



CFR 47 FCC PART 15 SUBPART C

TEST REPORT

For

Air Combat/Air Battle HELI WFLIGHTSTICK

PL-0305

FCC ID: 2ASK3PL-0305R

REPORT NUMBER: 4789041432.1-2

ISSUE DATE: June 5, 2019

Prepared for

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

Prepared by

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Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
V0	06/05/2019	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	Conducted Emission Test For AC Power Port	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: Air Combat/Air Battle HELI WFLIGHTSTICK
Model: PL-0305
Sample Status: Normal
Sample Received Date: May 22, 2019
Date of Tested: May 22, 2019 ~ June 04, 2019

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

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Approved By:

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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>A2LA (Certificate No.: 4102.01) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</p> <p>FCC (FCC Designation No.: CN1187) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules</p> <p>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.</p> <p>VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011</p>
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Note:

1. All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China
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	Air Combat/Air Battle HELI WFLIGHTSTICK	
EUT Description	The EUT is a wireless remote controlled toy drone.	
Model	PL-0305	
Product Description	Operation Frequency	2415 MHz ~ 2472 MHz
	Modulation Type	GFSK
Battery	DC 3.7V	

5.2. MAXIMUM OUTPUT POWER

Frequency Range (MHz)	Number of Transmit Chains (NTX)	Frequency (MHz)	Channel Number	Max Power (dB μ V/m)
2415 ~ 2472	1	2450	2[3]	77.00

5.3. CHANNEL LIST

Channel	Frequency (MHz)	Channel	Frequency(MHz)	Channel	Frequency (MHz)
1	2415	2	2450	3	2472

5.4. DESCRIPTION OF AVAILABLE ANTENNAS

Ant.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1	2415 ~ 2472	Line 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 2, CH 3	2415MHz, 2450MHz, 2472MHz



5.6. THE WORSE CASE POWER SETTING PARAMETER

The Worst Case Power Setting Parameter under 2415 ~ 2472MHz Band				
Test Software		/		
Modulation Type	Transmit Antenna Number	Test Channel		
		CH 1	CH 2	CH 3
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	/
	VN	DC 3.7V
	VH	/

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	/	/	/	/	/

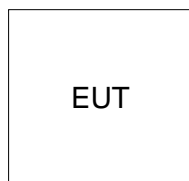
ACCESSORY

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

TEST SETUP

The EUT have the engineering mode inside.

SETUP DIAGRAM FOR TEST



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

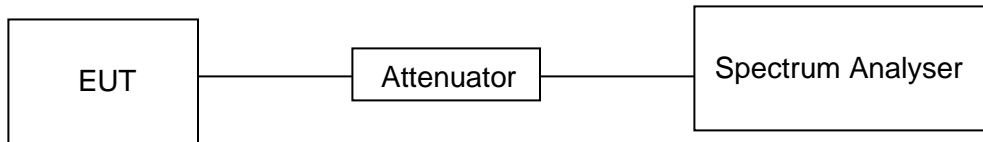
LIMITS

None; for reporting purposes only

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method

TEST SETUP



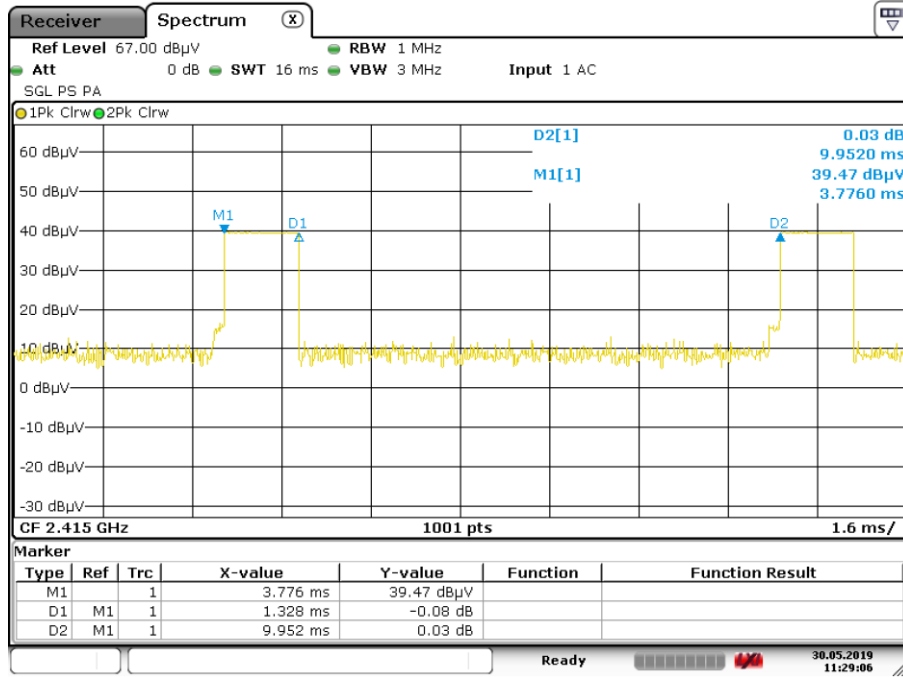
RESULTS

Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (db)
GFSK	13.28	100	0.133	13.3	-17.52

Note: Duty Cycle Correction Factor= $20\log(x)$.
Where: x is Duty Cycle

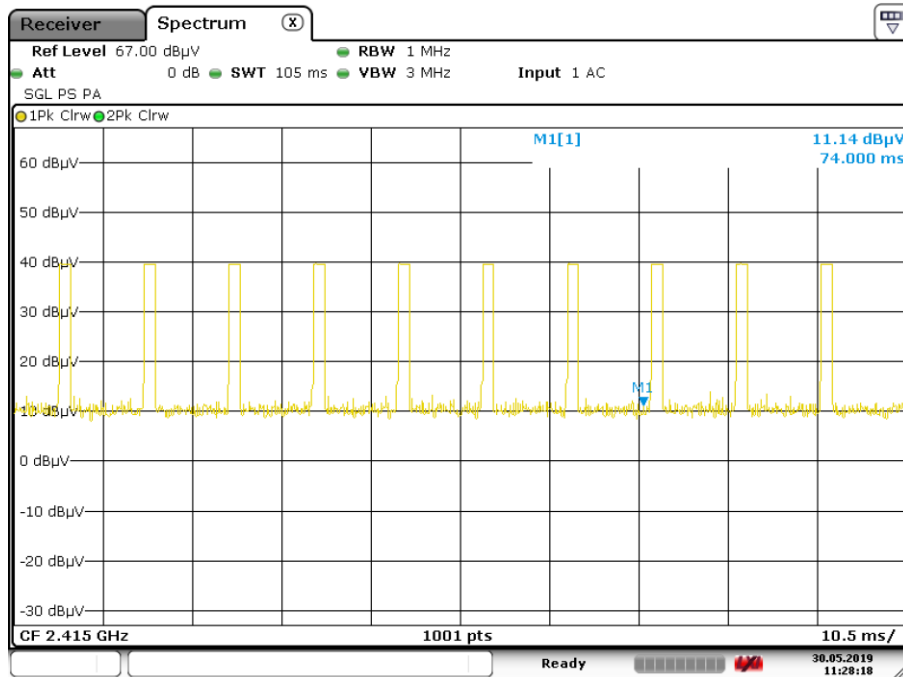


ON TIME AND DUTY CYCLE PLOT-1



Date: 30.MAY.2019 11:29:06

ON TIME AND DUTY CYCLE PLOT-2



Date: 30.MAY.2019 11:28:18

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

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

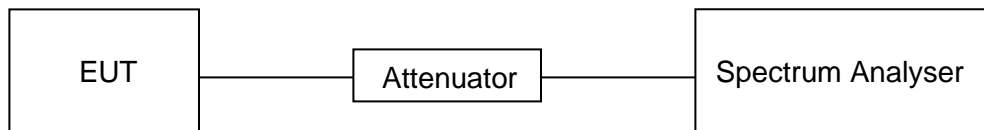
TEST PROCEDURE

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

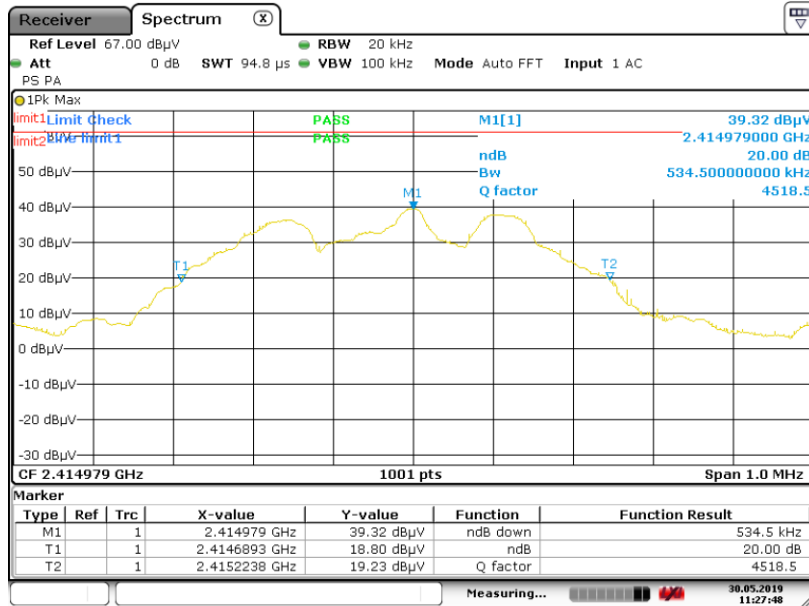




RESULTS

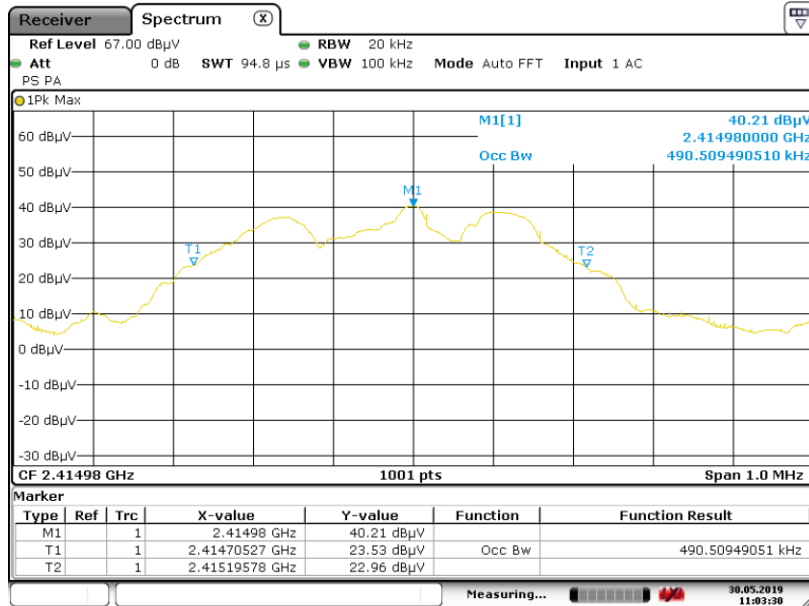
Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2415	0.5345	0.4905	PASS

20 dB BANDWIDTH LOW CH



Date: 30.MAY.2019 11:27:48

99% OCCUPIED BANDWIDTH LOW CH

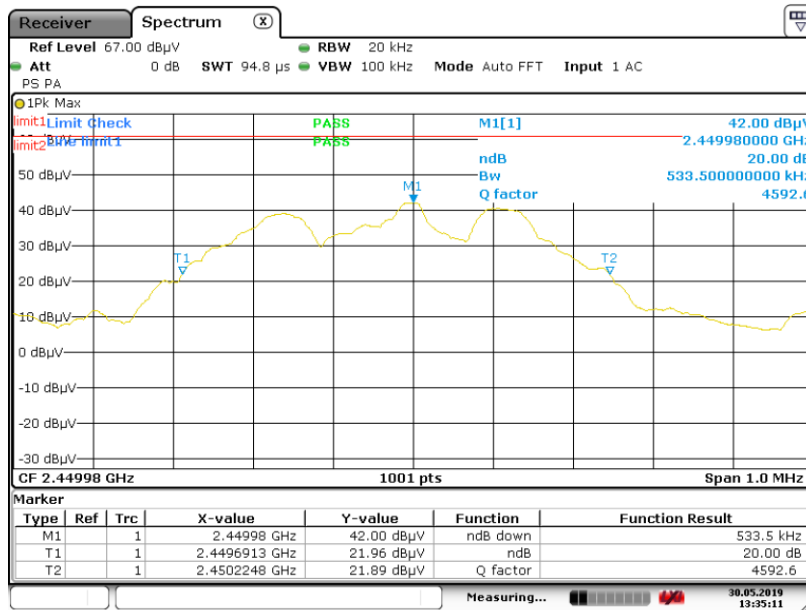


Date: 30.MAY.2019 11:03:30



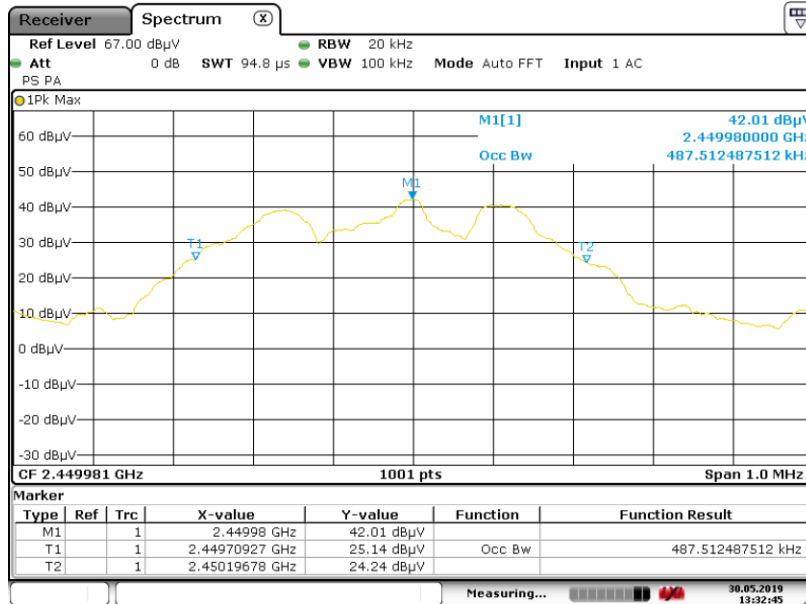
Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2445	0.5335	0.4875	PASS

20 dB BANDWIDTH MID CH



Date: 30.MAY.2019 13:35:11

99% OCCUPIED BANDWIDTH MID CH

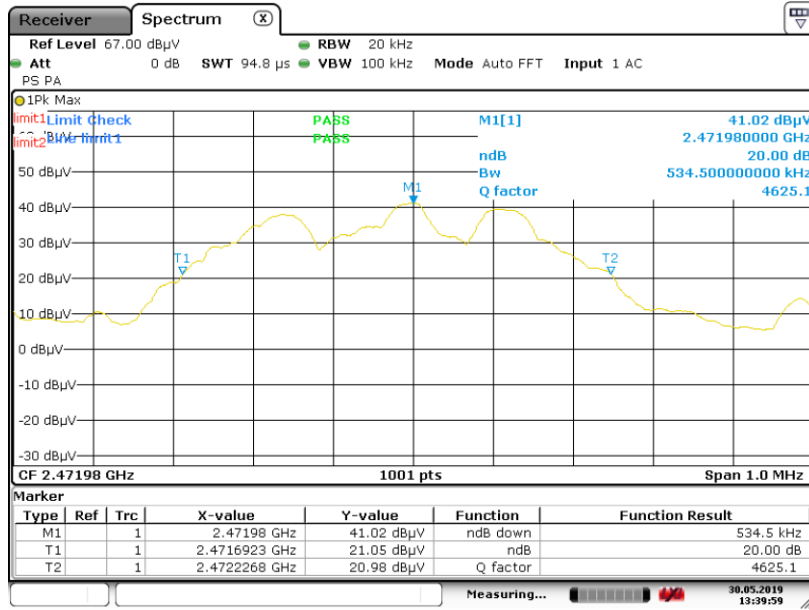


Date: 30.MAY.2019 13:32:45



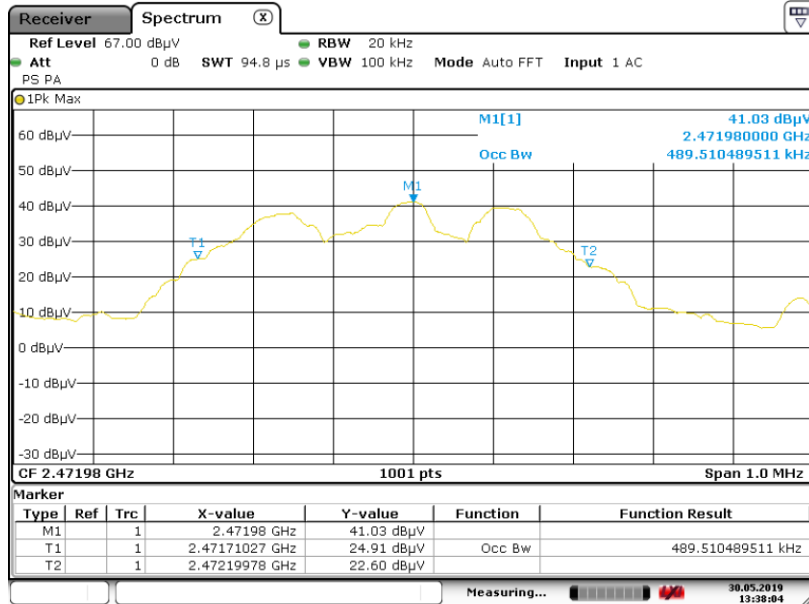
Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2472	0.5345	0.4895	PASS

20 dB BANDWIDTH HIG CH



Date: 30.MAY.2019 13:39:59

99% OCCUPIED BANDWIDTH HIG CH



Date: 30.MAY.2019 13:38:04



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:

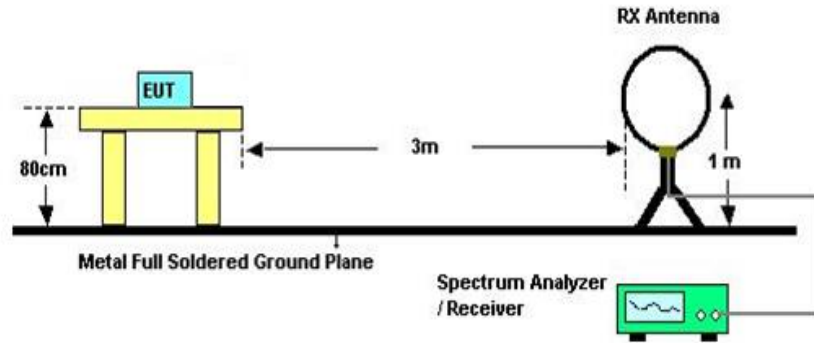


MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	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: ¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
²Above 38.6c

TEST SETUP AND PROCEDURE

Below 30MHz

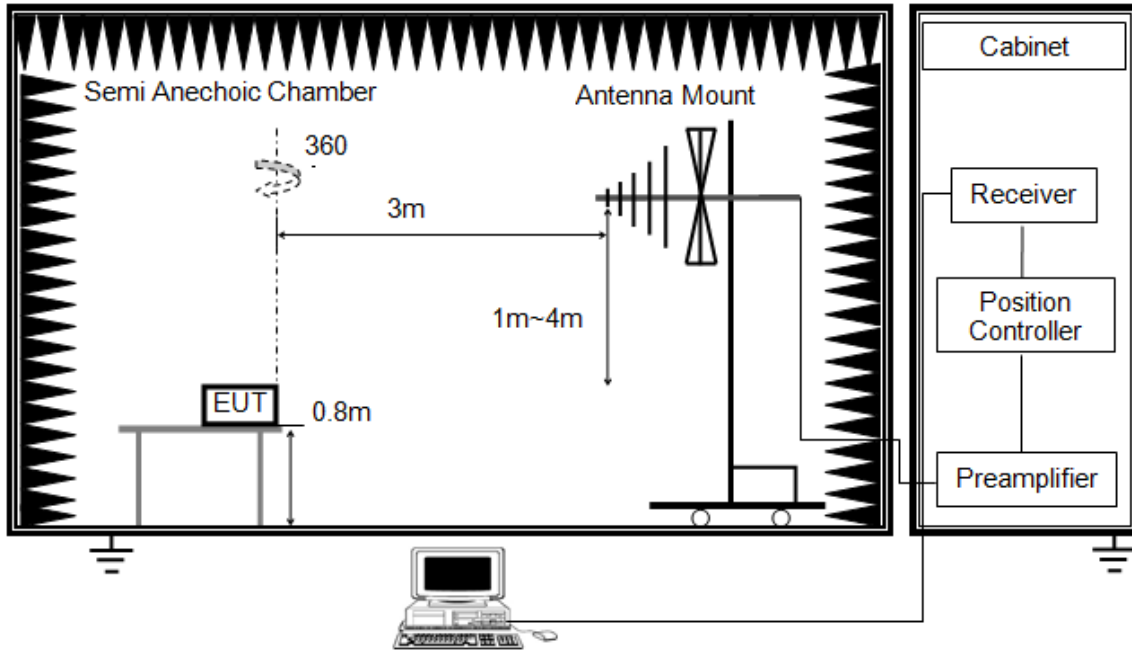


The setting of the spectrum analyser

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

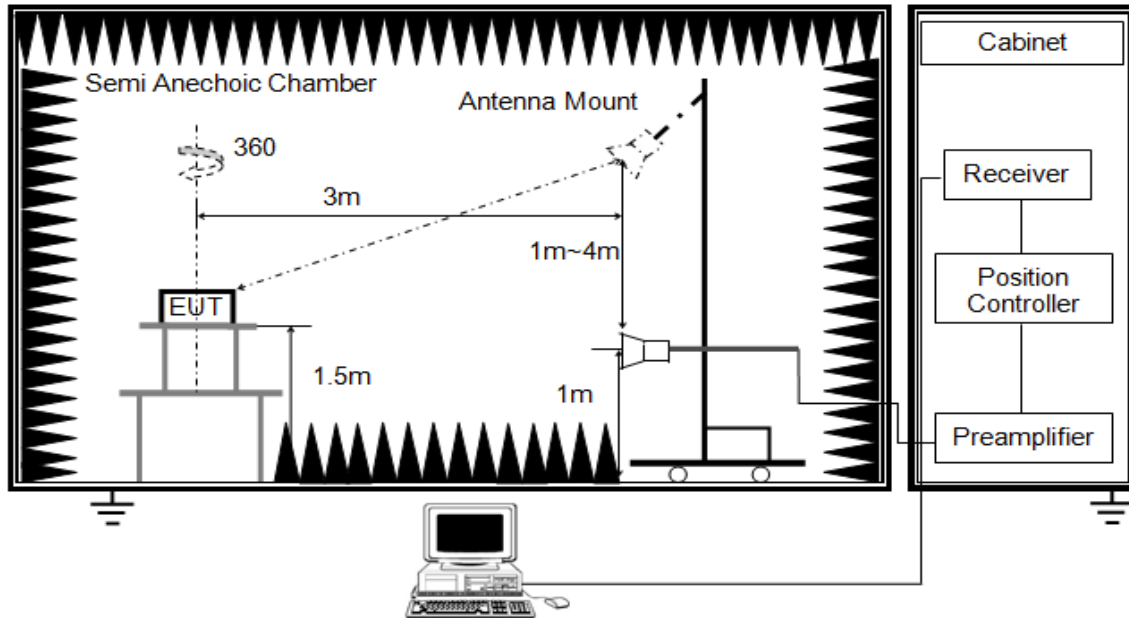


The setting of the spectrum analyser

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

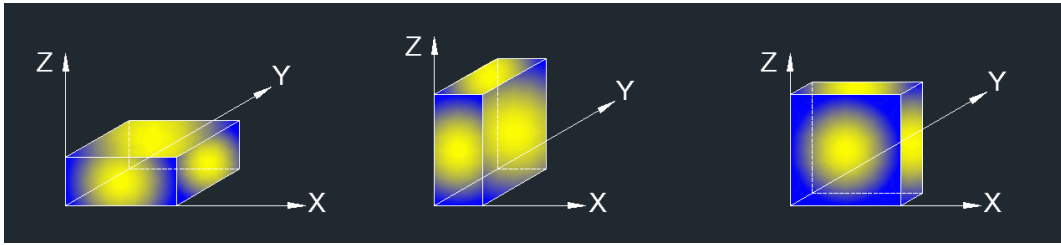


The setting of the spectrum analyser

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. Where necessary, average emission are determined by applying the Duty Cycle Correction Factor to the peak measurements. 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:

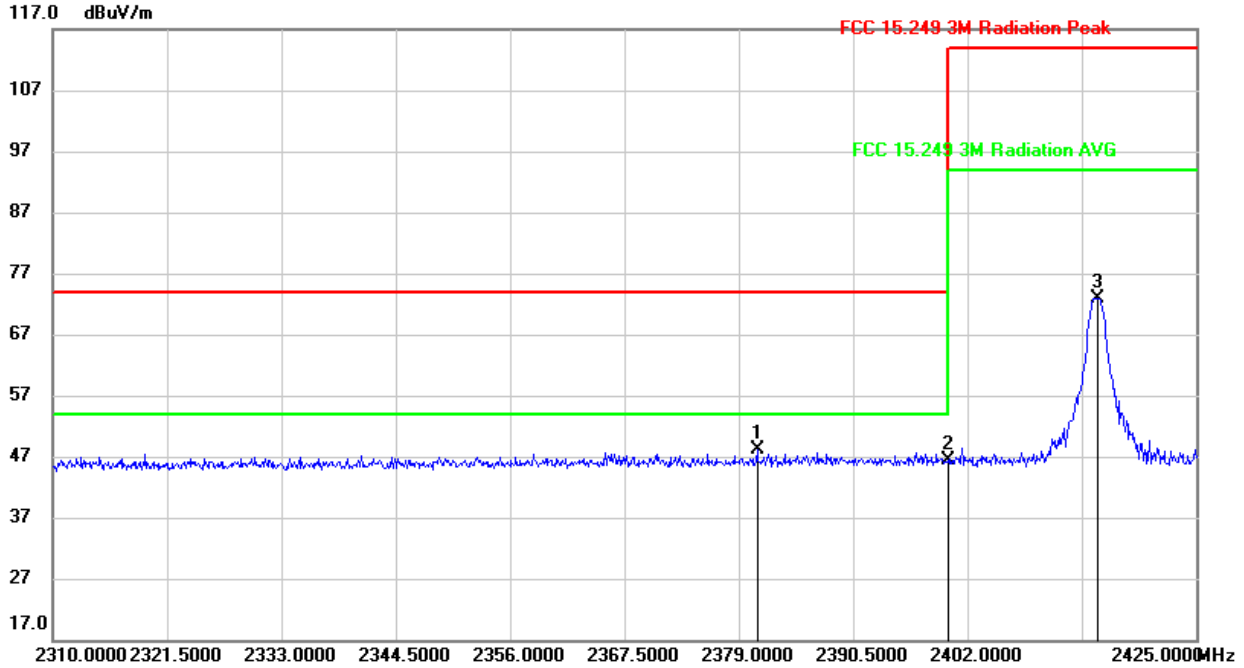


Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.



7.2. RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS

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

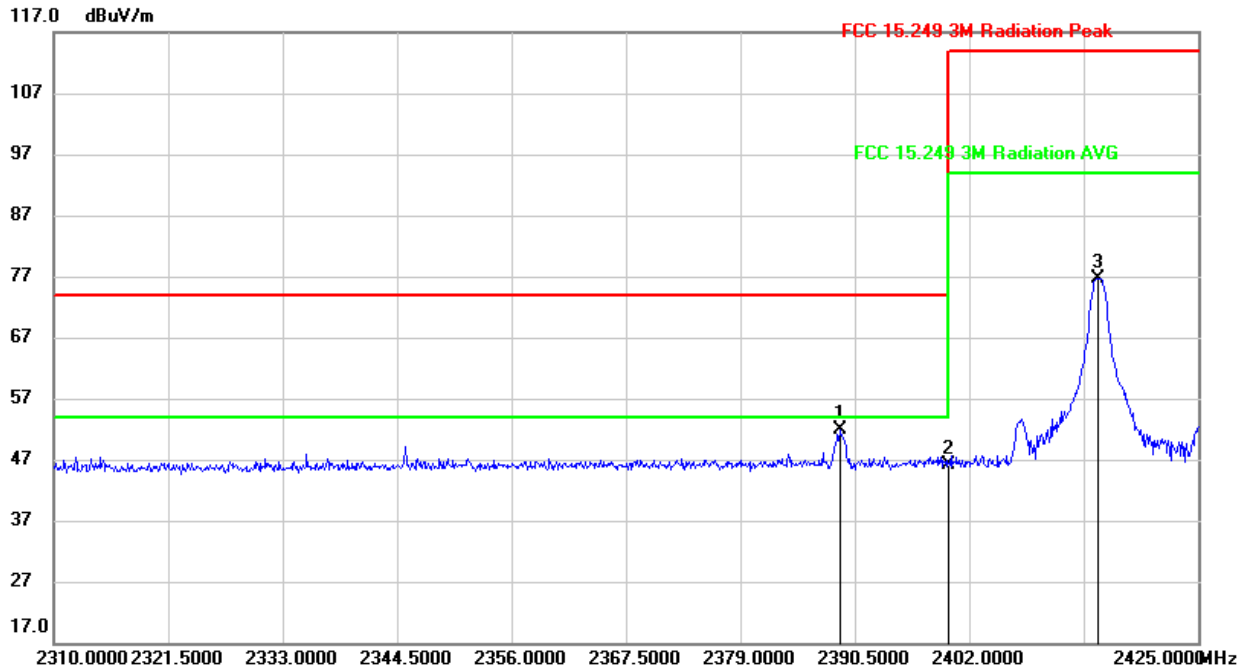


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2380.840	15.12	32.92	48.04	74.00	-25.96	peak
2	2400.000	13.29	32.98	46.27	74.00	-27.73	peak
3	2415.110	39.90	33.09	72.99	114.00	-41.01	peak

- 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)

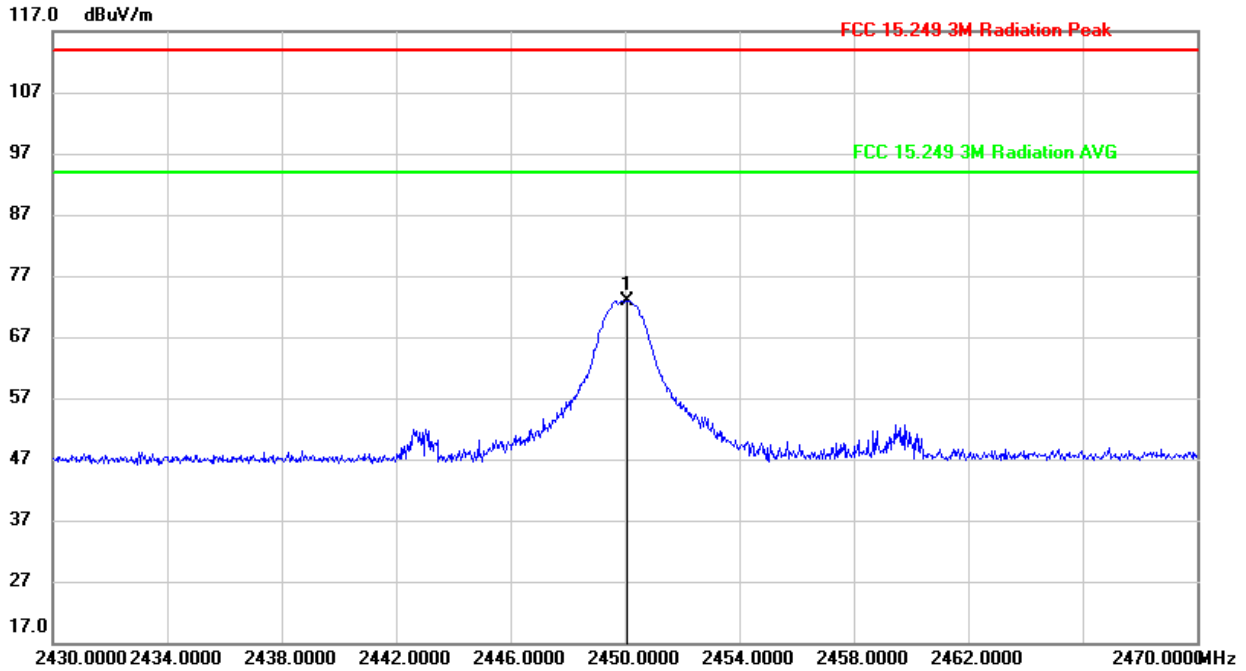


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.005	18.89	32.94	51.83	74.00	-22.17	peak
2	2400.000	13.11	32.98	46.09	74.00	-27.91	peak
3	2414.995	43.54	33.09	76.63	114.00	-37.37	peak

- 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)

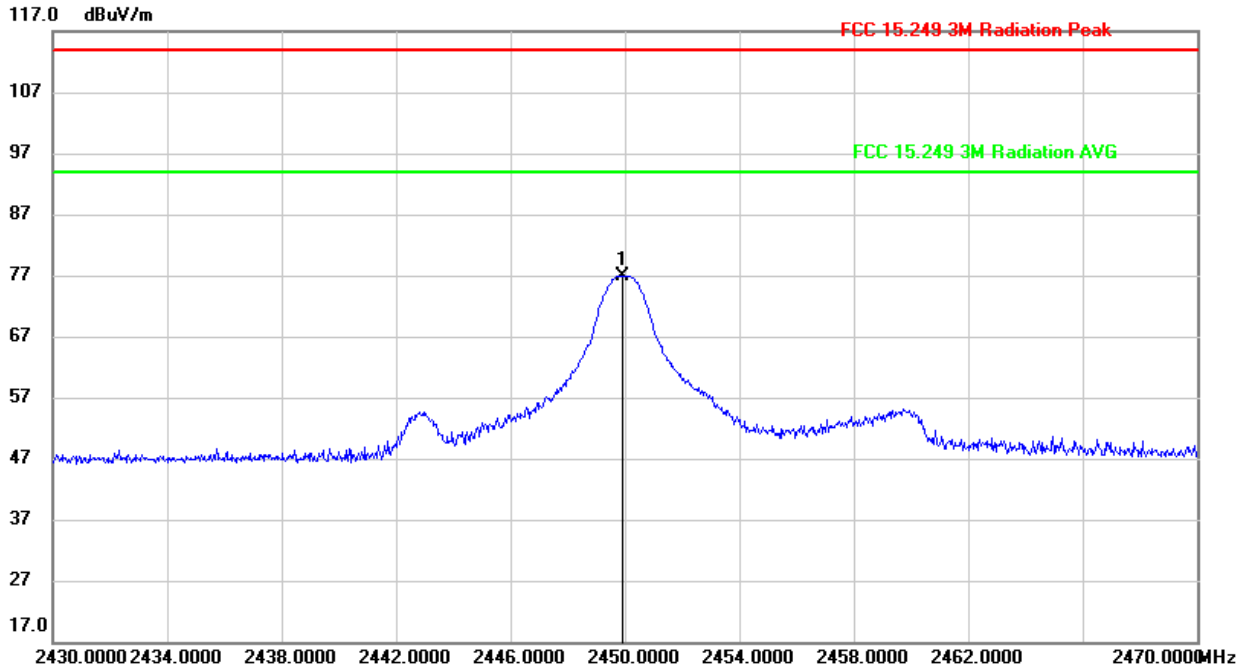


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2450.080	39.66	33.34	73.00	114.00	-41.00	peak

- 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)

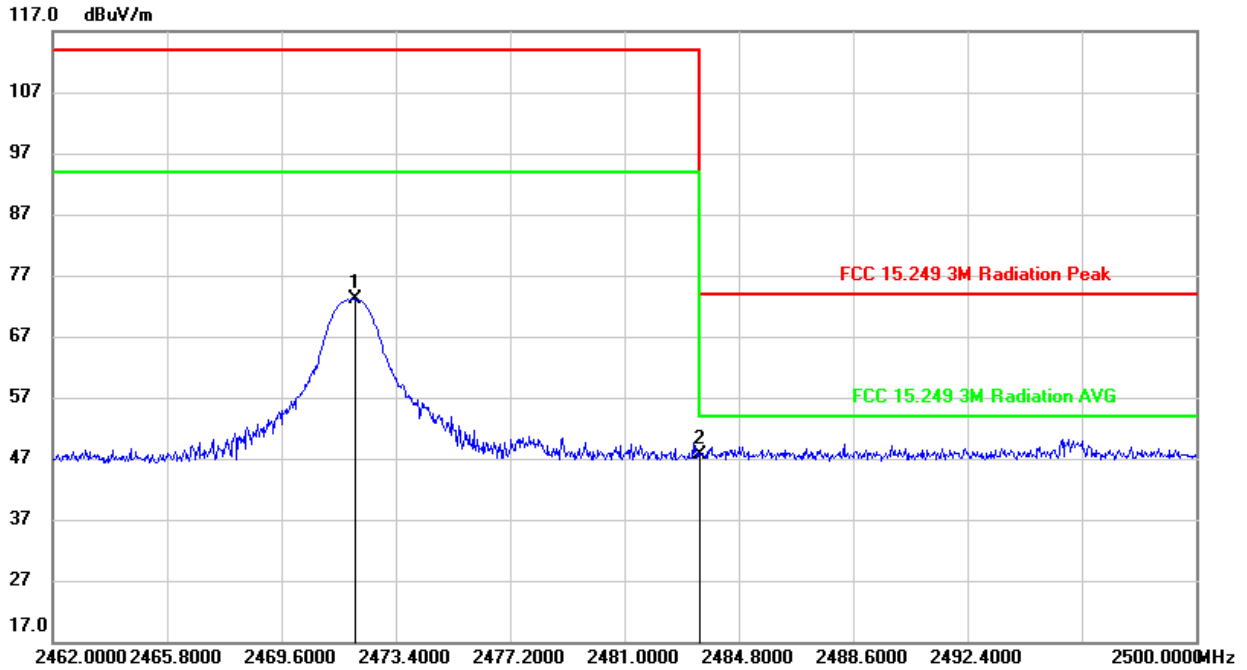


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2449.920	43.66	33.34	77.00	114.00	-37.00	peak

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



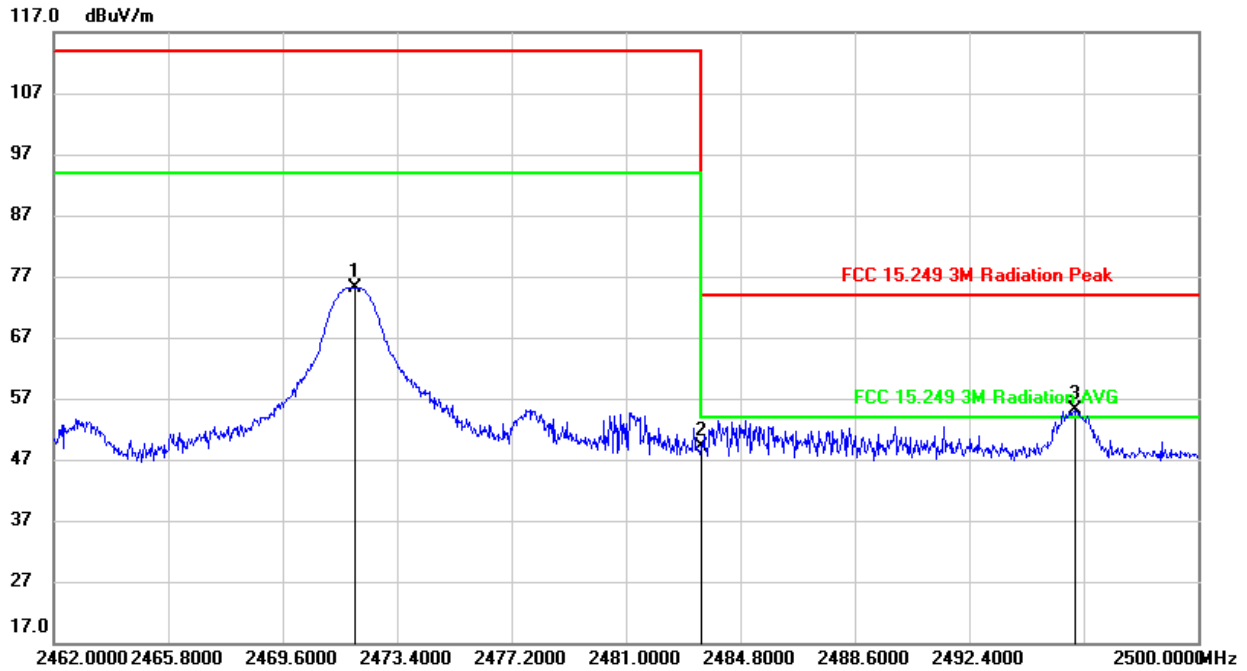
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2472.070	39.55	33.50	73.05	114.00	-40.95	peak
2	2483.500	13.94	33.58	47.52	74.00	-26.48	peak

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



RESTRICTED BANDEGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS (HIGH CHANNEL, VERTICAL)

PEAK



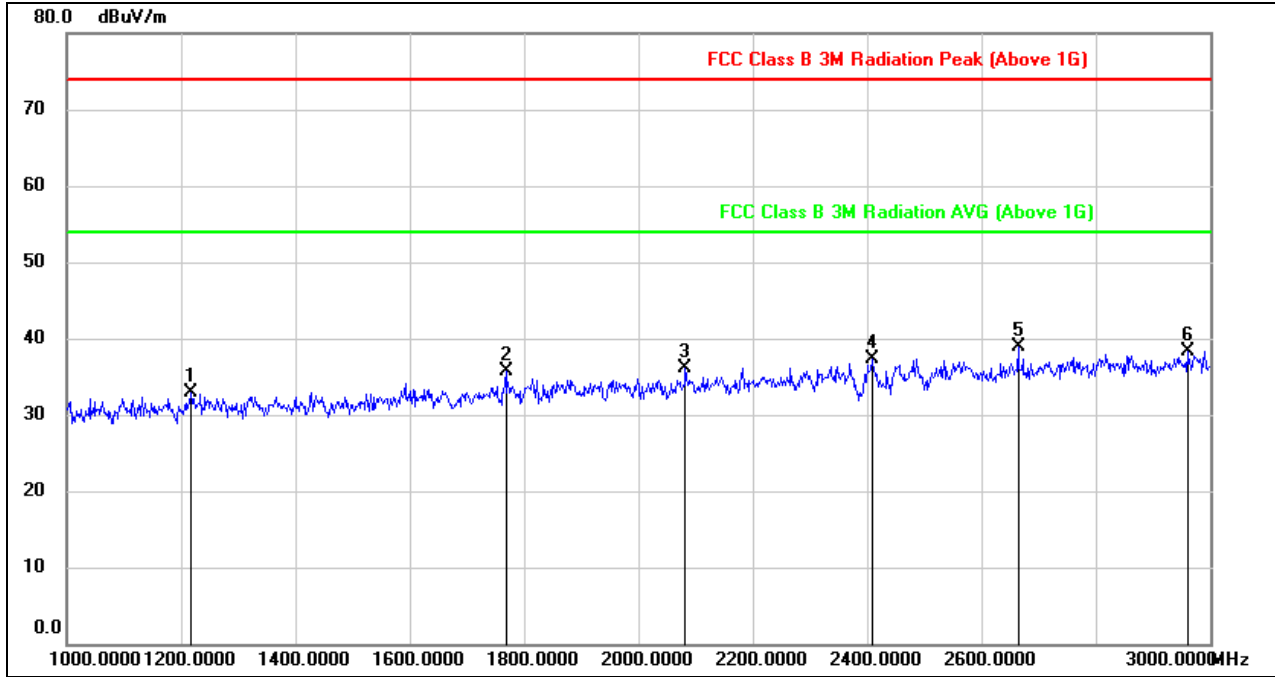
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2471.994	41.74	33.50	75.24	114.00	-38.76	peak
2	2483.500	15.53	33.58	49.11	74.00	-24.89	peak
3	2495.896	21.52	33.67	55.19	74.00	-18.81	peak
3	2495.896	21.52	33.67	37.67	54.00	-16.33	AVG

- Note:
1. Measurement = Reading Level + Correct Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Peak: Peak detector.
 4. AVG Result=Peak Result + Duty Cycle Correction Factor.
 5. For transmit duration, please refer to clause 6.1.
 6. 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)

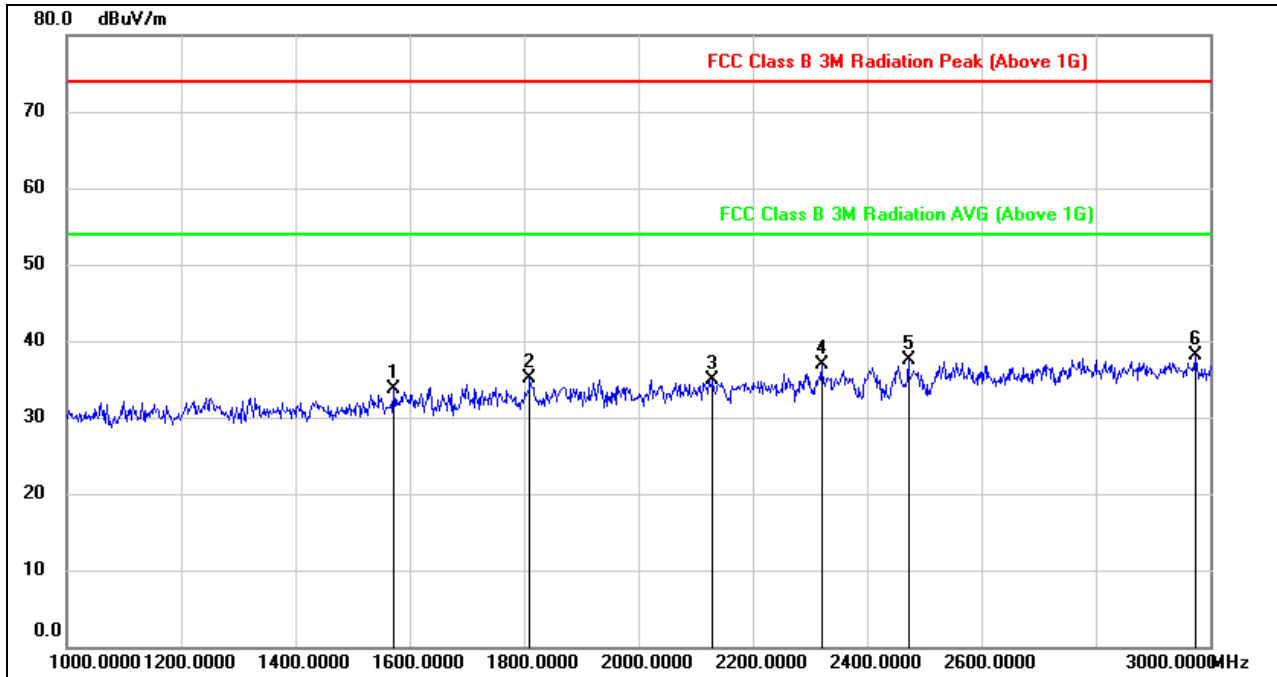


No.	Frequency (MHz)	Reading (dBUV)	Correct (dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Remark
1	1218.000	45.09	-12.14	32.95	74.00	-41.05	peak
2	1768.000	45.72	-9.94	35.78	74.00	-38.22	peak
3	2082.000	44.76	-8.74	36.02	74.00	-37.98	peak
4	2408.000	44.33	-6.94	37.39	74.00	-36.61	peak
5	2664.000	45.01	-6.20	38.81	74.00	-35.19	peak
6	2960.000	42.83	-4.49	38.34	74.00	-35.66	peak

- Note: 1. Peak Result = Reading Level + Correct Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Peak: Peak detector.
 4. The Band Reject filter loss factor already add into the correct factor except band 2400~2483.5MHz.
 5. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

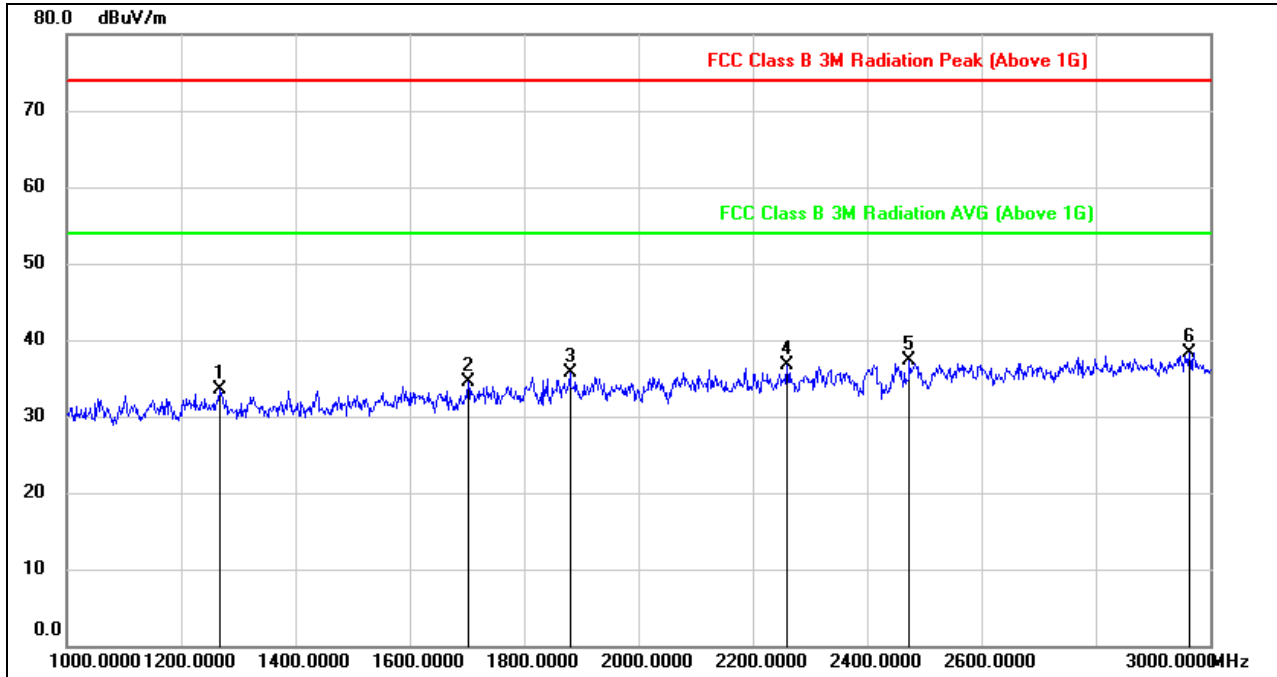


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1572.000	44.74	-11.10	33.64	74.00	-40.36	peak
2	1810.000	44.61	-9.59	35.02	74.00	-38.98	peak
3	2130.000	43.39	-8.45	34.94	74.00	-39.06	peak
4	2320.000	44.29	-7.38	36.91	74.00	-37.09	peak
5	2472.000	43.83	-6.41	37.42	74.00	-36.58	peak
6	2974.000	42.62	-4.43	38.19	74.00	-35.81	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 except band 2400~2483.5MHz.
 5. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

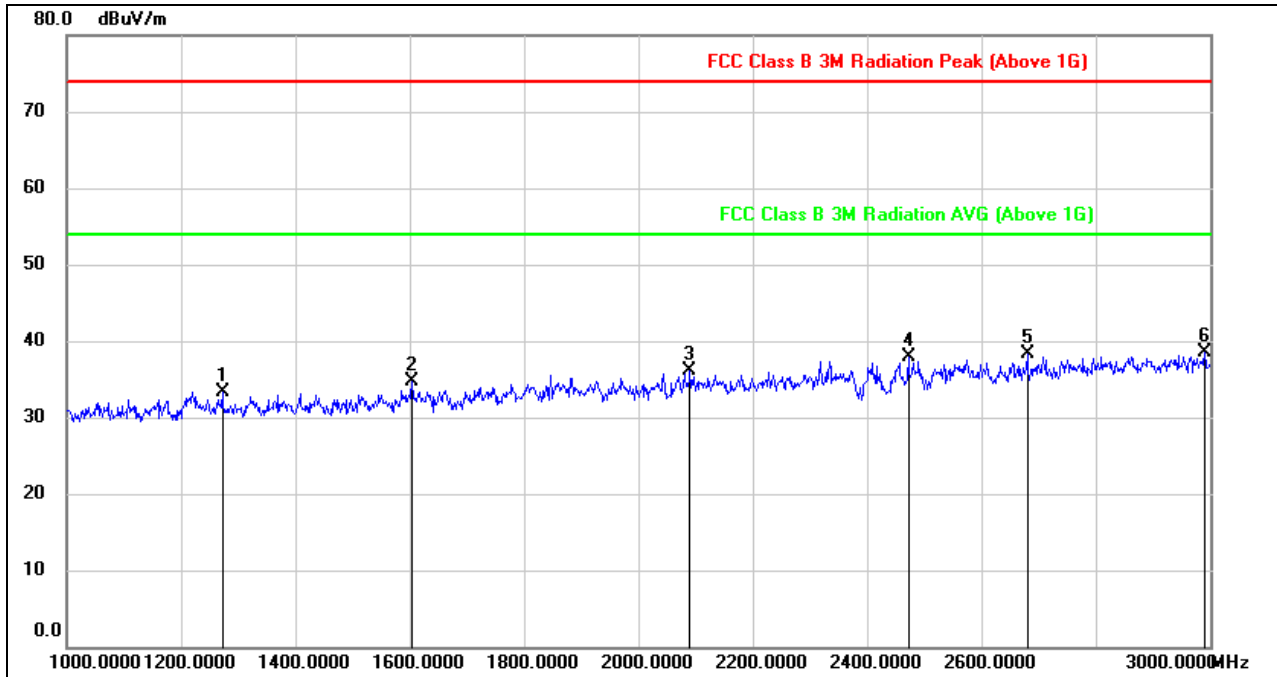


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1268.000	45.38	-11.97	33.41	74.00	-40.59	peak
2	1702.000	45.00	-10.58	34.42	74.00	-39.58	peak
3	1880.000	45.02	-9.41	35.61	74.00	-38.39	peak
4	2260.000	44.45	-7.72	36.73	74.00	-37.27	peak
5	2474.000	43.60	-6.38	37.22	74.00	-36.78	peak
6	2964.000	42.75	-4.48	38.27	74.00	-35.73	peak

Note: 1. Peak Result = Reading Level + Correct Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Peak: Peak detector.
 4. The Band Reject filter loss factor already add into the correct factor except band 2400~2483.5MHz.
 5. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

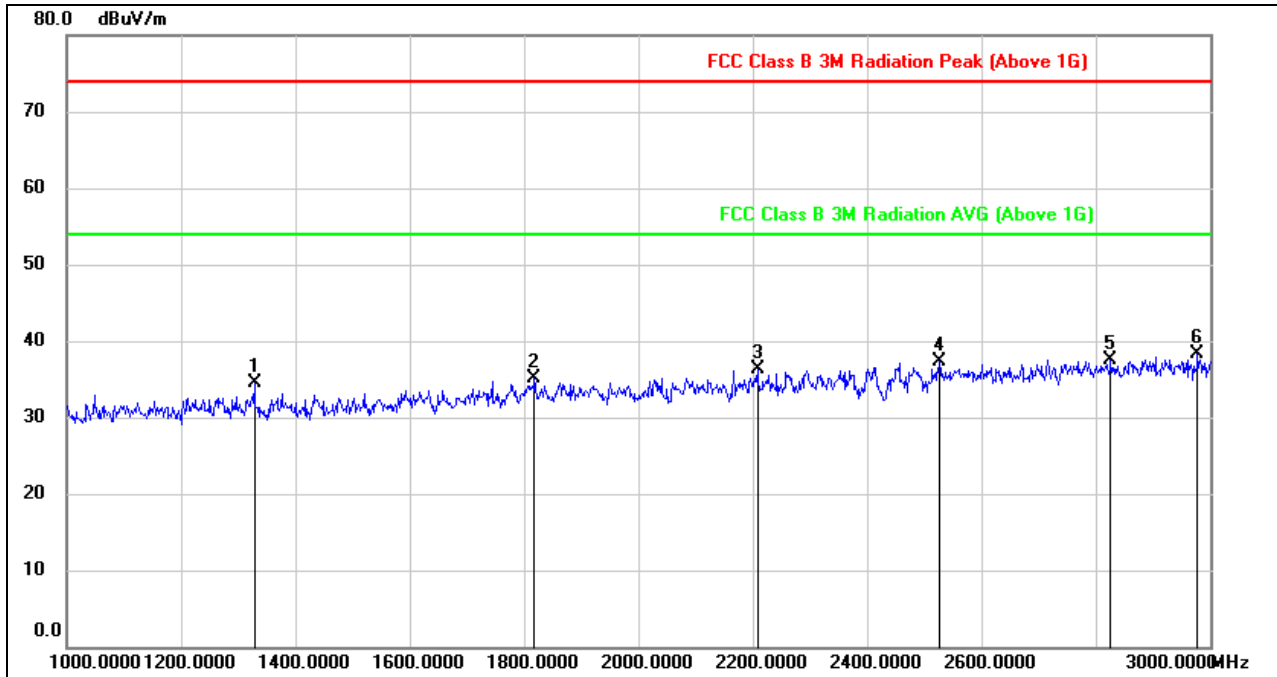


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1272.000	45.29	-11.95	33.34	74.00	-40.66	peak
2	1604.000	45.48	-10.82	34.66	74.00	-39.34	peak
3	2090.000	44.83	-8.67	36.16	74.00	-37.84	peak
4	2472.000	44.36	-6.41	37.95	74.00	-36.05	peak
5	2680.000	44.38	-6.09	38.29	74.00	-35.71	peak
6	2990.000	42.97	-4.37	38.60	74.00	-35.40	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 except band 2400~2483.5MHz.
 5. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

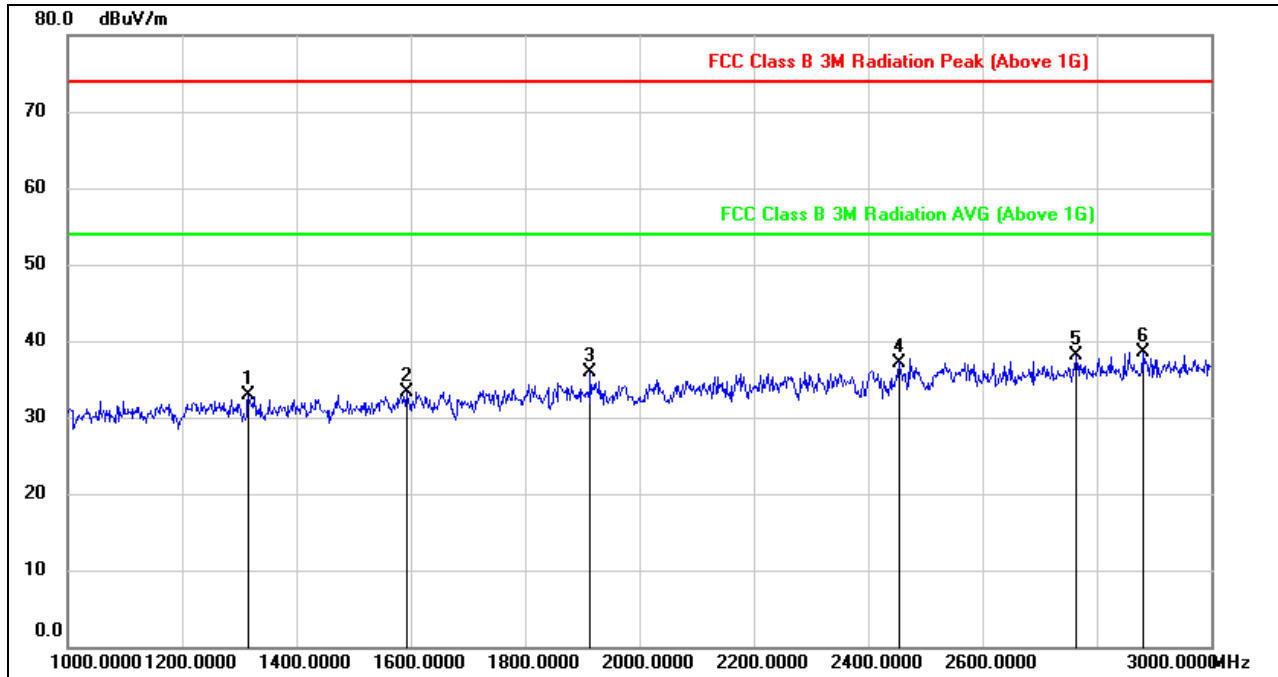


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1328.000	46.27	-11.86	34.41	74.00	-39.59	peak
2	1818.000	44.64	-9.57	35.07	74.00	-38.93	peak
3	2208.000	44.38	-8.05	36.33	74.00	-37.67	peak
4	2526.000	43.58	-6.28	37.30	74.00	-36.70	peak
5	2826.000	42.61	-5.15	37.46	74.00	-36.54	peak
6	2978.000	42.82	-4.42	38.40	74.00	-35.60	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. The Band Reject filter loss factor already add into the correct factor except band 2400~2483.5MHz.
 5. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



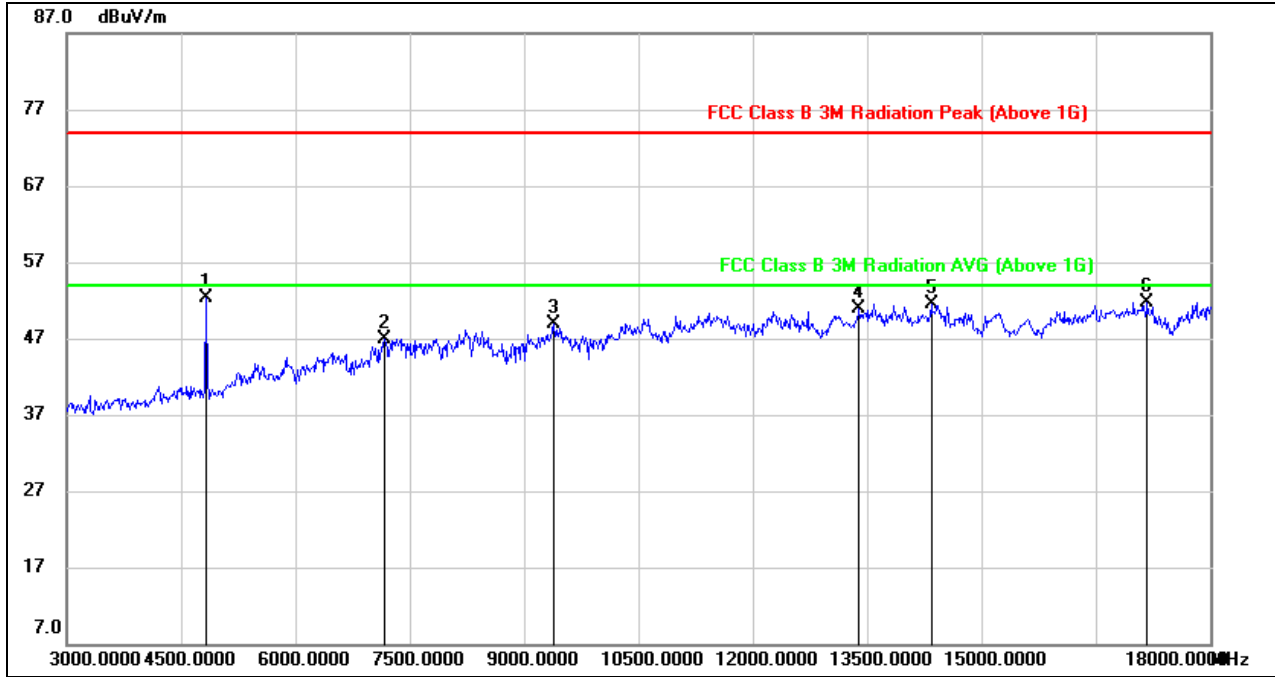
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1316.000	44.73	-11.86	32.87	74.00	-41.13	peak
2	1592.000	44.23	-10.90	33.33	74.00	-40.67	peak
3	1914.000	45.20	-9.36	35.84	74.00	-38.16	peak
4	2454.000	43.75	-6.55	37.20	74.00	-36.80	peak
5	2764.000	43.54	-5.53	38.01	74.00	-35.99	peak
6	2880.000	43.38	-4.85	38.53	74.00	-35.47	peak

Note: 1. Peak Result = Reading Level + Correct Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Peak: Peak detector.
 4. The Band Reject filter loss factor already add into the correct factor except band 2400~2483.5MHz.
 5. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



7.4. SPURIOUS EMISSIONS (3~18GHz)

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

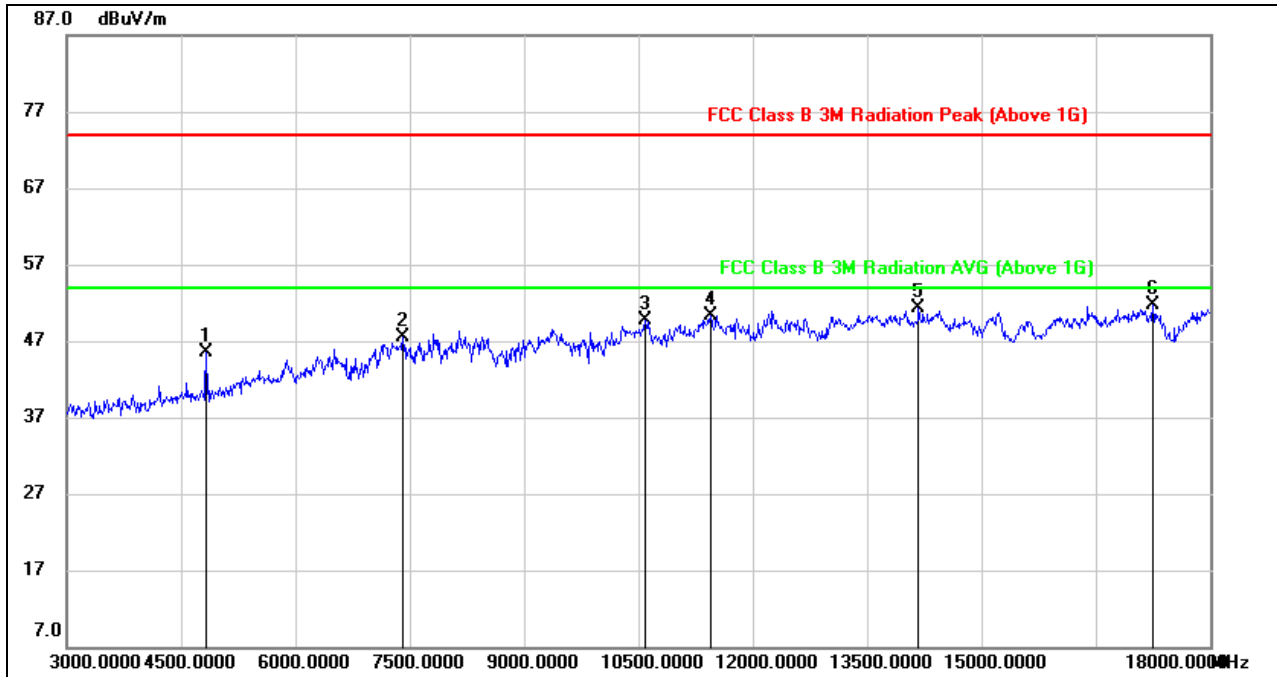


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4830.000	52.59	-0.20	52.39	74.00	-21.61	peak
2	7170.000	40.10	6.87	46.97	74.00	-27.03	peak
3	9390.000	38.67	10.24	48.91	74.00	-25.09	peak
4	13395.000	34.99	15.87	50.86	74.00	-23.14	peak
5	14340.000	35.11	16.36	51.47	74.00	-22.53	peak
6	17175.000	30.73	20.94	51.67	74.00	-22.33	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. 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 (LOW CHANNEL, VERTICAL)

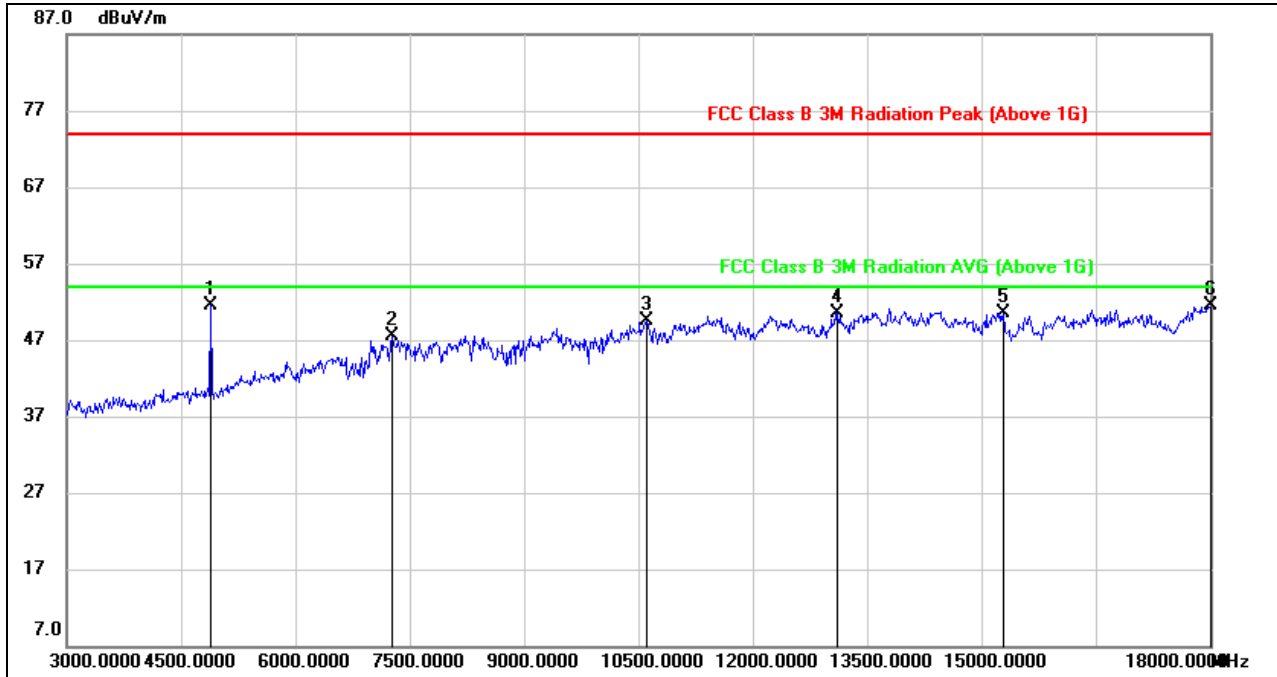


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4830.000	45.68	-0.20	45.48	74.00	-28.52	peak
2	7410.000	40.00	7.47	47.47	74.00	-26.53	peak
3	10590.000	37.05	12.68	49.73	74.00	-24.27	peak
4	11445.000	36.60	13.68	50.28	74.00	-23.72	peak
5	14175.000	34.94	16.41	51.35	74.00	-22.65	peak
6	17250.000	30.24	21.45	51.69	74.00	-22.31	peak

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

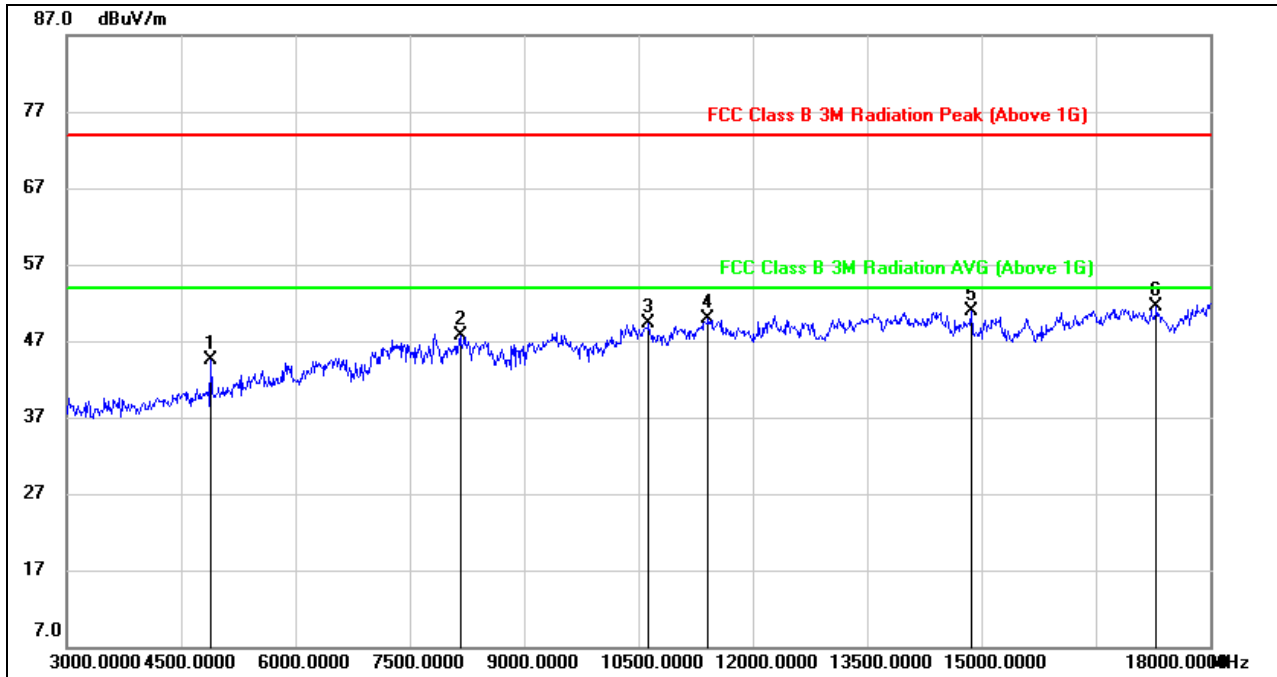


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4900.000	51.51	-0.09	51.42	74.00	-22.58	peak
2	7260.000	40.43	7.04	47.47	74.00	-26.53	peak
3	10605.000	36.80	12.75	49.55	74.00	-24.45	peak
4	13110.000	35.54	14.99	50.53	74.00	-23.47	peak
5	15285.000	35.05	15.55	50.60	74.00	-23.40	peak
6	18000.000	28.21	23.27	51.48	74.00	-22.52	peak

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

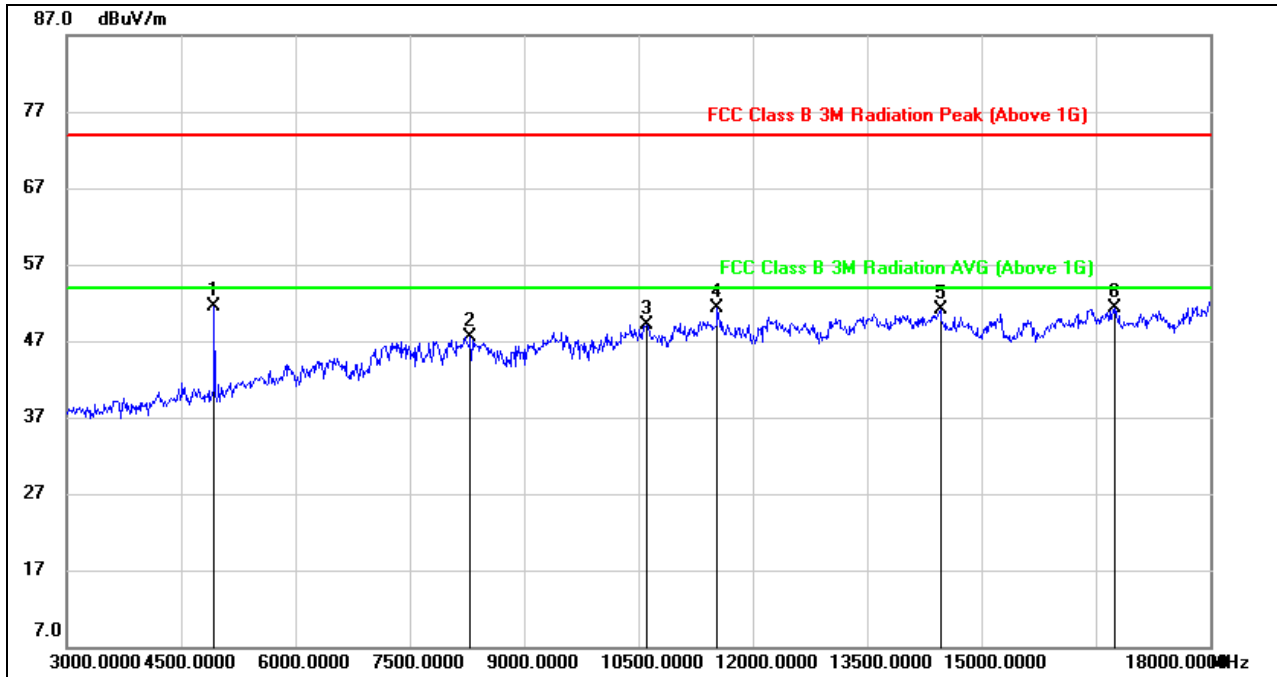


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4900.000	44.61	-0.09	44.52	74.00	-29.48	peak
2	8160.000	38.27	9.39	47.66	74.00	-26.34	peak
3	10635.000	36.71	12.59	49.30	74.00	-24.70	peak
4	11415.000	36.43	13.46	49.89	74.00	-24.11	peak
5	14865.000	35.38	15.56	50.94	74.00	-23.06	peak
6	17295.000	29.72	21.86	51.58	74.00	-22.42	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. 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, HORIZONTAL)

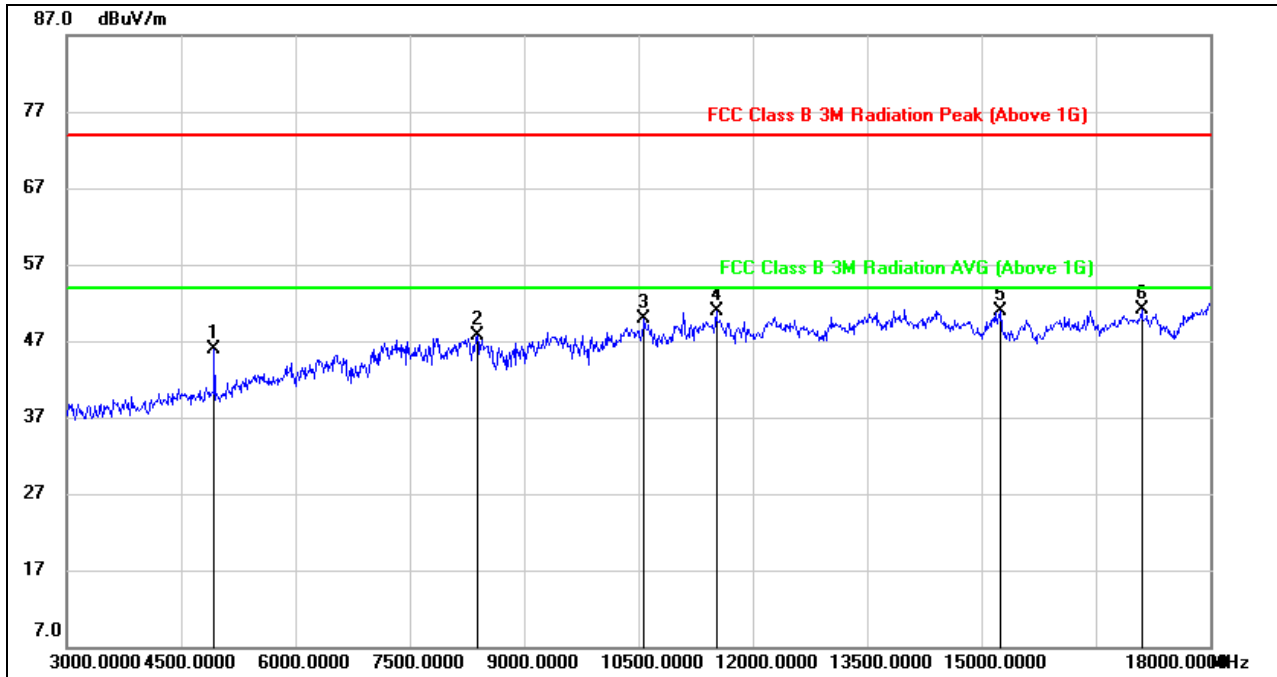


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4935.000	51.30	0.11	51.41	74.00	-22.59	peak
2	8295.000	38.95	8.57	47.52	74.00	-26.48	peak
3	10605.000	36.40	12.75	49.15	74.00	-24.85	peak
4	11535.000	37.28	14.10	51.38	74.00	-22.62	peak
5	14460.000	34.80	16.35	51.15	74.00	-22.85	peak
6	16755.000	31.41	19.87	51.28	74.00	-22.72	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. 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)



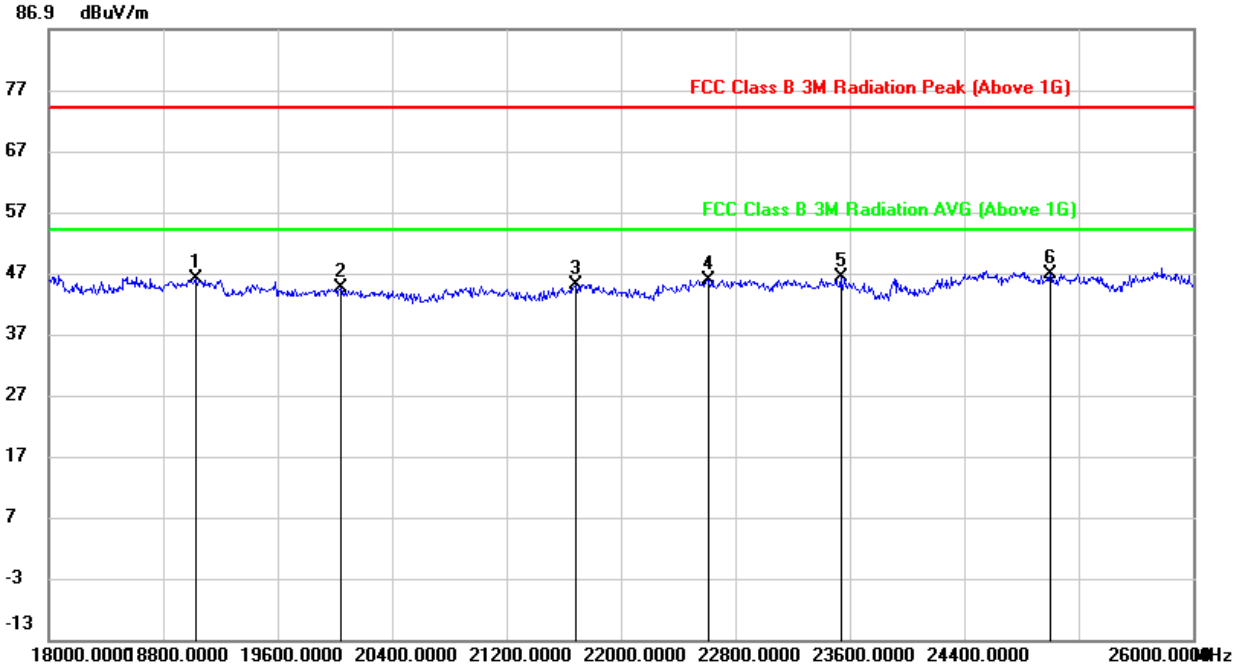
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4935.000	45.87	0.11	45.98	74.00	-28.02	peak
2	8385.000	39.00	8.68	47.68	74.00	-26.32	peak
3	10575.000	37.40	12.52	49.92	74.00	-24.08	peak
4	11520.000	36.87	14.10	50.97	74.00	-23.03	peak
5	15255.000	35.34	15.56	50.90	74.00	-23.10	peak
6	17100.000	30.35	20.78	51.13	74.00	-22.87	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 (MID CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)

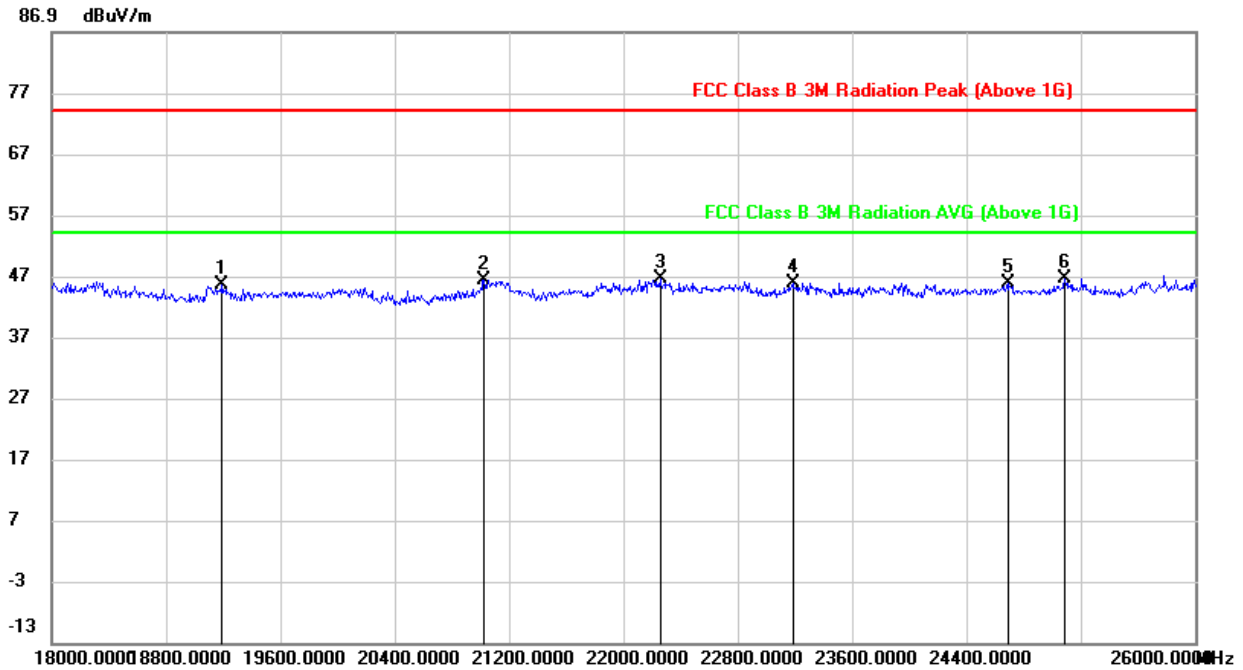


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	19024.000	50.99	-4.91	46.08	74.00	-27.92	peak
2	20040.000	48.89	-4.46	44.43	74.00	-29.57	peak
3	21680.000	50.74	-5.76	44.98	74.00	-29.02	peak
4	22616.000	51.56	-5.78	45.78	74.00	-28.22	peak
5	23536.000	50.96	-4.74	46.22	74.00	-27.78	peak
6	25000.000	47.96	-1.08	46.88	74.00	-27.12	peak

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



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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	19192.000	50.48	-5.01	45.47	74.00	-28.53	peak
2	21024.000	51.64	-5.30	46.34	74.00	-27.66	peak
3	22256.000	52.58	-6.06	46.52	74.00	-27.48	peak
4	23184.000	51.20	-5.36	45.84	74.00	-28.16	peak
5	24688.000	47.89	-2.11	45.78	74.00	-28.22	peak
6	25088.000	47.63	-1.12	46.51	74.00	-27.49	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.

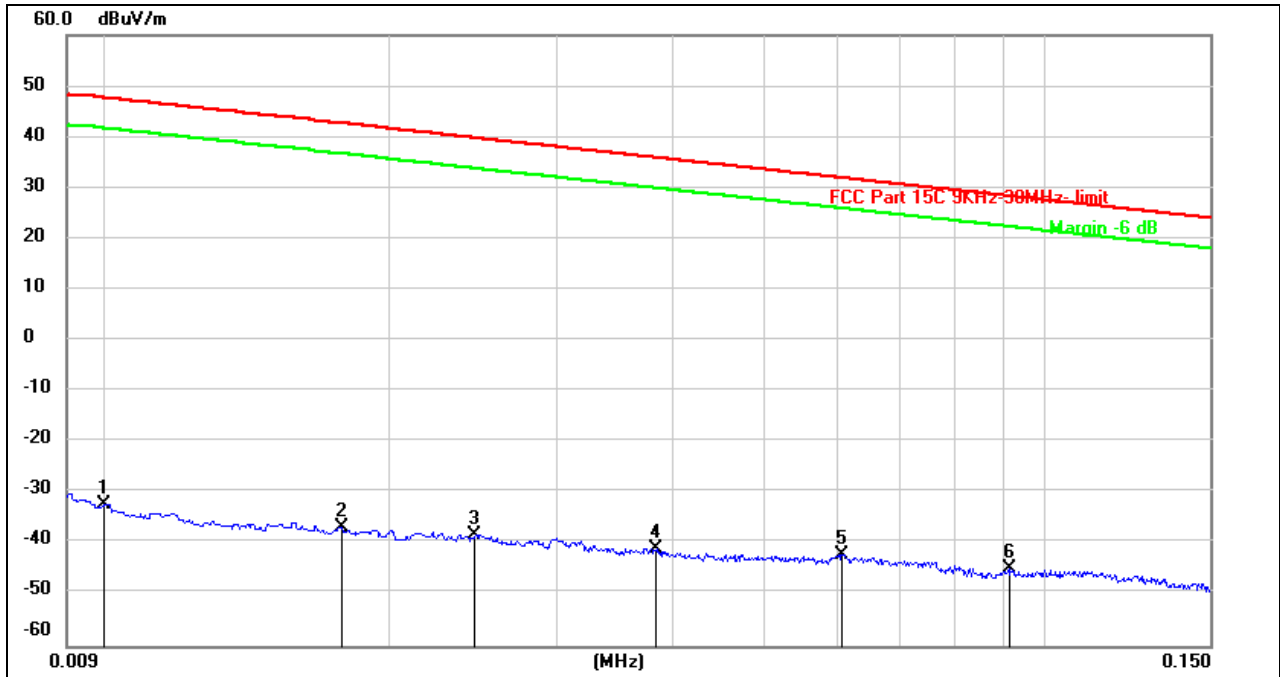
Note: All test mode has been tested, only the worst data record in the report.



7.6. SPURIOUS EMISSIONS BELOW 30M

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

9kHz~150kHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0100	69.22	-101.40	-32.18	47.60	-79.78	peak
2	0.0177	64.57	-101.35	-36.78	42.64	-79.42	peak
3	0.0246	63.20	-101.36	-38.16	39.78	-77.94	peak
4	0.0383	60.45	-101.43	-40.98	35.94	-76.92	peak
5	0.0606	59.45	-101.52	-42.07	31.95	-74.02	peak
6	0.0913	56.84	-101.73	-44.89	28.39	-73.28	peak

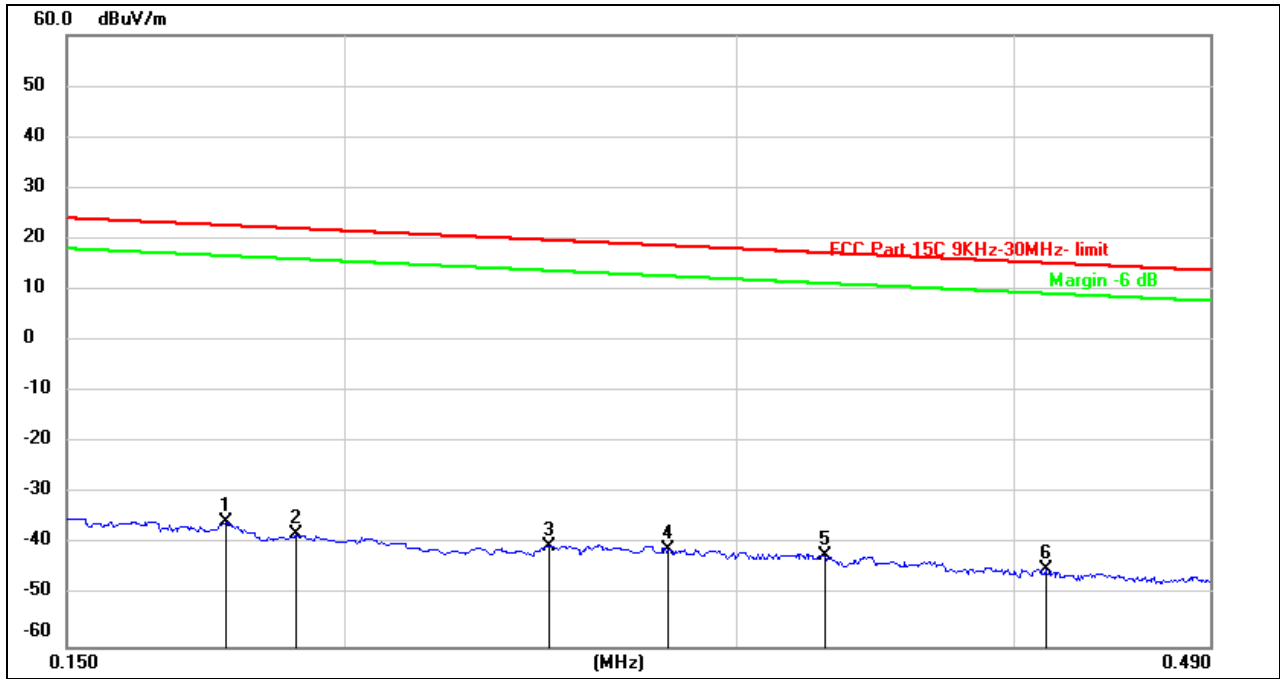
Note: 1. Measurement = Reading Level + Correct Factor.

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

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



150kHz ~ 490kHz

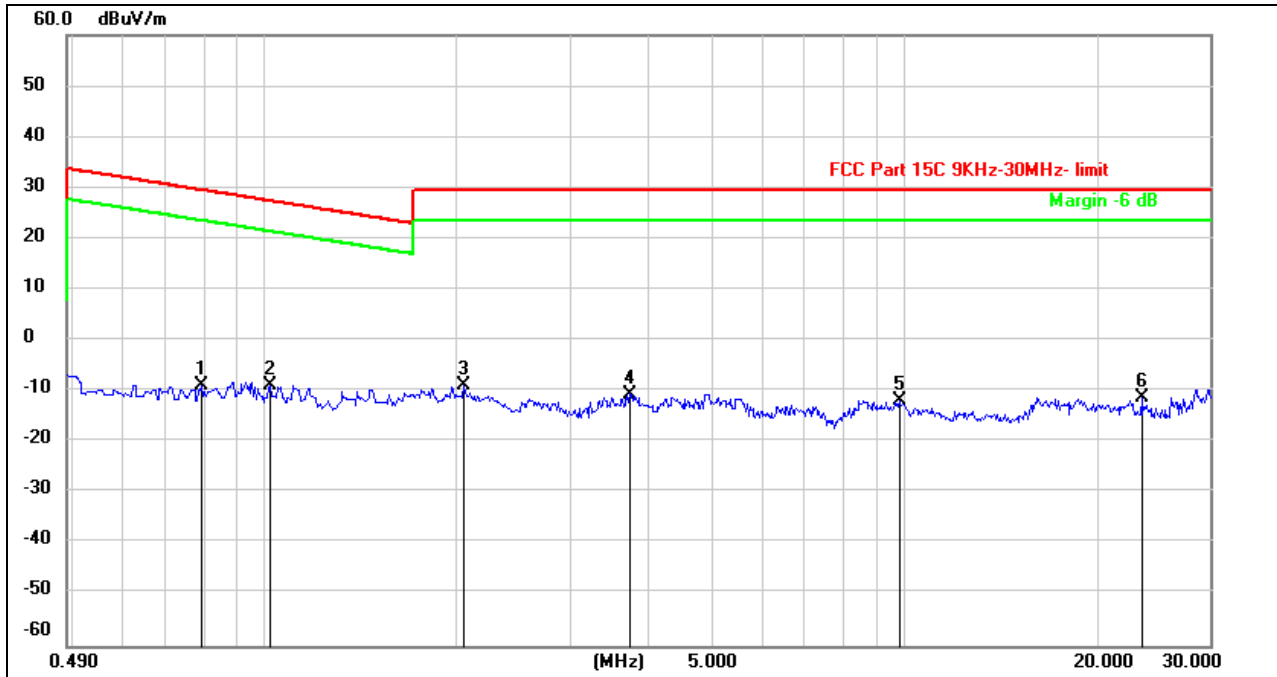


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1768	65.99	-101.68	-35.69	22.66	-58.35	peak
2	0.1900	63.61	-101.70	-38.09	22.03	-60.12	peak
3	0.2472	61.45	-101.80	-40.35	19.74	-60.09	peak
4	0.2796	60.91	-101.83	-40.92	18.67	-59.59	peak
5	0.3286	59.71	-101.88	-42.17	17.27	-59.44	peak
6	0.4132	57.05	-101.98	-44.93	15.28	-60.21	peak

Note: 1. Measurement = Reading Level + Correct Factor.
 2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
 3. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.



490kHz ~ 30MHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.7963	53.37	-62.14	-8.77	29.58	-38.35	peak
2	1.0212	53.48	-62.25	-8.77	27.42	-36.19	peak
3	2.0430	52.95	-61.82	-8.87	29.54	-38.41	peak
4	3.7360	50.83	-61.40	-10.57	29.54	-40.11	peak
5	9.8152	49.08	-60.82	-11.74	29.54	-41.28	peak
6	23.4783	49.24	-60.56	-11.32	29.54	-40.86	peak

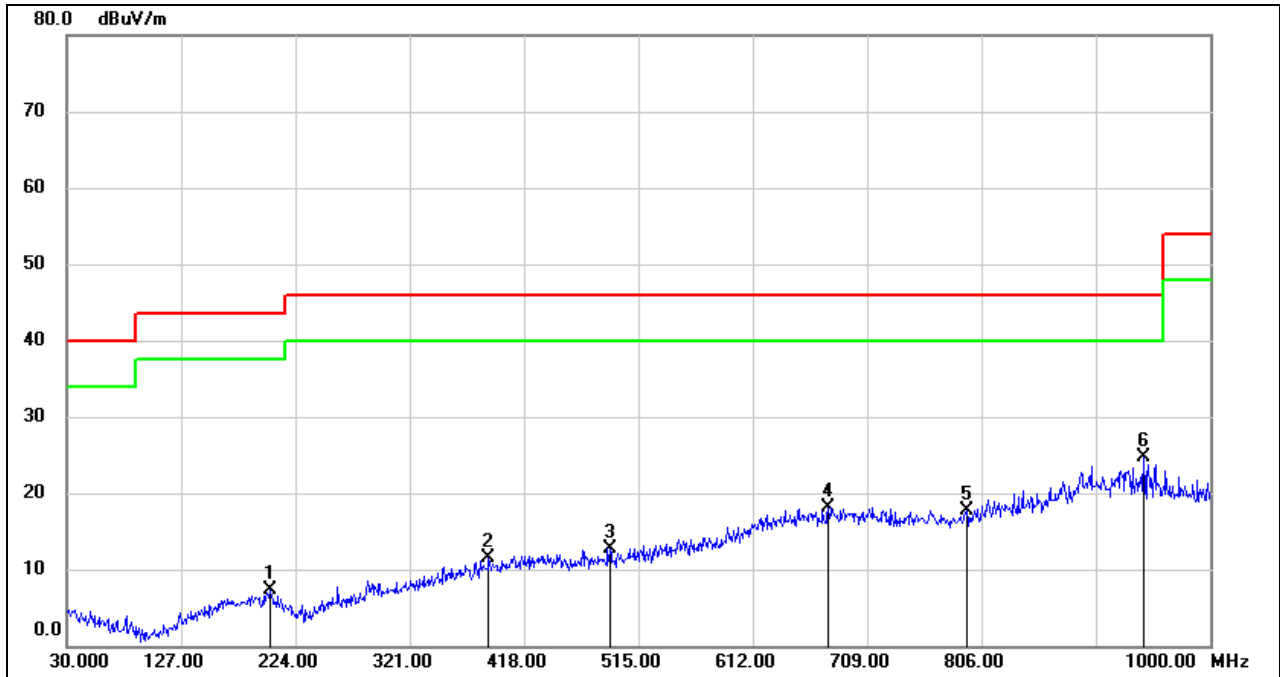
- Note: 1. Measurement = Reading Level + Correct Factor.
 2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
 3. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

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



7.7. SPURIOUS EMISSIONS BELOW 1 GHz

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

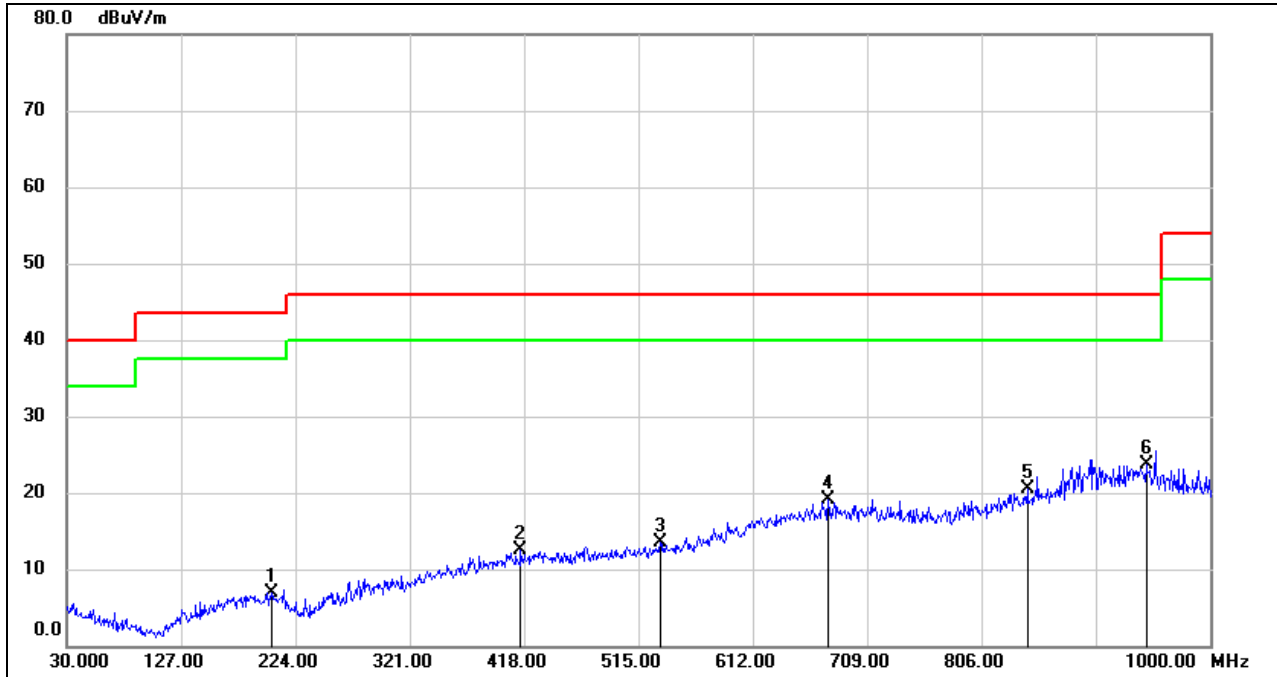


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	202.6600	23.28	-16.05	7.23	43.50	-36.27	QP
2	387.9300	23.98	-12.54	11.44	46.00	-34.56	QP
3	490.7500	23.34	-10.63	12.71	46.00	-33.29	QP
4	676.0200	25.18	-7.05	18.13	46.00	-27.87	QP
5	793.3900	23.23	-5.44	17.79	46.00	-28.21	QP
6	943.7400	28.32	-3.52	24.80	46.00	-21.20	QP

- Note: 1. Result Level = Read Level + Correct Factor.
 2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
 3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.



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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	203.6300	22.83	-15.97	6.86	43.50	-36.64	QP
2	415.0900	24.56	-12.06	12.50	46.00	-33.50	QP
3	533.4300	23.25	-9.71	13.54	46.00	-32.46	QP
4	676.0200	26.23	-7.05	19.18	46.00	-26.82	QP
5	844.8000	25.18	-4.60	20.58	46.00	-25.42	QP
6	945.6800	27.11	-3.46	23.65	46.00	-22.35	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.

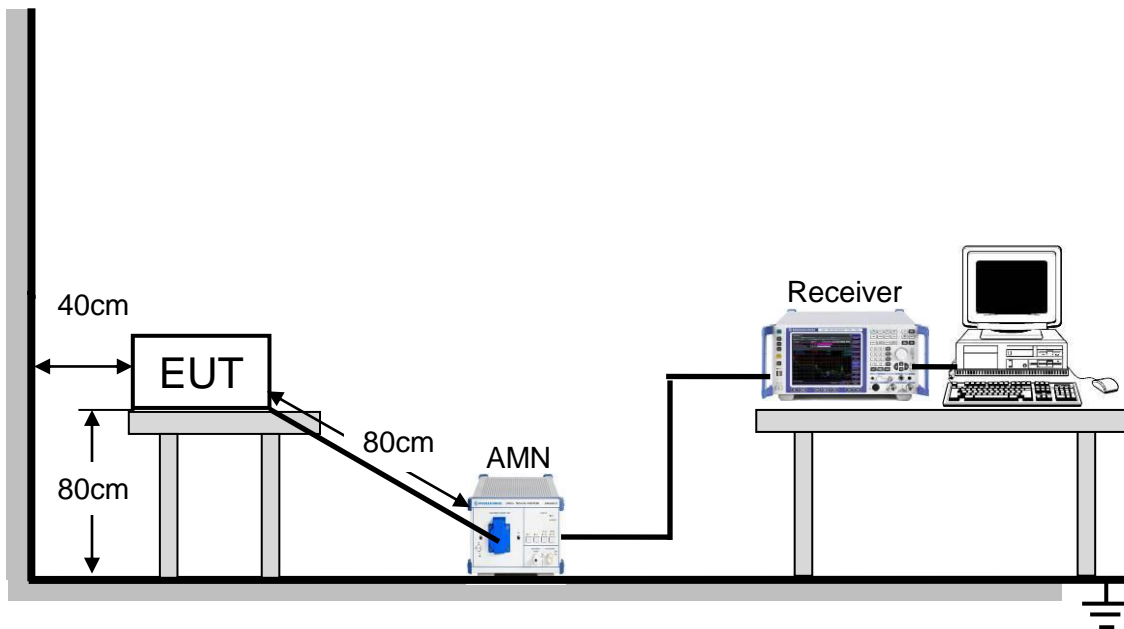
8. AC POWER LINE CONDUCTED EMISSIONS

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 12mm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz. The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.



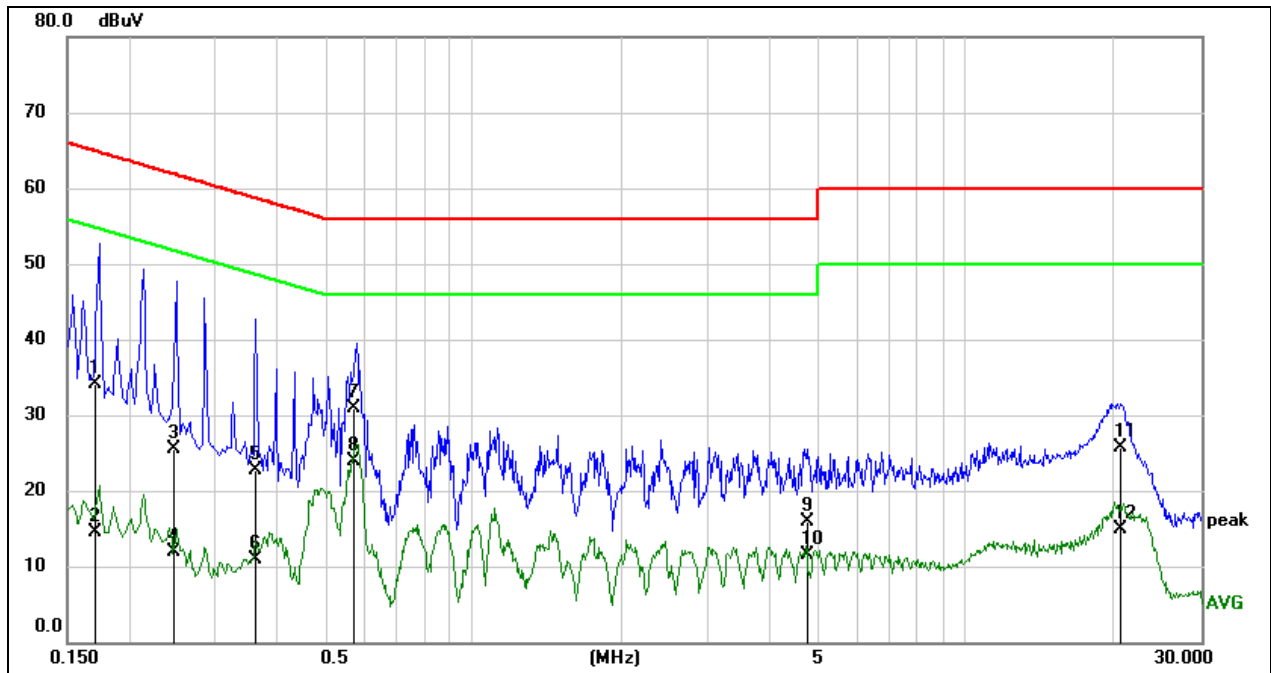
TEST ENVIRONMENT

Temperature	22.1°C	Relative Humidity	64%
Atmosphere Pressure	101kPa	Test Voltage	DC 3.7V

RESULTS

TEST RESULTS (MID CHANNEL, WORST-CASE CONFIGURATION)

LINE N RESULTS

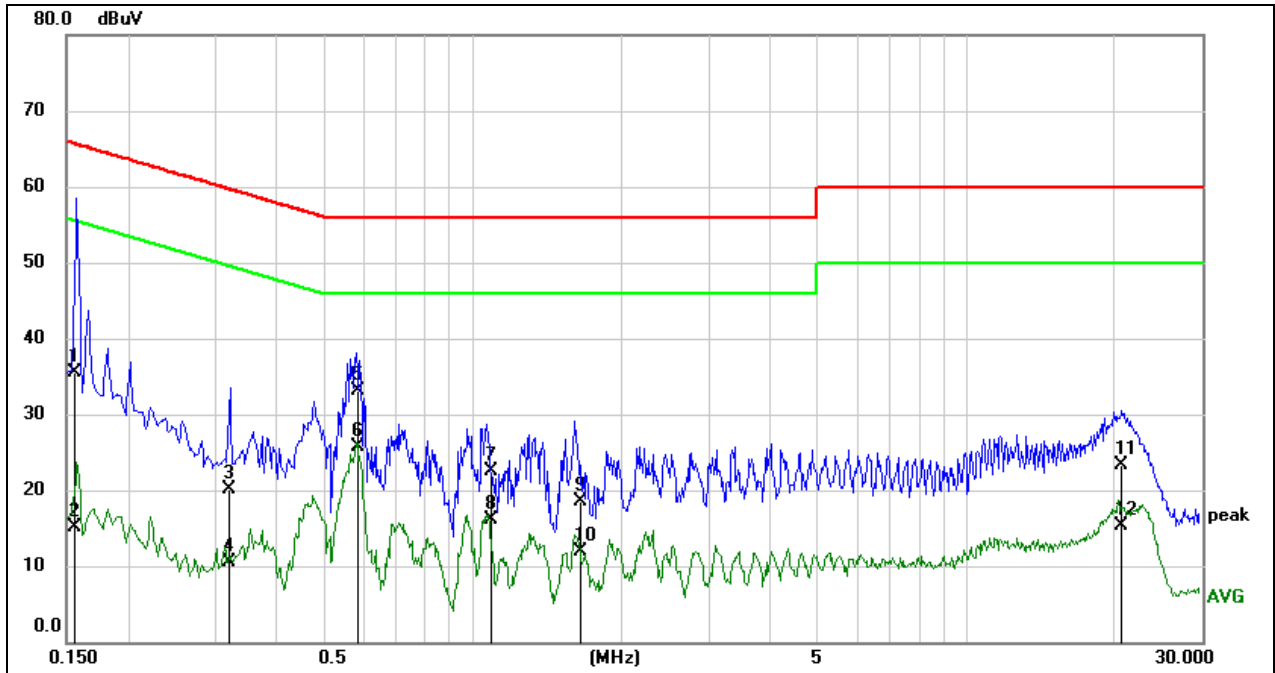


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1702	24.42	9.61	34.03	64.95	-30.92	QP
2	0.1702	4.92	9.61	14.53	54.95	-40.42	AVG
3	0.2462	15.86	9.60	25.46	61.88	-36.42	QP
4	0.2462	2.24	9.60	11.84	51.88	-40.04	AVG
5	0.3608	13.16	9.60	22.76	58.71	-35.95	QP
6	0.3608	1.27	9.60	10.87	48.71	-37.84	AVG
7	0.5732	21.32	9.60	30.92	56.00	-25.08	QP
8	0.5732	14.31	9.60	23.91	46.00	-22.09	AVG
9	4.7754	6.27	9.67	15.94	56.00	-40.06	QP
10	4.7754	1.83	9.67	11.50	46.00	-34.50	AVG
11	20.6572	15.52	10.10	25.62	60.00	-34.38	QP
12	20.6572	4.82	10.10	14.92	50.00	-35.08	AVG

- Note: 1. Result = Reading +Correct Factor.
 2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
 4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.



LINE L RESULTS



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1554	25.92	9.60	35.52	65.71	-30.19	QP
2	0.1554	5.59	9.60	15.19	55.71	-40.52	AVG
3	0.3194	10.57	9.60	20.17	59.72	-39.55	QP
4	0.3194	0.87	9.60	10.47	49.72	-39.25	AVG
5	0.5828	23.58	9.60	33.18	56.00	-22.82	QP
6	0.5828	16.05	9.60	25.65	46.00	-20.35	AVG
7	1.0928	12.81	9.61	22.42	56.00	-33.58	QP
8	1.0928	6.59	9.61	16.20	46.00	-29.80	AVG
9	1.6619	8.96	9.62	18.58	56.00	-37.42	QP
10	1.6619	2.33	9.62	11.95	46.00	-34.05	AVG
11	20.6349	13.07	10.23	23.30	60.00	-36.70	QP
12	20.6349	4.98	10.23	15.21	50.00	-34.79	AVG

- Note: 1. Result = Reading +Correct Factor.
 2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
 4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

Note: All the modulation and channels had been tested, but only the worst data recorded 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