



# FCC Test Report

**APPLICANT** : Motorola Mobility LLC  
**EQUIPMENT** : Mobile Cellular Phone  
**BRAND NAME** : Motorola  
**MODEL NAME** : XT2323-4, XT2323-7  
**FCC ID** : IHDT56AL3  
**STANDARD** : 47 CFR Part 15 Subpart B  
**CLASSIFICATION** : Certification  
**TEST DATE(S)** : Jun. 06, 2023 ~ Jun. 16, 2023

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

**Sporton International Inc. (Kunshan)**

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



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### REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC340401-04	Rev. 01	Initial issue of report	Jun. 28, 2023



## 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 3.92 dB at 1.396 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 7.07 dB at 42.610 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

Motorola Mobility LLC  
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

## 1.2. Manufacturer

Motorola Mobility LLC  
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

## 1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2323-4, XT2323-7
FCC ID	IHDT56AL3
EUT supports Radios application	GSM/WCDMA/LTE/5G NR WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ax HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11a/ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE GNSS/NFC/WPT
IMEI Code	Conduction: 354478360012439/354478360012447 Radiation: 354478360012033/354478360012041
HW Version	DVT2
SW Version	T2TV33.27
EUT Stage	Identical Prototype

**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 two models XT2323-4, XT2323-7 are only for market differentiation, all the others are the same
3. The device support single SIM + eSIM.
4. WPC support Rx only.
5. The EUT has two working states, flip open state and flip close state, flip open state to perform full test and flip close state verify the worst cases.





	802.11a/ax: 5925 MHz ~ 7125 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz NFC : 13.56 MHz GNSS : 1559 MHz ~ 1610 MHz, 1164 MHz ~ 1215 MHz WPT: 100kHz~ 148 kHz
<b>Antenna Type</b>	WWAN : <Ant0> Monopole Antenna <Ant1/2/3> IFA Antenna Bluetooth/WLAN : IFA Antenna GNSS: IFA Antenna NFC: coil-loop Antenna WPT: coil-loop Antenna
<b>Type of Modulation</b>	GSM/GPRS: GMSK EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK WCDMA : BPSK HSPA : QPSK HSPA+ : 16QAM(16QAM not support uplink) DC-HSDPA : 64QAM LTE: QPSK / 16QAM / 64QAM / 256QAM 5G NR: DFT-s-OFDM (PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM) CP-OFDM (QPSK / 16QAM / 64QAM / 256QAM) 802.11b: DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11ax: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM /1024QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : $\pi/4$ -DQPSK Bluetooth (3Mbps) : 8-DPSK GNSS : BPSK NFC: ASK WPT: ASK

### 1.5. Modification of EUT

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

### 1.6. Specification of Accessory

Specification of Accessory				
<b>Base Battery</b>	<b>Brand Name</b>	Motorola(ATL)	<b>Model Name</b>	PM29
<b>Flip Battery</b>	<b>Brand Name</b>	Motorola(ATL)	<b>Model Name</b>	PV11

## 1.7. Test Location

Sporton 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>	Sporton 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>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	CO01-KS 03CH07-KS	CN1257	314309

## 1.8. Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH07-KS	AUDIX	E3	6.2009-8-24a1
2.	CO01-KS	AUDIX	E3	6.2009-8-24

## 1.9. 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: GSM 850 Rx(Middle) + Bluetooth Idle + WLAN (2.4G) Idle + Camera(Rear) + Battery + open folding screen + USB Cable(Charging from Adapter) + SIM 1
	Mode 2: WCDMA Band 5 Rx(Middle) + Bluetooth Idle + WLAN (5G) Idle + Camera(Front) + Battery + open folding screen + USB Cable(Charging from Adapter) + ESIM
	Mode 3: LTE Band 17 Rx(Middle) + Bluetooth Idle + WLAN 6E Idle + MPEG4(Run Color Bar) + Battery + open folding screen + USB Cable(Charging from Adapter ) + SIM1
	Mode 4: LTE Band 12 Rx(Low) + Bluetooth Idle + WLAN 6E Idle + GNSS Rx + Battery + USB Cable (Data Link with Notebook) + open folding screen + EUT (eMMC) USB Data Link to PC/NB + SIM1
	Mode 5: LTE Band 26 Rx(High) + Bluetooth Idle + WLAN 6E Idle + NFC On + Battery + USB Cable (Data Link with Notebook)+ open folding screen+ PC/NB USB Data Link to EUT (eMMC)+SIM1
	Mode 6: n41 Rx + Bluetooth Idle + WLAN 6E Idle + MPEG4(Run Color Bar) + Battery + open folding screen + USB Cable(Charging from Adapter ) + SIM1
	Mode 7: LTE Band 17 Rx(Middle) + Bluetooth Idle + WLAN 6E Idle + MPEG4(Run Color Bar) + Battery + open folding screen + USB Cable(EUT Charging from Wireless charger ) + Adapter Connect to Wireless charger + SIM1
	Mode 8: LTE Band 17 Rx(Middle) + Bluetooth Idle + WLAN 6E Idle + MPEG4(Run Color Bar) + Battery + Closed folding screen + USB Cable(EUT Charging from Wireless charger ) + Adapter Connect to Wireless charger + SIM1

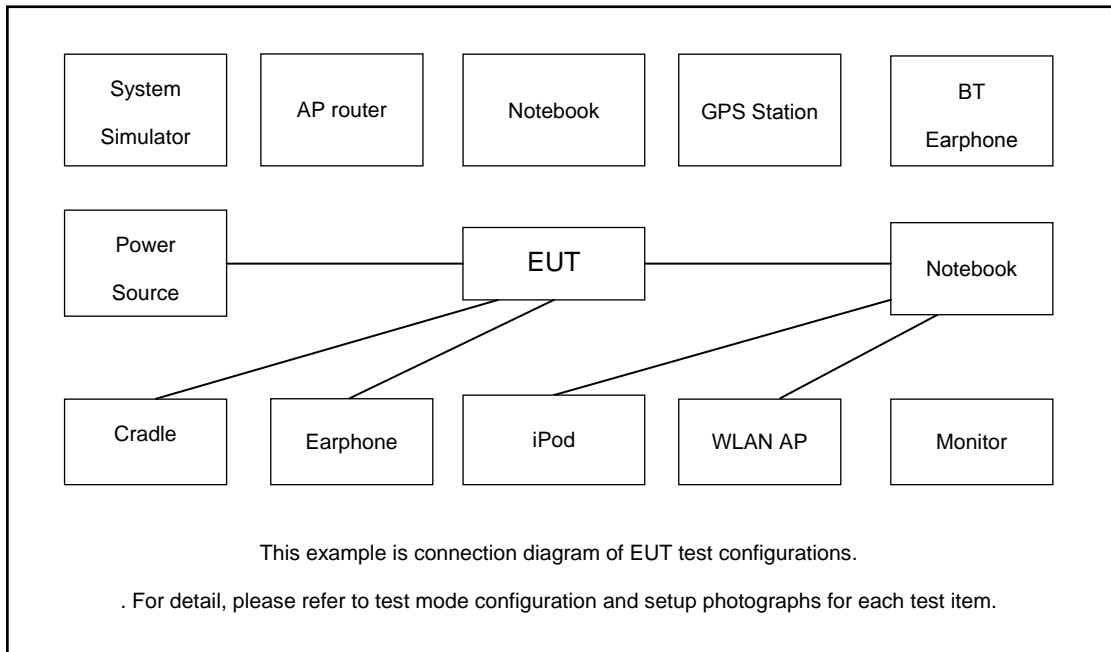


Radiated Emissions	<p>Mode 1: GSM 850 Rx(Middle) + Bluetooth Idle + WLAN (2.4G) Idle + Camera(Rear) + Battery + open folding screen + USB Cable(Charging from Adapter) + SIM 1</p> <p>Mode 2: WCDMA Band 5 Rx(Middle) + Bluetooth Idle + WLAN (5G) Idle + Camera(Front) + Battery + open folding screen + USB Cable(Charging from Adapter) + ESIM</p> <p>Mode 3: LTE Band 17 Rx(Middle) + Bluetooth Idle + WLAN 6E Idle + MPEG4(Run Color Bar) + Battery + open folding screen + Earphone + ESIM</p> <p>Mode 4: LTE Band 12 Rx(Low) + Bluetooth Idle + WLAN (5G) Idle + Camera(Front) + Battery + USB Cable (Data Link with Notebook) + open folding screen + EUT (eMMC) USB Data Link to PC/NB + ESIM</p> <p>Mode 5: LTE Band 26 Rx(High) + Bluetooth Idle + WLAN (5G) Idle + Camera(Front) + Battery + USB Cable (Data Link with Notebook) + open folding screen + PC/NB USB Data Link to EUT (eMMC) + ESIM</p> <p>Mode 6: n41 Rx + Bluetooth Idle + WLAN 5G Idle + Camera(Front) + Battery + open folding screen + USB Cable(Charging from Adapter ) + ESIM</p> <p>Mode 7: WCDMA Band 5 Rx(Middle) + Bluetooth Idle + WLAN (5G) Idle + Camera(Front) + Battery + open folding screen + USB Cable(EUT Charging from Wireless charger) + Adapter Connect to Wireless charger + ESIM</p> <p>Mode 8: WCDMA Band 5 Rx(Middle) + Bluetooth Idle + WLAN (5G) Idle + Camera(Front) + Battery + Closed folding screen + USB Cable (Charging from Adapter) + ESIM</p>
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**Remark:**

1. The worst case of AC is mode 8; only the test data of this mode is reported.
2. The worst case of RE is mode 2; only the test data of this mode is reported.
3. Data Link with Notebook / PC means data application transferred mode between EUT and Notebook / PC.
4. Pre-scanned Low/Middle/High channel for the frequency band which fall into 30~960MHz, the worst channel was recorded in this report.

## 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.	LTE Base Station	Anritus	MT8820C	N/A	N/A	Unshielded,1.8m
2.	LTE Base Station	Anritus	MT8821C	N/A	N/A	Unshielded,1.8m
3.	5GNR Base Station	Anritus	MT8000A	N/A	N/A	Unshielded,1.8m
4.	VectorSignal Generator	R&S	SMBV100A	258305	N/A	N/A
5.	Notebook	Lenovo	V130-14IKB001	N/A	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
6.	Notebook	Lenovo	G480	QDS-BRCM1050I	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
7.	WLAN AP	D-link	DIR-655	KA21R655B1	N/A	Unshielded,1.8m
8.	Bluetooth Earphone	XIAOMI	LYEJ02LM	N/A	N/A	N/A
9.	Bluetooth Earphone	Lenovo	thinkplus-BH3	N/A	N/A	N/A
10.	Hard Disk	Lenovo	F310	DoC	Shielded, 1.2m	N/A
11.	SD Card	Kingston	8GB	N/A	N/A	N/A
12.	Wireless charger	N/A	N/A	N/A	N/A	N/A
13.	Adapter	N/A	N/A	N/A	N/A	N/A



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14.	USB cable	N/A	N/A	N/A	N/A	N/A
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## 2.4. EUT Operation Test Setup

The EUT was in GSM or WCDMA or LTE or 5G NR idle mode during the testing. The EUT was synchronized to the BCCH, and is in continuous receiving mode by setting system simulator's paging reorganization.

At the same time, the EUT was attached to the Bluetooth earphone, and the following programs installed in the EUT were programmed during the test.

1. Data application is transferred between notebook and EUT via USB cable.
2. Turn on camera to capture images.
3. Turn on MPEG4 function.
4. Turn on GNSS function to make the EUT receive continuous signals from GNSS station.
5. Turn on NFC function



### 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.

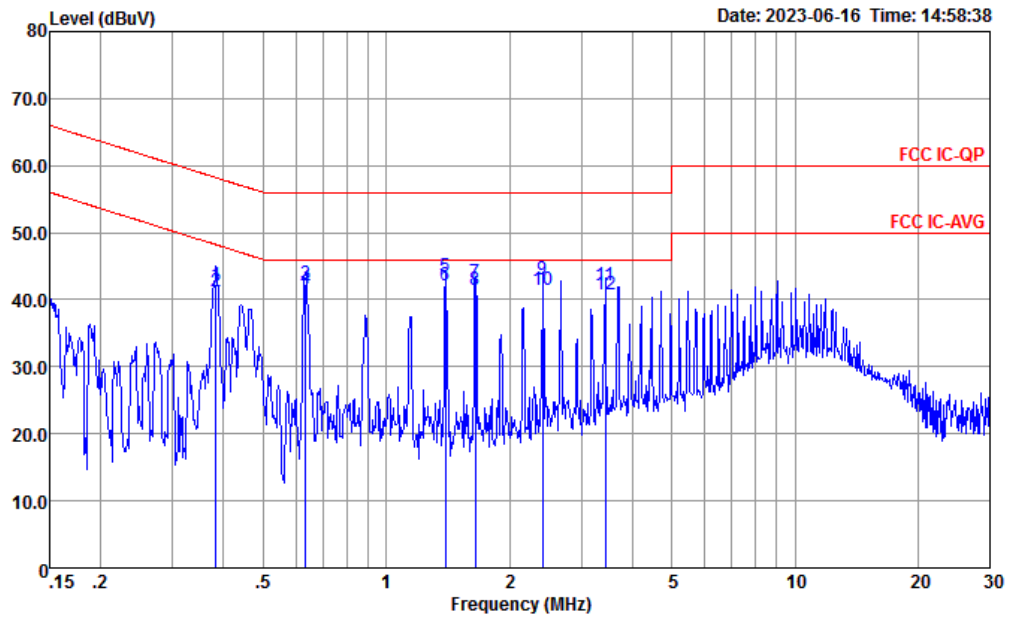
### 3.1.4 Test Setup





3.1.5 Test Result of AC Conducted Emission

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

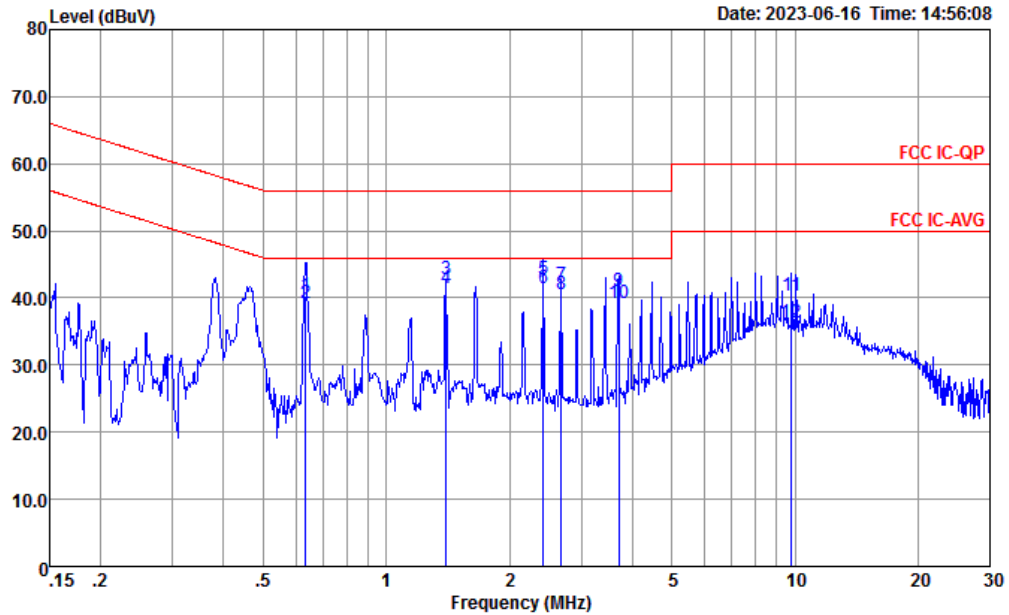


Site : CO01-KS  
 Condition : FCC IC-QP LISN-060105-LINE LINE

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.383	42.12	-16.09	58.21	31.79	0.02	10.31	QP
2	0.383	41.12	-7.09	48.21	30.79	0.02	10.31	Average
3	0.634	42.40	-13.60	56.00	32.30	-0.07	10.17	QP
4	0.634	41.60	-4.40	46.00	31.50	-0.07	10.17	Average
5	1.396	43.48	-12.52	56.00	33.51	-0.11	10.08	QP
6 *	1.396	42.08	-3.92	46.00	32.11	-0.11	10.08	Average
7	1.654	42.56	-13.44	56.00	32.60	-0.11	10.07	QP
8	1.654	41.56	-4.44	46.00	31.60	-0.11	10.07	Average
9	2.409	43.05	-12.95	56.00	33.10	-0.11	10.06	QP
10	2.409	41.55	-4.45	46.00	31.60	-0.11	10.06	Average
11	3.436	42.15	-13.85	56.00	32.20	-0.11	10.06	QP
12	3.436	40.85	-5.15	46.00	30.90	-0.11	10.06	Average



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



Site : CO01-KS  
 Condition : FCC IC-QP LISN-060105-NEUTRAL NEUTRAL

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.634	40.39	-15.61	56.00	30.31	-0.09	10.17	QP
2	0.634	39.29	-6.71	46.00	29.21	-0.09	10.17	Average
3	1.403	42.87	-13.13	56.00	32.90	-0.11	10.08	QP
4	1.403	41.47	-4.53	46.00	31.50	-0.11	10.08	Average
5	2.422	42.83	-13.17	56.00	32.89	-0.12	10.06	QP
6 *	2.422	41.53	-4.47	46.00	31.59	-0.12	10.06	Average
7	2.678	41.83	-14.17	56.00	31.90	-0.13	10.06	QP
8	2.678	40.53	-5.47	46.00	30.60	-0.13	10.06	Average
9	3.700	41.04	-14.96	56.00	31.10	-0.12	10.06	QP
10	3.700	39.14	-6.86	46.00	29.20	-0.12	10.06	Average
11	9.809	40.34	-19.66	60.00	29.91	-0.19	10.62	QP
12	9.809	36.34	-13.66	50.00	25.91	-0.19	10.62	Average

Note:

- Level(dBμV) = Read Level(dBμV) + LISN Factor(dB) + Cable Loss(dB)
- Over Limit(dB) = Level(dBμV) – Limit Line(dBμV)



### 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.

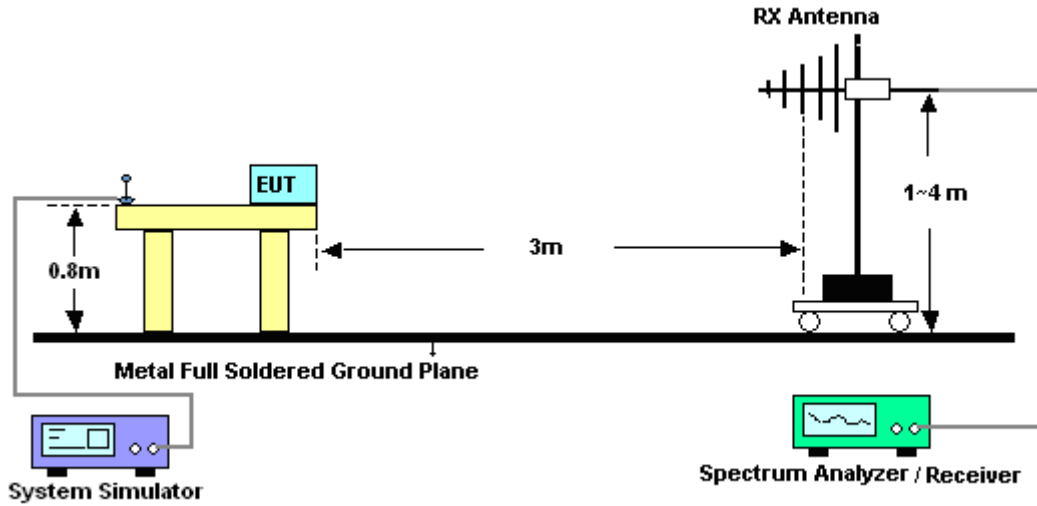


### **3.2.3. Test Procedures**

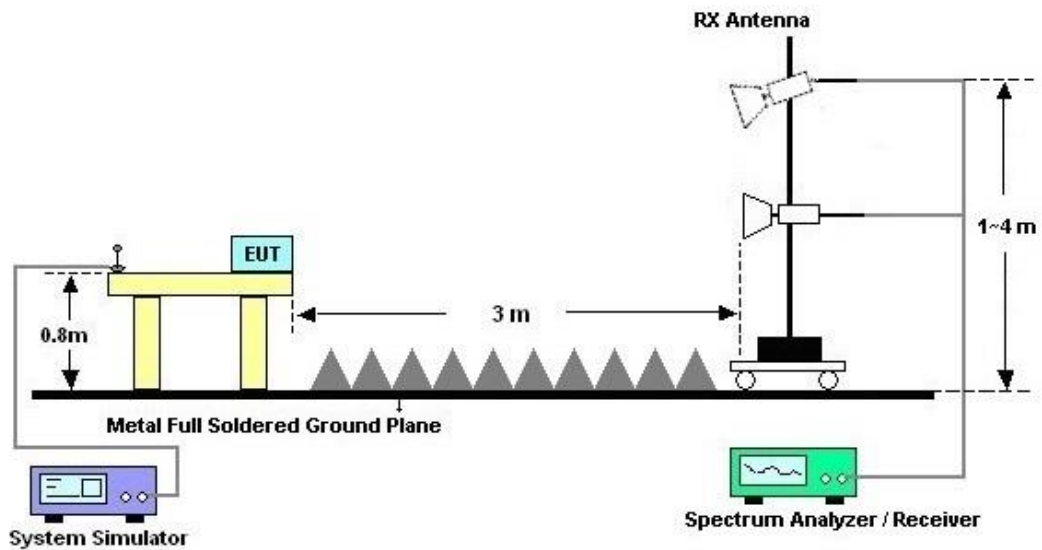
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna 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



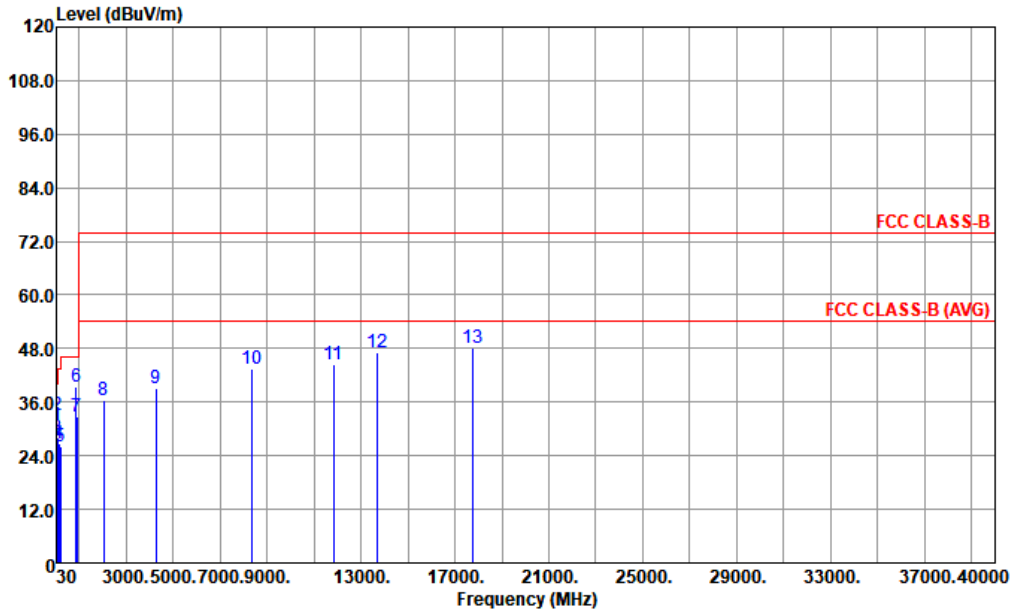
For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

Test Engineer :	Zhou	Temperature :	21~22°C
		Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal
Remark :	#6 is system simulator signal which can be ignored.		

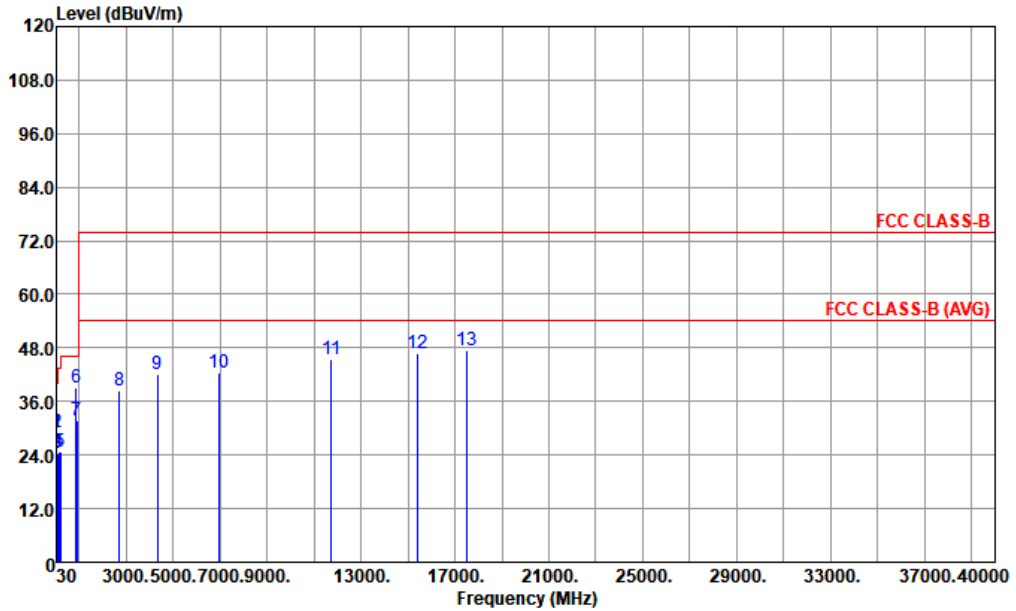


Site : 03CH07-KS  
 Condition : FCC CLASS-B 3m 3117 SN00240138 HORIZONTAL

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos	T/Pos	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	31.94	30.65	-9.35	40.00	38.10	24.12	0.52	32.09	---	---	Peak
2	42.61	32.93	-7.07	40.00	46.28	18.07	0.67	32.09	---	---	Peak
3	64.92	27.99	-12.01	40.00	47.13	11.92	0.98	32.04	---	---	Peak
4	132.82	26.80	-16.70	43.50	39.72	17.44	1.66	32.02	---	---	Peak
5	200.72	26.09	-17.41	43.50	41.11	14.88	2.07	31.97	---	---	Peak
6 p	880.69	39.44			37.03	29.50	4.32	31.41	---	---	Peak
7	901.06	32.77	-13.23	46.00	30.65	29.05	4.37	31.30	---	---	Peak
8	2054.00	36.43	-37.57	74.00	61.18	31.76	7.27	63.78	---	---	Peak
9	4281.00	39.15	-34.85	74.00	57.81	33.60	12.37	64.63	---	---	Peak
10	8344.00	43.40	-30.60	74.00	56.24	35.80	15.32	63.96	---	---	Peak
11	11829.00	44.57	-29.43	74.00	50.13	38.59	18.02	62.17	---	---	Peak
12	13682.00	47.12	-26.88	74.00	52.32	38.76	19.54	63.50	---	---	Peak
13	17762.00	48.14	-25.86	74.00	49.76	41.26	22.57	65.45	---	---	Peak



Test Engineer :	Zhou	Temperature :	21~22°C
		Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Remark :	#6 is system simulator signal which can be ignored.		



Site : 03CH07-KS  
 Condition : FCC CLASS-B 3m 3117 SN00240138 VERTICAL

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	29.00	-11.00	40.00	35.50	25.12	0.50	32.12	---	---	Peak
2	42.61	29.02	-10.98	40.00	42.37	18.07	0.67	32.09	---	---	Peak
3	65.89	24.38	-15.62	40.00	43.43	12.00	0.99	32.04	---	---	Peak
4	130.88	24.64	-18.86	43.50	37.58	17.44	1.65	32.03	---	---	Peak
5	202.66	24.78	-18.72	43.50	39.76	14.91	2.08	31.97	---	---	Peak
6 p	880.69	39.26			36.85	29.50	4.32	31.41	---	---	Peak
7	901.06	31.60	-14.40	46.00	29.48	29.05	4.37	31.30	---	---	Peak
8	2700.00	38.47	-35.53	74.00	61.88	32.42	8.35	64.18	---	---	Peak
9	4332.00	42.25	-31.75	74.00	60.85	33.64	12.39	64.63	---	---	Peak
10	6984.00	42.45	-31.55	74.00	56.74	35.59	13.73	63.61	---	---	Peak
11	11727.00	45.58	-28.42	74.00	51.38	38.47	17.94	62.21	---	---	Peak
12	15382.00	46.85	-27.15	74.00	51.64	39.93	20.72	65.44	---	---	Peak
13	17524.00	47.55	-26.45	74.00	49.88	41.11	22.38	65.82	---	---	Peak

Note:

- Level(dBμV/m) = Read Level(dBμV) + Antenna Factor(dB/m) + Cable Loss(dB) - Preamp Factor(dB)
- Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)



### 4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Receiver	R&S	ESC17	100768	9kHz~7GHz;	May 23, 2023	Jun. 16, 2023	May 22, 2024	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2022	Jun. 16, 2023	Oct. 12, 2023	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	May 23, 2023	Jun. 16, 2023	May 22, 2024	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 12, 2022	Jun. 16, 2023	Oct. 11, 2023	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max 30dBm	Oct. 12, 2022	Jun. 06, 2023	Oct. 11, 2023	Radiation (03CH07-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55370528	10Hz~44G,MAX 30dB	Oct. 12, 2022	Jun. 06, 2023	Oct. 11, 2023	Radiation (03CH07-KS)
Bilog Antenna	TeseQ	CBL6111D	59913	30MHz-1GHz	Aug. 26, 2022	Jun. 06, 2023	Aug. 25, 2023	Radiation (03CH07-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00240132	1GHz~18GHz	Jul. 08, 2022	Jun. 06, 2023	Jul. 07, 2023	Radiation (03CH07-KS)
SHF-EHF Horn	Com-power	AH-840	101115	18GHz~40GHz	Oct. 17, 2022	Jun. 06, 2023	Oct. 16, 2023	Radiation (03CH07-KS)
Amplifier	EM	EM18G40GGA	060851	18~40GHz	Jan. 05, 2023	Jun. 06, 2023	Jan. 04, 2024	Radiation (03CH07-KS)
Amplifier	SONOMA	310N	413741	9KHz-1GHz	Jan. 05, 2023	Jun. 06, 2023	Jan. 04, 2024	Radiation (03CH07-KS)
Amplifier	EM	EM01G18GA	060834	1Ghz-18Ghz	Oct. 12, 2022	Jun. 06, 2023	Oct. 11, 2023	Radiation (03CH07-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Jun. 06, 2023	NCR	Radiation (03CH07-KS)
Turn Table	EM	EM 1000-T	N/A	0~360 degree	NCR	Jun. 06, 2023	NCR	Radiation (03CH07-KS)
Antenna Mast	EM	EM 1000-A	N/A	1 m~4 m	NCR	Jun. 06, 2023	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% ( $U = 2Uc(y)$ )	2.94 dB
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	6.20 dB
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### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.86 dB
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### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.24 dB
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