



**CFR 47 FCC PART 15 SUBPART C**

**TEST REPORT**

*For*

**MAX X20 Micro Drone, Neutron Plam Drone with 720P Camer**

**MODEL NUMBER: VL-4400,VL-4402,VL-4403, VL-4404,VL-4405,PL-1800,  
PL-1801,PL-1802,PL-1803,PL-1804,PL-1805,PL-1806,PL-1807,PL-1808,PL-1809,  
PL-1330, PL-1331, PL-1332, PL-1333, PL-1334, PL-1335, PL-1336, PL-1337,  
PL-1338, PL-1339, KH-2151, KH-2152, KH-2153, KH-2154,VL-3550,VL-3551,VL-3552**

**FCC ID: 2ASK3VL-4400R**

**REPORT NUMBER: 4788921489-2**

**ISSUE DATE: March 21, 2019**

*Prepared for*

**AMAX INDUSTRIAL GROUP CHINA CO.,LTD  
OFFICE NO.3 10/F WITTY COMMERCIAL BUILDING 1A-1L TUNG CHOI STREET  
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*Prepared by*

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	03/21/2019	Initial Issue	



Summary of Test Results			
Clause	Test Items	FCC Rules	Test Results
1	20dB Bandwidth and 99% Occupied Bandwidth	CFR 47 FCC 15.249(d)	Pass
2	Radiated emission	CFR 47 FCC §15.249 (a)(d)(e) CFR 47 FCC §15.205 and §15.209	Pass
3	Conductive Emission	FCC Part 15.207	Pass
4	Antenna Requirement	FCC Part 15.203	Pass



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## 1. ATTESTATION OF TEST RESULTS

### Applicant Information

Company Name: AMAX INDUSTRIAL GROUP CHINA CO.,LTD  
Address: OFFICE NO.3 10/F WITTY COMMERCIAL BUILDING 1A-1L  
TUNG CHOI STREET MONGKOK KOWLOON HONG KONG

### Manufacturer Information

Company Name: AMAX INDUSTRIAL GROUP CHINA CO.,LTD  
Address: OFFICE NO.3 10/F WITTY COMMERCIAL BUILDING 1A-1L  
TUNG CHOI STREET MONGKOK KOWLOON HONG KONG

### EUT Description

EUT Name: MAX X20 Micro Drone, Neutron Plam Drone with 720P Camer  
Model: VL-4403  
Brand Name: Please refer to page 8 clause 5.1  
Sample Status: /  
Sample ID: Normal  
Sample Received Date: March 6, 2019  
Date of Tested: March 11, 2019 ~ March 21, 2019

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

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Stephen Guo  
Laboratory Manager

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Laboratory Leader



## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 414788 D01 Radiated Test Site v01r01, FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2014

## 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>IC(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
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.
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 recognized national standards.

### 4.2. MEASUREMENT UNCERTAINTY

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

Test Item	Uncertainty
Conduction emission	3.62dB
Radiation Emission test(include Fundamental emission) (9KHz-30MHz)	2.2dB
Radiation Emission test(include Fundamental emission) (30MHz-1GHz)	4.00dB
Radiation Emission test (1GHz to 26GHz)( include Fundamental emission)	5.78dB (1GHz-18Gz)
	5.23dB (18GHz-26Gz)
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	MAX X20 Micro Drone, Neutron Plam Drone with 720P Camer	
EUT Description	The EUT is a wireless drone.	
Model	VL-4403	
Series Model	VL-4400,VL-4402,VL-4403, VL-4404,VL-4405,PL-1800, PL-1801,PL-1802,PL-1803,PL-1804,PL-1805,PL-1806,PL-1807,PL-1808,PL-1809, PL-1330, PL-1331, PL-1332, PL-1333, PL-1334, PL-1335, PL-1336, PL-1337, PL-1338, PL-1339, KH-2151, KH-2152, KH-2153, KH-2154,VL-3550,VL-3551,VL-3552	
Model Difference	All the same except for the model name and product name.	
Product Description	Operation Frequency	2415 MHz ~ 2472 MHz
	Modulation Type	GFSK
Battery	DC 5V	

### 5.2. MAXIMUM OUTPUT POWER

Frequency Range (MHz)	Number of Transmit Chains (NTX)	Frequency (MHz)	Channel Number	Max Power (dBμV/m)
2415 ~ 2472	1	2472	12[12]	70.16

### 5.3. CHANNEL LIST

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2415	4	2454	7	2462	10	2468
2	2435	5	2456	8	2463	11	2470
3	2450	6	2460	9	2466	12	2472





#### 5.4. DESCRIPTION OF AVAILABLE ANTENNAS

Ant.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1	2415 ~ 2472	Wire Antenna	2

Test Mode	Transmit and Receive Mode	Description
GFSK	<input checked="" type="checkbox"/> 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.

#### 5.5. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel	Frequency
GFSK	CH 1, CH 3, CH 12	2415MHz, 2450MHz, 2472MHz

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

The Worst Case Power Setting Parameter under 2402 ~ 2483.5MHz Band				
Test Software		/		
Modulation Type	Transmit Antenna Number	Test Channel		
		CH 1	CH 3	CH 12
GFSK	1	Default	Default	Default

#### 5.7. TEST ENVIRONMENT

Environment Parameter	Selected Values During Tests	
Relative Humidity	55 ~ 65%	
Atmospheric Pressure:	1025Pa	
Temperature	TN	22 ~ 28°C
Voltage :	VL	N/A
	VN	DC 5V
	VH	N/A

Note: VL= Lower Extreme Test Voltage  
VN= Nominal Voltage  
VH= Upper Extreme Test Voltage  
TN= Normal Temperature



## 5.8. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	P/N
1	Adaptor	Dongguan Aohai Technology	UP0520	I/P: 100-240Vac 50/60Hz. O/P: 5V 2A

### I/O CABLES

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

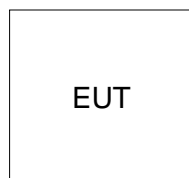
### ACCESSORY

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

### TEST SETUP

The EUT have the engineer mode inside.

### SETUP DIAGRAM FOR TEST



Note: New battery was used during all tests.

**5.9. 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.10,2018	Dec.10,2019
<input checked="" type="checkbox"/>	Two-Line V-Network	R&S	ENV216	101983	Dec.10,2018	Dec.10,2019
<input checked="" type="checkbox"/>	Artificial Mains Networks	Schwarzbeck	NSLK 8126	8126465	Dec.10,2018	Dec.10,2019
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.10,2018	Dec.10,2019
<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.10,2018	Dec.10,2019
<input checked="" type="checkbox"/>	EMI Measurement Receiver	R&S	ESR26	101377	Dec.10,2018	Dec.10,2019
<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.18,2018	Aug.18,2021
<input checked="" type="checkbox"/>	Preamplifier	TDK	PA-02-0118	TRS-305-00066	Dec.10,2018	Dec.10,2019
<input checked="" type="checkbox"/>	Preamplifier	TDK	PA-02-2	TRS-307-00003	Dec.10,2018	Dec.10,2019
<input checked="" type="checkbox"/>	Loop antenna	Schwarzbeck	1519B	00008	Jan.17, 2019	Jan.17,2022
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.10,2018	Dec.10,2019
<input checked="" type="checkbox"/>	Band Reject Filter	Wainwright	WRCJV8-2350-2400-2483.5-2533.5-40SS	4	Dec.10,2018	Dec.10,2019
<input checked="" type="checkbox"/>	High Pass Filter	Wi	WHKX10-2700-3000-18000-40SS	23	Dec.10,2018	Dec.10,2019



## 6. ANTENNA PORT TEST RESULTS

### 6.1. ON TIME AND DUTY CYCLE

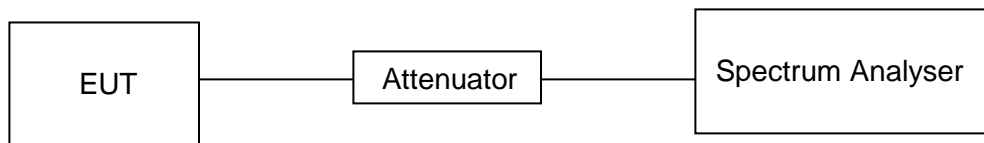
#### LIMITS

None; for reporting purposes only

#### PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method

#### TEST SETUP



#### 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)
GFSK	1.620	9.980	0.1623	16.23	7.8968	0.617	1

Note:

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

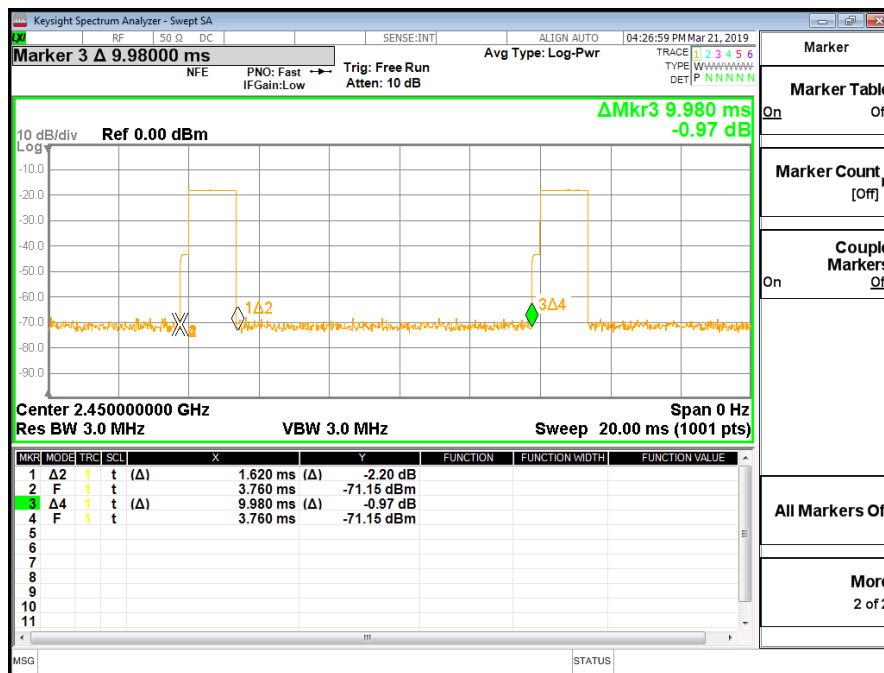
Where: x is Duty Cycle(Linear)

Where: T is On Time (transmit duration)

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



## ON TIME AND DUTY CYCLE MID CH PLOT





## 6.2. 20 dB BANDWIDTH AND 99% OCCUPIED BANDWIDTH

### LIMITS

CFR 47 FCC Part15 (15.249) , Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.249(d)	20dB Bandwidth	for reporting purposes only	2400-2483.5

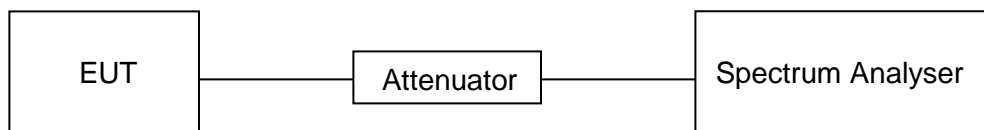
### TEST PROCEDURE

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

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	1% to 5% of the occupied bandwidth
VBW	approximately 3×RBW
Trace	Max hold
Sweep	Auto couple

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 20 dB relative to the maximum level measured in the fundamental emission.

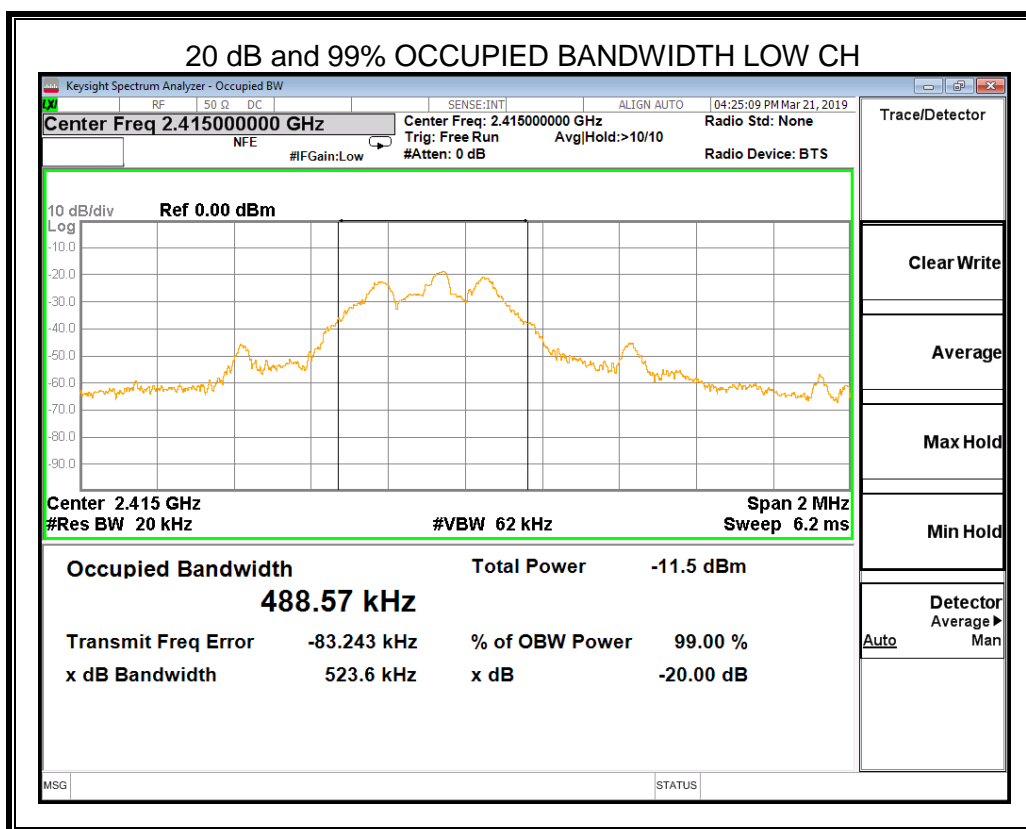
### TEST SETUP





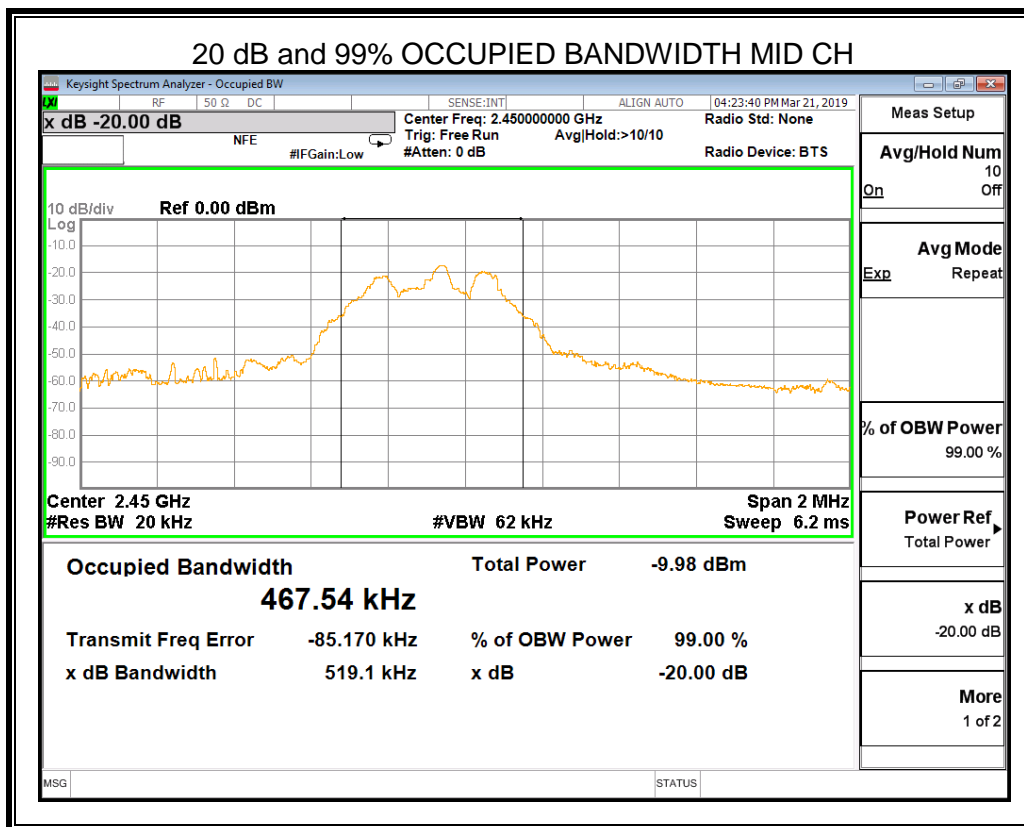
## RESULTS

Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2415	0.5236	0.48857	PASS





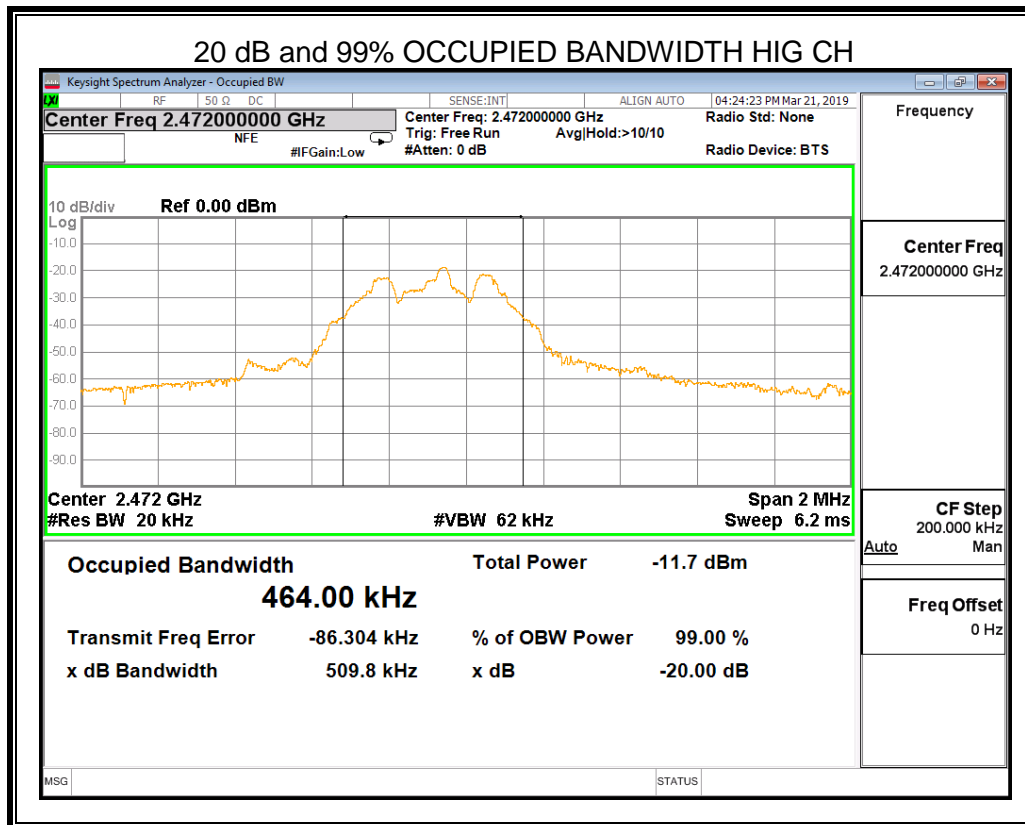
Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2450	0.5191	0.46754	PASS







Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2472	0.5098	0.4640	PASS





## 7. RADIATED TEST RESULTS

### 7.1. LIMITS AND PROCEDURE

#### LIMITS

CFR 47 FCC §15.205 and §15.209

CFR 47 FCC §15.249 (a)(d)(e)

The field strength of emissions from intentional radiators operated within these frequency bands			
Frequency (MHz)	Field strength of Fundamental	Field strength of Harmonics	Distance (m)
902 - 928	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3
2400 – 2483.5	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3
5725 – 5875	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3

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

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



FCC Restricted bands of operation:

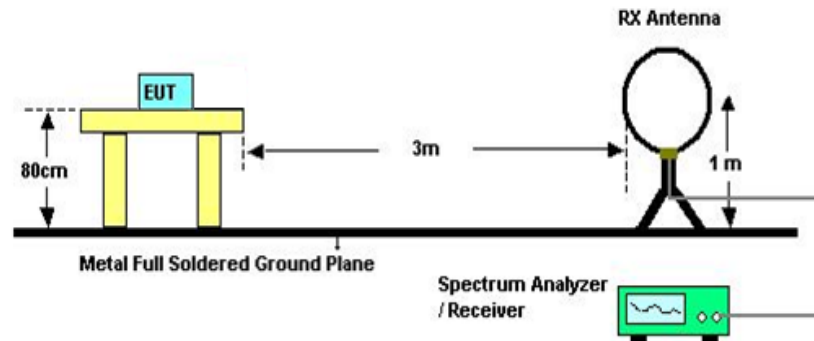
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
<sup>1</sup> 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5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

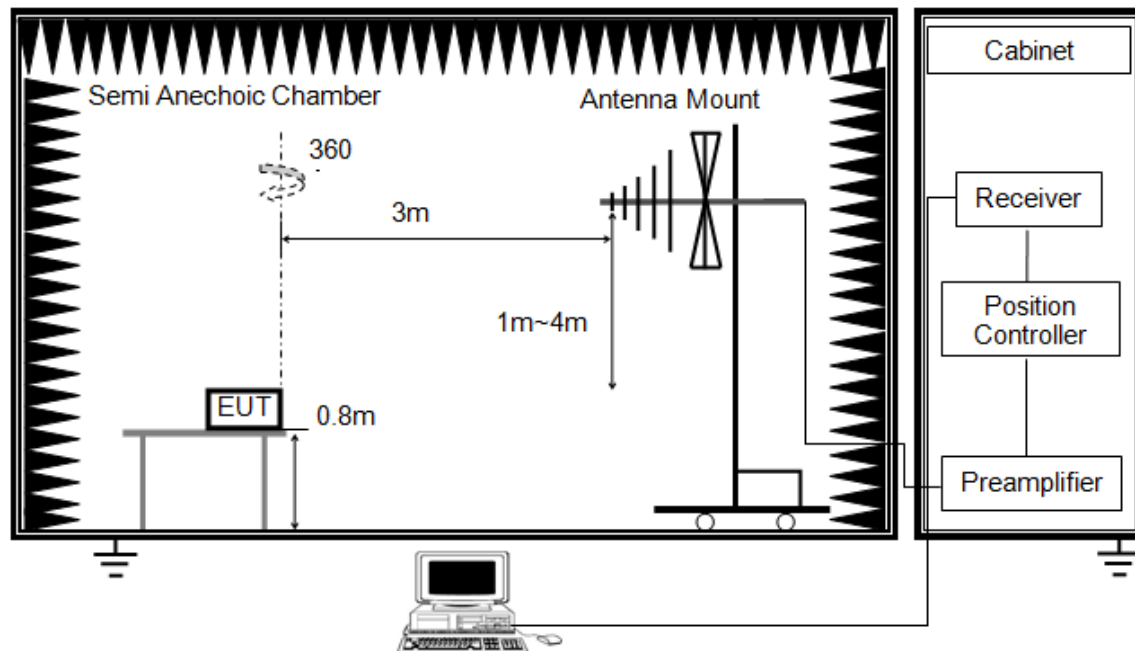


The setting of the spectrum analyser

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
Detector	Peak/QP/ Average
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013
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 and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 80cm meter 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 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.
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 based on KDB 414788.

Below 1G

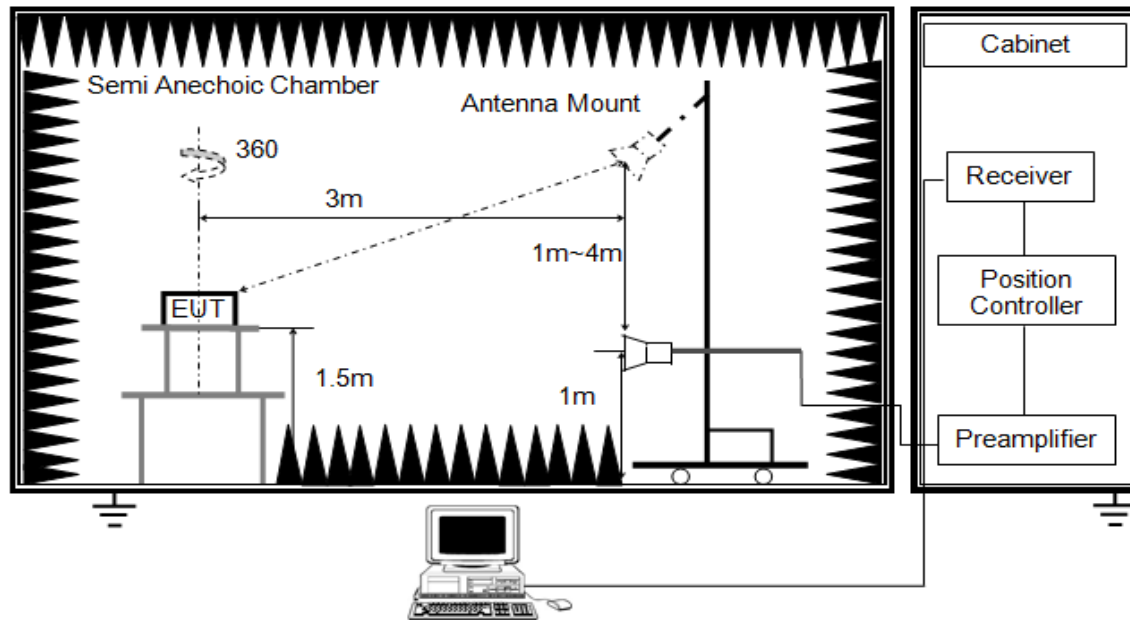


The setting of the spectrum analyser

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

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

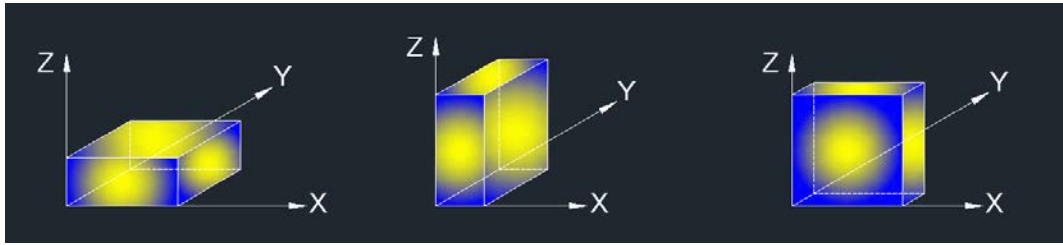


The setting of the spectrum analyser

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

1. The testing follows the guidelines in ANSI C63.10-2013.
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 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 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 the Duty Cycle and Correction Factor please refer to clause 7.1.ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:

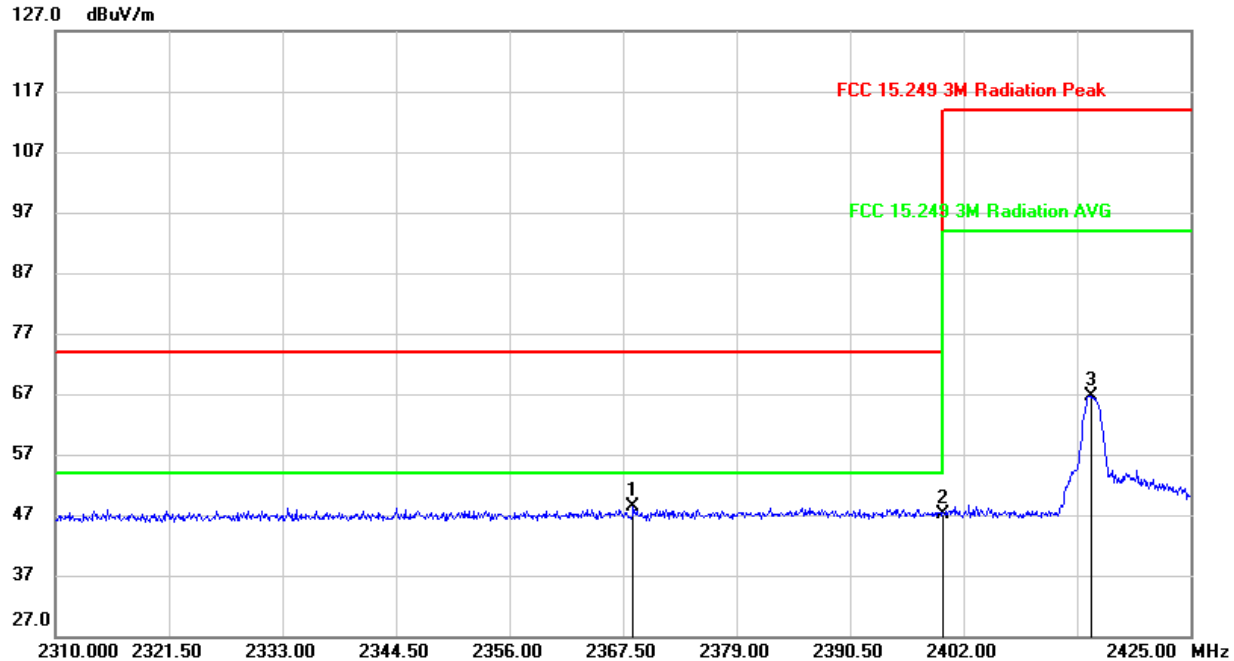


Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.



## 7.2. RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS

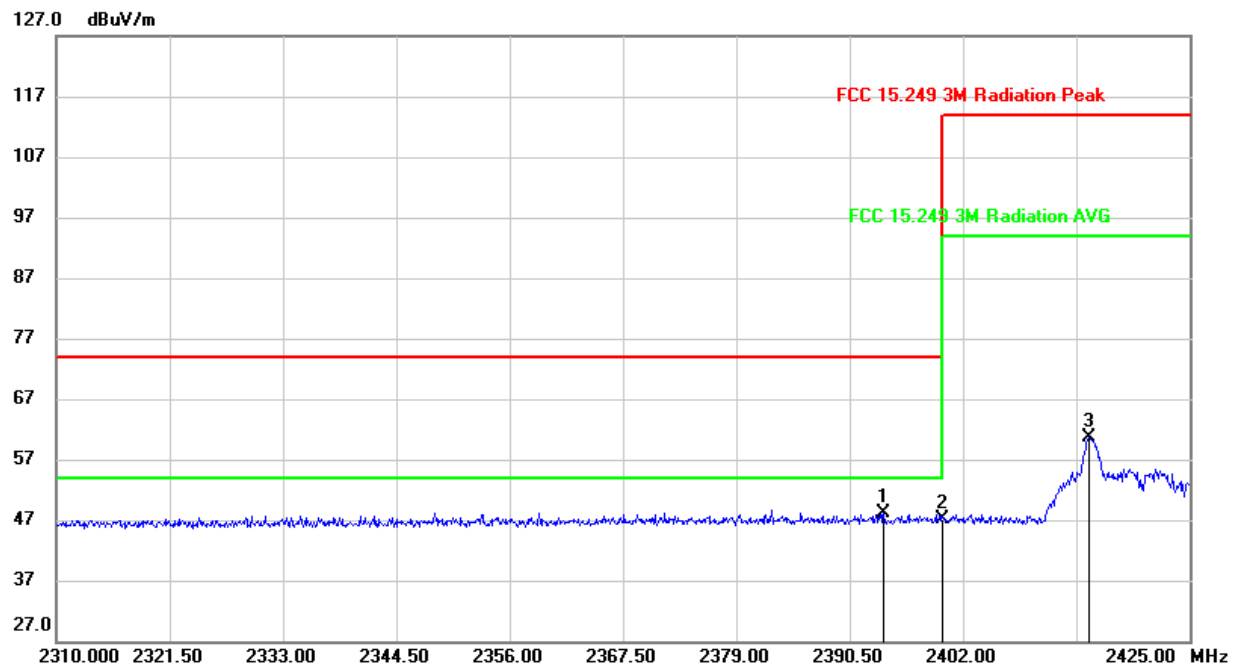
### RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2368.535	15.47	32.87	48.34	74.00	-25.66	peak
2	2400.000	14.07	32.98	47.05	74.00	-26.95	peak
3	2414.880	33.45	33.09	66.54	114.00	-47.46	peak

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



**RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (LOW CHANNEL, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2393.950	15.25	32.96	48.21	74.00	-25.79	peak
2	2400.000	14.14	32.98	47.12	74.00	-26.88	peak
3	2414.765	27.64	33.09	60.73	114.00	-53.27	peak

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

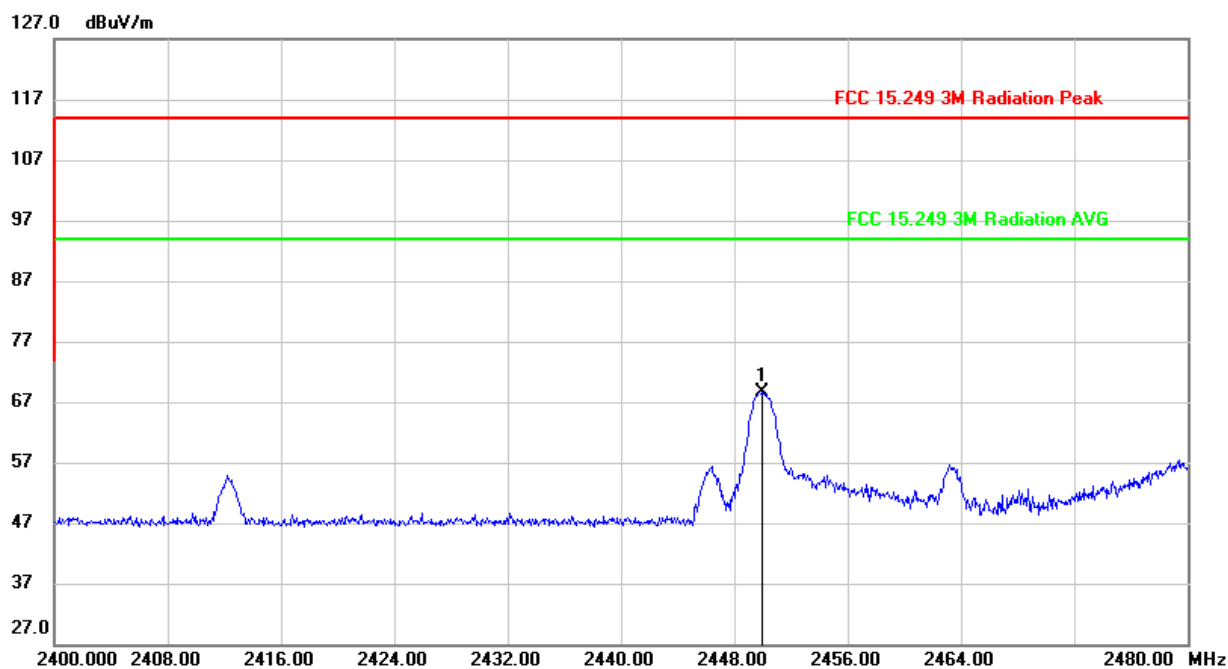
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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



**FIELD STRENGTH OF INTENTIONAL EMISSIONS (MIDDLE CHANNEL, HORIZONTAL)**

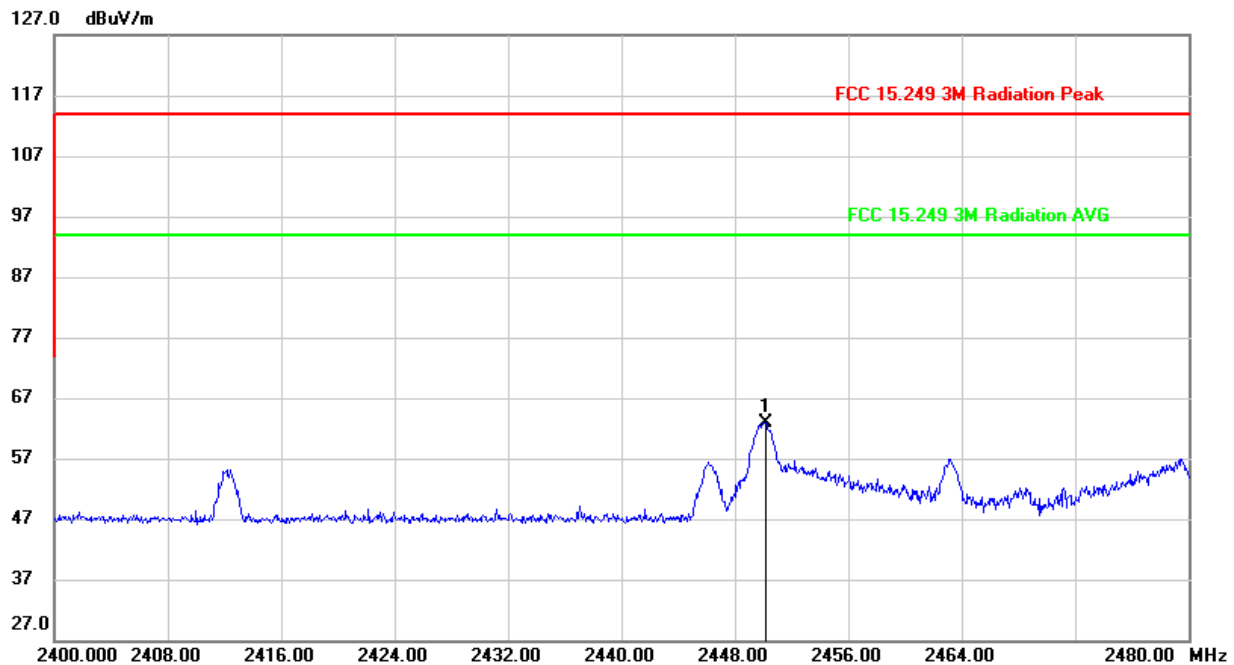


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2449.920	35.22	33.34	68.56	114.00	-45.44	peak

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 case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



**FIELD STRENGTH OF INTENTIONAL EMISSIONS (MIDDLE CHANNEL, VERTICAL)**



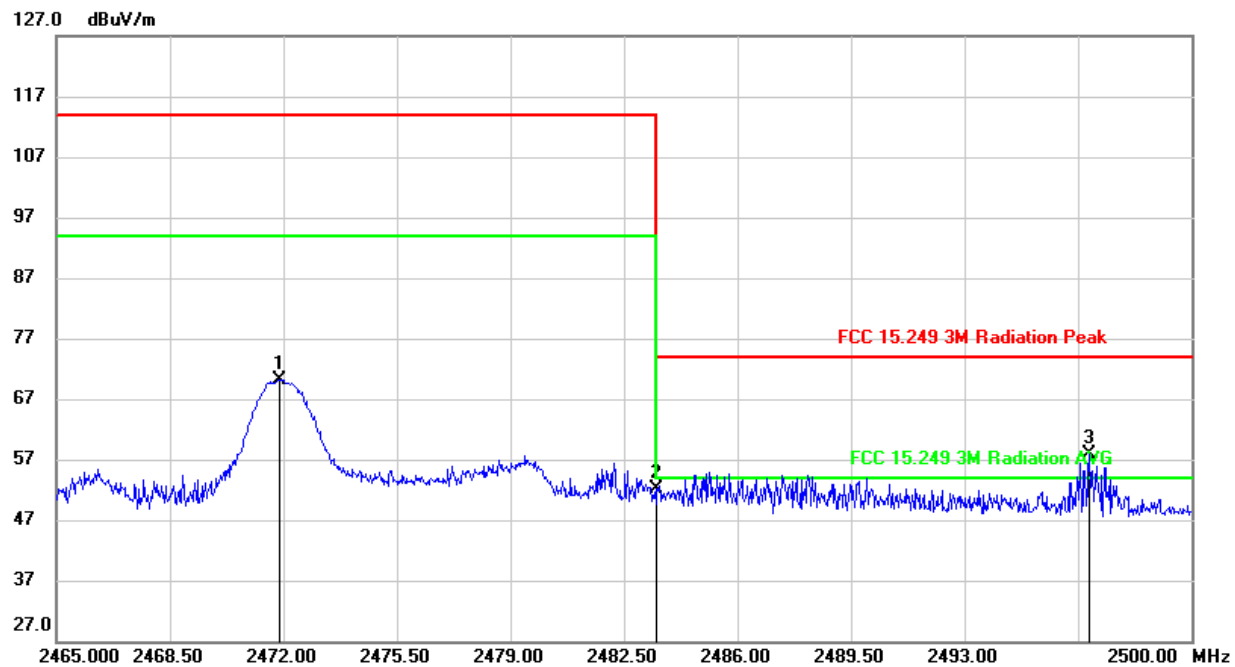
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2450.160	29.64	33.34	62.98	114.00	-51.02	peak

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



**RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (HIGH CHANNEL, HORIZONTAL)**

**PEAK**

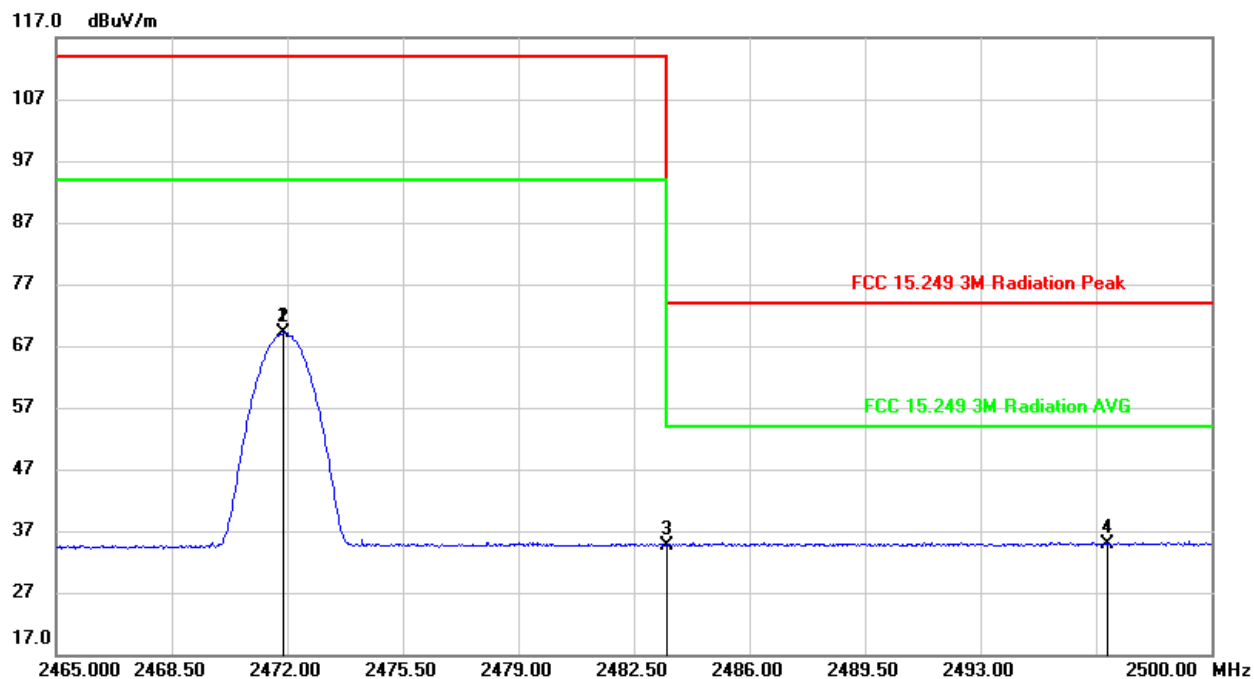


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2471.895	36.66	33.50	70.16	114.00	-43.84	peak
2	2483.500	18.64	33.58	52.22	74.00	-21.78	peak
3	2496.850	24.24	33.67	57.91	74.00	-16.09	peak

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



**AVG**

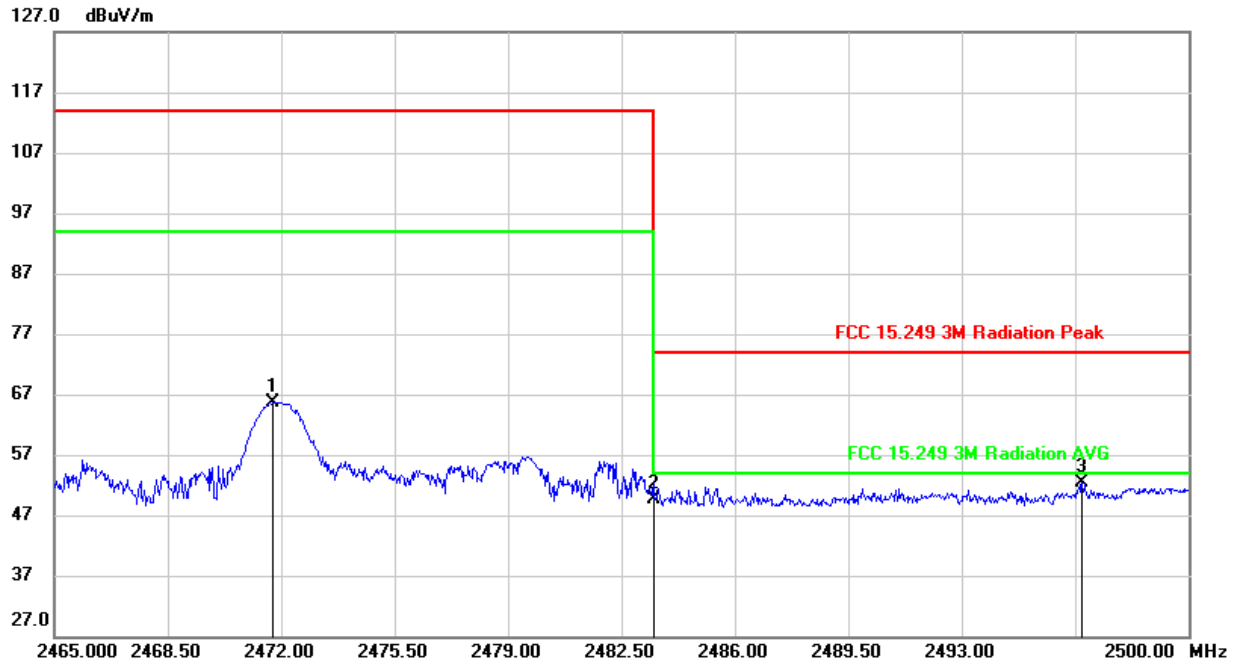


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2471.860	35.53	33.50	69.03	94.00	-24.97	AVG
2	2471.895	35.51	33.50	69.01	94.00	-24.99	AVG
3	2483.500	1.13	33.58	34.71	54.00	-19.29	AVG
4	2496.850	1.24	33.67	34.91	54.00	-19.09	AVG

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. AVG: VBW=1/Ton where: ton is transmit duration.  
4. For transmit duration, please refer to clause 6.1.  
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 AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (HIGH CHANNEL, VERTICAL)**



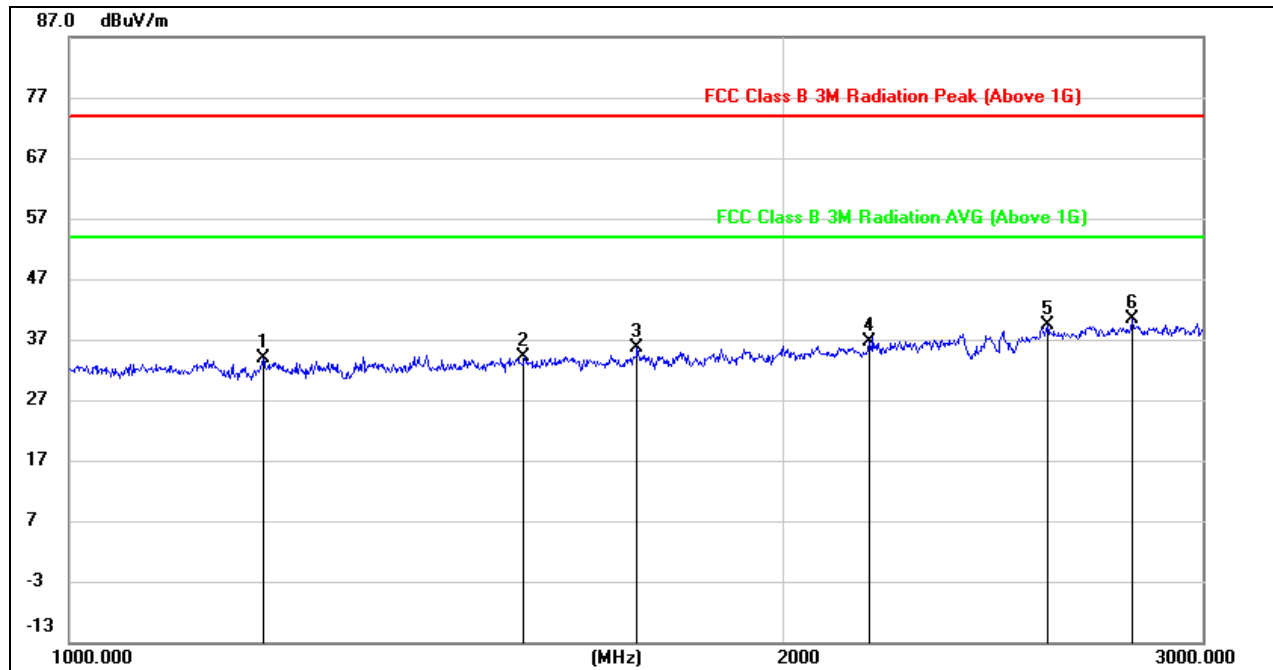
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2471.755	32.12	33.50	65.62	114.00	-48.38	peak
2	2483.500	16.12	33.58	49.70	74.00	-24.30	peak
3	2496.710	18.63	33.67	52.30	74.00	-21.70	peak

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 case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



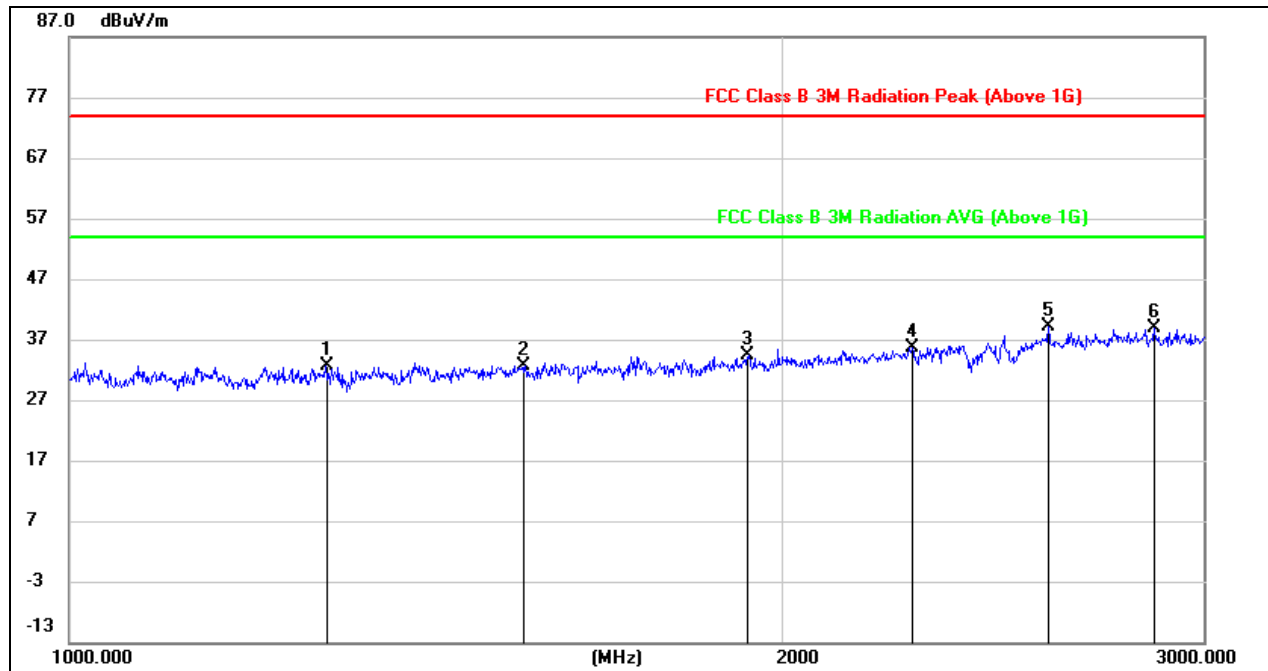
### 7.3. SPURIOUS EMISSIONS (1~3GHz)

#### 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	1206.668	46.18	-12.36	33.82	74.00	-40.18	peak
2	1555.259	45.26	-11.06	34.20	74.00	-39.80	peak
3	1733.955	45.91	-10.27	35.64	74.00	-38.36	peak
4	2171.939	45.04	-8.40	36.64	74.00	-37.36	peak
5	2580.808	46.05	-6.72	39.33	74.00	-34.67	peak
6	2802.462	45.58	-5.19	40.39	74.00	-33.61	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. The Band Reject filter loss factor already add into the correct factor.  
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	1283.236	44.00	-11.42	32.58	74.00	-41.42	peak
2	1555.259	43.67	-11.06	32.61	74.00	-41.39	peak
3	1931.059	43.88	-9.44	34.44	74.00	-39.56	peak
4	2262.044	43.55	-7.86	35.69	74.00	-38.31	peak
5	2580.808	45.84	-6.72	39.12	74.00	-34.88	peak
6	2861.574	43.98	-5.16	38.82	74.00	-35.18	peak

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

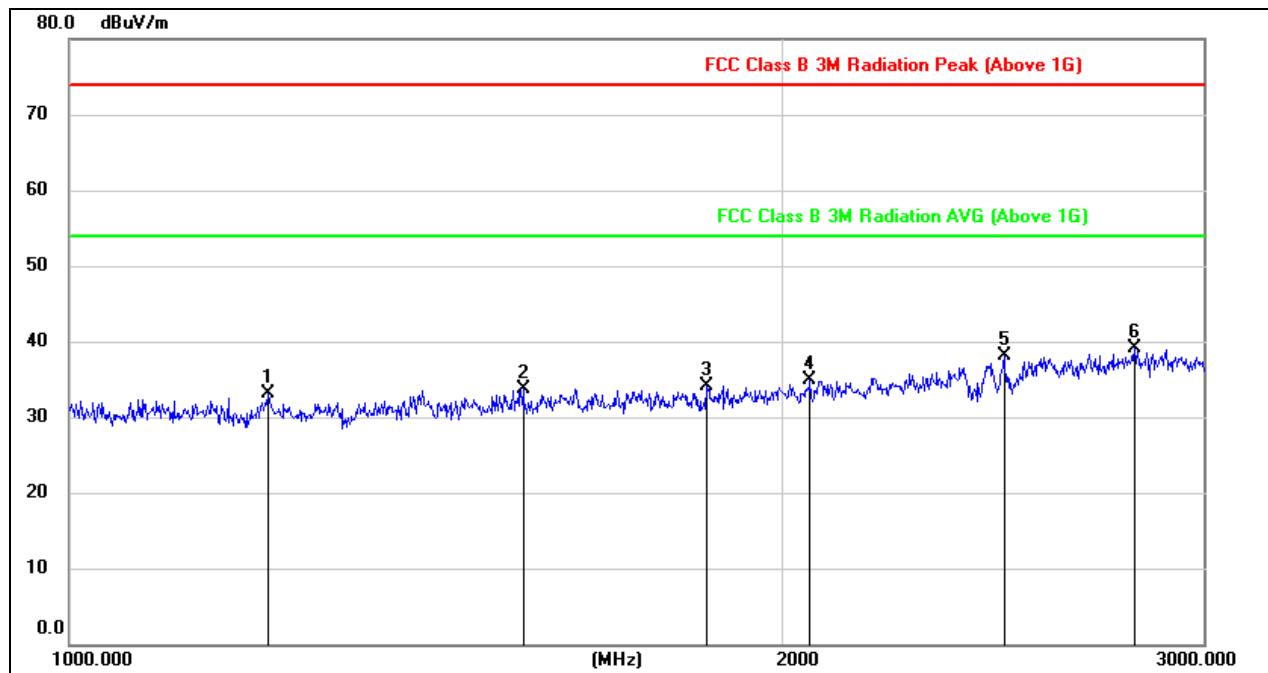
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.

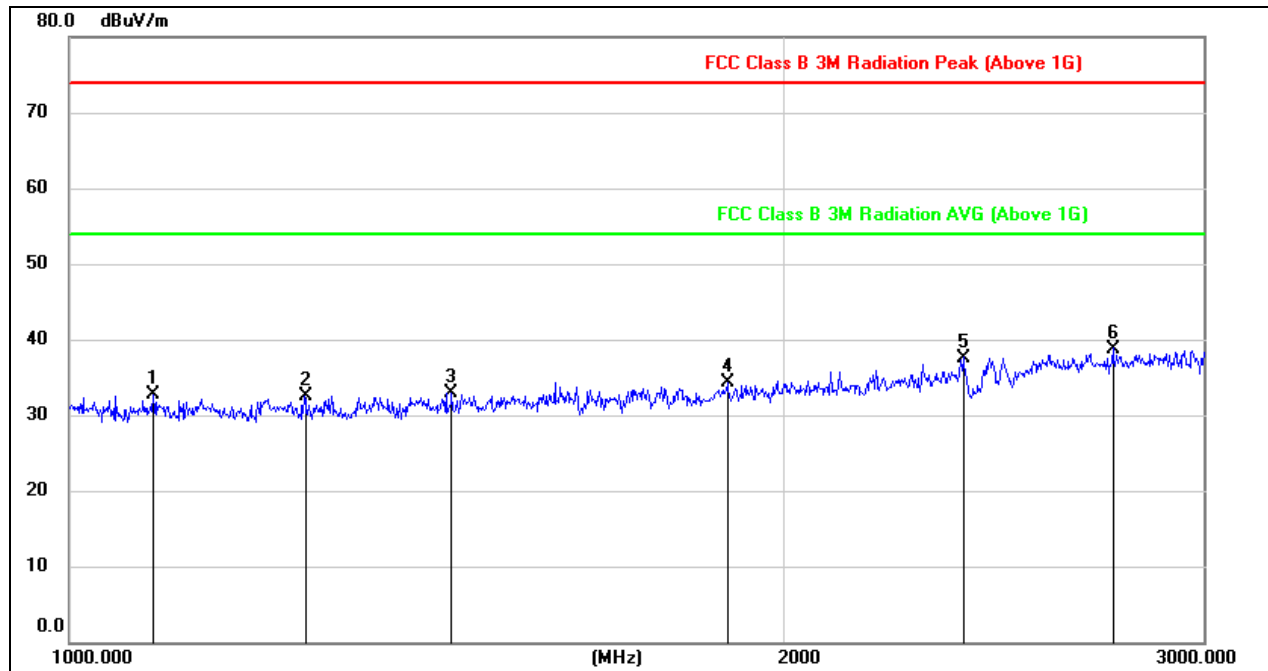
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



**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	1211.982	45.33	-12.29	33.04	74.00	-40.96	peak
2	1553.551	44.87	-11.08	33.79	74.00	-40.21	peak
3	1856.176	43.44	-9.36	34.08	74.00	-39.92	peak
4	2051.338	44.00	-9.03	34.97	74.00	-39.03	peak
5	2472.566	44.71	-6.54	38.17	74.00	-35.83	peak
6	2805.543	44.21	-5.19	39.02	74.00	-34.98	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. The Band Reject filter loss factor already add into the correct factor.  
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	1084.693	45.29	-12.68	32.61	74.00	-41.39	peak
2	1256.728	44.28	-11.75	32.53	74.00	-41.47	peak
3	1448.071	44.59	-11.76	32.83	74.00	-41.17	peak
4	1891.169	43.64	-9.31	34.33	74.00	-39.67	peak
5	2379.297	44.79	-7.19	37.60	74.00	-36.40	peak
6	2747.588	45.16	-6.36	38.80	74.00	-35.20	peak

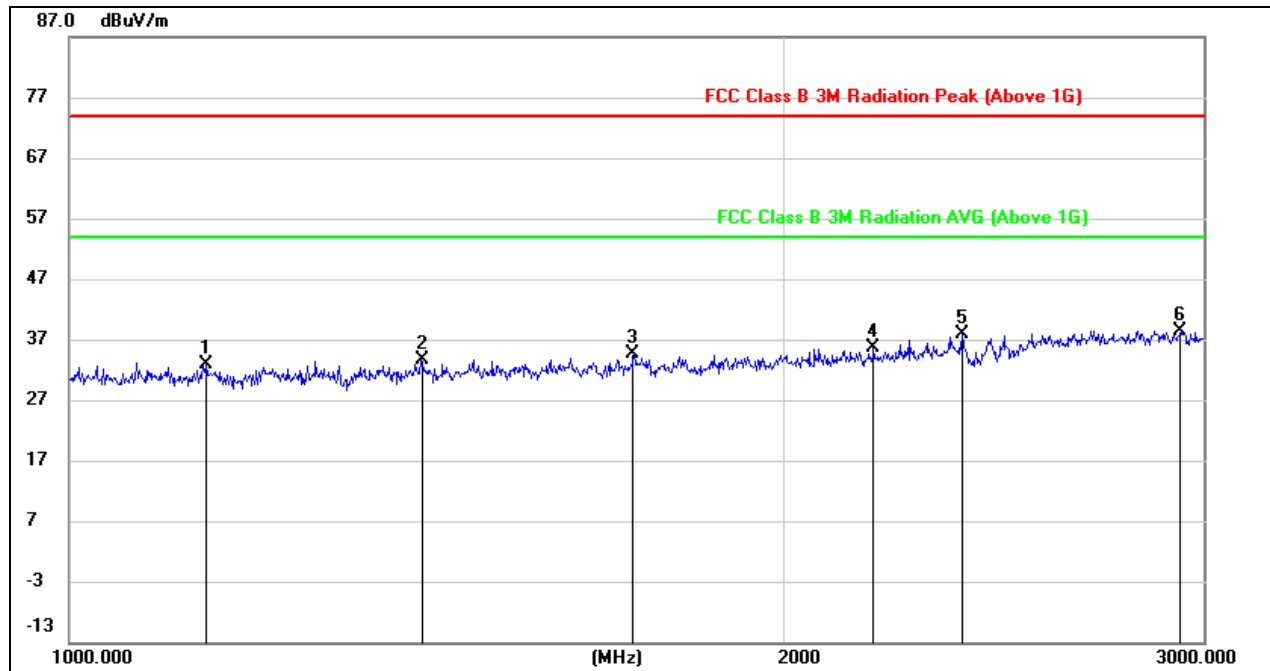
Note: 1. Peak Result = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

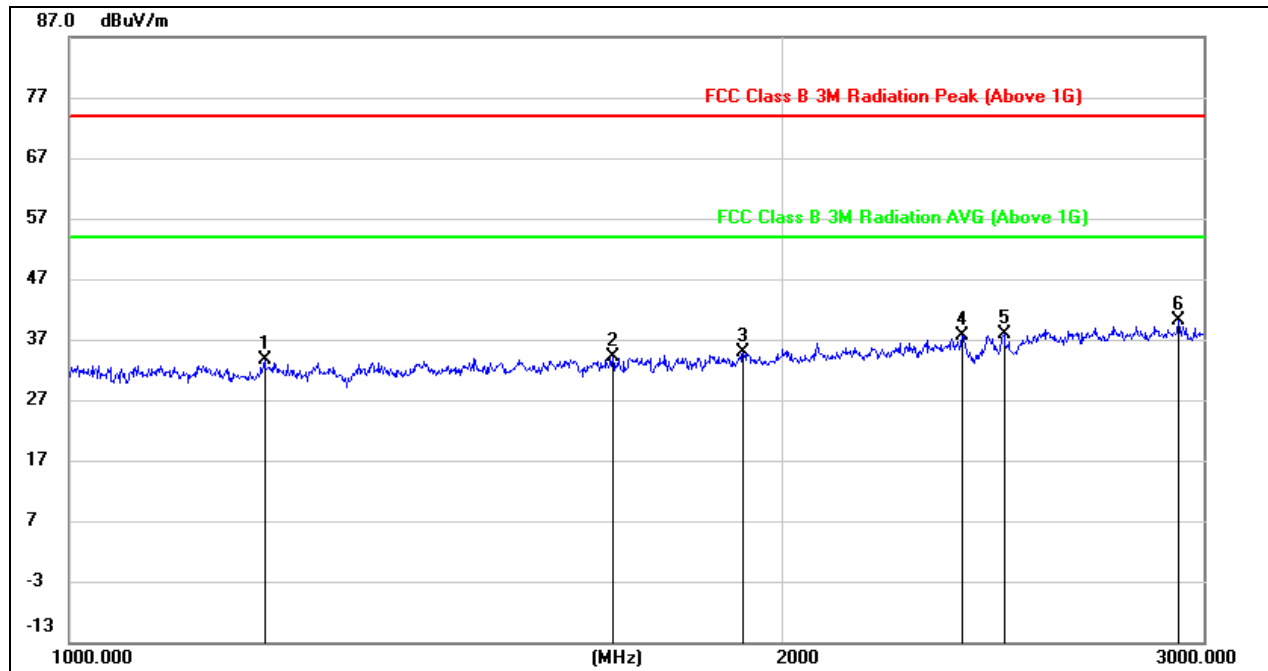
4. The Band Reject filter loss factor already add into the correct factor.

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	1142.172	45.30	-12.52	32.78	74.00	-41.22	peak
2	1407.294	45.62	-11.90	33.72	74.00	-40.28	peak
3	1728.249	44.89	-10.34	34.55	74.00	-39.45	peak
4	2181.504	44.09	-8.42	35.67	74.00	-38.33	peak
5	2376.685	45.10	-7.19	37.91	74.00	-36.09	peak
6	2934.802	43.33	-4.95	38.38	74.00	-35.62	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. The Band Reject filter loss factor already add into the correct factor.  
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

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

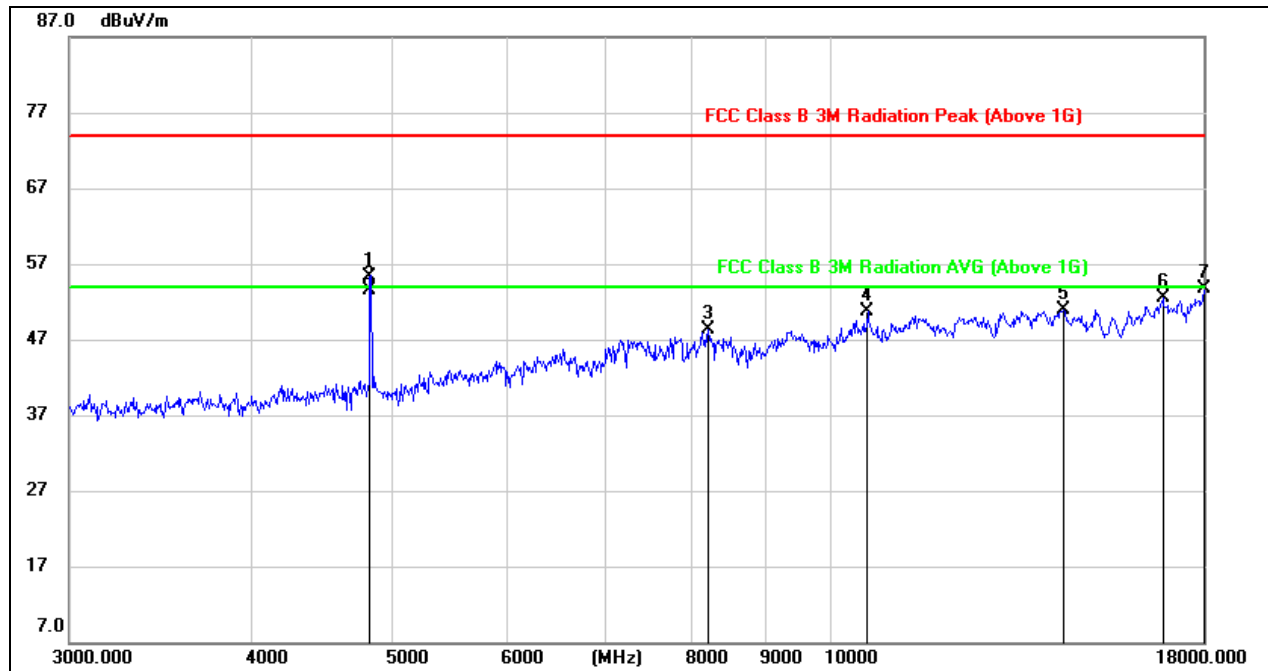
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1207.994	46.09	-12.35	33.74	74.00	-40.26	peak
2	1692.548	44.77	-10.70	34.07	74.00	-39.93	peak
3	1920.481	44.35	-9.39	34.96	74.00	-39.04	peak
4	2376.685	44.79	-7.19	37.60	74.00	-36.40	peak
5	2472.566	44.53	-6.54	37.99	74.00	-36.01	peak
6	2928.361	45.24	-4.99	40.25	74.00	-33.75	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. The Band Reject filter loss factor already add into the correct factor.  
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



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

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

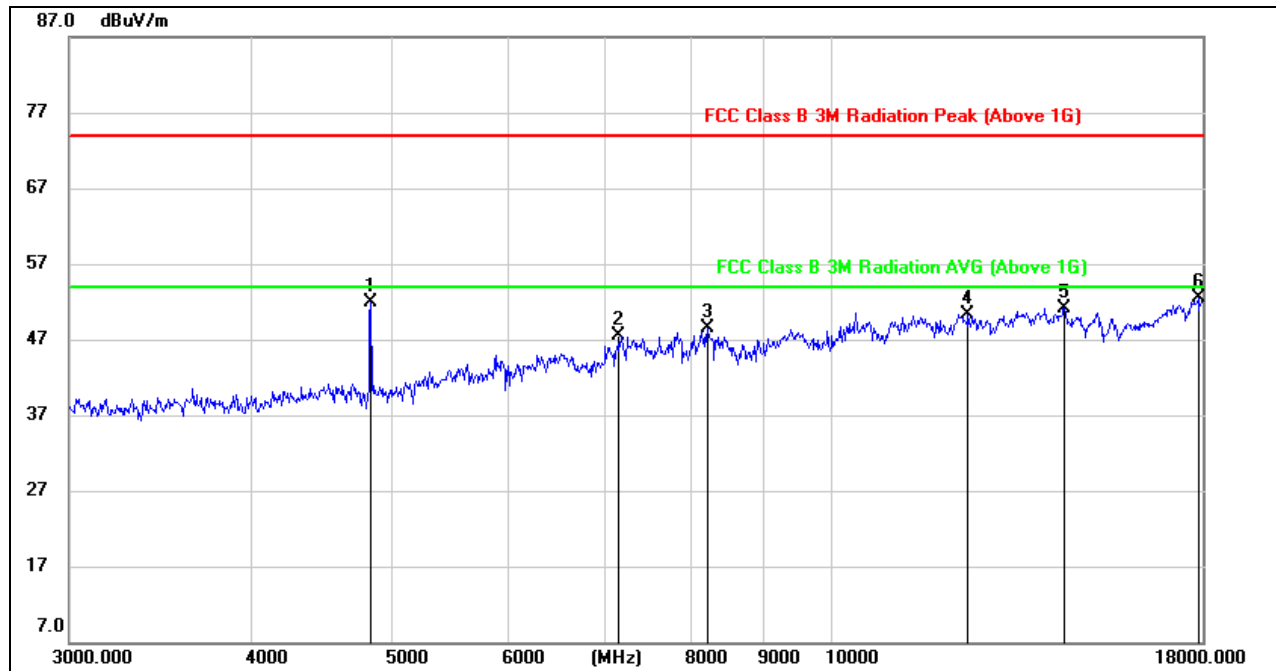


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4829.842	55.46	-0.20	55.26	74.00	-18.74	peak
2	4829.842	53.72	-0.20	53.52	54.00	-0.48	AVG
3	8226.601	38.91	9.33	48.24	74.00	-25.76	peak
4	10591.067	38.10	12.69	50.79	74.00	-23.21	peak
5	14413.908	34.52	16.41	50.93	74.00	-23.07	peak
6	16905.858	32.48	19.95	52.43	74.00	-21.57	peak
7	18000.000	30.41	23.27	53.68	74.00	-20.32	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 transmit duration.  
5. For transmit duration, please refer to clause 6.1.  
6. The High Pass filter loss factor already add into the correct factor.  
7. Proper operation of the transmitter prior to adding the filter to the measurement chain.

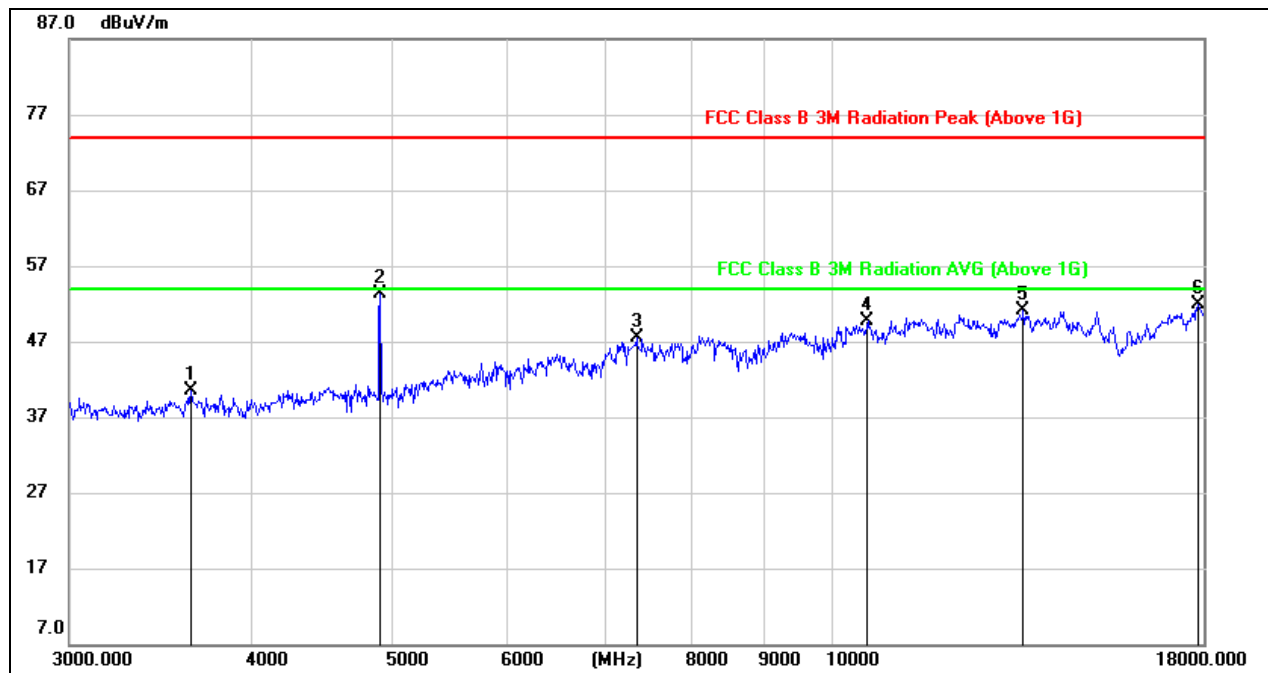


### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



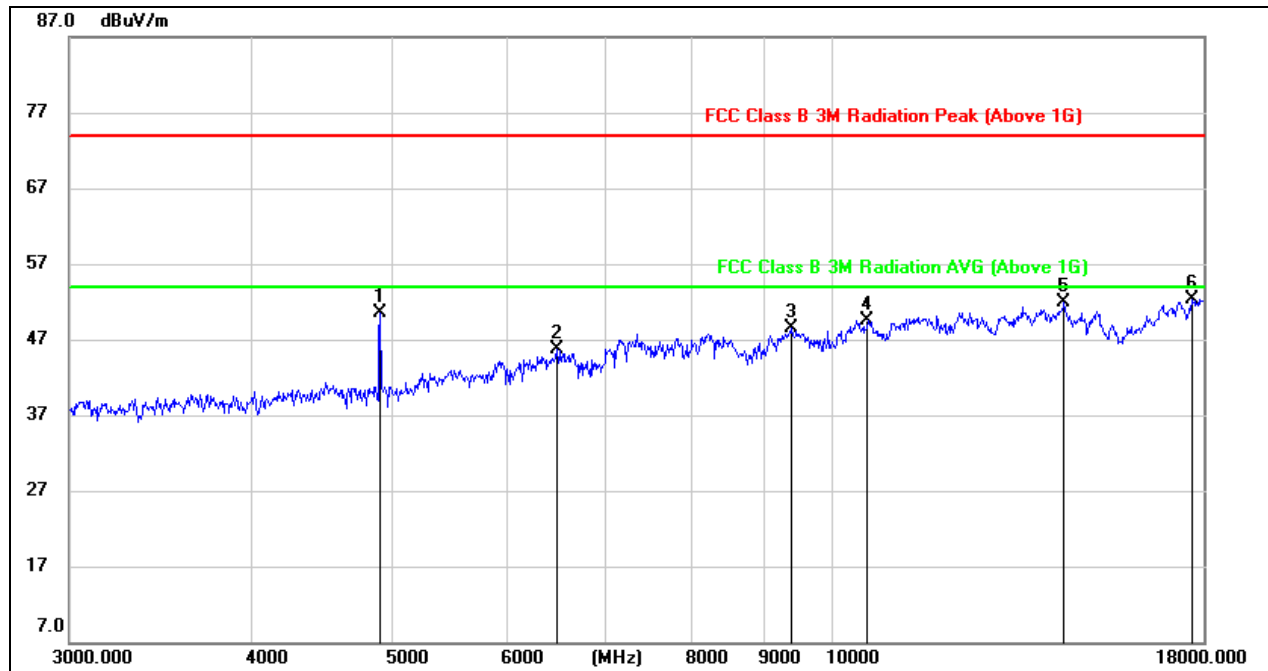
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4840.471	52.02	-0.18	51.84	74.00	-22.16	peak
2	7179.280	40.60	6.89	47.49	74.00	-26.51	peak
3	8226.601	39.10	9.33	48.43	74.00	-25.57	peak
4	12422.105	35.84	14.42	50.26	74.00	-23.74	peak
5	14465.653	34.84	16.35	51.19	74.00	-22.81	peak
6	17871.455	29.38	23.18	52.56	74.00	-21.44	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. The High Pass filter loss factor already add into the correct factor.  
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	3633.988	43.89	-3.40	40.49	74.00	-33.51	peak
2	4901.564	53.36	-0.09	53.27	74.00	-20.73	peak
3	7348.469	40.24	7.31	47.55	74.00	-26.45	peak
4	10591.067	36.98	12.69	49.67	74.00	-24.33	peak
5	13562.027	35.09	15.92	51.01	74.00	-22.99	peak
6	17839.462	28.61	23.21	51.82	74.00	-22.18	peak

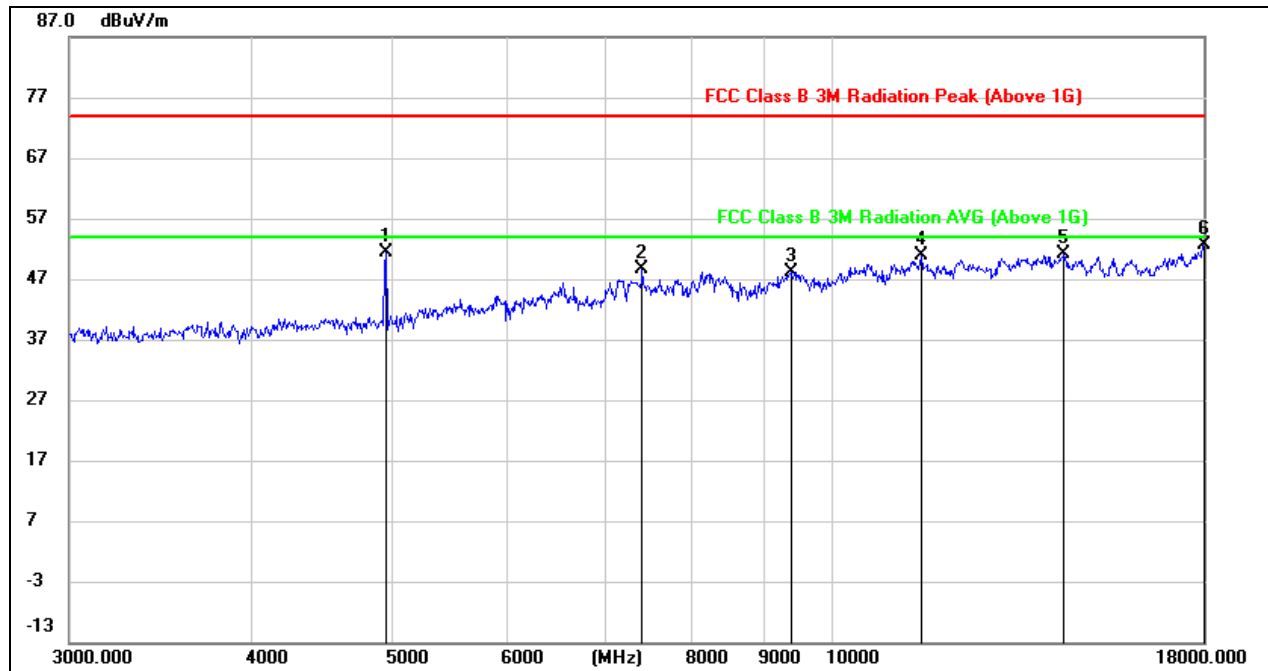
- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. The High Pass filter loss factor already add into the correct factor.  
5. Proper operation of the transmitter prior to adding 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	4901.564	50.50	-0.09	50.41	74.00	-23.59	peak
2	6482.258	39.64	6.09	45.73	74.00	-28.27	peak
3	9392.984	38.16	10.25	48.41	74.00	-25.59	peak
4	10591.067	36.87	12.69	49.56	74.00	-24.44	peak
5	14439.758	35.55	16.39	51.94	74.00	-22.06	peak
6	17680.356	30.21	22.07	52.28	74.00	-21.72	peak

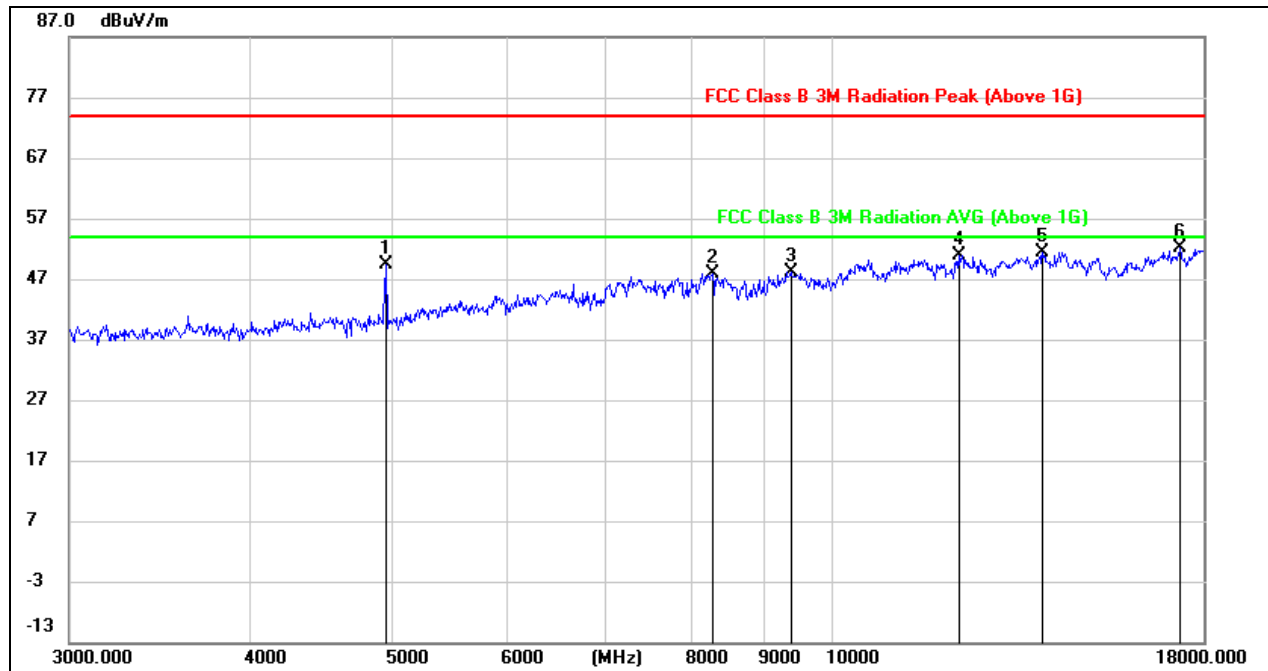
- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. AVG: VBW=1/Ton where: ton is transmit duration.  
5. For transmit duration, please refer to clause 6.1.  
6. The High Pass filter loss factor already add into the correct factor.  
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	4945.674	51.14	0.17	51.31	74.00	-22.69	peak
2	7414.599	41.12	7.46	48.58	74.00	-25.42	peak
3	9376.170	38.08	10.15	48.23	74.00	-25.77	peak
4	11521.601	36.68	14.10	50.78	74.00	-23.22	peak
5	14439.758	34.77	16.39	51.16	74.00	-22.84	peak
6	18000.000	29.47	23.27	52.74	74.00	-21.26	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. The High Pass filter loss factor already add into the correct factor.  
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

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

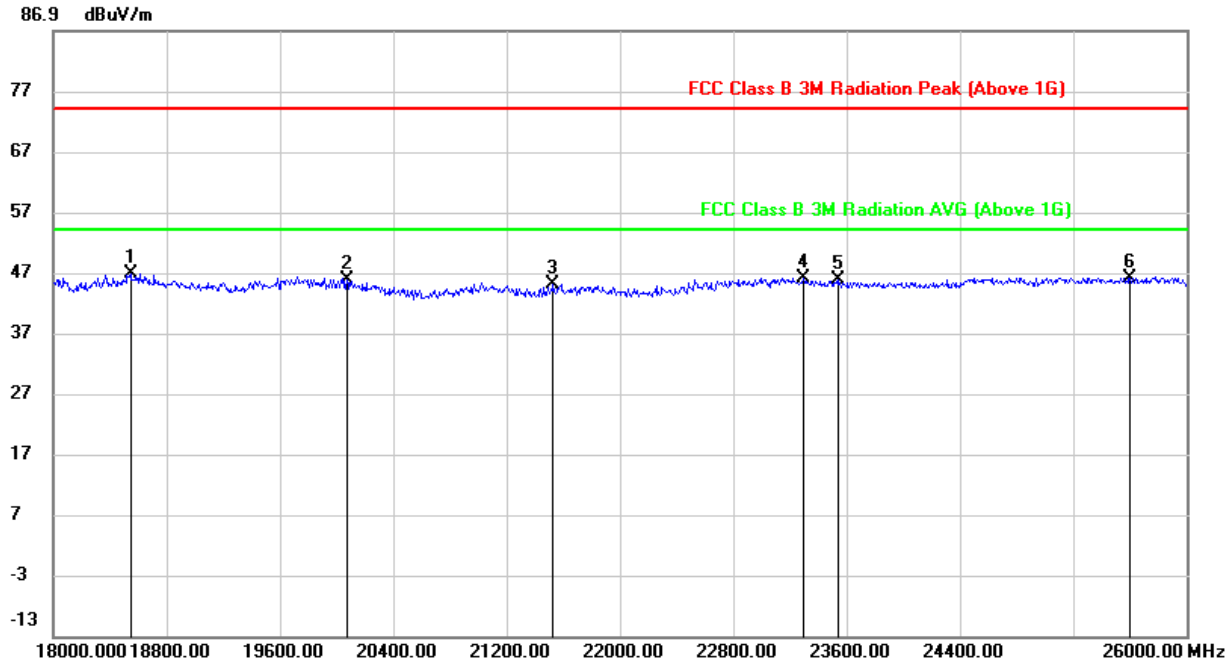
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4945.674	49.25	0.17	49.42	74.00	-24.58	peak
2	8300.632	39.43	8.51	47.94	74.00	-26.06	peak
3	9376.170	37.96	10.15	48.11	74.00	-25.89	peak
4	12223.395	36.61	14.26	50.87	74.00	-23.13	peak
5	13956.452	35.20	16.28	51.48	74.00	-22.52	peak
6	17335.299	30.27	21.75	52.02	74.00	-21.98	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.  
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.  
3. Peak: Peak detector.  
4. The High Pass filter loss factor already add into the correct factor.  
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



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

### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)

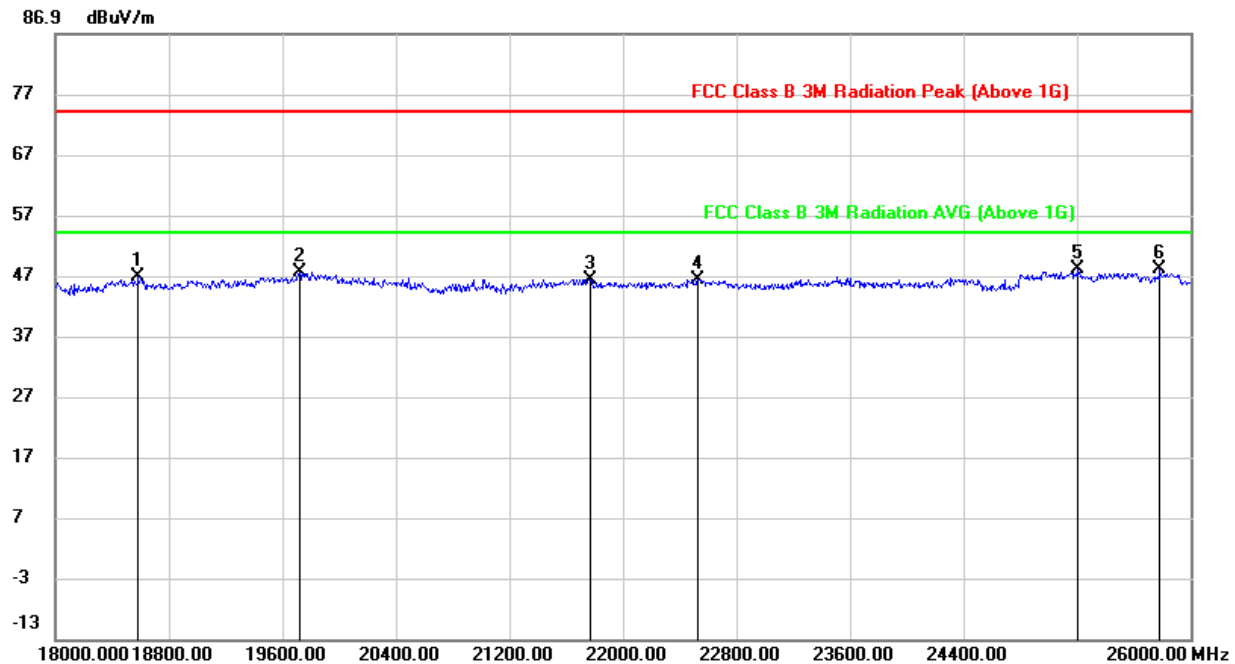


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18544.000	51.26	-4.46	46.80	74.00	-27.20	peak
2	20072.000	50.34	-4.51	45.83	74.00	-28.17	peak
3	21528.000	50.92	-5.78	45.14	74.00	-28.86	peak
4	23296.000	51.30	-5.16	46.14	74.00	-27.86	peak
5	23536.000	50.46	-4.74	45.72	74.00	-28.28	peak
6	25600.000	47.76	-1.62	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.



**HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)**



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18584.000	51.19	-4.53	46.66	74.00	-27.34	peak
2	19720.000	52.00	-4.39	47.61	74.00	-26.39	peak
3	21768.000	52.17	-5.79	46.38	74.00	-27.62	peak
4	22528.000	52.16	-5.79	46.37	74.00	-27.63	peak
5	25208.000	49.13	-1.16	47.97	74.00	-26.03	peak
6	25784.000	49.58	-1.49	48.09	74.00	-25.91	peak

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

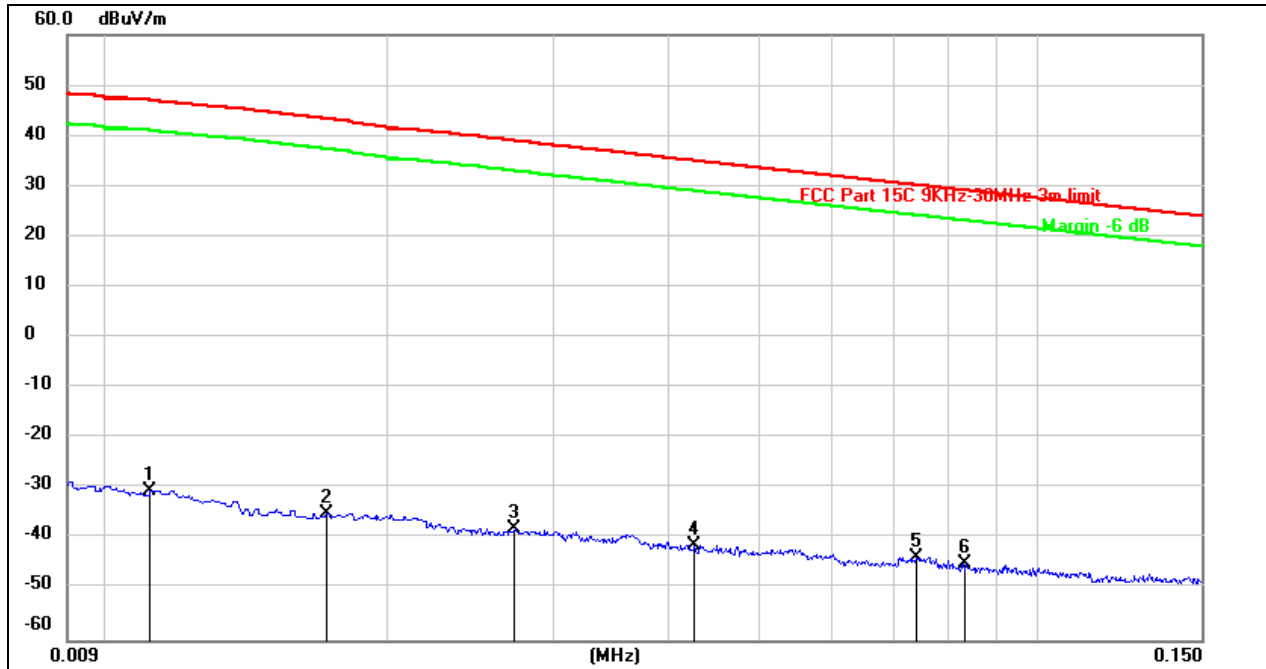
Note: All test mode has been tested, only the worst data record in the report.



## 7.6. SPURIOUS EMISSIONS BELOW 30M

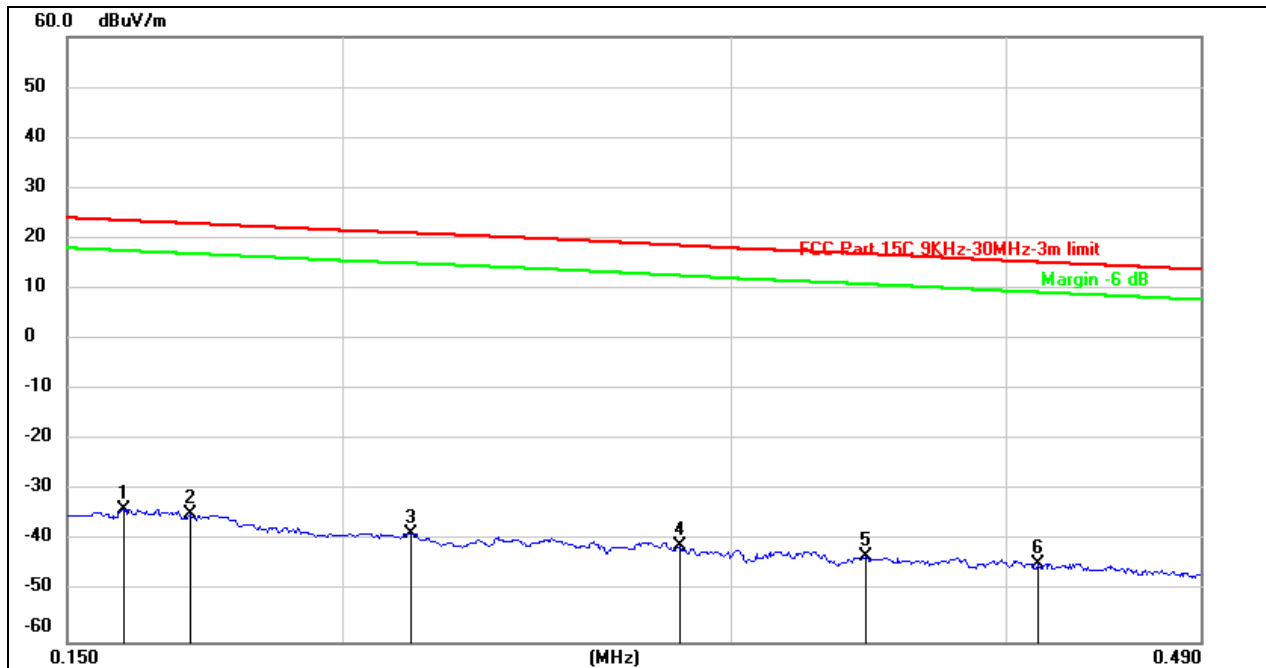
### SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)

9kHz~ 150kHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0111	70.95	-101.39	-30.44	46.94	-77.38	peak
2	0.0171	66.38	-101.36	-34.98	43.33	-78.31	peak
3	0.0273	63.49	-101.38	-37.89	39.01	-76.90	peak
4	0.0427	60.14	-101.45	-41.31	35.04	-76.35	peak
5	0.0738	57.92	-101.58	-43.66	30.26	-73.92	peak
6	0.0834	56.78	-101.66	-44.88	29.19	-74.07	peak

Note: 1. Measurement = Reading Level + Correct Factor.  
2. All the modes had been tested, but only the worst data were recorded in the report.  
3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

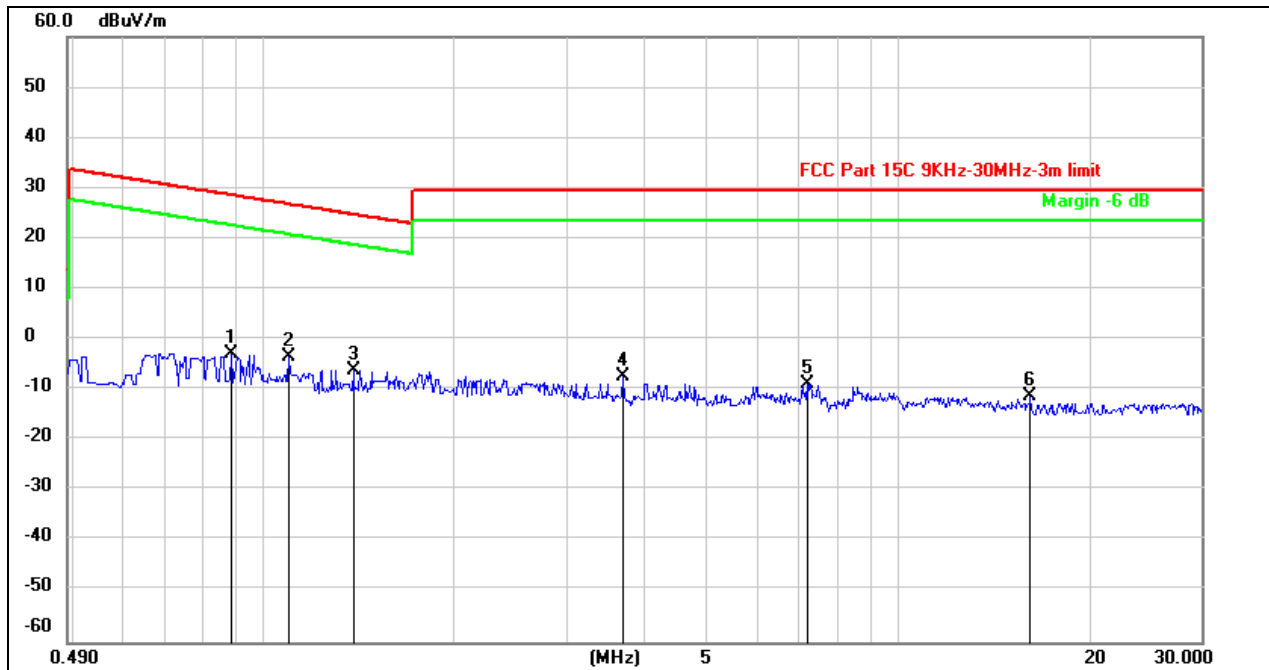
**150kHz ~ 490kHz**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1592	67.85	-101.65	-33.80	23.56	-57.36	peak
2	0.1705	67.09	-101.67	-34.58	22.98	-57.56	peak
3	0.2149	63.20	-101.75	-38.55	21.05	-59.60	peak
4	0.2846	60.79	-101.83	-41.04	18.60	-59.64	peak
5	0.3452	58.99	-101.90	-42.91	16.93	-59.84	peak
6	0.4132	57.55	-101.98	-44.43	15.30	-59.73	peak

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

2. All the modes had been tested, but only the worst data were recorded in the report.

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

490kHz ~ 30MHz

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.8898	59.45	-62.20	-2.75	28.62	-31.37	peak
2	1.0927	58.78	-62.22	-3.44	26.84	-30.28	peak
3	1.3815	55.97	-62.10	-6.13	24.80	-30.93	peak
4	3.6793	54.03	-61.41	-7.38	29.54	-36.92	peak
5	7.1886	52.26	-61.19	-8.93	29.54	-38.47	peak
6	16.1598	49.61	-60.97	-11.36	29.54	-40.90	peak

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

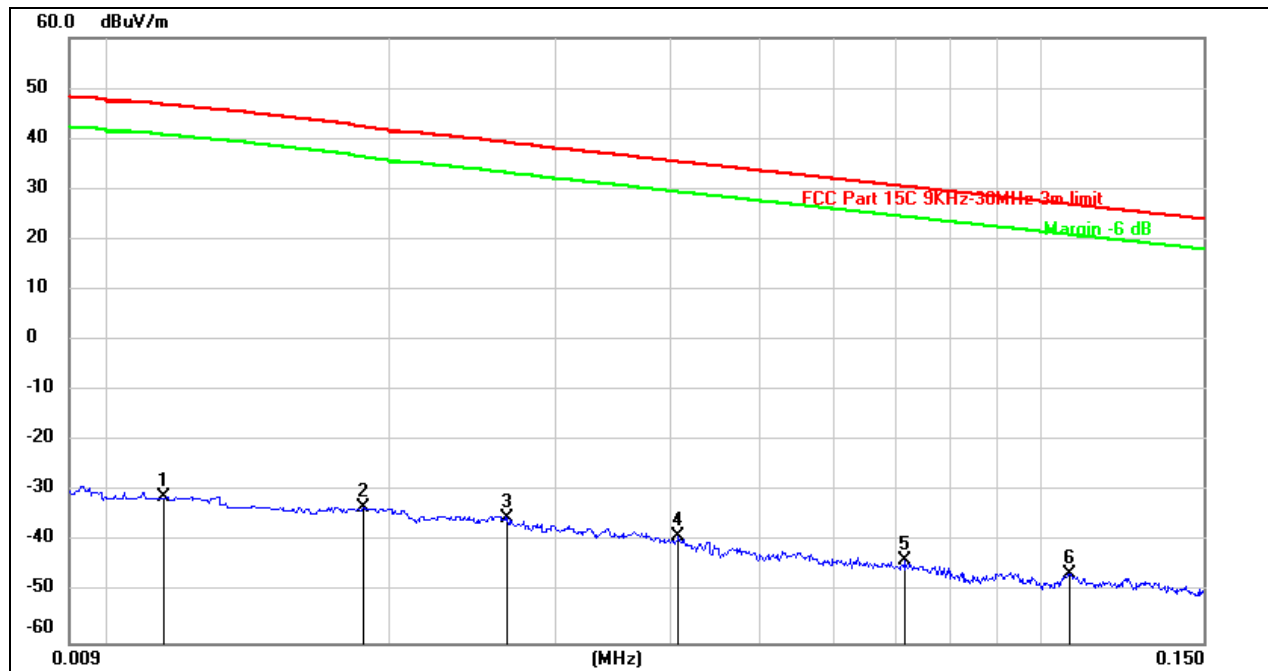
2. All the modes had been tested, but only the worst data were recorded in the report.

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



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

**9kHz~ 150kHz**



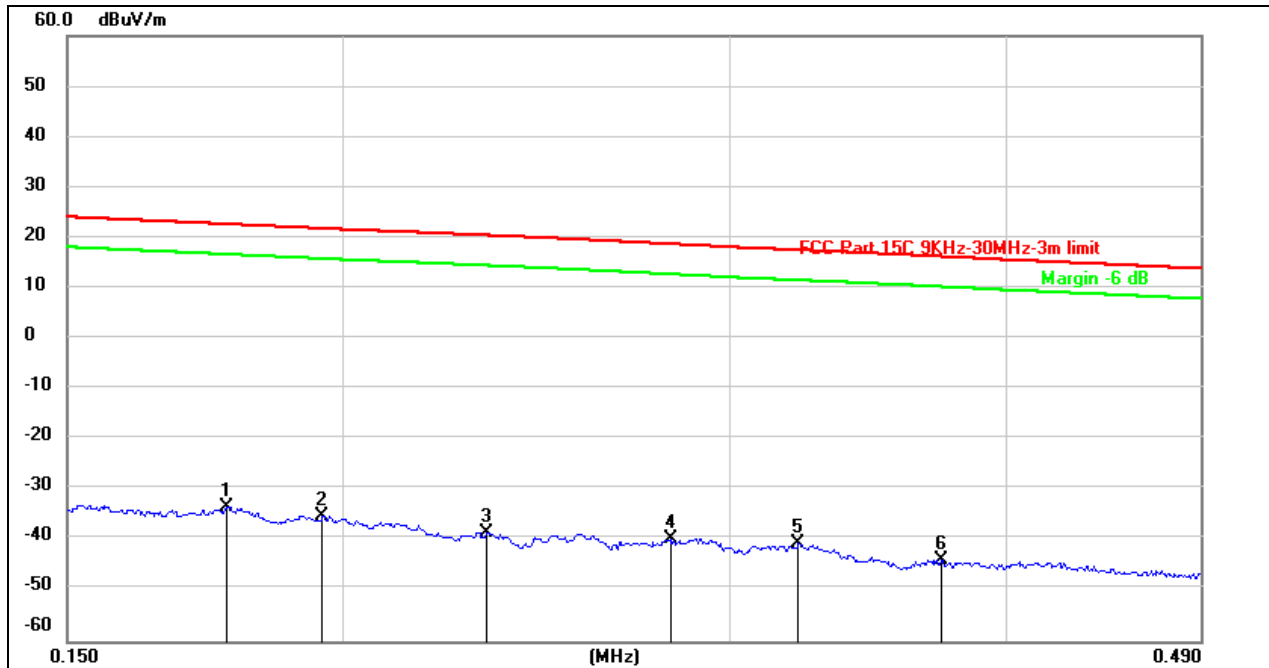
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0114	70.40	-101.40	-31.00	46.76	-77.76	peak
2	0.0187	68.19	-101.35	-33.16	42.36	-75.52	peak
3	0.0267	66.06	-101.37	-35.31	39.22	-74.53	peak
4	0.0408	62.46	-101.44	-38.98	35.40	-74.38	peak
5	0.0714	57.91	-101.57	-43.66	30.54	-74.20	peak
6	0.1078	55.37	-101.78	-46.41	26.96	-73.37	peak

Note: 1. Measurement = Reading Level + Correct Factor.  
2. All the modes had been tested, but only the worst data were recorded in the report.  
3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.





**150kHz ~ 490kHz**

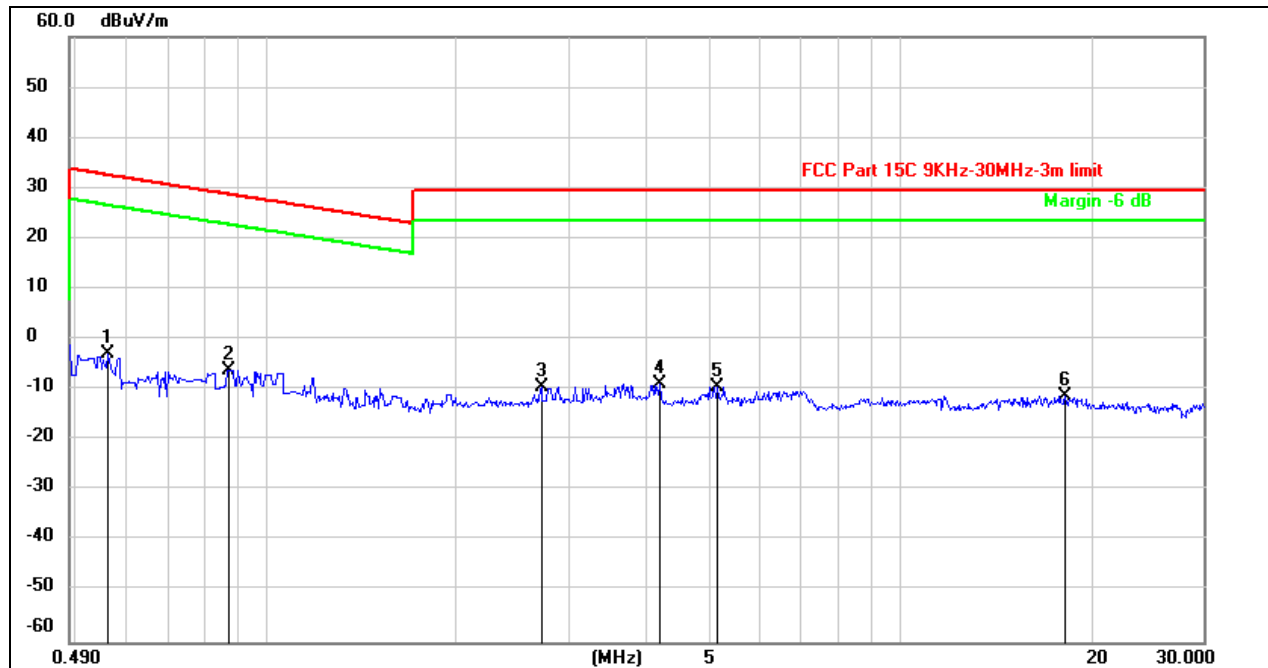


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1774	68.31	-101.68	-33.37	22.63	-56.00	peak
2	0.1958	66.48	-101.71	-35.23	21.77	-57.00	peak
3	0.2326	63.22	-101.77	-38.55	20.43	-58.98	peak
4	0.2816	62.12	-101.83	-39.71	18.71	-58.42	peak
5	0.3220	61.28	-101.88	-40.60	17.51	-58.11	peak
6	0.3738	57.99	-101.93	-43.94	16.21	-60.15	peak

Note: 1. Measurement = Reading Level + Correct Factor.  
2. All the modes had been tested, but only the worst data were recorded in the report.  
3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.



490kHz ~ 30MHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.5635	59.34	-62.08	-2.74	32.62	-35.36	peak
2	0.8736	56.16	-62.19	-6.03	28.79	-34.82	peak
3	2.7136	52.13	-61.65	-9.52	29.54	-39.06	peak
4	4.1801	52.44	-61.35	-8.91	29.54	-38.45	peak
5	5.1524	52.13	-61.47	-9.34	29.54	-38.88	peak
6	18.2255	49.57	-60.90	-11.33	29.54	-40.87	peak

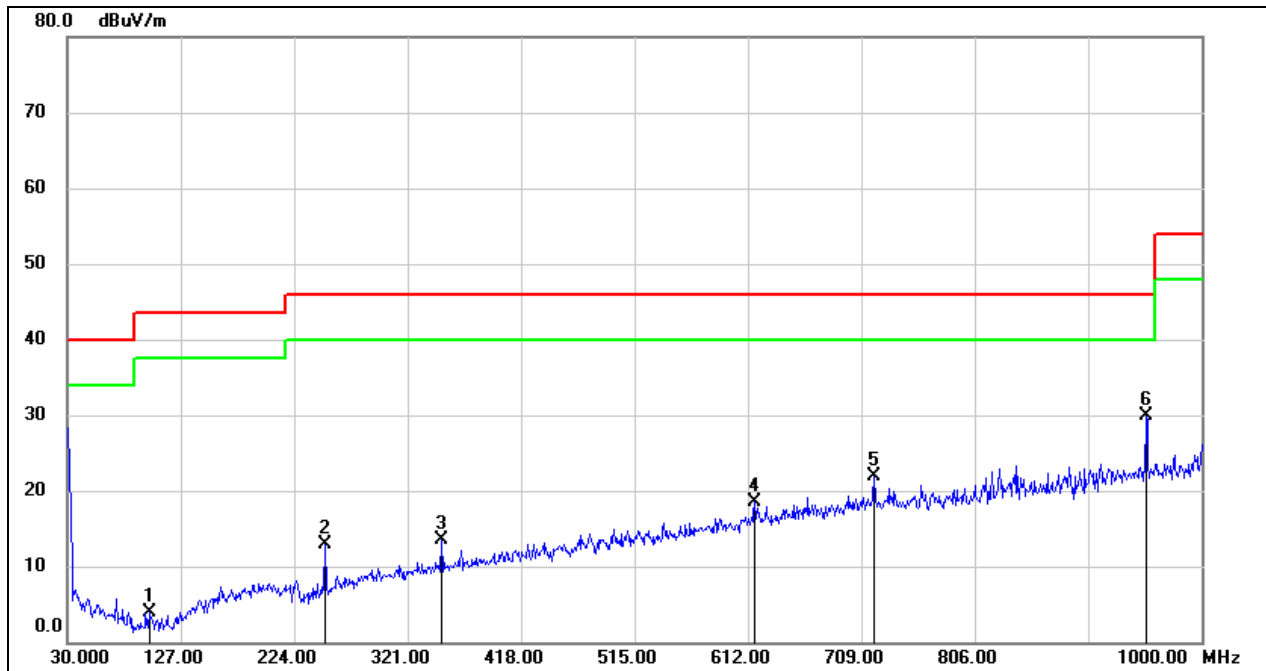
Note: 1. Measurement = Reading Level + Correct Factor.  
2. All the modes had been tested, but only the worst data were recorded in the report.  
3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

Note: All test mode has been tested, only the worst data record in the report.



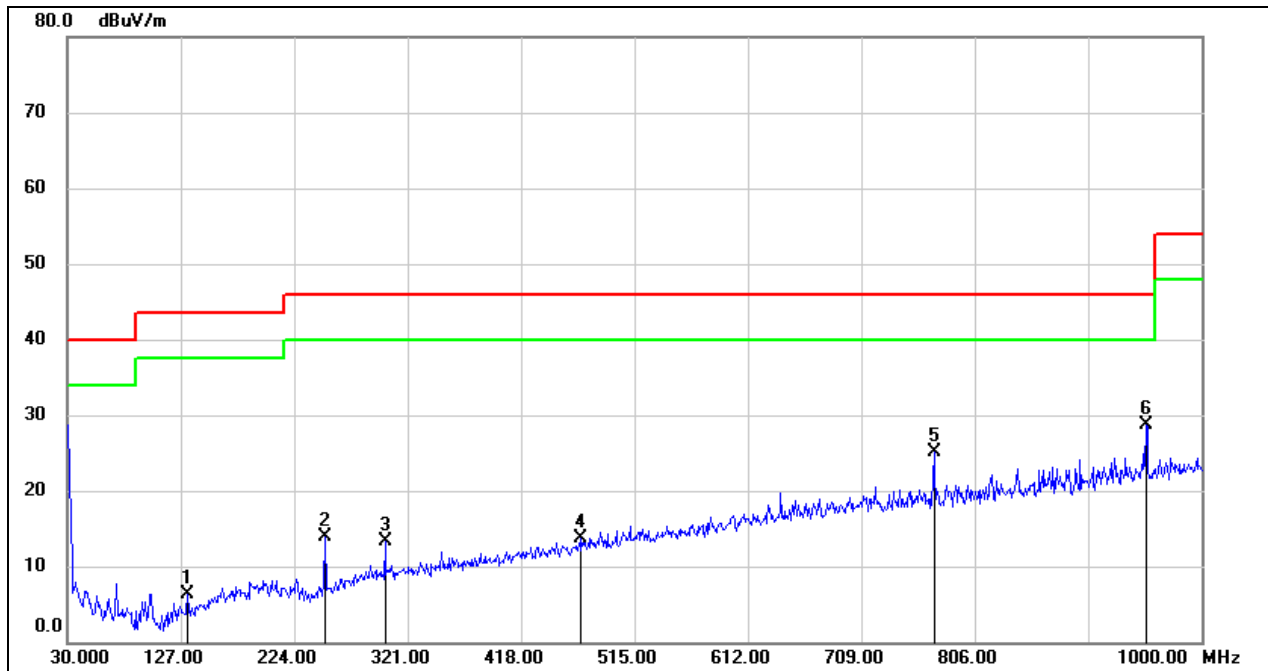
## 7.7. SPURIOUS EMISSIONS BELOW 1 GHz

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	99.8399	25.62	-21.62	4.00	43.50	-39.50	QP
2	250.1900	28.75	-15.76	12.99	46.00	-33.01	QP
3	350.1000	26.24	-12.80	13.44	46.00	-32.56	QP
4	617.8200	26.13	-7.67	18.46	46.00	-27.54	QP
5	719.6700	27.57	-5.73	21.84	46.00	-24.16	QP
6	952.4700	32.87	-3.00	29.87	46.00	-16.13	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 (HIGH CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	132.8200	25.59	-19.26	6.33	43.50	-37.17	QP
2	250.1900	29.64	-15.76	13.88	46.00	-32.12	QP
3	301.6000	26.77	-13.47	13.30	46.00	-32.70	QP
4	469.4100	24.33	-10.65	13.68	46.00	-32.32	QP
5	771.0800	30.56	-5.44	25.12	46.00	-20.88	QP
6	952.4700	31.71	-3.00	28.71	46.00	-17.29	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 test mode has been tested, only the worst data record in the report.

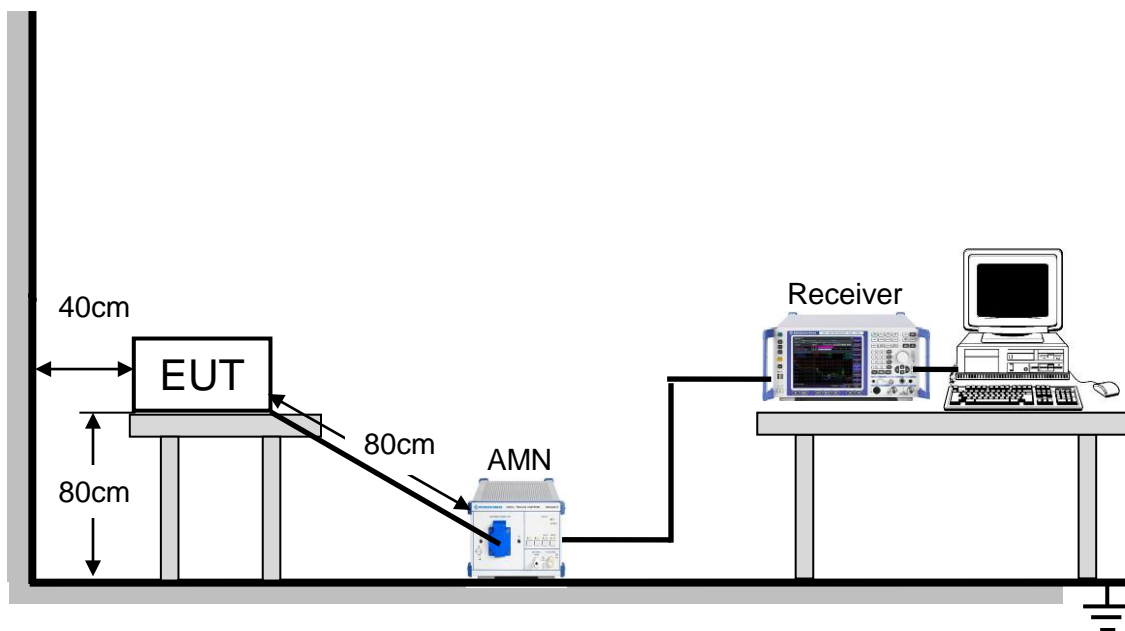
## 8. AC POWER LINE CONDUCTED EMISSIONS

### LIMITS

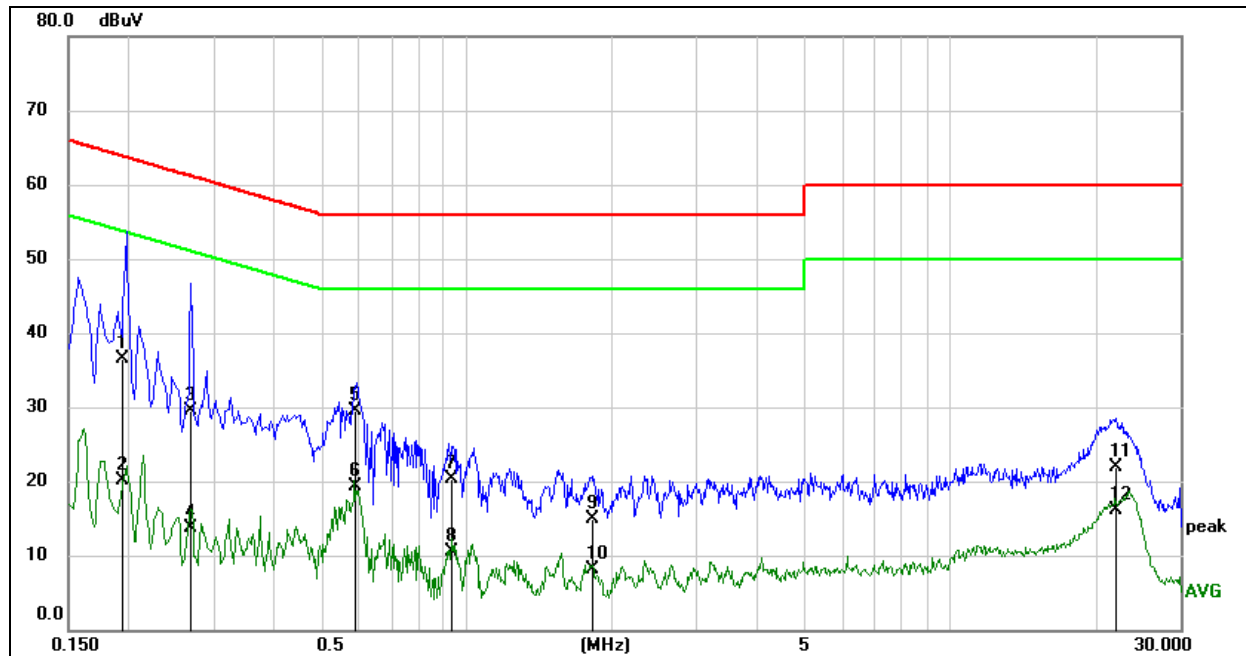
Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

FREQUENCY (MHz)	Class B (dBuV)	
	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



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 C63.10-2003. 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.

**LINE N RESULTS (HIGH CHANNEL, WORST-CASE CONFIGURATION)**

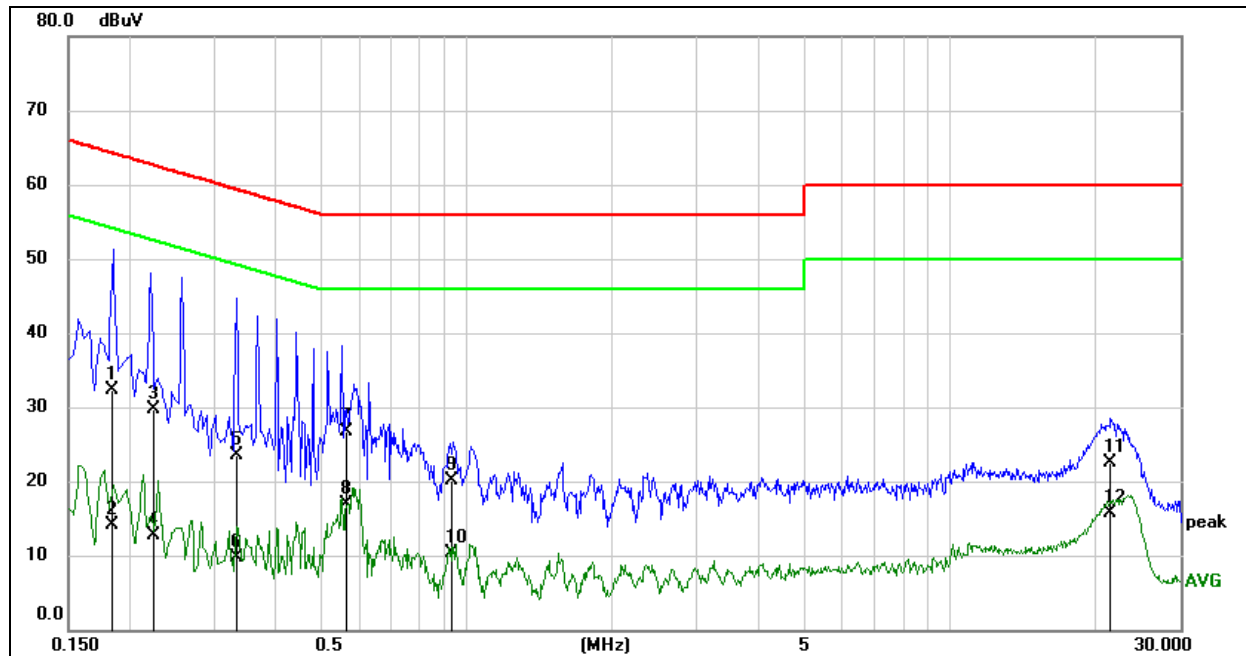
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1944	26.88	9.60	36.48	63.85	-27.37	QP
2	0.1944	10.55	9.60	20.15	53.85	-33.70	AVG
3	0.2683	19.91	9.60	29.51	61.17	-31.66	QP
4	0.2683	4.06	9.60	13.66	51.17	-37.51	AVG
5	0.5865	19.84	9.60	29.44	56.00	-26.56	QP
6	0.5865	9.64	9.60	19.24	46.00	-26.76	AVG
7	0.9375	10.80	9.60	20.40	56.00	-35.60	QP
8	0.9375	0.83	9.60	10.43	46.00	-35.57	AVG
9	1.8211	5.27	9.62	14.89	56.00	-41.11	QP
10	1.8211	-1.59	9.62	8.03	46.00	-37.97	AVG
11	22.1317	11.80	10.05	21.85	60.00	-38.15	QP
12	22.1317	6.00	10.05	16.05	50.00	-33.95	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 (HIGH CHANNEL, WORST-CASE CONFIGURATION)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1841	22.73	9.60	32.33	64.30	-31.97	QP
2	0.1841	4.45	9.60	14.05	54.30	-40.25	AVG
3	0.2260	20.11	9.60	29.71	62.60	-32.89	QP
4	0.2260	3.04	9.60	12.64	52.60	-39.96	AVG
5	0.3326	13.95	9.60	23.55	59.39	-35.84	QP
6	0.3326	0.12	9.60	9.72	49.39	-39.67	AVG
7	0.5663	17.18	9.60	26.78	56.00	-29.22	QP
8	0.5663	7.38	9.60	16.98	46.00	-29.02	AVG
9	0.9351	10.51	9.60	20.11	56.00	-35.89	QP
10	0.9351	0.75	9.60	10.35	46.00	-35.65	AVG
11	21.5997	12.26	10.19	22.45	60.00	-37.55	QP
12	21.5997	5.59	10.19	15.78	50.00	-34.22	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 test mode has been tested, only the worst data record in the report



## 9. 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

**END OF REPORT**