



**CFR 47 FCC PART 15 SUBPART C
ISED RSS-210 ISSUE 9**

TEST REPORT

For

TOY Receiver

MODEL NUMBER: GF3719RR

FCC ID: G6DGF3719RR

IC: 9650A-GF3719RR

REPORT NUMBER: 4788913559.1-2

ISSUE DATE: May 9, 2019

Prepared for

**NEW BRIGHT INDUSTRIAL CO., LTD
9/F., NEW BRIGHT BUILDING, 11 SHEUNG YUET ROAD, KOWLOON BAY,
KOWLOON, HONG KONG.**

Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	05/09/2019	Initial Issue	



Summary of Test Results			
Clause	Test Items	IC Rules	Test Results
1	20dB Bandwidth and 99% Occupied Bandwidth	CFR 47 FCC 15.249(d) ISED RSS-Gen Clause 6.7	Pass
2	Radiated emission	CFR 47 FCC §15.249 (a)(d)(e) ISED RSS-210 Clause Annex B B.10 CFR 47 FCC §15.205 and §15.209 RSS-GEN Clause 8.9 RSS-GEN Clause 8.10	Pass
3	Conducted Emission Test For AC Power Port	FCC Part 15.207 RSS-GEN Clause 8.8	Pass
4	Antenna Requirement	FCC Part 15.203 ISED RSS-Gen Clause 8.3	Pass



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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: NEW BRIGHT INDUSTRIAL CO., LTD
Address: 9/F., NEW BRIGHT BUILDING, 11 SHEUNG YUET ROAD,
KOWLOON BAY, KOWLOON, HONG KONG.

Manufacturer Information

Company Name: NEW BRIGHT INDUSTRIAL CO., LTD
Address: 9/F., NEW BRIGHT BUILDING, 11 SHEUNG YUET ROAD,
KOWLOON BAY, KOWLOON, HONG KONG.

EUT Description

EUT Name: TOY Receiver
Model: GF3719RR
Brand Name: /
Sample Status: Normal
Sample ID: 2124423
Sample Received Date: March 6, 2019
Date of Tested: March 11, 2019 ~ May 9, 2019

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 FCC PART 15 SUBPART C	PASS
ISED RSS-210 Issue 9	PASS
ISED RSS-GEN Issue 5	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 C63.10-2014, ISED RSS-210 Issue 9 and RSS-GEN Issue 5.

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	TOY Receiver		
EUT Description	The EUT is a wireless remote controlled toy car.		
Model	GF3719RR		
Product Description	Operation Frequency	2410 MHz ~ 2475 MHz	
	Modulation Type	GFSK	
Battery	DC 6.4V		

5.2. MAXIMUM OUTPUT POWER

Frequency Range (MHz)	Number of Transmit Chains (NTX)	Frequency (MHz)	Channel Number	Max Power (dBμV/m)
2410 ~ 2475	1	2475	66[66]	81.72

5.3. CHANNEL LIST

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2410	18	2427	35	2444	52	2461
2	2411	19	2428	36	2445	53	2462
3	2412	20	2429	37	2446	54	2463
4	2413	21	2430	38	2447	55	2464
5	2414	22	2431	39	2448	56	2465
6	2415	23	2432	40	2449	57	2466
7	2416	24	2433	41	2450	58	2467
8	2417	25	2434	42	2451	59	2468
9	2418	26	2435	43	2452	60	2469
10	2419	27	2436	44	2453	61	2470
11	2420	28	2437	45	2454	62	2471
12	2421	29	2438	46	2455	63	2472
13	2422	30	2439	47	2456	64	2473
14	2423	31	2440	48	2457	65	2474
15	2424	32	2441	49	2458	66	2475
16	2425	33	2442	50	2459	/	/
17	2426	34	2443	51	2460	/	/



5.4. DESCRIPTION OF AVAILABLE ANTENNAS

Ant.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1	2410 ~ 2475	Wire 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 Mode	Test Channel	Frequency
GFSK	CH 1, CH 34, CH 66	2410MHz, 2443MHz, 2475MHz

5.6. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2410 ~ 2475MHz Band				
Test Software		/		
Modulation Type	Transmit Antenna Number	Test Channel		
		CH 1	CH 34	CH 66
GFSK	1	Default	Default	Default

5.7. TEST ENVIRONMENT

Environment Parameter	Selected Values During Tests	
Relative Humidity	55 ~ 65%	
Atmospheric Pressure:	1025Pa	
Temperature	TN	22 ~ 28°C
Voltage :	VL	N/A
	VN	DC 6.4V
	VH	N/A

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



5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	P/N
1	/	/	/	/

I/O CABLES

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

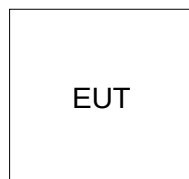
ACCESSORY

Item	Equipment	Mfr/Brand	Model/Type No.	Specification	Series No.
1	Adapter	XIAOMI	MDY-08-EF	5Vdc,2A	15120026342

TEST SETUP

The EUT have the engineer mode inside.

SETUP DIAGRAM FOR TEST



Note: New battery was used during all tests.

**5.9. MEASURING INSTRUMENT AND SOFTWARE USED**

Conducted Emissions						
Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☒	EMI Test Receiver	R&S	ESR3	101961	Dec.10,2018	Dec.10,2019
☒	Two-Line V-Network	R&S	ENV216	101983	Dec.10,2018	Dec.10,2019
☒	Artificial Mains Networks	Schwarzbeck	NSLK 8126	8126465	Dec.10,2018	Dec.10,2019
Software						
Used	Description		Manufacturer	Name		Version
☒	Test Software for Conducted disturbance		Farad	EZ-EMC		Ver. UL-3A1
Radiated Emissions						
Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☒	MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Dec.10,2018	Dec.10,2019
☒	Hybrid Log Periodic Antenna	TDK	HLP-3003C	130960	Sep.17,2018	Sep.17,2021
☒	Preamplifier	HP	8447D	2944A09099	Dec.10,2018	Dec.10,2019
☒	EMI Measurement Receiver	R&S	ESR26	101377	Dec.10,2018	Dec.10,2019
☒	Horn Antenna	TDK	HRN-0118	130939	Sep.17,2018	Sep.17,2021
☒	High Gain Horn Antenna	Schwarzbeck	BBHA-9170	691	Aug.18,2018	Aug.18,2021
☒	Preamplifier	TDK	PA-02-0118	TRS-305-00066	Dec.10,2018	Dec.10,2019
☒	Preamplifier	TDK	PA-02-2	TRS-307-00003	Dec.10,2018	Dec.10,2019
☒	Loop antenna	Schwarzbeck	1519B	00008	Jan.17, 2019	Jan.17,2022
Software						
Used	Description		Manufacturer	Name		Version
☒	Test Software for Radiated disturbance		Farad	EZ-EMC		Ver. UL-3A1
Other instruments						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☒	Spectrum Analyzer	Keysight	N9030A	MY55410512	Dec.10,2018	Dec.10,2019
☒	Band Reject Filter	Wainwright	WRCJV8-2350-2400-2483.5-2533.5-40SS	4	Dec.10,2018	Dec.10,2019
☒	High Pass Filter	Wi	WHKX10-2700-3000-18000-40SS	23	Dec.10,2018	Dec.10,2019



6. ANTENNA PORT TEST RESULTS

6.1. ON TIME AND DUTY CYCLE

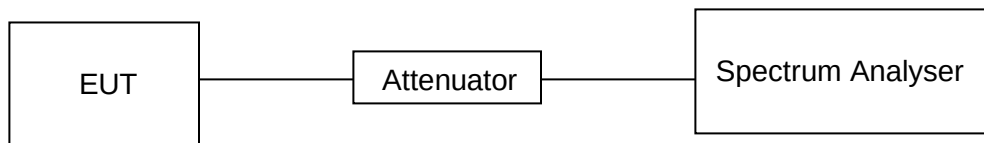
LIMITS

None; for reporting purposes only

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method

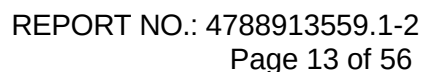
TEST SETUP



RESULTS

Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (db)
GFSK	0.980	2.120	0.462	46.2	-6.70

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



Agilent Spectrum Analyzer - Swept SA

Marker 3 Δ 2.12000 ms

PNO: Fast IFGain: Low Trig: Free Run Atten: 10 dB

Avg Type: Log-Pwr

TRACE 1 2 3 4 5 6
TYPE DVANALYSIS
DET NNNNNM

04:27:03 PM Mar 18, 2019

Marker Table

On

Marker Count [OFF]

Couple Markers On

On

Center 2.443000000 GHz Span 0 Hz

Res BW 3.0 MHz VBW 3.0 MHz Sweep 10.00 ms (1001 pts)

Ref 0.00 dBm

10 dB/div Log

AMkr3 2.120 ms 0.11 dB

3A4

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	Δ 2	1	t	(Δ)	980.0 μ s (Δ)	-50.65 dB		
2	F	1	t		5.070 ms	-45.16 dBm		
3	Δ 4	1	t	(Δ)	2.120 ms (Δ)	0.11 dB		
4	F	1	t		5.070 ms	-45.16 dBm		
5								
6								
7								
8								
9								
10								
11								
12								

All Markers Off

More 2 of 2

MSG STATUS

Agilent Spectrum Analyzer - Sweep SA

RF SO Ω AC SENSE:INT ALIGN: AUTO 09:31:35 AM May 09, 2019

Sweep Time 150.0 ms PNO: Fast $\rightarrow$ Trig: Free Run
IFGain: High #Atten: 0 dB

Avg Type: Log-Pwr TRACE 1 2 3 4 5 6
TYPE W W W W W W
DET P N N N N N

Ref Offset 0.5 dB
Ref -19.50 dBm

10 dB/div
Log

The main display area shows a spectrum plot with a grid. The horizontal axis represents frequency, with a center frequency of 2.443000000 GHz and a span of 0 Hz. The vertical axis represents power, with a resolution bandwidth of 2.0 MHz and a sweep time of 150.0 ms. The plot shows a signal with a peak power of approximately -70 dBm and a noise floor of approximately -80 dBm. The signal is a complex waveform, likely a modulated signal, with a bandwidth of 6.0 MHz. The plot is labeled with '10 dB/div' and 'Log'.

Center 2.443000000 GHz
Res BW 2.0 MHz #VBW 6.0 MHz Span 0 Hz
Sweep 150.0 ms (1001 pts)

MSG STATUS

Sweep/Control
Auto Mar
Sweep Time 150.0 ms
Sweep Setup
Gate [Off, LO]
Point 100

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6.2. 20 dB BANDWIDTH AND 99% OCCUPIED BANDWIDTH

LIMITS

CFR 47 FCC Part15 (15.249) , Subpart C RSS-Gen Issue 5			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.249(d)	20dB Bandwidth	for reporting purposes only	2400-2483.5
ISED RSS-Gen Clause 6.7 Issue 5	99% Occupied Bandwidth	For reporting purposes only.	2400-2483.5

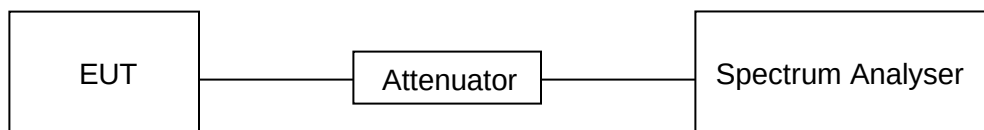
TEST PROCEDURE

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

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

Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 20 dB relative to the maximum level measured in the fundamental emission.

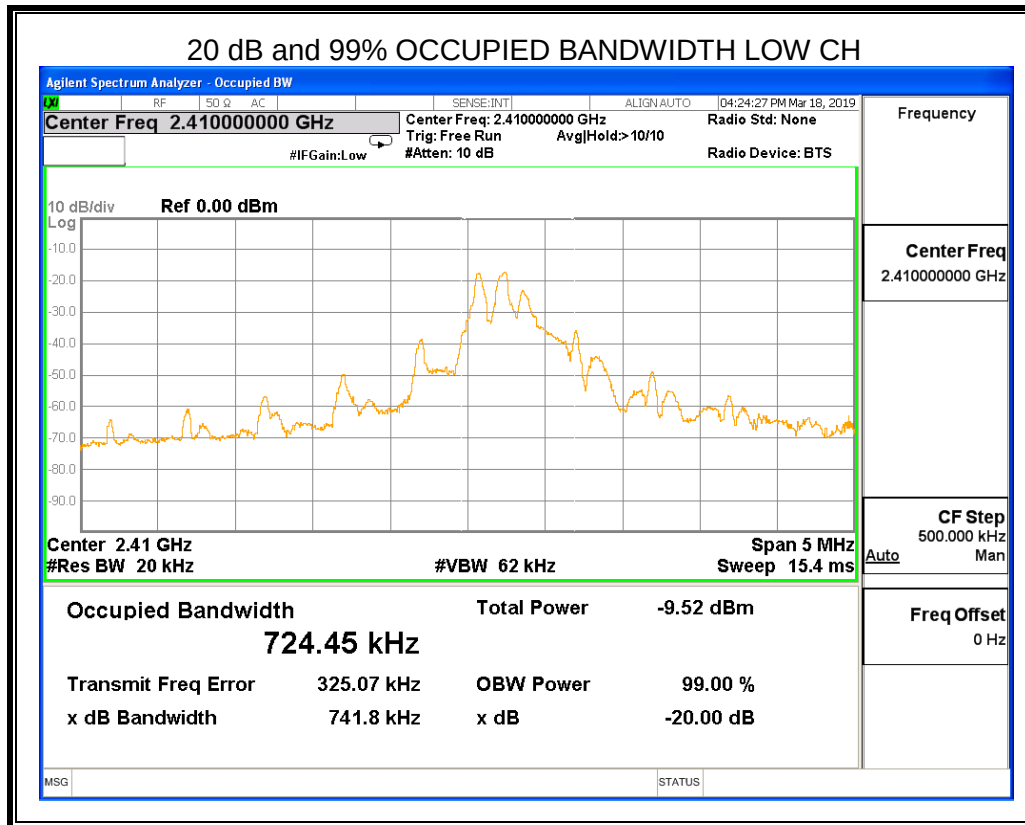
TEST SETUP





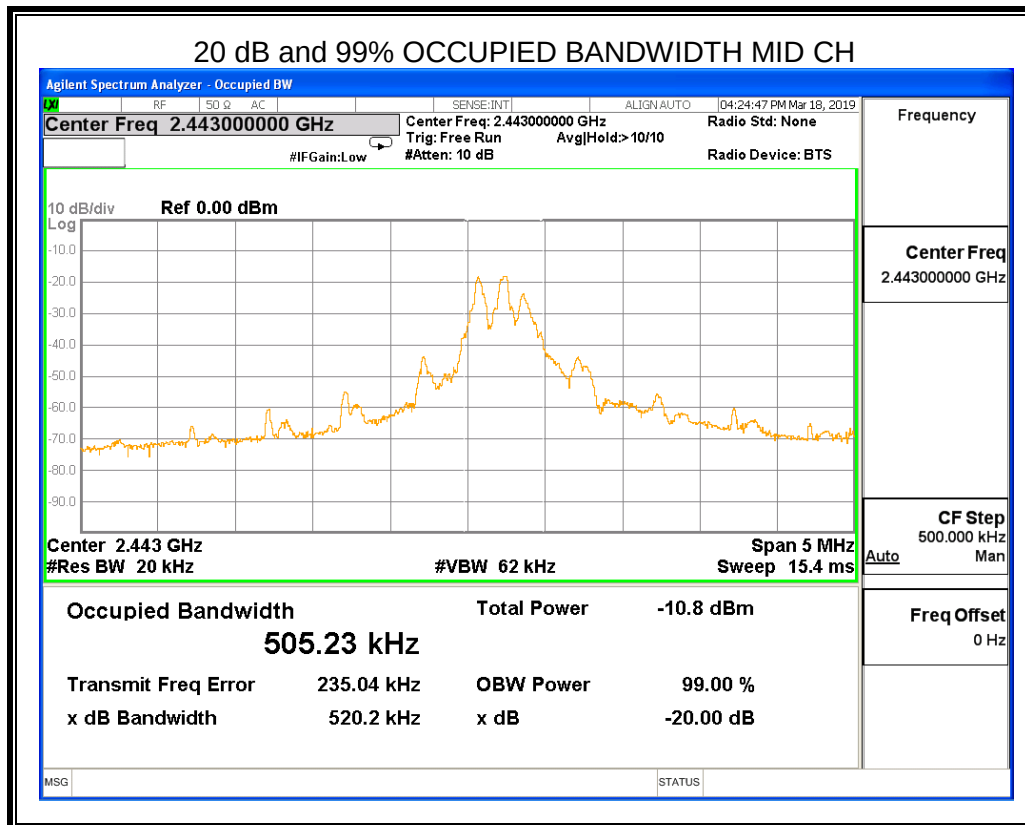
RESULTS

Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2410	0.7418	0.7245	PASS



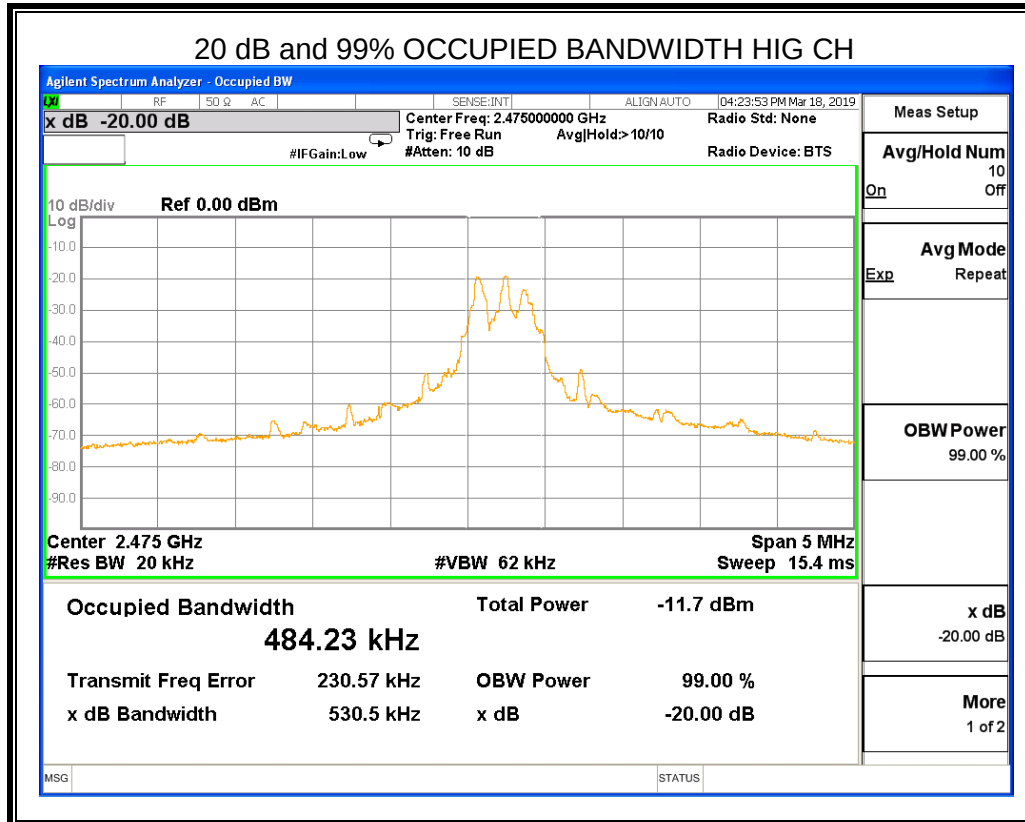


Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2443	0.5202	0.5052	PASS





Frequency (MHz)	20dB bandwidth (MHz)	99% bandwidth (MHz)	Result
2475	0.5305	0.4842	PASS





7. RADIATED TEST RESULTS

7.1. LIMITS AND PROCEDURE

LIMITS

CFR 47 FCC §15.205 and §15.209

CFR 47 FCC §15.249 (a)(d)(e)

ISED RSS-210 Issue 9 Clause Annex B B.10

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



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

Table 7 – Restricted frequency bands ^{Note 1}		
MHz	MHz	GHz
0.090 - 0.110	149.9 - 150.05	9.0 - 9.2
0.495 - 0.505	156.52475 - 156.52525	9.3 - 9.5
2.1735 - 2.1905	156.7 - 156.9	10.6 - 12.7
3.020 - 3.026	162.0125 - 167.17	13.25 - 13.4
4.125 - 4.128	167.72 - 173.2	14.47 - 14.5
4.17725 - 4.17775	240 - 285	15.35 - 16.2
4.20725 - 4.20775	322 - 335.4	17.7 - 21.4
5.677 - 5.683	399.9 - 410	22.01 - 23.12
6.215 - 6.218	608 - 614	23.6 - 24.0
6.26775 - 6.26825	960 - 1427	31.2 - 31.8
6.31175 - 6.31225	1435 - 1626.5	36.43 - 36.5
8.291 - 8.294	1645.5 - 1646.5	Above 38.6
8.362 - 8.366	1660 - 1710	
8.37625 - 8.38675	1718.8 - 1722.2	
8.41425 - 8.41475	2200 - 2300	
12.29 - 12.293	2310 - 2390	
12.51975 - 12.52025	2483.5 - 2500	
12.57675 - 12.57725	2655 - 2900	
13.36 - 13.41	3260 - 3267	
16.42 - 16.423	3332 - 3339	
16.69475 - 16.69525	3345.8 - 3358	
16.80425 - 16.80475	3500 - 4400	
25.5 - 25.67	4500 - 5150	
37.5 - 38.25	5350 - 5460	
73 - 74.6	7250 - 7750	
74.8 - 75.2	8025 - 8500	
108 - 138		

Note 1: Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.



FCC Restricted bands of operation:

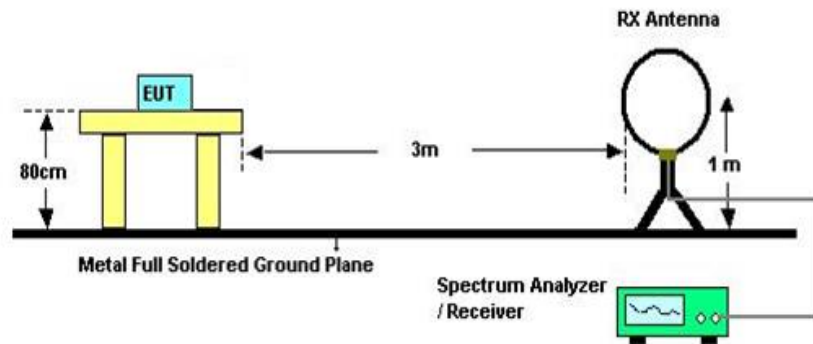
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218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

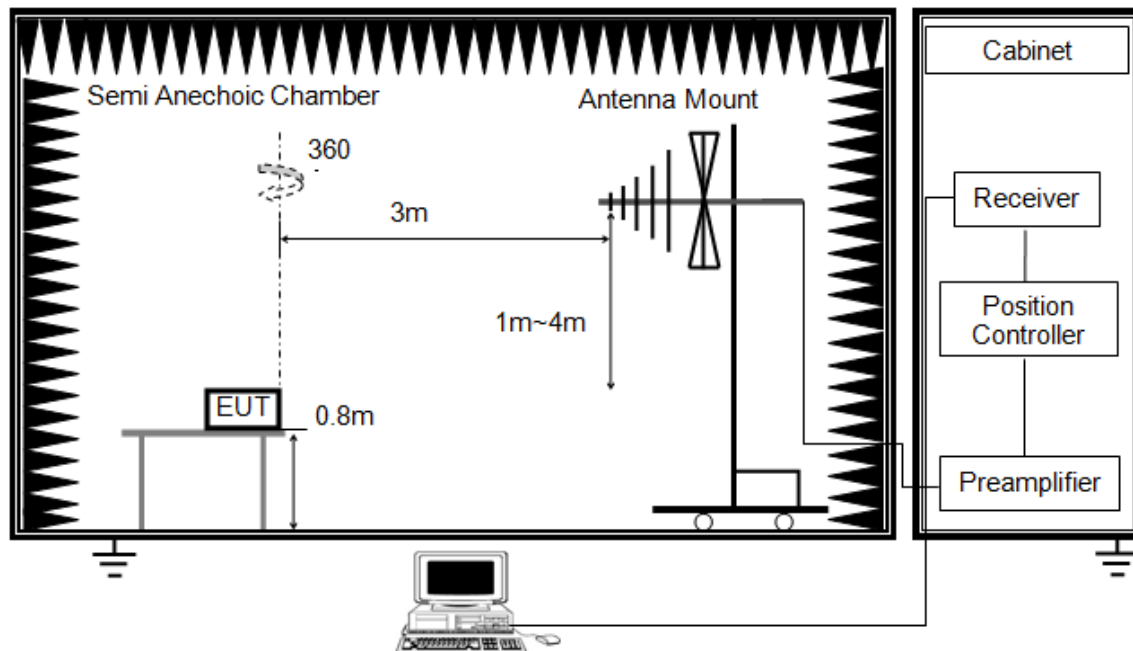


The setting of the spectrum analyser

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 area test 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

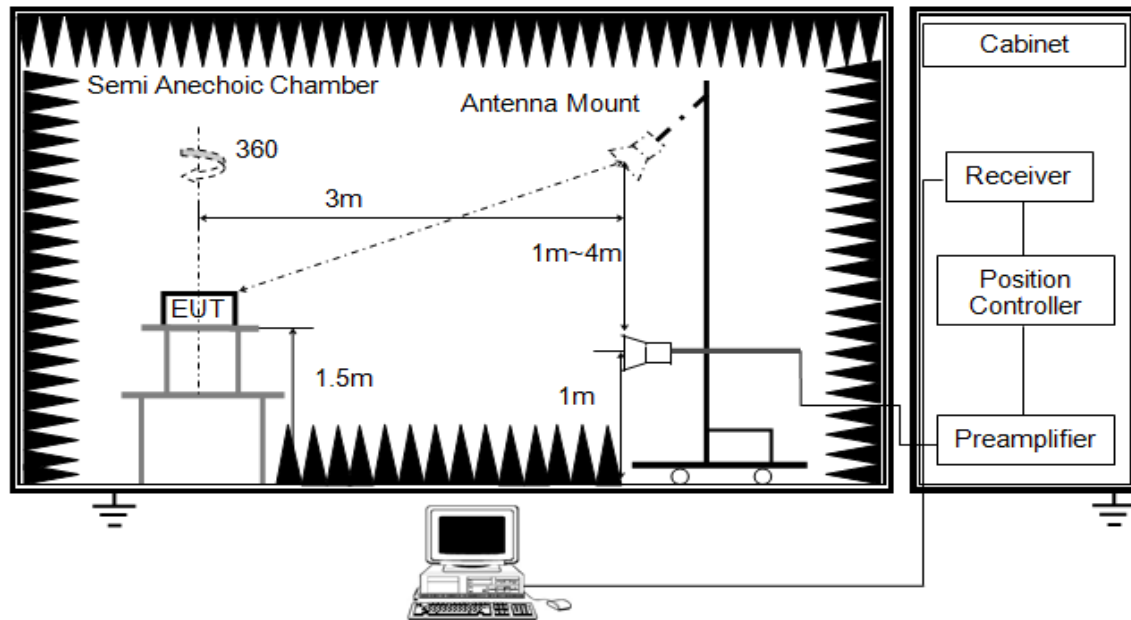


The setting of the spectrum analyser

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



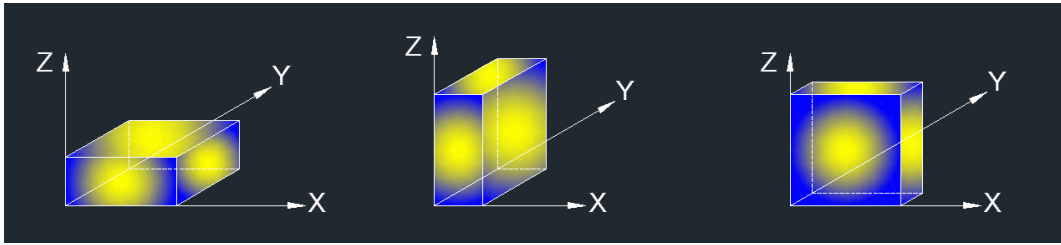
The setting of the spectrum analyser

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. Average Value=Peak Value + Duty Correction Factor

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:

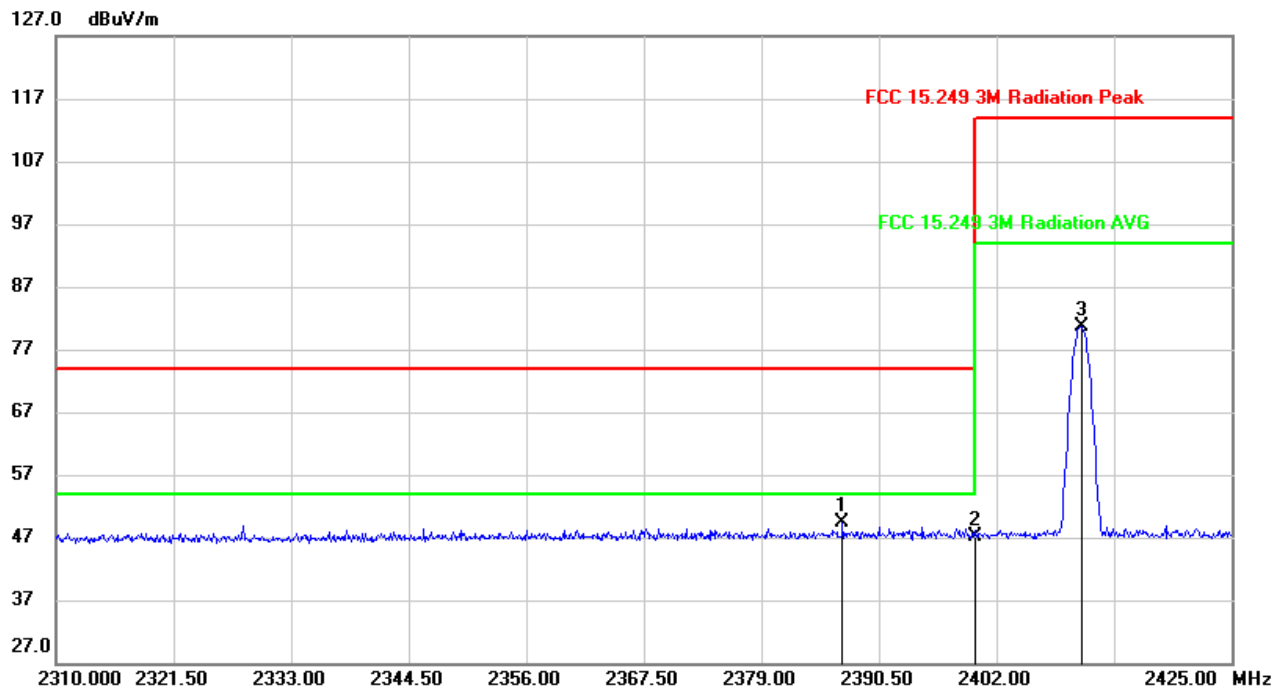


Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.



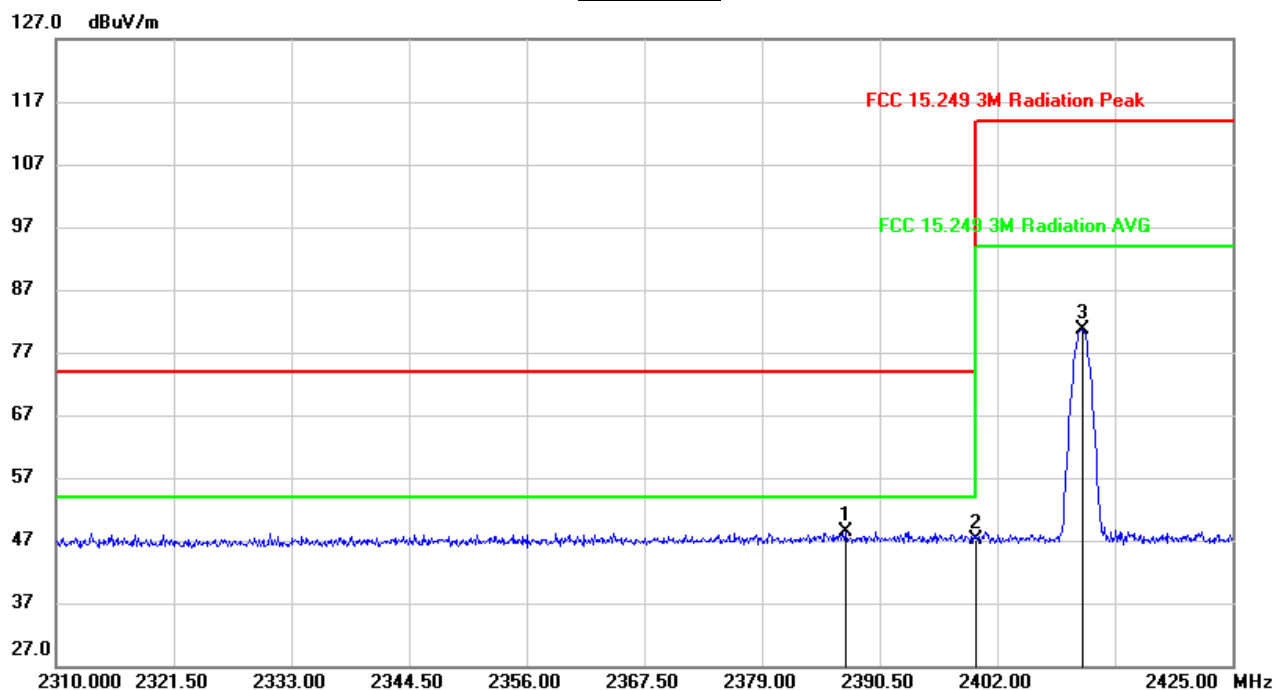
7.2. RESTRICTED BANDEDGE AND FIELD STRENGTH OF INTENTIONAL EMISSIONS

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



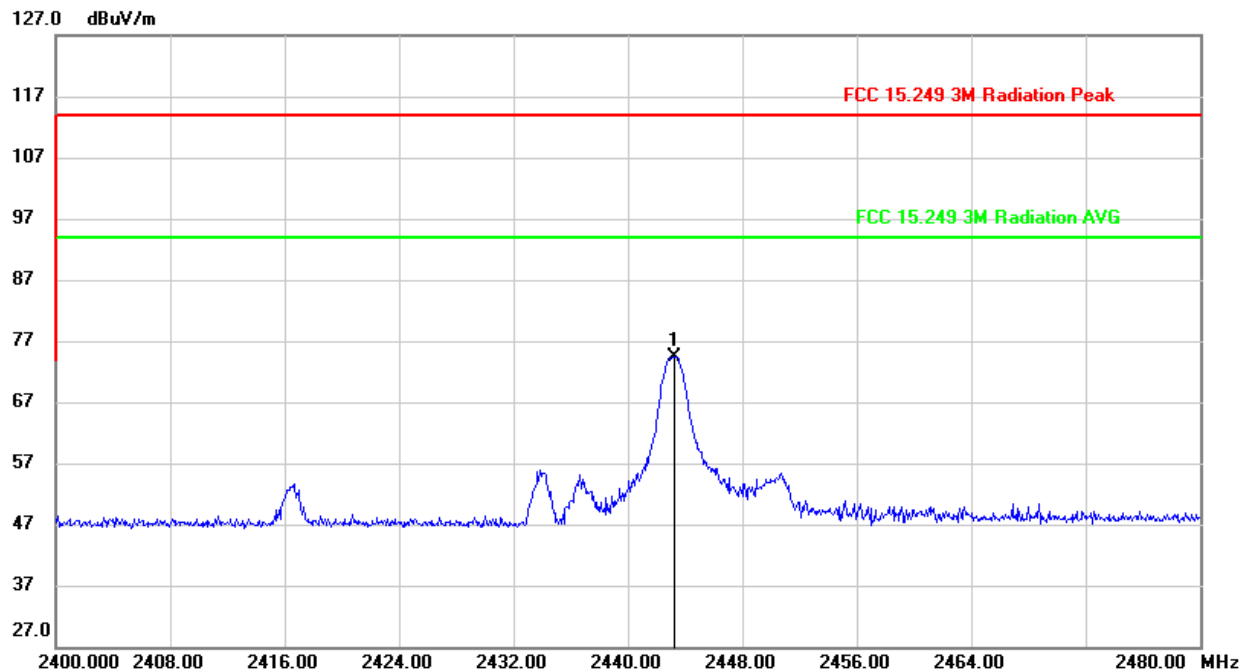
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.935	16.34	32.94	49.28	74.00	-24.72	peak
2	2400.000	14.16	32.98	47.14	74.00	-26.86	peak
3	2410.280	47.69	33.06	80.75	114.00	-33.25	peak

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. 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)**

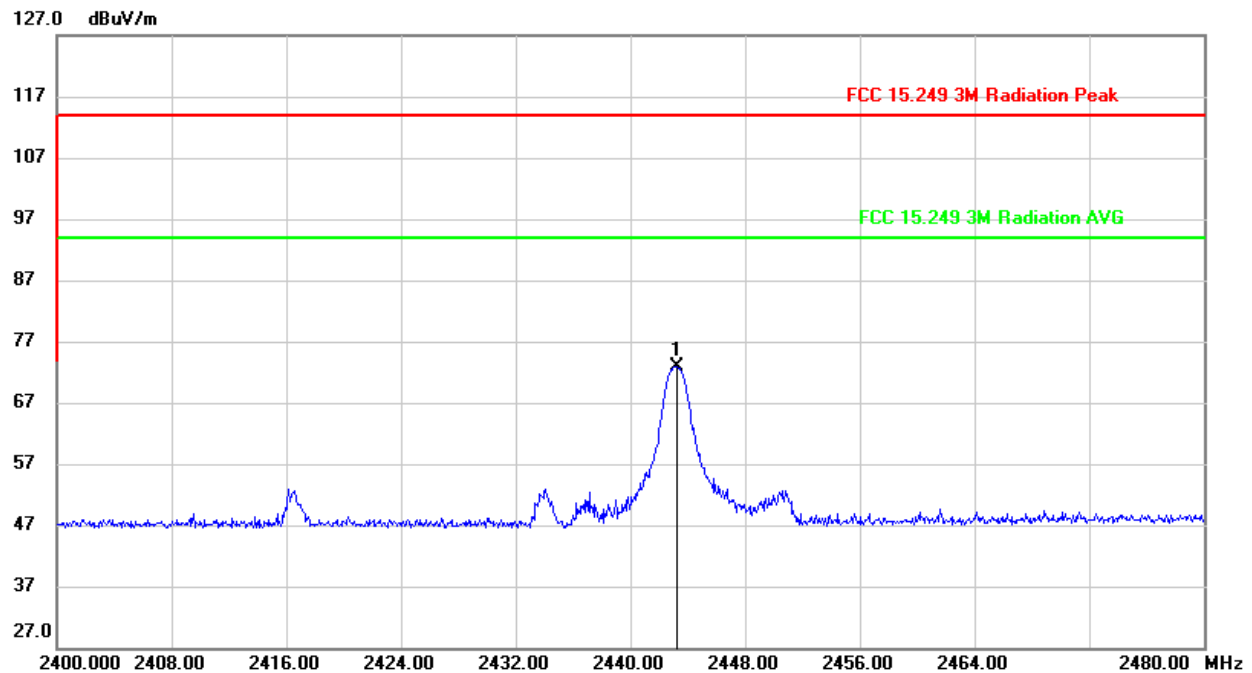
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.165	15.50	32.94	48.44	74.00	-25.56	peak
2	2400.000	14.21	32.98	47.19	74.00	-26.81	peak
3	2410.280	47.64	33.06	80.70	114.00	-33.30	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. 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/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2443.280	41.10	33.29	74.39	114.00	-39.61	peak

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

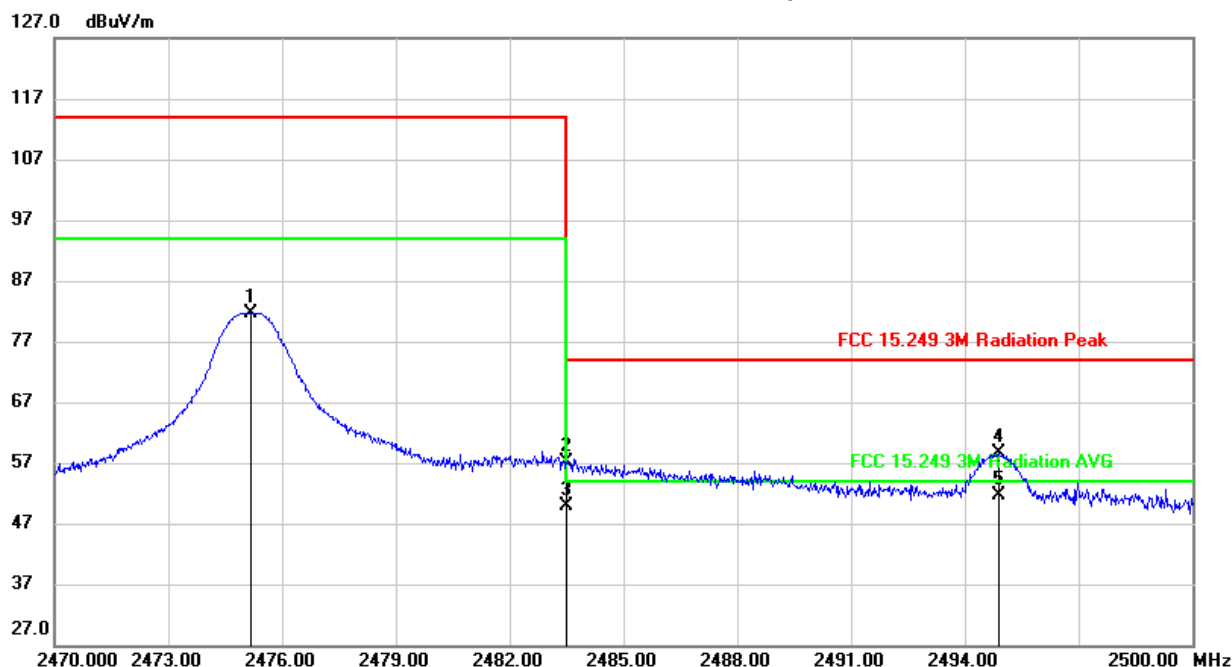
**FIELD STRENGTH OF INTENTIONAL EMISSIONS (MIDDLE CHANNEL, VERTICAL)**

No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2443.200	39.61	33.29	72.90	114.00	-41.10	peak

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



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

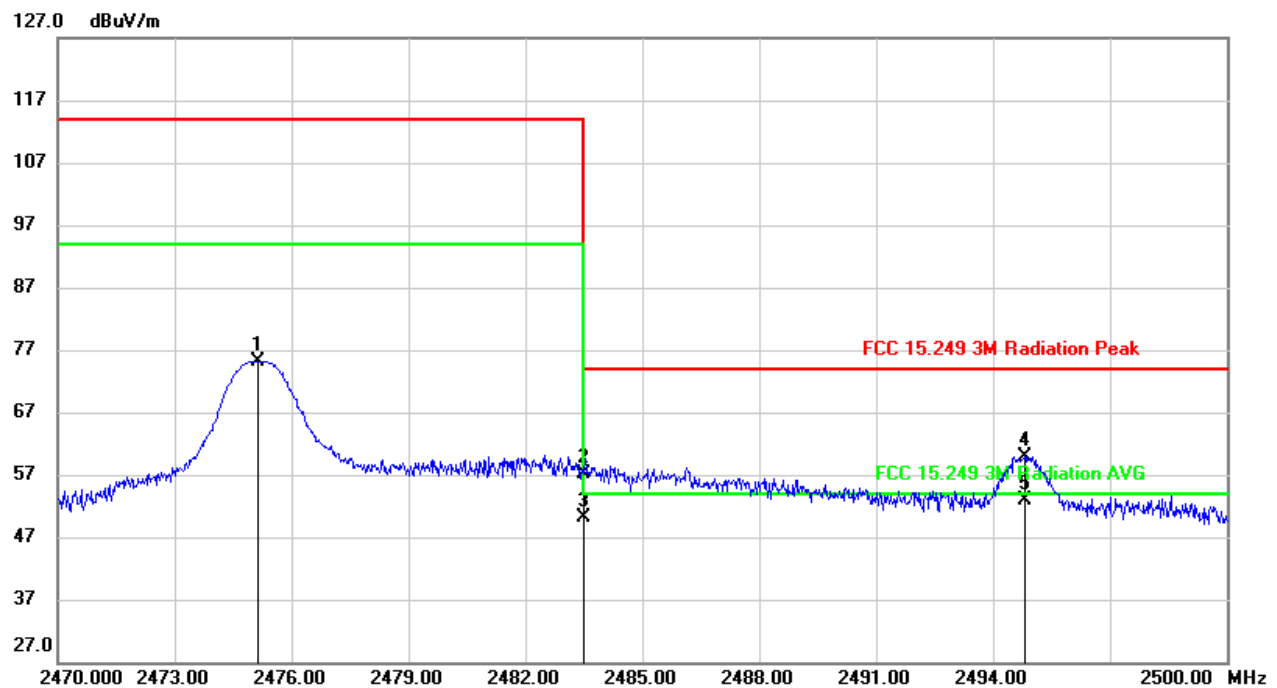


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2475.160	48.20	33.52	81.72	114.00	-32.28	peak
2	2483.500	23.45	33.58	57.03	74.00	-16.97	peak
3	2483.500	/	/	50.33	54.00	-3.67	AVG
4	2494.900	24.98	33.66	58.64	74.00	-15.36	peak
5	2494.900	/	/	51.94	54.00	-2.06	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 Correction Factor.
5. For the Duty Cycle and Correction Factor, 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.



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



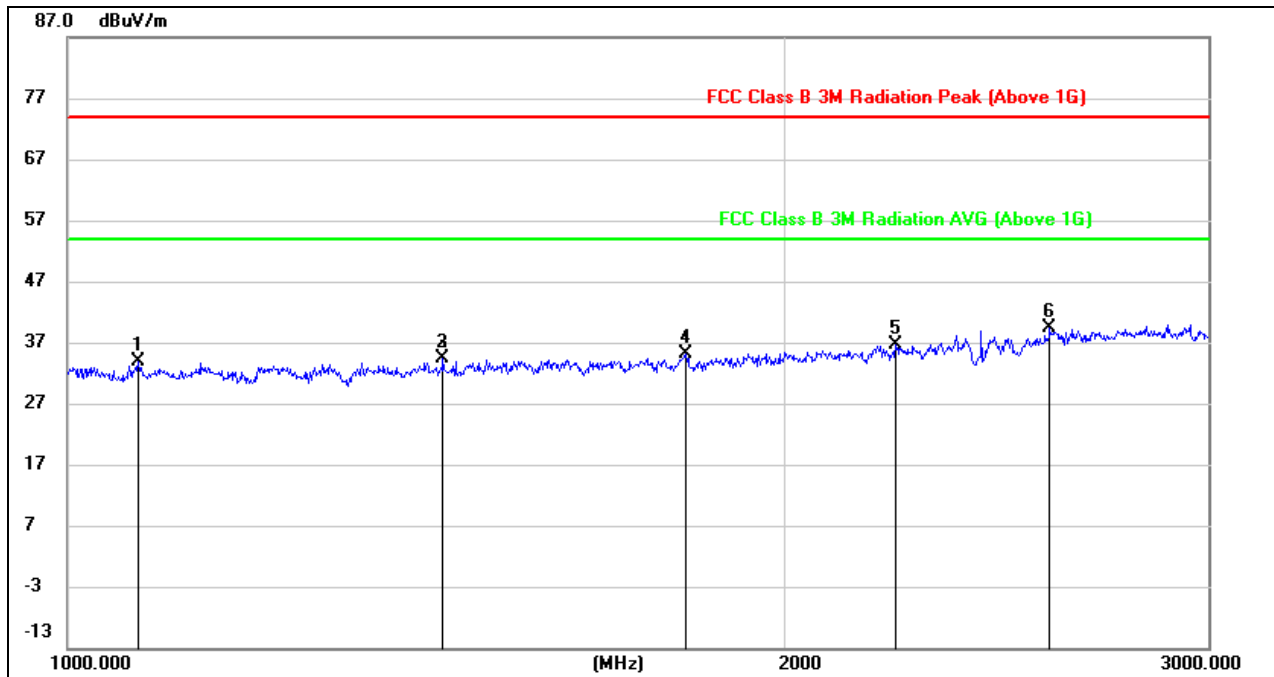
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2475.130	41.68	33.52	75.20	114.00	-38.80	peak
2	2483.500	23.53	33.58	57.11	74.00	-16.89	peak
3	2483.500	/	/	50.41	54.00	-3.59	AVG
4	2494.810	26.25	33.66	59.91	74.00	-14.09	peak
5	2494.810	/	/	53.21	54.00	-0.79	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 Correction Factor.
5. For the Duty Cycle and Correction Factor, 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)

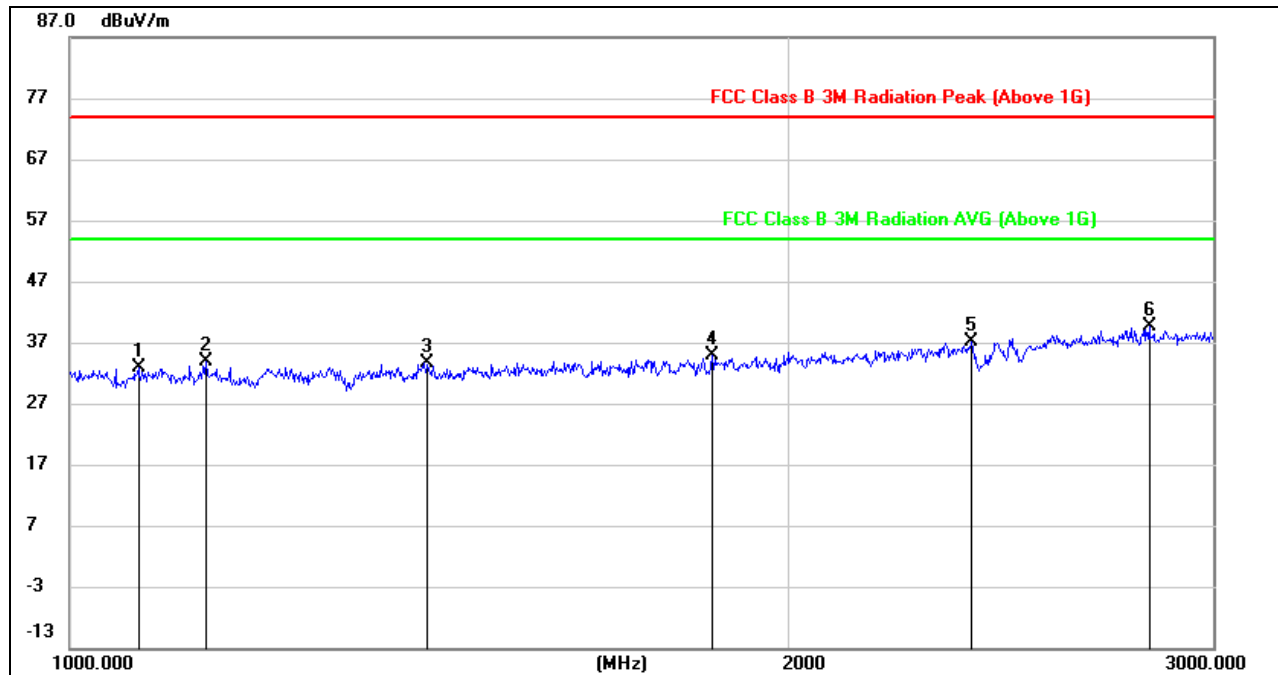


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1071.664	46.69	-12.75	33.94	74.00	-40.06	peak
2	1435.400	46.22	-11.81	34.41	74.00	-39.59	peak
3	1435.400	46.22	-11.81	34.41	74.00	-39.59	peak
4	1813.843	44.47	-9.40	35.07	74.00	-38.93	peak
5	2220.189	44.88	-8.25	36.63	74.00	-37.37	peak
6	2575.143	46.18	-6.69	39.49	74.00	-34.51	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.

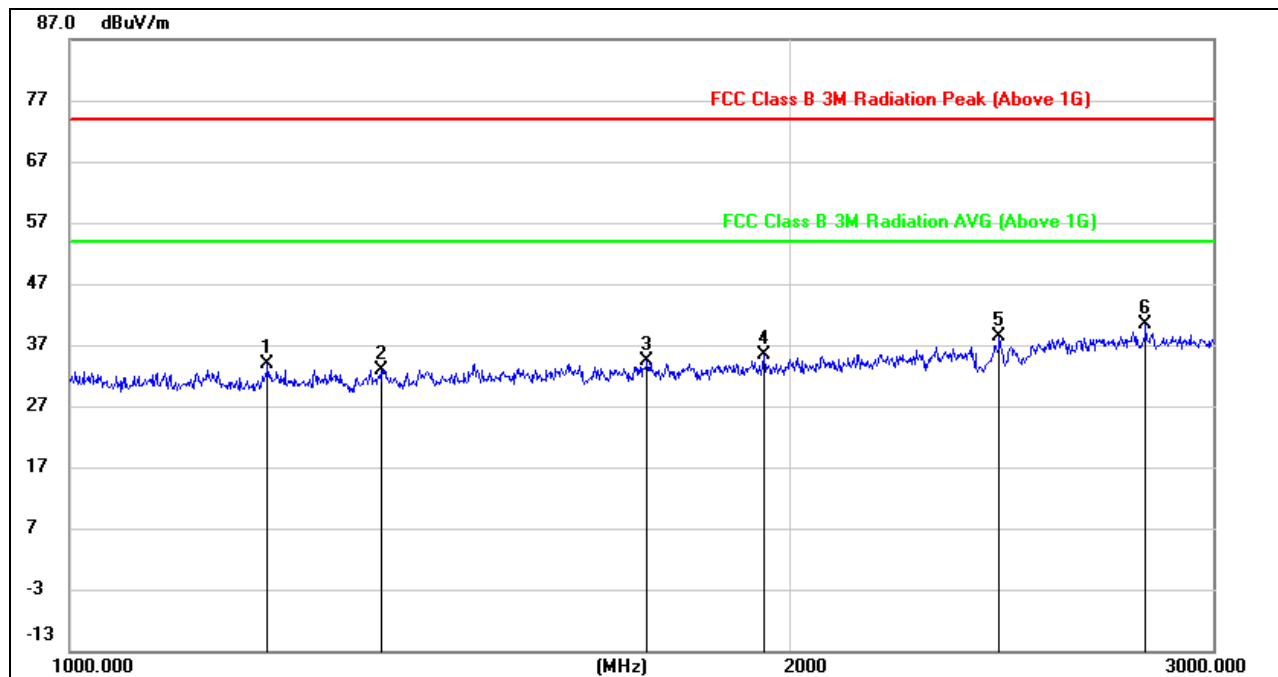


HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



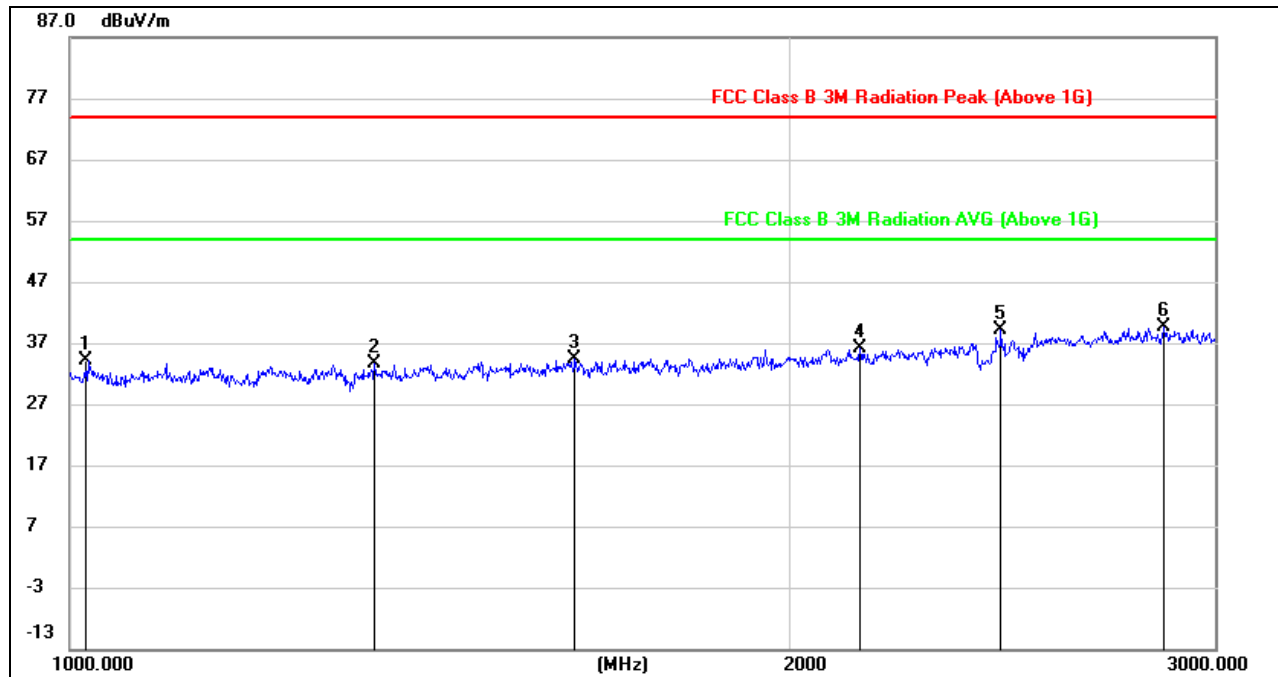
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1069.312	45.68	-12.76	32.92	74.00	-41.08	peak
2	1139.666	46.35	-12.53	33.82	74.00	-40.18	peak
3	1407.294	45.42	-11.90	33.52	74.00	-40.48	peak
4	1856.176	44.25	-9.36	34.89	74.00	-39.11	peak
5	2379.297	44.27	-7.19	37.08	74.00	-36.92	peak
6	2820.996	44.76	-5.18	39.58	74.00	-34.42	peak

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

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

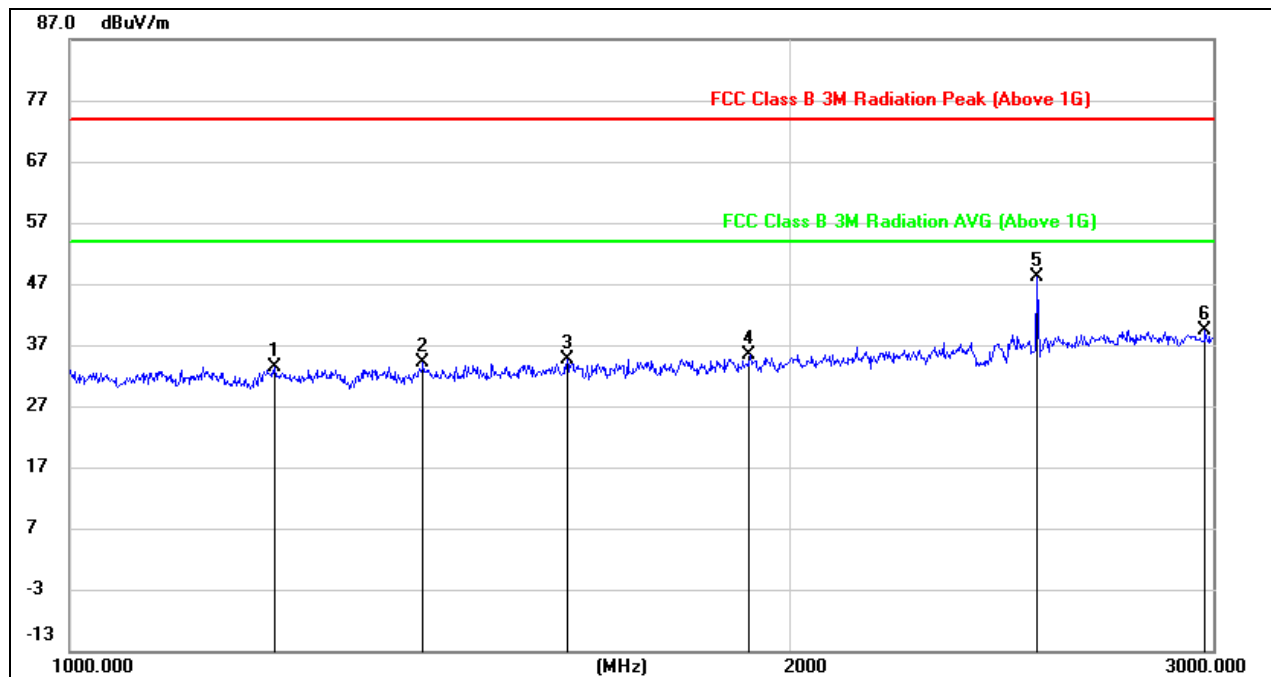
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1210.651	46.25	-12.31	33.94	74.00	-40.06	peak
2	1351.236	44.41	-11.58	32.83	74.00	-41.17	peak
3	1741.591	44.62	-10.17	34.45	74.00	-39.55	peak
4	1950.247	45.01	-9.55	35.46	74.00	-38.54	peak
5	2442.866	45.20	-6.78	38.42	74.00	-35.58	peak
6	2811.714	45.53	-5.19	40.34	74.00	-33.66	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. 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	1017.733	47.12	-13.02	34.10	74.00	-39.90	peak
2	1339.412	45.15	-11.49	33.66	74.00	-40.34	peak
3	1625.128	44.95	-10.63	34.32	74.00	-39.68	peak
4	2134.095	44.54	-8.36	36.18	74.00	-37.82	peak
5	2442.866	45.85	-6.78	39.07	74.00	-34.93	peak
6	2858.432	44.84	-5.16	39.68	74.00	-34.32	peak

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

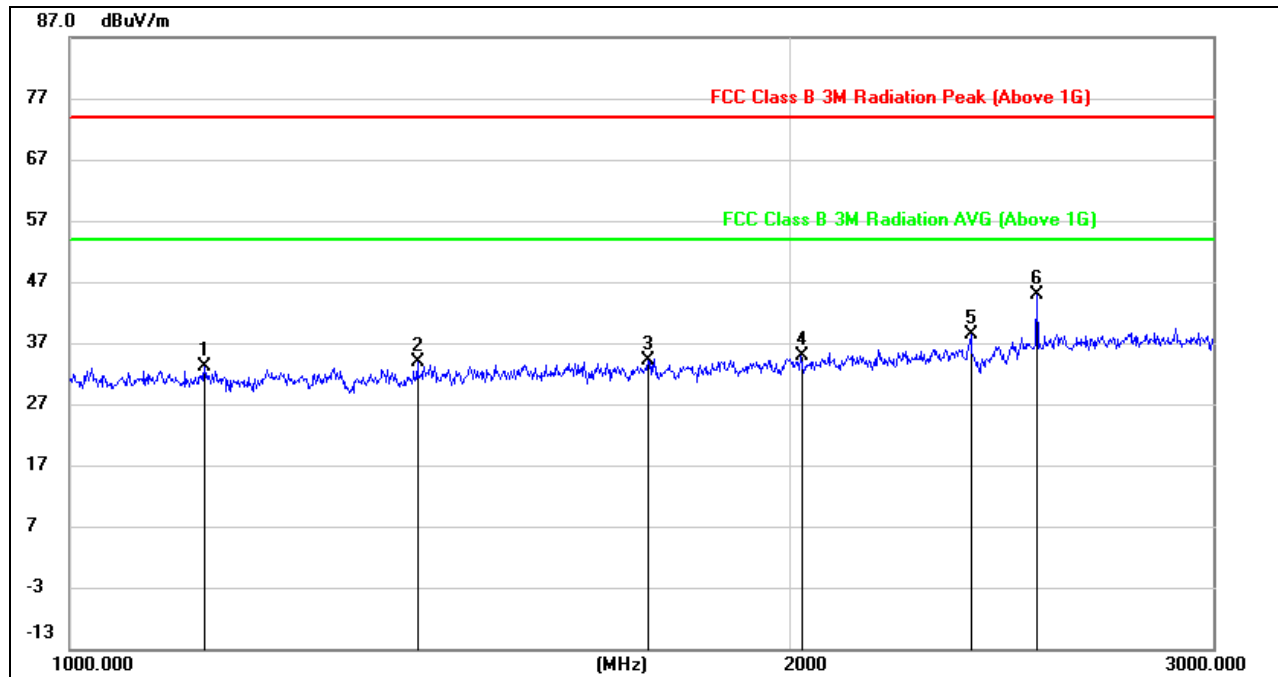
**HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)**

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1217.320	45.52	-12.23	33.29	74.00	-40.71	peak
2	1404.205	46.00	-11.90	34.10	74.00	-39.90	peak
3	1612.678	45.22	-10.62	34.60	74.00	-39.40	peak
4	1922.592	44.85	-9.40	35.45	74.00	-38.55	peak
5	2535.839	54.57	-6.50	48.07	74.00	-25.93	peak
6	2977.018	44.05	-4.72	39.33	74.00	-34.67	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 (HIGH CHANNEL, VERTICAL)



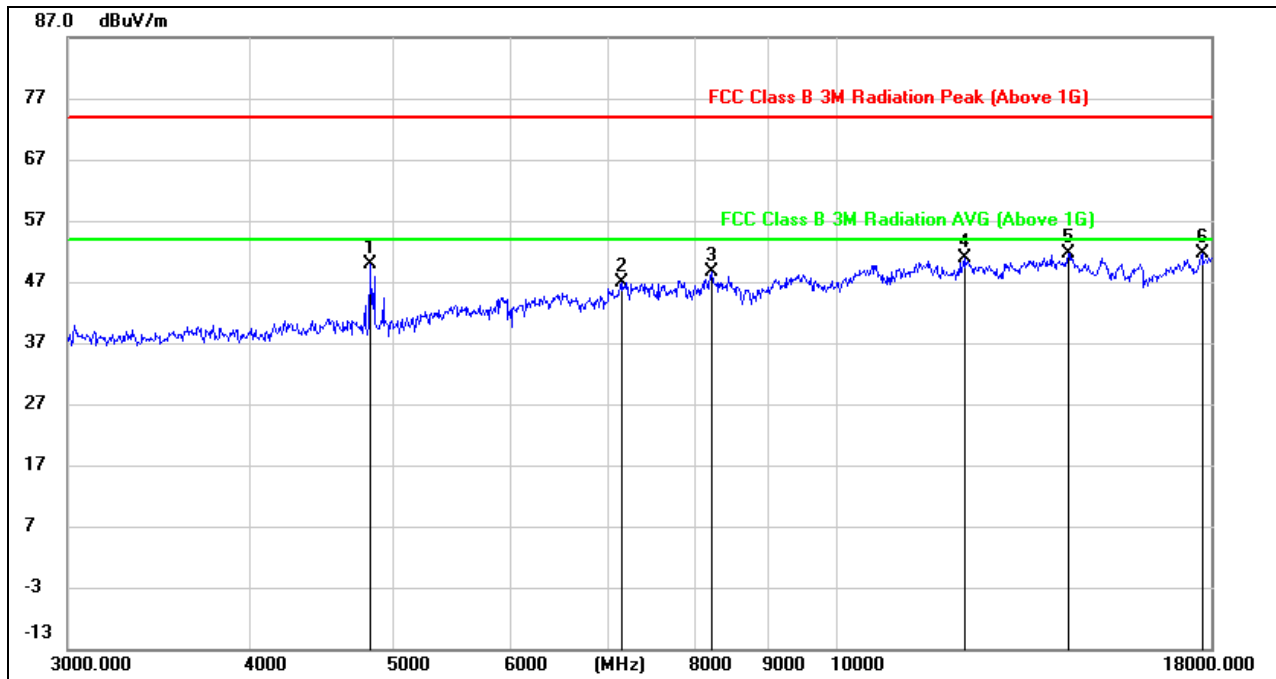
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1138.414	45.72	-12.53	33.19	74.00	-40.81	peak
2	1396.513	45.67	-11.90	33.77	74.00	-40.23	peak
3	1743.506	44.30	-10.14	34.16	74.00	-39.84	peak
4	2020.029	44.33	-9.49	34.84	74.00	-39.16	peak
5	2379.297	45.49	-7.19	38.30	74.00	-35.70	peak
6	2535.839	51.28	-6.50	44.78	74.00	-29.22	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.



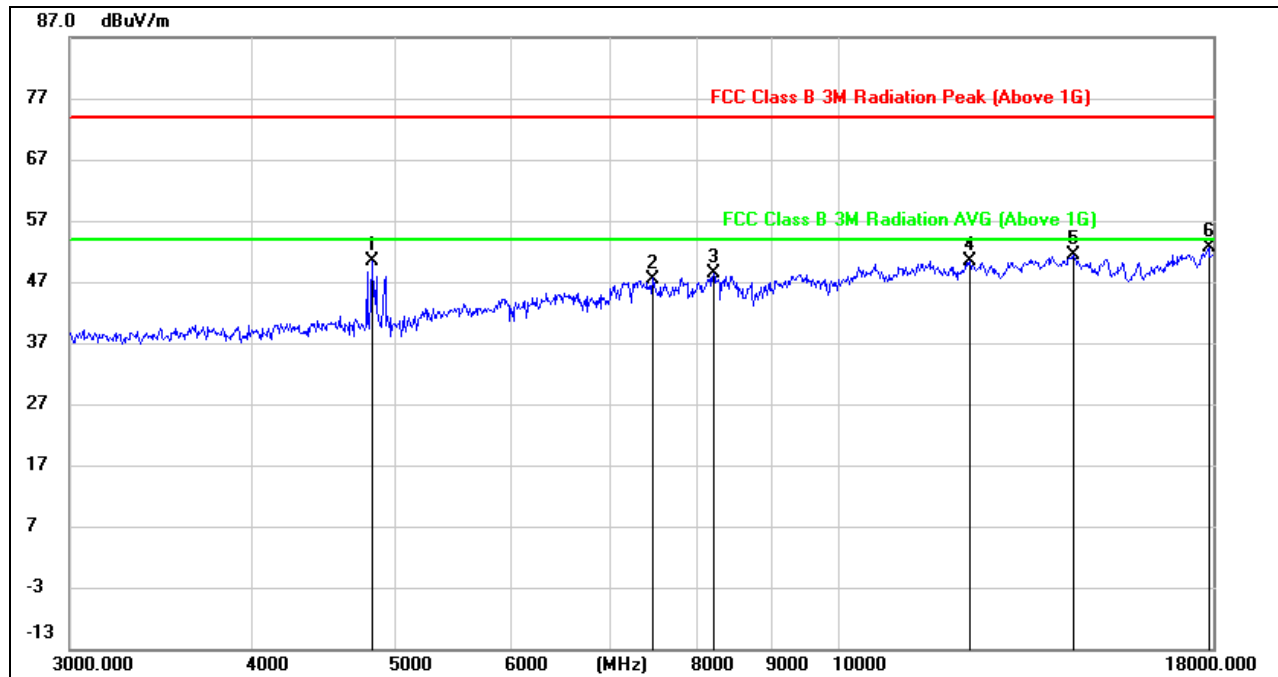
7.4. SPURIOUS EMISSIONS (3~18GHz)

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



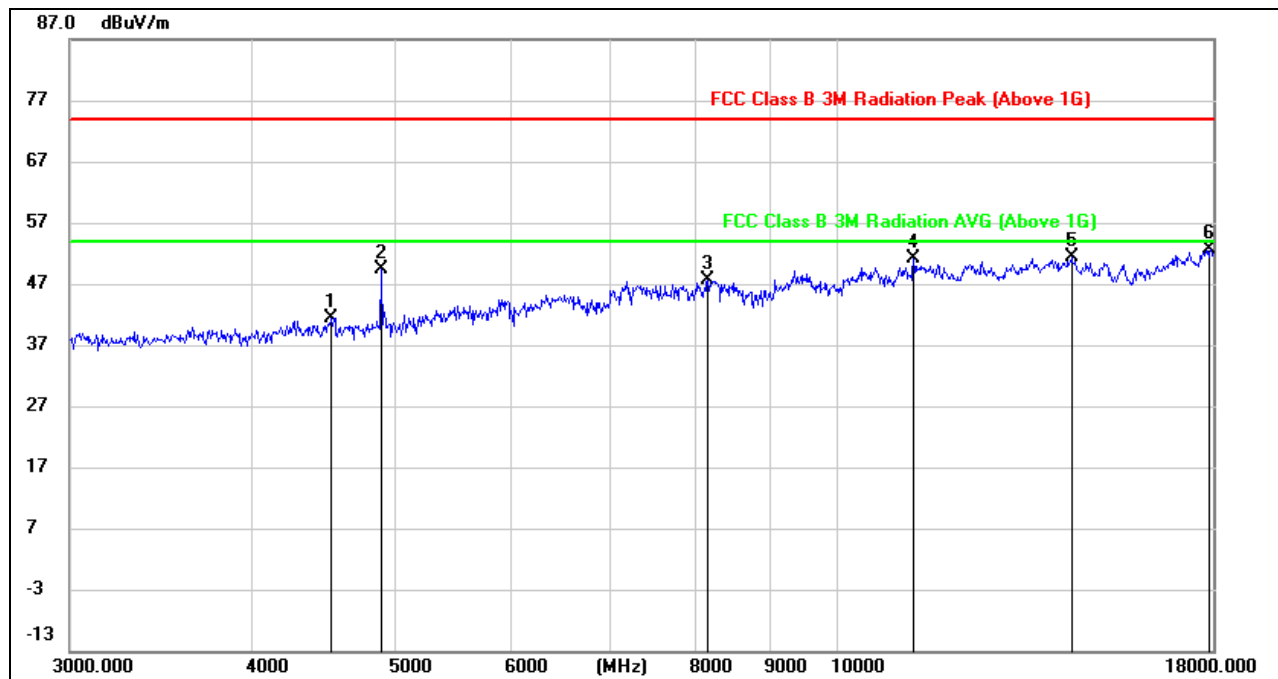
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4814.522	50.19	-0.23	49.96	74.00	-24.04	peak
2	7153.599	39.88	6.88	46.76	74.00	-27.24	peak
3	8226.601	39.26	9.33	48.59	74.00	-25.41	peak
4	12223.395	36.57	14.26	50.83	74.00	-23.17	peak
5	14388.105	35.32	16.42	51.74	74.00	-22.26	peak
6	17743.827	28.84	22.67	51.51	74.00	-22.49	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)**

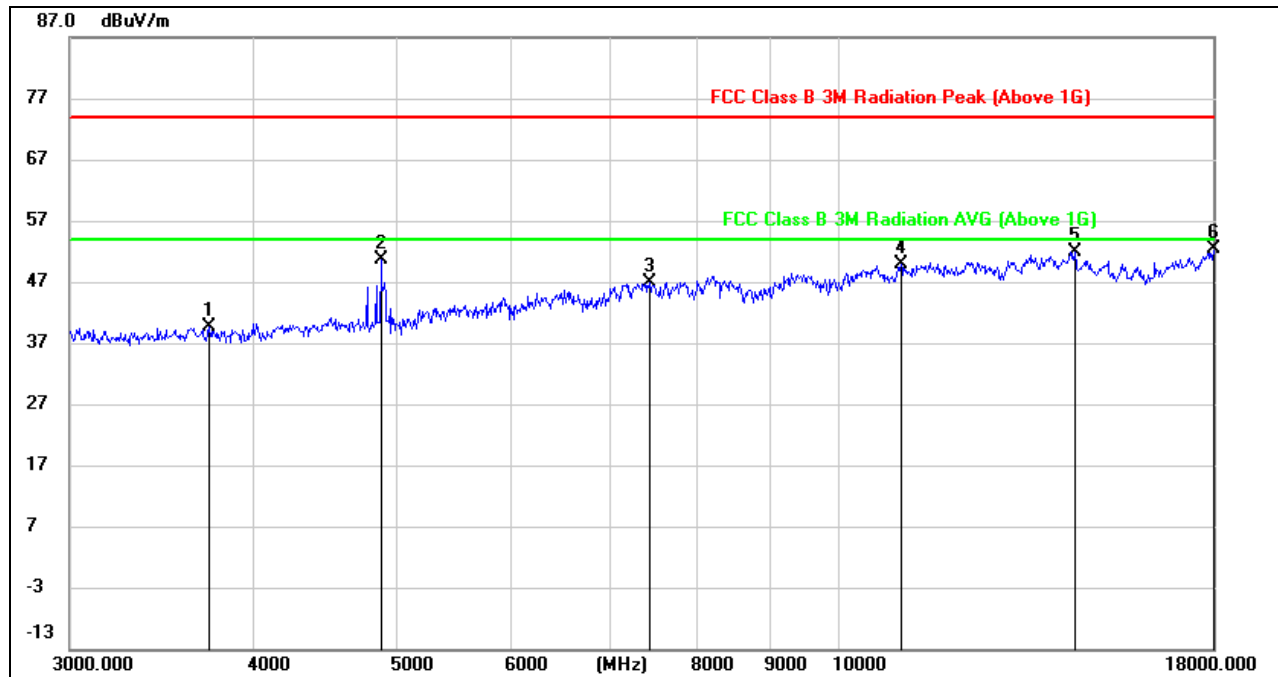
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4814.522	50.64	-0.23	50.41	74.00	-23.59	peak
2	7481.323	40.19	7.31	47.50	74.00	-26.50	peak
3	8226.601	38.93	9.33	48.26	74.00	-25.74	peak
4	12289.276	36.01	14.38	50.39	74.00	-23.61	peak
5	14465.653	35.03	16.35	51.38	74.00	-22.62	peak
6	17871.455	29.35	23.18	52.53	74.00	-21.47	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 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)**

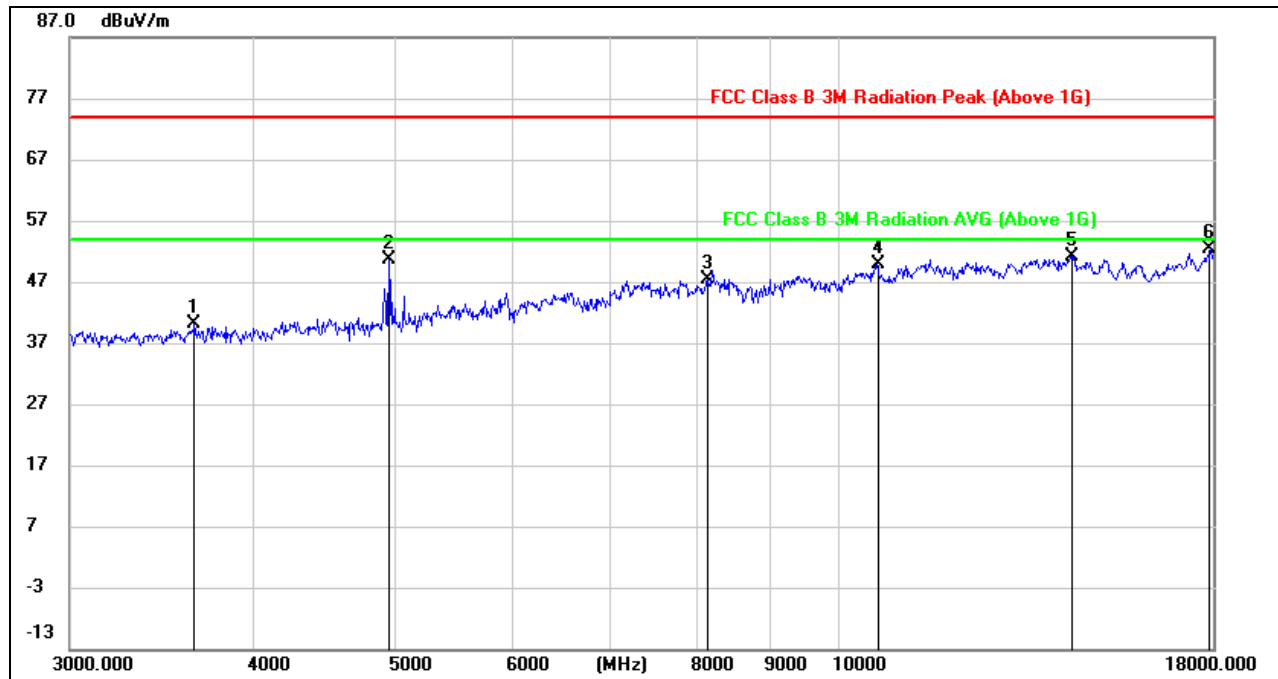
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4521.868	42.60	-1.10	41.50	74.00	-32.50	peak
2	4884.031	49.46	-0.12	49.34	74.00	-24.66	peak
3	8153.229	38.39	9.35	47.74	74.00	-26.26	peak
4	11276.518	38.14	12.94	51.08	74.00	-22.92	peak
5	14413.908	34.89	16.41	51.30	74.00	-22.70	peak
6	17935.612	29.42	23.19	52.61	74.00	-21.39	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)**

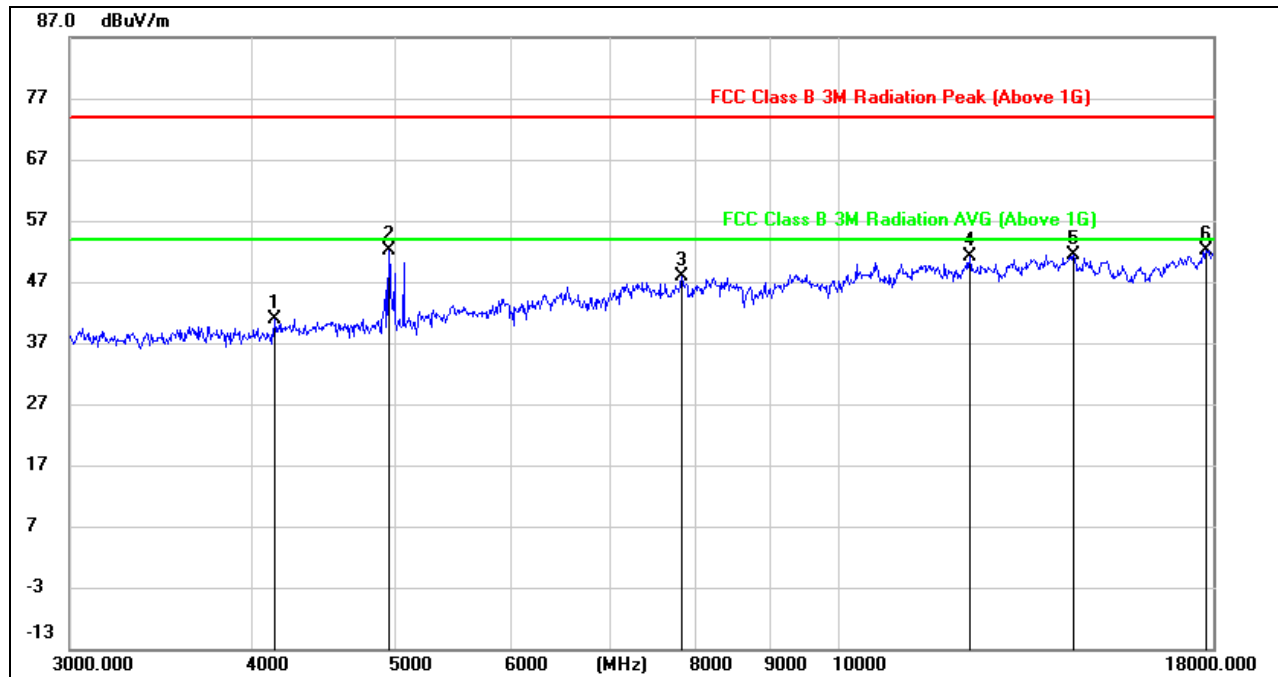
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3739.675	42.54	-2.95	39.59	74.00	-34.41	peak
2	4886.000	50.65	-0.11	50.54	74.00	-23.46	peak
3	7454.561	39.41	7.36	46.77	74.00	-27.23	peak
4	11036.649	36.58	13.27	49.85	74.00	-24.15	peak
5	14491.596	35.59	16.31	51.90	74.00	-22.10	peak
6	18000.000	29.14	23.27	52.41	74.00	-21.59	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	3647.033	43.46	-3.30	40.16	74.00	-33.84	peak
2	4945.674	50.41	0.17	50.58	74.00	-23.42	peak
3	8153.229	37.99	9.35	47.34	74.00	-26.66	peak
4	10648.151	37.33	12.51	49.84	74.00	-24.16	peak
5	14439.758	34.86	16.39	51.25	74.00	-22.75	peak
6	17935.612	29.19	23.19	52.38	74.00	-21.62	peak

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

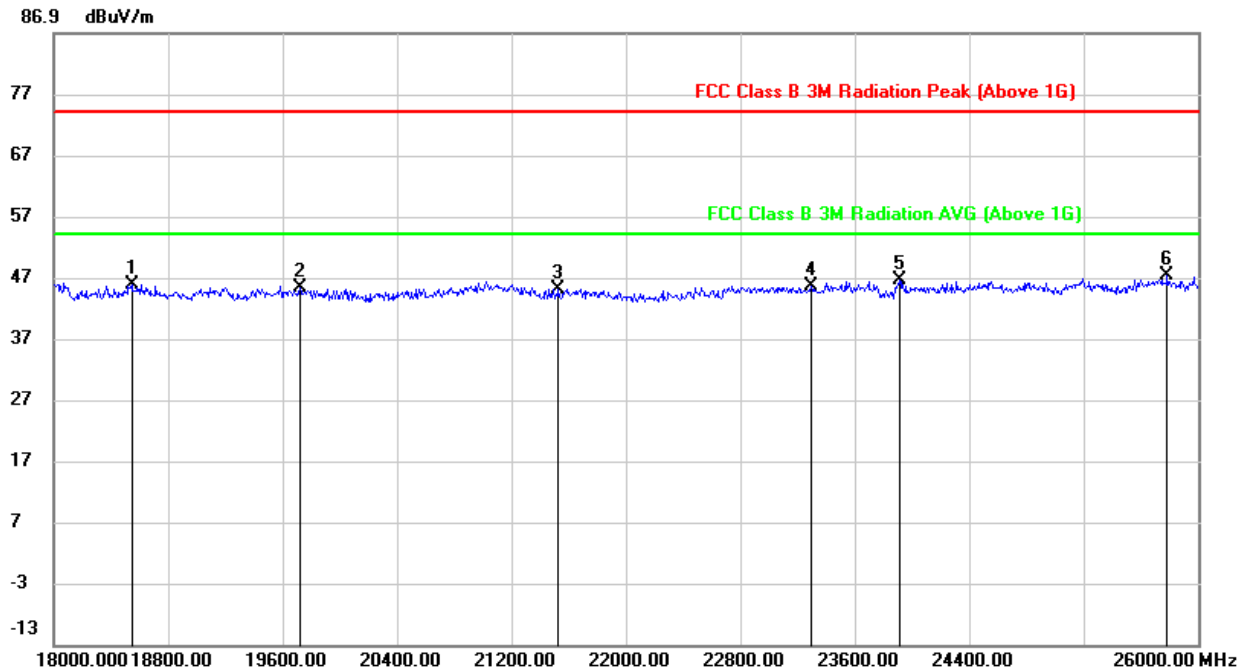
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4134.379	43.31	-2.52	40.79	74.00	-33.21	peak
2	4945.674	51.97	0.17	52.14	74.00	-21.86	peak
3	7824.060	39.16	8.77	47.93	74.00	-26.07	peak
4	12289.276	36.71	14.38	51.09	74.00	-22.91	peak
5	14465.653	35.06	16.35	51.41	74.00	-22.59	peak
6	17807.526	28.98	23.21	52.19	74.00	-21.81	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 High Pass filter loss factor already add into the correct factor.
5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



7.5. SPURIOUS EMISSIONS (18~26GHz)

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

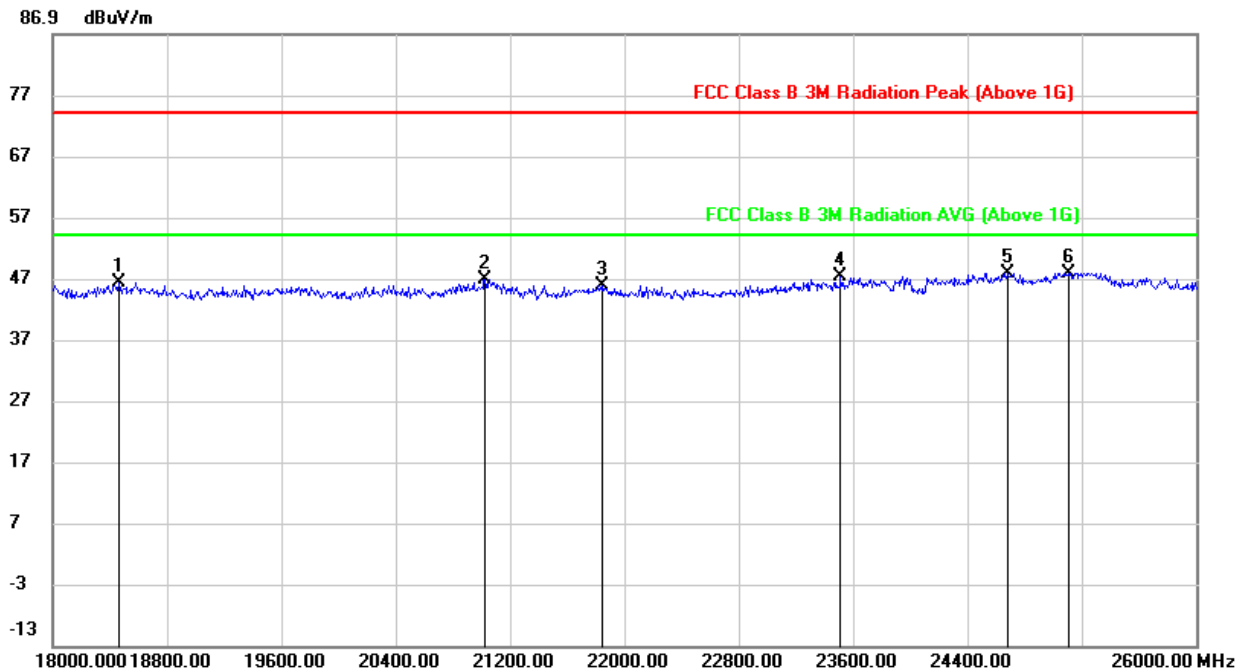


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18544.000	50.26	-4.46	45.80	74.00	-28.20	peak
2	19720.000	49.58	-4.39	45.19	74.00	-28.81	peak
3	21528.000	50.92	-5.78	45.14	74.00	-28.86	peak
4	23296.000	50.80	-5.16	45.64	74.00	-28.36	peak
5	23912.000	50.82	-4.23	46.59	74.00	-27.41	peak
6	25784.000	48.73	-1.49	47.24	74.00	-26.76	peak

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



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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18464.000	50.70	-4.39	46.31	74.00	-27.69	peak
2	21024.000	52.14	-5.30	46.84	74.00	-27.16	peak
3	21848.000	51.76	-5.95	45.81	74.00	-28.19	peak
4	23512.000	52.01	-4.76	47.25	74.00	-26.75	peak
5	24680.000	49.98	-2.12	47.86	74.00	-26.14	peak
6	25104.000	49.02	-1.12	47.90	74.00	-26.10	peak

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

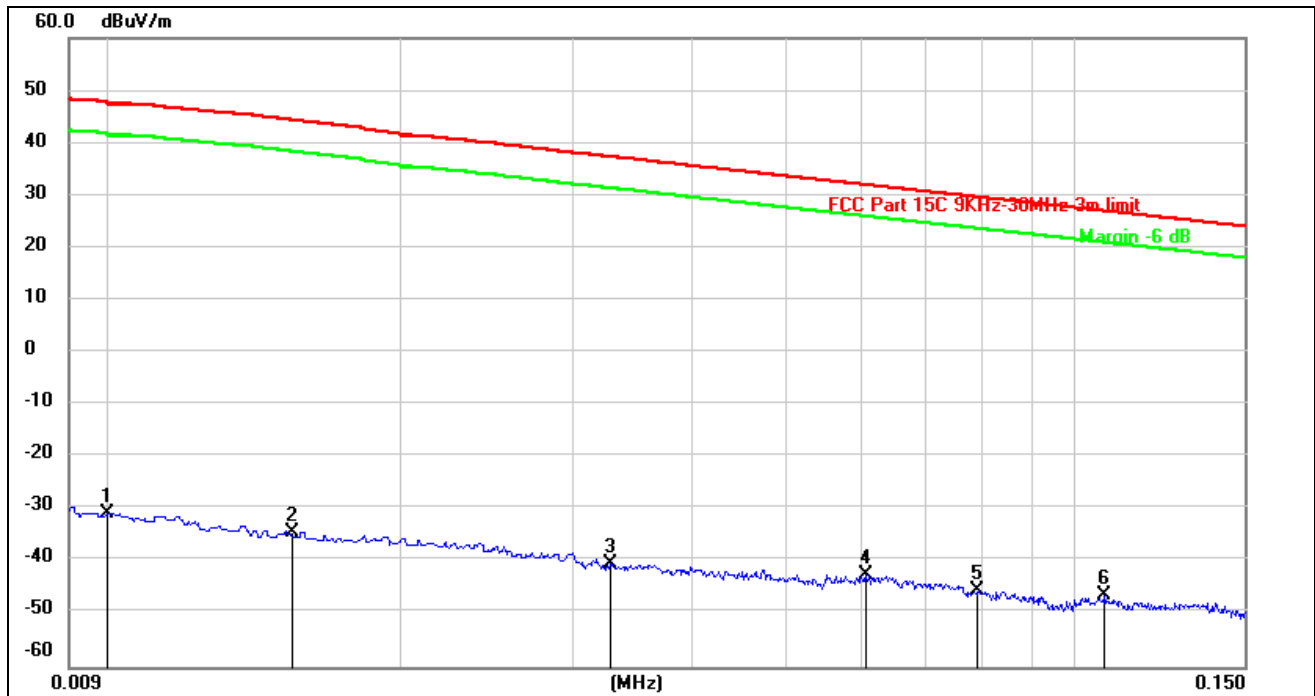
Note: All test mode has been tested, only the worst data record in the report.



7.6. SPURIOUS EMISSIONS BELOW 30M

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

9kHz~ 150kHz

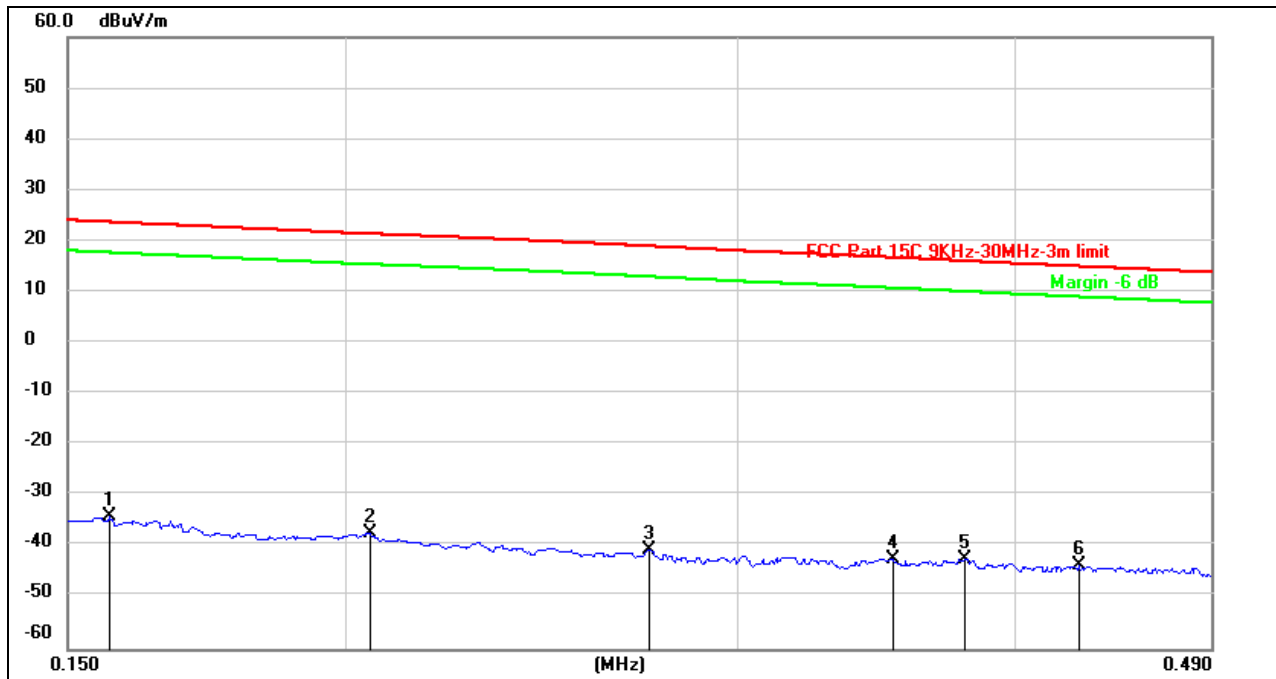


No.	Frequency (KHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0100	70.72	-101.40	-30.68	47.60	-78.28	peak
2	0.0154	66.94	-101.37	-34.43	44.35	-78.78	peak
3	0.0328	60.98	-101.40	-40.42	37.36	-77.78	peak
4	0.0606	58.95	-101.52	-42.57	31.96	-74.53	peak
5	0.0792	56.05	-101.63	-45.58	29.63	-75.21	peak
6	0.1073	55.30	-101.77	-46.47	27.00	-73.47	peak

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

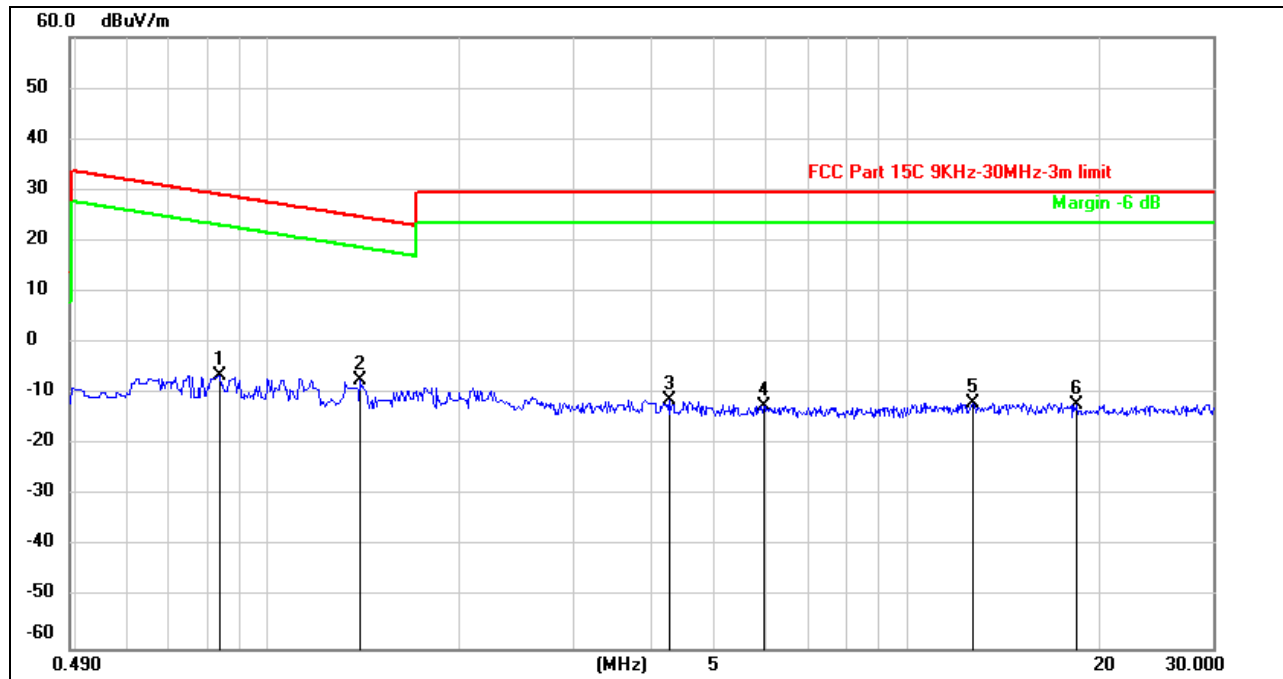


150kHz ~ 490kHz



No.	Frequency (KHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1565	67.53	-101.65	-34.12	23.72	-57.84	peak
2	0.2051	64.31	-101.73	-37.42	21.40	-58.82	peak
3	0.2736	61.08	-101.83	-40.75	18.99	-59.74	peak
4	0.3526	59.51	-101.91	-42.40	16.74	-59.14	peak
5	0.3800	59.52	-101.94	-42.42	16.06	-58.48	peak
6	0.4269	58.34	-101.99	-43.65	15.03	-58.68	peak

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

490kHz ~ 30MHz

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.8400	55.71	-62.17	-6.46	29.13	-35.59	peak
2	1.3931	54.68	-62.09	-7.41	24.72	-32.13	peak
3	4.2378	50.07	-61.37	-11.30	29.54	-40.84	peak
4	5.9789	49.02	-61.35	-12.33	29.54	-41.87	peak
5	12.6775	48.96	-60.92	-11.96	29.54	-41.50	peak
6	18.4314	48.79	-60.89	-12.10	29.54	-41.64	peak

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

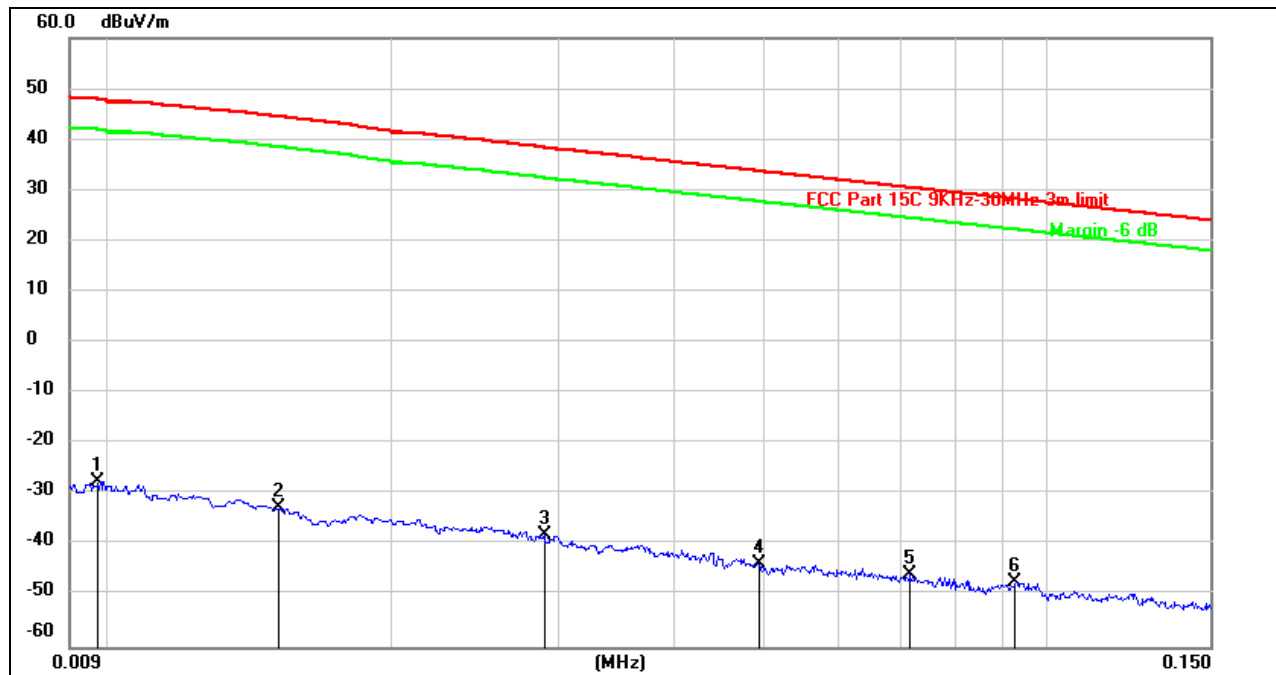
2. All the modes had been tested, but only the worst data were recorded in the report.

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



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

9kHz~ 150kHz

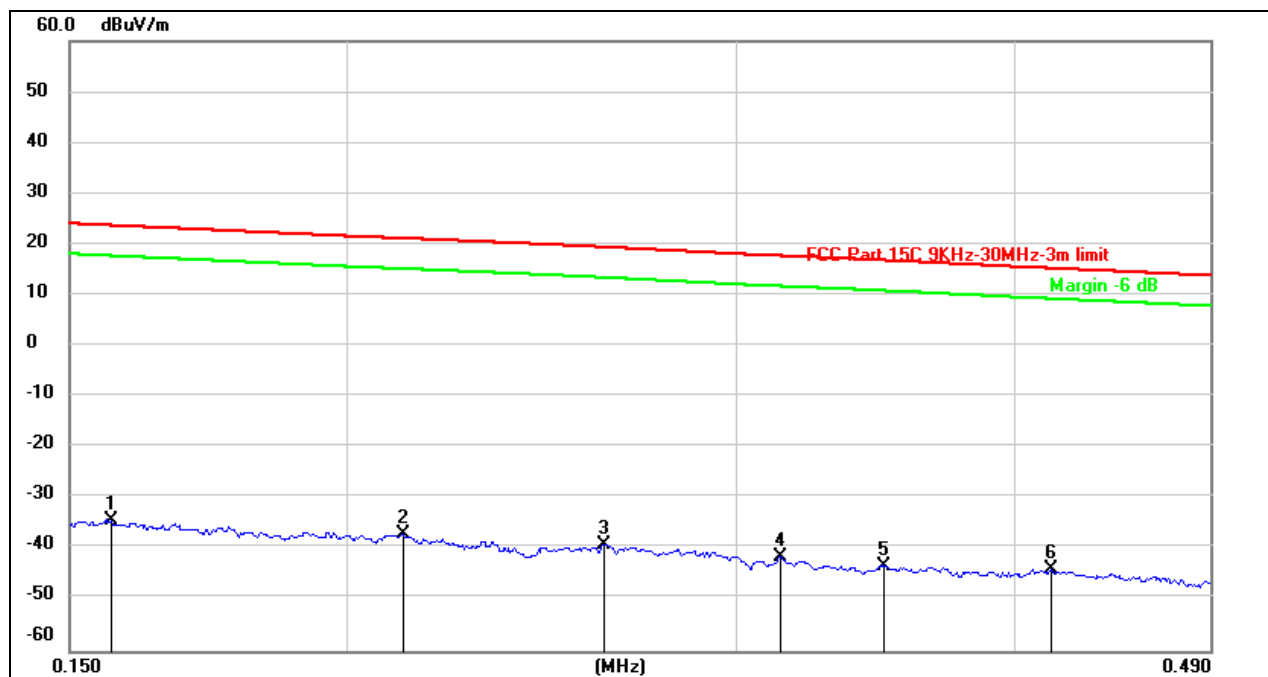


No.	Frequency (KHz)	Reading (dBUV)	Correct (dB/m)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Remark
1	0.0097	73.83	-101.38	-27.55	47.83	-75.38	peak
2	0.0151	68.85	-101.37	-32.52	44.53	-77.05	peak
3	0.0290	63.36	-101.38	-38.02	38.41	-76.43	peak
4	0.0492	57.80	-101.47	-43.67	33.78	-77.45	peak
5	0.0714	55.91	-101.57	-45.66	30.54	-76.20	peak
6	0.0926	54.57	-101.74	-47.17	28.28	-75.45	peak

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



150kHz ~ 490kHz

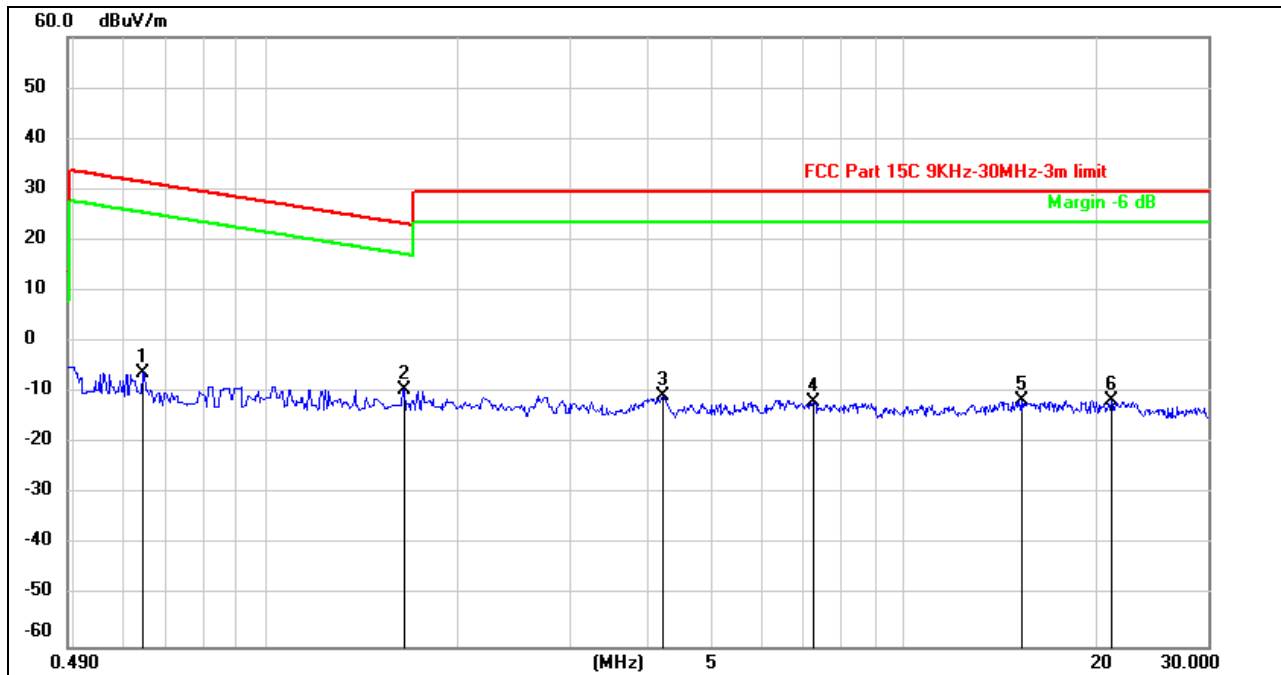


No.	Frequency (KHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1567	67.21	-101.65	-34.44	23.70	-58.14	peak
2	0.2121	64.59	-101.73	-37.14	21.15	-58.29	peak
3	0.2610	62.66	-101.81	-39.15	19.43	-58.58	peak
4	0.3139	60.24	-101.87	-41.63	17.71	-59.34	peak
5	0.3496	58.52	-101.91	-43.39	16.82	-60.21	peak
6	0.4158	57.89	-101.98	-44.09	15.25	-59.34	peak

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



490kHz ~ 30MHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.6429	55.96	-62.09	-6.13	31.46	-37.59	peak
2	1.6491	52.57	-61.98	-9.41	23.26	-32.67	peak
3	4.2083	50.72	-61.36	-10.64	29.54	-40.18	peak
4	7.2477	49.43	-61.18	-11.75	29.54	-41.29	peak
5	15.3040	49.40	-61.01	-11.61	29.54	-41.15	peak
6	21.2056	49.11	-60.74	-11.63	29.54	-41.17	peak

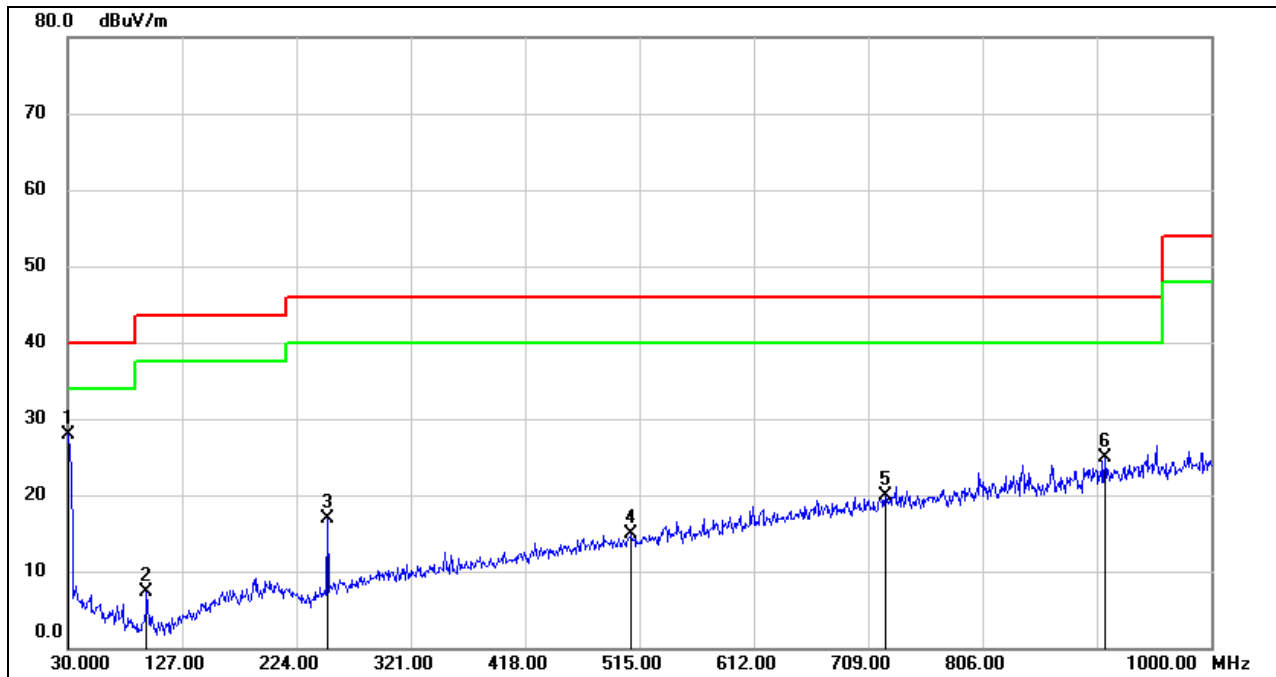
Note: 1. Measurement = Reading Level + Correct Factor.
2. All the modes had been tested, but only the worst data were recorded in the report.
3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

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



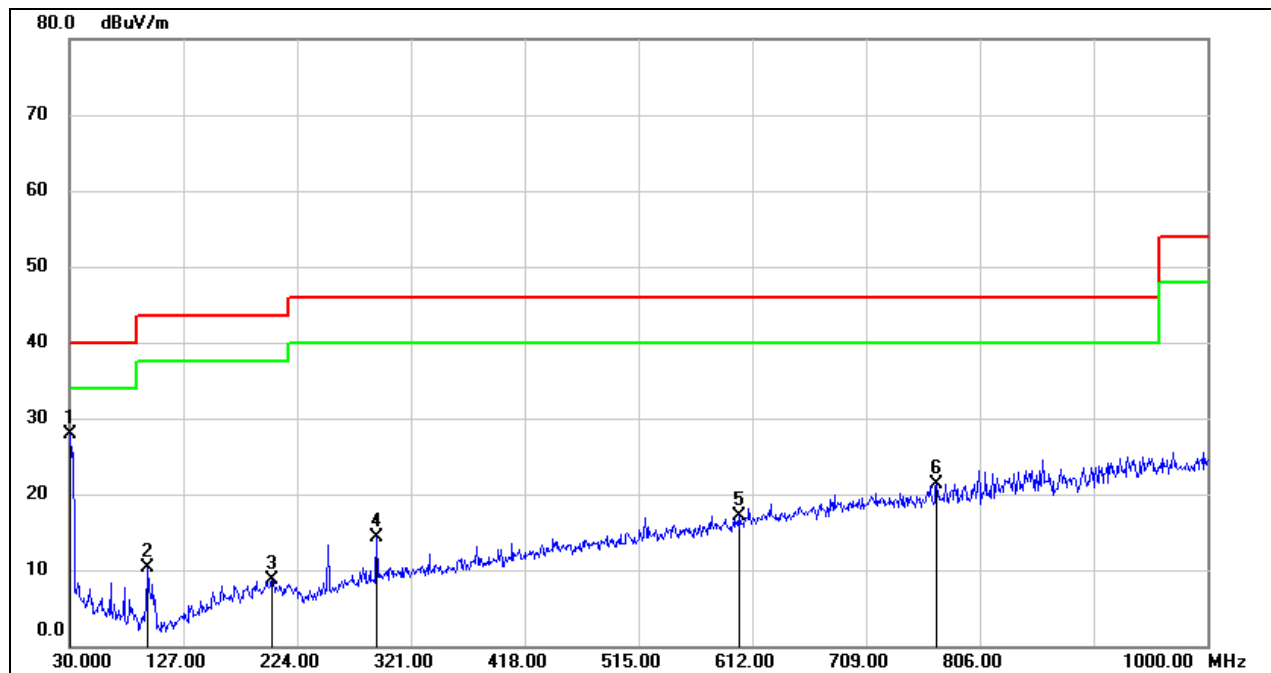
7.7. SPURIOUS EMISSIONS BELOW 1 GHz

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



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.9700	44.91	-16.95	27.96	40.00	-12.04	QP
2	96.9300	28.67	-21.38	7.29	43.50	-36.21	QP
3	250.1900	32.64	-15.76	16.88	46.00	-29.12	QP
4	508.2100	24.89	-9.90	14.99	46.00	-31.01	QP
5	723.5500	25.79	-5.79	20.00	46.00	-26.00	QP
6	909.7900	28.44	-3.61	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.

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.9700	44.91	-16.95	27.96	40.00	-12.04	QP
2	96.9300	31.63	-21.38	10.25	43.50	-33.25	QP
3	202.6600	24.41	-15.69	8.72	43.50	-34.78	QP
4	291.9000	28.27	-13.98	14.29	46.00	-31.71	QP
5	600.3600	25.26	-8.06	17.20	46.00	-28.80	QP
6	769.1400	26.85	-5.45	21.40	46.00	-24.60	QP

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

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

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

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

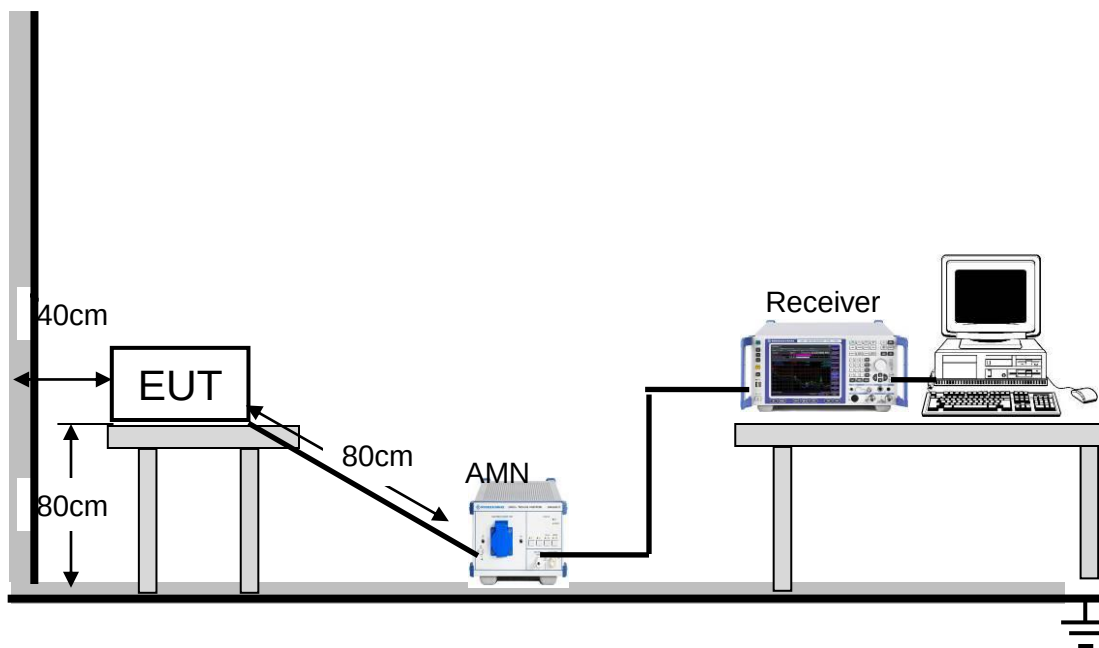
8. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

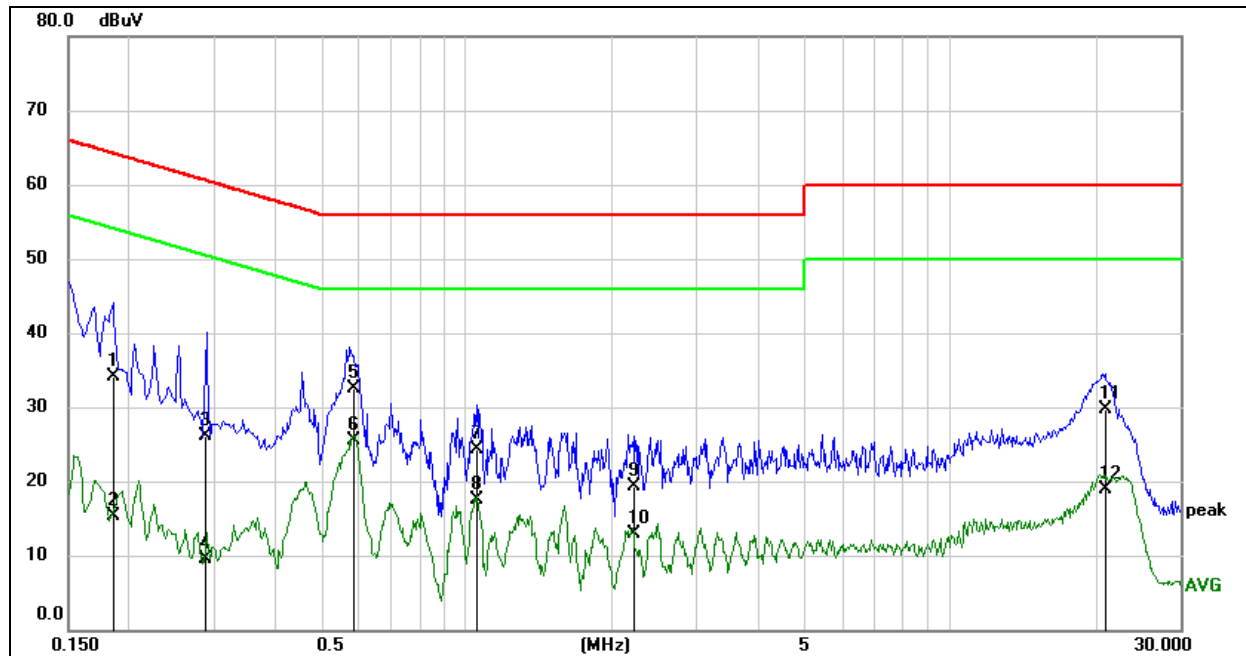
Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

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

TEST SETUP AND PROCEDURE



The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2003. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz. The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

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

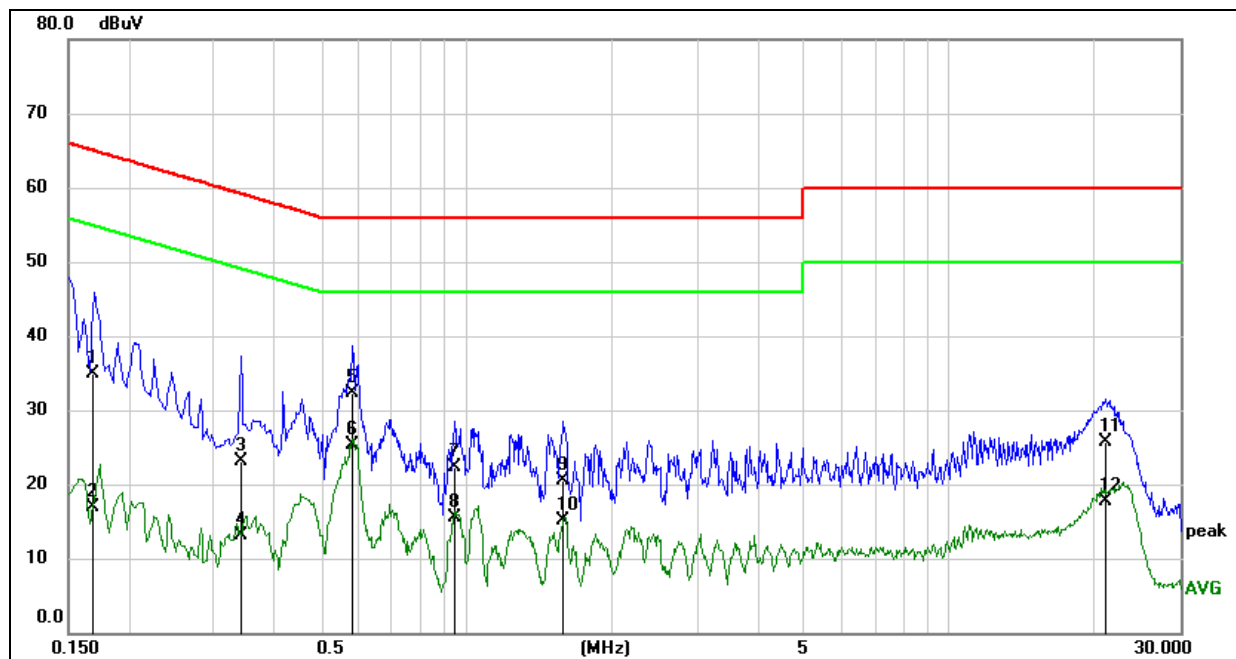
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1848	24.43	9.60	34.03	64.27	-30.24	QP
2	0.1848	5.74	9.60	15.34	54.27	-38.93	AVG
3	0.2872	16.59	9.60	26.19	60.60	-34.41	QP
4	0.2872	-0.09	9.60	9.51	50.60	-41.09	AVG
5	0.5824	22.83	9.60	32.43	56.00	-23.57	QP
6	0.5824	15.92	9.60	25.52	46.00	-20.48	AVG
7	1.0517	14.79	9.61	24.40	56.00	-31.60	QP
8	1.0517	7.80	9.61	17.41	46.00	-28.59	AVG
9	2.2118	9.62	9.62	19.24	56.00	-36.76	QP
10	2.2118	3.38	9.62	13.00	46.00	-33.00	AVG
11	20.8463	19.64	10.09	29.73	60.00	-30.27	QP
12	20.8463	8.74	10.09	18.83	50.00	-31.17	AVG

Note: 1. Result = Reading +Correct Factor.

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

3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).

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

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

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1684	25.29	9.60	34.89	65.04	-30.15	QP
2	0.1684	7.25	9.60	16.85	55.04	-38.19	AVG
3	0.3423	13.53	9.60	23.13	59.15	-36.02	QP
4	0.3423	3.44	9.60	13.04	49.15	-36.11	AVG
5	0.5800	22.77	9.60	32.37	56.00	-23.63	QP
6	0.5800	15.77	9.60	25.37	46.00	-20.63	AVG
7	0.9499	12.73	9.60	22.33	56.00	-33.67	QP
8	0.9499	5.91	9.60	15.51	46.00	-30.49	AVG
9	1.5937	10.89	9.62	20.51	56.00	-35.49	QP
10	1.5937	5.42	9.62	15.04	46.00	-30.96	AVG
11	21.1150	15.47	10.21	25.68	60.00	-34.32	QP
12	21.1150	7.45	10.21	17.66	50.00	-32.34	AVG

Note: 1. Result = Reading +Correct Factor.

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

3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).

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

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



9. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Complies

END OF REPORT