



CFR 47 FCC PART 15 SUBPART C

TEST REPORT

For

NaviCam Data Recorder

MODEL NUMBER: AKR-1

FCC ID: 2ATXZ-AKR-1

REPORT NUMBER: 4789030801-1

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Prepared for

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Prepared by

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Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
V0	08/05/2019	Initial Issue	



Summary of Test Results			
Clause	Test Items	FCC/IC Rules	Test Results
1	6dB Bandwidth	FCC Part 15.247 (a) (2)	Pass
2	Peak Conducted Output Power	FCC Part 15.247 (b) (3)	Pass
3	Power Spectral Density	FCC Part 15.247 (e)	Pass
4	Conducted Bandedge and Spurious Emission	FCC Part 15.247 (d)	Pass
5	Radiated Bandedge and Spurious Emission	FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205	Pass
6	Conducted Emission Test For AC Power Port	FCC Part 15.207	Pass
7	Antenna Requirement	FCC Part 15.203	Pass



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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: AnX Robotica Corp.
Address: 7213 Regency Court, Plano, TX, 75024, U.S.A

Manufacturer Information

Company Name: ANKON Technologies Co., Ltd
Address: B3-2 Biolake, No.666, Hi-Tech Road, East Lake, New Technology Development Zone, Wuhan, 430075 Hubei, China

EUT Description

EUT Name: NaviCam Data Recorder
Model: AKR-1
Sample Number: 2343785
Sample Received Date: June 10, 2019
Date of Tested: June 10~ July 20, 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 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, CFR 47 FCC Part 2, CFR 47 FCC Part 15, ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p>A2LA (Certificate No.: 4829.01) UL-CCIC COMPANY LIMITED has been assessed and proved to be in compliance with A2LA.</p> <p>FCC (FCC Designation No.: CN1247) UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules</p>
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Note 1: All tests measurement facilities use to collect the measurement data are located at No. 2, Chengwan Road, Suzhou Industrial Park, Suzhou 215122, People's Republic of China

Note 2: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. These measurements below 30MHz had been correlated to measurements performed on an OFS.

Note 3: The test anechoic chamber in UL-CCIC COMPANY LIMITED 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.



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 recognize 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	3.80dB
Radiation Emission test(include Fundamental emission) (9KHz-30MHz)	3.32dB
Radiation Emission test(include Fundamental emission) (30MHz-1GHz)	3.27dB
Radiation Emission test (1GHz to 26GHz)(include Fundamental emission)	3.72dB (1GHz-18Gz)
	4.11dB (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	NaviCam Data Recorder
Model	AKR-1
Radio Technology	2.4GHz RF
Operation frequency	2403MHz—2481MHz
Modulation	GFSK
Power Supply	DC 5V

5.2. MAXIMUM OUTPUT POWER

Number of Transmit Chains (NTX)	Frequency (MHz)	Channel Number	Max PK Conducted Power (dBm)
1	2403-2481	1-79[79]	7.92

5.3. CHANNEL LIST

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2432	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	78	2480
19	2421	39	2441	59	2461	79	2481
20	2422	40	2442	60	2462		



5.4. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel	Frequency
TX	CH 1, CH 40, CH 79	2403MHz, 2442MHz, 2481MHz

5.5. THE WORSE CASE CONFIGURATIONS

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band			
Test Software	DAQ-Mobile		
Transmit Antenna Number	Test Channel		
	NCB: 2MHz		
	CH 1	CH 40	CH 79
1	2403	2442	2481



5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
1	2403-2481	Internal Antenna	5.0

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

5.7. THE WORSE CASE CONFIGURATIONS

For the product, there are 14 transmission modules, but only one module of them transmit at one time and only the worst data for the antenna is recorded in the report.

Worst-case data rates as provided by the client were: 0.25 Mbps

5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	P/N
1	Laptop	ThinkPad	E550c	N/A

I/O CABLES

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

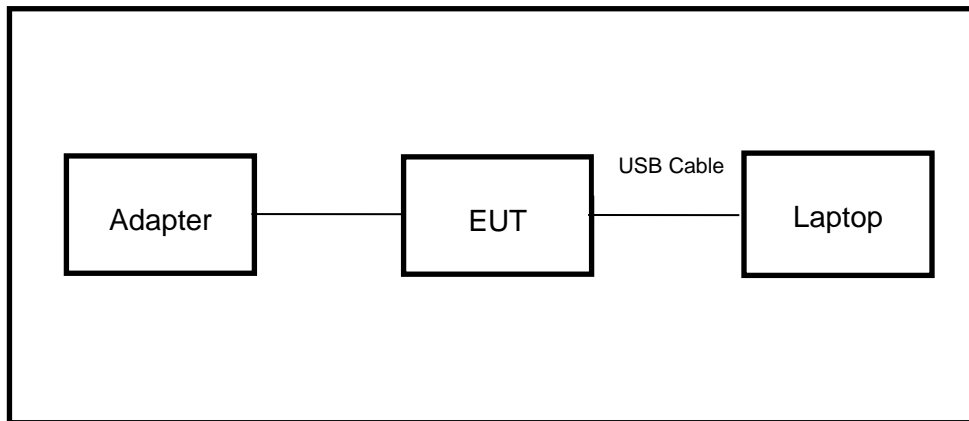
ACCESSORIES

Item	Accessory	Brand Name	Model Name	Description
1	Adapter	UE	UE15WCP1-052200SPA	N/A

TEST SETUP

The EUT can work in engineering mode with a software through a Laptop.

SETUP DIAGRAM FOR TESTS





6. MEASURING INSTRUMENT AND SOFTWARE USED

Conducted Emissions (Instrument)							
Used	Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Last Cal.	Next Cal.
<input checked="" type="checkbox"/>	EMI Test Receiver	R&S	ESR3	126700	2017-12-14	2018-12-13	2019-12-12
<input checked="" type="checkbox"/>	Two-Line V-Network	R&S	ENV216	126701	2017-12-14	2018-12-13	2019-12-12
<input checked="" type="checkbox"/>	Artificial Mains Networks	R&S	ENY81	126711	2017-12-14	2018-12-13	2019-12-12
Software							
Used	Description		Manufacturer	Name	Version		
<input checked="" type="checkbox"/>	Test Software for Conducted disturbance		R&S	EMC32	Ver. 9.25		
Radiated Emissions (Instrument)							
Used	Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Last Cal.	Next Cal.
<input checked="" type="checkbox"/>	Spectrum Analyzer	Keysight	N9010B	MY57110128	2018-05-30	2019-05-29	2020-05-28
<input checked="" type="checkbox"/>	EMI test receiver	R&S	ESR26	1267603	2017-12-14	2018-12-13	2019-12-22
<input checked="" type="checkbox"/>	Receiver Antenna (9kHz-30MHz)	Schwarzbeck	FMZB 1513	513-265	2018-06-17	2019-06-16	2020-06-15
<input checked="" type="checkbox"/>	Receiver Antenna (30MHz-1GHz)	SunAR RF Motion	JB1	126704	N/A	2019-01-28	2022-01-27
<input checked="" type="checkbox"/>	Receiver Antenna (1GHz-18GHz)	R&S	HF907	126705	2018-01-27	2019-01-26	2020-01-26
<input checked="" type="checkbox"/>	Receiver Antenna (18GHz-26.5GHz)	Schwarzbeck	BBHA9170	126706	2018-02-07	2019-02-06	2020-02-05
<input checked="" type="checkbox"/>	Receiver Antenna (26.5GHz-40GHz)	TOYO	HAP 26-40W	00000012	2017-07-26	2018-07-25	2019-07-24
<input checked="" type="checkbox"/>	Pre-amplification (To 1GHz)	R&S	SCU-03D	134666	2018-02-07	2019-02-06	2020-02-05
<input checked="" type="checkbox"/>	Pre-amplification (To 18GHz)	TDK	PA-02-0118	TRS-305-00066	2017-12-12	2018-12-11	2019-12-10
<input checked="" type="checkbox"/>	Pre-amplification (To 26.5GHz)	R&S	SCU-26D	134668	2018-02-07	2019-02-06	2020-02-05
<input checked="" type="checkbox"/>	Band Reject Filter	Wainwright	WRCJV8-2350-2400-2483.5-2533.5-40SS	1	2018-05-30	2019-05-29	2020-05-28
<input checked="" type="checkbox"/>	Highpass Filter	Wainwright	WHKX10-2700-3000-18000-40SS	2	2018-05-30	2019-05-29	2020-05-28
Software							
Used	Description		Manufacturer	Name	Version		
<input checked="" type="checkbox"/>	Test Software for Radiated disturbance		Tonscend	JS32	V1.0		
Other instruments							
Used	Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Next Cal.	
<input checked="" type="checkbox"/>	Spectrum Analyzer	Keysight	N9010B	MY57110128	2018-05-30	2019-05-29	2020-05-28
<input checked="" type="checkbox"/>	Power Meter	Keysight	U2021XA	MY57110002	2018-06-13	2019-06-12	2020-06-11



7. MEASUREMENT METHODS

No.	Test Item	KDB Name	Section
1	6dB Bandwidth	KDB 558074 D01 15.247 Meas Guidance v05r02	8.2
2	Peak Output Power	KDB 558074 D01 15.247 Meas Guidance v05r02	8.3.1.3/8.3.2.3
3	Power Spectral Density	KDB 558074 D01 15.247 Meas Guidance v05r02	8.4
4	Out-of-band emissions in non-restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r02	8.5
5	Out-of-band emissions in restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r02	8.6
6	Band-edge	KDB 558074 D01 15.247 Meas Guidance v05r02	8.7
7	Conducted Emission Test For AC Power Port	ANSI C63.10-2013	6.2



8. ANTENNA PORT TEST RESULTS

8.1. ON TIME AND DUTY CYCLE

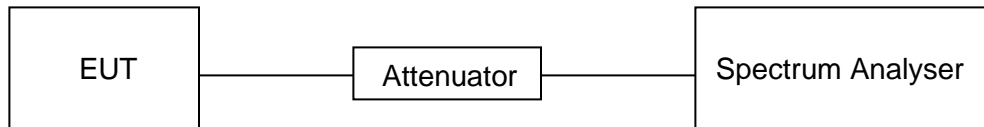
LIMITS

None; for reporting purposes only

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method

TEST SETUP





TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V

RESULTS

On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (db)	1/T Minimum VBW (KHz)	Final setting For VBW (KHz)
100.3	100.3	1	100%	0	0.01	0.01

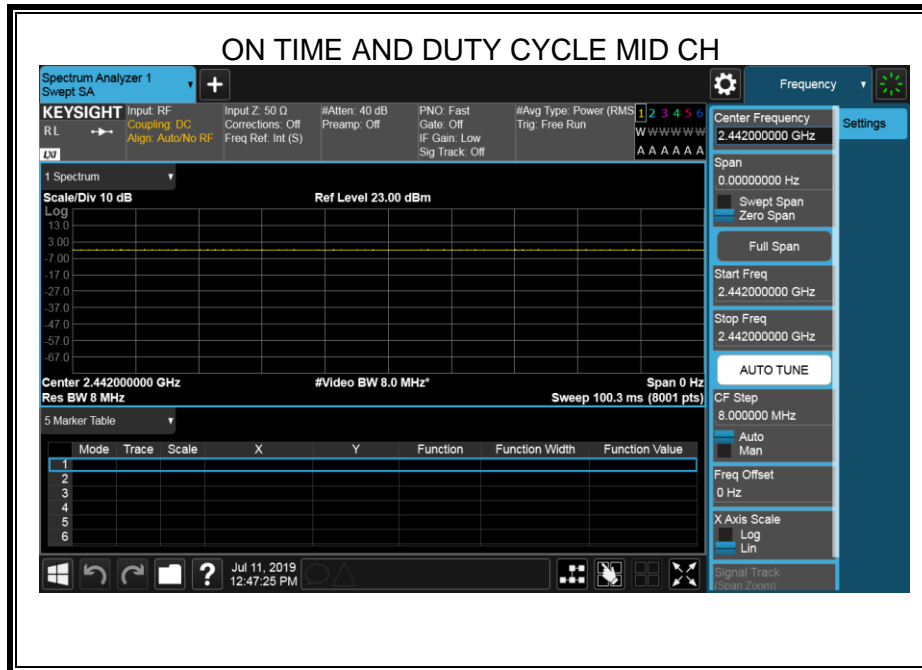
Note:

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

Where: x is Duty Cycle (Linear)

Where: T is On Time

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



8.2. 6 dB DTS BANDWIDTH

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(a)(2)	6 dB Bandwidth	$\geq 500\text{KHz}$	2400-2483.5

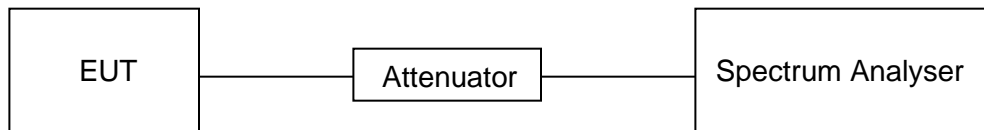
TEST PROCEDURE

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	100K
VBW	$\geq 3 \times \text{RBW}$
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 6 dB to the maximum level measured in the fundamental emission.

TEST SETUP



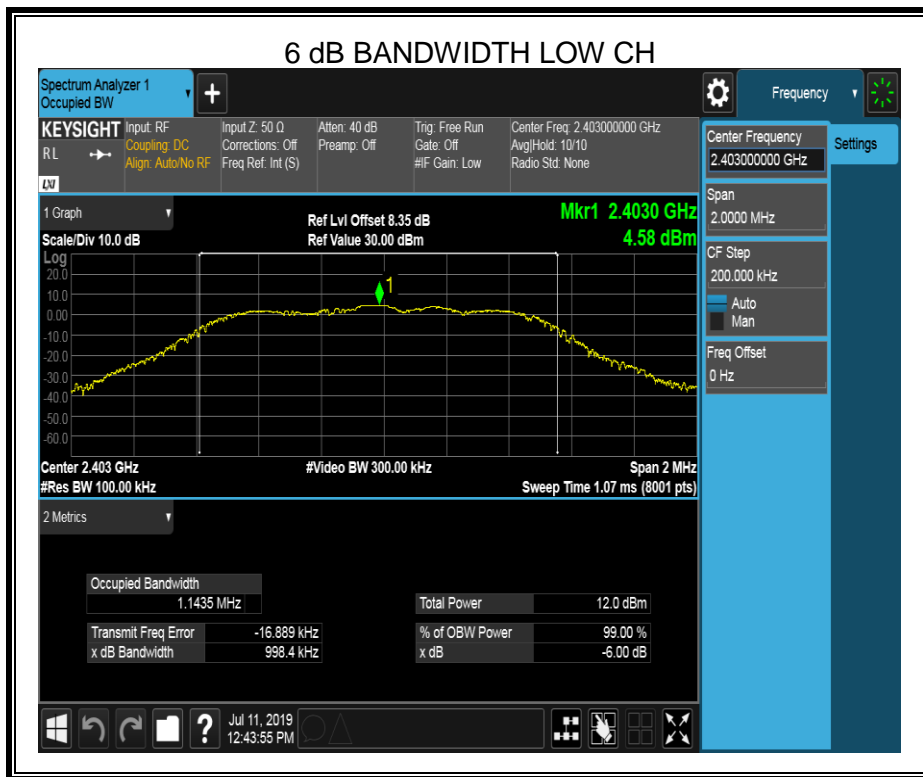


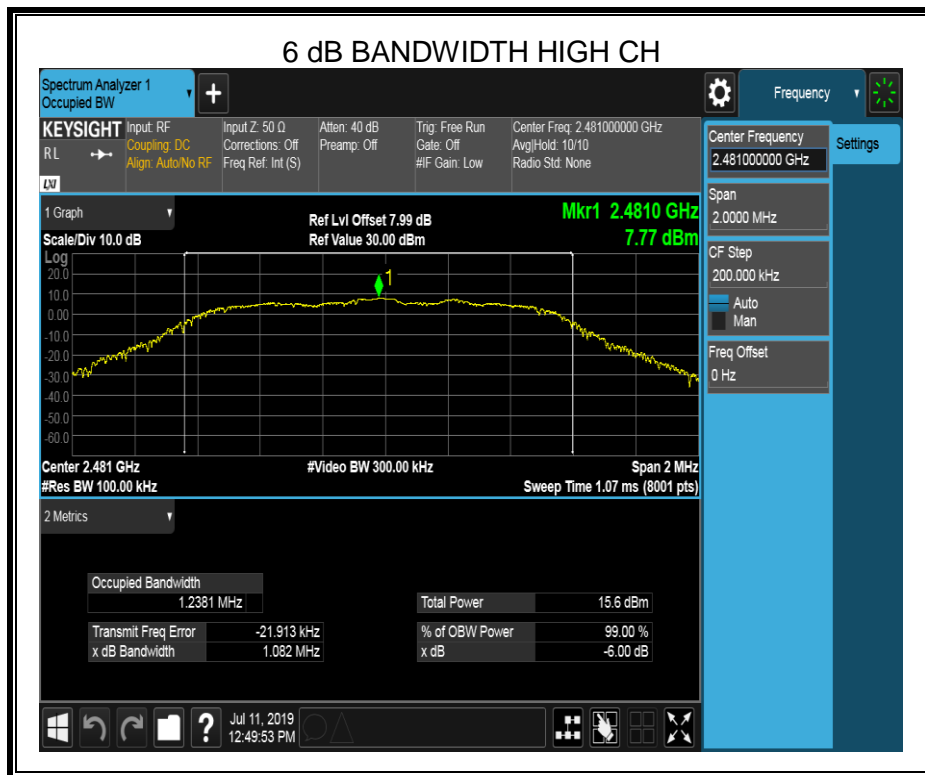
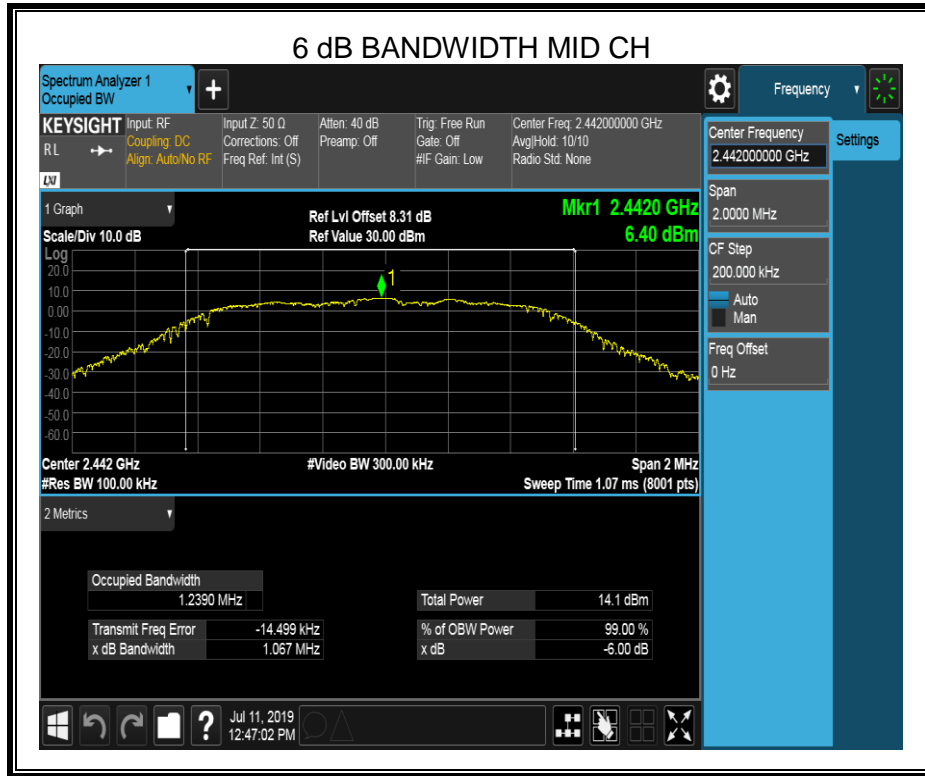
TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V

RESULTS

Channel	6dB bandwidth (MHz)	Limit (kHz)	Result
Low	0.9984	≥500	Pass
Middle	1.067	≥500	Pass
High	1.082	≥500	Pass







8.3. PEAK CONDUCTED OUTPUT POWER

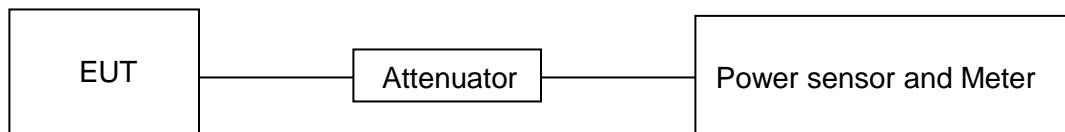
LIMITS

CFR 47 FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(b)(3)	Peak Output Power	1 watt or 30dBm (See note1)	2400-2483.5
Note: 1. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.			

TEST PROCEDURE

Place the EUT on the table and set it in the transmitting mode.
 Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the Power sensor.
 Measure the power of each channel.
 Peak Detector use for Peak result.
 AVG Detector use for AVG result.

TEST SETUP



TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V



RESULT

Test Channel	ANT.	Maximum Conducted Output Power(PK) (dBm)	LIMIT
			dBm
Low	1	4.74	30
Middle	1	6.54	30
High	1	7.92	30



8.4. POWER SPECTRAL DENSITY

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC §15.247 (e)	Power Spectral Density	8 dBm/3 kHz (See note1)	2400-2483.5
Note: 1. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.			

TEST PROCEDURE

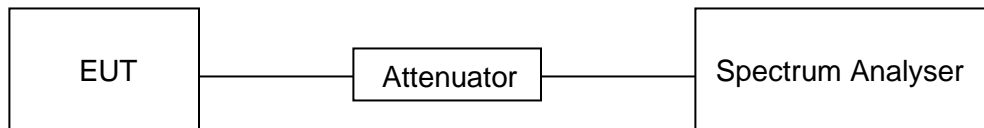
Connect the UUT to the spectrum analyser and use the following settings:

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	$3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
VBW	$\geq 3 \times \text{RBW}$
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

TEST SETUP



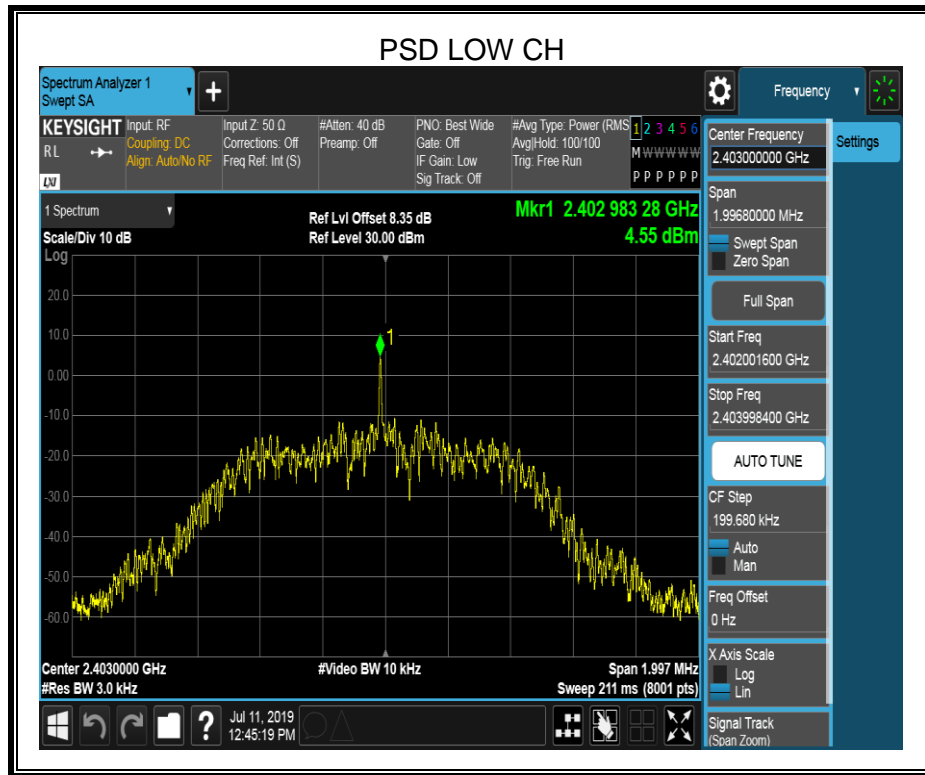
TEST ENVIRONMENT

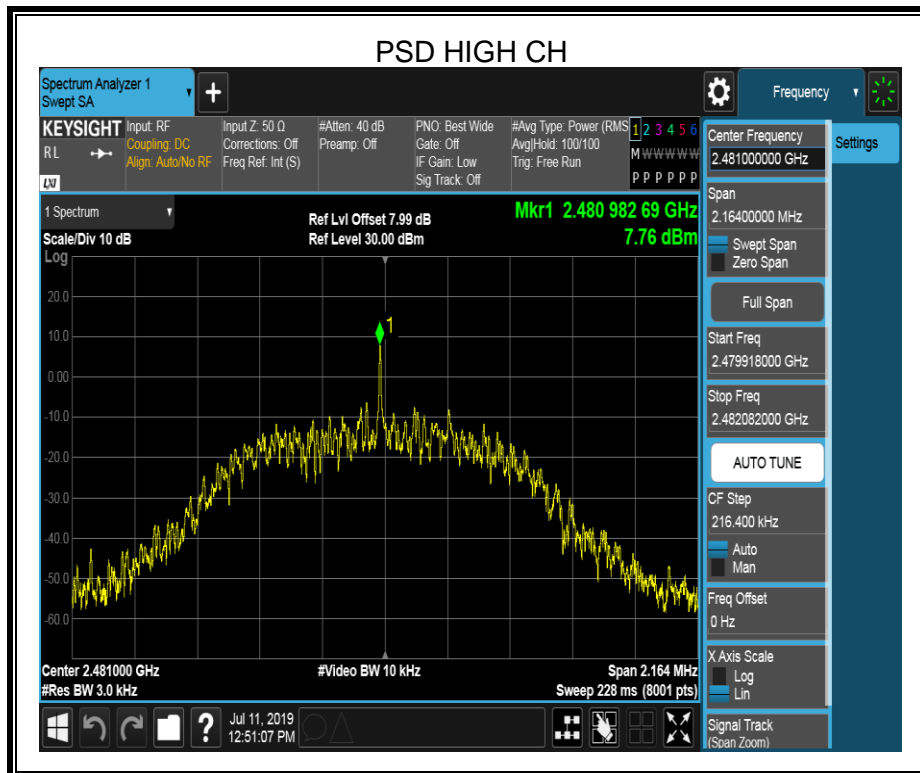
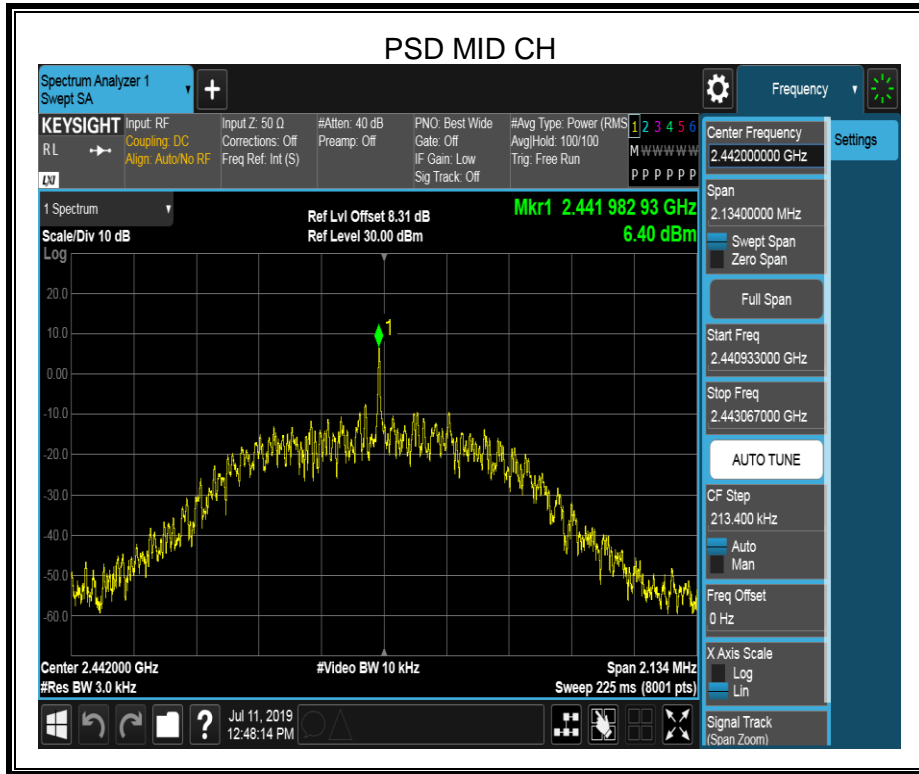
Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V



RESULTS

Test Channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
Low	4.55	8	PASS
Middle	6.40	8	PASS
High	7.76	8	PASS







8.5. CONDUCTED BANDEGE AND SPURIOUS EMISSIONS

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C		
Section	Test Item	Limit
CFR 47 FCC §15.247 (d)	Conducted Bandedge and Spurious Emissions	at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

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	100K
VBW	$\geq 3 \times \text{RBW}$
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

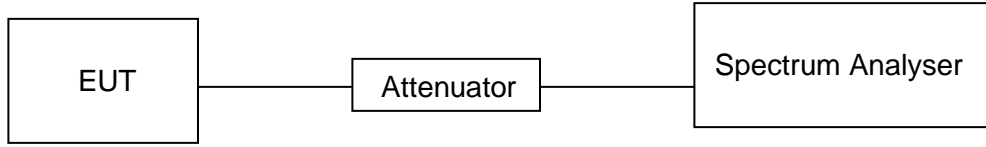
Use the peak marker function to determine the maximum PSD level.

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100K
VBW	$\geq 3 \times \text{RBW}$
measurement points	$\geq \text{span}/\text{RBW}$
Trace	Max hold
Sweep time	Auto couple.

Use the peak marker function to determine the maximum amplitude level.



TEST SETUP



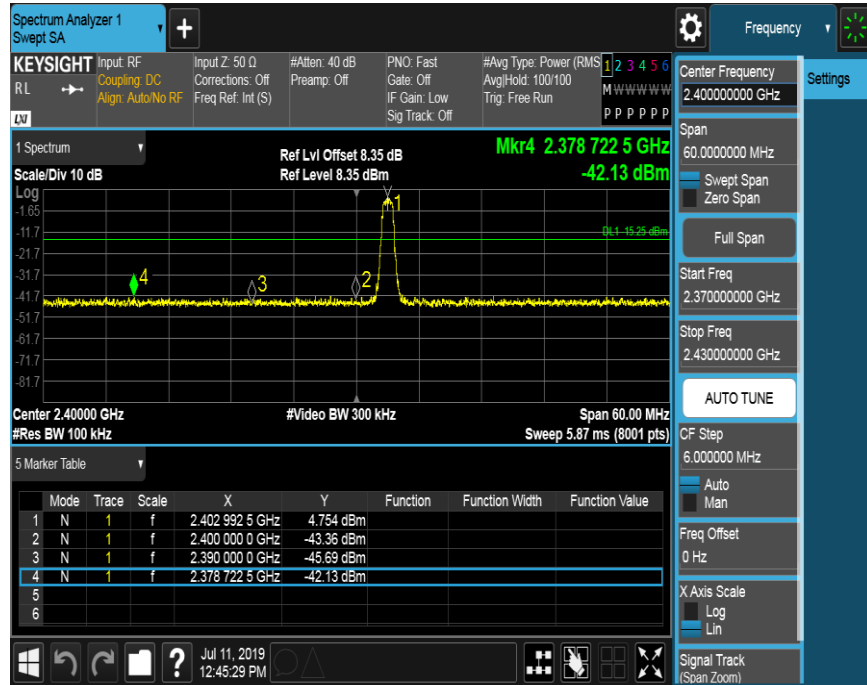
TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V



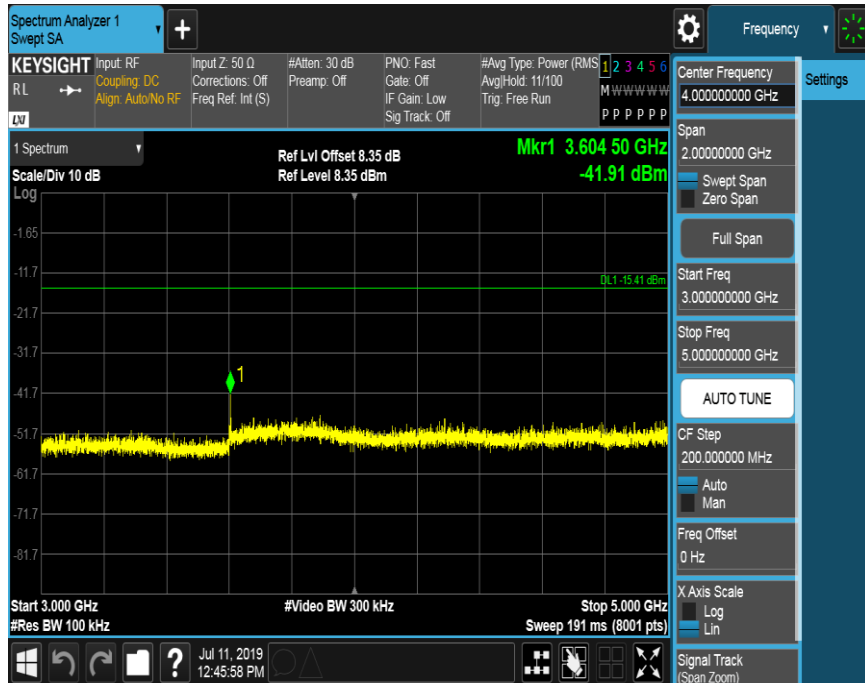
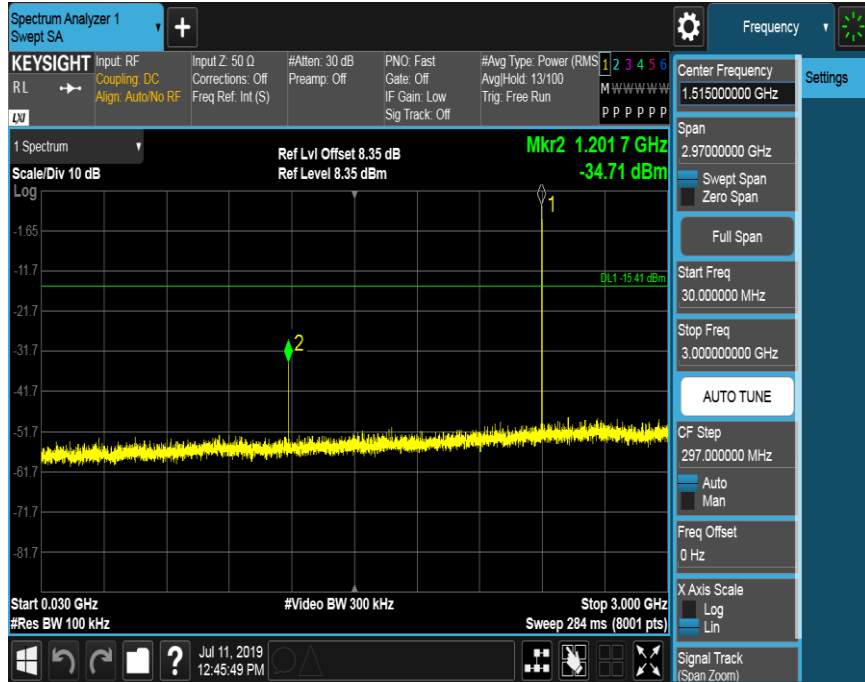
RESULTS

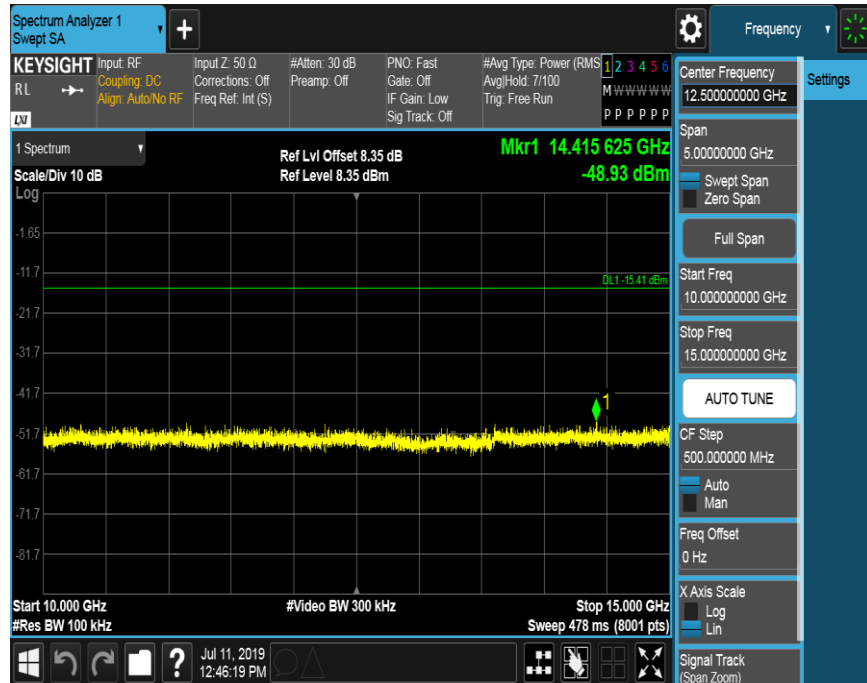
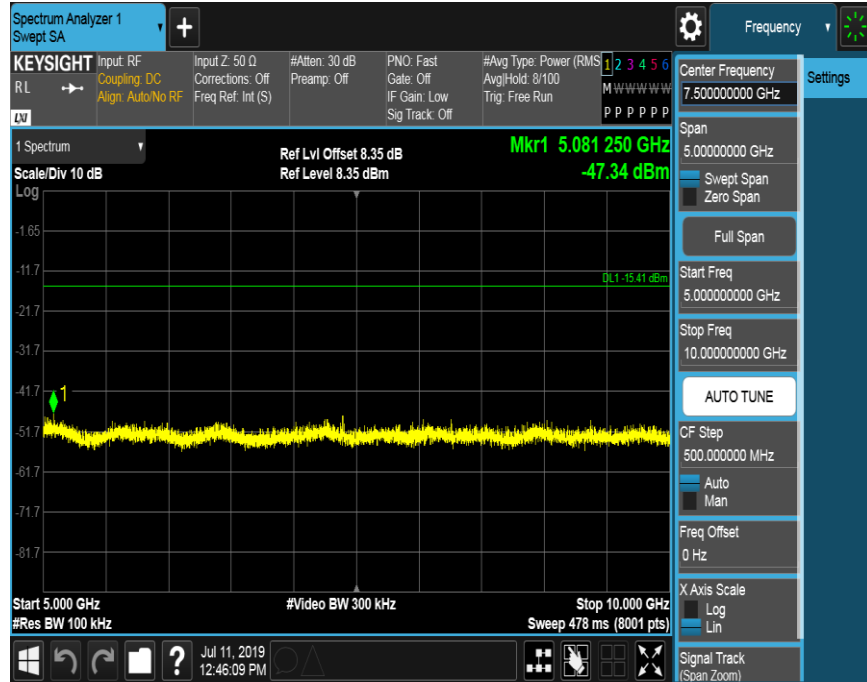
LOW CH BANDEDGE

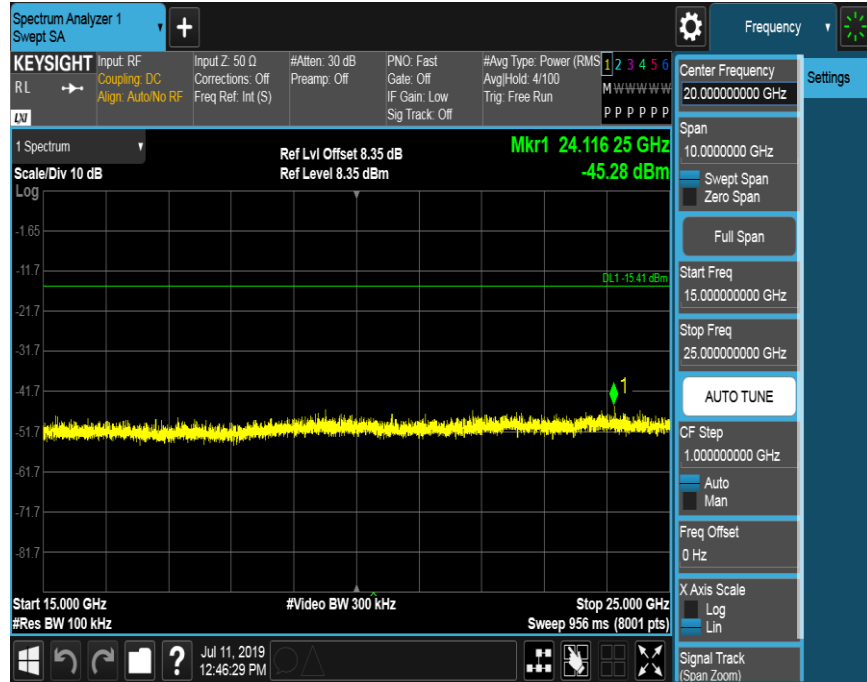


LOW CH SPURIOUS EMISSIONS



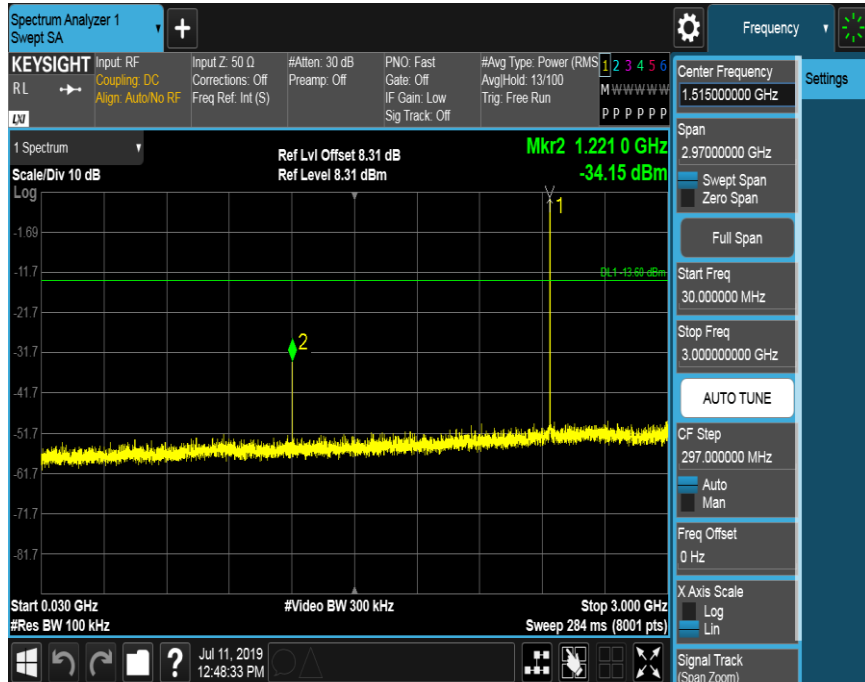
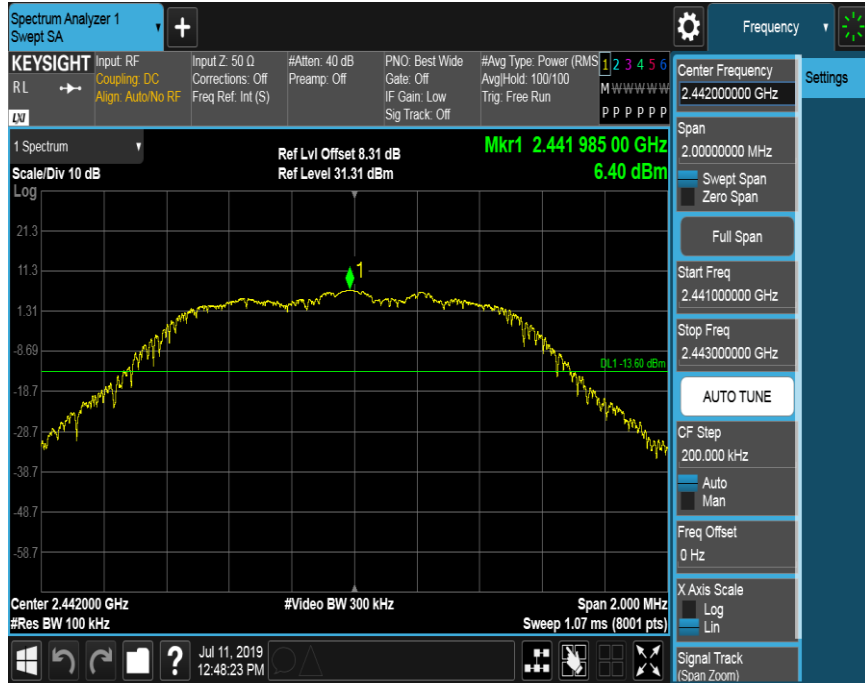


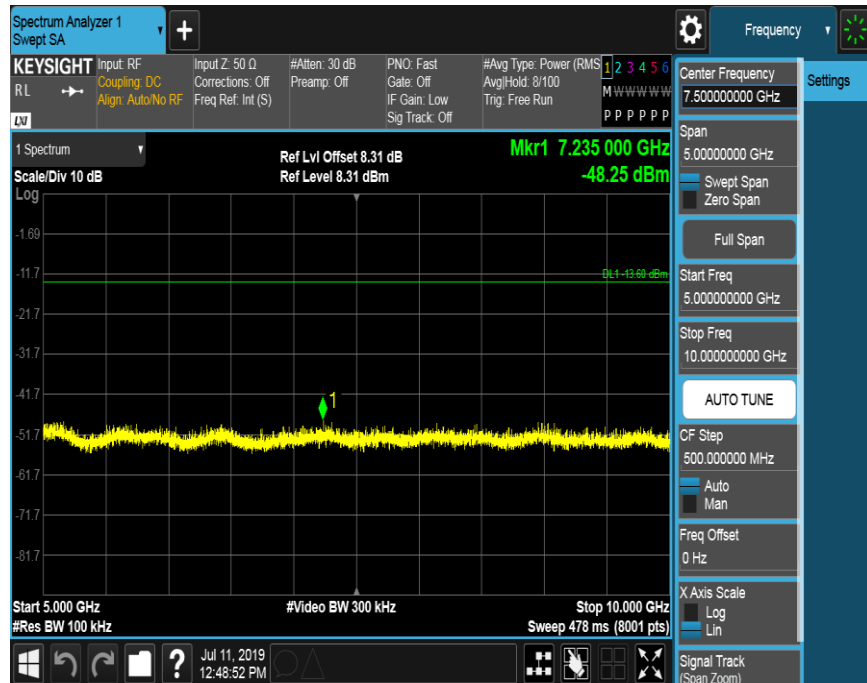
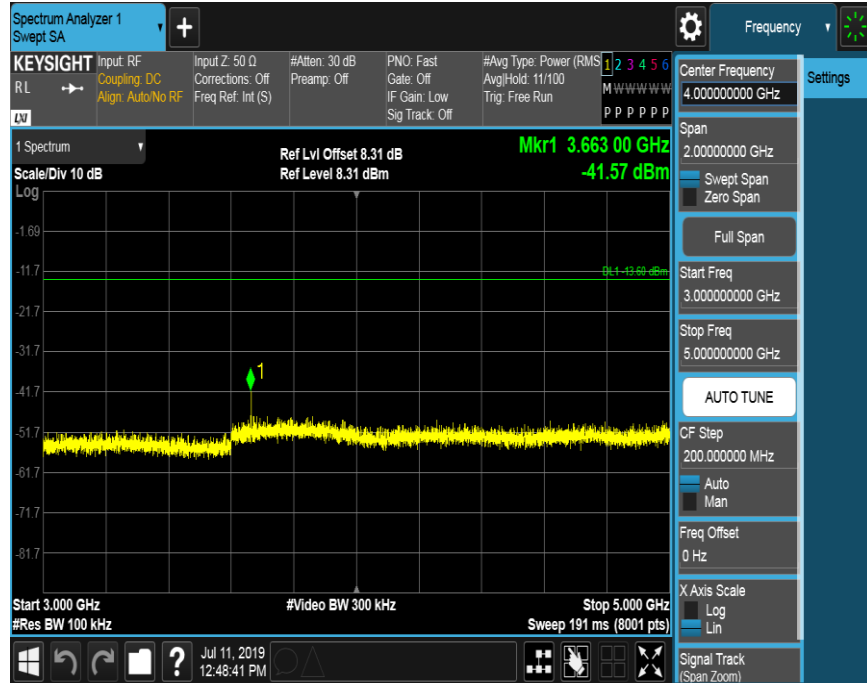


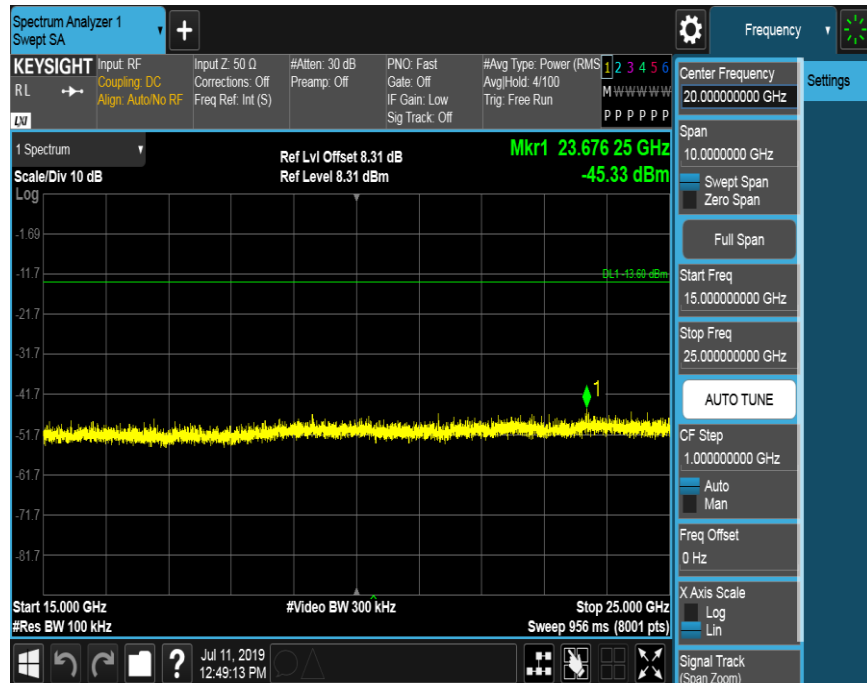
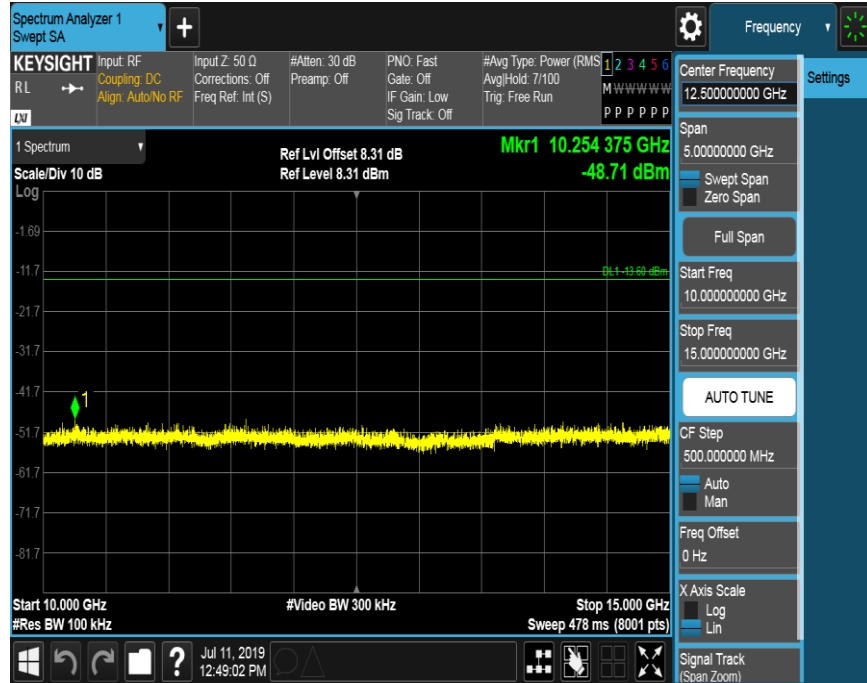




MID CH SPURIOUS EMISSIONS

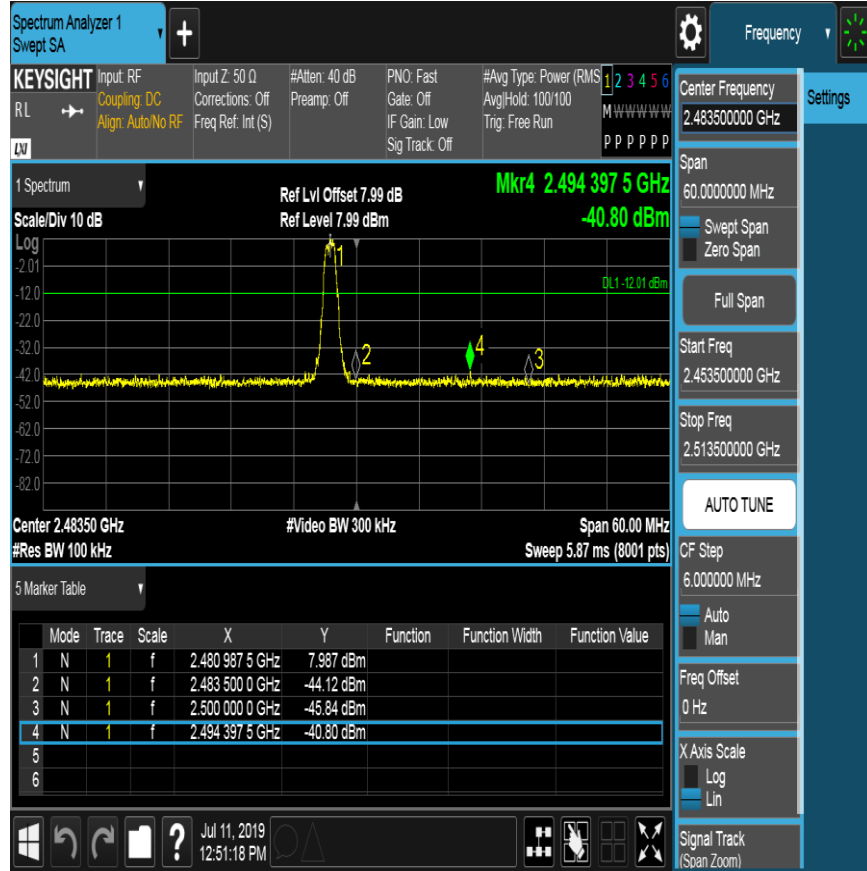






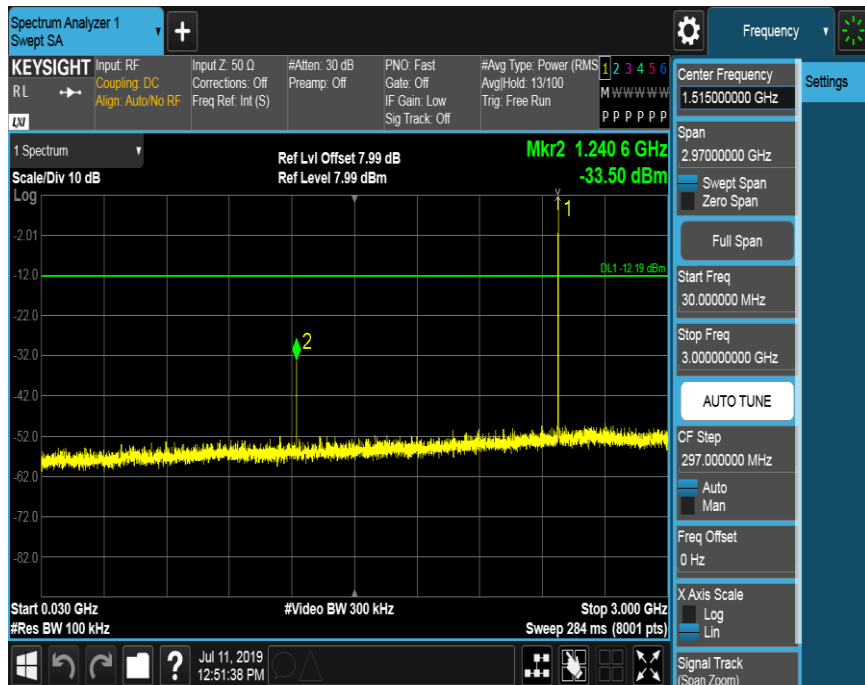


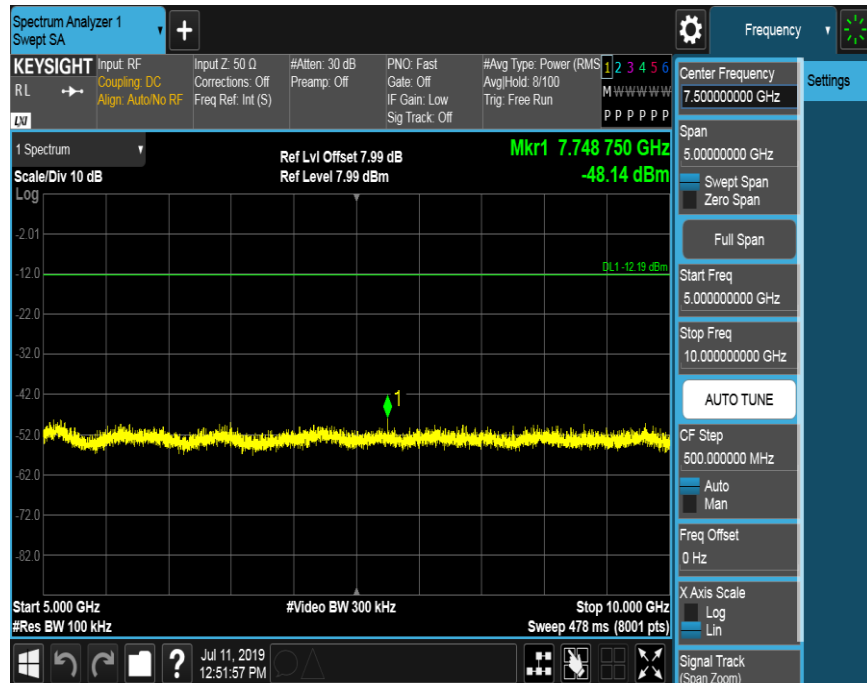
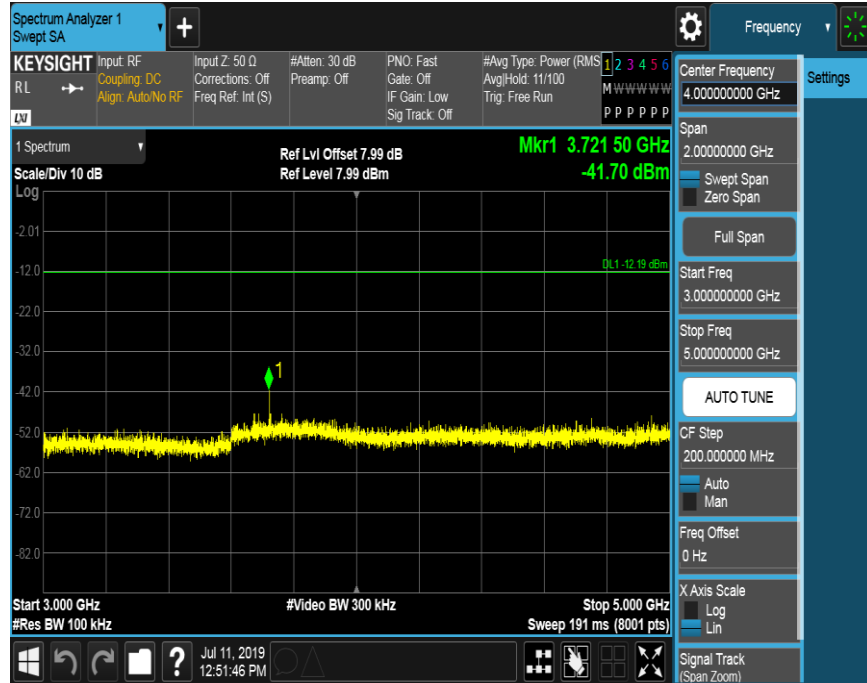
HIGH CH BANDEDGE

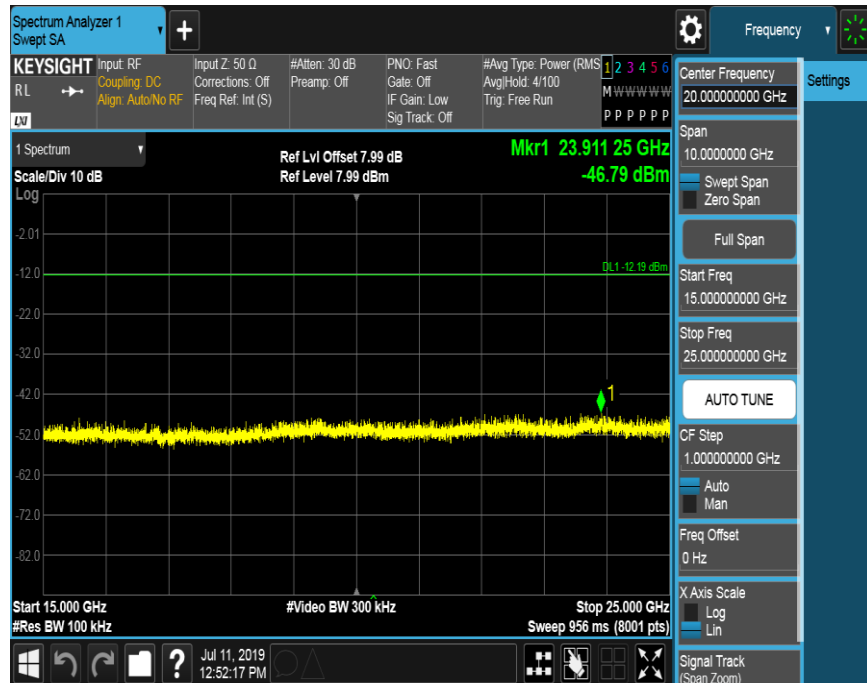




HIGH CH SPURIOUS EMISSIONS









9. RADIATED TEST RESULTS

LIMITS

Please refer to CFR 47 FCC §15.205 and §15.209

Radiation Disturbance Test Limit for FCC (Class B)(9KHz-1GHz)

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
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Note: 1) At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

(2) At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). This paragraph (f) shall not apply to Access BPL devices operating below 30 MHz.



Radiation Disturbance Test Limit for FCC (Above 1G)

Frequency (MHz)	dB(uV/m) (at 3 meters)	
	Peak	Average
Above 1000	74	54

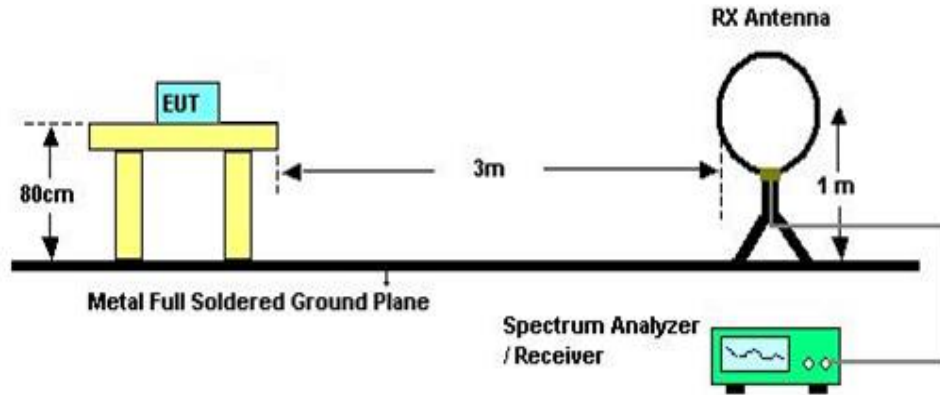
FCC Restricted bands of operation:

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 38.6

TEST SETUP AND PROCEDURE

Below 30MHz

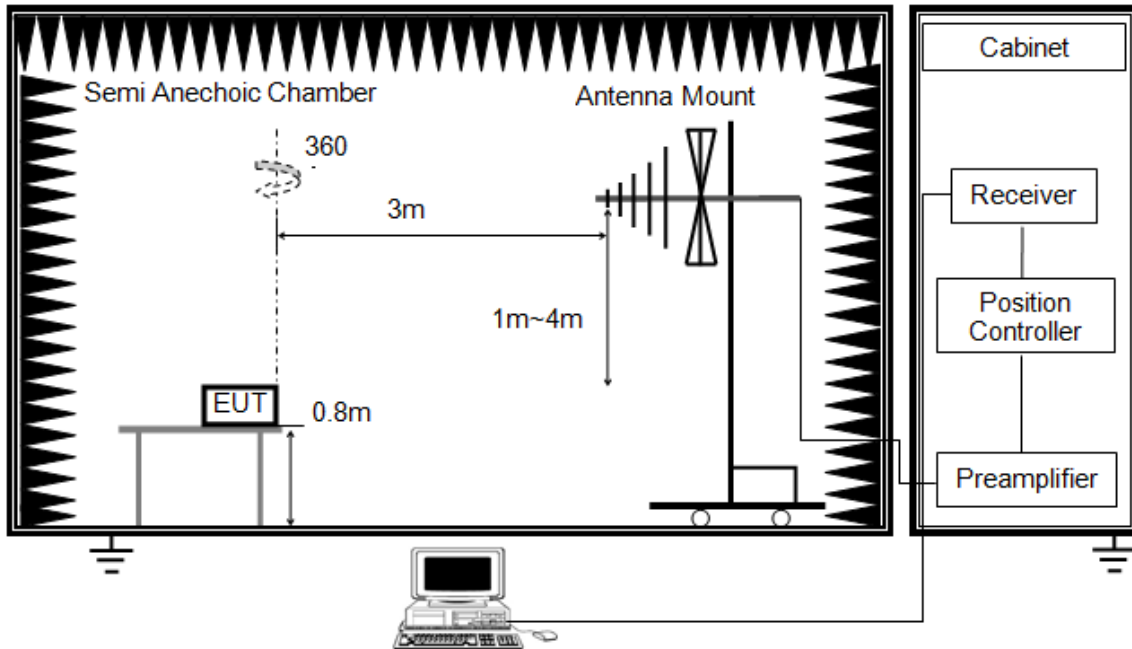


The setting of the spectrum analyser

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, Face-on and Face-off polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 0.8 meter above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1m 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.
6. 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 site based on KDB 414788.

Below 1G

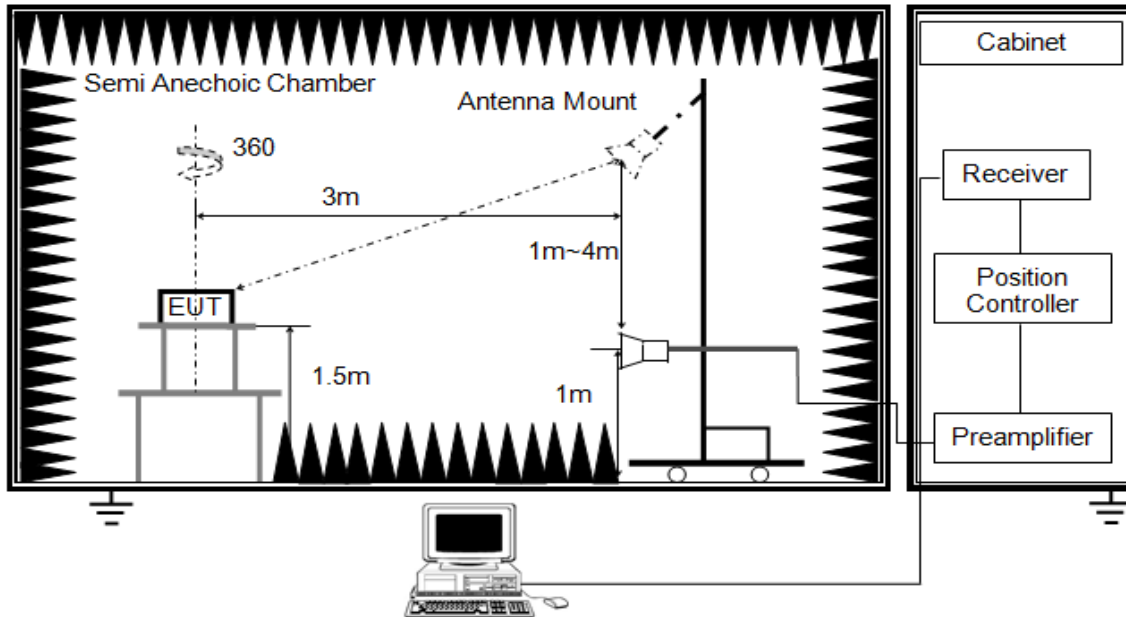


The setting of the spectrum analyser

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 0.8 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. 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

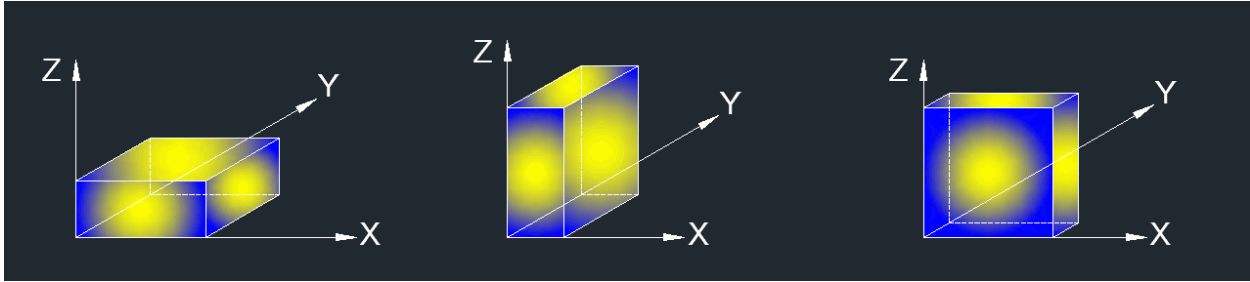


The setting of the spectrum analyser

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 (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 1.5m above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 8.1.ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:



Note : 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.

TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V



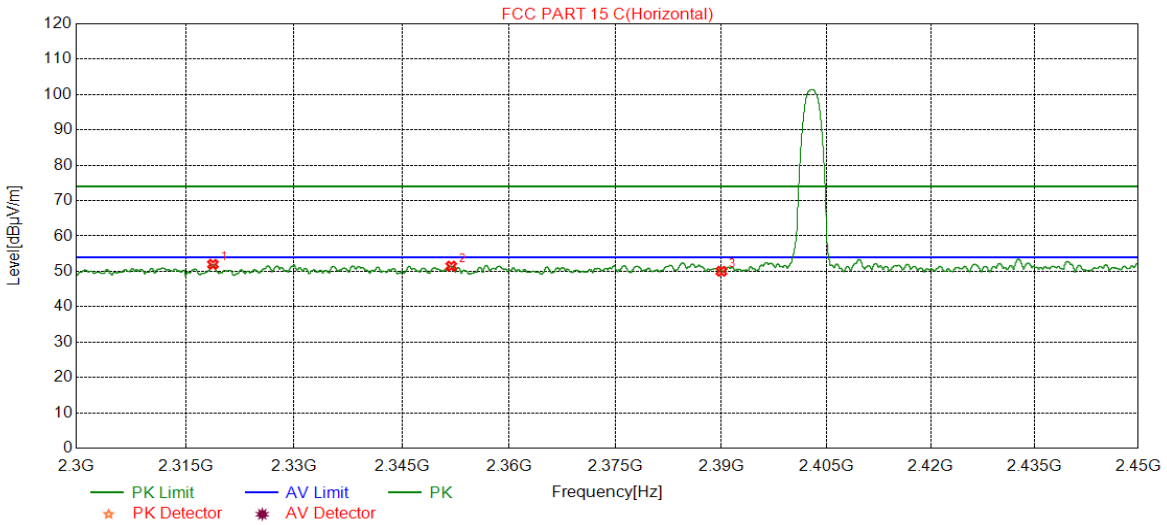
9.1. RESTRICTED BANDEDGE

Test Result Table

Test Antenna	Channel	P _{uw} (dBm)	Verdict
Antenna 1	LCH	<Limit	PASS
	MCH	<Limit	PASS
	HCH	<Limit	PASS



RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

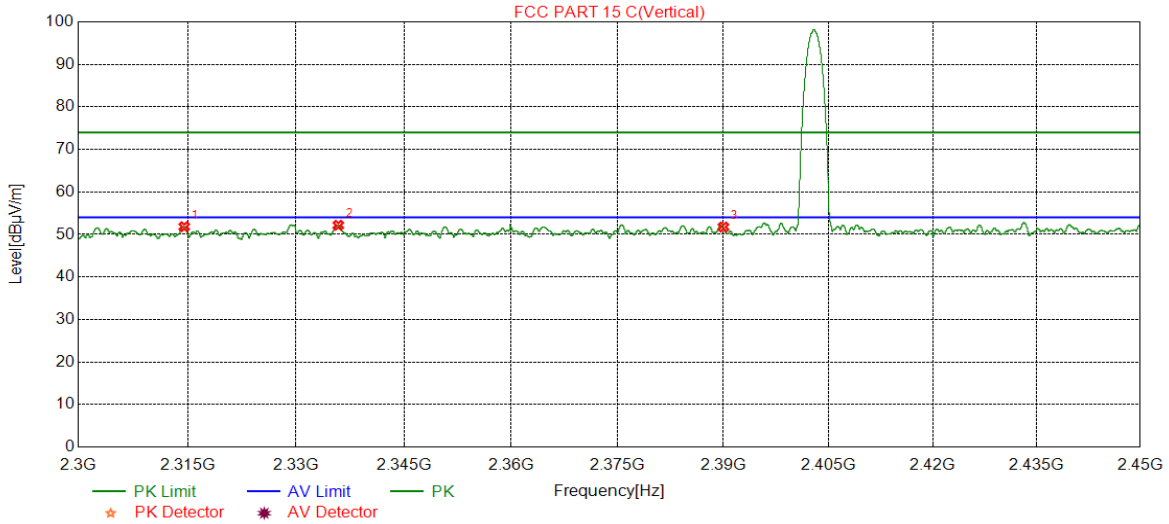


No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2318.7669	38.70	13.28	51.98	74.00	-22.02	peak
2	2351.8902	37.79	13.68	51.47	74.00	-22.53	peak
3	2390.0000	35.94	14.09	50.03	74.00	-23.97	

- 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: VBW=10 Hz.
 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

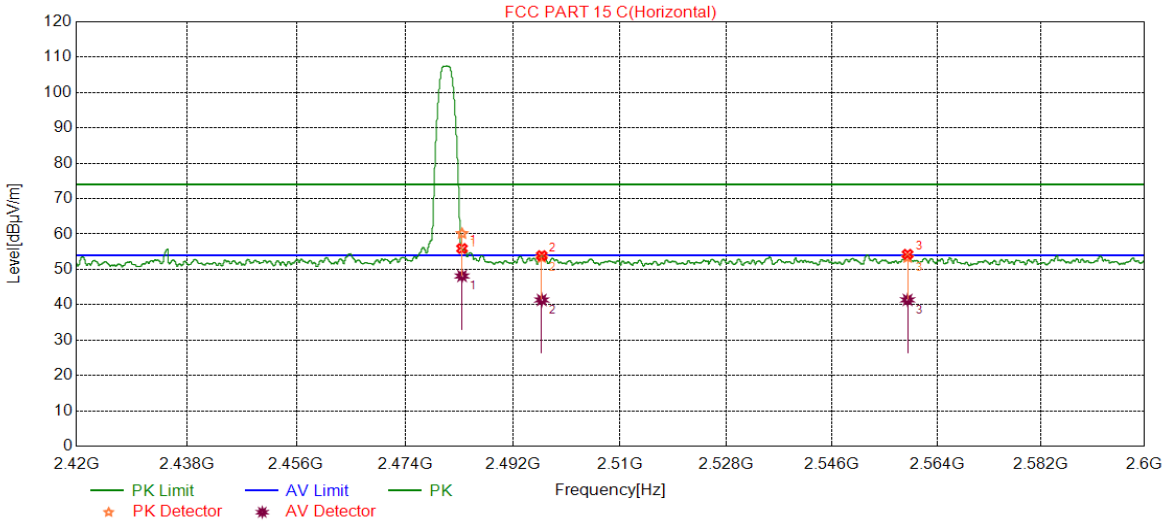


No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2314.5365	38.58	13.24	51.82	74.00	-22.18	peak
2	2335.8536	38.63	13.53	52.16	74.00	-21.84	peak
3	2390.0000	37.66	14.09	51.75	74.00	-22.25	peak

- 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: VBW=10 Hz.
 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)

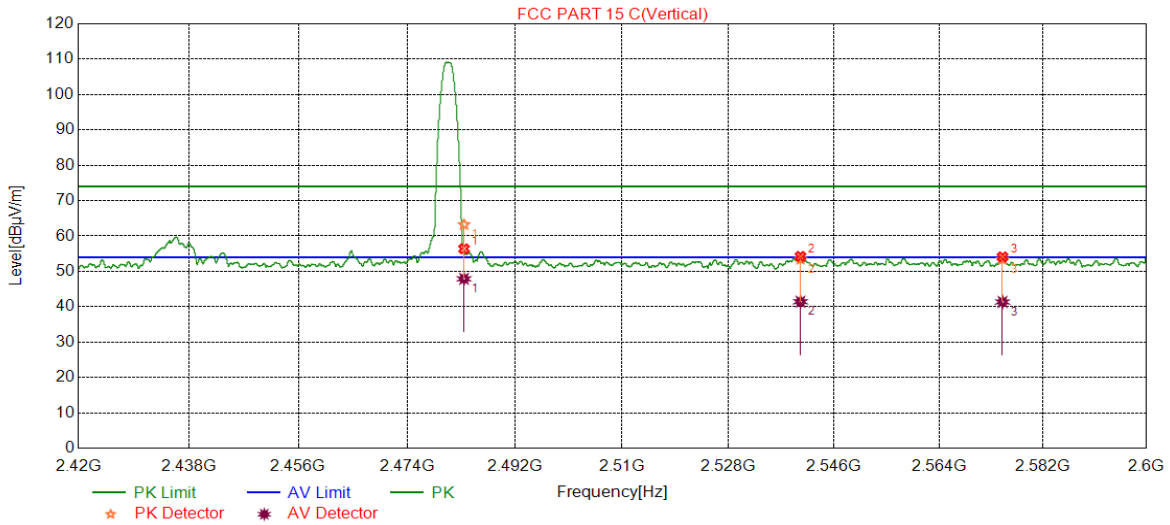


No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5000	41.24	13.88	60.12	74.00	-18.88	peak
		34.24	13.88	48.12	54.00	-5.88	average
2	2496.8317	39.32	14.03	53.35	74.00	-20.65	peak
		27.32	14.03	41.35	54.00	-12.65	average
3	2558.9379	38.9	14.47	53.37	74.00	-20.63	peak
		26.90	14.47	41.37	54.00	-12.63	average

- 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: VBW=10 Hz.
 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

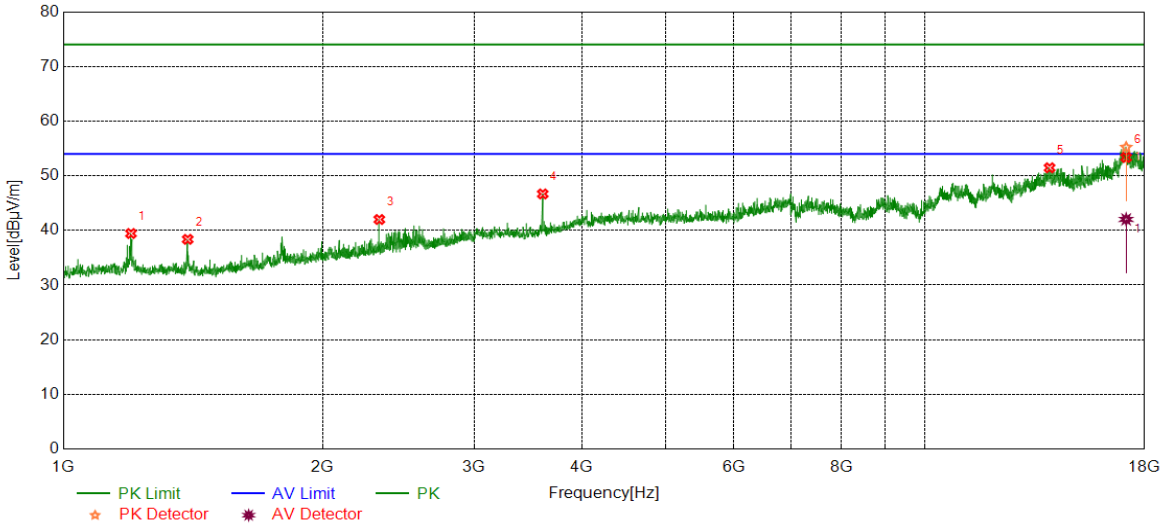


No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5000	49.33	13.88	63.21	74.00	-10.79	peak
		34.01	13.88	47.89	54.00	-6.11	
2	2540.2520	39.12	14.29	53.41	74.00	-20.59	peak
		27.12	14.29	41.41	54.00	-12.59	average
3	2574.9595	38.92	14.43	53.35	74.00	-20.65	peak
		26.92	14.43	41.35	54.00	-12.65	average

- 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: VBW=10 Hz.
 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

9.2. SPURIOUS EMISSIONS (1~18GHz)

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

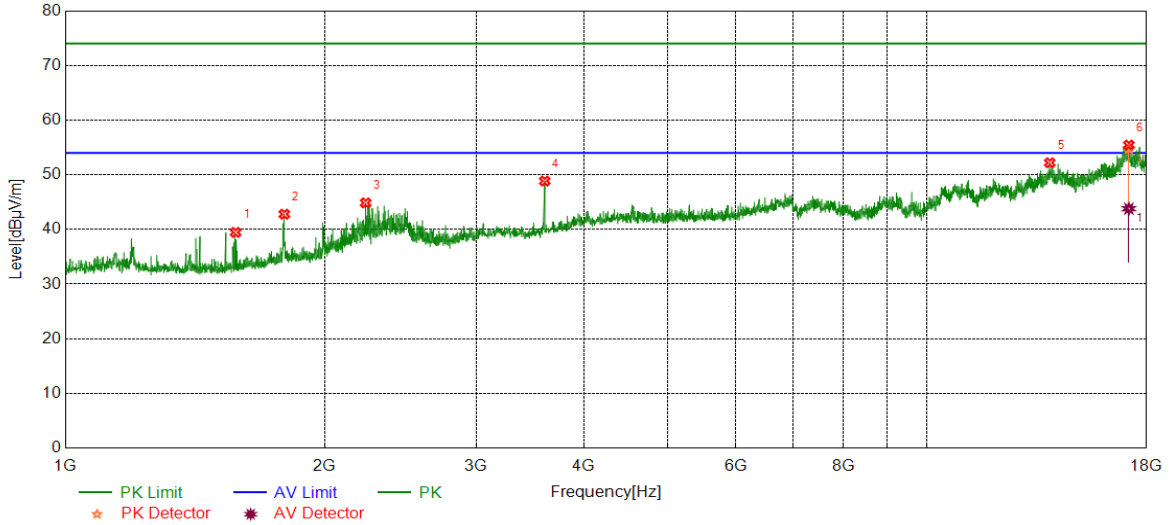


No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1198.7329	44.98	-5.54	39.44	74.00	-34.56	peak
2	1394.7983	44.03	-5.66	38.37	74.00	-35.63	peak
3	2327.7759	43.79	-1.79	42.00	74.00	-32.00	peak
4	3602.6004	43.88	2.80	46.68	74.00	-27.32	peak
5	13961.8270	35.50	15.96	51.46	74.00	-22.54	peak
6	17132.3933	36.79	18.43	55.22	74.00	-18.78	peak
		23.59	18.43	42.02	54.00	-11.98	average

- 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: VBW=10 Hz.
 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



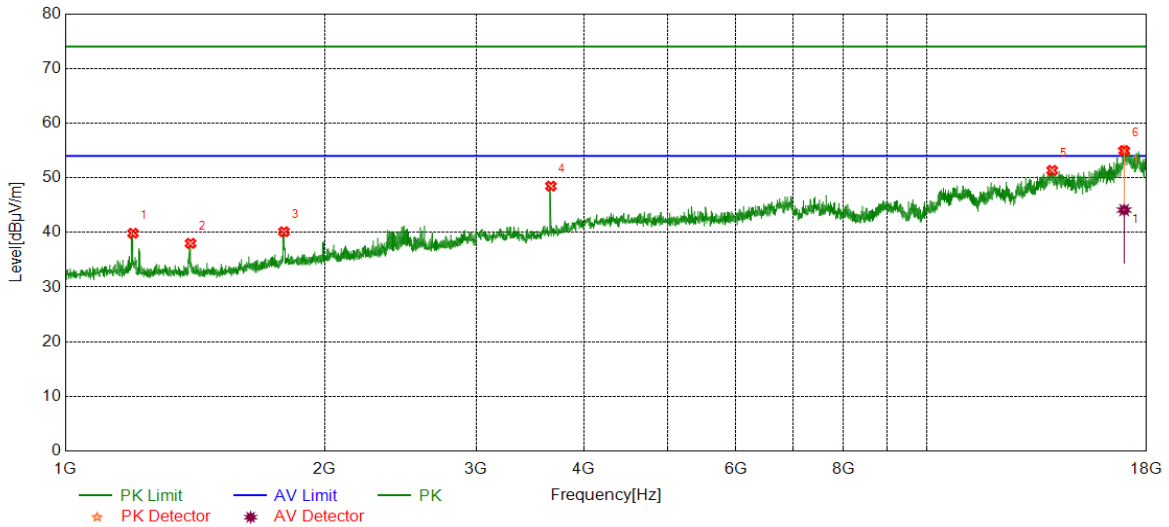
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1576.8590	44.75	-5.29	39.46	74.00	-34.54	peak
2	1796.2654	46.71	-3.92	42.79	74.00	-31.21	peak
3	2232.4108	47.01	-2.15	44.86	74.00	-29.14	peak
4	3602.6004	46.06	2.80	48.86	74.00	-25.14	peak
5	13896.8161	35.15	16.05	52.20	74.00	-21.80	peak
		24.20	19.59	43.79	54.00	-10.21	average

- 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: VBW=10 Hz.
 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

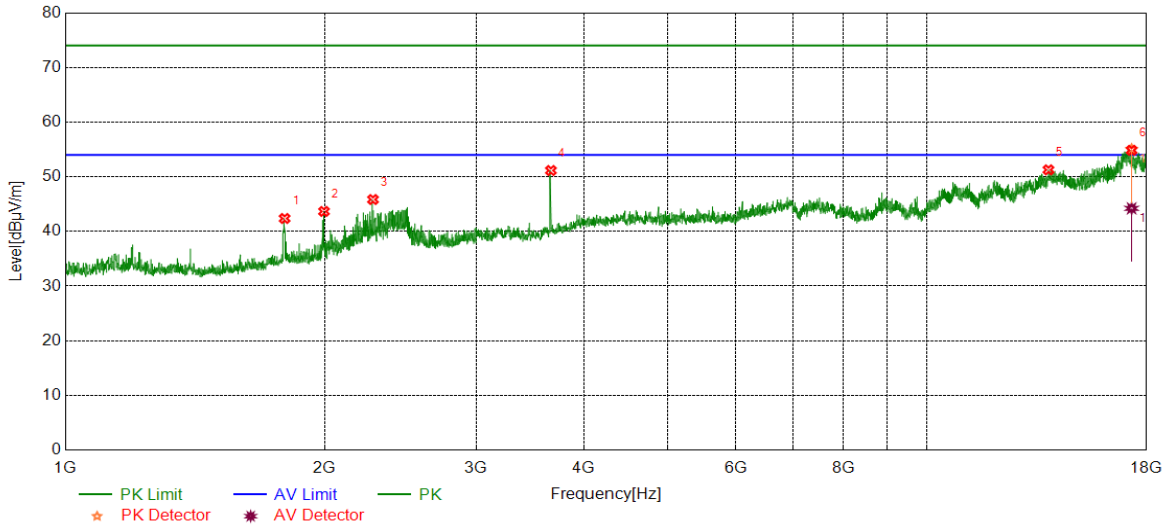


No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1198.7329	45.39	-5.54	39.85	74.00	-34.15	peak
2	1398.1327	43.58	-5.58	38.00	74.00	-36.00	peak
3	1794.2648	44.07	-3.94	40.13	74.00	-33.87	peak
4	3662.6104	45.46	3.01	48.47	74.00	-25.53	peak
5	13984.3307	34.97	16.38	51.35	74.00	-22.65	peak
6	16949.8250	35.12	19.84	54.96	74.00	-19.04	peak
		24.26	19.84	44.10	54.00	-9.90	average

- 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: VBW=10 Hz.
 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

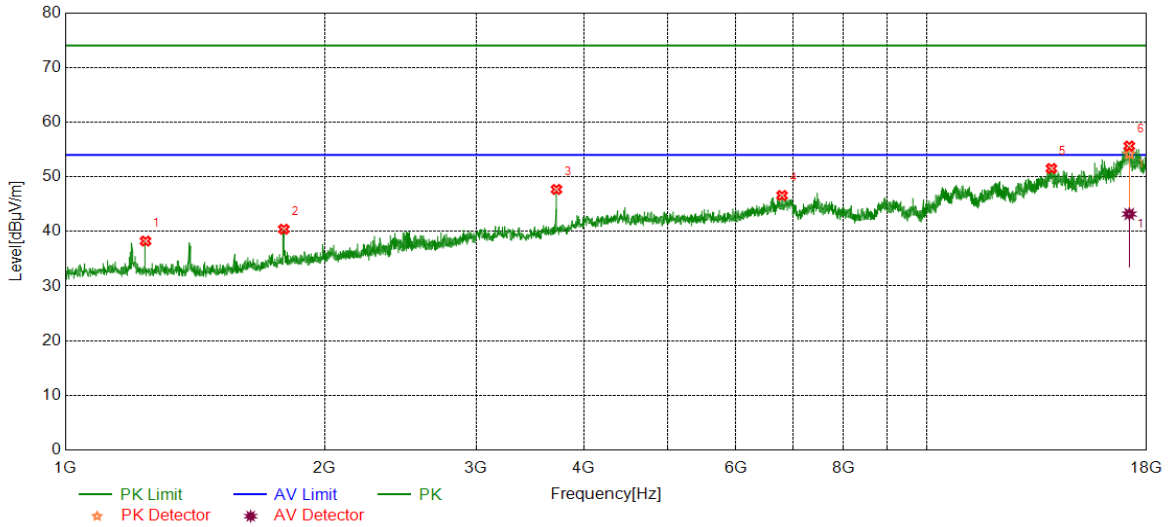


No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1797.5992	46.27	-3.90	42.37	74.00	-31.63	peak
2	1996.9990	46.71	-3.05	43.66	74.00	-30.34	peak
3	2276.4255	47.96	-2.12	45.84	74.00	-28.16	peak
4	3662.6104	48.14	3.01	51.15	74.00	-22.85	peak
5	13846.8078	35.71	15.56	51.27	74.00	-22.73	peak
6	17292.3821	36.16	18.86	55.02	74.00	-18.98	peak
		25.36	18.86	44.22	54.00	-9.78	average

- 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: VBW=10 Hz.
 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

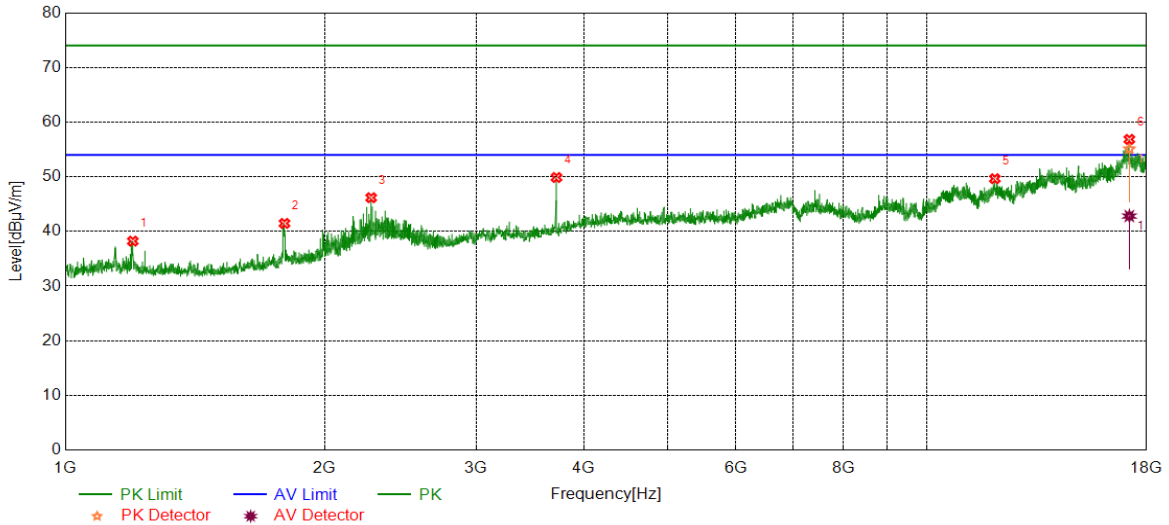


No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1239.4131	43.86	-5.62	38.24	74.00	-35.76	peak
2	1793.5979	44.35	-3.95	40.40	74.00	-33.60	peak
3	3717.6196	44.54	3.15	47.69	74.00	-26.31	peak
4	6793.1322	38.32	8.26	46.58	74.00	-27.42	peak
5	13956.8261	35.70	15.82	51.52	74.00	-22.48	peak
6	17184.8641	34.62	19.57	54.19	74.00	-19.81	peak
		23.61	19.57	43.18	54.00	-10.82	average

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: VBW=10 Hz.
 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)

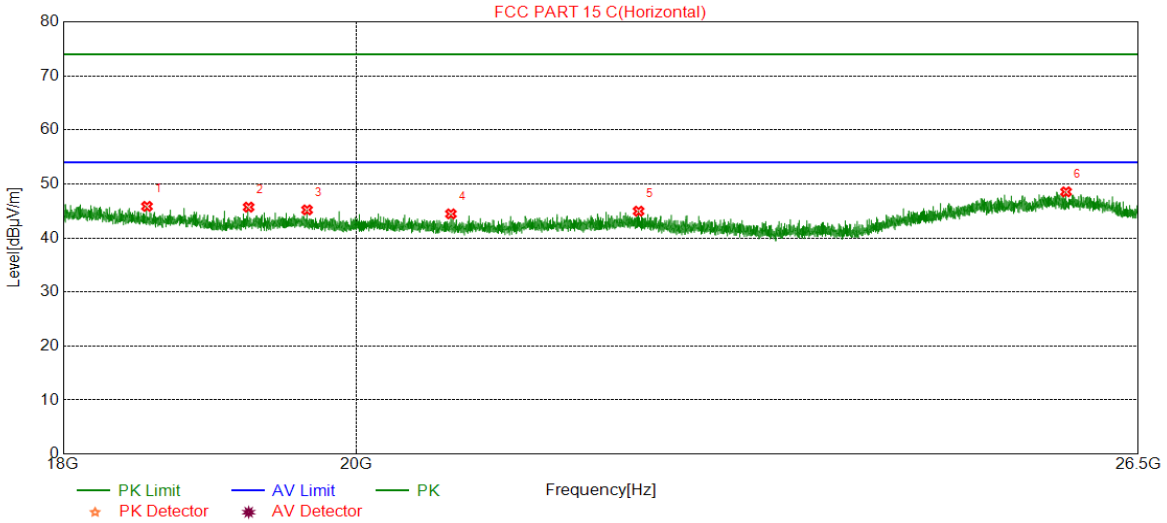


No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1198.0660	43.76	-5.54	38.22	74.00	-35.78	peak
2	1796.9323	45.38	-3.91	41.47	74.00	-32.53	peak
3	2265.7553	48.35	-2.18	46.17	74.00	-27.83	peak
4	3717.6196	46.72	3.15	49.87	74.00	-24.13	peak
5	11998.9998	35.68	13.97	49.65	74.00	-24.35	peak
6	17187.3646	35.55	19.55	55.10	74.00	-18.90	peak
		23.26	19.55	42.81	54.00	-11.19	average

- 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: VBW=10 Hz.
 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

9.3. SPURIOUS EMISSIONS (18~26GHz)

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

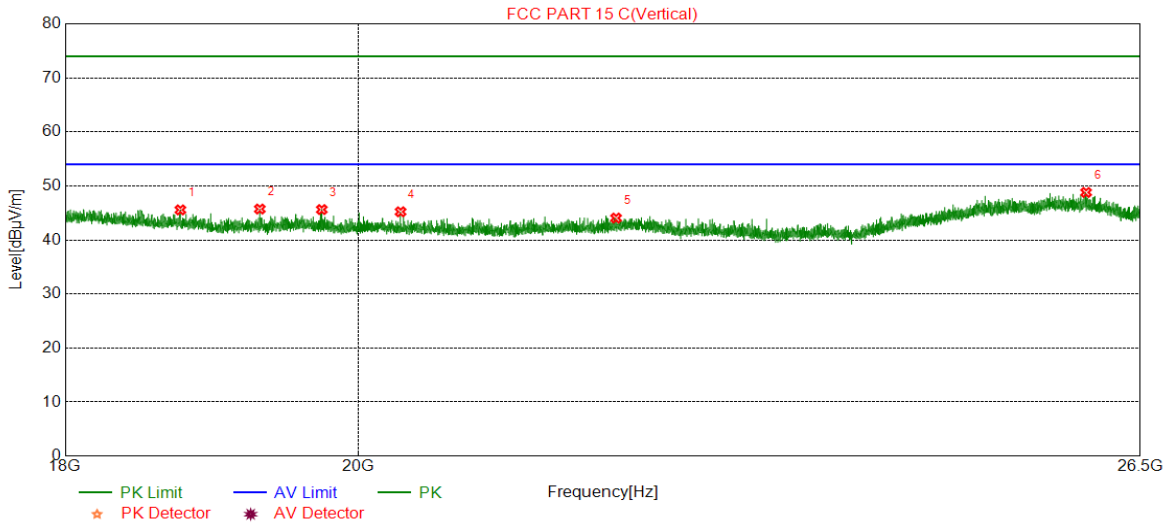


No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18550.8551	44.87	0.97	45.84	-74.00	28.16	peak
2	19241.9742	44.88	0.82	45.70	-74.00	28.30	peak
3	19650.8651	43.90	1.29	45.19	-74.00	28.81	peak
4	20694.7695	43.07	1.38	44.45	-74.00	29.55	peak
5	22140.7641	43.00	1.95	44.95	-74.00	29.05	peak
6	25822.4822	42.42	6.11	48.53	-74.00	25.47	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: VBW=10 Hz.
 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



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



No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	18761.6762	44.84	0.72	45.56	74.00	-28.44	peak
2	19305.7306	44.82	0.90	45.72	74.00	-28.28	peak
3	19740.9741	44.25	1.37	45.62	74.00	-28.38	peak
4	20308.8309	43.69	1.52	45.21	74.00	-28.79	peak
5	21946.0946	42.15	1.90	44.05	74.00	-29.95	peak
6	25990.7991	42.42	6.37	48.79	74.00	-25.21	peak

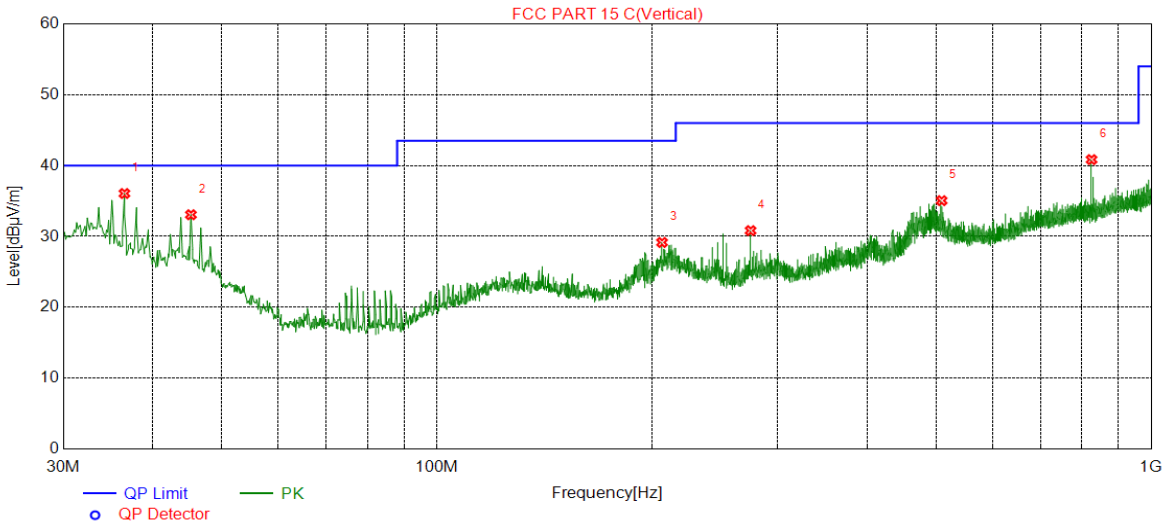
- Note:
1. Measurement = Reading Level + Correct Factor.
 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 3. Peak: Peak detector.
 4. AVG: VBW=10 Hz.
 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: All the test modes have been tested, only the worst data record in the report.



9.4. SPURIOUS EMISSIONS (0.03 ~ 1 GHz)

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

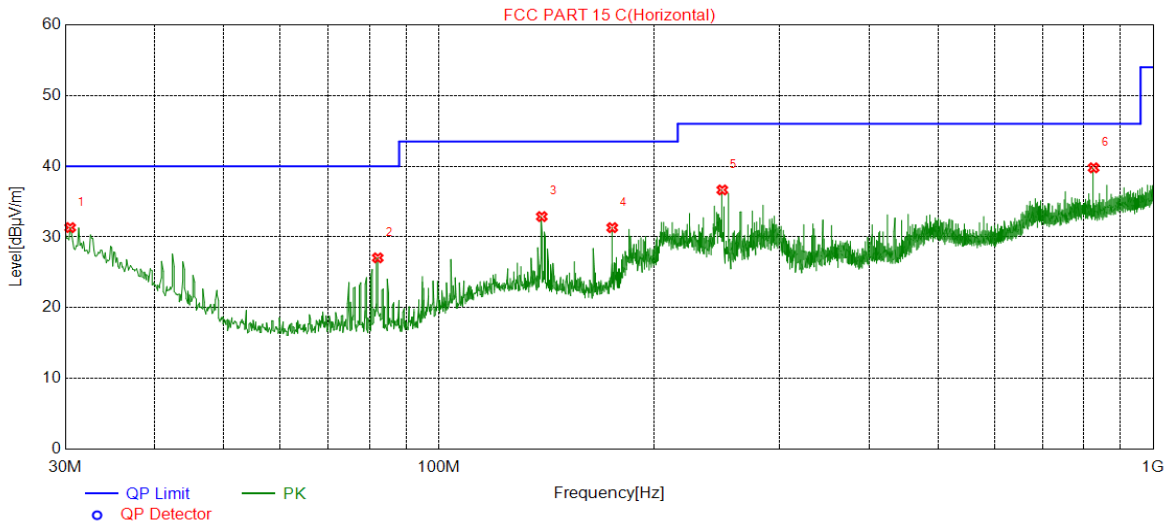


No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	36.5483	13.09	22.97	36.06	40.00	-3.94	QP
2	45.2794	15.57	17.49	33.06	40.00	-6.94	QP
3	206.6833	10.54	18.61	29.15	43.50	-14.35	QP
4	274.9556	10.72	20.10	30.82	46.00	-15.18	QP
5	508.9974	9.25	25.80	35.05	46.00	-10.95	QP
6	825.1356	10.73	30.11	40.84	46.00	-5.16	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 Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.4851	4.49	26.84	31.33	40.00	-8.67	QP
2	82.1440	12.73	14.32	27.05	40.00	-12.95	QP
3	139.3812	12.94	19.94	32.88	43.50	-10.62	QP
4	174.9119	13.27	18.05	31.32	43.50	-12.18	QP
5	249.3687	17.74	18.91	36.65	46.00	-9.35	QP
6	825.2569	9.67	30.11	39.78	46.00	-6.22	QP

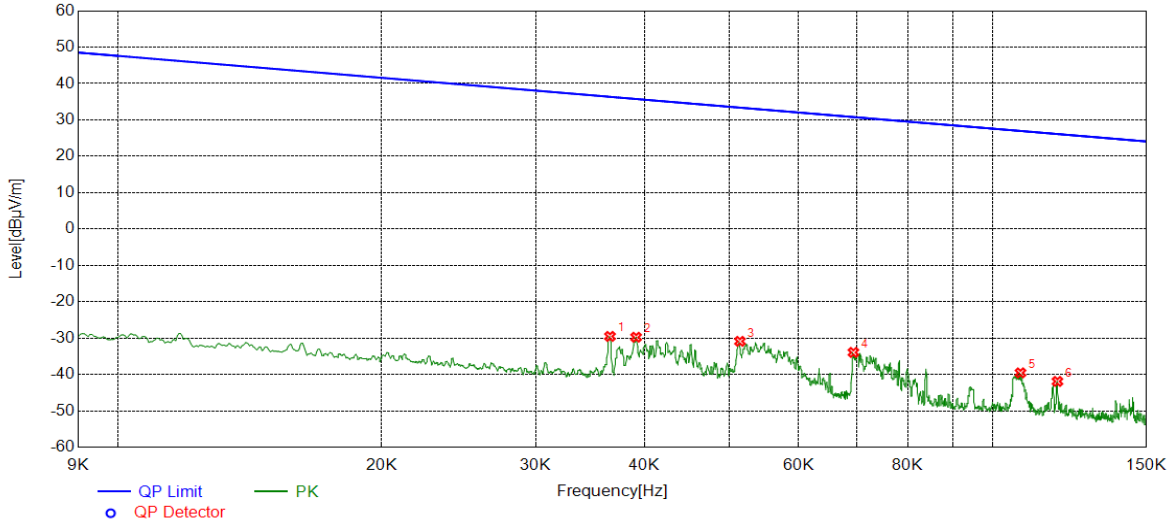
Note: 1. Result Level = Read Level + Correct Factor.
 2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
 3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.



9.5. SPURIOUS EMISSIONS BELOW 30M

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

0.09~ 150kHz

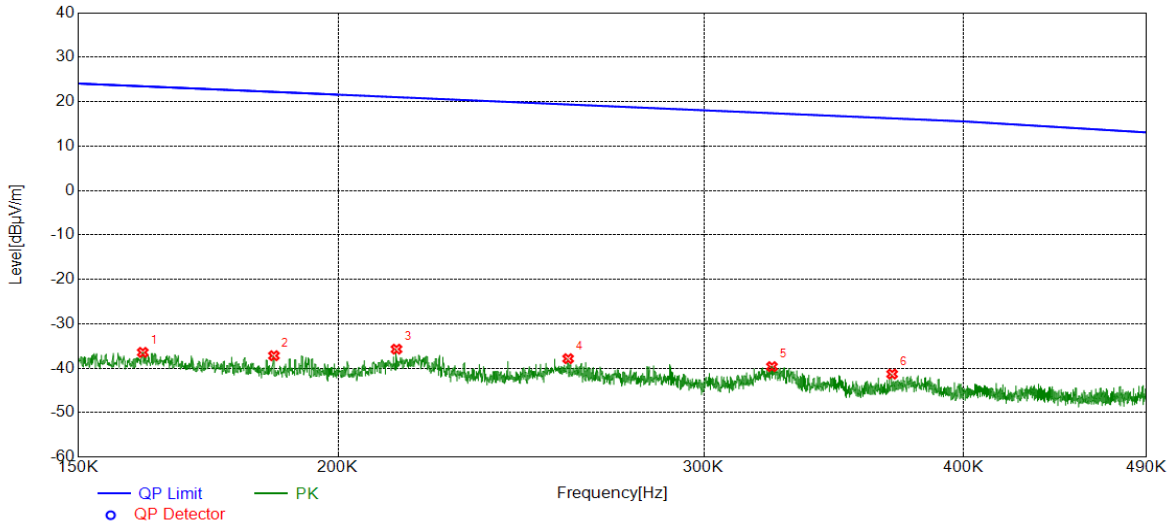


No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.0365	31.54	-61.07	-29.53	36.35	-65.88	peak
2	0.0391	31.33	-61.09	-29.76	35.75	-65.51	peak
3	0.0514	30.29	-61.18	-30.89	33.39	-64.28	peak
4	0.0693	27.52	-61.46	-33.94	30.79	-64.73	peak
5	0.1076	21.38	-60.94	-39.56	26.97	-66.53	peak
6	0.1186	19.17	-61.08	-41.91	26.12	-68.03	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
 2. Result 300m= Result 3m-80 dBuV/m
 3. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.



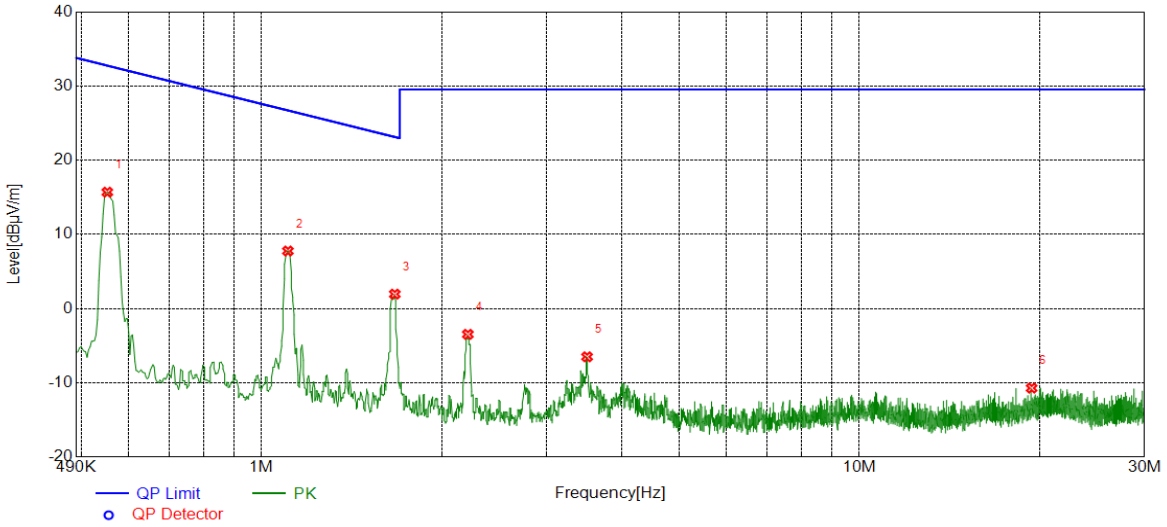
150kHz ~ 490kHz



No.	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.1611	24.95	-61.39	-36.44	23.46	-59.90	peak
2	0.1863	24.09	-61.27	-37.18	22.20	-59.38	peak
3	0.2134	25.42	-61.13	-35.71	21.02	-56.73	peak
4	0.2581	23.09	-60.94	-37.85	19.36	-57.21	peak
5	0.3235	21.24	-60.88	-39.64	17.40	-57.04	peak
6	0.3696	19.53	-60.84	-41.31	16.25	-57.56	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
 2. Result 300m= Result 3m-80 dBuV/m
 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 Level (dBuV/m)	Correct Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.5520	36.43	-20.74	15.69	32.76	-17.07	peak
2	1.1068	28.23	-20.47	7.76	26.73	-18.97	peak
3	1.6705	22.33	-20.38	1.95	23.15	-21.20	peak
4	2.2136	16.92	-20.39	-3.47	29.54	-33.01	peak
5	3.5033	13.87	-20.37	-6.50	29.54	-36.04	peak
6	19.4137	6.94	-17.66	-10.72	29.54	-40.26	peak

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

2. Result 30m= Result 3m-40 dBuV/m

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

Note: All constructions and test modes have been tested, only the worst data record in the report.

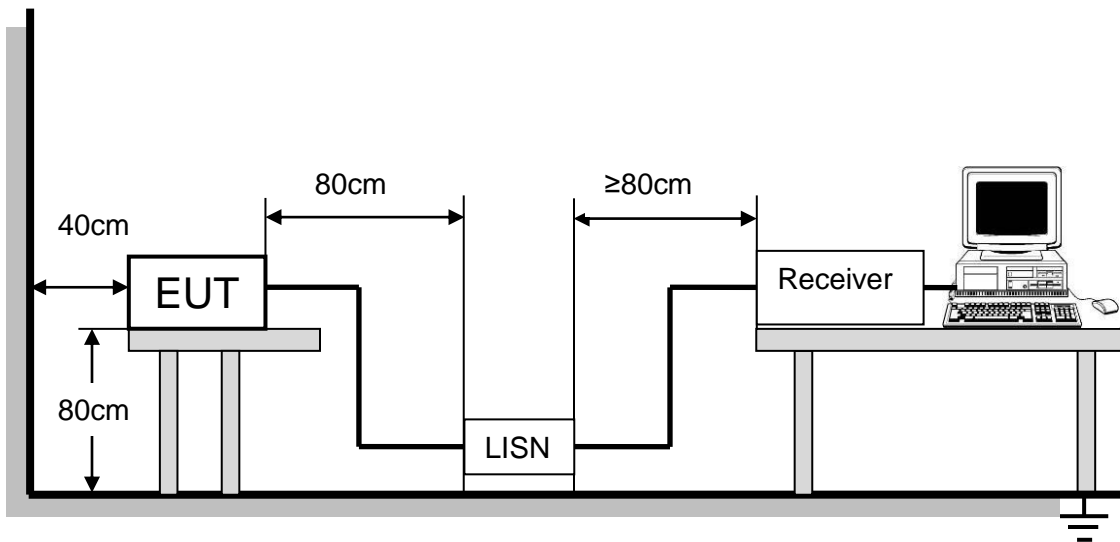
10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to CFR 47 FCC §15.207 (a)

FREQUENCY (MHz)	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 C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

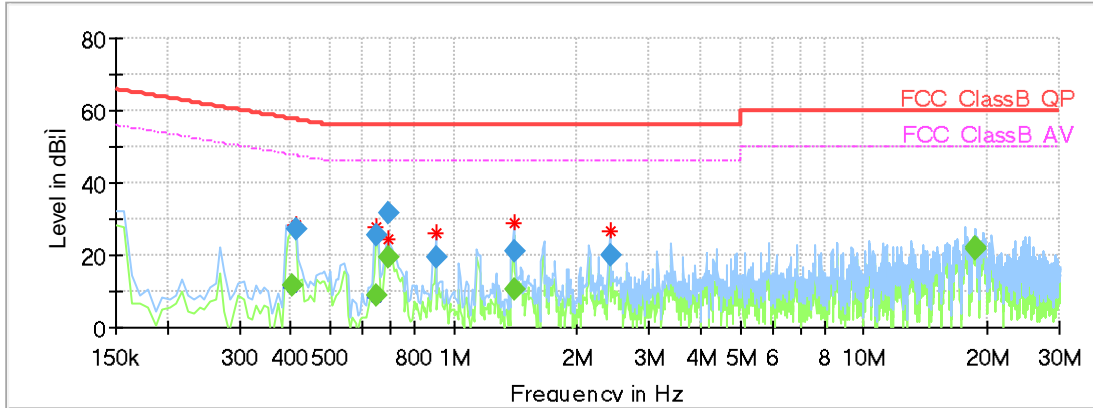
TEST ENVIRONMENT

Temperature	20°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V



TEST RESULTS

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

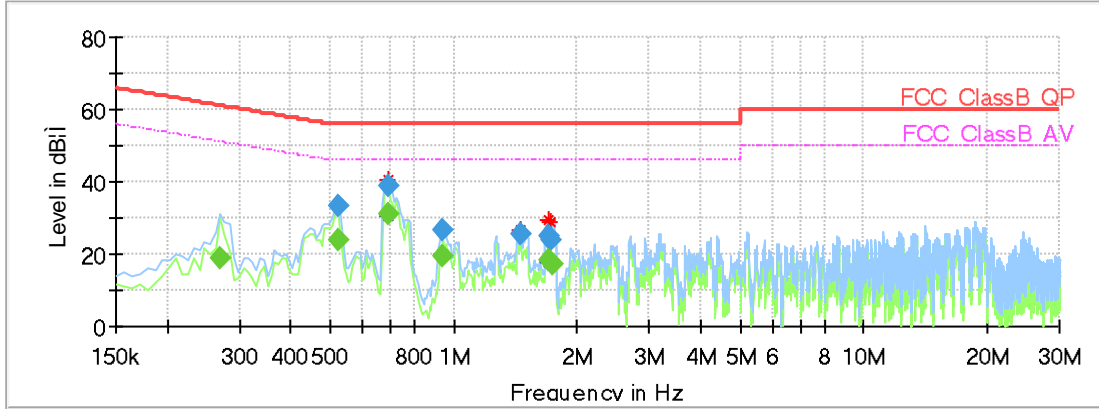


Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.403725	---	11.66	47.78	36.12	1000.0	9.000	N	OFF	9.6
0.411188	27.08	---	57.62	30.54	1000.0	9.000	N	OFF	9.6
0.649988	---	8.71	46.00	37.29	1000.0	9.000	N	OFF	9.6
0.649988	25.42	---	56.00	30.58	1000.0	9.000	N	OFF	9.6
0.694763	---	19.61	46.00	26.39	1000.0	9.000	N	OFF	9.6
0.694763	31.64	---	56.00	24.36	1000.0	9.000	N	OFF	9.6
0.903713	19.64	---	56.00	36.36	1000.0	9.000	N	OFF	9.6
1.403700	21.27	---	56.00	34.73	1000.0	9.000	N	OFF	9.6
1.403700	---	10.74	46.00	35.26	1000.0	9.000	N	OFF	9.6
2.403675	19.74	---	56.00	36.26	1000.0	9.000	N	OFF	9.7
18.627150	---	22.21	50.00	27.79	1000.0	9.000	N	OFF	9.9
18.739088	---	21.79	50.00	28.21	1000.0	9.000	N	OFF	10.0



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



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.269400	---	18.69	51.14	32.45	1000.0	9.000	L1	OFF	9.6
0.523125	---	23.66	46.00	22.34	1000.0	9.000	L1	OFF	9.6
0.523125	33.15	---	56.00	22.85	1000.0	9.000	L1	OFF	9.6
0.694763	---	30.85	46.00	15.15	1000.0	9.000	L1	OFF	9.6
0.694763	39.15	---	56.00	16.85	1000.0	9.000	L1	OFF	9.6
0.941025	26.91	---	56.00	29.09	1000.0	9.000	L1	OFF	9.6
0.941025	---	19.38	46.00	26.62	1000.0	9.000	L1	OFF	9.6
1.463400	25.34	---	56.00	30.66	1000.0	9.000	L1	OFF	9.7
1.702200	24.92	---	56.00	31.08	1000.0	9.000	L1	OFF	9.7
1.709663	---	18.06	46.00	27.94	1000.0	9.000	L1	OFF	9.7
1.732050	23.74	---	56.00	32.26	1000.0	9.000	L1	OFF	9.7
1.746975	---	17.15	46.00	28.85	1000.0	9.000	L1	OFF	9.7

Note: All the test modes have been tested, only the worst data record in the report.



11. 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