

TEST REPORT

Applicant: Shenzhen Dancing Future Technology Ltd.
Address: Room 314, Block H2, OCT east industrial area, No1
Xiangshan east street, Guanghua community,
Shahe street, Nanshan district, Shenzhen China
Equipment Type: Oladance Wearable Stereo B2
Model Name: OLA06
Brand Name: Oladance
FCC ID: 2A9AR-OLA06R
ISED Number: 29727-OLA06R
HVIN: OLA06R
Test Standard: 47 CFR Part 15 Subpart C
RSS-Gen Issue 5
RSS-247 Issue 2
(refer section 3.1)
Test Date: Sep. 29, 2022 - Oct. 12, 2022
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ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Julie Zhu**Checked by:** Ye Hongji**Approved by:** Liao Jianming
(Technical Director)

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Nov. 28, 2022</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☒ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196. The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Shenzhen Dancing Future Technology Ltd.
Address	Room 314, Block H2, OCT east industrial area, No1 Xiangshan east street, Guanghua community, Shahe street, Nanshan district, Shenzhen China

2.2 Manufacturer Information

Manufacturer	Shenzhen Dancing Future Technology Ltd.
Address	Room 314, Block H2, OCT east industrial area, No1 Xiangshan east street, Guanghua community, Shahe street, Nanshan district, Shenzhen China

2.3 Factory Information

Factory	LianGang Optoelectronic Technology Co., Ltd.
Address	150 JingHai West Road, ShaQu Village ShaTou Area, ChangAn Town, DongGuan Guangdong, P.R. China

2.4 General Description for Equipment under Test (EUT)

EUT Name	Oladance Wearable Stereo B2
Model Name Under Test	OLA06
Series Model Name	N/A
Description of Model name differentiation	N/A
Serial Number	D10OLA06GYA123M0000001
Hardware Version	V1.0
Software Version	V105
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Technical Information

Network and Wireless connectivity	Bluetooth (BR+EDR+BLE)
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The requirement for the following technical information of the EUT was tested in this report:

Modulation Technology	FHSS
Modulation Type	GFSK, $\pi/4$ -DQPSK, 8-DPSK
Product Type	☐ Mobile ☒ Portable ☐ Fix Location
Transfer Rate	DH5: 1 Mbps 2DH5: 2 Mbps 3DH5: 3 Mbps
Frequency Range	The frequency range used is 2400 MHz to 2483.5 MHz.
Number of Channel	79 (at intervals of 1 MHz)
Tested Channel	0 (2402 MHz), 39 (2441 MHz), 78 (2480 MHz)
Antenna Type	LDS Antenna
Antenna Gain	-1.6 dBi
Antenna Impedance	50 Ω
Antenna System (MIMO Smart Antenna)	N/A

All channel was listed on the following table:

Channel number	Freq. (MHz)	Channel number	Freq. (MHz)	Channel number	Freq. (MHz)	Channel number	Freq. (MHz)
0	2402	21	2423	42	2444	63	2465
1	2403	22	2424	43	2445	64	2466
2	2404	23	2425	44	2446	65	2467
3	2405	24	2426	45	2447	66	2468
4	2406	25	2427	46	2448	67	2469
5	2407	26	2428	47	2449	68	2470
6	2408	27	2429	48	2450	69	2471
7	2409	28	2430	49	2451	70	2472
8	2410	29	2431	50	2452	71	2473
9	2411	30	2432	51	2453	72	2474
10	2412	31	2433	52	2454	73	2475
11	2413	32	2434	53	2455	74	2476
12	2414	33	2435	54	2456	75	2477
13	2415	34	2436	55	2457	76	2478
14	2416	35	2437	56	2458	77	2479
15	2417	36	2438	57	2459	78	2480
16	2418	37	2439	58	2460	-	-
17	2419	38	2440	59	2461	-	-
18	2420	39	2441	60	2462	-	-
19	2421	40	2442	61	2463	-	-
20	2422	41	2443	62	2464	-	-

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15, Subpart C	Intentional radiators of radio frequency equipment
2	RSS-Gen Issue 5	General Requirements for Compliance of Radio Apparatus
3	RSS-247 Issue 2	Digital Transmission Systems (DTSS), Frequency Hopping Systems(FHSs) and Licence-Exemp Local Area Network (LE-LAN) Devices
4	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices
5	KDB 558074 D01 15.247 Meas Guidance v05r02	Guidance for compliance measurements on digital transmission system, frequency hopping spread spectrum system, and hybrid system devices operating under section 15.247 of the FCC rules

3.2 Test Verdict

No.	Description	FCC Part No.	ISED Part No.	Channel	Test Result	Verdict	Remark
1	Antenna Requirement	15.203	RSS-247, 5.4 (f)	N/A	--	Pass	Note ¹
2	Number of Hopping Frequencies	15.247(a)	RSS-247, 5.1 (d)	Hopping Mode	ANNEX A.1	Pass	Note ²
3	Peak Output Power and E.I.R.P	15.247(b)	RSS-247, 5.4 (b)	Low/Middle/High	ANNEX A.2	Pass	--
4	Occupied Bandwidth	15.247(a)	RSS-247, 5.1 (a)	Low/Middle/High	ANNEX A.3	Pass	Note ²
5	Carrier Frequency Separation	15.247(a)	RSS-247, 5.1 (b)	Hopping Mode	ANNEX A.4	Pass	Note ²
6	Time of Occupancy (Dwell time)	15.247(a)	RSS-247, 5.1 (d)	Hopping Mode	ANNEX A.5	Pass	Note ²
7	Conducted Spurious Emission & Authorized-band band-edge	15.247(d)	RSS-247, 5.5	Hopping Mode; Low/Middle/High	ANNEX A.6	Pass	Note ²
8	Conducted Emission	15.207	RSS-GEN, 8.8	Low/Middle/High	ANNEX A.7	Pass	Note ²
9	Radiated Spurious Emission	15.209 15.247(d)	RSS-247, 5.5	Low/Middle/High	ANNEX A.8	Pass	Note ²
10	Band Edge(Restricted-band band-edge)	15.209 15.247(d)	RSS-247, 5.5	Low/High	ANNEX A.9	Pass	Note ²
11	Receiver Spurious Emissions	--	RSS-Gen, 7.3	--	--	N/A	Note ³

Note ¹: Please refer to section 5.1

Note ²: $\pi/4$ -DQPSK is the EDR 2M rate mode, 8-DPSK is the EDR 3M rate mode. The consistency of test results in $\pi/4$ -DQPSK and 8-DPSK is very high. So we chose 8-DPSK as a typical representative to appear on the report. Another we will show all the modes on the RF output power test item.

Note ³: Only radio communication receivers operating in stand-alone mode within the band 30-960 MHz, as well as scanner receivers, are subject to Industry Canada requirements, so this test is not applicable.

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity	37% to 65%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+20.1°C to +24.9°C
Working Voltage of the EUT	NV (Normal Voltage)	3.8V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	MY46471071	2022.07.26	2023.07.25
Signaling Unit	ROHDE&SCHWARZ	CMW500	142028	2022.05.19	2023.05.18
Spectrum Analyzer	KEYSIGHT	N9020A	MY50531259	2022.09.06	2023.09.05
Signaling Unit	ROHDE&SCHWARZ	CMW500	171150	2022.06.29	2023.06.28
Test Antenna-Horn(1-18 GHz)	SCHWARZBECK	BBHA 9120D	02460	2021.05.19	2024.05.08
Test Antenna-Horn (18-40 GHz)	A-INFO	LB-180400KF	J211060273	2021.07.02	2024.07.01
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2021.08.16	2024.08.15
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2022.09.09	2023.09.08
Test Antenna-Bi-Log(30 MHz-1 GHz)	SCHWARZBECK	VULB 9168	00883	2022.04.01	2025.03.31
Test Antenna-Loop(9 kHz-30 MHz)	SCHWARZBECK	FMZB 1519	1519-037	2021.04.16	2024.04.15
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60*7.35m	N/A	2021.08.15	2024.08.14
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2022.09.09	2023.09.08
LISN	SCHWARZBECK	NSLK 8127	8127-687	2022.06.01	2023.05.31
Shielded Enclosure	YiHeng Electronic Co., Ltd	3.5m*3.1m*2.8m	N/A	2022.02.19	2025.02.18

4.3 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Parameters	Uncertainty
Occupied Channel Bandwidth	2.8%
RF output power, conducted	1.28 dB
Power Spectral Density, conducted	1.30 dB
Unwanted Emissions, conducted	1.84 dB
All emissions, radiated	5.36 dB
Temperature	0.82°C
Humidity	4.1%

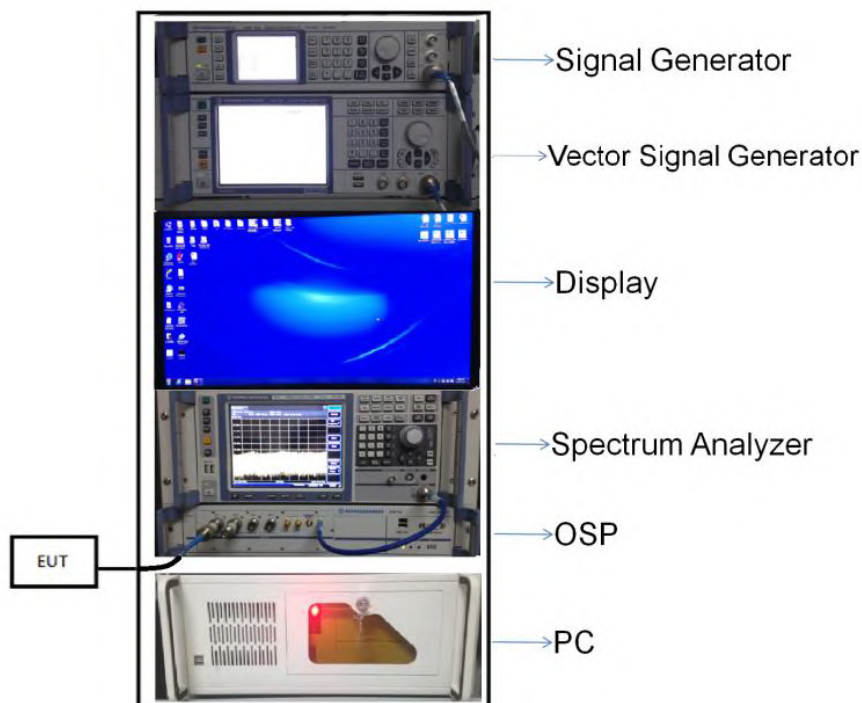
4.4 Description of Test Setup

4.4.1 For Antenna Port Test

Conducted value (dBm) = Measurement value (dBm) + cable loss (dB)

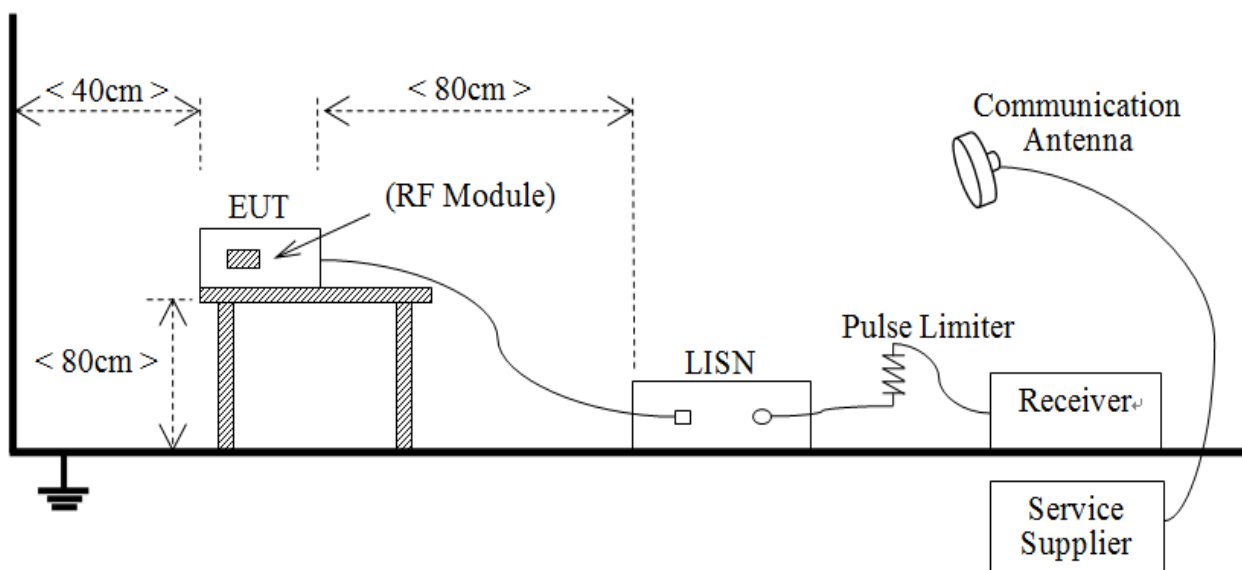
For example: the measurement value is 10 dBm and the cable 0.5dBm used, then the final result of EUT:

Conducted value (dBm) = 10 dBm + 0.5 dB = 10.5 dBm



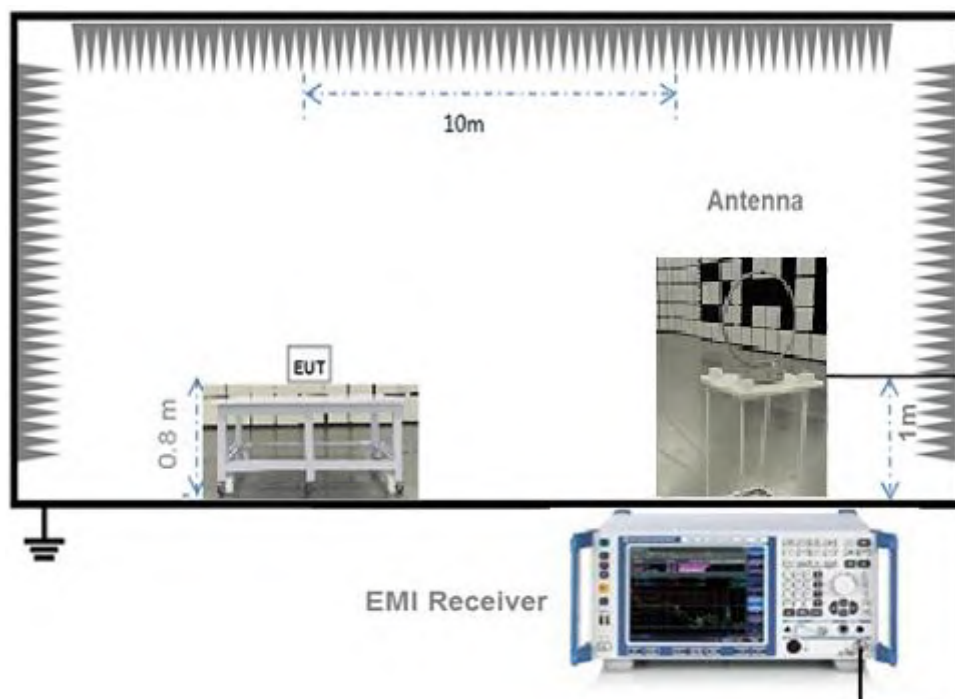
(Diagram 1)

4.4.2 For AC Power Supply Port Test



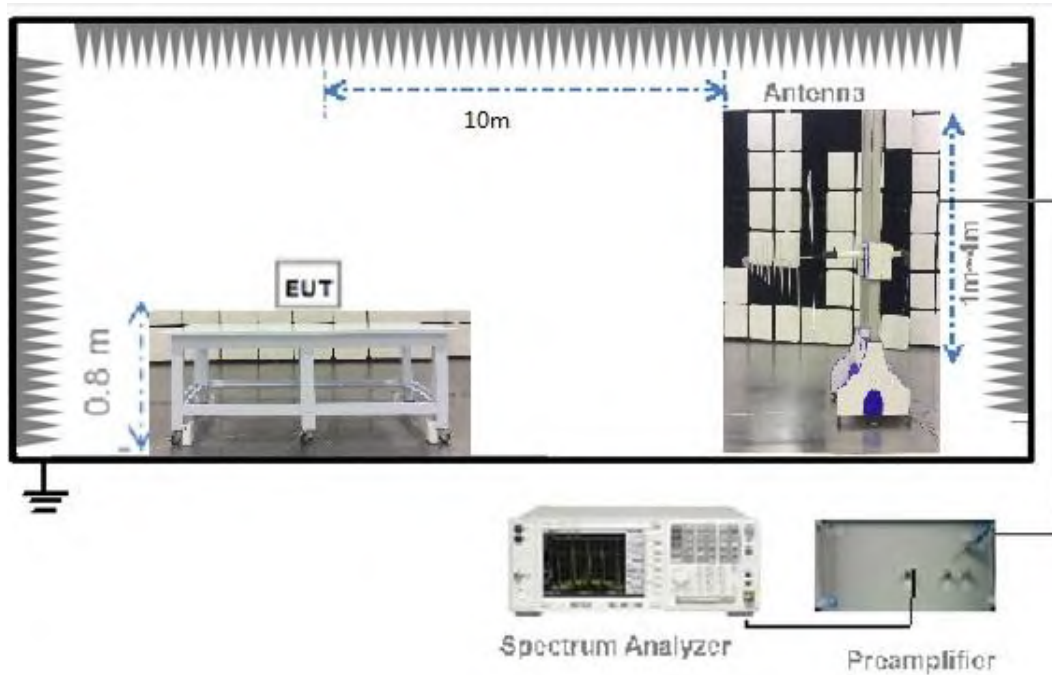
(Diagram 2)

4.4.3 For Radiated Test (Below 30 MHz)



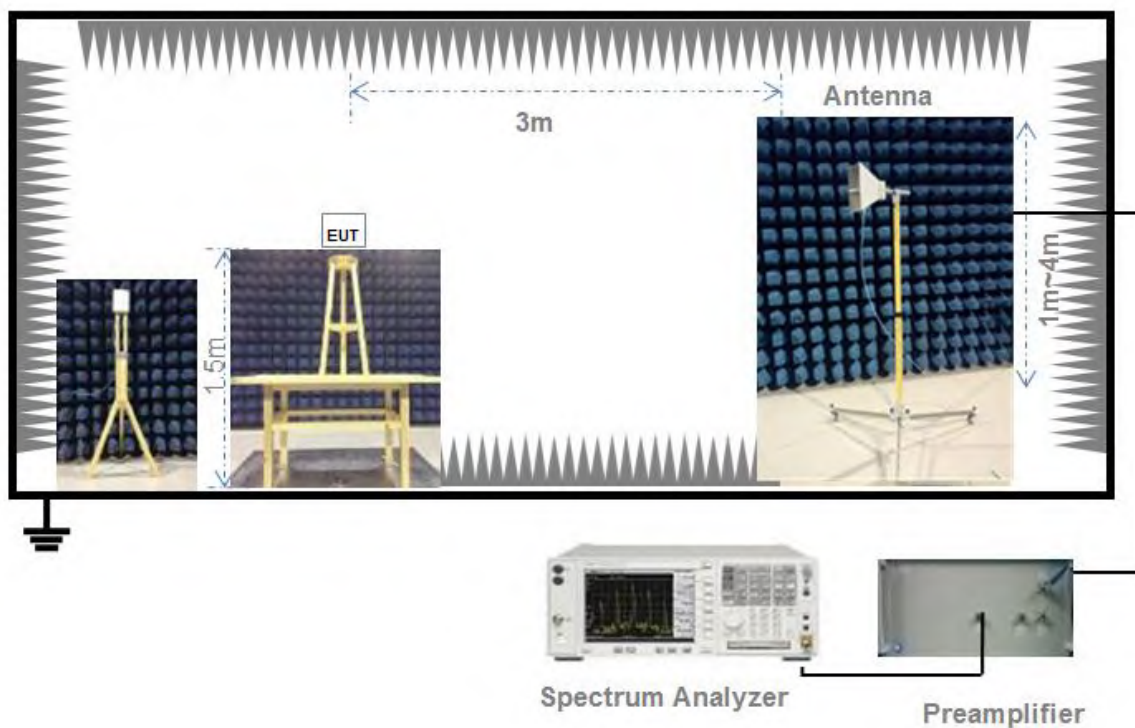
(Diagram 3)

4.4.4 For Radiated Test (30 MHz-1 GHz)



(Diagram 4)

4.4.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

4.5 Measurement Results Explanation Example

4.5.1 For conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

5 TEST ITEMS

5.1 Antenna Requirements

5.1.1 Relevant Standards

FCC §15.203 & 15.247(b); RSS-247, 5.4 (f)

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. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

If directional gain of transmitting antennas is greater than 6 dBi, the power shall be reduced by the same level in dB comparing to gain minus 6 dBi. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi. 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 FCC rule.

5.1.2 Antenna Anti-Replacement Construction

The Antenna Anti-Replacement as following method:

Protected Method	Description
The antenna is embedded in the product.	An embedded-in antenna design is used.

Reference Documents	Item
Photo	Please refer to the EUT Photo documents.

5.1.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

5.2 Frequency Hopping Systems

5.2.1 Relevant Standards

FCC §15.247(a) (1) (i) (ii) (iii) (iv); FCC §15.247(g); FCC §15.247(h)

Describe how the hopping sequence is generated. Provide an example of the hopping sequence channels, to demonstrate that the sequence meets the requirement specified in the definition of an FHSS system. Per the definition in Section 2.1(c), the hop set shall appear as random in the near term, shall appear as evenly distributed in the long term, and sequential hops shall be randomly distributed in both direction and magnitude of change.

Describe how each individual EUT meets the requirement that each of its hopping channels is used equally on average (e.g., that each new transmission event begins on the next channel in the hopping sequence after the final channel used in the previous transmission event).

Describe how the associated receiver(s) complies with the requirement that the input bandwidth (either RF or IF) matches the bandwidth of the transmitted signal.

Describe how the associated receiver(s) has the ability to shift frequencies in synchronization with the transmitted signals.

For short burst systems, describe how the EUT complies with the requirement that it be designed to be capable of operating as a true frequency hopping system. Specifically, the device shall comply with the equal frequency use and pseudorandom hopping sequence requirement when transmitting in short bursts, and shall be designed to comply when presented with continuous data (or information) stream.

Describe how the EUT complies with the requirement that it not have the ability to be coordinated with other FHSS systems in an effort to avoid the simultaneous occupancy of individual hopping frequencies by multiple transmitters.

5.2.2 Description of the systems

1. According to the preset procedure of the whole network, all the stations in the automatic control network synchronously change the frequency multiple times within one second, and temporarily stay on each frequency hopping channel. Periodic synchronization signaling is sent from the primary station, instructing all slaves to simultaneously change the operating frequency, then the hopping sequence is generated.
2. The hop set shall appear as random in the near term, shall appear as evenly distributed in the long term, and sequential hops shall be randomly distributed in both direction and magnitude of change.

Reference Documents



3. Channels are classified into two categories, used and unused, where used channels are part of the hopping sequence and unused channels are replaced in the hopping sequence by used channels in a pseudo-random way. Make each individual EUT meets the requirement that each of its hopping channels is used equally on average.
4. The input bandwidth and transmitted bandwidth are both 1MHz, the associated receiver(s) complies with the requirement that the input bandwidth matches the bandwidth of the transmitted signal.
5. Connected devices communicate on the same physical channel by synchronizing with a common clock and hopping sequence.
6. EUT isn't short burst systems.
7. EUT can't have the ability to be coordinated with other FHSS systems in an effort.

5.3 Number of Hopping Frequencies

5.3.1 Limit

FCC §15.247(a) (1) (iii); RSS-247, 5.1 (d)

Frequency hopping systems operating in the 2400 MHz to 2483.5 MHz bands shall use at least 15 hopping frequencies.

5.3.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.3.3 Test Procedure

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

Span = The frequency band of operation

RBW = To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize

5.3.4 Test Result

Please refer to ANNEX A.1.

5.4 Peak Output Power and E.I.R.P

5.4.1 Test Limit

FCC § 15.247(b)

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

RSS-247, 5.4 (b)

For FHSs operating in the band 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1.0 W and the e.i.r.p. shall not exceed 4 W if the hopset uses 75 or more hopping channels; the maximum peak conducted output power shall not exceed 0.125 W and the e.i.r.p. shall not exceed 0.5 W if the hopset uses less than 75 hopping channels (see Section 5.4(5) for exceptions).

5.4.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.4.3 Test Procedure

The Module operates at hopping-off test mode. The lowest, middle and highest channels are selected to perform testing to verify the conducted RF output peak power of the Module.

Use the following spectrum analyzer settings:

Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel

RBW > the 20 dB bandwidth of the emission being measured

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize.

5.4.4 Test Result

Please refer to ANNEX A.2.

5.5 Occupied Bandwidth

5.5.1 Limit

FCC §15.247(a); RSS-247, 5.1 (a)

Measurement of the 20dB bandwidth of the modulated signal.

5.5.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.5.3 Test Procedure

Use the following spectrum analyzer settings:

Span = approximately 2 to 5 times the 20 dB bandwidth, centered on a hopping channel

RBW = in the range of 1% to 5% of the OBW

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

The EUT should be transmitting at its maximum data rate, Allow the trace to stabilize.

5.5.4 Test Result

Please refer to ANNEX A.3.

5.6 Carrier Frequency Separation

5.6.1 Limit

FCC §15.247(a); RSS-247, 5.1 (b)

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 2/3 of the 20 dB bandwidth of the hopping channel, whichever is greater.

5.6.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.6.3 Test Procedure

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

Span = wide enough to capture the peaks of two adjacent channels

Resolution (or IF) Bandwidth (RBW) $\geq 1\%$ of the span

Video (or Average) Bandwidth (VBW) $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels.

5.6.4 Test Result

Please refer to ANNEX A.4.

5.7 Time of Occupancy (Dwell time)

5.7.1 Limit

FCC §15.247(a); RSS-247, 5.1 (d)

Frequency hopping systems in the 2400 MHz - 2483.5 MHz band shall use at least 15 non-overlapping channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

5.7.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.7.3 Test Procedure

The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:

Span: Zero span, centered on a hopping channel

RBW shall be $\leq$ channel spacing and where possible RBW should be set $\gg 1/T$, where T is the expected dwell time per channel

Sweep: As necessary to capture the entire dwell time per hopping channel; where possible use a video trigger and trigger delay so that the transmitted signal starts a little to the right of the start of the plot. The trigger level might need slight adjustment to prevent triggering when the system hops on an adjacent channel; a second plot might be needed with a longer sweep time to show two successive hops on a channel

Detector function: Peak

Trace: Max hold

Use the marker-delta function to determine the transmit time per hop. If this value varies with different modes of operation (data rate, modulation format, number of hopping channels, etc.), then repeat this test for each variation in transmit time.

The average time of occupancy on any channel within the Period can be calculated with formulas:

For GFSK and 8-DPSK:

For DH1 package type

$$\{\text{Total of Dwell}\} = \{\text{Pulse Time}\} * (1600 / 2) / \{\text{Number of Hopping Frequency}\} * \{\text{Period}\}$$

$$\{\text{Period}\} = 0.4 \text{ s} * \{\text{Number of Hopping Frequency}\}$$

For DH3 package type

$$\{\text{Total of Dwell}\} = \{\text{Pulse Time}\} * (1600 / 4) / \{\text{Number of Hopping Frequency}\} * \{\text{Period}\}$$

$$\{\text{Period}\} = 0.4 \text{ s} * \{\text{Number of Hopping Frequency}\}$$

For DH5 package type

$$\{\text{Total of Dwell}\} = \{\text{Pulse Time}\} * (1600 / 6) / \{\text{Number of Hopping Frequency}\} * \{\text{Period}\}$$

$$\{\text{Period}\} = 0.4 \text{ s} * \{\text{Number of Hopping Frequency}\}$$

For AFH Mode:

For DH1 package type

$$\{\text{Total of Dwell}\} = \{\text{Pulse Time}\} * (800 / 2) / \{\text{Number of Hopping Frequency}\} * \{\text{Period}\}$$

$$\{\text{Period}\} = 0.4 \text{ s} * \{\text{Number of Hopping Frequency}\}$$

For DH3 package type

$$\{\text{Total of Dwell}\} = \{\text{Pulse Time}\} * (800 / 4) / \{\text{Number of Hopping Frequency}\} * \{\text{Period}\}$$
$$\{\text{Period}\} = 0.4 \text{ s} * \{\text{Number of Hopping Frequency}\}$$

For DH5 package type

$$\{\text{Total of Dwell}\} = \{\text{Pulse Time}\} * (800 / 6) / \{\text{Number of Hopping Frequency}\} * \{\text{Period}\}$$
$$\{\text{Period}\} = 0.4 \text{ s} * \{\text{Number of Hopping Frequency}\}$$

The lowest, middle and highest channels are selected to perform testing to record the dwell time of each occupation measured in this channel, which is called Pulse Time here.

5.7.4 Test Result

Please refer to ANNEX A.5.

5.8 Conducted Spurious Emission & Authorized-band band-edge

5.8.1 Limit

FCC §15.247(d); RSS-247, 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

5.8.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.8.3 Test Procedure

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.

RBW = 100 kHz

VBW = 300 kHz

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize

5.8.4 Test Result

Please refer to ANNEX A.6.

5.9 Conducted Emission

5.9.1 Limit

FCC §15.207; RSS-GEN, 8.8

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
0.50 - 30	60	50

5.9.2 Test Setup

See section 4.5.2 for test setup description for the AC power supply port. The photo of test setup please refer to ANNEX B.

5.9.3 Test Procedure

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. A device rated for 50/60 Hz operation need not be tested at both frequencies provided the radiated and line conducted emissions are the same at both frequencies.

5.9.4 Test Result

Please refer to ANNEX A.7.

5.10 Radiated Spurious Emission

5.10.1 Limit

FCC §15.209&15.247(d); RSS-247, 5.5

Radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
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
Above 960	500	3

Note:

1. Field Strength ($\text{dB}\mu\text{V/m}$) = $20 \times \log[\text{Field Strength } (\mu\text{V/m})]$.
2. In the emission tables above, the tighter limit applies at the band edges.
3. For Above 1000 MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.
4. For above 1000 MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK).

5.10.2 Test Setup

See section 4.5.3 to 4.5.5 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.10.3 Test Procedure

The measurement frequency range is from 9 kHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

The power of the EUT transmitting frequency should be ignored.

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

For measurement below 1GHz, 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.

5.10.4 Test Result

Please refer to ANNEX A.8.

5.11 Band Edge (Restricted-band band-edge)

5.11.1 Limit

FCC §15.209&15.247(d)

Radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

5.11.2 Test Setup

See section 4.5.3 to 4.5.5 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.11.3 Test Procedure

The measurement frequency range is from 9 kHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

The power of the EUT transmitting frequency should be ignored.

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

For measurement below 1GHz, 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.

5.11.4 Test Result

Please refer to ANNEX A.9.

ANNEX A TEST RESULT

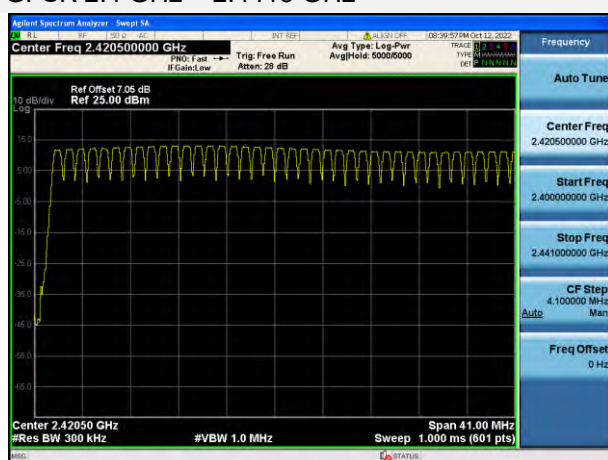
A.1 Number of Hopping Frequency

Test Data

Test Mode	Frequency Block (MHz)	Measured Channel Numbers	Min. Limit	Verdict
GFSK	2400 - 2483.5	79	15	Pass
8-DPSK	2400 - 2483.5	79	15	Pass

Test Plots

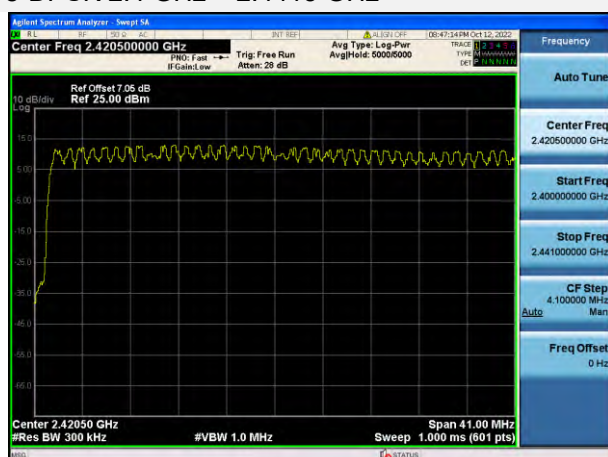
GFSK 2.4 GHz ~ 2.4415 GHz



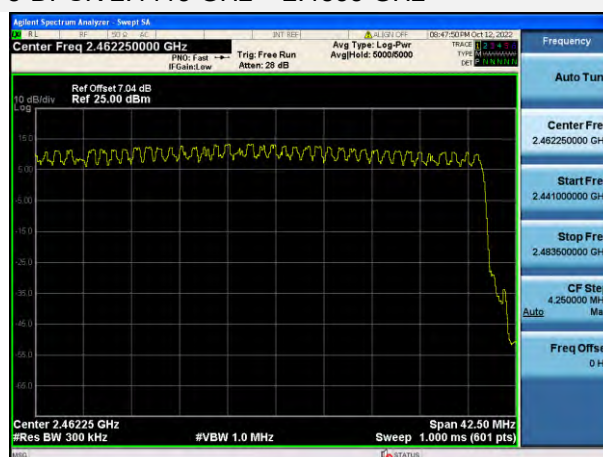
GFSK 2.4415 GHz ~ 2.4835 GHz



8-DPSK 2.4 GHz ~ 2.4415 GHz



8-DPSK 2.4415 GHz ~ 2.4835 GHz



A.2 Peak Output Power and E.I.R.P

Peak Power Test Data

Channel	Measured Output Peak Power						Limit		Verdict
	GFSK		$\pi/4$ -DQPSK		8-DPSK		dBm	mW	
	dBm	mW	dBm	mW	dBm	mW			
Low	11.89	15.46	11.84	15.26	11.87	15.39	21	125	Pass
Middle	11.19	13.16	11.21	13.23	11.24	13.30			Pass
High	10.73	11.83	10.76	11.92	10.74	11.84			Pass

E.I.R.P Test Data (For ISSED)

Channel	E.I.R.P						Limit		Verdict
	GFSK		$\pi/4$ -DQPSK		8-DPSK		dBm	mW	
	dBm	mW	dBm	mW	dBm	mW			
Low	10.29	10.70	10.24	10.56	10.27	10.64	36	4000	Pass
Middle	9.59	9.10	9.61	9.15	9.64	9.20			Pass
High	9.13	8.18	9.16	8.25	9.14	8.19			Pass

Test Plots

GFSK LOW CHANNEL



GFSK MIDDLE CHANNEL



GFSK HIGH CHANNEL

 $\pi/4$ -DQPSK LOW CHANNEL $\pi/4$ -DQPSK MIDDLE CHANNEL

$\pi/4$ -DQPSK HIGH CHANNEL



8-DPSK LOW CHANNEL



8-DPSK MIDDLE CHANNEL



8-DPSK HIGH CHANNEL



A.3 20 dB and 99% bandwidth

Test Data

GFSK		
Channel	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	0.955000	0.852240
Middle	0.955000	0.853070
High	0.960000	0.854130
$\pi/4$ -DQPSK		
Channel	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	1.275000	1.150800
Middle	1.275000	1.151600
High	1.285000	1.155600
8-DPSK		
Channel	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	1.270000	1.158200
Middle	1.270000	1.151900
High	1.280000	1.157200

Test Plots

20 dB Bandwidth

GFSK LOW CHANNEL



GFSK MIDDLE CHANNEL



GFSK HIGH CHANNEL



π/4-DQPSK LOW CHANNEL



π/4-DQPSK MIDDLE CHANNEL



$\pi/4$ -DQPSK HIGH CHANNEL



8-DPSK LOW CHANNEL



8-DPSK MIDDLE CHANNEL



8-DPSK HIGH CHANNEL



99% Bandwidth

GFSK LOW CHANNEL



GFSK MIDDLE CHANNEL



GFSK HIGH CHANNEL

 $\pi/4$ -DQPSK LOW CHANNEL $\pi/4$ -DQPSK MIDDLE CHANNEL

$\pi/4$ -DQPSK HIGH CHANNEL



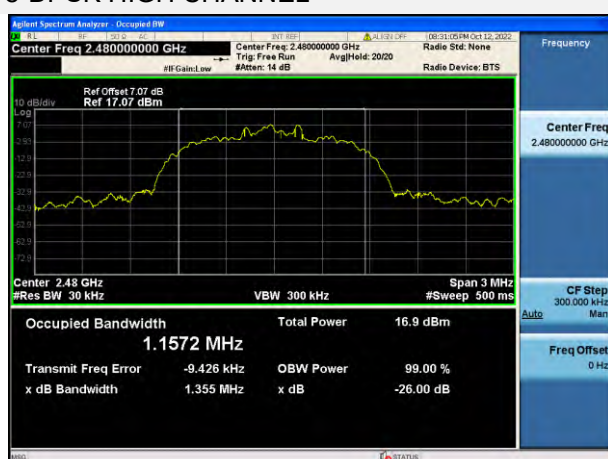
8-DPSK LOW CHANNEL



8-DPSK MIDDLE CHANNEL



8-DPSK HIGH CHANNEL



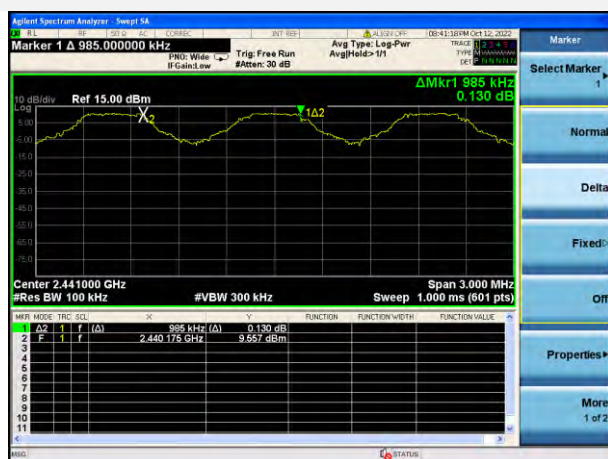
A.4 Hopping Frequency Separation

Test Data

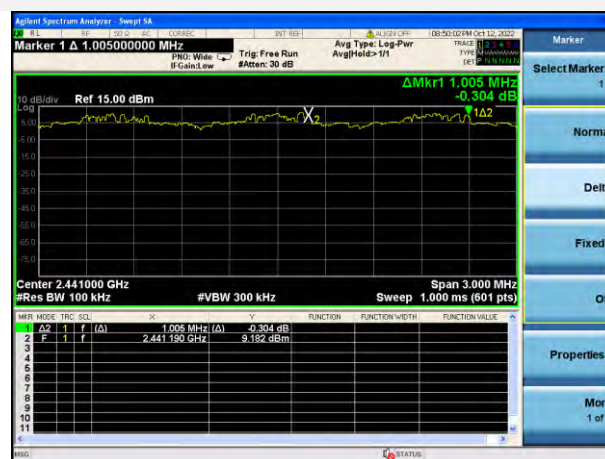
Mode	Frequency separation (MHz)	2/3 of the 20 dB Bandwidth (MHz)	Verdict
GFSK	0.985	0.640	Pass
8-DPSK	1.005	0.853	Pass

Test Plots

GFSK



8-DPSK



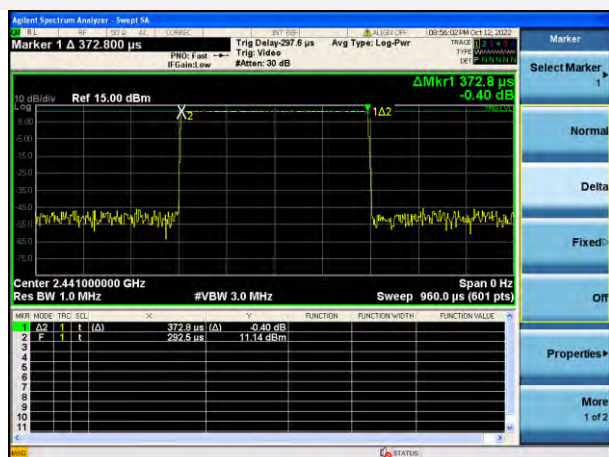
A.5 Average Time of Occupancy

Test Data

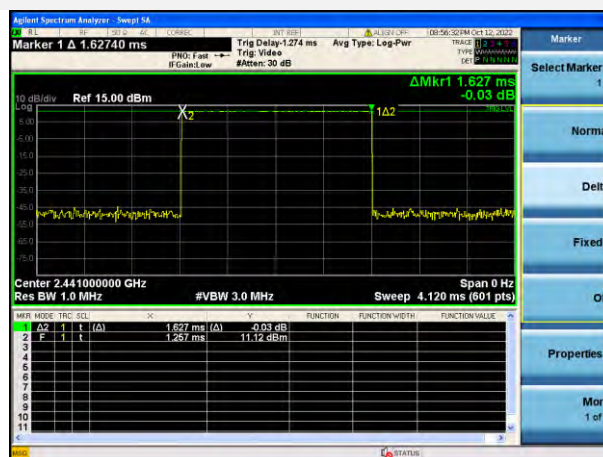
GFSK				
DH Packet	Pulse Width (ms)	Total of Dwell (ms)	Limit (sec)	Verdict
DH 1	0.37280	119.296	0.4	Pass
DH 3	1.62700	260.320	0.4	Pass
DH 5	2.87600	306.773	0.4	Pass
8-DPSK				
DH Packet	Pulse Width (ms)	Total of Dwell (ms)	Limit (sec)	Verdict
DH 1	0.38400	122.880	0.4	Pass
DH 3	1.63400	261.440	0.4	Pass
DH 5	2.88800	308.053	0.4	Pass
AFH Mode				
DH Packet	Pulse Width (ms)	Total of Dwell (ms)	Limit (sec)	Verdict
DH 1	0.37280	59.648	0.4	Pass
DH 3	1.62700	130.160	0.4	Pass
DH 5	2.88800	154.027	0.4	Pass

Test Plots

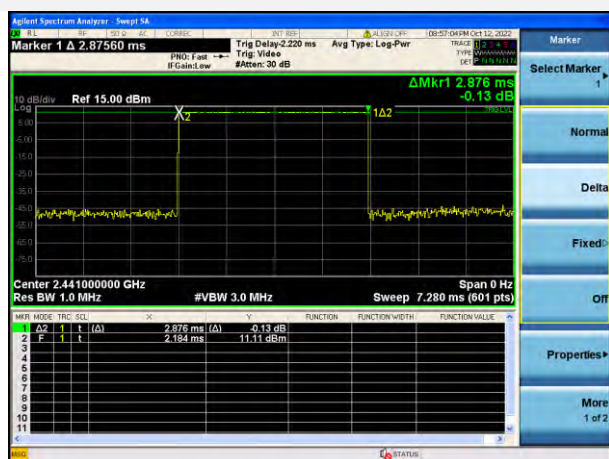
GFSK DH1



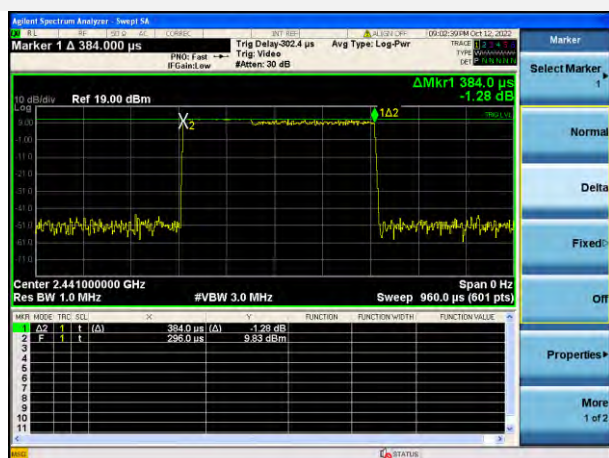
GFSK DH3



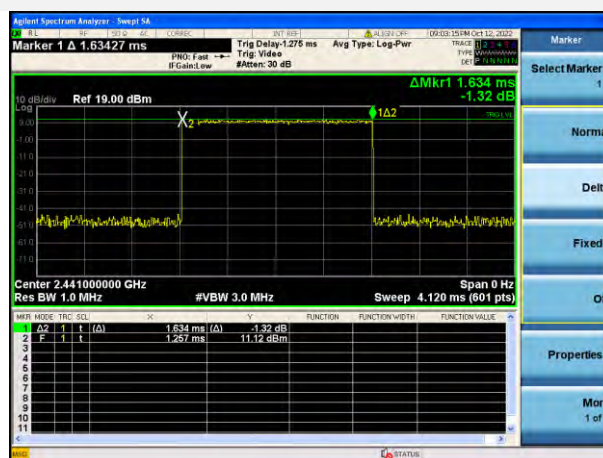
GFSK DH5



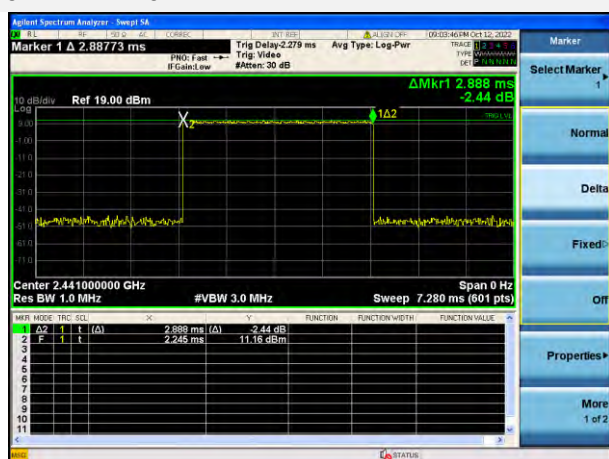
8-DPSK DH1



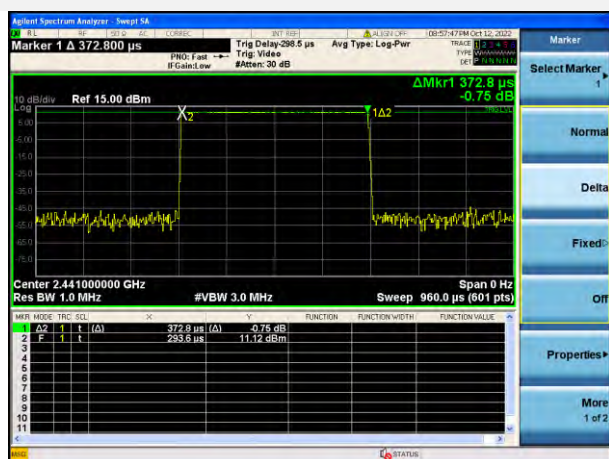
8-DPSK DH3



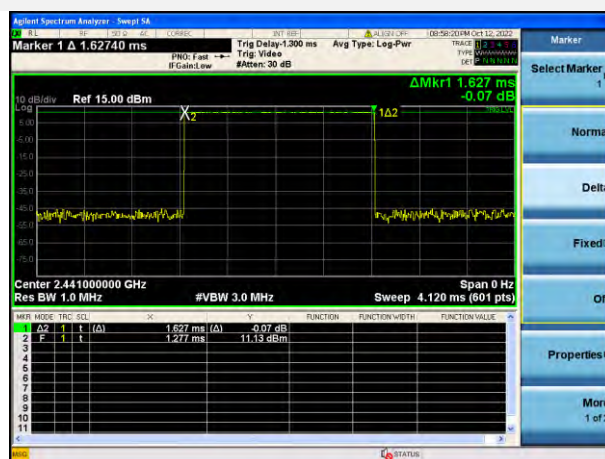
8-DPSK DH5



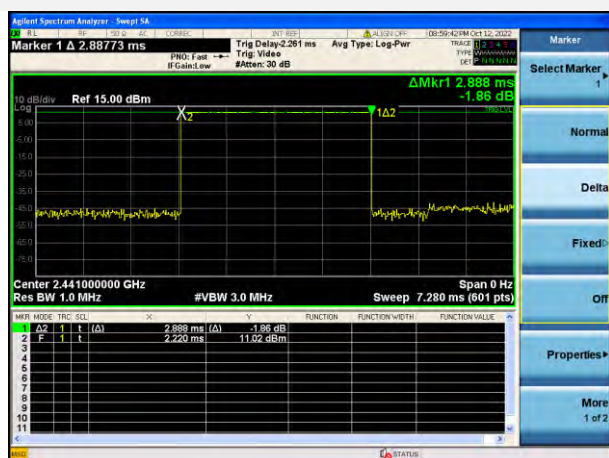
AFH Mode DH1



AFH Mode DH3



AFH Mode DH5



A.6 Conducted Spurious Emissions & Authorized-band band-edge

Test Data

GFSK				
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-39.22	11.70	-8.30	Pass
Middle	-39.10	11.01	-8.99	Pass
High	-38.51	10.55	-9.45	Pass
8-DPSK				
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-39.26	11.25	-8.75	Pass
Middle	-39.41	11.05	-8.95	Pass
High	-39.00	10.29	-9.71	Pass
Hopping Mode				
Mode	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
GFSK	-39.82	12.89	-7.11	Pass
8-DPSK	-39.34	12.47	-7.54	Pass

Test Plots

GFSK LOW CHANNEL, CARRIER LEVEL

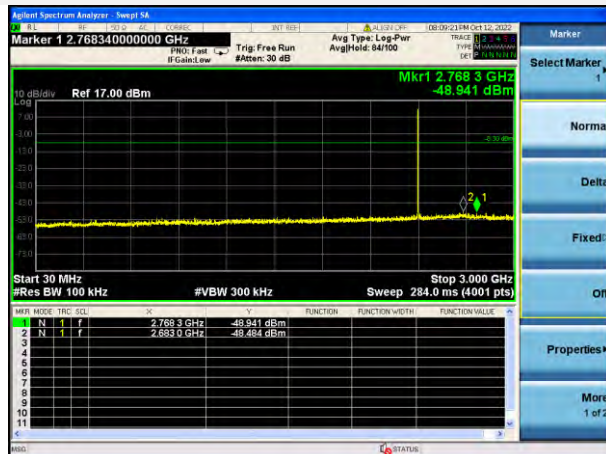


GFSK LOW CHANNEL, BAND EDGE



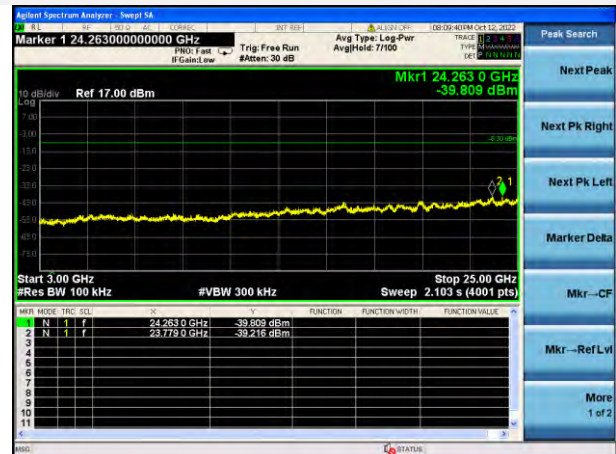
GFSK LOW CHANNEL, SPURIOUS

30 MHz ~ 3 GHz



GFSK LOW CHANNEL, SPURIOUS

3 GHz ~ 25 GHz

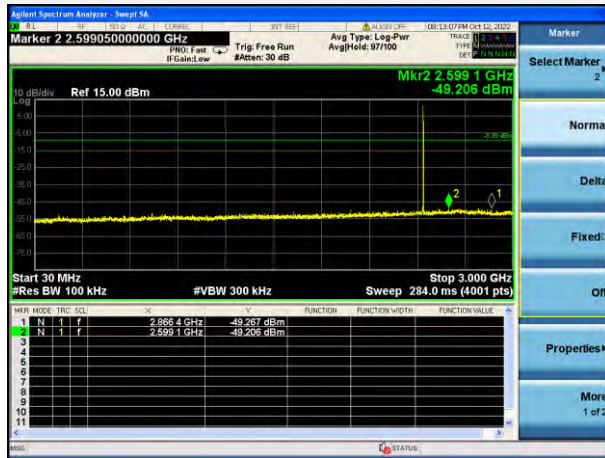


GFSK MIDDLE CHANNEL, CARRIER LEVEL



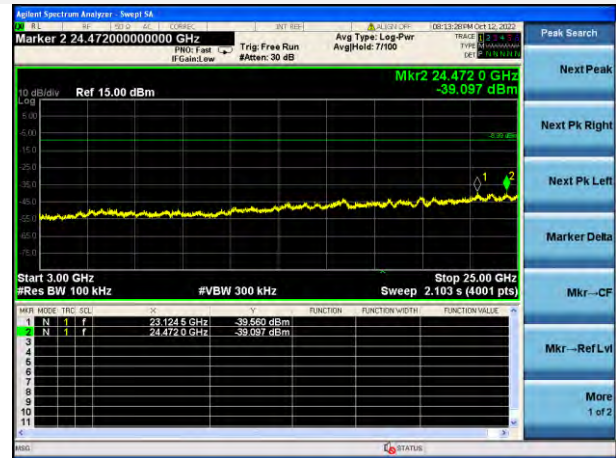
GFSK MIDDLE CHANNEL, SPURIOUS

30 MHz ~ 3 GHz



GFSK MIDDLE CHANNEL, SPURIOUS

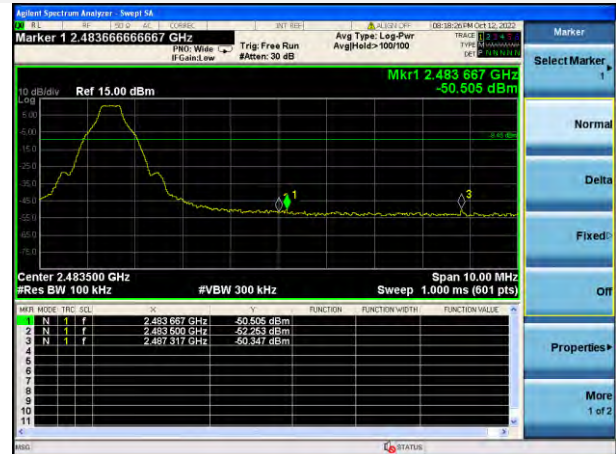
3 GHz ~ 25 GHz



GFSK HIGH CHANNEL, CARRIER LEVEL

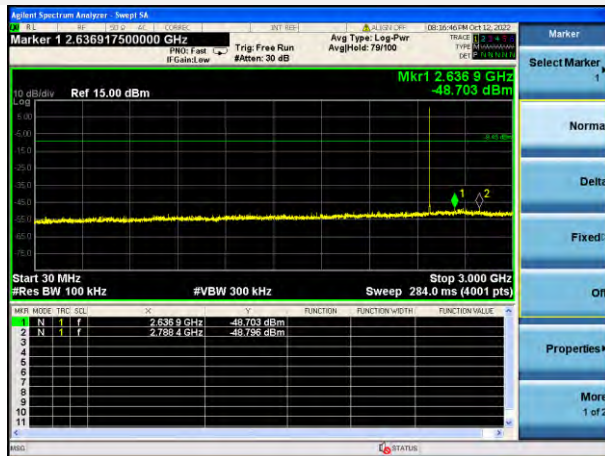


GFSK HIGH CHANNEL, BAND EDGE



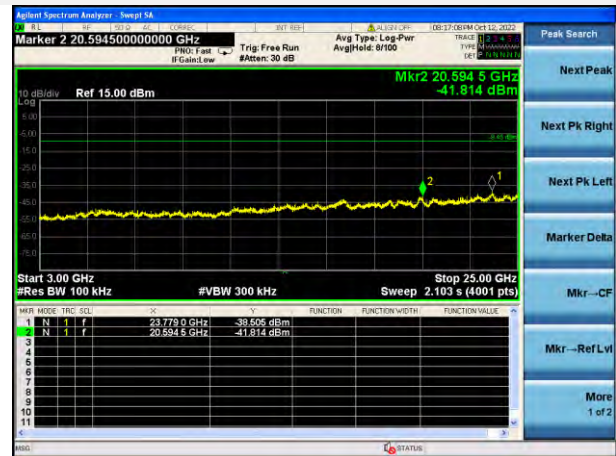
GFSK HIGH CHANNEL, SPURIOUS

30 MHz ~ 3 GHz



GFSK HIGH CHANNEL, SPURIOUS

3 GHz ~ 25 GHz



8-DPSK LOW CHANNEL, CARRIER LEVEL

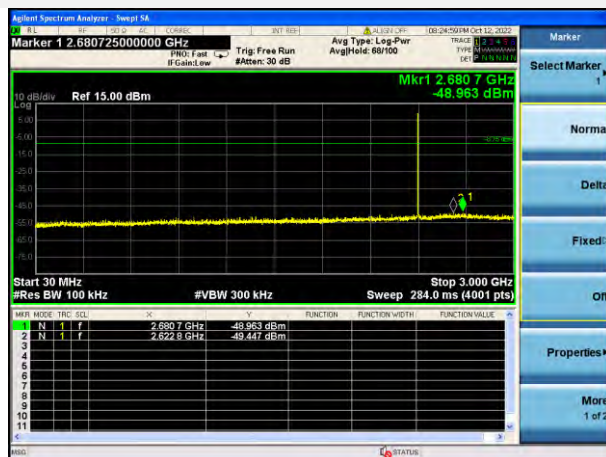


8-DPSK LOW CHANNEL, BAND EDGE



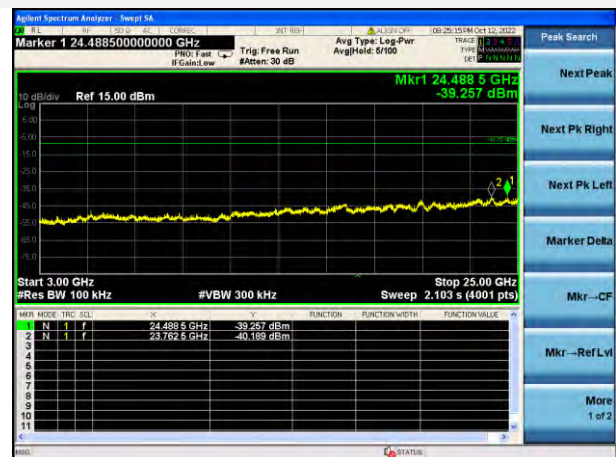
8-DPSK LOW CHANNEL, SPURIOUS

30 MHz ~ 3 GHz



8-DPSK LOW CHANNEL, SPURIOUS

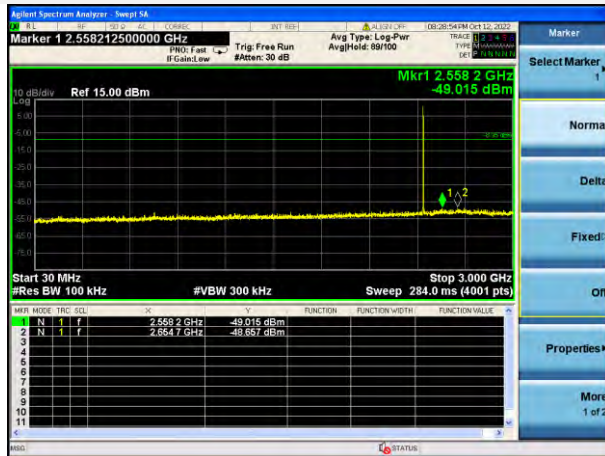
3 GHz ~ 25 GHz



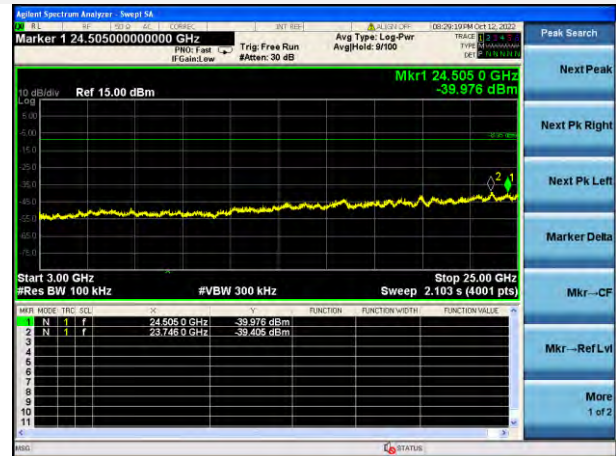
8-DPSK MIDDLE CHANNEL, CARRIER LEVEL



8-DPSK MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



8-DPSK MIDDLE CHANNEL, SPURIOUS 3 GHz ~ 25 GHz



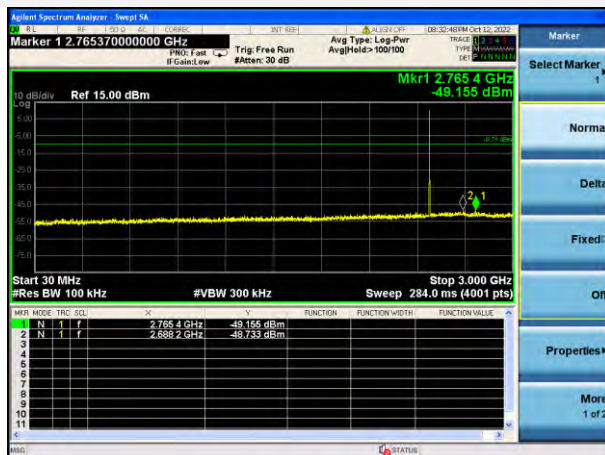
8-DPSK HIGH CHANNEL, CARRIER LEVEL



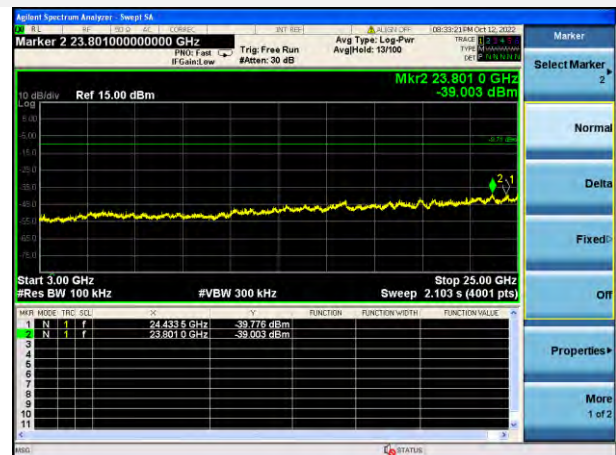
8-DPSK HIGH CHANNEL, BAND EDGE



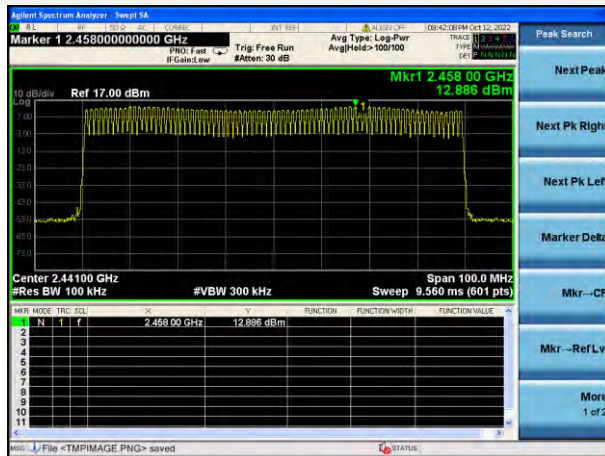
8-DPSK HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



8-DPSK HIGH CHANNEL, SPURIOUS 3 GHz ~ 25 GHz



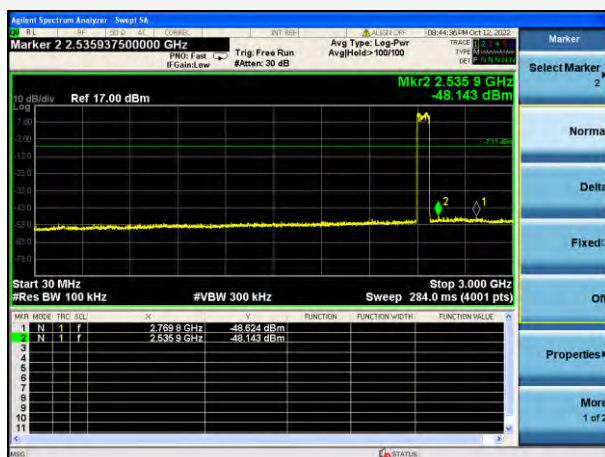
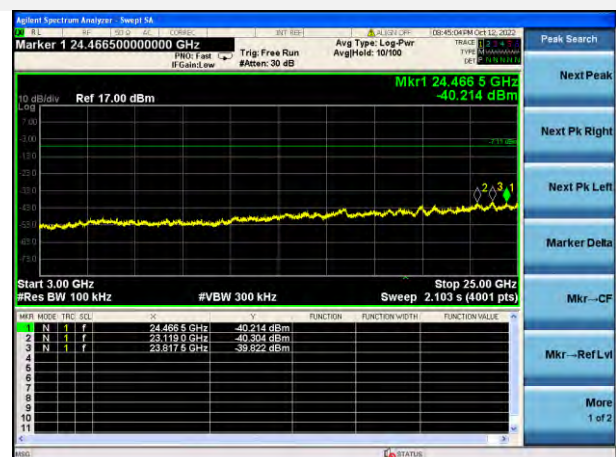
GFSK HOPPING, CARRIER LEVEL



GFSK HOPPING BAND EDGE (LOW)



GFSK HOPPING BAND EDGE (HIGH)

GFSK Hopping Mode, SPURIOUS
30 MHz ~ 3 GHzGFSK Hopping Mode, SPURIOUS
3GHz ~ 25 GHz

[illegible][illegible]

Agilent Spectrum Analyzer - Sweep NA

Marker 1 2.484233333333 GHz

PRF: Wide Trig: Free Run AvgType: Log-Pwr AvgHold: 100/100

IF Gain: Low #Adev: 30 dB

Trace 1 2.484233333333 GHz

Span 10.00 MHz

Center 2.483500 MHz

Res BW 100 kHz

#VBW 300 kHz

Sweep 1.000 ms (601 pts)

10 dB/div Ref 15.00 dBm

Log

2.484233 GHz -52.252 dBm

MNR	MODE	TRC	SLI	X	Y	FUNCTION	FUNCTION VALUE
1	N	1	f	2.484233 GHz	-52.252 dBm		
2	N	1	f	2.483500 GHz	-54.037 dBm		
3	N	1	f	2.483917 GHz	-52.206 dBm		

Agilent Spectrum Analyzer - Sweep 54

Marker 2 2.800267500000 GHz

PRO: Fast Trig: Free Run Avg Type: Log-Pwr AvgHold>100/100

IF Calcd: on #Avec: 30 dB

10 dB/div Ref 18.00 dBm

2.8003 GHz -48.027 dBm

Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 3.000 GHz Sweep 224.0 ms (4001 pts)

MNR	MODE	TRC	CLL	F	F	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.8785 GHz	-49.551 dBm			
2	N	1	f	2.8003 GHz	-48.027 dBm			

Properties

More

1 of 2

Agilent Spectrum Analyzer - Sweep PA

Marker 3 23.8285000000000 GHz

PRO: Fast L₁ B Gate Low

Trig: Free Run

Avg Type: Log-Pwr

AvgHold: 11/100

100:23.269M Oct 12, 2023

Trace 5 3.4 dBm

Type 0

Ref 18.00 dBm

Mkr3 23.828 5 GHz

-39.344 dBm

10 dBm

Log

8.00

6.00

4.00

2.00

0.00

-2.00

-4.00

-6.00

-8.00

-10.00

-12.00

-14.00

-16.00

-18.00

-20.00

-22.00

-24.00

-26.00

-28.00

-30.00

-32.00

-34.00

-36.00

-38.00

-40.00

-42.00

-44.00

-46.00

-48.00

-50.00

-52.00

-54.00

-56.00

-58.00

-60.00

-62.00

-64.00

-66.00

-68.00

-70.00

Start 3.00 GHz

Stop 25.00 GHz

Res BW 100 kHz

VBW 300 kHz

Sweep 2.103 s (4001 pts)

MNR	MODE	TRC	SLI	N	F	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	UN
1	N	1	f	23.8285 GHz	-42.480 dBm				
2	N	1	f	24.422 GHz	-40.265 dBm				
3	N	1	f	23.828 GHz	-39.344 dBm				

A.7 Conducted Emissions

Note ¹: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

Note ²: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

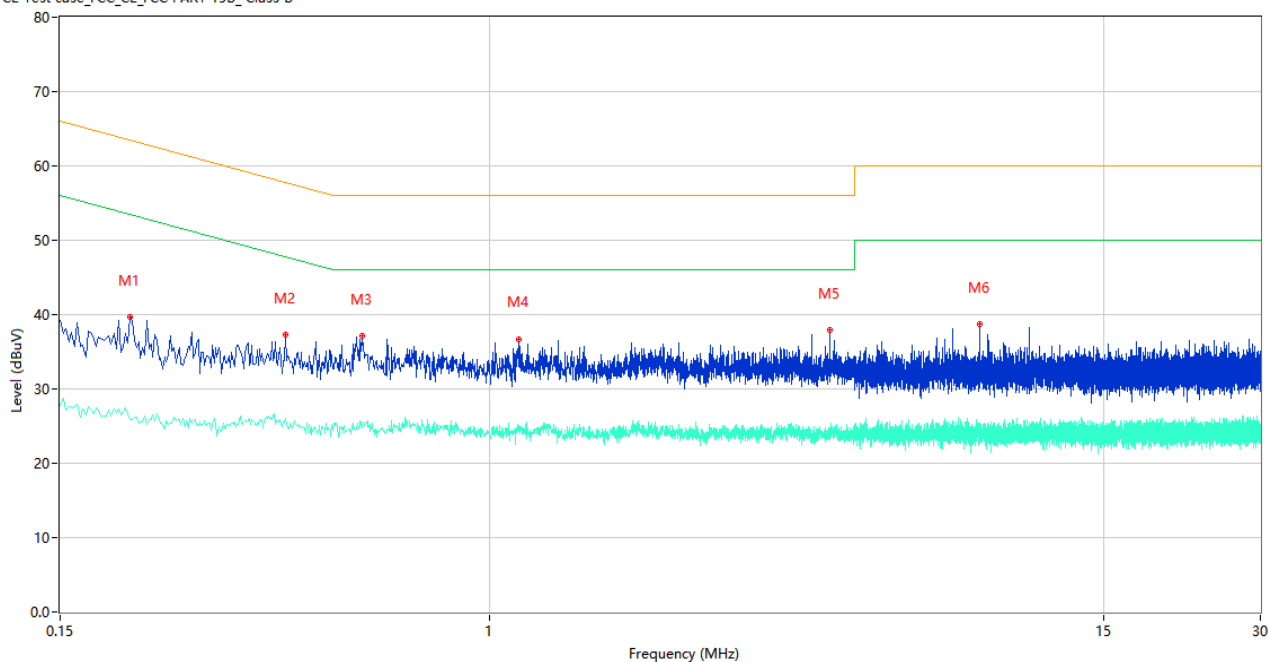
Note ³: Results (dBuV) = Original reading level of Spectrum Analyzer (dBuV) + Factor (dB)

Test Data and Plots

Charging Case 1

PHASE L

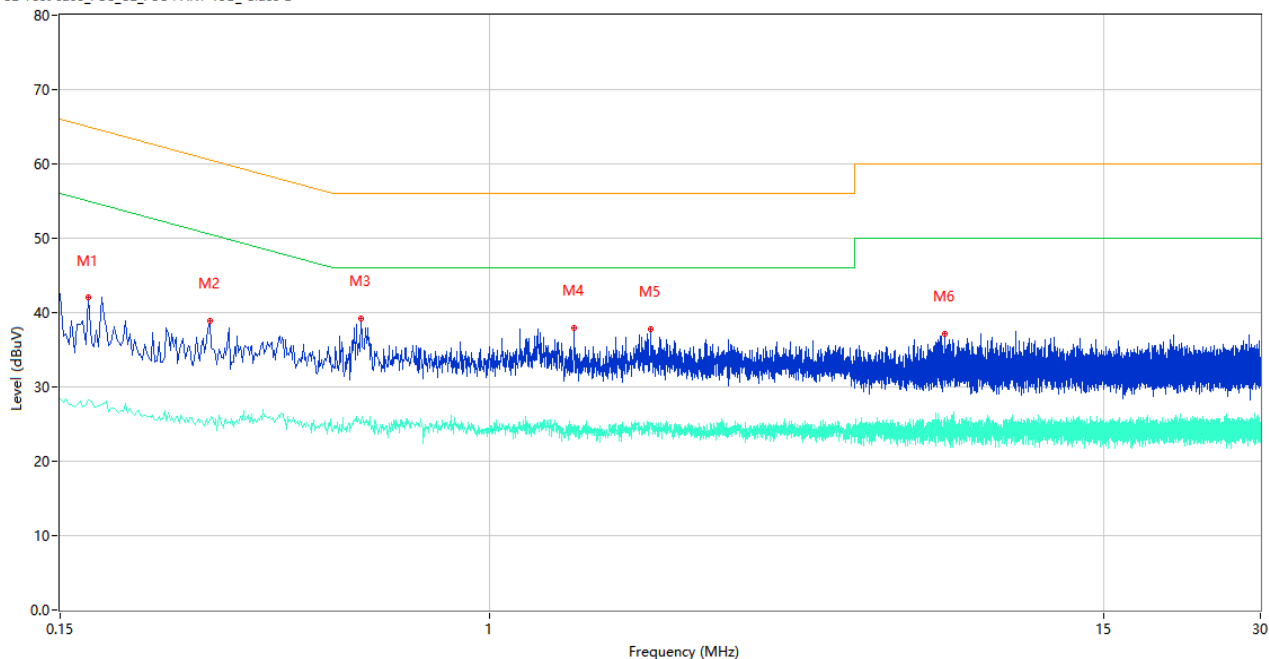
CE Test case_FCC_CE_FCC PART 15B_ Class B



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.204	39.66	10.05	63.45	23.79	Peak	L	Pass
1**	0.204	25.95	10.05	53.45	27.50	AV	L	Pass
2	0.406	37.23	10.69	57.73	20.50	Peak	L	Pass
2**	0.406	26.02	10.69	47.73	21.71	AV	L	Pass
3	0.570	37.08	10.26	56.00	18.92	Peak	L	Pass
3**	0.570	25.09	10.26	46.00	20.91	AV	L	Pass
4	1.138	36.68	10.42	56.00	19.32	Peak	L	Pass
4**	1.138	25.13	10.42	46.00	20.87	AV	L	Pass
5	4.482	37.87	10.40	56.00	18.13	Peak	L	Pass
5**	4.482	24.33	10.40	46.00	21.67	AV	L	Pass
6	8.704	38.69	10.25	60.00	21.31	Peak	L	Pass
6**	8.704	25.09	10.25	50.00	24.91	AV	L	Pass

PHASE N

CE Test case_FCC_CE_FCC PART 15B_Class B

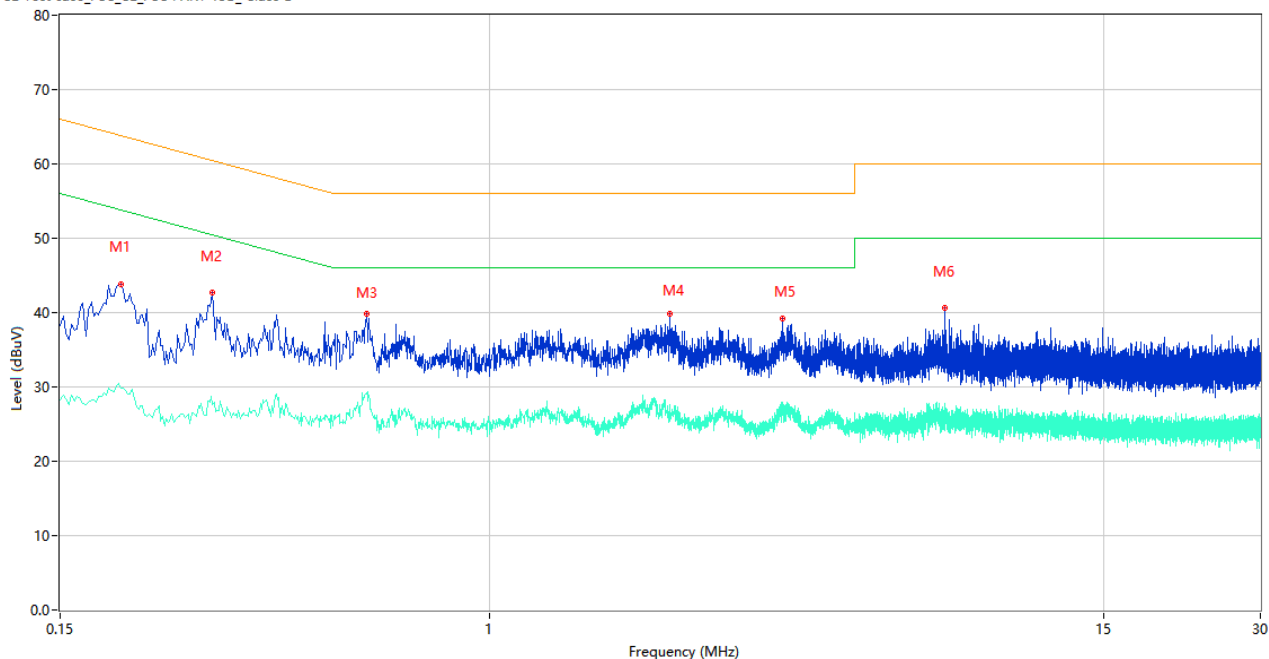


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.170	42.05	10.08	64.96	22.91	Peak	N	Pass
1**	0.170	28.31	10.08	54.96	26.65	AV	N	Pass
2	0.290	38.94	9.99	60.52	21.58	Peak	N	Pass
2**	0.290	25.63	9.99	50.52	24.89	AV	N	Pass
3	0.566	39.25	10.25	56.00	16.75	Peak	N	Pass
3**	0.566	25.15	10.25	46.00	20.85	AV	N	Pass
4	1.450	37.87	10.16	56.00	18.13	Peak	N	Pass
4**	1.450	24.97	10.16	46.00	21.03	AV	N	Pass
5	2.036	37.79	10.52	56.00	18.21	Peak	N	Pass
5**	2.036	24.85	10.52	46.00	21.15	AV	N	Pass
6	7.452	37.15	10.46	60.00	22.85	Peak	N	Pass
6**	7.452	24.16	10.46	50.00	25.84	AV	N	Pass

Charging Case 2

PHASE L

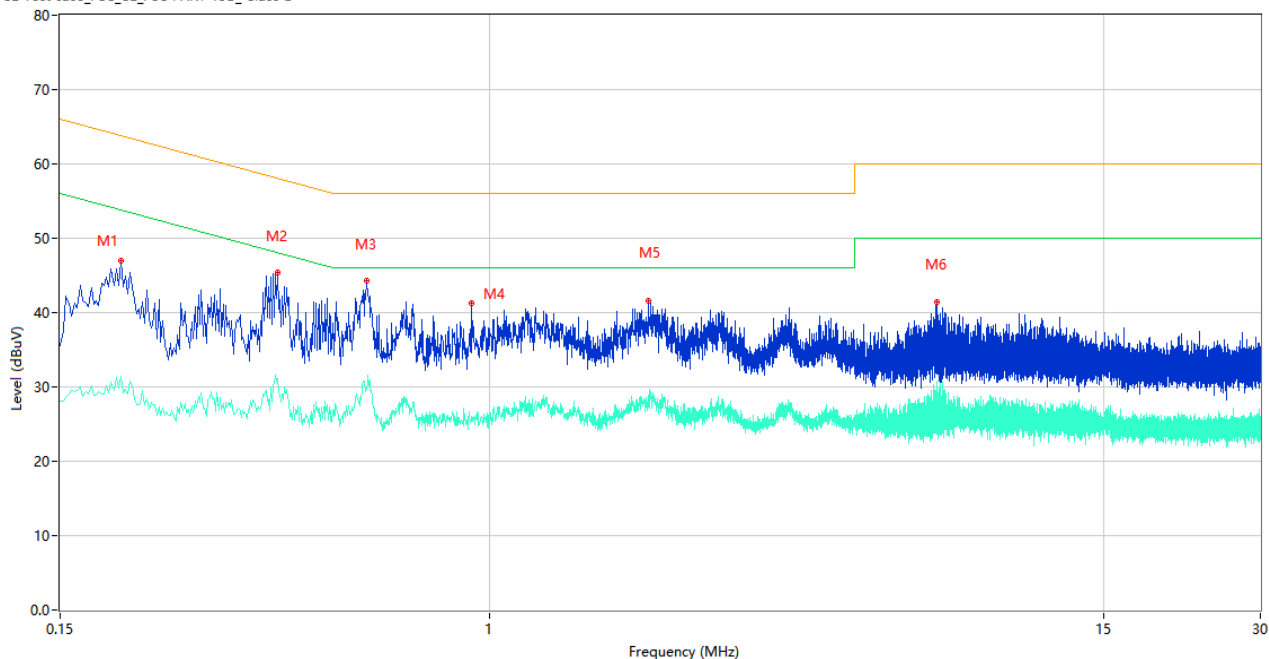
CE Test case_FCC_CE_FCC PART 15B_Class B



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.196	43.83	10.06	63.78	19.95	Peak	L	Pass
1**	0.196	29.87	10.06	53.78	23.91	AV	L	Pass
2	0.294	42.67	9.98	60.41	17.74	Peak	L	Pass
2**	0.294	27.63	9.98	50.41	22.78	AV	L	Pass
3	0.580	39.84	10.29	56.00	16.16	Peak	L	Pass
3**	0.580	29.12	10.29	46.00	16.88	AV	L	Pass
4	2.214	39.83	10.12	56.00	16.17	Peak	L	Pass
4**	2.214	27.08	10.12	46.00	18.92	AV	L	Pass
5	3.646	39.20	10.47	56.00	16.80	Peak	L	Pass
5**	3.646	27.55	10.47	46.00	18.45	AV	L	Pass
6	7.462	40.63	10.47	60.00	19.37	Peak	L	Pass
6**	7.462	26.46	10.47	50.00	23.54	AV	L	Pass

PHASE N

CE Test case_FCC_CE_FCC PART 15B_Class B



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.196	46.95	10.06	63.78	16.83	Peak	N	Pass
1**	0.196	31.43	10.06	53.78	22.35	AV	N	Pass
2	0.392	45.34	10.79	58.02	12.68	Peak	N	Pass
2**	0.392	31.18	10.79	48.02	16.84	AV	N	Pass
3	0.580	44.23	10.29	56.00	11.77	Peak	N	Pass
3**	0.580	29.86	10.29	46.00	16.14	AV	N	Pass
4	0.924	41.24	10.24	56.00	14.76	Peak	N	Pass
4**	0.924	26.04	10.24	46.00	19.96	AV	N	Pass
5	2.014	41.53	10.40	56.00	14.47	Peak	N	Pass
5**	2.014	27.86	10.40	46.00	18.14	AV	N	Pass
6	7.178	41.44	10.35	60.00	18.56	Peak	N	Pass
6**	7.178	24.67	10.35	50.00	25.33	AV	N	Pass

A.8 Radiated Spurious Emission

Note ¹: The symbol of “--” in the table which means not application.

Note ²: For the test data above 1 GHz, according the ANSI C63.10-2013, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note ³: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and DH5-Hopping mode is the worst.

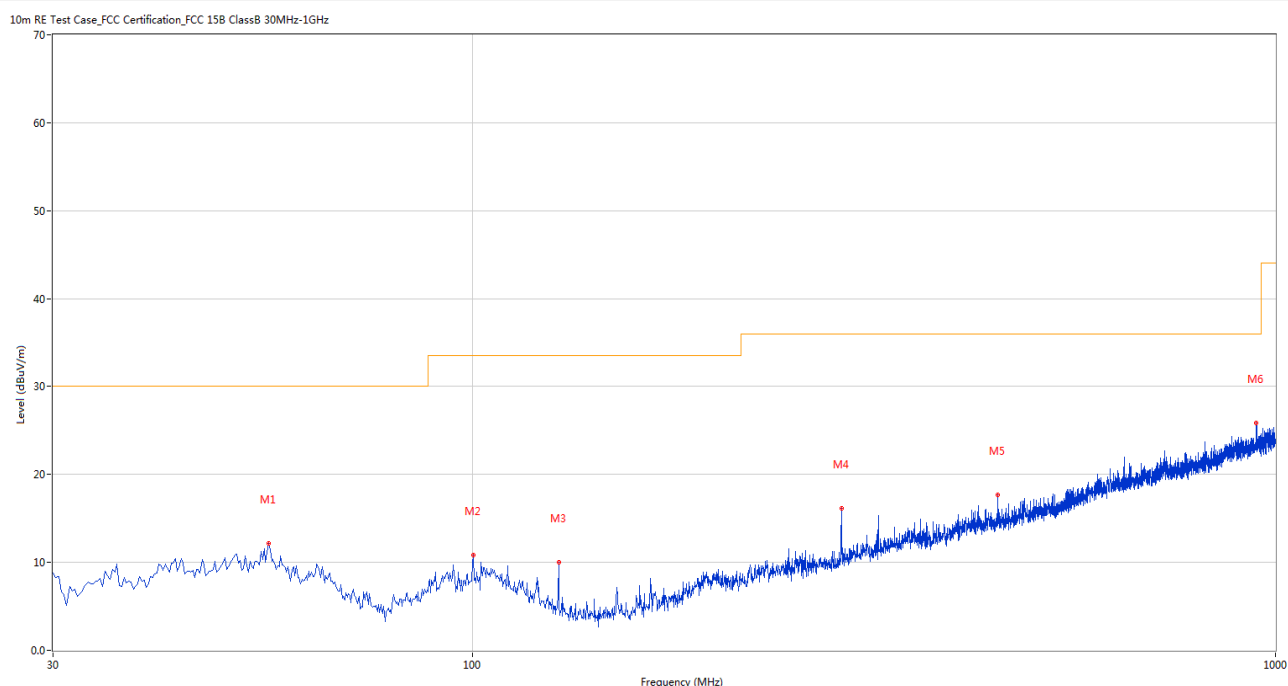
Note ⁴: Results (dBuV/m) = Original reading level of Spectrum Analyzer (dBuV/m) + Factor (dB)

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

Test Data and Plots

Charging Case 1

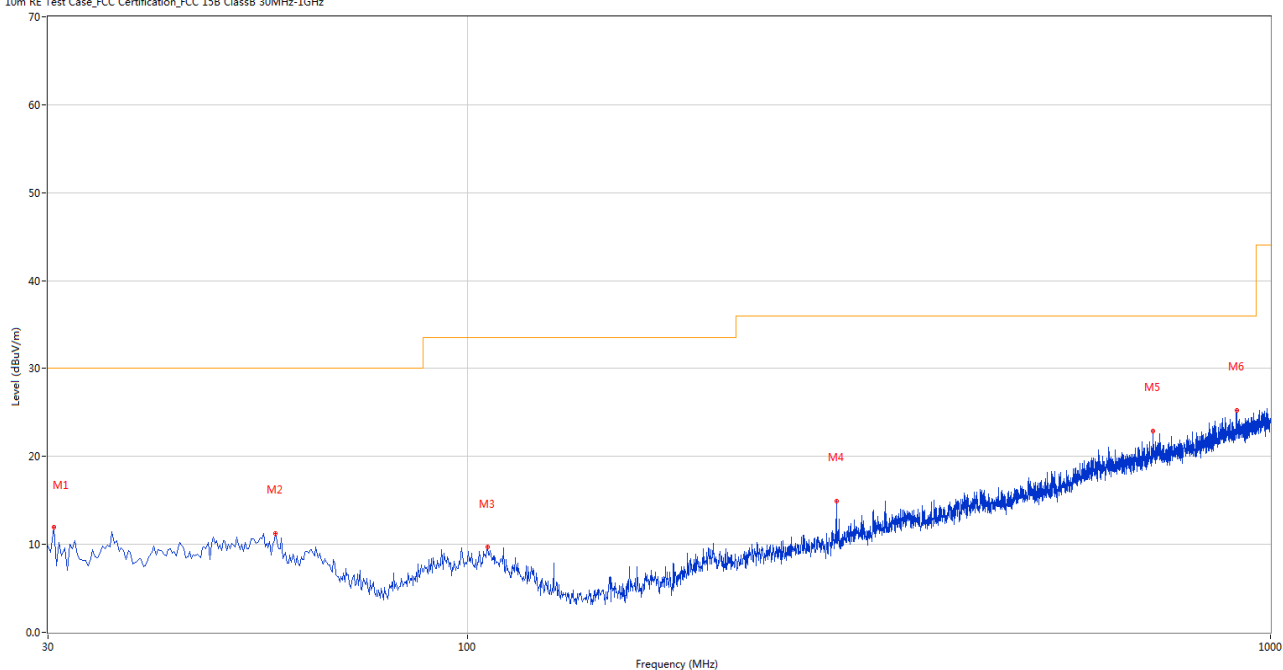
30 MHz to 1 GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	55.699	12.16	-26.72	30.0	-17.84	Peak	242.00	200	Horizontal	Pass
2	100.065	10.88	-27.96	33.5	-22.62	Peak	174.00	100	Horizontal	Pass
3	127.946	10.00	-31.06	33.5	-23.50	Peak	165.00	200	Horizontal	Pass
4	287.956	16.17	-25.19	36.0	-19.83	Peak	264.00	200	Horizontal	Pass
5	450.875	17.66	-21.41	36.0	-18.34	Peak	0.00	200	Horizontal	Pass
6	945.936	25.82	-11.98	36.0	-10.18	Peak	59.00	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V

10m RE Test Case_FCC Certification_FCC 15B ClassB 30MHz-1GHz

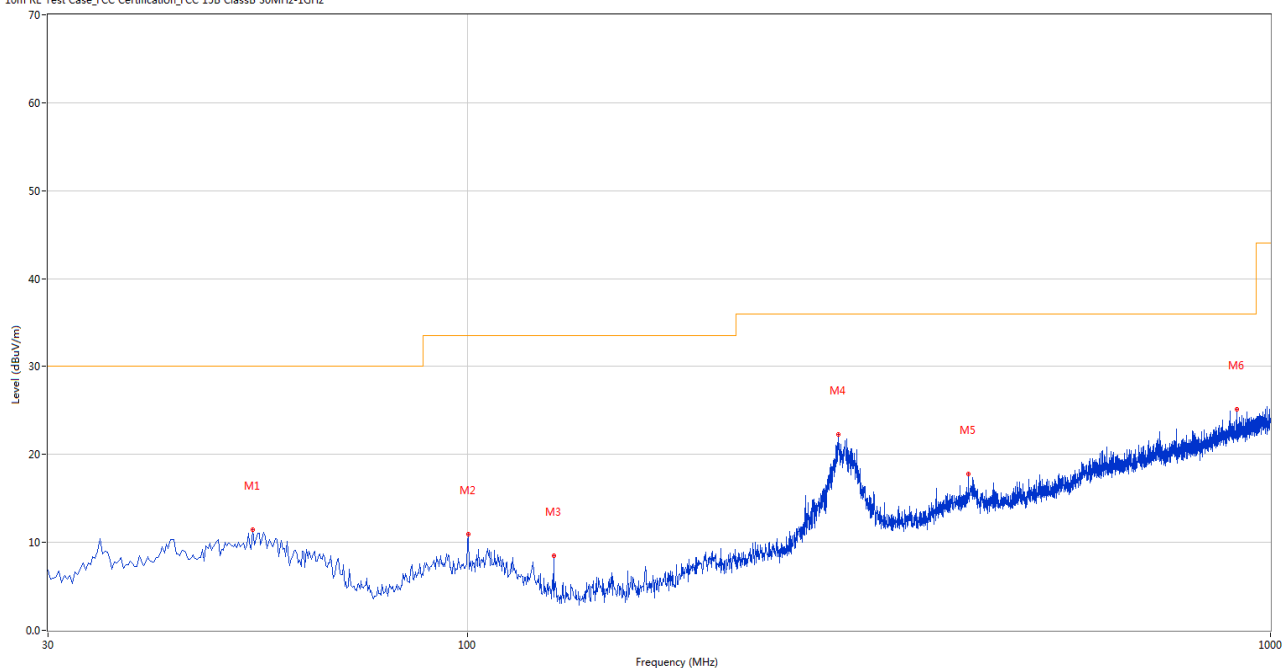


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	30.485	11.96	-29.45	30.0	-18.04	Peak	177.00	200	Vertical	Pass
2	57.638	11.29	-27.26	30.0	-18.71	Peak	186.00	100	Vertical	Pass
3	105.884	9.66	-27.86	33.5	-23.84	Peak	65.00	200	Vertical	Pass
4	287.956	14.91	-25.19	36.0	-21.09	Peak	267.00	100	Vertical	Pass
5	714.649	22.93	-16.04	36.0	-13.07	Peak	211.00	200	Vertical	Pass
6	907.146	25.20	-12.59	36.0	-10.80	Peak	50.00	200	Vertical	Pass

Charging Case 2

30 MHz to 1 GHz, ANT H

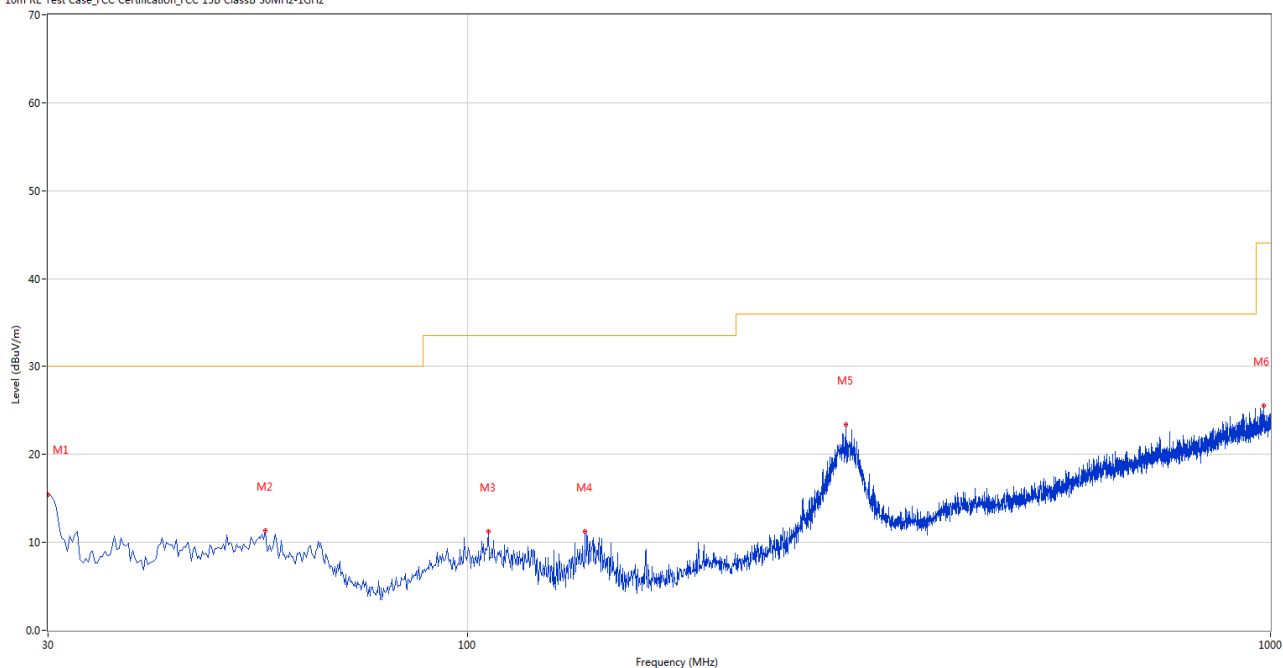
10m RE Test Case_FCC Certification_FCC 15B ClassB 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	54.002	11.41	-26.45	30.0	-18.59	Peak	239.00	200	Horizontal	Pass
2	100.065	10.93	-27.96	33.5	-22.57	Peak	78.00	200	Horizontal	Pass
3	127.946	8.45	-31.06	33.5	-25.05	Peak	360.00	100	Horizontal	Pass
4	289.410	22.27	-25.09	36.0	-13.73	Peak	288.00	200	Horizontal	Pass
5	420.570	17.79	-22.00	36.0	-18.21	Peak	165.00	200	Horizontal	Pass
6	907.146	25.15	-12.59	36.0	-10.85	Peak	65.00	200	Horizontal	Pass

30 MHz to 1 GHz, ANT V

10m RE Test Case_FCC Certification_FCC 15B ClassB 30MHz-1GHz



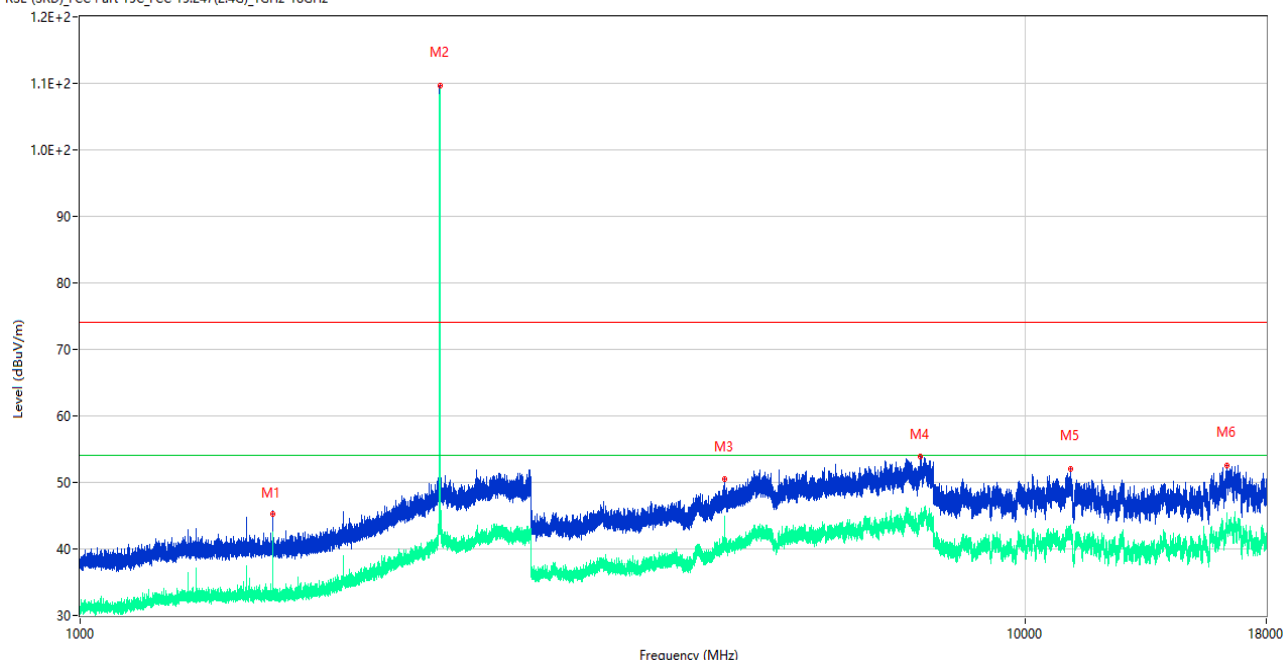
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	30.000	15.42	-29.33	30.0	-14.58	Peak	319.00	100	Vertical	Pass
2	55.941	11.33	-26.78	30.0	-18.67	Peak	46.00	100	Vertical	Pass
3	106.126	11.22	-27.90	33.5	-22.28	Peak	244.00	100	Vertical	Pass
4	139.825	11.22	-31.44	33.5	-22.28	Peak	307.00	100	Vertical	Pass
5	295.714	23.36	-25.16	36.0	-12.64	Peak	92.00	100	Vertical	Pass
6	979.878	25.57	-11.63	44.0	-18.43	Peak	226.00	200	Vertical	Pass

Note 1: The marked spikes near 2400 MHz with circle should be ignored because they are Fundamental signal.

Note 2: The spurious from 18GHz-25GHz is noise only, do not show on the report.

GFSK LOW CHANNEL 1 GHz to 18 GHz, ANT H

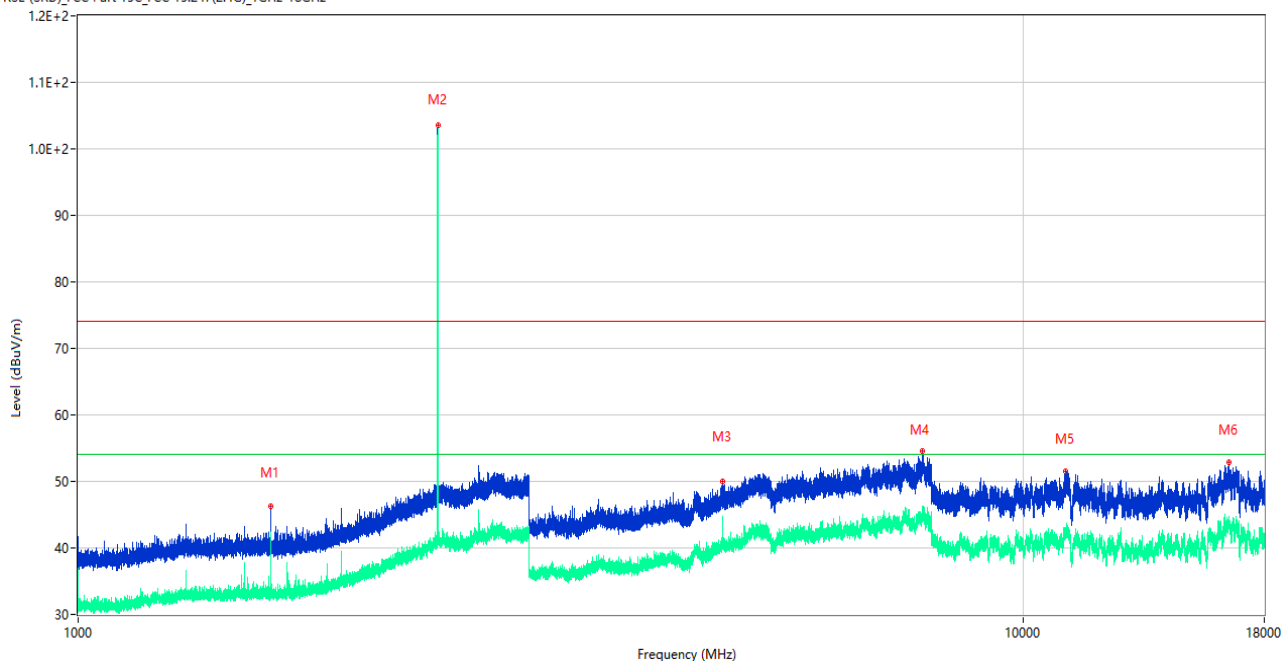
RSE (SRD)_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.900	45.25	-16.85	74.0	-28.75	Peak	325.00	200	Horizontal	Pass
1**	1599.900	41.88	-16.85	54.0	-12.12	AV	325.00	200	Horizontal	Pass
2	2401.900	109.70	-10.12	--	--	Peak	242.00	150	Horizontal	N/A
2**	2401.900	109.26	-10.12	--	--	AV	242.00	150	Horizontal	N/A
3	4804.250	50.44	-2.74	74.0	-23.56	Peak	166.00	200	Horizontal	Pass
3**	4804.250	44.96	-2.74	54.0	-9.04	AV	166.00	200	Horizontal	Pass
4	7751.000	53.93	1.47	74.0	-20.07	Peak	309.00	400	Horizontal	Pass
4**	7751.000	44.56	1.47	54.0	-9.44	AV	309.00	400	Horizontal	Pass
5	11165.400	52.06	-1.21	74.0	-21.94	Peak	7.00	300	Horizontal	Pass
5**	11165.400	42.38	-1.21	54.0	-11.62	AV	7.00	300	Horizontal	Pass
6	16353.863	52.62	0.76	74.0	-21.38	Peak	13.00	100	Horizontal	Pass
6**	16353.863	44.43	0.76	54.0	-9.57	AV	13.00	100	Horizontal	Pass

GFSK LOW CHANNEL 1 GHz to 18 GHz, ANT V

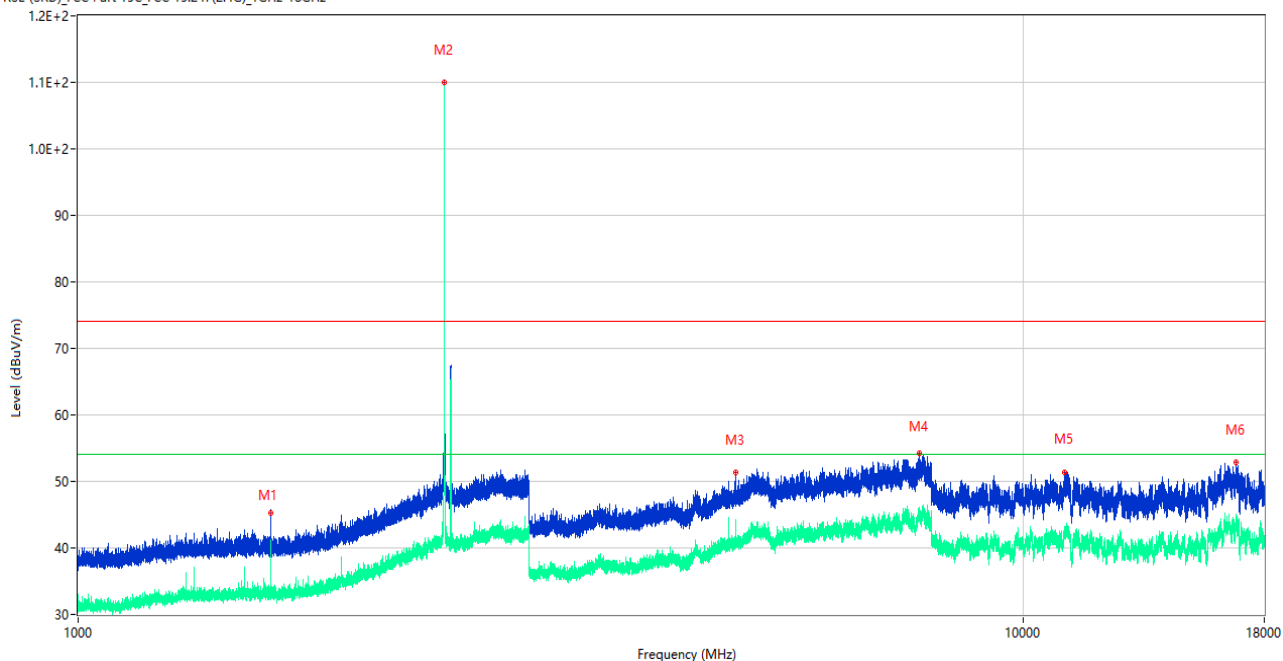
RSE (SRD) FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.900	46.30	-16.85	74.0	-27.70	Peak	310.00	300	Vertical	Pass
1**	1599.900	42.23	-16.85	54.0	-11.77	AV	310.00	300	Vertical	Pass
2	2402.200	103.51	-10.10	--	--	Peak	358.00	200	Vertical	N/A
2**	2402.200	103.25	-10.10	--	--	AV	358.00	200	Vertical	N/A
3	4803.500	50.00	-2.79	74.0	-24.00	Peak	235.00	150	Vertical	Pass
3**	4803.500	42.52	-2.79	54.0	-11.48	AV	235.00	150	Vertical	Pass
4	7827.750	54.54	3.08	74.0	-19.46	Peak	360.00	100	Vertical	Pass
4**	7827.750	44.59	3.08	54.0	-9.41	AV	360.00	100	Vertical	Pass
5	11100.800	51.46	-1.01	74.0	-22.54	Peak	289.00	100	Vertical	Pass
5**	11100.800	42.84	-1.01	54.0	-11.16	AV	289.00	100	Vertical	Pass
6	16509.525	52.81	0.29	74.0	-21.19	Peak	88.00	100	Vertical	Pass
6**	16509.525	43.79	0.29	54.0	-10.21	AV	88.00	100	Vertical	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

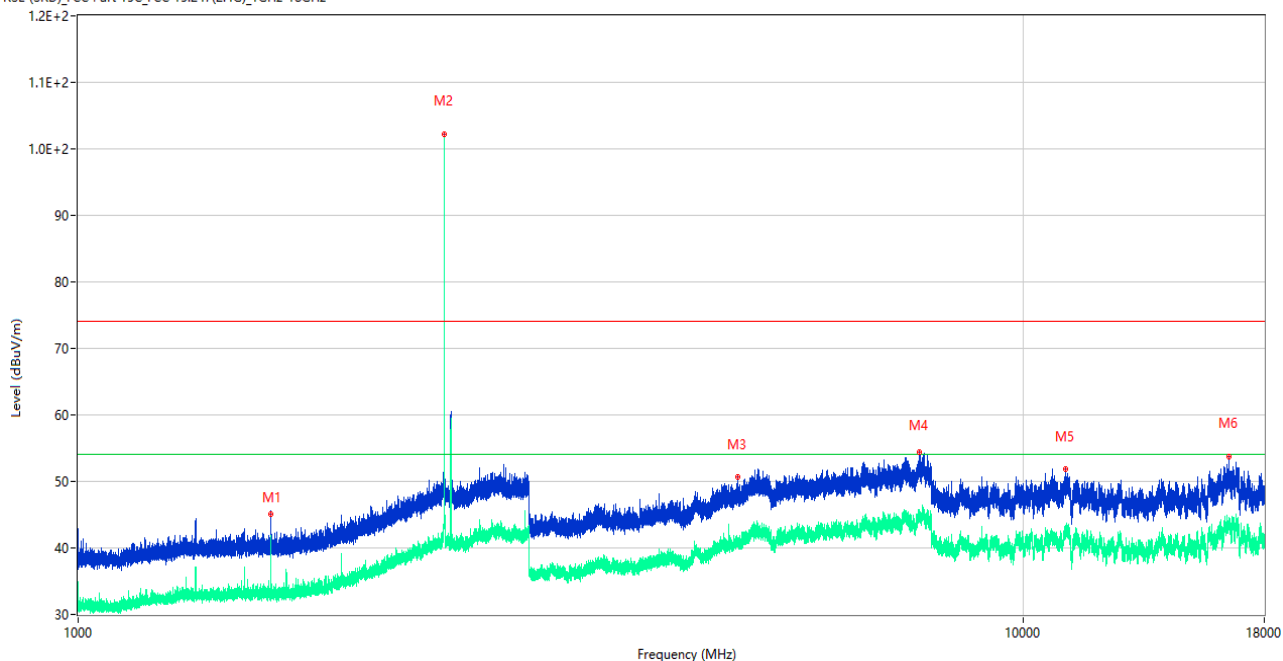
RSE (SRD)_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.800	45.19	-16.85	74.0	-28.81	Peak	352.00	200	Horizontal	Pass
1**	1599.800	40.65	-16.85	54.0	-13.35	AV	352.00	200	Horizontal	Pass
2	2440.900	109.94	-9.40	--	--	Peak	245.00	150	Horizontal	N/A
2**	2440.900	109.30	-9.40	--	--	AV	245.00	150	Horizontal	N/A
3	4960.500	51.33	-2.64	74.0	-22.67	Peak	183.00	200	Horizontal	Pass
3**	4960.500	44.18	-2.64	54.0	-9.82	AV	183.00	200	Horizontal	Pass
4	7765.000	54.17	1.70	74.0	-19.83	Peak	78.00	300	Horizontal	Pass
4**	7765.000	44.44	1.70	54.0	-9.56	AV	78.00	300	Horizontal	Pass
5	11077.763	51.37	-1.42	74.0	-22.63	Peak	143.00	200	Horizontal	Pass
5**	11077.763	41.91	-1.42	54.0	-12.09	AV	143.00	200	Horizontal	Pass
6	16814.026	52.83	1.05	74.0	-21.17	Peak	273.00	100	Horizontal	Pass
6**	16814.026	44.22	1.05	54.0	-9.78	AV	273.00	100	Horizontal	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

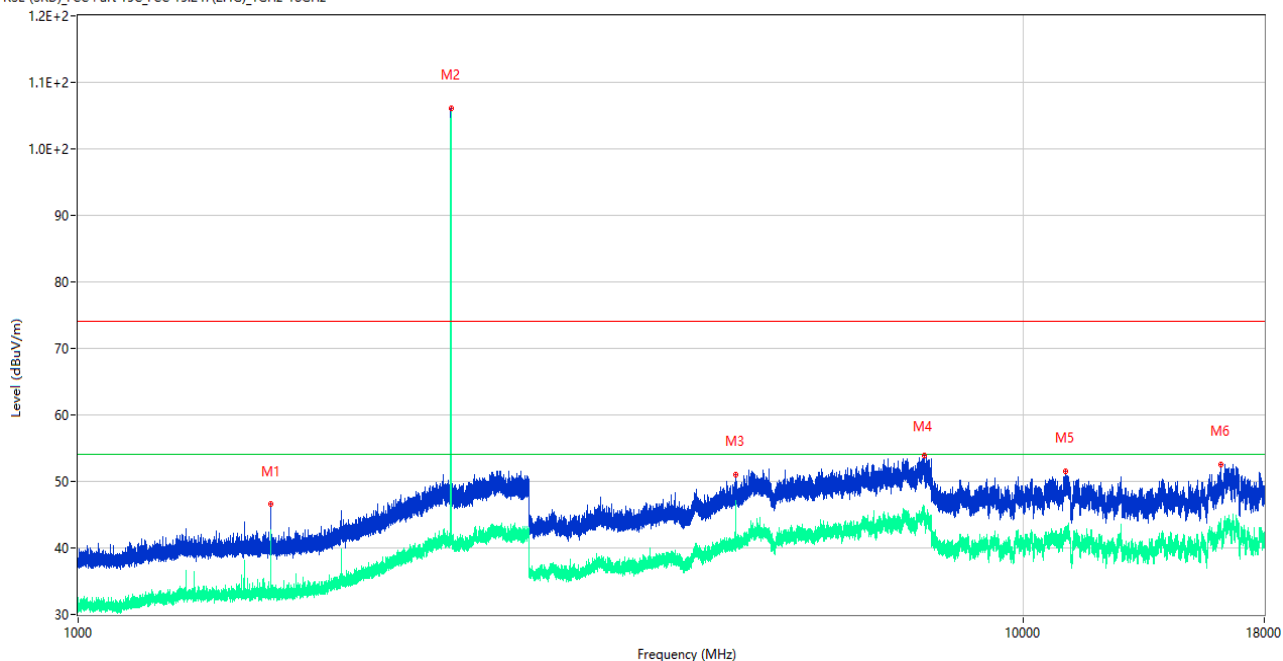
RSE (SRD)_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.900	45.11	-16.85	74.0	-28.89	Peak	0.00	400	Vertical	Pass
1**	1599.900	41.49	-16.85	54.0	-12.51	AV	0.00	400	Vertical	Pass
2	2440.800	102.28	-9.40	--	--	Peak	360.00	200	Vertical	N/A
2**	2440.800	100.95	-9.40	--	--	AV	360.00	200	Vertical	N/A
3	4984.500	50.66	-2.52	74.0	-23.34	Peak	259.00	150	Vertical	Pass
3**	4984.500	40.36	-2.52	54.0	-13.64	AV	259.00	150	Vertical	Pass
4	7773.500	54.32	1.80	74.0	-19.68	Peak	42.00	100	Vertical	Pass
4**	7773.500	44.39	1.80	54.0	-9.61	AV	42.00	100	Vertical	Pass
5	11087.974	51.86	-1.23	74.0	-22.14	Peak	48.00	300	Vertical	Pass
5**	11087.974	42.02	-1.23	54.0	-11.98	AV	48.00	300	Vertical	Pass
6	16529.739	53.76	0.16	74.0	-20.24	Peak	310.00	200	Vertical	Pass
6**	16529.739	43.90	0.16	54.0	-10.10	AV	310.00	200	Vertical	Pass

GFSK HIGH CHANNEL 1 GHz to 18 GHz, ANT H

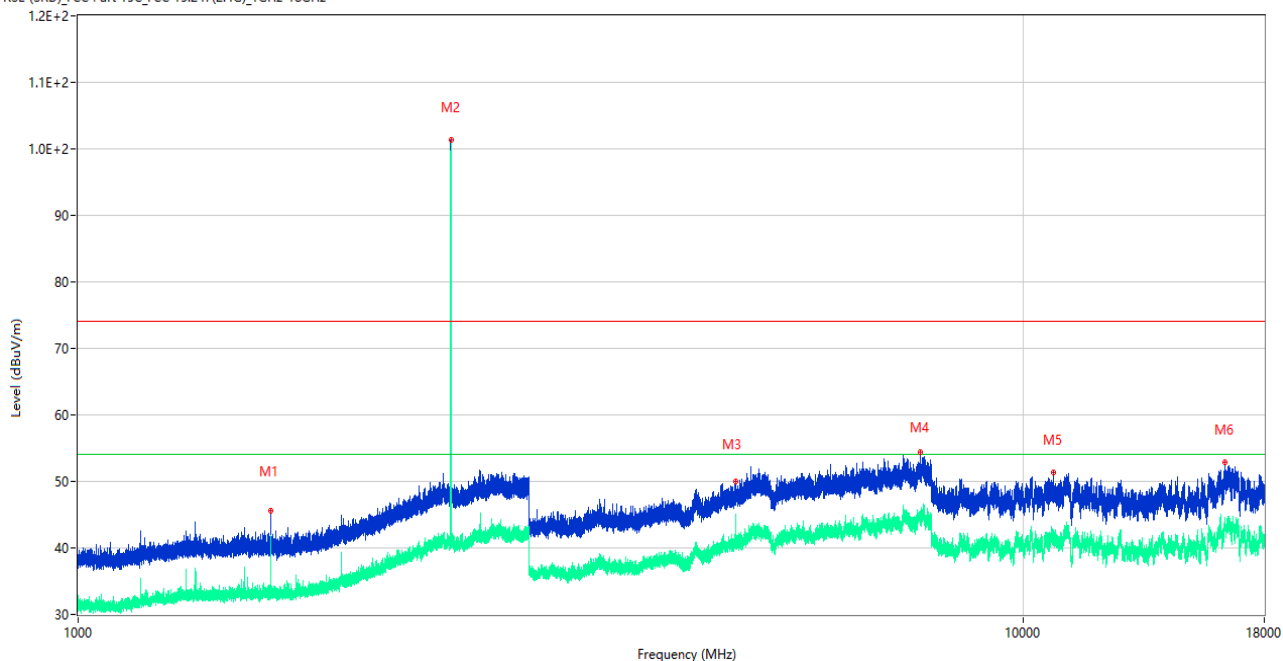
RSE (SRD) FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1600.000	46.68	-16.86	74.0	-27.32	Peak	196.00	0	Horizontal	Pass
1**	1600.000	42.39	-16.86	54.0	-11.61	AV	196.00	0	Horizontal	Pass
2	2479.800	106.19	-10.55	--	--	Peak	244.00	100	Horizontal	N/A
2**	2479.800	105.14	-10.55	--	--	AV	244.00	100	Horizontal	N/A
3	4960.250	51.07	-2.64	74.0	-22.93	Peak	100.00	100	Horizontal	Pass
3**	4960.250	47.18	-2.64	54.0	-6.82	AV	100.00	100	Horizontal	Pass
4	7858.250	53.95	2.14	74.0	-20.05	Peak	4.00	300	Horizontal	Pass
4**	7858.250	45.13	2.14	54.0	-8.87	AV	4.00	300	Horizontal	Pass
5	11091.299	51.59	-1.17	74.0	-22.41	Peak	181.00	300	Horizontal	Pass
5**	11091.299	42.26	-1.17	54.0	-11.74	AV	181.00	300	Horizontal	Pass
6	16186.651	52.63	0.07	74.0	-21.37	Peak	145.00	200	Horizontal	Pass
6**	16186.651	42.66	0.07	54.0	-11.34	AV	145.00	200	Horizontal	Pass

GFSK HIGH CHANNEL 1 GHz to 18 GHz, ANT V

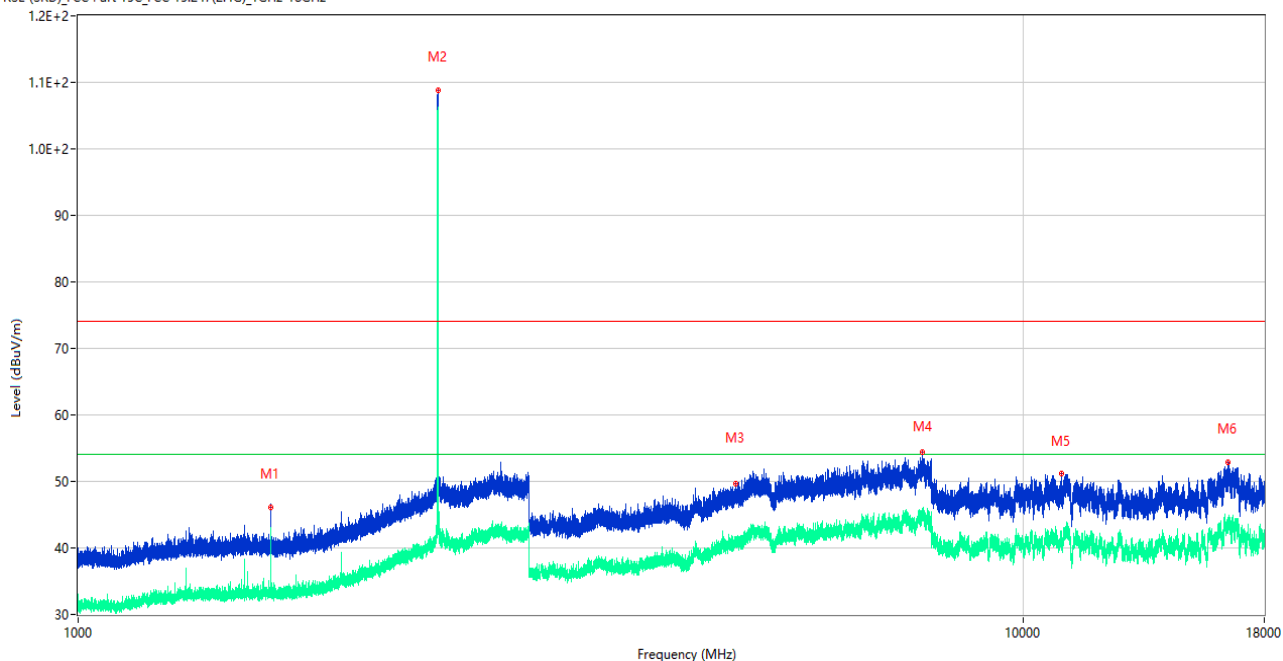
RSE (SRD) FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.900	45.54	-16.85	74.0	-28.46	Peak	40.00	100	Vertical	Pass
1**	1599.900	41.80	-16.85	54.0	-12.20	AV	40.00	100	Vertical	Pass
2	2479.900	101.27	-10.56	--	--	Peak	350.00	200	Vertical	N/A
2**	2479.900	100.74	-10.56	--	--	AV	350.00	200	Vertical	N/A
3	4959.750	49.96	-2.64	74.0	-24.04	Peak	319.00	100	Vertical	Pass
3**	4959.750	43.91	-2.64	54.0	-10.09	AV	319.00	100	Vertical	Pass
4	7782.250	54.36	1.68	74.0	-19.64	Peak	89.00	200	Vertical	Pass
4**	7782.250	44.10	1.68	54.0	-9.90	AV	89.00	200	Vertical	Pass
5	10772.813	51.33	-2.28	74.0	-22.67	Peak	158.00	400	Vertical	Pass
5**	10772.813	41.69	-2.28	54.0	-12.31	AV	158.00	400	Vertical	Pass
6	16339.951	52.81	0.56	74.0	-21.19	Peak	0.00	100	Vertical	Pass
6**	16339.951	43.19	0.56	54.0	-10.81	AV	0.00	100	Vertical	Pass

8-DPSK LOW CHANNEL 1 GHz to 18 GHz, ANT H

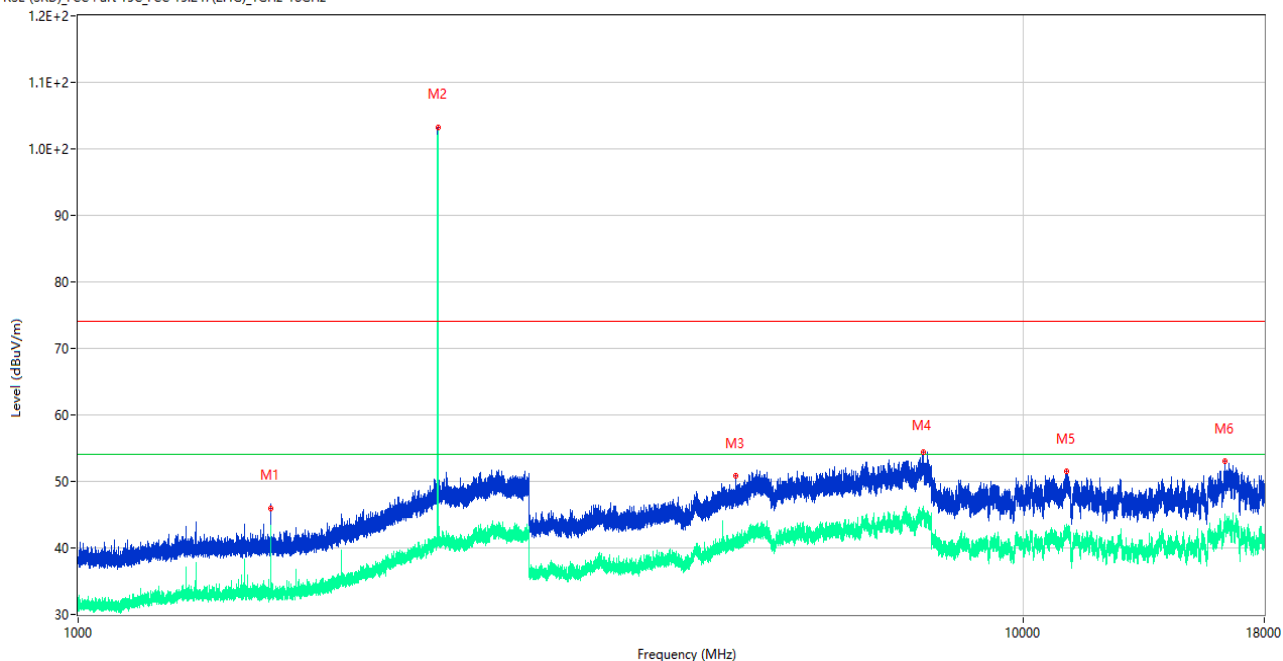
RSE (SRD)_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.900	46.12	-16.85	74.0	-27.88	Peak	360.00	400	Horizontal	Pass
1**	1599.900	42.26	-16.85	54.0	-11.74	AV	360.00	400	Horizontal	Pass
2	2401.900	108.83	-10.12	--	--	Peak	242.00	150	Horizontal	N/A
2**	2401.900	106.17	-10.12	--	--	AV	242.00	150	Horizontal	N/A
3	4960.250	49.62	-2.64	74.0	-24.38	Peak	337.00	100	Horizontal	Pass
3**	4960.250	40.49	-2.64	54.0	-13.51	AV	337.00	100	Horizontal	Pass
4	7832.000	54.47	3.30	74.0	-19.53	Peak	278.00	400	Horizontal	Pass
4**	7832.000	45.75	3.30	54.0	-8.25	AV	278.00	400	Horizontal	Pass
5	10970.412	51.10	-2.13	74.0	-22.90	Peak	102.00	400	Horizontal	Pass
5**	10970.412	41.53	-2.13	54.0	-12.47	AV	102.00	400	Horizontal	Pass
6	16465.950	52.96	0.47	74.0	-21.04	Peak	57.00	300	Horizontal	Pass
6**	16465.950	42.73	0.47	54.0	-11.27	AV	57.00	300	Horizontal	Pass

8-DPSK LOW CHANNEL 1 GHz to 18 GHz, ANT V

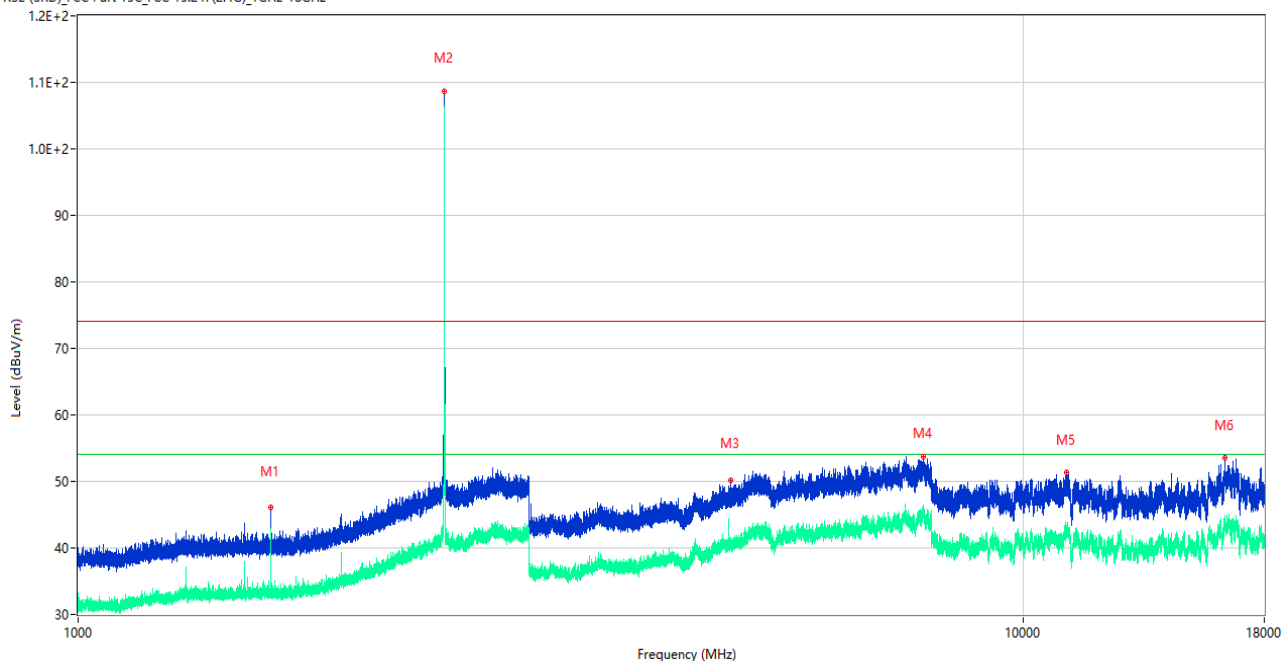
RSE (SRD)_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.800	45.94	-16.85	74.0	-28.06	Peak	249.00	100	Vertical	Pass
1**	1599.800	42.16	-16.85	54.0	-11.84	AV	249.00	100	Vertical	Pass
2	2401.800	103.29	-10.13	--	--	Peak	360.00	100	Vertical	N/A
2**	2401.800	102.31	-10.13	--	--	AV	360.00	100	Vertical	N/A
3	4969.500	50.77	-2.71	74.0	-23.23	Peak	319.00	150	Vertical	Pass
3**	4969.500	40.28	-2.71	54.0	-13.72	AV	319.00	150	Vertical	Pass
4	7845.000	54.42	2.80	74.0	-19.58	Peak	88.00	400	Vertical	Pass
4**	7845.000	44.74	2.80	54.0	-9.26	AV	88.00	400	Vertical	Pass
5	11108.400	51.52	-1.00	74.0	-22.48	Peak	76.00	200	Vertical	Pass
5**	11108.400	41.52	-1.00	54.0	-12.48	AV	76.00	200	Vertical	Pass
6	16343.363	53.03	0.66	74.0	-20.97	Peak	129.00	400	Vertical	Pass
6**	16343.363	43.92	0.66	54.0	-10.08	AV	129.00	400	Vertical	Pass

8-DPSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

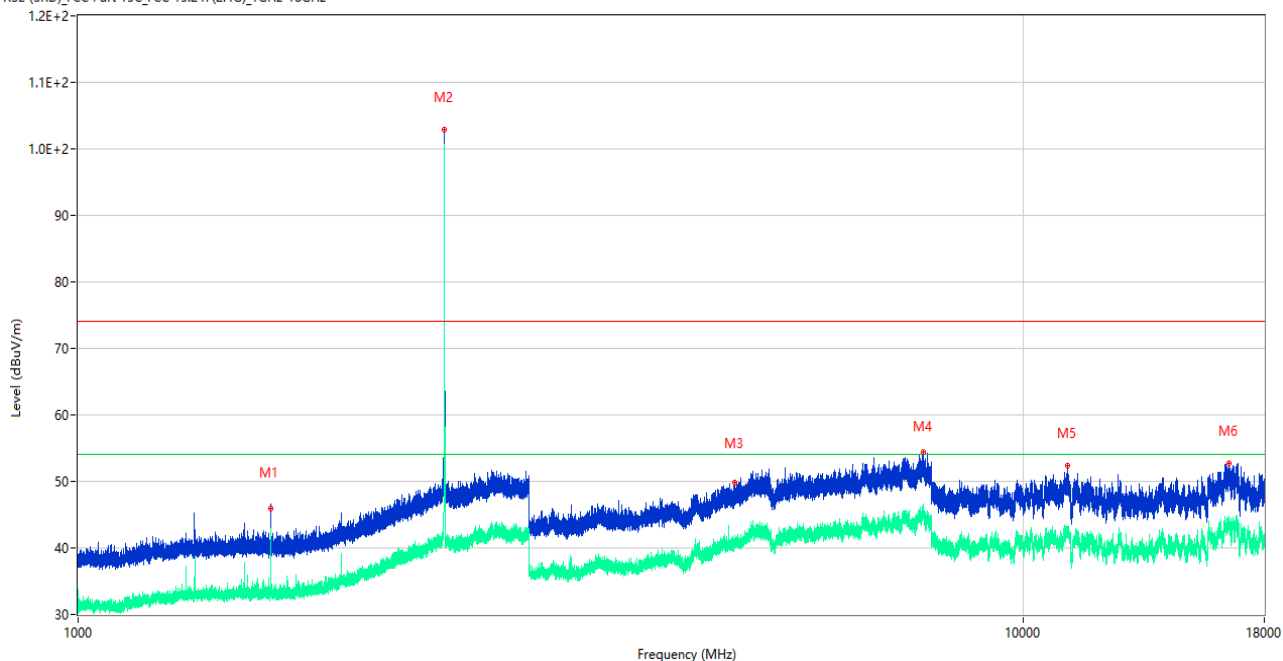
RSE (SRD) FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.800	46.08	-16.85	74.0	-27.92	Peak	171.00	400	Horizontal	Pass
1**	1599.800	41.99	-16.85	54.0	-12.01	AV	171.00	400	Horizontal	Pass
2	2441.000	108.70	-9.40	--	--	Peak	249.00	150	Horizontal	N/A
2**	2441.000	106.35	-9.40	--	--	AV	249.00	150	Horizontal	N/A
3	4905.500	50.22	-2.52	74.0	-23.78	Peak	346.00	150	Horizontal	Pass
3**	4905.500	40.70	-2.52	54.0	-13.30	AV	346.00	150	Horizontal	Pass
4	7834.250	53.73	3.44	74.0	-20.27	Peak	271.00	100	Horizontal	Pass
4**	7834.250	45.09	3.44	54.0	-8.91	AV	271.00	100	Horizontal	Pass
5	11107.925	51.29	-1.00	74.0	-22.71	Peak	345.00	200	Horizontal	Pass
5**	11107.925	42.12	-1.00	54.0	-11.88	AV	345.00	200	Horizontal	Pass
6	16351.500	53.56	0.81	74.0	-20.44	Peak	118.00	200	Horizontal	Pass
6**	16351.500	44.19	0.81	54.0	-9.81	AV	118.00	200	Horizontal	Pass

8-DPSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

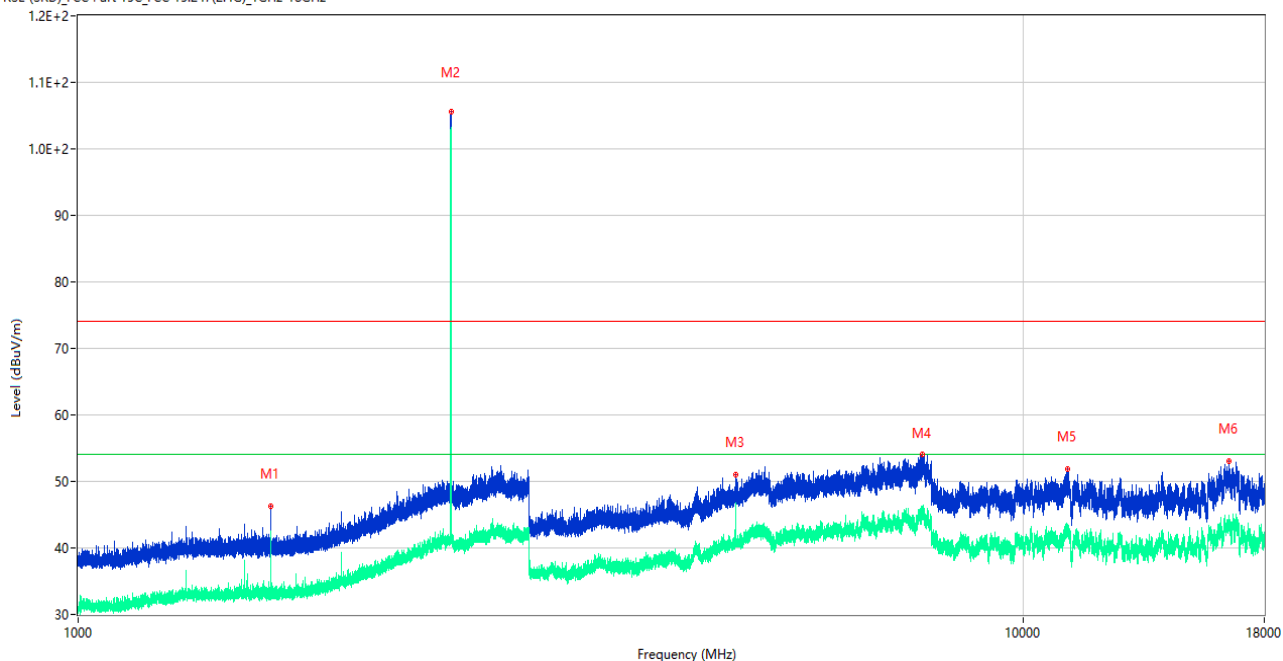
RSE (SRD)_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.900	45.91	-16.85	74.0	-28.09	Peak	322.00	200	Vertical	Pass
1**	1599.900	42.31	-16.85	54.0	-11.69	AV	322.00	200	Vertical	Pass
2	2440.900	102.87	-9.40	--	--	Peak	358.00	150	Vertical	N/A
2**	2440.900	100.06	-9.40	--	--	AV	358.00	150	Vertical	N/A
3	4951.750	49.82	-2.29	74.0	-24.18	Peak	317.00	150	Vertical	Pass
3**	4951.750	40.47	-2.29	54.0	-13.53	AV	317.00	150	Vertical	Pass
4	7837.750	54.49	3.53	74.0	-19.51	Peak	110.00	100	Vertical	Pass
4**	7837.750	45.50	3.53	54.0	-8.50	AV	110.00	100	Vertical	Pass
5	11133.100	52.32	-0.97	74.0	-21.68	Peak	184.00	100	Vertical	Pass
5**	11133.100	42.57	-0.97	54.0	-11.43	AV	184.00	100	Vertical	Pass
6	16521.600	52.69	0.21	74.0	-21.31	Peak	360.00	100	Vertical	Pass
6**	16521.600	43.46	0.21	54.0	-10.54	AV	360.00	100	Vertical	Pass

8-DPSK HIGH CHANNEL 1 GHz to 18 GHz, ANT H

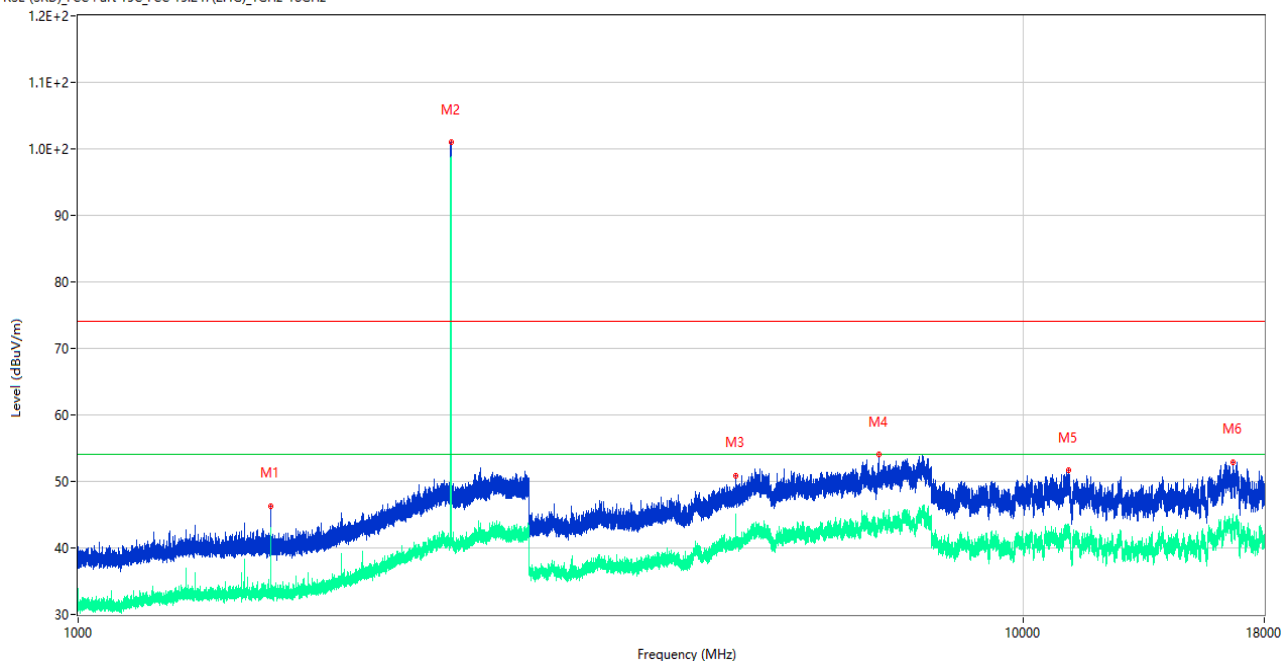
RSE (SRD)_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.800	46.23	-16.85	74.0	-27.77	Peak	282.00	100	Horizontal	Pass
1**	1599.800	41.36	-16.85	54.0	-12.64	AV	282.00	100	Horizontal	Pass
2	2480.000	105.61	-10.56	--	--	Peak	251.00	100	Horizontal	N/A
2**	2480.000	103.26	-10.56	--	--	AV	251.00	100	Horizontal	N/A
3	4959.750	50.94	-2.64	74.0	-23.06	Peak	253.00	150	Horizontal	Pass
3**	4959.750	44.62	-2.64	54.0	-9.38	AV	253.00	150	Horizontal	Pass
4	7821.000	54.12	2.87	74.0	-19.88	Peak	290.00	200	Horizontal	Pass
4**	7821.000	45.63	2.87	54.0	-8.37	AV	290.00	200	Horizontal	Pass
5	11152.812	51.86	-1.00	74.0	-22.14	Peak	143.00	300	Horizontal	Pass
5**	11152.812	42.60	-1.00	54.0	-11.40	AV	143.00	300	Horizontal	Pass
6	16513.463	52.99	0.26	74.0	-21.01	Peak	351.00	400	Horizontal	Pass
6**	16513.463	43.47	0.26	54.0	-10.53	AV	351.00	400	Horizontal	Pass

8-DPSK HIGH CHANNEL 1 GHz to 18 GHz, ANT V

RSE (SRD), FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.900	46.31	-16.85	74.0	-27.69	Peak	152.00	200	Vertical	Pass
1**	1599.900	42.40	-16.85	54.0	-11.60	AV	152.00	200	Vertical	Pass
2	2480.000	100.98	-10.56	--	--	Peak	351.00	100	Vertical	N/A
2**	2480.000	98.89	-10.56	--	--	AV	351.00	100	Vertical	N/A
3	4960.250	50.85	-2.64	74.0	-23.15	Peak	127.00	150	Vertical	Pass
3**	4960.250	43.67	-2.64	54.0	-10.33	AV	127.00	150	Vertical	Pass
4	7041.000	54.06	0.04	74.0	-19.94	Peak	25.00	200	Vertical	Pass
4**	7041.000	43.19	0.04	54.0	-10.81	AV	25.00	200	Vertical	Pass
5	11184.162	51.67	-1.53	74.0	-22.33	Peak	191.00	300	Vertical	Pass
5**	11184.162	43.22	-1.53	54.0	-10.78	AV	191.00	300	Vertical	Pass
6	16675.687	52.93	0.98	74.0	-21.07	Peak	26.00	400	Vertical	Pass
6**	16675.687	43.43	0.98	54.0	-10.57	AV	26.00	400	Vertical	Pass

A.9 Band Edge (Restricted-band band-edge)

Note ¹: The lowest and highest channels are tested to verify the band edge emissions. Please refer to the following the plots for emissions values.

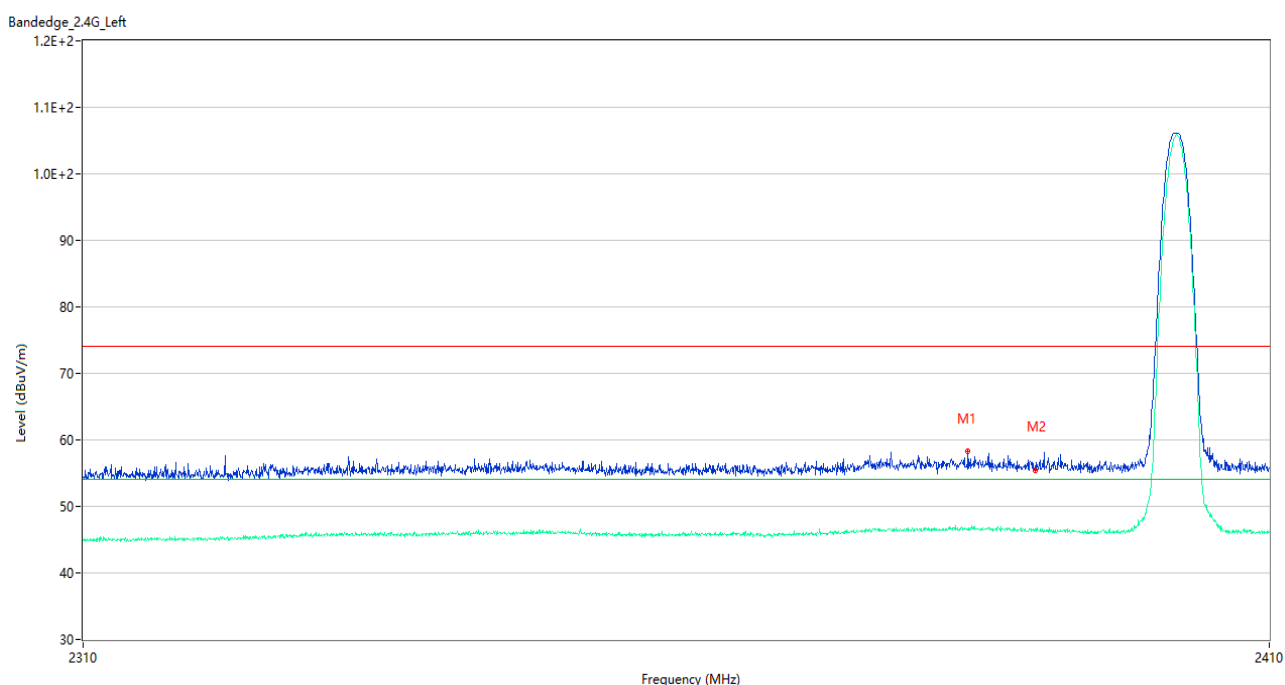
Note ²: The test data all are tested in the vertical and horizontal antenna which the trace is max hold. So these plots have shown the worst case.

Note ³: According the ANSI C63.10-2013, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note ⁴: The Level (dBuV/m) has been corrected by factor.

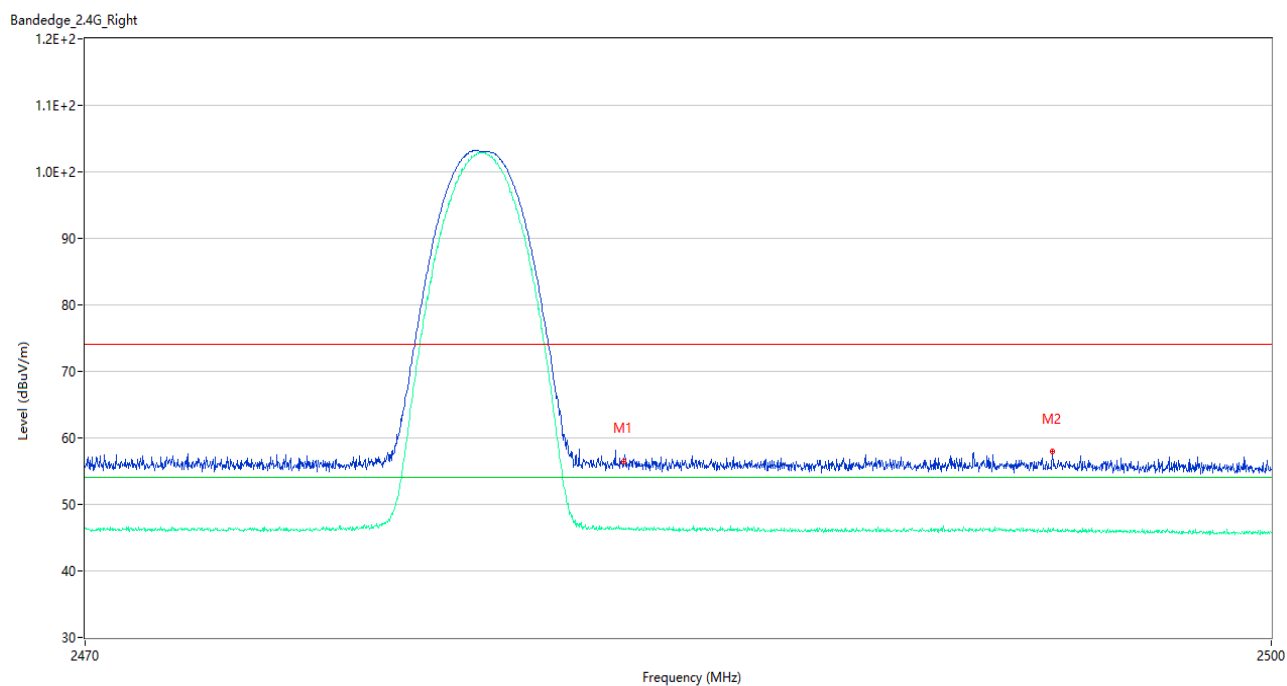
Test Data and Plots

GFSK LOW CHANNEL



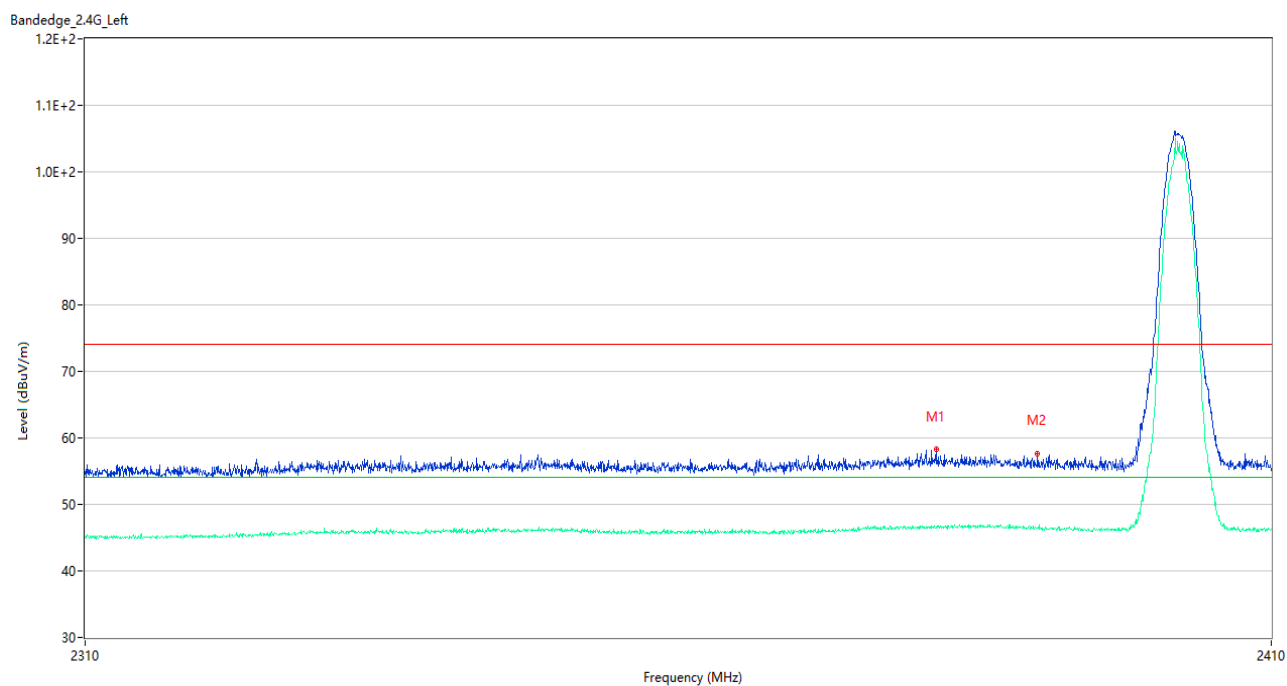
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2384.200	58.29	2.07	74.0	-15.71	Peak	157.00	150	Horizontal	Pass
1**	2384.200	46.57	2.07	54.0	-7.43	AV	157.00	150	Horizontal	Pass
2	2389.950	55.46	1.86	74.0	-18.54	Peak	5.00	150	Horizontal	Pass
2**	2389.950	46.38	1.86	54.0	-7.62	AV	5.00	150	Horizontal	Pass

GFSK HIGH CHANNEL



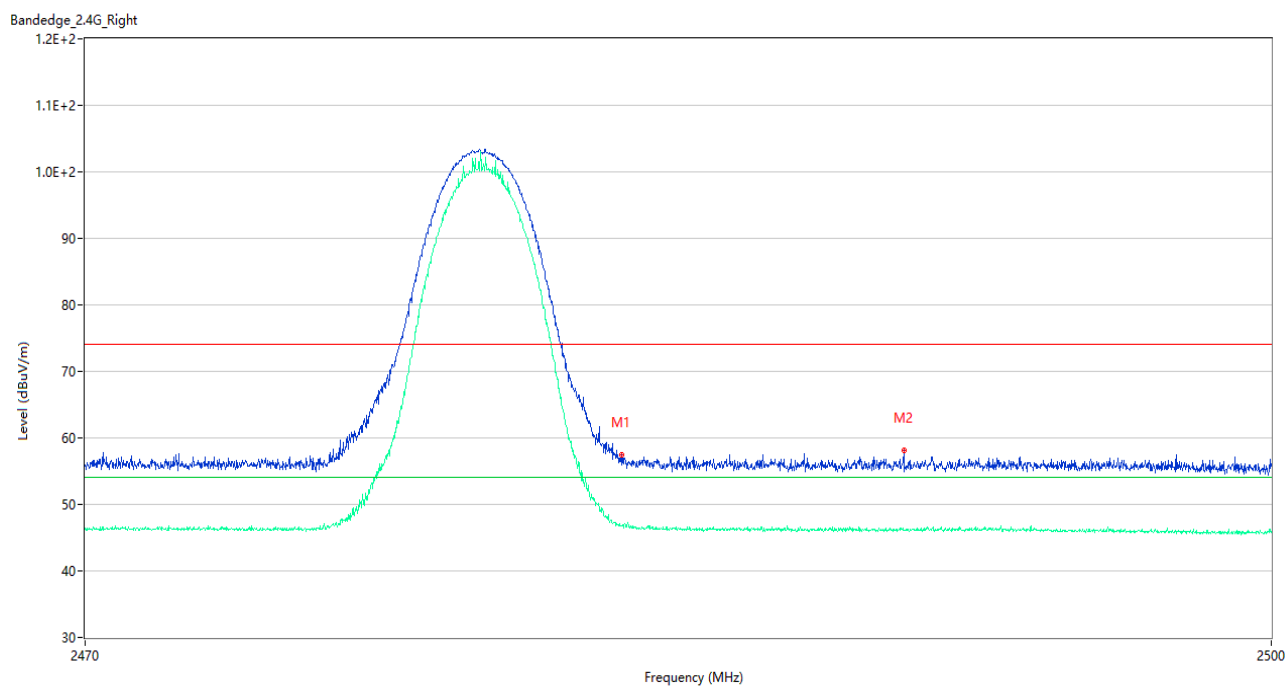
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.590	56.52	1.77	74.0	-17.48	Peak	64.00	200	Horizontal	Pass
1**	2483.590	46.40	1.77	54.0	-7.60	AV	64.00	200	Horizontal	Pass
2	2494.435	57.91	1.64	74.0	-16.09	Peak	8.00	100	Horizontal	Pass
2**	2494.435	46.09	1.64	54.0	-7.91	AV	8.00	100	Horizontal	Pass

8-DPSK LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2381.300	58.25	1.96	74.0	-15.75	Peak	23.00	150	Horizontal	Pass
1**	2381.300	46.57	1.96	54.0	-7.43	AV	23.00	150	Horizontal	Pass
2	2389.950	57.67	1.86	74.0	-16.33	Peak	105.00	200	Horizontal	Pass
2**	2389.950	46.52	1.86	54.0	-7.48	AV	105.00	200	Horizontal	Pass

8-DPSK HIGH CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.515	57.42	1.77	74.0	-16.58	Peak	242.00	150	Horizontal	Pass
1**	2483.515	46.77	1.77	54.0	-7.23	AV	242.00	150	Horizontal	Pass
2	2490.670	58.06	1.67	74.0	-15.94	Peak	64.00	150	Horizontal	Pass
2**	2490.670	46.07	1.67	54.0	-7.93	AV	64.00	150	Horizontal	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2291088-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2291088-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2291088-AI.PDF”.

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--END OF REPORT--