

TEST REPORT

Applicant: Megabyte Limited
Address: Units 507, 5/F, Building 12W, No.12 Science Park
West Avenue, Hong Kong Science Park, Pak Shek
Kok, Shatin, NT Hong Kong
Equipment Type: mHand-H6B
Model Name: H6B-01-39
Brand Name: Myndar
FCC ID: XEK-MHANDH6
Test Standard: 47 CFR Part 15 Subpart C
(refer to section 3.1)
Sample Arrival Date: Jan. 06, 2023
Test Date: Jan. 13, 2023 - Jun. 12, 2023
Date of Issue: Jan. 17, 2024

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

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

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Dec. 26, 2023</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Jan. 17, 2024</u>	<u>1. Updated the Radiated Test Photo in ANNEX B TEST SETUP PHOTOS.</u> <u>2. Updated the ANNEX D EUT INTERNAL PHOTOS.</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	Factory Information.....	5
2.4	General Description for Equipment under Test (EUT).....	5
2.5	Technical Information	6
3	SUMMARY OF TEST RESULTS	7
3.1	Test Standards	7
3.2	Test Verdict	7
4	GENERAL TEST CONFIGURATIONS	8
4.1	Test Environments.....	8
4.2	Test Equipment List.....	8
4.3	Test Software List.....	8
4.4	Measurement Uncertainty.....	9
4.5	Description of Test Setup	9
4.6	Measurement Results Explanation Example.....	12
5	TEST ITEMS	13
5.1	Antenna Requirements	13
5.2	Number of Hopping Frequencies	14

5.3	Peak Output Power	15
5.4	Occupied Bandwidth.....	16
5.5	Carrier Frequency Separation.....	17
5.6	Time of Occupancy (Dwell time)	18
5.7	Conducted Spurious Emission & Authorized-band band-edge.....	19
5.8	Conducted Emission.....	20
5.9	Radiated Spurious Emission.....	21
5.10	Band Edge (Restricted-band band-edge).....	23
ANNEX A	TEST RESULT	24
A.1	Number of Hopping Frequency	24
A.2	Peak Output Power	25
A.3	20 dB and 99% bandwidth	26
A.4	Hopping Frequency Separation	28
A.5	Average Time of Occupancy.....	29
A.6	Conducted Spurious Emissions & Authorized-band band-edge	30
A.7	Conducted Emissions	34
A.8	Radiated Spurious Emission.....	36
A.9	Band Edge (Restricted-band band-edge).....	48
ANNEX B	TEST SETUP PHOTOS	51
ANNEX C	EUT EXTERNAL PHOTOS.....	51
ANNEX D	EUT INTERNAL PHOTOS.....	51

1 GENERAL INFORMATION

1.1 Test Laboratory

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

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☒ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Megabyte Limited
Address	Units 507, 5/F, Building 12W, No.12 Science Park West Avenue, Hong Kong Science Park, Pak Shek Kok, Shatin, NT Hong Kong

2.2 Manufacturer Information

Manufacturer	Megabyte Limited
Address	Units 507, 5/F, Building 12W, No.12 Science Park West Avenue, Hong Kong Science Park, Pak Shek Kok, Shatin, NT Hong Kong

2.3 Factory Information

Factory	Dongguan Global Asia High-Tech Electronics Co., Ltd.
Address	No.12, Wusha Zhenyuan Road, Chang'an Town, Dongguan, Guangdong, PRC.

2.4 General Description for Equipment under Test (EUT)

EUT Name	mHand-H6B
Model Name Under Test	H6B-01-39
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	V1.1
Software Version	H6_V1_01_00_01
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Technical Information

Network and Wireless connectivity	Bluetooth (BR+EDR+BLE) RFID
-----------------------------------	--------------------------------

The requirement for the following technical information of the EUT was tested in this report:

Modulation Technology	Frequency hopping system
Modulation Type	RFID
Product Type	☐ Mobile ☒ Portable ☐ Fix Location
Frequency Range	The frequency range used is 902 MHz to 928 MHz.
Number of channel	50
Tested Channel	1 (902.75 MHz), 26 (915.25 MHz), 50 (927.25 MHz)
Antenna Type	Planar Antenna
Antenna Gain	6.18 dBi
Antenna System(MIMO Smart Antenna)	N/A

All channel was listed on the following table:

Channel number	Freq. (MHz)	Channel number	Freq. (MHz)	Channel number	Freq. (MHz)	Channel number	Freq. (MHz)
1	902.75	14	909.25	27	915.75	40	922.25
2	903.25	15	909.75	28	916.25	41	922.75
3	903.75	16	910.25	29	916.75	42	923.25
4	904.25	17	910.75	30	917.25	43	923.75
5	904.75	18	911.25	31	917.75	44	924.25
6	905.25	19	911.75	32	918.25	45	924.75
7	905.75	20	912.25	33	918.75	46	925.25
8	906.25	21	912.75	34	919.25	47	925.75
9	906.75	22	913.25	35	919.75	48	926.25
10	907.25	23	913.75	36	920.25	49	926.75
11	907.75	24	914.25	37	920.75	50	927.25
12	908.25	25	914.75	38	921.25		
13	908.75	26	915.25	39	921.75		

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	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices
3	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.	Modulation Technology	Channel	Test Result	Verdict
1	Antenna Requirement	15.203	N/A	N/A	--	Pass ^{Note}
2	Number of Hopping Frequencies	15.247(a)	Frequency hopping system	Hopping Mode	ANNEX A.1	Pass
3	Peak Output Power	15.247(b)	Frequency hopping system	Low/Middle/High	ANNEX A.2	Pass
4	Occupied Bandwidth	15.247(a)	Frequency hopping system	Low/Middle/High	ANNEX A.3	Pass
5	Carrier Frequency Separation	15.247(a)	Frequency hopping system	Hopping Mode	ANNEX A.4	Pass
6	Time of Occupancy (Dwell time)	15.247(a)	Frequency hopping system	Hopping Mode	ANNEX A.5	Pass
7	Conducted Spurious Emission & Authorized-band band-edge	15.247(d)	Frequency hopping system	Low/Middle/High, Hopping Mode	ANNEX A.6	Pass
8	Conducted Emission	15.207	Frequency hopping system	Low/Middle/High	ANNEX A.7	Pass
9	Radiated Spurious Emission	15.209 15.247(d)	Frequency hopping system	Low/Middle/High	ANNEX A.8	Pass
10	Band Edge(Restricted-band band-edge)	15.209 15.247(d)	Frequency hopping system	Low/High	ANNEX A.9	Pass

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

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

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

Relative Humidity	45% to 62%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+21.9°C to +24.1°C
Working Voltage of the EUT	NV (Normal Voltage)	3.7 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	MY46471071	2022.07.26	2023.07.25
Spectrum Analyzer	KEYSIGHT	N9020A	MY50330200	2022.05.19	2023.05.18
				2023.05.16	2024.05.15
Spectrum Analyzer	KEYSIGHT	N9020A	MY52510065	2022.09.06	2023.09.05
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	01631	2022.02.03	2025.02.02
Test Antenna-Horn	A-INFO	LB-180400KF	J211060273	2021.07.02	2024.07.01
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9163	00884	2021.03.08	2024.03.07
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2021.09.04	2024.09.03
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2022.09.09	2023.09.08
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	00883	2022.04.01	2025.03.31
Test Antenna-Loop	SCHWARZBECK	FMZB 1519	1519-037	2021.04.16	2024.04.15
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60*7.35m	N/A	2021.08.15	2024.08.14
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2022.09.09	2023.09.08
LISN	SCHWARZBECK	NSLK 8127	8127-687	2022.06.01	2023.05.31
				2023.05.16	2024.05.15
Shielded Enclosure	YiHeng Electronic Co., Ltd	3.5m*3.1m*2.8m	N/A	2022.02.19	2025.02.18
Amplifier	COM-MV	LSCX_LNA1-12G-01	180602	2020.09.08	2023.09.07
Amplifier	COM-MV	XKu_LNA7-18G-01	180601	2020.09.08	2023.09.07
Amplifier	COM-MV	KA_LNA18-40G-01	18050001	2020.09.08	2023.09.07

4.3 Test Software List

Description	Manufacturer	Software Version	Serial No.	Applicable test Setup
BL410R	BALUN	V2.1.1.488	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%

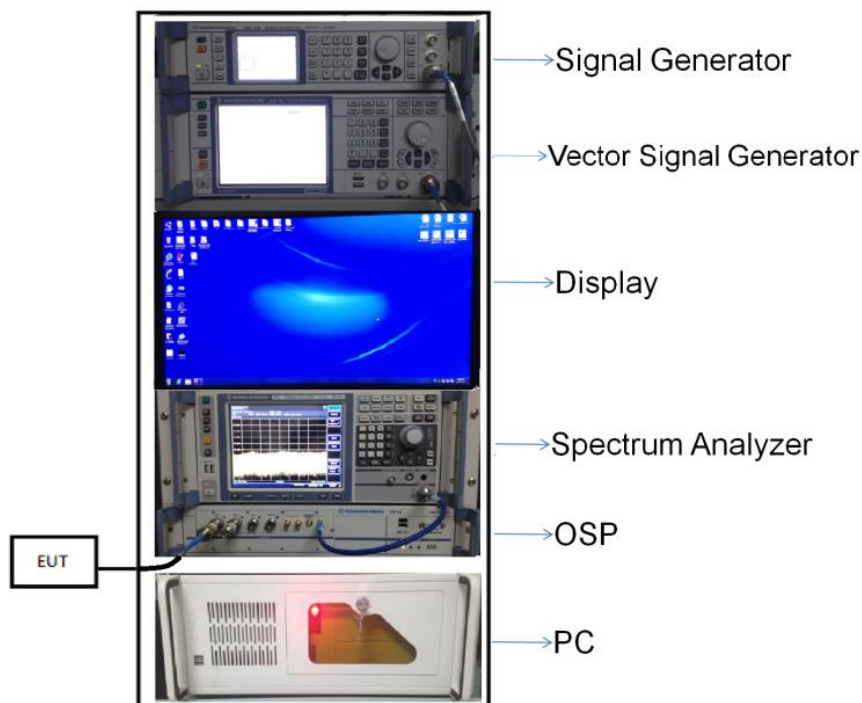
4.5 Description of Test Setup

4.5.1 For Antenna Port Test

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

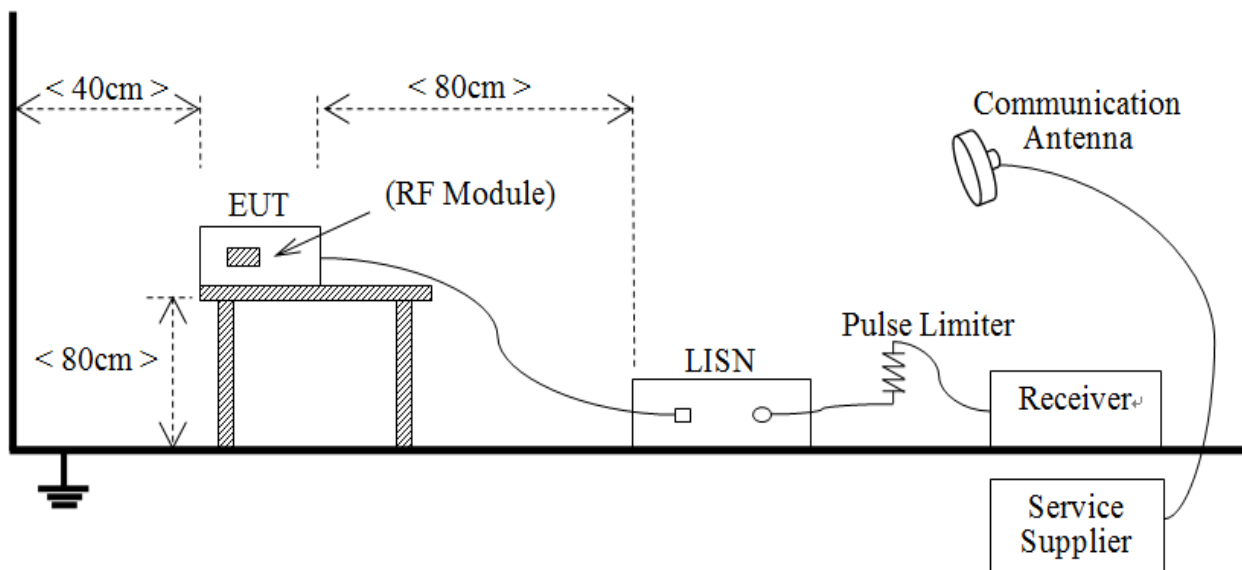
For example: the measurement value is 10 dBm and the cable 0.5dBm used, then the final result of EUT:

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



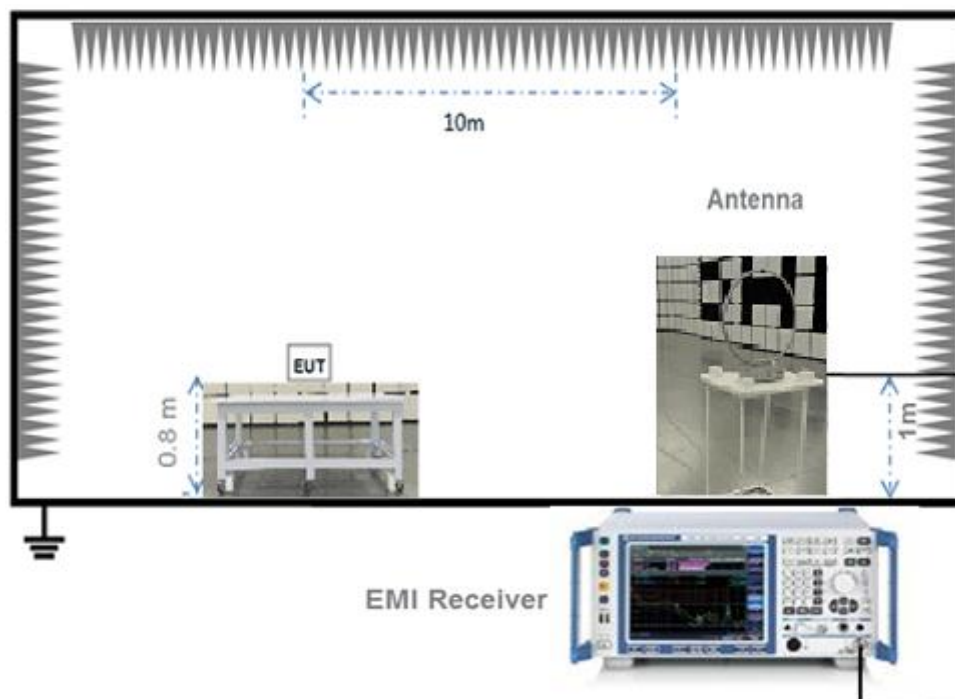
(Diagram 1)

4.5.2 For AC Power Supply Port Test



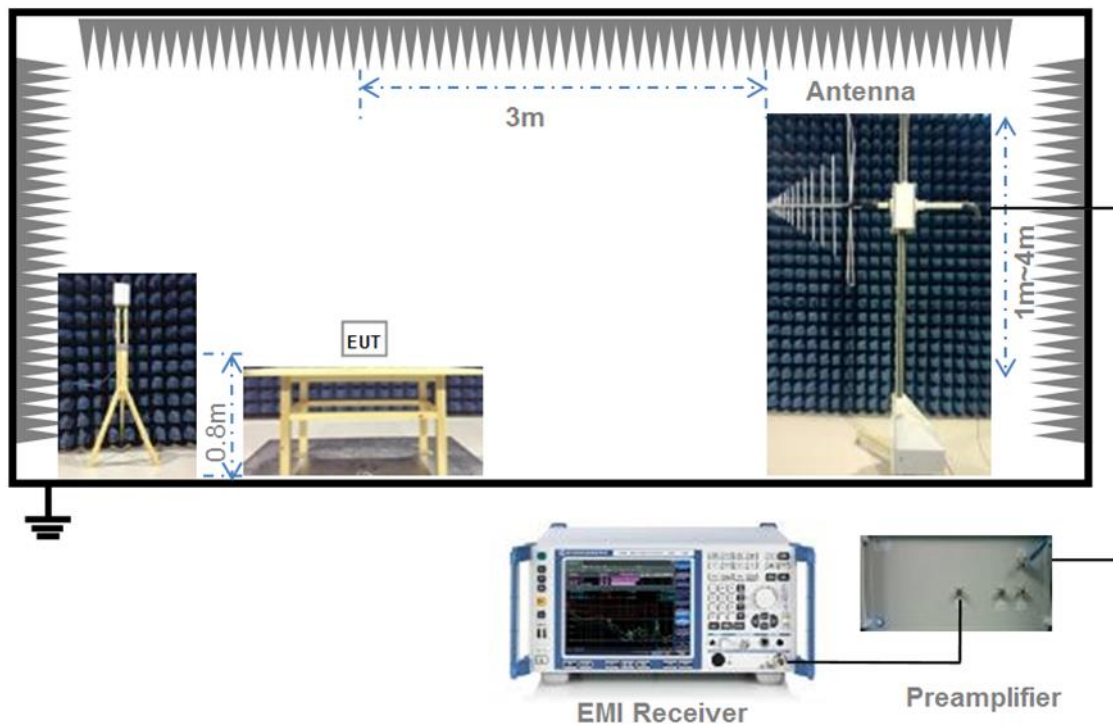
(Diagram 2)

4.5.3 For Radiated Test (Below 30 MHz)



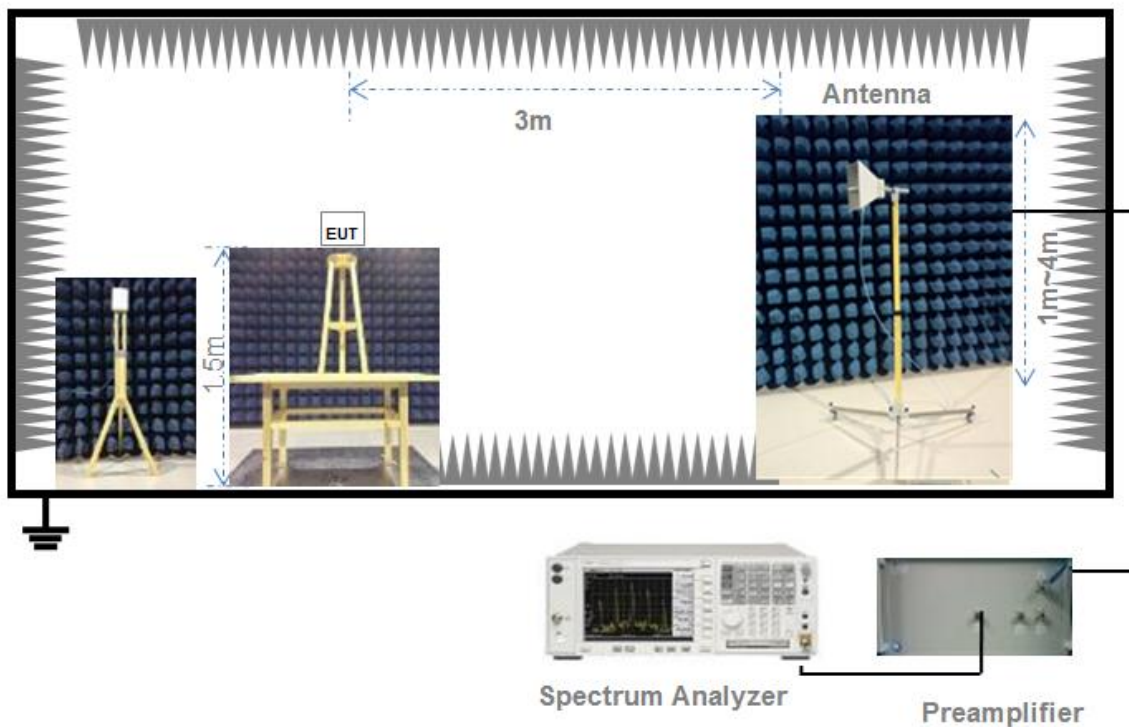
(Diagram 3)

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.

5 TEST ITEMS

5.1 Antenna Requirements

5.1.1 Relevant Standards

FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 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	The antenna is welded on the mainboard, can't be replaced by the consumer

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 Number of Hopping Frequencies

5.2.1 Limit

FCC §15.247(a)

For FHSs in the band 902-928 MHz: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping channels and the average time of occupancy on any channel shall not be greater than 0.4 seconds within a 20-second period. If the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping channels and the average time of occupancy on any channel shall not be greater than 0.4 seconds within a 10-second period. The maximum 20 dB bandwidth of the hopping channel shall be 500 kHz.

5.2.2 Test Setup

See section 4.4.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.2.3 Test Procedure

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

Span = the frequency band of operation

RBW $\geq$ 1% of the span

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize

5.2.4 Test Result

Please refer to ANNEX A.1.

5.3 Peak Output Power

5.3.1 Test Limit

FCC § 15.247(b)

For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels, as permitted under paragraph (a)(1)(i) of this section.

5.3.2 Test Setup

See section 4.4.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.3.3 Test Procedure

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

Use the following spectrum analyzer settings:

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

RBW > the 20 dB bandwidth of the emission being measured

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize.

5.3.4 Test Result

Please refer to ANNEX A.2.

5.4 Occupied Bandwidth

5.4.1 Limit

FCC §15.247(a)

5.4.2 Test Setup

See section 4.4.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.4.3 Test Procedure

Use the following spectrum analyzer settings:

Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel

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

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

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

5.4.4 Test Result

Please refer to ANNEX A.3.

5.5 Carrier Frequency Separation

5.5.1 Limit

FCC §15.247(a)

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

5.5.2 Test Setup

See section 4.4.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.5.3 Test Procedure

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

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

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

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

Sweep = auto

Detector function = peak

Trace = max hold

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

5.5.4 Test Result

Please refer to ANNEX A.4.

5.6 Time of Occupancy (Dwell time)

5.6.1 Limit

FCC §15.247(a)

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period.

5.6.2 Test Setup

See section 4.4.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.6.3 Test Procedure

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

5.6.4 Test Result

Please refer to ANNEX A.5

5.7 Conducted Spurious Emission & Authorized-band band-edge

5.7.1 Limit

FCC §15.247(d)

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.

5.7.2 Test Setup

See section 4.4.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.7.3 Test Procedure

Use the following spectrum analyzer settings:

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

RBW = 100 kHz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize

5.7.4 Test Result

Please refer to ANNEX A.6 and A.7

5.8 Conducted Emission

5.8.1 Limit

FCC §15.207

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

5.8.2 Test Setup

See section 4.4.2 for test setup description for the AC power supply port. The photo of test setup please refer to ANNEX B.

5.8.3 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.

5.8.4 Test Result

Please refer to ANNEX A.7.

5.9 Radiated Spurious Emission

5.9.1 Limit

FCC §15.209&15.247(d)

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

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	902/F(kHz)	300
0.490 - 1.705	9020/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).

5.9.2 Test Setup

See section 4.4.3 to 4.4.5 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.9.3 Test Procedure

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

The power of the EUT transmitting frequency should be ignored.

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

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

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

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported, Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

5.9.4 Test Result

Please refer to ANNEX A.8.

5.10 Band Edge (Restricted-band band-edge)

5.10.1 Limit

FCC §15.209&15.247(d)

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

5.10.2 Test Setup

See section 4.4.3 to 4.4.5 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.10.3 Test Procedure

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

The power of the EUT transmitting frequency should be ignored.

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

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

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

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported, Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

5.10.4 Test Result

Please refer to ANNEX A.9.

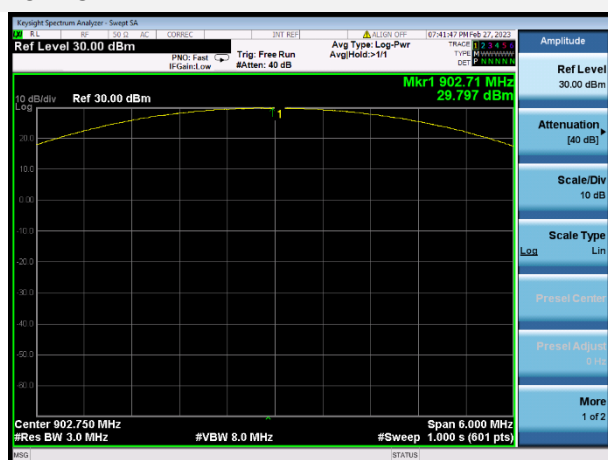
A.2 Peak Output Power

Test Data

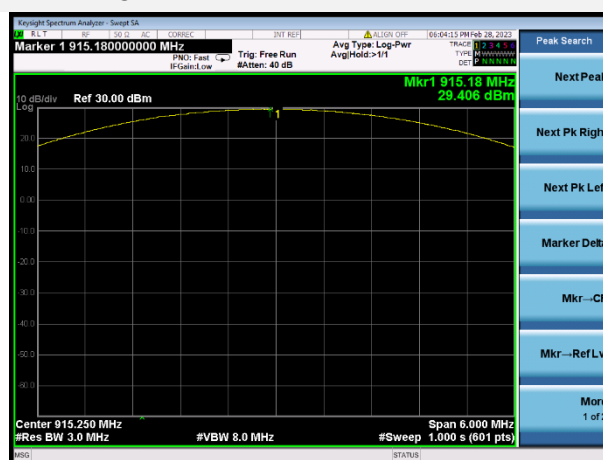
Channel	Measured Output Peak Power		Limit		Verdict
	RFID		dBm	mW	
	dBm	mW			
Low	29.80	954.33	29.82	959.4	Pass
Middle	29.41	872.17			Pass
High	29.50	891.87			Pass

Test Plots

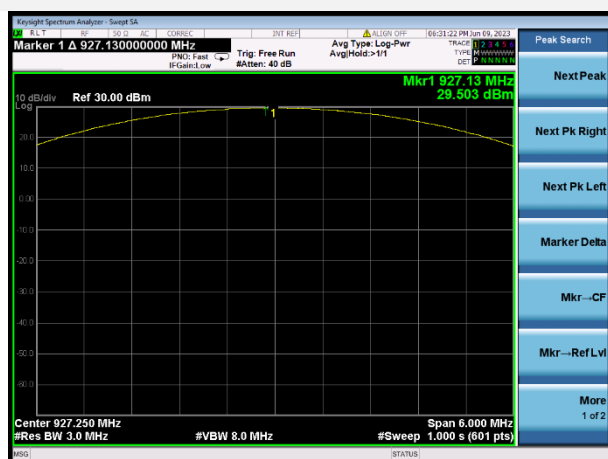
LOW CHANNEL



MIDDLE CHANNEL



HIGH CHANNEL



A.3 20 dB and 99% bandwidth

Test Data

RFID			
Channel	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)	Verdict
Low	0.058000	0.065311	Pass
Middle	0.060700	0.065654	Pass
High	0.060700	0.066380	Pass

Test Plots

20 dB Bandwidth

LOW CHANNEL



MIDDLE CHANNEL



HIGH CHANNEL



99% Bandwidth

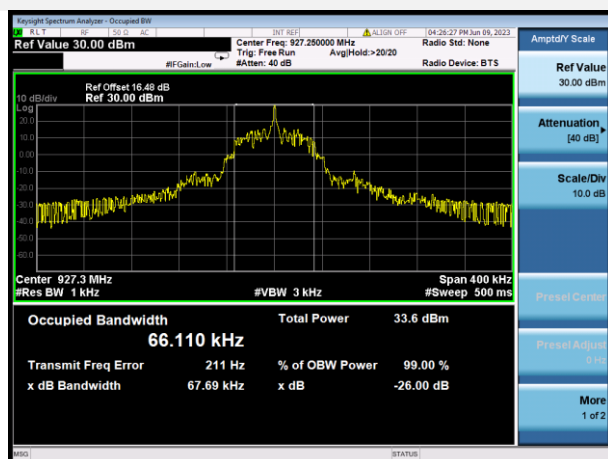
LOW CHANNEL



MIDDLE CHANNEL



HIGH CHANNEL



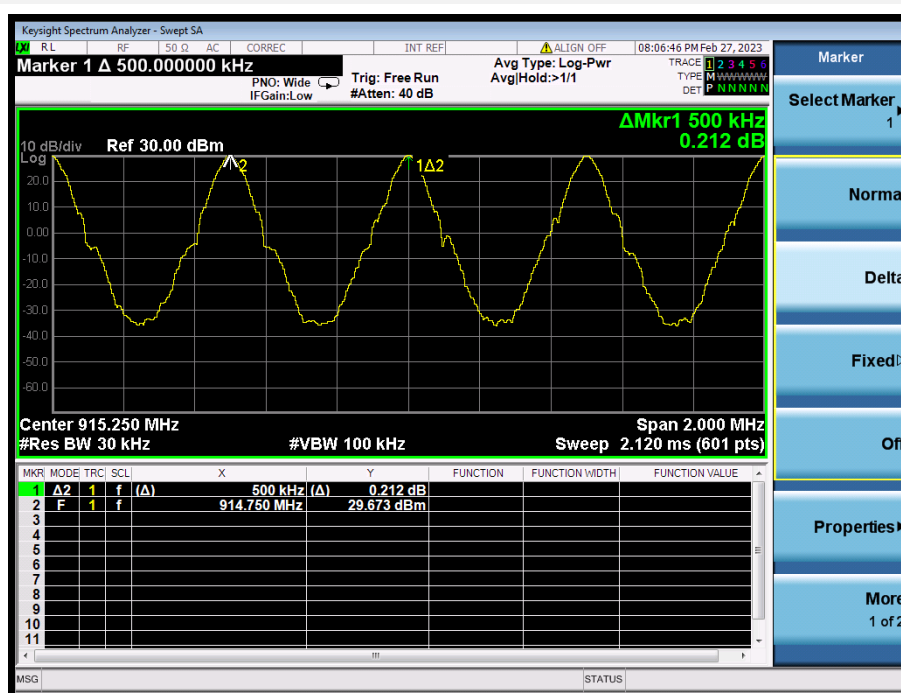
A.4 Hopping Frequency Separation

Test Data

Mode	Frequency separation (MHz)	Max 20 dB Bandwidth (MHz)	Verdict
RFID	0.500	0.061	Pass

Test Plots

RFID

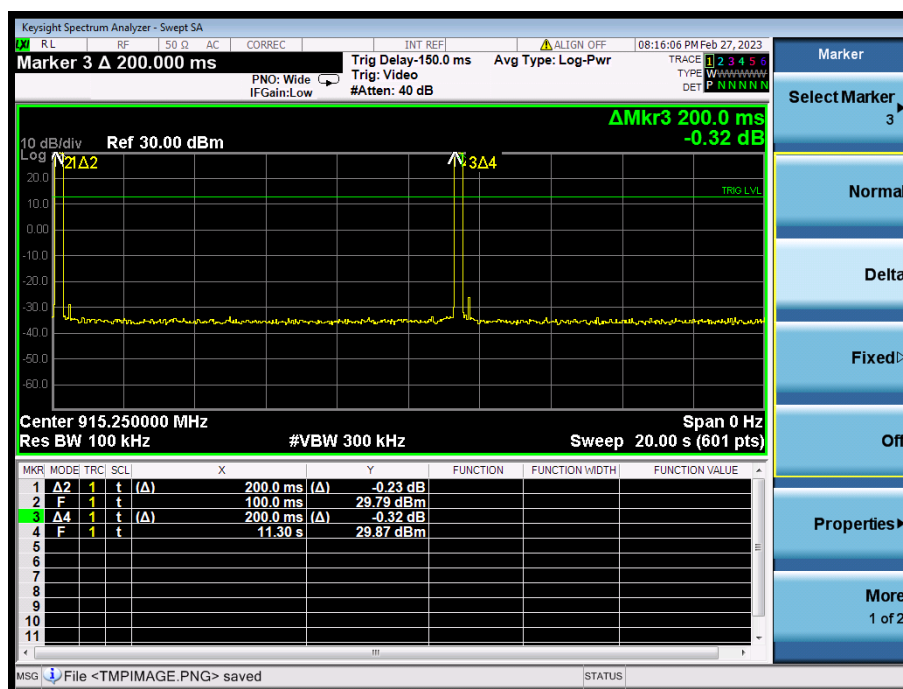


A.5 Average Time of Occupancy

Test Data

Total of Dwell (ms)	Limit (sec)	Verdict
400.0	0.4	Pass

RFID



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

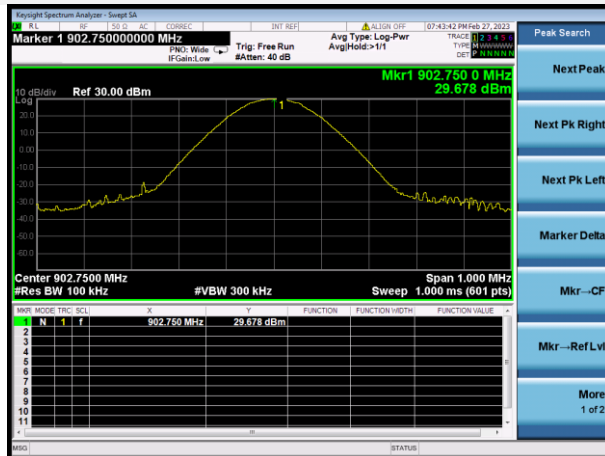
Test Data

RFID				
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-15.24	29.68	9.68	Pass
Middle	-15.46	29.87	9.87	Pass
High	-14.74	29.51	9.51	Pass

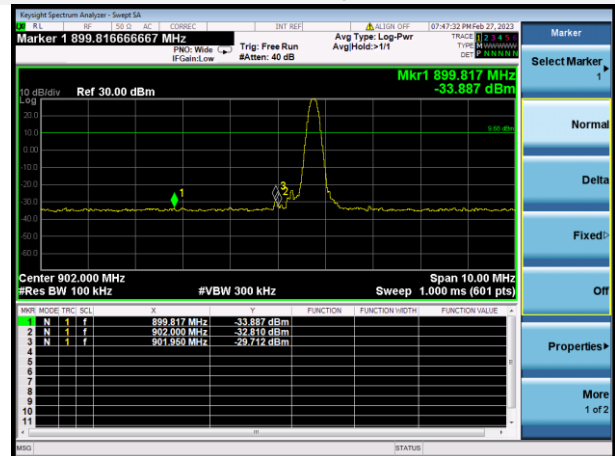
RFID				
Mode	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Hopping	-14.63	29.91	9.91	Pass

Test Plots

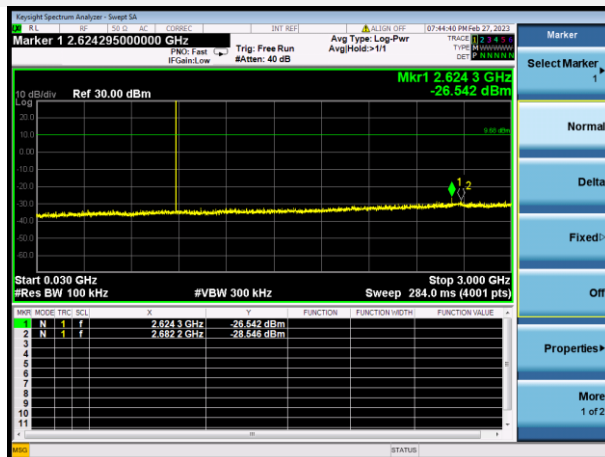
LOW CHANNEL, CARRIER LEVEL



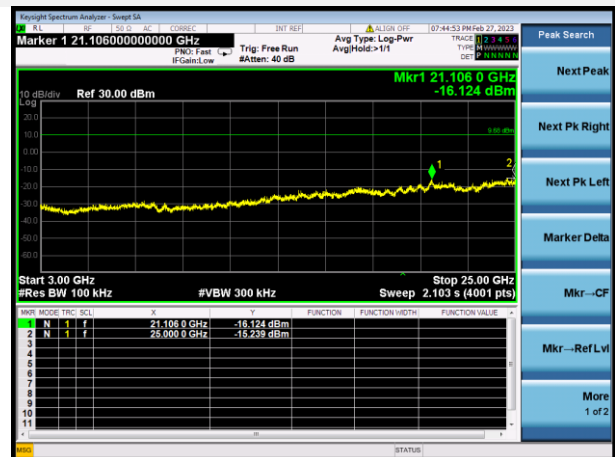
LOW CHANNEL, Band Edge



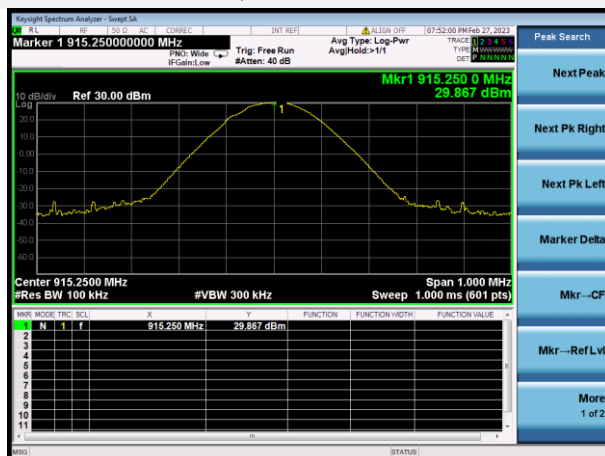
LOW CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



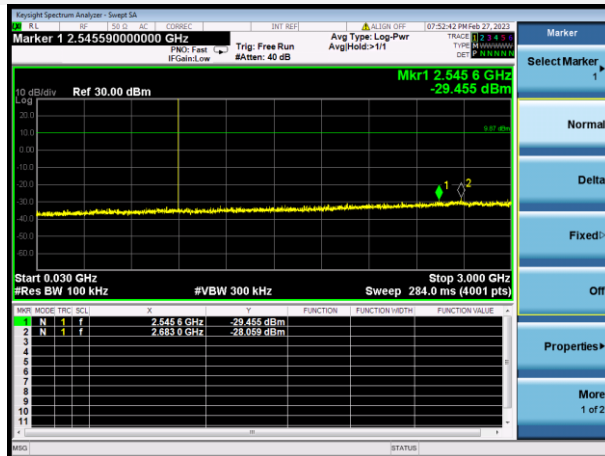
LOW CHANNEL, SPURIOUS 3 GHz ~ 25 GHz



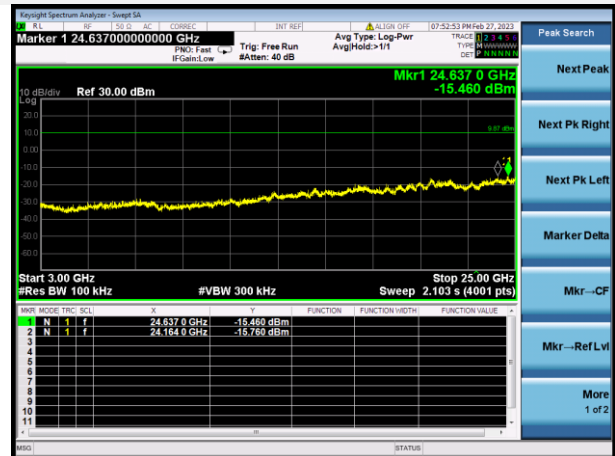
MIDDLE CHANNEL, CARRIER LEVEL



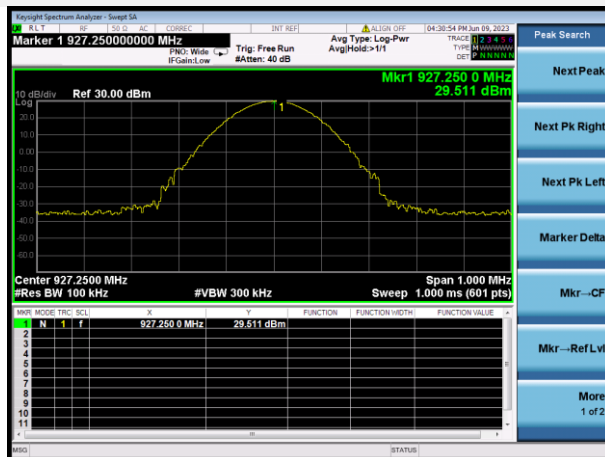
MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



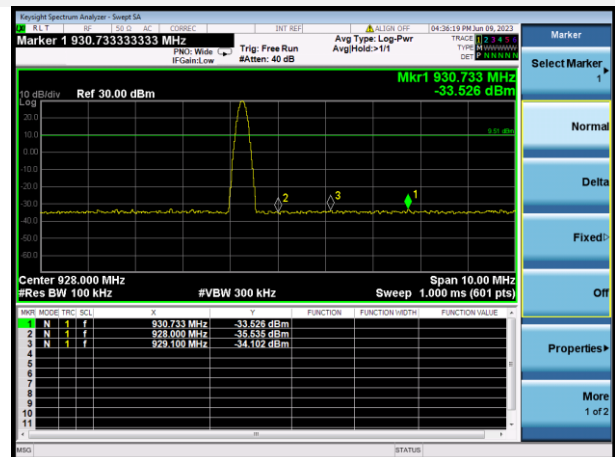
MIDDLE CHANNEL, SPURIOUS 3 GHz ~ 25 GHz



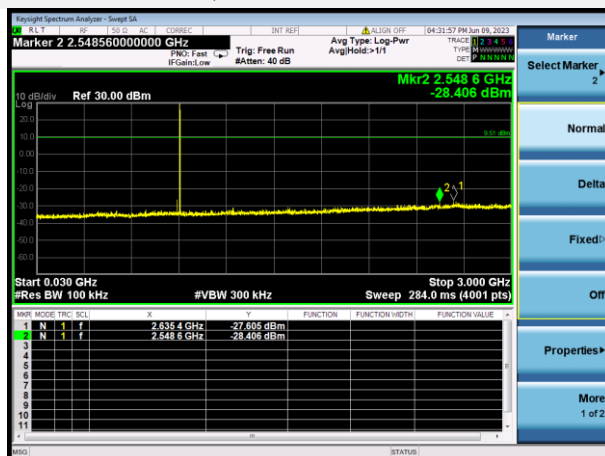
HIGH CHANNEL, CARRIER LEVEL



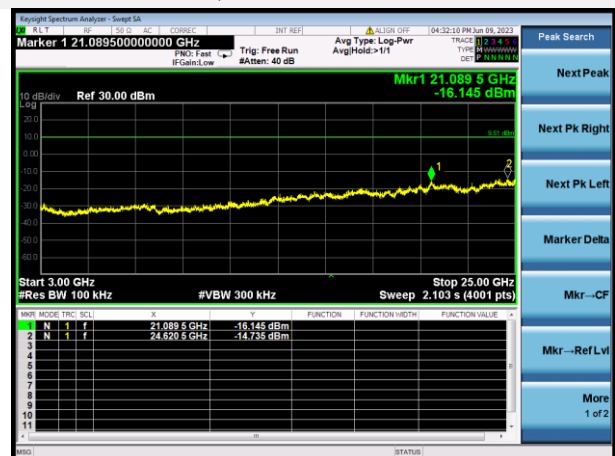
HIGH CHANNEL, BAND EDGE



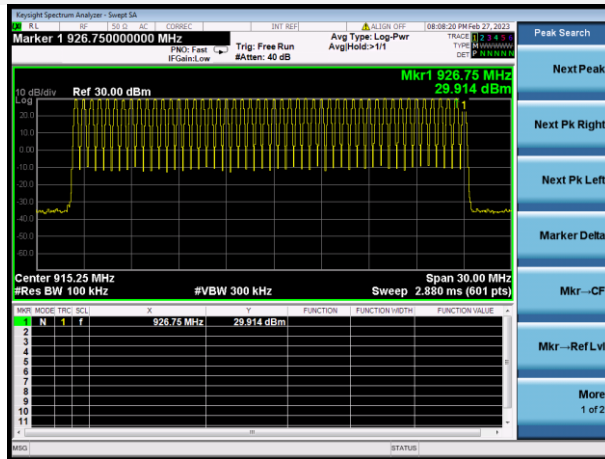
HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



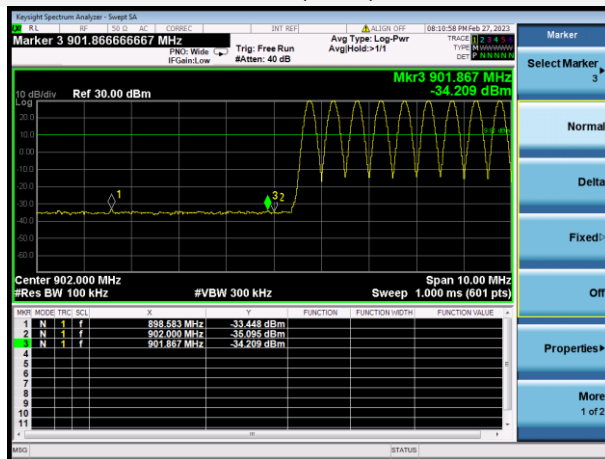
HIGH CHANNEL, SPURIOUS 3 GHz ~ 25 GHz



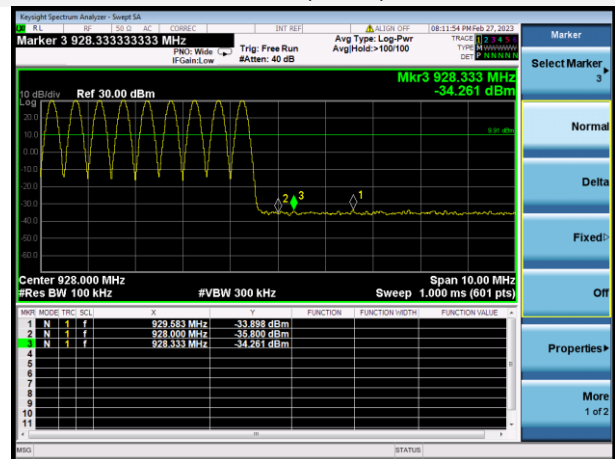
HOPPING, CARRIER LEVEL



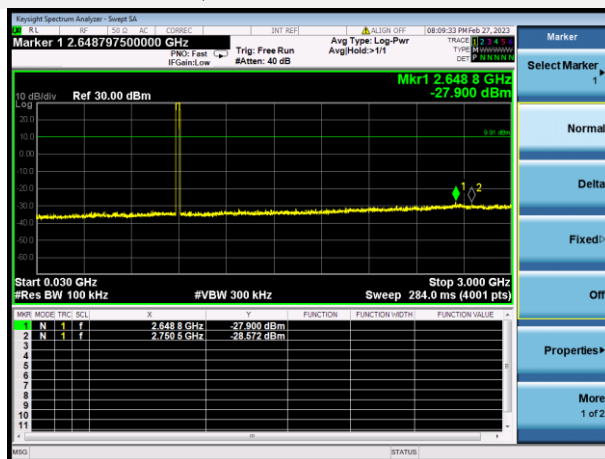
HOPPING BAND EDGE (LOW)



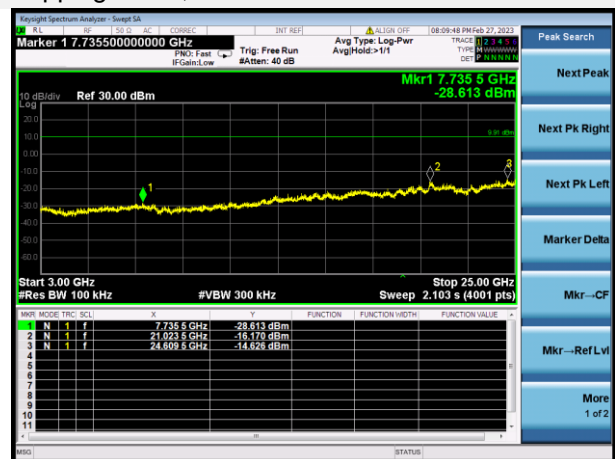
HOPPING BAND EDGE (HIGH)



HOPPING Mode, SPURIOUS 30 MHz ~ 3 GHz



Hopping Mode, SPURIOUS 3 GHz ~ 25 GHz



A.7 Conducted Emissions

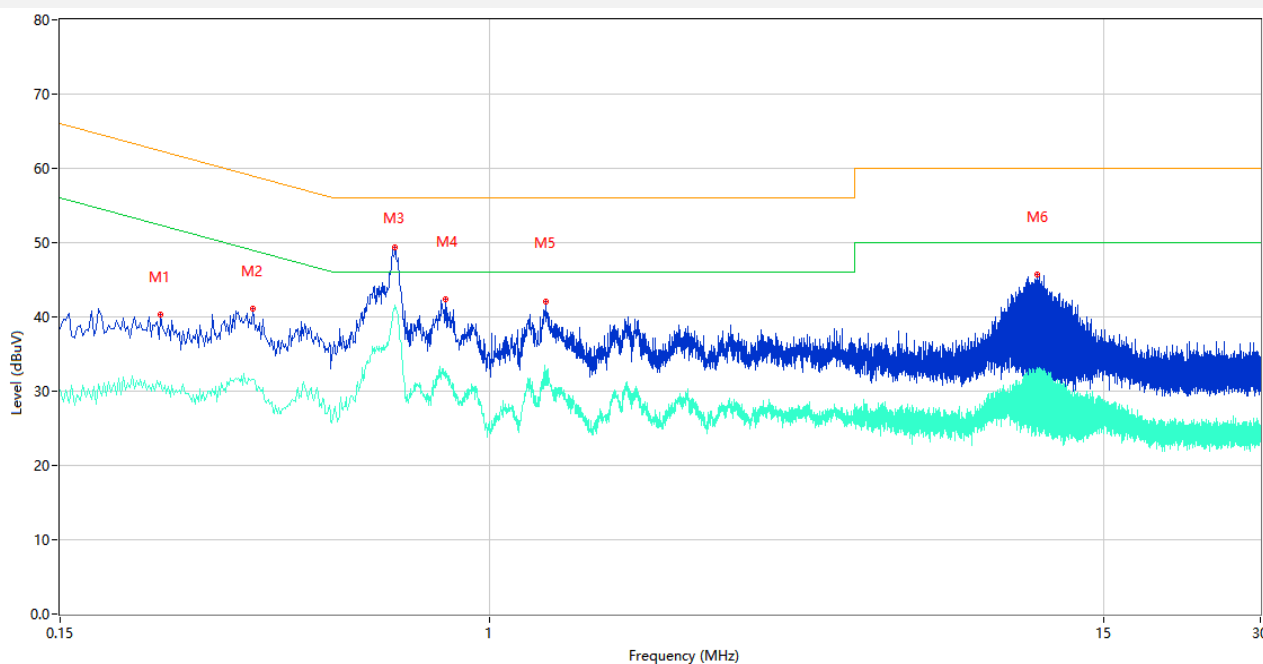
Note ¹: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

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

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

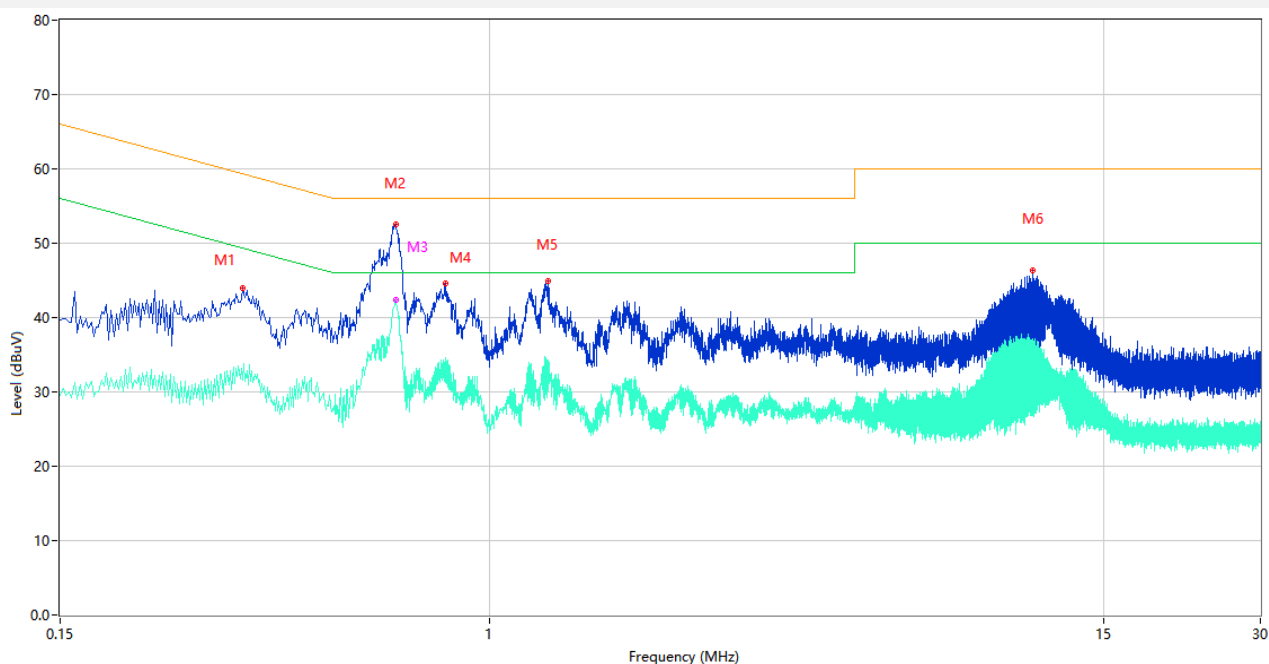
Test Data and Plots

PHASE L



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.234	40.33	10.03	62.31	21.98	Peak	L	Pass
1**	0.234	31.33	10.03	52.31	20.98	AV	L	Pass
2	0.352	41.12	10.96	58.92	17.80	Peak	L	Pass
2**	0.352	31.54	10.96	48.92	17.38	AV	L	Pass
3	0.658	49.32	10.45	56.00	6.68	Peak	L	Pass
3**	0.658	41.60	10.45	46.00	4.40	AV	L	Pass
4	0.824	42.40	10.71	56.00	13.60	Peak	L	Pass
4**	0.824	32.70	10.71	46.00	13.30	AV	L	Pass
5	1.280	41.99	10.59	56.00	14.01	Peak	L	Pass
5**	1.280	32.71	10.59	46.00	13.29	AV	L	Pass
6	11.178	45.70	10.49	60.00	14.30	Peak	L	Pass
6**	11.178	33.13	10.49	50.00	16.87	AV	L	Pass

PHASE N



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.336	44.03	10.69	59.30	15.27	Peak	N	Pass
1**	0.336	31.63	10.69	49.30	17.67	AV	N	Pass
2	0.660	52.59	10.47	56.00	3.41	Peak	N	Pass
2**	0.660	42.35	10.47	46.00	3.65	AV	N	Pass
3	0.662	52.40	10.48	56.00	3.60	Peak	N	Pass
3**	0.662	42.38	10.48	46.00	3.62	AV	N	Pass
4	0.822	44.56	10.71	56.00	11.44	Peak	N	Pass
4**	0.822	34.61	10.71	46.00	11.39	AV	N	Pass
5	1.290	44.91	10.61	56.00	11.09	Peak	N	Pass
5**	1.290	34.25	10.61	46.00	11.75	AV	N	Pass
6	10.984	46.28	10.59	60.00	13.72	Peak	N	Pass
6**	10.984	37.18	10.59	50.00	12.82	AV	N	Pass

A.8 Radiated Spurious Emission

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

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

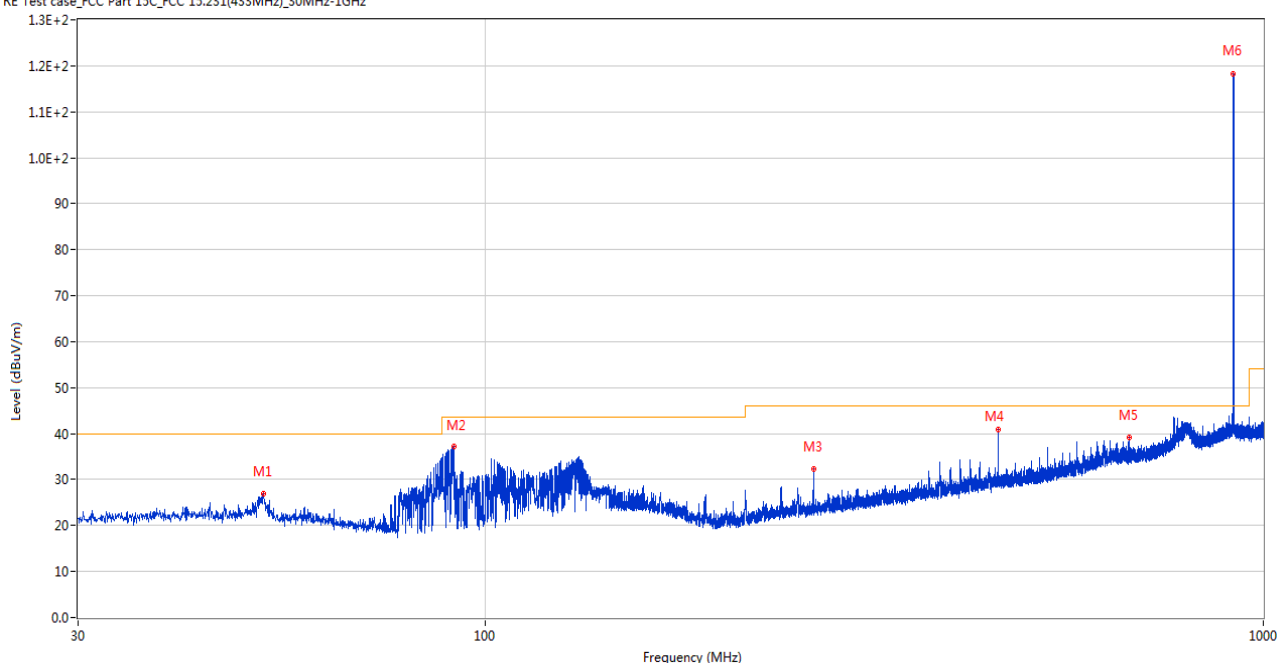
Note ³: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

Note ⁴: The marked spikes near 900 MHz with circle should be ignored because they are Fundamental signal.

Test Data and Plots

LOW CHANNEL, 30 MHz to 1 GHz, ANT H

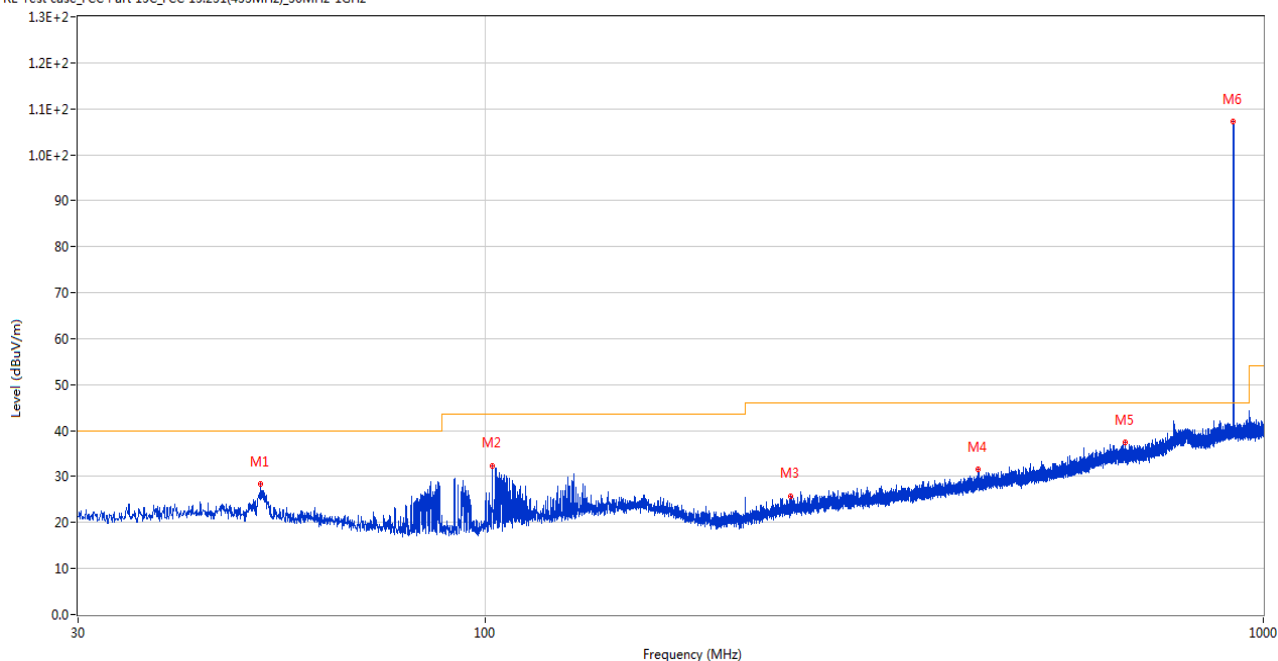
RE Test case_FCC Part 15C_FCC 15.231(433MHz)_30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	51.971	26.84	-14.33	40.0	13.16	Peak	339.00	200	Horizontal	Pass
2	91.304	38.05	-17.50	43.5	5.45	Peak	83.00	200	Horizontal	Pass
3	264.304	32.32	-13.31	46.0	13.68	Peak	83.00	200	Horizontal	Pass
4	456.121	41.00	-7.13	46.0	5.00	Peak	268.00	200	Horizontal	Pass
5	671.898	39.15	-1.39	46.0	6.85	Peak	170.00	200	Horizontal	Pass
6	902.756	118.31	4.18	46.0	-72.31	Peak	77.00	100	Horizontal	N/A

LOW CHANNEL, 30 MHz to 1 GHz, ANT V

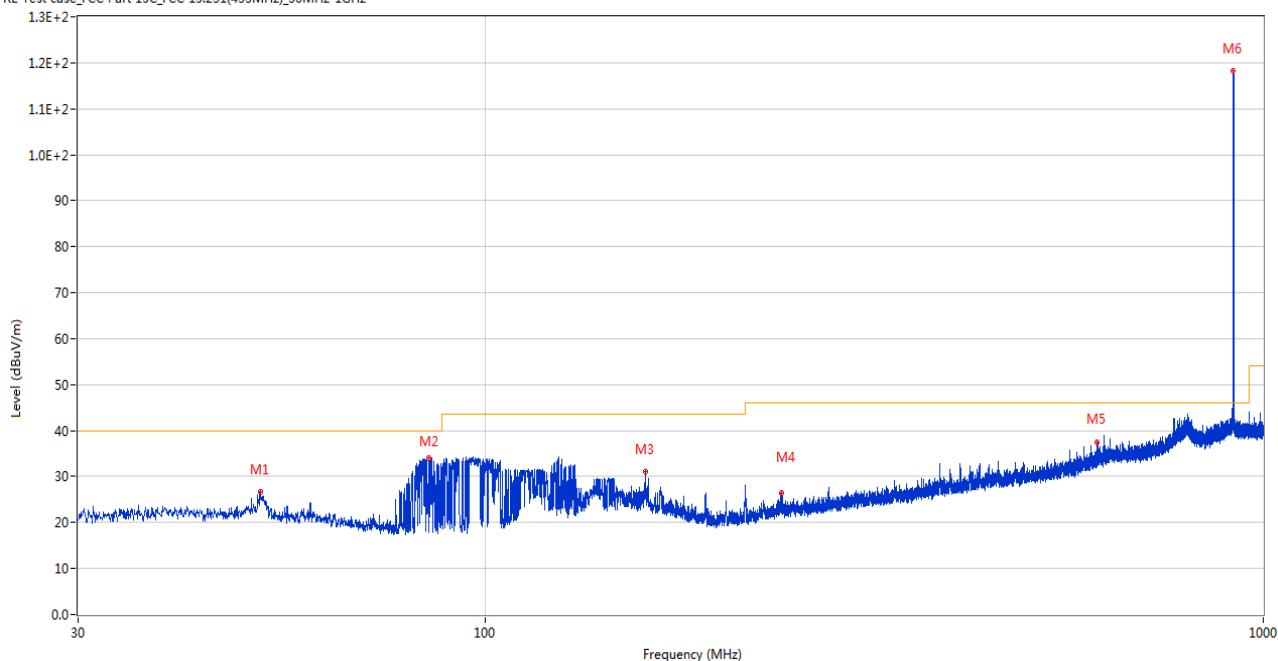
RE Test case_FCC Part 15C_FCC 15.231(433MHz)_30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	51.486	28.34	-14.25	40.0	11.66	Peak	27.00	100	Vertical	Pass
2	102.168	32.38	-16.62	43.5	11.12	Peak	360.00	200	Vertical	Pass
3	247.232	25.73	-13.72	46.0	20.27	Peak	255.00	100	Vertical	Pass
4	430.319	31.57	-7.90	46.0	14.43	Peak	360.00	200	Vertical	Pass
5	663.750	37.41	-1.31	46.0	8.59	Peak	280.00	100	Vertical	Pass
6	902.756	107.14	4.18	46.0	-61.14	Peak	181.00	100	Vertical	N/A

MIDDLE CHANNEL, 30 MHz to 1 GHz, ANT H

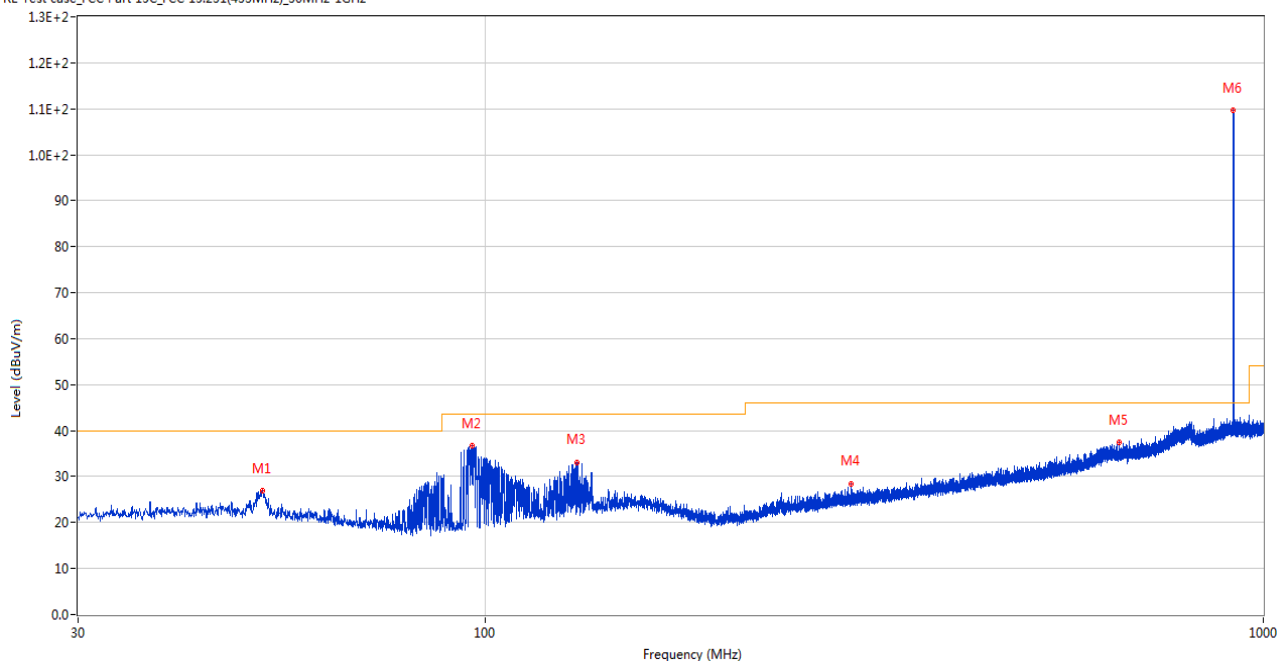
RE Test case_FCC Part 15C_FCC 15.231(433MHz)_30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	51.437	26.57	-14.24	40.0	13.43	Peak	292.00	100	Horizontal	Pass
2	84.660	34.09	-17.83	40.0	5.91	Peak	207.00	100	Horizontal	Pass
3	160.756	32.99	-12.05	43.5	10.51	Peak	233.00	100	Horizontal	Pass
4	240.102	26.35	-13.75	46.0	19.65	Peak	39.00	100	Horizontal	Pass
5	612.049	37.54	-2.19	46.0	8.46	Peak	176.00	200	Horizontal	Pass
6	915.256	118.15	4.21	46.0	-72.15	Peak	78.00	100	Horizontal	N/A

MIDDLE CHANNEL, 30 MHz to 1 GHz, ANT V

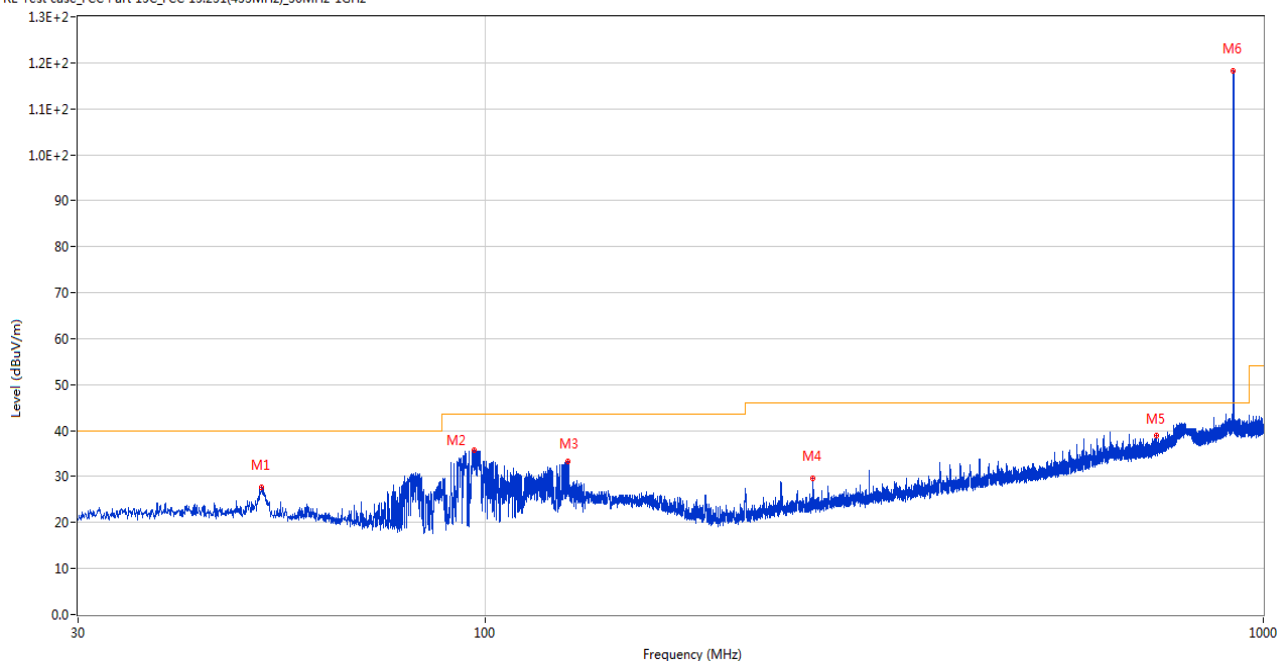
RE Test case_FCC Part 15C_FCC 15.231(433MHz)_30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	51.728	26.91	-14.29	40.0	13.09	Peak	56.00	100	Vertical	Pass
2	96.348	36.72	-17.25	43.5	6.78	Peak	360.00	200	Vertical	Pass
3	131.316	33.15	-13.58	43.5	10.35	Peak	178.00	200	Vertical	Pass
4	295.344	28.42	-11.98	46.0	17.58	Peak	150.00	100	Vertical	Pass
5	653.613	37.39	-1.44	46.0	8.61	Peak	317.00	200	Vertical	Pass
6	915.256	109.61	4.21	46.0	-63.61	Peak	125.00	200	Vertical	N/A

HIGH CHANNEL, 30 MHz to 1 GHz, ANT H

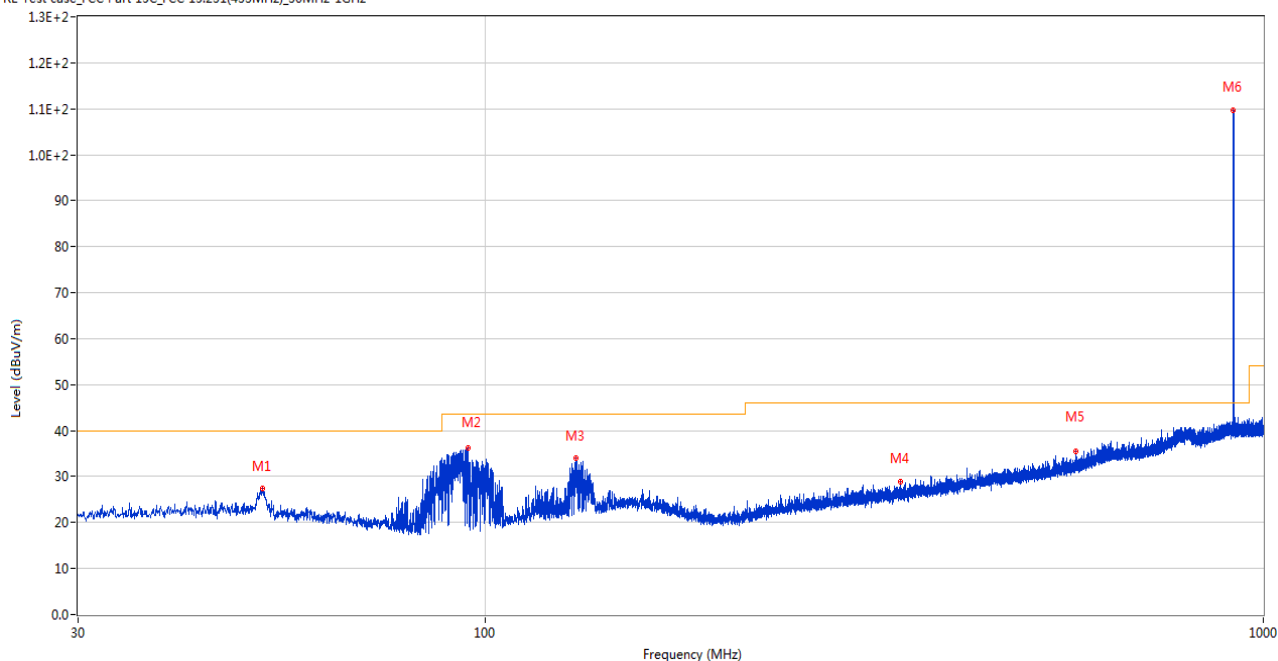
RE Test case_FCC Part 15C_FCC 15.231(433MHz)_30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	51.679	27.66	-14.28	40.0	12.34	Peak	221.00	100	Horizontal	Pass
2	96.833	35.29	-17.27	43.5	8.21	Peak	227.00	200	Horizontal	Pass
3	127.679	32.19	-14.02	43.5	11.31	Peak	270.00	100	Horizontal	Pass
4	264.013	29.63	-13.33	46.0	16.37	Peak	103.00	200	Horizontal	Pass
5	728.400	38.98	0.00	46.0	7.02	Peak	199.00	200	Horizontal	Pass
6	927.256	118.20	4.26	46.0	-72.20	Peak	78.00	100	Horizontal	N/A

HIGH CHANNEL, 30 MHz to 1 GHz, ANT V

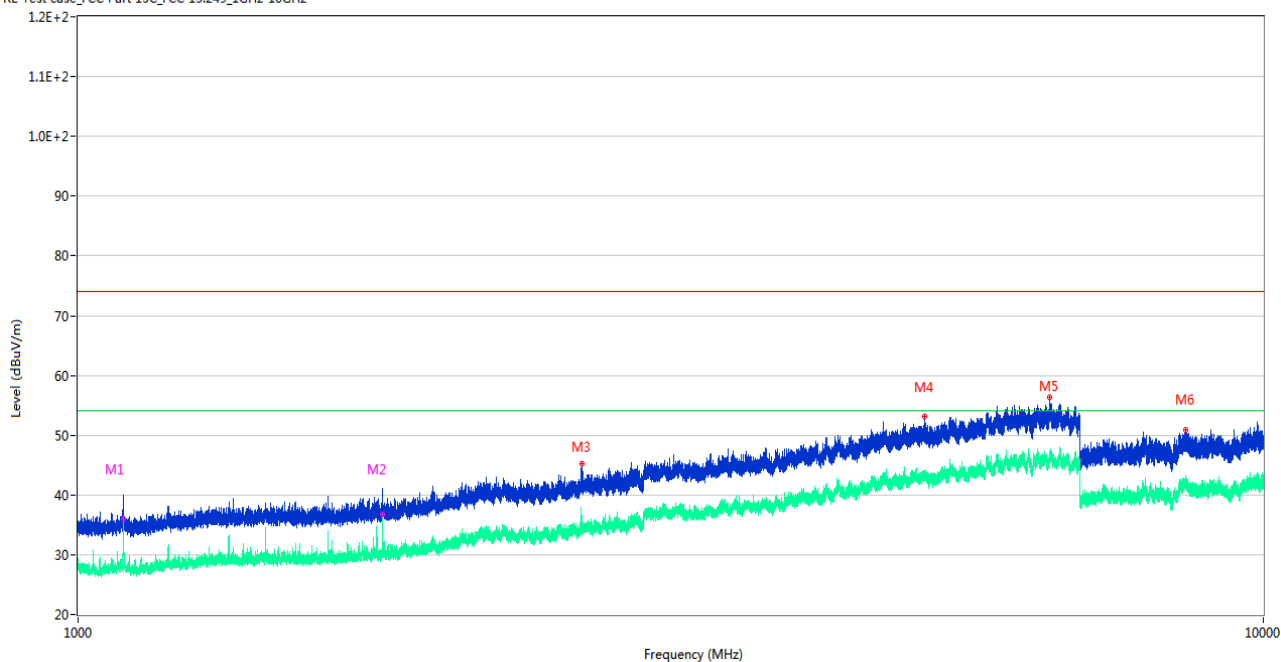
RE Test case_FCC Part 15C_FCC 15.231(433MHz)_30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	51.776	27.41	-14.30	40.0	12.59	Peak	89.00	100	Vertical	Pass
2	95.135	36.31	-17.22	43.5	7.19	Peak	358.00	200	Vertical	Pass
3	130.928	33.93	-13.70	43.5	9.57	Peak	174.00	200	Vertical	Pass
4	342.243	28.94	-10.58	46.0	17.06	Peak	223.00	100	Vertical	Pass
5	574.752	35.45	-4.05	46.0	10.55	Peak	153.00	100	Vertical	Pass
6	927.256	109.72	4.26	46.0	-63.72	Peak	202.00	200	Vertical	N/A

LOW CHANNEL, 1 GHz to 10 GHz, ANT H

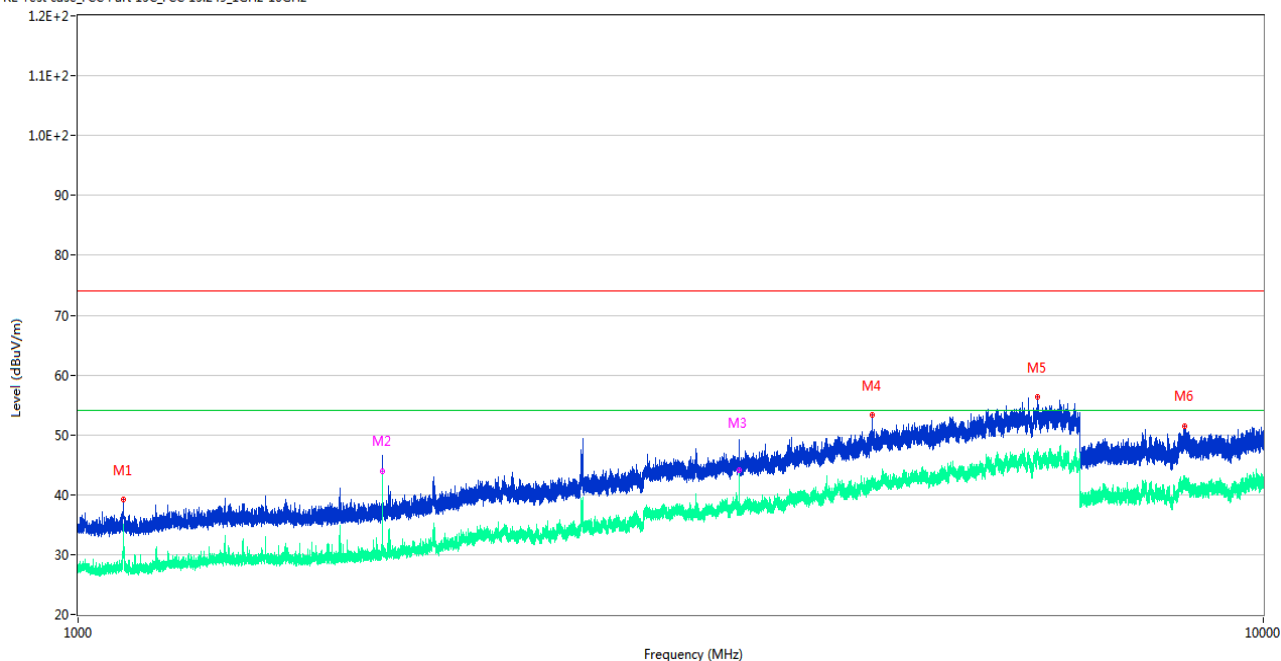
RE Test case_FCC Part 15C_FCC 15.249_1GHz-10GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1092.000	39.29	-18.47	74.0	34.71	Peak	186.00	100	Horizontal	Pass
1**	1092.000	36.10	-18.47	54.0	17.90	AV	186.00	100	Horizontal	Pass
2	1805.600	40.91	-16.76	74.0	33.09	Peak	345.00	100	Horizontal	Pass
2**	1805.600	36.81	-16.76	54.0	17.19	AV	345.00	100	Horizontal	N/A
3	2662.000	45.28	-11.15	74.0	28.72	Peak	155.00	100	Horizontal	Pass
3**	2662.000	34.26	-11.15	54.0	19.74	AV	155.00	100	Horizontal	Pass
4	5182.000	53.08	-1.72	74.0	20.92	Peak	66.00	100	Horizontal	Pass
4**	5182.000	43.37	-1.72	54.0	10.63	AV	66.00	100	Horizontal	Pass
5	6602.600	56.37	1.44	74.0	17.63	Peak	97.00	100	Horizontal	Pass
5**	6602.600	46.24	1.44	54.0	7.76	AV	97.00	100	Horizontal	Pass
6	8600.800	50.93	-2.21	74.0	23.07	Peak	243.00	100	Horizontal	Pass
6**	8600.800	43.07	-2.21	54.0	10.93	AV	243.00	100	Horizontal	Pass

LOW CHANNEL, 1 GHz to 10 GHz, ANT V

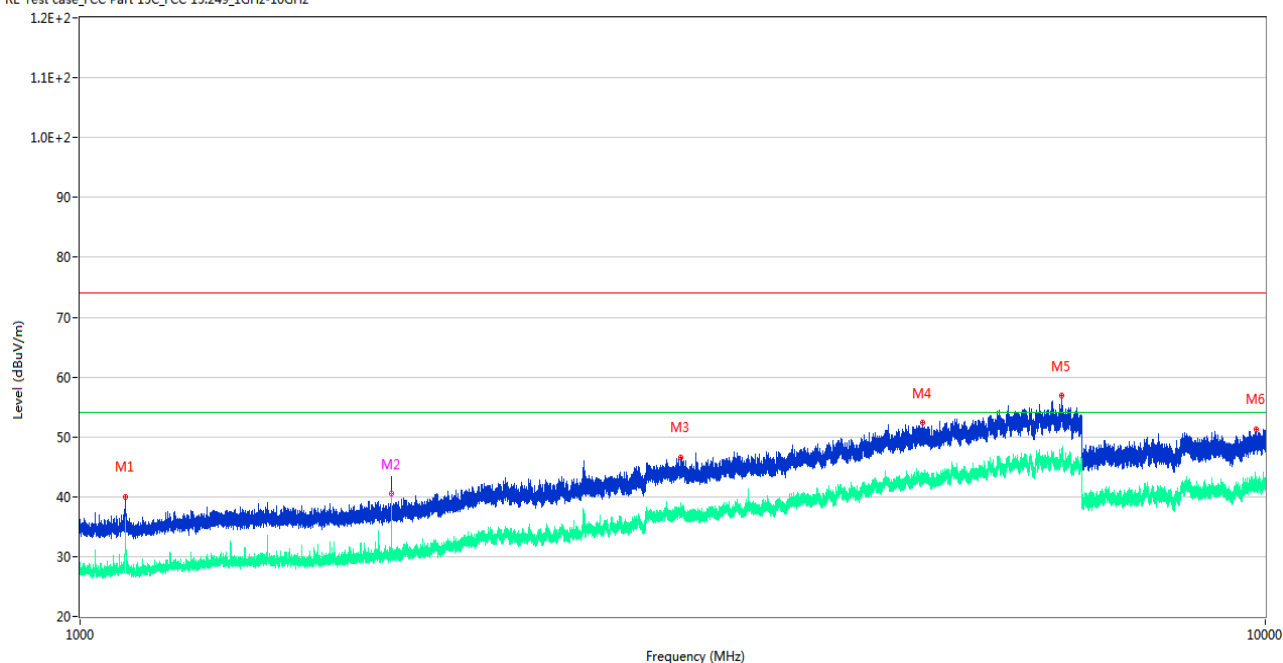
RE Test case_FCC Part 15C_FCC 15.249_1GHz-10GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1091.700	39.16	-18.46	74.0	34.84	Peak	58.00	100	Vertical	Pass
1**	1091.700	33.68	-18.46	54.0	20.32	AV	58.00	100	Vertical	Pass
2	1805.500	46.59	-16.78	74.0	27.41	Peak	165.00	100	Vertical	Pass
2**	1805.500	43.93	-16.78	54.0	10.07	AV	165.00	100	Vertical	N/A
3	3611.400	46.82	-6.65	74.0	27.18	Peak	335.00	100	Vertical	Pass
3**	3611.400	44.14	-6.65	54.0	9.86	AV	335.00	100	Vertical	Pass
4	4673.600	53.27	-2.27	74.0	20.73	Peak	104.00	100	Vertical	Pass
4**	4673.600	41.64	-2.27	54.0	12.36	AV	104.00	100	Vertical	Pass
5	6445.200	56.31	1.47	74.0	17.69	Peak	145.00	100	Vertical	Pass
5**	6445.200	46.17	1.47	54.0	7.83	AV	145.00	100	Vertical	Pass
6	8575.900	51.49	-2.09	74.0	22.51	Peak	301.00	100	Vertical	Pass
6**	8575.900	41.51	-2.09	54.0	12.49	AV	301.00	100	Vertical	Pass

MIDDLE CHANNEL, 1 GHz to 10 GHz, ANT H

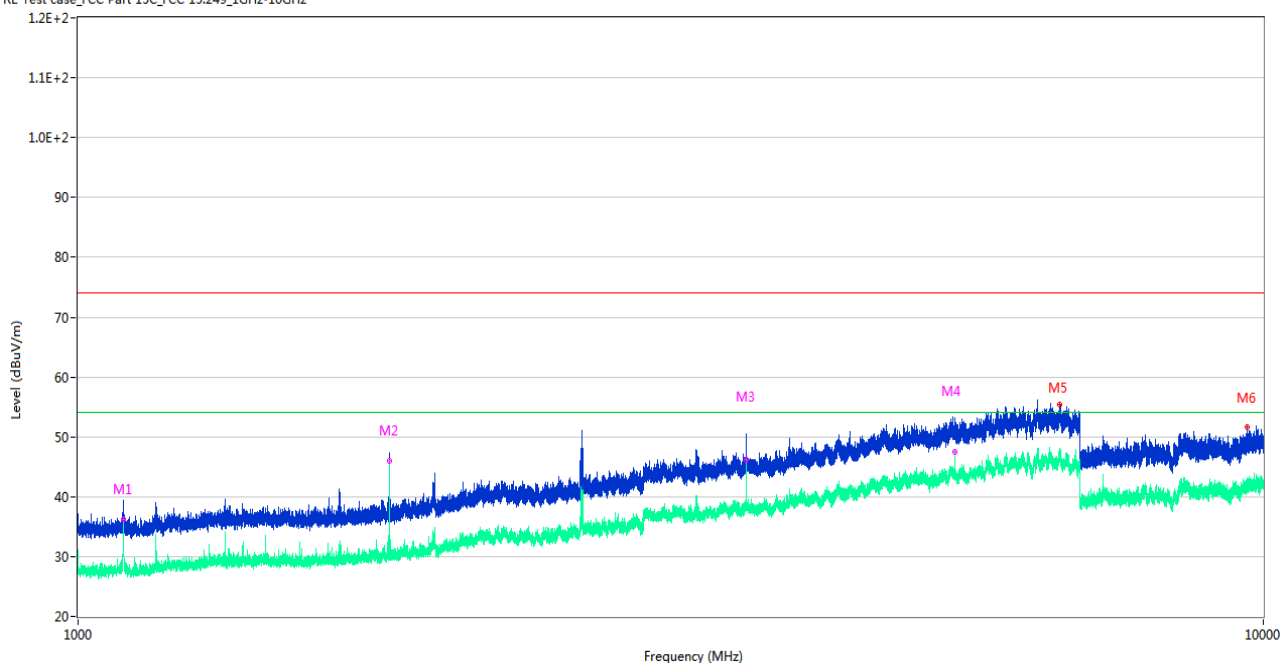
RE Test case_FCC Part 15C_FCC 15.249_1GHz-10GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1091.800	40.01	-18.47	74.0	33.99	Peak	93.00	100	Horizontal	Pass
1**	1091.800	35.36	-18.47	54.0	18.64	AV	93.00	100	Horizontal	Pass
2	1830.600	42.73	-16.66	74.0	31.27	Peak	280.00	100	Horizontal	Pass
2**	1830.600	40.50	-16.66	54.0	13.50	AV	280.00	100	Horizontal	N/A
3	3209.400	46.56	-7.26	74.0	27.44	Peak	296.00	100	Horizontal	Pass
3**	3209.400	37.65	-7.26	54.0	16.35	AV	296.00	100	Horizontal	Pass
4	5139.000	52.36	-1.86	74.0	21.64	Peak	307.00	100	Horizontal	Pass
4**	5139.000	42.96	-1.86	54.0	11.04	AV	307.00	100	Horizontal	Pass
5	6736.600	56.87	2.43	74.0	17.13	Peak	152.00	100	Horizontal	Pass
5**	6736.600	47.26	2.43	54.0	6.74	AV	152.00	100	Horizontal	Pass
6	9817.750	51.29	0.01	74.0	22.71	Peak	164.00	100	Horizontal	Pass
6**	9817.750	42.43	0.01	54.0	11.57	AV	164.00	100	Horizontal	Pass

MIDDLE CHANNEL, 1 GHz to 10 GHz, ANT V

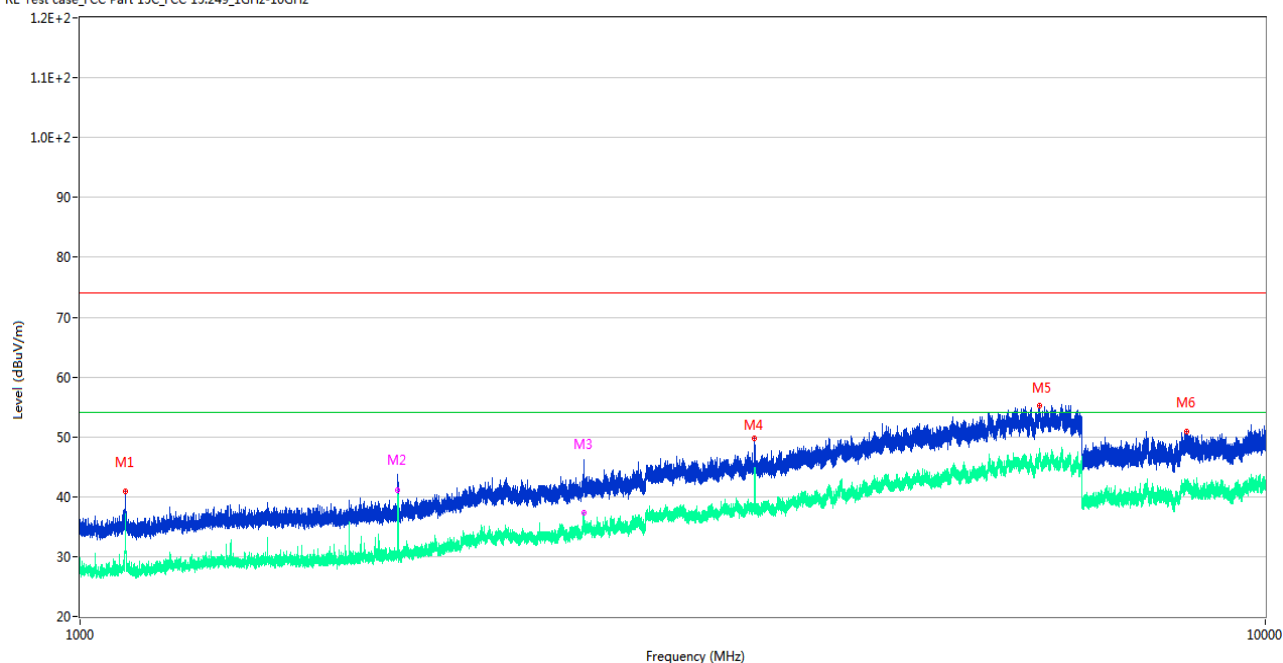
RE Test case_FCC Part 15C_FCC 15.249_1GHz-10GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1092.100	38.41	-18.47	74.0	35.59	Peak	50.00	100	Vertical	Pass
1**	1092.100	36.23	-18.47	54.0	17.77	AV	50.00	100	Vertical	Pass
2	1830.700	46.76	-16.66	74.0	27.24	Peak	132.00	100	Vertical	Pass
2**	1830.700	46.00	-16.66	54.0	8.00	AV	132.00	100	Vertical	N/A
3	3661.200	48.95	-6.39	74.0	25.05	Peak	333.00	100	Vertical	Pass
3**	3661.200	46.26	-6.39	54.0	7.74	AV	333.00	100	Vertical	Pass
4	5492.000	51.08	-1.54	74.0	22.92	Peak	209.00	100	Vertical	Pass
4**	5492.000	47.56	-1.54	54.0	6.44	AV	209.00	100	Vertical	Pass
5	6732.000	55.45	1.82	74.0	18.55	Peak	126.00	100	Vertical	Pass
5**	6732.000	47.76	1.82	54.0	6.24	AV	126.00	100	Vertical	Pass
6	9692.800	51.59	0.13	74.0	22.41	Peak	260.00	100	Vertical	Pass
6**	9692.800	42.09	0.13	54.0	11.91	AV	260.00	100	Vertical	Pass

HIGH CHANNEL, 1 GHz to 10 GHz, ANT H

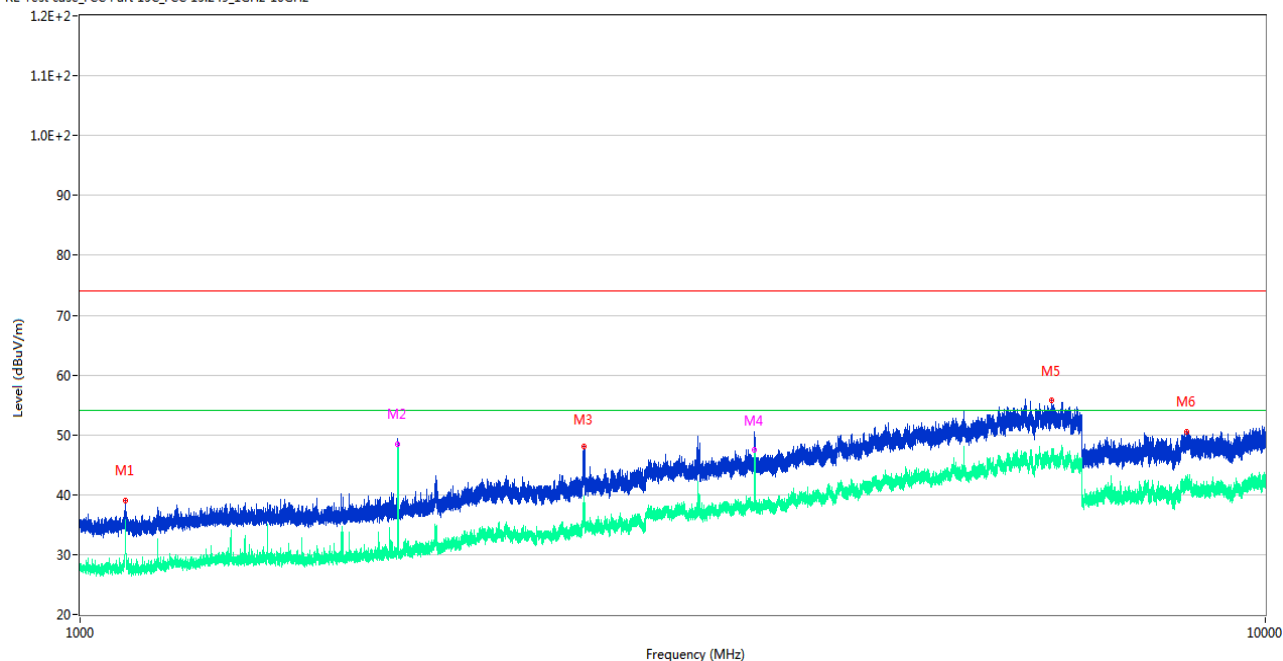
RE Test case_FCC Part 15C_FCC 15.249_1GHz-10GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1091.400	40.81	-18.46	74.0	33.19	Peak	102.00	100	Horizontal	Pass
1**	1091.400	33.44	-18.46	54.0	20.56	AV	102.00	100	Horizontal	Pass
2	1854.500	43.68	-16.64	74.0	30.32	Peak	281.00	100	Horizontal	Pass
2**	1854.500	41.13	-16.64	54.0	12.87	AV	281.00	100	Horizontal	N/A
3	2663.600	42.37	-11.15	74.0	31.63	Peak	293.00	100	Horizontal	Pass
3**	2663.600	37.40	-11.15	54.0	16.60	AV	293.00	100	Horizontal	Pass
4	3709.200	49.70	-5.82	74.0	24.30	Peak	20.00	100	Horizontal	Pass
4**	3709.200	44.91	-5.82	54.0	9.09	AV	20.00	100	Horizontal	Pass
5	6452.800	55.22	1.77	74.0	18.78	Peak	198.00	100	Horizontal	Pass
5**	6452.800	46.30	1.77	54.0	7.70	AV	198.00	100	Horizontal	Pass
6	8578.450	50.86	-2.09	74.0	23.14	Peak	234.00	100	Horizontal	Pass
6**	8578.450	41.31	-2.09	54.0	12.69	AV	234.00	100	Horizontal	Pass

HIGH CHANNEL, 1 GHz to 10 GHz, ANT V

RE Test case_FCC Part 15C_FCC 15.249_1GHz-10GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1091.600	39.05	-18.46	74.0	34.95	Peak	51.00	100	Vertical	Pass
1**	1091.600	33.36	-18.46	54.0	20.64	AV	51.00	100	Vertical	Pass
2	1854.500	49.21	-16.64	74.0	24.79	Peak	134.00	100	Vertical	Pass
2**	1854.500	48.43	-16.64	54.0	5.57	AV	134.00	100	Vertical	N/A
3	2663.400	47.97	-11.12	74.0	26.03	Peak	106.00	100	Vertical	Pass
3**	2663.400	37.06	-11.12	54.0	16.94	AV	106.00	100	Vertical	Pass
4	3709.200	50.40	-5.82	74.0	23.60	Peak	336.00	100	Vertical	Pass
4**	3709.200	47.44	-5.82	54.0	6.56	AV	336.00	100	Vertical	Pass
5	6604.000	55.69	1.76	74.0	18.31	Peak	350.00	100	Vertical	Pass
5**	6604.000	46.28	1.76	54.0	7.72	AV	350.00	100	Vertical	Pass
6	8590.300	50.56	-2.12	74.0	23.44	Peak	160.00	100	Vertical	Pass
6**	8590.300	41.83	-2.12	54.0	12.17	AV	160.00	100	Vertical	Pass

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

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

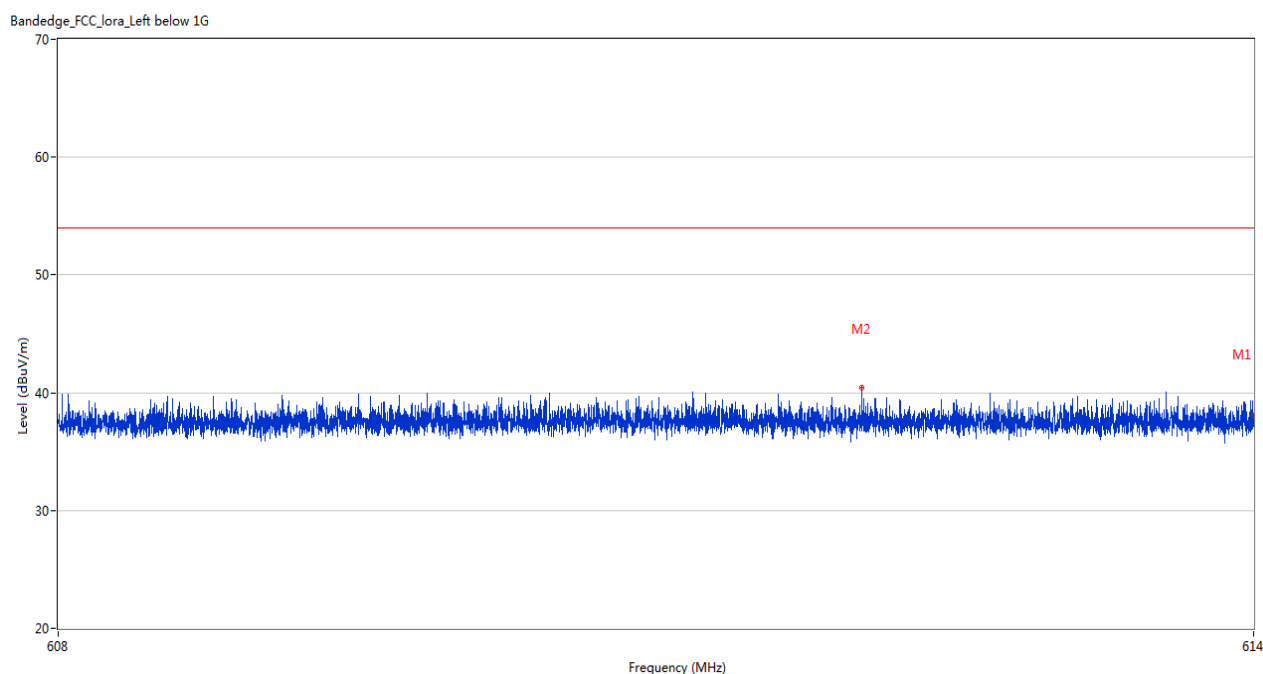
Note ²: The test data all are tested in the vertical and horizontal antenna which the trace is max hold. So these plots have shown the worst case.

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

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

Test Data and Plots

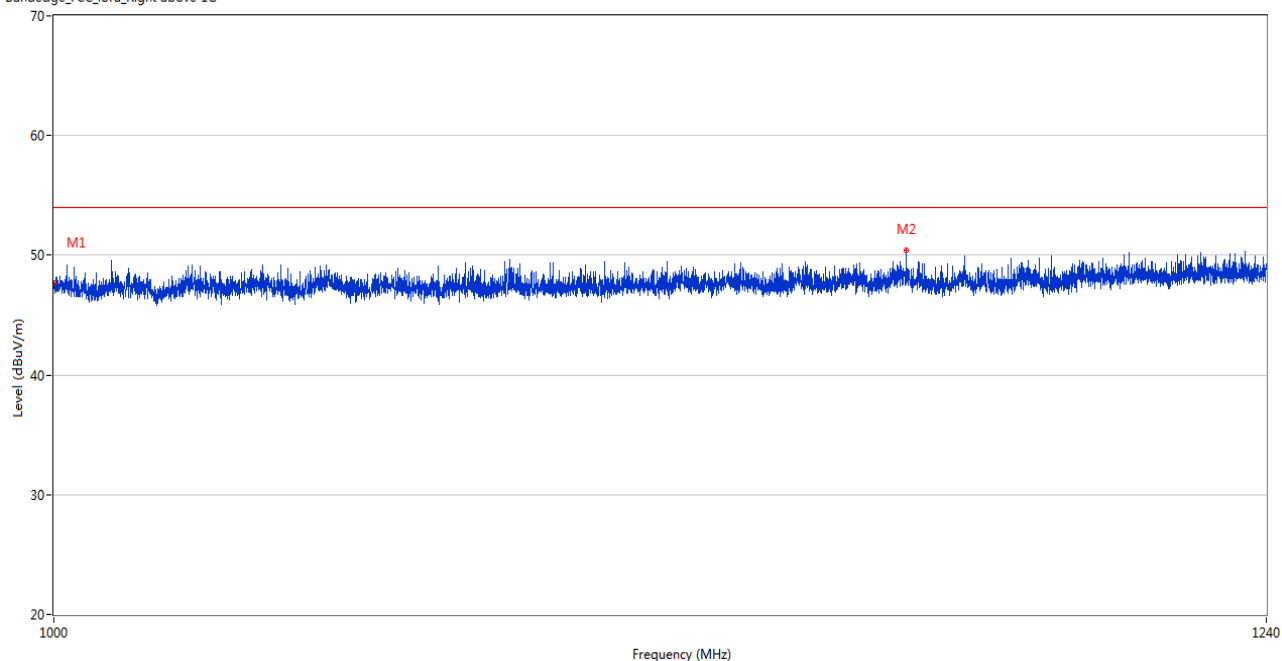
LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	614.000	38.05	3.45	54.0	15.95	Peak	81.00	100	Horizontal	Pass
2	612.026	40.40	3.38	54.0	13.60	Peak	133.00	200	Horizontal	Pass

HIGH CHANNEL

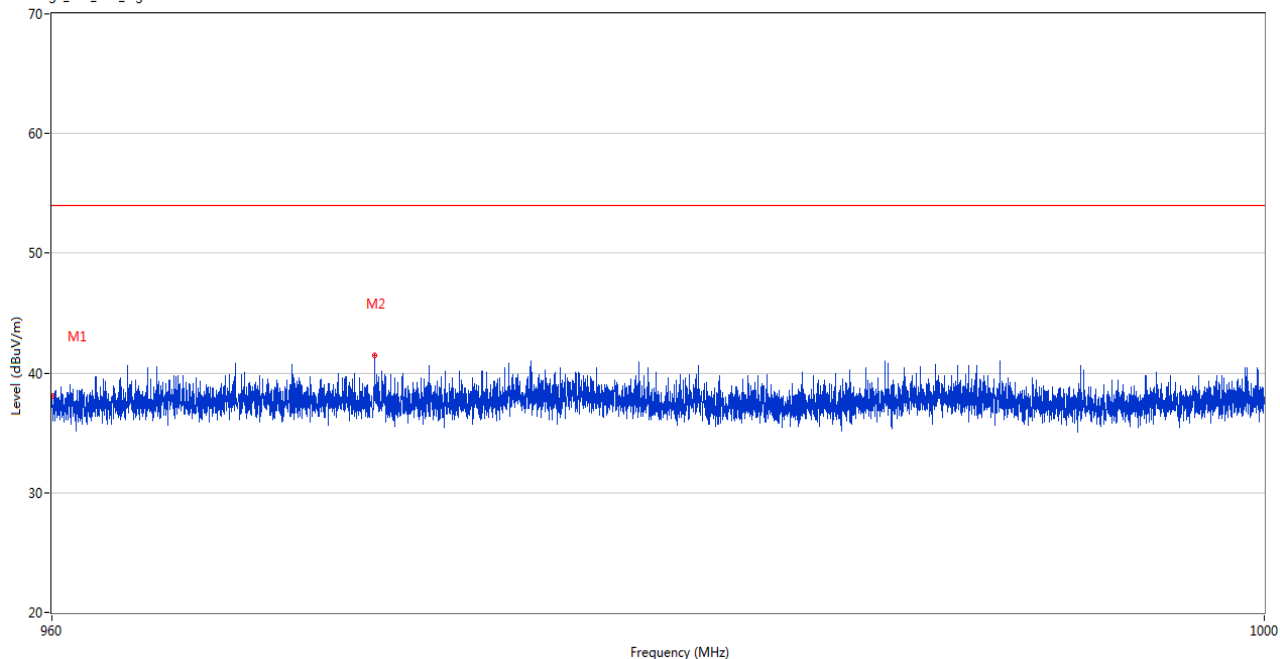
Bandedge_FCC_lora_Right above 1G



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1000.000	47.65	-5.88	54.0	6.35	Peak	327.00	100	Horizontal	Pass
2	1163.280	50.43	-5.76	54.0	3.57	Peak	332.00	100	Horizontal	Pass

HIGH CHANNEL

Bandedge_FCC_lora_Right below 1G



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	960.013	38.03	-3.43	54.0	15.97	Peak	0.00	100	Horizontal	Pass
2	970.487	41.50	-3.16	54.0	12.50	Peak	26.00	200	Horizontal	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2310377-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2310377-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2310377-AI.PDF”.

Statement

1. The laboratory guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
2. The report without China inspection body and laboratory Mandatory Approval (CMA) mark has no effect of proving to the society.
3. For the report with CNAS mark or A2LA mark, the items marked with "☆" are not within the accredited scope.
4. This report is invalid if it is altered, without the signature of the testing and approval personnel, or without the "inspection and testing dedicated stamp" or test report stamp.
5. The test data and results are only valid for the tested samples provided by the customer.
6. This report shall not be partially reproduced without the written permission of the laboratory.
7. Any objection shall be raised to the laboratory within 30 days after receiving the report.

--END OF REPORT--