FCC 47 CFR PART 15 SUBPART C

TEST REPORT

For

NaviCam Stomach Capsule

MODEL NUMBER: AKEM-11SW

FCC ID: 2ATXZ-AKEM11SW

REPORT NUMBER: 4789030801-2

ISSUE DATE: Jul. 31, 2019

Prepared for

AnX Robotica Corp.

Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
--	07/31/2019	Initial Issue	

Summary of Test Results			
Clause	Test Items	FCC/IC Rules	Test Results
1	20dB Bandwidth	FCC Part 2.1049	Pass
2	TX Spurious Emission	FCC 15.249 (a)(d)(e) FCC 15.209 FCC 15.205	Pass
3	Conducted Emission Test For AC Power Port	FCC Part 15.207	N/A (See Note2)

Note:
1) The measurement result for the sample received is <Pass> according to < CFR 47 FCC PART 15 SUBPART C> when <Accuracy Method> decision rule is applied.
2) The device is operated from an internal battery that is not rechargeable.

TABLE OF CONTENTS

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 Stomach Capsule
Model:	AKEM-11SW
Sample Number	2343785
Sample Received Date:	June 10, 2019
Date of Tested:	June 10~ July 25, 2019

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	PASS

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Approved By:

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Laboratory Leader

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	**A2LA (Certificate No.: 4829.01)** **UL-CCIC COMPANY LIMITED has been assessed and proved to be in compliance with A2LA.** **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**

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 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	3.80dB
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 Stomach Capsule
Model	AKEM-11SW
Radio Technology	2.4GHz RF
Operation frequency	2403MHz—2481MHz
Modulation	GFSK
Power Supply	DC 3V

5.2. MAXIMUM EMISSIONS FIELD STRENGTH

Number of Transmit Chains (NTX)	Frequency (MHz)	Channel Number	Max Field Strength (dBuV/m)
1	2403-2481	1-79[79]	88.89

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

For the product, there is only one transmission antenna, so only the worst data for the antenna is recorded in the report.

Worst-case data rates as provided by the client were: 2 Mbps

5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Ant.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1	2403-2481	Internal Antenna	-12.0

5.7. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

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

I/O CABLES

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

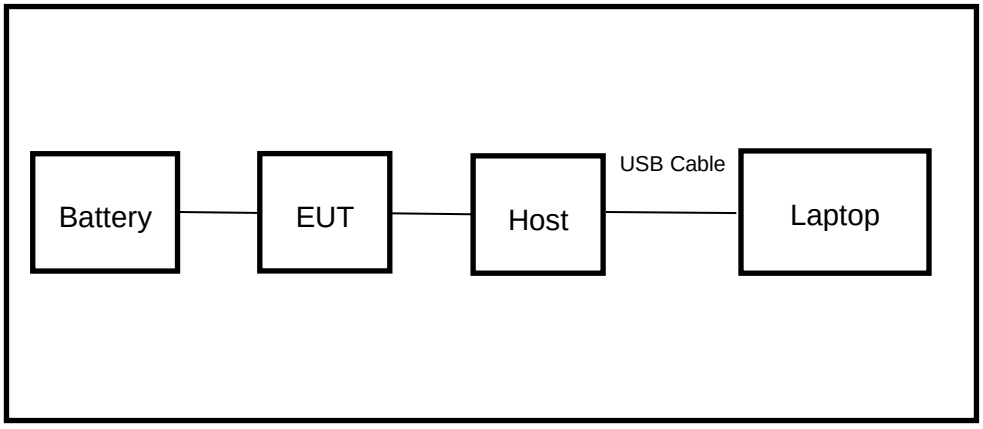
ACCESSORY

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

TEST SETUP

The EUT can work in an engineer mode with a software through a table 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.
☑	EMI Test Receiver	R&S	ESR3	126700	2017-12-14	2018-12-13	2019-12-12
☑	Two-Line V-Network	R&S	ENV216	126701	2017-12-14	2018-12-13	2019-12-12
☑	Artificial Mains Networks	R&S	ENY81	126711	2017-12-14	2018-12-13	2019-12-12
Software							
Used	Description			Manufacturer	Name	Version	
☑	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.
☑	Spectrum Analyzer	Keysight	N9010B	MY57110128	2018-05-30	2019-05-29	2020-05-28
☑	EMI test receiver	R&S	ESR26	1267603	2017-12-14	2018-12-13	2019-12-22
☑	Receiver Antenna (9kHz-30MHz)	Schwarzbeck	FMZB 1513	513-265	2018-06-17	2019-06-16	2020-06-15
☑	Receiver Antenna (30MHz-1GHz)	SunAR RF Motion	JB1	126704	N/A	2019-01-28	2022-01-27
☑	Receiver Antenna (1GHz-18GHz)	R&S	HF907	126705	2018-01-27	2019-01-26	2020-01-26
☑	Receiver Antenna (18GHz-26.5GHz)	Schwarzbeck	BBHA9170	126706	2018-02-07	2019-02-06	2020-02-05
☑	Receiver Antenna (26.5GHz-40GHz)	TOYO	HAP 26-40W	00000012	2018-07-25	2019-07-24	2020-07-23
☑	Pre-amplification (To 1GHz)	R&S	SCU-03D	134666	2018-02-07	2019-02-06	2020-02-05
☑	Pre-amplification (To 18GHz)	TDK	PA-02-0118	TRS-305-00066	2017-12-12	2018-12-11	2019-12-10
☑	Pre-amplification (To 26.5GHz)	R&S	SCU-26D	134668	2018-02-07	2019-02-06	2020-02-05
☑	Band Reject Filter	Wainwright	WRCJV8-2350-2400-2483.5-2533.5-40SS	1	2018-05-30	2019-05-29	2020-05-28
☑	Highpass Filter	Wainwright	WHKX10-2700-3000-18000-40SS	2	2018-05-30	2019-05-29	2020-05-28
Software							
Used	Description			Manufacturer	Name	Version	
☑	Test Software for Radiated disturbance			Tonscend	JS32	V1.0	
Other instruments							
Used	Equipment	Manufacturer	Model No.	Serial No.	Upper Last Cal.	Next Cal.	
☑	Spectrum Analyzer	Keysight	N9010B	MY57110128	2018-05-30	2019-05-29	2020-05-28
☑	Power Meter	Keysight	U2021XA	MY57110002	2018-06-13	2019-06-12	2020-06-11

7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

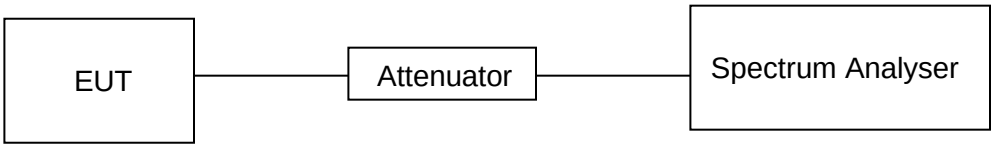
LIMITS

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 3V

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)
132.0	466.0	0.2833	28.33%	5.48	0.0076	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.

ON TIME AND DUTY CYCLE MID

7.2. 20 dB BANDWIDTH

LIMITS

FCC Part15 (15.249) , Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.249(d)	Bandwidth	for reporting purposes only	902-928 MHz

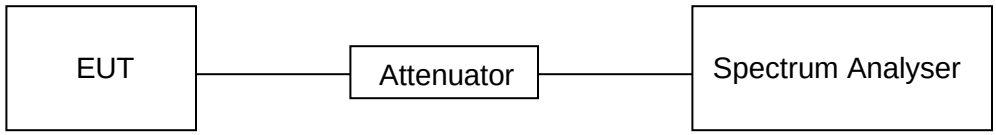
TEST PROCEDURE

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

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

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

TEST SETUP

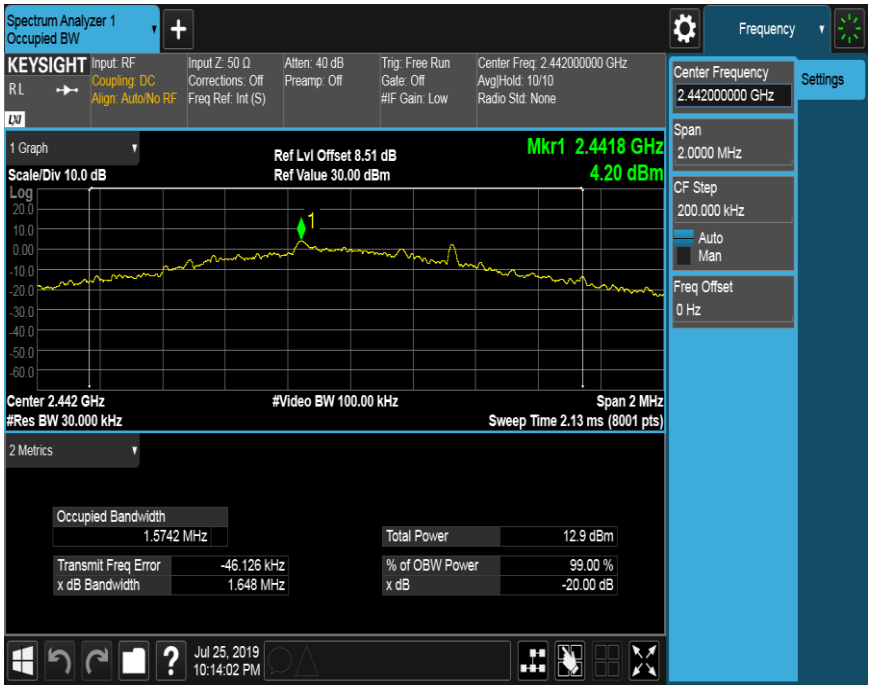


RESULTS

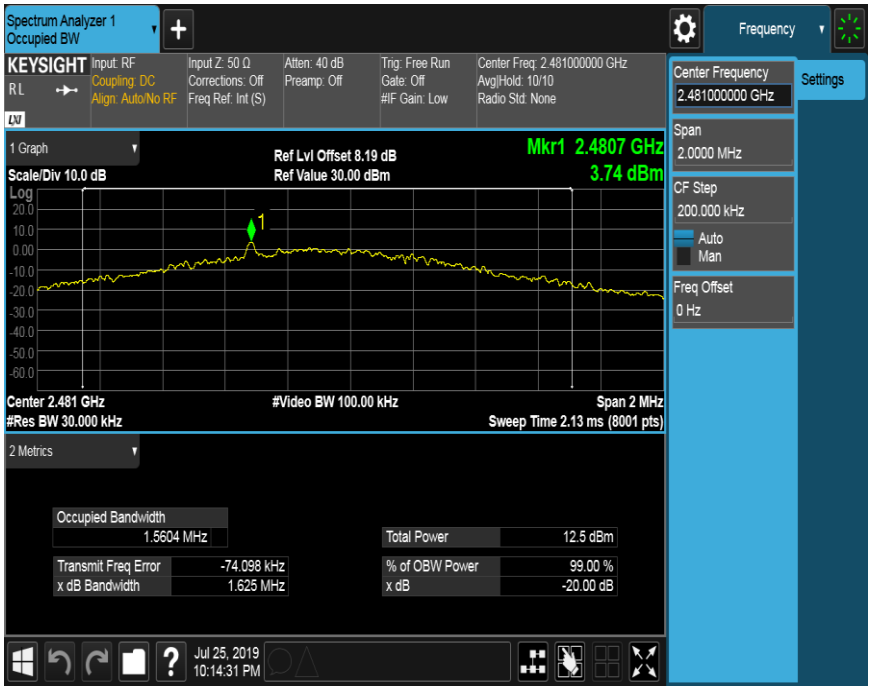
Channel	20dB bandwidth (MHz)	Result
Low	1.857	Pass
Middle	1.648	Pass
High	1.625	Pass

BANDWIDTH LOW CH

BANDWIDTH MID CH



BANDWIDTH HIGH CH



8. RADIATED TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMITS

Please refer to FCC §15.205 and §15.209
Please refer to FCC §15.249 (a)(d)(e)

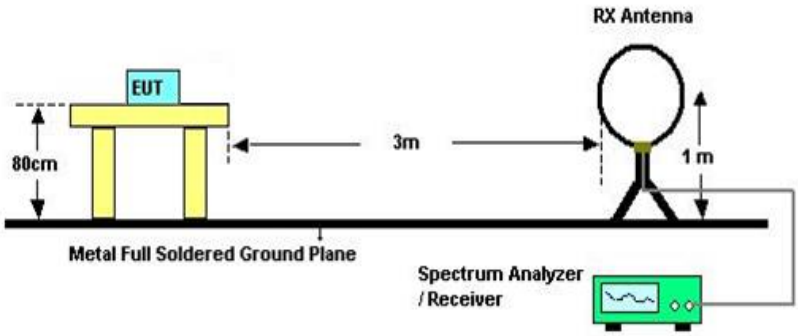
The field strength of emissions from intentional radiators operated within these frequency bands			
Frequency (MHz)	Field strength of Fundamental	Field strength of Harmonics	Distance (m)
902 - 928	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3
2400 – 2483.5	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3
5725 – 5875	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3

Emissions radiated outside of the specified frequency bands			
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m	
30 - 88	100	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

About Restricted bands of operation please refer to FCC §15.205 (a)

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.

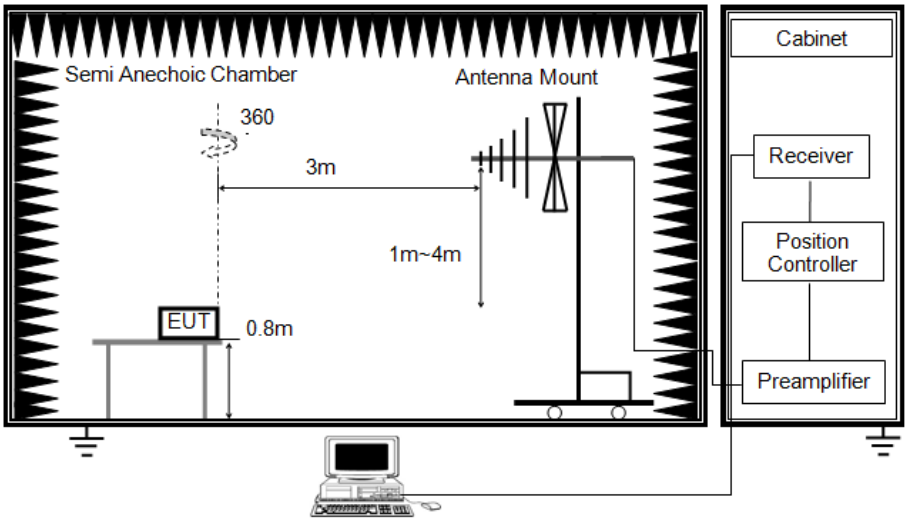
3. The EUT was placed on a turntable with 0.8 meter above ground.

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.

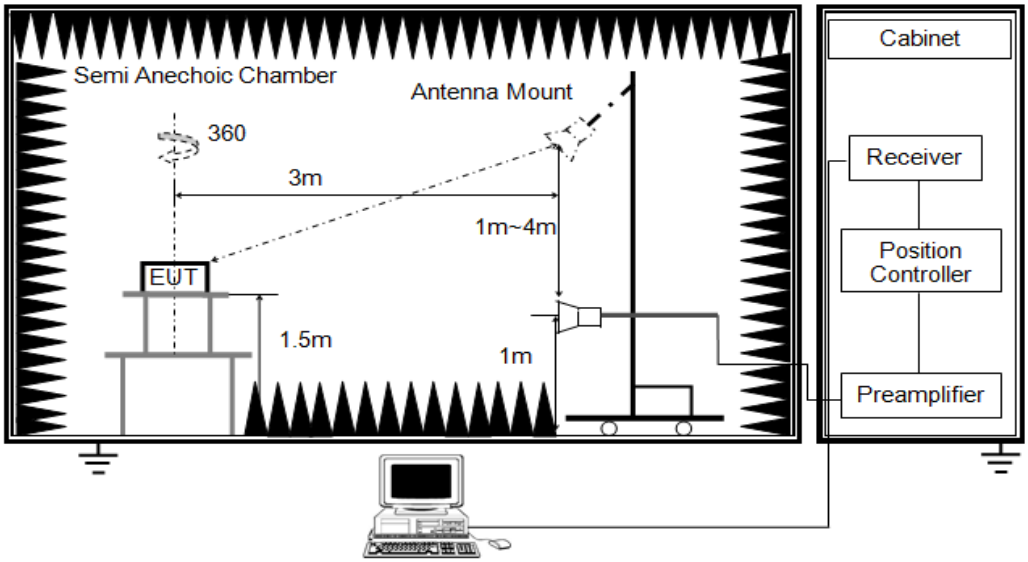
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations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

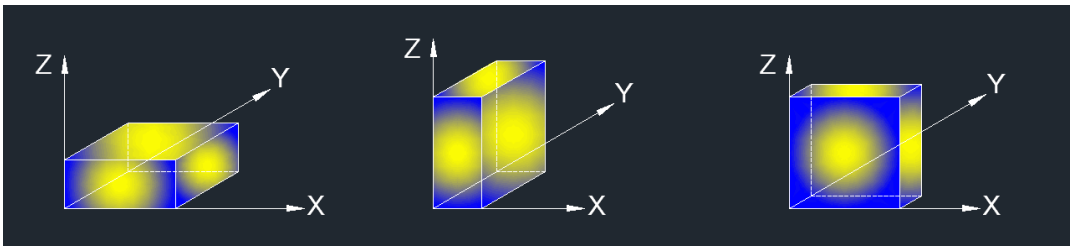
3. The EUT was placed on a turntable with 1.5m above ground.

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 7.1.ON TIME AND DUTY CYCLE.

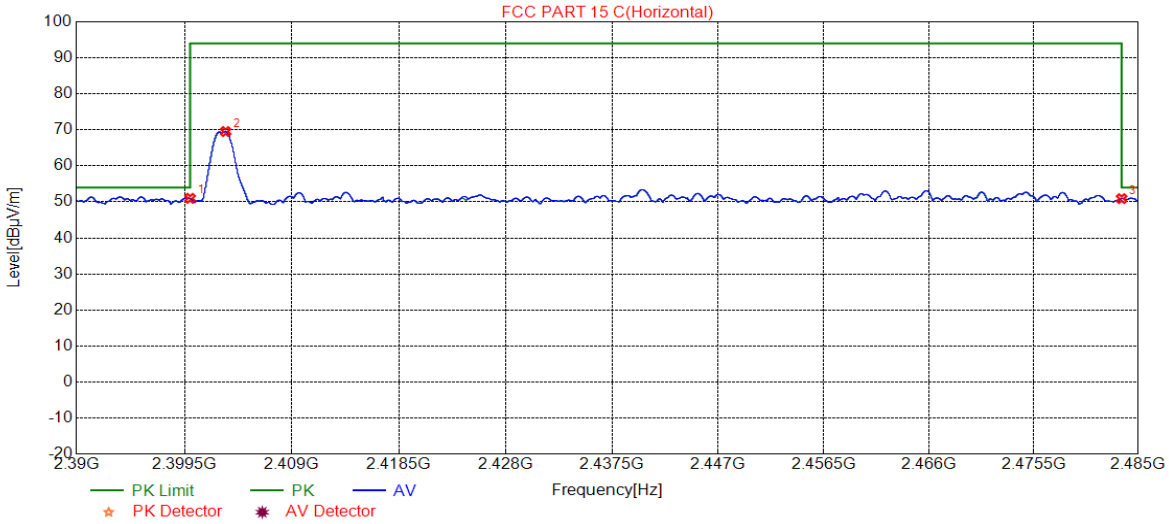
X axis, Y axis, Z axis positions:



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..

8.2. FIELD STRENGTH OF INTENTIONAL EMISSIONS

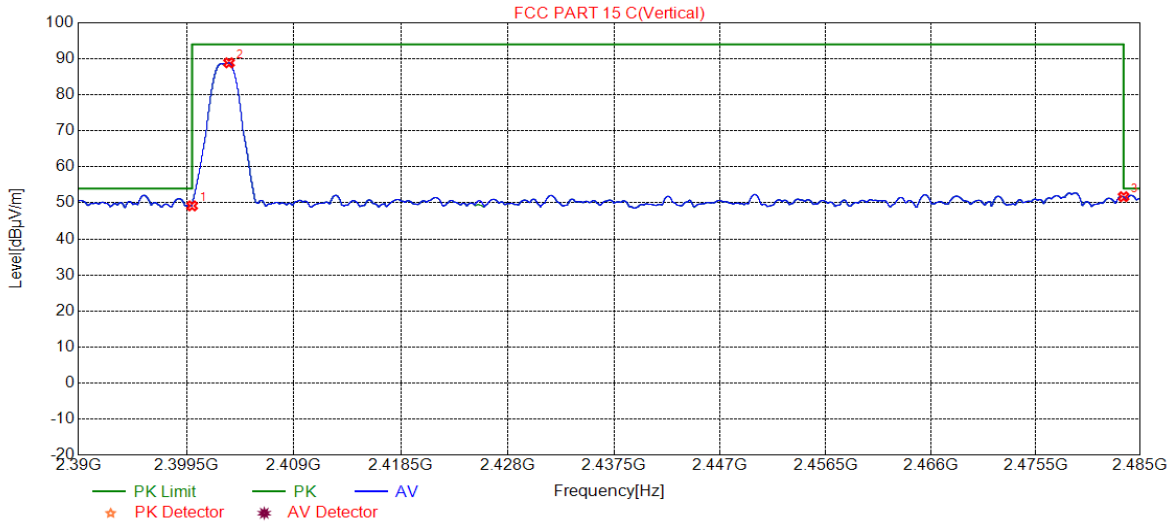
FIELD STRENGTH OF INTENTIONAL EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2400.0000	37.04	13.96	51.00	54.00	-3.00	Peak
2	2403.1354	55.58	13.95	69.53	94.00	-24.47	Peak
3	2483.5000	37.04	13.88	50.92	54.00	-3.08	Peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak detector.

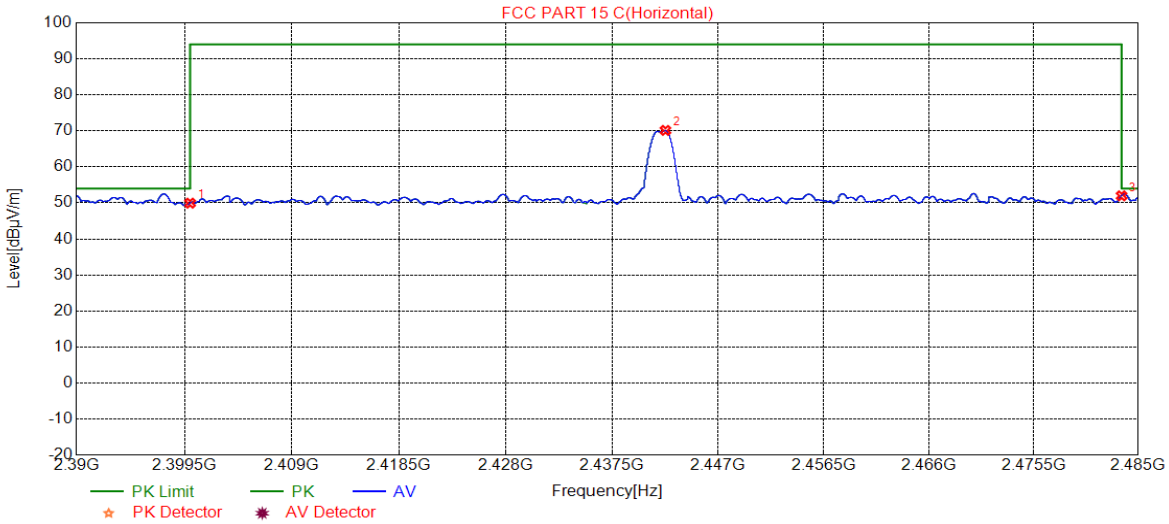
FIELD STRENGTH OF INTENTIONAL EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2400.0000	35.22	13.96	49.18	54.00	-4.82	Peak
2	2403.2542	74.94	13.95	88.89	94.00	-5.11	Peak
3	2483.5000	37.85	13.88	51.73	54.00	-2.27	Peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak detector.

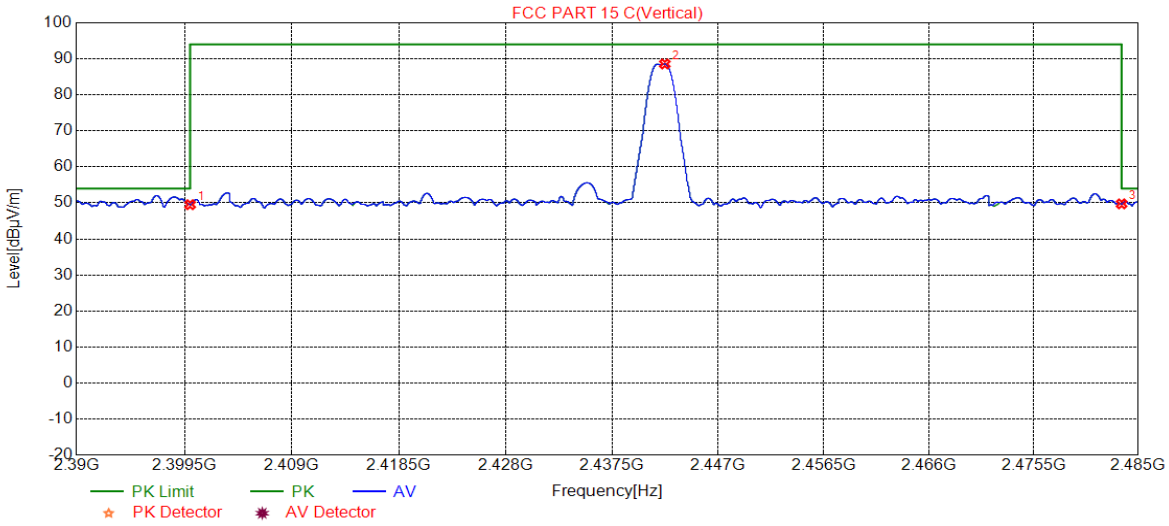
FIELD STRENGTH OF INTENTIONAL EMISSIONS (MIDDLE CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2400.0000	35.98	13.96	49.94	54.00	-4.06	Peak
2	2442.2565	56.31	13.82	70.13	94.00	-23.87	Peak
3	2483.5000	38.09	13.88	51.97	54.00	-2.03	Peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak detector.

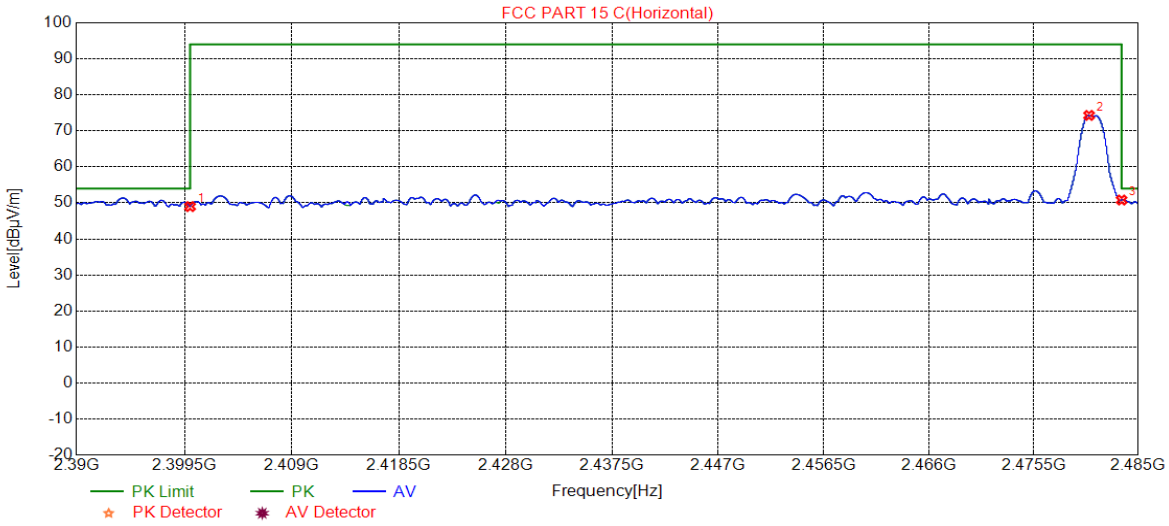
FIELD STRENGTH OF INTENTIONAL EMISSIONS (MIDDLE CHANNEL, VERTICAL)



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2400.0000	35.55	13.96	49.51	54.00	-4.49	Peak
2	2442.1972	74.76	13.82	88.58	94.00	-5.42	Peak
3	2483.5000	35.86	13.88	49.74	54.00	-4.26	Peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak detector.

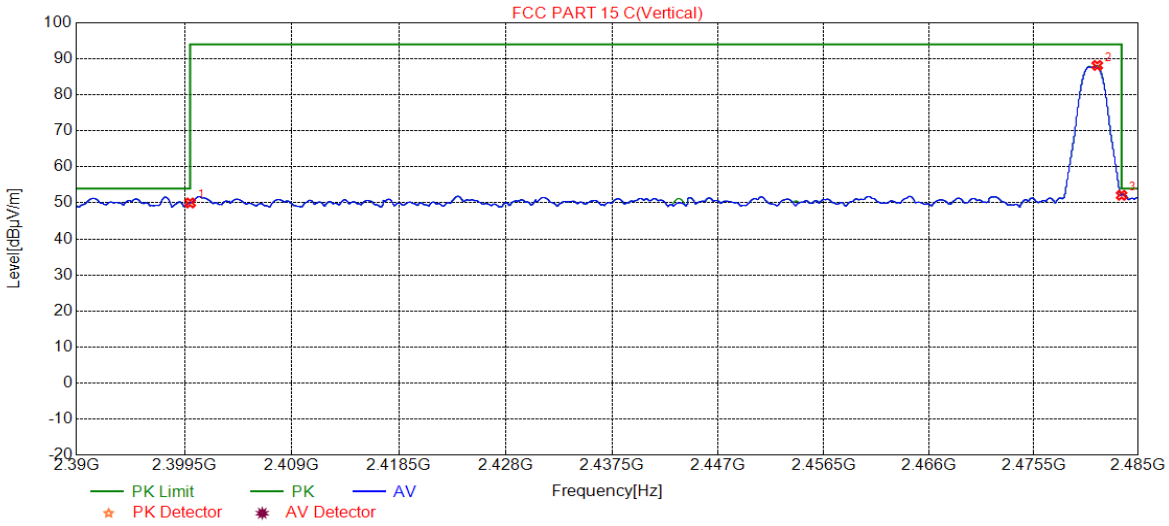
FIELD STRENGTH OF INTENTIONAL EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2400.0000	35.02	13.96	48.98	54.00	-5.02	Peak
2	2480.5344	60.44	13.85	74.29	94.00	-19.71	Peak
3	2483.5000	36.92	13.88	50.80	54.00	-3.20	Peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak detector.

FIELD STRENGTH OF INTENTIONAL EMISSIONS (HIGH CHANNEL, VERTICAL)



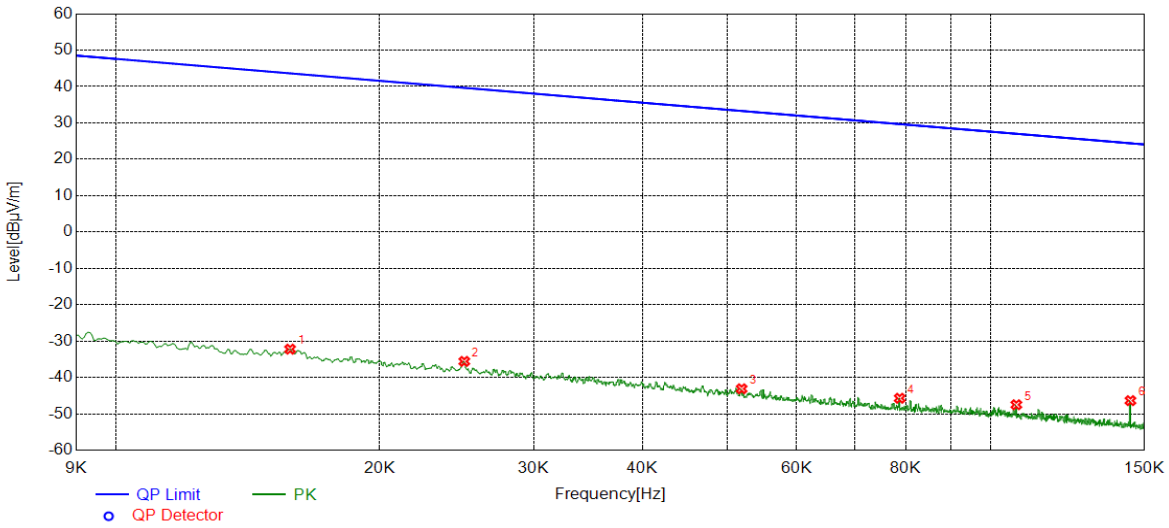
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2400.0000	36.03	13.96	49.99	54.00	-4.01	Peak
2	2481.2827	74.30	13.86	88.16	94.00	-5.84	Peak
3	2483.5000	38.23	13.88	52.11	54.00	-1.89	Peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. Peak detector.

8.3. SPURIOUS EMISSIONS BELOW 30M

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

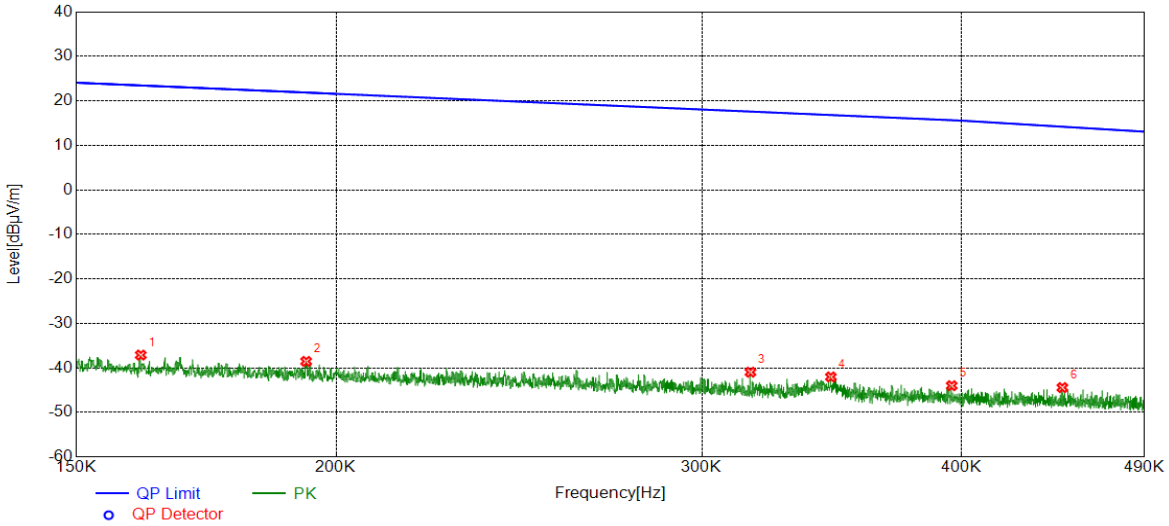
0.09~ 150kHz



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0158	28.87	-61.09	-32.22	43.64	-75.86	peak
2	0.0250	25.41	-60.99	-35.58	39.65	-75.23	peak
3	0.0519	18.08	-61.19	-43.11	33.30	-76.41	peak
4	0.0787	15.73	-61.45	-45.72	29.68	-75.40	peak
5	0.1070	13.44	-60.94	-47.50	27.02	-74.52	peak
6	0.1445	15.01	-61.38	-46.37	24.40	-70.77	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.

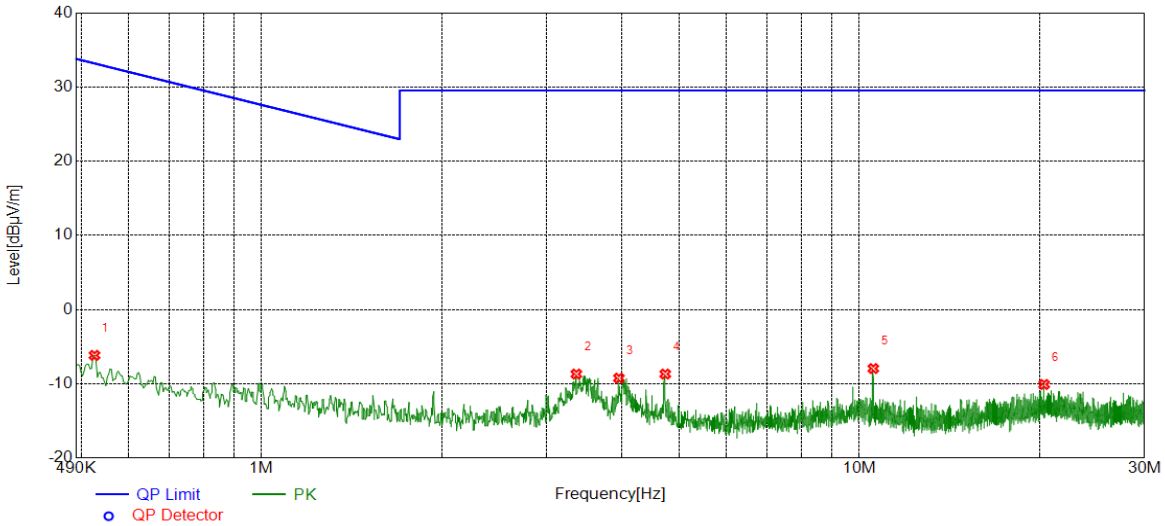
150kHz ~ 490kHz



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1611	24.28	-61.39	-37.11	23.46	-60.57	peak
2	0.1935	22.70	-61.23	-38.53	21.87	-60.40	peak
3	0.3166	19.93	-60.89	-40.96	17.59	-58.55	peak
4	0.3461	18.84	-60.86	-42.02	16.82	-58.84	peak
5	0.3957	16.83	-60.82	-43.99	15.65	-59.64	peak
6	0.4473	16.35	-60.77	-44.42	14.19	-58.61	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



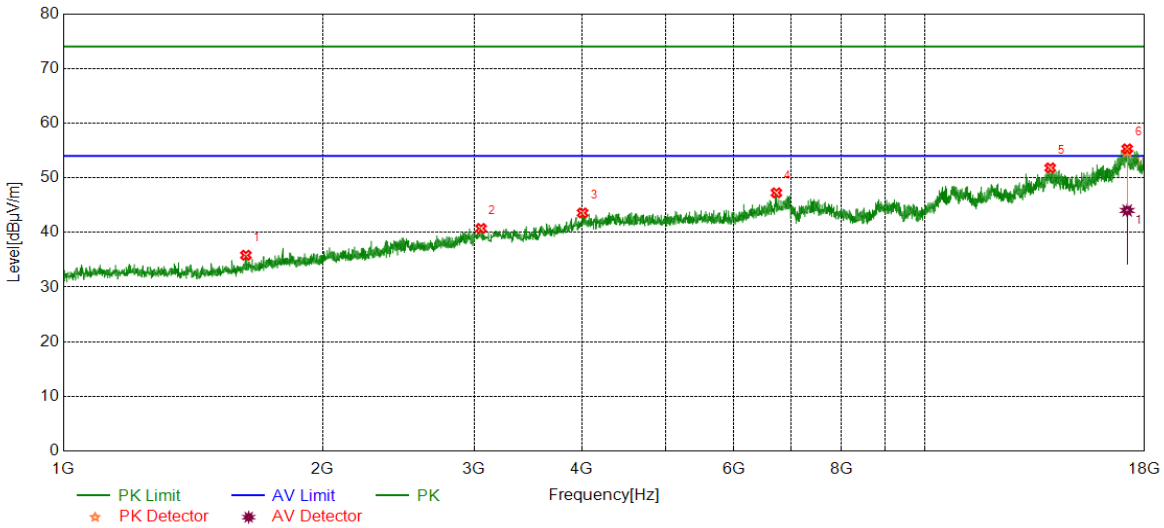
No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.5254	14.56	-20.73	-6.17	33.19	-39.36	peak
2	3.3616	11.74	-20.43	-8.69	29.54	-38.23	peak
3	3.9607	10.94	-20.18	-9.24	29.54	-38.78	peak
4	4.7340	11.63	-20.32	-8.69	29.54	-38.23	peak
5	10.5510	11.07	-19.02	-7.95	29.54	-37.49	peak
6	20.3699	7.40	-17.49	-10.09	29.54	-39.63	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.

8.4. SPURIOUS EMISSIONS 1 ~ 18GHz

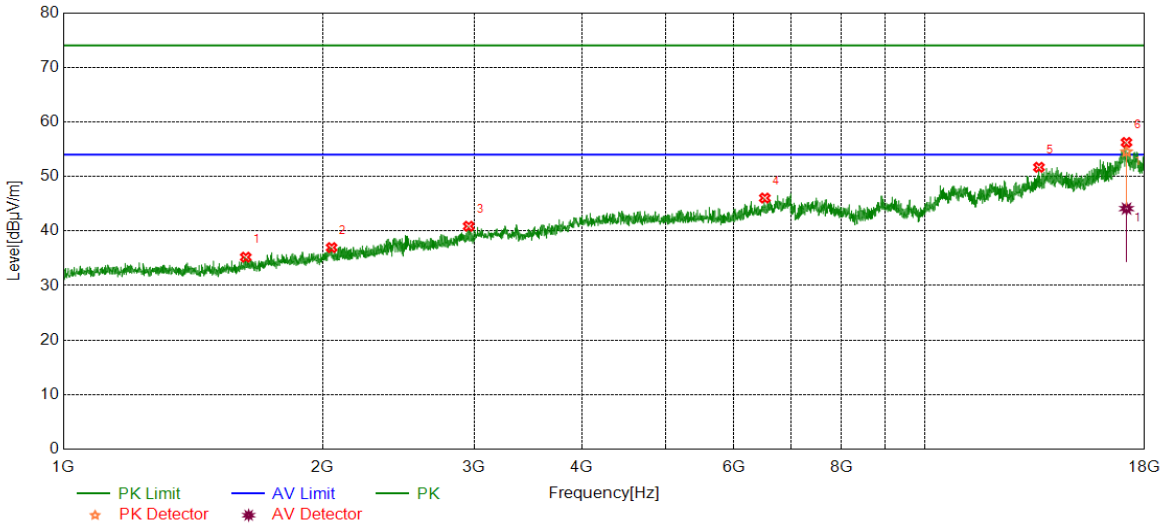
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1629.5432	40.93	-5.10	35.83	74.00	-38.17	peak
2	3055.0092	38.44	2.29	40.73	74.00	-33.27	peak
3	4007.6679	39.21	4.36	43.57	74.00	-30.43	peak
4	6728.1214	38.48	8.77	47.25	74.00	-26.75	peak
5	13986.8311	35.53	16.28	51.81	74.00	-22.19	peak
6	17179.8633	35.12	19.59	54.71	74.00	-19.29	peak
		24.43	19.59	44.02	54.00	-9.98	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.

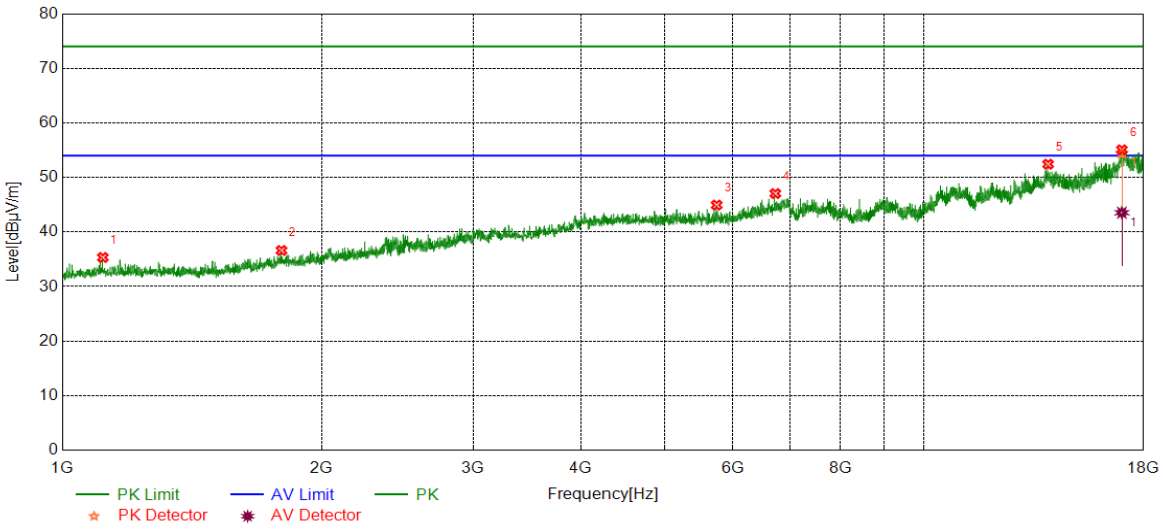
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1628.8763	40.30	-5.10	35.20	74.00	-38.80	peak
2	2049.0163	39.48	-2.52	36.96	74.00	-37.04	peak
3	2955.9853	40.12	0.75	40.87	74.00	-33.13	peak
4	6523.0872	38.16	7.88	46.04	74.00	-27.96	peak
5	13571.7620	36.88	14.80	51.68	74.00	-22.32	peak
6	17149.8583	34.79	19.73	54.52	74.00	-19.48	peak
		24.38	19.73	44.11	54.00	-9.89	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.

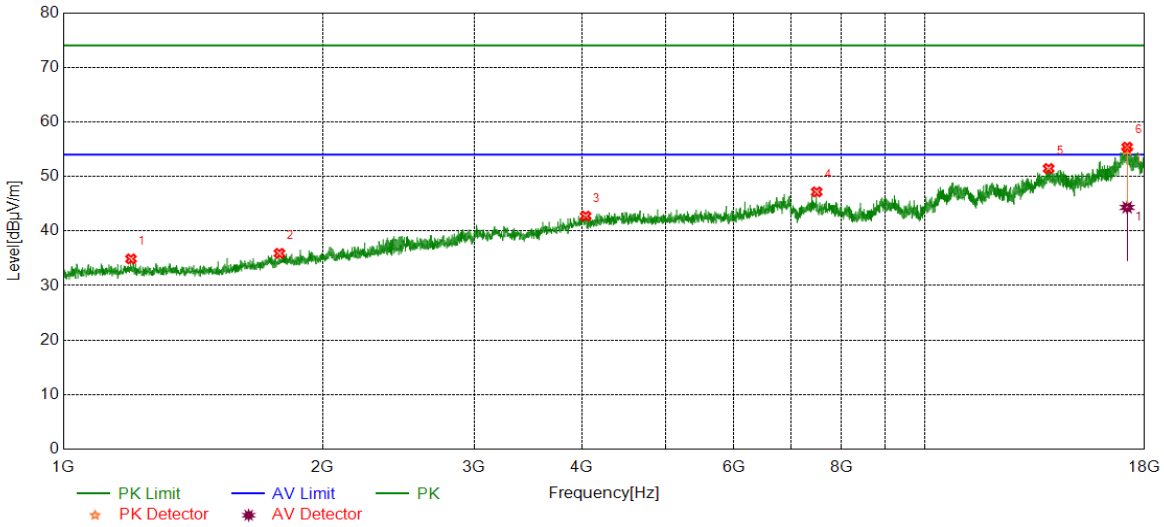
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1114.7049	40.87	-5.54	35.33	74.00	-38.67	peak
2	1796.9323	40.53	-3.91	36.62	74.00	-37.38	peak
3	5750.4584	39.44	5.50	44.94	74.00	-29.06	peak
4	6725.6209	38.32	8.73	47.05	74.00	-26.95	peak
5	13944.3241	36.63	15.80	52.43	74.00	-21.57	peak
6	16984.8308	34.40	20.03	54.43	74.00	-19.57	peak
		23.51	20.03	43.54	54.00	-10.46	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.

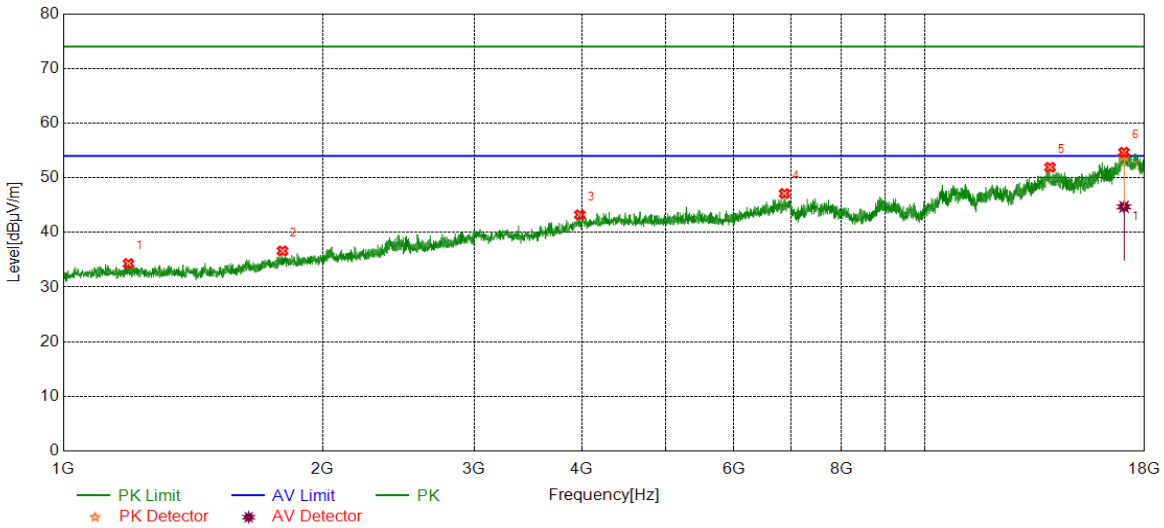
HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1198.7329	40.42	-5.54	34.88	74.00	-39.12	peak
2	1782.2608	39.83	-3.93	35.90	74.00	-38.10	peak
3	4040.1734	38.30	4.43	42.73	74.00	-31.27	peak
4	7493.2489	37.97	9.20	47.17	74.00	-26.83	peak
5	13926.8211	35.39	16.06	51.45	74.00	-22.55	peak
6	17179.8633	35.27	19.59	54.86	74.00	-19.14	peak
		24.74	19.59	44.33	54.00	-9.67	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.

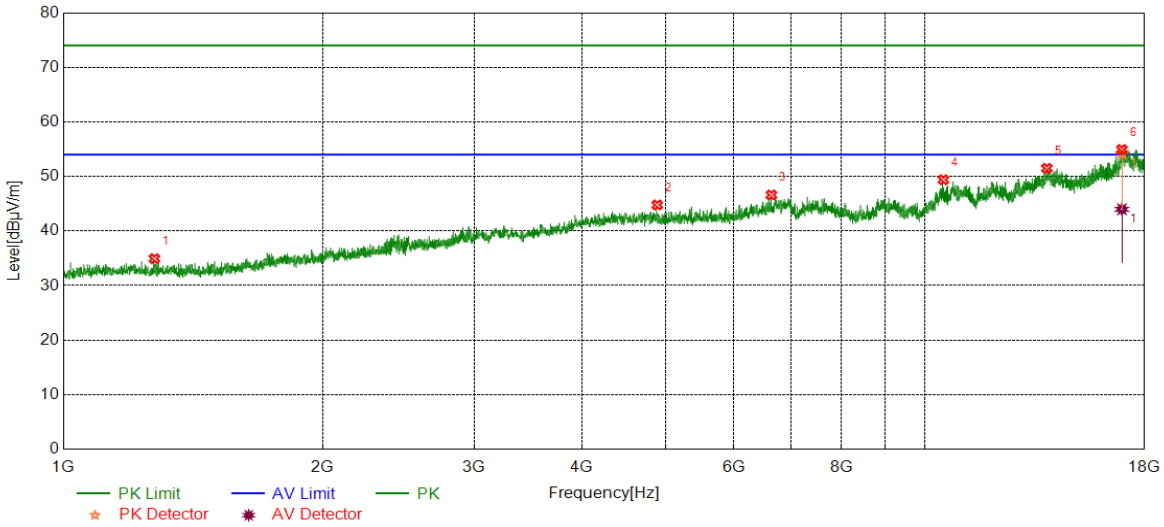
HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1190.7302	39.85	-5.55	34.30	74.00	-39.70	peak
2	1796.9323	40.53	-3.91	36.62	74.00	-37.38	peak
3	3977.6629	39.08	4.14	43.22	74.00	-30.78	peak
4	6875.6459	38.70	8.42	47.12	74.00	-26.88	peak
5	13979.3299	35.41	16.51	51.92	74.00	-22.08	peak
6	17034.8391	34.18	19.77	53.95	74.00	-20.05	peak
		24.92	19.77	44.69	54.00	-9.31	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)

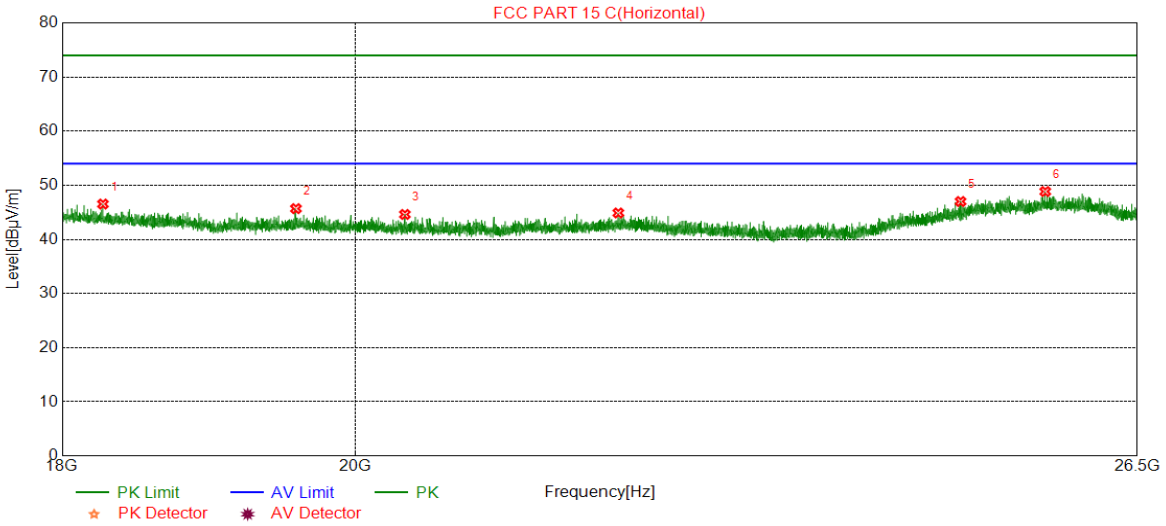


No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	1276.0920	40.52	-5.59	34.93	74.00	-39.07	peak
2	4892.8155	39.69	5.09	44.78	74.00	-29.22	peak
3	6638.1064	38.37	8.24	46.61	74.00	-27.39	peak
4	10511.2519	36.94	12.45	49.39	74.00	-24.61	peak
5	13861.8103	35.74	15.75	51.49	74.00	-22.51	peak
6	16939.8233	34.10	20.07	54.17	74.00	-19.83	peak
		23.91	20.07	43.98	54.00	-10.02	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.

8.5. SPURIOUS EMISSIONS (18~26GHz)

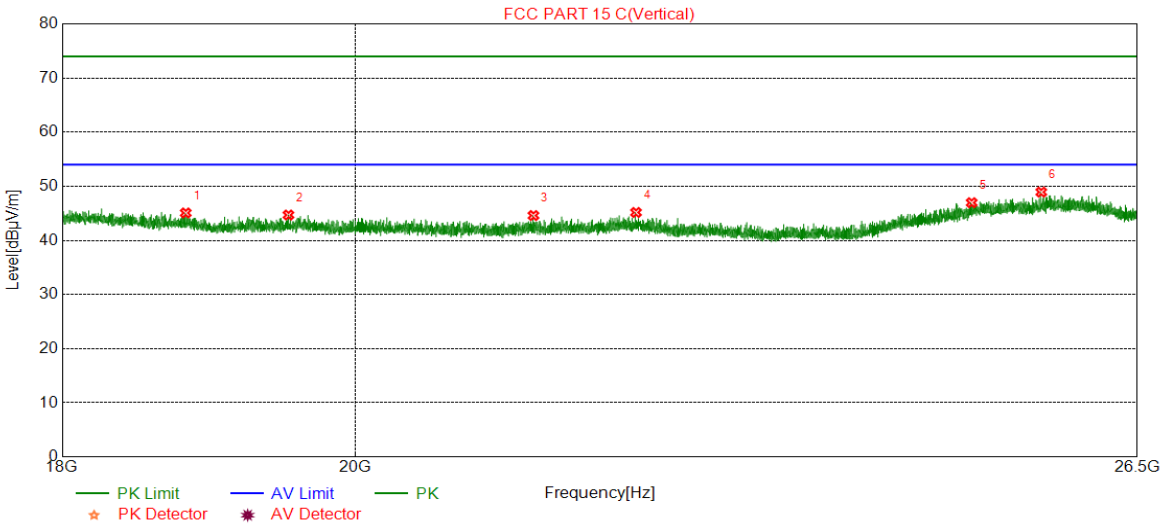
SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	18266.0766	45.42	1.11	46.53	74.00	-27.47	peak
2	19579.4579	44.47	1.21	45.68	74.00	-28.32	peak
3	20362.3862	43.09	1.52	44.61	74.00	-29.39	peak
4	21987.7488	42.93	1.95	44.88	74.00	-29.12	peak
5	24869.5370	42.73	4.27	47.00	74.00	-27.00	peak
6	25638.8639	43.07	5.77	48.84	74.00	-25.16	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	Reading Level	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	18818.6319	44.41	0.66	45.07	74.00	-28.93	peak
2	19526.7527	43.54	1.15	44.69	74.00	-29.31	peak
3	21326.3826	43.18	1.41	44.59	74.00	-29.41	peak
4	22128.0128	43.21	1.95	45.16	74.00	-28.84	peak
5	24968.9969	42.33	4.63	46.96	74.00	-27.04	peak
6	25602.3102	43.22	5.70	48.92	74.00	-25.08	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. 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.

ANTENNA CONNECTOR

EUT has an Internal antenna without antenna connector.

ANTENNA GAIN

The antenna gain of EUT is less than 6 dBi.

END OF REPORT