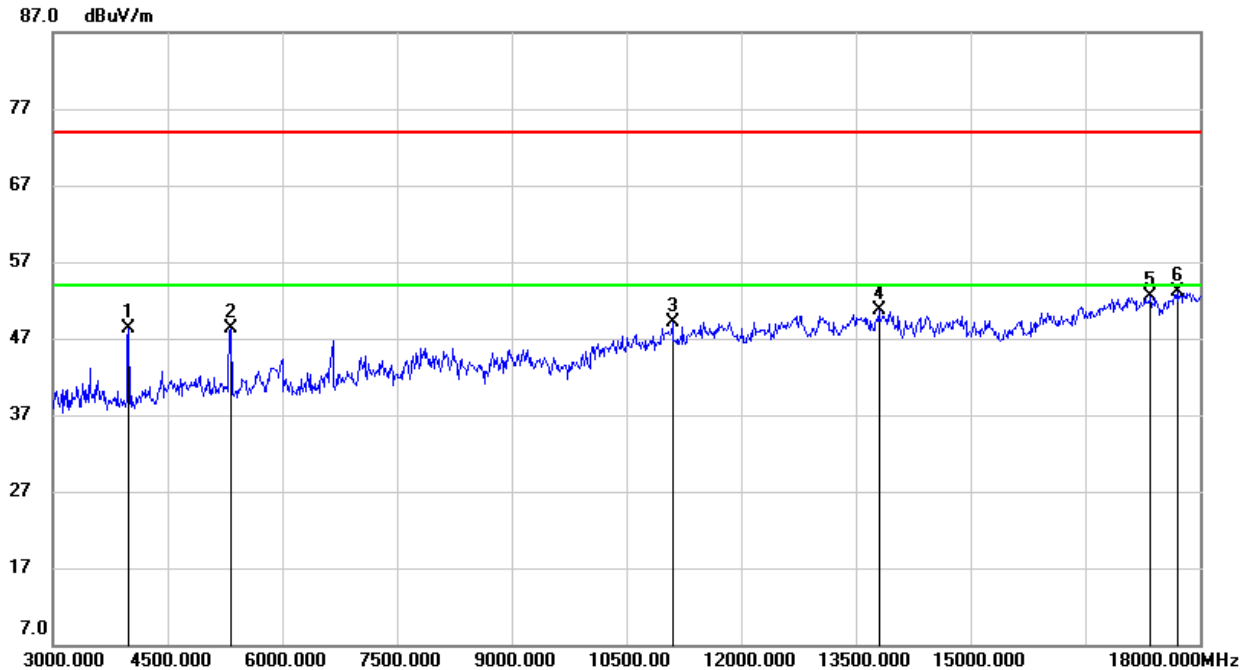
3. Peak: Peak detector.

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

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

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

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

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	51.28	-2.89	48.39	74.00	-25.61	peak
2	5325.000	46.28	1.99	48.27	74.00	-25.73	peak
3	11100.000	36.54	12.56	49.10	74.00	-24.90	peak
4	13800.000	33.70	17.10	50.80	74.00	-23.20	peak
5	17355.000	30.88	21.56	52.44	74.00	-21.56	peak
6	17715.000	30.46	22.56	53.02	74.00	-20.98	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. AVG:  $VBW=1/T_{on}$ , where:  $T_{on}$  is the transmitting duration.

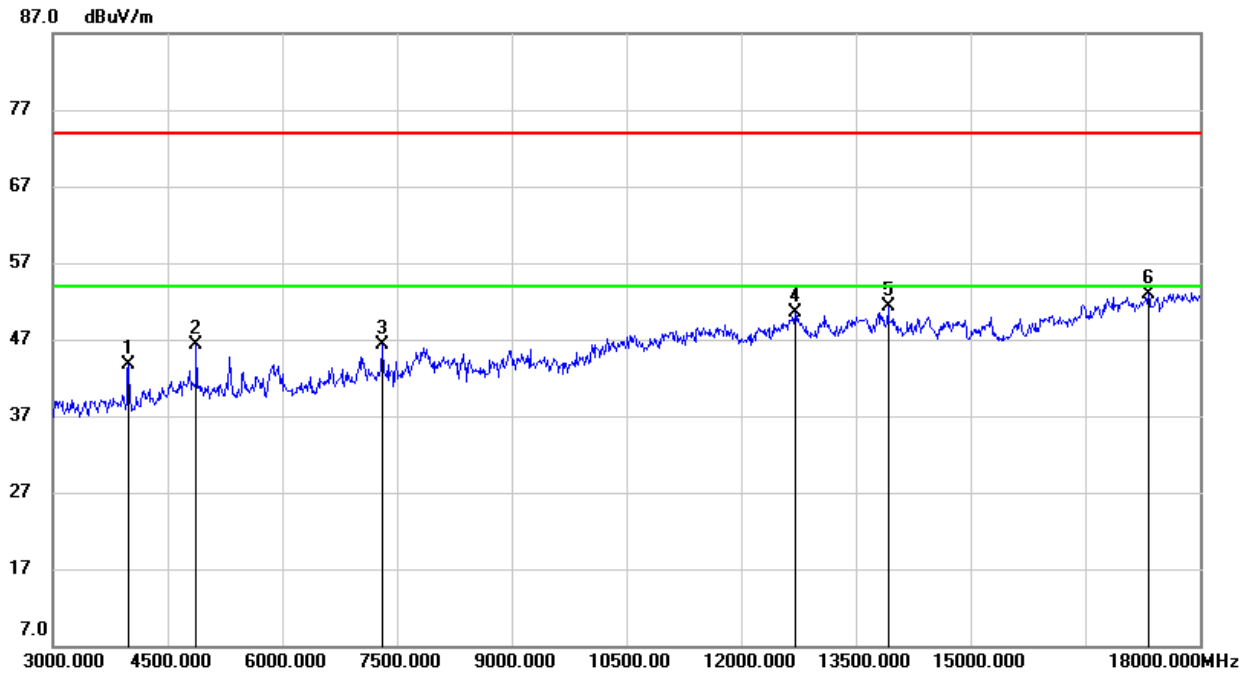
5. For the transmitting duration, please refer to clause 7.1.

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.

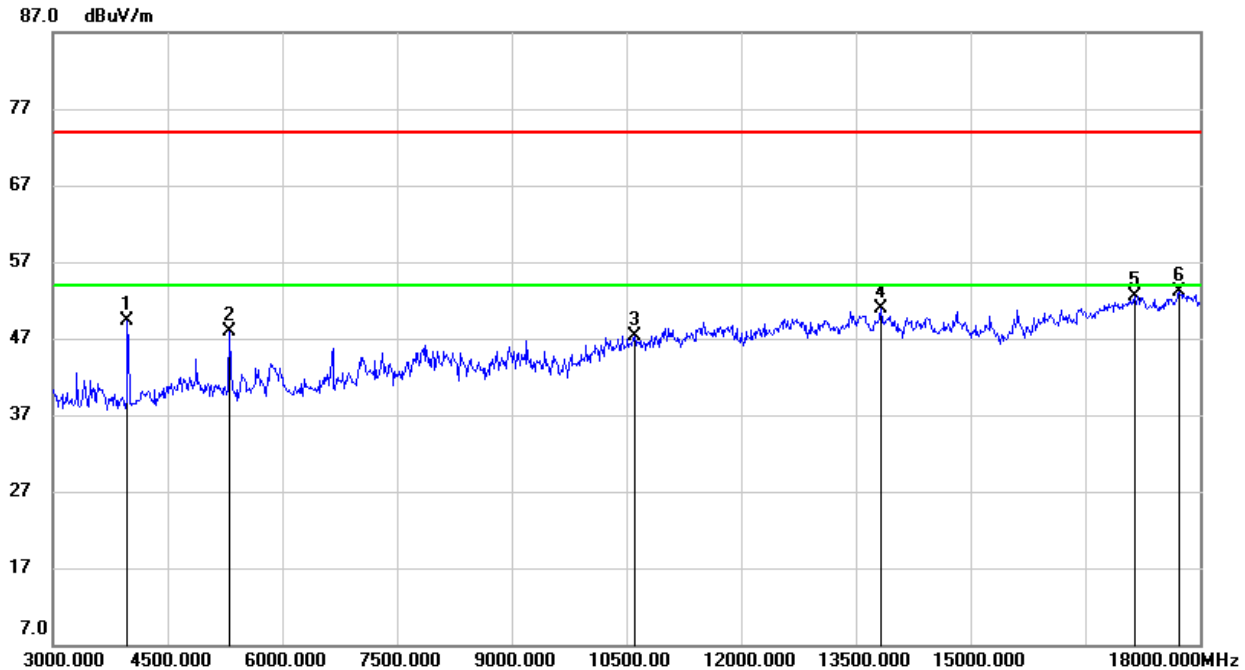


### HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	46.52	-2.89	43.63	74.00	-30.37	peak
2	4875.000	45.48	0.76	46.24	74.00	-27.76	peak
3	7305.000	40.22	6.08	46.30	74.00	-27.70	peak
4	12705.000	36.14	14.35	50.49	74.00	-23.51	peak
5	13920.000	35.09	16.17	51.26	74.00	-22.74	peak
6	17325.000	31.28	21.67	52.95	74.00	-21.05	peak

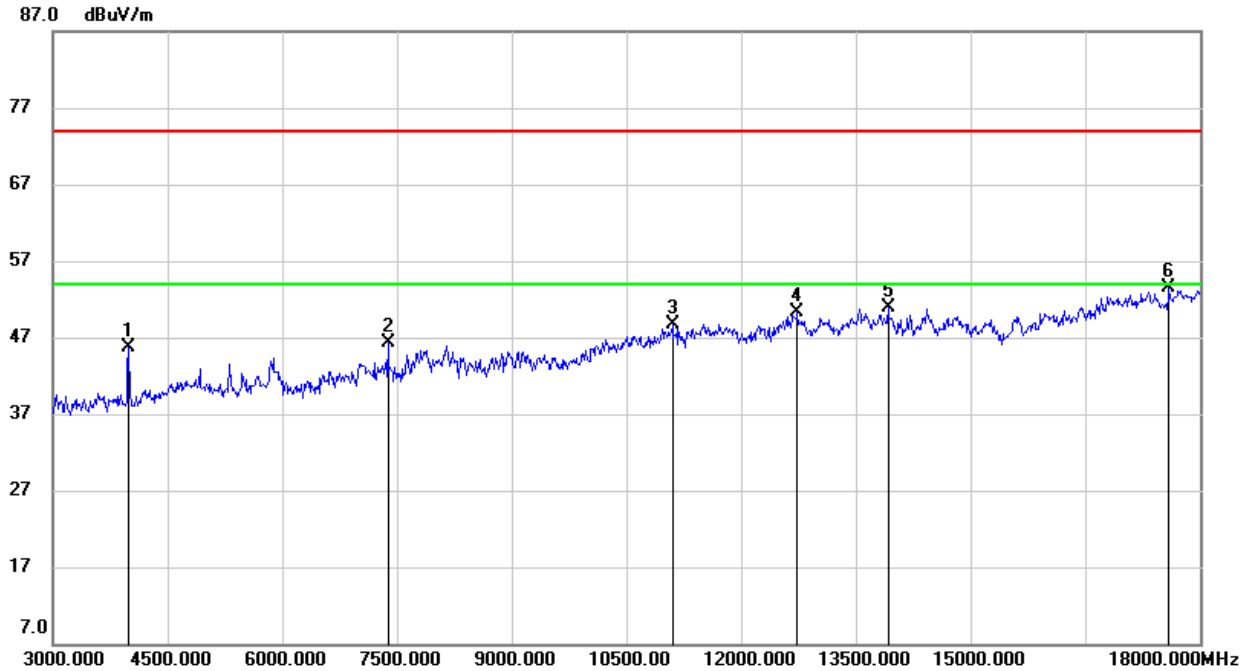
- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. AVG:  $VBW=1/Ton$ , where: Ton is the transmitting duration.  
5. For the transmitting duration, please refer to clause 7.1.  
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, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3975.000	52.27	-2.90	49.37	74.00	-24.63	peak
2	5310.000	45.84	2.02	47.86	74.00	-26.14	peak
3	10605.000	35.45	11.93	47.38	74.00	-26.62	peak
4	13830.000	34.05	16.84	50.89	74.00	-23.11	peak
5	17145.000	31.74	20.77	52.51	74.00	-21.49	peak
6	17730.000	30.36	22.70	53.06	74.00	-20.94	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. 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 (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	48.62	-2.89	45.73	74.00	-28.27	peak
2	7380.000	39.88	6.41	46.29	74.00	-27.71	peak
3	11100.000	36.11	12.56	48.67	74.00	-25.33	peak
4	12735.000	35.53	14.77	50.30	74.00	-23.70	peak
5	13920.000	34.79	16.17	50.96	74.00	-23.04	peak
6	17595.000	31.72	21.77	53.49	74.00	-20.51	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.

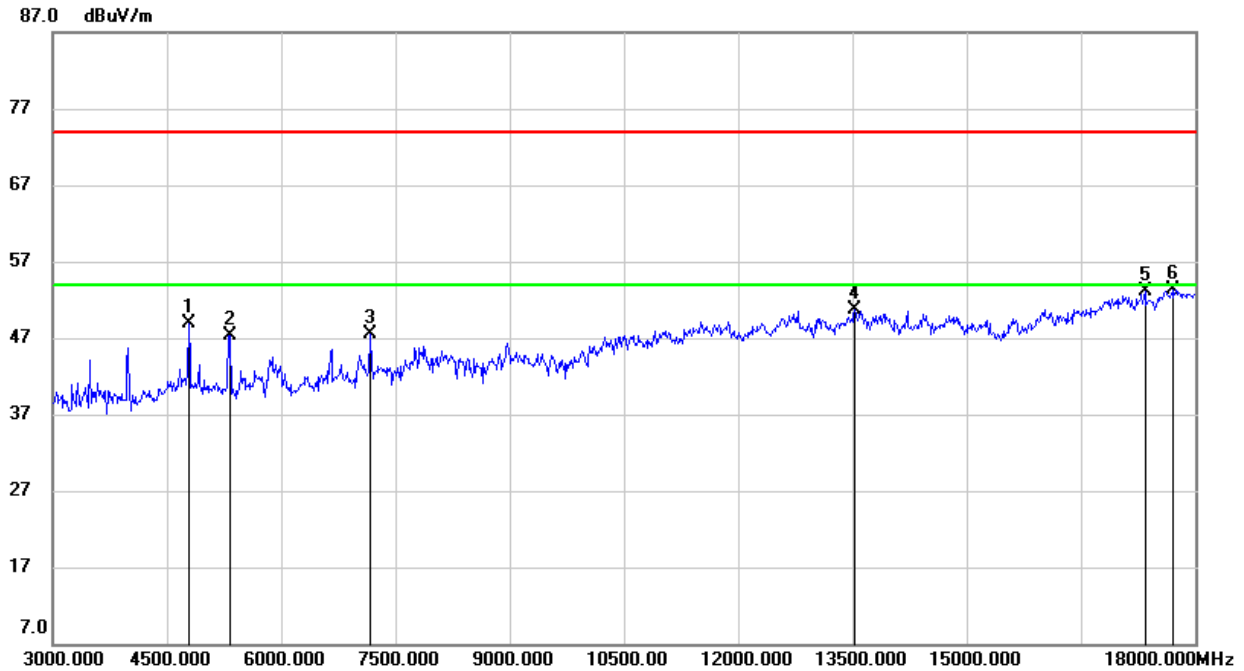
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

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 (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4785.000	48.53	0.42	48.95	74.00	-25.05	peak
2	5325.000	45.35	1.99	47.34	74.00	-26.66	peak
3	7170.000	41.57	5.84	47.41	74.00	-26.59	peak
4	13530.000	34.87	15.86	50.73	74.00	-23.27	peak
5	17340.000	31.50	21.61	53.11	74.00	-20.89	peak
6	17715.000	30.83	22.56	53.39	74.00	-20.61	peak

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

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

3. Peak: Peak detector.

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

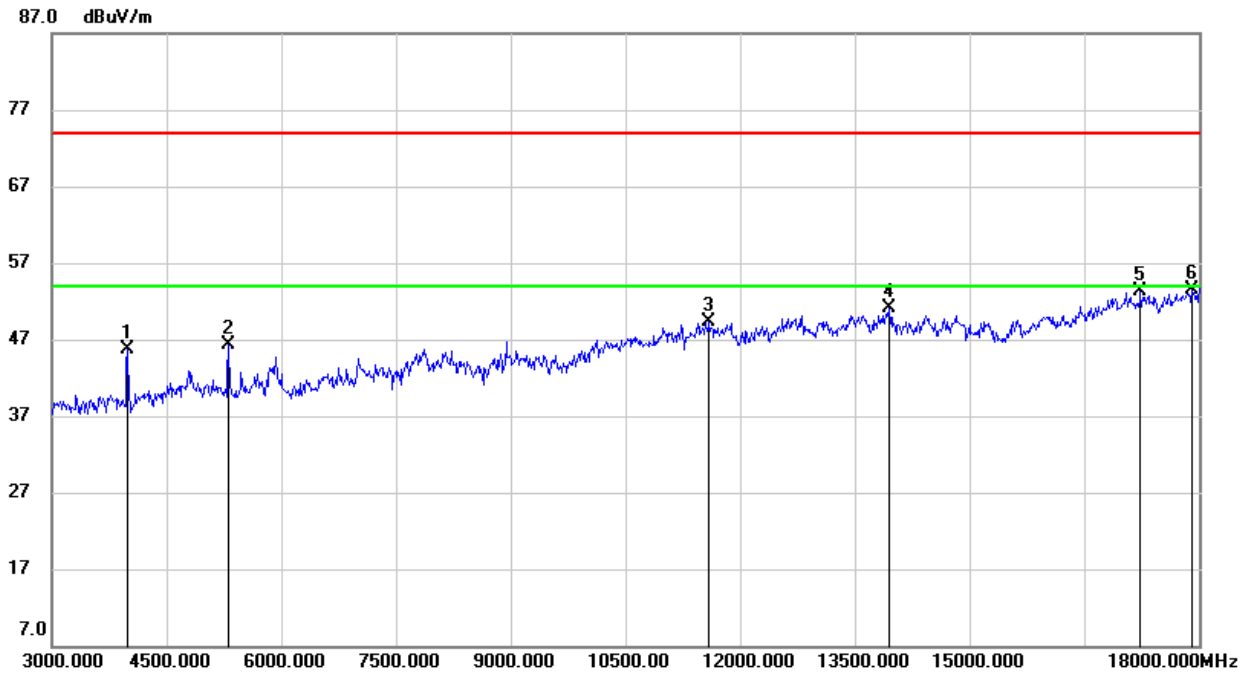
5. For the transmitting duration, please refer to clause 7.1.

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

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

### 8.3.2. 802.11g 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	3990.000	48.69	-2.89	45.80	74.00	-28.20	peak
2	5310.000	44.31	2.02	46.33	74.00	-27.67	peak
3	11595.000	36.20	13.19	49.39	74.00	-24.61	peak
4	13950.000	35.03	16.11	51.14	74.00	-22.86	peak
5	17235.000	32.02	21.21	53.23	74.00	-20.77	peak
6	17910.000	30.20	23.35	53.55	74.00	-20.45	peak

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

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

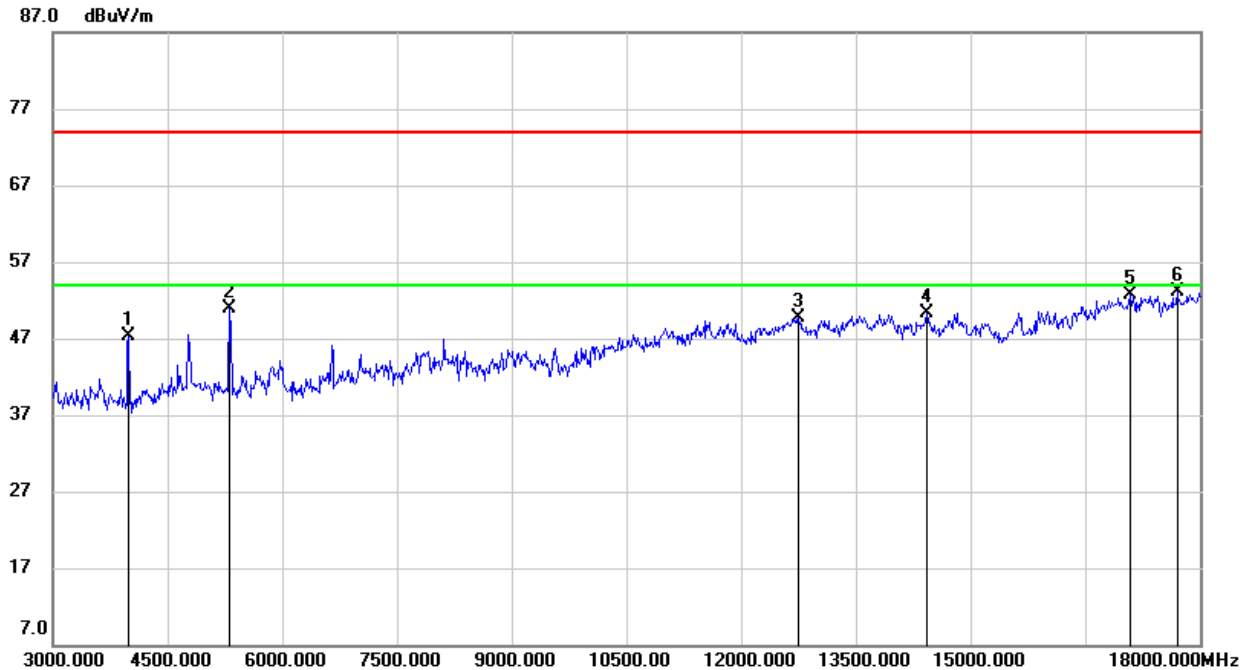
3. Peak: Peak detector.

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

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

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

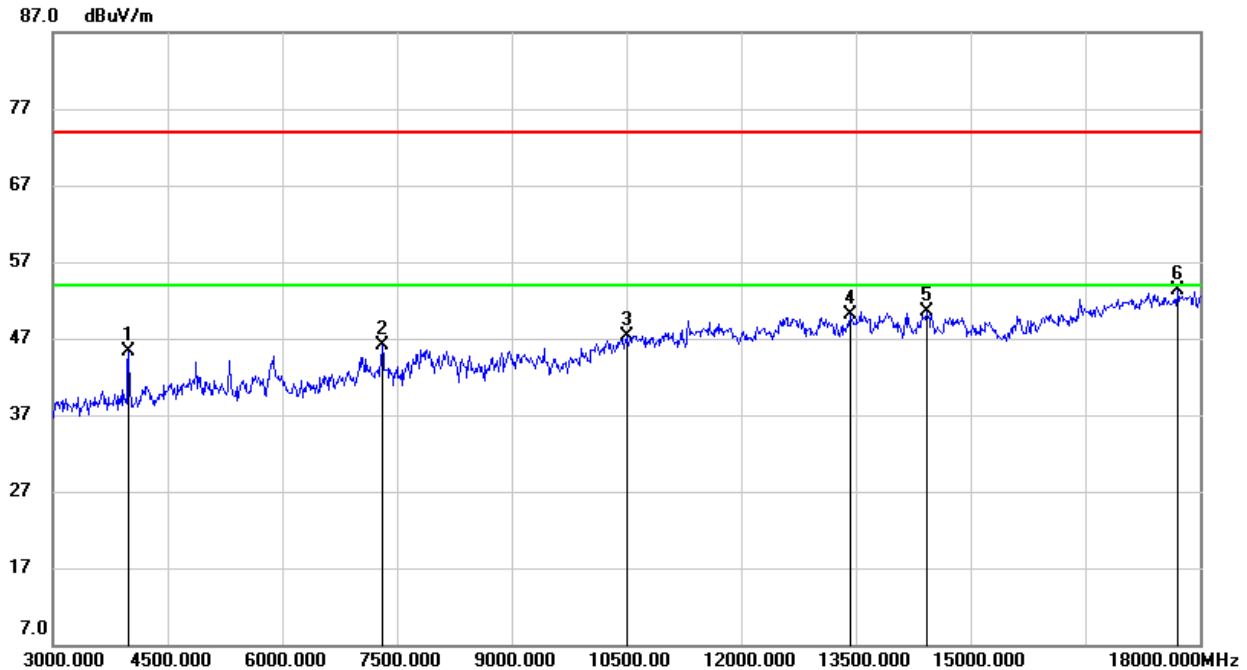
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	50.25	-2.89	47.36	74.00	-26.64	peak
2	5310.000	48.84	2.02	50.86	74.00	-23.14	peak
3	12750.000	34.67	14.98	49.65	74.00	-24.35	peak
4	14430.000	34.02	16.35	50.37	74.00	-23.63	peak
5	17085.000	32.18	20.60	52.78	74.00	-21.22	peak
6	17700.000	30.68	22.43	53.11	74.00	-20.89	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. 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.

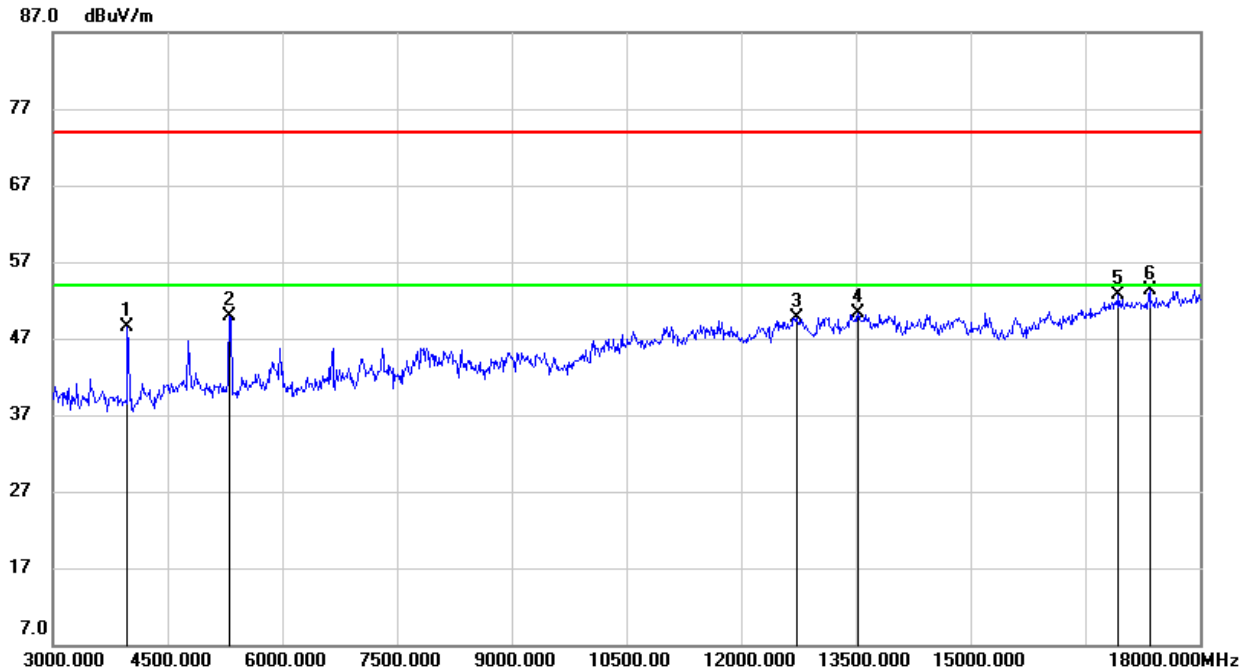
### HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	48.17	-2.89	45.28	74.00	-28.72	peak
2	7305.000	39.97	6.08	46.05	74.00	-27.95	peak
3	10515.000	35.89	11.47	47.36	74.00	-26.64	peak
4	13425.000	34.02	16.02	50.04	74.00	-23.96	peak
5	14430.000	34.12	16.35	50.47	74.00	-23.53	peak
6	17715.000	30.84	22.56	53.40	74.00	-20.60	peak

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

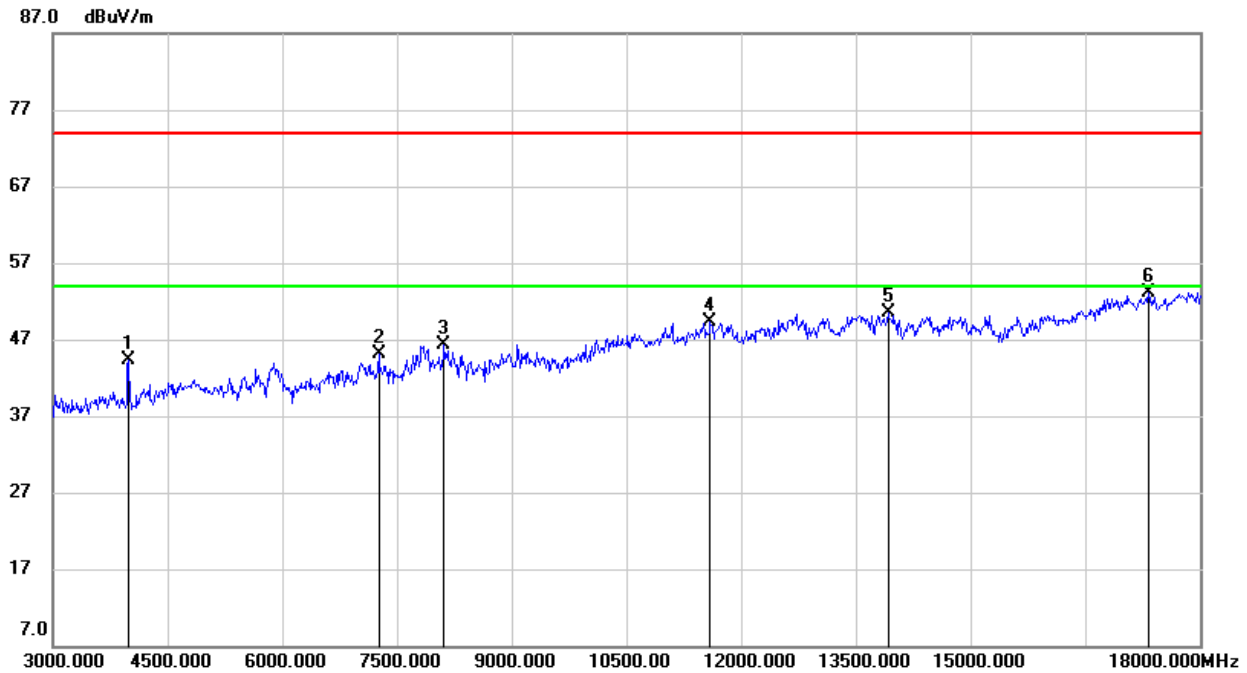


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3975.000	51.50	-2.90	48.60	74.00	-25.40	peak
2	5310.000	47.81	2.02	49.83	74.00	-24.17	peak
3	12720.000	35.09	14.57	49.66	74.00	-24.34	peak
4	13530.000	34.37	15.86	50.23	74.00	-23.77	peak
5	16935.000	32.55	20.12	52.67	74.00	-21.33	peak
6	17340.000	31.79	21.61	53.40	74.00	-20.60	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. 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.

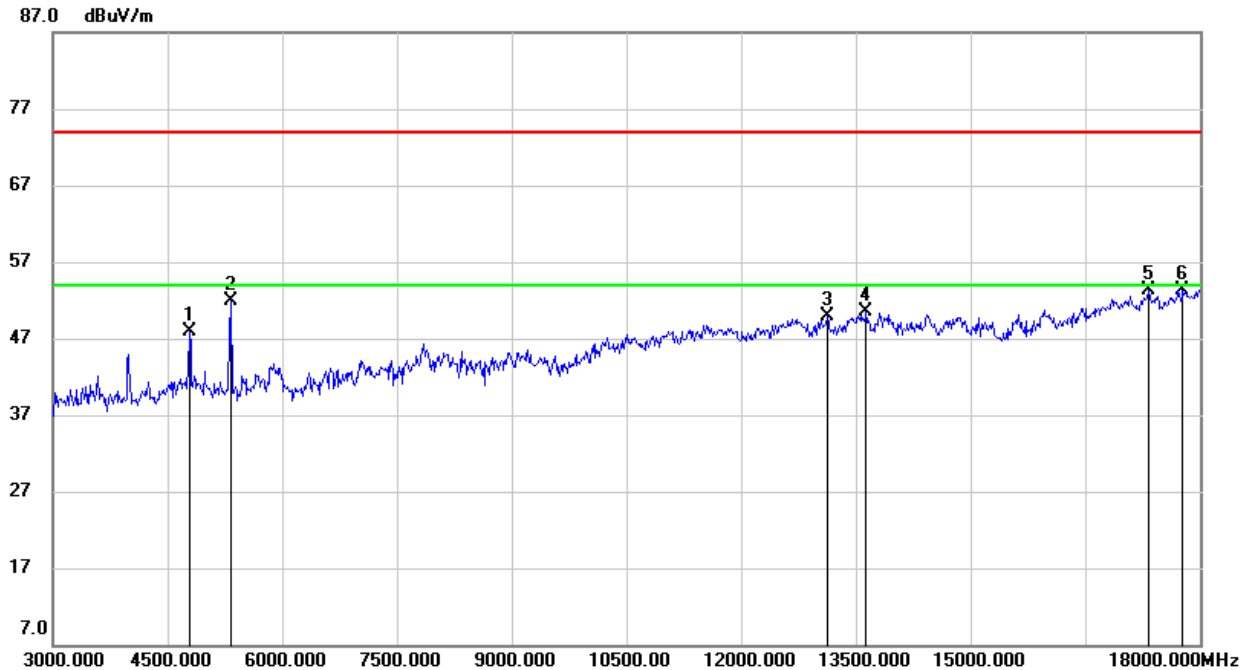


### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	47.10	-2.89	44.21	74.00	-29.79	peak
2	7260.000	39.14	5.97	45.11	74.00	-28.89	peak
3	8115.000	38.32	7.90	46.22	74.00	-27.78	peak
4	11595.000	36.02	13.19	49.21	74.00	-24.79	peak
5	13920.000	34.24	16.17	50.41	74.00	-23.59	peak
6	17325.000	31.38	21.67	53.05	74.00	-20.95	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. 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.

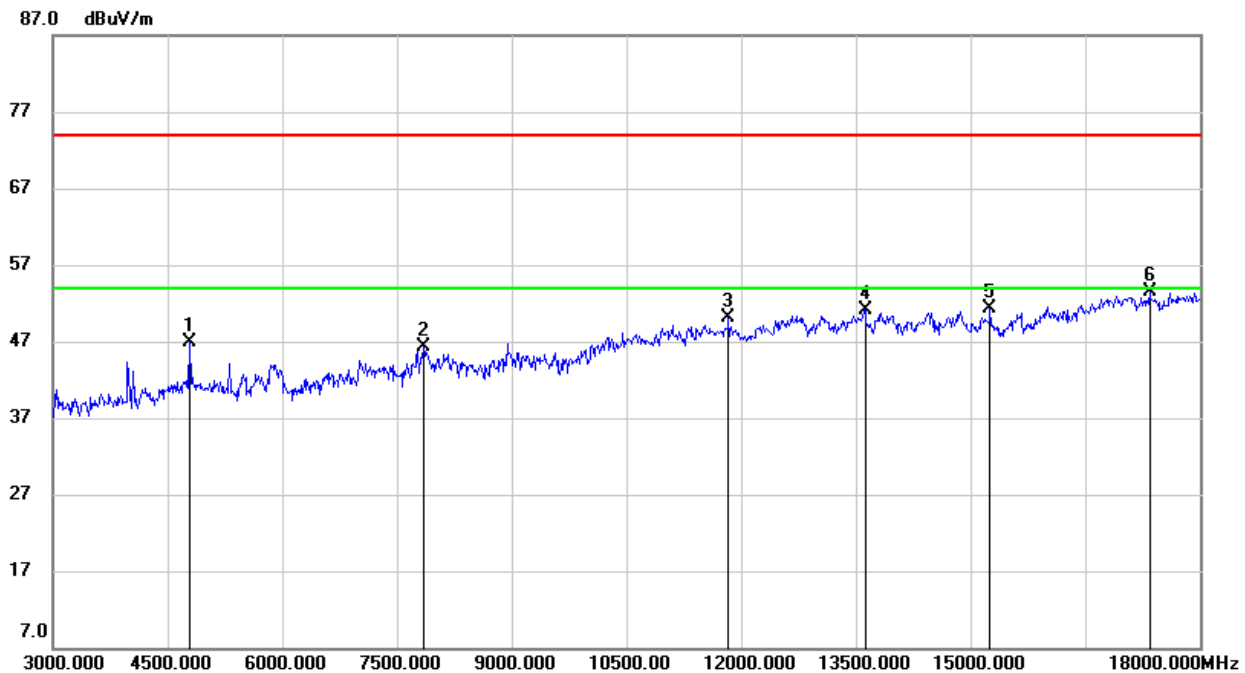
**HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4785.000	47.42	0.42	47.84	74.00	-26.16	peak
2	5325.000	49.83	1.99	51.82	74.00	-22.18	peak
3	13125.000	34.69	15.17	49.86	74.00	-24.14	peak
4	13635.000	34.53	15.97	50.50	74.00	-23.50	peak
5	17325.000	31.58	21.67	53.25	74.00	-20.75	peak
6	17775.000	30.22	23.09	53.31	74.00	-20.69	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. AVG:  $VBW=1/Ton$ , where: Ton is the transmitting duration.  
5. For the transmitting duration, please refer to clause 7.1.  
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.  
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.

### 8.3.3. 802.11n HT20 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	4785.000	46.43	0.42	46.85	74.00	-27.15	peak
2	7845.000	38.62	7.62	46.24	74.00	-27.76	peak
3	11835.000	36.86	13.21	50.07	74.00	-23.93	peak
4	13620.000	35.19	15.99	51.18	74.00	-22.82	peak
5	15255.000	35.02	16.20	51.22	74.00	-22.78	peak
6	17340.000	31.82	21.61	53.43	74.00	-20.57	peak

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

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

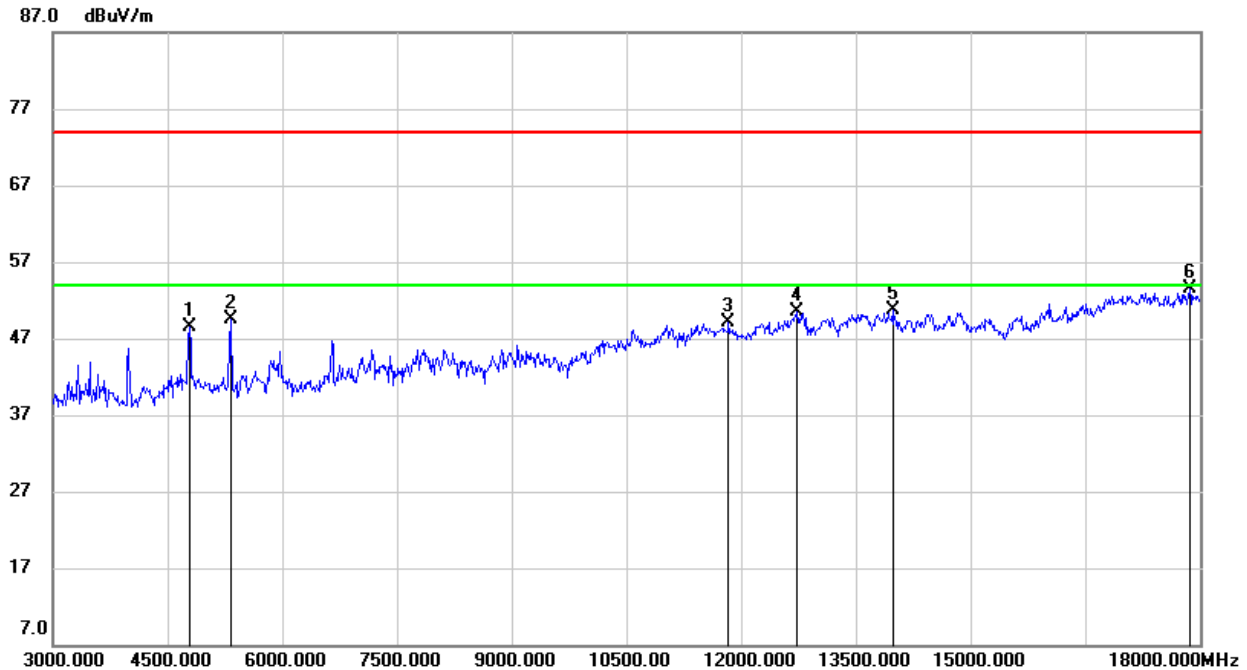
3. Peak: Peak detector.

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

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

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

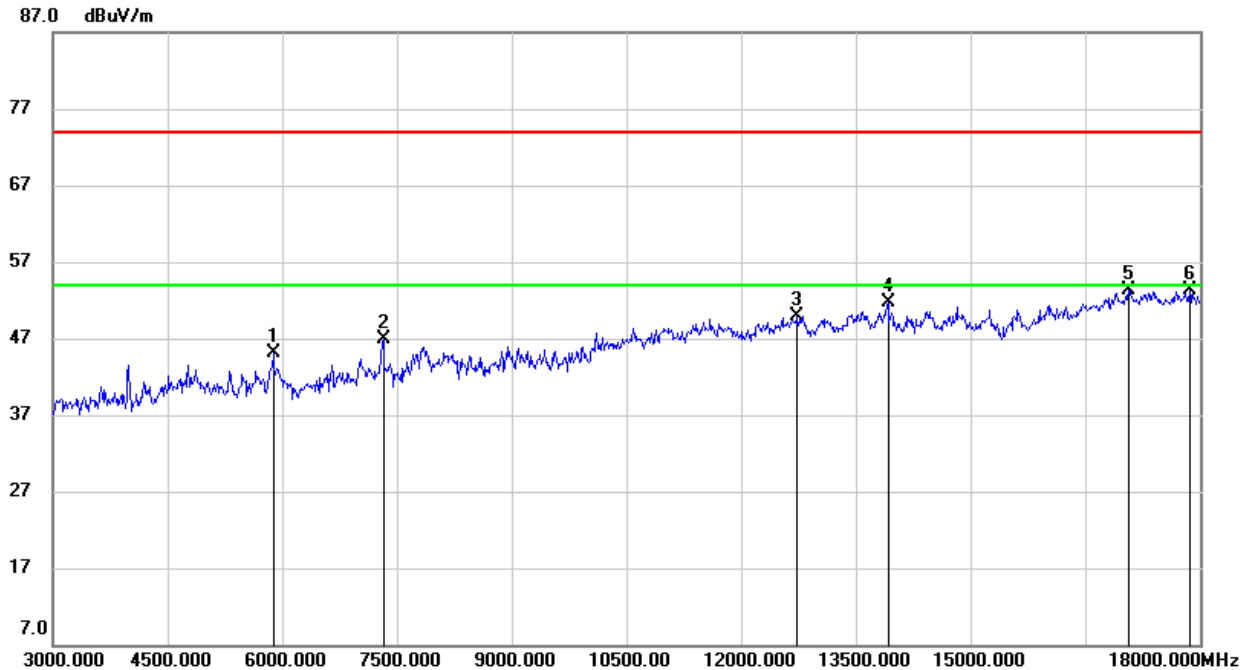
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4785.000	48.03	0.42	48.45	74.00	-25.55	peak
2	5325.000	47.51	1.99	49.50	74.00	-24.50	peak
3	11835.000	35.84	13.21	49.05	74.00	-24.95	peak
4	12735.000	35.69	14.77	50.46	74.00	-23.54	peak
5	13980.000	34.57	16.07	50.64	74.00	-23.36	peak
6	17865.000	30.10	23.33	53.43	74.00	-20.57	peak

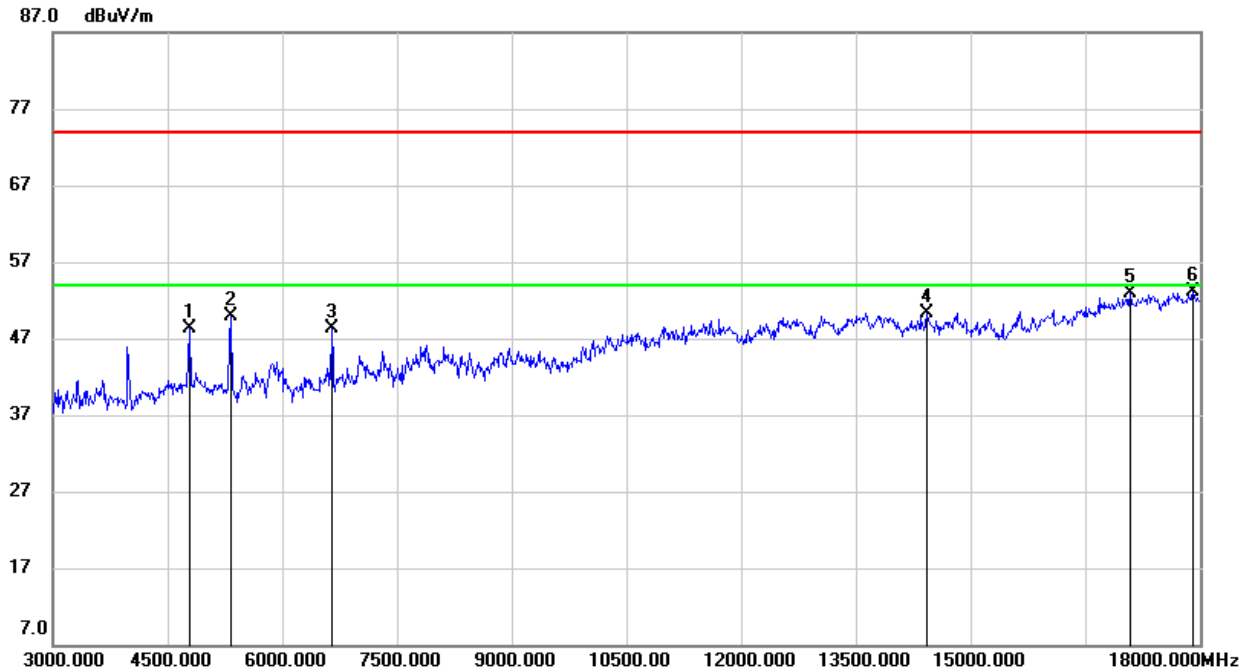
- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. AVG:  $VBW=1/Ton$ , where: Ton is the transmitting duration.  
5. For the transmitting duration, please refer to clause 7.1.  
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	5880.000	40.42	4.59	45.01	74.00	-28.99	peak
2	7320.000	40.74	6.14	46.88	74.00	-27.12	peak
3	12735.000	35.10	14.77	49.87	74.00	-24.13	peak
4	13920.000	35.51	16.17	51.68	74.00	-22.32	peak
5	17070.000	32.71	20.57	53.28	74.00	-20.72	peak
6	17865.000	30.01	23.33	53.34	74.00	-20.66	peak

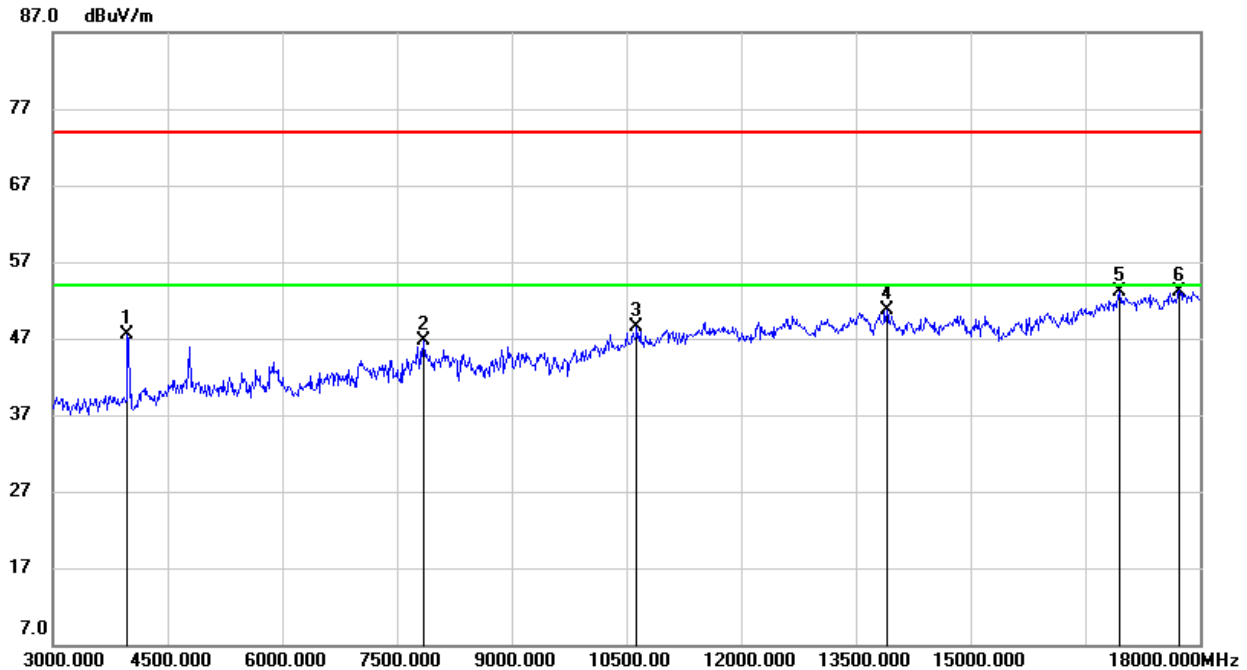
- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. AVG:  $VBW=1/Ton$ , where: Ton is the transmitting duration.  
5. For the transmitting duration, please refer to clause 7.1.  
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, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4785.000	47.85	0.42	48.27	74.00	-25.73	peak
2	5325.000	48.01	1.99	50.00	74.00	-24.00	peak
3	6645.000	43.14	5.22	48.36	74.00	-25.64	peak
4	14430.000	33.97	16.35	50.32	74.00	-23.68	peak
5	17085.000	32.27	20.60	52.87	74.00	-21.13	peak
6	17910.000	29.75	23.35	53.10	74.00	-20.90	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. 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.

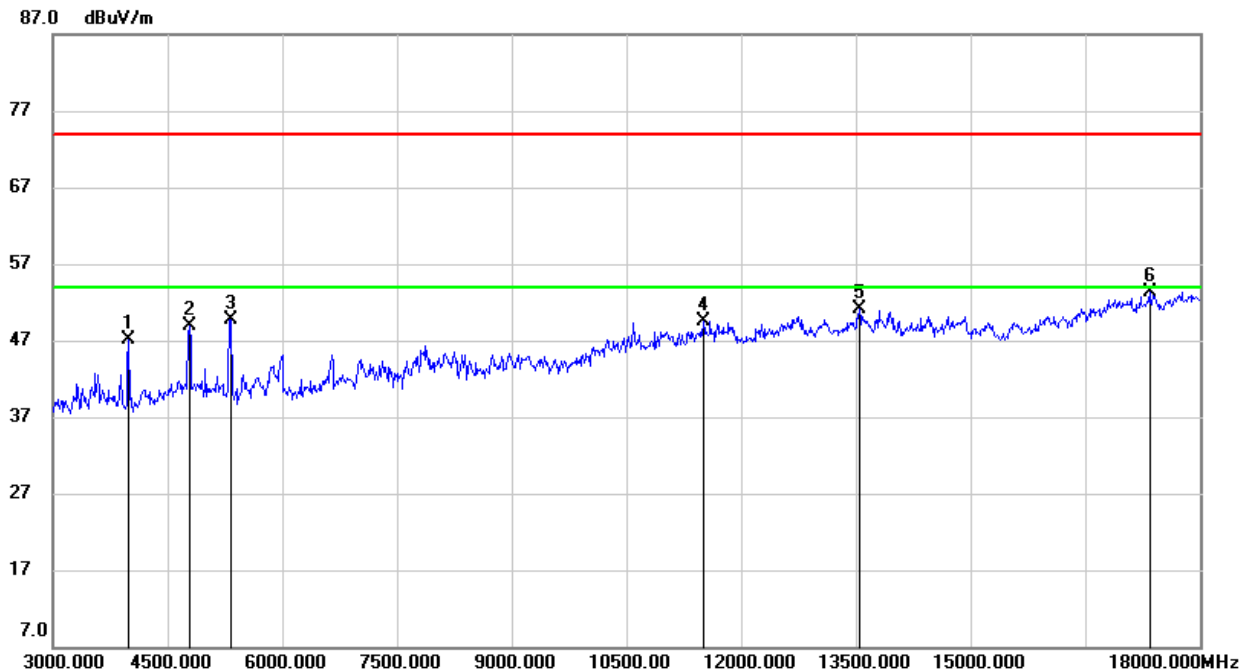
### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3975.000	50.45	-2.90	47.55	74.00	-26.45	peak
2	7845.000	39.06	7.62	46.68	74.00	-27.32	peak
3	10635.000	36.75	11.84	48.59	74.00	-25.41	peak
4	13905.000	34.47	16.20	50.67	74.00	-23.33	peak
5	16950.000	32.83	20.18	53.01	74.00	-20.99	peak
6	17730.000	30.50	22.70	53.20	74.00	-20.80	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. 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 (HIGH CHANNEL, VERTICAL)



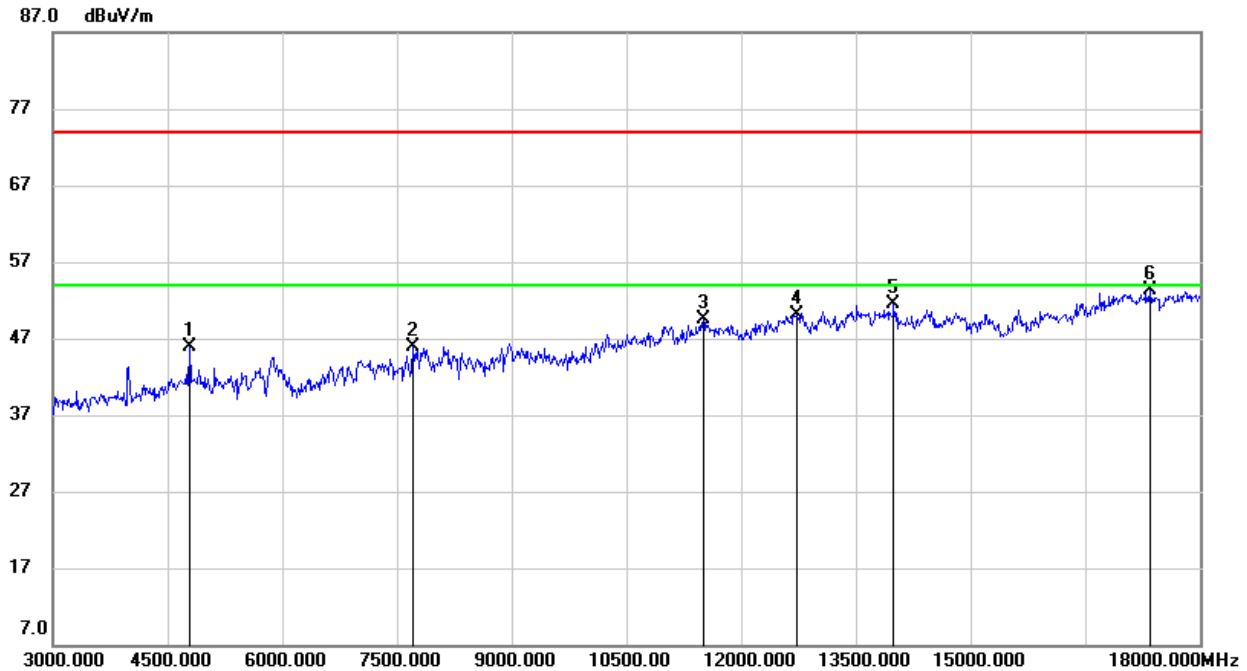
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	49.92	-2.89	47.03	74.00	-26.97	peak
2	4785.000	48.44	0.42	48.86	74.00	-25.14	peak
3	5325.000	47.74	1.99	49.73	74.00	-24.27	peak
4	11505.000	36.09	13.42	49.51	74.00	-24.49	peak
5	13545.000	35.21	15.89	51.10	74.00	-22.90	peak
6	17340.000	31.76	21.61	53.37	74.00	-20.63	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. AVG:  $VBW=1/Ton$ , where: Ton is the transmitting duration.  
5. For the transmitting duration, please refer to clause 7.1.  
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.  
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.



### 8.3.4. 802.11n HT40 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	4785.000	45.43	0.42	45.85	74.00	-28.15	peak
2	7710.000	39.30	6.64	45.94	74.00	-28.06	peak
3	11505.000	36.01	13.42	49.43	74.00	-24.57	peak
4	12720.000	35.51	14.57	50.08	74.00	-23.92	peak
5	13995.000	35.56	16.03	51.59	74.00	-22.41	peak
6	17340.000	31.65	21.61	53.26	74.00	-20.74	peak

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

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

3. Peak: Peak detector.

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

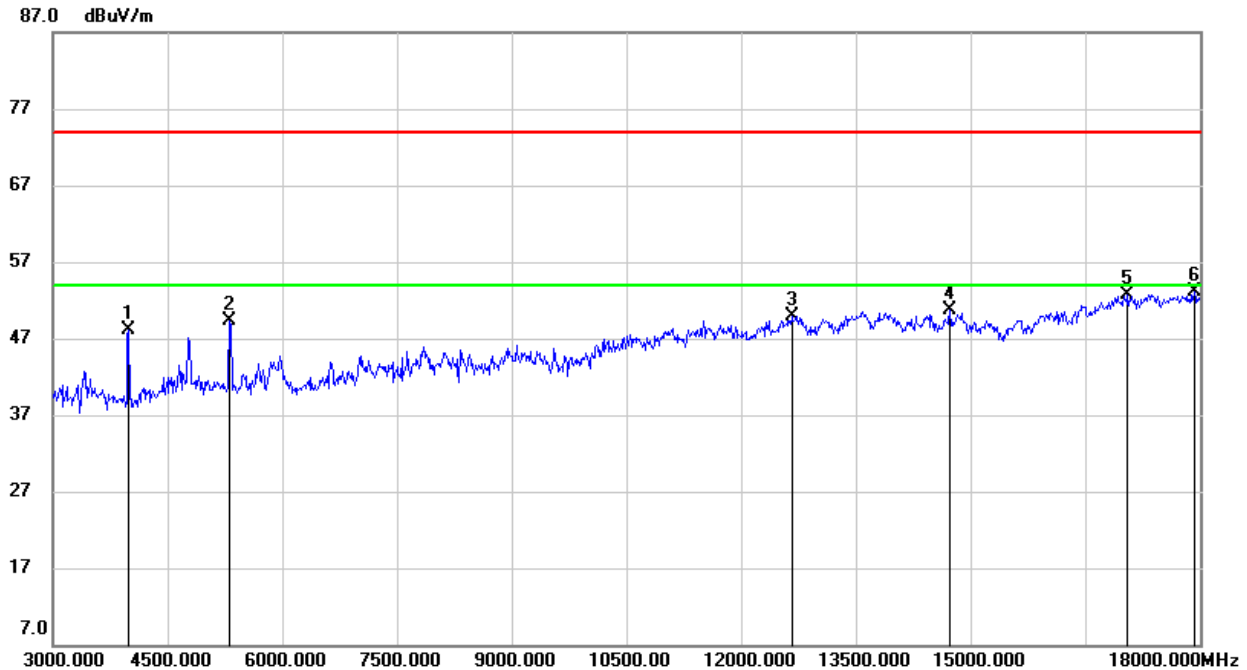
5. For the transmitting duration, please refer to clause 7.1.

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

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

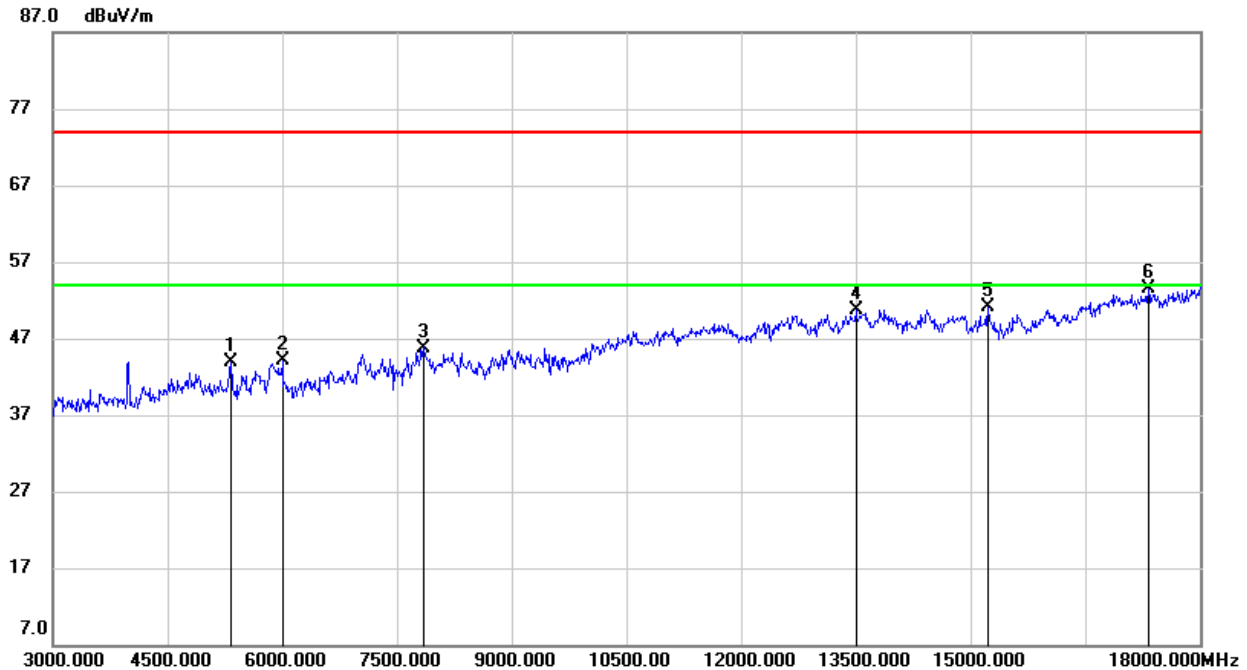


**HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)**



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	51.02	-2.89	48.13	74.00	-25.87	peak
2	5310.000	47.29	2.02	49.31	74.00	-24.69	peak
3	12660.000	35.69	14.18	49.87	74.00	-24.13	peak
4	14730.000	34.63	16.01	50.64	74.00	-23.36	peak
5	17055.000	32.12	20.53	52.65	74.00	-21.35	peak
6	17925.000	29.74	23.37	53.11	74.00	-20.89	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. 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.

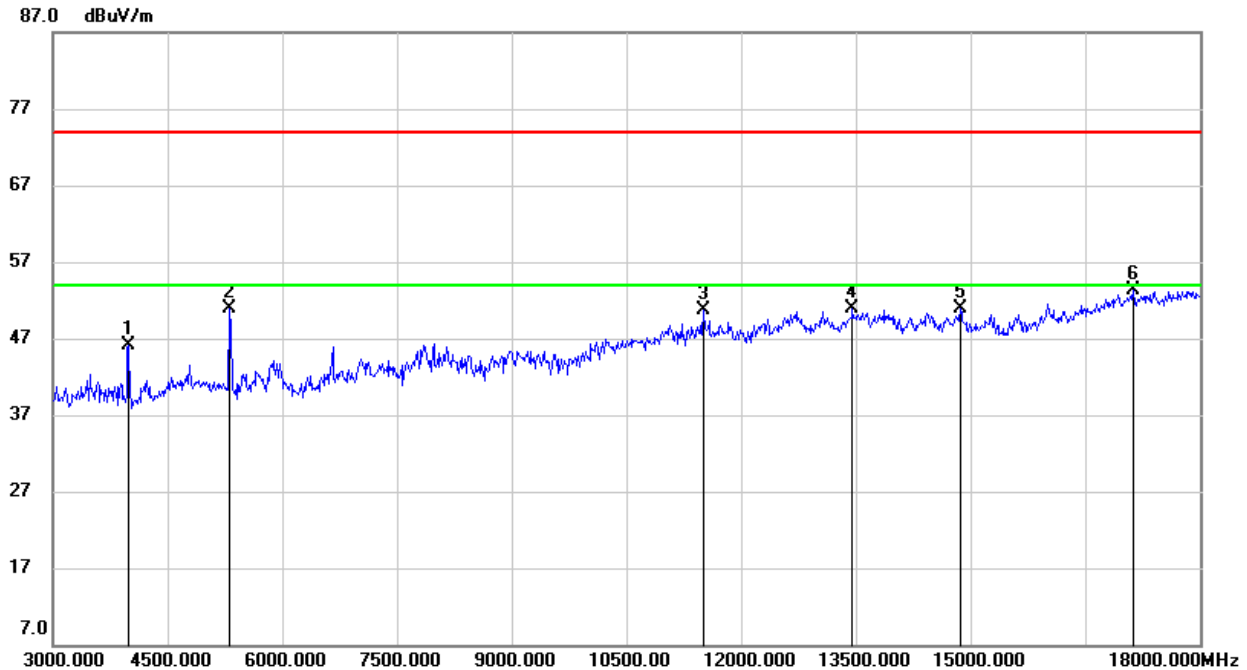
**HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5325.000	42.01	1.99	44.00	74.00	-30.00	peak
2	6000.000	40.86	3.29	44.15	74.00	-29.85	peak
3	7845.000	38.18	7.62	45.80	74.00	-28.20	peak
4	13500.000	34.89	15.77	50.66	74.00	-23.34	peak
5	15225.000	34.93	16.14	51.07	74.00	-22.93	peak
6	17325.000	31.80	21.67	53.47	74.00	-20.53	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. AVG:  $VBW=1/Ton$ , where: Ton is the transmitting duration.  
5. For the transmitting duration, please refer to clause 7.1.  
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.  
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.

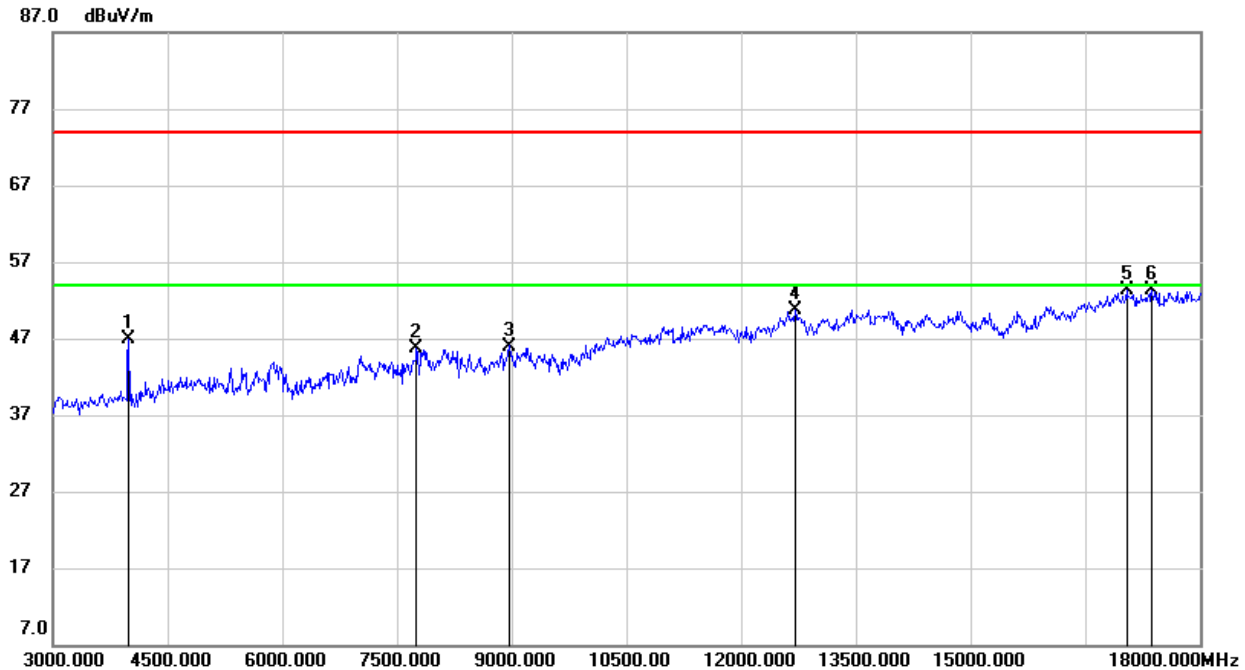


**HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)**



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	49.02	-2.89	46.13	74.00	-27.87	peak
2	5310.000	48.84	2.02	50.86	74.00	-23.14	peak
3	11505.000	37.34	13.42	50.76	74.00	-23.24	peak
4	13455.000	35.03	15.93	50.96	74.00	-23.04	peak
5	14865.000	35.00	15.98	50.98	74.00	-23.02	peak
6	17130.000	32.58	20.72	53.30	74.00	-20.70	peak

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

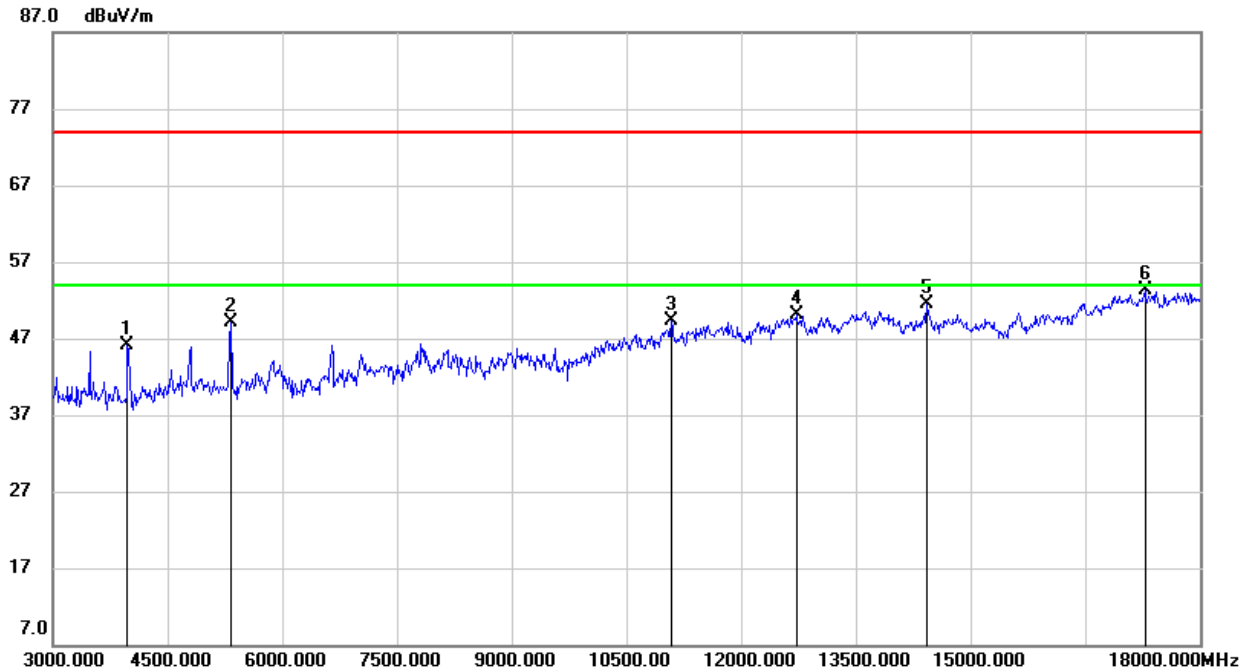
**HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3990.000	49.76	-2.89	46.87	74.00	-27.13	peak
2	7755.000	38.44	7.29	45.73	74.00	-28.27	peak
3	8970.000	37.00	9.00	46.00	74.00	-28.00	peak
4	12705.000	36.42	14.35	50.77	74.00	-23.23	peak
5	17040.000	32.81	20.49	53.30	74.00	-20.70	peak
6	17370.000	31.85	21.52	53.37	74.00	-20.63	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. 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 (HIGH CHANNEL, VERTICAL)**



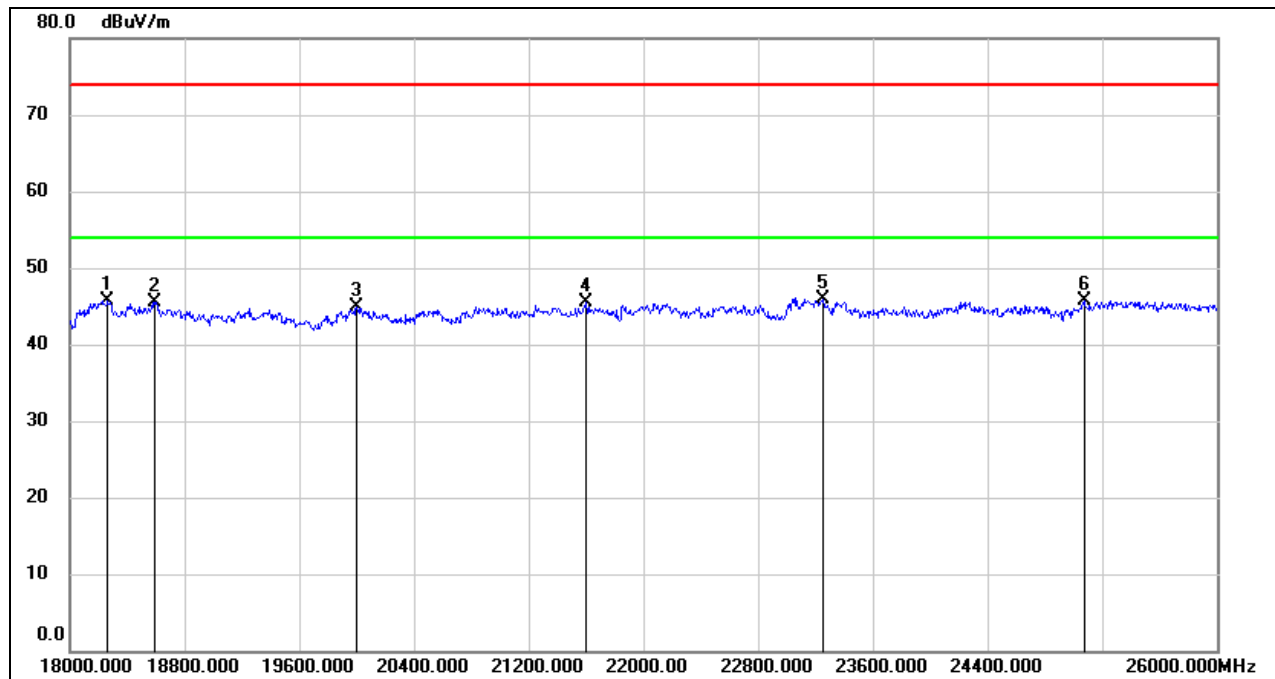
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3975.000	49.02	-2.90	46.12	74.00	-27.88	peak
2	5325.000	47.05	1.99	49.04	74.00	-24.96	peak
3	11085.000	36.77	12.57	49.34	74.00	-24.66	peak
4	12720.000	35.50	14.57	50.07	74.00	-23.93	peak
5	14430.000	35.10	16.35	51.45	74.00	-22.55	peak
6	17280.000	31.81	21.59	53.40	74.00	-20.60	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. AVG:  $VBW=1/Ton$ , where: Ton is the transmitting duration.  
5. For the transmitting duration, please refer to clause 7.1.  
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.  
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.

## 8.5. SPURIOUS EMISSIONS (18GHz ~ 26GHz)

### 8.5.1. 802.11n HT20 MODE

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18264.000	51.15	-5.53	45.62	74.00	-28.38	peak
2	18592.000	50.75	-5.31	45.44	74.00	-28.56	peak
3	20000.000	50.31	-5.45	44.86	74.00	-29.14	peak
4	21600.000	50.02	-4.54	45.48	74.00	-28.52	peak
5	23256.000	49.22	-3.35	45.87	74.00	-28.13	peak
6	25072.000	47.67	-1.97	45.70	74.00	-28.30	peak

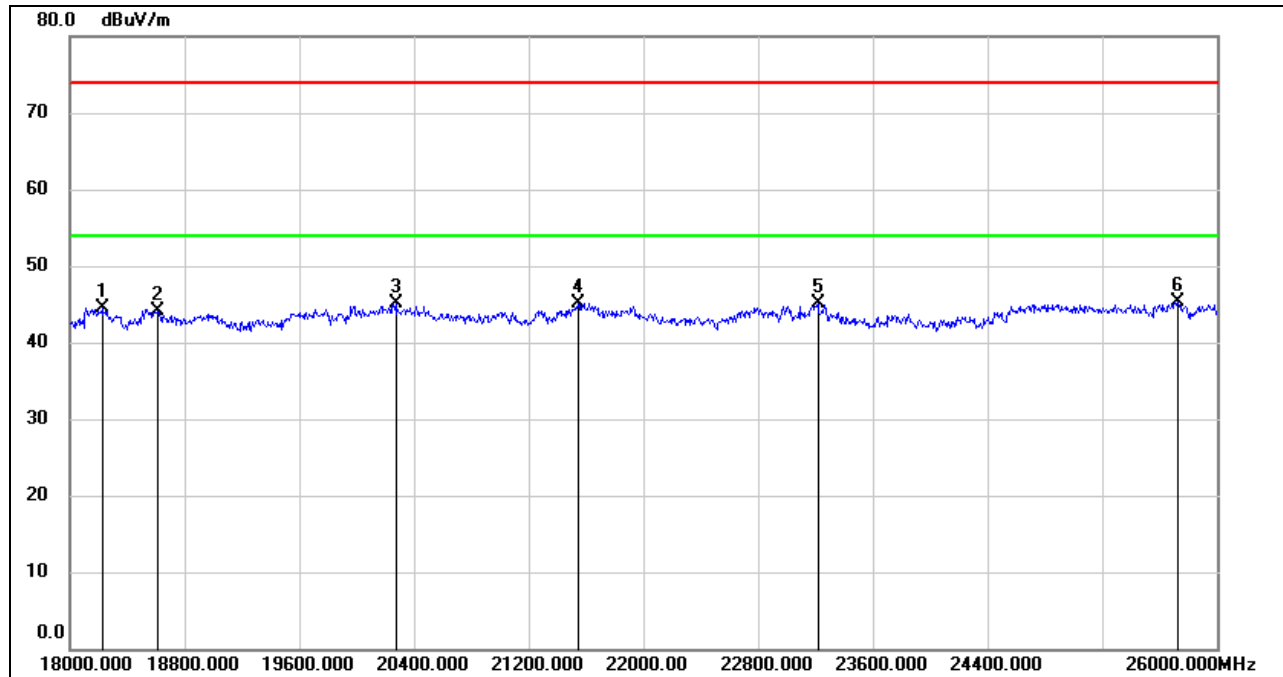
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

4. The preamplifier only effect to the above 18GHz signal and no filter added to the measurement chain.

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18224.000	50.08	-5.53	44.55	74.00	-29.45	peak
2	18616.000	49.39	-5.34	44.05	74.00	-29.95	peak
3	20272.000	50.77	-5.60	45.17	74.00	-28.83	peak
4	21544.000	49.76	-4.63	45.13	74.00	-28.87	peak
5	23216.000	48.51	-3.38	45.13	74.00	-28.87	peak
6	25728.000	46.11	-0.72	45.39	74.00	-28.61	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. The preamplifier only effect to the above 18GHz signal and no filter added to the measurement chain.

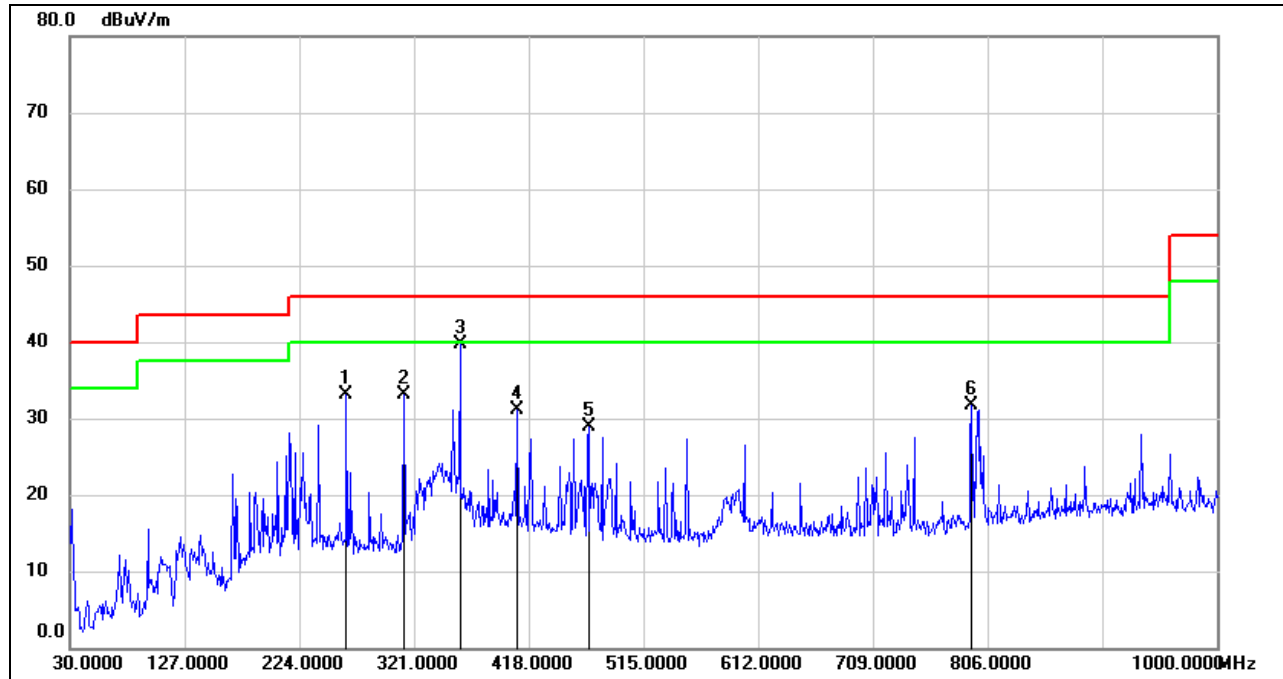
Note: All the modes had been tested, but only the worst data was recorded in the report.



## 8.6. SPURIOUS EMISSIONS (30MHz ~ 1 GHz)

### 8.6.1. 802.11n HT20 MODE

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



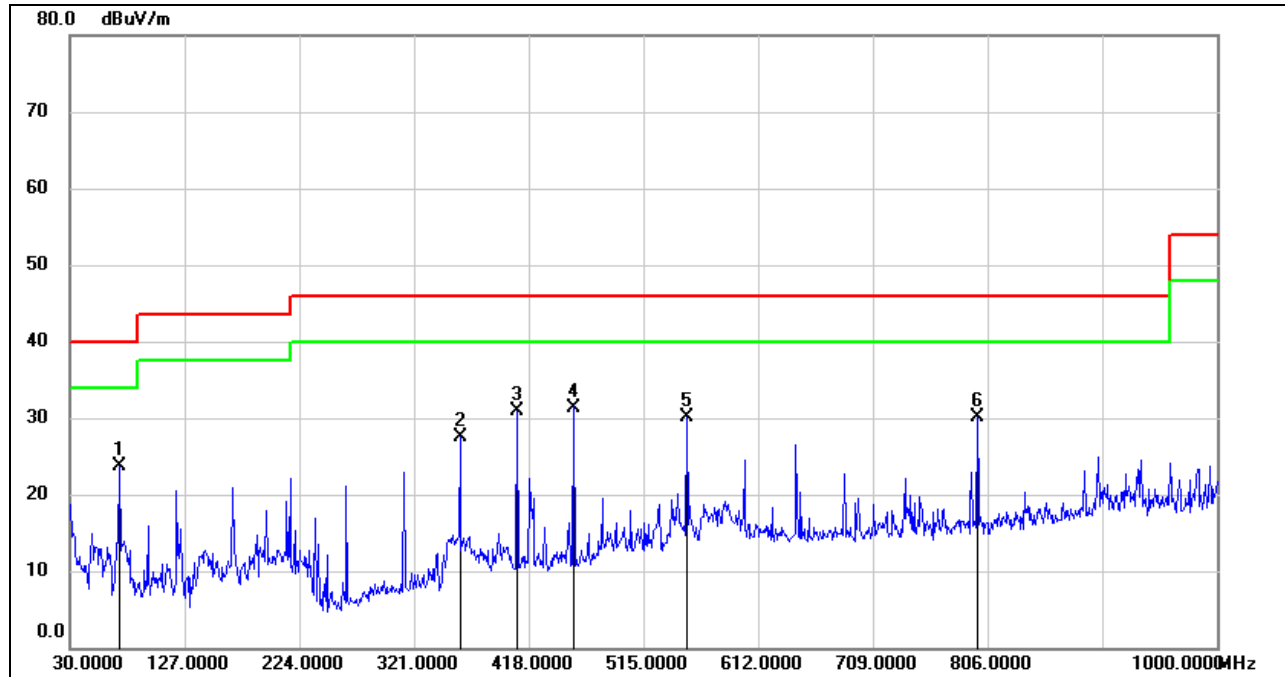
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	263.7700	51.69	-18.55	33.14	46.00	-12.86	QP
2	312.2700	48.46	-15.33	33.13	46.00	-12.87	QP
3	359.8000	53.98	-14.32	39.66	46.00	-6.34	QP
4	408.3000	44.42	-13.27	31.15	46.00	-14.85	QP
5	468.4400	40.92	-12.08	28.84	46.00	-17.16	QP
6	792.4200	39.63	-7.93	31.70	46.00	-14.30	QP

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

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

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

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	71.7100	44.47	-20.78	23.69	40.00	-16.31	QP
2	359.8000	41.83	-14.32	27.51	46.00	-18.49	QP
3	408.3000	44.16	-13.27	30.89	46.00	-15.11	QP
4	455.8300	43.82	-12.42	31.40	46.00	-14.60	QP
5	551.8600	40.76	-10.74	30.02	46.00	-15.98	QP
6	797.2700	37.80	-7.79	30.01	46.00	-15.99	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 had been tested, but only the worst data was recorded in the report.

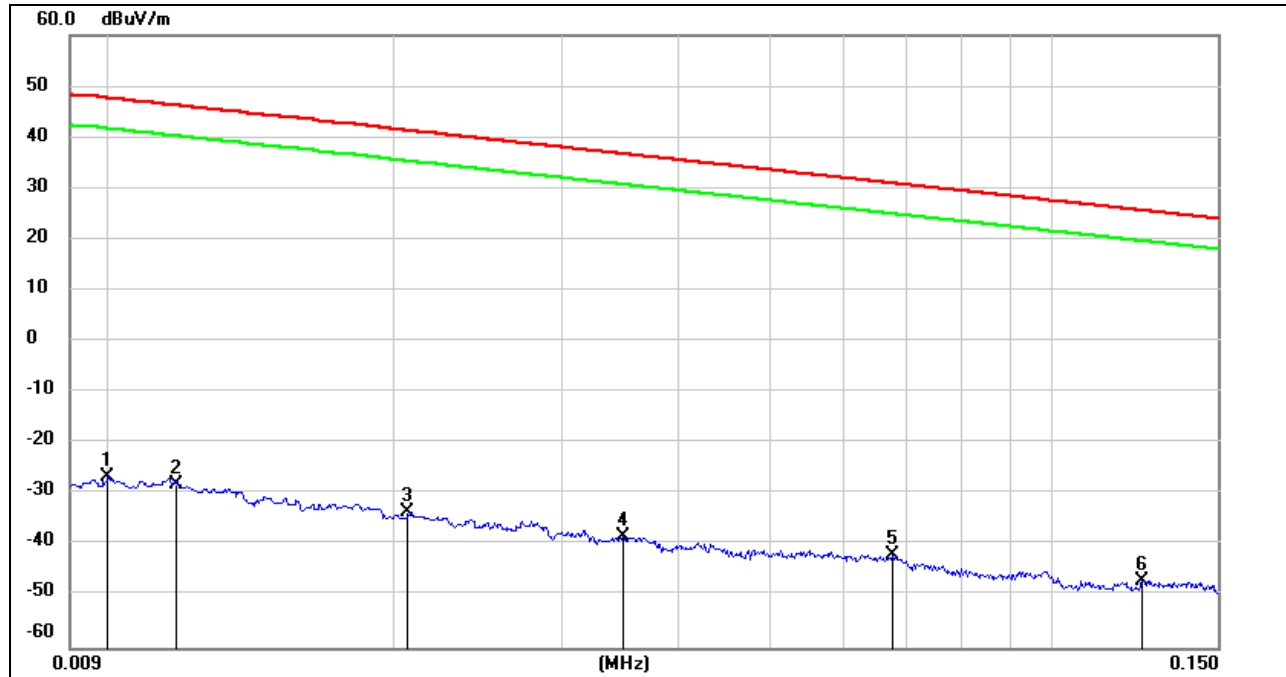


## 8.7. SPURIOUS EMISSIONS BELOW 30MHz

### 8.7.1. 802.11n HT20 MODE

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

9kHz~ 150kHz



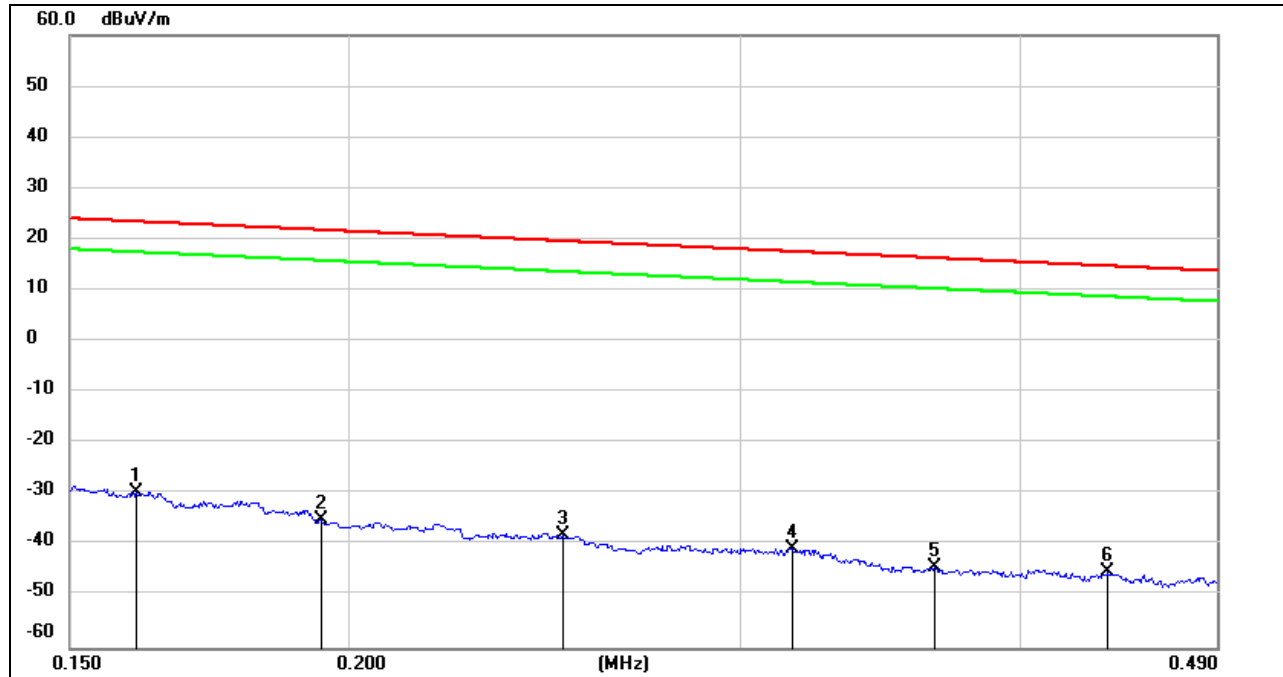
No.	Frequency	Reading	Correct	FCC Result	FCC Limit	ISED Result	ISED Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dBuA/m)	(dBuA/m)	(dB)	
1	0.0100	74.72	-101.40	-26.68	47.60	-78.18	-3.9	-74.28	peak
2	0.0117	73.48	-101.39	-27.91	46.24	-79.41	-5.26	-74.15	peak
3	0.0206	67.92	-101.35	-33.43	41.32	-84.93	-10.18	-74.75	peak
4	0.0349	63.03	-101.41	-38.38	36.75	-89.88	-14.75	-75.13	peak
5	0.0675	59.64	-101.56	-41.92	31.02	-93.42	-20.48	-72.94	peak
6	0.1246	54.89	-101.72	-46.83	25.70	-98.33	-25.8	-72.53	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.

**150kHz ~ 490kHz**



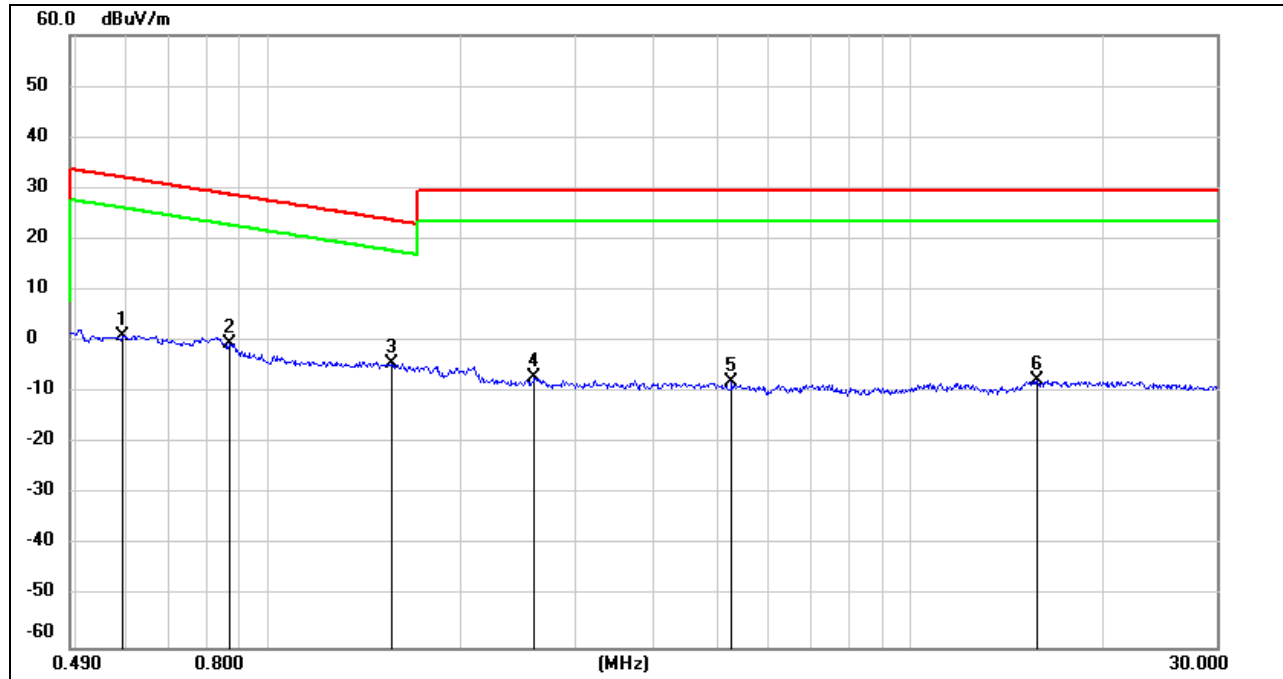
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	FCC Result (dBuV/m)	FCC Limit (dBuV/m)	ISED Result (dBuA/m)	ISED Limit (dBuA/m)	Margin (dB)	Remark
1	0.1607	72.11	-101.65	-29.54	23.48	-81.04	-28.02	-53.02	peak
2	0.1945	66.69	-101.70	-35.01	21.82	-86.51	-29.68	-56.83	peak
3	0.2494	63.96	-101.80	-37.84	19.66	-89.34	-31.84	-57.50	peak
4	0.3163	61.20	-101.87	-40.67	17.60	-92.17	-33.90	-58.27	peak
5	0.3662	57.58	-101.93	-44.35	16.33	-95.85	-35.17	-60.68	peak
6	0.4383	56.80	-102.01	-45.21	14.77	-96.71	-36.73	-59.98	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.

**490kHz ~ 30MHz**



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	63.24	-62.08	1.16	32.16	-50.34	-19.34	-31.00	peak
2	0.8679	61.85	-62.18	-0.33	28.83	-51.83	-22.67	-29.16	peak
3	1.5564	57.68	-62.02	-4.34	23.76	-55.84	-27.74	-28.10	peak
4	2.5935	54.61	-61.68	-7.07	29.54	-58.57	-21.96	-36.61	peak
5	5.2705	53.54	-61.45	-7.91	29.54	-59.41	-21.96	-37.45	peak
6	15.7759	53.25	-60.99	-7.74	29.54	-59.24	-21.96	-37.28	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 had been tested, but only the worst data was recorded in the report.

## 9. AC POWER LINE CONDUCTED EMISSIONS

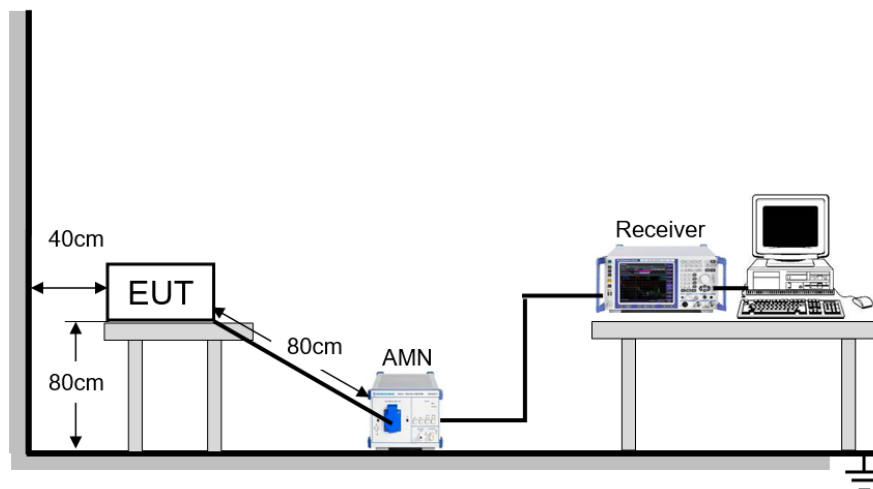
### LIMITS

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 80cm high. The vertical conducting wall of shielding is located 40cm 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 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

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.

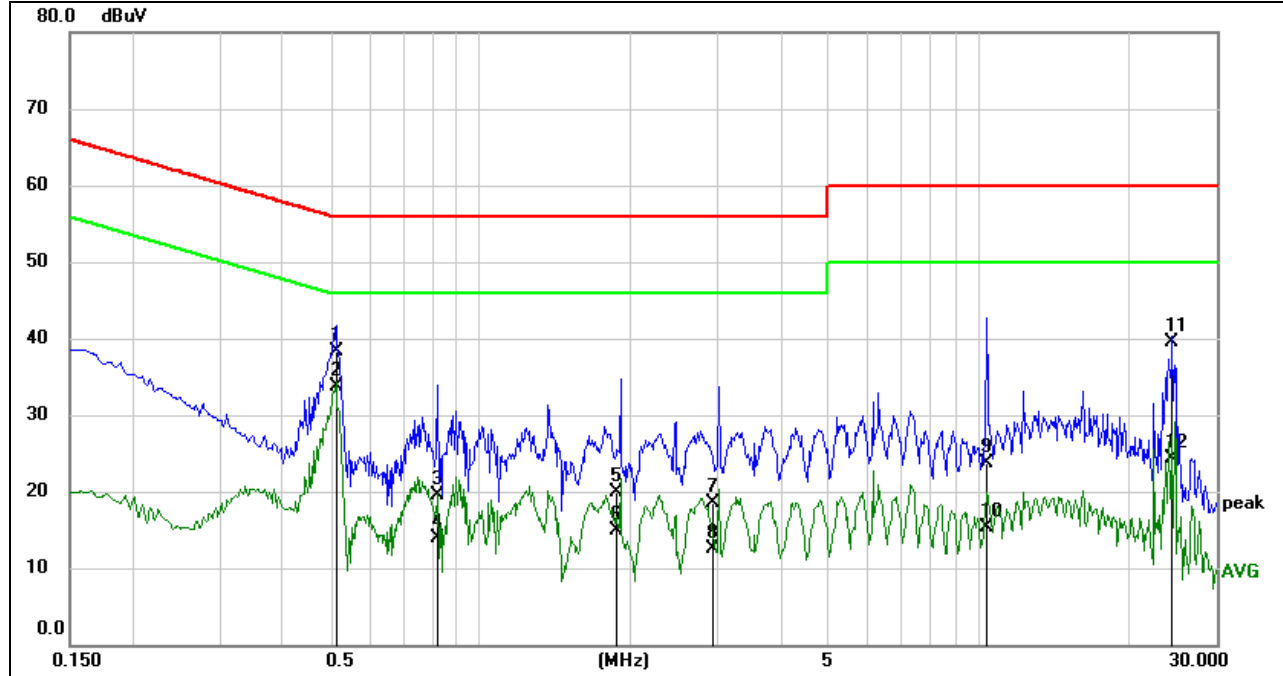
### TEST ENVIRONMENT

Temperature	24.7°C	Relative Humidity	59.0%
Atmosphere Pressure	101kPa	Test Voltage	3Vdc

## RESULTS

### 9.1. 802.11n HT20 MODE

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.5121	28.78	9.60	38.38	56.00	-17.62	QP
2	0.5121	24.11	9.60	33.71	46.00	-12.29	AVG
3	0.8198	9.81	9.60	19.41	56.00	-36.59	QP
4	0.8198	4.26	9.60	13.86	46.00	-32.14	AVG
5	1.8676	10.33	9.63	19.96	56.00	-36.04	QP
6	1.8676	5.26	9.63	14.89	46.00	-31.11	AVG
7	2.9303	8.78	9.65	18.43	56.00	-37.57	QP
8	2.9303	2.79	9.65	12.44	46.00	-33.56	AVG
9	10.3521	13.87	9.77	23.64	60.00	-36.36	QP
10	10.3521	5.45	9.77	15.22	50.00	-34.78	AVG
11	24.4418	29.45	10.08	39.53	60.00	-20.47	QP
12	24.4418	14.22	10.08	24.30	50.00	-25.70	AVG

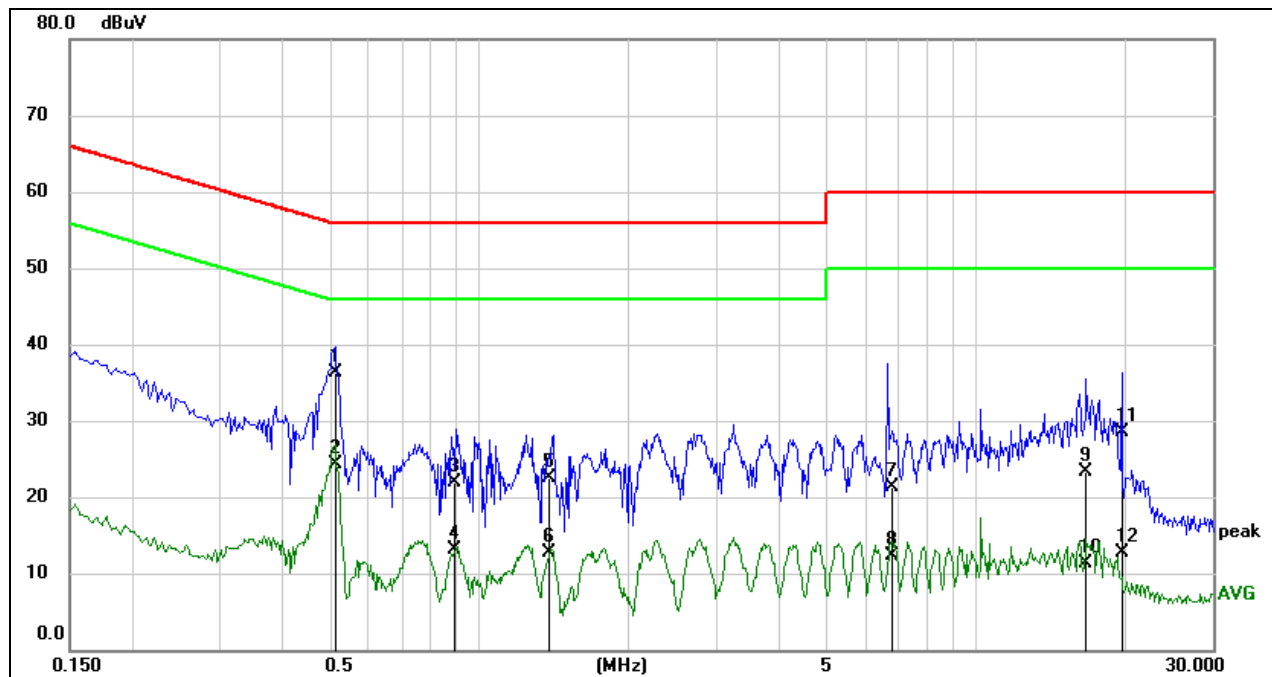
Note: 1. Result = Reading +Correct Factor.

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

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.5172	26.74	9.60	36.34	56.00	-19.66	QP
2	0.5172	14.73	9.60	24.33	46.00	-21.67	AVG
3	0.8925	12.26	9.60	21.86	56.00	-34.14	QP
4	0.8925	3.45	9.60	13.05	46.00	-32.95	AVG
5	1.3869	12.99	9.61	22.60	56.00	-33.40	QP
6	1.3869	3.14	9.61	12.75	46.00	-33.25	AVG
7	6.7606	11.65	9.71	21.36	60.00	-38.64	QP
8	6.7606	2.52	9.71	12.23	50.00	-37.77	AVG
9	16.6782	13.44	9.94	23.38	60.00	-36.62	QP
10	16.6782	1.29	9.94	11.23	50.00	-38.77	AVG
11	19.6501	18.38	10.10	28.48	60.00	-31.52	QP
12	19.6501	2.61	10.10	12.71	50.00	-37.29	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: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

Note: All the modes 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 A: DTS Bandwidth

### 11.1. Appendix A: DTS Bandwidth

#### 11.1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.080	2407.000	2417.080	0.5	PASS
		2437	10.080	2432.000	2442.080	0.5	PASS
		2462	9.680	2456.960	2466.640	0.5	PASS
11G	Ant1	2412	16.480	2403.800	2420.280	0.5	PASS
		2437	16.480	2428.800	2445.280	0.5	PASS
		2462	16.480	2453.800	2470.280	0.5	PASS
11N20	Ant1	2412	17.680	2403.200	2420.880	0.5	PASS
		2437	17.680	2428.200	2445.880	0.5	PASS
		2462	17.680	2453.200	2470.880	0.5	PASS
11N40	Ant1	2422	36.240	2404.080	2440.320	0.5	PASS
		2437	36.480	2418.840	2455.320	0.5	PASS
		2452	36.480	2433.840	2470.320	0.5	PASS



## 11.1.2. Test Graphs









