CFR 47 FCC PART 15 SUBPART C

TEST REPORT

For

Grrrumball

MODEL NUMBER: US858330, EU858330, YW858330, US858330B, EU858330B, YW858330B

FCC ID: 2AIRP8580026

REPORT NUMBER: 4788940157.1-7

ISSUE DATE: April 17, 2019

Prepared for

ALPHA GROUP CO., LTD.
AULDEYIND. AREA, WENGUAN
RD.(CENTRAL),CHENGHAI, SHANTOU,GUANGDONG, CHINA

Prepared by

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

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

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

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	04/17/2019	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	Antenna Requirement	FCC Part 15.203	Pass

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS 5

2. TEST METHODOLOGY 6

3. FACILITIES AND ACCREDITATION 6

4. CALIBRATION AND UNCERTAINTY 7

4.1. MEASURING INSTRUMENT CALIBRATION 7

4.2. MEASUREMENT UNCERTAINTY 7

5. EQUIPMENT UNDER TEST 8

5.1. DESCRIPTION OF EUT 8

5.2. MAXIMUM OUTPUT POWER 8

5.3. CHANNEL LIST 8

5.4. DESCRIPTION OF AVAILABLE ANTENNAS 8

5.5. TEST CHANNEL CONFIGURATION 9

5.6. THE WORSE CASE POWER SETTING PARAMETER 9

5.7. TEST ENVIRONMENT 9

5.8. DESCRIPTION OF TEST SETUP 10

5.9. MEASURING INSTRUMENT AND SOFTWARE USED 11

6. ANTENNA PORT TEST RESULTS 12

6.1. ON TIME AND DUTY CYCLE 12

6.2. 20 dB BANDWIDTH AND 99% OCCUPIED BANDWIDTH 14

7. RADIATED TEST RESULTS 18

7.1. LIMITS AND PROCEDURE 18

7.2. RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS 24

7.3. SPURIOUS EMISSIONS (1~3GHz) 30

7.4. SPURIOUS EMISSIONS (3~18GHz) 36

7.5. SPURIOUS EMISSIONS (18~26GHz) 42

7.6. SPURIOUS EMISSIONS BELOW 30M 44

7.7. SPURIOUS EMISSIONS BELOW 1 GHz 50

8. ANTENNA REQUIREMENTS 52

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	ALPHA GROUP CO., LTD.
Address:	AULDEYIND. AREA, WENGUAN RD.(CENTRAL),CHENGHAI, SHANTOU,GUANGDONG, CHINA

Manufacturer Information

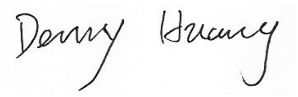
Company Name:	ALPHA GROUP CO., LTD.
Address:	AULDEYIND. AREA, WENGUAN RD.(CENTRAL),CHENGHAI, SHANTOU,GUANGDONG, CHINA

EUT Description

EUT Name:	Grrrumball
Model:	US858330, EU858330, YW858330, US858330B, EU858330B, YW858330B
Model Difference	All the same except for the model name.
Brand Name:	/
Sample ID:	2170638
Sample Status:	Normal
Sample Received Date:	March 26, 2019
Date of Tested:	March 26, 2019 ~ April 17, 2019

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

Prepared By:



Denny Huang
Engineer Project Associate

Checked By:

Shawn Wen
Laboratory Leader

Approved By:

Stephen Guo

Laboratory Manager

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 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	**A2LA (Certificate No.: 4102.01)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. **FCC (FCC Designation No.: CN1187)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Delcaration of Conformity (DoC) and Certification rules **IC(Company No.: 21320)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320. **VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011

Note:

1. All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China
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	Grrrumball	
EUT Description	The EUT is a wireless remote controlled toy.	
Model	US858330	
Series Model	EU858330, YW858330, US858330B, EU858330B, YW858330B	
Model Difference	All the same except for the model name.	
Product Description	Operation Frequency	2410 MHz ~ 2475 MHz
	Modulation Type	GFSK
Battery	DC 6V	

5.2. MAXIMUM OUTPUT POWER

Frequency Range (MHz)	Number of Transmit Chains (NTX)	Frequency (MHz)	Channel Number	Max Power (dBµV/m)
2410 ~ 2475	1	2475	27[27]	91.59

5.3. CHANNEL LIST

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2410	8	2424	15	2441	22	2465
2	2412	9	2426	16	2443	23	2467
3	2414	10	2431	17	2445	24	2469
4	2416	11	2433	18	2447	25	2471
5	2418	12	2435	19	2459	26	2473
6	2420	13	2437	20	2461	27	2475
7	2422	14	2439	21	2463	/	/

5.4. DESCRIPTION OF AVAILABLE ANTENNAS

Ant.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1	2410 ~ 2475	Wire Antenna	2.5

Test Mode	Transmit and Receive Mode	Description
GFSK	☒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 17, CH 27	2410MHz, 2445MHz, 2475MHz

5.6. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2402 ~ 2483.5MHz Band				
Test Software		/		
Modulation Type	Transmit Antenna Number	Test Channel		
		CH 1	CH 17	CH 27
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 6V
	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	/	/	/	/

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 engineering mode inside.

SETUP DIAGRAM FOR TEST

EUT

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.
☑	EMI Test Receiver	R&S	ESR3	101961	Dec.10,2018	Dec.10,2019
☑	Two-Line V-Network	R&S	ENV216	101983	Dec.10,2018	Dec.10,2019
☑	Artificial Mains Networks	Schwarzbeck	NSLK 8126	8126465	Dec.10,2018	Dec.10,2019
Software						
Used	Description		Manufacturer	Name	Version	
☑	Test Software for Conducted disturbance		Farad	EZ-EMC	Ver. UL-3A1	
Radiated Emissions						
Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Dec.10,2018	Dec.10,2019
☑	Hybrid Log Periodic Antenna	TDK	HLP-3003C	130960	Sep.17,2018	Sep.17,2021
☑	Preamplifier	HP	8447D	2944A09099	Dec.10,2018	Dec.10,2019
☑	EMI Measurement Receiver	R&S	ESR26	101377	Dec.10,2018	Dec.10,2019
☑	Horn Antenna	TDK	HRN-0118	130939	Sep.17,2018	Sep.17,2021
☑	High Gain Horn Antenna	Schwarzbeck	BBHA-9170	691	Aug.18,2018	Aug.18,2021
☑	Preamplifier	TDK	PA-02-0118	TRS-305-00066	Dec.10,2018	Dec.10,2019
☑	Preamplifier	TDK	PA-02-2	TRS-307-00003	Dec.10,2018	Dec.10,2019
☑	Loop antenna	Schwarzbeck	1519B	00008	Jan.17, 2019	Jan.17,2022
Software						
Used	Description		Manufacturer	Name	Version	
☑	Test Software for Radiated disturbance		Farad	EZ-EMC	Ver. UL-3A1	
Other instruments						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	Spectrum Analyzer	Keysight	N9030A	MY55410512	Dec.10,2018	Dec.10,2019
☑	Band Reject Filter	Wainwright	WRCJV8-2350-2400-2483.5-2533.5-40SS	4	Dec.10,2018	Dec.10,2019
☑	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

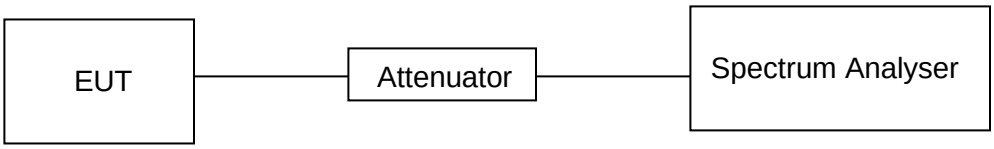
LIMITS

None; for reporting purposes only

PROCEDURE

ANSI C63.10-2014 Zero-Span Spectrum Analyzer Method

TEST SETUP

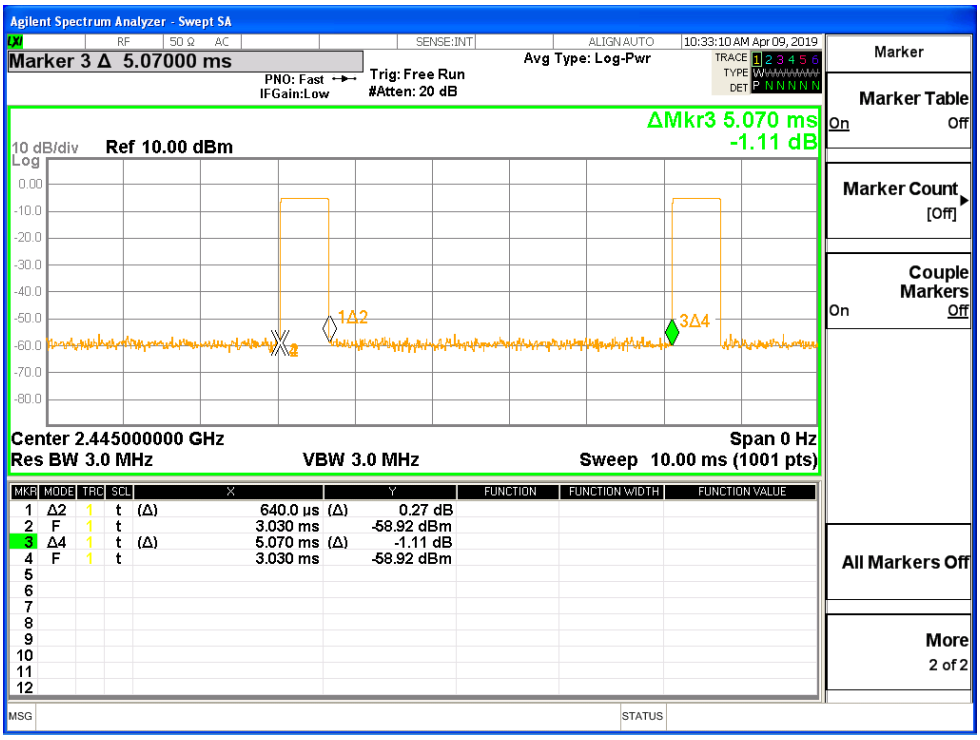


RESULTS

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	0.640	5.07	0.126	12.62	9.00	1.563	2

Note:
Duty Cycle Correction Factor=10log(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 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

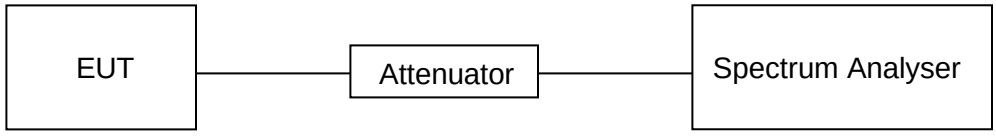
TEST PROCEDURE

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.

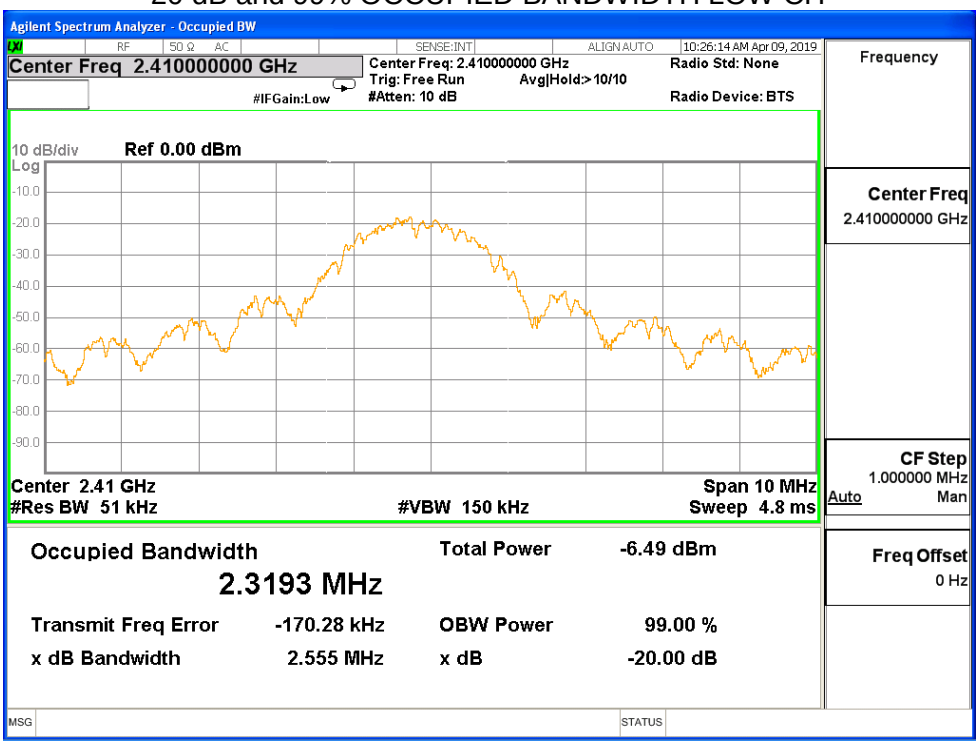
TEST SETUP



RESULTS

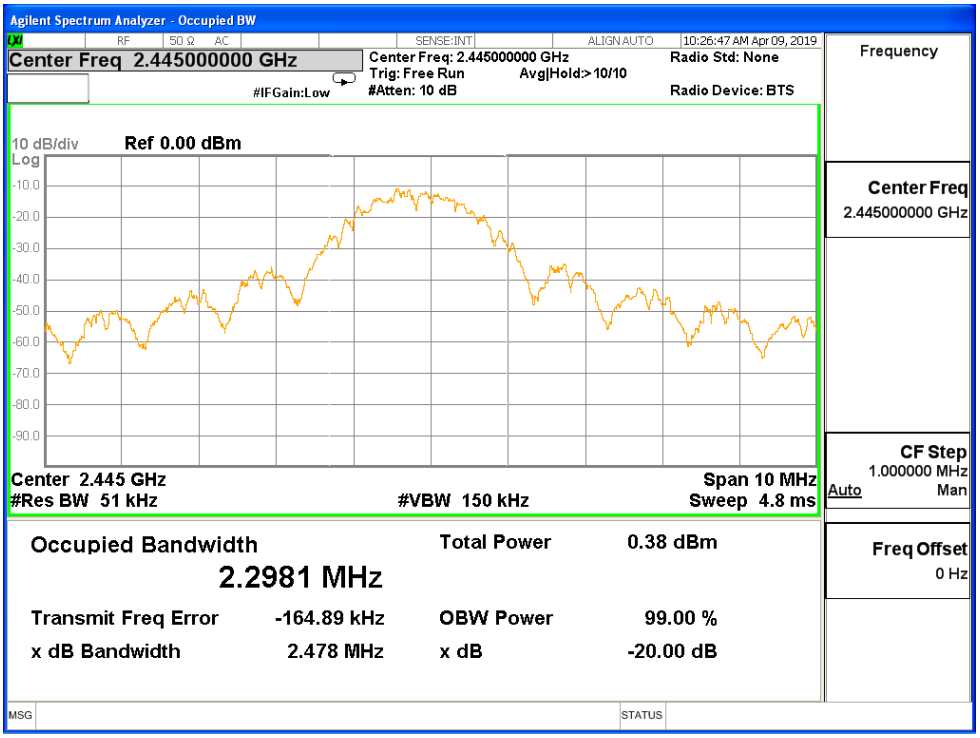
Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2410	2.555	2.3193	PASS

20 dB and 99% OCCUPIED BANDWIDTH LOW CH



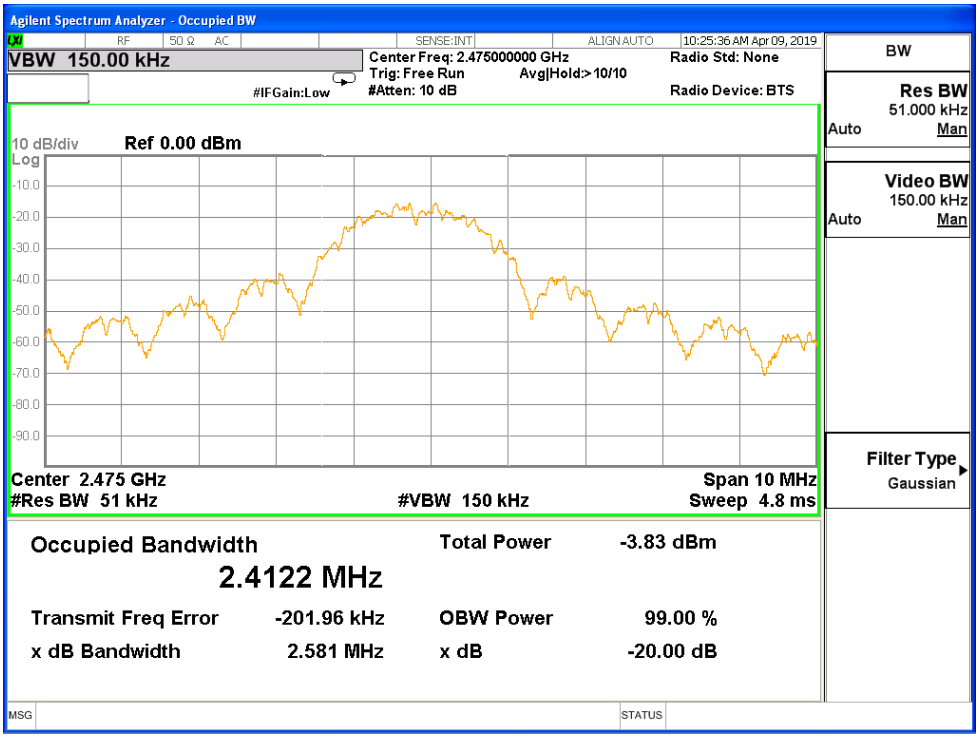
Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2445	2.478	2.2981	PASS

20 dB and 99% OCCUPIED BANDWIDTH MID CH



Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2475	2.581	2.4122	PASS

20 dB and 99% OCCUPIED BANDWIDTH HIG CH



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

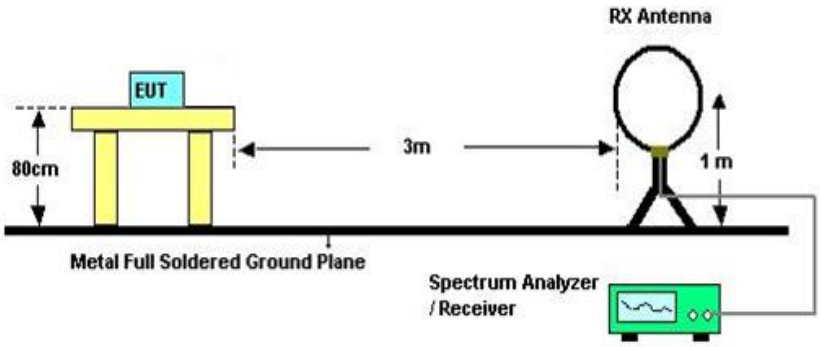
FCC Restricted bands of operation:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41			

Note: [1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
[2]Above 38.6c

TEST SETUP AND PROCEDURE

Below 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.

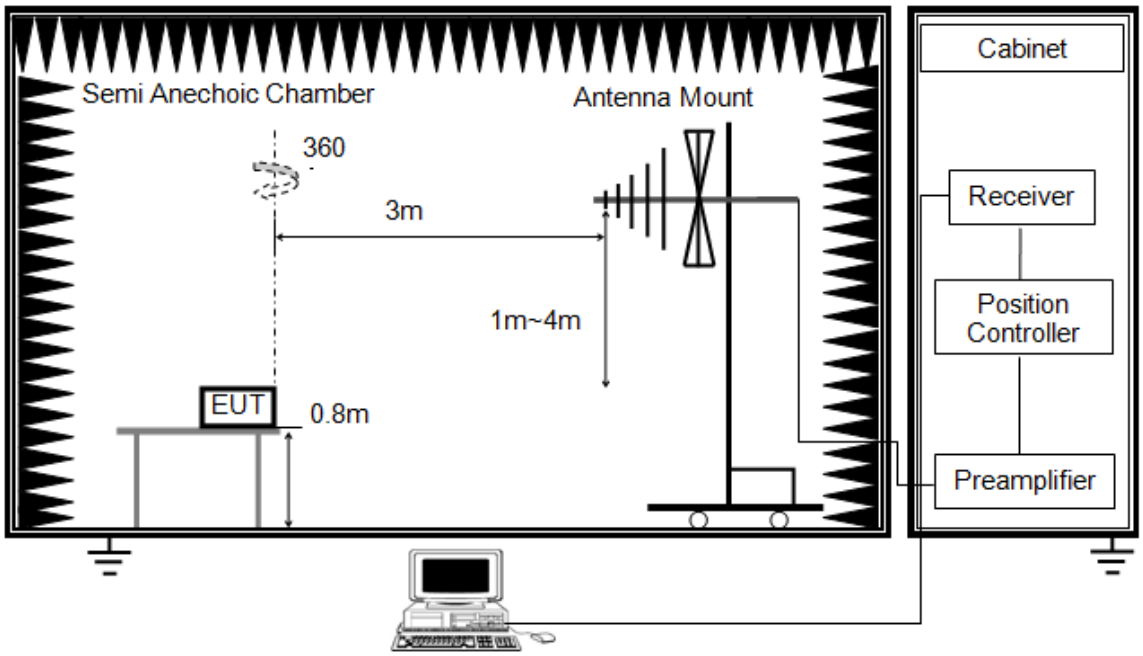
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

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.

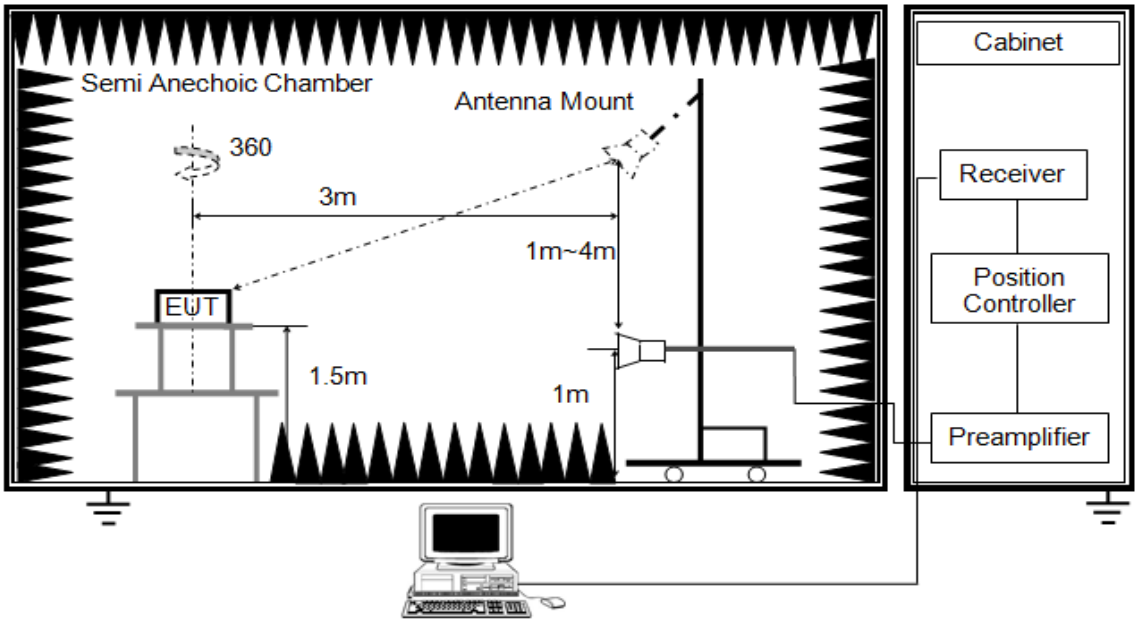
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations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

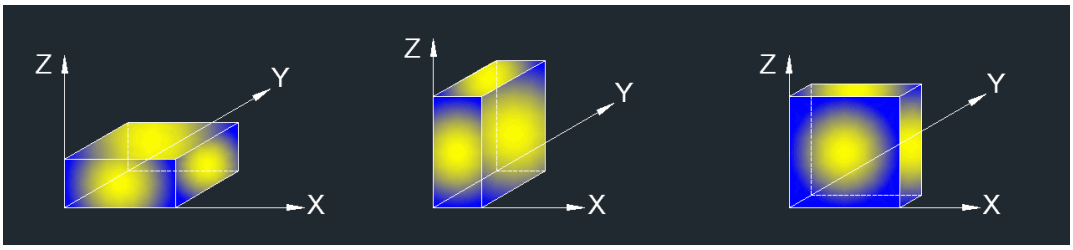
3. The EUT was placed on a turntable with 80cm above ground.

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 average power measurement, set the detector to AVG, while maintaining all of the other instrument settings, if the duty cycle of the EUT is less than 98%, the Duty Cycle Correction Factor shall be added to the measured emission levels. For the Duty Cycle and Correction Factor please refer to clause 6.1.ON TIME AND DUTY CYCLE.

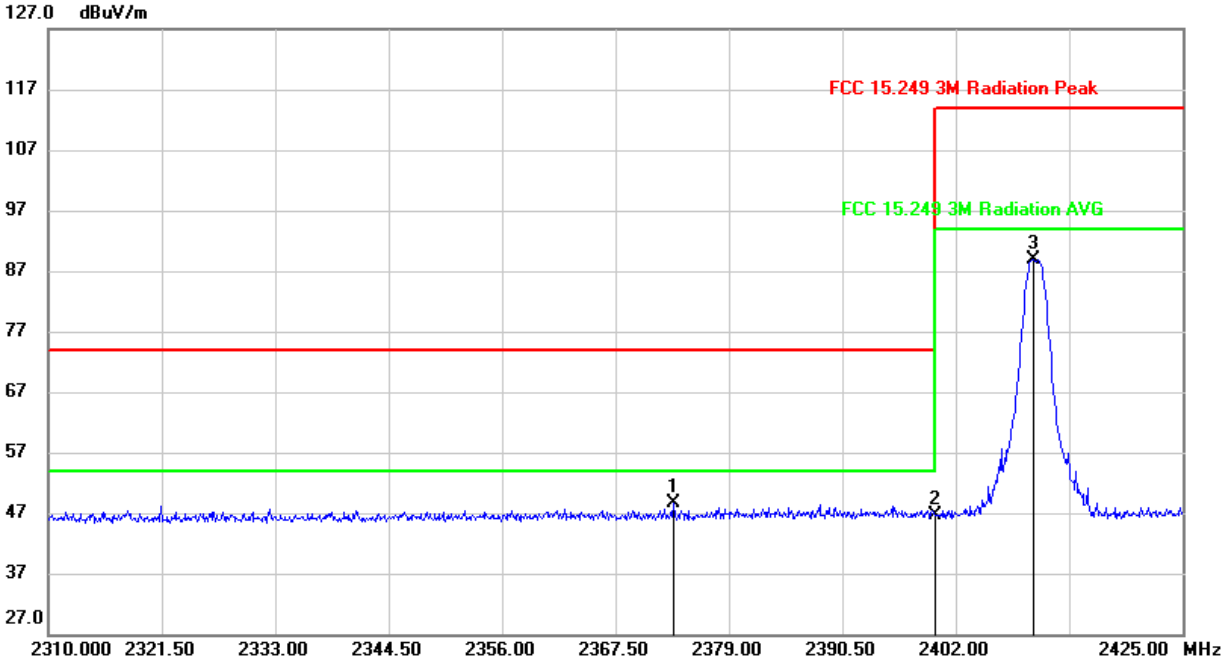
X axis, Y axis, Z axis positions:



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

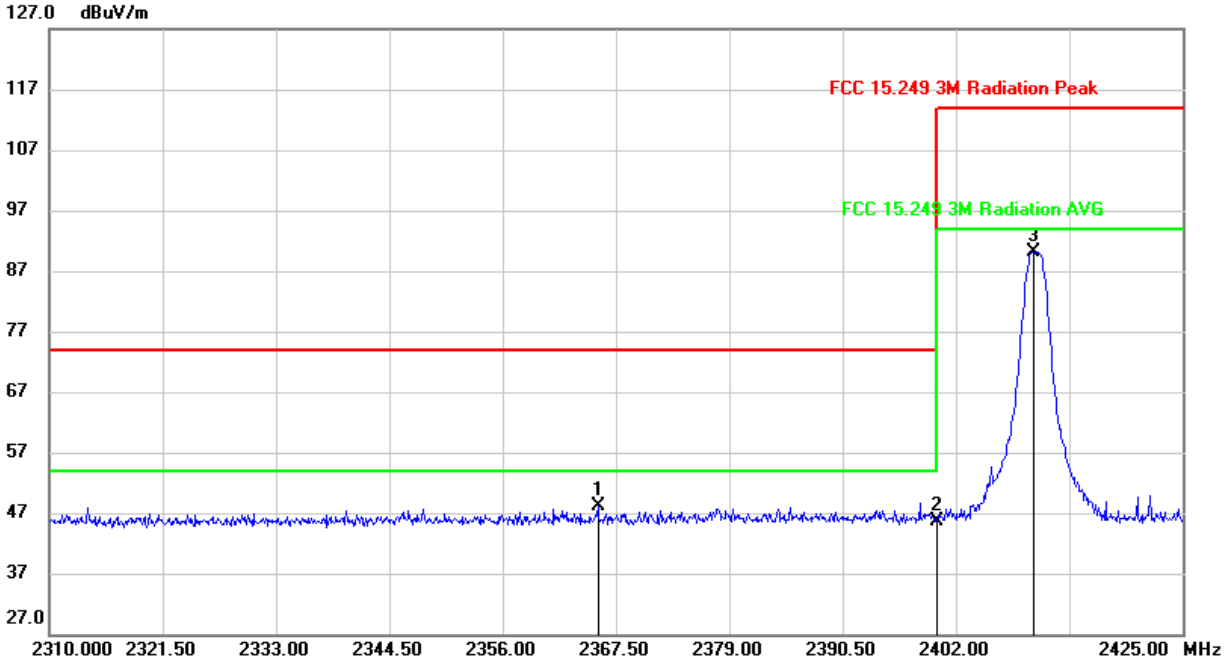
RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2373.365	15.64	32.89	48.53	74.00	-25.47	peak
2	2400.000	13.61	32.98	46.59	74.00	-27.41	peak
3	2409.820	55.78	33.05	88.83	114.00	-25.17	peak

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

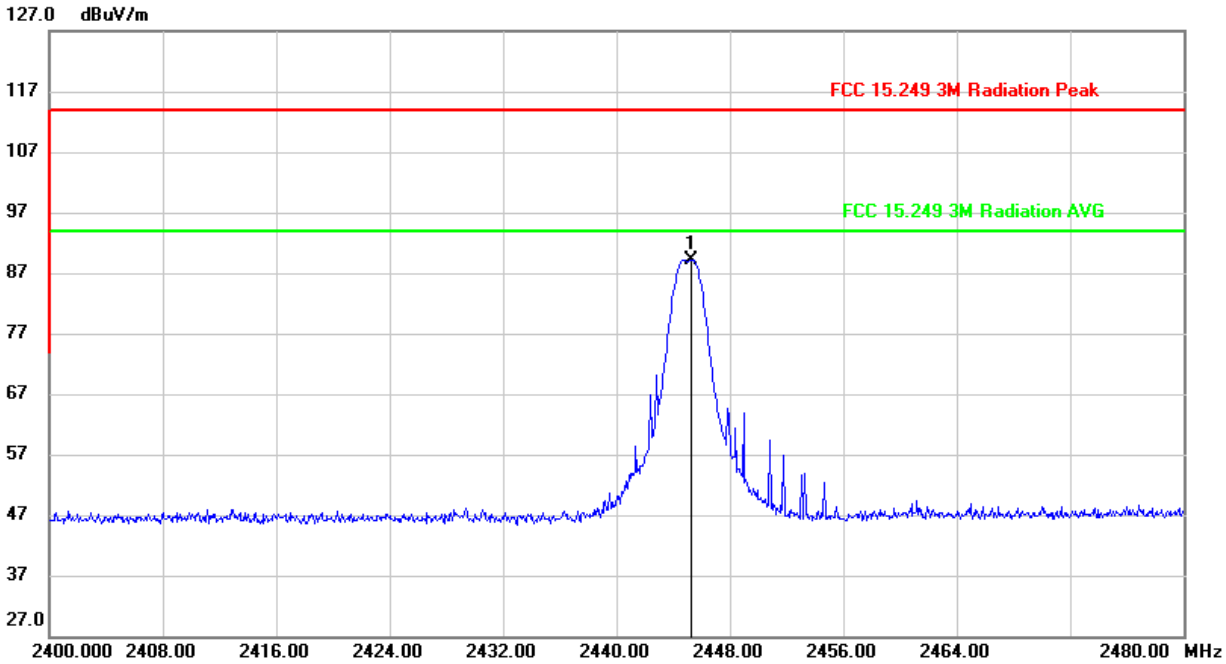
RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2365.660	15.29	32.86	48.15	74.00	-25.85	peak
2	2400.000	12.76	32.98	45.74	74.00	-28.26	peak
3	2409.820	57.06	33.05	90.11	114.00	-23.89	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.

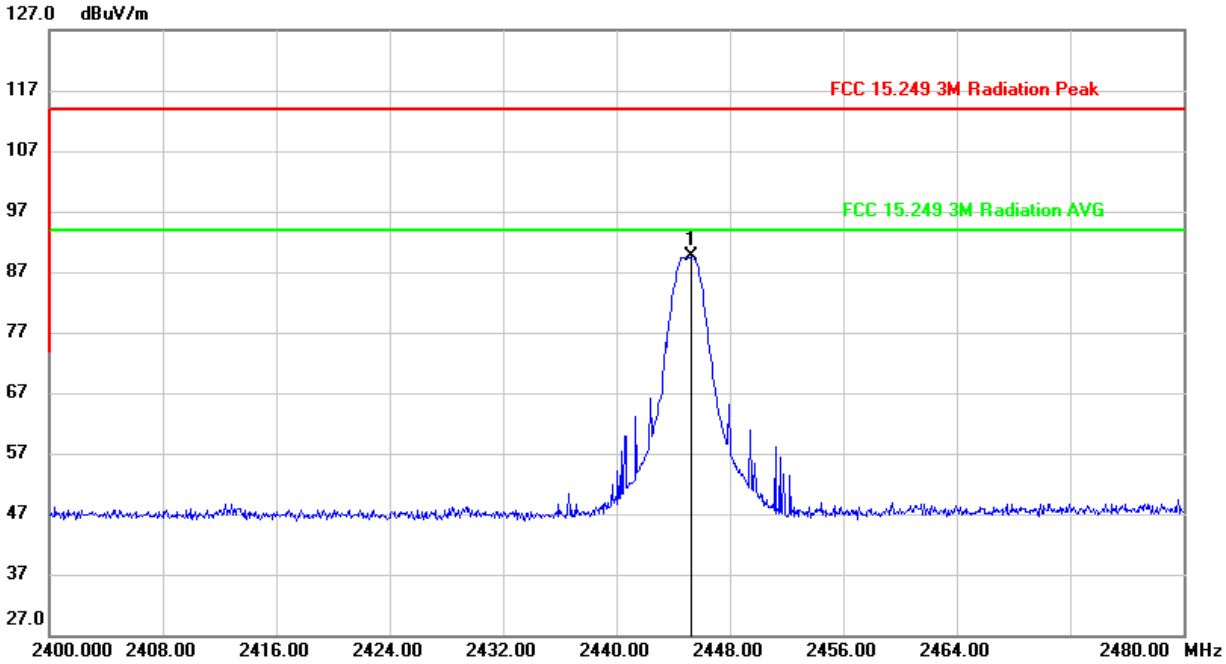
FIELD STRENGTH OF INTENTIONAL EMISSIONS (MIDDLE CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2445.280	55.87	33.30	89.17	114.00	-24.83	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)



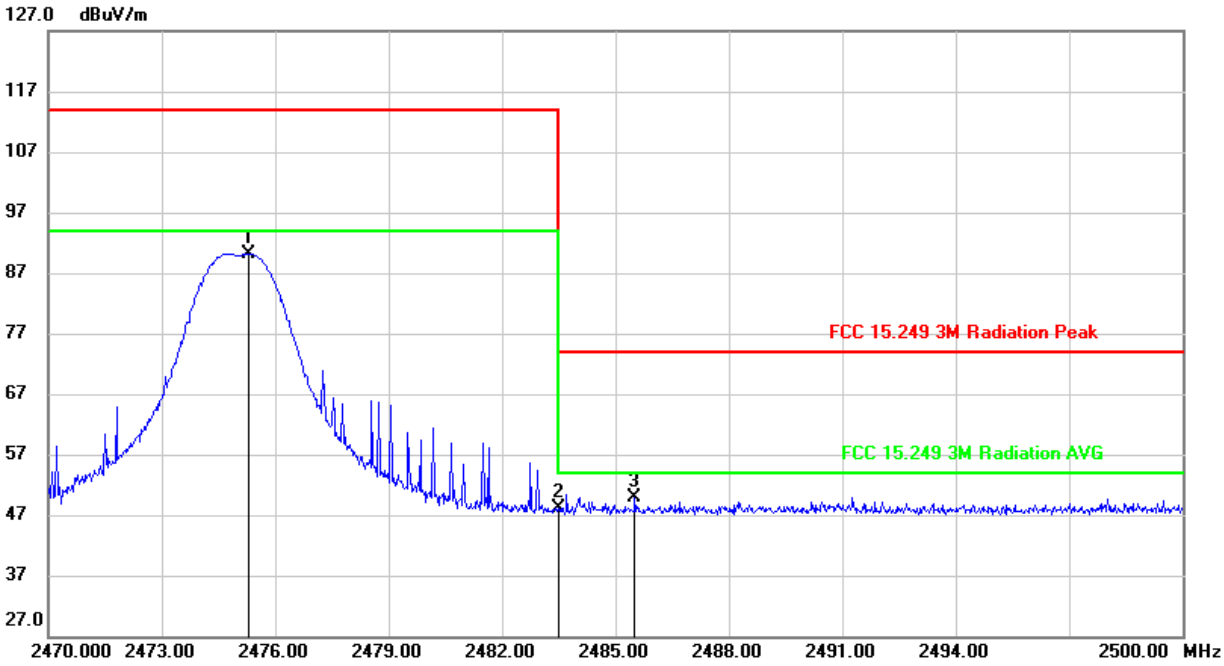
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2445.280	56.24	33.30	89.54	114.00	-24.46	peak

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

.

.

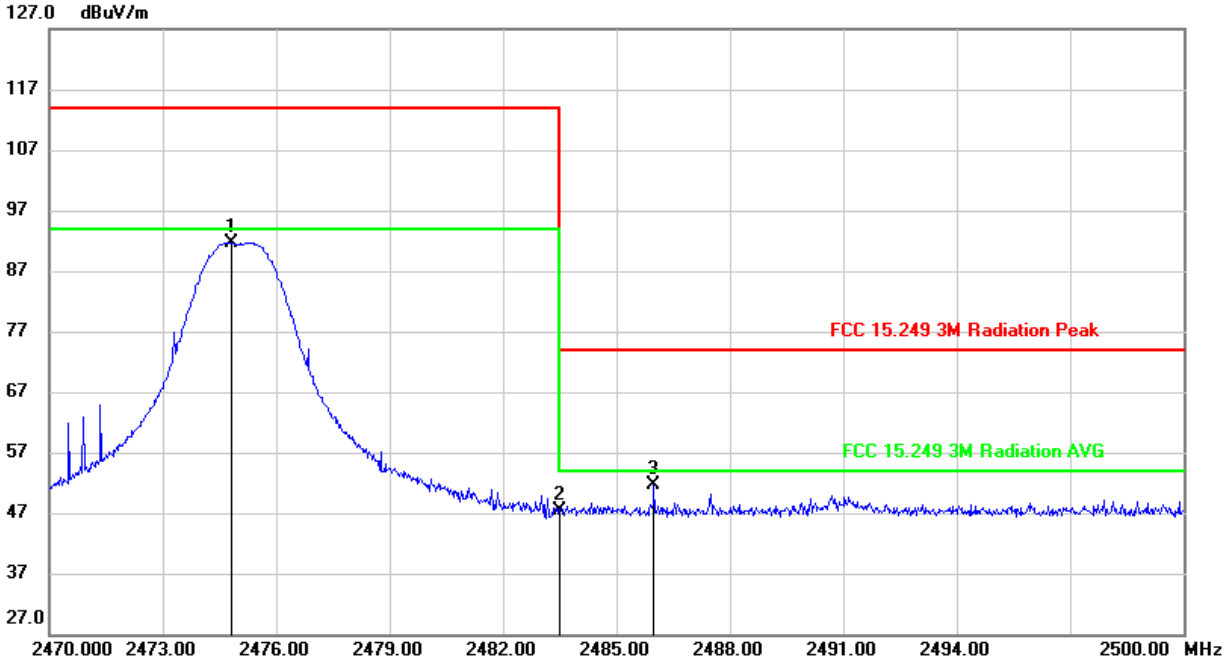
RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2475.280	56.60	33.53	90.13	114.00	-23.87	peak
2	2483.500	14.48	33.58	48.06	74.00	-25.94	peak
3	2485.510	16.35	33.59	49.94	74.00	-24.06	peak

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

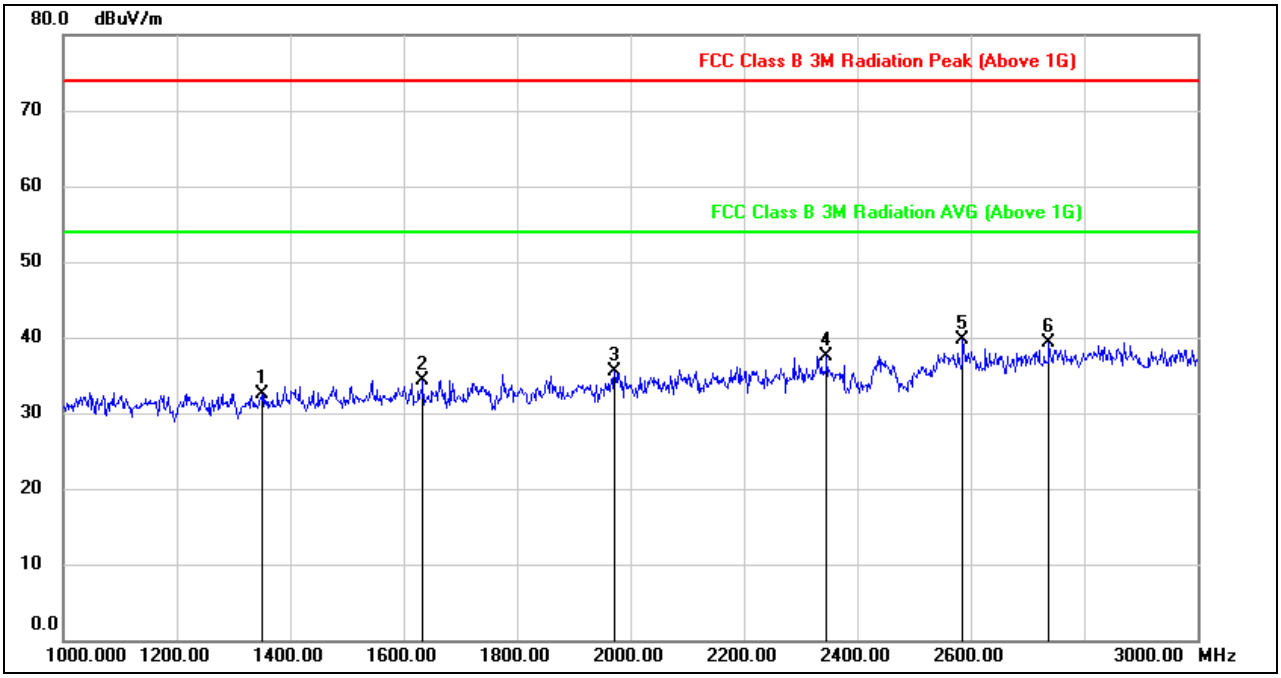


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2474.800	58.08	33.51	91.59	114.00	-22.41	peak
2	2483.500	13.81	33.58	47.39	74.00	-26.61	peak
3	2485.990	18.05	33.59	51.64	74.00	-22.36	peak

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)

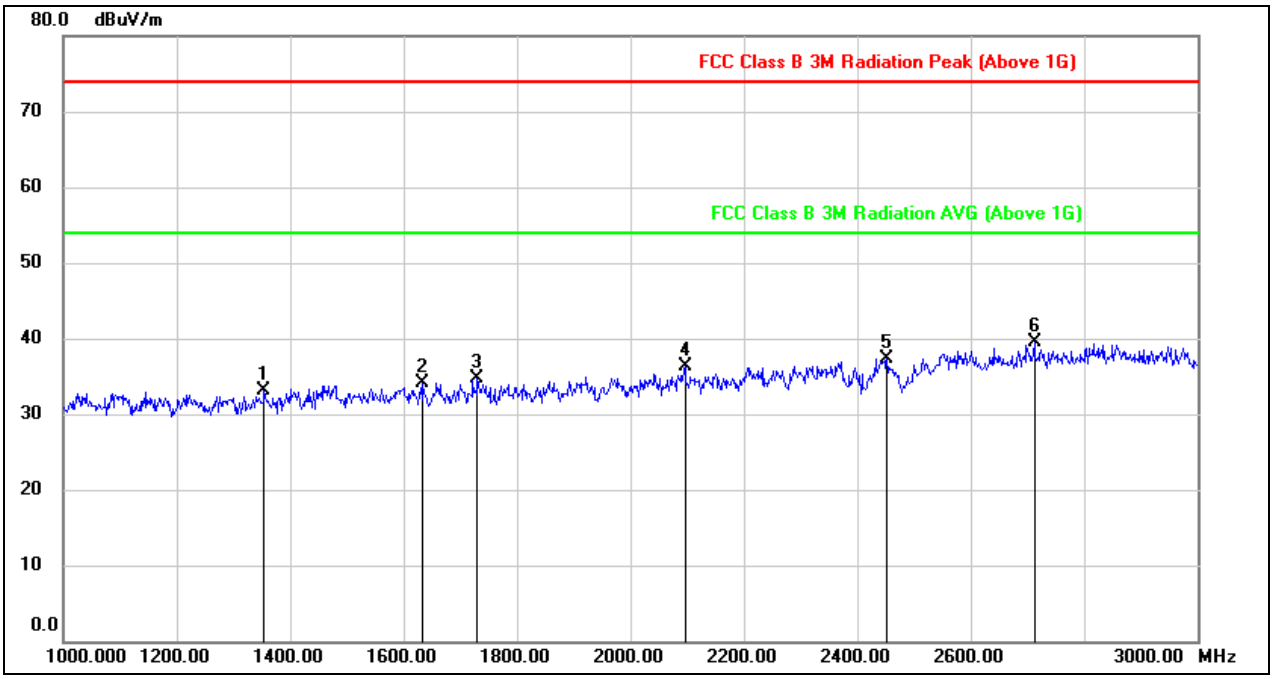
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1350.000	44.05	-11.56	32.49	74.00	-41.51	peak
2	1634.000	44.94	-10.64	34.30	74.00	-39.70	peak
3	1972.000	45.19	-9.65	35.54	74.00	-38.46	peak
4	2346.000	44.85	-7.32	37.53	74.00	-36.47	peak
5	2586.000	46.36	-6.73	39.63	74.00	-34.37	peak
6	2738.000	45.86	-6.57	39.29	74.00	-34.71	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

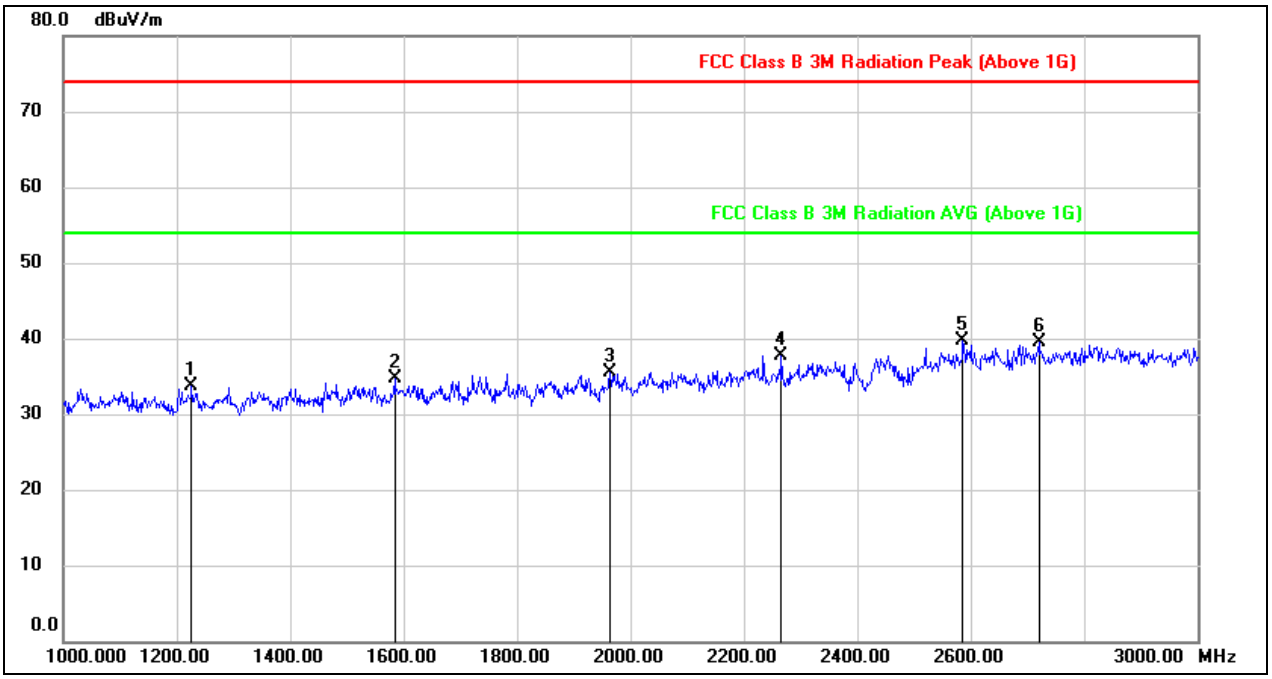
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1354.000	44.65	-11.60	33.05	74.00	-40.95	peak
2	1634.000	44.82	-10.64	34.18	74.00	-39.82	peak
3	1730.000	45.12	-10.32	34.80	74.00	-39.20	peak
4	2096.000	44.60	-8.38	36.22	74.00	-37.78	peak
5	2452.000	43.96	-6.71	37.25	74.00	-36.75	peak
6	2712.000	46.62	-7.16	39.46	74.00	-34.54	peak

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

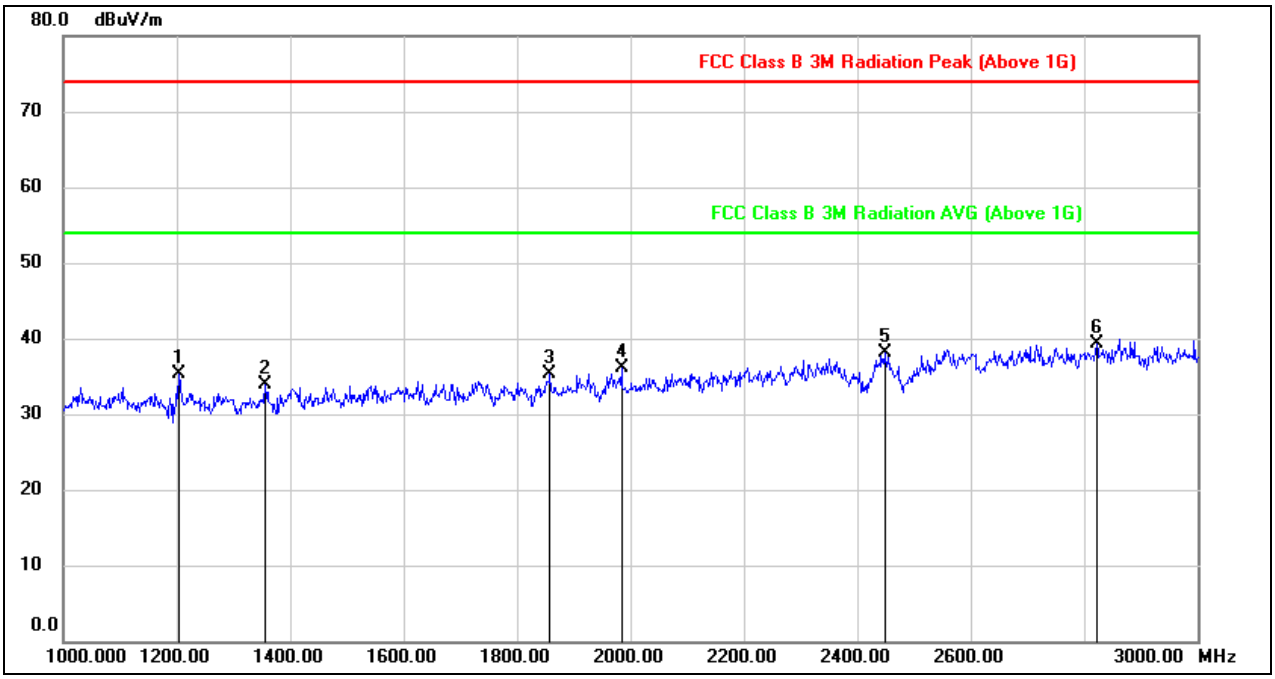
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1226.000	45.83	-12.11	33.72	74.00	-40.28	peak
2	1584.000	45.49	-10.77	34.72	74.00	-39.28	peak
3	1964.000	45.06	-9.61	35.45	74.00	-38.55	peak
4	2266.000	45.44	-7.82	37.62	74.00	-36.38	peak
5	2586.000	46.46	-6.73	39.73	74.00	-34.27	peak
6	2720.000	46.55	-6.97	39.58	74.00	-34.42	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

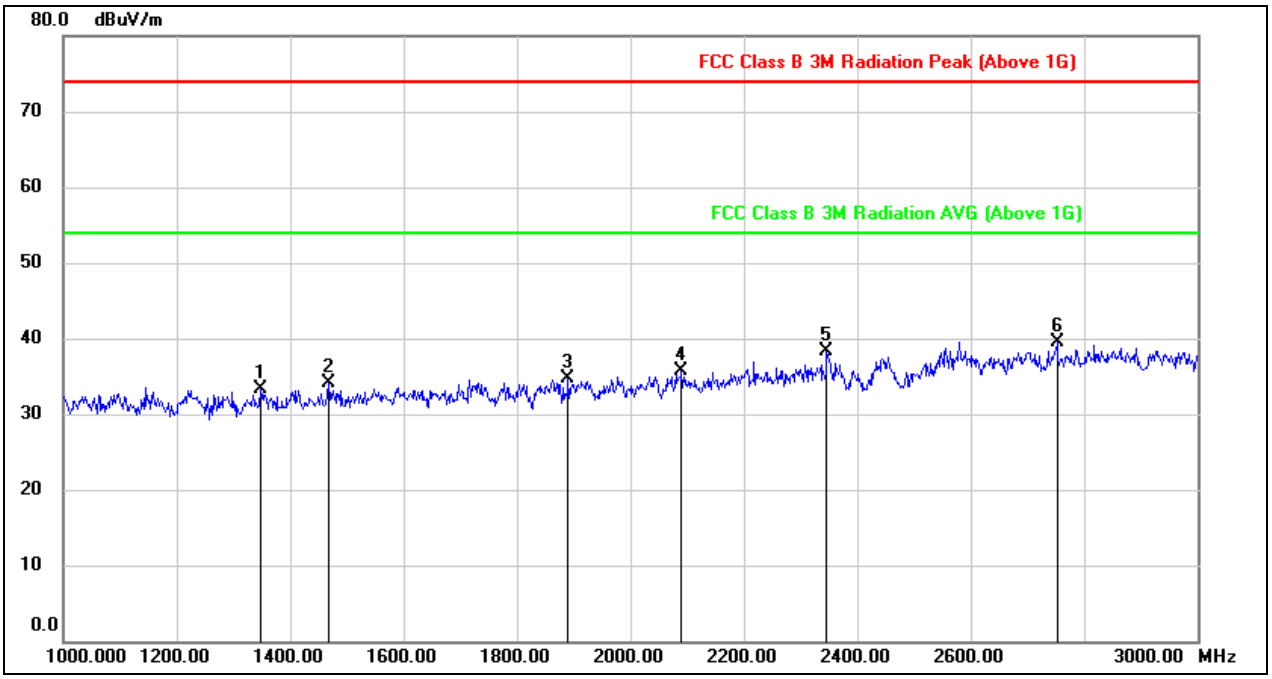
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1204.000	47.77	-12.39	35.38	74.00	-38.62	peak
2	1356.000	45.60	-11.61	33.99	74.00	-40.01	peak
3	1858.000	44.66	-9.35	35.31	74.00	-38.69	peak
4	1984.000	45.77	-9.70	36.07	74.00	-37.93	peak
5	2448.000	44.76	-6.73	38.03	74.00	-35.97	peak
6	2822.000	44.53	-5.18	39.35	74.00	-34.65	peak

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

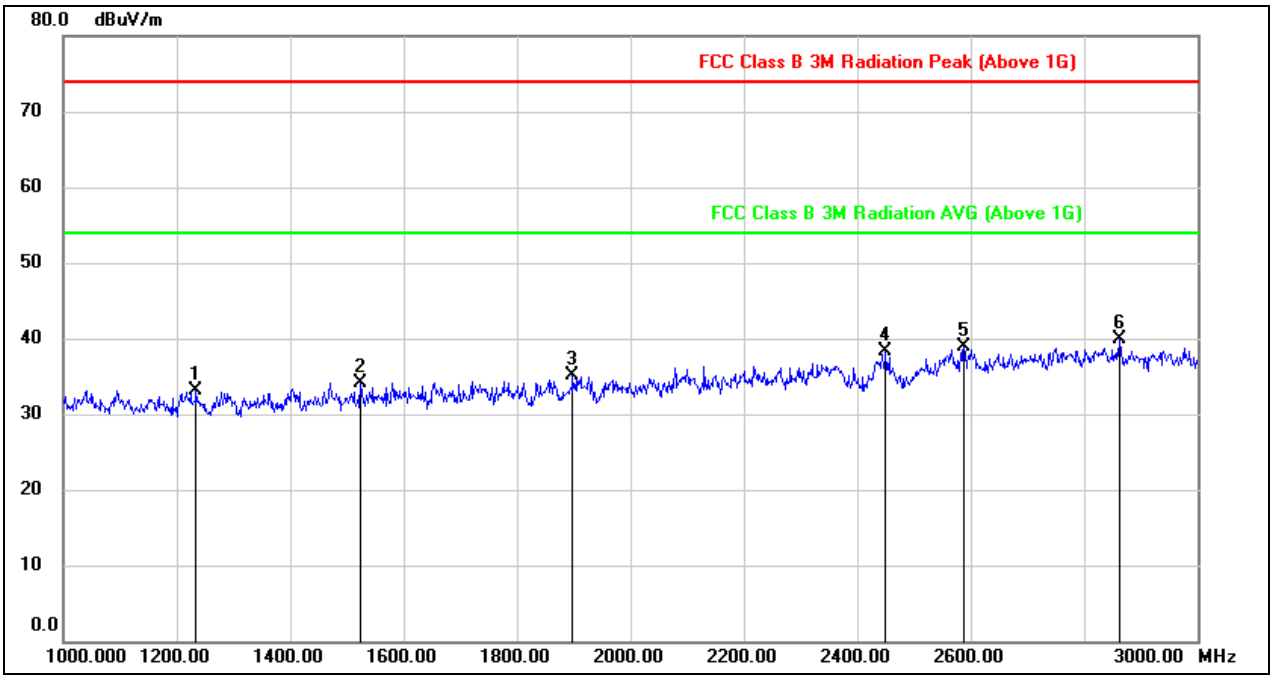
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1348.000	44.85	-11.54	33.31	74.00	-40.69	peak
2	1468.000	45.76	-11.71	34.05	74.00	-39.95	peak
3	1890.000	44.00	-9.31	34.69	74.00	-39.31	peak
4	2090.000	44.22	-8.46	35.76	74.00	-38.24	peak
5	2346.000	45.67	-7.32	38.35	74.00	-35.65	peak
6	2752.000	45.78	-6.26	39.52	74.00	-34.48	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)

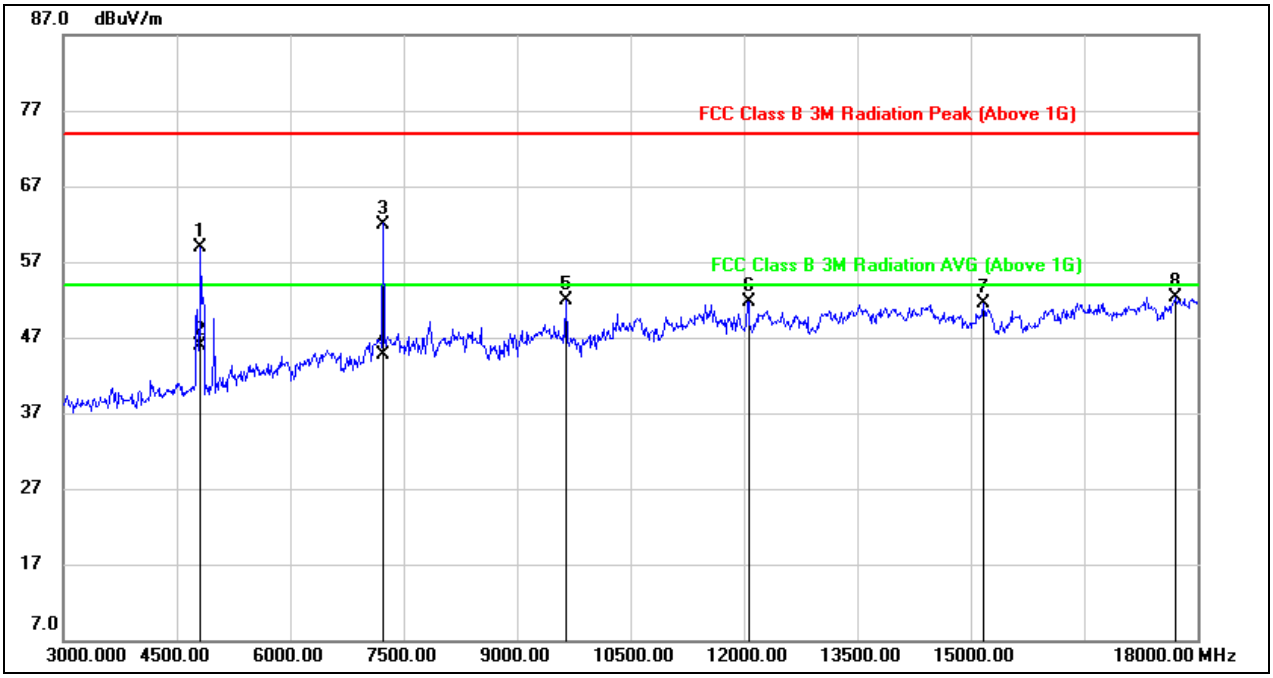


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1234.000	45.19	-12.02	33.17	74.00	-40.83	peak
2	1524.000	45.52	-11.36	34.16	74.00	-39.84	peak
3	1898.000	44.31	-9.30	35.01	74.00	-38.99	peak
4	2450.000	45.04	-6.72	38.32	74.00	-35.68	peak
5	2588.000	45.60	-6.74	38.86	74.00	-35.14	peak
6	2862.000	45.05	-5.17	39.88	74.00	-34.12	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

7.4. SPURIOUS EMISSIONS (3~18GHz)

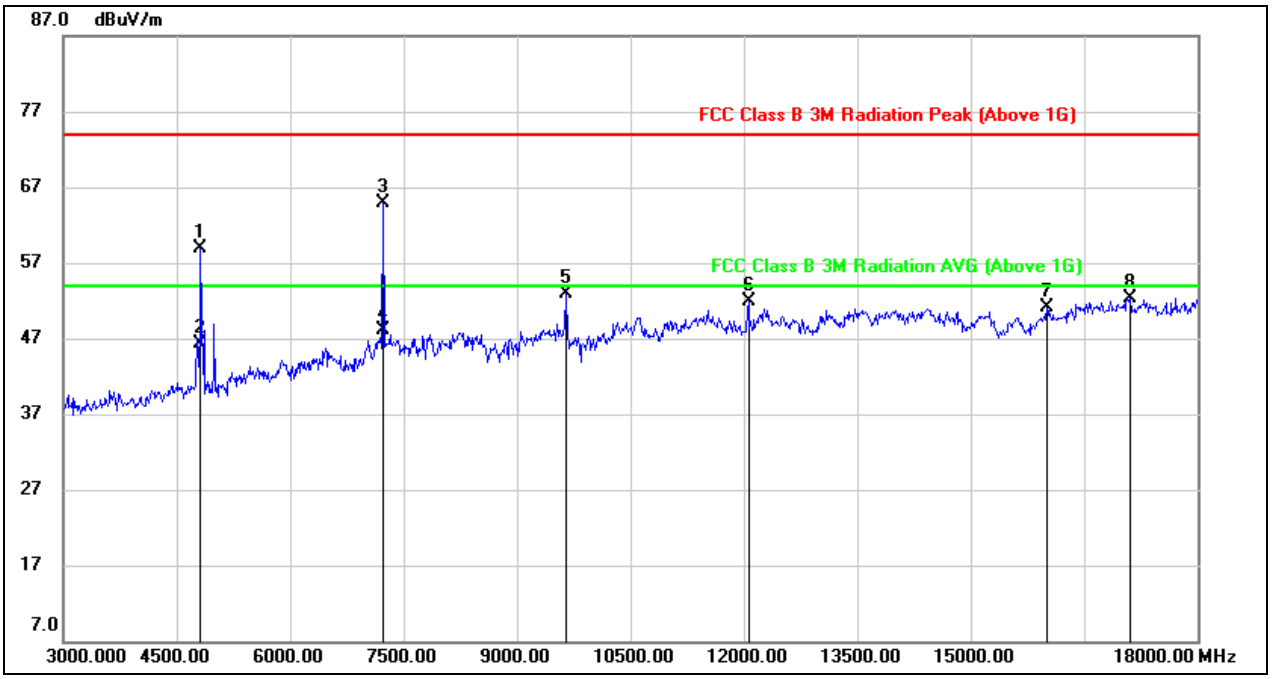
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4820.000	59.11	-0.21	58.90	74.00	-15.10	peak
2	4820.035	46.19	-0.21	45.98	54.00	-8.02	AVG
3	7230.000	55.04	6.96	62.00	74.00	-12.00	peak
4	7230.000	37.66	6.96	44.62	54.00	-9.38	AVG
5	9645.000	41.82	10.03	51.85	74.00	-22.15	peak
6	12060.000	37.53	14.26	51.79	74.00	-22.21	peak
7	15165.000	35.97	15.54	51.51	74.00	-22.49	peak
8	17715.000	29.97	22.39	52.36	74.00	-21.64	peak

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

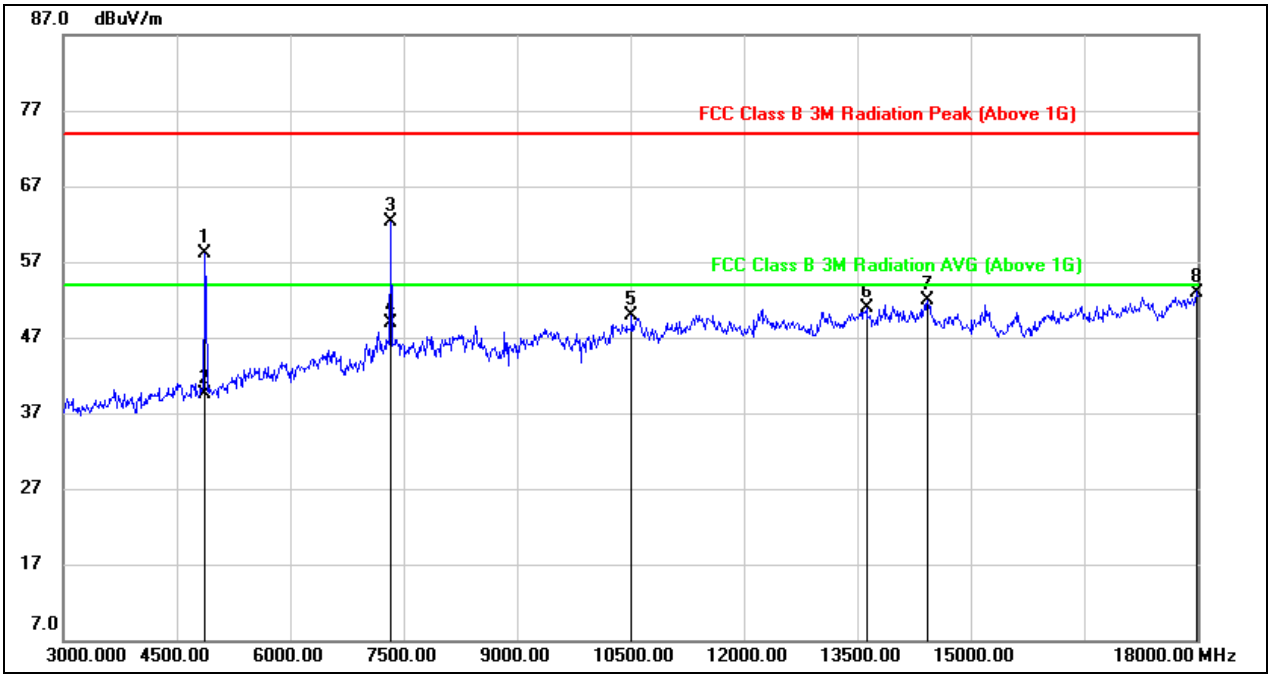
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4815.000	59.15	-0.23	58.92	74.00	-15.08	peak
2	4820.115	46.56	-0.21	46.35	54.00	-7.65	AVG
3	7230.000	58.02	6.96	64.98	74.00	-9.02	peak
4	7230.180	41.19	6.96	48.15	54.00	-5.85	AVG
5	9645.000	42.91	10.03	52.94	74.00	-21.06	peak
6	12060.000	37.61	14.26	51.87	74.00	-22.13	peak
7	16005.000	33.84	17.20	51.04	74.00	-22.96	peak
8	17115.000	31.59	20.81	52.40	74.00	-21.60	peak

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

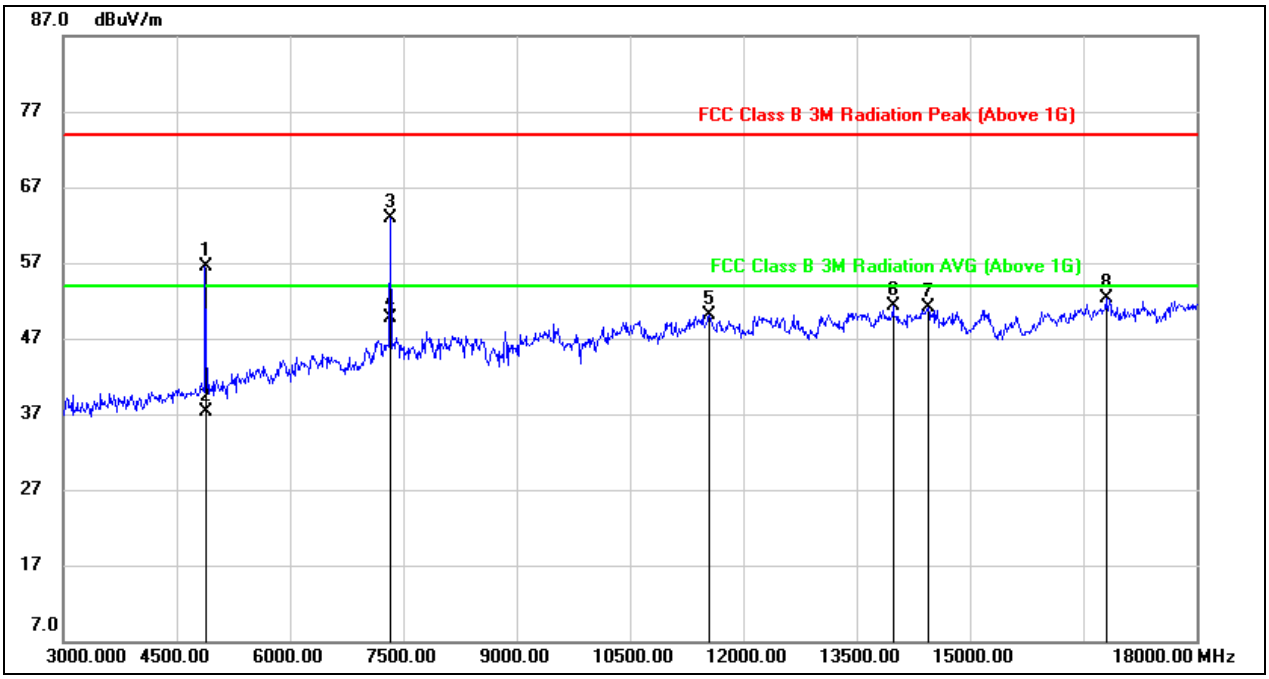
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.599	58.16	-0.12	58.04	74.00	-15.96	peak
2	4875.599	39.66	-0.12	39.54	54.00	-14.46	AVG
3	7335.060	55.06	7.26	62.32	74.00	-11.68	peak
4	7335.060	41.59	7.26	48.85	54.00	-5.15	AVG
5	10515.000	38.05	11.89	49.94	74.00	-24.06	peak
6	13620.000	34.83	16.04	50.87	74.00	-23.13	peak
7	14430.000	35.52	16.39	51.91	74.00	-22.09	peak
8	17985.000	29.75	23.25	53.00	74.00	-21.00	peak

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

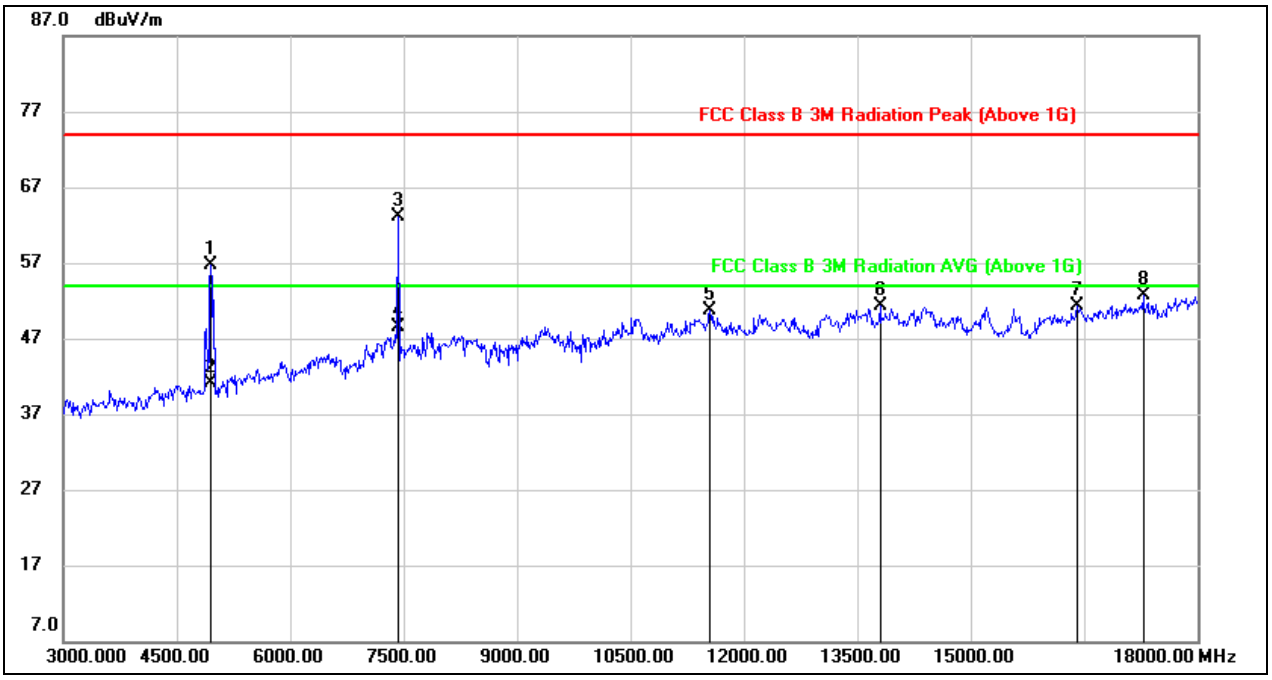
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4890.105	56.58	-0.10	56.48	74.00	-17.52	peak
2	4890.105	37.38	-0.10	37.28	54.00	-16.72	AVG
3	7335.015	55.73	7.26	62.99	74.00	-11.01	peak
4	7335.015	42.39	7.26	49.65	54.00	-4.35	AVG
5	11550.000	35.93	14.13	50.06	74.00	-23.94	peak
6	13980.000	34.90	16.32	51.22	74.00	-22.78	peak
7	14445.000	34.70	16.37	51.07	74.00	-22.93	peak
8	16800.000	32.44	19.91	52.35	74.00	-21.65	peak

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

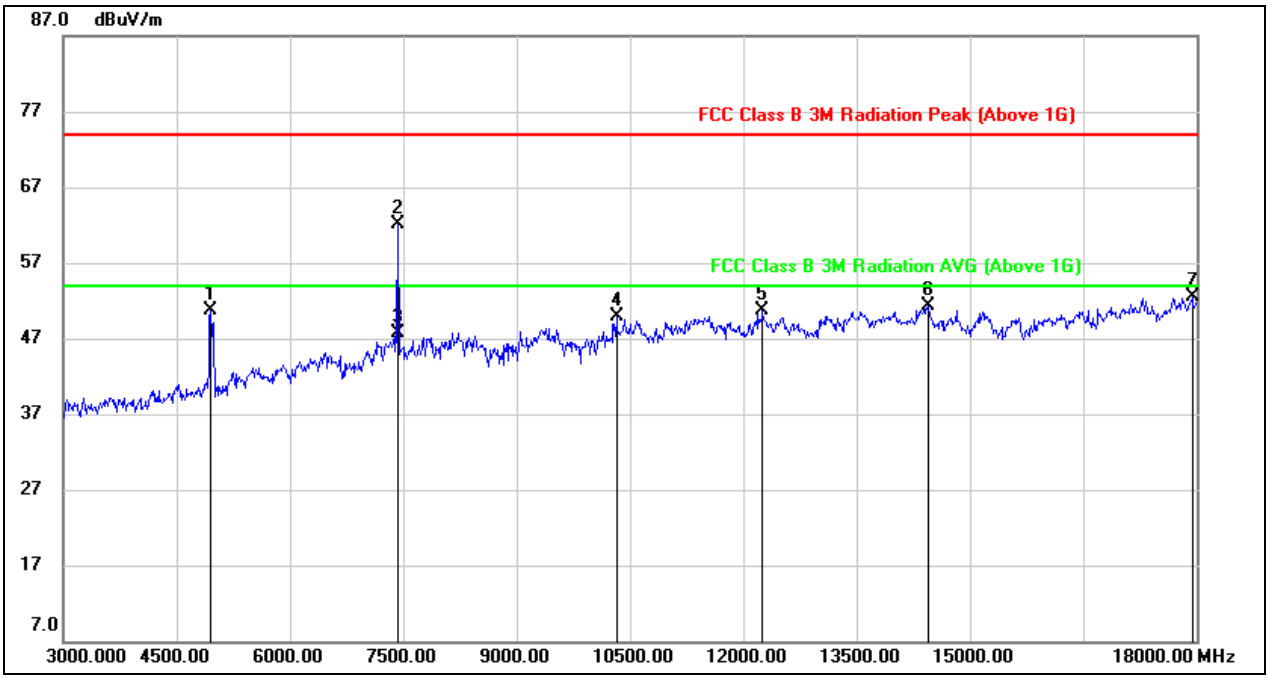
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4948.541	56.50	0.19	56.69	74.00	-17.31	peak
2	4948.541	41.01	0.19	41.20	54.00	-12.80	AVG
3	7425.080	55.73	7.42	63.15	74.00	-10.85	peak
4	7425.080	40.99	7.42	48.41	54.00	-5.59	AVG
5	11550.000	36.49	14.13	50.62	74.00	-23.38	peak
6	13800.000	34.56	16.81	51.37	74.00	-22.63	peak
7	16410.000	32.66	18.61	51.27	74.00	-22.73	peak
8	17280.000	30.95	21.72	52.67	74.00	-21.33	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, VERTICAL)

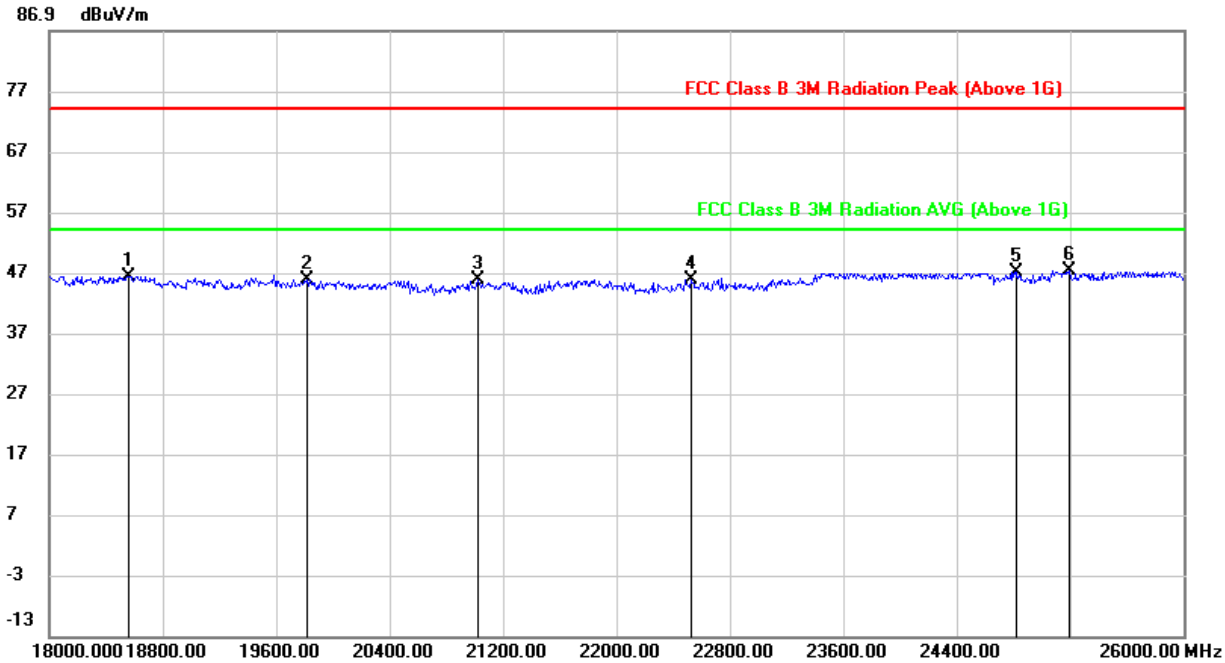


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4950.000	50.61	0.19	50.80	74.00	-23.20	peak
2	7425.000	54.61	7.42	62.03	74.00	-11.97	peak
3	7425.100	40.24	7.42	47.66	54.00	-6.34	AVG
4	10320.000	38.35	11.58	49.93	74.00	-24.07	peak
5	12255.000	36.38	14.32	50.70	74.00	-23.30	peak
6	14445.000	34.97	16.37	51.34	74.00	-22.66	peak
7	17940.000	29.35	23.21	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. 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.

7.5. SPURIOUS EMISSIONS (18~26GHz)

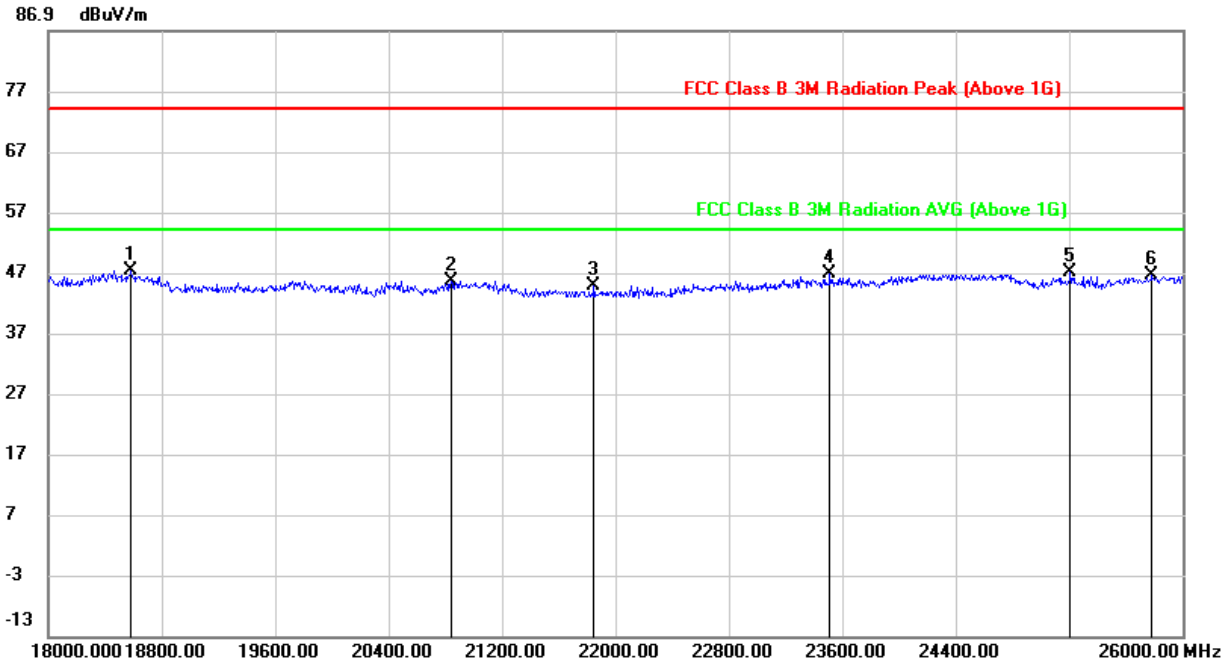
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18560.000	50.87	-4.49	46.38	74.00	-27.62	peak
2	19816.000	50.13	-4.34	45.79	74.00	-28.21	peak
3	21024.000	51.12	-5.30	45.82	74.00	-28.18	peak
4	22528.000	51.66	-5.79	45.87	74.00	-28.13	peak
5	24824.000	48.77	-1.69	47.08	74.00	-26.92	peak
6	25192.000	48.49	-1.16	47.33	74.00	-26.67	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	51.69	-4.53	47.16	74.00	-26.84	peak
2	20840.000	50.77	-5.18	45.59	74.00	-28.41	peak
3	21848.000	50.76	-5.95	44.81	74.00	-29.19	peak
4	23512.000	51.51	-4.76	46.75	74.00	-27.25	peak
5	25208.000	48.13	-1.16	46.97	74.00	-27.03	peak
6	25784.000	48.08	-1.49	46.59	74.00	-27.41	peak

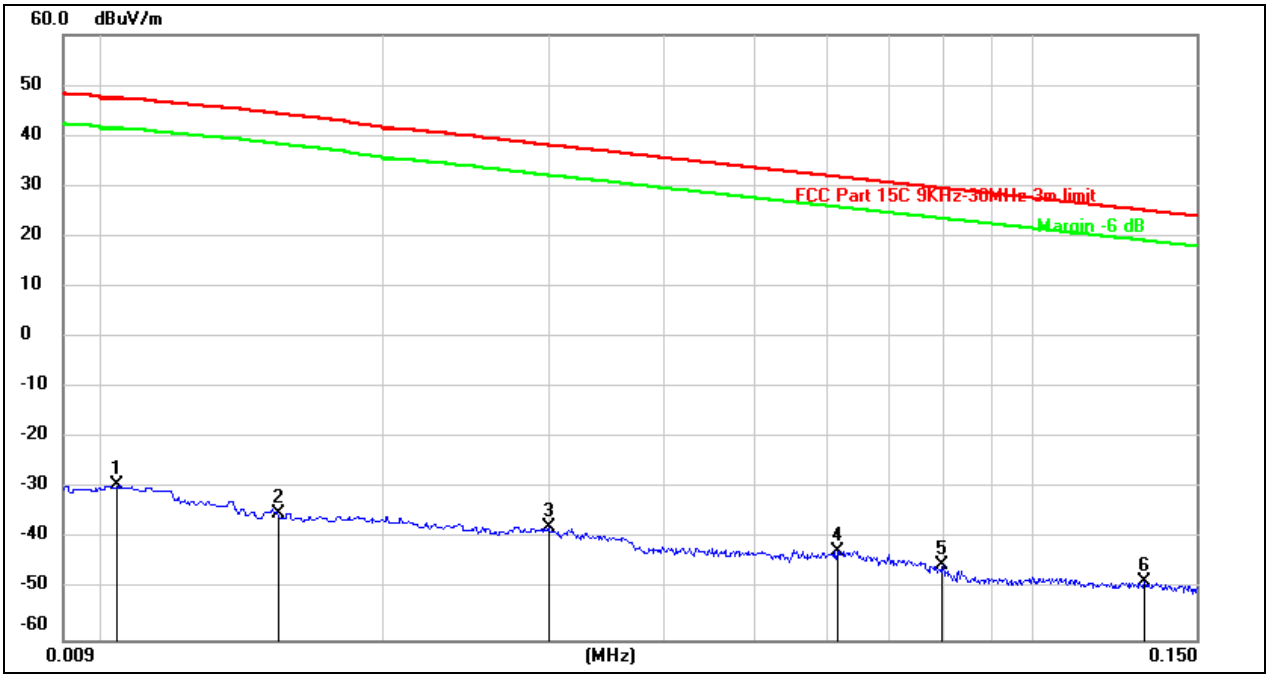
Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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)

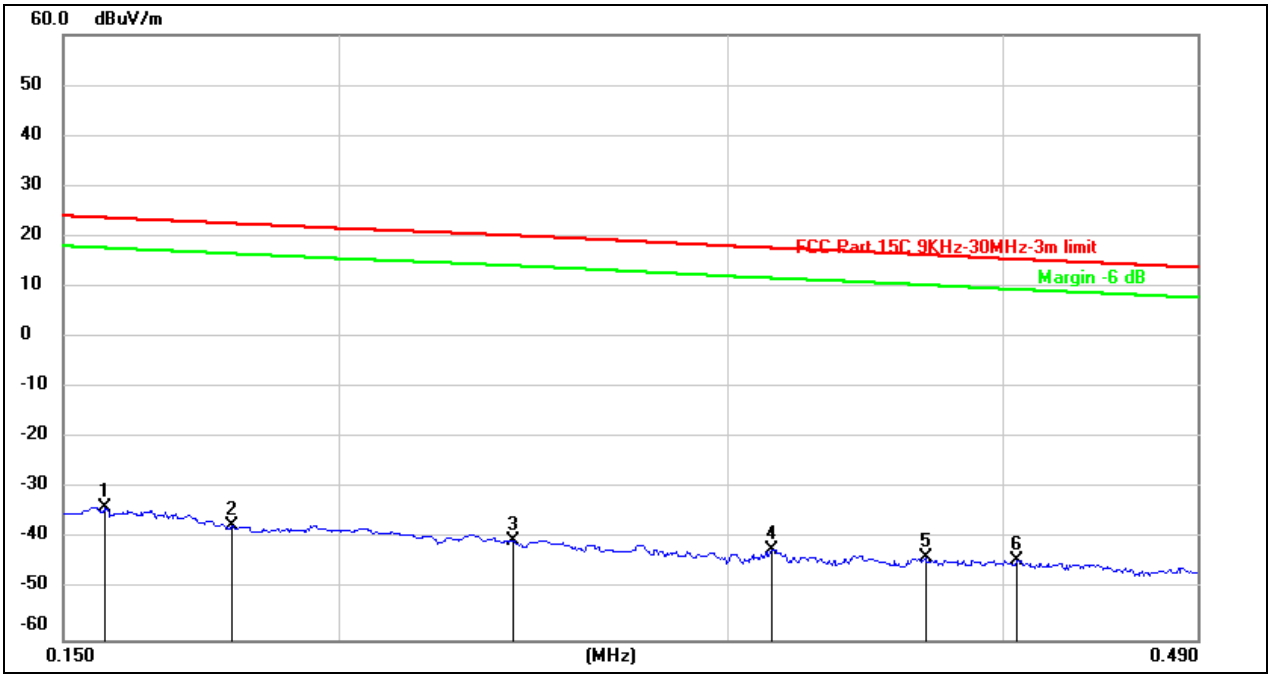
9kHz~ 150kHz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0103	72.14	-101.40	-29.26	47.42	-76.68	peak
2	0.0154	66.44	-101.37	-34.93	44.35	-79.28	peak
3	0.0300	63.68	-101.39	-37.71	38.06	-75.77	peak
4	0.0616	59.13	-101.53	-42.40	31.83	-74.23	peak
5	0.0796	56.53	-101.63	-45.10	29.59	-74.69	peak
6	0.1318	53.23	-101.69	-48.46	25.21	-73.67	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.

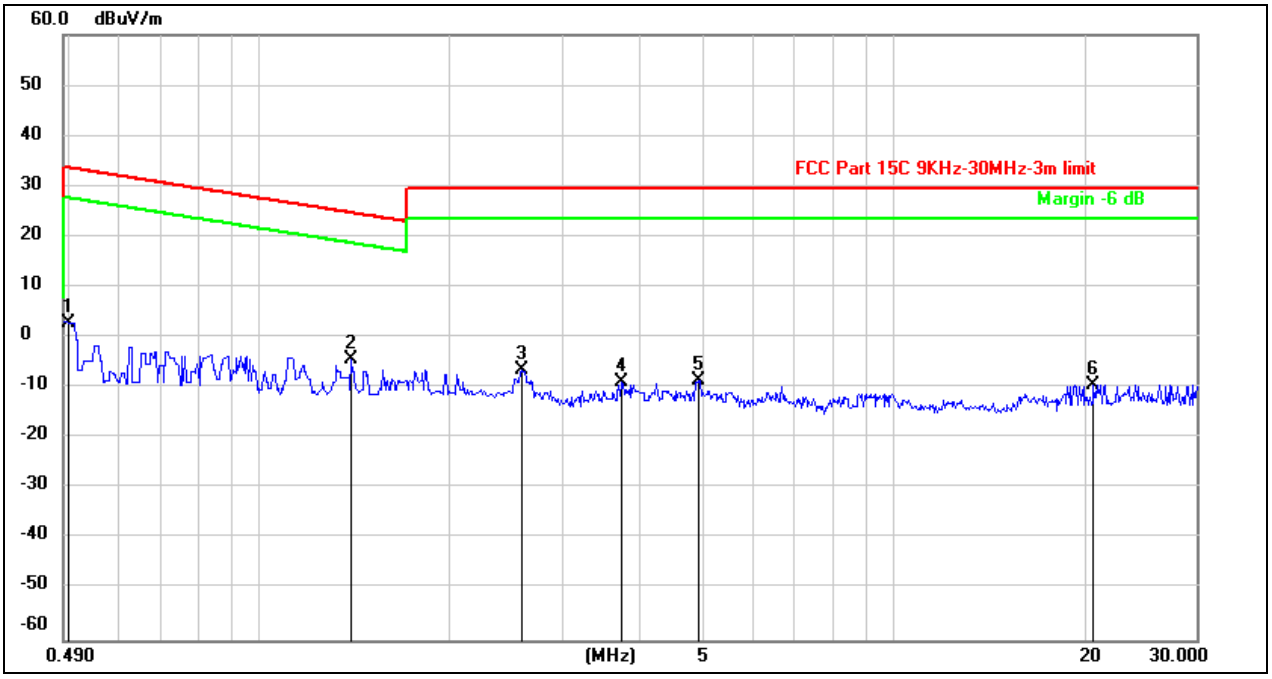
150kHz ~ 490kHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1565	68.03	-101.65	-33.62	23.72	-57.34	peak
2	0.1789	64.32	-101.68	-37.36	22.55	-59.91	peak
3	0.2398	61.51	-101.78	-40.27	20.18	-60.45	peak
4	0.3144	59.68	-101.87	-42.19	17.70	-59.89	peak
5	0.3689	58.13	-101.93	-43.80	16.34	-60.14	peak
6	0.4060	57.65	-101.96	-44.31	15.44	-59.75	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

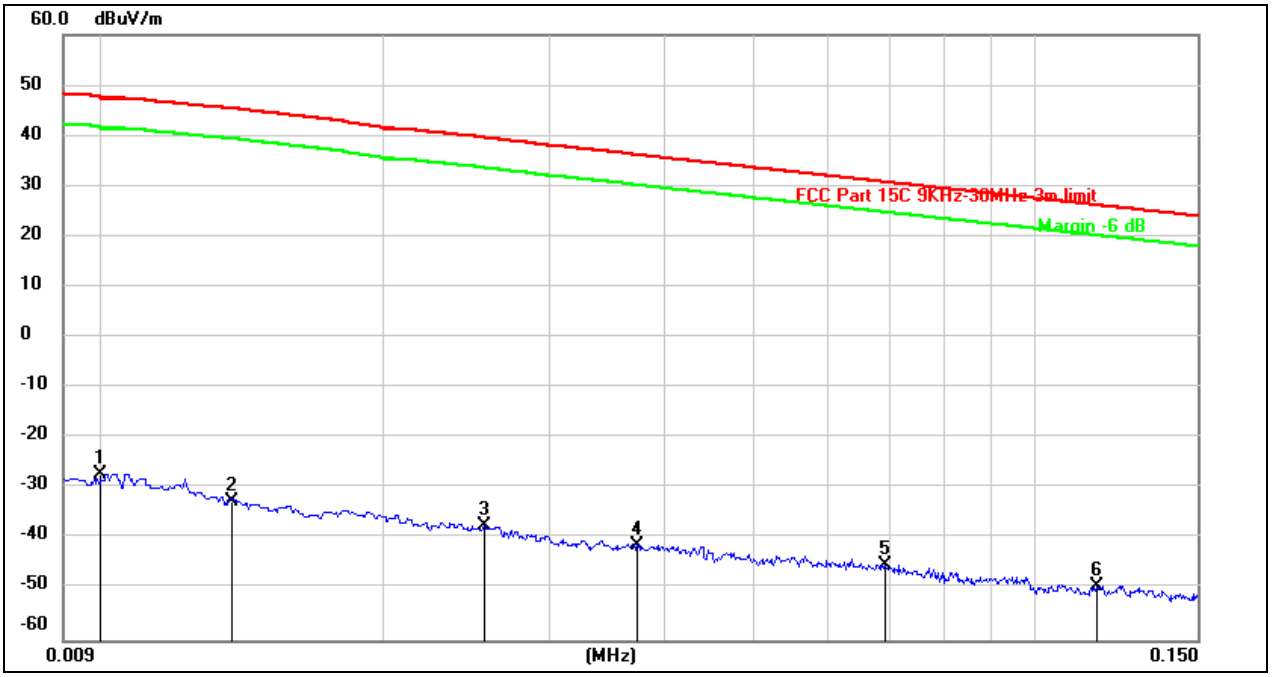


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.5000	65.02	-62.07	2.95	33.64	-30.69	peak
2	1.3931	57.68	-62.09	-4.41	24.72	-29.13	peak
3	2.5935	55.11	-61.68	-6.57	29.54	-36.11	peak
4	3.7100	52.70	-61.41	-8.71	29.54	-38.25	peak
5	4.9165	52.88	-61.48	-8.60	29.54	-38.14	peak
6	20.6748	51.31	-60.79	-9.48	29.54	-39.02	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)

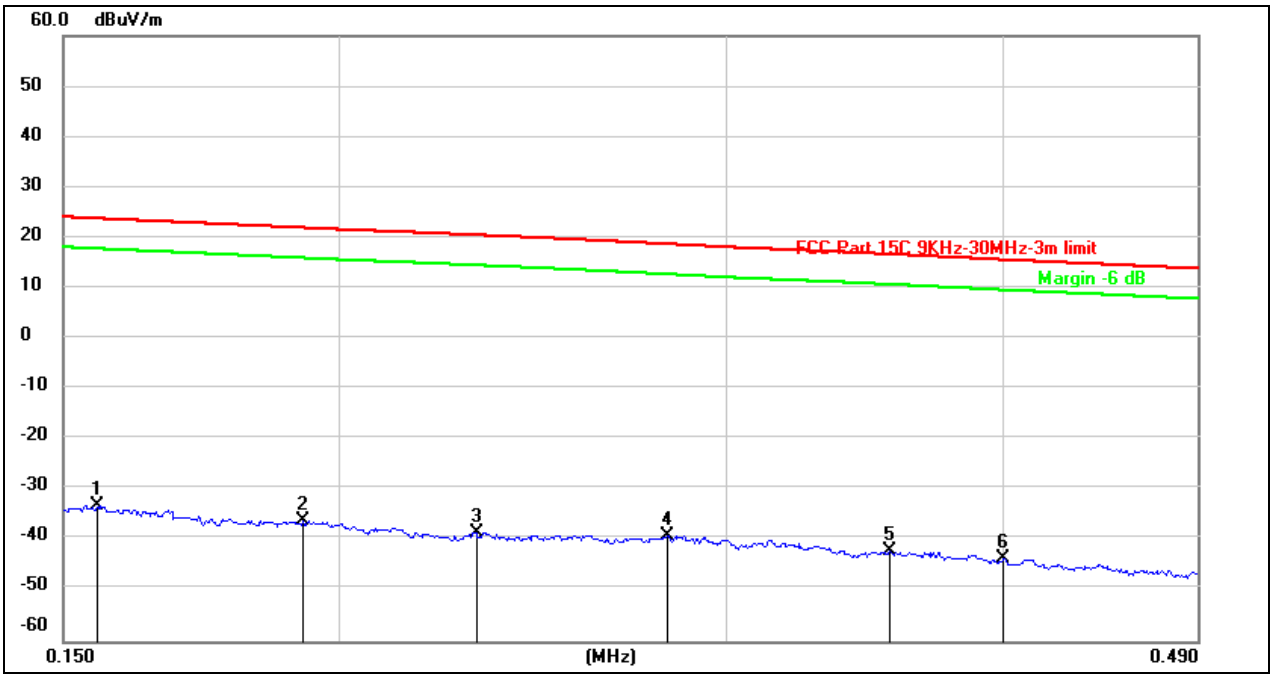
9kHz~ 150kHz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0100	74.18	-101.40	-27.22	47.60	-74.82	peak
2	0.0137	68.76	-101.38	-32.62	45.37	-77.99	peak
3	0.0256	63.91	-101.37	-37.46	39.61	-77.07	peak
4	0.0374	60.20	-101.42	-41.22	36.21	-77.43	peak
5	0.0690	56.54	-101.56	-45.02	30.83	-75.85	peak
6	0.1170	52.50	-101.74	-49.24	26.25	-75.49	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.

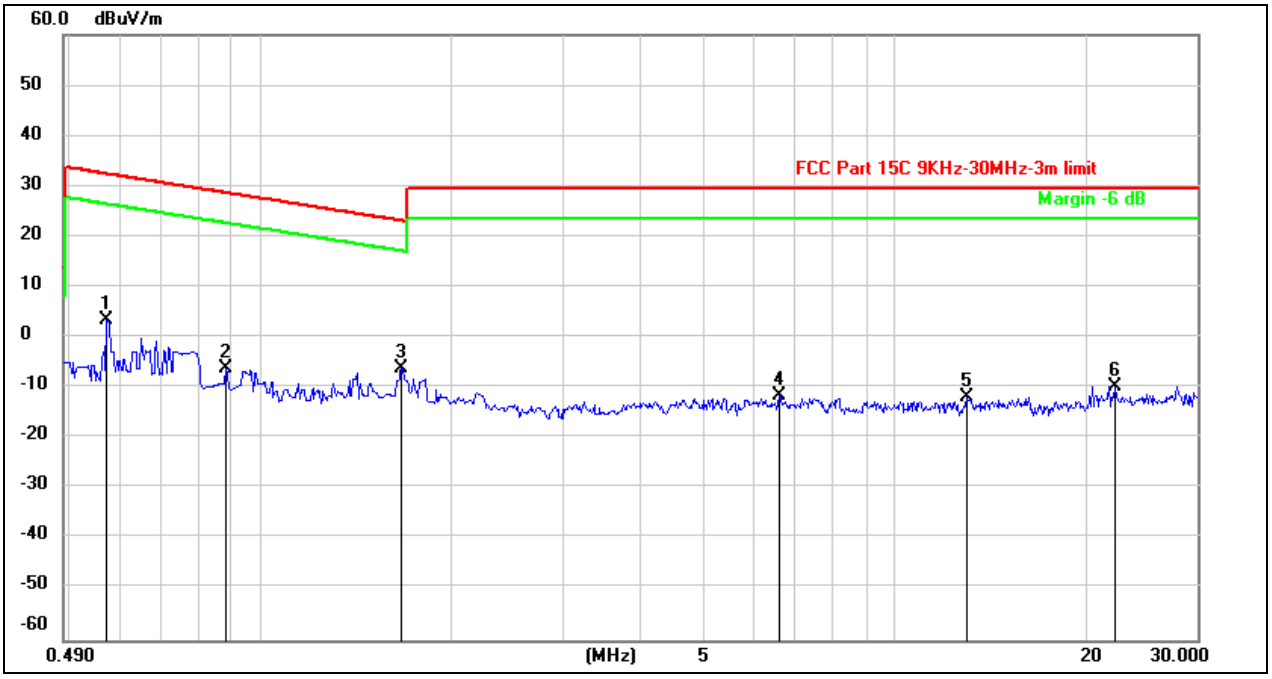
150kHz ~ 490kHz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1556	68.52	-101.65	-33.13	23.77	-56.90	peak
2	0.1927	65.48	-101.70	-36.22	21.91	-58.13	peak
3	0.2308	63.25	-101.77	-38.52	20.50	-59.02	peak
4	0.2816	62.67	-101.83	-39.16	18.71	-57.87	peak
5	0.3553	59.72	-101.91	-42.19	16.68	-58.87	peak
6	0.4006	58.18	-101.96	-43.78	15.55	-59.33	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



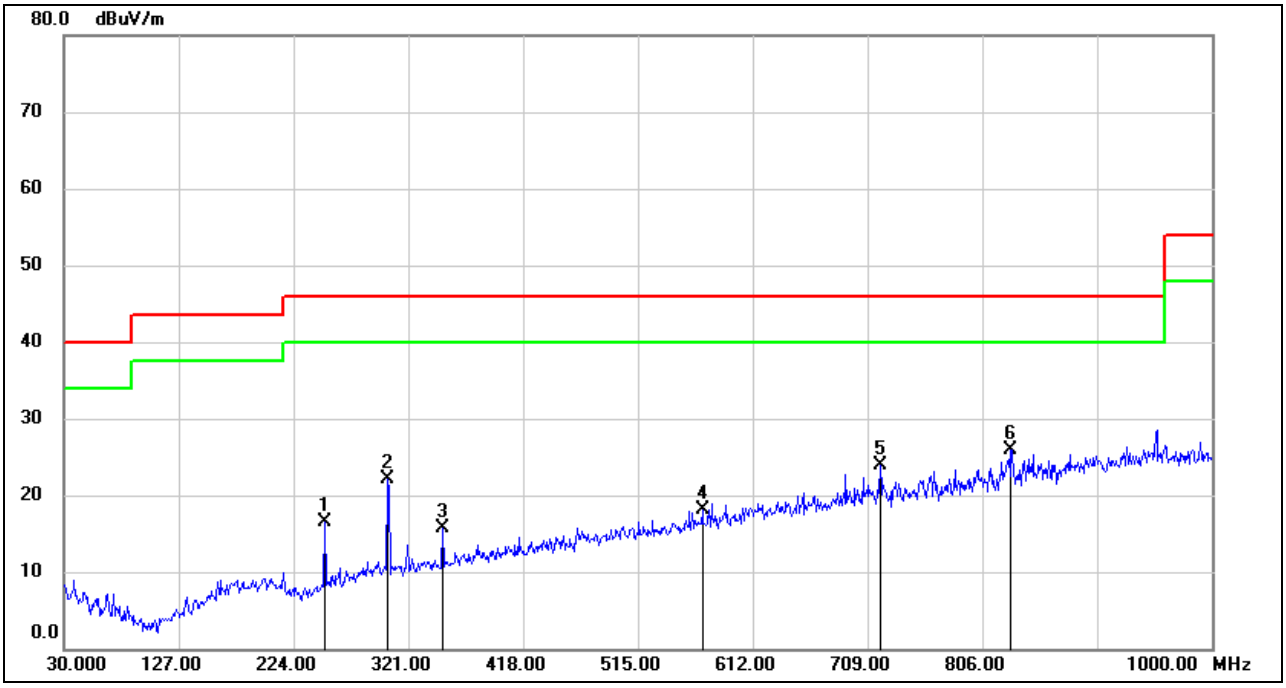
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.5725	65.53	-62.07	3.46	32.48	-29.02	peak
2	0.8820	56.09	-62.19	-6.10	28.70	-34.80	peak
3	1.6704	55.72	-61.97	-6.25	23.15	-29.40	peak
4	6.5986	49.62	-61.27	-11.65	29.54	-41.19	peak
5	13.0318	49.05	-60.93	-11.88	29.54	-41.42	peak
6	22.2974	50.90	-60.66	-9.76	29.54	-39.30	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

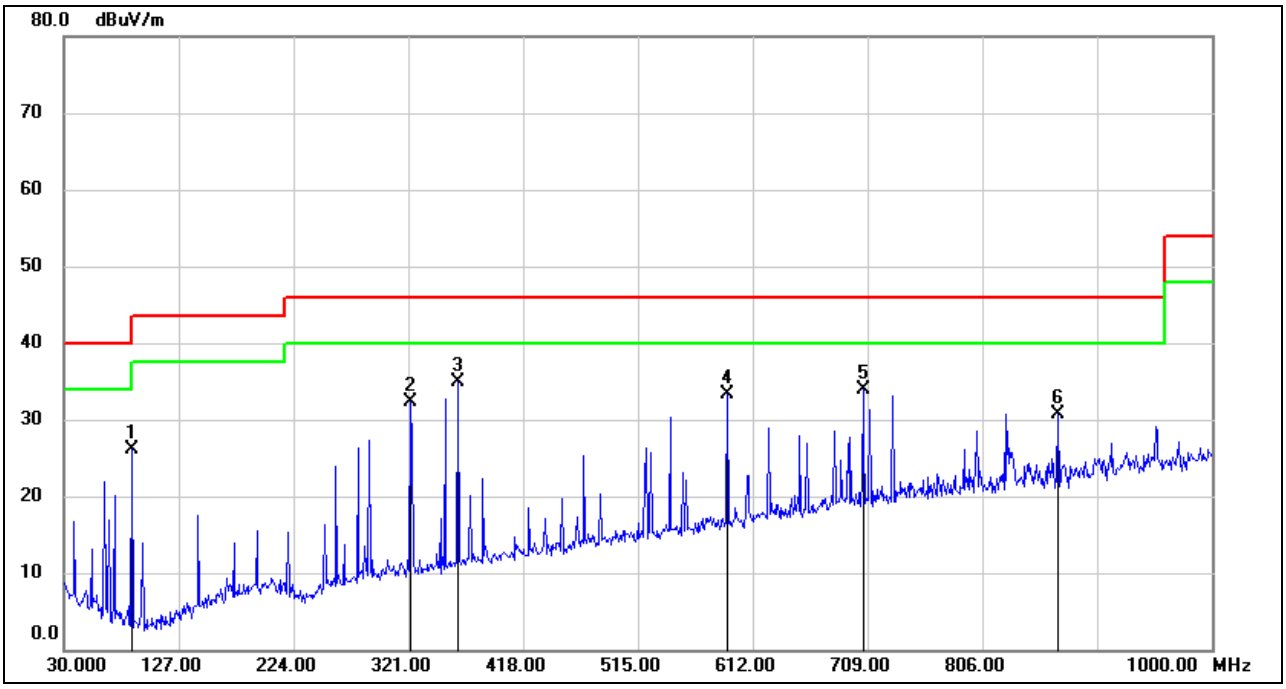
SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	250.1900	32.65	-16.12	16.53	46.00	-29.47	QP
2	303.5400	35.98	-13.82	22.16	46.00	-23.84	QP
3	350.1000	28.82	-13.16	15.66	46.00	-30.34	QP
4	569.3200	27.17	-9.01	18.16	46.00	-27.84	QP
5	719.6700	30.03	-6.09	23.94	46.00	-22.06	QP
6	829.2800	30.80	-4.87	25.93	46.00	-20.07	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	87.2300	47.07	-21.00	26.07	40.00	-13.93	QP
2	322.9400	45.84	-13.60	32.24	46.00	-13.76	QP
3	362.7100	47.88	-12.98	34.90	46.00	-11.10	QP
4	590.6599	41.91	-8.64	33.27	46.00	-12.73	QP
5	705.1200	40.36	-6.47	33.89	46.00	-12.11	QP
6	870.0200	35.20	-4.46	30.74	46.00	-15.26	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. 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