

TEST REPORT

Applicant: ALPHA GROUP CO., LTD.

Address of Applicant: Alpha Animation Industrial Area, Jinhong Road East & Fengxiang Road North, Chenghai District, Shantou, Guangdong 515800, China

Manufacturer/Factory: ALPHA GROUP CO., LTD.

Address of Manufacturer/Factory: Alpha Animation Industrial Area, Jinhong Road East & Fengxiang Road North, Chenghai District, Shantou, Guangdong 515800, China

Equipment Under Test (EUT)

Product Name: SKY ROVER KING

Model No.: US858952

FCC ID: 2AIRP-858953

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.249

Date of sample receipt: October 15, 2021

Date of Test: October 15-22, 2021

Date of report issued: October 22, 2021

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Robinson Luo

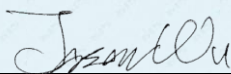
Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Version No.	Date	Description
00	October 22, 2021	Original

Prepared By:

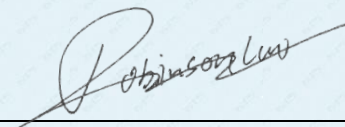


Date:

October 22, 2021

Project Engineer

Check By:



Date:

October 22, 2021

Reviewer

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4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	N/A
Field strength of the fundamental signal	15.249 (a)	Pass
Spurious emissions	15.249 (a) (d)/15.209	Pass
Band edge	15.249 (d)/15.205	Pass
20dB Occupied Bandwidth	15.215 (c)	Pass

Remarks:

1. Test according to ANSI C63.10: 2013.
2. Pass: The EUT complies with the essential requirements in the standard.

4.1 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	30MHz-200MHz	3.8039dB	(1)
Radiated Emission	200MHz-1GHz	3.9679dB	(1)
Radiated Emission	1GHz-18GHz	4.29dB	(1)
Radiated Emission	18GHz-40GHz	3.30dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	3.44dB	(1)

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

5 General Information

5.1 General Description of EUT

Product Name:	SKY ROVER KING
Model No.:	US858952
Serial No.:	N/A
Test sample(s) ID:	GTS202110000105-1
Sample(s) Status	Engineered sample
Operation Frequency:	2420MHz~2461MHz
Channel numbers:	30
Modulation type:	GFSK
Antenna Type:	Integral antenna
Antenna gain:	0dBi(Declared by applicant)
Power supply:	TX: DC 4.5V (3*1.5V Size “AAA” Battery) RX: D 3.7V, 800mAh Li-ion Battery

Note:The report is only for TX device

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2420MHz	9	2430MHz	17	2443MHz	25	2455MHz
2	2421MHz	10	2434MHz	18	2444MHz	26	2456MHz
3	2423MHz	11	2435MHz	19	2445MHz	27	2458MHz
4	2424MHz	12	2436MHz	20	2446MHz	28	2459MHz
5	2425MHz	13	2438MHz	21	2450MHz	29	2460MHz
6	2426MHz	14	2439MHz	22	2451MHz	30	2461MHz
7	2428MHz	15	2440MHz	23	2453MHz		
8	2429MHz	16	2441MHz	24	2454MHz		

The test frequencies are below:

Channel	Frequency
The lowest channel	2420MHz
The middle channel	2444MHz
The Highest channel	2461MHz

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode.
Remark: New battery is used during all test.	

Per-test mode.

We have verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:

Axis	X	Y	Z
Field Strength(dBuV/m)	86.36	87.53	85.25

5.3 Description of Support Units

None.

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC—Registration No.: 381383**

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files.

- **IC —Registration No.: 9079A**

CAB identifier: CN0091

The 3m Semi-

anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing

- **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.7 Test Location

All tests were performed at:
Global United Technology Services Co., Ltd. Address: No. 123- 128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Tel: 0755-27798480 Fax: 0755-27798960

5.8 Additional Instructions

Test Software	Special test command provided by manufacturer
Power level setup	Default

6 Test Instruments list

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July. 02 2020	July. 01 2025
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June. 24 2021	June. 23 2022
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 24 2021	June. 23 2022
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June. 24 2021	June. 23 2022
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 24 2021	June. 23 2022
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	June. 24 2021	June. 23 2022
9	Coaxial Cable	GTS	N/A	GTS211	June. 24 2021	June. 23 2022
10	Coaxial cable	GTS	N/A	GTS210	June. 24 2021	June. 23 2022
11	Coaxial Cable	GTS	N/A	GTS212	June. 24 2021	June. 23 2022
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 24 2021	June. 23 2022
13	Amplifier(2GHz-20GHz)	HP	84722A	GTS206	June. 24 2021	June. 23 2022
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 24 2021	June. 23 2022
15	Band filter	Amindeon	82346	GTS219	June. 24 2021	June. 23 2022
16	Power Meter	Anritsu	ML2495A	GTS540	June. 24 2021	June. 23 2022
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 24 2021	June. 23 2022
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	June. 24 2021	June. 23 2022
19	Splitter	Agilent	11636B	GTS237	June. 24 2021	June. 23 2022
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	June. 24 2021	June. 23 2022
21	Breitband hornantenne	SCHWARZBECK	BBHA 9170	GTS579	Oct. 17 2021	Oct. 16 2022
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 17 2021	Oct. 16 2022
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 17 2021	Oct. 16 2022
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June. 24 2021	June. 23 2022

RF Conducted Test:						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	June. 24 2021	June. 23 2022
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 24 2021	June. 23 2022
3	Spectrum Analyzer	Agilent	E4440A	GTS533	June. 24 2021	June. 23 2022
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	June. 24 2021	June. 23 2022
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	June. 24 2021	June. 23 2022
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	June. 24 2021	June. 23 2022
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	June. 24 2021	June. 23 2022
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	June. 24 2021	June. 23 2022

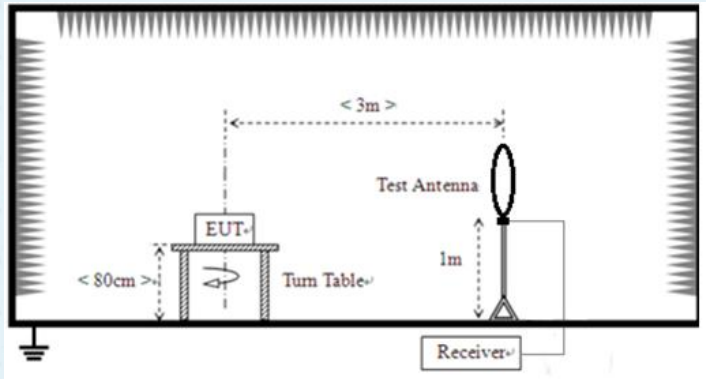
General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	June. 24 2021	June. 23 2022
2	Barometer	ChangChun	DYM3	GTS255	June. 24 2021	June. 23 2022

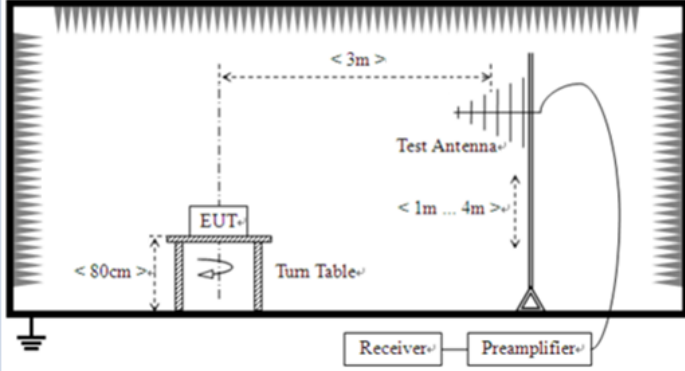
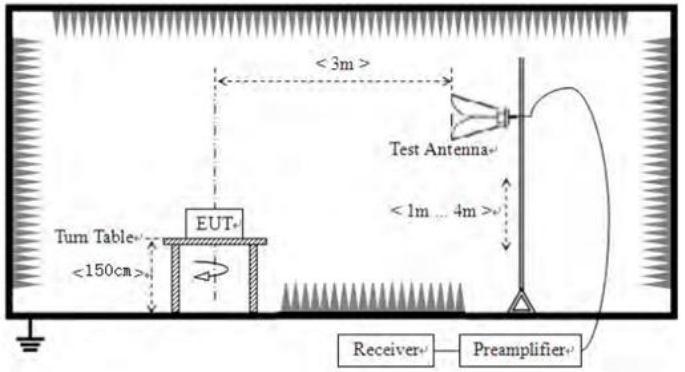
7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: 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, 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. 15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.	
EUT Antenna:	
<i>The antenna is integral antenna, the best case gain of the are antennas 0dBi, reference to the appendix II for details</i>	

7.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209				
Test Method:	ANSI C63.10:2013				
Test Frequency Range:	9kHz to 25GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	9kHz-150kHz	Quasi-peak	200Hz	300Hz	Quasi-peak Value
	150kHz-30MHz	Quasi-peak	9kHz	10kHz	Quasi-peak Value
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		Peak	1MHz	10Hz	Average Value
Limit: (Field strength of the fundamental signal)	Frequency		Limit (dBuV/m @3m)		Remark
	2400MHz-2483.5MHz		94.00		Average Value
			114.00		Peak Value
Limit: (Spurious Emissions)	Frequency		Limit (uV/m)		Remark
	0.009MHz-0.490MHz		2400/F(kHz) @300m		Quasi-peak Value
	0.490MHz-1.705MHz		24000/F(kHz) @30m		Quasi-peak Value
	1.705MHz-30.0MHz		30 @30m		Quasi-peak Value
	30MHz-88MHz		100 @3m		Quasi-peak Value
	88MHz-216MHz		150 @3m		Quasi-peak Value
	216MHz-960MHz		200 @3m		Quasi-peak Value
	960MHz-1GHz		500 @3m		Quasi-peak Value
	Above 1GHz		500 @3m		Average Value
5000 @3m			Peak Value		
Limit: (band edge)	Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.				
Test setup:	For radiated emissions from 9kHz to 30MHz				
					
	For radiated emissions from 30MHz to1GHz				

	 For radiated emissions above 1GHz 	
Test Procedure:	1. The EUT was placed on the top of a rotating table (0.8m for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.	
Test Instruments:	Refer to section 6.0 for details	
Test mode:	Refer to section 5.2 for details	
Test environment:	Temp.: 25 °C	Humid.: 52%
	Press.: 1012mbar	
Test voltage:	DC 4.5V	
Test results:	Pass	

Measurement data:

7.2.1 Field Strength of The Fundamental Signal

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2420.00	85.37	27.58	5.39	34.01	84.33	114.00	-29.67	Vertical
2420.00	82.29	27.58	5.39	34.01	81.25	114.00	-32.75	Horizontal
2440.00	88.58	27.48	5.43	33.96	87.53	114.00	-26.47	Vertical
2440.00	83.04	27.48	5.43	33.96	81.99	114.00	-32.01	Horizontal
2461.00	87.18	27.52	5.47	33.92	86.25	114.00	-27.75	Vertical
2461.00	79.79	27.52	5.47	33.92	78.86	114.00	-35.14	Horizontal

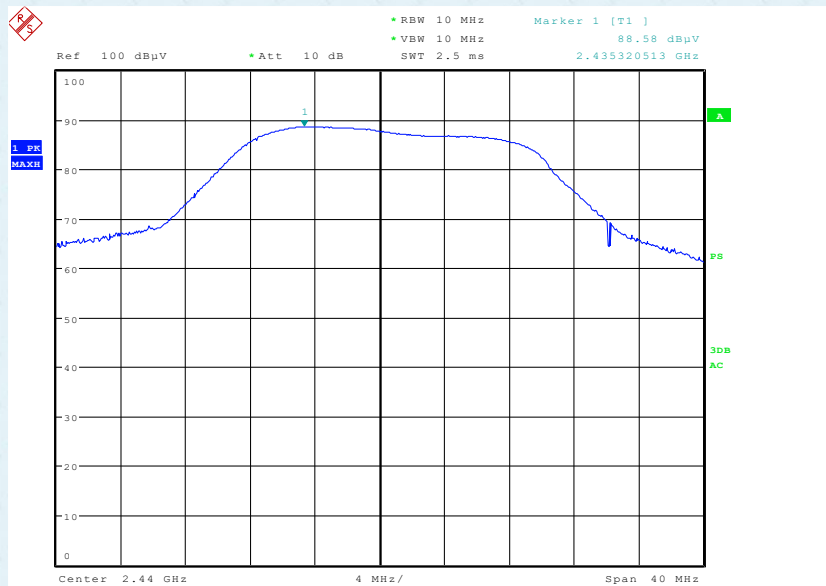
Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2420.00	72.71	27.58	5.39	34.01	71.67	94.00	-22.33	Vertical
2420.00	70.60	27.58	5.39	34.01	69.56	94.00	-24.44	Horizontal
2440.00	74.38	27.48	5.43	33.96	73.33	94.00	-20.67	Vertical
2440.00	71.14	27.48	5.43	33.96	70.09	94.00	-23.91	Horizontal
2461.00	73.34	27.52	5.47	33.92	72.41	94.00	-21.59	Vertical
2461.00	72.15	27.52	5.47	33.92	71.22	94.00	-22.78	Horizontal

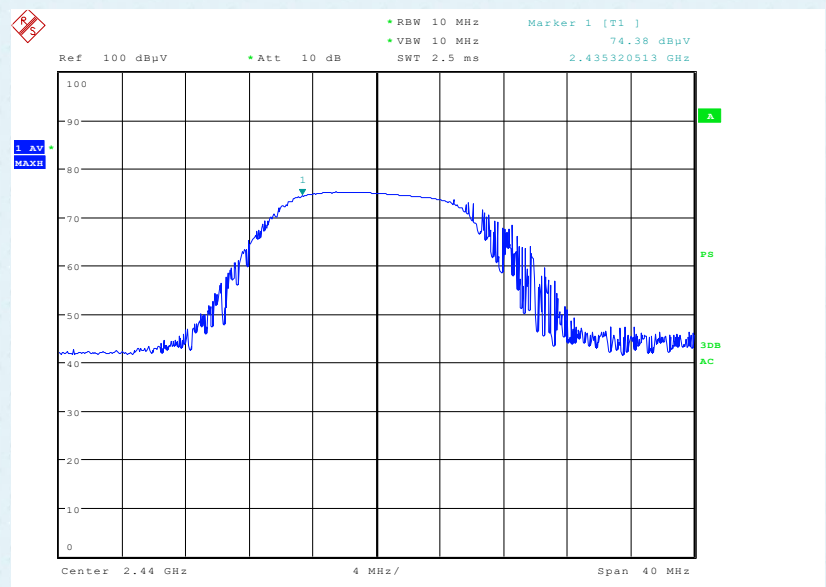
Note: For fundamental frequency , RBW>20dB BW, VBW>=RBW, PK detector for PK value, RMS detector for AV value

Test plot as follows:

Only show the worst case: 2440MHz, Vertical



PK detector is for PK value



RMS detector is for AV value

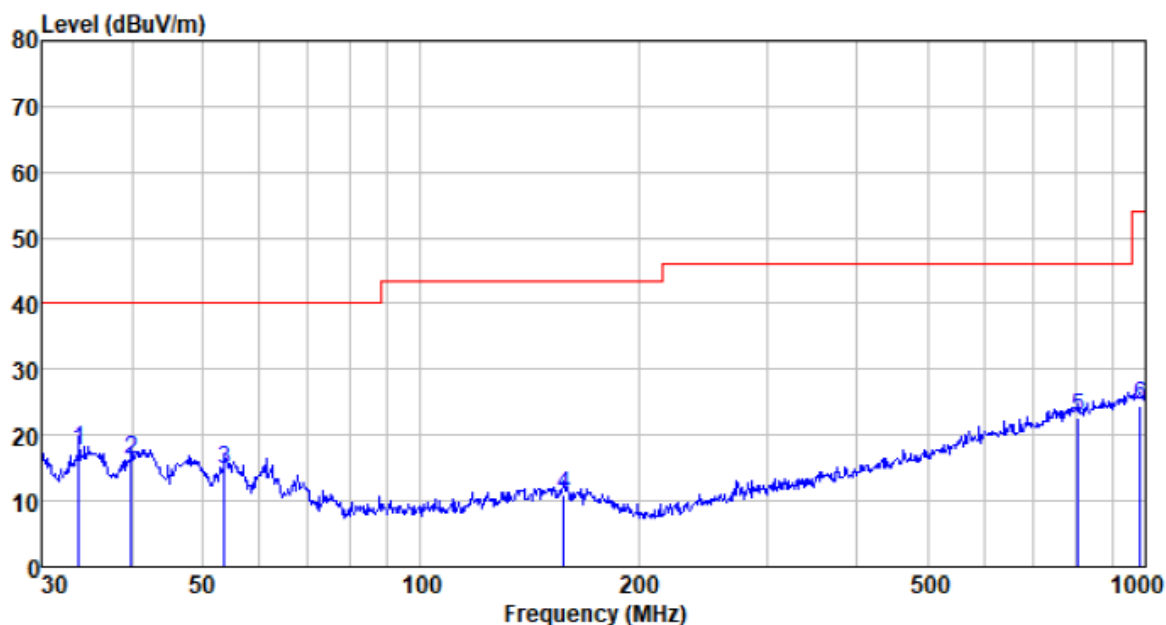
7.2.2 Spurious emissions

■ Below 30MHz

The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o), the test result no need to reported.

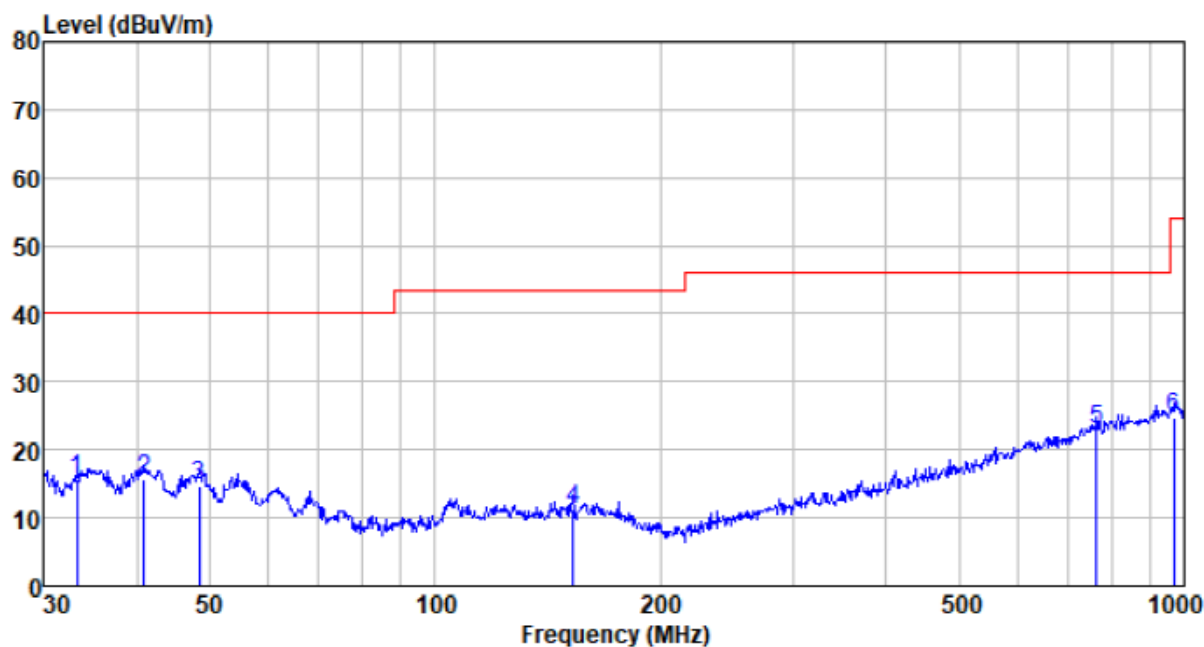
■ Below 1GHz

Test channel:	Lowest	Polarization:	Horizontal
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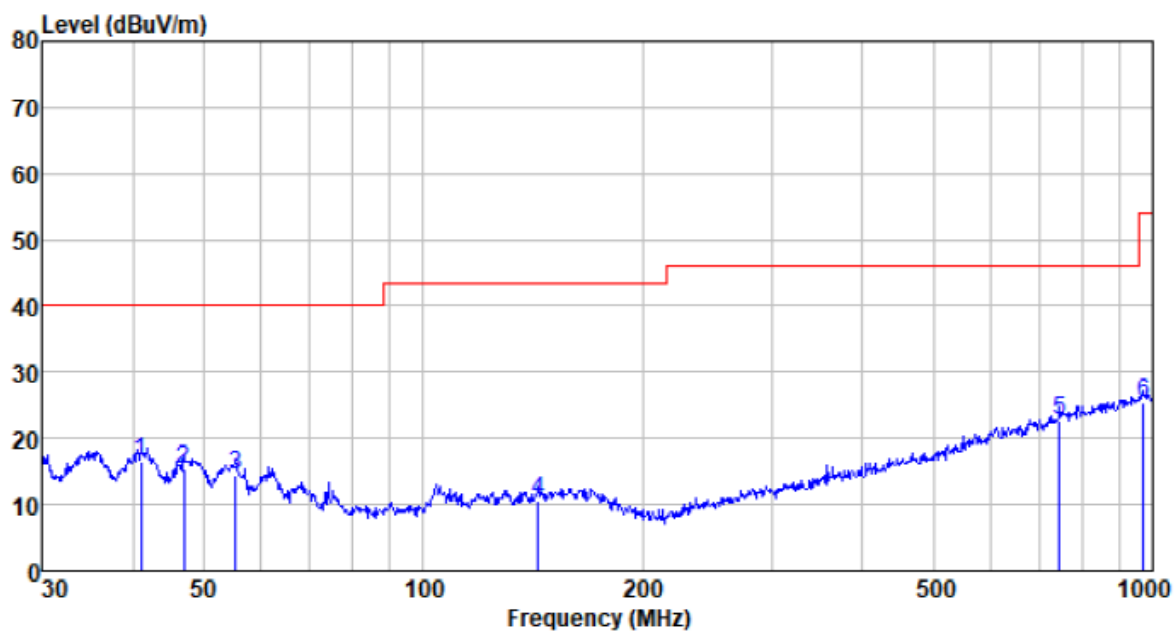
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
33.799	40.11	12.42	0.59	35.28	17.84	40.00	-22.16	QP
39.854	37.90	13.24	0.66	35.66	16.14	40.00	-23.86	QP
53.693	37.55	12.68	0.81	36.24	14.80	40.00	-25.20	QP
157.559	33.62	12.77	1.62	37.12	10.89	43.50	-32.61	QP
807.429	33.56	22.29	4.49	37.62	22.72	46.00	-23.28	QP
982.620	32.87	23.99	5.16	37.52	24.50	54.00	-29.50	QP

Test channel:	Lowest	Polarization:	Vertical
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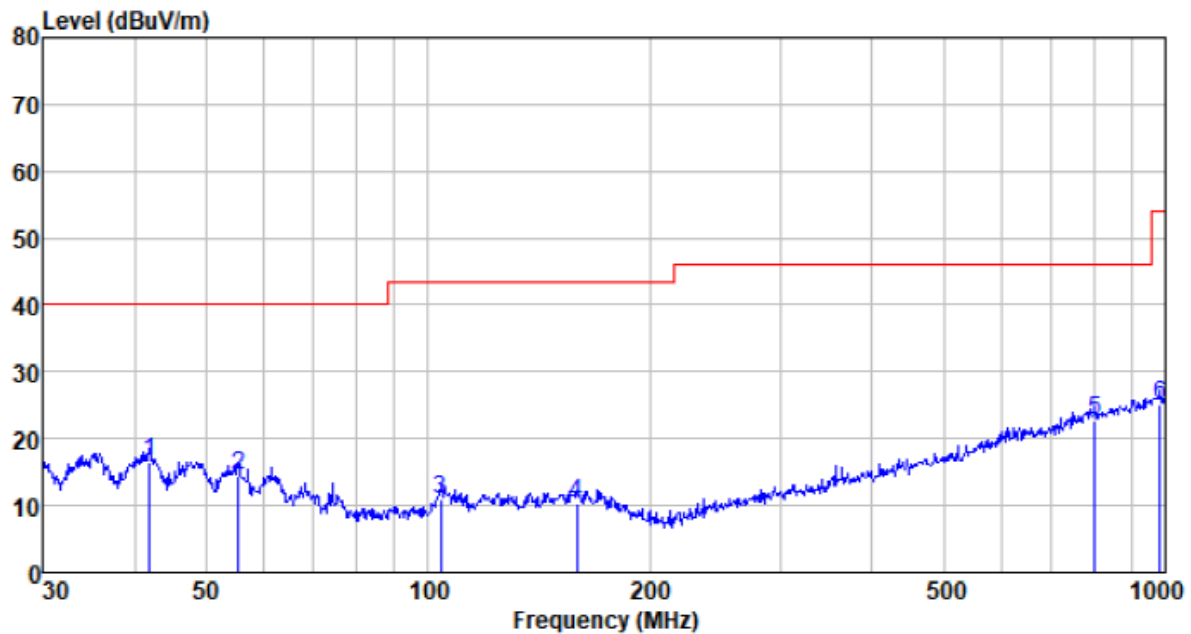
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
33.211	37.78	12.38	0.59	35.23	15.52	40.00	-24.48	QP
40.845	37.47	13.21	0.67	35.71	15.64	40.00	-24.36	QP
48.502	37.20	13.02	0.76	36.11	14.87	40.00	-25.13	QP
152.664	34.02	12.80	1.59	37.09	11.32	43.50	-32.18	QP
763.376	34.47	21.73	4.32	37.62	22.90	46.00	-23.10	QP
968.934	33.19	23.99	5.11	37.54	24.75	54.00	-29.25	QP

Test channel:	Middle	Polarization:	Horizontal
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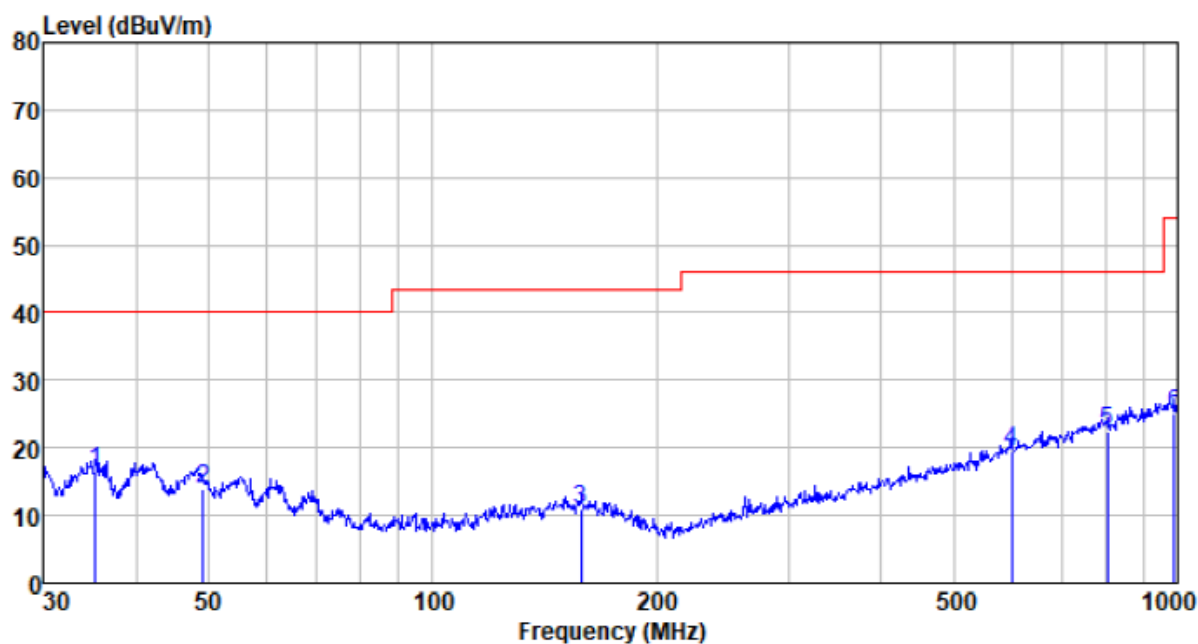
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
40.988	38.44	13.20	0.67	35.72	16.59	40.00	-23.41	QP
46.995	37.80	12.99	0.74	36.04	15.49	40.00	-24.51	QP
55.221	37.32	12.54	0.82	36.26	14.42	40.00	-25.58	QP
143.830	33.82	12.32	1.53	37.04	10.63	43.50	-32.87	QP
744.866	34.80	21.43	4.26	37.63	22.86	46.00	-23.14	QP
972.337	33.67	23.99	5.12	37.53	25.25	54.00	-28.75	QP

Test channel:	Middle	Polarization:	Vertical
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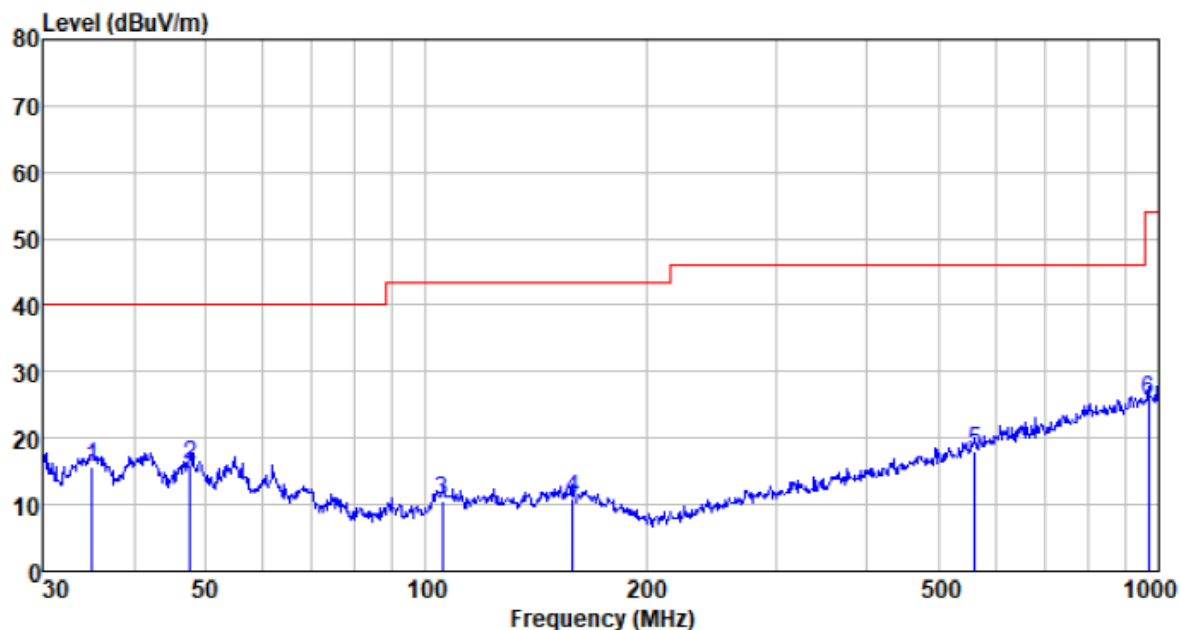
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
41.860	38.49	13.15	0.68	35.77	16.55	40.00	-23.45	QP
55.221	37.32	12.54	0.82	36.26	14.42	40.00	-25.58	QP
104.170	36.90	9.47	1.23	36.76	10.84	43.50	-32.66	QP
159.225	33.22	12.76	1.62	37.13	10.47	43.50	-33.03	QP
801.786	33.61	22.25	4.46	37.62	22.70	46.00	-23.30	QP
982.620	33.50	23.99	5.16	37.52	25.13	54.00	-28.87	QP

Test channel:	Highest	Polarization:	Horizontal
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
35.251	38.64	12.54	0.61	35.37	16.42	40.00	-23.58	QP
49.187	36.23	13.03	0.76	36.14	13.88	40.00	-26.12	QP
158.112	33.76	12.77	1.62	37.12	11.03	43.50	-32.47	QP
599.321	34.08	19.21	3.72	37.54	19.47	46.00	-26.53	QP
804.603	33.25	22.27	4.48	37.62	22.38	46.00	-23.62	QP
989.536	33.45	24.00	5.19	37.52	25.12	54.00	-28.88	QP

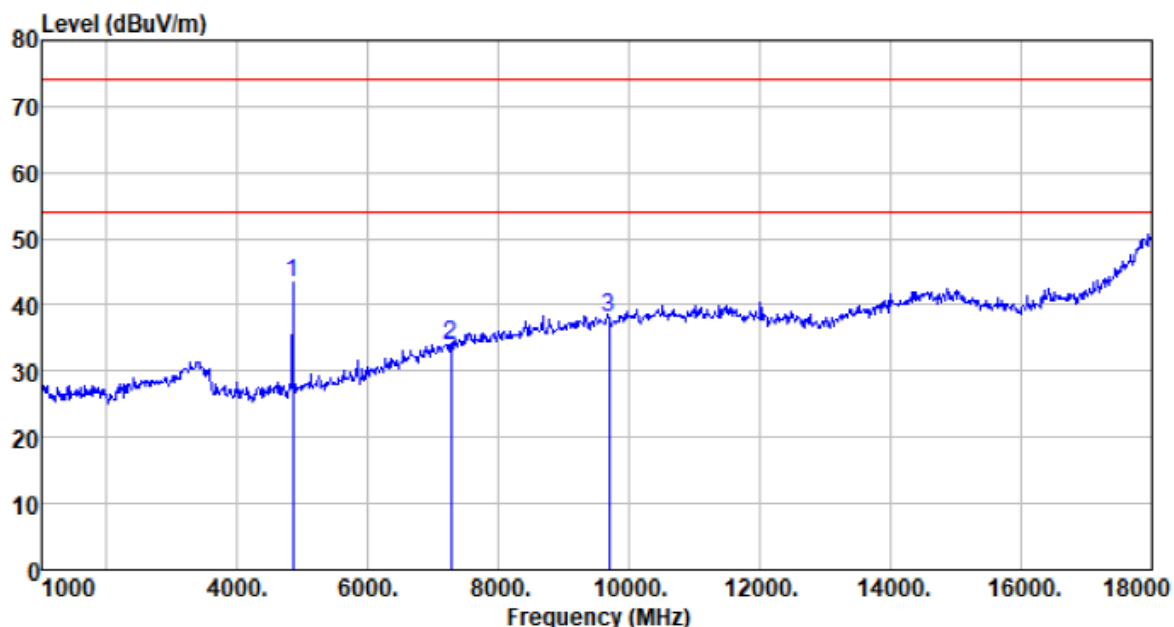
Test channel:	Highest	Polarization:	Vertical
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
35.005	37.80	12.50	0.61	35.36	15.55	40.00	-24.45	QP
47.659	38.17	13.00	0.75	36.07	15.85	40.00	-24.15	QP
105.272	36.66	9.57	1.24	36.77	10.70	43.50	-32.80	QP
158.668	33.60	12.77	1.62	37.13	10.86	43.50	-32.64	QP
560.693	33.90	18.22	3.56	37.53	18.15	46.00	-27.85	QP
968.934	34.24	23.99	5.11	37.54	25.80	54.00	-28.20	QP

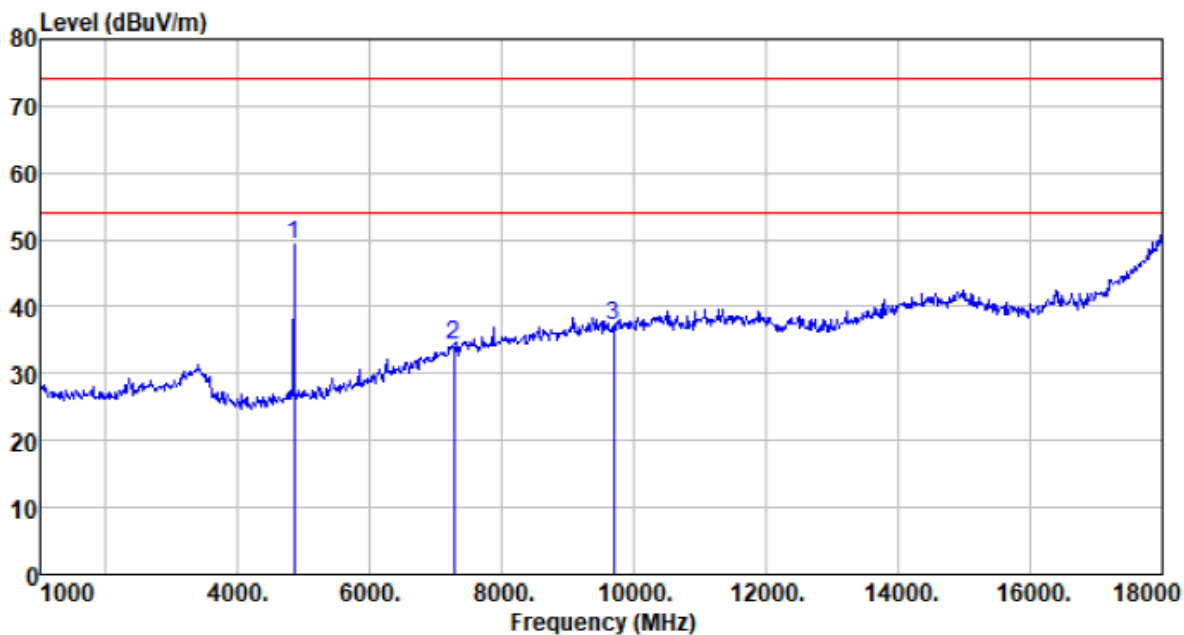
■ Above 1GHz

Test channel:	Lowest	Polarization:	Horizontal
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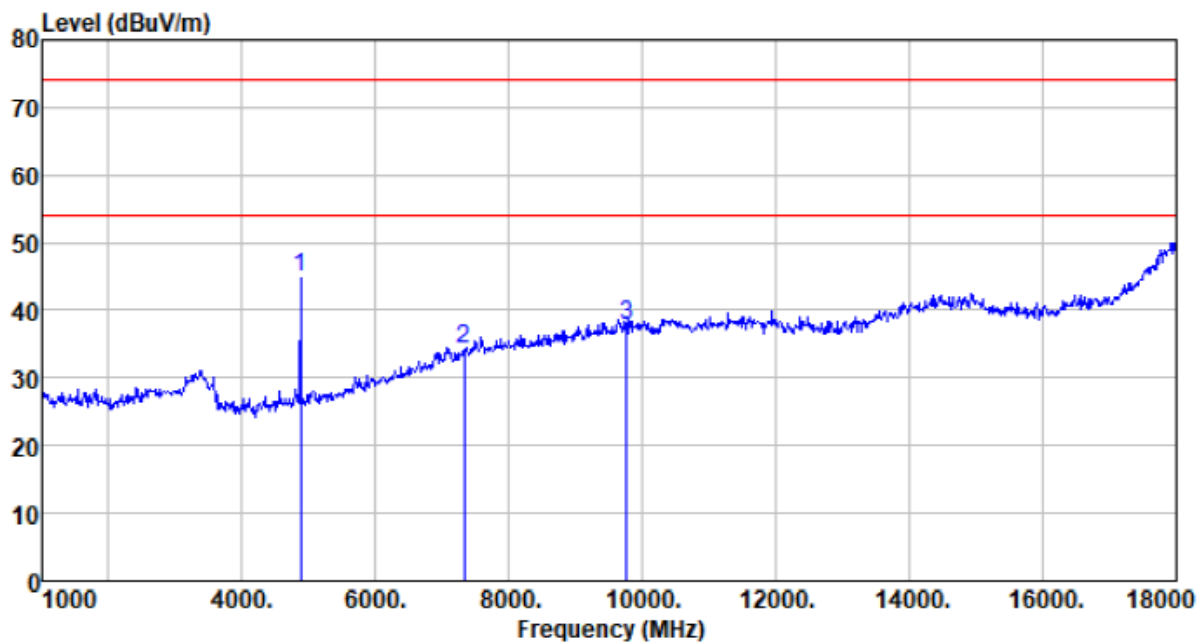
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
4840.000	45.33	31.26	4.65	37.74	43.50	74.00	-30.50	Peak
7260.000	26.79	36.30	6.55	35.62	34.02	74.00	-39.98	Peak
9680.000	26.92	38.00	8.00	34.97	37.95	74.00	-36.05	Peak

Test channel:	Lowest	Polarization:	Vertical
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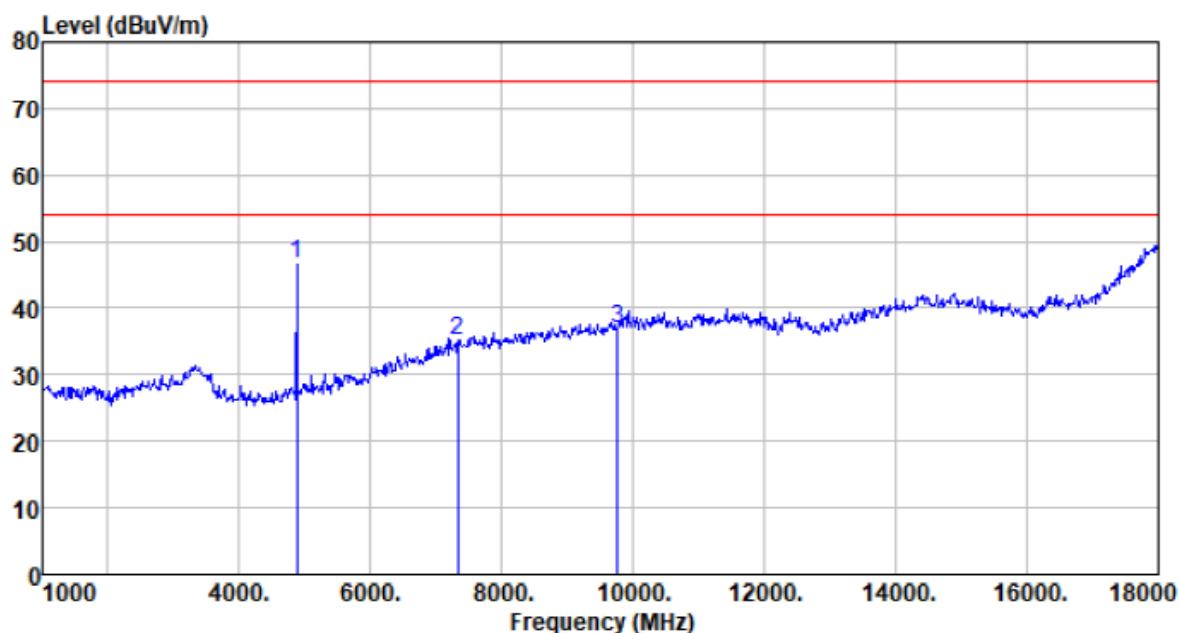
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
4840.000	51.02	31.26	4.65	37.74	49.19	74.00	-24.81	Peak
7260.000	26.90	36.30	6.55	35.62	34.13	74.00	-39.87	Peak
9680.000	26.08	38.00	8.00	34.97	37.11	74.00	-36.89	Peak

Test channel:	Middle	Polarization:	Horizontal
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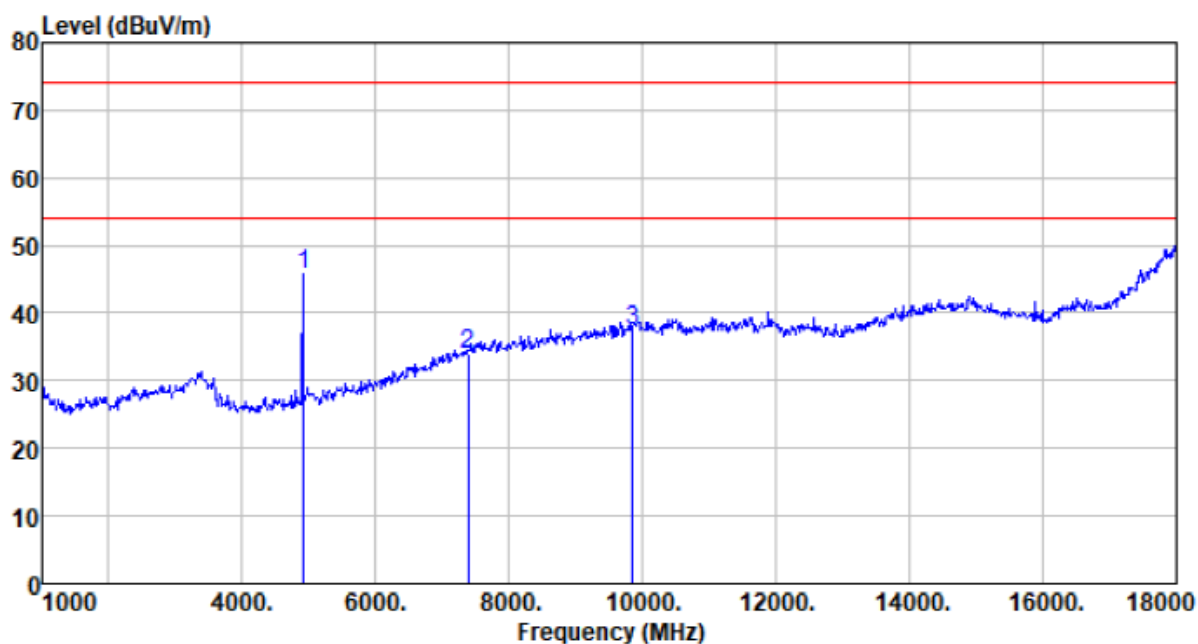
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
4880.000	46.75	31.31	4.69	37.75	45.00	74.00	-29.00	Peak
7320.000	26.70	36.43	6.63	35.60	34.16	74.00	-39.84	Peak
9760.000	26.55	38.10	8.03	35.03	37.65	74.00	-36.35	Peak

Test channel:	Middle	Polarization:	Vertical
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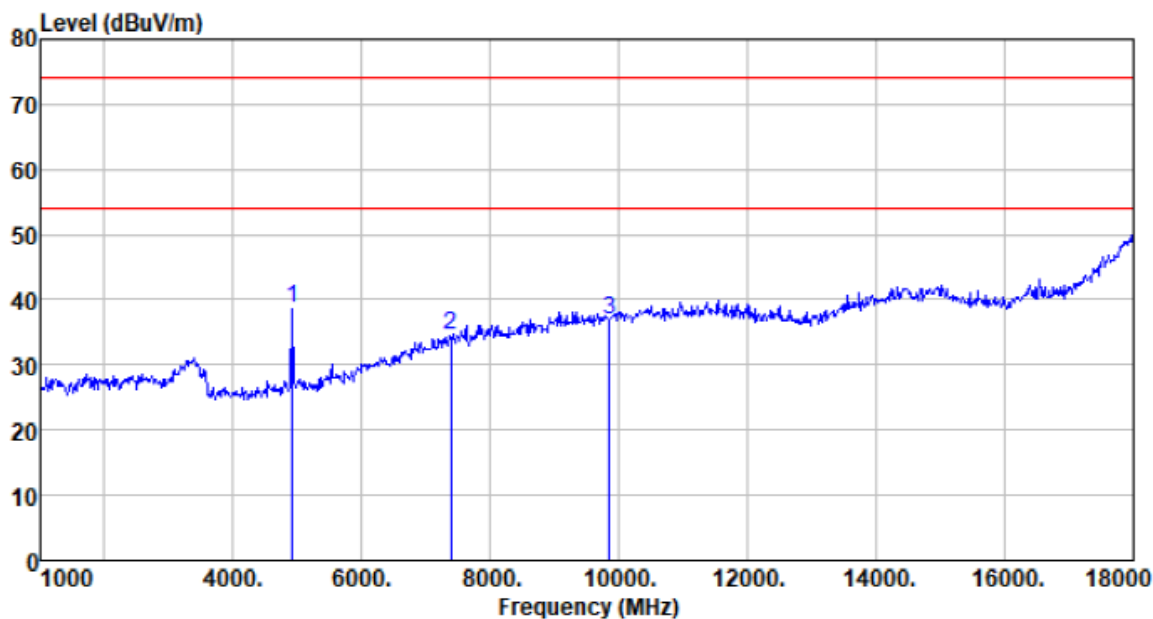
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
4880.000	48.44	31.31	4.69	37.75	46.69	74.00	-27.31	Peak
7320.000	27.60	36.43	6.63	35.60	35.06	74.00	-38.94	Peak
9760.000	25.84	38.10	8.03	35.03	36.94	74.00	-37.06	Peak

Test channel:	Highest	Polarization:	Horizontal
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
4922.000	47.51	31.37	4.75	37.77	45.86	74.00	-28.14	Peak
7383.000	26.41	36.57	6.69	35.58	34.09	74.00	-39.91	Peak
9844.000	26.44	38.20	8.06	35.09	37.61	74.00	-36.39	Peak

Test channel:	Highest	Polarization:	Vertical
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
4922.000	40.44	31.37	4.75	37.77	38.79	74.00	-35.21	Peak
7383.000	26.93	36.57	6.69	35.58	34.61	74.00	-39.39	Peak
9844.000	25.76	38.20	8.06	35.09	36.93	74.00	-37.07	Peak

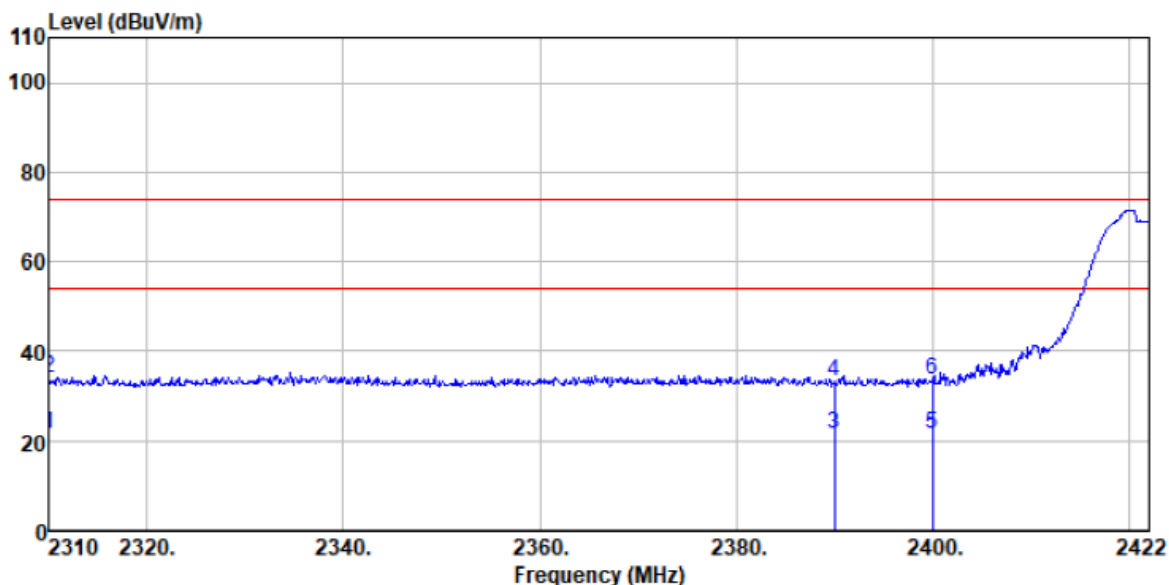
Remarks:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

7.2.3 Bandedge emissions

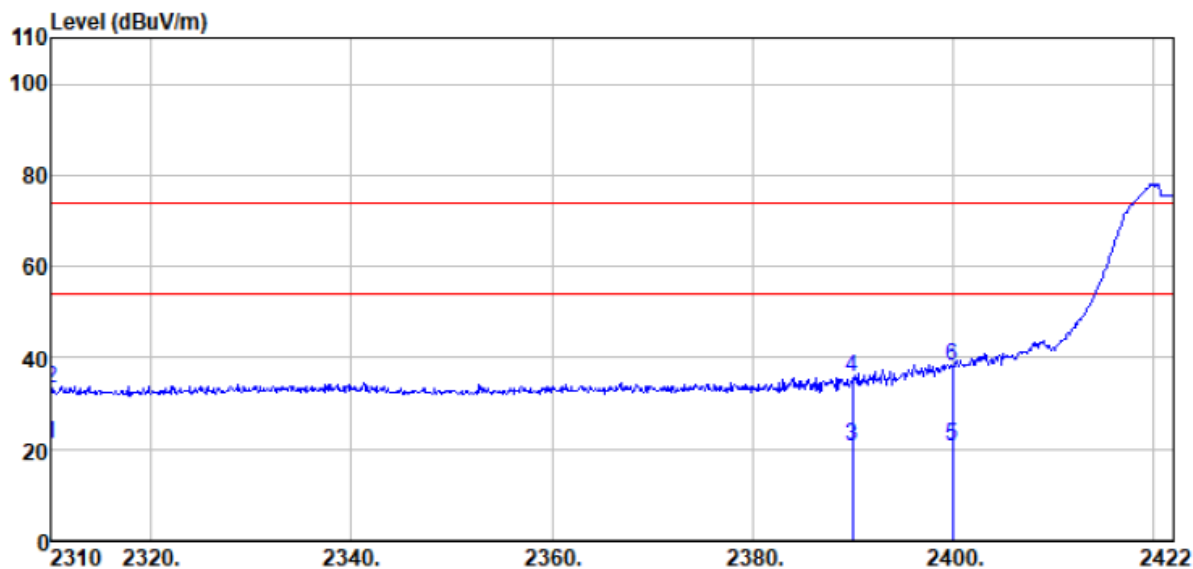
All of the restriction bands were tested, and only the data of worst case was exhibited.

Test channel:	Lowest	Polarization:	Horizontal
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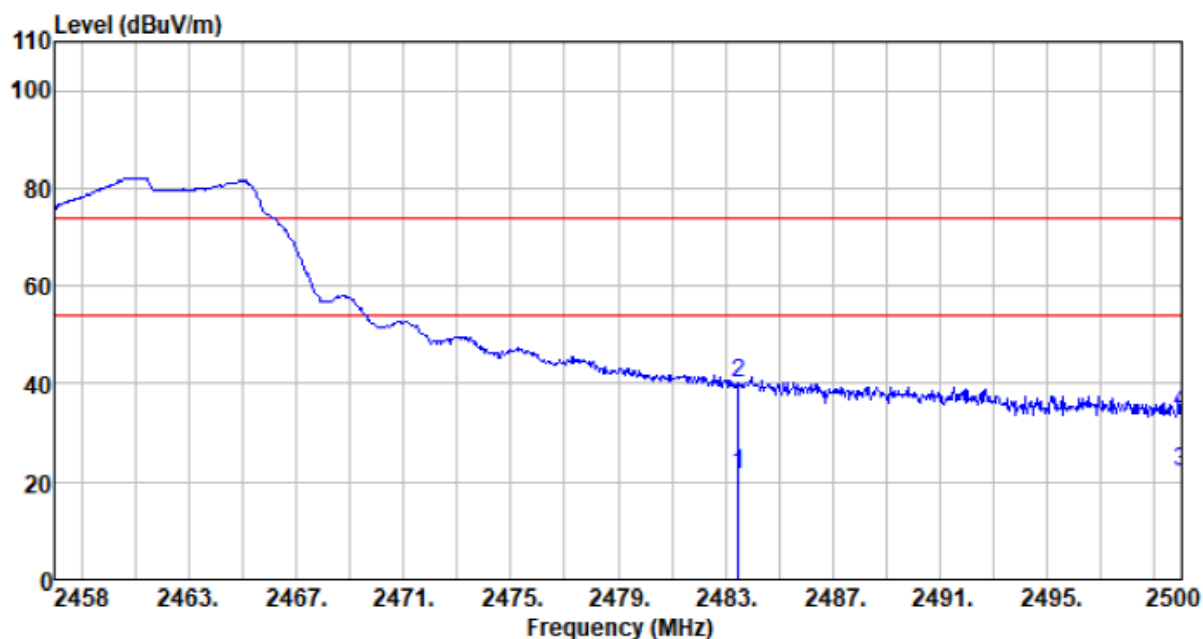
	Freq	ReadAntenna	Preamp	Cable	Limit	Over		
	Level	Factor	Factor	Loss	Line	Limit	Remark	
	MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	
1	2310.000	30.27	27.14	38.64	2.81	21.58	54.00	-32.42 Average
2	2310.000	42.80	27.14	38.64	2.81	34.11	74.00	-39.89 Peak
3	2390.000	29.98	27.37	38.84	2.91	21.42	54.00	-32.58 Average
4	2390.000	41.80	27.37	38.84	2.91	33.24	74.00	-40.76 Peak
5	2400.000	29.97	27.41	38.86	2.91	21.43	54.00	-32.57 Average
6	2400.000	42.16	27.41	38.86	2.91	33.62	74.00	-40.38 Peak

Test channel:	Lowest	Polarization:	Vertical
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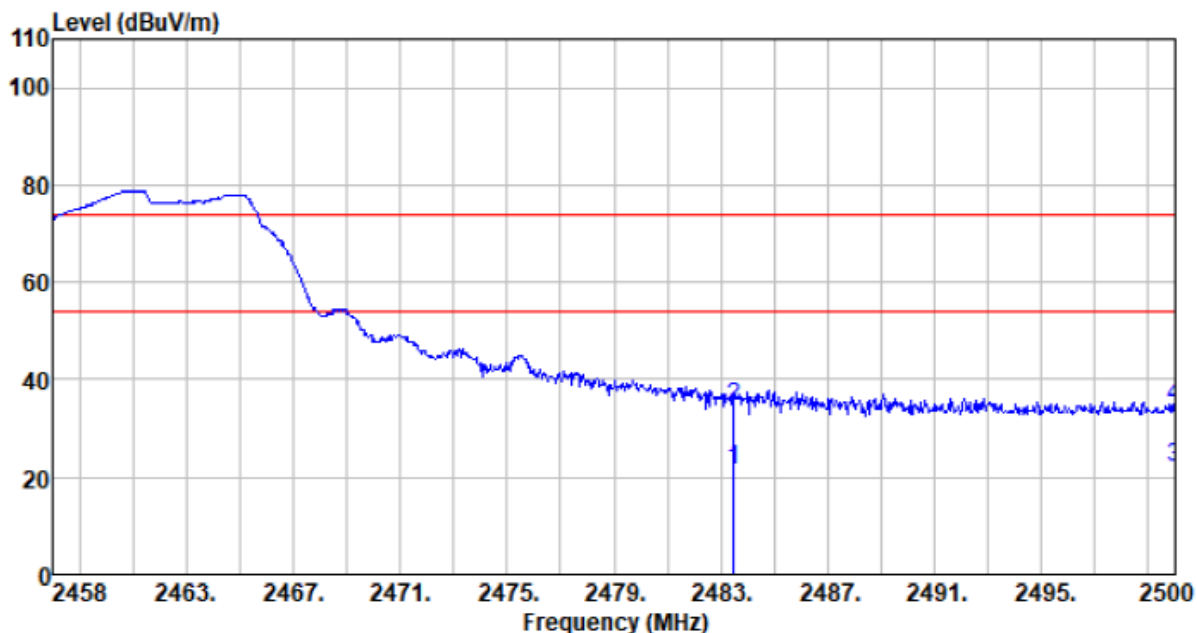
Frequency (MHz)									
Freq	Read	Antenna	Preamp	Cable	Level	Limit	Over		
MHz	Level	Factor	Factor	Loss	dBuV/m	dBuV/m	Limit	Remark	
	dBuV	dB/m	dB	dB			dB		
1	2310.000	29.66	27.14	38.64	2.81	20.97	54.00	-33.03	Average
2	2310.000	42.02	27.14	38.64	2.81	33.33	74.00	-40.67	Peak
3	2389.968	29.38	27.37	38.84	2.91	20.82	54.00	-33.18	Average
4	2390.000	44.10	27.37	38.84	2.91	35.54	74.00	-38.46	Peak
5	2400.000	29.31	27.41	38.86	2.91	20.77	54.00	-33.23	Average
6	2400.000	46.62	27.41	38.86	2.91	38.08	74.00	-35.92	Peak

Test channel:	Highest	Polarization:	Horizontal
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2483.494	29.77	27.66	2.99	39.06	21.36	54.00	-32.64	Average
2483.494	48.62	27.66	2.99	39.06	40.21	74.00	-33.79	Peak
2500.000	30.34	27.70	3.01	39.10	21.95	54.00	-32.05	Average
2500.000	42.40	27.70	3.01	39.10	34.01	74.00	-39.99	Peak

Test channel:	Highest	Polarization:	Vertical
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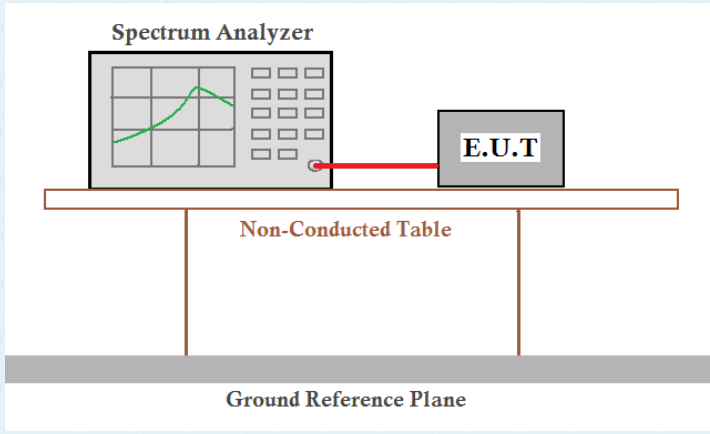


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
2483.494	29.73	27.66	2.99	39.06	21.32	54.00	-32.68	Average
2483.494	43.10	27.66	2.99	39.06	34.69	74.00	-39.31	Peak
2500.000	30.29	27.70	3.01	39.10	21.90	54.00	-32.10	Average
2500.000	42.87	27.70	3.01	39.10	34.48	74.00	-39.52	Peak

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor

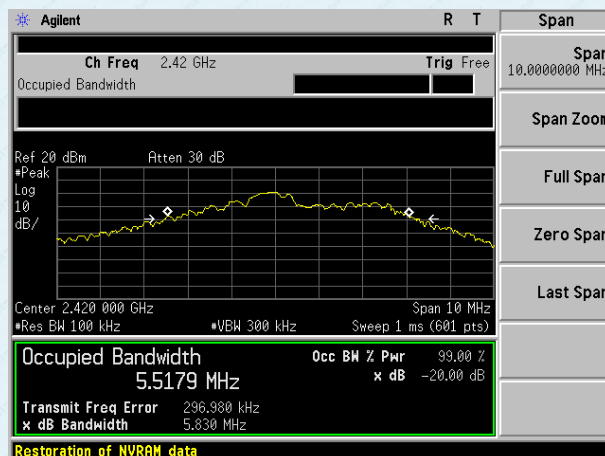
7.3 20dB Occupy Bandwidth

Test Requirement:	FCC Part15 C Section 15.249/15.215
Test Method:	ANSI C63.10:2013
Limit:	Operation Frequency range 2400MHz~2483.5MHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

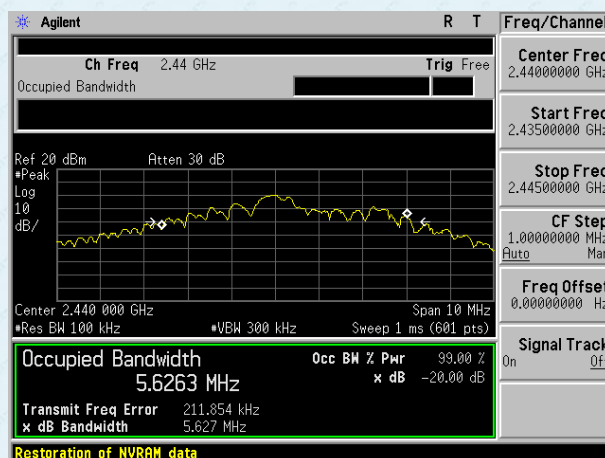
Measurement Data

Test channel	20dB bandwidth(MHz)	Result
Lowest	5.830	Pass
Middle	5.627	Pass
Highest	5.512	Pass

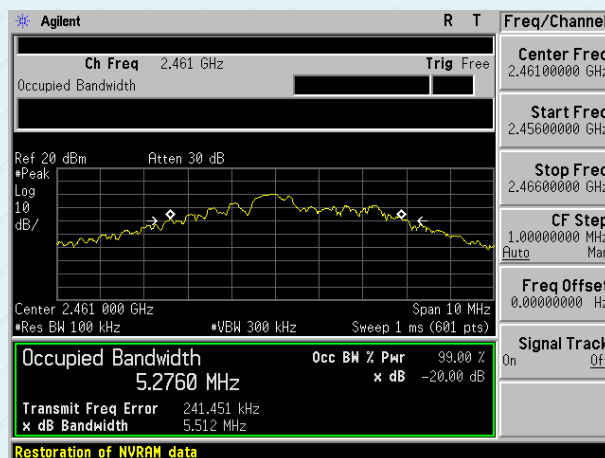
Test plot as follows:



Lowest channel



Middle channel



Highest channel

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** for details.

-----End-----