

Report No.: FC050822-01



# **FCC EMI TEST REPORT**

**FCC ID** : IHDT56ZC1

: Mobile Cellular Phone Equipment

**Brand Name** : Motorola **Model Name** : XT2075-1

**Applicant** : Motorola Mobility LLC

222 W, Merchandise Mart Plaza, Chicago IL

60654 USA

Manufacturer : Motorola Mobility LLC

222 W, Merchandise Mart Plaza, Chicago IL

**Standard** : FCC 47 CFR FCC Part 15 Subpart B Class B

The product was received on Jun. 08, 2020 and testing was started from Jun. 10, 2020 and completed on Jun. 20, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, 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. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Lunis Win

Approved by: Louis Wu

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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Report Template No.: BU5-FD15B Version 2.5

: 01

Report Version

: Aug. 11, 2020

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# History of this test report

Report No. : FC050822-01

Report No.	Version	Description	Issued Date
FC050822-01	01	Initial issue of report	Aug. 11, 2020

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## **Summary of Test Result**

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Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.107	AC Conducted Emission	Pass	Under limit 6.77 dB at 0.191 MHz
3.2	15.109	Radiated Emission	Pass	Under limit 4.61 dB at 162.570 MHz

#### **Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

#### Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Dara Chiu Report Producer: Yimin Ho

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# 1. General Description

## 1.1. Product Feature of Equipment Under Test

1 Toddot Fedtare of Equipment Officer Test					
	Product Feature				
Equipment	Mobile Cellular Phone				
Brand Name	Motorola				
Model Name	XT2075-1				
FCC ID	IHDT56ZC1				
IMEI Code	<b>Conduction</b> : 353614110011229				
I IIVET Code	<b>Radiation</b> : 353614110011229				
	GSM/EGPRS/WCDMA/HSPA/LTE/5G NR/GNSS/NFC/FM				
	WLAN 11b/g/n HT20				
EUT supports Radios application	WLAN 11a/n HT20/HT40				
	WLAN 11ac VHT20/VHT40/VHT80				
	Bluetooth BR/EDR/LE				
HW Version	DVT2				
EUT Stage	Identical Prototype				

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**Remark:** The above EUT's information was declared by manufacturer.

Accessory List				
	Brand Name:	Motorola		
AC Adapter 1	Model Name :	MC-201		
	Manufacturer:	Chenyang		
	Brand Name:	Motorola		
AC Adapter 2	Model Name:	MC-201		
	Manufacturer:	Acbel		
	Brand Name:	Motorola		
Battery	Model Name:	LZ50		
	Manufacturer:	Amperex		
	Brand Name:	Motorola		
USB Cable 1	Model Name:	SC18C24368		
	Manufacturer:	Luxshare		
	Brand Name:	Motorola		
USB Cable 2	Model Name:	SC18C24367		
	Manufacturer:	Saibao		

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## 1.2. Product Specification of Equipment Under Test

Standards-related Product Specification					
GSM850: 824.2 MHz ~ 848.8 MHz					
	GSM1900: 1850.2 MHz ~ 1909.8 MHz				
	WCDMA Band V: 826.4 MHz ~ 846.6 MHz				
	WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz				
	LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz				
	LTE Band 4: 1710.7 MHz ~ 1754.3 MHz				
	LTE Band 5: 824.7 MHz ~ 848.3 MHz				
	LTE Band 7: 2502. 5 MHz ~ 2567.5 MHz				
	LTE Band 12: 699.7 MHz ~ 715.3 MHz				
	LTE Band 13 : 779.5 MHz ~ 784.5 MHz				
	LTE Band 17: 706.5 MHz ~ 713.5 MHz				
Tx Frequency	LTE Band 66: 1710.7 MHz ~ 1779.3 MHz				
	5G NR n2: 1852.5 ~ 1907.5MHz				
	5G NR n5: 826.5 ~ 846.5MHz				
	5G NR n66: 1712.5MHz ~ 1777.5MHz				
	5G NR n260: 37025 MHz ~ 39975 MHz				
	5G NR n261: 27525 MHz ~ 28325 MHz				
	802.11b/g/n/ac: 2412 MHz ~ 2462 MHz				
	802.11a/n/ac: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz;				
	5500 MHz ~ 5700 MHz; 5745 MHz ~ 5825 MHz				
	Bluetooth: 2402 MHz ~ 2480 MHz				
	NFC : 13.56 MHz				
	GSM850: 869.2 MHz ~ 893.8 MHz				
	GSM1900: 1930.2 MHz ~ 1989.8 MHz				
	WCDMA Band V: 871.4 MHz ~ 891.6 MHz				
	WCDMA Band II: 1932.4 MHz ~ 1987.6 MHz				
	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz				
	LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz				
	LTE Band 5 : 869.7 MHz ~ 893.3 MHz				
	LTE Band 7 : 2622.5 MHz ~ 2687.5 MHz				
	LTE Band 12 : 729.7 MHz ~ 745.3 MHz				
	LTE Band 13 : 748.5 MHz ~ 753.5 MHz				
	LTE Band 17 : 736.5 MHz ~ 743.5 MHz				
	LTE Band 66: 2110.7 MHz ~ 2199.3 MHz				
Rx Frequency	5G NR n2: 1852.5 ~ 1907.5MHz				
	5G NR n5: 826.5 ~ 846.5MHz				
	5G NR n66: 1712.5MHz ~ 1777.5MHz				
	5G NR n260: 37025 MHz ~ 39975 MHz				
	5G NR n261: 27525 MHz ~ 28325 MHz				
	802.11b/g/n/ac: 2412 MHz ~ 2462 MHz				
	802.11a/n/ac: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz;				
	5500 MHz ~ 5700 MHz; 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz				
	GNSS: 1559 ~ 1610 MHz				
	(GPS/Glonass/Galileo)				
	NFC : 13.56 MHz				
	FM : 88 ~ 108 MHz				
	1 IVI . 00 ~ 100 IVII IZ				

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Standards-related Product Specification					
Antenna Type	WWAN: PIFA Antenna WLAN: <ant. 1="">: Loop Antenna <ant. 2="">: IFA Antenna <ant. 3="">: IFA Antenna Bluetooth: IFA Antenna Bluetooth: IFA Antenna GPS/Glonass/Galileo: Loop Antenna NFC: Ferrite + FPC Antenna FM: Using earphone as antenna mmWaye: Patch Antenna</ant.></ant.></ant.>				
Type of Modulation	GSM / GPRS: GMSK EGPRS: GMSK for MCS 0 ~ 4 & 8PSK for MCS5 ~9 WCDMA: QPSK (Uplink) HSDPA: 64QAM (Downlink) / HSUPA : QPSK (Uplink) LTE: QPSK / 16QAM / 64QAM 5G NR: PI/2 BPSK / 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) Bluetooth LE: GFSK Bluetooth (1Mbps): GFSK Bluetooth (2Mbps): \$\pi /4-DQPSK\$ Bluetooth (3Mbps): 8-DPSK GPS/Glonass/Galileo: BPSK NFC: ASK FM				

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## 1.3. Modification of EUT

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

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### 1.4. Test Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory		
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978		
Test Site No.	Sporton	Site No.	
Test Site No.	CO05-HY	03CH06-HY	

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FCC designation No.: TW1093

### 1.5. Applicable Standards

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

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

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

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# 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.

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

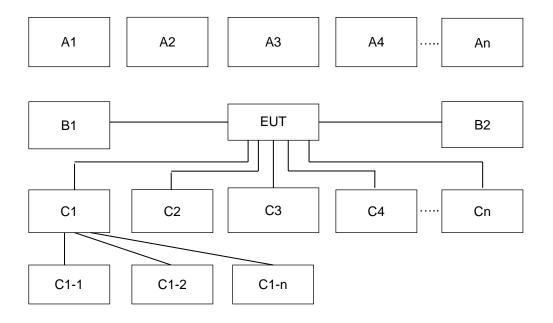
Test Items	Function Type
	Mode 1: GSM850 (Middle Channel) Idle + Bluetooth Idle + WLAN (2.4GHz) Idle + Camera (Rear) + Earphone + Battery + USB Cable 1 (Charging from Adapter 1)
	Mode 2: WCDMA Band V (Middle Channel) Idle + Bluetooth Idle + WLAN (5GHz) Idle + Camera (Front) + Earphone + Battery + USB Cable 2 (Charging from Adapter 2)
AC Conducted Emission	Mode 3: LTE Band 12 (Middle Channel) Idle + Bluetooth Idle + WLAN (2.4GHz) Idle + MPEG4 + Earphone + Battery + USB Cable 1 (Charging from Adapter 1)
	Mode 4: LTE Band 13 (Middle Channel) Idle + Bluetooth Idle + WLAN (5GHz) Idle + NFC On + Earphone + Battery + USB Cable 2 (Data Link with Notebook)
	Mode 5: 5G NR n5 (Middle Channel) Idle + Bluetooth Idle + WLAN (2.4GHz) Idle + GPS Rx + Earphone + Battery + USB Cable 1 (Data Link with Notebook)
	Mode 1: GSM850 (Middle Channel) Idle + Bluetooth Idle + WLAN (2.4GHz) Idle + Camera (Rear) + Earphone + Battery + USB Cable 1 (Charging from Adapter 1)
	Mode 2: WCDMA Band V (Middle Channel) Idle + Bluetooth Idle + WLAN (5GHz) Idle + Camera (Front) + Earphone + Battery + USB Cable 2 (Charging from Adapter 2)
Radiated Emissions	Mode 3: LTE Band 12 (Middle Channel) Idle + Bluetooth Idle + WLAN (2.4GHz) Idle + MPEG4 + Earphone + Battery + USB Cable 1 (Charging from Adapter 1)
	Mode 4: LTE Band 13 (Middle Channel) Idle + Bluetooth Idle + WLAN (5GHz) Idle + NFC On + Earphone + Battery + USB Cable 2 (Data Link with Notebook)
	Mode 5: 5G NR n5 (Middle Channel) Idle + Bluetooth Idle + WLAN (2.4GHz) Idle + GPS Rx + Earphone + Battery + USB Cable 1 (Data Link with Notebook)

#### Remark:

- 1. The worst case of AC is mode 5; only the test data of this mode was reported.
- 2. The worst case of RE is mode 5; only the test data of this mode was reported.
- 3. For radiation emission after pre-scanned the cellular band between 30MHz ~ 960MHz (GSM850/WCDMA Band V/LTE Band 12/13/5G NR n5); only the worst case for cellular band test data of this mode was reported.
- 4. Data Link with Notebook means data application transferred mode between EUT and Notebook.
- 5. For 5G NR test combination is EN-DC 66-n5.

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# 2.2. Connection Diagram of Test System



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	Test Setup								
No.	Wireless Station	Connection Type	Test Mode						
NO.	Wireless Station	Connection Type	1	2	3	4	5	-	-
A1	BT Earphone	Bluetooth	Χ	Χ	Χ	Χ	Χ	-	-
A2	System Simulator	GSM/WCDMA/LTE/5G NR	Χ	Χ	Χ	Χ	Χ	-	-
A3	GPS Station	GPS	-	-	-	-	Χ	-	-
A4	AP router	WiFi	Χ	Χ	Χ	Χ	Χ	-	-
No.	No. Power Source Connection Type		1	2	3	4	5	-	-
B1	AC: 120V/60Hz	AC Power Cable	Χ	Χ	Χ	-	-	-	-
B2	Power From System	USB Cable	-	-	-	Χ	Χ	-	-
No.	Setup Peripherals	Connection Type	1	2	3	4	5	-	-
C1	Notebook	USB Cable	-	-	-	Χ	Χ	-	-
C1-1	IPod	USB Cable to C1	-	-	-	Χ	Χ	-	-
C1-2	C1-2 AP RJ-45 Cable to C1		-	-	-	Χ	Χ	-	-
C2	Earphone	Earphone jack	Χ	Χ	Χ	Χ	Χ	-	-
C3 SD card		SD I/O interface without Cable	Х	Х	Х	Х	Х	_	-

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2.3. Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
3.	5G Wireless Test Platform	Keysight	E7515B	N/A	N/A	Unshielded,1.8m
4.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded, 1.8 m
5.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
6.	Earphone	Moto (Lyand)	MI191H	N/A	Unshielded,1.0m	N/A
7.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
8.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A
9.	Notebook	DELL	Latitude E3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
10.	Notebook	ASUS	P2430U	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
11.	SD Card	SanDisk	MicroSD HC	FCC DoC	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 with the BCCH, and had been continuous receiving mode by setting paging reorganization of the system simulator.

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

- 1. Data application is transferred between Laptop and EUT via USB cable.
- 2. Execute "GPS Test" to make the EUT receive continuous signals from GPS station.
- 3. Execute "Video player" to play MPEG4 files.
- 4. Turn on camera to capture images.
- 5. Turn on NFC function.

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#### 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.

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#### <Class B>

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

<sup>\*</sup>Decreases with the logarithm of the frequency.

#### 3.1.2. Measuring Instruments

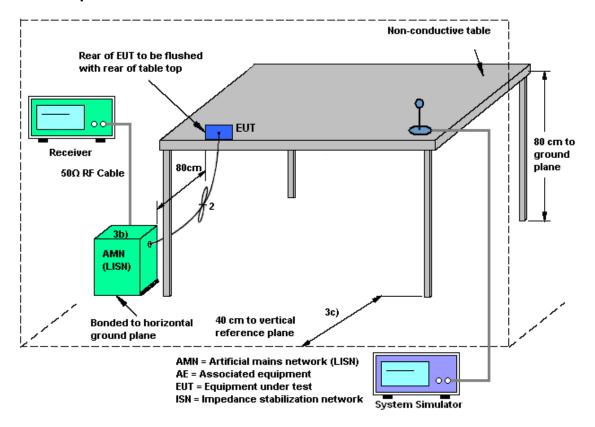
Refer a test equipment and calibration data table in this test report.

#### 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.

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#### 3.1.4. Test Setup



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#### 3.1.5. Test Result of AC Conducted Emission

Please refer to Appendix A.

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#### 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:

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#### <Class B>

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

Refer a test equipment and calibration data table in this test report.

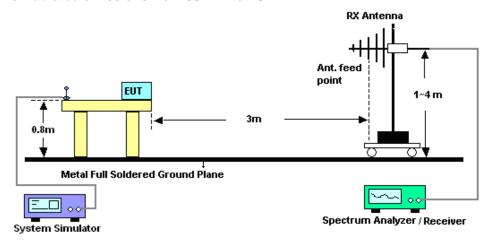
#### 3.2.3. Test Procedures

- 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

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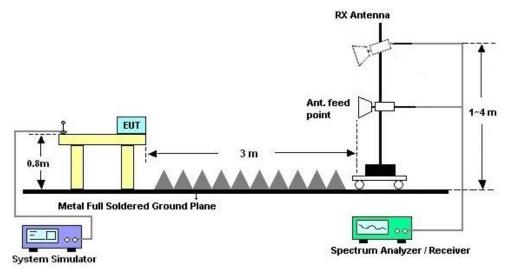
### 3.2.4. Test Setup of Radiated Emission

#### For radiated emissions from 30MHz to 1GHz



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#### For radiated emissions above 1GHz



#### 3.2.5. Test Result of Radiated Emission

Please refer to Appendix B.

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# 4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Amplifier	SONOMA	310N	186713	9kHz~1GHz	Apr. 30, 2020	Jun. 10, 2020~ Jun. 20, 2020	Apr. 29, 2021	Radiation (03CH06-HY)
Bilog Antenna	Schaffner	CBL 6111C & N-6-06	2725 & AT-N0601	30MHz~1GHz	Jan. 09, 2020	Jun. 10, 2020~ Jun. 20, 2020	Jan. 08, 2021	Radiation (03CH06-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100472	20Hz~26.5GHz	Jan. 10, 2020	Jun. 10, 2020~ Jun. 20, 2020	Jan. 09, 2021	Radiation (03CH06-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1156	1GHz~18GHz	Aug. 30, 2019	Jun. 10, 2020~ Jun. 20, 2020	Aug. 29, 2020	Radiation (03CH06-HY)
Preamplifier	MITEQ	00101800-30- 10P	1850117	1GHz~18GHz	Sep. 03, 2019	Jun. 10, 2020~ Jun. 20, 2020	Sep. 02, 2020	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104 / STORM/LL142	MY24966/4 / 00100A1O2A1 78T	30MHz~26GHz	Nov. 21, 2019	Jun. 10, 2020~ Jun. 20, 2020	Nov. 20, 2020	Radiation (03CH06-HY)
Controller	INN-CO	EM1000	060782	Control Turn table & Ant Mast	N/A	Jun. 10, 2020~ Jun. 20, 2020	N/A	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF780208212	1m~4m	N/A	Jun. 10, 2020~ Jun. 20, 2020	N/A	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0-360 degree	N/A	Jun. 10, 2020~ Jun. 20, 2020	N/A	Radiation (03CH06-HY)
Software	Audix	E3 6.2009-8-24(k 5)	N/A	N/A	N/A	Jun. 10, 2020~ Jun. 20, 2020	N/A	Radiation (03CH06-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jun. 11, 2020	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 15, 2019	Jun. 11, 2020	Nov. 14, 2020	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 07, 2019	Jun. 11, 2020	Nov. 06, 2020	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 20, 2019	Jun. 11, 2020	Nov. 19, 2020	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 15, 2019	Jun. 11, 2020	Nov. 14, 2020	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Jun. 11, 2020	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 02, 2020	Jun. 11, 2020	Jan. 01, 2021	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 02, 2020	Jun. 11, 2020	Jan. 01, 2021	Conduction (CO05-HY)

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# 5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence	2.3
of 95% (U = 2Uc(y))	2.3

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#### **Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)**

Measuring Uncertainty for a Level of Confidence	4.2
of 95% (U = 2Uc(y))	4.3

### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence	4.9
of 95% (U = 2Uc(y))	4.8

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# **Appendix A. AC Conducted Emission Test Results**

Tool Engineer	Tom Loo	Temperature :	21~24°C
Test Engineer :	Tom Lee	Relative Humidity :	42~50%

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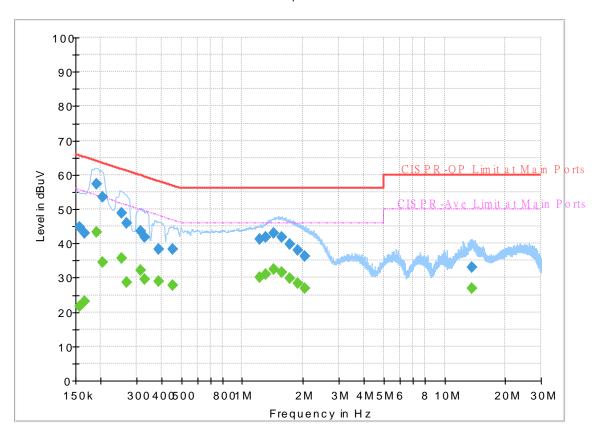
### **EUT Information**

Report NO : 050822-01 Test Mode : Mode 5

Test Voltage : Power From System

Phase: Line

#### Full Spectrum



### **Final Result**

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.156750		21.72	55.63	33.91	L1	OFF	19.5
0.156750	44.76		65.63	20.87	L1	OFF	19.5
0.165570		23.16	55.18	32.02	L1	OFF	19.5
0.165570	43.00		65.18	22.18	L1	OFF	19.5
0.190500		43.42	54.02	10.60	L1	OFF	19.5
0.190500	57.25		64.02	6.77	L1	OFF	19.5
0.204000		34.58	53.45	18.87	L1	OFF	19.5
0.204000	53.62		63.45	9.83	L1	OFF	19.5
0.253500		35.76	51.64	15.88	L1	OFF	19.5
0.253500	48.92		61.64	12.72	L1	OFF	19.5
0.269250		28.54	51.14	22.60	L1	OFF	19.5
0.269250	45.96		61.14	15.18	L1	OFF	19.5
0.314250		32.27	49.86	17.59	L1	OFF	19.5
0.314250	43.49		59.86	16.37	L1	OFF	19.5
0.330000		29.45	49.45	20.00	L1	OFF	19.5
0.330000	41.83		59.45	17.62	L1	OFF	19.5
0.384990		28.88	48.17	19.29	L1	OFF	19.5
0.384990	38.36		58.17	19.81	L1	OFF	19.5
0.453840		27.73	46.81	19.08	L1	OFF	19.5
0.453840	38.36		56.81	18.45	L1	OFF	19.5
1.225500		29.98	46.00	16.02	L1	OFF	19.6

1.225500	41.13		56.00	14.87	L1	OFF	19.6
1.313250		31.11	46.00	14.89	L1	OFF	19.6
1.313250	41.80		56.00	14.20	L1	OFF	19.6
1.436550	-	32.47	46.00	13.53	L1	OFF	19.6
1.436550	42.89		56.00	13.11	L1	OFF	19.6
1.572000		31.46	46.00	14.54	L1	OFF	19.6
1.572000	41.92		56.00	14.08	L1	OFF	19.6
1.718250		29.69	46.00	16.31	L1	OFF	19.6
1.718250	39.87		56.00	16.13	L1	OFF	19.6
1.891230		28.41	46.00	17.59	L1	OFF	19.6
1.891230	38.01		56.00	17.99	L1	OFF	19.6
2.044500		26.98	46.00	19.02	L1	OFF	19.6
2.044500	36.15		56.00	19.85	L1	OFF	19.6
13.694730		26.98	50.00	23.02	L1	OFF	19.8
13.694730	33.01		60.00	26.99	L1	OFF	19.8

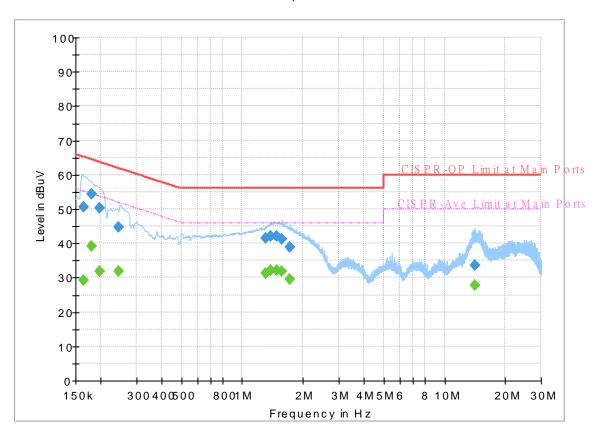
### **EUT Information**

Report NO : 050822-01 Test Mode : Mode 5

Test Voltage : Power From System

Phase: Neutral

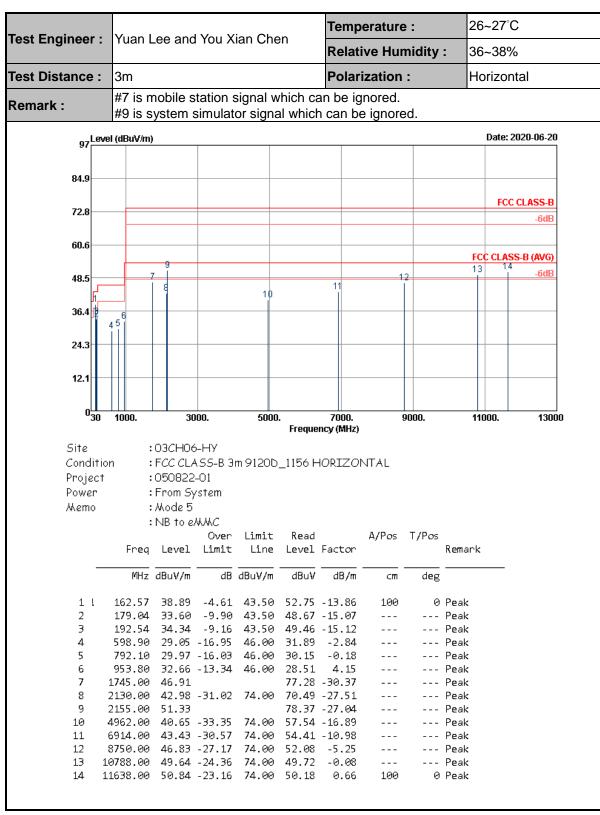
FullSpectrum



### Final\_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.164850		29.30	55.22	25.92	N	OFF	19.5
0.164850	50.56		65.22	14.66	N	OFF	19.5
0.180150	-	39.29	54.48	15.19	N	OFF	19.5
0.180150	54.36		64.48	10.12	N	OFF	19.5
0.197250		31.97	53.73	21.76	N	OFF	19.5
0.197250	50.30		63.73	13.43	N	OFF	19.5
0.244500		31.81	51.94	20.13	N	OFF	19.5
0.244500	44.79		61.94	17.15	N	OFF	19.5
1.306500		31.22	46.00	14.78	N	OFF	19.6
1.306500	41.60		56.00	14.40	N	OFF	19.6
1.380750	-	32.13	46.00	13.87	N	OFF	19.6
1.380750	42.23		56.00	13.77	N	OFF	19.6
1.477500		32.03	46.00	13.97	N	OFF	19.6
1.477500	41.99		56.00	14.01	N	OFF	19.6
1.572000		31.83	46.00	14.17	N	OFF	19.6
1.572000	41.21		56.00	14.79	N	OFF	19.6
1.716360		29.39	46.00	16.61	N	OFF	19.6
1.716360	38.78		56.00	17.22	N	OFF	19.6
14.130690		27.86	50.00	22.14	N	OFF	19.9
14.130690	33.65		60.00	26.35	N	OFF	19.9

## **Appendix B. Radiated Emission Test Result**



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Fact Factors	V !		I.V	: 01		Tem	peratu	re:	26	~27°	C
Test Engineer :	Yuan L	ee and	ı You X	ian Che	en	Rela	ative H	umidity	<b>7</b> : 36~38%		
Test Distance :	3m					Pola	arizatio	n :	Ve	rtica	l
Remark :					hich car al which			ed.			
97 Lev	el (dBuV/m)									Date:	2020-06-20
04.0											
84.9										FC	C CLASS D
72.8										FU	-6dB
60.6											
		8						12	FC 13	- 4	SS-B (AVG) 4 -6dB
48.5	7		10			11		12			-0UD
36.4	6					+					
24.3	45										
24.3											
12.1						+					
030											
-30	1000.										
	10001	JU	00.	5000	Frequenc	7000. cy (MHz)	!	9000.	110	000.	13000
Site	:	03 <i>C</i> H0 <del>6</del>	5-HY		Frequenc	y (MHz)		9000.	110	000.	13000
Site Conditio	: on :	03CH06 FCC CLA	5-НУ ASS-В Э1			y (MHz)		9000.	110	000.	13000
Site	: on :	03CH06 FCC CL/ 050822	5-HY NSS-B 31 -01		Frequenc	y (MHz)		9000.	11(	000.	13000
Site Conditio Project	: on : :	03CH06 FCC CLA	5-HY NSS-B 31 -01		Frequenc	y (MHz)		9000.	111	000.	13000
Site Conditio Project Power	: on : : :	03CH06 FCC CL/ 050822 From Sy	5-HY 855-B 31 -01 ystem	m 9120D	Frequenc	y (MHz)	L		111	DOO.	13000
Site Conditio Project Power	: on : : :	03CH06 FCC CLA 050822 From Sy Mode 5	0-HY NSS-B 31 -01 /stem WWC Over	m 9120D Limit	Frequenc	e <b>y (MHz)</b> RTI <i>CA</i>	L	T/Pos	<b>11</b> 0	DOO.	13000
Site Conditio Project Power	: on : : : : Freq	03CH06 FCC CL/ 050822 From Sy Mode 5 NB to e	5-HY ASS-B31 -O1 /stem WAAC Over Limit	m 9120D Limit	Frequenc _1156 VE Read	e <b>y (MHz)</b> RTI <i>CA</i>	L	T/Pos		<b></b>	13000
Site Conditio Project Power Memo	: on : : : : Freq	03CH06 FCC CLA 050822 From Sy Mode 5 NB to e. Level	o-HY NSS-B31 -O1 ostem WAWC Over Limit dB	m 9120D Limit Line dBuV/m	Read Level F	RTICA actor dB/m	A/Pos	T/Pos deg	Remark		13000
Site Conditio Project Power	: on : : : : Freq	03CH06 FCC CLA 050822 From Sy Mode 5 NB to 6. Level dBuV/m	5-HY ASS-B31 -O1 /stem WAAC Over Limit	m 9120b Limit Line	Frequence _1156 VE  Read Level F	RTICA  actor  dB/m  13.45	L A/Pos	T/Pos deg	Remark		13000
Site Condition Project Power Memo — 1 2 3	: on : : : : Freq MHz	03CH06 FCC CLA 050822 From Sy Mode 5 NB to e. Level dBuV/m 33.64 34.77	0-HY NSS-B 30 -01 stem WAWC Over Limit dB -9.86 -8.73	m 9120D Limit Line dBuV/m 43.50	Read Level F dBuV 47.09 - 49.84 -	ey (MHz)  RTICA  actor  dB/m  13.45 15.07	A/Pos	T/Pos deg	Remark Peak Peak		13000
Site Condition Project Power Memo	Freq MHz 156.36 194.70 243.84 589.10	03CH06 FCC CLA 050822 From Sy Mode 5 NB to e. Level dBuV/m 33.64 34.77 33.28 29.47	0-HY 0.55-B 31 -01 stem W.M.C Over Limit -9.86 -8.73 -12.72 -16.53	Limit Line dBuV/m 43.50 43.50 46.00 46.00	Read Level F dBuV 47.09 - 49.84 - 45.26 - 32.31	actor dB/m 13.45 15.07 11.98 -2.84	A/Pos	T/Pos  deg 0	Remark Peak Peak Peak Peak Peak		13000
Site Condition Project Power Memo	Freq MHz 156.36 194.70 243.84 589.10 743.80	03CH06 FCC CLA 050822 From Sy Mode 5 NB to e. Level dBuV/m 33.64 34.77 33.28 29.47 29.33	0-HY 0-S5-B 31 -01 vstem W.M.C Over Limit -9.86 -8.73 -12.72 -16.53 -16.67	Limit Line dBuV/m 43.50 43.50 46.00 46.00	Read Level F dBuV 47.09 - 49.84 - 45.26 - 32.31 29.44	actor dB/m 13.45 15.07 11.98 -2.84 -0.11	A/Pos	T/Pos  deg 0	Remark Peak Peak Peak Peak Peak		13000
Site Condition Project Power Memo — 1 2 3 4 5 6	Freq MHz 156.36 194.70 243.84 589.10 743.80 955.20	03CH06 FCC CLA 050822 From Sy Mode 5 NB to e. Level dBuV/m 33.64 34.77 33.28 29.47 29.33 31.74	0-HY 0.55-B 31 -01 stem W.M.C Over Limit -9.86 -8.73 -12.72 -16.53	Limit Line dBuV/m 43.50 43.50 46.00 46.00	Read Level F dBuV 47.09 - 49.84 - 45.26 - 32.31 29.44 27.51	ey (MHz)  RTICA  actor  dB/m  13.45 15.07 11.98 -2.84 -0.11 4.23	A/Pos	deg 0	Remark Peak Peak Peak Peak Peak Peak		13000
Site Condition Project Power Memo	Freq  156.36 194.70 243.84 589.10 743.80 955.20 1745.00	03CH06 FCC CLA 050822 From Sy Mode 5 NB to e. Level dBuV/m 33.64 34.77 33.28 29.47 29.33 31.74 46.79	0-HY 0-S5-B 31 -01 vstem W.M.C Over Limit -9.86 -8.73 -12.72 -16.53 -16.67	Limit Line dBuV/m 43.50 43.50 46.00 46.00	Read Level F dBuV 47.09 - 49.84 - 45.26 - 32.31 29.44 27.51 77.16 -	actor  dB/m  13.45 15.07 11.98 -2.84 -0.11 4.23 30.37	A/Pos	deg 0	Remark Peak Peak Peak Peak Peak Peak Peak		13000
Site Condition Project Power Memo  1 2 3 4 5 6 7 8	Freq  156.36 194.70 243.84 589.10 743.80 955.20 1745.00 2155.00	03CH06 FCC CLA 050822 From Sy Mode 5 NB to e. Level dBuV/m 33.64 34.77 33.28 29.47 29.33 31.74 46.79 50.99	O-HY ASS-B 31 -O1 stem WAWC Over Limit -9.86 -8.73 -12.72 -16.53 -16.67 -14.26	Limit Line dBuV/m 43.50 43.50 46.00 46.00 46.00	Read Level F dBuV 47.09 - 49.84 - 45.26 - 32.31 29.44 27.51 77.16 - 78.03 -	actor dB/m 13.45 15.07 11.98 -2.84 -0.11 4.23 30.37 27.04	A/Pos	deg 0	Remark Peak Peak Peak Peak Peak Peak Peak Pea		13000
Site Condition Project Power Memo  1 2 3 4 5 6 7 8 9	Freq  156.36 194.70 243.84 589.10 743.80 955.20 1745.00 2155.00 2998.00	03CH06 FCC CLA 050822 From Sy Mode 5 NB to e. Level dBuV/m 33.64 34.77 33.28 29.47 29.33 31.74 46.79 50.99 46.53	O-HY ASS-B 31 -O1 stem WAWC Over Limit -9.86 -8.73 -12.72 -16.53 -16.67 -14.26	Limit Line dBuV/m 43.50 43.50 46.00 46.00 46.00	Read Level F dBuV 47.09 - 49.84 - 45.26 - 32.31 29.44 27.51 77.16 - 78.03 - 72.12 -	actor dB/m 13.45 15.07 11.98 -2.84 -0.11 4.23 30.37 27.04 25.59	A/Pos	deg 0	Remark Peak Peak Peak Peak Peak Peak Peak Pea		13000
Site Condition Project Power Memo  1 2 3 4 5 6 7 8 9 10	Freq  156.36 194.70 243.84 589.10 743.80 955.20 1745.00 2155.00	03CH06 FCC CLA 050822 From Sy Mode 5 NB to e. Level dBuV/m 33.64 34.77 33.28 29.47 29.33 31.74 46.79 50.99 46.53 42.36	O-HY ASS-B 31 -O1 stem WAWC Over Limit -9.86 -8.73 -12.72 -16.53 -16.67 -14.26	Limit Line dBuV/m 43.50 43.50 46.00 46.00 46.00	Read Level F dBuV 47.09 - 49.84 - 45.26 - 32.31 29.44 27.51 77.16 - 78.03 -	actor  dB/m  13.45 15.07 11.98 -2.84 -0.11 4.23 30.37 27.04 25.59 25.55	A/Pos	deg 0	Remark Peak Peak Peak Peak Peak Peak Peak Pea		13000
Site Condition Project Power Memo  1 2 3 4 5 6 7 8 9 10	Freq  156.36 194.70 243.84 589.10 743.80 955.20 1745.00 2155.00 2998.00 3332.00	03CH06 FCC CLA 050822 From Sy Mode 5 NB to e. Level dBuV/m 33.64 34.77 33.28 29.47 29.33 31.74 46.79 50.99 46.53 42.36 43.42	O-HY ASS-B 31 -01 /stem WAWC Over Limit -9.86 -8.73 -12.72 -16.53 -16.67 -14.26	Limit Line dBuV/m 43.50 43.50 46.00 46.00 46.00 74.00	Read Level F dBuV 47.09 - 49.84 - 45.26 - 32.31 29.44 27.51 77.16 - 78.03 - 72.12 - 67.91 -	actor dB/m 13.45 15.07 11.98 -0.11 4.23 30.37 27.04 25.59 25.55 10.58	A/Pos	deg 0	Remark Peak Peak Peak Peak Peak Peak Peak Pea		13000
Site Condition Project Power Memo  1 2 3 4 5 6 7 8 9 10 11 12	Freq  156.36 194.70 243.84 589.10 743.80 955.20 1745.00 2155.00 2998.00 3332.00 6970.00	03CH06 FCC CLA 050822 From Sy Mode 5 NB to e. Level dBuV/m 33.64 34.77 33.28 29.47 29.33 31.74 46.79 50.99 46.53 42.36 43.42 47.72	-9.86 -8.73 -14.26	m 9120D  Limit Line  dBuV/m  43.50 46.00 46.00 46.00 74.00 74.00 74.00	Read Level F dBuV 47.09 - 49.84 - 45.26 - 32.31 29.44 27.51 77.16 - 78.03 - 72.12 - 67.91 - 54.00 -	actor dB/m 13.45 15.07 11.98 -0.11 4.23 30.37 27.04 25.59 25.55 10.58 -5.49	A/Pos	deg 0	Remark Peak Peak Peak Peak Peak Peak Peak Pea		13000

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