TEST REPORT

Applicant:	SEUIC Technologies Co., Ltd.
Address:	NO.15 Xinghuo Road, Nanjing New & High Technology Industry Development Zone, 210061, Nanjing City, Jiangsu Province, China
Equipment Type:	Portable Data Collection Terminal
Model Name:	AUTOID10 (refer section 2.4)
Brand Name:	AUTOID, Seuic
FCC ID:	2AC68-AUTOID10
Test Standard:	47 CFR Part 15 Subpart C (refer section 3.1)
Test Date：	Jul. 18, 2022 - Jul. 20, 2022
Date of Issue:	Aug. 10, 2022

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Zhang Guoxi **Checked by:** Xia Long **Approved by:** Liao Jianming (Technical Director)

Zhang Guoxi Xia Long

Revision History

Version	Issue Date	Revisions
Rev. 01	Aug. 10, 2022	Initial Issue

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1 GENERAL INFORMATION

1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe West Road, Nanshan District, ShenZhen, GuangDong Province, China
Phone Number	+86 755 6685 0100

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe West Road, Nanshan District, ShenZhen, GuangDong Province, China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.
Description	All measurement facilities used to collect the measurement data are located at Block B, 1/F, Baisha Science and Technology Park, Shahe West Road, Nanshan District, ShenZhen, GuangDong Province, China

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	SEUIC Technologies Co., Ltd.
Address	NO.15 Xinghuo Road, Nanjing New & High Technology Industry Development Zone, 210061, Nanjing City, Jiangsu Province, China

2.2 Manufacturer Information

Manufacturer	SEUIC Technologies Co., Ltd.
Address	NO.15 Xinghuo Road, Nanjing New & High Technology Industry Development Zone, 210061, Nanjing City, Jiangsu Province, China

2.3 Factory Information

Factory	SEUIC Technologies Co., Ltd.
Address	3rd Floor, No.4 Building, Zhicheng Industrial Park, Zhida Road, Nanjing Jiangbei New Area, Nanjing City, China

2.4 General Description for Equipment under Test (EUT)

EUT Name	Portable Data Collection Terminal
Model Name Under Test	AUTOID10
Series Model Name	AUTOID10N, AUTOID10HC, AUTOID10L, AUTOID10R, AUTOID10B, AUTOID10P, AUTOID10I, AUTOID10-6L, AUTOID10C, AUTOID10X, AUTOID10U, AUTOID10W, AUTOID10E, AUTOID10T, AUTOID10G, AUTOID10D, AUTOID10 1/2, AUTOID10F
Description of Model name differentiation	All models are same with electrical parameters and internal circuit structure, but only differ in model name and color.
Hardware Version	D560_Main_PCB_V3.1
Software Version	V1.0.30
Dimensions (Approx.)	160.34*67.02*19.9mm
Weight (Approx.)	N/A

2.5 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EGPRS 850/ 1900 MHz 3G Network CDMA 1x Band Class 0 EVDO Rel. 0/Rev. A Band Class 0 WCDMA/HSDPA/HSUPA Band 2/ 5 4G Network FDD LTE Band 5/ 7 TDD LTE Band 38/ 41 Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20) 5G WIFI 802.11a, 802.11n(HT20/40) and 802.11ac(VHT20/40/80) U-NII-1/2A/2C/3, GPS, Beidou, GLONASS, Galileo, NFC

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

Modulation Type	ASK
Product Type	☐ Mobile ☒ Portable ☐ Fix Location
Frequency Range	13.56 MHz
Receiver Categorization	3
Number of channel	1
Tested Channel	1
Antenna Type	Coil Antenna

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	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

3.2 Verdict

No.	Description	FCC Part No.	Test Result	Verdict
1	Antenna Requirement	15.203	--	Pass Note
2	Emissions Bandwidth	15.215	ANNEX A.1	Pass
3	Field Strength of Fundamental Emissions	15.225(a)	ANNEX A.2	Pass
4	Radiated Emissions	15.225(d) 15.209	ANNEX A.3	Pass
5	Frequency Stability	15.225(e)	ANNEX A.4	Pass
6	Conducted Emission	15.207	ANNEX A.5	Pass
Note: The EUT has a permanently and irreplaceable attached antenna, which complies with the requirement FCC 15.203.				

3.3 Test 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.

Measurement	Value
Conducted emissions (9 kHz-30 MHz)	4.28 dB
Radiated emissions (9 kHz-30 MHz)	3.22 dB
Radiated emissions (30 MHz-1 GHz)-10m	4.80 dB
Radiated emissions (30 MHz-1 GHz)-3m	4.76 dB
Radiated emissions (1 GHz-18 GHz)-3m	4.88 dB

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

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

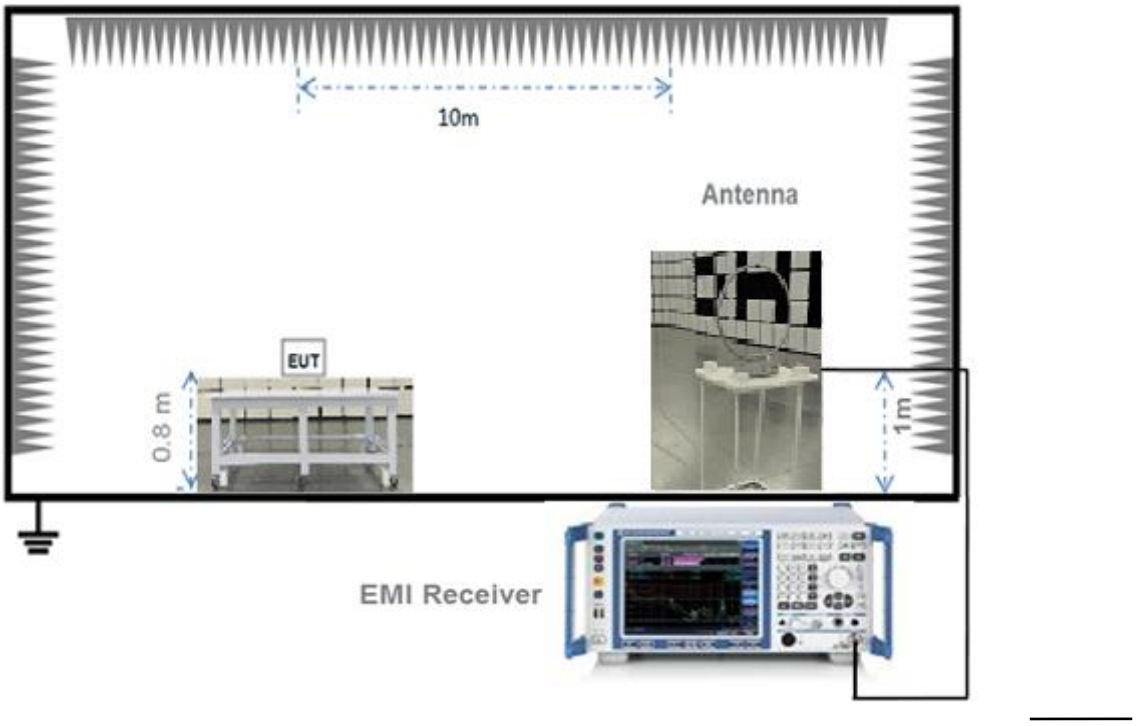
Relative Humidity	30% to 60%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+22℃ to +25℃
Working Voltage of the EUT	NV (Normal Voltage)	3.85 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2021.10.10	2022.10.09
LISN	SCHWARZBECK	NSLK 8127	8127-687	2022.06.01	2023.05.31
DC Power Supply	ROHDE&SCHWARZ	HMP2020	018141664	2022.05.23	2023.05.22
Temperature Chamber	AHK	SP20	1412	2021.11.30	2022.11.29
Test Antenna-Loop(9 kHz-30 MHz)	SCHWARZBECK	FMZB 1519	1519-037	2021.04.16	2024.04.15
Test Antenna-Bi-Log(30 MHz-3 GHz)	SCHWARZBECK	VULB 9163	9163-624	2021.08.20	2024.08.19
Anechoic Chamber	EMC TECHNOLOGY LTD	20.1m*11.6m*7.35m	N/A	2021.08.15	2024.08.14
Anechoic Chamber	CHANGNING	9m*6m*6m	N/A	2020.03.16	2023.03.15
Shielded Enclosure	YiHeng Electronic Co., Ltd	3.5m*3.1m*2.8m	N/A	2022.02.19	2025.02.18
Test Software	BALUN	BL410_E	V19.918	--	--

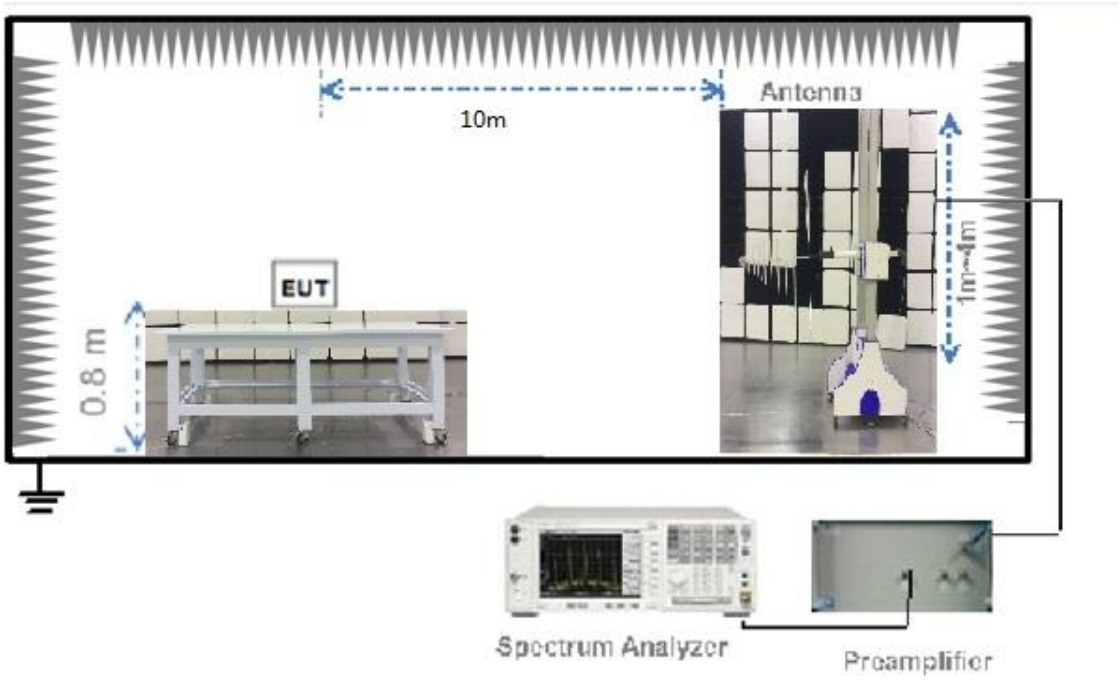
4.3 Description of Test Setup

4.3.1 For Radiated Test (Below 30 MHz)



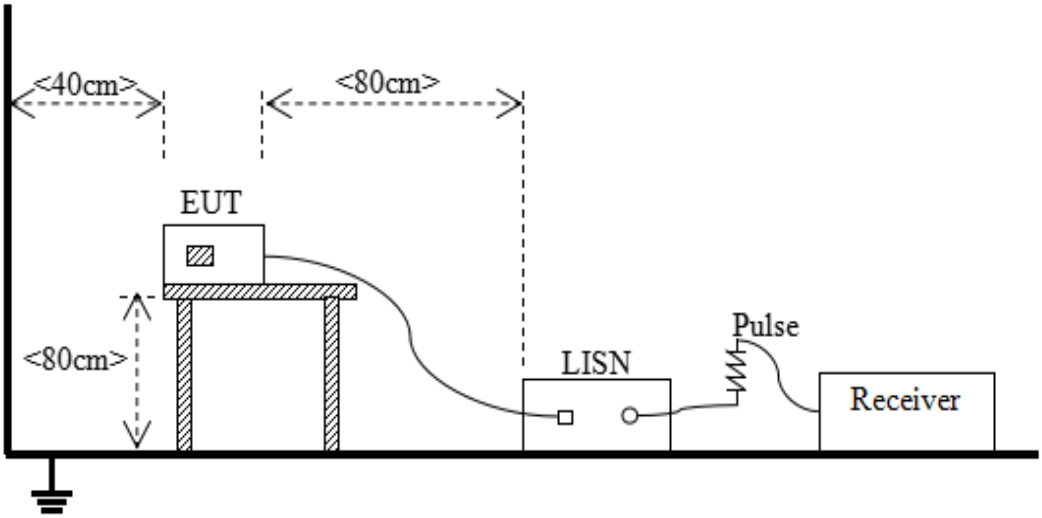
(Diagram 1)

4.3.2 For Radiated Test (30 MHz-1 GHz)



(Diagram 2)

4.3.3 For AC Power Supply Port Test



(Diagram 3)

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.

RSS-Gen 6.8

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer. The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested.

For licence-exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location:

This radio transmitter [enter the device's ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.

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 EUT internal photos.

5.2 Emission Bandwidth

5.2.1 Definition

15.215(c);

Intentional radiators operating under the alternative provisions to the general emission limits 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 6.7

The occupied bandwidth or the “99% emission bandwidth” is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

In some cases, the “x dB bandwidth” is required, which is defined as the frequency range between two points, one at the lowest frequency below and one at the highest frequency above the carrier frequency, at which the maximum power level of the transmitted emission is attenuated x dB below the maximum in-band power level of the modulated signal, where the two points are on the outskirts of the in-band emission.

The following conditions shall be observed for measuring the occupied bandwidth and x dB bandwidth:

• The transmitter shall be operated at its maximum carrier power measured under normal test conditions.

• The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.

• The detector of the spectrum analyzer shall be set to “Sample”. However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or “Max Hold”) may be necessary to determine the occupied / x dB bandwidth if the device is not transmitting continuously.

• The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value. Video averaging is not permitted.

Note: It may be necessary to repeat the measurement a few times until the RBW and VBW are in compliance with the above requirement.

For the 99% emission bandwidth, the trace data points are recovered and directly summed in linear power level terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached, and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded. The difference between the two recorded frequencies is the occupied bandwidth (or the 99% emission bandwidth).

5.2.2 Test Setup

See section 4.1.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.2.3 Test Procedure

The 20dB bandwidth is measured with a spectrum analyzer connected via a receiver antenna placed near the EUT while the EUT is operating in transmission mode.

Use the following spectrum analyzer settings:

Span = between 2 to 5 times the OBW

RBW = 1% to 5% the OBW

VBW ≥ 3RBW

Sweep = auto

Detector function = peak

Trace = max hold

The 99% emission bandwidth is measured with a spectrum analyzer connected via a receiver antenna placed near the EUT while the EUT is operating in transmission mode.

Use the following spectrum analyzer settings:

Span = between 1.5 to 5 times the OBW

RBW = 1% to 5% OBW

VBW ≥ 3RBW

Sweep = auto

Detector function = peak

Trace = max hold

5.2.4 Test Result

Please refer to ANNEX A.1

5.3 Field Strength of Fundamental Emissions and Radiated Emissions

5.3.1 Limit

FCC §15.225(a), (b), (c); RSS-210 B.6

According to FCC section 15.225, for <30 MHz, Radiated emissions were measured according to ANSI C63.4. The EUT was set to transmit at the highest output power. The EUT was set 10 meter away from the measuring antenna. The loop antenna was positioned 1 meter above the ground from the center of the loop. The measuring bandwidth was set to 10 kHz. (Note: During testing the receive antenna was rotated about its axis to maximize the emission from the EUT)

There was no detected Restricted bands and Radiated spurious emission below 30MHz. The 30m limit was converted to 3m Limit using square factor(x) as it was found by measurements as follows; 3 m Limit(dBμV/m) = 20log(X)+40log(30/3)= 20log(15848)+40log(30/3) = 124dBμV

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 range (MHz)	Field Strength@30m		Field Strength@10m	Field Strength@3m
	μV/m	dBμV/m	dBμV/m	dBμV/m
Below 13.110	30	29.5	48.58	69.5
13.110 ~ 13.410	106	40.5	59.58	80.5
13.410 ~ 13.553	334	50.5	69.58	90.5
13.553 ~13.567	15848	84	103.08	124
13.567 ~ 13.710	334	50.5	69.58	90.5
13.710 ~14.010	106	40.5	59.58	80.5
Above 14.010	30	29.5	48.58	69.5

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.

FCC §15.225(d)

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 (meters)
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: 54dBμV/m@3m (AV) and 74dBμV/m@3m (PK).

5.3.2 Test Setup

See section 4.1.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.3.3 Test Procedure

The 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 ≥ 1 GHz, 100 kHz for f < 1 GHz
VBW ≥ RBW
Sweep = auto
Detector function = peak
Trace = max hold

5.3.4 Test Result

Please refer to ANNEX A.2

NOTE**:**

1. Results (dBμV/m) = Reading (dBμV/m) + Factor (dB/m)

The reading level is calculated by software which is not shown in the sheet

2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain (dB)

3. Over limit = Results – Limit.

5.4 Frequency Tolerance

5.4.1 Limit

FCC §15.225(e)

The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of −20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

RSS-210 B.6

(a) at the temperatures of -30°C (-22°F), +20°C (+68°F) and +50°C (+122°F), and at the manufacturer's rated supply voltage; and

(b) at the temperature of +20°C (+68°F) and at ±15% of the manufacturer's rated supply voltage.

If the frequency stability limits are only met within a temperature range that is smaller than the -30°C to +50°C range specified in (a), the frequency stability requirement will be deemed to be met if the transmitter is automatically prevented from operating outside this smaller temperature range and if the published operating characteristics for the equipment are revised to reflect this restricted temperature range.

5.4.2 Test Setup

See section 4.1.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.4.3 Test Procedure

1. The test is performed in a Temperature Chamber.
2. The EUT is configured as MS + DC Power Supply.

5.4.4 Test Result

Please refer to ANNEX A.4.

5.5 Conducted Emission

5.5.1 Limit

FCC §15.207; RSS-Gen

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 50μH/50Ω line impedance stabilization network (LISN).

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

5.5.2 Test Setup

See section 4.1.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.5.3 Test Procedure

The 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.

5.5.4 Test Result

Please refer to ANNEX A.5.

NOTE**:**

1. Results (dBμV) = Reading (dBμV) + Factor (dB)

The reading level is calculated by software which is not shown in the sheet

2. Factor = Insertion loss + Cable loss

3. Over limit = Results – Limit.

ANNEX A TEST RESULT

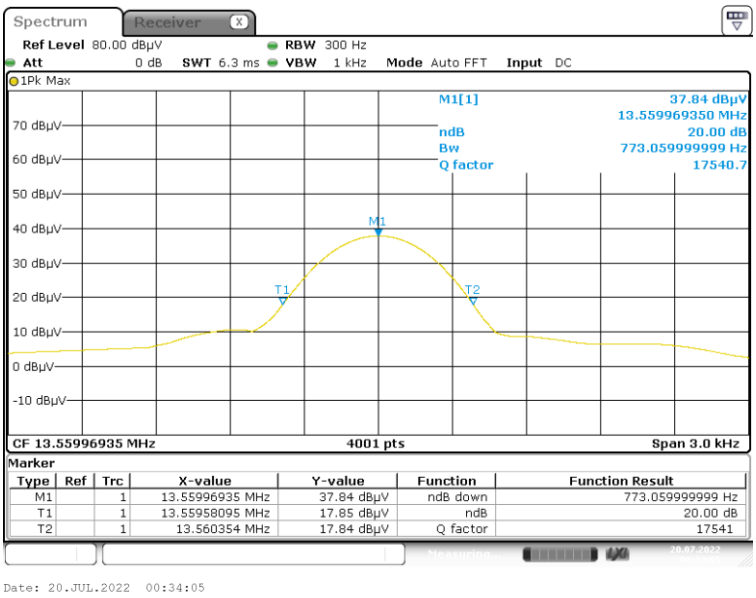
A.1 Emission Bandwidth

Test Data

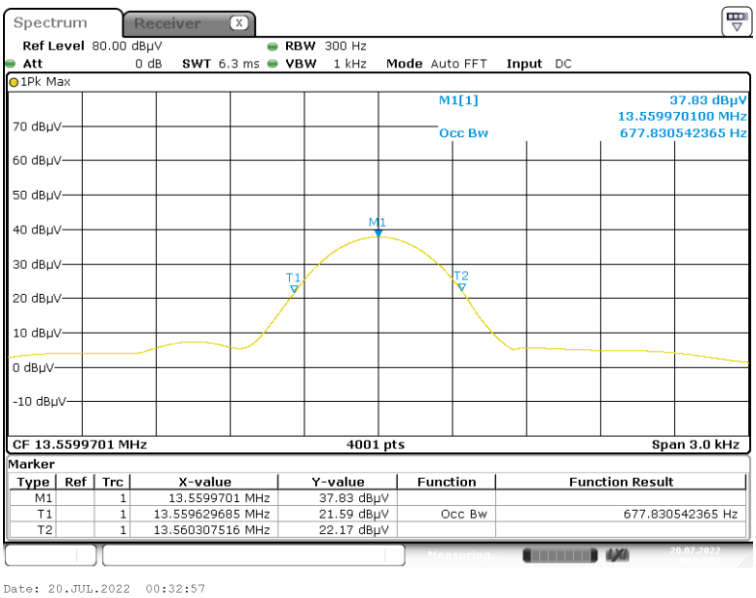
Frequency (MHz)	Emission Bandwidth(20dB down) (kHz)	Occupied Bandwidth(99%) (kHz)
13.56	0.773	0.678

Test plots

Emission Bandwidth



99% Occupied Bandwidth



A.2 Field Strength of Fundamental Emissions

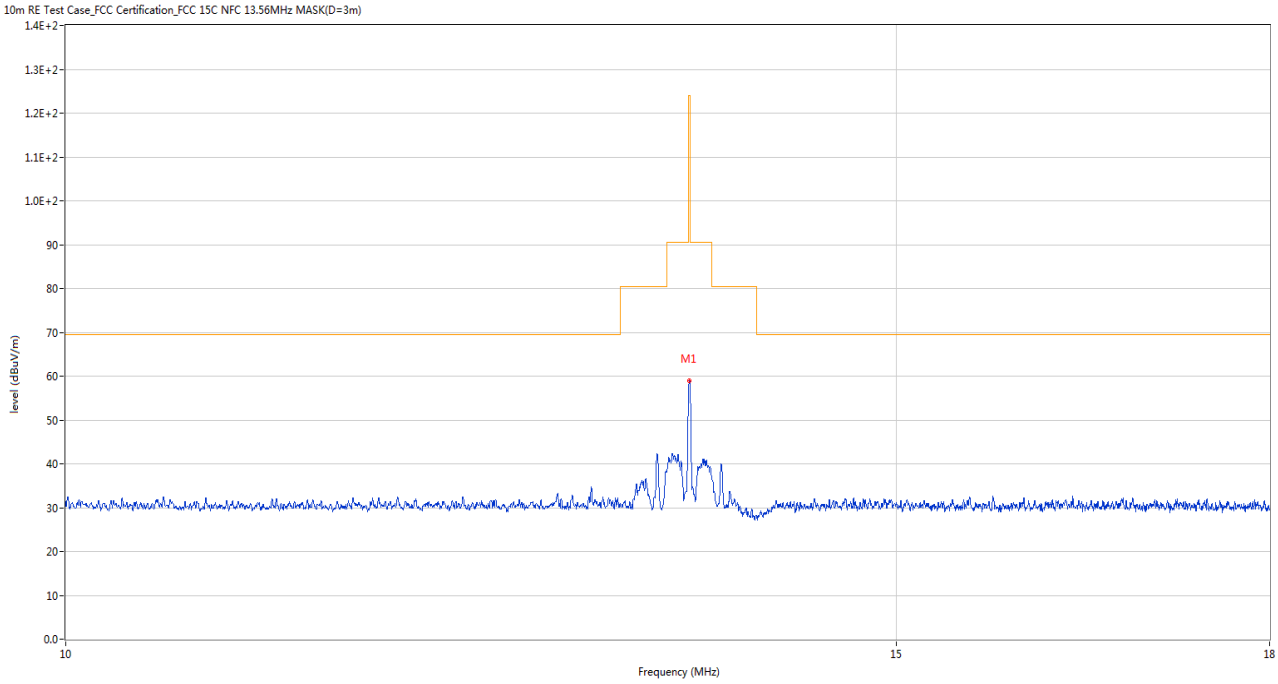
Note: Field Strength of Fundamental Emissions tests were performed in X, Y, Z axis direction of EUT. And only the worst axis test condition was recorded in this test report.

Test Data

Field Strength of Fundamental Emissions Value					
Frequency (MHz)	Detector	Field Strength (dBµV/m)	Limit @10m (dBµV/m)	EUT	Margin (dB)
13.560	PEAK	59.03	124.0	Y axis	64.97

Test Plot

Test Antenna-LOOP, EUT Y axis



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	13.560	59.03	20.86	124.0	-64.97	Peak	13.00	100	Y	Pass

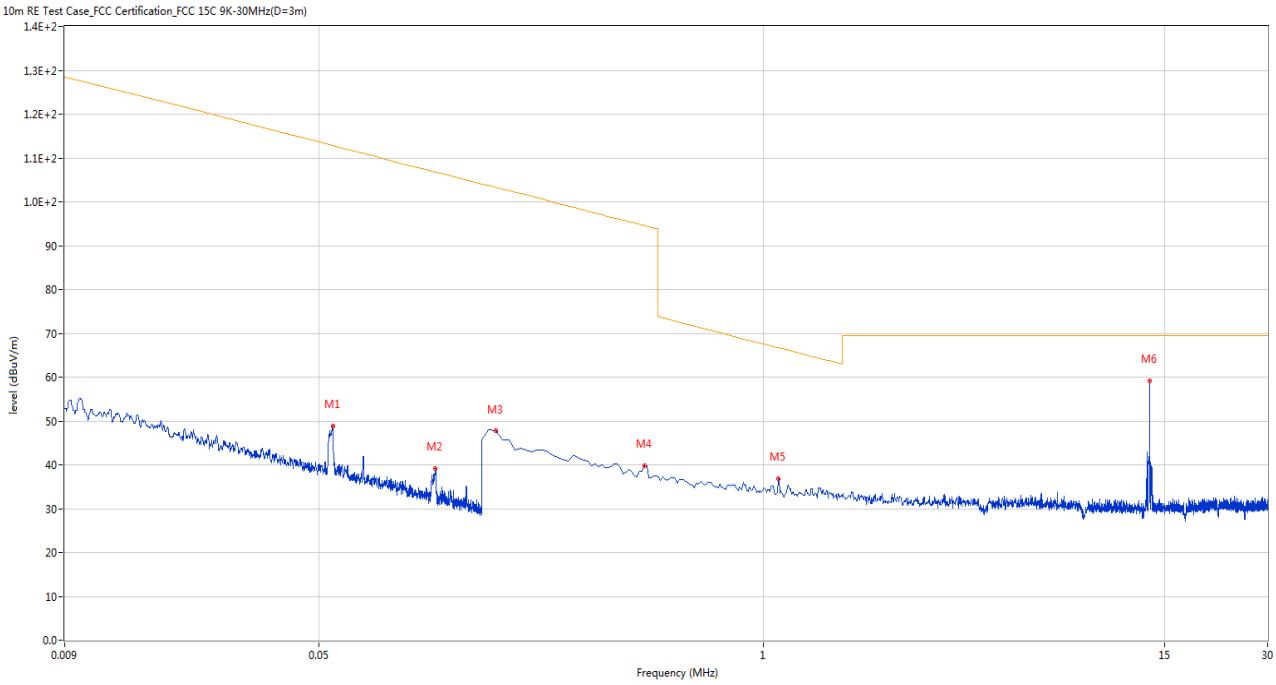
A.3 Radiated Emissions

Note 1: This frequency which near 13.560 MHz with circle should be ignored because they are NFC carrier frequency.

Note 2: All Radiated Emissions tests were performed in X, Y, Z axis direction of EUT. And only the worst axis test condition was recorded in this test report.

The Data and Plots (9 kHz ~ 30 MHz)(at 10m chamber)

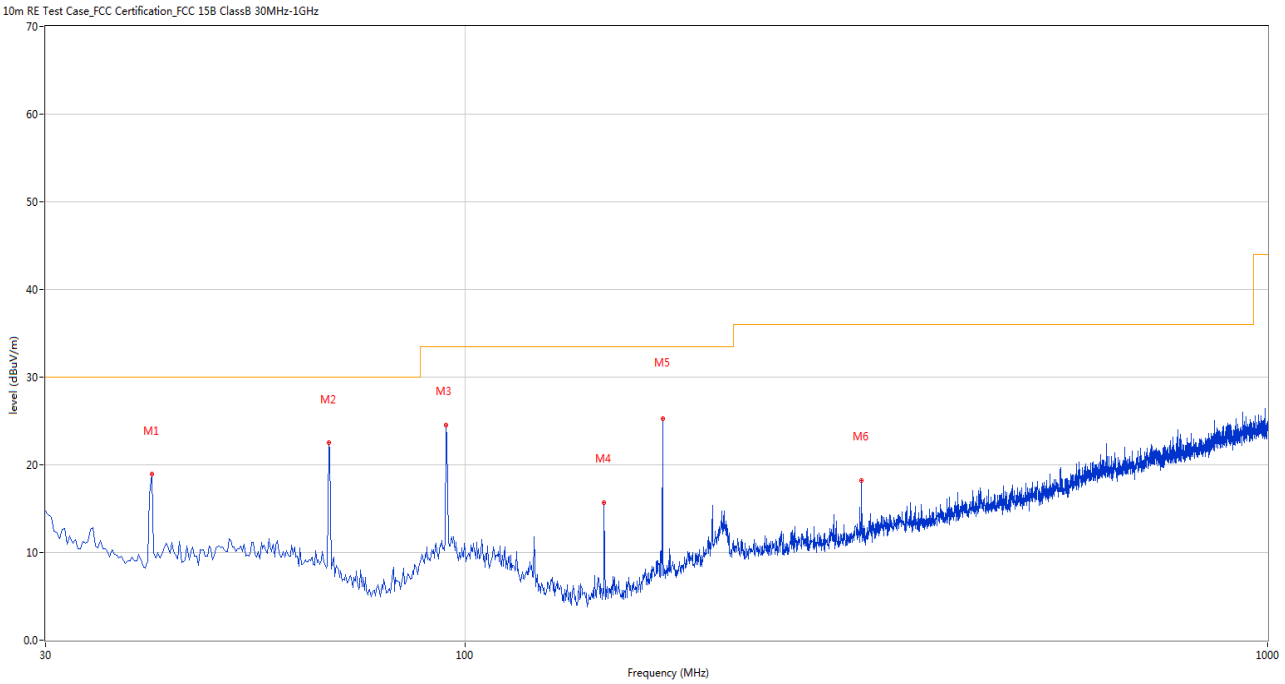
Below 30 MHz, Test Antenna LOOP, EUT Y axis



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	0.055	48.76	20.21	112.8	-64.04	Peak	8.00	100	Y	Pass
2	0.110	39.09	20.16	106.8	-67.71	Peak	10.00	100	Y	Pass
3	0.165	47.86	20.10	103.3	-55.44	Peak	12.00	100	Y	Pass
4	0.449	39.88	20.21	94.6	-54.72	Peak	3.00	100	Y	Pass
5	1.105	36.81	20.56	66.7	-29.89	Peak	13.00	100	Y	Pass
6	13.560	59.05	20.86	69.5	-10.45	Peak	6.00	100	Y	N/A

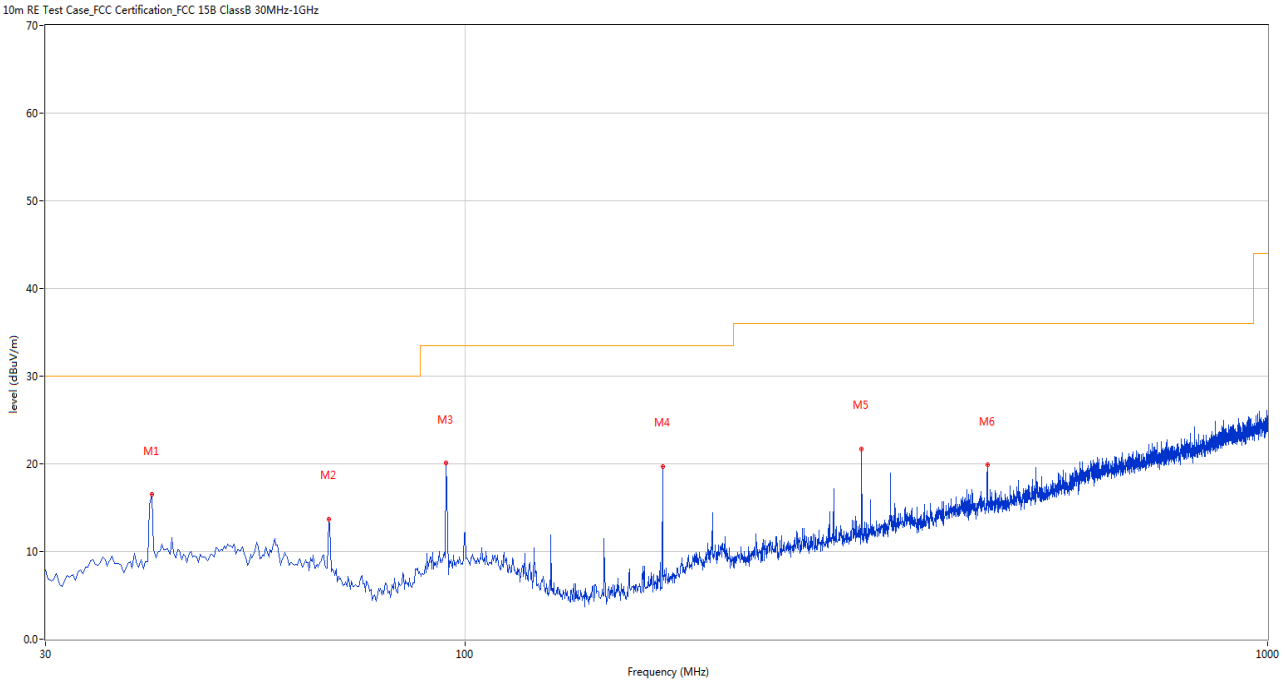
Test Data and Plots (30 MHz ~ 10th Harmonic)

30 MHz to 1 GHz, Test Antenna Vertical, EUT Y axis



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	40.667	18.90	-27.19	30.0	-11.10	Peak	129.00	100	Vertical	Pass
2	67.578	22.47	-29.10	30.0	-7.53	Peak	145.00	200	Vertical	Pass
3	94.731	24.56	-28.89	33.5	-8.94	Peak	124.00	100	Vertical	Pass
4	149.038	15.71	-31.55	33.5	-17.79	Peak	230.00	100	Vertical	Pass
5	176.191	25.28	-29.95	33.5	-8.22	Peak	255.00	100	Vertical	Pass
6	311.715	18.18	-24.88	36.0	-17.82	Peak	3.00	100	Vertical	Pass

30 MHz to 1 GHz, Test ANT Horizontal, EUT Y axis



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	40.667	16.50	-27.19	30.0	-13.50	Peak	322.00	200	Horizontal	Pass
2	67.578	13.74	-29.10	30.0	-16.26	Peak	0.00	200	Horizontal	Pass
3	94.731	20.08	-28.89	33.5	-13.42	Peak	0.00	200	Horizontal	Pass
4	176.191	19.71	-29.95	33.5	-13.79	Peak	140.00	200	Horizontal	Pass
5	311.715	21.73	-24.88	36.0	-14.27	Peak	282.00	200	Horizontal	Pass
6	447.481	19.85	-21.92	36.0	-16.15	Peak	271.00	200	Horizontal	Pass

A.4 Frequency Stability

Note 1: Because the 85%(3.273V) and 115% (4.428V)of the rated supply voltage value exceeds the cut-off voltage upper(4.4V) and lower(3.4V) limit of the manufacturer, the cut-off voltage of EUT is test here.
Note 2: The operating temperature range of the EUT is 0°C to 40°C.

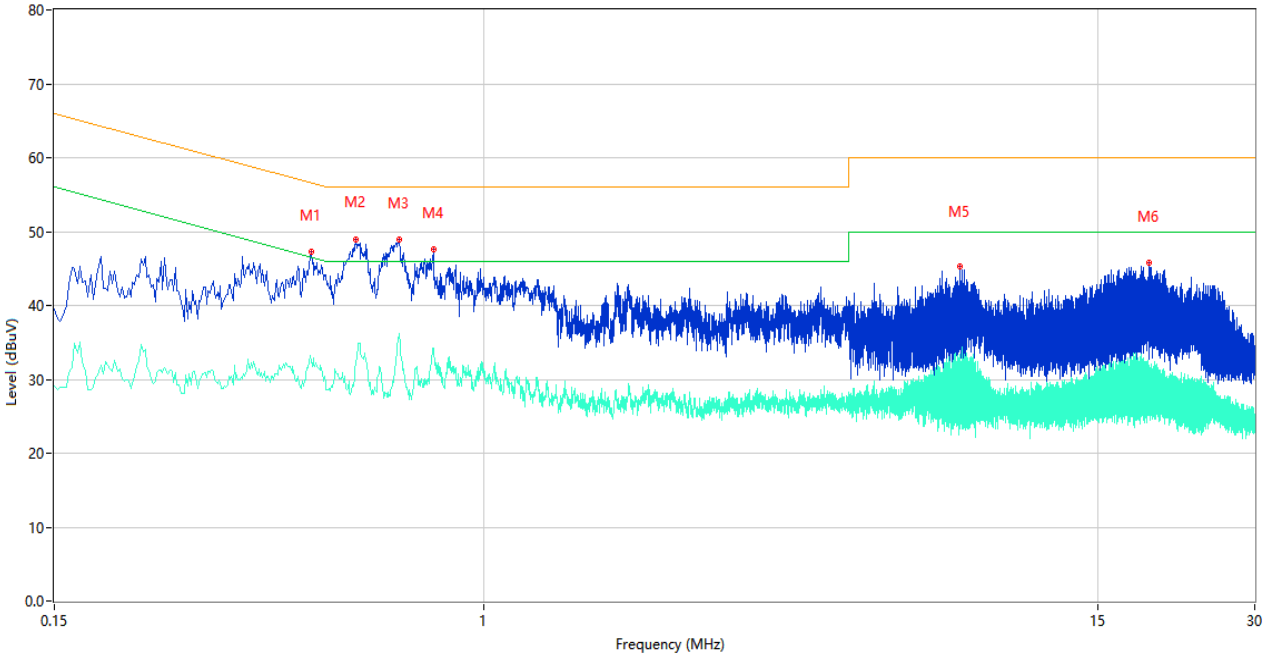
OPERATING FREQUENCY:	13560000 Hz
REFERENCE VOLTAGE:	3.85 V
DEVIATION LIMIT:	±0.01%

VOLTAGE (%)	Test Conditions		Frequency(Hz)	Deviation(%)	Verdict
	Power (VDC)	Temperature (°C)			
100	3.85	-30	13560175	0.001291	Pass
100		-20	13560138	0.001018	
100		-10	13560100	0.000737	
100		0	13560093	0.000686	
100		+10	13560198	0.001460	
100		+20	13560153	0.001128	
100		+25	13560018	0.000133	
100		+30	13560086	0.000634	
100		+40	13560101	0.000745	
100		+50	13560115	0.000848	
MIN(Battery End Point, 85)	3.40	+20	13560056	0.000413	
MAX(Battery End Point, 115)	4.40	+20	13560138	0.001018	

A.5 Conducted Emissions

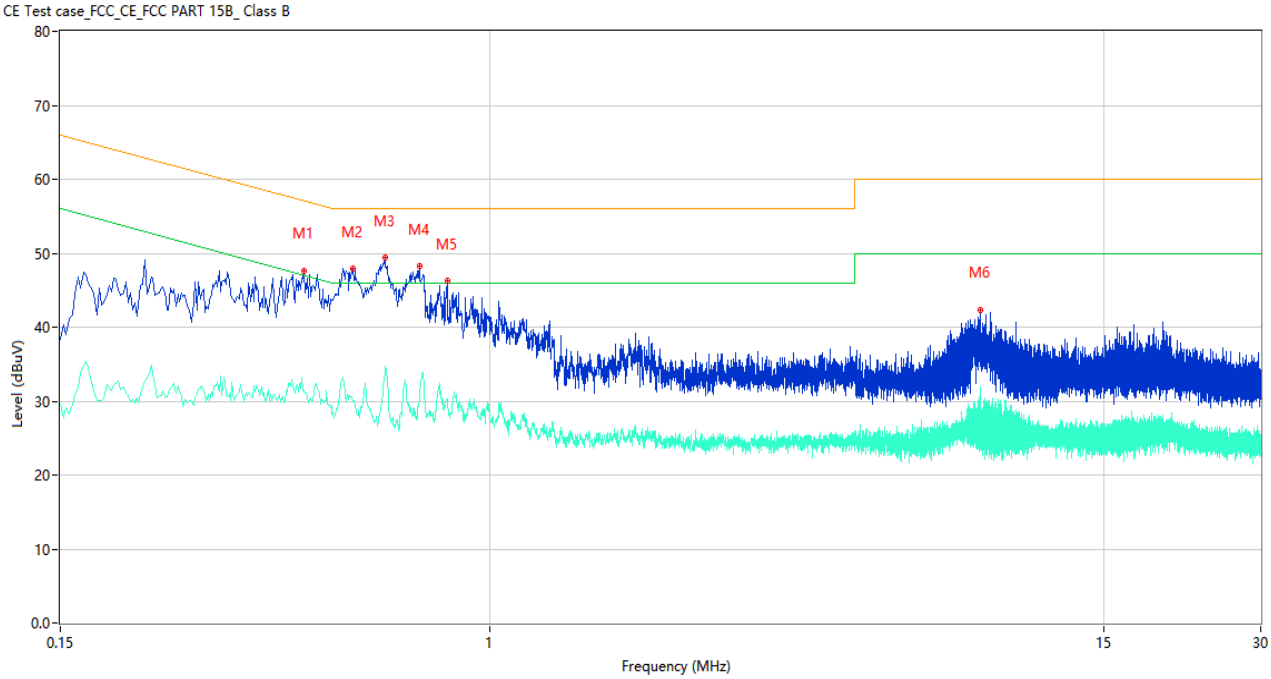
Test Data and Plots

PHASE L



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.466	47.31	10.21	56.58	-9.27	Peak	L	Pass
1**	0.466	32.56	10.21	46.58	-14.02	AV	L	Pass
2	0.568	49.00	10.26	56.00	-7.00	Peak	L	Pass
2**	0.568	32.28	10.26	46.00	-13.72	AV	L	Pass
3	0.688	48.92	10.71	56.00	-7.08	Peak	L	Pass
3**	0.688	35.50	10.71	46.00	-10.50	AV	L	Pass
4	0.800	47.62	10.67	56.00	-8.38	Peak	L	Pass
4**	0.800	33.26	10.67	46.00	-12.74	AV	L	Pass
5	8.170	45.34	10.21	60.00	-14.66	Peak	L	Pass
5**	8.170	31.76	10.21	50.00	-18.24	AV	L	Pass
6	18.856	45.74	10.34	60.00	-14.26	Peak	L	Pass
6**	18.856	31.90	10.34	50.00	-18.10	AV	L	Pass

PHASE N



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.440	47.66	10.33	57.06	-9.40	Peak	N	Pass
1**	0.440	31.44	10.33	47.06	-15.62	AV	N	Pass
2	0.546	47.89	10.21	56.00	-8.11	Peak	N	Pass
2**	0.546	29.96	10.21	46.00	-16.04	AV	N	Pass
3	0.628	49.43	10.36	56.00	-6.57	Peak	N	Pass
3**	0.628	33.84	10.36	46.00	-12.16	AV	N	Pass
4	0.732	48.28	10.50	56.00	-7.72	Peak	N	Pass
4**	0.732	29.91	10.50	46.00	-16.09	AV	N	Pass
5	0.828	46.24	10.72	56.00	-9.76	Peak	N	Pass
5**	0.828	30.24	10.72	46.00	-15.76	AV	N	Pass
6	8.716	42.31	10.26	60.00	-17.69	Peak	N	Pass
6**	8.716	31.89	10.26	50.00	-18.11	AV	N	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2270322-AE-2.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2270322-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2270322-AI.PDF”.

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--END OF REPORT--