TEST REPORT

Applicant:	DA KAI INDUSTRIES LIMITED.
Address of Applicant:	3/F., BLK. 4, LIANJIAN INDUSTRIAL PARK, HUA RONG ROAD, LONGHUA DISTRICT , SHENZHEN, GUANGDONG, CHINA
Manufacturer/Factory:	DA KAI INDUSTRIES LIMITED.
Address of Manufacturer/Factory:	3/F., BLK. 4, LIANJIAN INDUSTRIAL PARK, HUA RONG ROAD, LONGHUA DISTRICT , SHENZHEN, GUANGDONG, CHINA

Equipment Under Test (EUT)

Product Name:	2.4G Module
Model No.:	DKL 1908_V.1
FCC ID:	2APYU-DKL1908
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.249
Date of sample receipt:	November 13,2019
Date of Test:	November 13-27,2019
Date of report issued:	November 29,2019
Test Result :	PASS *

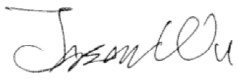
* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Robinson Lo
Laboratory Manager

2 Version

Version No.	Date	Description
00	*November 29,2019*	*Original*

Prepared By:  ***Date:*** *November 29,2019*

Project Engineer

Check By:  ***Date:*** *November 29,2019*

Reviewer

3 Contents

Page

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

Remark：

Test according to ANSI C63.10:2013.

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:	2.4G Module
Model No.:	DKL 1908_V.1
Test sample(s) ID:	GTS201912000065-1
Sample(s) Status	Engineer sample
Operation Frequency:	2408MHz~2475MHz
Channel numbers:	3
Modulation type:	GFSK
Antenna Type:	Integral antenna
Antenna gain:	0.4dBi(declare by Applicant)
Power supply:	DC 4.2V

Operation Frequency each of channel	
Channel	Frequency
1	2408MHz
2	2450MHz
3	2475MHz

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode.
Remark: During the test, the dutycycle >98%, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.	

Pre-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)	101.65	102.21	100.79

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**

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. Registration 381383.

● **IC —Registration No.: 9079A**

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 with Registration No.: 9079A

● **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). LAB CODE:600179-0

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

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. 03 2015	July. 02 2020
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. 26 2019	June. 25 2020
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 26 2019	June. 25 2020
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June. 26 2019	June. 25 2020
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 26 2019	June. 25 2020
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	June. 26 2019	June. 25 2020
9	Coaxial Cable	GTS	N/A	GTS211	June. 26 2019	June. 25 2020
10	Coaxial cable	GTS	N/A	GTS210	June. 26 2019	June. 25 2020
11	Coaxial Cable	GTS	N/A	GTS212	June. 26 2019	June. 25 2020
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 26 2019	June. 25 2020
13	Amplifier(2GHz-20GHz)	HP	84722A	GTS206	June. 26 2019	June. 25 2020
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 26 2019	June. 25 2020
15	Band filter	Amindeon	82346	GTS219	June. 26 2019	June. 25 2020
16	Power Meter	Anritsu	ML2495A	GTS540	June. 26 2019	June. 25 2020
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 26 2019	June. 25 2020
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	June. 26 2019	June. 25 2020
19	Splitter	Agilent	11636B	GTS237	June. 26 2019	June. 25 2020
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	June. 26 2019	June. 25 2020
21	Breitband hornantenne	SCHWARZBECK	BBHA 9170	GTS579	Oct. 19 2019	Oct. 18 2020
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 19 2019	Oct. 18 2020
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 19 2019	Oct. 18 2020
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June. 26 2019	June. 25 2020

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. 26 2019	June. 25 2020
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 26 2019	June. 25 2020
3	Spectrum Analyzer	Agilent	E4440A	GTS533	June. 26 2019	June. 25 2020
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	June. 26 2019	June. 25 2020
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	June. 26 2019	June. 25 2020
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	June. 26 2019	June. 25 2020
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	June. 26 2019	June. 25 2020
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	June. 26 2019	June. 25 2020

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. 26 2019	June. 25 2020
2	Barometer	ChangChun	DYM3	GTS255	June. 26 2019	June. 25 2020

7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203

15.203 requirement:

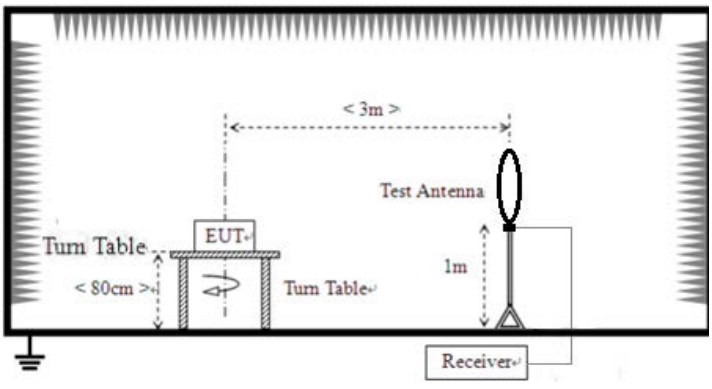
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit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

EUT Antenna:

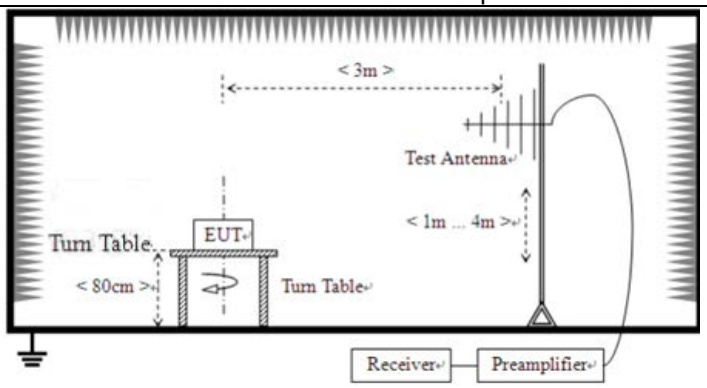
The antenna is PCB antenna, the best case gain of the antenna is 0.4dBi

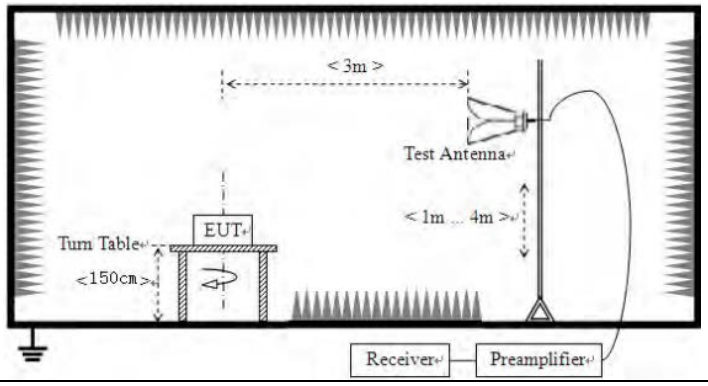
Please refer to the appendix of external and internal photo.

7.2 Radiated Emission Method

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 C Section 15.209</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10:2013</td></tr>
<tr><td>Test Frequency Range:</td><td>9kHz to 25GHz</td></tr>
<tr><td>Test site:</td><td>Measurement Distance: 3m</td></tr>
<tr><td>Receiver setup:</td><td>
<table>
<tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Value</th></tr>
<tr><td>9KHz-150KHz</td><td>Quasi-peak</td><td>200Hz</td><td>600Hz</td><td>Quasi-peak</td></tr>
<tr><td>150KHz-30MHz</td><td>Quasi-peak</td><td>9KHz</td><td>30KHz</td><td>Quasi-peak</td></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak</td></tr>
<tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average</td></tr>
</table>
</td></tr>
<tr><td>Limit:
(Field strength of the fundamental signal)</td><td>
<table>
<tr><th>Frequency</th><th>Limit (dBuV/m @3m)</th><th>Remark</th></tr>
<tr><td rowspan="2">2400MHz-2483.5MHz</td><td>94.00</td><td>Average Value</td></tr>
<tr><td>114.00</td><td>Peak Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:
(Spurious Emissions)</td><td>
<table>
<tr><th>Frequency</th><th>Limit (uV/m)</th><th>Value</th><th>Measurement Distance</th></tr>
<tr><td>0.009MHz-0.490MHz</td><td>2400/F(KHz)</td><td>QP</td><td>300m</td></tr>
<tr><td>0.490MHz-1.705MHz</td><td>24000/F(KHz)</td><td>QP</td><td>300m</td></tr>
<tr><td>1.705MHz-30MHz</td><td>30</td><td>QP</td><td>30m</td></tr>
<tr><td>30MHz-88MHz</td><td>100</td><td>QP</td><td rowspan="7">3m</td></tr>
<tr><td>88MHz-216MHz</td><td>150</td><td>QP</td></tr>
<tr><td>216MHz-960MHz</td><td>200</td><td>QP</td></tr>
<tr><td>960MHz-1GHz</td><td>500</td><td>QP</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>500</td><td>Average</td></tr>
<tr><td>5000</td><td>Peak</td></tr>
</table>
</td></tr>
<tr><td>Limit:
(band edge)</td><td>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.</td></tr>
<tr><td>Test setup:</td><td>For radiated emissions from 9kHz to 30MHz
 

For radiated emissions from 30MHz to1GHz</td></tr>
</table>

<table>
<tr><td></td><td> 

For radiated emissions above 1GHz

</td></tr>
<tr><td>Test Procedure:</td><td>1. The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) 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.</td></tr>
<tr><td>Test Instruments:</td><td>Refer to section 6.0 for details</td></tr>
<tr><td>Test mode:</td><td>Refer to section 5.2 for details</td></tr>
<tr><td>Test voltage:</td><td>DC 5V</td></tr>
<tr><td>Test results:</td><td>Pass</td></tr>
</table>

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)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2408.00	104.10	27.43	2.93	36.87	97.59	114.00	-16.41	Vertical
2408.00	104.34	27.43	2.93	36.87	97.83	114.00	-16.17	Horizontal
2450.00	105.35	27.52	2.95	36.89	98.93	114.00	-15.07	Vertical
2450.00	105.88	27.52	2.95	36.89	99.46	114.00	-14.54	Horizontal
2475.00	106.81	27.64	2.99	36.92	100.52	114.00	-13.48	Vertical
2475.00	108.50	27.64	2.99	36.92	102.21	114.00	-11.79	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2408.00	84.08	27.43	2.93	36.87	77.57	94.00	-16.43	Vertical
2408.00	84.19	27.43	2.93	36.87	77.68	94.00	-16.32	Horizontal
2450.00	85.84	27.52	2.95	36.89	79.42	94.00	-14.58	Vertical
2450.00	86.38	27.52	2.95	36.89	79.96	94.00	-14.04	Horizontal
2475.00	86.78	27.64	2.99	36.92	80.49	94.00	-13.51	Vertical
2475.00	88.26	27.64	2.99	36.92	81.97	94.00	-12.03	Horizontal

Remark:

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

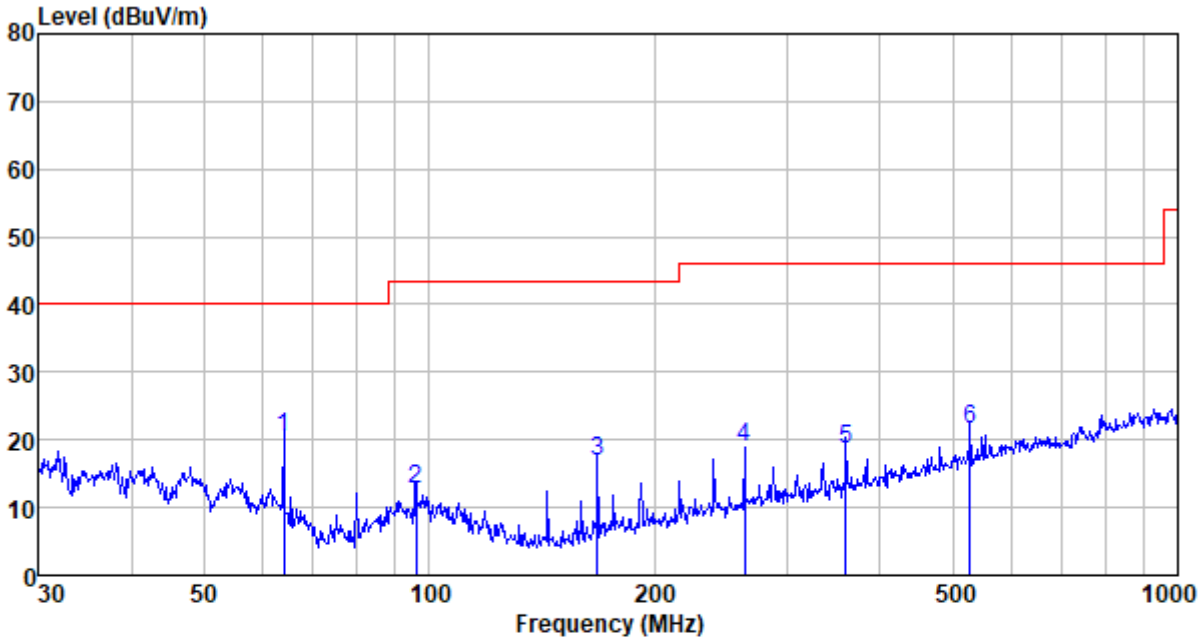
7.2.2 Spurious emissions

■ **9KHz to 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.

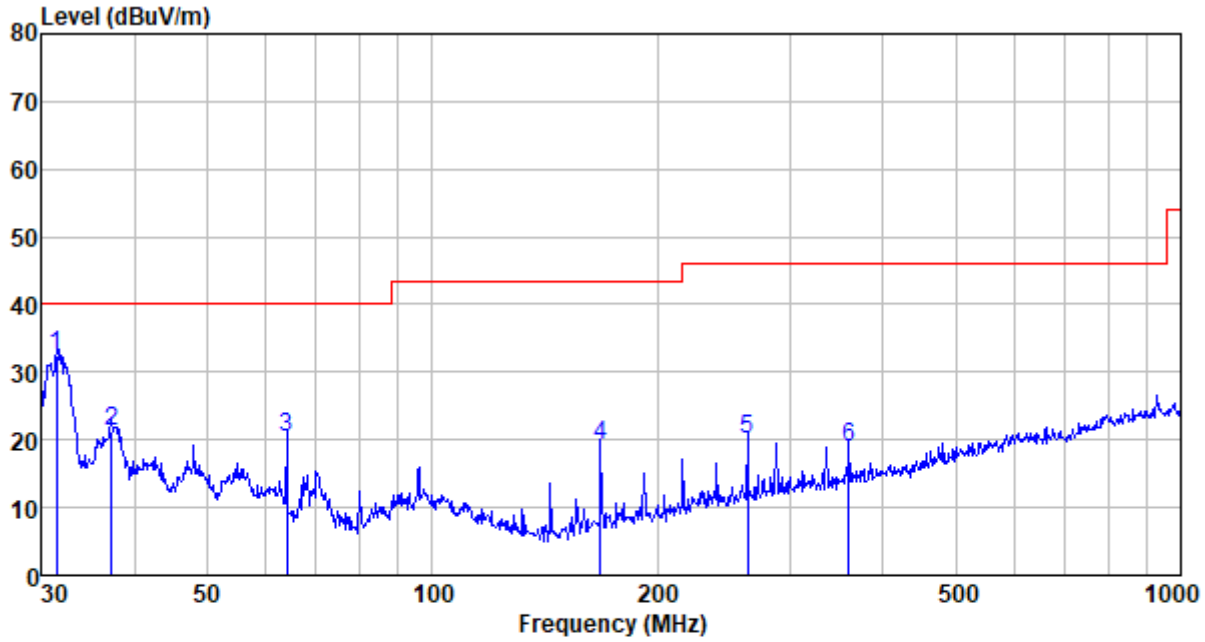
■ **Below 1GHz**

Mode:	Transmitting mode	Test channel:	Lowest channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Horizontal



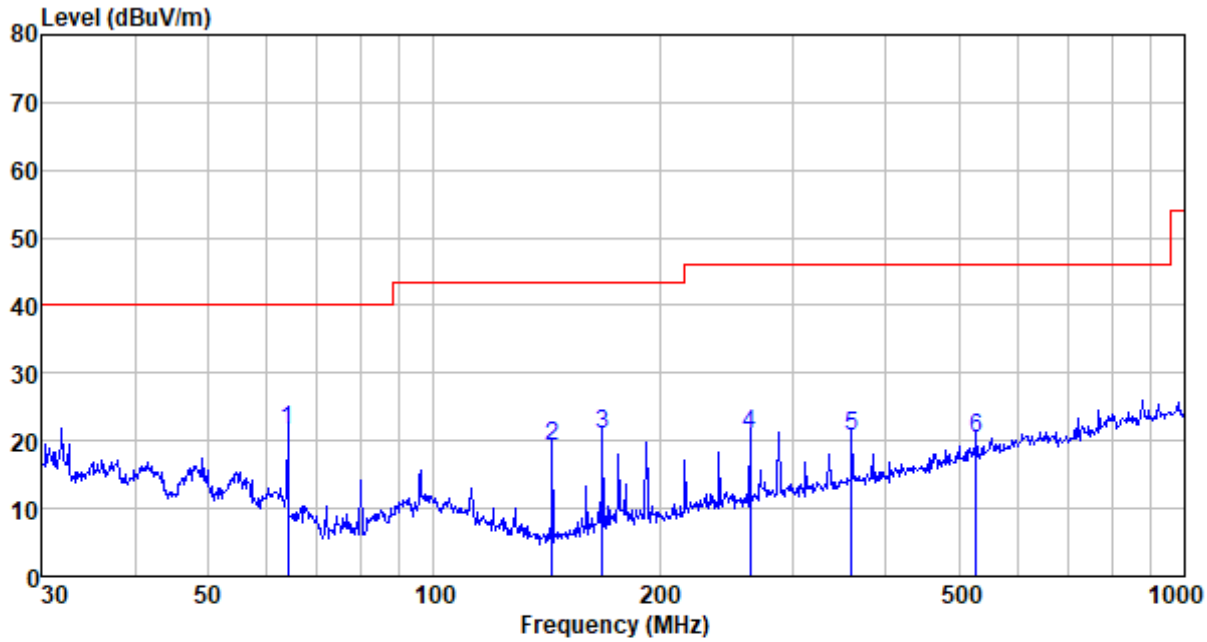
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV	Limit level dBuV/m	Over limit dB	Remark
63.983	46.14	9.80	0.89	36.37	20.46	40.00	-19.54	QP
96.099	36.67	11.65	1.16	36.69	12.79	43.50	-30.71	QP
167.824	43.94	8.46	1.67	37.18	16.89	43.50	-26.61	QP
263.819	41.52	12.58	2.19	37.39	18.90	46.00	-27.10	QP
360.448	38.58	14.70	2.67	37.48	18.47	46.00	-27.53	QP
528.246	37.82	17.96	3.43	37.52	21.69	46.00	-24.31	QP

Mode:	Transmitting mode	Test channel:	Lowest channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Vertical



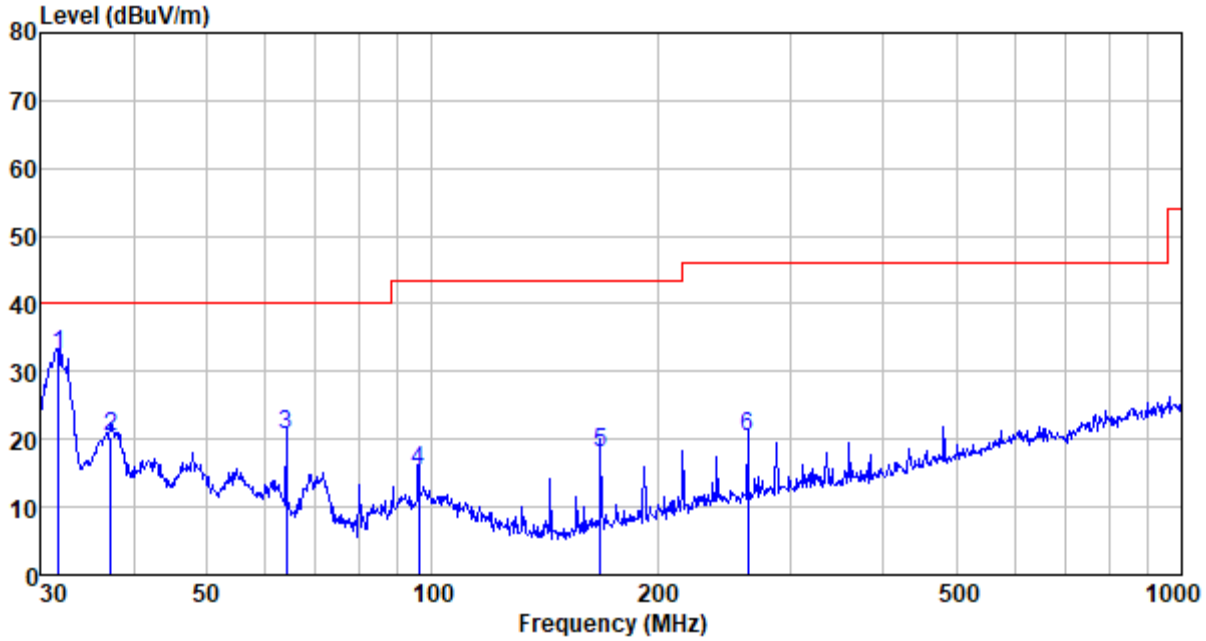
Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV	dBuV/m	dB	
31.510	55.72	11.23	0.57	35.11	32.41	40.00	-7.59	QP
37.285	44.29	11.73	0.63	35.50	21.15	40.00	-18.85	QP
63.983	45.93	9.80	0.89	36.37	20.25	40.00	-19.75	QP
167.824	46.11	8.46	1.67	37.18	19.06	43.50	-24.44	QP
263.819	42.75	12.58	2.19	37.39	20.13	46.00	-25.87	QP
360.448	39.02	14.70	2.67	37.48	18.91	46.00	-27.09	QP

Mode:	Transmitting mode	Test channel:	Middle channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Horizontal



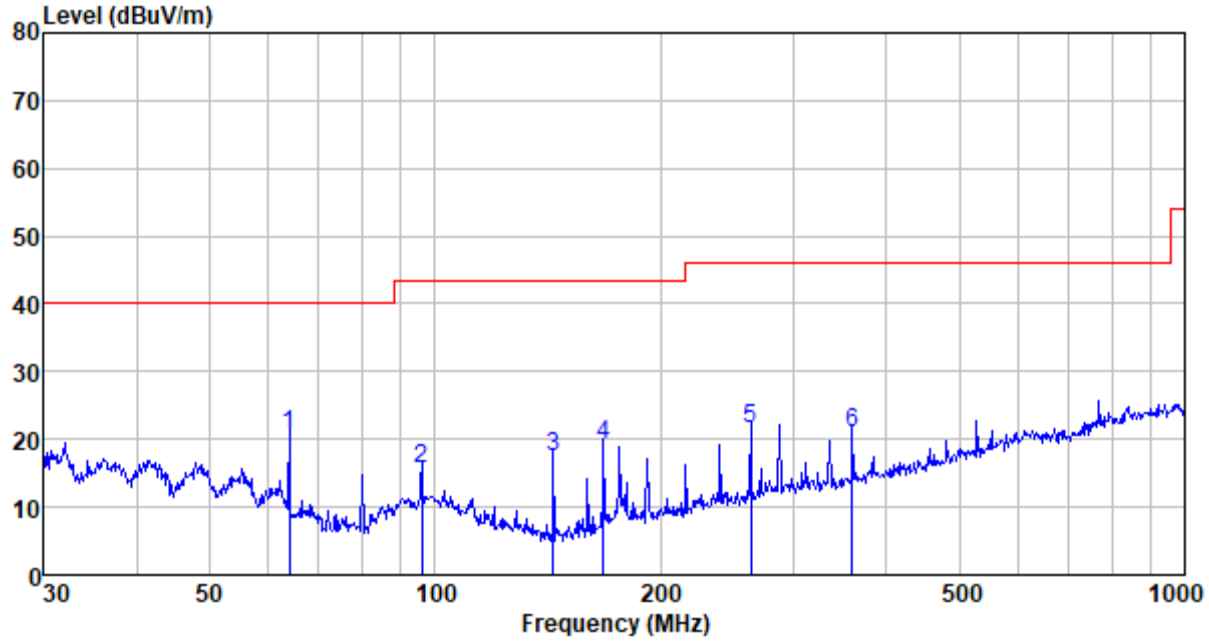
Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV	dBuV/m	dB	
63.983	47.32	9.80	0.89	36.37	21.64	40.00	-18.36	Peak
143.830	47.13	7.47	1.53	37.04	19.09	43.50	-24.41	Peak
167.824	47.94	8.46	1.67	37.18	20.89	43.50	-22.61	Peak
263.819	43.53	12.58	2.19	37.39	20.91	46.00	-25.09	Peak
360.448	40.82	14.70	2.67	37.48	20.71	46.00	-25.29	Peak
528.246	36.41	17.96	3.43	37.52	20.28	46.00	-25.72	Peak

Mode:	Transmitting mode	Test channel:	Middle channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Vertical



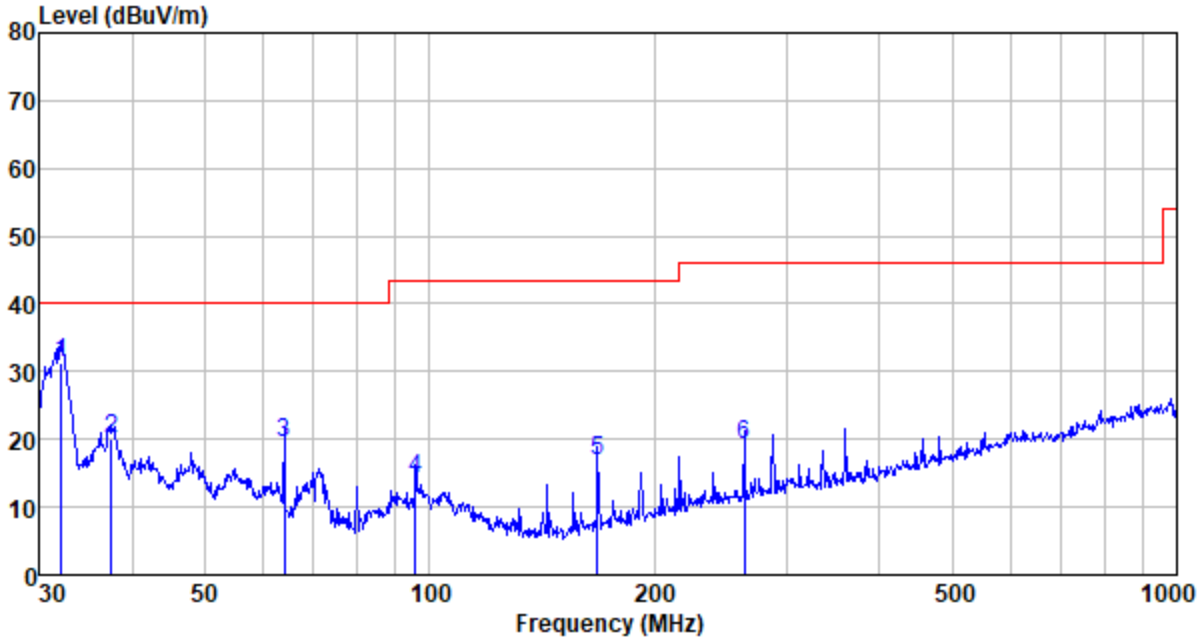
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV	Limit level dBuV/m	Over limit dB	Remark
31.731	55.74	11.24	0.57	35.13	32.42	40.00	-7.58	QP
37.285	43.59	11.73	0.63	35.50	20.45	40.00	-19.55	QP
63.983	46.21	9.80	0.89	36.37	20.53	40.00	-19.47	QP
96.099	39.13	11.65	1.16	36.69	15.25	43.50	-28.25	QP
167.824	45.12	8.46	1.67	37.18	18.07	43.50	-25.43	QP
263.819	42.89	12.58	2.19	37.39	20.27	46.00	-25.73	QP

Mode:	Transmitting mode	Test channel:	Highest channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Horizontal



Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV	dBuV/m	dB	
63.983	46.33	9.80	0.89	36.37	20.65	40.00	-19.35	QP
96.099	39.39	11.65	1.16	36.69	15.51	43.50	-27.99	QP
143.830	45.35	7.47	1.53	37.04	17.31	43.50	-26.19	QP
167.824	46.11	8.46	1.67	37.18	19.06	43.50	-24.44	QP
263.819	44.02	12.58	2.19	37.39	21.40	46.00	-24.60	QP
360.448	41.02	14.70	2.67	37.48	20.91	46.00	-25.09	QP

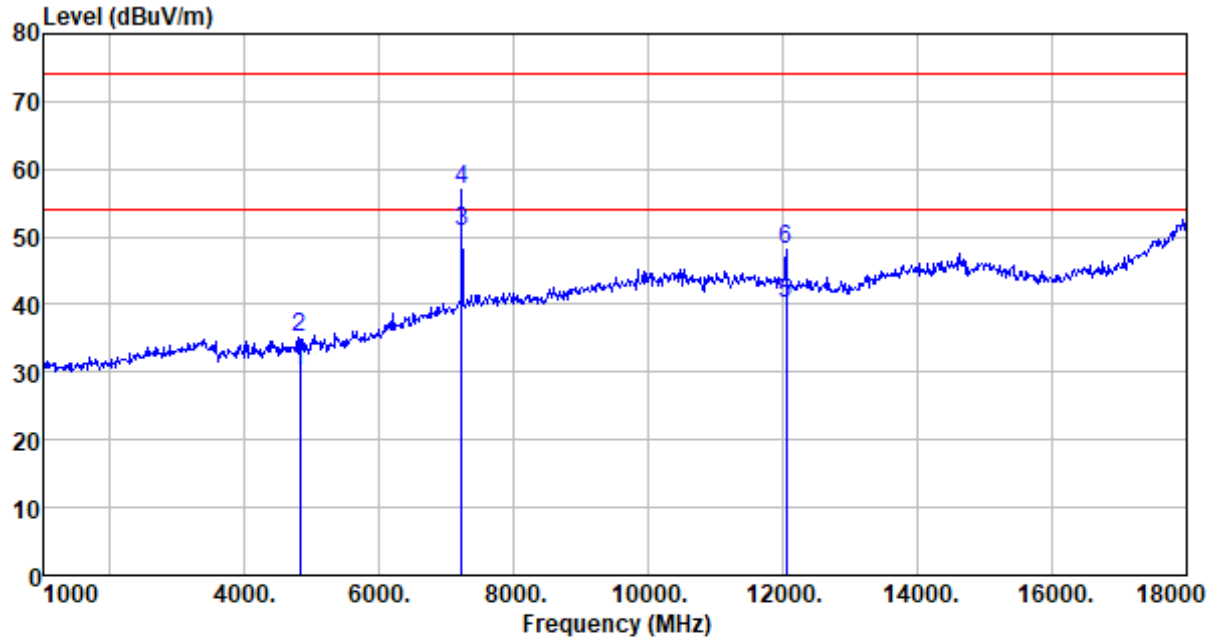
Mode:	Transmitting mode	Test channel:	Highest channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Vertical



Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV	dBuV/m	dB	
32.179	54.50	11.25	0.58	35.16	31.17	40.00	-8.83	QP
37.548	43.22	11.80	0.64	35.52	20.14	40.00	-19.86	QP
63.983	45.27	9.80	0.89	36.37	19.59	40.00	-20.41	QP
95.762	38.05	11.59	1.16	36.69	14.11	43.50	-29.39	QP
167.824	43.83	8.46	1.67	37.18	16.78	43.50	-26.72	QP
263.819	41.87	12.58	2.19	37.39	19.25	46.00	-26.75	QP

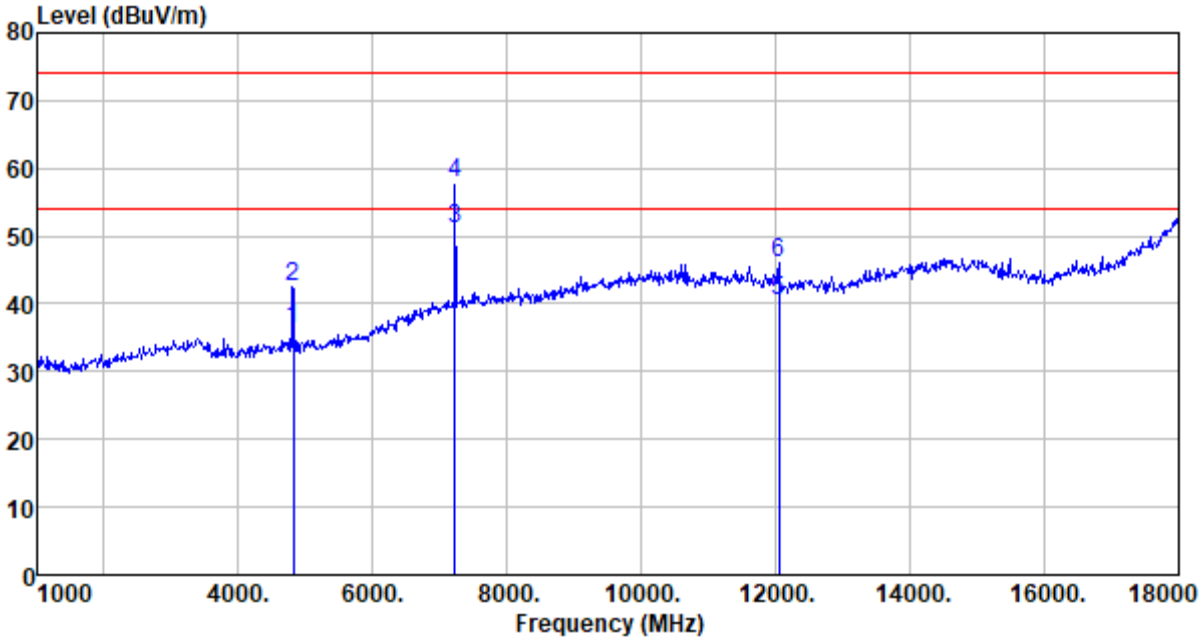
■ **Above 1GHz**

Mode:	Transmitting mode	Test channel:	Lowest channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Horizontal



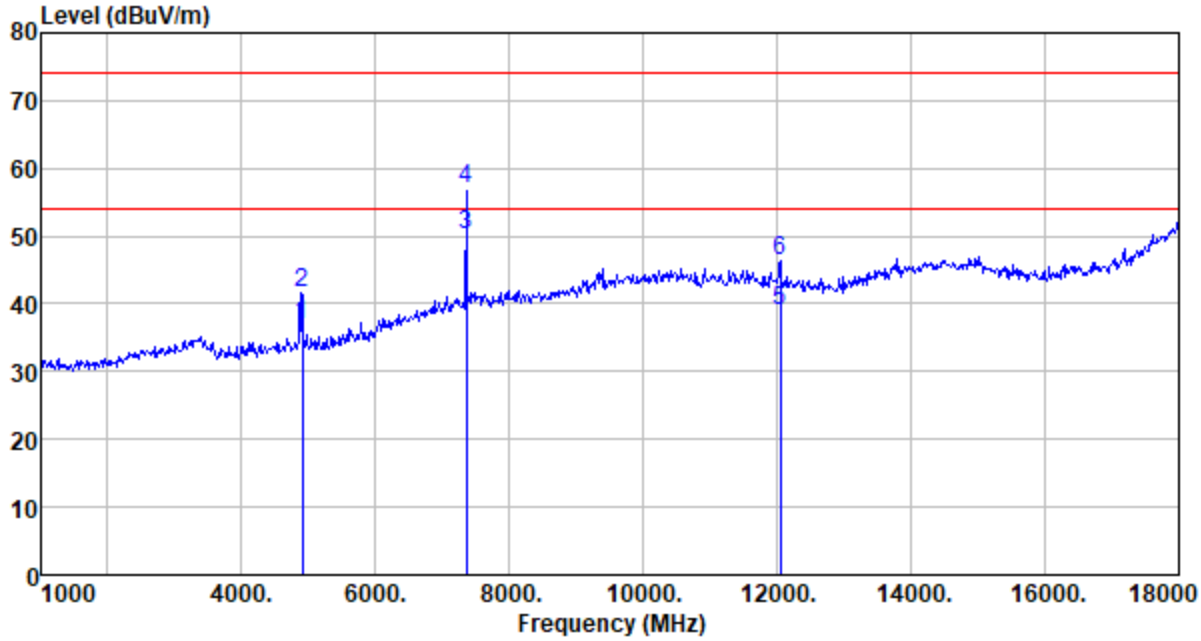
Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV	dBuV/m	dB	
4816.000	32.02	31.22	4.61	37.73	30.12	54.00	-23.88	Average
4816.000	37.07	31.22	4.61	37.73	35.17	74.00	-38.83	Peak
7224.000	43.80	36.20	6.50	35.63	50.87	54.00	-3.13	Average
7224.000	49.80	36.20	6.50	35.63	56.87	74.00	-17.13	Peak
12040.000	28.80	38.51	8.94	36.22	40.03	54.00	-13.97	Average
12040.000	37.03	38.51	8.94	36.22	48.26	74.00	-25.74	Peak

Mode:	Transmitting mode	Test channel:	Lowest channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Vertical



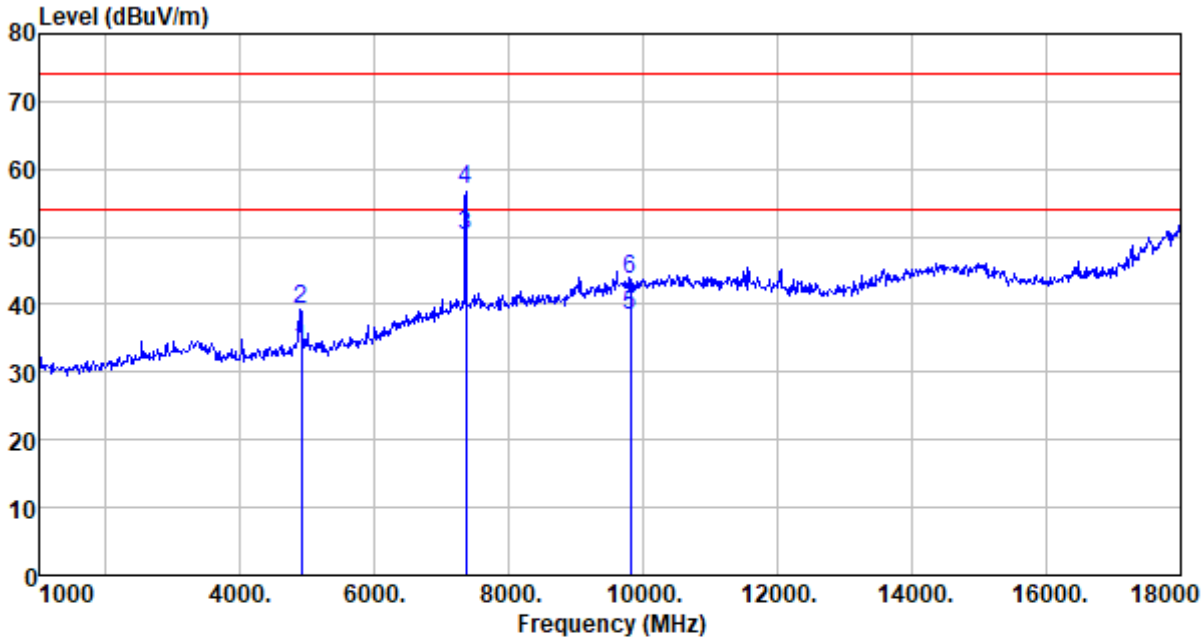
Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV	dBuV/m	dB	
4816.000	38.16	31.22	4.61	37.73	36.26	54.00	-17.74	Average
4816.000	44.52	31.22	4.61	37.73	42.62	74.00	-31.38	Peak
7224.000	43.89	36.20	6.50	35.63	50.96	54.00	-3.04	Average
7224.000	50.89	36.20	6.50	35.63	57.96	74.00	-16.04	Peak
12040.000	29.33	38.51	8.94	36.22	40.56	54.00	-13.44	Average
12040.000	34.90	38.51	8.94	36.22	46.13	74.00	-27.87	Peak

Mode:	Transmitting mode	Test channel:	Middle channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Horizontal



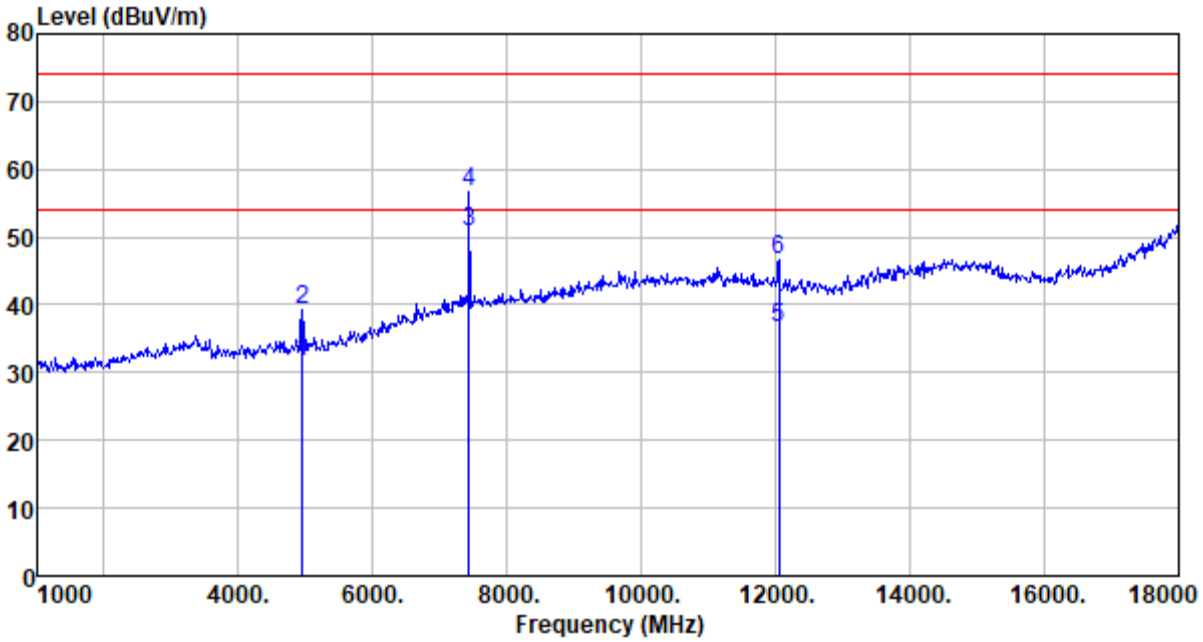
Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV	dBuV/m	dB	
4900.000	38.53	31.35	4.71	37.76	36.83	54.00	-17.17	Average
4900.000	43.20	31.35	4.71	37.76	41.50	74.00	-32.50	Peak
7350.000	42.52	36.48	6.67	35.59	50.08	54.00	-3.92	Average
7350.000	49.53	36.48	6.67	35.59	57.09	74.00	-16.91	Peak
12050.000	27.64	38.51	8.94	36.22	38.87	54.00	-15.13	Average
12050.000	35.13	38.51	8.94	36.22	46.36	74.00	-27.64	Peak

Mode:	Transmitting mode	Test channel:	Middle channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Vertical



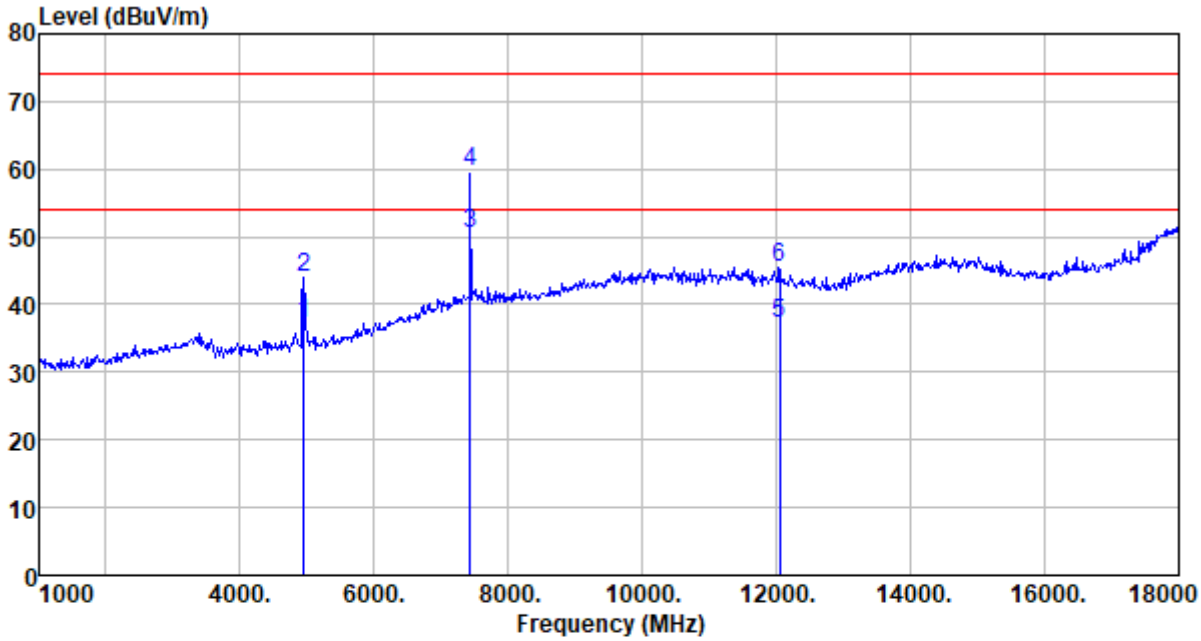
Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV	dBuV/m	dB	
4900.000	35.07	31.35	4.71	37.76	33.37	54.00	-20.63	Average
4900.000	40.82	31.35	4.71	37.76	39.12	74.00	-34.88	Peak
7350.000	42.52	36.48	6.67	35.59	50.08	54.00	-3.92	Average
7350.000	49.54	36.48	6.67	35.59	57.10	74.00	-16.90	Peak
9800.000	27.24	38.17	8.05	35.07	38.39	54.00	-15.61	Average
9800.000	32.39	38.17	8.05	35.07	43.54	74.00	-30.46	Peak

Mode:	Transmitting mode	Test channel:	Highest channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Horizontal



Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV	dBuV/m	dB	
4950.000	33.05	31.41	4.77	37.78	31.45	54.00	-22.55	Average
4950.000	40.94	31.41	4.77	37.78	39.34	74.00	-34.66	Peak
7425.000	42.91	36.66	6.75	35.56	50.76	54.00	-3.24	Average
7425.000	48.91	36.66	6.75	35.56	56.76	74.00	-17.24	Peak
12050.000	25.29	38.51	8.94	36.22	36.52	54.00	-17.48	Average
12050.000	35.47	38.51	8.94	36.22	46.70	74.00	-27.30	Peak

Mode:	Transmitting mode	Test channel:	Highest channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Vertical



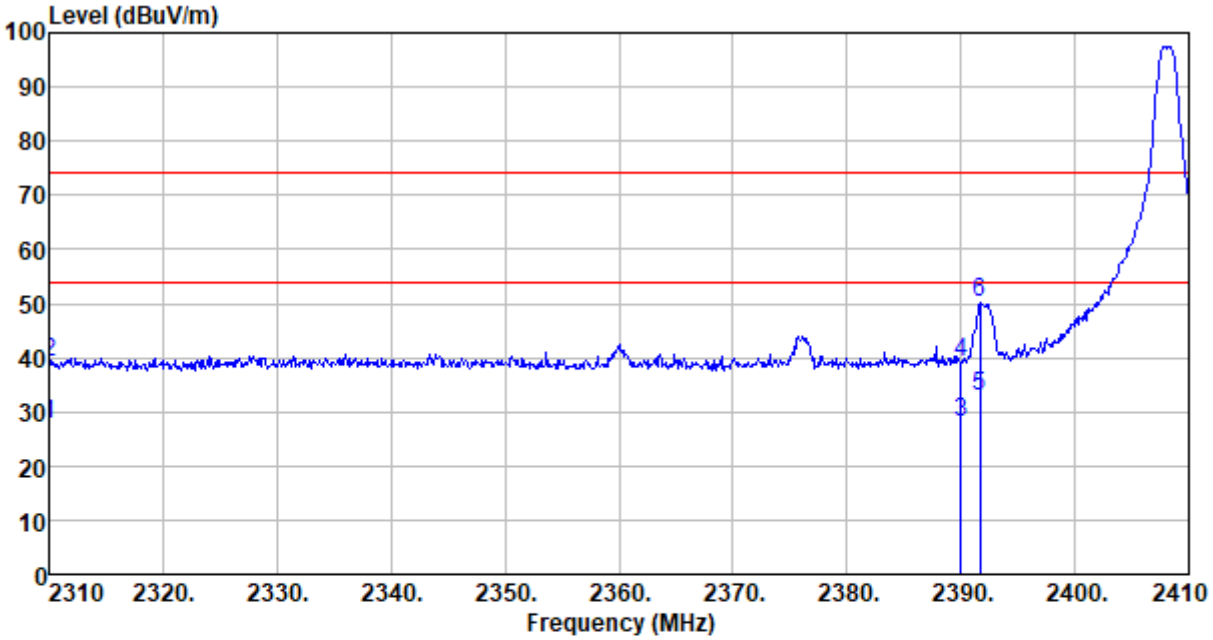
Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV	dBuV/m	dB	
4950.000	38.67	31.41	4.77	37.78	37.07	54.00	-16.93	Average
4950.000	45.66	31.41	4.77	37.78	44.06	74.00	-29.94	Peak
7425.000	42.69	36.66	6.75	35.56	50.54	54.00	-3.46	Average
7425.000	51.72	36.66	6.75	35.56	59.57	74.00	-14.43	Peak
12050.000	26.05	38.51	8.94	36.22	37.28	54.00	-16.72	Average
12050.000	34.24	38.51	8.94	36.22	45.47	74.00	-28.53	Peak

Remark:

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

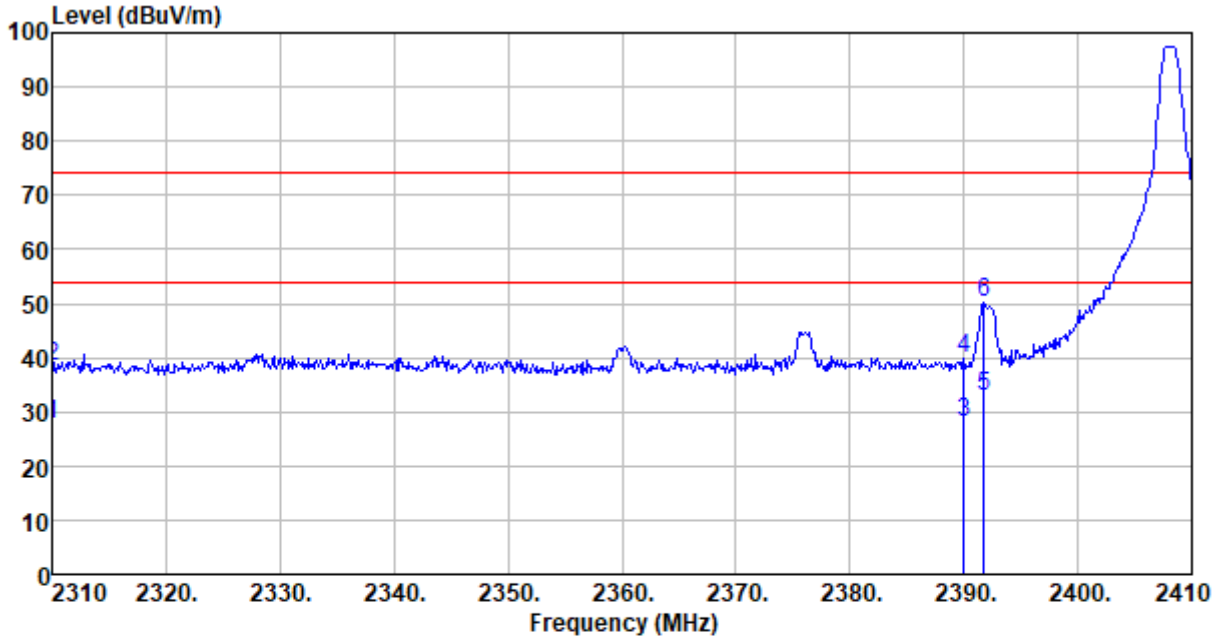
7.2.3 Bandedge emissions

Mode:	Transmitting mode	Test channel:	Lowest channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Horizontal



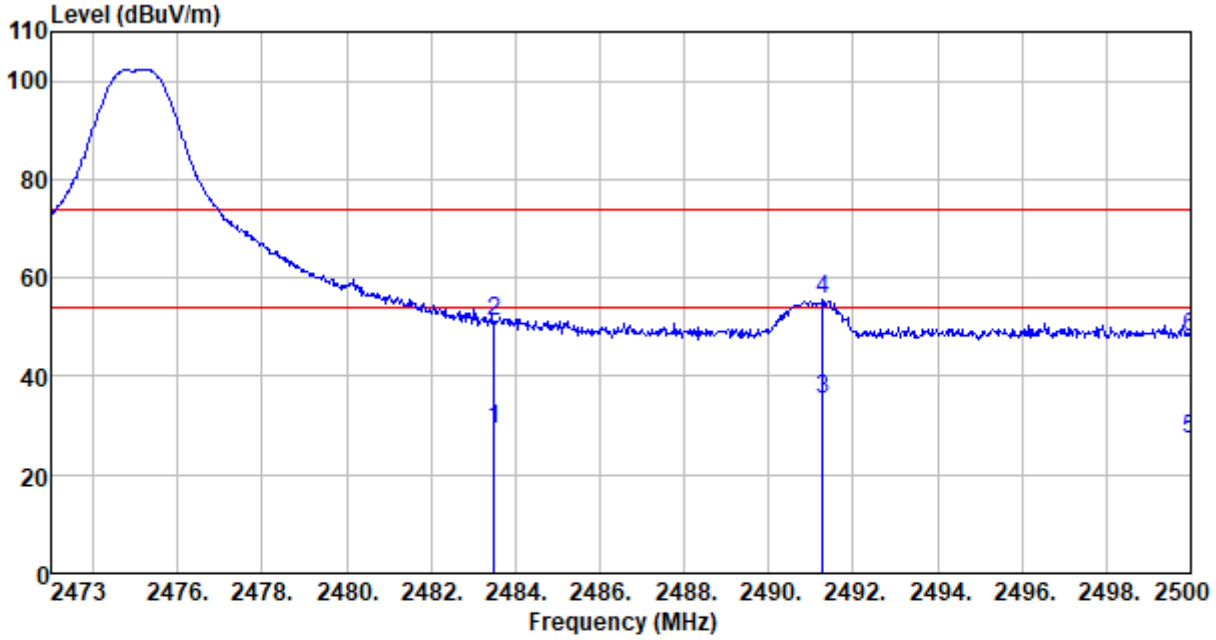
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV	Limit level dBuV/m	Over limit dB	Remark
2310.000	34.50	27.14	2.81	36.79	27.66	54.00	-26.34	Average
2310.000	45.82	27.14	2.81	36.79	38.98	74.00	-35.02	Peak
2390.000	34.60	27.37	2.91	36.85	28.03	54.00	-25.97	Average
2390.000	45.55	27.37	2.91	36.85	38.98	74.00	-35.02	Peak
2391.700	39.49	27.39	2.91	36.85	32.94	54.00	-21.06	Average
2391.700	56.62	27.39	2.91	36.85	50.07	74.00	-23.93	Peak

Mode:	Transmitting mode	Test channel:	Lowest channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Vertical



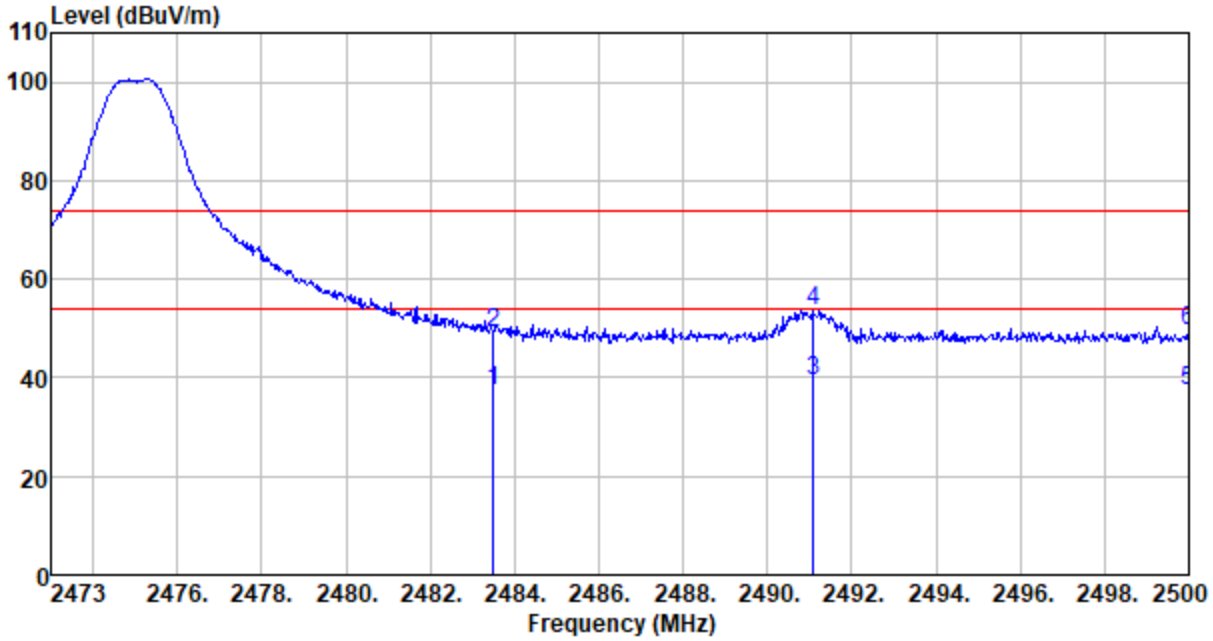
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV	Limit level dBuV/m	Over limit dB	Remark
2310.010	34.50	27.14	2.81	36.79	27.66	54.00	-26.34	Average
2310.010	45.23	27.14	2.81	36.79	38.39	74.00	-35.61	Peak
2389.980	34.77	27.37	2.91	36.85	28.20	54.00	-25.80	Average
2389.980	46.27	27.37	2.91	36.85	39.70	74.00	-34.30	Peak
2391.740	39.44	27.39	2.91	36.85	32.89	54.00	-21.11	Average
2391.740	56.55	27.39	2.91	36.85	50.00	74.00	-24.00	Peak

Mode:	Transmitting mode	Test channel:	Highest channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Horizontal



Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV	dBuV/m	dB	
2483.503	35.50	27.66	2.99	36.93	29.22	54.00	-24.78	Average
2483.503	57.26	27.66	2.99	36.93	50.98	74.00	-23.02	Peak
2491.279	41.49	27.68	3.01	36.93	35.25	54.00	-18.75	Average
2491.279	61.71	27.68	3.01	36.93	55.47	74.00	-18.53	Peak
2500.000	33.50	27.70	3.01	36.94	27.27	54.00	-26.73	Average
2500.000	54.32	27.70	3.01	36.94	48.09	74.00	-25.91	Peak

Mode:	Transmitting mode	Test channel:	Highest channel
Temp./Hum.(%H):	26℃/56%RH	Polarization:	Vertical

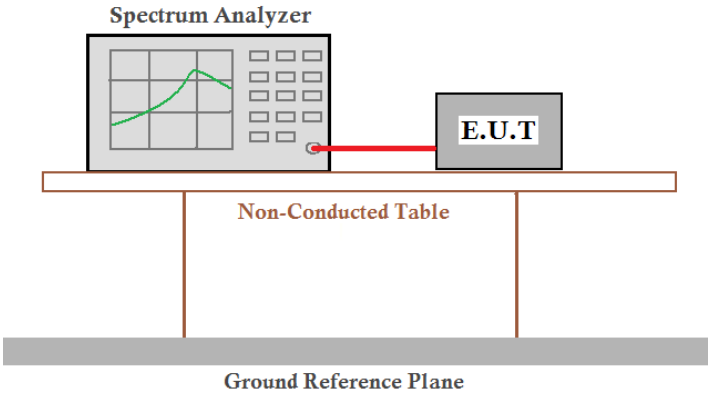


Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV	dBuV/m	dB	
2483.503	43.50	27.66	2.99	36.93	37.22	54.00	-16.78	Average
2483.503	55.32	27.66	2.99	36.93	49.04	74.00	-24.96	Peak
2491.090	45.49	27.68	3.01	36.93	39.25	54.00	-14.75	Average
2491.090	59.90	27.68	3.01	36.93	53.66	74.00	-20.34	Peak
2500.000	43.60	27.70	3.01	36.94	37.37	54.00	-16.63	Average
2500.000	55.66	27.70	3.01	36.94	49.43	74.00	-24.57	Peak

Remark:

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

7.3 20dB Occupy Bandwidth

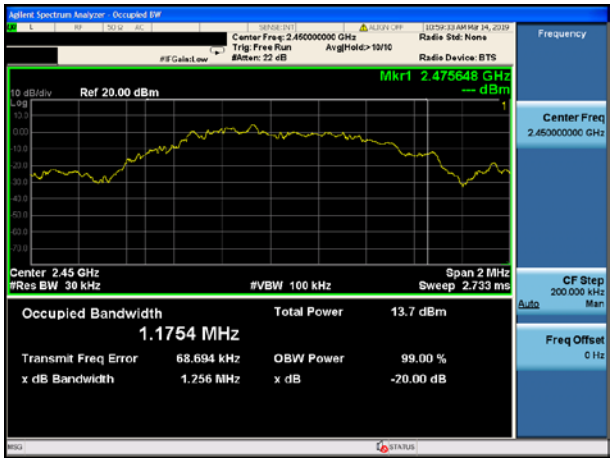
Test Requirement:	FCC Part15 C Section 15.249/15.215
Test Method:	ANSI C63.10:2013
Limit:	Operation Frequency range 2400MHz~2483.5MHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

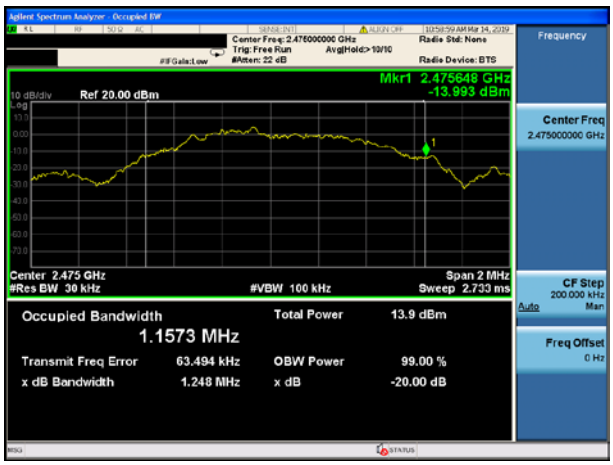
Test channel	20dB bandwidth(MHz)	Result
2408MHz	1.214	Pass
2450MHz	1.256	Pass
2475MHz	1.248	Pass

Test plot as follows:

2408MHz



2450MHz



2475MHz

8 Test Setup Photo

Please refer to the appendix of RF test setup photo.

9 EUT Constructional Details

Please refer to the appendix of external and internal photo.

------End------