



# FCC Test Report

**APPLICANT** : Numera Systems US, Inc  
**EQUIPMENT** : Libris Aura Charging Cradle  
**BRAND NAME** : Libris  
**MODEL NAME** : ACC-NUML3-CRAD, ACC-NUML3-CRADW  
**FCC ID** : 2BN8B-L3CRAD  
**STANDARD** : 47 CFR Part 15 Subpart B  
**CLASSIFICATION** : Certification  
**TEST DATE(S)** : Jun. 13, 2025 ~ Jun. 23, 2025

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2014 and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia



Approved by: Jason Jia

**Sportun International Inc. (Kunshan)**

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300  
People's Republic of China**



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### APPENDIX A. SETUP PHOTOGRAPHS



# REVISION HISTORY



## SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	Under limit 13.19 dB at 0.433 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 13.16 dB at 128.70 MHz

**Conformity Assessment Condition:**

The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account. Please refer to each test results in the section "Measurement Uncertainty".

**Disclaimer:**

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.



## 1. General Description

### 1.1. Applicant

Numera Systems US, Inc

44 EAST BEAVER CREEK RD #16 RICHMOND HILL, ON, CANADA

### 1.2. Manufacturer

Numera Systems US, Inc

44 EAST BEAVER CREEK RD #16 RICHMOND HILL, ON, CANADA

### 1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	Libris Aura Charging Cradle
Brand Name	Libris
Model Name	ACC-NUML3-CRAD, ACC-NUML3-CRADW
FCC ID	2BN8B-L3CRAD
EUT supports Radios application	Bluetooth LE
SN Code	Conduction/Radiation: AABBCCDD0011

**Remark:**

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. The differences between two model names are as below:

Model name	Description
ACC-NUML3-CRAD	The appearance color is black
ACC-NUML3-CRADW	The appearance color is white

### 1.4. Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	Bluetooth: 2400 MHz ~ 2483.5 MHz
Rx Frequency	Bluetooth: 2400 MHz ~ 2483.5 MHz
Antenna Type	Bluetooth : Metal Antenna
Type of Modulation	Bluetooth LE : GFSK

### 1.5. Modification of EUT

No modifications are made to the EUT during all test items.



## 1.6. Test Location

Sportun International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

<b>Test Firm</b>	Sportun International Inc. (Kunshan)		
<b>Test Site Location</b>	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
<b>Test Site No.</b>	<b>Sportun Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	CO01-KS 03CH07-KS	CN1257	314309

## 1.7. Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH07-KS	AUDIX	E3	210616
2.	CO01-KS	AUDIX	E3	6.2009-8-24

## 1.8. Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 15 Subpart B
- ANSI C63.4-2014

**Remark:** All test items were verified and recorded according to the standards and without any deviation during the test.



## 2. Test Configuration of Equipment Under Test

### 2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

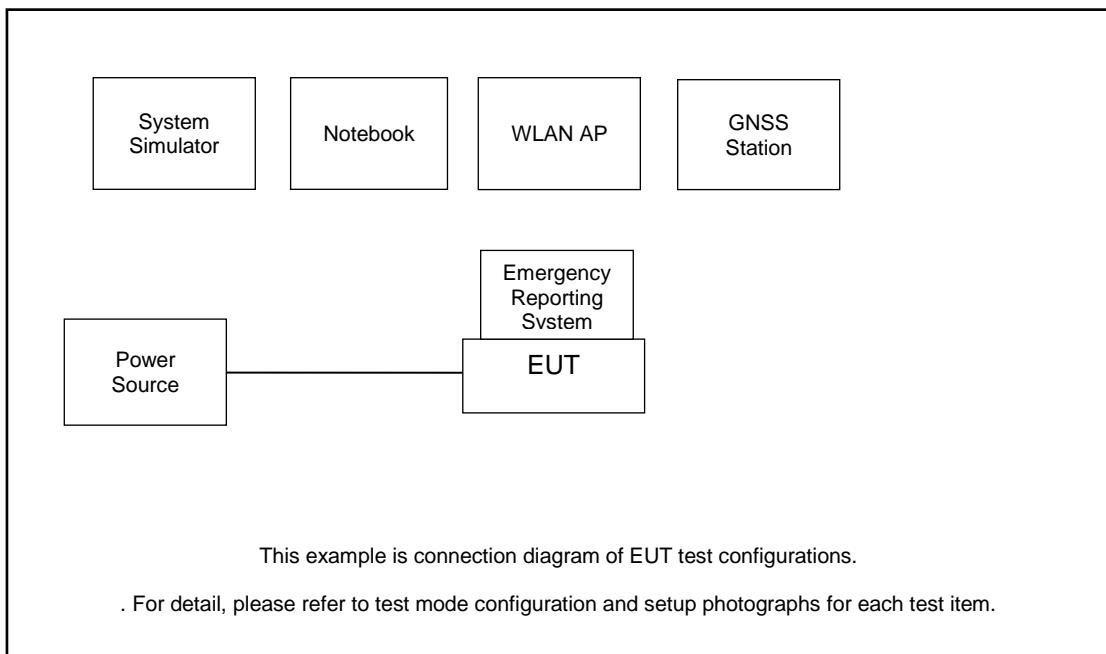
Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (30MHz to the 5th harmonic of the highest frequency or to 40 GHz, whichever is lower).

Test Items	Function Type
AC Conducted Emission	Mode 1: Emergency Reporting System (WCDMA Band 5 Rx(Middle) + Bluetooth Idle + WLAN (2.4G) RX + GNSS Rx + Battery) + USB Cable (Emergency Reporting System Charging from EUT) Mode 2: Emergency Reporting System (LTE Band 12 Rx(Low) + Bluetooth Idle + WLAN (2.4G) RX + GNSS Rx + Battery) + USB Cable (Emergency Reporting System Charging from EUT)
Radiated Emissions	Mode 3: Emergency Reporting System (WCDMA Band 5 Rx(Middle) + Bluetooth Idle + WLAN (2.4G) RX + GNSS Rx + Battery) + USB Cable (Emergency Reporting System Charging from EUT) Mode 1: Emergency Reporting System (LTE Band 12 Rx(Low) + Bluetooth Idle + WLAN (2.4G) RX + GNSS Rx + Battery) + USB Cable (Emergency Reporting System Charging from EUT)

#### Remark:

1. The worst case of RE is mode 2; only the test data of this mode is reported.
2. Pre-scanned Low/Middle/High channels, the worst channel was recorded in this report.
3. The RF functions of WWAN & GNSS are from the Mobile Personal Emergency Reporting System which is not EUT.
4. The EUT is a Charging Cradle in this project but it is tested with the Mobile Personal Emergency Reporting System together.

## 2.2. Connection Diagram of Test System



The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application

## 2.3. Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Base Station	Anritus	MT8821C	N/A	N/A	Unshielded,1.8m
2.	Notebook	Lenovo	G480	QDS-BRCM1050I	N/A	shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m
3.	WLAN AP	D-link	DIR-655	KA21R655B1	N/A	Unshielded,1.8m
4.	Vector Signal Generator	R&S	SMBV100A	258305	N/A	N/A
5.	Mobile Personal Emergency Reporting System	Libris	N/A	N/A	N/A	N/A

## 2.4. EUT Operation Test Setup

The EUT was Bluetooth Link with the Mobile Personal Emergency Reporting System during the test.



### 3. Test Result

#### 3.1. Test of AC Conducted Emission Measurement

##### 3.1.1 Limits of AC Conducted Emission

For equipment 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 or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

###### <Class B Limit>

Frequency of emission (MHz)	Conducted limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

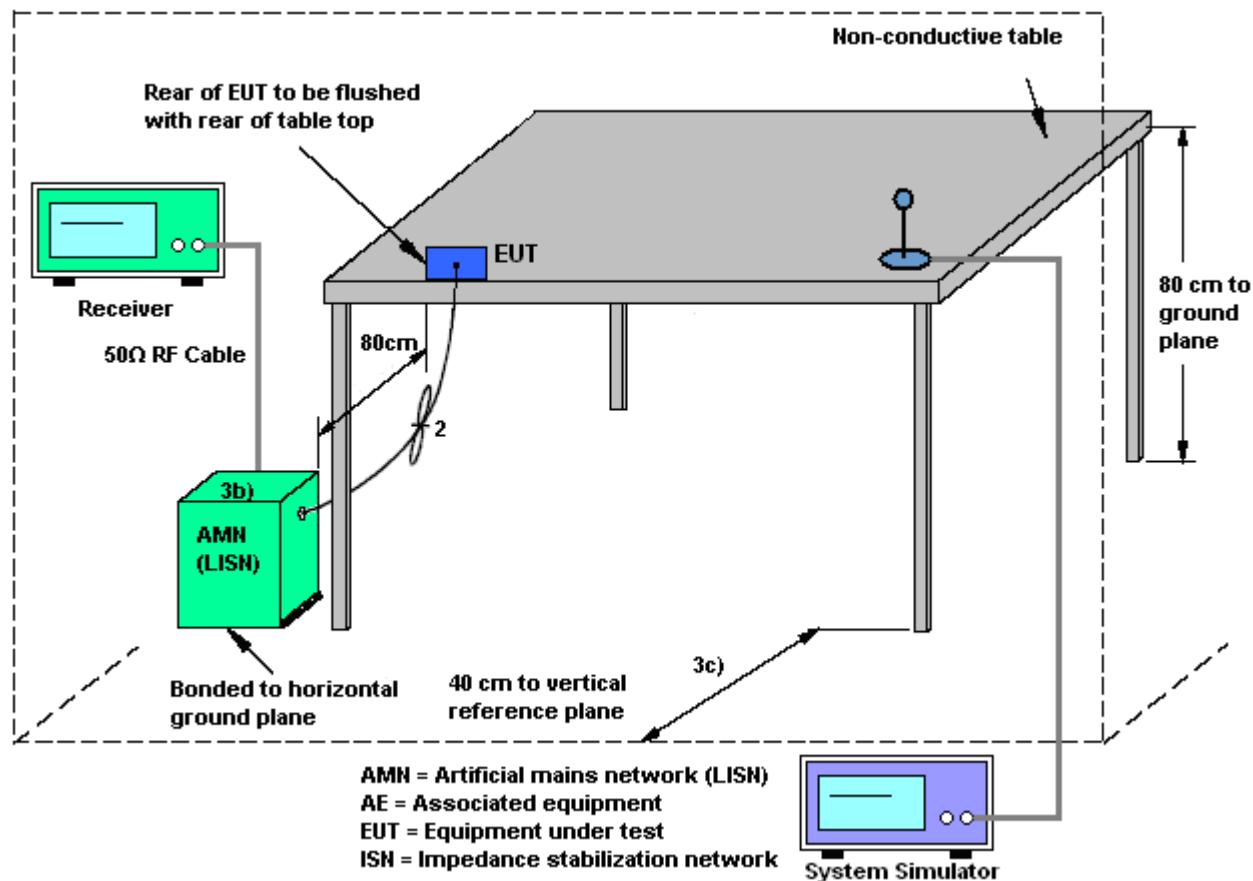
##### 3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

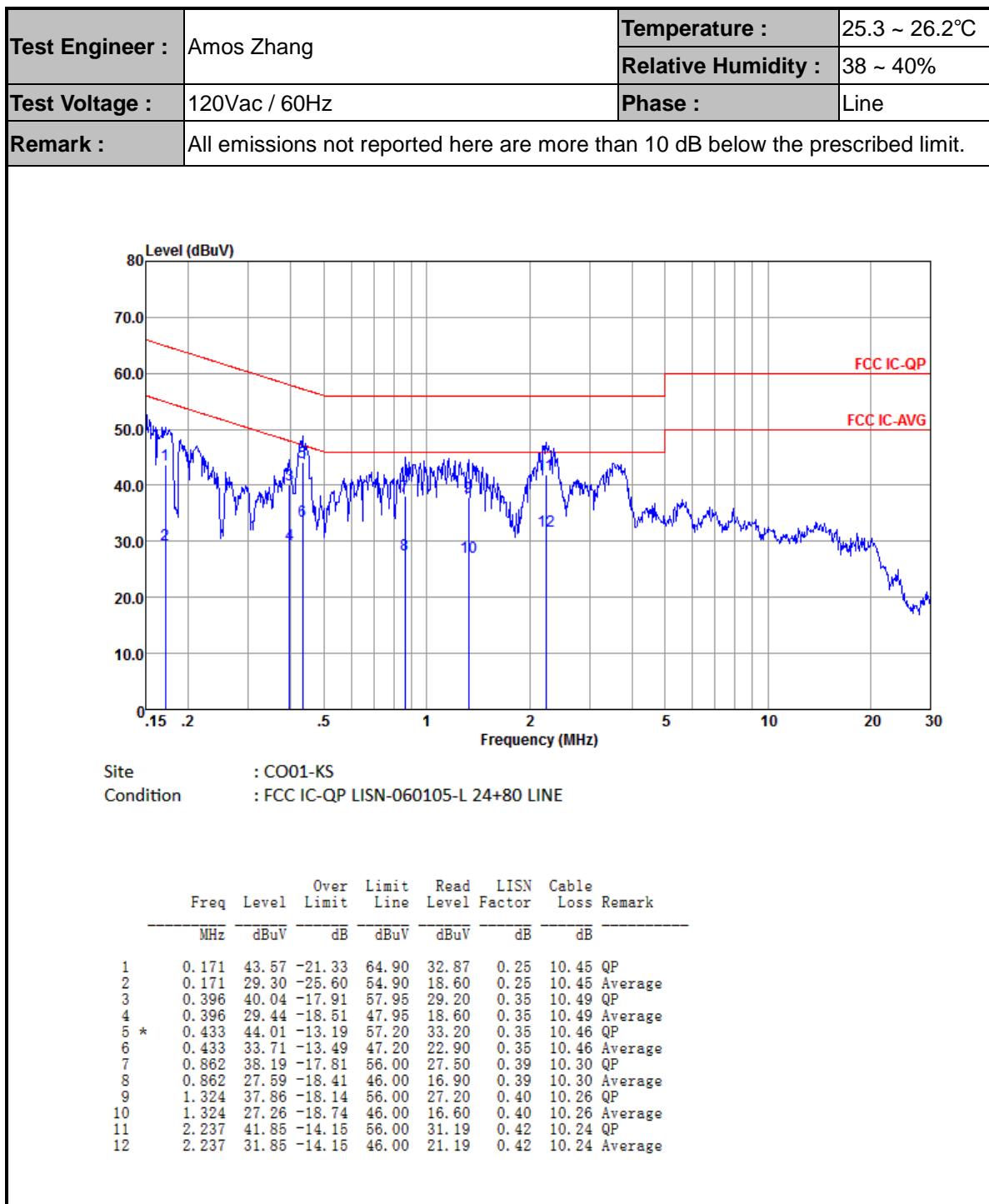
##### 3.1.3 Test Procedure

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

### 3.1.4 Test Setup

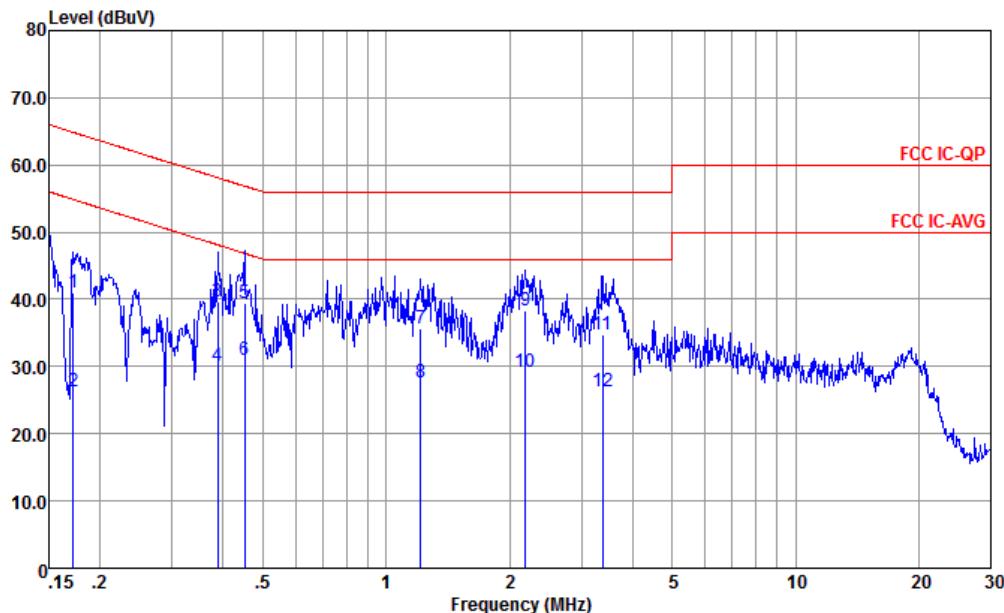


## 3.1.5 Test Result of AC Conducted Emission





<b>Test Engineer :</b>	Amos Zhang	<b>Temperature :</b>	25.3 ~ 26.2°C
<b>Test Voltage :</b>	120Vac / 60Hz	<b>Relative Humidity :</b>	38 ~ 40%
<b>Remark :</b>	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS  
Condition : FCC IC-QP LISN-060105-N 24+80 NEUTRAL

Freq MHz	Level dBuV	Over Limit dB	Limit Line dBuV	Read Line dBuV	LISN Factor	Cable Loss dB	Cable Loss Remark		
							Line	Factor	Remark
1	0.172	40.90	-23.96	64.86	30.20	0.25	10.45	QP	
2	0.172	26.20	-28.66	54.86	15.50	0.25	10.45	Average	
3	0.387	39.63	-18.49	58.12	28.80	0.34	10.49	QP	
4	0.387	30.13	-17.99	48.12	19.30	0.34	10.49	Average	
5	0.452	39.39	-17.46	66.85	28.60	0.34	10.45	QP	
6 *	0.452	30.99	-15.86	46.85	20.20	0.34	10.45	Average	
7	1.216	35.72	-20.28	56.00	25.10	0.36	10.26	QP	
8	1.216	27.52	-18.48	46.00	16.90	0.36	10.26	Average	
9	2.190	38.23	-17.77	56.00	27.60	0.39	10.24	QP	
10	2.190	29.13	-16.87	46.00	18.50	0.39	10.24	Average	
11	3.381	34.81	-21.19	56.00	24.19	0.40	10.22	QP	
12	3.381	26.21	-19.79	46.00	15.59	0.40	10.22	Average	

## Note:

1. Level(dB $\mu$ V) = Read Level(dB $\mu$ V) + LISN Factor(dB) + Cable Loss(dB)
2. Over Limit(dB) = Level(dB $\mu$ V) - Limit Line(dB $\mu$ V)



### 3.2. Test of Radiated Emission Measurement

#### 3.2.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

**<Class B Limit>**

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

#### 3.2.2. Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

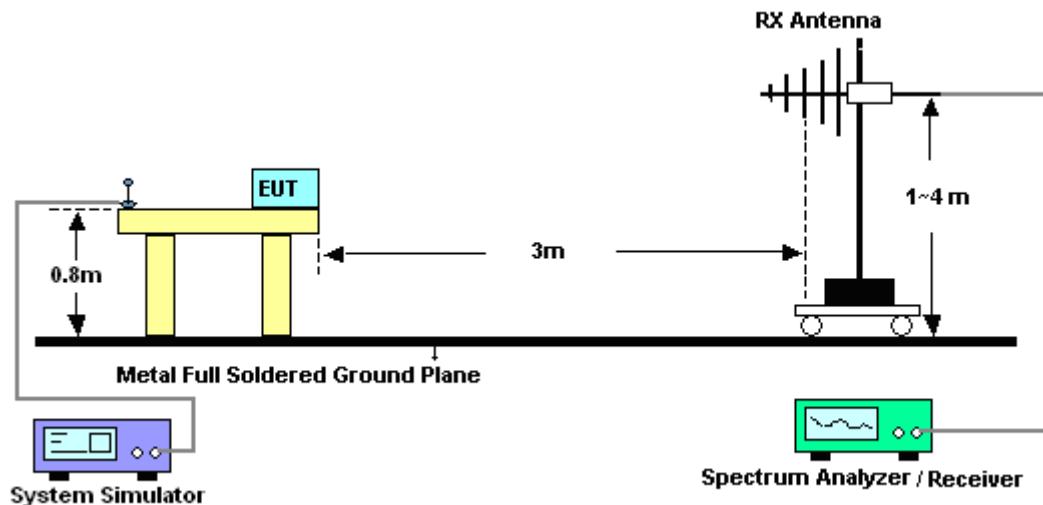


### 3.2.3. Test Procedures

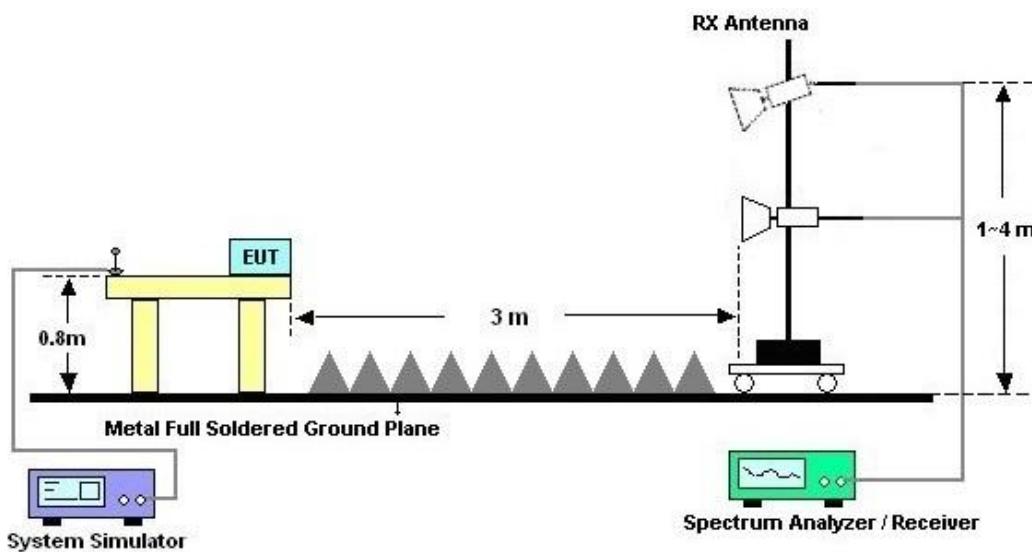
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
8. Emission level (dB $\mu$ V/m) = 20 log Emission level ( $\mu$ V/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
10. Exploratory radiated emissions testing of handheld and/or body-worn devices shall include rotation of the EUT through three orthogonal axes (X/Y/Z Plane) to determine the orientation (attitude) that maximizes the emissions.

### 3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



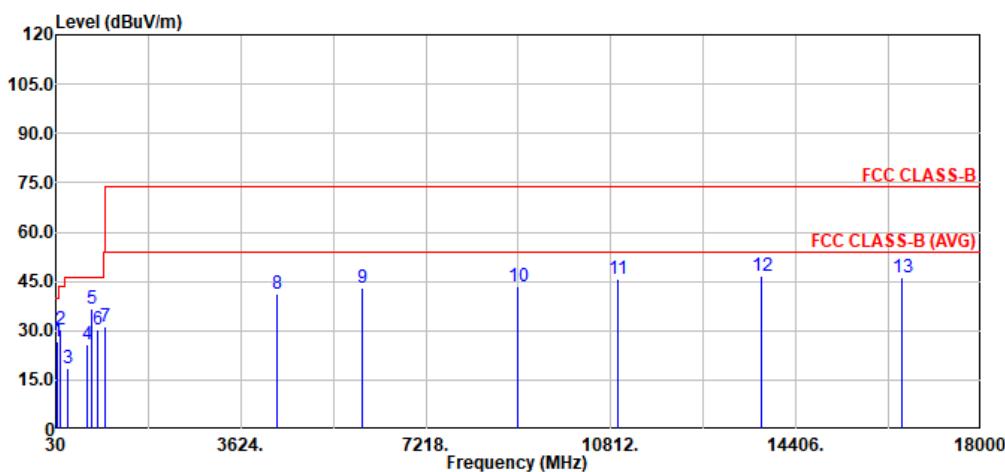
For radiated emissions above 1GHz





## 3.2.5. Test Result of Radiated Emission

Test Engineer :	Levi Zhuo	Temperature :	21~22°C
		Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal
Remark :	#5 is LTE B12 RF signal which is from the test auxiliary equipment, and can be ignored.		

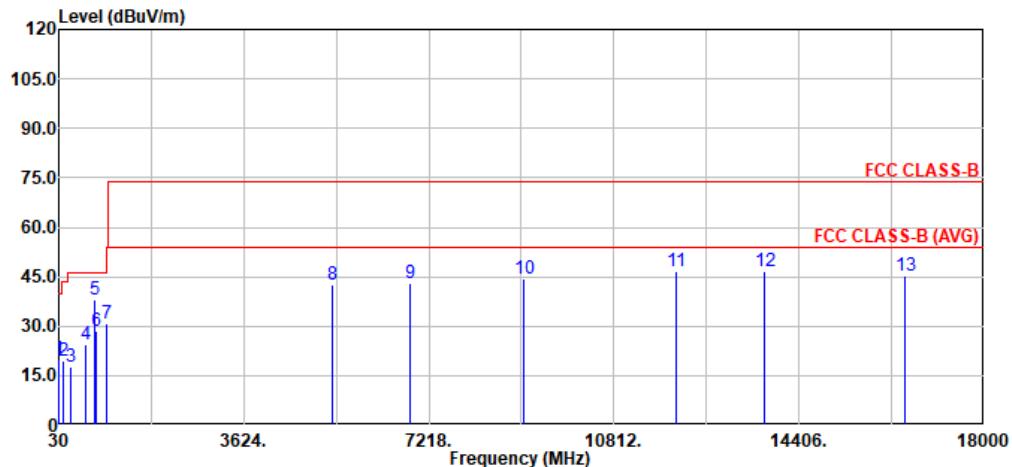


Site : 03CH07-KS  
Condition: FCC CLASS-B 3m 3117 SN 00240132 Horizontal

Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Ant Factor	Cable Loss dB	Preamp Factor	APos cm	TPos deg	Remark
1 47.95	26.66	40.00	-13.34	42.53	15.19	1.06	32.12	---	---	Peak
2 128.70	30.34	43.50	-13.16	43.14	17.54	1.72	32.06	---	---	Peak
3 253.83	18.35	46.00	-27.65	28.82	18.95	2.44	31.86	---	---	Peak
4 633.83	25.96	46.00	-20.04	27.91	26.30	3.85	32.10	---	---	Peak
5 737.62	36.78			36.59	27.97	4.13	31.91	---	---	Peak
6 851.83	30.36	46.00	-15.64	27.74	29.67	4.43	31.48	---	---	Peak
7 979.39	31.28	54.00	-22.72	26.05	30.81	4.76	30.34	---	---	Peak
8 4336.25	41.02	74.00	-32.98	62.94	33.85	10.23	66.00	---	---	Peak
9 5976.75	42.96	74.00	-31.04	61.86	35.36	12.13	66.39	---	---	Peak
10 9007.00	43.65	74.00	-30.35	60.45	36.23	15.07	68.10	---	---	Peak
11 10932.25	45.82	74.00	-28.18	57.37	38.03	17.27	66.85	---	---	Peak
12 13745.75	46.43	74.00	-27.57	52.75	38.95	19.33	64.60	---	---	Peak
13 16470.00	46.30	74.00	-27.70	50.18	41.68	20.84	66.40	---	---	Peak



<b>Test Engineer :</b>	Levi Zhuo	<b>Temperature :</b>	21~22°C
		<b>Relative Humidity :</b>	41~42%
<b>Test Distance :</b>	3m	<b>Polarization :</b>	Vertical
<b>Remark :</b>	#5 is LTE B12 RF signal which is from the test auxiliary equipment, and can be ignored.		



Site : 03CH07-KS  
 Condition: FCC CLASS-B 3m 3117 SN 00240132 Vertical

Freq	Level	Limit	Over	Read	Ant	Cable	Preamp	APos	TPos	Remark
		Line	Limit	Level	Factor	Loss	Factor	cm	deg	
1 30.24	20.08	40.00	-19.92	26.44	25.02	0.83	32.21	---	---	Peak
2 127.24	19.44	43.50	-24.06	32.25	17.54	1.71	32.06	---	---	Peak
3 257.47	17.80	46.00	-28.20	27.79	19.45	2.46	31.90	---	---	Peak
4 562.77	24.31	46.00	-21.69	27.07	25.97	3.61	32.34	---	---	Peak
5 736.89	38.19			38.04	27.94	4.13	31.92	---	---	Peak
6 750.71	28.56	46.00	-17.44	28.03	28.10	4.17	31.74	---	---	Peak
7 956.35	30.89	46.00	-15.11	26.27	30.57	4.70	30.65	---	---	Peak
8 5352.00	42.38	74.00	-31.62	62.45	34.79	11.42	66.28	---	---	Peak
9 6852.25	42.84	74.00	-31.16	61.03	35.60	13.39	67.18	---	---	Peak
10 9066.50	44.27	74.00	-29.73	60.84	36.33	15.21	68.11	---	---	Peak
11 12007.50	46.57	74.00	-27.43	55.54	38.91	17.93	65.81	---	---	Peak
12 13741.50	46.65	74.00	-27.35	52.97	38.94	19.33	64.59	---	---	Peak
13 16474.25	45.11	74.00	-28.89	48.97	41.70	20.84	66.40	---	---	Peak

## Note:

1. Level(dB $\mu$ V/m) = Read Level(dB $\mu$ V) + Antenna Factor(dB/m) + Cable Loss(dB) - Preamp Factor(dB)
2. Over Limit(dB) = Level(dB $\mu$ V/m) – Limit Line(dB $\mu$ V/m)



## 4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 16, 2025	Jun. 23, 2025	Apr. 15, 2026	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Aug. 20, 2024	Jun. 23, 2025	Aug. 19, 2025	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	Dec. 24, 2024	Jun. 23, 2025	Dec. 23, 2025	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 09, 2024	Jun. 23, 2025	Oct. 08, 2025	Conduction (CO01-KS)
MXE EMI Receiver	Keysight	N9038A	MY57290151	3Hz~8.4GHz	Jul. 04, 2024	Jun. 13, 2025	Jul. 03, 2025	Radiation (03CH07-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55370528	10Hz-44G,MAX 30dB	Oct. 11, 2024	Jun. 13, 2025	Oct. 10, 2025	Radiation (03CH07-KS)
Bilog Antenna	TESEQ	CBL 6111D	49921	30MHz-1GHz	Mar. 24, 2025	Jun. 13, 2025	Mar. 23 2026	Radiation (03CH07-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00240132	1GHz~18GHz	Jul. 06, 2024	Jun. 13, 2025	Jul. 05, 2025	Radiation (03CH07-KS)
Amplifier	SONOMA	310N	380826	9KHz-1GHz	Jul. 03, 2024	Jun. 13, 2025	Jul. 02, 2025	Radiation (03CH07-KS)
Amplifier	Keysight	83017A	MY57280106	0.5GHz-26.5GHz	Apr. 17, 2025	Jun. 13, 2025	Apr. 16, 2026	Radiation (03CH07-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Jun. 13, 2025	NCR	Radiation (03CH07-KS)
Turn Table	EM	EM 1000-T	N/A	0~360 degree	NCR	Jun. 13, 2025	NCR	Radiation (03CH07-KS)
Antenna Mast	EM	EM 1000-A	N/A	1 m~4 m	NCR	Jun. 13, 2025	NCR	Radiation (03CH07-KS)

NCR: No Calibration Required



## 5. Measurement Uncertainty

### Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.84dB
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	6.06dB
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### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.16dB
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----- THE END -----