

TEST REPORT

Applicant: Adept Industries Limited
Address: 9-10.20F, Mega Trade Center, 1 MeiWan ST. Tsuen Wan HongKong, China
Equipment Type: Wireless follow controller
Model Name: Sidekick Remote 1.0
Brand Name: ALPHARD
FCC ID: 2ANDF-WFSREM
ISED Number: 23207-WFSREM
Test Standard: 47 CFR Part 15 Subpart C
RSS-Gen Issue 5
RSS-210 Issue 10
(refer section 3.1)
Test Date: Oct. 25, 2022 - Nov. 14, 2022
Date of Issue: Nov. 30, 2022

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

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Liao Jianming

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Nov. 21, 2022</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Nov. 30, 2022</u>	<u>Updated Section 4.2 Test Equipment List.</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

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

1.2 Test Location

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

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Adept Industries Limited
Address	9-10.20F, Mega Trade Center, 1MeiWan ST. Tsuen Wan HongKong, China

2.2 Manufacturer Information

Manufacturer	GuangZhou Prominent Industrial Co., Ltd
Address	Room 401, Jinkeng Industrial Road, Nancun Village, Panyu District, Guangzhou, Guangdong 511400, China

2.3 Factory Information

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Name	Wireless follow controller
Model Name Under Test	Sidekick Remote 1.0
Series Model Name	N/A
Description of Model name differentiation	N/A
Serial Number	04-000002
Hardware Version	6.0
Software Version	1.0
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Technical Information

Network and Wireless connectivity	2.4G ISM Band, UWB
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The requirement for the following technical information of the EUT was tested in this report:

Modulation Type	GFSK
Product Type	☐ Mobile ☒ Portable ☐ Fix Location
Transfer Rate	1 Mbps
Frequency Range	The frequency range used is 2404 MHz to 2480 MHz.
Number of channel	65
Tested Channel	Low Channel(2404 MHz), Middle Channel(2442 MHz), High Channel(2480 MHz)
Antenna Type	PCB Antenna
Antenna Gain	-0.91 dBi

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15, Subpart C	Miscellaneous Wireless Communications Services
2	RSS-Gen Issue 5	General Requirements for Compliance of Radio Apparatus
3	RSS-210 Issue 10	Licence-Exempt Radio Apparatus: Category I Equipment
4	ANSI C63.10-2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

3.2 Test Verdict

No.	Description	FCC Part No.	ISED Part No.	Test Result	Verdict	Remark
1	Antenna Requirement	15.203	RSS-Gen6.8	--	Pass	Note ¹
2	20 dB and 99% Bandwidth	15.215(c)	RSS-Gen 6.7	ANNEX A.1	Pass	--
3	AC Conducted Emission	15.207	RSS-Gen 8.8	ANNEX A.2	Pass	--
4	Radiated Spurious Emission	15.249(a)	RSS-210 B.10 RSS-Gen 8.9	ANNEX A.3	Pass	--
5	Band Edge(Restricted-band band-edge)	15.249(a)	RSS-210 B.10 RSS-Gen 8.10	ANNEX A.4	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 70%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+19.1°C to +25.5°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	MY50330200	2022.05.19	2023.05.18
Spectrum Analyzer	ROHDE&SCHWARZ	FSV-40	101544	2022.01.04	2023.01.03
Spectrum Analyzer	KEYSIGHT	N9020A	MY52510065	2022.09.06	2023.09.05
Signaling Unit	ROHDE&SCHWARZ	CMW500	171150	2022.06.29	2023.06.28
Test Antenna-Horn (1-18 GHz)	SCHWARZBECK	BBHA 9120D	01631	2022.02.03	2025.02.02
Test Antenna-Horn (18-40 GHz)	A-INFO	LB- 180400KF	J211060273	2021.07.02	2024.07.01
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2021.09.04	2024.09.03
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2022.09.09	2023.09.08
Test Antenna-Loop (9 kHz-30 MHz)	SCHWARZBECK	FMZB 1519	1519-037	2021.04.16	2024.04.15
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60 *7.35m	N/A	2021.08.15	2024.08.14
Amplifier(30-1GHz)	COM-MV	ZT30- 1000M	B2017119081	2020.09.09	2023.09.08
Amplifier(1-12GHz)	COM-MV	LSCX_LNA 1-12G-01	180602	2020.09.08	2023.09.07
Amplifier(7-18GHz)	COM-MV	XKu_LNA7- 18G-01	180601	2020.09.08	2023.09.07
Amplifier(18-40GHz)	COM-MV	KA_LNA18- 40G-01	18050001	2020.09.08	2023.09.07
EMI Receiver	KEYSIGHT	N9038A	MY55330120	2022.09.09	2023.09.08
Anechoic Chamber	YiHeng	9m*6m*6m	N/A	2021.08.19	2024.08.18
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2022.09.09	2023.09.08
LISN	SCHWARZBECK	NSLK 8127	8127-687	2022.06.01	2023.05.31
Shielded Enclosure	YiHeng Electronic Co., Ltd	3.5m*3.1m* 2.8m	N/A	2022.02.19	2025.02.18

4.3 Measurement Uncertainty

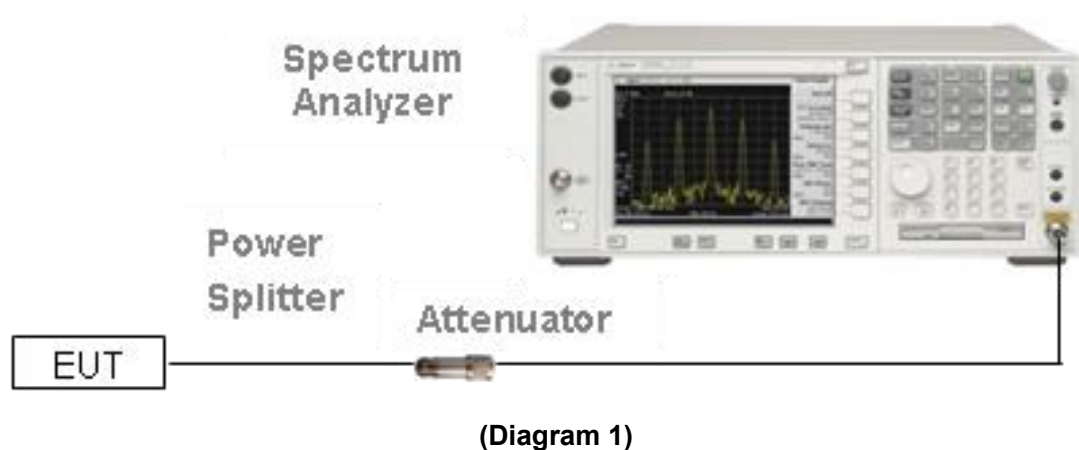
The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.

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

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

4.4 Description of Test Setup

4.4.1 For Antenna Port Test

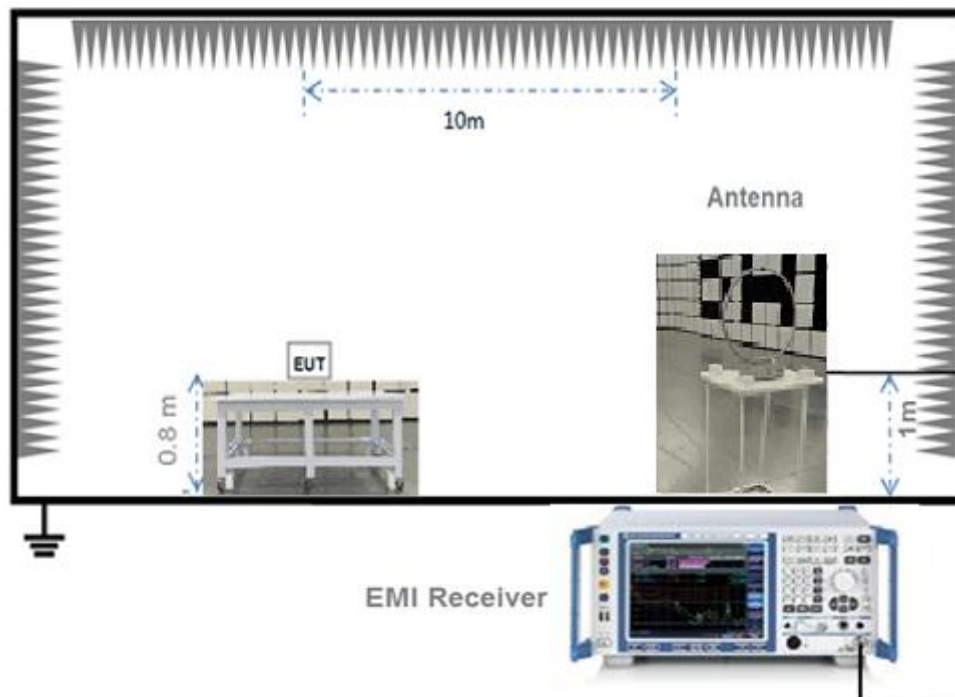


4.4.2 For AC Power Supply Port Test



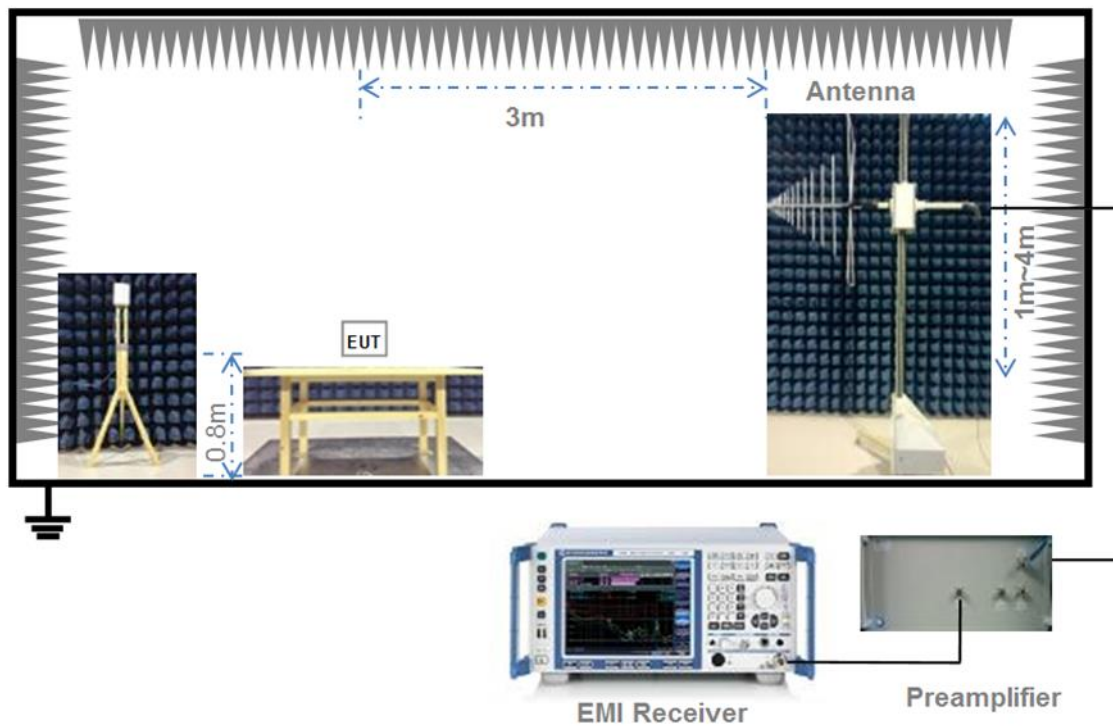
(Diagram 2)

4.4.3 For Radiated Test (Below 30 MHz)



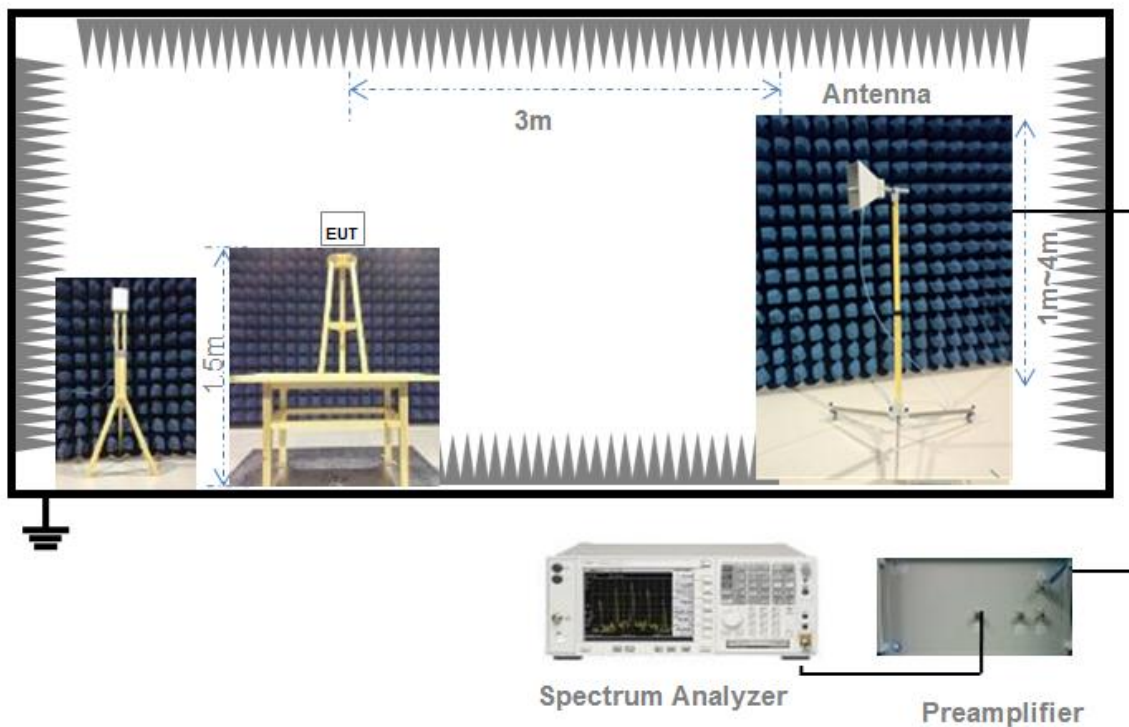
(Diagram 3)

4.4.4 For Radiated Test (30 MHz-1 GHz)



(Diagram 4)

4.4.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

5 TEST ITEMS

5.1 Antenna Requirements

5.1.1 Relevant Standards

FCC §15.203 & 15.247(b); RSS-Gen 8.3

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 20 dB and 99% Bandwidth

5.2.1 Limit

FCC §15.215(c); RSS-Gen 6.7

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in § 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

RSS-Gen 6.6

The emission bandwidth ($\times$ dB) is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated $\times$ dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least $3\times$ the resolution bandwidth.

When the occupied bandwidth limit is not stated in the applicable RSS or reference measurement method, the transmitted signal bandwidth shall be reported as the 99% emission bandwidth, as calculated or measured

5.2.2 Test Setups

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

Use the following spectrum analyzer settings:

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

RBW $\geq$ 1% of the 20 dB bandwidth

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

5.2.4 Test Result

Please refer to ANNEX A.1.

5.3 AC Conducted Emission

5.3.1 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

5.3.2 Test Setups

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 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.

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.

5.3.4 Test Result

Please refer to ANNEX A.2.

5.4 Radiated Spurious Emission

5.4.1 Limit

FCC §15.249(a); RSS-210 B.10& RSS-Gen 8.9

Except as provided in paragraph (a) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Frequency (MHz)	Field Strength of Fundamental (mV/m)	Field Strength of Harmonics (μV/m)
902-928	50	500
2400-2483.5	50	500
5725-5875	50	500

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

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. 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 20 dB above the maximum permitted average limit.
2. For above 1000 MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK).

5.4.2 Test Setups

See section 4.4.2-4.4.5 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.4.3 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

5.4.4 Test Result

Please refer to ANNEX A.3.

5.5 Band Edge (Restricted-band band-edge)

5.5.1 Limit

FCC §15.249(a); RSS-210 B.10&RSS-Gen 8.10

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).

5.5.2 Test Setups

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.

5.5.3 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.

5.5.4 Test Result

Please refer to ANNEX A.4.

ANNEX A TEST RESULT

A.1 20 dB and 99% Bandwidth

Test Data

Frequency (MHz)	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
2404	1.115	1.914
2442	0.870	1.685
2480	0.620	1.073

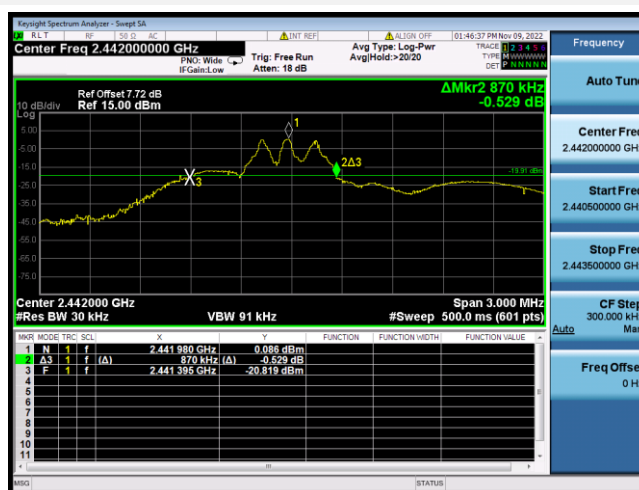
Test Plots

20 dB Bandwidth

LOW CHANNEL



MIDDLE CHANNEL

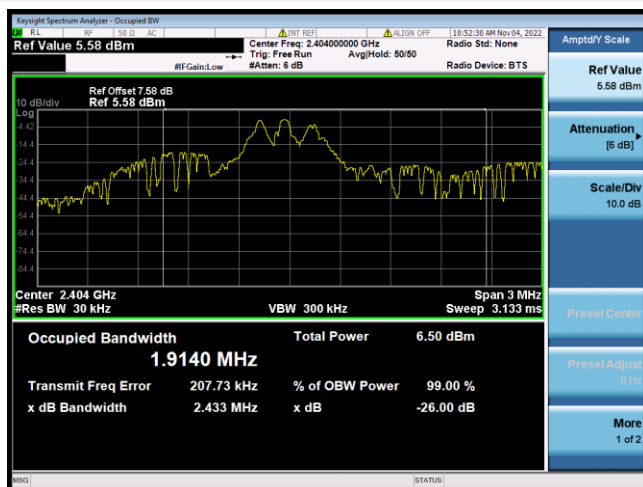


HIGH CHANNEL

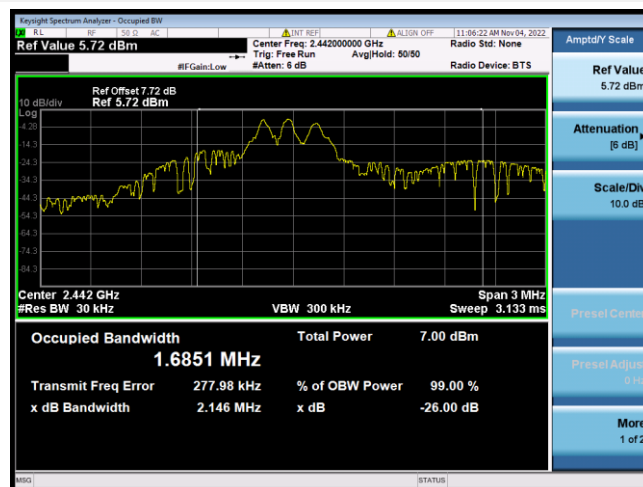


99% Bandwidth

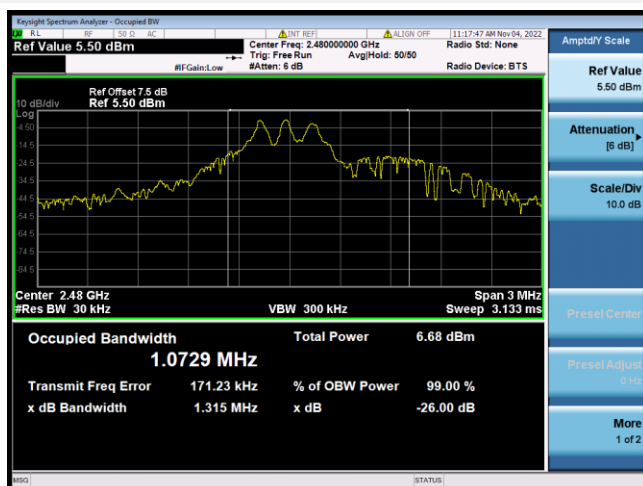
LOW CHANNEL



MIDDLE CHANNEL



HIGH CHANNEL



A.2 AC Conducted Emissions

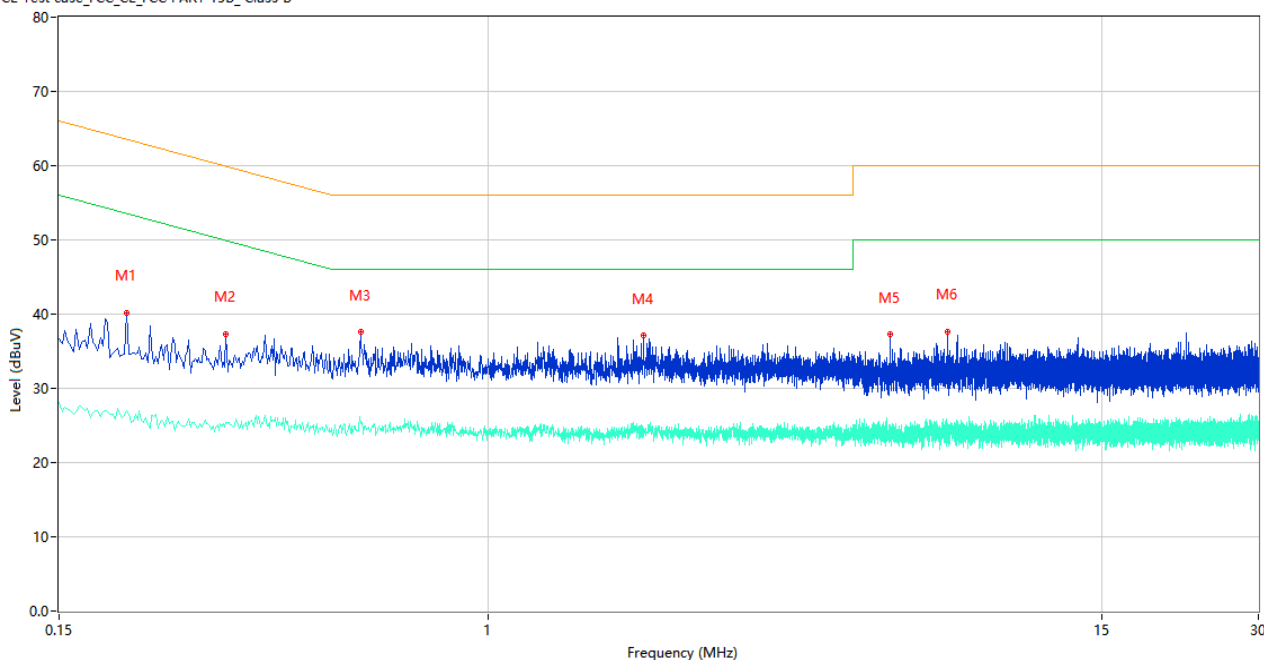
Note ¹: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

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.

Test Data and Plots

PHASE L

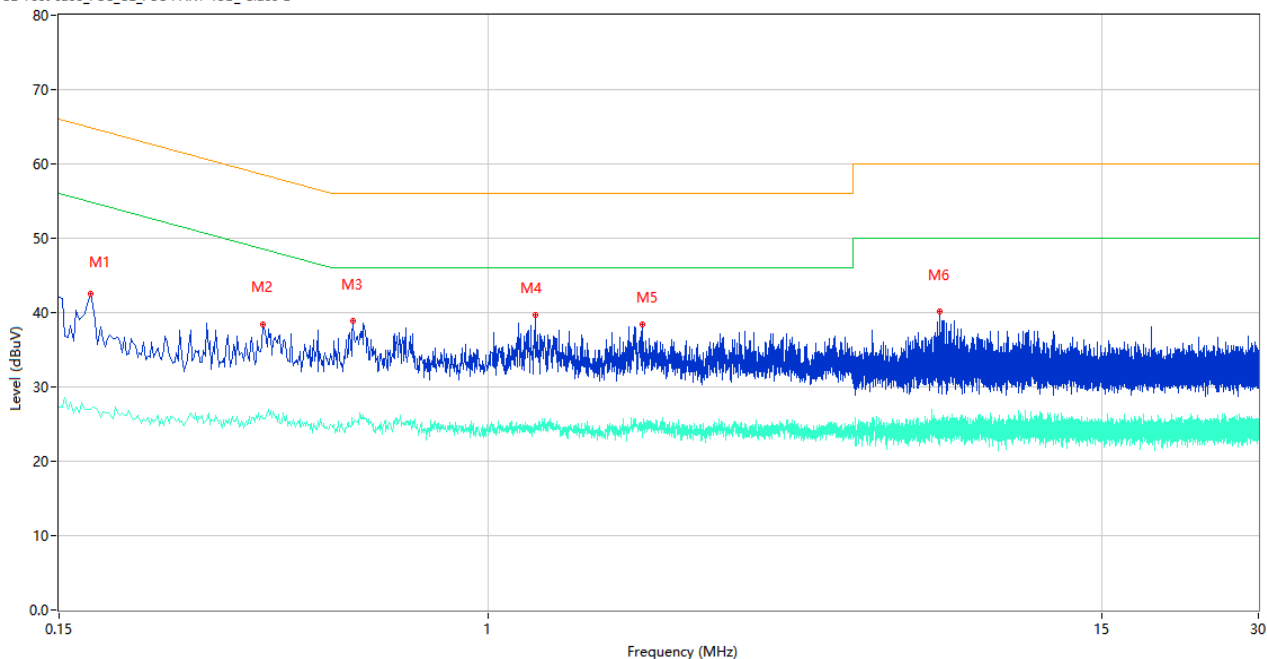
CE Test case_FCC_CE_FCC PART 15B_Class B



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.202	40.17	10.05	63.53	23.36	Peak	L	Pass
1**	0.202	27.01	10.05	53.53	26.52	AV	L	Pass
2	0.314	37.31	10.26	59.86	22.55	Peak	L	Pass
2**	0.314	25.32	10.26	49.86	24.54	AV	L	Pass
3	0.568	37.65	10.26	56.00	18.35	Peak	L	Pass
3**	0.568	25.16	10.26	46.00	20.84	AV	L	Pass
4	1.986	37.12	10.29	56.00	18.88	Peak	L	Pass
4**	1.986	24.29	10.29	46.00	21.71	AV	L	Pass
5	5.894	37.27	10.47	60.00	22.73	Peak	L	Pass
5**	5.894	24.21	10.47	50.00	25.79	AV	L	Pass
6	7.606	37.63	10.17	60.00	22.37	Peak	L	Pass
6**	7.606	23.00	10.17	50.00	27.00	AV	L	Pass

PHASE N

CE Test case_FCC_CE_FCC PART 15B_Class B



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.172	42.53	10.07	64.86	22.33	Peak	N	Pass
1**	0.172	26.94	10.07	54.86	27.92	AV	N	Pass
2	0.370	38.44	10.89	58.50	20.06	Peak	N	Pass
2**	0.370	25.77	10.89	48.50	22.73	AV	N	Pass
3	0.550	38.84	10.21	56.00	17.16	Peak	N	Pass
3**	0.550	24.88	10.21	46.00	21.12	AV	N	Pass
4	1.230	39.68	10.35	56.00	16.32	Peak	N	Pass
4**	1.230	25.03	10.35	46.00	20.97	AV	N	Pass
5	1.972	38.38	10.28	56.00	17.62	Peak	N	Pass
5**	1.972	24.78	10.28	46.00	21.22	AV	N	Pass
6	7.334	40.14	9.96	60.00	19.86	Peak	N	Pass
6**	7.334	25.71	9.96	50.00	24.29	AV	N	Pass

A.3 Radiated 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.

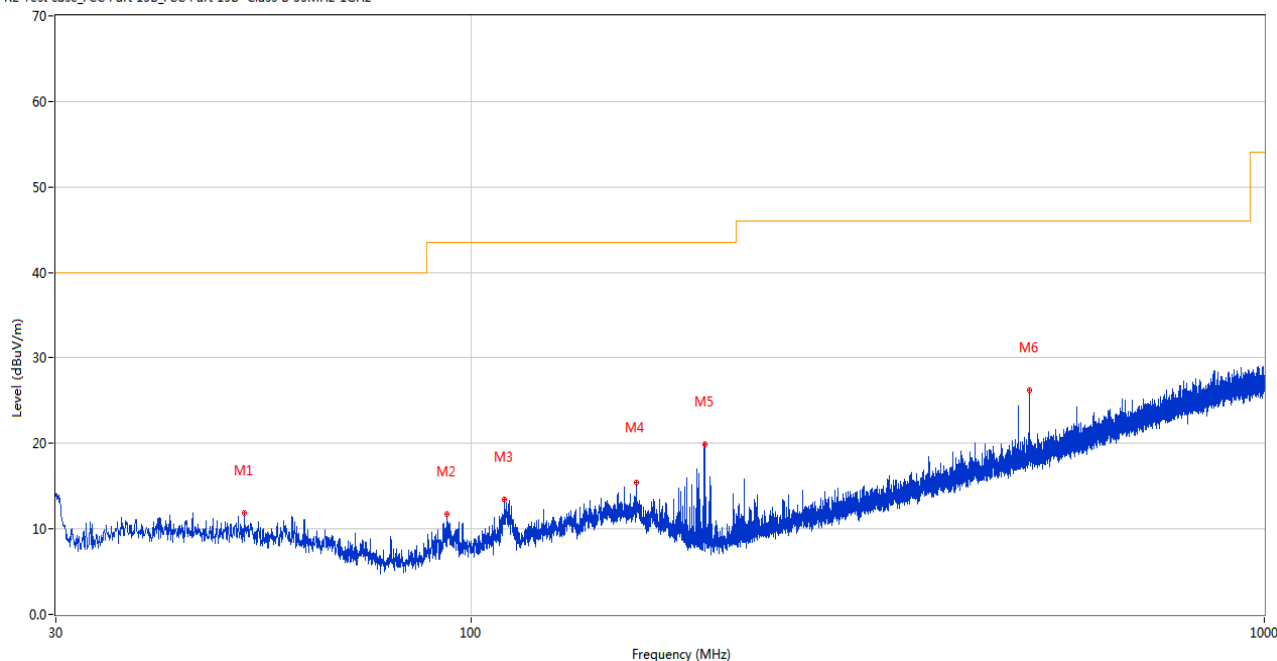
Note ³: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

Note ⁴: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and normal link mode is worst.

Test Data and Plots

30 MHz to 1 GHz, ANT H

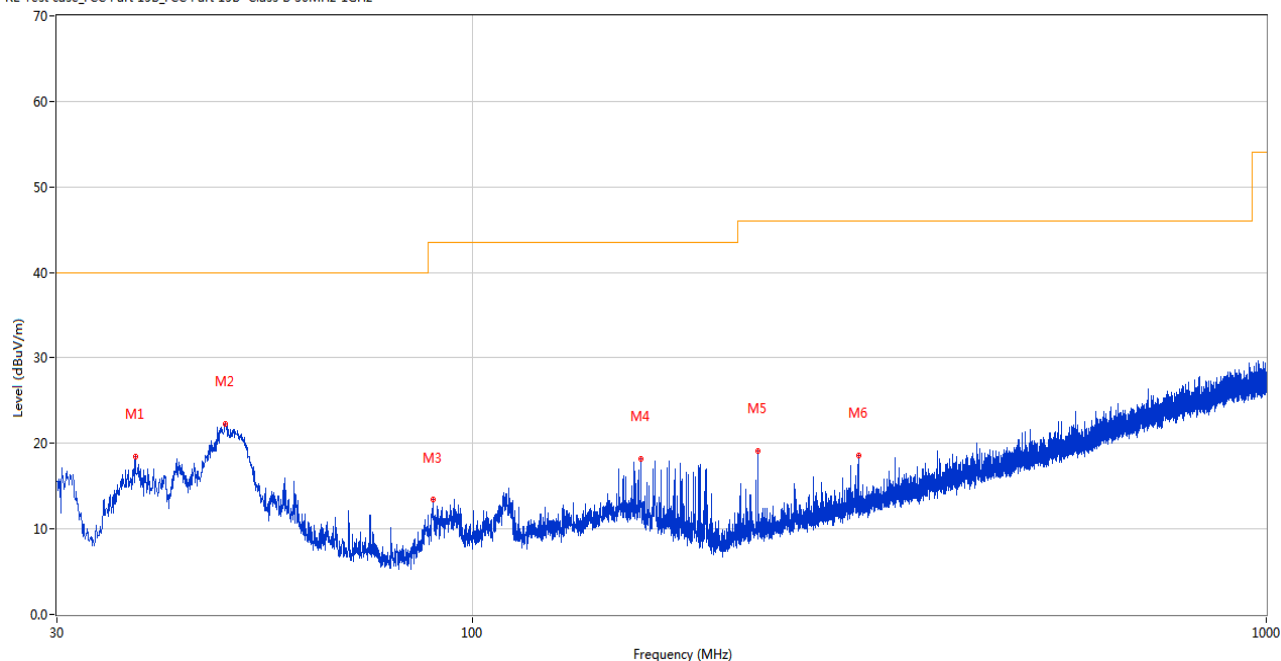
RE Test case_FCC Part 15B_FCC Part 15B Class B 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	51.825	11.87	-26.83	40.0	28.13	Peak	188.00	200	Horizontal	Pass
2	93.244	11.79	-29.99	43.5	31.71	Peak	360.00	200	Horizontal	Pass
3	110.268	13.45	-28.29	43.5	30.05	Peak	180.00	200	Horizontal	Pass
4	161.678	15.37	-24.73	43.5	28.13	Peak	98.00	200	Horizontal	Pass
5	197.034	19.90	-28.75	43.5	23.60	Peak	86.00	200	Horizontal	Pass
6	506.173	26.23	-18.54	46.0	19.77	Peak	9.00	200	Horizontal	Pass

30 MHz to 1 GHz, ANT V

RE Test case_FCC Part 15B_FCC Part 15B Class B 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	37.663	18.40	-26.32	40.0	21.60	Peak	286.00	100	Vertical	Pass
2	48.867	22.26	-26.61	40.0	17.74	Peak	39.00	100	Vertical	Pass
3	89.364	13.38	-30.37	43.5	30.12	Peak	163.00	100	Vertical	Pass
4	163.036	18.17	-24.99	43.5	25.33	Peak	272.00	200	Vertical	Pass
5	229.190	19.13	-26.81	46.0	26.87	Peak	229.00	200	Vertical	Pass
6	307.081	18.54	-24.14	46.0	27.46	Peak	246.00	200	Vertical	Pass

Note: The spurious above 18G is noise only, do not show on the report.

1 GHz to 18 GHz, ANT H Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1551.000	39.33	-17.06	74.0	34.67	Peak	295.00	300	Horizontal	Pass
1**	1551.000	28.97	-17.06	54.0	25.03	AV	295.00	300	Horizontal	Pass
2	2403.800	93.54	-11.75	114.0	20.46	Peak	359.00	100	Horizontal	Pass
2**	2403.800	93.38	-11.75	94.0	0.62	AV	359.00	100	Horizontal	Pass
3	2563.300	52.46	-12.15	74.0	21.54	Peak	295.00	100	Horizontal	Pass
3**	2563.300	51.67	-12.15	54.0	2.33	AV	295.00	100	Horizontal	Pass
4	4808.000	51.09	-2.07	74.0	22.91	Peak	116.00	100	Horizontal	Pass
4**	4808.000	49.79	-2.07	54.0	4.21	AV	116.00	100	Horizontal	Pass
5	10906.550	51.43	0.17	74.0	22.57	Peak	302.00	100	Horizontal	Pass
5**	10906.550	42.44	0.17	54.0	11.56	AV	302.00	100	Horizontal	Pass
6	17197.011	50.89	2.07	74.0	23.11	Peak	289.00	400	Horizontal	Pass
6**	17197.011	43.86	2.07	54.0	10.14	AV	289.00	400	Horizontal	Pass

1 GHz to 18 GHz, ANT V Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1481.400	39.27	-17.54	74.0	34.73	Peak	201.00	300	Vertical	Pass
1**	1481.400	29.39	-17.54	54.0	24.61	AV	201.00	300	Vertical	Pass
2	2404.100	73.02	-11.75	114.0	40.98	Peak	354.00	100	Vertical	Pass
2**	2404.100	72.65	-11.75	94.0	21.35	AV	354.00	100	Vertical	Pass
3	4779.600	50.87	-1.62	74.0	23.13	Peak	300.00	200	Vertical	Pass
3**	4779.600	41.57	-1.62	54.0	12.43	AV	300.00	200	Vertical	Pass
4	6736.800	54.69	2.40	74.0	19.31	Peak	52.00	200	Vertical	Pass
4**	6736.800	44.96	2.40	54.0	9.04	AV	52.00	200	Vertical	Pass
5	10358.287	51.27	0.07	74.0	22.73	Peak	242.00	300	Vertical	Pass
5**	10358.287	41.69	0.07	54.0	12.31	AV	242.00	300	Vertical	Pass
6	17206.462	51.44	1.60	74.0	22.56	Peak	197.00	400	Vertical	Pass
6**	17206.462	42.57	1.60	54.0	11.43	AV	197.00	400	Vertical	Pass

1 GHz to 18 GHz, ANT H Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1573.200	39.28	-17.31	74.0	34.72	Peak	360.00	300	Horizontal	Pass
1**	1573.200	29.57	-17.31	54.0	24.43	AV	360.00	300	Horizontal	Pass
2	2441.800	93.00	-12.14	114.0	21.00	Peak	360.00	100	Horizontal	Pass
2**	2441.800	92.82	-12.14	94.0	1.18	AV	360.00	100	Horizontal	Pass
3	2603.800	51.60	-11.90	74.0	22.40	Peak	156.00	100	Horizontal	Pass
3**	2603.800	49.70	-11.90	54.0	4.30	AV	156.00	100	Horizontal	Pass
4	4883.800	51.55	-2.53	74.0	22.45	Peak	360.00	100	Horizontal	Pass
4**	4883.800	48.75	-2.53	54.0	5.25	AV	360.00	100	Horizontal	Pass
5	10338.737	51.29	0.08	74.0	22.71	Peak	219.00	100	Horizontal	Pass
5**	10338.737	42.40	0.08	54.0	11.60	AV	219.00	100	Horizontal	Pass
6	16597.199	50.38	0.81	74.0	23.62	Peak	295.00	400	Horizontal	Pass
6**	16597.199	43.96	0.81	54.0	10.04	AV	295.00	400	Horizontal	Pass

1 GHz to 18 GHz, ANT V Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1594.600	39.29	-17.15	74.0	34.71	Peak	340.00	300	Vertical	Pass
1**	1594.600	29.23	-17.15	54.0	24.77	AV	340.00	300	Vertical	Pass
2	2441.800	81.98	-12.14	114.0	32.02	Peak	108.00	100	Vertical	Pass
2**	2441.800	81.06	-12.14	94.0	12.94	AV	108.00	100	Vertical	Pass
3	4759.800	50.04	-2.53	74.0	23.96	Peak	131.00	100	Vertical	Pass
3**	4759.800	41.51	-2.53	54.0	12.49	AV	131.00	100	Vertical	Pass
4	6610.800	54.29	2.10	74.0	19.71	Peak	307.00	100	Vertical	Pass
4**	6610.800	45.33	2.10	54.0	8.67	AV	307.00	100	Vertical	Pass
5	10930.413	51.63	0.08	74.0	22.37	Peak	331.00	100	Vertical	Pass
5**	10930.413	41.49	0.08	54.0	12.51	AV	331.00	100	Vertical	Pass
6	16095.037	50.56	1.32	74.0	23.44	Peak	33.00	400	Vertical	Pass
6**	16095.037	42.31	1.32	54.0	11.69	AV	33.00	400	Vertical	Pass

1 GHz to 18 GHz, ANT H High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1546.300	39.20	-16.99	74.0	34.80	Peak	201.00	200	Horizontal	Pass
1**	1546.300	29.88	-16.99	54.0	24.12	AV	201.00	200	Horizontal	Pass
2	2479.700	95.08	-12.21	114.0	18.92	Peak	119.00	100	Horizontal	Pass
2**	2479.700	90.18	-12.21	94.0	3.82	AV	119.00	100	Horizontal	Pass
3	2644.400	49.41	-11.04	74.0	24.59	Peak	0.00	100	Horizontal	Pass
3**	2644.400	47.60	-11.04	54.0	6.40	AV	0.00	100	Horizontal	Pass
4	4960.000	53.19	-2.04	74.0	20.81	Peak	6.00	100	Horizontal	Pass
4**	4960.000	49.26	-2.04	54.0	4.74	AV	6.00	100	Horizontal	Pass
5	11025.863	51.76	-0.68	74.0	22.24	Peak	205.00	100	Horizontal	Pass
5**	11025.863	41.09	-0.68	54.0	12.91	AV	205.00	100	Horizontal	Pass
6	17202.526	51.72	1.77	74.0	22.28	Peak	256.00	100	Horizontal	Pass
6**	17202.526	42.97	1.77	54.0	11.03	AV	256.00	100	Horizontal	Pass

1 GHz to 18 GHz, ANT V High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1490.900	39.12	-17.33	74.0	34.88	Peak	274.00	400	Vertical	Pass
1**	1490.900	29.72	-17.33	54.0	24.28	AV	274.00	400	Vertical	Pass
2	2480.400	81.51	-12.21	114.0	32.49	Peak	309.00	100	Vertical	Pass
2**	2480.400	79.34	-12.21	94.0	14.66	AV	309.00	100	Vertical	Pass
3	4960.400	50.27	-2.00	74.0	23.73	Peak	82.00	100	Vertical	Pass
3**	4960.400	48.59	-2.00	54.0	5.41	AV	82.00	100	Vertical	Pass
4	6606.200	54.24	1.88	74.0	19.76	Peak	50.00	400	Vertical	Pass
4**	6606.200	45.96	1.88	54.0	8.04	AV	50.00	400	Vertical	Pass
5	10142.088	51.74	0.03	74.0	22.26	Peak	199.00	400	Vertical	Pass
5**	10142.088	42.21	0.03	54.0	11.79	AV	199.00	400	Vertical	Pass
6	17205.676	50.62	1.62	74.0	23.38	Peak	220.00	300	Vertical	Pass
6**	17205.676	43.81	1.62	54.0	10.19	AV	220.00	300	Vertical	Pass

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

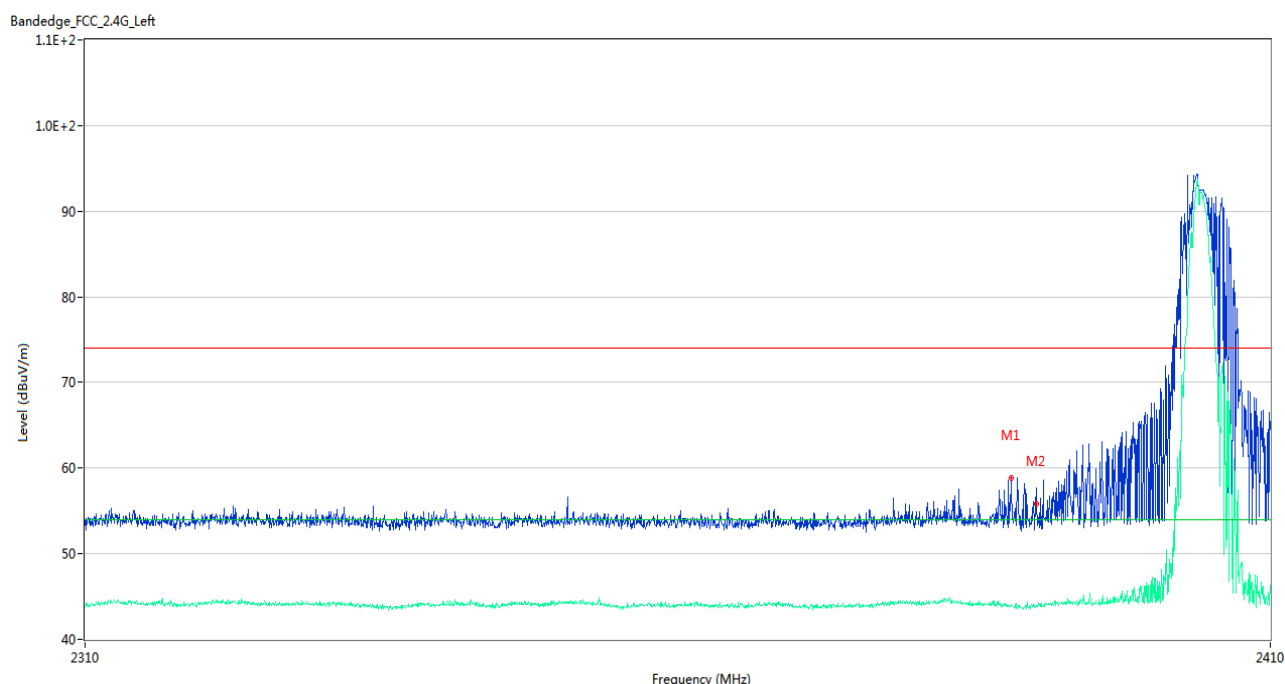
Note ¹: The lowest and highest channels are tested to verify the band edge emissions. Please refer to the following the plots for emissions values.

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.

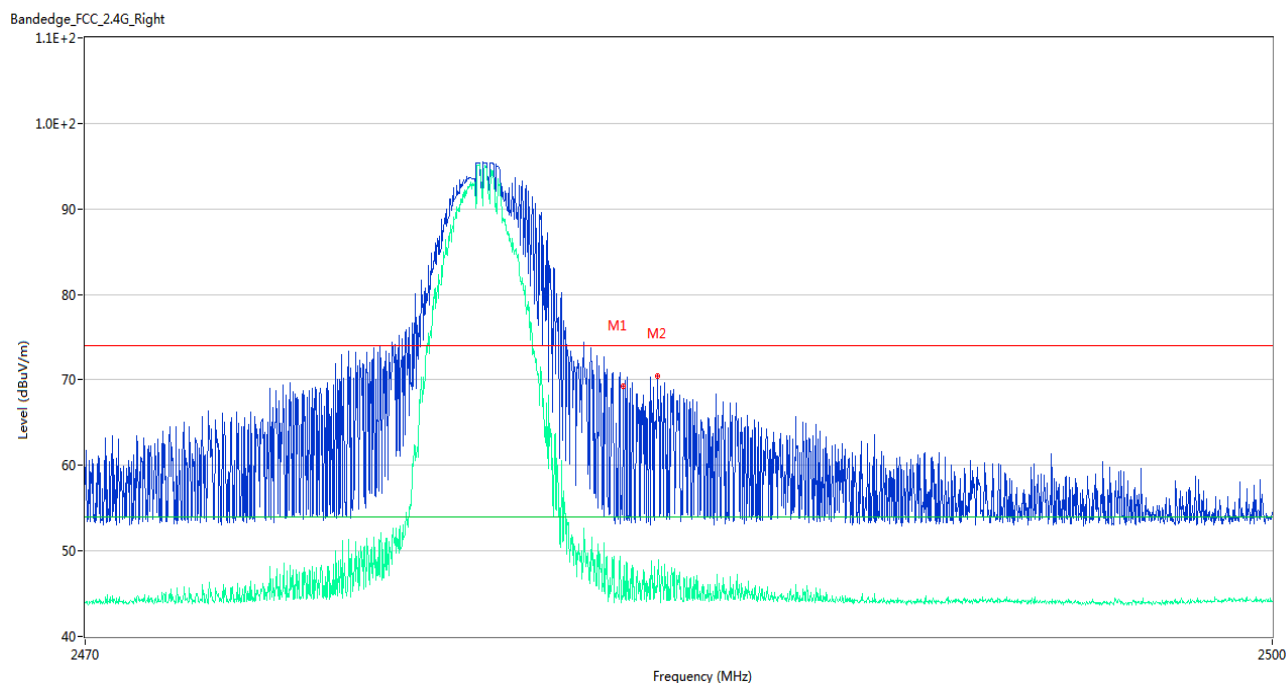
Test Data and Plots

LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2387.750	58.91	-0.68	74.0	15.09	Peak	111.00	150	Horizontal	Pass
1**	2387.750	43.98	-0.68	54.0	10.02	AV	111.00	150	Horizontal	Pass
2	2389.950	55.78	-0.59	74.0	18.22	Peak	360.00	150	Horizontal	Pass
2**	2389.950	43.90	-0.59	54.0	10.10	AV	360.00	150	Horizontal	Pass

HIGH CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.560	69.28	-0.20	74.0	4.72	Peak	16.00	200	Horizontal	Pass
1**	2483.560	45.85	-0.20	54.0	8.15	AV	16.00	200	Horizontal	Pass
2	2484.430	70.41	-0.14	74.0	3.59	Peak	102.00	100	Horizontal	Pass
2**	2484.430	46.70	-0.14	54.0	7.30	AV	102.00	100	Horizontal	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2290654-AR-1.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2290654-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2290654-AI.PDF”.

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--END OF REPORT--