

TEST REPORT

Applicant: Libre Wireless Technologies, Inc.
Address: 27136 Burbank, Foothill Ranch, CA, 92610
Equipment Type: High Performance Wireless Media Module
Model Name: LS10A (refer to section 2.3)
Brand Name: Libre Wireless
FCC ID: 2ADBM-LS10A
ISED Number: 20276-LS10A
Test Standard: 47 CFR Part 15 Subpart C
RSS-Gen Issue 5
RSS-247 Issue 4
(refer to section 3.1)
Sample Arrival Date: May 09, 2026
Test Date: May 16, 2026 - May 24, 2026
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ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Li Renyu**Checked by:** Li Ganming**Approved by:** Tolan Tu
(Testing Director)

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Jun. 12, 2026</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Jul. 01, 2026</u>	<u>Add "HVIN Number" in Chapter 2.3</u>

TABLE OF CONTENTS

1	GENERAL INFORMATION	4
1.1	Test Laboratory	4
1.2	Test Location	4
2	PRODUCT INFORMATION	5
2.1	Applicant Information	5
2.2	Manufacturer Information	5
2.3	General Description for Equipment under Test (EUT)	5
2.4	Technical Information	6
3	SUMMARY OF TEST RESULTS	8
3.1	Test Standards	8
3.2	Test Verdict	9
4	GENERAL TEST CONFIGURATIONS	10
4.1	Test Environments	10
4.2	Test Equipment List	10
4.3	Test Software List	10
4.4	Measurement Uncertainty	11
4.5	Description of Test Setup	11
4.6	Measurement Results Explanation Example	14
5	TEST ITEMS	15
5.1	Antenna Requirements	15
5.2	Output Power	16
5.3	Occupied Bandwidth	18
5.4	Conducted Spurious Emission	20
5.5	Band Edge (Authorized-band band-edge)	22

5.6	Conducted Emission.....	24
5.7	Radiated Spurious Emission.....	25
5.8	Band Edge (Restricted-band band-edge).....	30
5.9	Power Spectral density (PSD)	33
ANNEX A	TEST RESULT	34
A.1	Output Power, E.I.R.P	34
A.2	Occupied Bandwidth.....	37
A.3	Conducted Spurious Emissions	41
A.4	Band Edge (Authorized-band band-edge).....	46
A.5	Conducted Emissions	49
A.6	Radiated Spurious Emission.....	56
A.7	Band Edge (Restricted-band band-edge).....	84
A.8	Power Spectral Density (PSD).....	94
ANNEX B	TEST SETUP PHOTOS	97
ANNEX C	EUT EXTERNAL PHOTOS.....	97
ANNEX D	EUT INTERNAL PHOTOS.....	97

1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	601, Building 2, Intelligent Connected Vehicle Industrial Park, No.55, Xiangshan Road, Luotian Community, Yanluo Sub-district, Bao'an District, Shenzhen
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☐ Building 2, Intelligent Connected Vehicle Industrial Park, No.55, Xiangshan Road, Luotian Community, Yanluo Sub-district, Bao'an District, Shenzhen, Guangdong
	☒ 1/F., Building B, Ganghongji High-Tech Intelligent Industrial Park, No.1008, Songbai Road, Yangguang Community, Xili Subdistrict, Nanshan District, Shenzhen, Guangdong
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 CAB identifier number is CN0030.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Libre Wireless Technologies, Inc.
Address	27136 Burbank, Foothill Ranch, CA, 92610

2.2 Manufacturer Information

Manufacturer	Libre Wireless Technologies, Inc.
Address	27136 Burbank, Foothill Ranch, CA, 92610

2.3 General Description for Equipment under Test (EUT)

EUT Name	High Performance Wireless Media Module
Model Name Under Test	LS10A
Series Model Name	LS10A-EX-44G-B, LS10A-NX-44G-B, LS10A-EN-44G-B, LS10A-NN-44G-B
Description of Model name differentiation	All models are same with electrical parameters and internal circuit structure, but only differ in model name and whether there is Ethernet. (this information provided by the applicant)
HVIN Number	LS10A-EX-44G-B, LS10A-NX-44G-B
Serial Number	20260302LS10A
Hardware Version	VC1.0
Software Version	3887
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

Antenna Information:

Antenna Manufacturer	Model	Antenna Type	Antenna Gain
AUDEN COMMUNICATIONS & MULTIMEDIA TECHNO (KUNSHAN) CO., LTD	LSANT-1C-180	PCB	3.5 dBi
Suzhou Point Positive Electronic Technology Co., Ltd	RC1WFI0886A	Rod	2.6651 dBi
AUDEN COMMUNICATIONS & MULTIMEDIA TECHNO (KUNSHAN) CO., LTD	AUK01966B-2.4&5.8G	FPC	3.0 dBi
Note: Antenna model AUK01966B-2.4&5.8G and RC1WFI0886A are alternative antennas, the max gain antenna is chosen for all test.			

2.4 Technical Information

Network and Wireless connectivity	Bluetooth (BR+EDR+BLE) WIFI 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac and 802.11ax
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The requirement for the following technical information of the EUT was tested in this report:

Modulation Technology	DTS
Modulation Type	GFSK
Product Type	☒ Mobile ☐ Portable ☐ Fix Location
Transfer Rate	1 Mbps, 2 Mbps
Frequency Range	The frequency range used is 2400 MHz to 2483.5 MHz.
Number of Channel	40 (at intervals of 2 MHz) ^{Note 1}
Tested Channel	1 Mbps: 0 (2402 MHz), 19 (2440 MHz), 39 (2480 MHz) 2 Mbps: 1 (2404 MHz), 19 (2440 MHz), 38 (2478 MHz)
Antenna Type	PCB Antenna
Antenna Gain	3.5 dBi
Antenna Impedance	50Ω
Antenna System (MIMO Smart Antenna)	N/A
Note 1: 2 Mbps does not support Channel 0, Channel 12, and Channel 39.	

All channel was listed on the following table:

BLE 1M:

Channel Number	Freq. (MHz)	Channel Number	Freq. (MHz)	Channel Number	Freq. (MHz)	Channel Number	Freq. (MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480

BLE 2M:

Channel Number	Freq. (MHz)	Channel Number	Freq. (MHz)	Channel Number	Freq. (MHz)	Channel Number	Freq. (MHz)
\	\	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	\	\	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	\	\

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 4	Digital Transmission Systems, Frequency Hopping Systems and Licence Exempt Local Area Network Devices in 902-928 MHz, 2400-2483.5 MHz, 5150-5350 MHz, and 5470-5895 MHz bands
4	ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 + Errata to C63.10a-2024	American National Standard for Procedures for Compliance Testing of 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
1	Antenna Requirement	15.203	RSS-Gen, 6.8	N/A	--	Pass ^{Note1}
2	Output Power	15.247(b)	RSS-247, 6.3.2	Low/Middle/High	ANNEX A.1	Pass
3	Occupied Bandwidth	15.247(a)	RSS-GEN, 6.7; RSS-247, 6.3.1(a)	Low/Middle/High	ANNEX A.2	Pass
4	Conducted Spurious Emission	15.247(d)	RSS-247, 6.6	Low/Middle/High	ANNEX A.3	Pass
5	Band Edge(Authorized-band band-edge)	15.247(d)	RSS-247, 6.6	Low/High	ANNEX A.4	Pass
6	Conducted Emission	15.207	RSS-GEN, 8.8	Low/Middle/High	ANNEX A.5	Pass
7	Radiated Spurious Emission	15.209 15.247(d)	RSS-247, 6.6	Low/Middle/High	ANNEX A.6	Pass
8	Band Edge(Restricted-band band-edge)	15.209 15.247(d)	RSS-247, 6.6	Low/High	ANNEX A.7	Pass
9	Power spectral density (PSD)	15.247(e)	RSS-247, 6.3.1(b)	Low/Middle/High	ANNEX A.8	Pass
10	Receiver Spurious Emissions	--	RSS-Gen, 7.3	--	N/A	N/A ^{Note2}

Note ¹: The EUT has a permanently and irreplaceable attached antenna, which complies with the requirement FCC 15.203.

Note ²: 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	43% to 67%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+18.9℃ to +27.5℃
Working Voltage of the EUT	NV (Normal Voltage)	12V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	MY54420186	2026.05.11	2027.05.10
Spectrum Analyzer	KEYSIGHT	N9020A	MY56060127	2025.12.25	2026.12.24
Power meter	R&S	NRP8S	101498	2025.07.07	2026.07.06
Test Antenna-Horn	A-INFO	LB-180400KF	J211060273	2024.06.15	2027.06.14
Test Antenna-Bi-Log	Schwarzbeck	VULB 9163	01414	2023.11.03	2026.11.02
Test Antenna-Horn	Schwarzbeck	BBHA 9120D	02459	2023.10.26	2026.10.25
Test Antenna-Loop	Schwarzbeck	FMZB 1513-60	00015	2026.05.12	2027.05.11
Anechoic Chamber	YIHENG	C8-966	N/A	2024.05.12	2027.05.11
EMI Receiver	Keysight	N9038A	MY55330121	2025.12.26	2026.12.25
Filtering unit	balun	SU319F	LW-SZ19D0001F01	N/A	N/A
Switching unit	BALUN	SU319	LW-SZ19D0001S01	N/A	N/A
EMI Receiver	keysight	N9038B	MY61380132	2025.12.26	2026.12.25
LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK8127	01009	2025.07.15	2026.07.14
Shielded Enclosure	YiHeng Electronic Co., Ltd	4.3m*2.9m*2.4 m	235	2024.11.05	2027.11.04

4.3 Test Software List

Description	Manufacturer	Software Version	Serial No.	Applicable test Setup
BL410R	BALUN	V3.0.1.528	N/A	The section 4.5.1
BL410E	BALUN	V22.930	N/A	The section 4.5.2&4.5.3&4.5.4&4.5.5

4.4 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	0.8°C
Humidity	4%

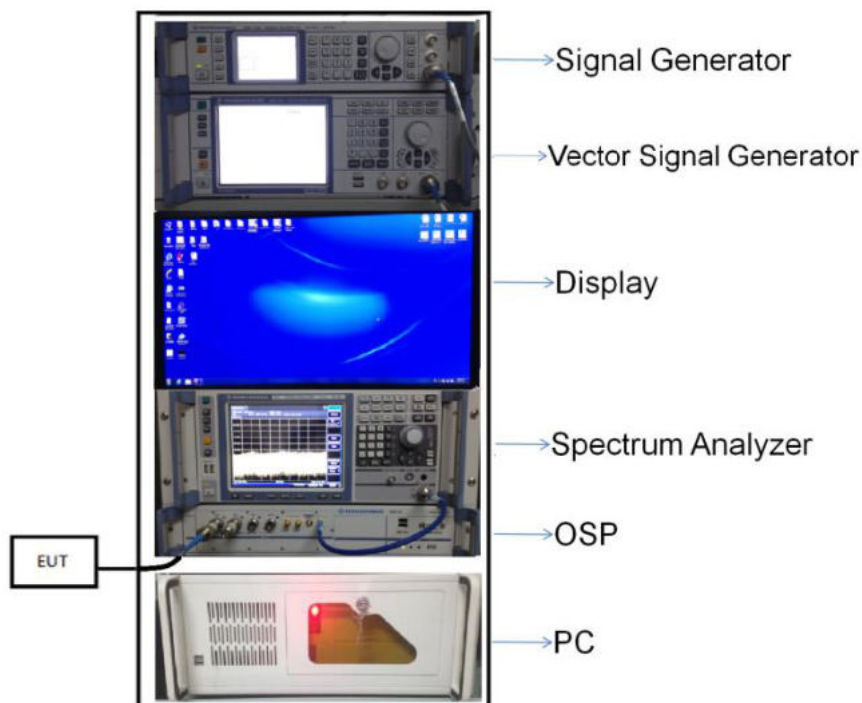
4.5 Description of Test Setup

4.5.1 For Antenna Port Test

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

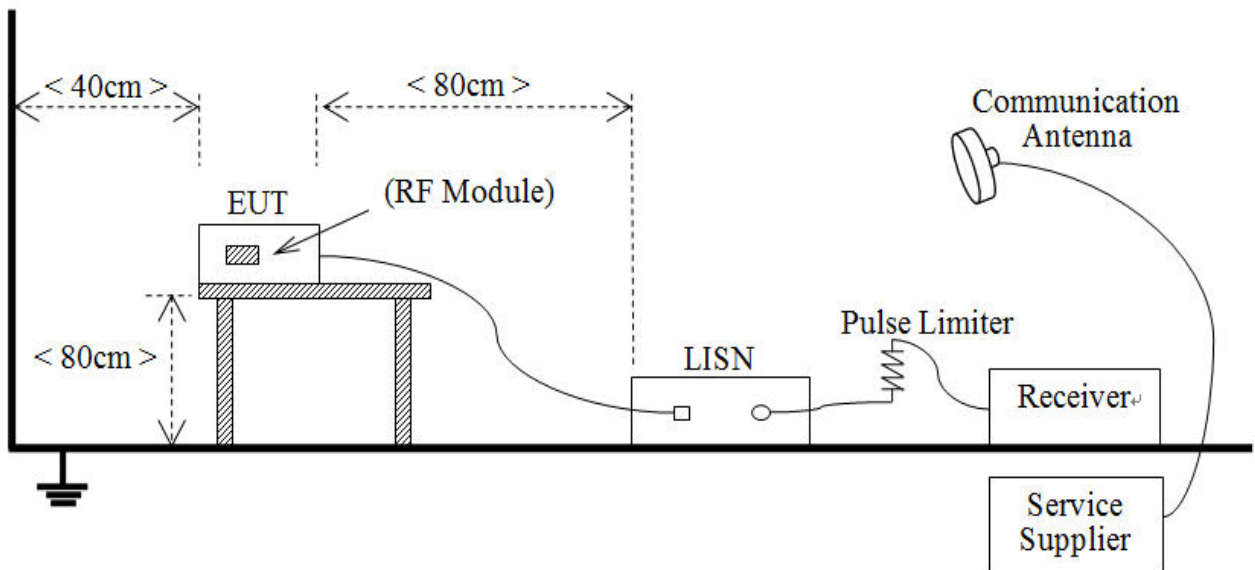
For example: the measurement value is 10 dBm and the cable 0.5dBm used, then the final result of EUT:

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



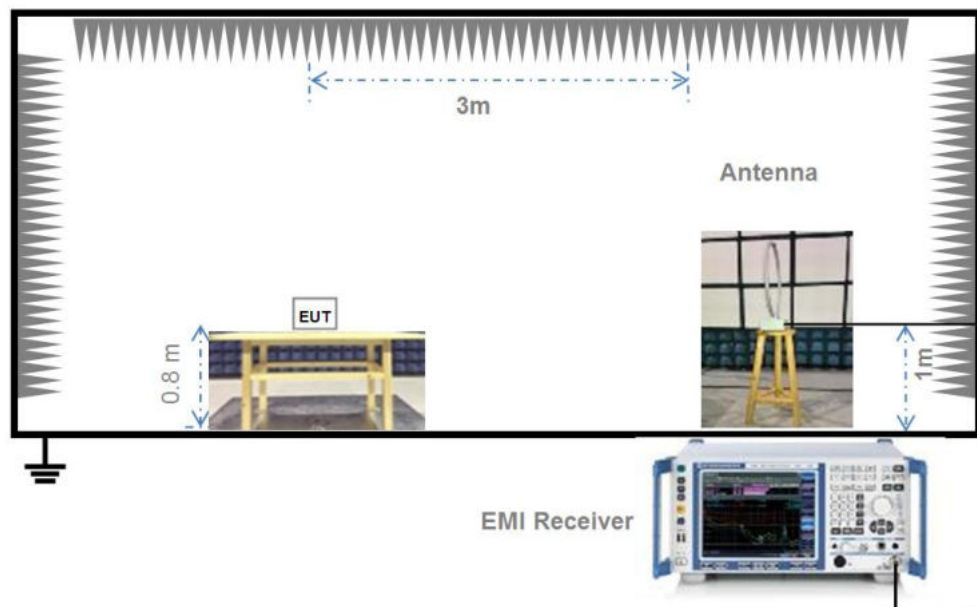
(Diagram 1)

4.5.2 For AC Power Supply Port Test



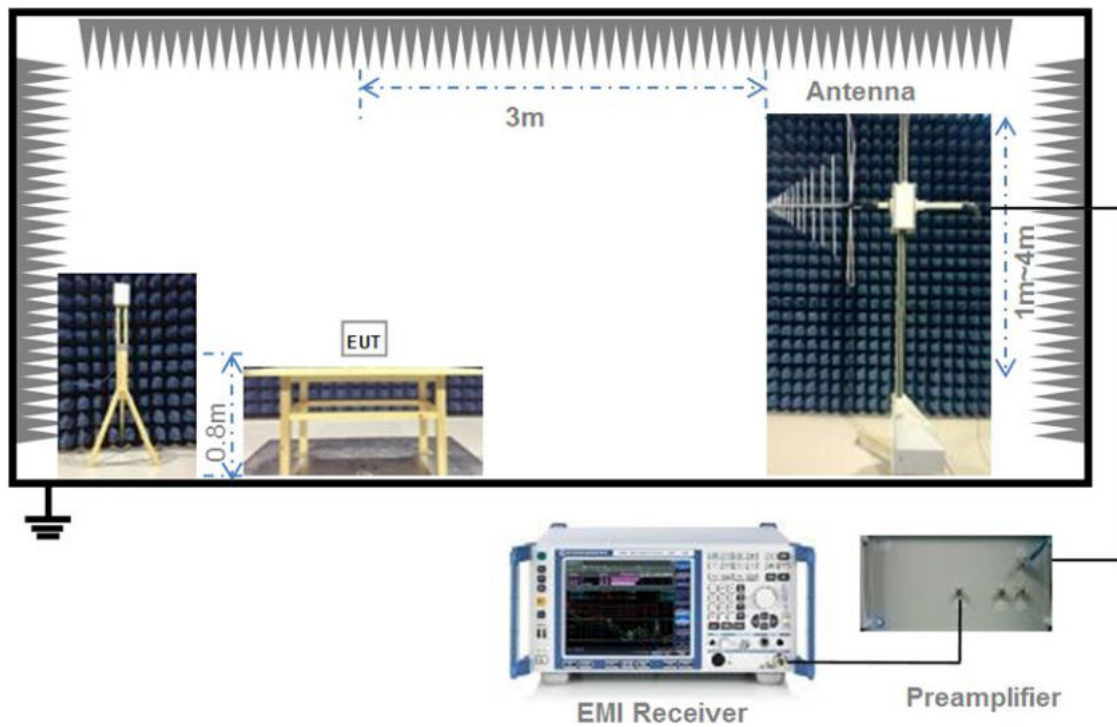
(Diagram 2)

4.5.3 For Radiated Test (Below 30 MHz)



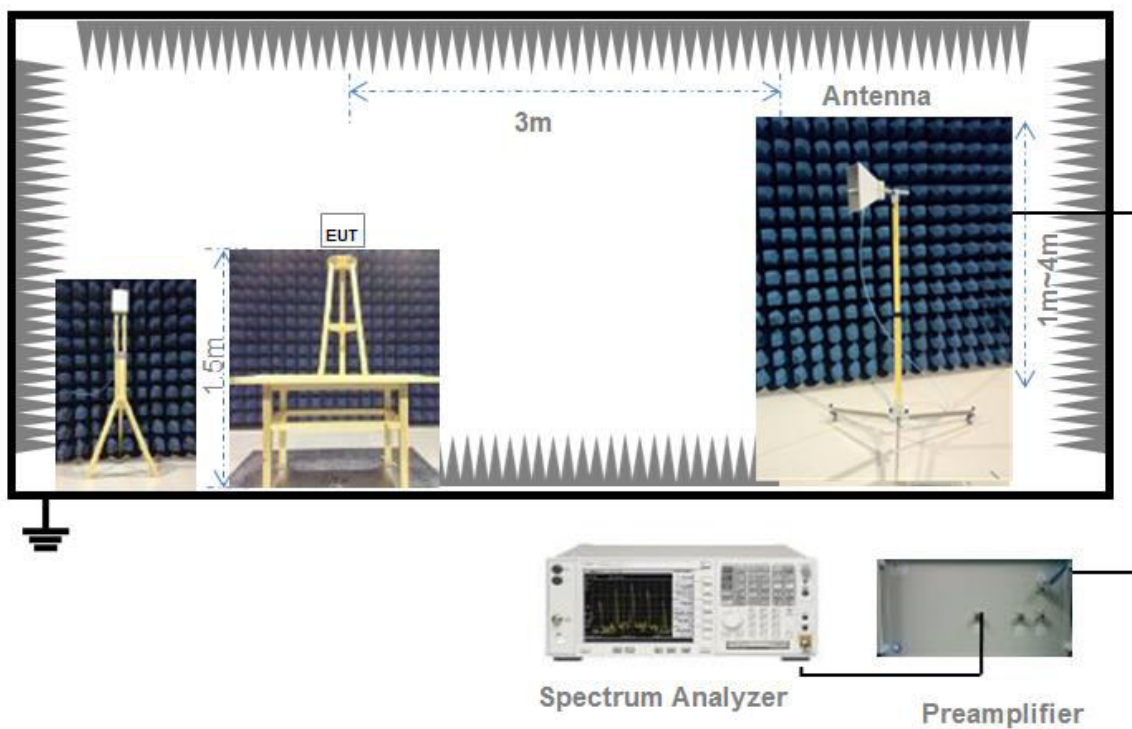
(Diagram 3)

4.5.4 For Radiated Test (30 MHz-1 GHz)



(Diagram 4)

4.5.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

4.6 Measurement Results Explanation Example

4.6.1 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.

4.6.2 For radiated band edges and spurious emission test:

$$E = \text{EIRP} - 20\log D + 104.8$$

where:

E = electric field strength in dB μ V/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

5 TEST ITEMS

5.1 Antenna Requirements

5.1.1 Relevant Standards

FCC §15.203 & 15.247(b); RSS-Gen, 6.8

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 Output Power

5.2.1 Test Limit

FCC § 15.247(b)

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements.

RSS-247, 6.3.2

For DTS operating in the band 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1W, and the e.i.r.p. shall not exceed 4 W, except as provided in section 6.5 a) and b).

5.2.2 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.

5.2.3 Test Procedure

a) Maximum peak conducted output power

This procedure shall be used when the measurement instrument has available a resolution bandwidth that is greater than the DTS bandwidth.

Set the RBW $\geq$ DTS bandwidth.

Set VBW $\geq 3 \times$ RBW.

Set span $\geq 3 \times$ RBW

Sweep time = auto couple.

Detector = peak.

Trace mode = max hold.

Allow trace to fully stabilize.

Use peak marker function to determine the peak amplitude level.

b) Measurements of duty cycle

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal.

Set the center frequency of the instrument to the center frequency of the transmission.

Set RBW $\geq$ OBW if possible; otherwise, set RBW to the largest available value.

Set VBW $\geq$ RBW. Set detector = peak or average.

The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$ and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if $T \leq 16.7$ microseconds.)

5.2.4 Test Result

Please refer to ANNEX A.1.

5.3 Occupied Bandwidth

5.3.1 Limit

FCC §15.247(a); RSS-247, 6.3.1(a); RSS-GEN, 6.7

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW. The 6 dB bandwidth must be greater than 500 kHz.

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

Option 1:

Use the following spectrum analyzer settings:

Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.

Set the video bandwidth (VBW) ≥ 3 RBW.

Detector = Peak.

Trace mode = max hold.

Sweep = No faster than coupled (auto) time.

Allow the trace to stabilize.

Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Option 2:

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described in 11.8.1 (i.e., RBW = 100 kHz, VBW $\geq 3 \times$ RBW, and peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.

99% bandwidth:

Use the following spectrum analyzer settings:

Set RBW = shall be in the range of 1% to 5% of the OBW.

Set the video bandwidth (VBW) ≥ 3 RBW.

Set the Span to 1.5 to 5 times of OBW.

Detector = Peak.

Trace mode = max hold.

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

5.3.4 Test Result

Please refer to ANNEX A.2.

5.4 Conducted Spurious Emission

5.4.1 Limit

FCC §15.247(d); RSS-247, 6.6

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.

5.4.2 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 DTS rules specify that in any 100 kHz bandwidth outside of the authorized frequency band, the power shall be attenuated according to the following conditions:

- a) If the maximum peak conducted output power procedure was used to demonstrate compliance as described in 9.1, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).
- b) If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).
- c) In either case, attenuation to levels below the 15.209 general radiated emissions limits is not required.

The following procedures shall be used to demonstrate compliance to these limits. Note that these procedures can be used in either an antenna-port conducted or radiated test set-up. Radiated tests must conform to the test site requirements and utilize maximization procedures defined herein.

Reference level measurement:

Establish a reference level by using the following procedure:

Set instrument center frequency to DTS channel center frequency.

Set the span to ≥ 1.5 times the DTS bandwidth.

Set the RBW = 100 kHz.

Set the VBW $\geq 3 \times$ RBW.

Detector = peak.

Sweep time = No faster than coupled auto time.

Trace mode = max hold.

Allow trace to fully stabilize.

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

Emission level measurement:

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.

Set the RBW = 100 kHz.

Set the VBW $\geq 3 \times$ RBW.

Detector = peak.

Sweep time = No faster than coupled auto time.

Trace mode = max hold.

Allow trace to fully stabilize.

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

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements specified in 11.1 a) or 11.1 b). Report the three highest emissions relative to the limit.

5.4.4 Test Result

Please refer to ANNEX A.3.

5.5 Band Edge (Authorized-band band-edge)

5.5.1 Limit

FCC §15.247(d); RSS-247, 6.6

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.

5.5.2 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

The DTS rules specify that in any 100 kHz bandwidth outside of the authorized frequency band, the power shall be attenuated according to the following conditions:

- a) If the maximum peak conducted output power procedure was used to demonstrate compliance as described in 9.1, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).
- b) If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).
- c) In either case, attenuation to levels below the 15.209 general radiated emissions limits is not required.

The following procedures shall be used to demonstrate compliance to these limits. Note that these procedures can be used in either an antenna-port conducted or radiated test set-up. Radiated tests must conform to the test site requirements and utilize maximization procedures defined herein.

Reference level measurement:

Establish a reference level by using the following procedure:

Set instrument center frequency to DTS channel center frequency.

Set the span to ≥ 1.5 times the DTS bandwidth.

Set the RBW = 100 kHz.

Set the VBW $\geq 3 \times$ RBW.

Detector = peak.

Sweep time = No faster than coupled auto time.

Trace mode = max hold.

Allow trace to fully stabilize.

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

Emission level measurement:

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.

Set the RBW = 100 kHz.

Set the VBW $\geq 3 \times$ RBW.

Detector = peak.

Sweep time = No faster than coupled auto time.

Trace mode = max hold.

Allow trace to fully stabilize.

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

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements specified in 11.1 a) or 11.1 b). Report the three highest emissions relative to the limit.

5.5.4 Test Result

Please refer to ANNEX A.4.

5.6 Conducted Emission

5.6.1 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

5.6.2 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.

5.6.3 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.

5.6.4 Test Result

Please refer to ANNEX A.5.

5.7 Radiated Spurious Emission

5.7.1 Limit

FCC §15.209&15.247(d); RSS-GEN, 8.9; RSS-247, 6.6

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 (μV/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 (dBμV/m) = 20*log[Field Strength (μV/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).

5.7.2 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.

5.7.3 Test Procedure

Since the emission limits are specified in terms of radiated field strength levels, measurements performed to demonstrate compliance have traditionally relied on a radiated test configuration. Radiated measurements remain the principal method for demonstrating compliance to the specified limits; however antenna-port conducted measurements are also now acceptable to demonstrate compliance (see below for details). When radiated measurements are utilized, test site requirements and procedures for maximizing and measuring radiated emissions that are described in ANSI C63.10 shall be followed.

Antenna-port conducted measurements may also be used as an alternative to radiated measurements

for demonstrating compliance in the restricted frequency bands. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test for cabinet/case spurious emissions is required.

General Procedure for conducted measurements in restricted bands:

- a) Measure the conducted output power (in dBm) using the detector specified (see guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
- b) Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP level (see guidance on determining the applicable antenna gain)
- c) Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies ≤ 30 MHz, 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive and 0 dB for frequencies > 1000 MHz).
- d) For devices with multiple antenna-ports, measure the power of each individual chain and sum the EIRP of all chains in linear terms (e.g., Watts, mW).
- e) Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

$$E = \text{EIRP} - 20\log D + 104.8$$

where:

E = electric field strength in dB μ V/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

- f) Compare the resultant electric field strength level to the applicable limit.
- g) Perform radiated spurious emission test.

Quasi-Peak measurement procedure

The specifications for measurements using the CISPR quasi-peak detector can be found in Publication 16 of the International Special Committee on Radio Frequency Interference (CISPR) of the International Electrotechnical Commission.

As an alternative to CISPR quasi-peak measurement, compliance can be demonstrated to the applicable emission limits using a peak detector.

Peak power measurement procedure:

Peak emission levels are measured by setting the instrument as follows:

- a) RBW = as specified in Table 1.
- b) VBW $\geq 3 \times$ RBW.

- c) Detector = Peak.
- d) Sweep time = auto.
- e) Trace mode = max hold.
- f) Allow sweeps to continue until the trace stabilizes. (Note that the required measurement time may be longer for low duty cycle applications).

Table 1—RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

If the peak-detected amplitude can be shown to comply with the average limit, then it is not necessary to perform a separate average measurement.

Trace averaging across on and off times of the EUT transmissions followed by duty cycle correction:

If continuous transmission of the EUT (i.e., duty cycle ≥ 98 percent) cannot be achieved and the duty cycle is constant (i.e., duty cycle variations are less than ± 2 percent), then the following procedure shall be used:

- a) The EUT shall be configured to operate at the maximum achievable duty cycle.
- b) Measure the duty cycle, x , of the transmitter output signal as described in section 6.0.
- c) RBW = 1 MHz (unless otherwise specified).
- d) VBW $\geq 3 \times$ RBW.
- e) Detector = RMS, if $\text{span}/(\# \text{ of points in sweep}) \leq (\text{RBW}/2)$. Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.
- f) Averaging type = power (i.e., RMS).
 - 1) As an alternative, the detector and averaging type may be set for linear voltage averaging.
 - 2) Some instruments require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.
- g) Sweep time = auto.
- h) Perform a trace average of at least 100 traces.
- i) A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:

- 1) If power averaging (RMS) mode was used in step f), then the applicable correction factor is $10 \log(1/x)$, where x is the duty cycle.
- 2) If linear voltage averaging mode was used in step f), then the applicable correction factor is $20 \log(1/x)$, where x is the duty cycle.
- 3) If a specific emission is demonstrated to be continuous (≥ 98 percent duty cycle) rather than turning on and off with the transmit cycle, then no duty cycle correction is required for that emission.

NOTE: Reduction of the measured emission amplitude levels to account for operational duty factor is not permitted. Compliance is based on emission levels occurring during transmission - not on an average across on and off times of the transmitter.

Determining the applicable transmit antenna gain:

A conducted power measurement will determine the maximum output power associated with a restricted band emission; however, in order to determine the associated EIRP level, the gain of the transmitting antenna (in dBi) must be added to the measured output power (in dBm).

Since the out-of-band characteristics of the EUT transmit antenna will often be unknown, the use of a conservative antenna gain value is necessary. Thus, when determining the EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2 dBi, whichever is greater. However, for devices that operate in multiple frequency bands while using the same transmit antenna, the highest gain of the antenna within the operating band nearest in frequency to the restricted band emission being measured may be used in lieu of the overall highest gain when the emission is at a frequency that is within 20 percent of the nearest band edge frequency, but in no case shall a value less than 2 dBi be used.

See KDB 662911 for guidance on calculating the additional array gain term when determining the effective antenna gain for a EUT with multiple outputs occupying the same or overlapping frequency ranges in the same band.

Radiated spurious emission test:

An additional consideration when performing conducted measurements of restricted band emissions is that unwanted emissions radiating from the EUT cabinet, control circuits, power leads, or intermediate circuit elements will likely go undetected in a conducted measurement configuration. To address this concern, a radiated test shall be performed to ensure that emissions emanating from the EUT cabinet (rather than the antenna port) also comply with the applicable limits.

For these cabinet radiated spurious emission measurements the EUT transmit antenna may be replaced with a termination matching the nominal impedance of the antenna. Procedures for performing radiated measurements are specified in ANSI C63.10. All detected emissions shall comply with the applicable limits.

The measurement frequency range is from 30MHz 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

5.7.4 Test Result

Please refer to ANNEX A.6.

5.8 Band Edge (Restricted-band band-edge)

5.8.1 Limit

FCC §15.209&15.247(d); RSS-GEN, 8.10; RSS-247, 6.6

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).

5.8.2 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.

5.8.3 Test Procedure

The following procedures may be used to determine the average field strength or power of an unwanted emission that is within 2 MHz of the authorized band-edge. Use the procedure described in 11.12.3.2.2 when using an average detector and the EUT can be configured to transmit continuously (i.e., $D \geq 98\%$). Use the procedure described in 11.12.3.2.3 when using an average detector and the EUT cannot be configured to transmit continuously but the duty cycle is constant (i.e., duty cycle variations are less than $\pm 2\%$). Use the procedure described in 11.12.3.2.4 when using an average detector for those cases where the EUT cannot be configured to transmit continuously and the duty cycle is not constant (duty cycle variations equal or exceed 2%).

If the EUT can be configured or modified to transmit continuously ($D \geq 98\%$), measured using the following method (with EUT transmitting continuously):

Use the following spectrum analyzer settings:

Set instrument center frequency to the frequency of the emission to be measured (must be within 2 MHz of the authorized band-edge).

RBW = 100 kHz.

VBW $\geq [3 \times \text{RBW}]$.

Detector = Power averaging (rms), if $[\text{span} / (\# \text{ of points in sweep})] \leq (\text{RBW} / 2)$.

Averaging type = power (i.e., rms):

As an alternative, the detector and averaging type may be set for linear voltage averaging.

Some instruments require linear display mode to use linear voltage averaging. Log or dB averaging shall not be used.

Sweep time = auto.

Perform a trace average of at least 100 traces.

Compute the power by integrating the spectrum over 1 MHz using the analyzer's band-power

measurement function with band limits set equal to the emission frequency (femission) ± 0.5 MHz. If the instrument does not have a band-power function, then sum the amplitude levels (in power units) at 100 kHz intervals extending across the 1 MHz spectrum defined by femission) ± 0.5 MHz.

If continuous transmission of the EUT ($D \geq 98\%$) cannot be achieved and the duty cycle is constant (duty cycle variations are less $\pm 2\%$), then the following procedure may be used to measure the average power of unwanted emissions within 2 MHz of the authorized band-edge:

RBW = 100 kHz.

VBW $\geq [3 \times \text{RBW}]$.

Detector = Power averaging (rms), if $[\text{span} / (\# \text{ of points in sweep})] \leq (\text{RBW} / 2)$.

Averaging type = power (i.e., rms):

Detector = Power averaging (rms), if $[\text{span} / (\# \text{ of points in sweep})] \leq (\text{RBW} / 2)$. Satisfying this condition might require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.

Averaging type = power (i.e., rms):

- 1) As an alternative, the detector and averaging type may be set for linear voltage averaging
- 2) Some instruments require linear display mode to use linear voltage averaging. Log or dB averaging shall not be used.

Sweep time = auto.

Perform a trace average of at least 100 traces.

Compute the power by integrating the spectrum over 1 MHz using the instrument's band-power measurement function with band limits set equal to the emission frequency (femission) ± 0.5 MHz. If the spectrum analyzer does not have a band-power function, then sum the amplitude levels (in power units) at 100 kHz intervals extending across the 1 MHz spectrum defined by femission ± 0.5 MHz.

A correction factor shall be added to the measurement results prior to comparing with the emission limit to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:

1) If power averaging (rms) mode was used in step f), then the applicable correction factor is $[10 \log (1 / D)]$, where D is the duty cycle.

2) If linear voltage averaging mode was used in step f), then the applicable correction factor is $[20 \log (1 / D)]$, where D is the duty cycle.

3) If a specific emission is demonstrated to be continuous ($D \geq 98\%$) rather than turning ON and

OFF with the transmit cycle, then no duty cycle correction is required for that emission.

Reduction of the measured emission amplitude levels to account for operational duty cycle is not permitted. Determining compliance is based on emission levels occurring during transmission—it is not based on an average across ON and OFF times of the transmitter.

5.8.4 Test Result

Please refer to ANNEX A.7.

5.9 Power Spectral density (PSD)

5.9.1 Limit

FCC §15.247(e); RSS-247, 6.3.1 (b)

The same method of determining the conducted output power shall be used to determine the power spectral density. If a peak output power is measured, then a peak power spectral density measurement is required. If an average output power is measured, then an average power spectral density measurement should be used.

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of Section 5.4(4), (i.e. the power spectral density shall be determined using the same method as is used to determine the conducted output power).

5.9.2 Test Setup

See section 4.5.1 (Diagram 1) for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.9.3 Test Procedure

Set analyzer center frequency to DTS channel center frequency.

Set the span to 1.5 times the DTS bandwidth.

Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.

Set the VBW $\geq 3 \text{ RBW}$.

Detector = peak.

Sweep time = auto couple.

Trace mode = max hold.

Allow trace to fully stabilize.

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

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

5.9.4 Test Result

Please refer to ANNEX A.8.

ANNEX A TEST RESULT

A.1 Output Power, E.I.R.P

Peak Power Test Data

Channel	Measured Output Peak Power		Limit		Verdict
	GFSK (BLE 1Mbps)		dBm	mW	
	dBm	mW			
Low Channel	8.78	7.54	30	1000	Pass
Middle Channel	8.33	6.81			Pass
High Channel	7.75	5.96			Pass

Channel	Measured Output Peak Power		Limit		Verdict
	GFSK (BLE 2Mbps)		dBm	mW	
	dBm	mW			
Low Channel	8.91	7.77	30	1000	Pass
Middle Channel	8.48	7.05			Pass
High Channel	7.93	6.21			Pass

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

Channel	E.I.R.P		Limit		Verdict
	GFSK (BLE 1Mbps)		dBm	mW	
	dBm	mW			
Low Channel	12.28	16.89	36	4000	Pass
Middle Channel	11.83	15.24			Pass
High Channel	11.25	13.34			Pass

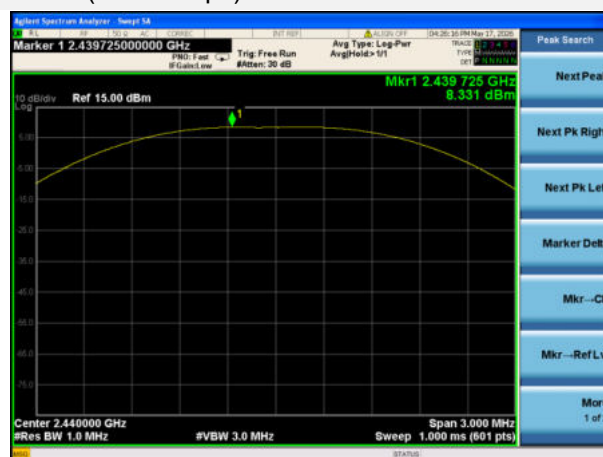
Channel	E.I.R.P		Limit		Verdict
	GFSK (BLE 2Mbps)		dBm	mW	
	dBm	mW			
Low Channel	12.41	17.41	36	4000	Pass
Middle Channel	11.98	15.78			Pass
High Channel	11.43	13.90			Pass

Test Plots

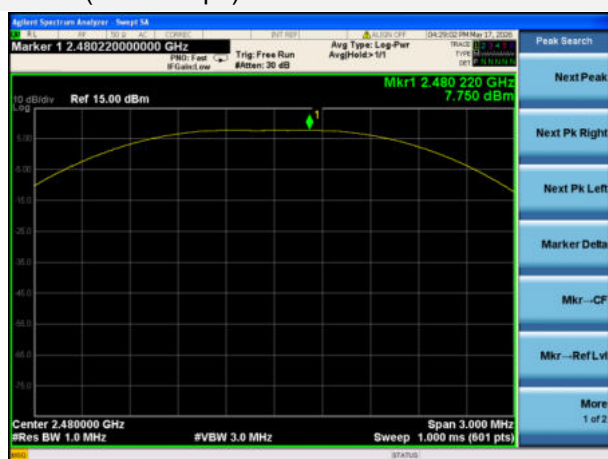
GFSK (BLE 1Mbps) LOW CHANNEL



GFSK (BLE 1Mbps) MIDDLE CHANNEL



GFSK (BLE 1Mbps) HIGH CHANNEL



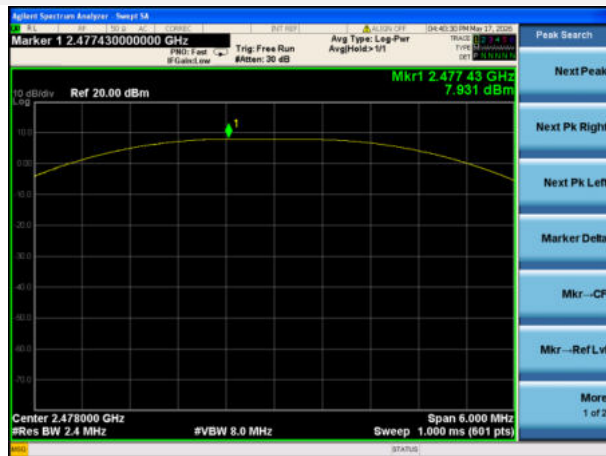
GFSK (BLE 2Mbps) LOW CHANNEL



GFSK (BLE 2Mbps) MIDDLE CHANNEL



GFSK (BLE 2Mbps) HIGH CHANNEL



A.2 Occupied Bandwidth

Test Data

Test Mode	GFSK (BLE 1Mbps)		
Channel	6 dB Bandwidth (kHz)	99% Bandwidth (kHz)	6 dB Bandwidth Limits (kHz)
Low Channel	720.000	1033.600	≥500
Middle Channel	727.500	1036.700	≥500
High Channel	712.400	1040.300	≥500

Test Mode	GFSK (BLE 2Mbps)		
Channel	6 dB Bandwidth (kHz)	99% Bandwidth (kHz)	6 dB Bandwidth Limits (kHz)
Low Channel	1200.000	2058.400	≥500
Middle Channel	1200.000	2066.800	≥500
High Channel	1200.000	2060.100	≥500

Test Plots

6 dB Bandwidth

GFSK (BLE 1Mbps) LOW CHANNEL



GFSK (BLE 1Mbps) MIDDLE CHANNEL



GFSK (BLE 1Mbps) HIGH CHANNEL



GFSK (BLE 2Mbps) LOW CHANNEL



GFSK (BLE 2Mbps) MIDDLE CHANNEL



GFSK (BLE 2Mbps) HIGH CHANNEL



99% Bandwidth

GFSK (BLE 1Mbps) LOW CHANNEL



GFSK (BLE 1Mbps) MIDDLE CHANNEL



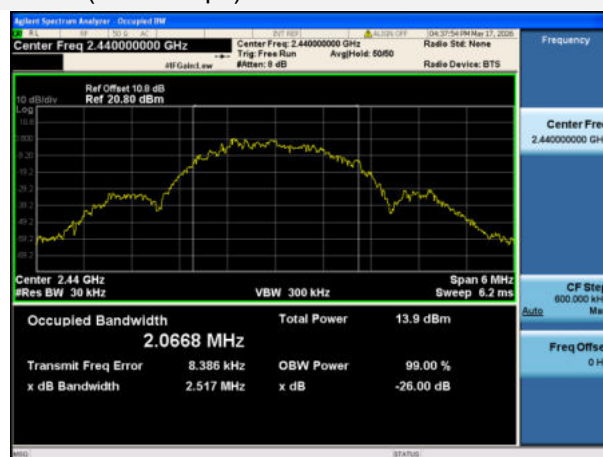
GFSK (BLE 1Mbps) HIGH CHANNEL



GFSK (BLE 2Mbps) LOW CHANNEL



GFSK (BLE 2Mbps) MIDDLE CHANNEL



GFSK (BLE 2Mbps) HIGH CHANNEL



A.3 Conducted Spurious Emissions

Test Data

GFSK (BLE 1Mbps)				
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low Channel	-36.59	8.14	-11.86	Pass
Middle Channel	-36.67	7.74	-12.27	Pass
High Channel	-38.34	7.13	-12.87	Pass

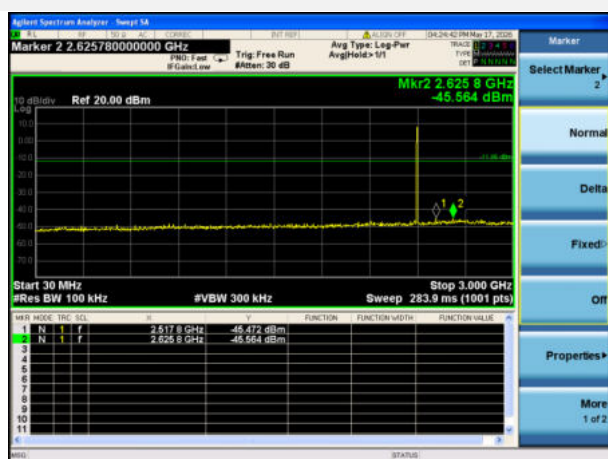
GFSK (BLE 2Mbps)				
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low Channel	-36.29	8.19	-11.81	Pass
Middle Channel	-36.30	7.50	-12.51	Pass
High Channel	-37.05	7.32	-12.68	Pass

Test Plots

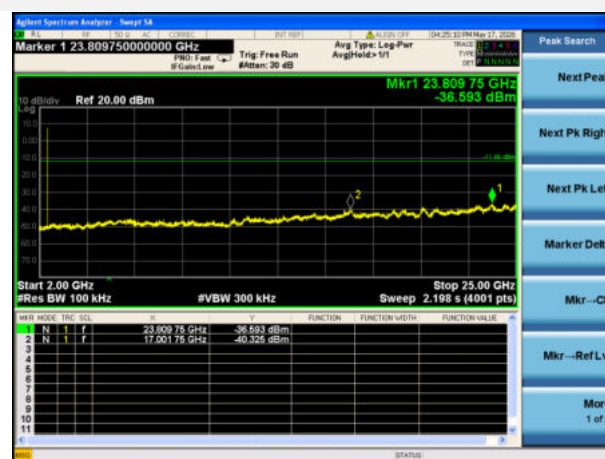
GFSK (BLE 1Mbps) LOW CHANNEL, CARRIER LEVEL



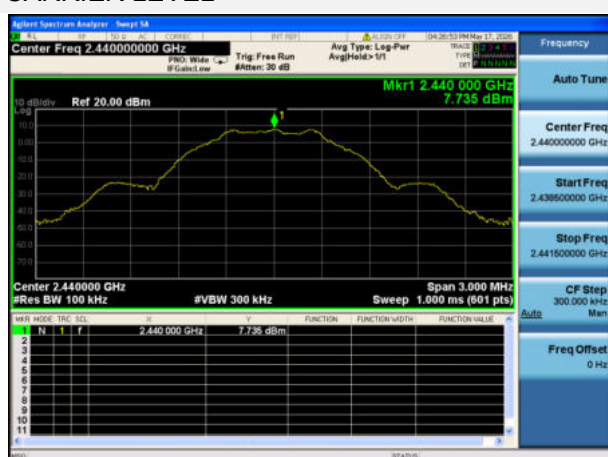
GFSK (BLE 1Mbps) LOW CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



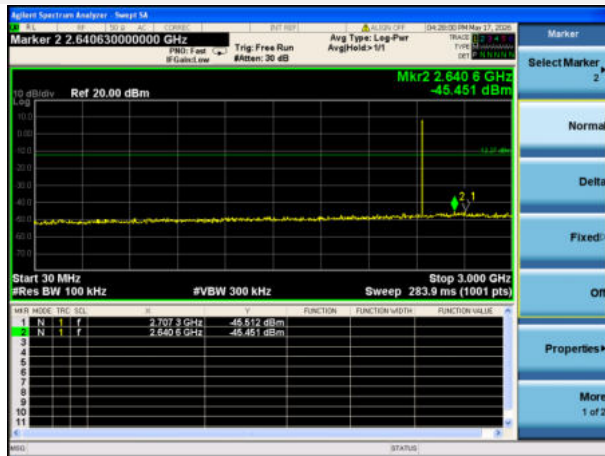
GFSK (BLE 1Mbps) LOW CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



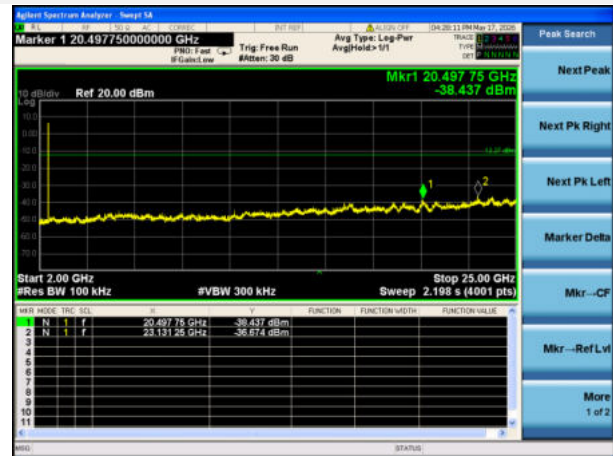
GFSK (BLE 1Mbps) MIDDLE CHANNEL, CARRIER LEVEL



GFSK (BLE 1Mbps) MIDDLE CHANNEL,
SPURIOUS 30 MHz ~ 3 GHz



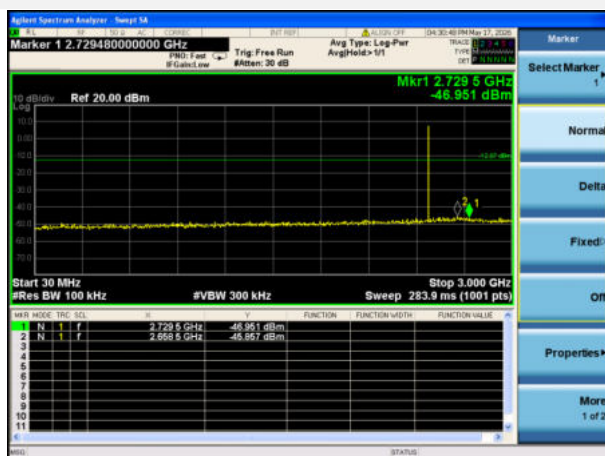
GFSK (BLE 1Mbps) MIDDLE CHANNEL,
SPURIOUS 2 GHz ~ 25 GHz



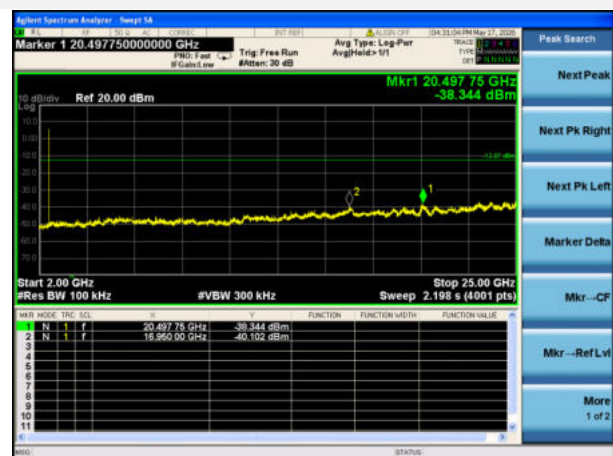
GFSK (BLE 1Mbps) HIGH CHANNEL,
CARRIER LEVEL



GFSK (BLE 1Mbps) HIGH CHANNEL,
SPURIOUS 30 MHz ~ 3 GHz



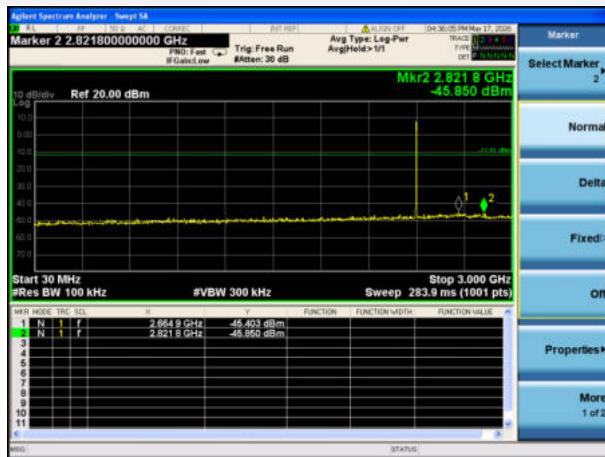
GFSK (BLE 1Mbps) HIGH CHANNEL,
SPURIOUS 2 GHz ~ 25 GHz



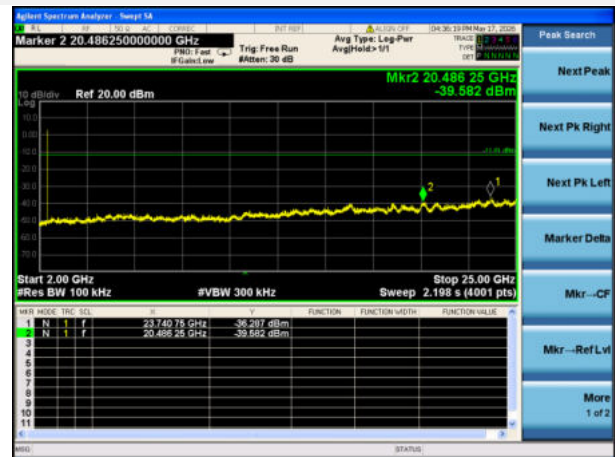
GFSK (BLE 2Mbps) LOW CHANNEL, CARRIER LEVEL



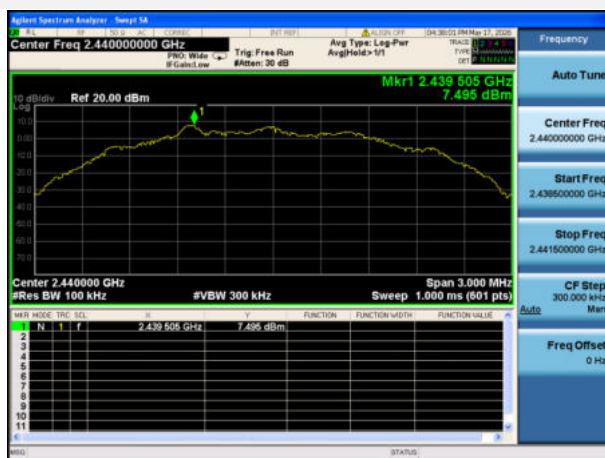
GFSK (BLE 2Mbps) LOW CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



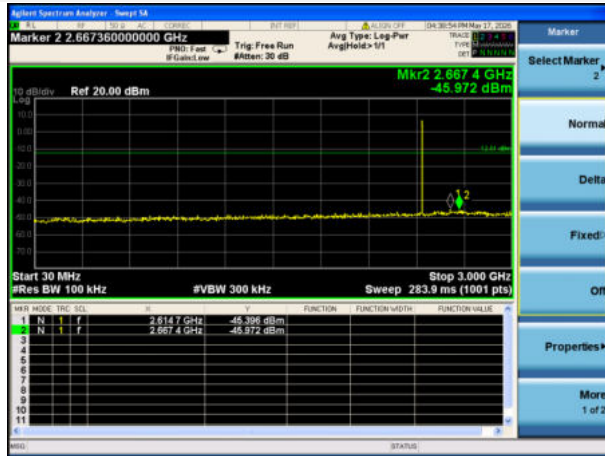
GFSK (BLE 2Mbps) LOW CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



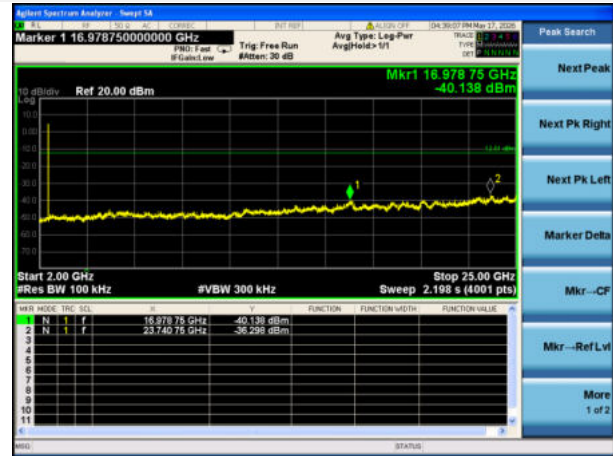
GFSK (BLE 2Mbps) MIDDLE CHANNEL, CARRIER LEVEL



GFSK (BLE 2Mbps) MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



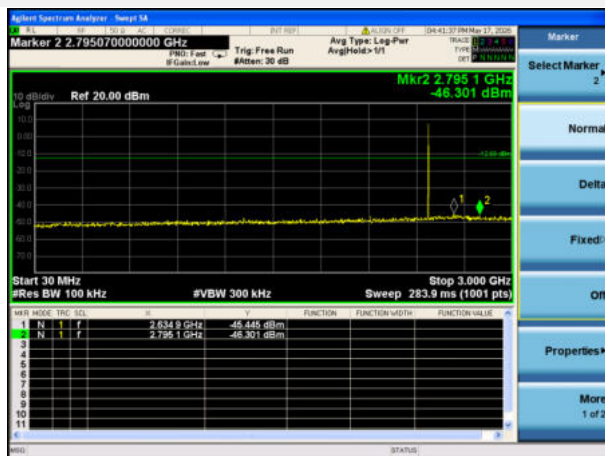
GFSK (BLE 2Mbps) MIDDLE CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



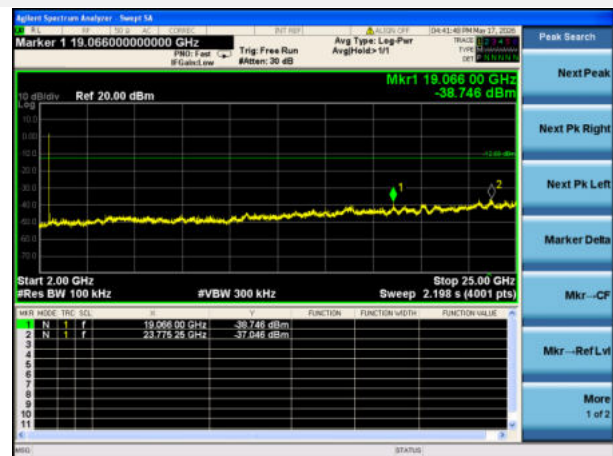
GFSK (BLE 2Mbps) HIGH CHANNEL, CARRIER LEVEL



GFSK (BLE 2Mbps) HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



GFSK (BLE 2Mbps) HIGH CHANNEL, SPURIOUS 2 GHz ~ 25 GHz



A.4 Band Edge (Authorized-band band-edge)

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

Test Data

GFSK (BLE 1Mbps)				
Channel	Measured Max. Band Edge Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low Channel	-46.45	8.14	-11.86	Pass
High Channel	-48.12	7.13	-12.87	Pass

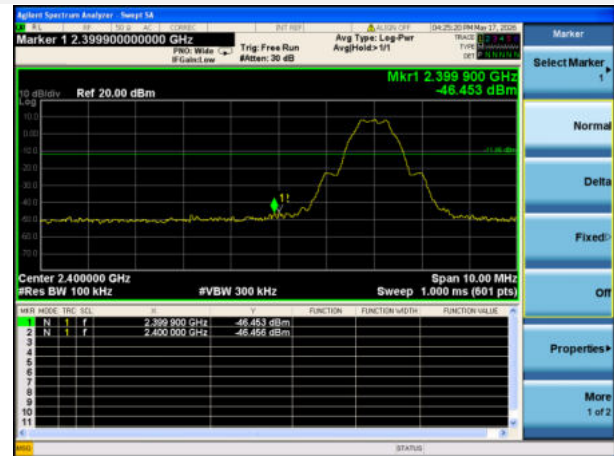
GFSK (BLE 2Mbps)				
Channel	Measured Max. Band Edge Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low Channel	-46.84	8.19	-11.81	Pass
High Channel	-48.63	7.32	-12.68	Pass

Test Plots

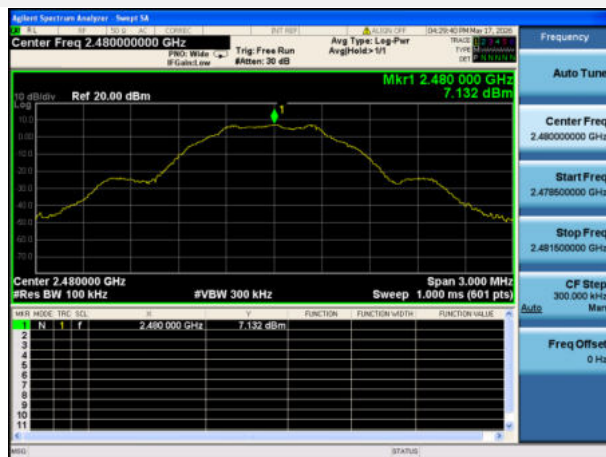
GFSK (BLE 1Mbps) LOW CHANNEL, CARRIER LEVEL



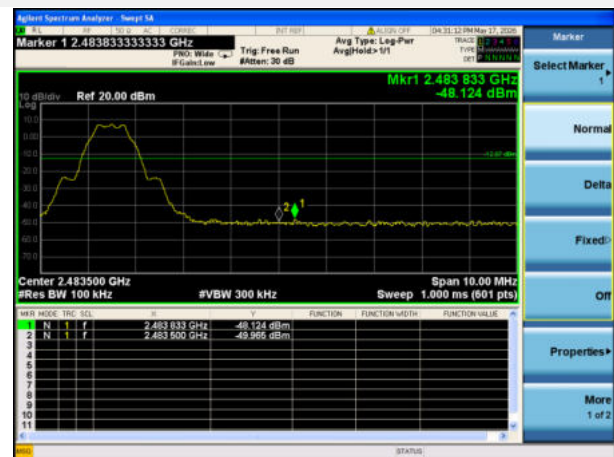
GFSK (BLE 1Mbps) LOW CHANNEL, BAND EDGE



GFSK (BLE 1Mbps) HIGH CHANNEL, CARRIER LEVEL



GFSK (BLE 1Mbps) HIGH CHANNEL, BAND EDGE

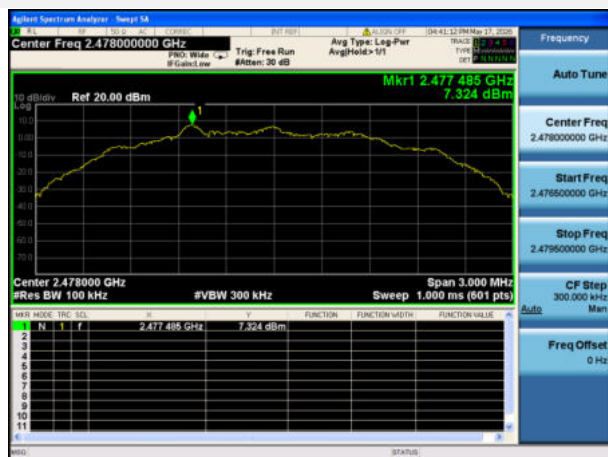
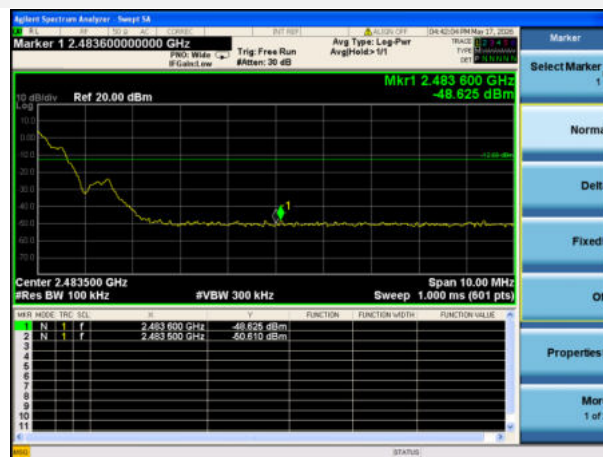


GFSK (BLE 2Mbps) LOW CHANNEL, CARRIER LEVEL



GFSK (BLE 2Mbps) LOW CHANNEL, BAND EDGE



GFSK (BLE 2Mbps) HIGH CHANNEL, CARRIER
LEVELGFSK (BLE 2Mbps) HIGH CHANNEL, BAND
EDGE

A.5 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.

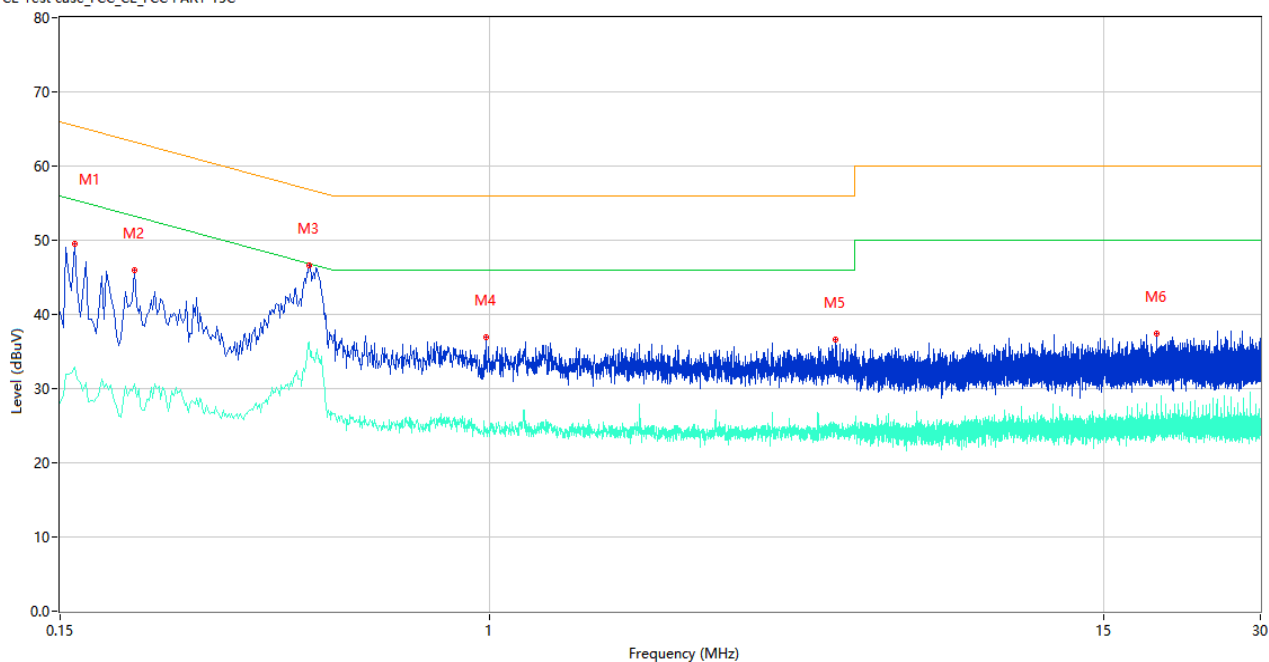
Note ³: Results (dBuV) = Original reading level of Spectrum Analyzer (dBuV) + Factor (dB)

Test Data and Plots

PCB Antenna

PHASE L

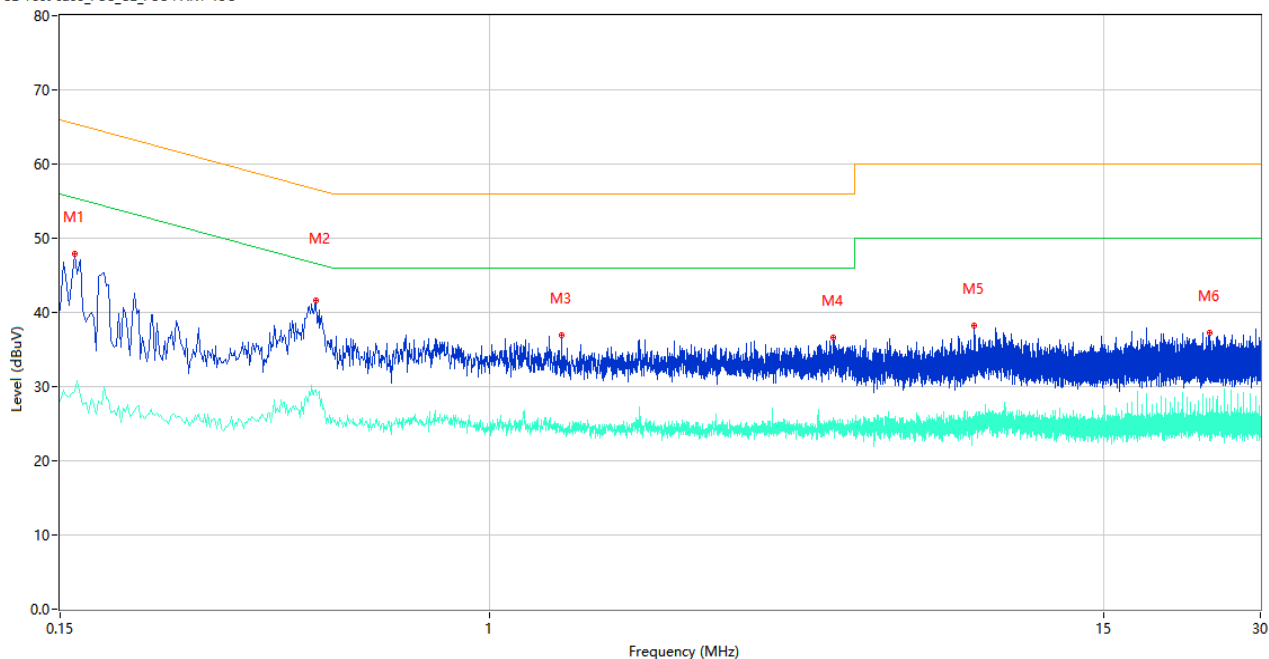
CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.160	49.55	9.85	65.46	15.91	Peak	L	Pass
1**	0.160	32.89	9.85	55.46	22.57	AV	L	Pass
2	0.208	46.04	9.83	63.28	17.24	Peak	L	Pass
2**	0.208	30.64	9.83	53.28	22.64	AV	L	Pass
3	0.450	46.67	10.09	56.88	10.21	Peak	L	Pass
3**	0.450	36.29	10.09	46.88	10.59	AV	L	Pass
4	0.982	36.99	10.06	56.00	19.01	Peak	L	Pass
4**	0.982	24.23	10.06	46.00	21.77	AV	L	Pass
5	4.606	36.62	10.55	56.00	19.38	Peak	L	Pass
5**	4.606	24.81	10.55	46.00	21.19	AV	L	Pass
6	18.966	37.47	10.92	60.00	22.53	Peak	L	Pass
6**	18.966	27.96	10.92	50.00	22.04	AV	L	Pass

PHASE N

CE Test case_FCC_CE_FCC PART 15C



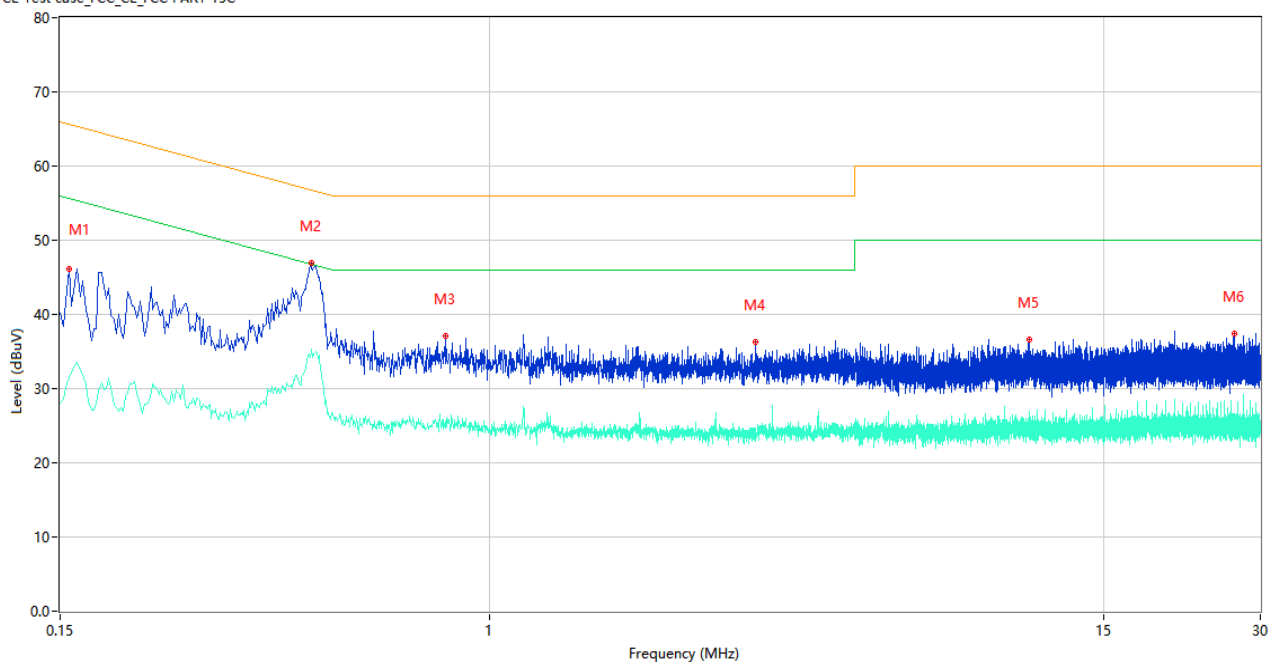
No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.160	47.96	9.85	65.46	17.50	Peak	N	Pass
1**	0.160	29.33	9.85	55.46	26.13	AV	N	Pass
2	0.464	41.58	10.08	56.62	15.04	Peak	N	Pass
2**	0.464	29.57	10.08	46.62	17.05	AV	N	Pass
3	1.374	36.90	9.93	56.00	19.10	Peak	N	Pass
3**	1.374	24.56	9.93	46.00	21.44	AV	N	Pass
4	4.544	36.63	10.45	56.00	19.37	Peak	N	Pass
4**	4.544	24.97	10.45	46.00	21.03	AV	N	Pass
5	8.468	38.23	10.37	60.00	21.77	Peak	N	Pass
5**	8.468	25.93	10.37	50.00	24.07	AV	N	Pass
6	24.002	37.25	10.90	60.00	22.75	Peak	N	Pass
6**	24.002	27.31	10.90	50.00	22.69	AV	N	Pass

Test Data and Plots

Rod Antenna

PHASE L

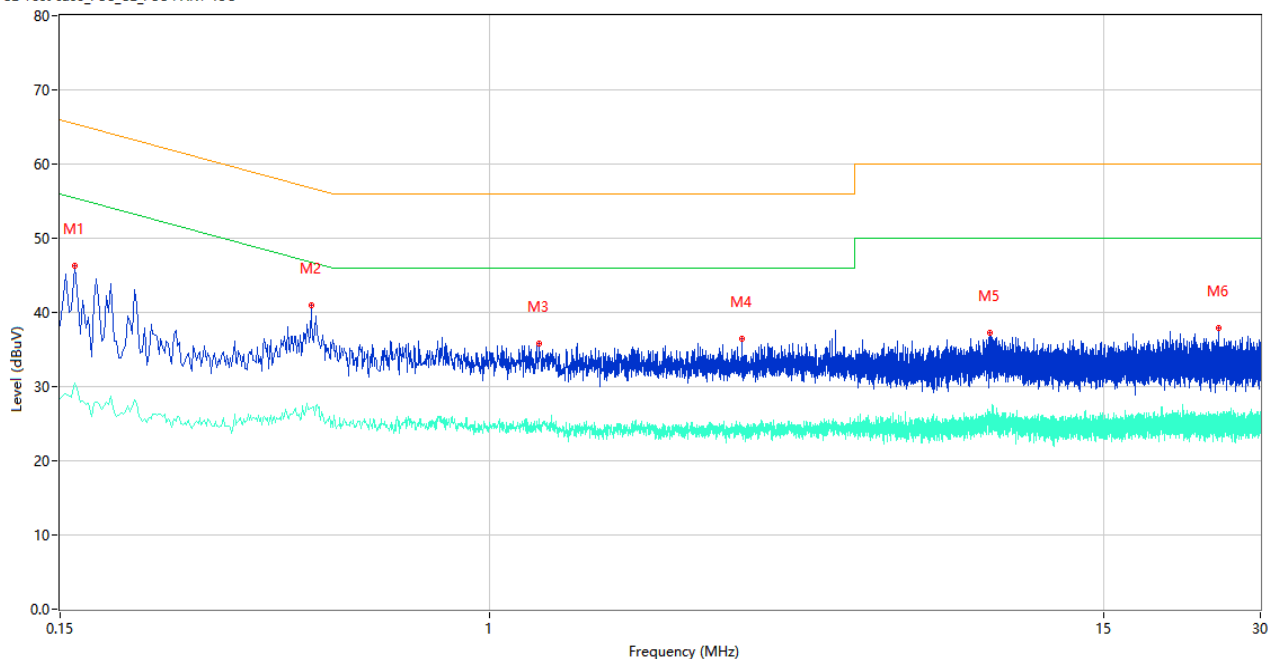
CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.156	46.16	9.86	65.67	19.51	Peak	L	Pass
1**	0.156	31.40	9.86	55.67	24.27	AV	L	Pass
2	0.454	46.94	10.09	56.80	9.86	Peak	L	Pass
2**	0.454	34.78	10.09	46.80	12.02	AV	L	Pass
3	0.824	37.18	10.63	56.00	18.82	Peak	L	Pass
3**	0.824	25.57	10.63	46.00	20.43	AV	L	Pass
4	3.236	36.37	10.14	56.00	19.63	Peak	L	Pass
4**	3.236	24.13	10.14	46.00	21.87	AV	L	Pass
5	10.816	36.57	10.56	60.00	23.43	Peak	L	Pass
5**	10.816	24.74	10.56	50.00	25.26	AV	L	Pass
6	26.710	37.34	10.85	60.00	22.66	Peak	L	Pass
6**	26.710	26.46	10.85	50.00	23.54	AV	L	Pass

PHASE N

CE Test case_FCC_CE_FCC PART 15C



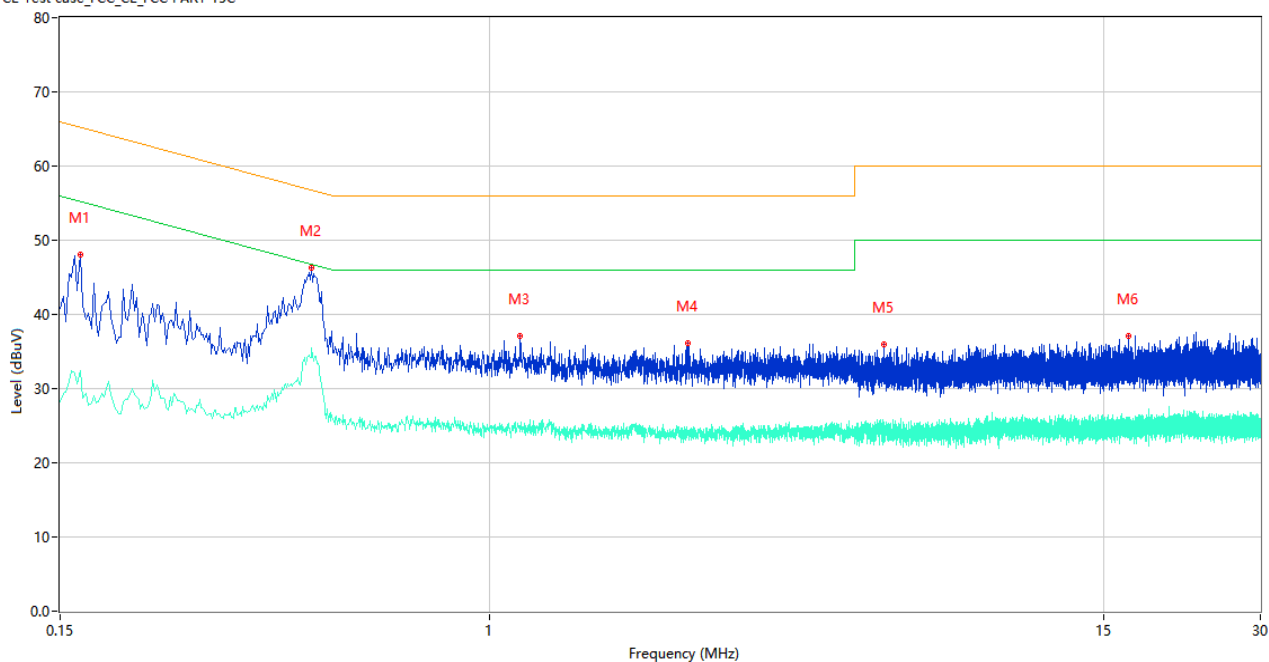
No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.160	46.25	9.85	65.46	19.21	Peak	N	Pass
1**	0.160	30.44	9.85	55.46	25.02	AV	N	Pass
2	0.454	40.90	10.09	56.80	15.90	Peak	N	Pass
2**	0.454	27.06	10.09	46.80	19.74	AV	N	Pass
3	1.244	35.80	10.45	56.00	20.20	Peak	N	Pass
3**	1.244	25.67	10.45	46.00	20.33	AV	N	Pass
4	3.042	36.47	10.17	56.00	19.53	Peak	N	Pass
4**	3.042	24.64	10.17	46.00	21.36	AV	N	Pass
5	9.106	37.19	10.32	60.00	22.81	Peak	N	Pass
5**	9.106	26.58	10.32	50.00	23.42	AV	N	Pass
6	24.926	37.86	10.98	60.00	22.14	Peak	N	Pass
6**	24.926	25.33	10.98	50.00	24.67	AV	N	Pass

Test Data and Plots

FPC Antenna

PHASE L

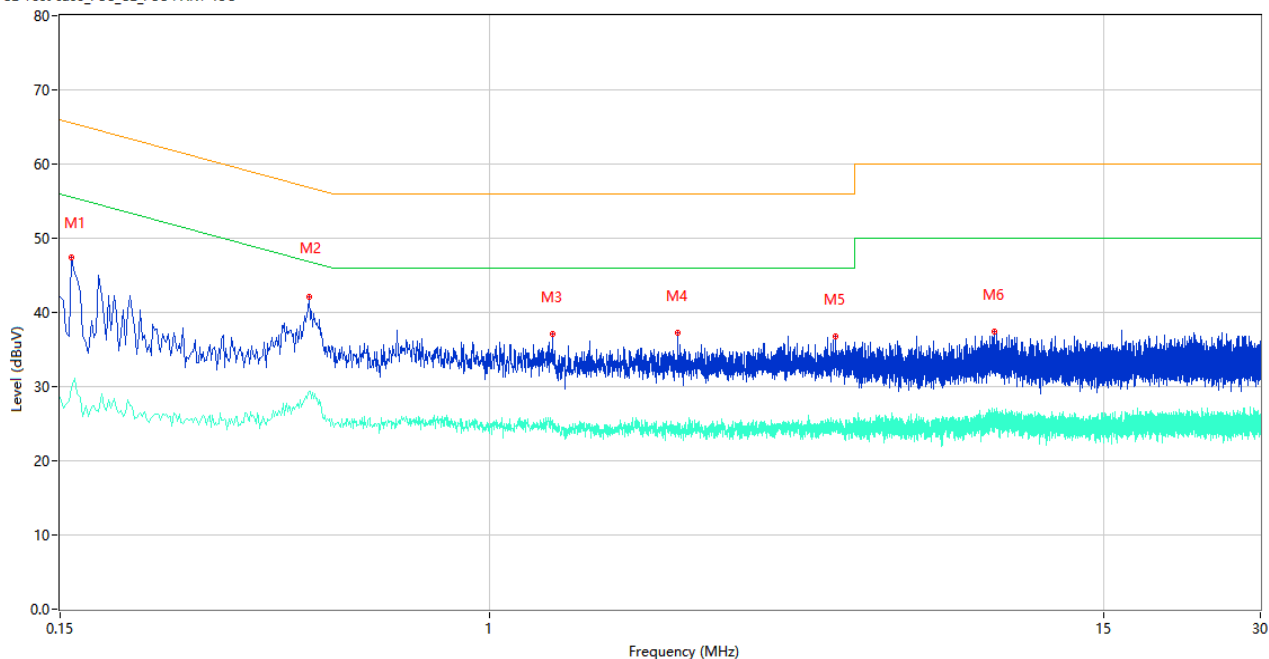
CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.164	48.01	9.85	65.26	17.25	Peak	L	Pass
1**	0.164	32.35	9.85	55.26	22.91	AV	L	Pass
2	0.456	46.34	10.08	56.77	10.43	Peak	L	Pass
2**	0.456	35.47	10.08	46.77	11.30	AV	L	Pass
3	1.144	37.06	10.42	56.00	18.94	Peak	L	Pass
3**	1.144	24.25	10.42	46.00	21.75	AV	L	Pass
4	2.400	36.12	10.35	56.00	19.88	Peak	L	Pass
4**	2.400	24.11	10.35	46.00	21.89	AV	L	Pass
5	5.688	35.95	10.17	60.00	24.05	Peak	L	Pass
5**	5.688	24.36	10.17	50.00	25.64	AV	L	Pass
6	16.802	37.17	10.89	60.00	22.83	Peak	L	Pass
6**	16.802	25.20	10.89	50.00	24.80	AV	L	Pass

PHASE N

CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.158	47.47	9.86	65.57	18.10	Peak	N	Pass
1**	0.158	29.86	9.86	55.57	25.71	AV	N	Pass
2	0.450	42.03	10.09	56.88	14.85	Peak	N	Pass
2**	0.450	29.41	10.09	46.88	17.47	AV	N	Pass
3	1.320	37.04	10.36	56.00	18.96	Peak	N	Pass
3**	1.320	25.45	10.36	46.00	20.55	AV	N	Pass
4	2.292	37.20	10.37	56.00	18.80	Peak	N	Pass
4**	2.292	24.61	10.37	46.00	21.39	AV	N	Pass
5	4.602	36.72	10.58	56.00	19.28	Peak	N	Pass
5**	4.602	25.35	10.58	46.00	20.65	AV	N	Pass
6	9.252	37.35	10.41	60.00	22.65	Peak	N	Pass
6**	9.252	26.23	10.41	50.00	23.77	AV	N	Pass

A.6 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 C63.10-2020, 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 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.

Note ⁴: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and BLE 2M-Low channel mode is the worst.

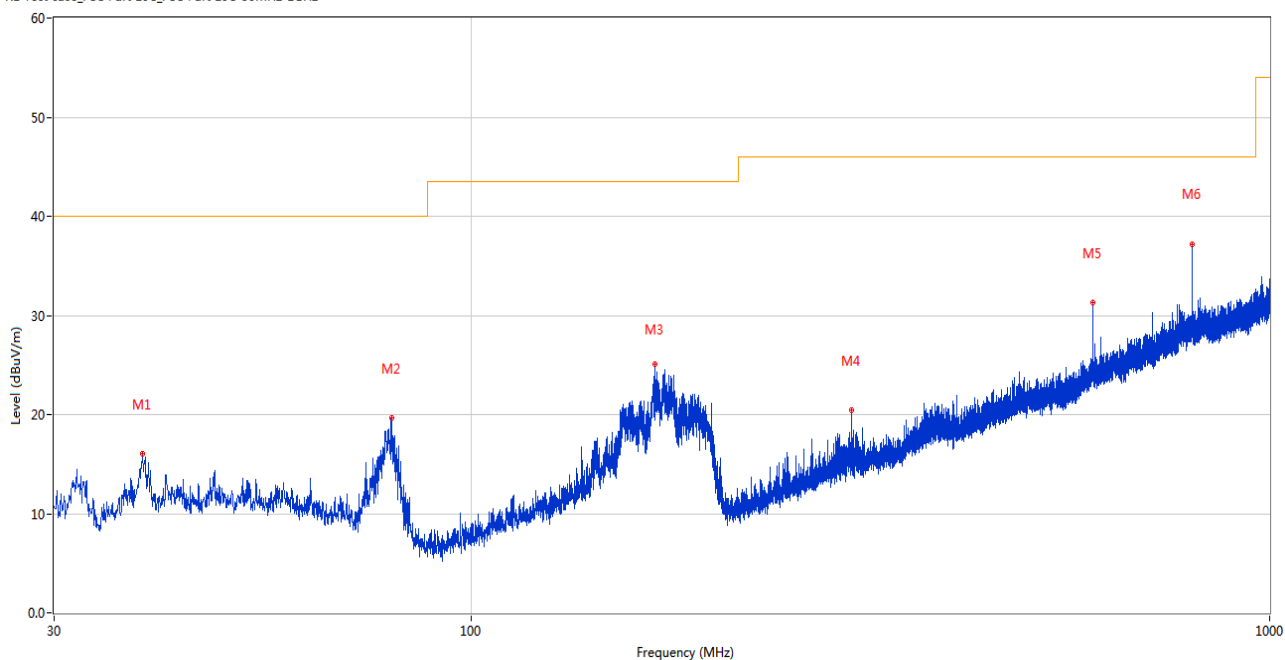
Note ⁵: Results (dBuV/m) = Original reading level of Spectrum Analyzer (dBuV/m) + Factor (dB)

Test Data and Plots

PCB Antenna

30 MHz to 1 GHz, ANT H

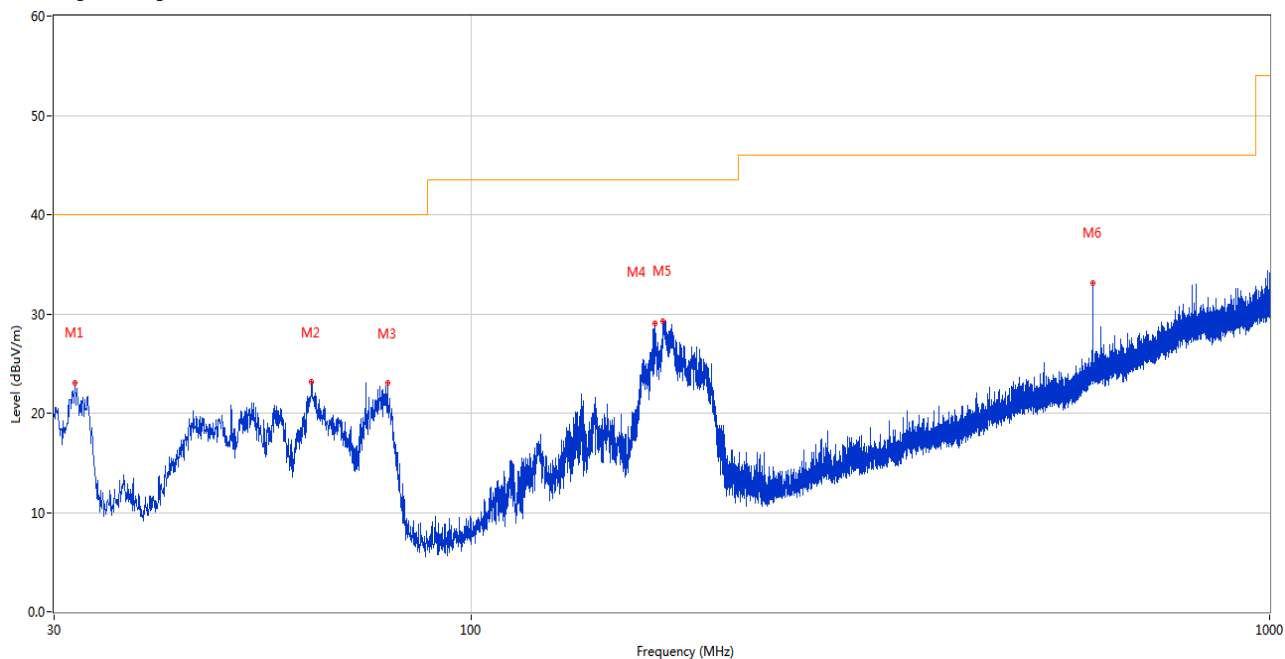
RE Test case_FCC Part 15C_FCC Part 15C-30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	38.681	16.04	-25.68	40.0	23.96	Peak	154.00	100	Horizontal	Pass
2	79.373	19.68	-28.67	40.0	20.32	Peak	357.00	200	Horizontal	Pass
3	169.632	25.04	-24.32	43.5	18.46	Peak	261.00	100	Horizontal	Pass
4	299.224	20.44	-22.04	46.0	25.56	Peak	244.00	100	Horizontal	Pass
5	599.972	31.27	-13.10	46.0	14.73	Peak	128.00	200	Horizontal	Pass
6	799.986	37.20	-9.11	46.0	8.80	Peak	213.00	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V

RE Test case_FCC Part 15C_FCC Part 15C-30MHz-1GHz



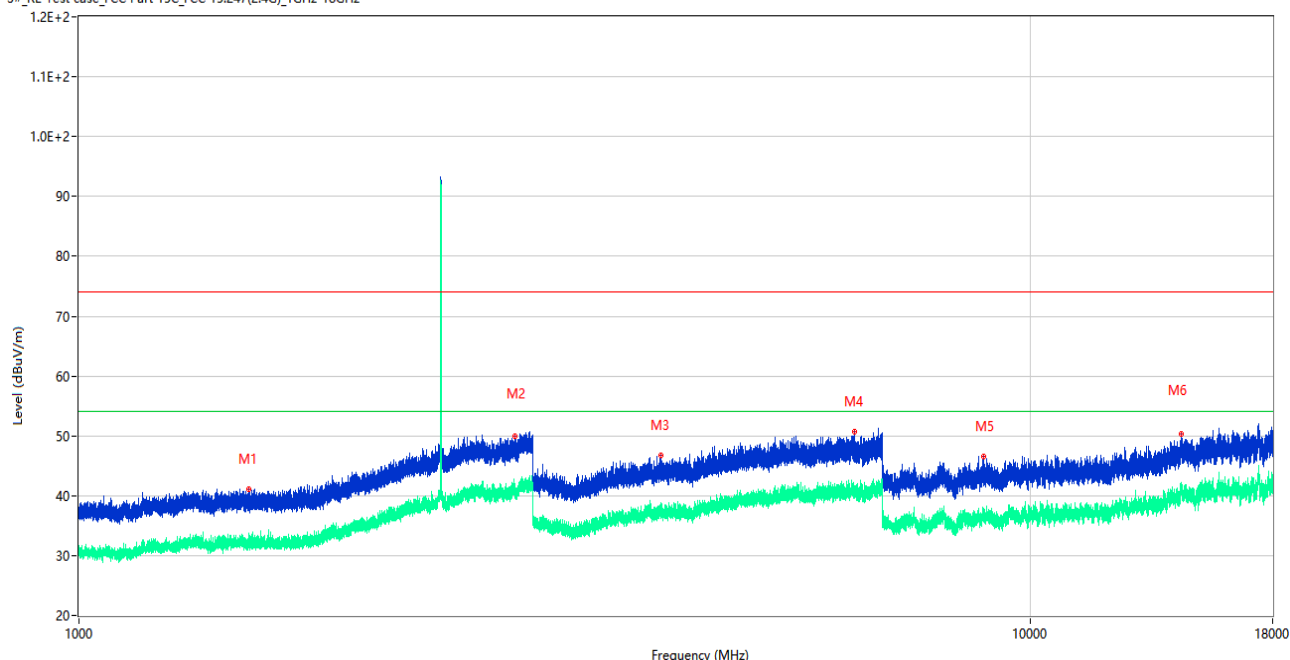
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	31.892	23.08	-26.76	40.0	16.92	Peak	201.00	100	Vertical	Pass
2	63.077	23.16	-26.00	40.0	16.84	Peak	209.00	100	Vertical	Pass
3	78.549	23.04	-28.48	40.0	16.96	Peak	141.00	100	Vertical	Pass
4	169.680	29.03	-24.32	43.5	14.47	Peak	193.00	100	Vertical	Pass
5	173.948	29.30	-24.56	43.5	14.20	Peak	186.00	100	Vertical	Pass
6	599.972	33.13	-13.10	46.0	12.87	Peak	333.00	100	Vertical	Pass

Note¹: The marked spikes near 2400 MHz with circle should be ignored because they are Fundamental signal.

Note²: The spurious from 18GHz-25GHz is noise only, do not show on the report.

GFSK (BLE 1Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT H

3#_RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1509.377	41.36	74.0	32.64	Peak	94.00	100	Horizontal	Pass
1**	1509.377	32.63	54.0	21.37	AV	94.00	100	Horizontal	Pass
2	2878.780	50.00	74.0	24.00	Peak	207.00	100	Horizontal	Pass
2**	2878.780	41.61	54.0	12.39	AV	207.00	100	Horizontal	Pass
3	4090.644	46.96	74.0	27.04	Peak	165.00	200	Horizontal	Pass
3**	4090.644	36.37	54.0	17.63	AV	165.00	200	Horizontal	Pass
4	6536.567	50.88	74.0	23.12	Peak	54.00	200	Horizontal	Pass
4**	6536.567	41.16	54.0	12.85	AV	54.00	200	Horizontal	Pass
5	8935.825	46.81	74.0	27.19	Peak	12.00	200	Horizontal	Pass
5**	8935.825	36.47	54.0	17.53	AV	12.00	200	Horizontal	Pass
6	14443.886	50.36	74.0	23.64	Peak	7.00	300	Horizontal	Pass
6**	14443.886	41.05	54.0	12.96	AV	7.00	300	Horizontal	Pass

GFSK (BLE 1Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1168.250	44.49	74.0	29.51	Peak	145.00	100	Vertical	Pass
1**	1168.250	32.72	54.0	21.28	AV	145.00	100	Vertical	Pass
2	2994.828	51.02	74.0	22.98	Peak	339.00	100	Vertical	Pass
2**	2994.828	39.69	54.0	14.31	AV	339.00	100	Vertical	Pass
3	6803.431	52.43	74.0	21.57	Peak	77.00	200	Vertical	Pass
3**	6803.431	41.17	54.0	12.83	AV	77.00	200	Vertical	Pass
4	7963.135	56.71	74.0	17.29	Peak	187.00	100	Vertical	Pass
4**	7963.135	40.69	54.0	13.31	AV	187.00	100	Vertical	Pass
5	12496.054	49.25	74.0	24.75	Peak	183.00	100	Vertical	Pass
5**	12496.054	40.28	54.0	13.72	AV	183.00	100	Vertical	Pass
6	17097.536	52.35	74.0	21.66	Peak	217.00	100	Vertical	Pass
6**	17097.536	40.59	54.0	13.41	AV	217.00	100	Vertical	Pass

GFSK (BLE 1Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1513.301	40.54	74.0	33.46	Peak	169.00	100	Horizontal	Pass
1**	1513.301	32.05	54.0	21.95	AV	169.00	100	Horizontal	Pass
2	2875.716	49.32	74.0	24.68	Peak	154.00	300	Horizontal	Pass
2**	2875.716	40.77	54.0	13.23	AV	154.00	300	Horizontal	Pass
3	4092.724	46.05	74.0	27.95	Peak	257.00	200	Horizontal	Pass
3**	4092.724	36.03	54.0	17.97	AV	257.00	200	Horizontal	Pass
4	6536.914	50.62	74.0	23.38	Peak	270.00	300	Horizontal	Pass
4**	6536.914	41.01	54.0	13.00	AV	270.00	300	Horizontal	Pass
5	8932.267	46.61	74.0	27.39	Peak	199.00	300	Horizontal	Pass
5**	8932.267	36.25	54.0	17.75	AV	199.00	300	Horizontal	Pass
6	14443.526	49.49	74.0	24.51	Peak	276.00	200	Horizontal	Pass
6**	14443.526	40.49	54.0	13.52	AV	276.00	200	Horizontal	Pass

GFSK (BLE 1Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1167.462	43.71	74.0	30.29	Peak	75.00	300	Vertical	Pass
1**	1167.462	32.49	54.0	21.51	AV	75.00	300	Vertical	Pass
2	2992.870	50.37	74.0	23.63	Peak	335.00	100	Vertical	Pass
2**	2992.870	38.81	54.0	15.19	AV	335.00	100	Vertical	Pass
3	6800.672	52.20	74.0	21.80	Peak	292.00	200	Vertical	Pass
3**	6800.672	40.81	54.0	13.19	AV	292.00	200	Vertical	Pass
4	7966.720	56.36	74.0	17.64	Peak	44.00	300	Vertical	Pass
4**	7966.720	40.81	54.0	13.19	AV	44.00	300	Vertical	Pass
5	12493.447	49.19	74.0	24.81	Peak	314.00	400	Vertical	Pass
5**	12493.447	39.29	54.0	14.71	AV	314.00	400	Vertical	Pass
6	17098.356	51.47	74.0	22.54	Peak	32.00	100	Vertical	Pass
6**	17098.356	40.46	54.0	13.54	AV	32.00	100	Vertical	Pass

GFSK (BLE 1Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1507.466	40.64	74.0	33.36	Peak	5.00	300	Horizontal	Pass
1**	1507.466	32.03	54.0	21.97	AV	5.00	300	Horizontal	Pass
2	2878.929	49.33	74.0	24.67	Peak	242.00	200	Horizontal	Pass
2**	2878.929	41.36	54.0	12.64	AV	242.00	200	Horizontal	Pass
3	4092.836	46.60	74.0	27.40	Peak	38.00	200	Horizontal	Pass
3**	4092.836	35.66	54.0	18.34	AV	38.00	200	Horizontal	Pass
4	6536.750	50.52	74.0	23.48	Peak	235.00	100	Horizontal	Pass
4**	6536.750	40.16	54.0	13.85	AV	235.00	100	Horizontal	Pass
5	8931.043	46.46	74.0	27.54	Peak	147.00	400	Horizontal	Pass
5**	8931.043	35.64	54.0	18.36	AV	147.00	400	Horizontal	Pass
6	14439.772	50.14	74.0	23.86	Peak	20.00	100	Horizontal	Pass
6**	14439.772	40.07	54.0	13.94	AV	20.00	100	Horizontal	Pass

GFSK (BLE 1Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1166.526	44.45	74.0	29.56	Peak	161.00	400	Vertical	Pass
1**	1166.526	32.69	54.0	21.31	AV	161.00	400	Vertical	Pass
2	2990.535	51.00	74.0	23.00	Peak	211.00	300	Vertical	Pass
2**	2990.535	39.66	54.0	14.34	AV	211.00	300	Vertical	Pass
3	6804.104	52.36	74.0	21.64	Peak	155.00	200	Vertical	Pass
3**	6804.104	40.14	54.0	13.86	AV	155.00	200	Vertical	Pass
4	7968.930	56.68	74.0	17.32	Peak	338.00	300	Vertical	Pass
4**	7968.930	40.68	54.0	13.32	AV	338.00	300	Vertical	Pass
5	12494.630	49.20	74.0	24.80	Peak	336.00	300	Vertical	Pass
5**	12494.630	40.24	54.0	13.76	AV	336.00	300	Vertical	Pass
6	17098.855	52.33	74.0	21.67	Peak	347.00	100	Vertical	Pass
6**	17098.855	40.51	54.0	13.49	AV	347.00	100	Vertical	Pass

GFSK (BLE 2Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1287.948	41.26	74.0	32.74	Peak	115.00	200	Horizontal	Pass
1**	1287.948	31.80	54.0	22.20	AV	115.00	200	Horizontal	Pass
2	2773.627	49.66	74.0	24.34	Peak	201.00	100	Horizontal	Pass
2**	2773.627	40.90	54.0	13.10	AV	201.00	100	Horizontal	Pass
3	5168.676	46.25	74.0	27.75	Peak	165.00	200	Horizontal	Pass
3**	5168.676	35.56	54.0	18.44	AV	165.00	200	Horizontal	Pass
4	6808.231	50.51	74.0	23.49	Peak	232.00	300	Horizontal	Pass
4**	6808.231	40.16	54.0	13.85	AV	232.00	300	Horizontal	Pass
5	13468.708	46.33	74.0	27.67	Peak	165.00	300	Horizontal	Pass
5**	13468.708	35.54	54.0	18.46	AV	165.00	300	Horizontal	Pass
6	17468.959	50.14	74.0	23.86	Peak	265.00	100	Horizontal	Pass
6**	17468.959	40.59	54.0	13.42	AV	265.00	100	Horizontal	Pass

GFSK (BLE 2Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1286.906	44.45	74.0	29.55	Peak	350.00	400	Vertical	Pass
1**	1286.906	32.69	54.0	21.31	AV	350.00	400	Vertical	Pass
2	2772.567	51.01	74.0	22.99	Peak	116.00	200	Vertical	Pass
2**	2772.567	39.59	54.0	14.41	AV	116.00	200	Vertical	Pass
3	5166.192	52.36	74.0	21.64	Peak	225.00	200	Vertical	Pass
3**	5166.192	40.10	54.0	13.91	AV	225.00	200	Vertical	Pass
4	6809.319	56.68	74.0	17.32	Peak	307.00	200	Vertical	Pass
4**	6809.319	40.63	54.0	13.37	AV	307.00	200	Vertical	Pass
5	13466.339	49.23	74.0	24.78	Peak	90.00	400	Vertical	Pass
5**	13466.339	40.23	54.0	13.77	AV	90.00	400	Vertical	Pass
6	17467.002	52.34	74.0	21.66	Peak	267.00	300	Vertical	Pass
6**	17467.002	40.52	54.0	13.48	AV	267.00	300	Vertical	Pass

GFSK (BLE 2Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1283.757	40.79	74.0	33.21	Peak	71.00	400	Horizontal	Pass
1**	1283.757	32.31	54.0	21.69	AV	71.00	400	Horizontal	Pass
2	2773.716	49.22	74.0	24.78	Peak	342.00	400	Horizontal	Pass
2**	2773.716	40.72	54.0	13.28	AV	342.00	400	Horizontal	Pass
3	5163.866	46.95	74.0	27.05	Peak	167.00	200	Horizontal	Pass
3**	5163.866	35.65	54.0	18.35	AV	167.00	200	Horizontal	Pass
4	6810.183	50.67	74.0	23.33	Peak	222.00	200	Horizontal	Pass
4**	6810.183	40.58	54.0	13.43	AV	222.00	200	Horizontal	Pass
5	13469.011	46.30	74.0	27.70	Peak	328.00	200	Horizontal	Pass
5**	13469.011	36.08	54.0	17.92	AV	328.00	200	Horizontal	Pass
6	17468.645	49.84	74.0	24.16	Peak	47.00	100	Horizontal	Pass
6**	17468.645	40.81	54.0	13.20	AV	47.00	100	Horizontal	Pass

GFSK (BLE 2Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1283.222	44.47	74.0	29.53	Peak	30.00	300	Vertical	Pass
1**	1283.222	32.63	54.0	21.37	AV	30.00	300	Vertical	Pass
2	2768.729	50.99	74.0	23.02	Peak	176.00	100	Vertical	Pass
2**	2768.729	39.64	54.0	14.36	AV	176.00	100	Vertical	Pass
3	5164.605	52.43	74.0	21.57	Peak	88.00	200	Vertical	Pass
3**	5164.605	40.11	54.0	13.89	AV	88.00	200	Vertical	Pass
4	6809.175	56.66	74.0	17.34	Peak	200.00	100	Vertical	Pass
4**	6809.175	40.65	54.0	13.35	AV	200.00	100	Vertical	Pass
5	13468.637	49.23	74.0	24.77	Peak	171.00	100	Vertical	Pass
5**	13468.637	40.24	54.0	13.76	AV	171.00	100	Vertical	Pass
6	17468.346	52.31	74.0	21.69	Peak	284.00	400	Vertical	Pass
6**	17468.346	40.54	54.0	13.46	AV	284.00	400	Vertical	Pass

GFSK (BLE 2Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1281.847	40.44	74.0	33.56	Peak	30.00	300	Horizontal	Pass
1**	1281.847	32.55	54.0	21.45	AV	30.00	300	Horizontal	Pass
2	2773.680	49.36	74.0	24.64	Peak	303.00	300	Horizontal	Pass
2**	2773.680	41.52	54.0	12.48	AV	303.00	300	Horizontal	Pass
3	5393.623	46.32	74.0	27.68	Peak	126.00	200	Horizontal	Pass
3**	5393.623	35.67	54.0	18.33	AV	126.00	200	Horizontal	Pass
4	6516.069	49.88	74.0	24.12	Peak	64.00	400	Horizontal	Pass
4**	6516.069	40.16	54.0	13.85	AV	64.00	400	Horizontal	Pass
5	13355.027	46.17	74.0	27.83	Peak	76.00	400	Horizontal	Pass
5**	13355.027	35.92	54.0	18.08	AV	76.00	400	Horizontal	Pass
6	17440.995	49.76	74.0	24.24	Peak	114.00	300	Horizontal	Pass
6**	17440.995	40.82	54.0	13.19	AV	114.00	300	Horizontal	Pass

GFSK (BLE 2Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT V

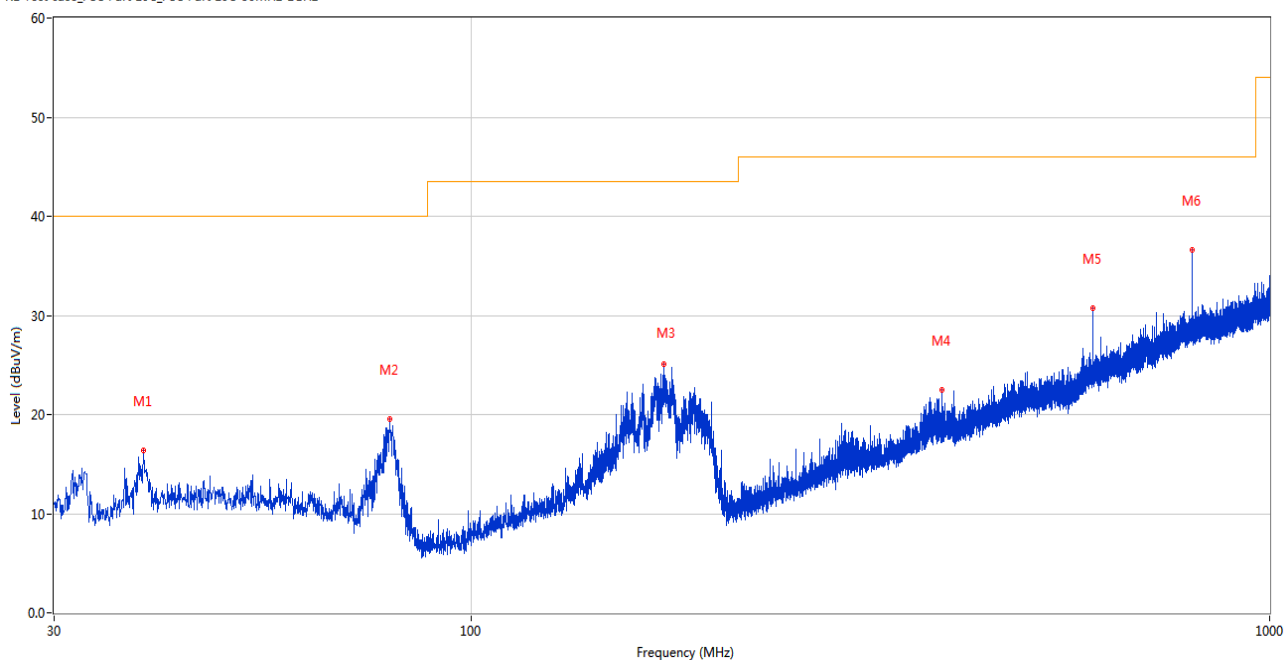
No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1285.437	44.40	74.0	29.60	Peak	123.00	300	Vertical	Pass
1**	1285.437	32.64	54.0	21.36	AV	123.00	300	Vertical	Pass
2	2773.074	50.99	74.0	23.01	Peak	169.00	300	Vertical	Pass
2**	2773.074	39.68	54.0	14.32	AV	169.00	300	Vertical	Pass
3	5290.761	52.37	74.0	21.63	Peak	14.00	200	Vertical	Pass
3**	5290.761	40.09	54.0	13.91	AV	14.00	200	Vertical	Pass
4	6656.358	56.62	74.0	17.39	Peak	179.00	200	Vertical	Pass
4**	6656.358	40.65	54.0	13.35	AV	179.00	200	Vertical	Pass
5	13309.227	49.15	74.0	24.85	Peak	168.00	300	Vertical	Pass
5**	13309.227	40.24	54.0	13.76	AV	168.00	300	Vertical	Pass
6	17422.322	52.27	74.0	21.73	Peak	302.00	400	Vertical	Pass
6**	17422.322	40.56	54.0	13.44	AV	302.00	400	Vertical	Pass

Test Data and Plots

Rod Antenna

30 MHz to 1 GHz, ANT H

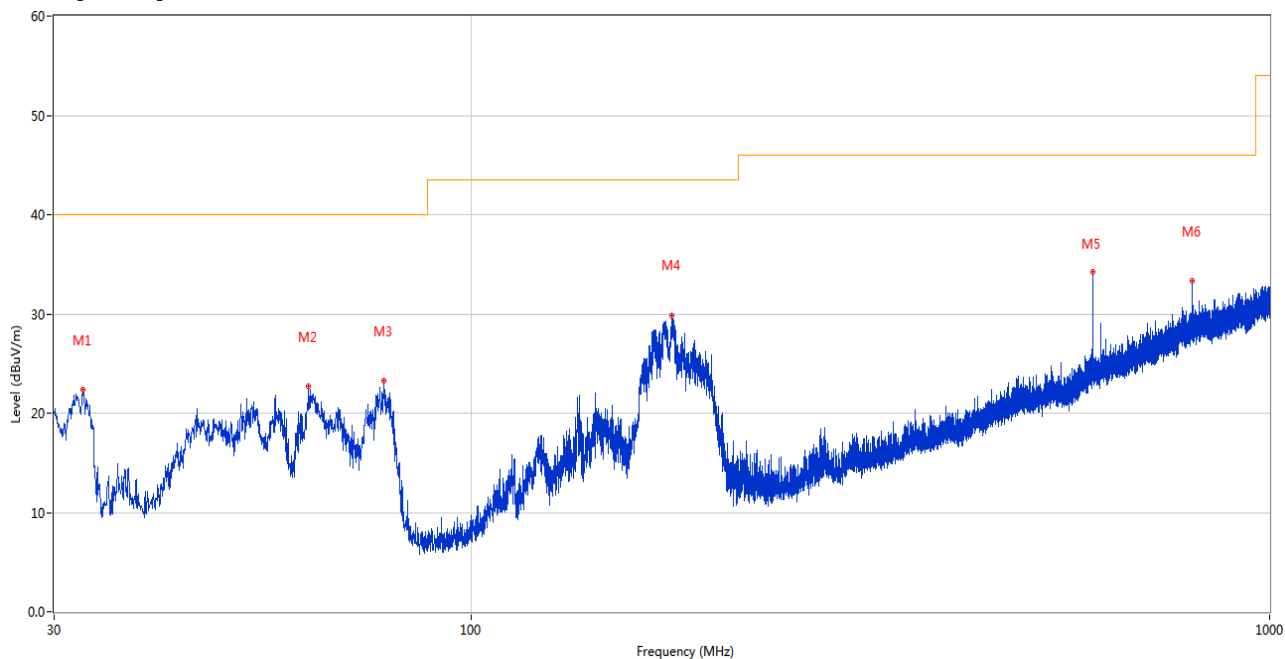
RE Test case_FCC Part 15C_FCC Part 15C-30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	38.827	16.33	-25.65	40.0	23.67	Peak	128.00	100	Horizontal	Pass
2	78.985	19.56	-28.58	40.0	20.44	Peak	348.00	200	Horizontal	Pass
3	174.239	25.11	-24.58	43.5	18.39	Peak	297.00	200	Horizontal	Pass
4	388.366	22.50	-19.31	46.0	23.50	Peak	360.00	100	Horizontal	Pass
5	599.972	30.79	-13.10	46.0	15.21	Peak	159.00	200	Horizontal	Pass
6	799.986	36.63	-9.11	46.0	9.37	Peak	220.00	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V

RE Test case_FCC Part 15C_FCC Part 15C-30MHz-1GHz



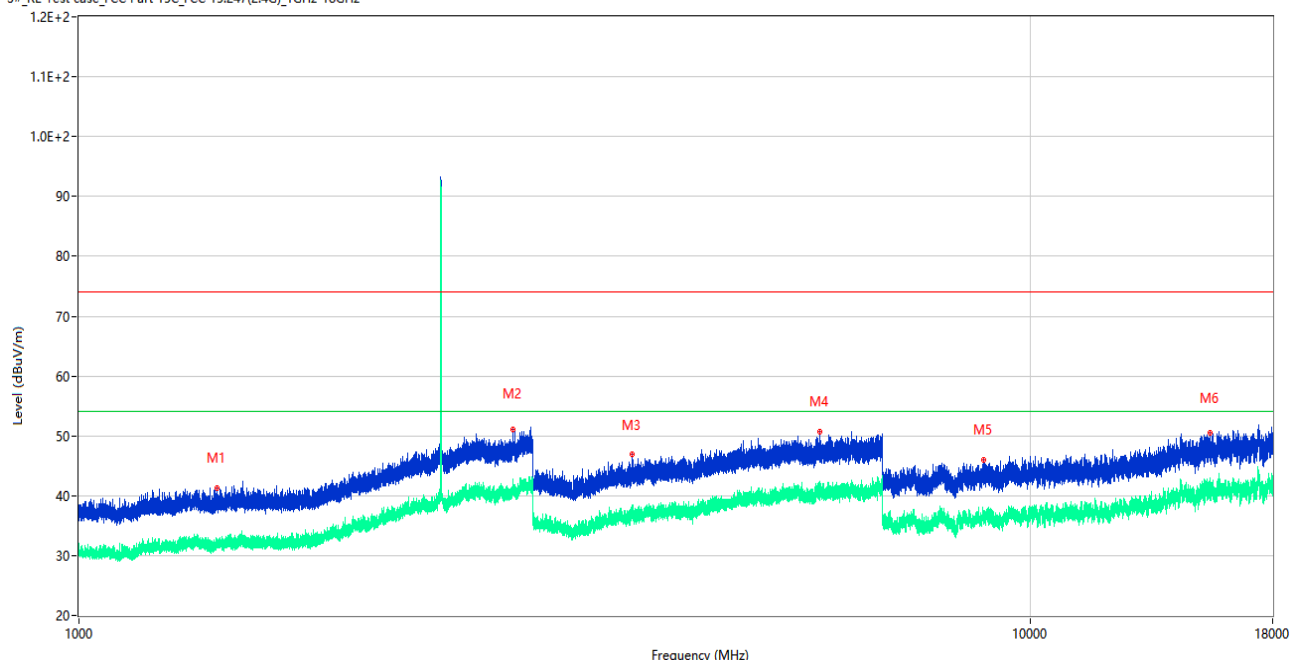
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	32.571	22.33	-26.70	40.0	17.67	Peak	173.00	100	Vertical	Pass
2	62.544	22.67	-25.90	40.0	17.33	Peak	208.00	100	Vertical	Pass
3	77.578	23.22	-28.25	40.0	16.78	Peak	74.00	100	Vertical	Pass
4	178.458	29.88	-25.11	43.5	13.62	Peak	360.00	100	Vertical	Pass
5	600.020	34.22	-13.10	46.0	11.78	Peak	339.00	100	Vertical	Pass
6	800.229	33.32	-9.12	46.0	12.68	Peak	181.00	100	Vertical	Pass

Note¹: The marked spikes near 2400 MHz with circle should be ignored because they are Fundamental signal.

Note²: The spurious from 18GHz-25GHz is noise only, do not show on the report.

GFSK (BLE 1Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT H

3#_RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1393.875	41.32	74.0	32.68	Peak	337.00	300	Horizontal	Pass
1**	1393.875	32.67	54.0	21.33	AV	337.00	300	Horizontal	Pass
2	2859.825	51.27	74.0	22.73	Peak	258.00	300	Horizontal	Pass
2**	2859.825	41.33	54.0	12.68	AV	258.00	300	Horizontal	Pass
3	3817.412	46.95	74.0	27.05	Peak	126.00	200	Horizontal	Pass
3**	3817.412	37.18	54.0	16.82	AV	126.00	200	Horizontal	Pass
4	6018.896	50.74	74.0	23.26	Peak	112.00	300	Horizontal	Pass
4**	6018.896	39.99	54.0	14.01	AV	112.00	300	Horizontal	Pass
5	8941.931	46.19	74.0	27.81	Peak	251.00	100	Horizontal	Pass
5**	8941.931	35.97	54.0	18.03	AV	251.00	100	Horizontal	Pass
6	15455.337	50.72	74.0	23.29	Peak	12.00	100	Horizontal	Pass
6**	15455.337	41.53	54.0	12.47	AV	12.00	100	Horizontal	Pass

GFSK (BLE 1Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1165.309	44.47	74.0	29.53	Peak	214.00	400	Vertical	Pass
1**	1165.309	32.59	54.0	21.41	AV	214.00	400	Vertical	Pass
2	2994.601	50.89	74.0	23.11	Peak	167.00	300	Vertical	Pass
2**	2994.601	39.63	54.0	14.37	AV	167.00	300	Vertical	Pass
3	6803.090	52.42	74.0	21.58	Peak	288.00	200	Vertical	Pass
3**	6803.090	41.30	54.0	12.70	AV	288.00	200	Vertical	Pass
4	7965.613	56.67	74.0	17.33	Peak	341.00	100	Vertical	Pass
4**	7965.613	40.82	54.0	13.18	AV	341.00	100	Vertical	Pass
5	12495.304	49.29	74.0	24.72	Peak	35.00	300	Vertical	Pass
5**	12495.304	40.30	54.0	13.70	AV	35.00	300	Vertical	Pass
6	17100.965	52.48	74.0	21.52	Peak	143.00	200	Vertical	Pass
6**	17100.965	41.45	54.0	12.56	AV	143.00	200	Vertical	Pass

GFSK (BLE 1Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1399.623	40.38	74.0	33.62	Peak	130.00	400	Horizontal	Pass
1**	1399.623	32.00	54.0	22.00	AV	130.00	400	Horizontal	Pass
2	2859.742	50.33	74.0	23.67	Peak	130.00	400	Horizontal	Pass
2**	2859.742	40.66	54.0	13.35	AV	130.00	400	Horizontal	Pass
3	3814.812	46.85	74.0	27.15	Peak	243.00	200	Horizontal	Pass
3**	3814.812	36.26	54.0	17.74	AV	243.00	200	Horizontal	Pass
4	6016.690	50.62	74.0	23.38	Peak	171.00	300	Horizontal	Pass
4**	6016.690	39.25	54.0	14.75	AV	171.00	300	Horizontal	Pass
5	8941.045	45.57	74.0	28.43	Peak	140.00	200	Horizontal	Pass
5**	8941.045	35.39	54.0	18.61	AV	140.00	200	Horizontal	Pass
6	15457.889	50.44	74.0	23.57	Peak	30.00	200	Horizontal	Pass
6**	15457.889	41.19	54.0	12.81	AV	30.00	200	Horizontal	Pass

GFSK (BLE 1Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1168.154	43.87	74.0	30.13	Peak	68.00	100	Vertical	Pass
1**	1168.154	31.67	54.0	22.33	AV	68.00	100	Vertical	Pass
2	2989.813	50.58	74.0	23.42	Peak	318.00	200	Vertical	Pass
2**	2989.813	38.79	54.0	15.21	AV	318.00	200	Vertical	Pass
3	6801.023	51.48	74.0	22.52	Peak	230.00	200	Vertical	Pass
3**	6801.023	41.31	54.0	12.69	AV	230.00	200	Vertical	Pass
4	7969.509	56.63	74.0	17.37	Peak	41.00	400	Vertical	Pass
4**	7969.509	41.26	54.0	12.74	AV	41.00	400	Vertical	Pass
5	12494.175	48.37	74.0	25.64	Peak	284.00	300	Vertical	Pass
5**	12494.175	39.31	54.0	14.69	AV	284.00	300	Vertical	Pass
6	17101.381	52.04	74.0	21.96	Peak	225.00	400	Vertical	Pass
6**	17101.381	41.41	54.0	12.60	AV	225.00	400	Vertical	Pass

GFSK (BLE 1Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1395.478	40.91	74.0	33.09	Peak	238.00	300	Horizontal	Pass
1**	1395.478	32.54	54.0	21.46	AV	238.00	300	Horizontal	Pass
2	2860.341	50.28	74.0	23.72	Peak	215.00	100	Horizontal	Pass
2**	2860.341	41.12	54.0	12.89	AV	215.00	100	Horizontal	Pass
3	3819.753	46.73	74.0	27.27	Peak	124.00	200	Horizontal	Pass
3**	3819.753	36.40	54.0	17.60	AV	124.00	200	Horizontal	Pass
4	6013.321	50.09	74.0	23.91	Peak	303.00	200	Horizontal	Pass
4**	6013.321	39.48	54.0	14.52	AV	303.00	200	Horizontal	Pass
5	8934.081	45.34	74.0	28.66	Peak	82.00	400	Horizontal	Pass
5**	8934.081	35.56	54.0	18.44	AV	82.00	400	Horizontal	Pass
6	15456.609	50.06	74.0	23.95	Peak	212.00	200	Horizontal	Pass
6**	15456.609	40.58	54.0	13.42	AV	212.00	200	Horizontal	Pass

GFSK (BLE 1Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1163.323	44.40	74.0	29.60	Peak	43.00	300	Vertical	Pass
1**	1163.323	32.53	54.0	21.47	AV	43.00	300	Vertical	Pass
2	2989.060	50.80	74.0	23.20	Peak	19.00	400	Vertical	Pass
2**	2989.060	39.57	54.0	14.43	AV	19.00	400	Vertical	Pass
3	6805.034	52.33	74.0	21.67	Peak	186.00	200	Vertical	Pass
3**	6805.034	41.30	54.0	12.70	AV	186.00	200	Vertical	Pass
4	7968.492	56.57	74.0	17.43	Peak	178.00	200	Vertical	Pass
4**	7968.492	40.79	54.0	13.21	AV	178.00	200	Vertical	Pass
5	12492.015	49.20	74.0	24.80	Peak	147.00	200	Vertical	Pass
5**	12492.015	40.26	54.0	13.74	AV	147.00	200	Vertical	Pass
6	17095.904	52.43	74.0	21.57	Peak	271.00	300	Vertical	Pass
6**	17095.904	41.39	54.0	12.61	AV	271.00	300	Vertical	Pass

GFSK (BLE 2Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1283.193	40.35	74.0	33.65	Peak	156.00	100	Horizontal	Pass
1**	1283.193	32.21	54.0	21.79	AV	156.00	100	Horizontal	Pass
2	2768.688	50.88	74.0	23.12	Peak	34.00	400	Horizontal	Pass
2**	2768.688	41.27	54.0	12.74	AV	34.00	400	Horizontal	Pass
3	5168.105	46.14	74.0	27.86	Peak	60.00	200	Horizontal	Pass
3**	5168.105	36.77	54.0	17.23	AV	60.00	200	Horizontal	Pass
4	6806.163	50.68	74.0	23.32	Peak	216.00	200	Horizontal	Pass
4**	6806.163	39.81	54.0	14.19	AV	216.00	200	Horizontal	Pass
5	13471.119	45.84	74.0	28.16	Peak	286.00	300	Horizontal	Pass
5**	13471.119	35.17	54.0	18.83	AV	286.00	300	Horizontal	Pass
6	17468.613	50.24	74.0	23.77	Peak	148.00	400	Horizontal	Pass
6**	17468.613	41.09	54.0	12.91	AV	148.00	400	Horizontal	Pass

GFSK (BLE 2Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1283.127	44.47	74.0	29.54	Peak	322.00	100	Vertical	Pass
1**	1283.127	32.54	54.0	21.47	AV	322.00	100	Vertical	Pass
2	2770.286	50.80	74.0	23.20	Peak	110.00	200	Vertical	Pass
2**	2770.286	39.55	54.0	14.45	AV	110.00	200	Vertical	Pass
3	5168.809	52.36	74.0	21.64	Peak	209.00	200	Vertical	Pass
3**	5168.809	41.27	54.0	12.73	AV	209.00	200	Vertical	Pass
4	6809.118	56.63	74.0	17.37	Peak	116.00	300	Vertical	Pass
4**	6809.118	40.76	54.0	13.24	AV	116.00	300	Vertical	Pass
5	13465.369	49.25	74.0	24.75	Peak	196.00	400	Vertical	Pass
5**	13465.369	40.25	54.0	13.75	AV	196.00	400	Vertical	Pass
6	17463.171	52.39	74.0	21.61	Peak	196.00	300	Vertical	Pass
6**	17463.171	41.42	54.0	12.58	AV	196.00	300	Vertical	Pass

GFSK (BLE 2Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1283.354	40.41	74.0	33.59	Peak	288.00	100	Horizontal	Pass
1**	1283.354	32.20	54.0	21.80	AV	288.00	100	Horizontal	Pass
2	2767.840	50.88	74.0	23.12	Peak	241.00	100	Horizontal	Pass
2**	2767.840	41.09	54.0	12.92	AV	241.00	100	Horizontal	Pass
3	5163.433	46.21	74.0	27.79	Peak	349.00	200	Horizontal	Pass
3**	5163.433	36.39	54.0	17.61	AV	349.00	200	Horizontal	Pass
4	6802.481	50.71	74.0	23.29	Peak	136.00	200	Horizontal	Pass
4**	6802.481	39.71	54.0	14.29	AV	136.00	200	Horizontal	Pass
5	13464.694	45.20	74.0	28.80	Peak	22.00	100	Horizontal	Pass
5**	13464.694	35.17	54.0	18.83	AV	22.00	100	Horizontal	Pass
6	17466.176	49.96	74.0	24.05	Peak	97.00	400	Horizontal	Pass
6**	17466.176	40.84	54.0	13.16	AV	97.00	400	Horizontal	Pass

GFSK (BLE 2Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1289.690	44.38	74.0	29.62	Peak	112.00	400	Vertical	Pass
1**	1289.690	32.57	54.0	21.43	AV	112.00	400	Vertical	Pass
2	2772.357	50.82	74.0	23.18	Peak	132.00	200	Vertical	Pass
2**	2772.357	39.55	54.0	14.45	AV	132.00	200	Vertical	Pass
3	5168.119	52.38	74.0	21.62	Peak	114.00	200	Vertical	Pass
3**	5168.119	41.21	54.0	12.79	AV	114.00	200	Vertical	Pass
4	6807.655	56.62	74.0	17.38	Peak	308.00	400	Vertical	Pass
4**	6807.655	40.81	54.0	13.19	AV	308.00	400	Vertical	Pass
5	13464.519	49.28	74.0	24.72	Peak	73.00	400	Vertical	Pass
5**	13464.519	40.27	54.0	13.73	AV	73.00	400	Vertical	Pass
6	17468.783	52.46	74.0	21.54	Peak	138.00	300	Vertical	Pass
6**	17468.783	41.36	54.0	12.65	AV	138.00	300	Vertical	Pass

GFSK (BLE 2Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1283.051	41.28	74.0	32.72	Peak	120.00	300	Horizontal	Pass
1**	1283.051	32.45	54.0	21.55	AV	120.00	300	Horizontal	Pass
2	2771.435	50.91	74.0	23.09	Peak	138.00	100	Horizontal	Pass
2**	2771.435	41.28	54.0	12.73	AV	138.00	100	Horizontal	Pass
3	5389.245	46.73	74.0	27.27	Peak	198.00	200	Horizontal	Pass
3**	5389.245	36.27	54.0	17.73	AV	198.00	200	Horizontal	Pass
4	6514.449	50.39	74.0	23.61	Peak	55.00	200	Horizontal	Pass
4**	6514.449	39.88	54.0	14.12	AV	55.00	200	Horizontal	Pass
5	13350.459	46.12	74.0	27.88	Peak	199.00	300	Horizontal	Pass
5**	13350.459	35.39	54.0	18.61	AV	199.00	300	Horizontal	Pass
6	17443.769	49.82	74.0	24.19	Peak	306.00	100	Horizontal	Pass
6**	17443.769	40.99	54.0	13.01	AV	306.00	100	Horizontal	Pass

GFSK (BLE 2Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT V

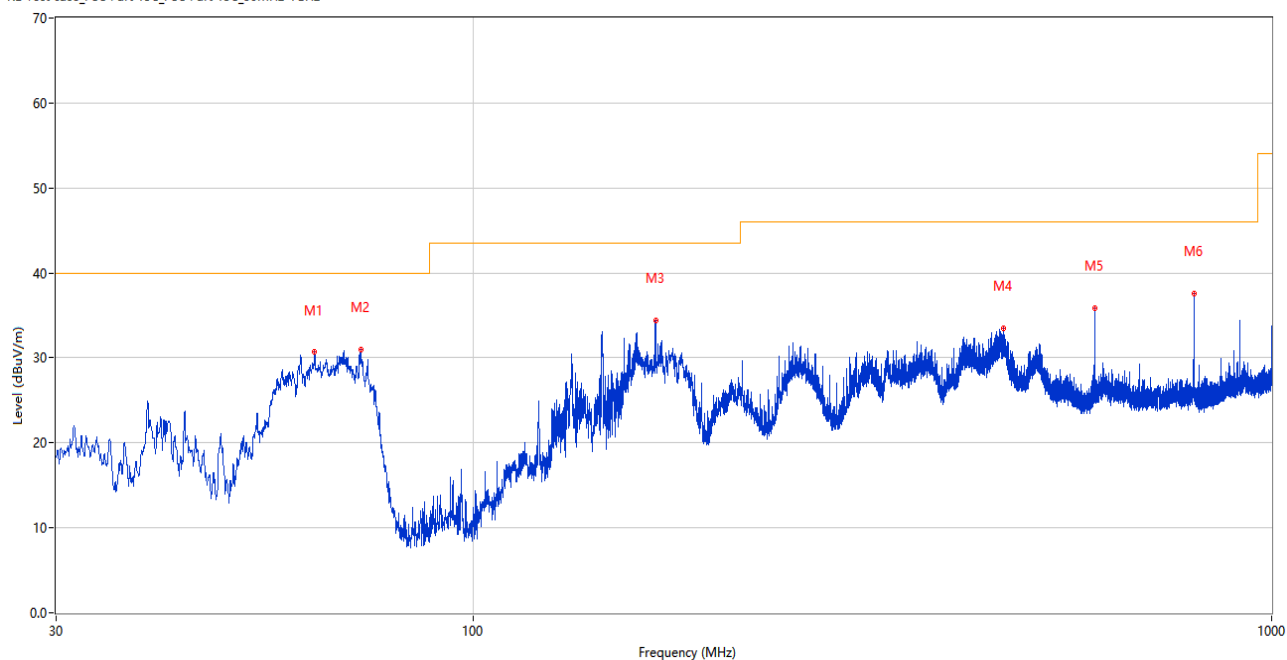
No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1287.705	44.44	74.0	29.56	Peak	301.00	300	Vertical	Pass
1**	1287.705	32.58	54.0	21.42	AV	301.00	300	Vertical	Pass
2	2769.073	50.84	74.0	23.16	Peak	350.00	100	Vertical	Pass
2**	2769.073	39.56	54.0	14.44	AV	350.00	100	Vertical	Pass
3	5288.318	52.42	74.0	21.58	Peak	49.00	200	Vertical	Pass
3**	5288.318	41.23	54.0	12.77	AV	49.00	200	Vertical	Pass
4	6655.379	56.66	74.0	17.34	Peak	355.00	300	Vertical	Pass
4**	6655.379	40.76	54.0	13.24	AV	355.00	300	Vertical	Pass
5	13310.811	49.23	74.0	24.77	Peak	4.00	300	Vertical	Pass
5**	13310.811	40.21	54.0	13.79	AV	4.00	300	Vertical	Pass
6	17416.671	52.39	74.0	21.61	Peak	222.00	100	Vertical	Pass
6**	17416.671	41.41	54.0	12.59	AV	222.00	100	Vertical	Pass

Test Data and Plots

FPC Antenna

30 MHz to 1 GHz, ANT H

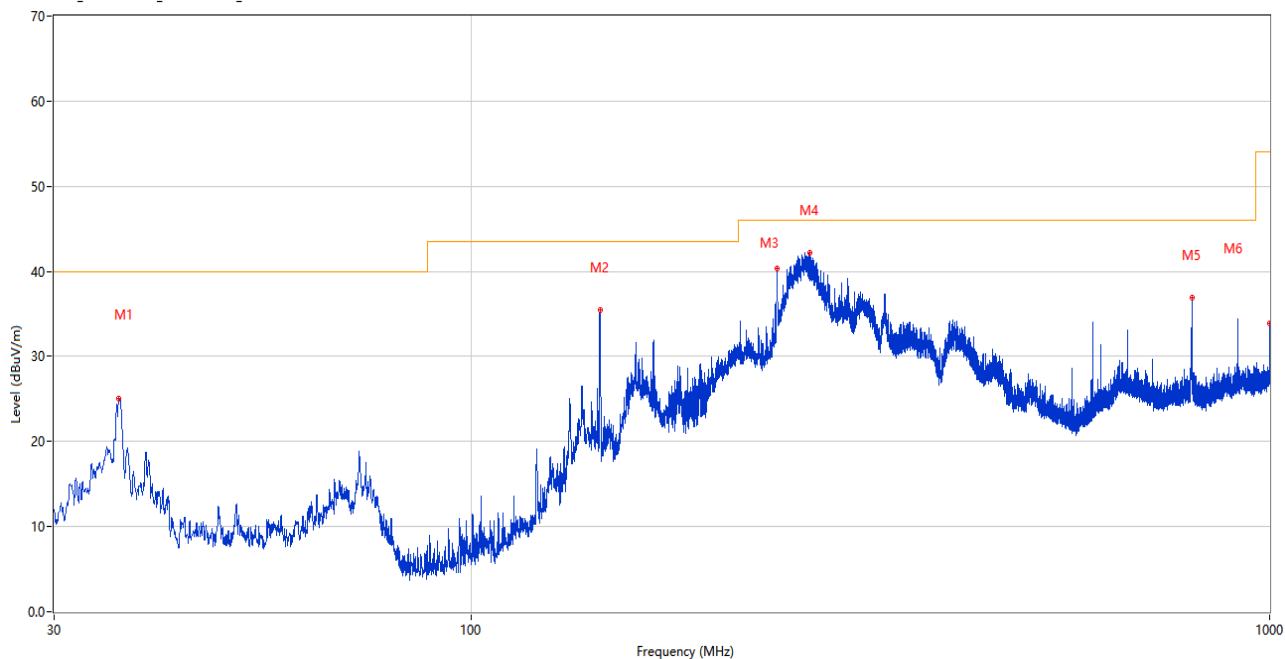
RE Test case_FCC Part 15C_FCC Part 15C_30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	63.271	30.65	-29.89	40.0	9.35	Peak	202.60	100	Vertical	Pass
2	72.195	31.04	-31.36	40.0	8.96	Peak	199.10	100	Vertical	Pass
3	169.098	34.45	-28.26	43.5	9.05	Peak	214.90	100	Vertical	Pass
4	461.990	33.54	-21.07	46.0	12.46	Peak	297.60	100	Vertical	Pass
5	600.020	35.86	-17.26	46.0	10.14	Peak	273.90	100	Vertical	Pass
6	799.986	37.62	-13.24	46.0	8.38	Peak	199.10	100	Vertical	Pass

30 MHz to 1 GHz, ANT V

RE Test case_FCC Part 15C_FCC Part 15C_30MHz-1GHz



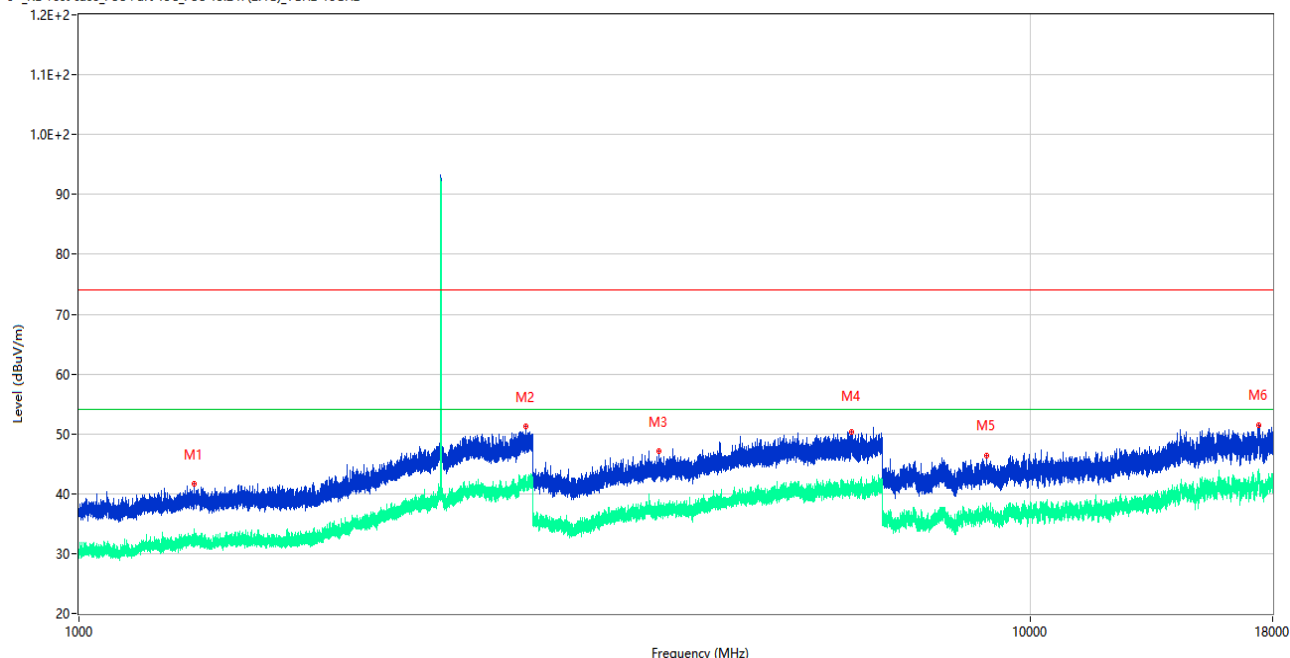
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	36.160	25.09	-30.22	40.0	14.91	Peak	273.80	100	Horizontal	Pass
2	144.848	35.42	-28.21	43.5	8.08	Peak	329.40	200	Horizontal	Pass
3	241.654	40.32	-29.11	46.0	5.68	Peak	165.10	100	Horizontal	Pass
4	265.613	42.20	-27.93	46.0	3.80	Peak	161.60	100	Horizontal	Pass
5	799.986	36.88	-13.24	46.0	9.12	Peak	233.30	100	Horizontal	Pass
6	1000.000	33.92	-10.66	54.0	20.08	Peak	284.50	200	Horizontal	Pass

Note¹: The marked spikes near 2400 MHz with circle should be ignored because they are Fundamental signal.

Note²: The spurious from 18GHz-25GHz is noise only, do not show on the report.

GFSK (BLE 1Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT H

3#_RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1322.871	41.68	74.0	32.32	Peak	210.00	400	Horizontal	Pass
1**	1322.871	32.72	54.0	21.28	AV	210.00	400	Horizontal	Pass
2	2953.894	51.33	74.0	22.67	Peak	19.00	300	Horizontal	Pass
2**	2953.894	41.38	54.0	12.62	AV	19.00	300	Horizontal	Pass
3	4073.383	47.13	74.0	26.87	Peak	233.00	200	Horizontal	Pass
3**	4073.383	37.51	54.0	16.50	AV	233.00	200	Horizontal	Pass
4	6502.035	50.31	74.0	23.69	Peak	179.00	100	Horizontal	Pass
4**	6502.035	41.65	54.0	12.36	AV	179.00	100	Horizontal	Pass
5	9008.544	46.53	74.0	27.48	Peak	236.00	300	Horizontal	Pass
5**	9008.544	36.61	54.0	17.39	AV	236.00	300	Horizontal	Pass
6	17384.897	51.67	74.0	22.33	Peak	352.00	100	Horizontal	Pass
6**	17384.897	42.68	54.0	11.32	AV	352.00	100	Horizontal	Pass

GFSK (BLE 1Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1163.426	44.65	74.0	29.35	Peak	20.00	100	Vertical	Pass
1**	1163.426	32.78	54.0	21.22	AV	20.00	100	Vertical	Pass
2	2992.195	50.82	74.0	23.18	Peak	258.00	100	Vertical	Pass
2**	2992.195	39.71	54.0	14.29	AV	258.00	100	Vertical	Pass
3	6804.802	52.45	74.0	21.56	Peak	311.00	200	Vertical	Pass
3**	6804.802	42.15	54.0	11.85	AV	311.00	200	Vertical	Pass
4	7966.755	56.66	74.0	17.34	Peak	1.00	300	Vertical	Pass
4**	7966.755	41.71	54.0	12.29	AV	1.00	300	Vertical	Pass
5	12493.302	49.32	74.0	24.68	Peak	289.00	400	Vertical	Pass
5**	12493.302	40.35	54.0	13.65	AV	289.00	400	Vertical	Pass
6	17095.399	52.42	74.0	21.58	Peak	40.00	300	Vertical	Pass
6**	17095.399	42.54	54.0	11.46	AV	40.00	300	Vertical	Pass

GFSK (BLE 1Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1323.340	41.55	74.0	32.45	Peak	324.00	300	Horizontal	Pass
1**	1323.340	32.62	54.0	21.38	AV	324.00	300	Horizontal	Pass
2	2955.249	51.13	74.0	22.87	Peak	347.00	200	Horizontal	Pass
2**	2955.249	41.03	54.0	12.97	AV	347.00	200	Horizontal	Pass
3	4075.628	46.65	74.0	27.35	Peak	177.00	200	Horizontal	Pass
3**	4075.628	36.74	54.0	17.27	AV	177.00	200	Horizontal	Pass
4	6502.670	50.28	74.0	23.72	Peak	265.00	100	Horizontal	Pass
4**	6502.670	40.86	54.0	13.15	AV	265.00	100	Horizontal	Pass
5	9006.766	45.60	74.0	28.41	Peak	301.00	200	Horizontal	Pass
5**	9006.766	35.77	54.0	18.23	AV	301.00	200	Horizontal	Pass
6	17389.098	51.66	74.0	22.34	Peak	194.00	100	Horizontal	Pass
6**	17389.098	42.05	54.0	11.95	AV	194.00	100	Horizontal	Pass

GFSK (BLE 1Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1164.048	44.07	74.0	29.93	Peak	101.00	400	Vertical	Pass
1**	1164.048	31.94	54.0	22.06	AV	101.00	400	Vertical	Pass
2	2990.195	50.39	74.0	23.61	Peak	46.00	100	Vertical	Pass
2**	2990.195	39.02	54.0	14.98	AV	46.00	100	Vertical	Pass
3	6801.120	52.24	74.0	21.77	Peak	315.00	200	Vertical	Pass
3**	6801.120	42.07	54.0	11.93	AV	315.00	200	Vertical	Pass
4	7970.578	56.57	74.0	17.43	Peak	125.00	200	Vertical	Pass
4**	7970.578	41.83	54.0	12.17	AV	125.00	200	Vertical	Pass
5	12497.471	48.33	74.0	25.67	Peak	343.00	100	Vertical	Pass
5**	12497.471	39.59	54.0	14.41	AV	343.00	100	Vertical	Pass
6	17097.968	51.72	74.0	22.28	Peak	241.00	300	Vertical	Pass
6**	17097.968	42.39	54.0	11.61	AV	241.00	300	Vertical	Pass

GFSK (BLE 1Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1317.982	41.23	74.0	32.77	Peak	329.00	200	Horizontal	Pass
1**	1317.982	31.98	54.0	22.02	AV	329.00	200	Horizontal	Pass
2	2951.210	51.19	74.0	22.81	Peak	35.00	100	Horizontal	Pass
2**	2951.210	40.50	54.0	13.50	AV	35.00	100	Horizontal	Pass
3	4076.259	46.21	74.0	27.79	Peak	16.00	200	Horizontal	Pass
3**	4076.259	36.87	54.0	17.14	AV	16.00	200	Horizontal	Pass
4	6503.750	50.02	74.0	23.98	Peak	337.00	100	Horizontal	Pass
4**	6503.750	40.70	54.0	13.31	AV	337.00	100	Horizontal	Pass
5	9010.735	45.88	74.0	28.13	Peak	247.00	100	Horizontal	Pass
5**	9010.735	36.37	54.0	17.63	AV	247.00	100	Horizontal	Pass
6	17388.684	51.24	74.0	22.76	Peak	147.00	100	Horizontal	Pass
6**	17388.684	41.84	54.0	12.16	AV	147.00	100	Horizontal	Pass

GFSK (BLE 1Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1165.927	44.63	74.0	29.37	Peak	182.00	100	Vertical	Pass
1**	1165.927	32.74	54.0	21.26	AV	182.00	100	Vertical	Pass
2	2994.424	50.73	74.0	23.27	Peak	153.00	100	Vertical	Pass
2**	2994.424	39.64	54.0	14.36	AV	153.00	100	Vertical	Pass
3	6800.913	52.37	74.0	21.63	Peak	297.00	200	Vertical	Pass
3**	6800.913	42.12	54.0	11.88	AV	297.00	200	Vertical	Pass
4	7968.554	56.59	74.0	17.41	Peak	348.00	100	Vertical	Pass
4**	7968.554	41.71	54.0	12.29	AV	348.00	100	Vertical	Pass
5	12493.778	49.24	74.0	24.76	Peak	188.00	100	Vertical	Pass
5**	12493.778	40.30	54.0	13.70	AV	188.00	100	Vertical	Pass
6	17097.036	52.38	74.0	21.62	Peak	121.00	300	Vertical	Pass
6**	17097.036	42.47	54.0	11.53	AV	121.00	300	Vertical	Pass

GFSK (BLE 2Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1287.223	41.65	74.0	32.35	Peak	290.00	400	Horizontal	Pass
1**	1287.223	32.56	54.0	21.44	AV	290.00	400	Horizontal	Pass
2	2772.924	50.50	74.0	23.50	Peak	11.00	300	Horizontal	Pass
2**	2772.924	41.07	54.0	12.93	AV	11.00	300	Horizontal	Pass
3	5166.081	46.28	74.0	27.72	Peak	223.00	200	Horizontal	Pass
3**	5166.081	37.02	54.0	16.99	AV	223.00	200	Horizontal	Pass
4	6810.027	49.31	74.0	24.69	Peak	147.00	300	Horizontal	Pass
4**	6810.027	41.51	54.0	12.50	AV	147.00	300	Horizontal	Pass
5	13469.076	45.66	74.0	28.35	Peak	291.00	300	Horizontal	Pass
5**	13469.076	35.79	54.0	18.21	AV	291.00	300	Horizontal	Pass
6	17465.729	51.32	74.0	22.68	Peak	147.00	200	Horizontal	Pass
6**	17465.729	41.96	54.0	12.04	AV	147.00	200	Horizontal	Pass

GFSK (BLE 2Mbps) LOW CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1284.039	44.55	74.0	29.45	Peak	176.00	200	Vertical	Pass
1**	1284.039	32.71	54.0	21.29	AV	176.00	200	Vertical	Pass
2	2773.302	50.79	74.0	23.21	Peak	75.00	100	Vertical	Pass
2**	2773.302	39.64	54.0	14.36	AV	75.00	100	Vertical	Pass
3	5167.730	52.40	74.0	21.61	Peak	10.00	200	Vertical	Pass
3**	5167.730	42.10	54.0	11.90	AV	10.00	200	Vertical	Pass
4	6804.506	56.59	74.0	17.41	Peak	30.00	400	Vertical	Pass
4**	6804.506	41.70	54.0	12.30	AV	30.00	400	Vertical	Pass
5	13466.017	49.26	74.0	24.75	Peak	178.00	300	Vertical	Pass
5**	13466.017	40.32	54.0	13.68	AV	178.00	300	Vertical	Pass
6	17462.970	52.38	74.0	21.62	Peak	296.00	200	Vertical	Pass
6**	17462.970	42.52	54.0	11.48	AV	296.00	200	Vertical	Pass

GFSK (BLE 2Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1284.361	40.99	74.0	33.01	Peak	307.00	300	Horizontal	Pass
1**	1284.361	32.57	54.0	21.43	AV	307.00	300	Horizontal	Pass
2	2771.610	51.17	74.0	22.83	Peak	13.00	300	Horizontal	Pass
2**	2771.610	40.98	54.0	13.02	AV	13.00	300	Horizontal	Pass
3	5164.966	46.47	74.0	27.53	Peak	1.00	200	Horizontal	Pass
3**	5164.966	36.52	54.0	17.49	AV	1.00	200	Horizontal	Pass
4	6804.397	49.93	74.0	24.07	Peak	64.00	100	Horizontal	Pass
4**	6804.397	40.95	54.0	13.06	AV	64.00	100	Horizontal	Pass
5	13467.070	46.42	74.0	27.59	Peak	216.00	300	Horizontal	Pass
5**	13467.070	36.34	54.0	17.66	AV	216.00	300	Horizontal	Pass
6	17470.316	51.44	74.0	22.56	Peak	207.00	200	Horizontal	Pass
6**	17470.316	41.74	54.0	12.26	AV	207.00	200	Horizontal	Pass

GFSK (BLE 2Mbps) MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1284.094	44.56	74.0	29.44	Peak	240.00	200	Vertical	Pass
1**	1284.094	32.76	54.0	21.24	AV	240.00	200	Vertical	Pass
2	2769.624	50.76	74.0	23.24	Peak	203.00	400	Vertical	Pass
2**	2769.624	39.61	54.0	14.39	AV	203.00	400	Vertical	Pass
3	5169.275	52.38	74.0	21.62	Peak	202.00	200	Vertical	Pass
3**	5169.275	42.05	54.0	11.95	AV	202.00	200	Vertical	Pass
4	6808.616	56.66	74.0	17.34	Peak	32.00	300	Vertical	Pass
4**	6808.616	41.66	54.0	12.34	AV	32.00	300	Vertical	Pass
5	13470.833	49.30	74.0	24.70	Peak	40.00	300	Vertical	Pass
5**	13470.833	40.33	54.0	13.67	AV	40.00	300	Vertical	Pass
6	17465.522	52.40	74.0	21.60	Peak	343.00	100	Vertical	Pass
6**	17465.522	42.49	54.0	11.51	AV	343.00	100	Vertical	Pass

GFSK (BLE 2Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1288.232	41.11	74.0	32.89	Peak	162.00	300	Horizontal	Pass
1**	1288.232	31.72	54.0	22.28	AV	162.00	300	Horizontal	Pass
2	2767.598	50.88	74.0	23.12	Peak	76.00	200	Horizontal	Pass
2**	2767.598	40.72	54.0	13.28	AV	76.00	200	Horizontal	Pass
3	5393.196	46.49	74.0	27.51	Peak	269.00	200	Horizontal	Pass
3**	5393.196	37.25	54.0	16.76	AV	269.00	200	Horizontal	Pass
4	6515.513	49.76	74.0	24.24	Peak	107.00	300	Horizontal	Pass
4**	6515.513	41.38	54.0	12.63	AV	107.00	300	Horizontal	Pass
5	13356.179	46.40	74.0	27.61	Peak	94.00	300	Horizontal	Pass
5**	13356.179	36.52	54.0	17.48	AV	94.00	300	Horizontal	Pass
6	17438.634	51.07	74.0	22.93	Peak	14.00	100	Horizontal	Pass
6**	17438.634	41.84	54.0	12.16	AV	14.00	100	Horizontal	Pass

GFSK (BLE 2Mbps) HIGH CHANNEL 1 GHz to 18 GHz, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1284.358	44.59	74.0	29.41	Peak	124.00	400	Vertical	Pass
1**	1284.358	32.76	54.0	21.24	AV	124.00	400	Vertical	Pass
2	2770.265	50.73	74.0	23.27	Peak	112.00	100	Vertical	Pass
2**	2770.265	39.61	54.0	14.39	AV	112.00	100	Vertical	Pass
3	5287.144	52.42	74.0	21.58	Peak	49.00	200	Vertical	Pass
3**	5287.144	42.09	54.0	11.91	AV	49.00	200	Vertical	Pass
4	6655.091	56.57	74.0	17.43	Peak	192.00	300	Vertical	Pass
4**	6655.091	41.70	54.0	12.30	AV	192.00	300	Vertical	Pass
5	13309.429	49.28	74.0	24.72	Peak	112.00	200	Vertical	Pass
5**	13309.429	40.31	54.0	13.69	AV	112.00	200	Vertical	Pass
6	17420.256	52.36	74.0	21.64	Peak	273.00	300	Vertical	Pass
6**	17420.256	42.47	54.0	11.54	AV	273.00	300	Vertical	Pass

A.7 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 C63.10-2020, 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.

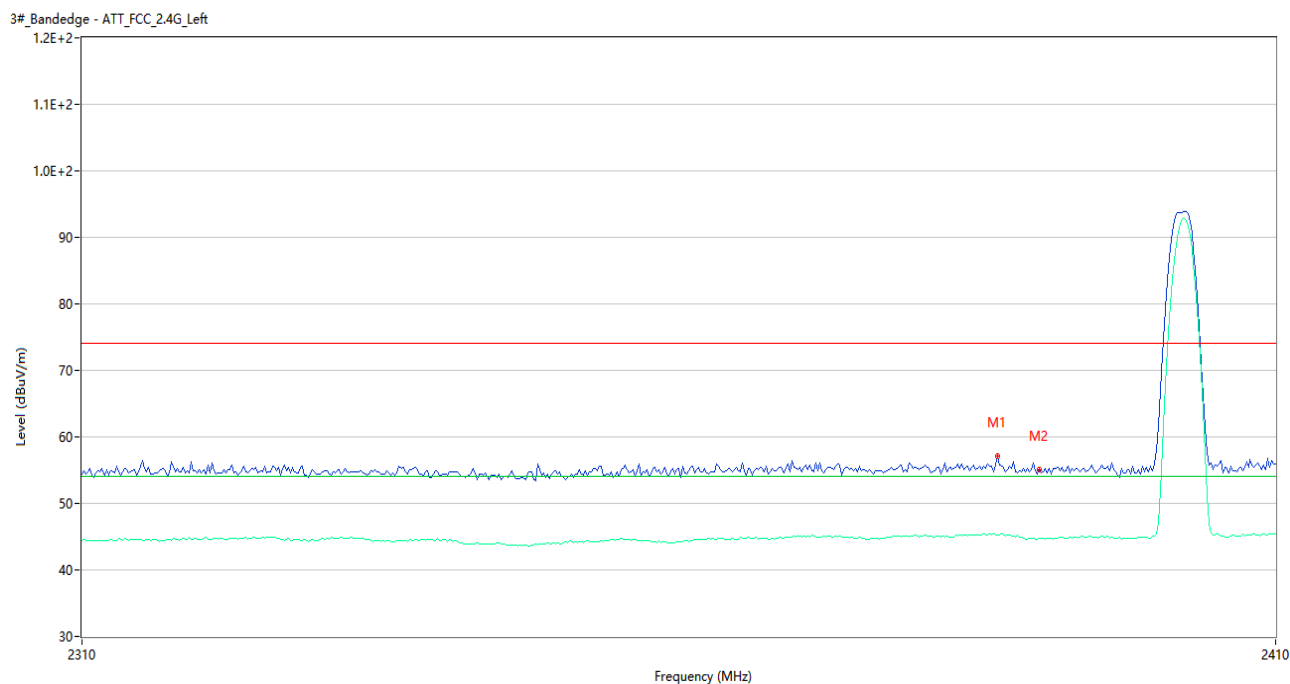
Note ⁴: The Level (dBuV/m) has been corrected by factor.

Note ⁵: Both horizontal and vertical directions were pre tested, only the worst configuration has been reported in this report.

Test Data and Plots

PCB Antenna

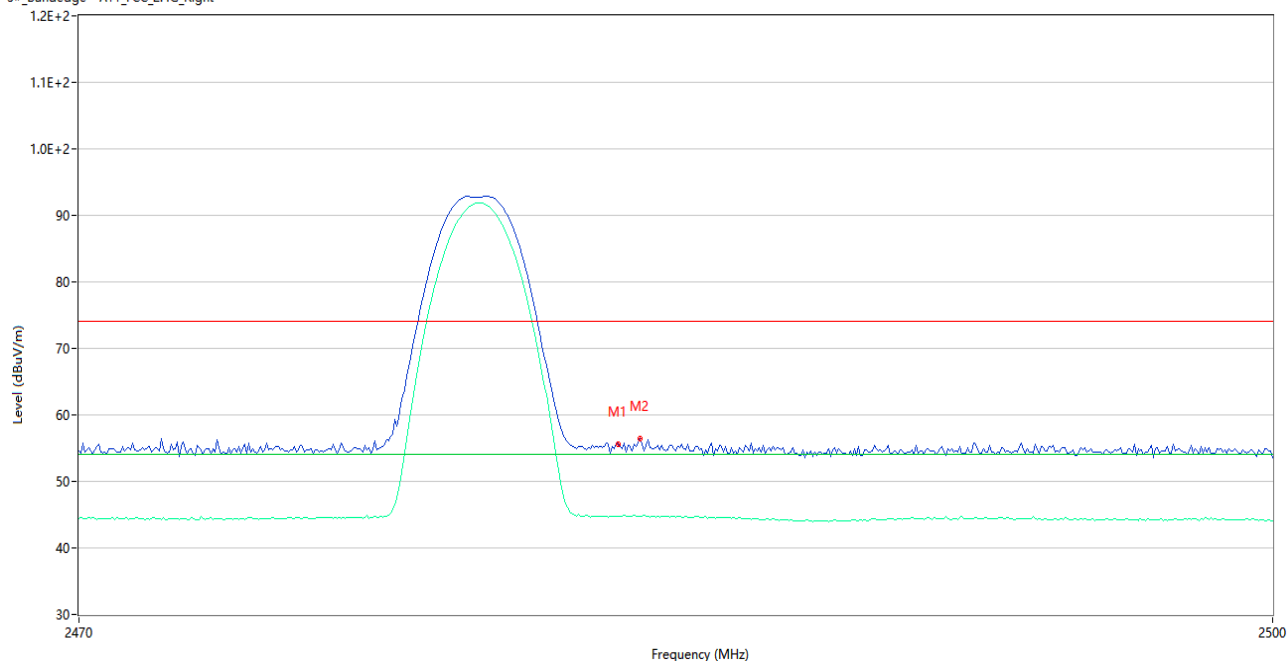
GFSK (BLE 1Mbps) LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2385.205	55.97	74.0	18.03	Peak	155.00	300	Horizontal	Pass
1**	2385.205	42.89	54.0	11.11	AV	155.00	300	Horizontal	Pass
2	2390.000	55.38	74.0	18.62	Peak	149.00	100	Horizontal	Pass
2**	2390.000	42.63	54.0	11.37	AV	149.00	100	Horizontal	Pass

GFSK (BLE 1Mbps) HIGH CHANNEL

3#_Bandedge - ATT_FCC_2.4G_Right



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	53.19	74.0	20.81	Peak	261.00	100	Horizontal	Pass
1**	2483.500	44.37	54.0	9.63	AV	261.00	100	Horizontal	Pass
2	2485.889	53.68	74.0	20.32	Peak	275.00	200	Horizontal	Pass
2**	2485.889	44.67	54.0	9.33	AV	275.00	200	Horizontal	Pass

GFSK (BLE 2Mbps) LOW CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2349.009	55.39	74.0	18.61	Peak	215.00	100	Horizontal	Pass
1**	2349.009	40.73	54.0	13.27	AV	215.00	100	Horizontal	Pass
2	2390.000	52.53	74.0	21.47	Peak	245.00	200	Horizontal	Pass
2**	2390.000	42.4	54.0	11.60	AV	245.00	200	Horizontal	Pass

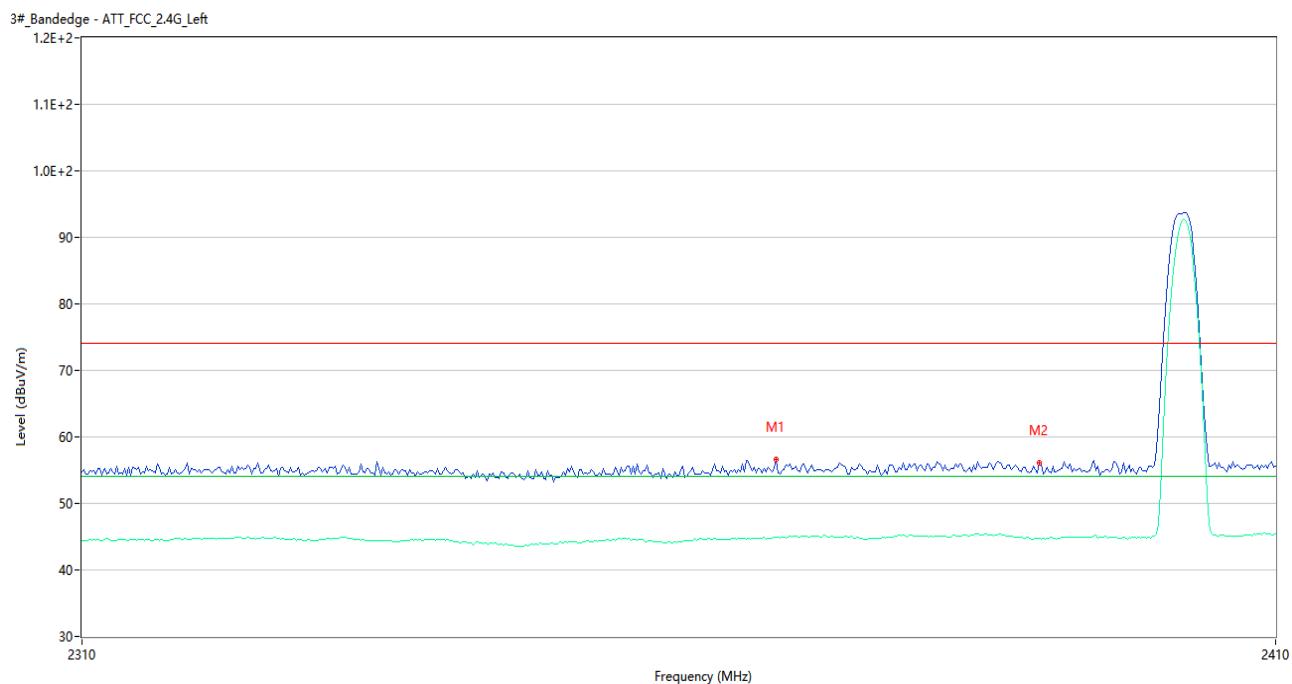
GFSK (BLE 2Mbps) HIGH CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	54.66	74.0	19.35	Peak	145.00	200	Horizontal	Pass
1**	2483.500	42.72	54.0	11.28	AV	145.00	200	Horizontal	Pass
2	2491.987	55.35	74.0	18.65	Peak	64.00	100	Horizontal	Pass
2**	2491.987	42.61	54.0	11.39	AV	64.00	100	Horizontal	Pass

Test Data and Plots

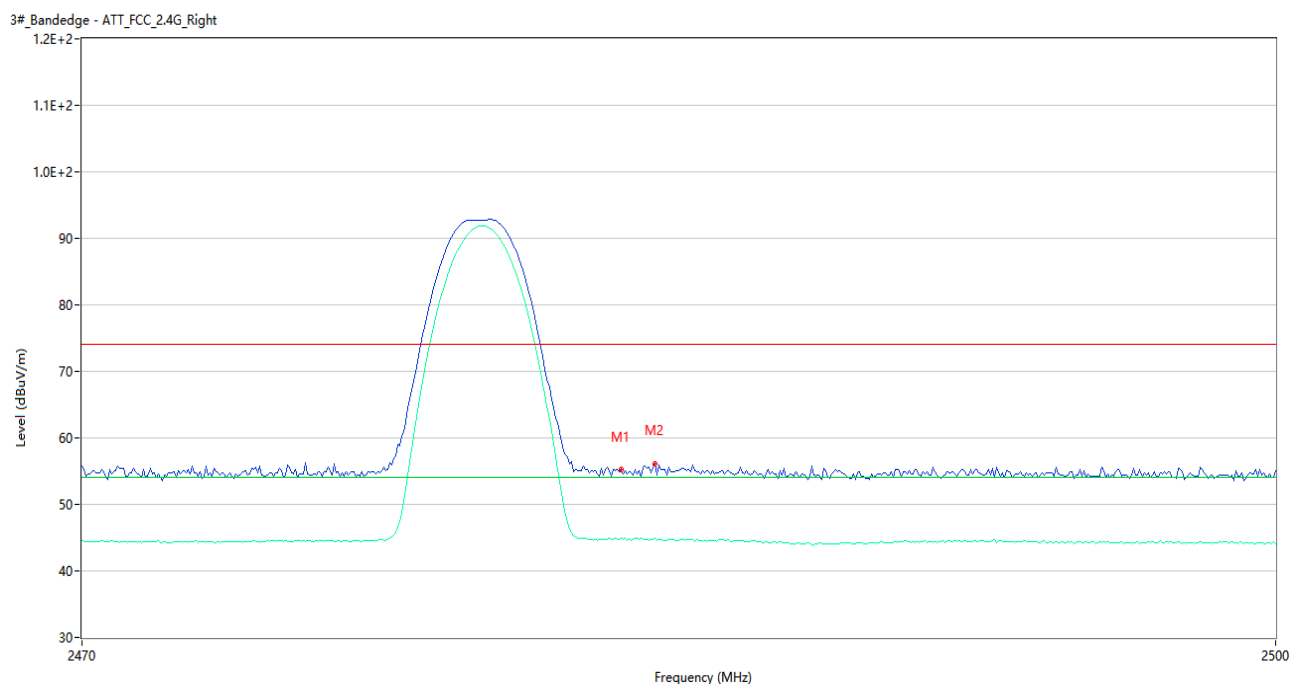
Rod Antenna

GFSK (BLE 1Mbps) LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2365.113	56.43	74.0	17.57	Peak	54.00	200	Horizontal	Pass
1**	2365.113	45.86	54.0	8.14	AV	54.00	200	Horizontal	Pass
2	2390.000	56.92	74.0	17.08	Peak	102.00	100	Horizontal	Pass
2**	2390.000	44.86	54.0	9.14	AV	102.00	100	Horizontal	Pass

GFSK (BLE 1Mbps) HIGH CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	55.21	74.0	18.79	Peak	192.00	100	Horizontal	Pass
1**	2483.500	42.6	54.0	11.40	AV	192.00	100	Horizontal	Pass
2	2484.985	56.74	74.0	17.26	Peak	258.00	300	Horizontal	Pass
2**	2484.985	44.75	54.0	9.25	AV	258.00	300	Horizontal	Pass

GFSK (BLE 2Mbps) LOW CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2349.883	52.52	74.0	21.48	Peak	31.00	300	Horizontal	Pass
1**	2349.883	44.07	54.0	9.93	AV	31.00	300	Horizontal	Pass
2	2390.000	53.43	74.0	20.57	Peak	33.00	300	Horizontal	Pass
2**	2390.000	43.34	54.0	10.66	AV	33.00	300	Horizontal	Pass

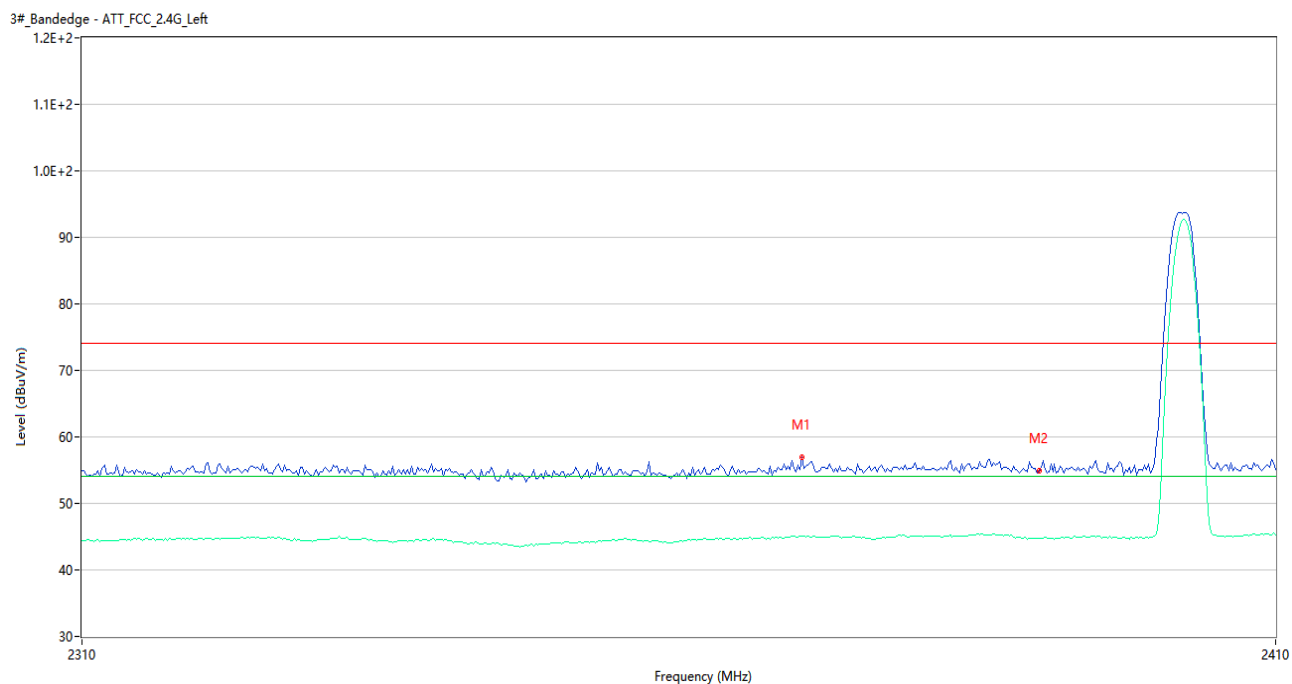
GFSK (BLE 2Mbps) HIGH CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	54.70	74.0	19.30	Peak	134.00	300	Horizontal	Pass
1**	2483.500	43.67	54.0	10.33	AV	134.00	300	Horizontal	Pass
2	2489.482	55.41	74.0	18.59	Peak	227.00	300	Horizontal	Pass
2**	2489.482	43.42	54.0	10.58	AV	227.00	300	Horizontal	Pass

Test Data and Plots

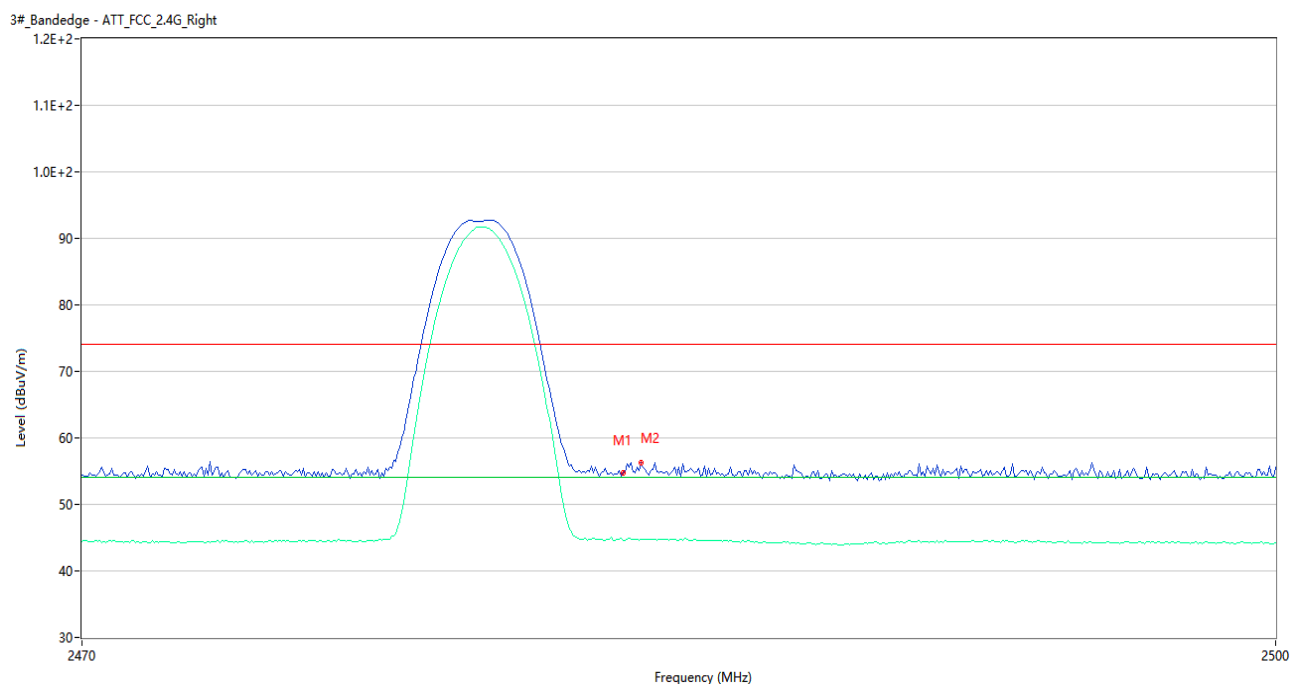
FPC Antenna

GFSK (BLE 1Mbps) LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2368.640	55.15	74.0	18.85	Peak	341.00	200	Horizontal	Pass
1**	2368.640	42.39	54.0	11.61	AV	341.00	200	Horizontal	Pass
2	2390.000	55.8	74.0	18.20	Peak	115.00	300	Horizontal	Pass
2**	2390.000	43.82	54.0	10.18	AV	115.00	300	Horizontal	Pass

GFSK (BLE 1Mbps) HIGH CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	54.12	74.0	19.88	Peak	227.00	100	Horizontal	Pass
1**	2483.500	44.31	54.0	9.69	AV	227.00	100	Horizontal	Pass
2	2484.833	57.07	74.0	16.93	Peak	106.00	300	Horizontal	Pass
2**	2484.833	41.79	54.0	12.21	AV	106.00	300	Horizontal	Pass

GFSK (BLE 2Mbps) LOW CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2348.756	55.67	74.0	18.33	Peak	28.00	100	Horizontal	Pass
1**	2348.756	40.46	54.0	13.54	AV	28.00	100	Horizontal	Pass
2	2390.000	52.7	74.0	21.30	Peak	318.00	100	Horizontal	Pass
2**	2390.000	40.8	54.0	13.20	AV	318.00	100	Horizontal	Pass

GFSK (BLE 2Mbps) HIGH CHANNEL

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	54.60	74.0	19.40	Peak	331.00	100	Horizontal	Pass
1**	2483.500	43.78	54.0	10.23	AV	331.00	100	Horizontal	Pass
2	2490.083	55.49	74.0	18.51	Peak	165.00	200	Horizontal	Pass
2**	2490.083	43.49	54.0	10.51	AV	165.00	200	Horizontal	Pass

A.8 Power Spectral Density (PSD)

Test Data

GFSK (BLE 1Mbps)			
Channel	Spectral power density (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
Low Channel	-6.63	8	Pass
Middle Channel	-7.13	8	Pass
High Channel	-7.66	8	Pass

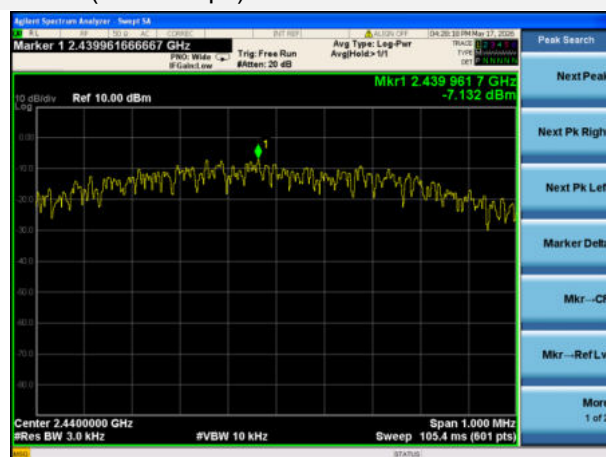
GFSK (BLE 2Mbps)			
Channel	Spectral power density (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
Low Channel	-9.50	8	Pass
Middle Channel	-9.90	8	Pass
High Channel	-10.58	8	Pass

Test Plots

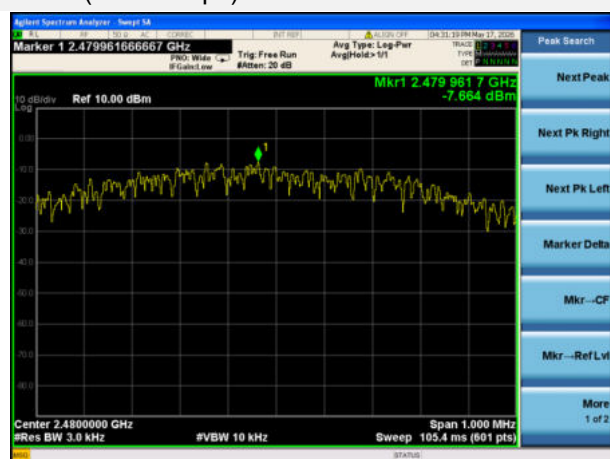
GFSK (BLE 1Mbps) LOW CHANNEL



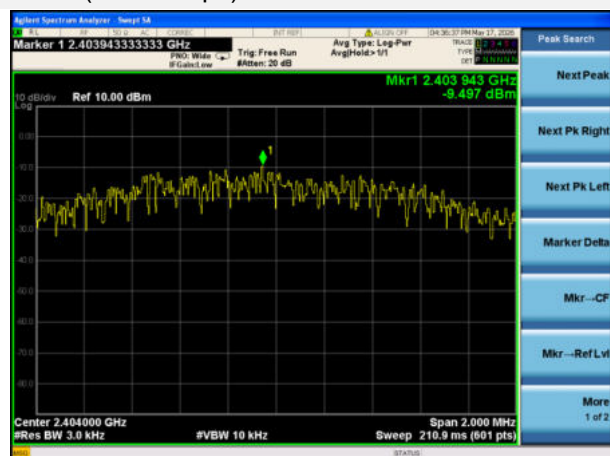
GFSK (BLE 1Mbps) MIDDLE CHANNEL



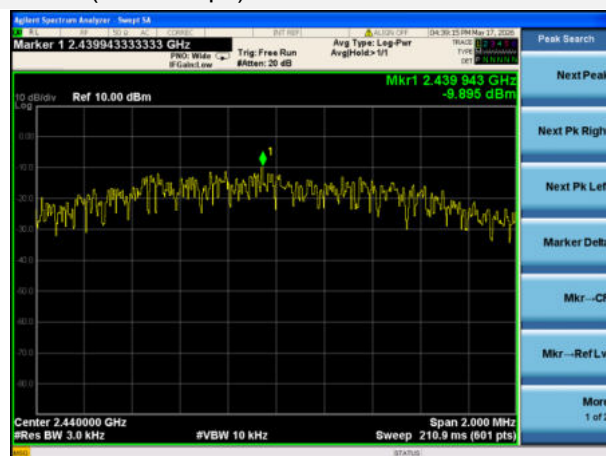
GFSK (BLE 1Mbps) HIGH CHANNEL



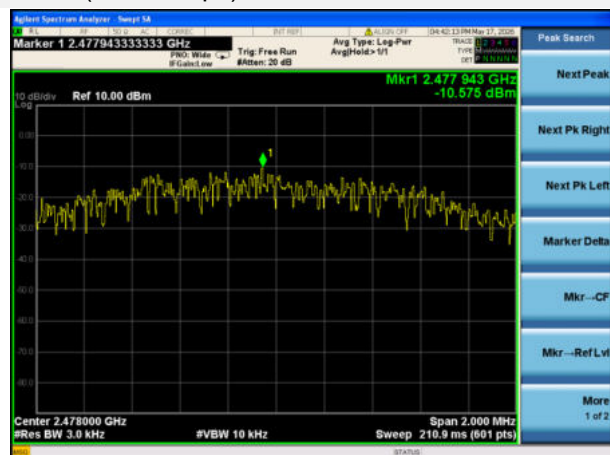
GFSK (BLE 2Mbps) LOW CHANNEL



GFSK (BLE 2Mbps) MIDDLE CHANNEL



GFSK (BLE 2Mbps) HIGH CHANNEL



ANNEX B TEST SETUP PHOTOS

Please refer the document “Ti-EE26040484-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “Ti-EE26040484-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “Ti-EE26040484-AI.PDF”.

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--END OF REPORT--