



CFR 47 FCC PART 15 SUBPART C

TEST REPORT

For

Gyropter

MODEL NUMBER: KH-0390, KH-0388, KH-0389, PL-0348, PL-0340, PL-0350

FCC ID: 2ASK3KH-0390R

REPORT NUMBER: 4789137853.1-2

ISSUE DATE: September 6, 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

Rev.	Issue Date	Revisions	Revised By
V0	09/06/2019	Initial Issue	



Summary of Test Results			
Clause	Test Items	FCC Rules	Test Results
1	20dB Bandwidth and 99% Occupied Bandwidth	CFR 47 FCC 15.215c	Pass
2	Radiated Emissions	CFR 47 FCC §15.249 (a)(d)(e) CFR 47 FCC §15.205 and §15.209	Pass
3	AC Power Line Conducted Emissions	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: Gyropter
Model: KH-0390
Series Models: Please refer to page 8 clause 5.1
Supply Voltage: Battery: 3.7V
Brand Name: /
Sample ID: 2520284
Sample Status: Normal
Date of Tested: August 20, 2019~ September 4, 2019

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

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 414788 D01 Radiated Test Site v01r01, FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013.

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 Declaration 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
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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	Gyropter	
Model	KH-0390	
Series Model	KH-0388, KH-0389, PL-0348, PL-0340, PL-0350	
Model Difference	All the same except for the different colors.	
Product Description	Operation Frequency	2450 MHz ~ 2470 MHz
	Modulation Type	GFSK
Battery	DC 3.7V	

5.2. MAXIMUM FIELD STRENGTH

Frequency Range (MHz)	Number of Transmit Chains (NTX)	Frequency (MHz)	Channel Number	Max field strength (dB μ V/m)
2450 ~ 2470	1	2460	11	84.96

5.3. CHANNEL LIST

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2450	7	2456	13	2462	19	2468
2	2451	8	2457	14	2463	20	2469
3	2452	9	2458	15	2464	21	2470
4	2453	10	2459	16	2465		
5	2454	11	2460	17	2466		
6	2455	12	2461	18	2467		

5.4. DESCRIPTION OF AVAILABLE ANTENNAS

Ant.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1	2450 ~ 2470	Line Antenna	0

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	Test Channel	Frequency
GFSK	CH 1, CH 11, CH 21	2450MHz, 2460MHz, 2470MHz

5.6. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2450 ~ 2470MHz Band				
Test Software		/		
Modulation Type	Transmit Antenna Number	Test Channel		
		CH 1	CH 11	CH 21
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	Adapter	XIAOMI	MDY-08-EF	15120026342

I/O CABLES

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

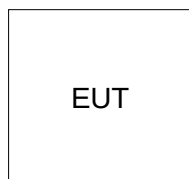
ACCESSORY

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.
☒	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.11, 2018	Aug.11, 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.07,2019	Jan.07, 2022
☒	Preamplifier	TDK	PA-02-001-3000	TRS-302-00050	Jan. 07, 2019	Jan. 07, 2020
☒	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
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	



6. ANTENNA PORT TEST RESULTS

6.1. ON TIME AND DUTY CYCLE

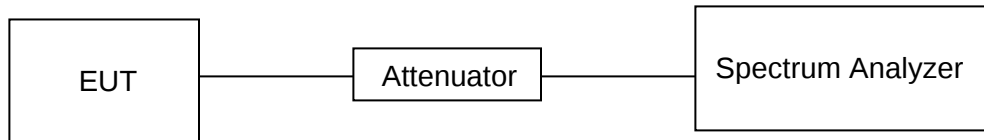
LIMITS

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	32.13	100	0.3213	32.13	-9.86

Note:

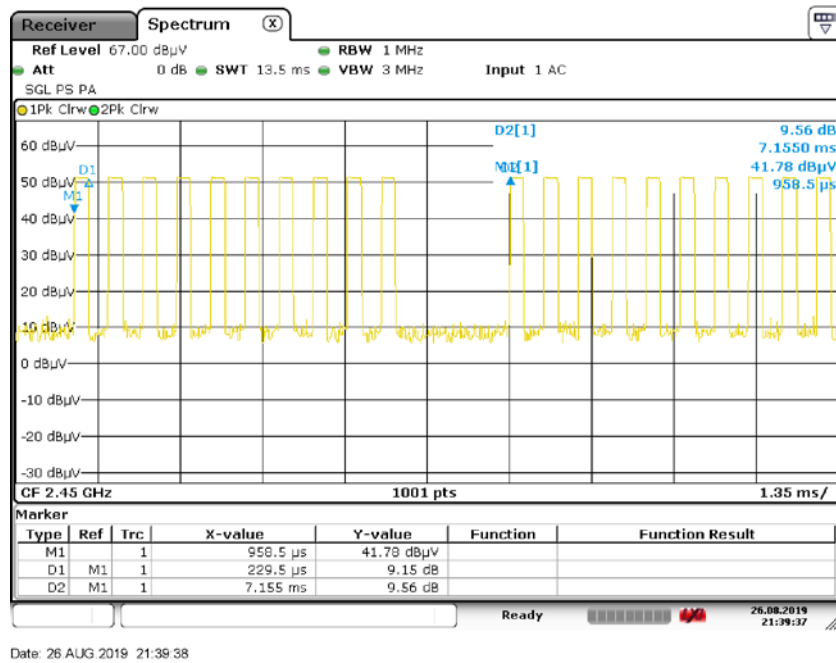
On Time= $0.2295 \times 10 \times 14 = 32.13\text{ms}$

Duty Cycle Correction Factor= $20\log(x)$.

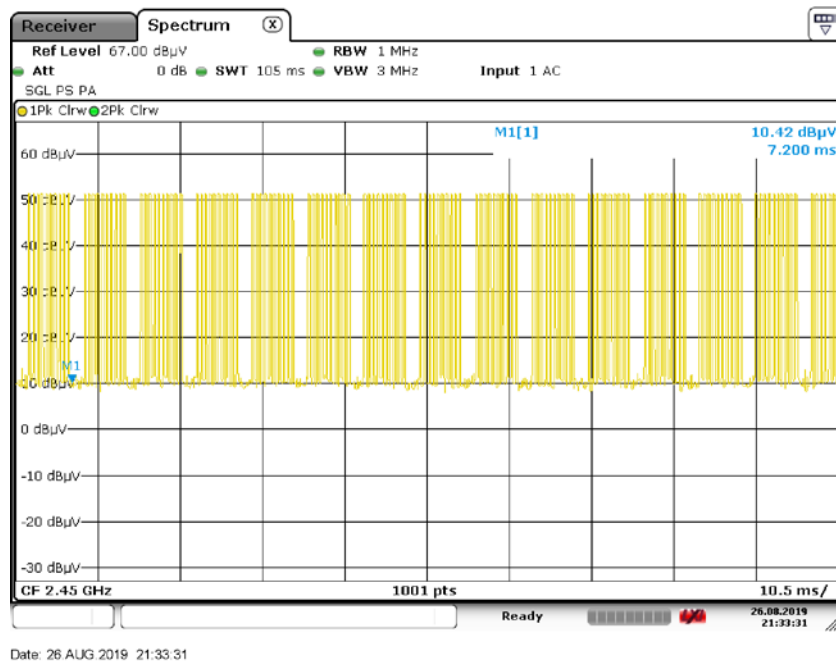
Where: x is Duty Cycle



ON TIME AND DUTY CYCLE PLOT-1



ON TIME AND DUTY CYCLE PLOT-2





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

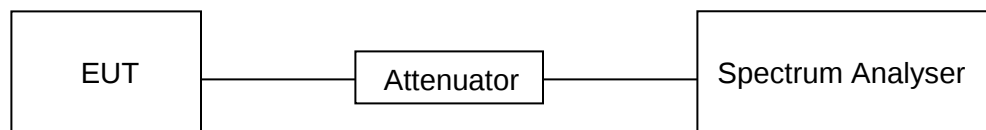
TEST PROCEDURE

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

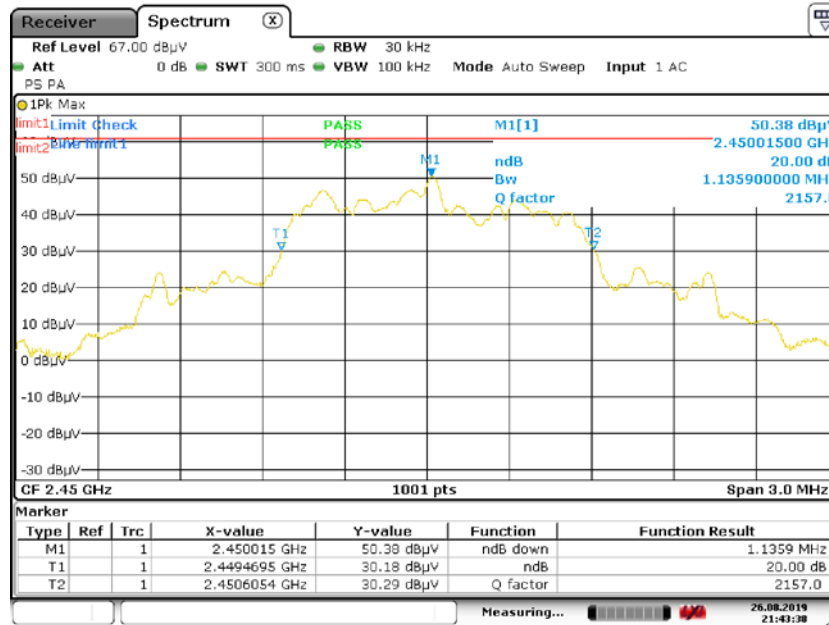




RESULTS

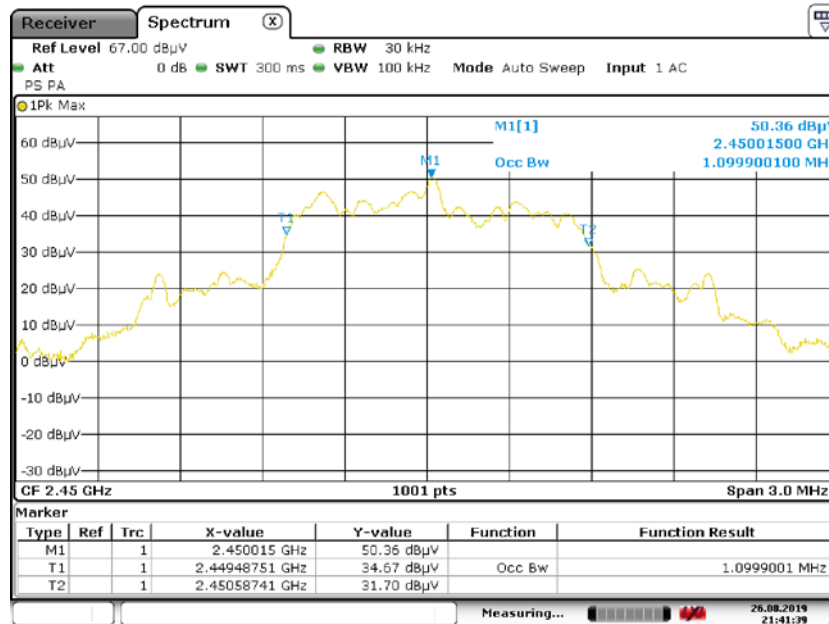
Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2450	1.1359	1.0999	PASS

20 dB OCCUPIED BANDWIDTH LOW CH



Date: 26 AUG 2019 21:43:39

99% OCCUPIED BANDWIDTH LOW CH

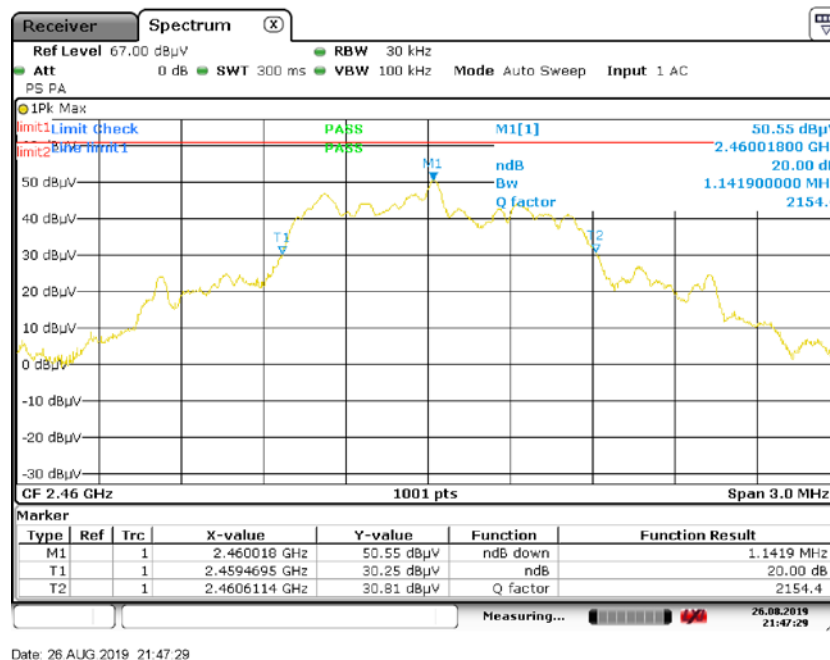


Date: 26 AUG 2019 21:41:39



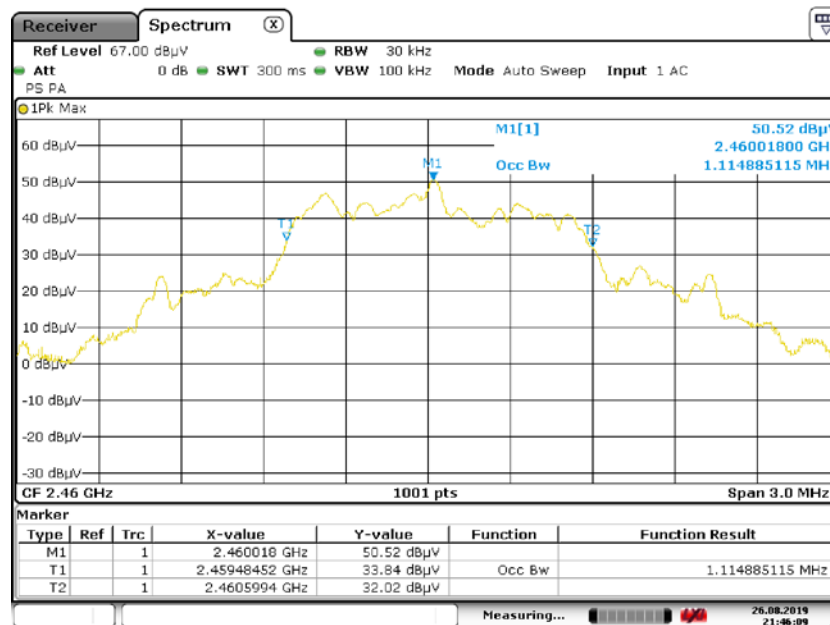
Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2460	1.1419	1.1149	PASS

20 dB OCCUPIED BANDWIDTH MID CH



Date: 26 AUG 2019 21:47:29

99% OCCUPIED BANDWIDTH MID CH

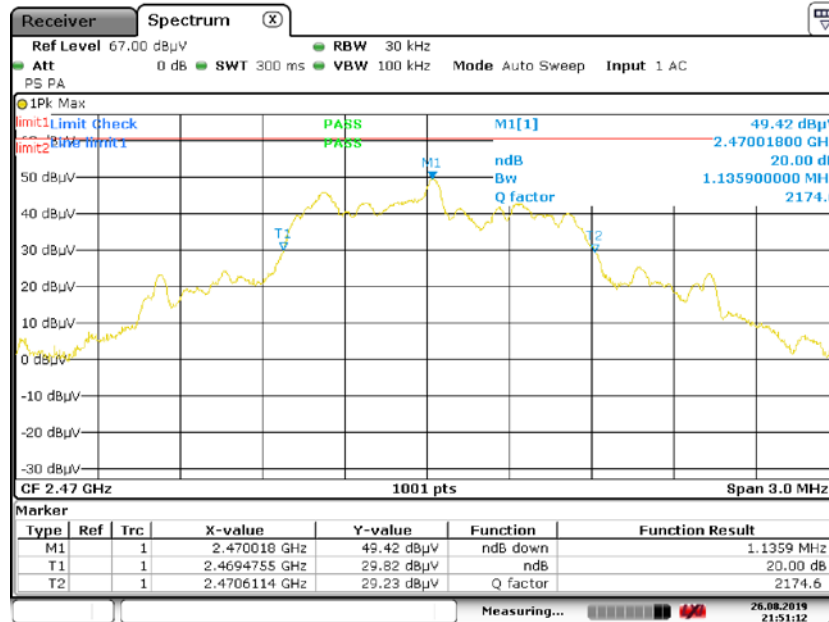


Date: 26 AUG 2019 21:46:08



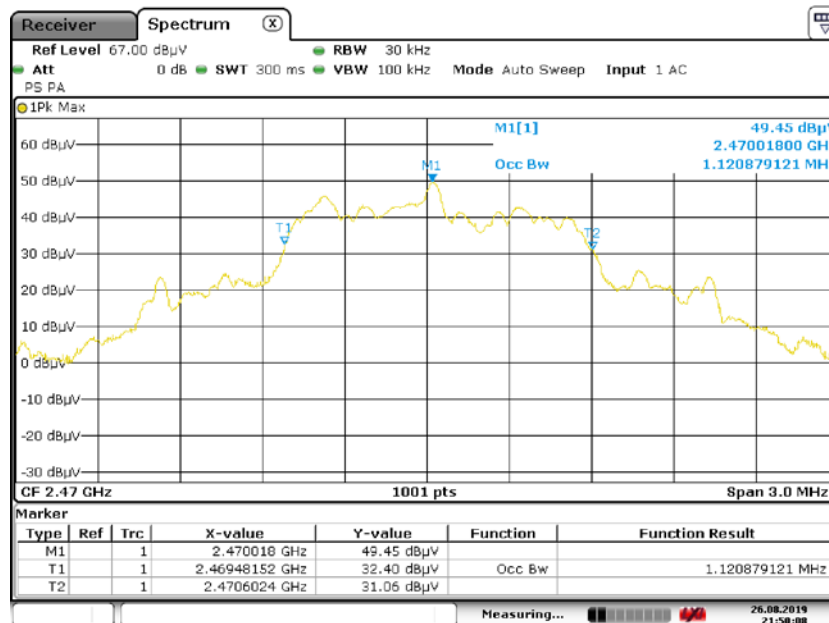
Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2470	1.1359	1.1209	PASS

20 dB OCCUPIED BANDWIDTH HIG CH



Date: 26 AUG 2019 21:51:12

99% OCCUPIED BANDWIDTH HIG CH



Date: 26 AUG 2019 21:50:08



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:

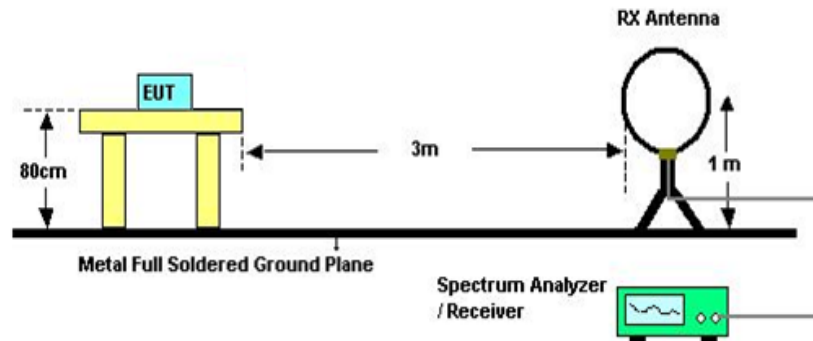
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218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

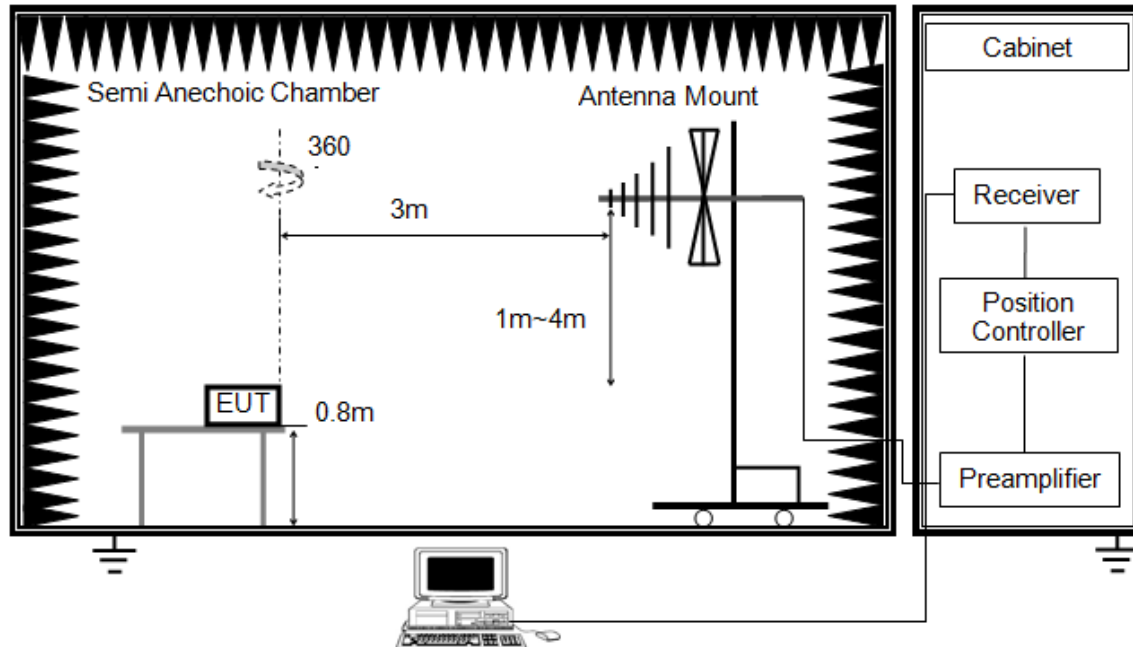


The setting of the spectrum analyser

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

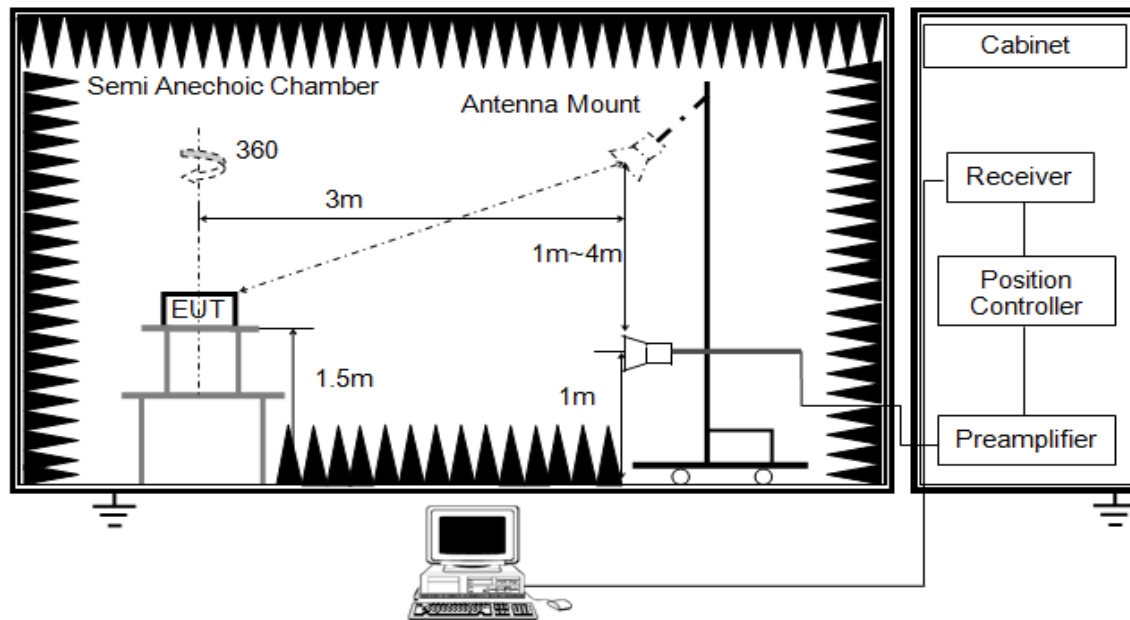


The setting of the spectrum analyser

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

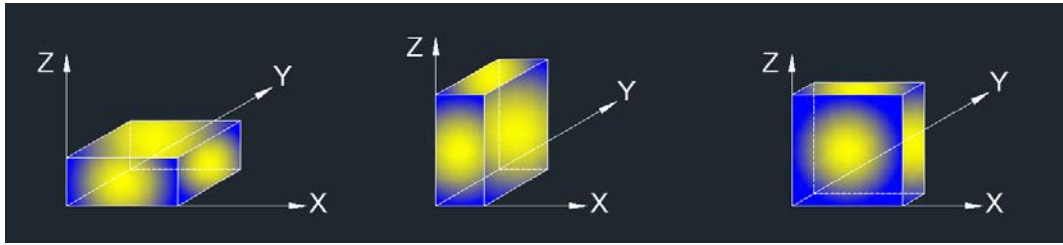


The setting of the spectrum analyser

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 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:

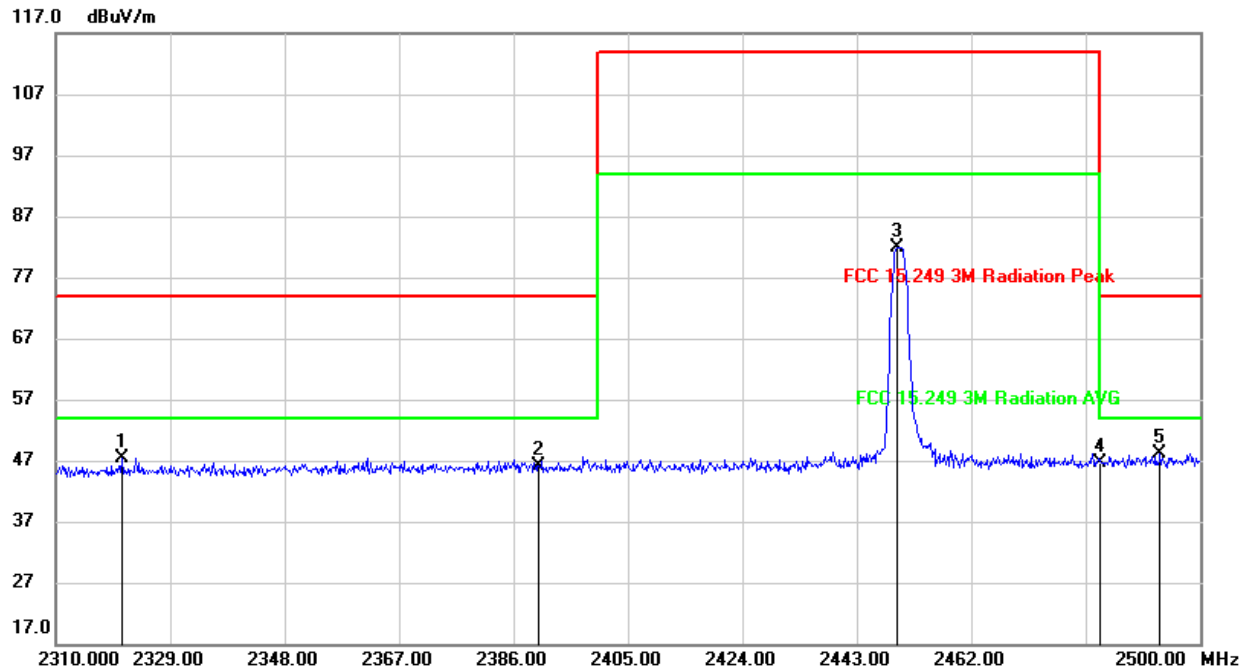


Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.



7.2. RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS

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



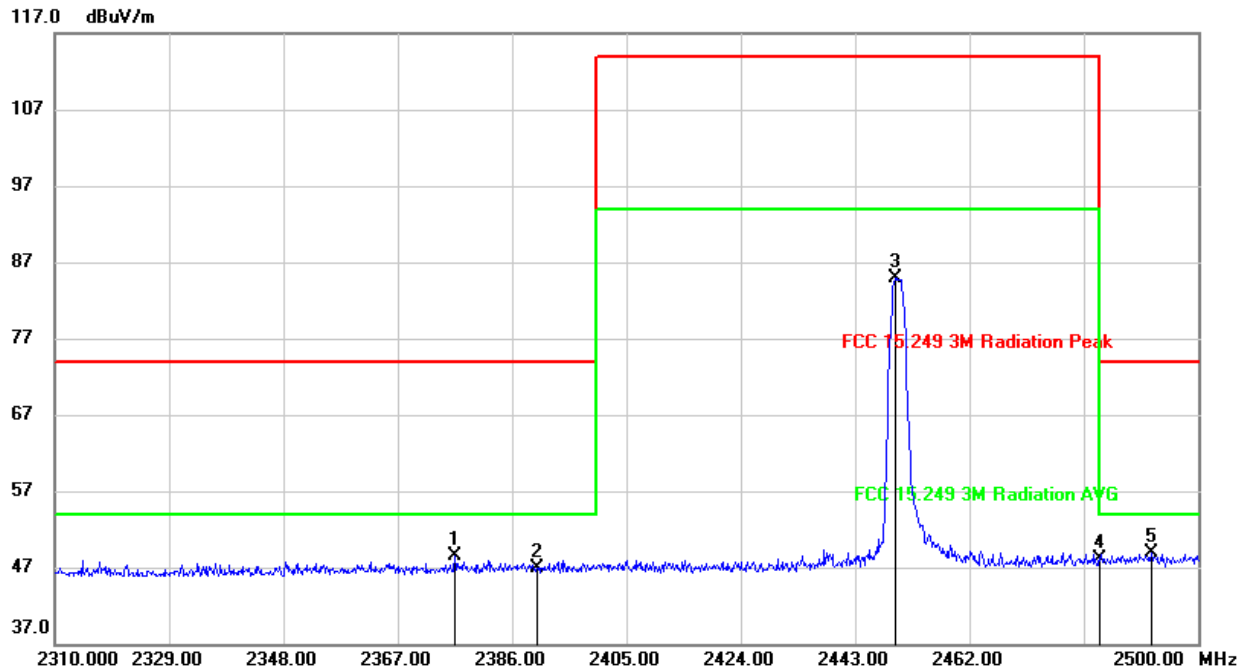
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2321.020	14.61	32.71	47.32	74.00	-26.68	peak
2	2390.000	13.27	32.94	46.21	74.00	-27.79	peak
3	2449.650	48.64	33.34	81.98	114.00	-32.02	peak
4	2483.500	12.96	33.58	46.54	74.00	-27.46	peak
5	2493.350	14.54	33.65	48.19	74.00	-25.81	peak

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

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

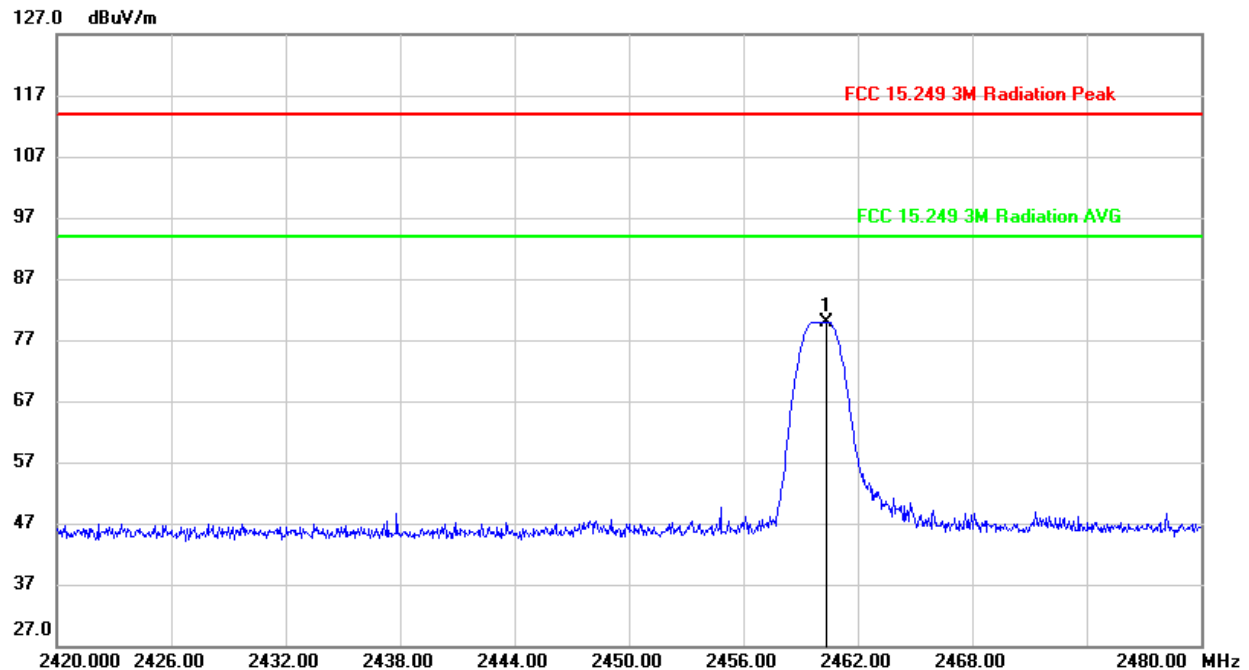
3. Peak: Peak detector.

4. Only the worst 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)**

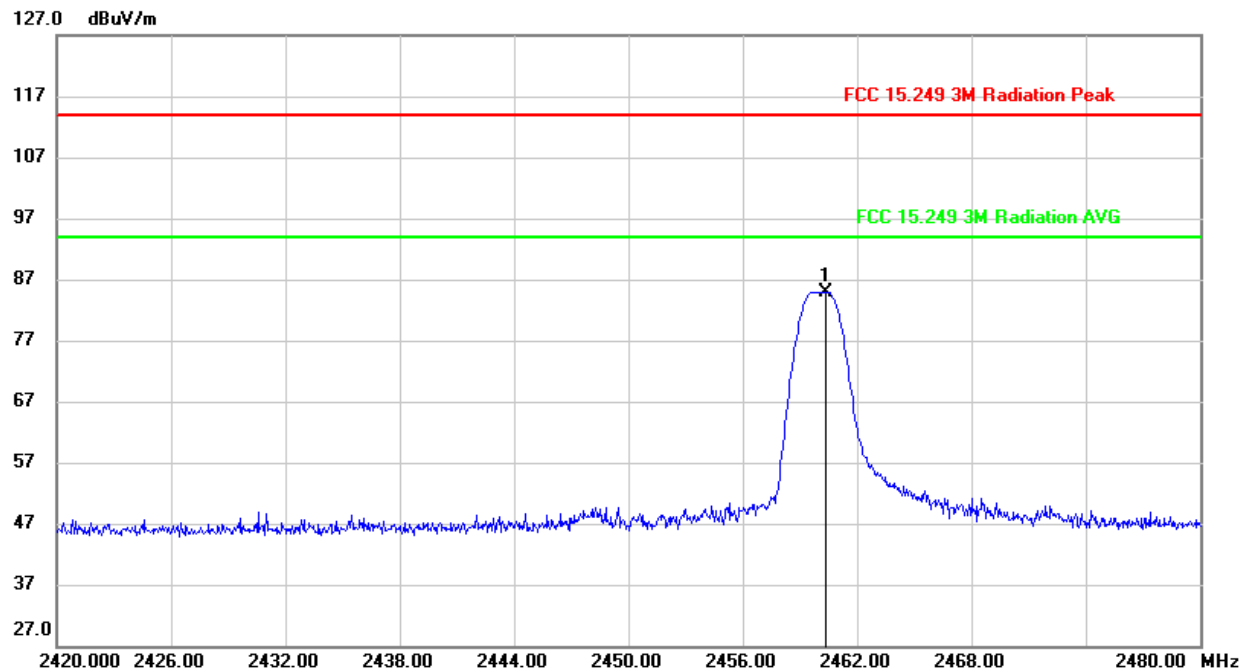
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2376.500	15.66	32.90	48.56	74.00	-25.44	peak
2	2390.000	14.01	32.94	46.95	74.00	-27.05	peak
3	2449.650	51.49	33.34	84.83	114.00	-29.17	peak
4	2483.500	14.53	33.58	48.11	74.00	-25.89	peak
5	2492.210	15.21	33.65	48.86	74.00	-25.14	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	2460.320	46.56	33.42	79.98	114.00	-34.02	peak

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

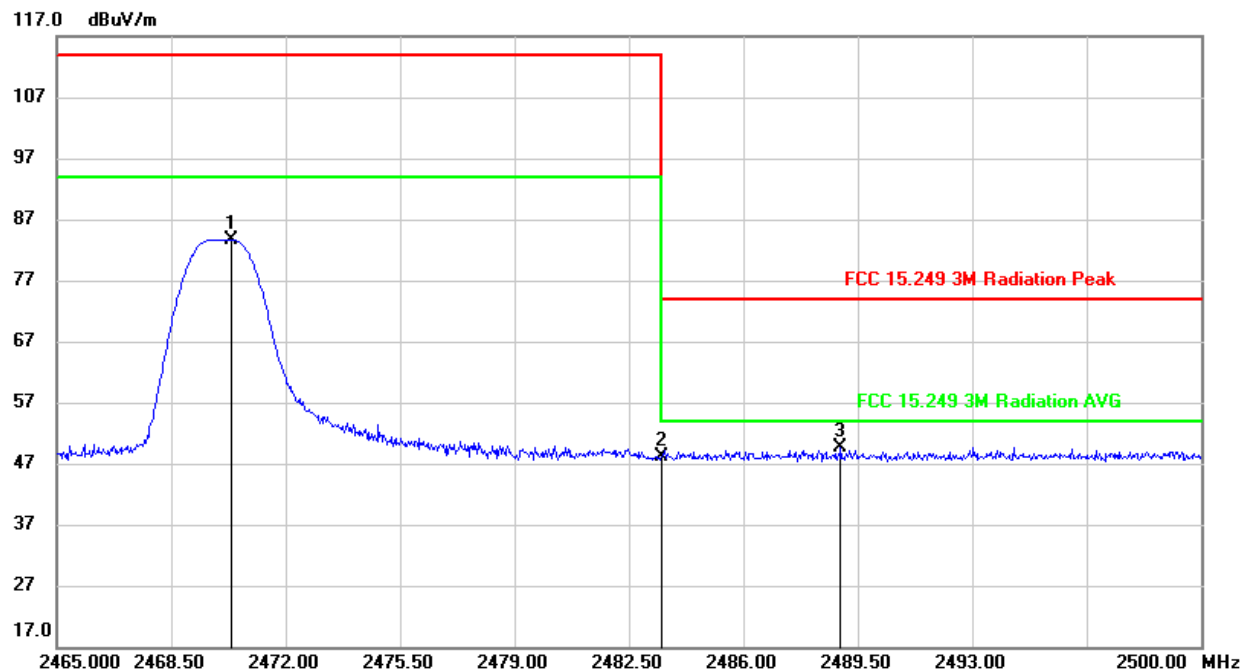
**FIELD STRENGTH OF INTENTIONAL EMISSIONS (MIDDLE CHANNEL, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV/m)	Margin (dB)	Remark
1	2460.380	51.54	33.42	84.96	114.00	-29.04	peak

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

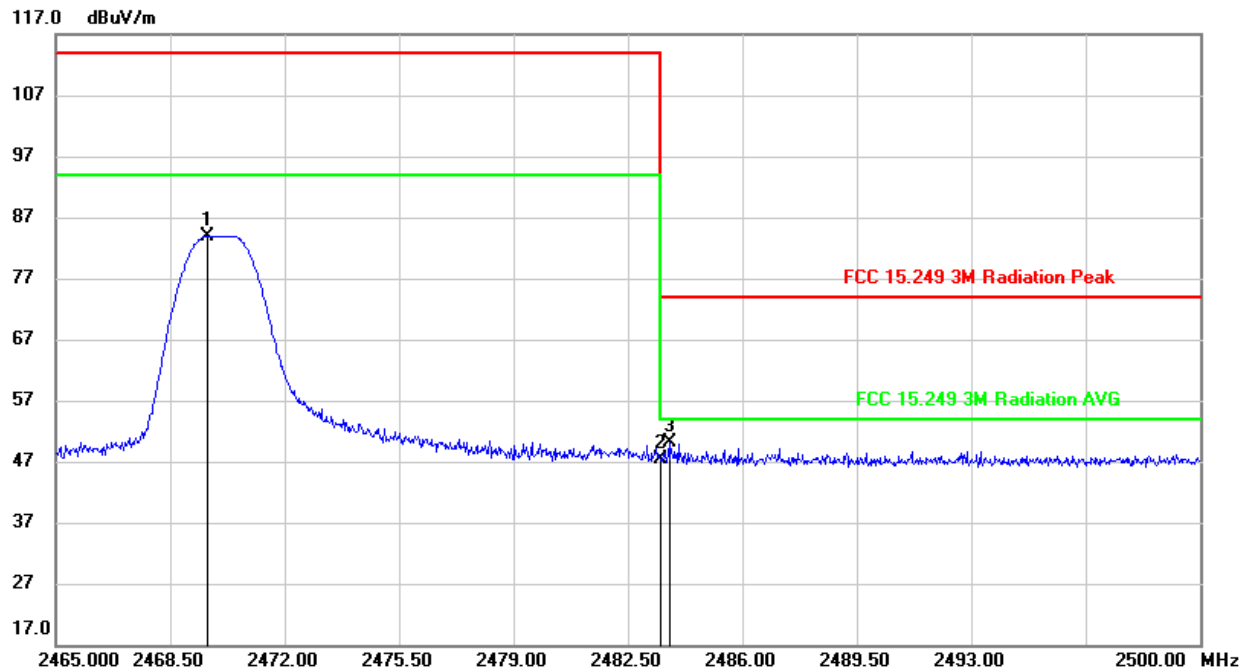


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2470.355	50.12	33.49	83.61	114.00	-30.39	peak
2	2483.500	14.43	33.58	48.01	74.00	-25.99	peak
3	2488.975	15.90	33.62	49.52	74.00	-24.48	peak

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 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	2469.655	50.49	33.49	83.98	114.00	-30.02	peak
2	2483.500	13.85	33.58	47.43	74.00	-26.57	peak
3	2483.760	16.63	33.58	50.21	74.00	-23.79	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.

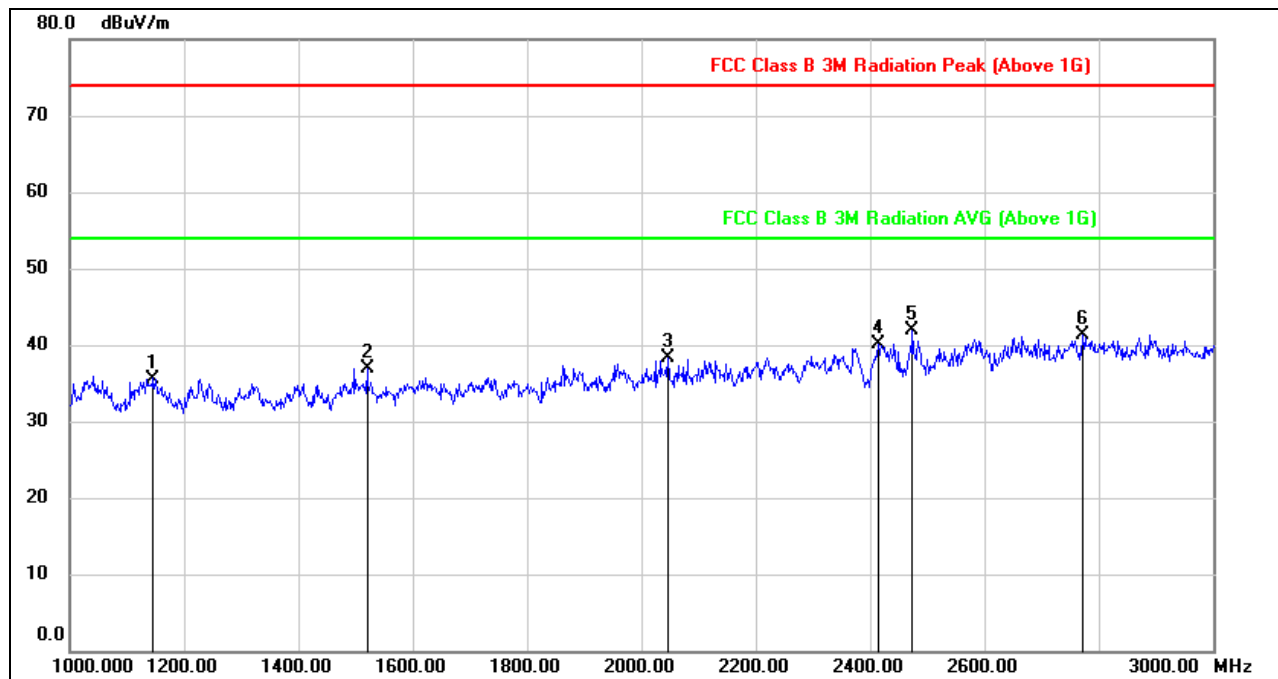
3. Peak: Peak detector.

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	1146.000	49.49	-13.89	35.60	74.00	-38.40	peak
2	1520.000	49.46	-12.58	36.88	74.00	-37.12	peak
3	2046.000	48.43	-10.09	38.34	74.00	-35.66	peak
4	2414.000	48.55	-8.36	40.19	74.00	-33.81	peak
5	2474.000	49.81	-7.97	41.84	74.00	-32.16	peak
6	2772.000	48.88	-7.55	41.33	74.00	-32.67	peak

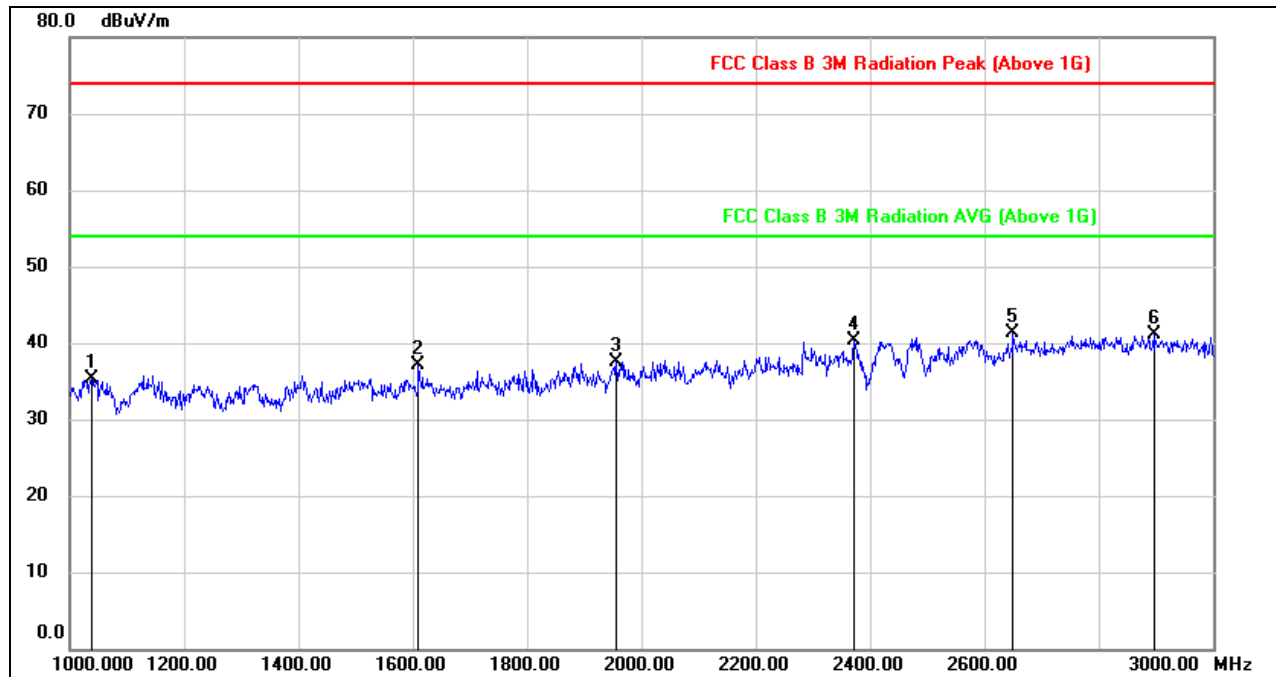
Note: 1. Peak Result = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

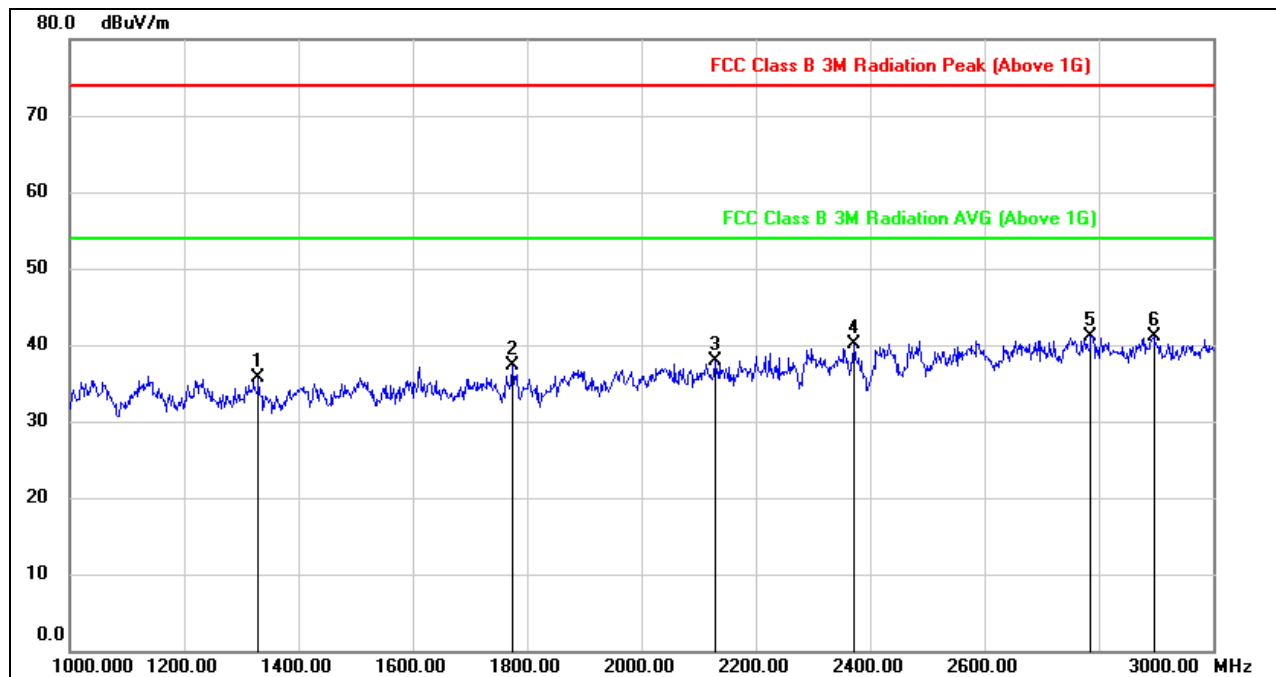
4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.

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

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

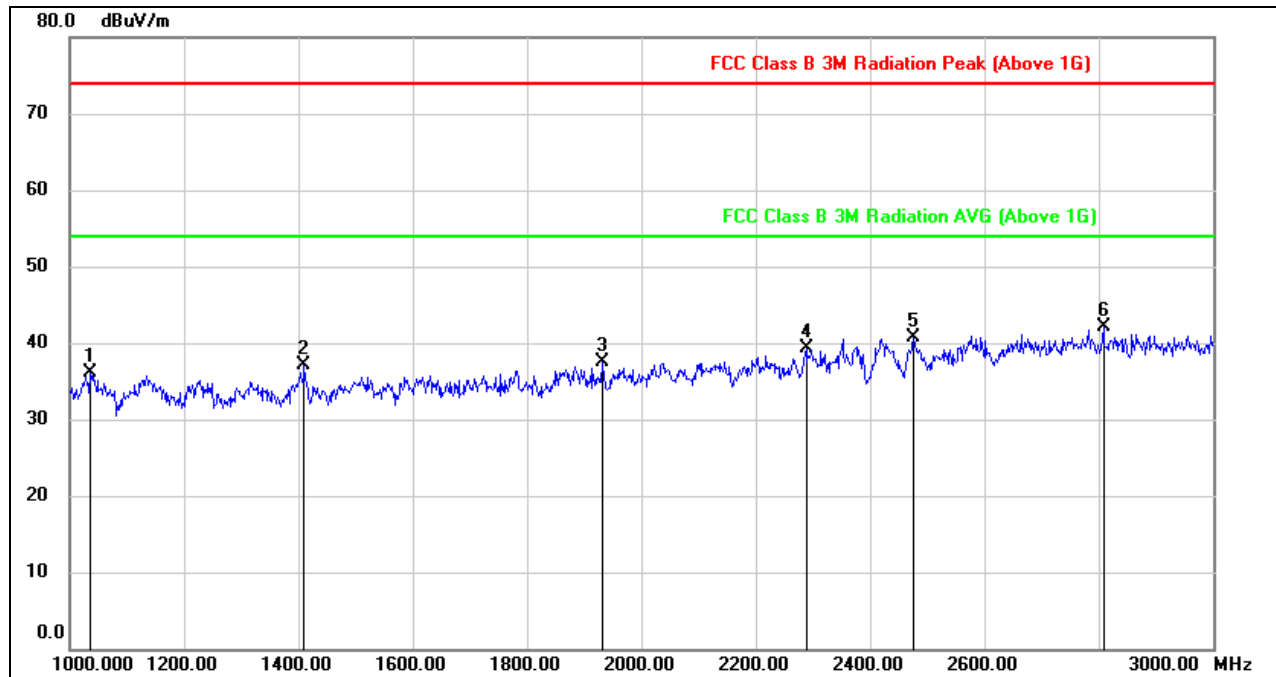
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1038.000	49.68	-14.33	35.35	74.00	-38.65	peak
2	1610.000	48.87	-11.76	37.11	74.00	-36.89	peak
3	1956.000	48.01	-10.54	37.47	74.00	-36.53	peak
4	2372.000	48.87	-8.54	40.33	74.00	-33.67	peak
5	2650.000	50.02	-8.72	41.30	74.00	-32.70	peak
6	2896.000	48.11	-7.00	41.11	74.00	-32.89	peak

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

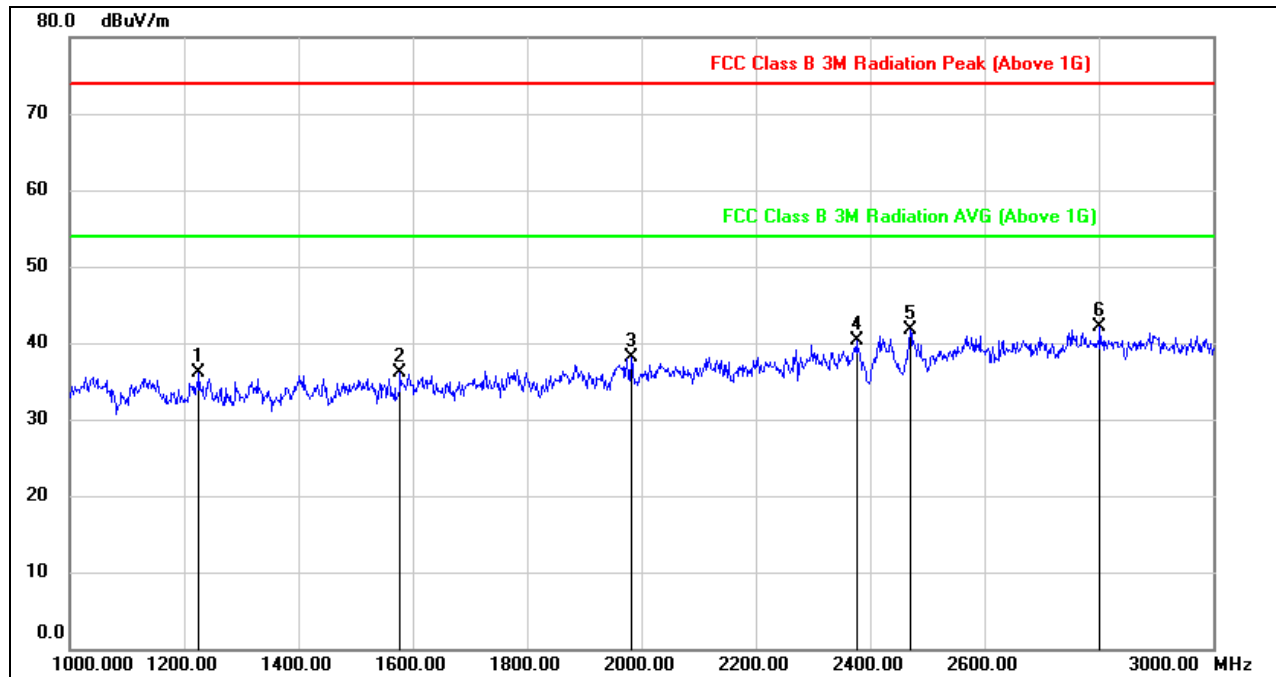
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1330.000	48.36	-12.70	35.66	74.00	-38.34	peak
2	1774.000	48.03	-10.81	37.22	74.00	-36.78	peak
3	2128.000	47.34	-9.43	37.91	74.00	-36.09	peak
4	2372.000	48.60	-8.54	40.06	74.00	-33.94	peak
5	2786.000	48.30	-7.26	41.04	74.00	-32.96	peak
6	2896.000	48.14	-7.00	41.14	74.00	-32.86	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 (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1036.000	50.37	-14.36	36.01	74.00	-37.99	peak
2	1410.000	50.26	-13.13	37.13	74.00	-36.87	peak
3	1932.000	47.97	-10.43	37.54	74.00	-36.46	peak
4	2288.000	48.16	-8.84	39.32	74.00	-34.68	peak
5	2476.000	48.67	-7.94	40.73	74.00	-33.27	peak
6	2808.000	49.13	-6.96	42.17	74.00	-31.83	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 (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1226.000	49.57	-13.44	36.13	74.00	-37.87	peak
2	1578.000	48.11	-11.98	36.13	74.00	-37.87	peak
3	1982.000	48.78	-10.65	38.13	74.00	-35.87	peak
4	2376.000	48.80	-8.52	40.28	74.00	-33.72	peak
5	2470.000	49.71	-7.99	41.72	/	/	fundamental
6	2802.000	49.13	-6.96	42.17	74.00	-31.83	peak

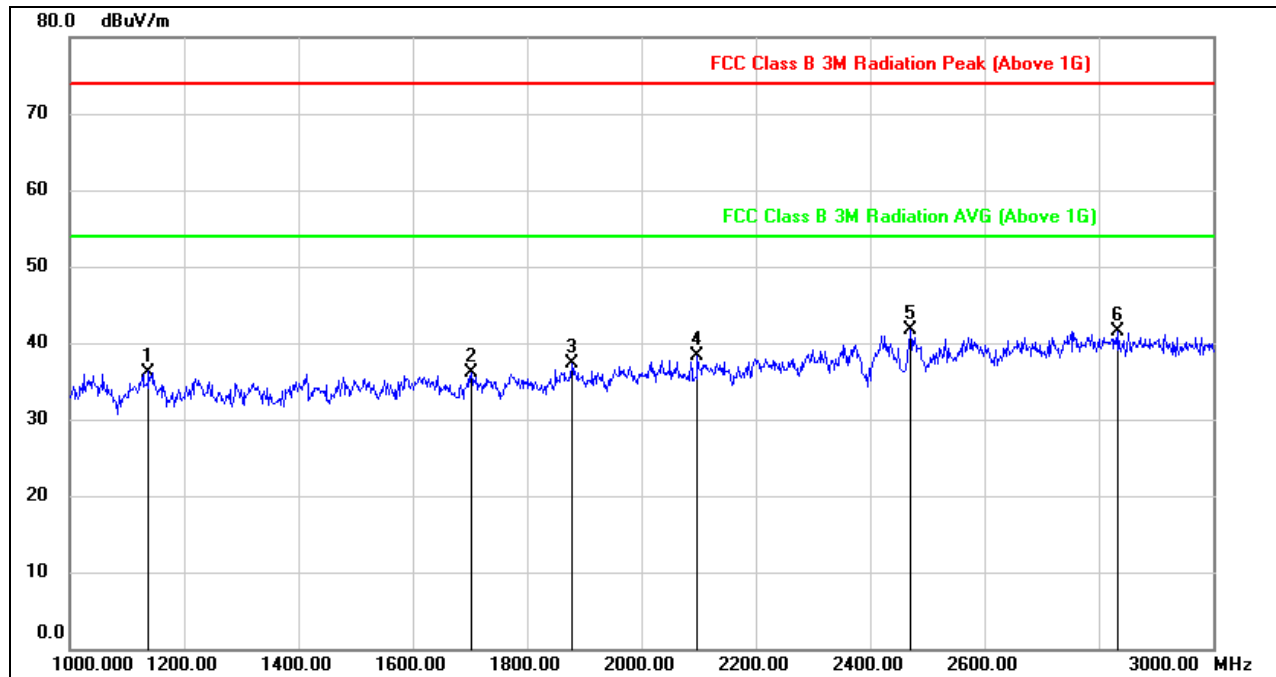
Note: 1. Peak Result = Reading Level + Correct Factor.

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 (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1138.000	50.10	-13.90	36.20	74.00	-37.80	peak
2	1702.000	47.86	-11.77	36.09	74.00	-37.91	peak
3	1878.000	47.69	-10.33	37.36	74.00	-36.64	peak
4	2098.000	47.66	-9.38	38.28	74.00	-35.72	peak
5	2470.000	49.78	-7.99	41.79	/	/	fundamental
6	2834.000	48.47	-6.98	41.49	74.00	-32.51	peak

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

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

3. Peak: Peak detector.

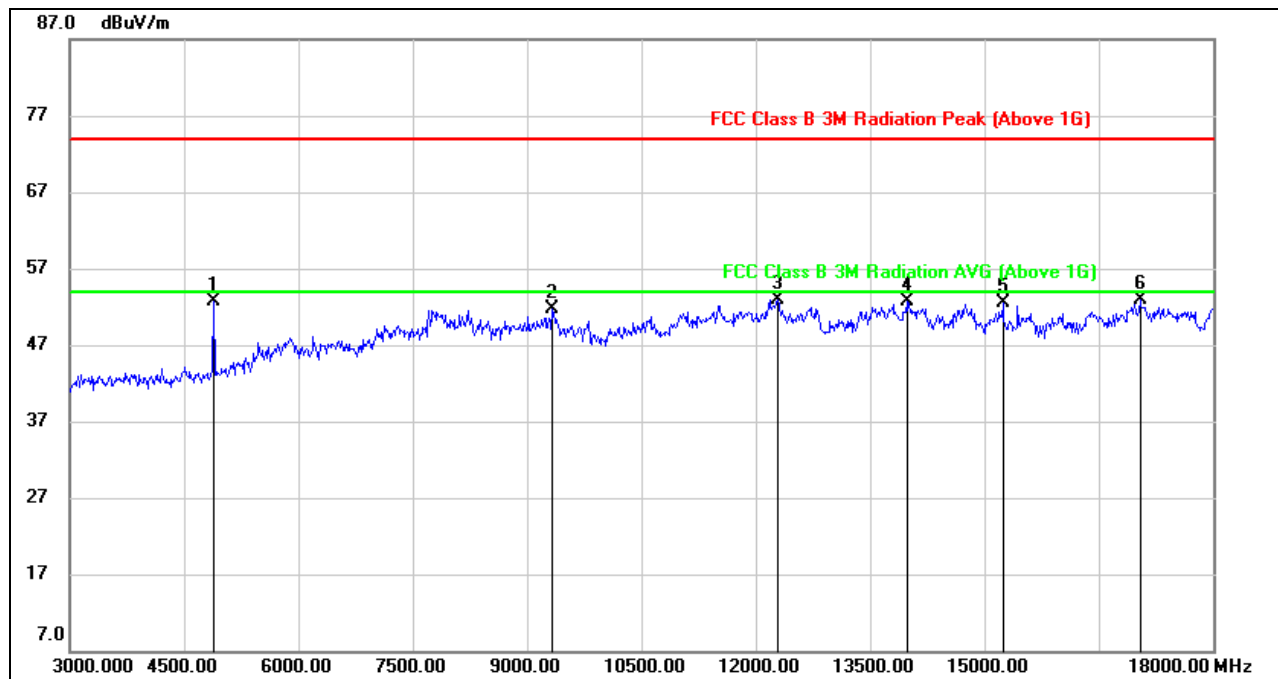
4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.

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



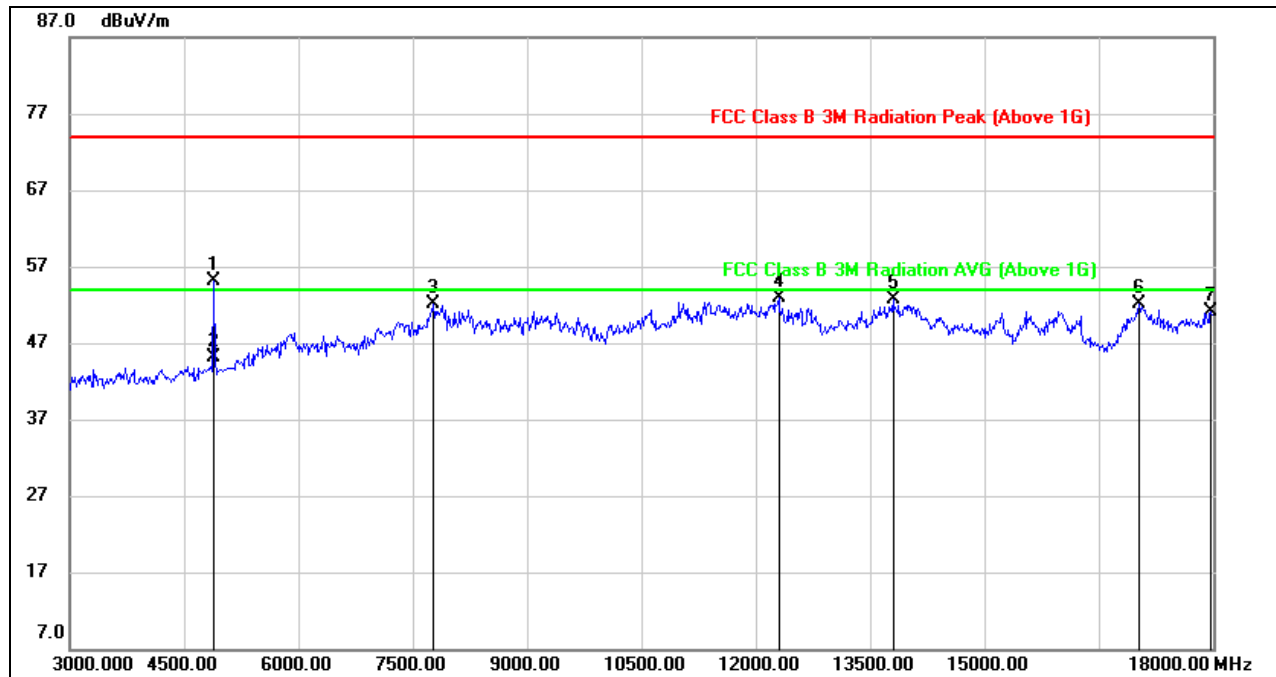
7.4. SPURIOUS EMISSIONS (3~18GHz)

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



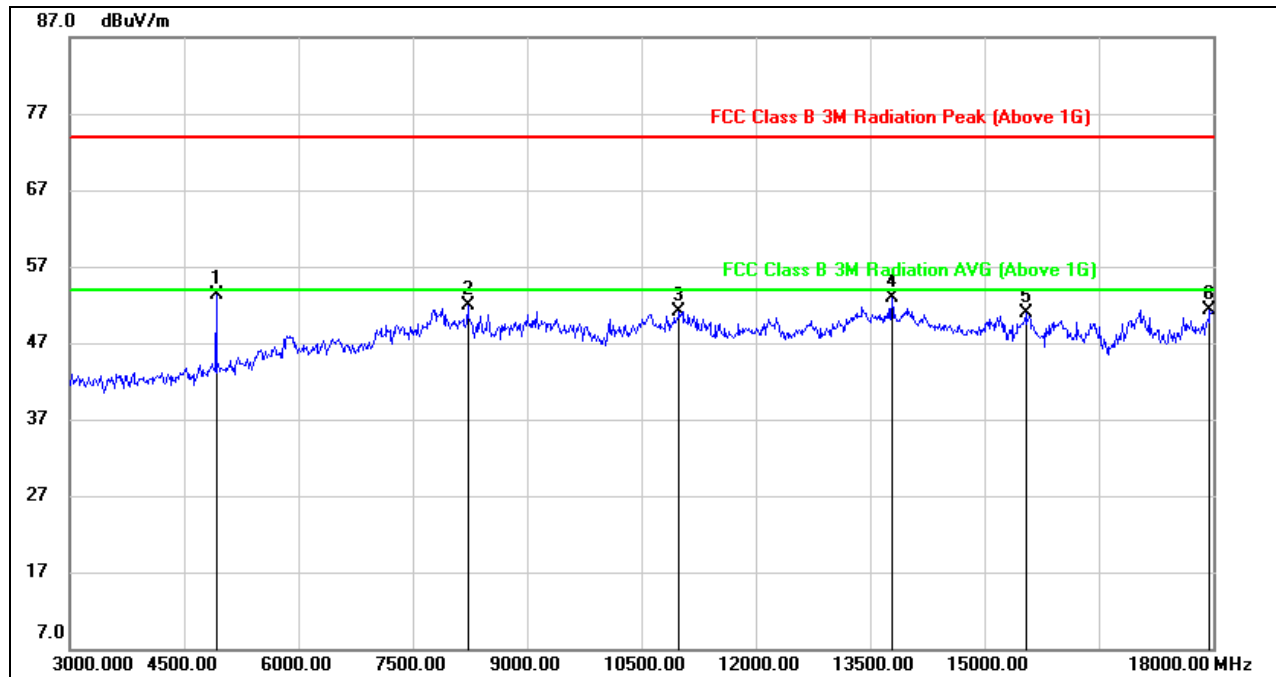
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4900.000	55.52	-2.78	52.74	74.00	-21.26	peak
2	9330.000	44.42	7.32	51.74	74.00	-22.26	peak
3	12285.000	42.14	10.78	52.92	74.00	-21.08	peak
4	13980.000	37.59	15.09	52.68	74.00	-21.32	peak
5	15240.000	40.22	12.19	52.41	74.00	-21.59	peak
6	17040.000	31.97	20.85	52.82	74.00	-21.18	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. AVG Result=Peak Result + Duty Cycle Correction Factor.
5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.
6. The High Pass filter loss factor already add into the correct factor.
7. Proper operation of the transmitter prior to adding the filter to the measurement chain

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

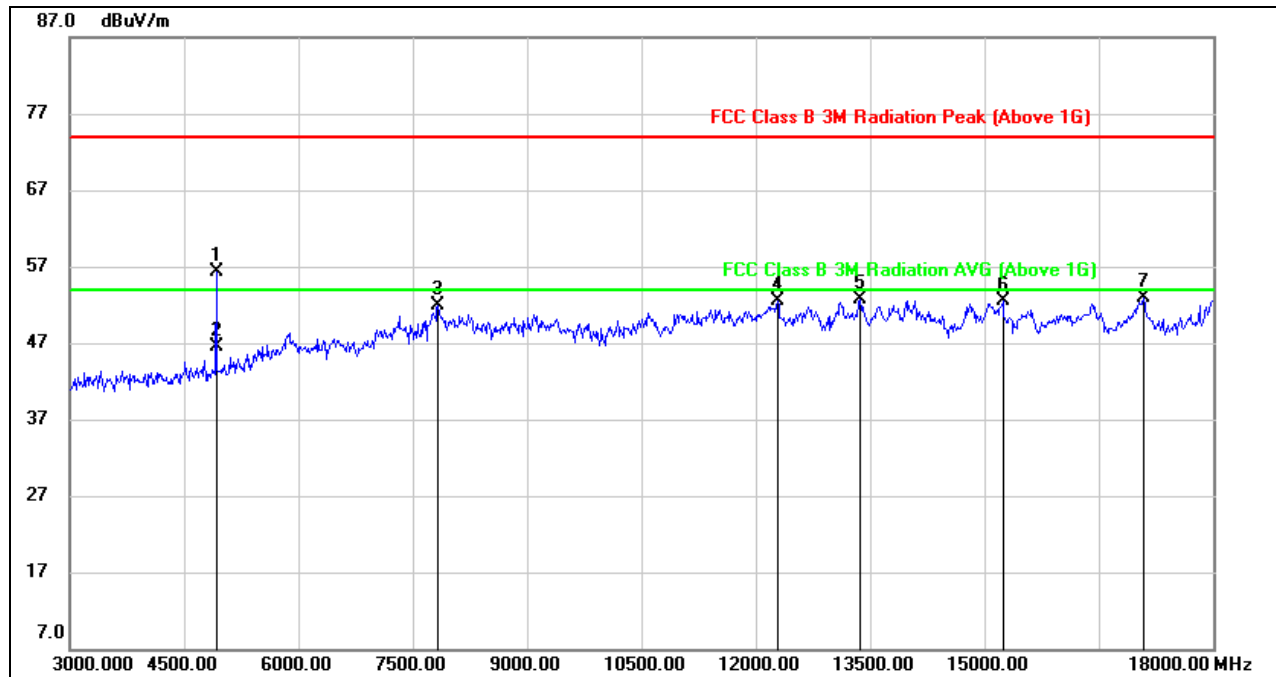
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4900.000	57.80	-2.78	55.02	74.00	-18.98	peak
2	4900.000	47.94	-2.78	45.16	54.00	-8.84	AVG
3	7770.000	44.47	7.58	52.05	74.00	-21.95	peak
4	12300.000	42.03	10.79	52.82	74.00	-21.18	peak
5	13800.000	36.53	16.15	52.68	74.00	-21.32	peak
6	17025.000	31.28	20.86	52.14	74.00	-21.86	peak
7	17970.000	29.39	21.73	51.12	74.00	-22.88	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. AVG Result=Peak Result + Duty Cycle Correction Factor.
5. For the Duty Cycle and Correction Factor, 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)**

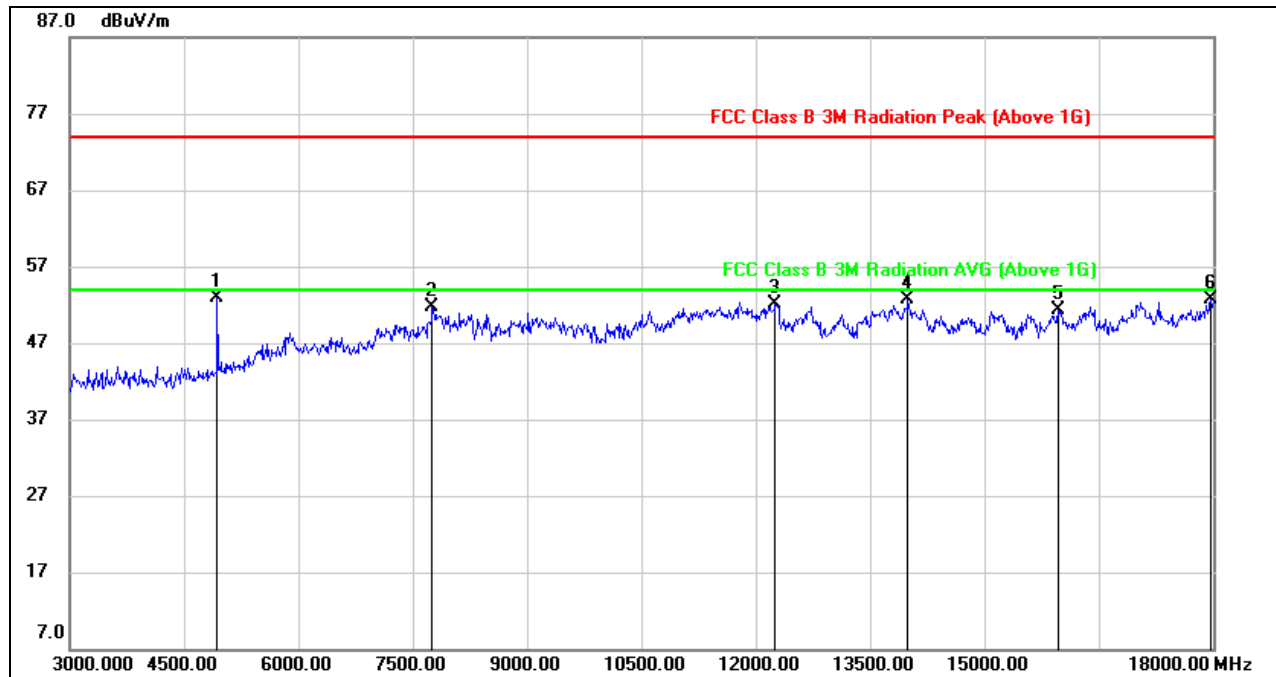
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	55.95	-2.68	53.27	74.00	-20.73	peak
2	8220.000	43.50	8.40	51.90	74.00	-22.10	peak
3	10995.000	42.25	8.86	51.11	74.00	-22.89	peak
4	13785.000	36.92	15.96	52.88	74.00	-21.12	peak
5	15540.000	38.83	12.07	50.90	74.00	-23.10	peak
6	17955.000	29.74	21.64	51.38	74.00	-22.62	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. AVG Result=Peak Result + Duty Cycle Correction Factor.
 5. For the Duty Cycle and Correction Factor, 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)**

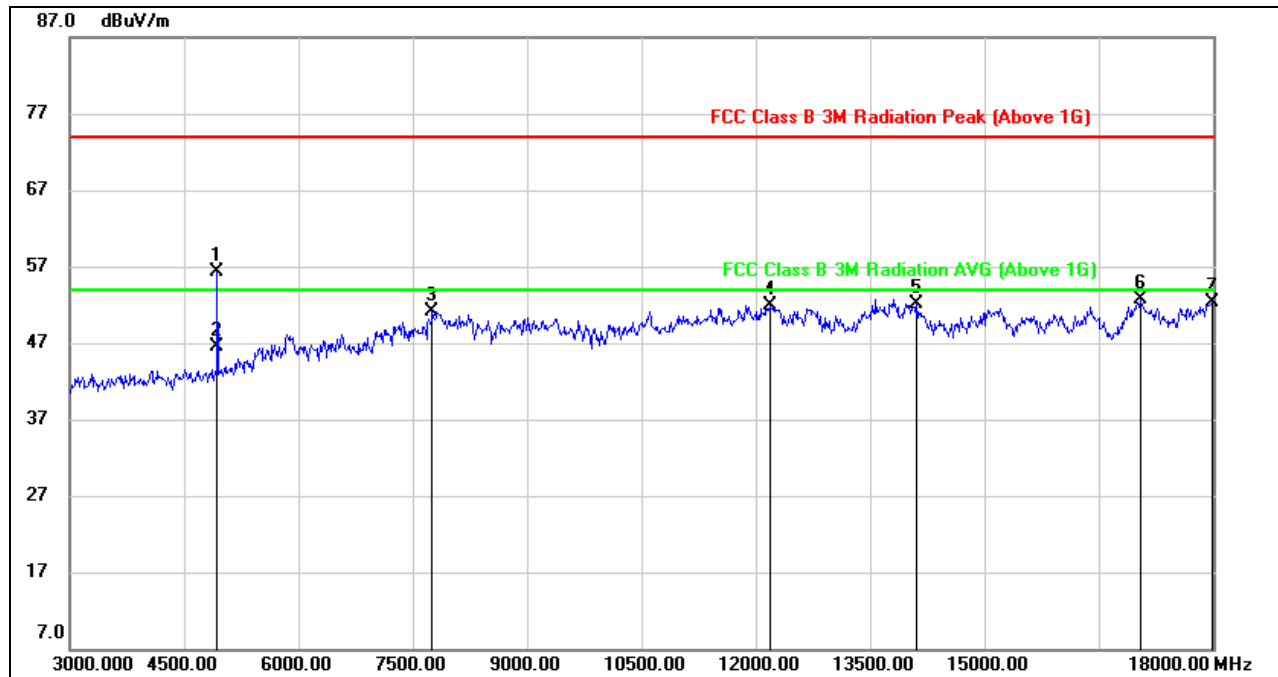
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4920.000	58.99	-2.68	56.31	74.00	-17.69	peak
2	4920.000	49.13	-2.68	46.45	54.00	-7.55	AVG
3	7830.000	43.92	7.93	51.85	74.00	-22.15	peak
4	12285.000	41.71	10.78	52.49	74.00	-21.51	peak
5	13365.000	39.24	13.38	52.62	74.00	-21.38	peak
6	15240.000	40.40	12.19	52.59	74.00	-21.41	peak
7	17085.000	32.10	20.81	52.91	74.00	-21.09	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. AVG Result=Peak Result + Duty Cycle Correction Factor.
5. For the Duty Cycle and Correction Factor, please refer to clause 6.1.
6. The High Pass filter loss factor already add into the correct factor.
7. Proper operation of the transmitter prior to adding the filter to the measurement chain

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4940.000	55.52	-2.57	52.95	74.00	-21.05	peak
2	7755.000	44.32	7.33	51.65	74.00	-22.35	peak
3	12255.000	41.32	10.76	52.08	74.00	-21.92	peak
4	13995.000	37.43	15.19	52.62	74.00	-21.38	peak
5	15960.000	38.60	12.67	51.27	74.00	-22.73	peak
6	17970.000	31.02	21.73	52.75	74.00	-21.25	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. AVG Result=Peak Result + Duty Cycle Correction Factor.
5. For the Duty Cycle and Correction Factor, 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)**

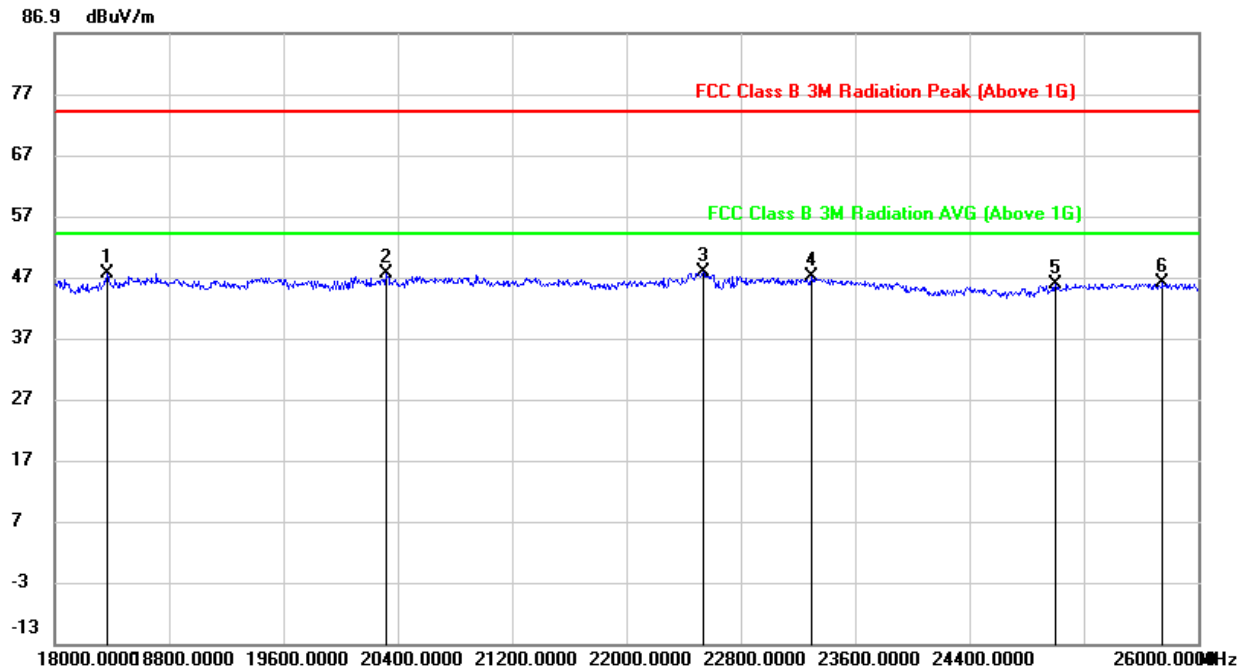
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4940.000	58.86	-2.57	56.29	74.00	-17.71	peak
2	4940.000	49.00	-2.57	46.43	54.00	-7.57	AVG
3	7755.000	43.74	7.33	51.07	74.00	-22.93	peak
4	12180.000	41.10	10.74	51.84	74.00	-22.16	peak
5	14115.000	36.94	15.22	52.16	74.00	-21.84	peak
6	17040.000	31.84	20.85	52.69	74.00	-21.31	peak
7	17985.000	30.42	21.84	52.26	74.00	-21.74	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. AVG Result=Peak Result + Duty Cycle Correction Factor.
5. For the Duty Cycle and Correction Factor, 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



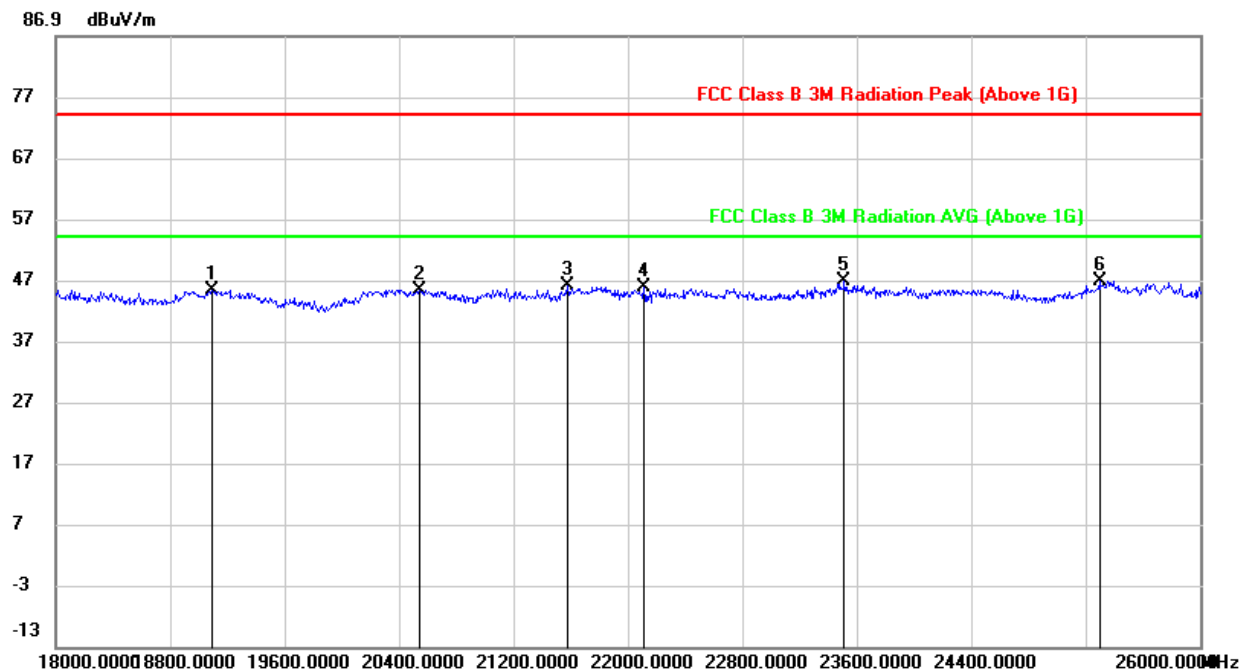
7.5. SPURIOUS EMISSIONS (18~26GHz)

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18368.000	52.01	-4.38	47.63	74.00	-26.37	peak
2	20320.000	52.31	-4.90	47.41	74.00	-26.59	peak
3	22536.000	53.52	-5.79	47.73	74.00	-26.27	peak
4	23296.000	52.30	-5.16	47.14	74.00	-26.86	peak
5	25000.000	46.96	-1.08	45.88	74.00	-28.12	peak
6	25752.000	47.50	-1.35	46.15	74.00	-27.85	peak

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

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	19088.000	50.29	-4.95	45.34	74.00	-28.66	peak
2	20544.000	50.34	-4.99	45.35	74.00	-28.65	peak
3	21576.000	51.82	-5.77	46.05	74.00	-27.95	peak
4	22112.000	51.97	-6.17	45.80	74.00	-28.20	peak
5	23512.000	51.51	-4.76	46.75	74.00	-27.25	peak
6	25296.000	48.15	-1.30	46.85	74.00	-27.15	peak

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

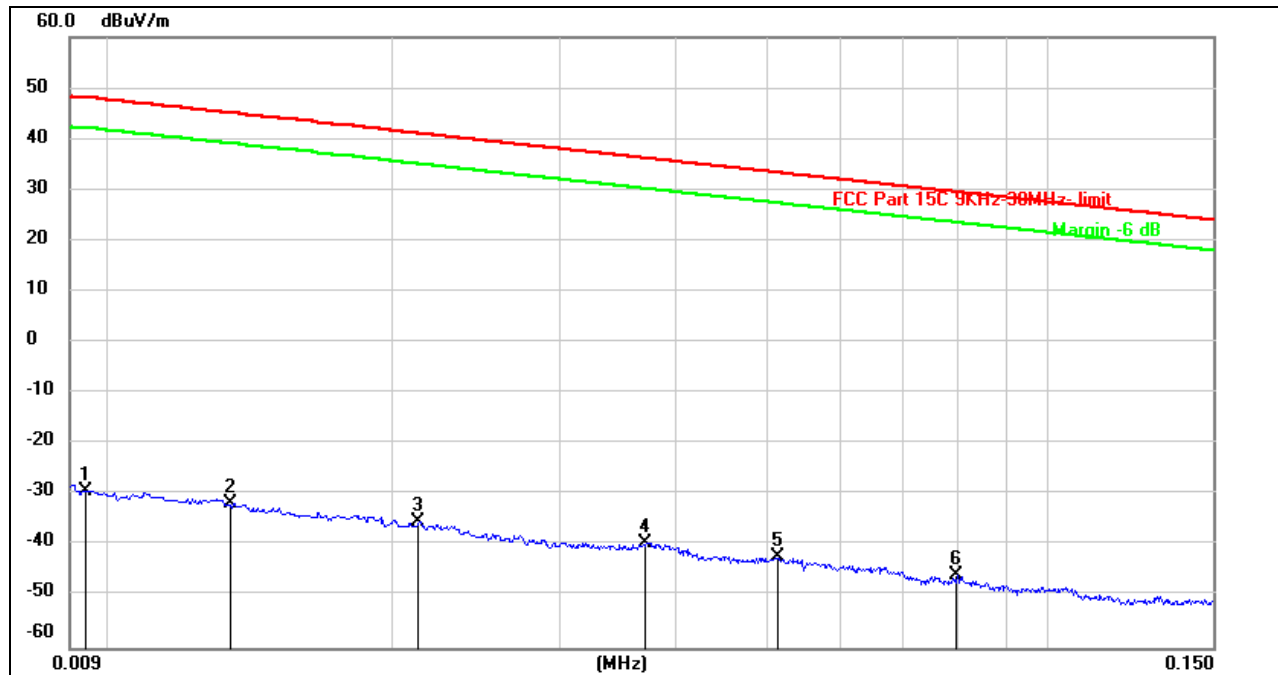
Note: All test mode has been tested, only the worst data record in the report.



7.6. SPURIOUS EMISSIONS BELOW 30M

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

9kHz~ 150kHz

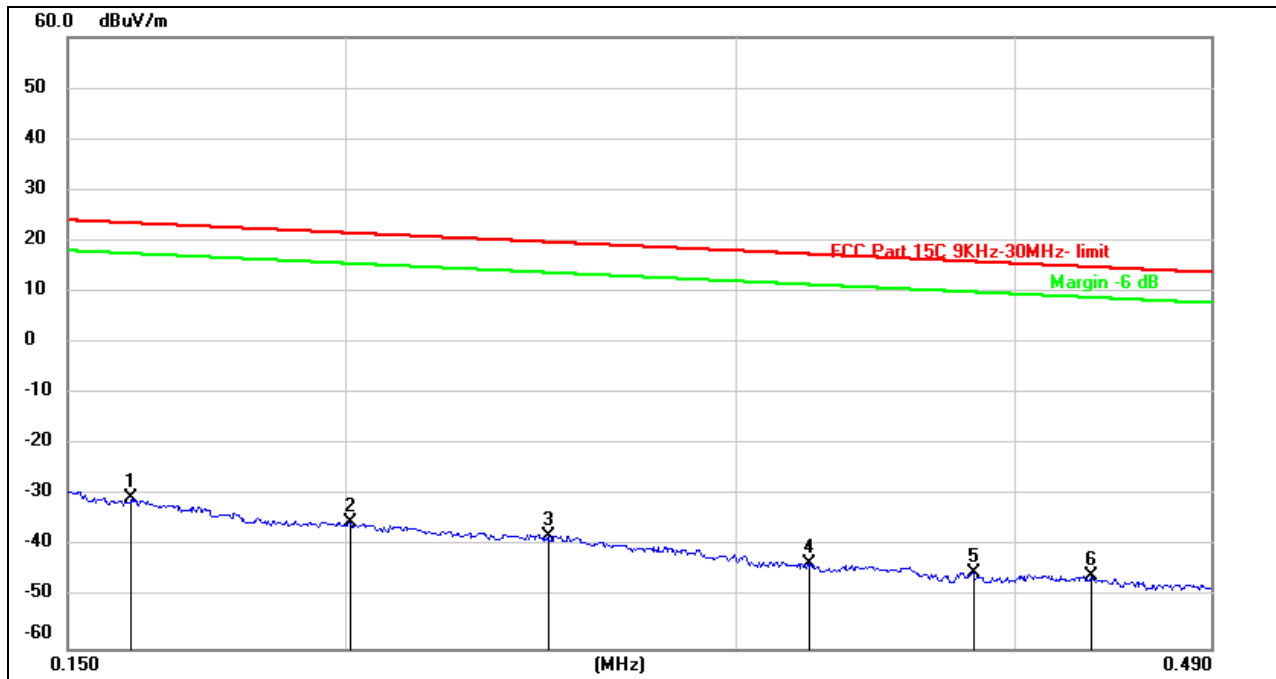


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0094	72.16	-101.35	-29.19	48.05	-77.24	peak
2	0.0134	69.84	-101.39	-31.55	45.06	-76.61	peak
3	0.0212	66.04	-101.35	-35.31	41.07	-76.38	peak
4	0.0371	62.06	-101.42	-39.36	36.21	-75.57	peak
5	0.0514	59.18	-101.48	-42.30	33.38	-75.68	peak
6	0.0796	56.03	-101.63	-45.60	29.58	-75.18	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.

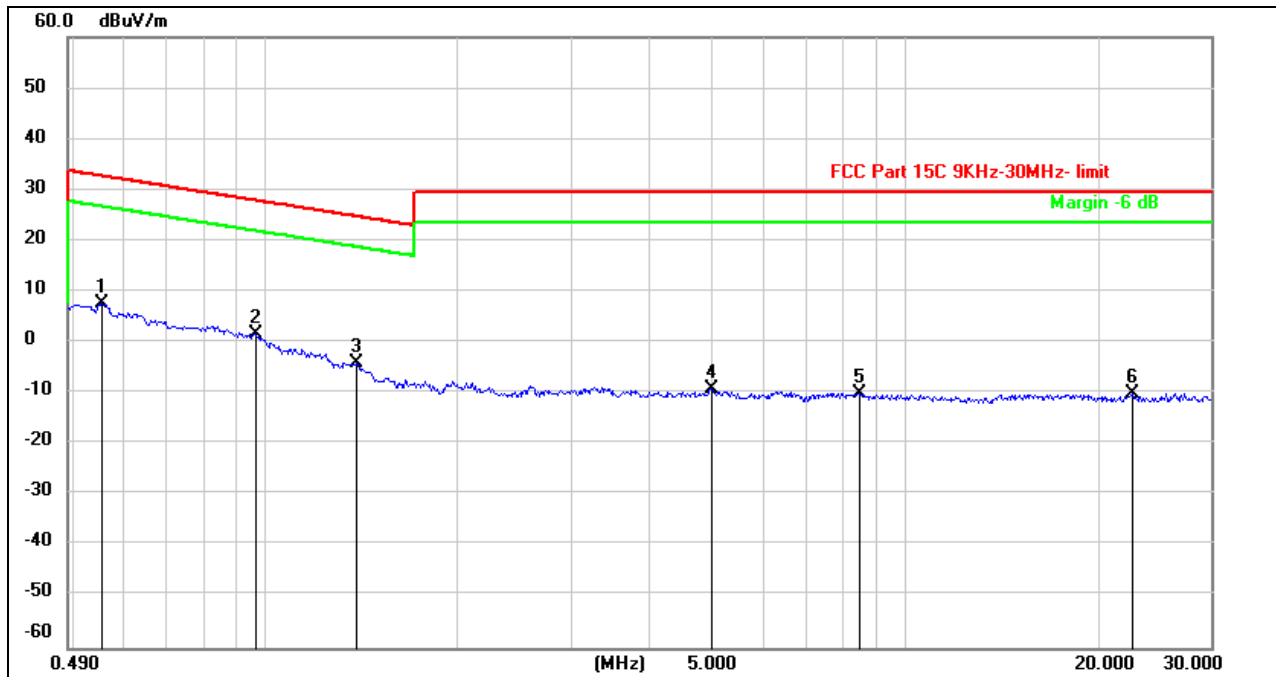
150kHz ~ 490kHz

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1602	71.24	-101.65	-30.41	23.51	-53.92	peak
2	0.2010	66.51	-101.72	-35.21	21.54	-56.75	peak
3	0.2466	63.86	-101.80	-37.94	19.76	-57.70	peak
4	0.3234	58.48	-101.88	-43.40	17.41	-60.81	peak
5	0.3830	56.70	-101.94	-45.24	15.94	-61.18	peak
6	0.4329	56.23	-101.99	-45.76	14.87	-60.63	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	0.5544	69.85	-62.08	7.77	32.73	-24.96	peak
2	0.9622	63.97	-62.24	1.73	27.94	-26.21	peak
3	1.3814	57.97	-62.10	-4.13	24.80	-28.93	peak
4	4.9755	52.38	-61.48	-9.10	29.54	-38.64	peak
5	8.4577	50.92	-61.01	-10.09	29.54	-39.63	peak
6	22.6520	50.52	-60.63	-10.11	29.54	-39.65	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.

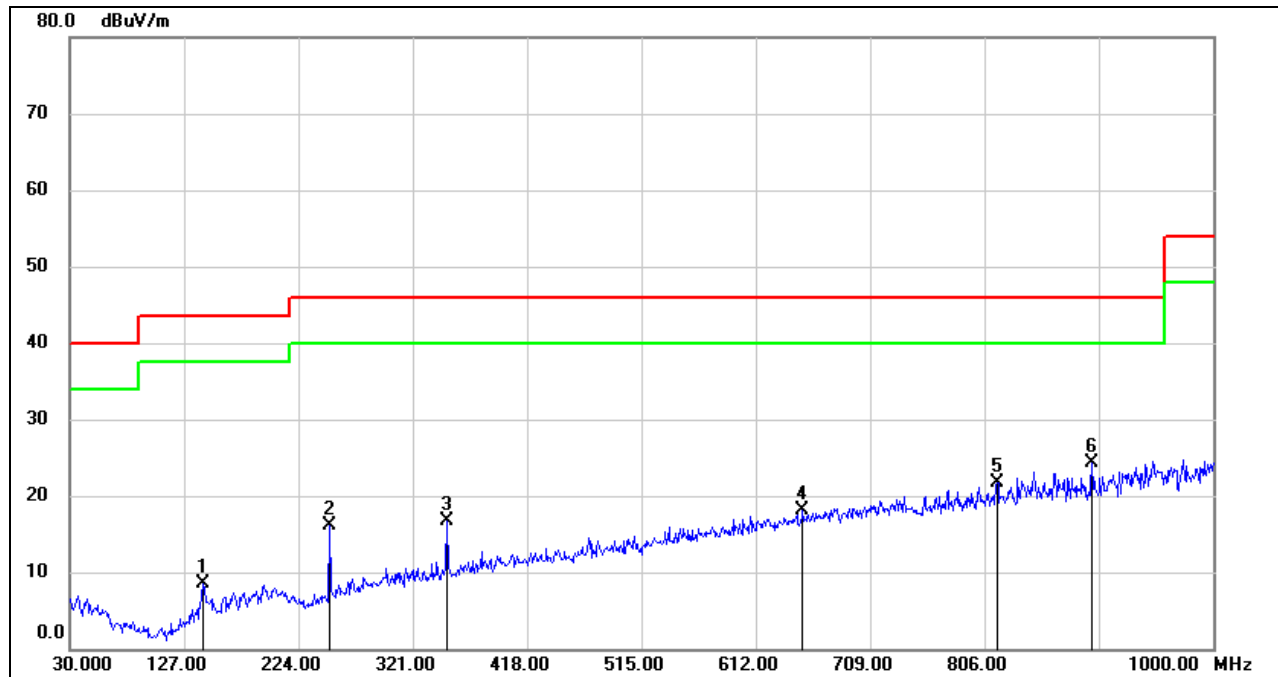
3. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

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)

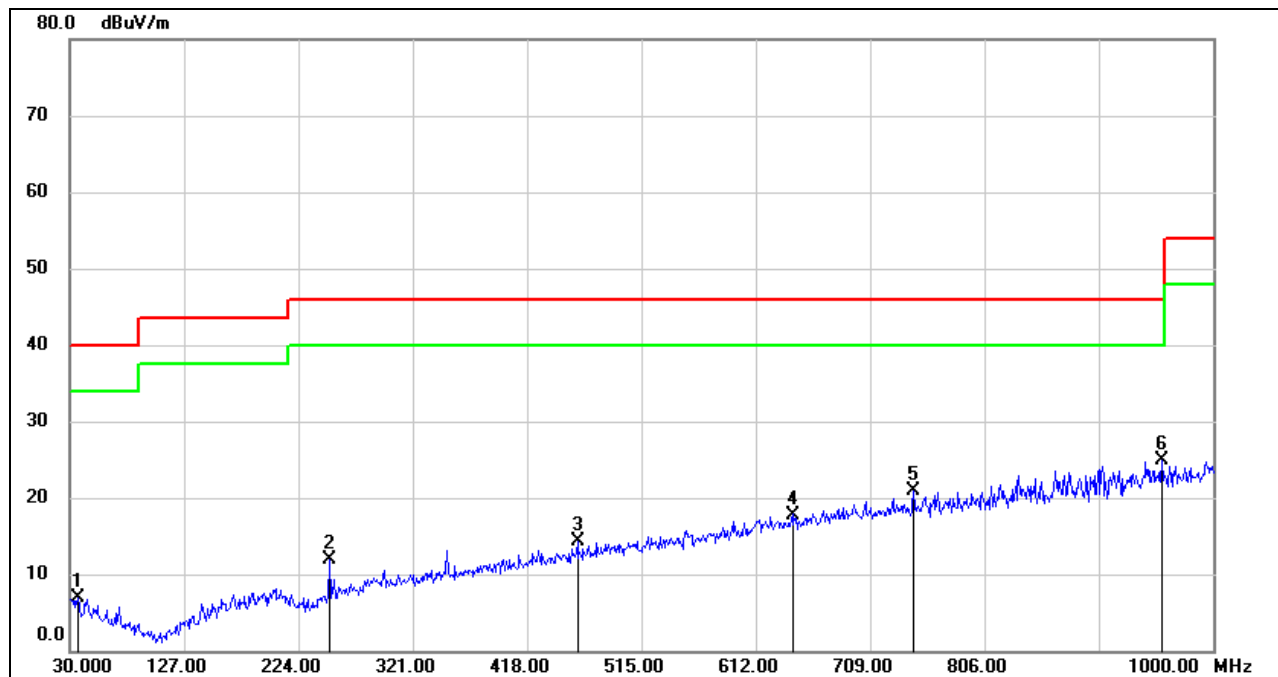


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	142.5200	27.46	-18.95	8.51	43.50	-34.99	QP
2	250.1900	32.14	-16.12	16.02	46.00	-29.98	QP
3	350.1000	29.95	-13.16	16.79	46.00	-29.21	QP
4	651.7700	25.62	-7.56	18.06	46.00	-27.94	QP
5	816.6700	26.73	-4.99	21.74	46.00	-24.26	QP
6	897.1800	28.50	-4.14	24.36	46.00	-21.64	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	36.7900	24.55	-17.71	6.84	40.00	-33.16	QP
2	250.1900	28.01	-16.12	11.89	46.00	-34.11	QP
3	460.6800	25.77	-11.42	14.35	46.00	-31.65	QP
4	643.0400	25.46	-7.66	17.80	46.00	-28.20	QP
5	745.8600	26.95	-6.09	20.86	46.00	-25.14	QP
6	956.3500	28.25	-3.42	24.83	46.00	-21.17	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.

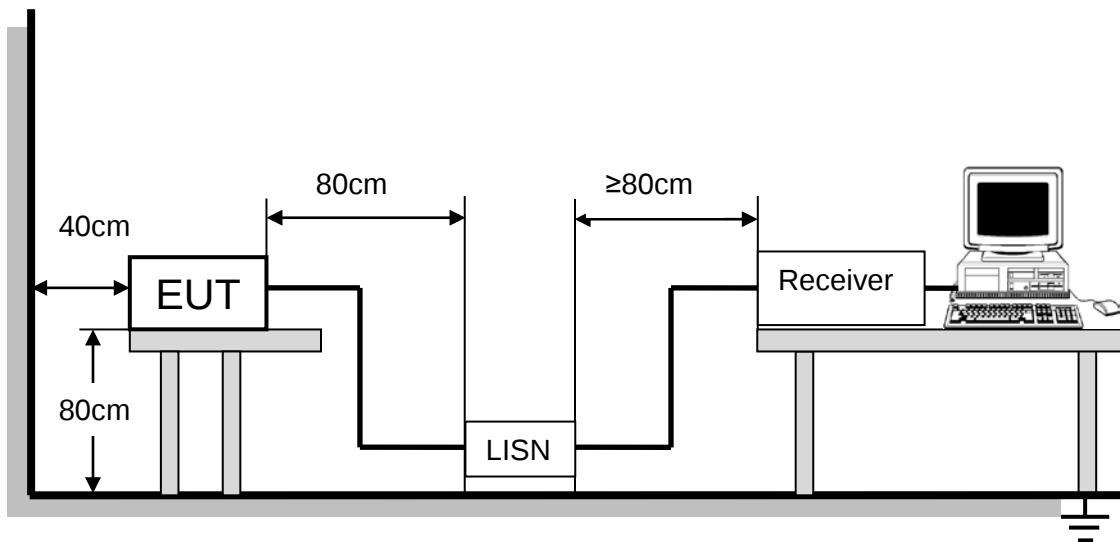
8. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to FCC §15.207 (a)

FREQUENCY (MHz)	Limit	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

TEST SETUP AND PROCEDURE

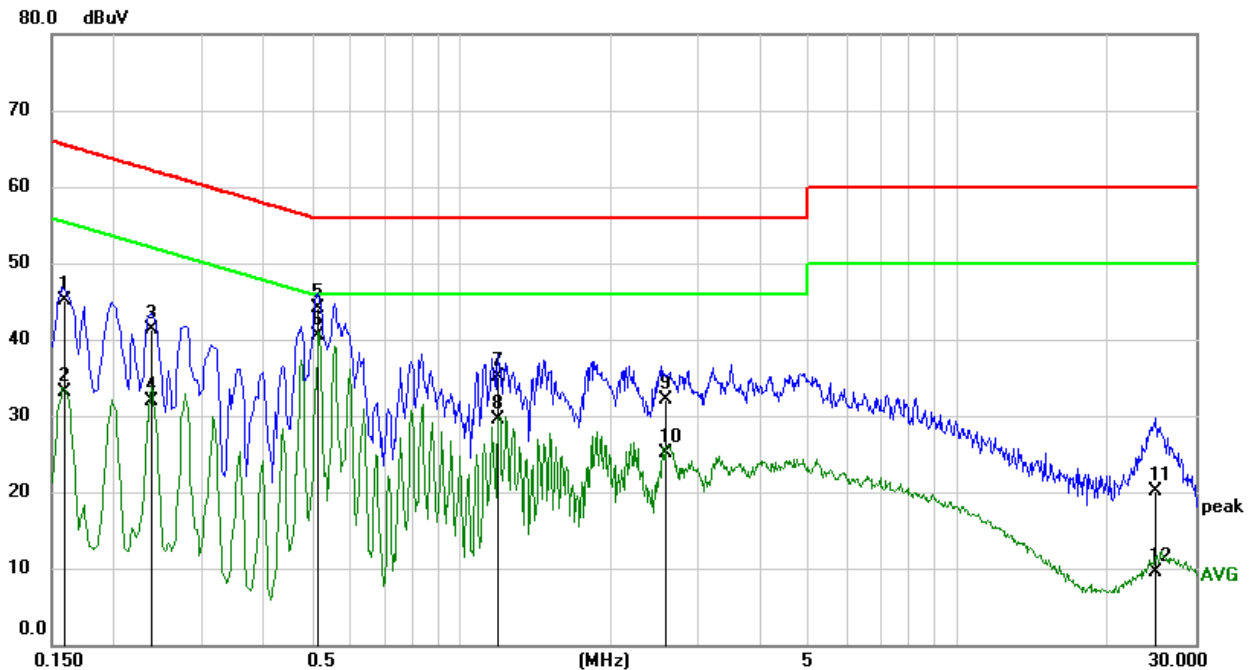


The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 7 and 13 of ANSI C63.4-2014. 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 RESULTS (WORST-CASE CONFIGURATION)**

Test Mode:	Middle Channel	Phase:	L
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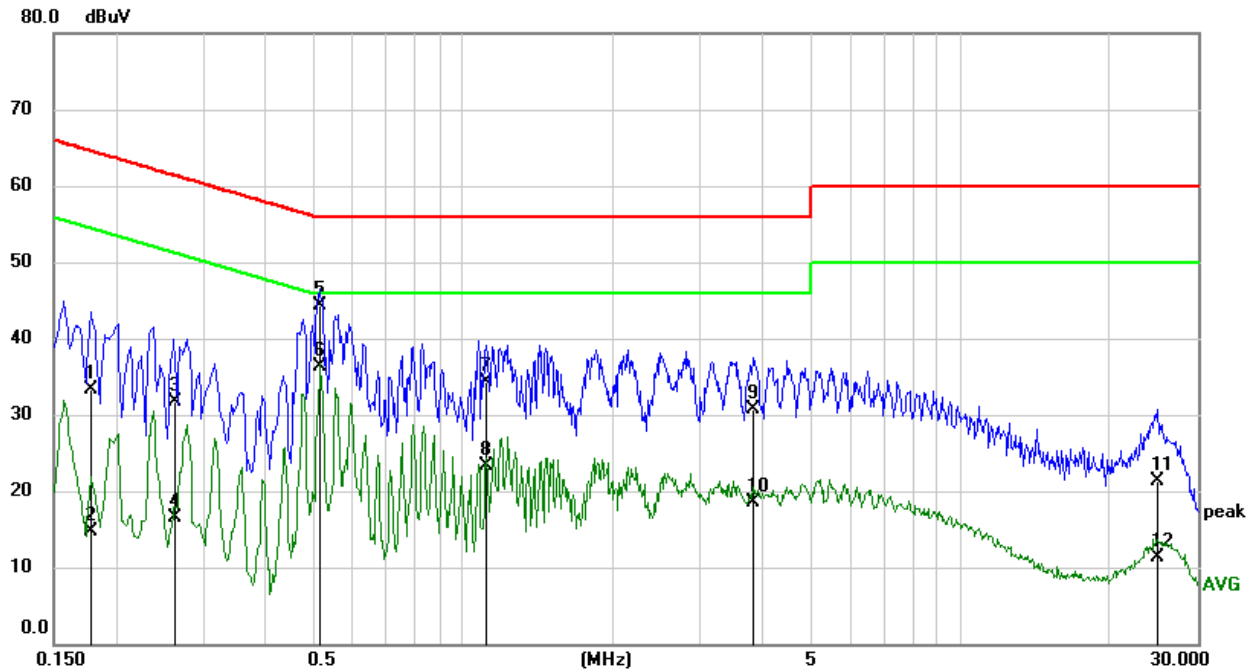


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1592	35.52	9.61	45.13	65.51	-20.38	QP
2	0.1592	23.40	9.61	33.01	55.51	-22.50	AVG
3	0.2384	31.70	9.60	41.30	62.15	-20.85	QP
4	0.2384	22.40	9.60	32.00	52.15	-20.15	AVG
5	0.5158	34.59	9.60	44.19	56.00	-11.81	QP
6	0.5158	30.94	9.60	40.54	46.00	-5.46	AVG
7	1.1937	25.47	9.61	35.08	56.00	-20.92	QP
8	1.1937	19.91	9.61	29.52	46.00	-16.48	AVG
9	2.5846	22.47	9.64	32.11	56.00	-23.89	QP
10	2.5846	15.51	9.64	25.15	46.00	-20.85	AVG
11	24.9892	10.24	9.95	20.19	60.00	-39.81	QP
12	24.9892	-0.53	9.95	9.42	50.00	-40.58	AVG

- Note: 1. Result Level = Read Level + LISN Factor + Pulse Limiter Factor + Cable loss.
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.



Test Mode:	Middle Channel	Phase:	N
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1781	23.74	9.60	33.34	64.57	-31.23	QP
2	0.1781	5.11	9.60	14.71	54.57	-39.86	AVG
3	0.2638	22.10	9.60	31.70	61.31	-29.61	QP
4	0.2638	6.84	9.60	16.44	51.31	-34.87	AVG
5	0.5159	34.61	9.60	44.21	56.00	-11.79	QP
6	0.5159	26.71	9.60	36.31	46.00	-9.69	AVG
7	1.1129	24.65	9.61	34.26	56.00	-21.74	QP
8	1.1129	13.75	9.61	23.36	46.00	-22.64	AVG
9	3.8241	21.00	9.66	30.66	56.00	-25.34	QP
10	3.8241	8.85	9.66	18.51	46.00	-27.49	AVG
11	24.9490	11.26	10.06	21.32	60.00	-38.68	QP
12	24.9490	1.34	10.06	11.40	50.00	-38.60	AVG

- Note: 1. Result Level = Read Level + LISN Factor + Pulse Limiter Factor + Cable loss.
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