FCC Test Report

APPLICANT	:	Motorola Mobility LLC
EQUIPMENT	:	Mobile Cellular Phone
BRAND NAME	:	Motorola
MODEL NAME	:	XT2013-4
FCC ID	:	IHDT56YD3
STANDARD	:	47 CFR Part 15 Subpart B
CLASSIFICATION	:	Certification

The product was received on Jul. 24, 2019 and testing was completed on Aug. 13, 2019. We, Sporton International (Kunshan) Inc., 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 (Kunshan) Inc., the test report shall not be reproduced except in full.

Jason Jia

Reviewed by: Jason Jia / Supervisor

James Huang

Approved by: James Huang / Manager

ACCREDITED
Cert #5145.02

Sporton International (Kunshan) Inc.
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China

TABLE OF CONTENTS

REVISION HISTORY **3**

SUMMARY OF TEST RESULT **4**

1. GENERAL DESCRIPTION **5**

1.1. Applicant 5
1.2. Manufacturer 5
1.3. Product Feature of Equipment Under Test 5
1.4. Product Specification of Equipment Under Test 6
1.5 Specification of Accessory 8
1.6. Modification of EUT 8
1.7. Test Location 9
1.8. Applicable Standards 9

2. TEST CONFIGURATION OF EQUIPMENT UNDER TEST **10**

2.1. Test Mode 10
2.2. Connection Diagram of Test System 12
2.3. Support Unit used in test configuration and system 13
2.4. EUT Operation Test Setup 14

3. TEST RESULT **15**

3.1. Test of AC Conducted Emission Measurement 15
3.2. Test of Radiated Emission Measurement 19

4. LIST OF MEASURING EQUIPMENT **24**

5. UNCERTAINTY OF EVALUATION **25**

APPENDIX A. SETUP PHOTOGRAPHS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC932901-02	Rev. 01	Initial issue of report	Sep. 05, 2019
FC932901-02	Rev. 02	Add FM information in the general description	Sep. 09, 2019

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 6.69 dB at 0.549 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 3.61 dB at 84.320 MHz for Quasi-Peak

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.

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	XT2013-4
FCC ID	IHDT56YD3
EUT supports Radios application	CDMA/GSM/WCDMA/LTE/NFC WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR / EDR / LE FM Receiver and GNSS
IMEI Code	Conduction: 357235100007666 Radiation: 357235100006924
HW Version	DVT2
SW Version	PPI29.80
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4. Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band IV : 1712.4 MHz ~ 1752.6 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 LTE Band 25 : 1850.7 MHz ~ 1914.3 MHz LTE Band 26 : 814.7 MHz ~ 848.3 MHz LTE Band 38 : 2572.5 MHz ~ 2617.5 MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz LTE Band 66 : 1710.7 MHz ~ 1779.3 MHz CDMA2000 BC0: 824.70 MHz ~ 848.31 MHz CDMA2000 BC1: 1851.25 MHz ~ 1908.75 MHz CDMA2000 BC10: 817.9 MHz ~ 823.1 MHz 802.11b/g/n: 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
Rx Frequency	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 IV : 2112.4 MHz ~ 2152.6 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 25 : 1930.7 MHz ~ 1994.3 MHz LTE Band 26 : 859.7 MHz ~ 893.3 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz LTE Band 66 : 2110.7 MHz~ 2199.3 MHz CDMA2000 BC0: 869.70 MHz ~ 893.31 MHz CDMA2000 BC1: 1931.25 MHz ~ 1988.75 MHz CDMA2000 BC10: 862.9 MHz ~ 868.1 MHz 802.11b/g/n: 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 MHz ~ 1610 MHz NFC : 13.56 MHz FM : 88 MHz ~ 108 MHz
Antenna Type	WWAN : Fixed Internal Antenna WLAN 2.4G: Fixed Internal PIFA Antenna WLAN 5G: Fixed Internal Monopole Antenna Bluetooth : Fixed Internal PIFA Antenna GNSS: Fixed Internal PIFA Antenna NFC : Coil Antenna FM : External Earphone Antenna
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK WCDMA : BPSK (Uplink) HSDPA/DC-HSDPA : QPSK (Uplink) HSUPA : QPSK (Uplink) HSPA+ : 16QAM (16QAM uplink is not supported) DC-HSDPA : 64QAM LTE: QPSK / 16QAM / 64QAM CDMA2000 1xRTT: QPSK CDMA2000 1xEV-DO: QPSK/8PSK 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n/ac : OFDM (BPSK / QPSK / 16QAM / 64QAM /256QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : π/4-DQPSK Bluetooth (3Mbps) : 8-DPSK GNSS : BPSK NFC: ASK FM

1.5 Specification of Accessory

Specification of Accessory				
AC Adapter 1	**Brand Name**	Motorola (Salom)	**Model Name**	SC-41
	Power Rating	I/P: 100-240 Vac, 300mA ,50/60HZ O/P: 5Vdc 2000mA		
AC Adapter 2	**Brand Name**	Motorola (Acbel)	**Model Name**	SC-41
	Power Rating	I/P: 100-240 Vac, 300mA ,50/60HZ O/P: 5Vdc 2000mA		
Battery	**Brand Name**	Motorola (ATL)	**Model Name**	KR40
	Power Rating	3.8Vdc, 3500mAh (Typ)	**Type**	Li-ion, Polymer
USB Cable 1	**Brand Name**	Motorola (LiQi)	**Model Name**	L32B-053000100/ L32B-053000100L
	Signal Line Type	1.0 meter, shielded cable, without ferrite core		
USB Cable 2	**Brand Name**	Motorola (SaiBao)	**Model Name**	S32B-053000100/ S32B-053000100L
	Signal Line Type	1.0 meter, shielded cable, without ferrite core		

1.6. Modification of EUT

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

1.7. Test Location

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

Test Firm	Sporton International (Kunshan) Inc.		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	CO01-KS 03CH02-KS	CN1257	314309

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 fundamental frequency or to 40 GHz, whichever is lower).

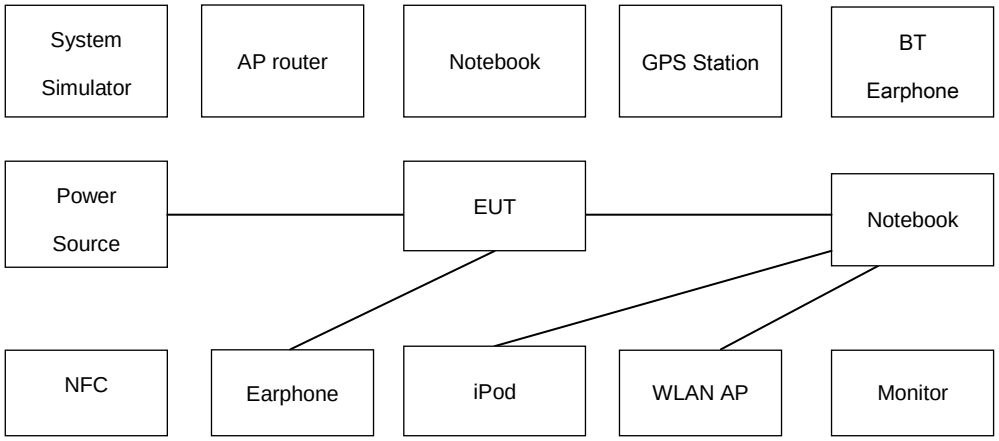
Test Items	Function Type
AC Conducted Emission	Mode 1: GSM 850 Rx(Middle) + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + Camera(Rear) + USB Cable 1(Charging from Adapter 1) Mode 2: PCS 1900 Rx + Bluetooth Idle + WLAN Idle(5G) + Earphone + Camera(Front) + USB Cable 2(Charging from Adapter 2) Mode 3: CDMA BC10 Rx(Low) + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + MPEG4 + USB Cable 2(Charging from Adapter 2) Mode 4: LTE Band 5 Rx(High) + Bluetooth Idle + WLAN Idle(5G) + Earphone + NFC On + USB Cable 2(Charging from Adapter 2) Mode 5: LTE Band 12 Rx(High) + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + FM Rx(98MHz) + USB Cable 2(Charging from Adapter 2) Mode 6: LTE Band 17 Rx(Low) + Bluetooth Idle + WLAN Idle(5G) + Earphone + GNSS Rx + USB Cable 1(Data Link with Notebook) Mode 7: LTE Band 13 Rx(Middle) + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + GNSS Rx + USB Cable 2(Data Link with Notebook) Mode 8: LTE Band 26 Rx(Middle) + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + FM Rx(98MHz) + USB Cable 2(Charging from Adapter 2)

Radiated Emissions	Mode 1: GSM 850 Rx(Middle) + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + Camera(Rear) + USB Cable 1(Charging from Adapter 1) Mode 2: PCS 1900 Rx + Bluetooth Idle + WLAN Idle(5G) + Earphone + Camera(Front) + USB Cable 2(Charging from Adapter 2) Mode 3: CDMA BC10 Rx(Low) + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + MPEG4 + USB Cable 2(Charging from Adapter 2) Mode 4: LTE Band 5 Rx(High) + Bluetooth Idle + WLAN Idle(5G) + Earphone + NFC On + USB Cable 2(Charging from Adapter 2) Mode 5: LTE Band 12 Rx(High) + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + FM Rx(88MHz) + USB Cable 2(Charging from Adapter 2) Mode 6: LTE Band 17 Rx(Low) + Bluetooth Idle + WLAN Idle(5G) + Earphone + GNSS Rx + USB Cable 1(Data Link with Notebook) Mode 7: LTE Band 13 Rx(Middle) + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + GNSS Rx + USB Cable 2(Data Link with Notebook) Mode 8: LTE Band 26 Rx(Middle) + Bluetooth Idle + WLAN Idle(5G) + Earphone + GNSS Rx + USB Cable 1(Data Link with Notebook)

Remark:

1. The worst case of AC is mode 5; only the test data of this mode is reported.
2. The worst case of RE is mode 6; 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.

2.2. Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

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,1.8m
2.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded,1.8m
3.	FM Station	R&S	SMBV100A	258305	N/A	N/A
4.	GNSS Station	R&S	SMBV100A	N/A	N/A	Unshielded,1.8m
5.	WLAN AP	D-link	DIR-655	KA21R655B1	N/A	Unshielded,1.8m
6.	WLAN AP	TP-Link	TL-WDR5600	N/A	N/A	Unshielded,1.8m
7.	WLAN AP	TP-Link	AC66U	N/A	N/A	Unshielded,1.8m
8.	Bluetooth Earphone	Lenovo	LBH308	N/A	N/A	N/A
9.	Bluetooth Earphone	Xiaomi	LYEJ02LM	N/A	N/A	N/A
10.	Notebook	Lenovo	G480	QDS-BRCM1050I	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
11.	Notebook	Dell	Latitude3440	N/A	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
12.	SD Card	Kingston	8GB	N/A	N/A	N/A
13.	SD Card	SanDisk	Uitra	N/A	N/A	N/A
14.	Hard Disk	Lenovo	FH310	N/A	N/A	N/A

2.4. EUT Operation Test Setup

The EUT was in GSM or LTE or CDMA2000 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 or WLAN AP, 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 NFC Function.
4. Turn on MPEG4 function.
5. Turn on GNSS function to make the EUT receive continuous signals from GNSS station.
6. Turn on FM 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.

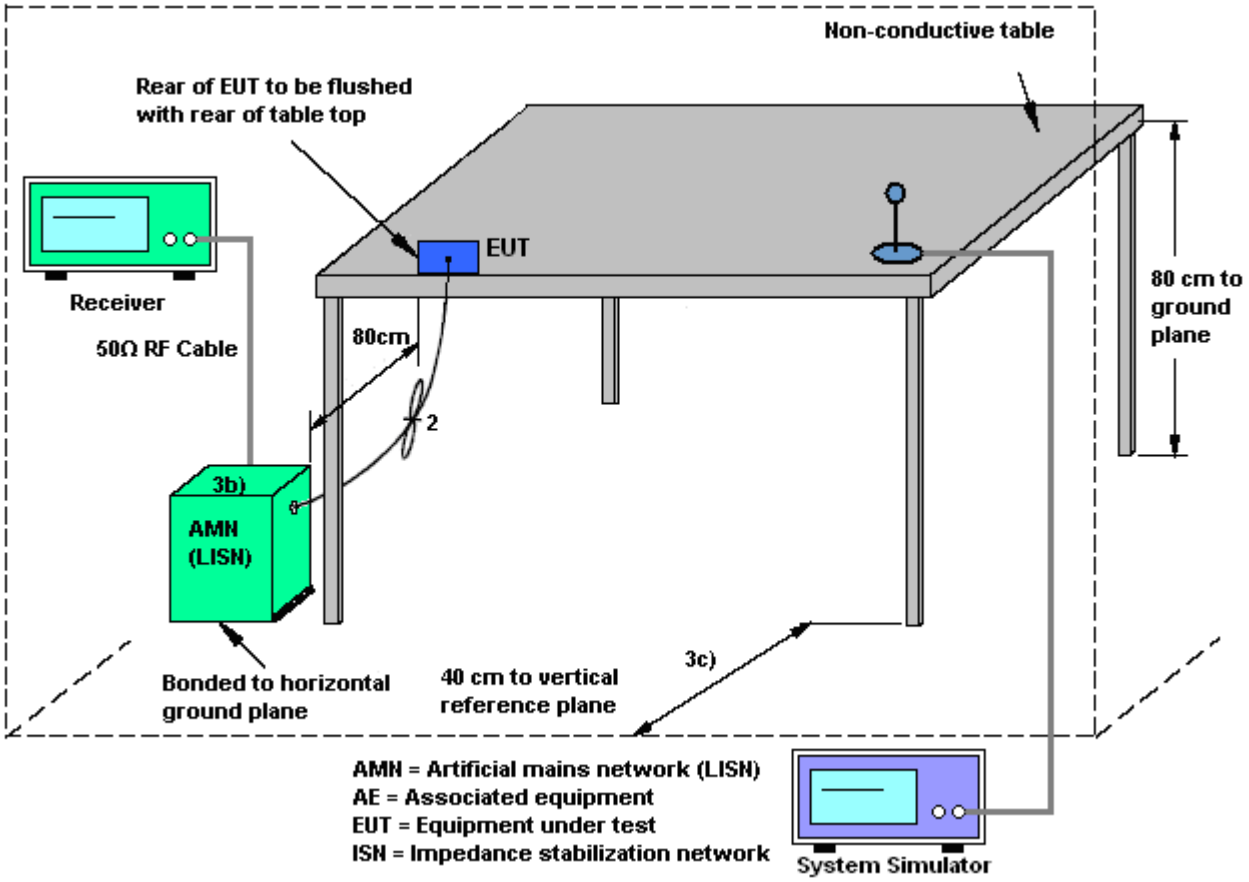
3.1.2 Measuring Instruments

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

3.1.3 Test Procedure

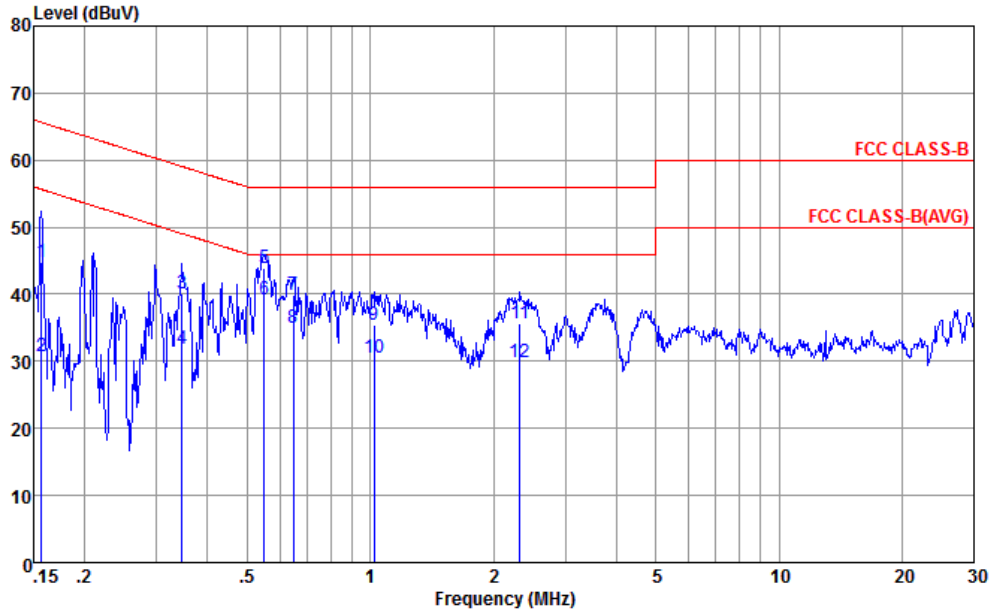
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
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

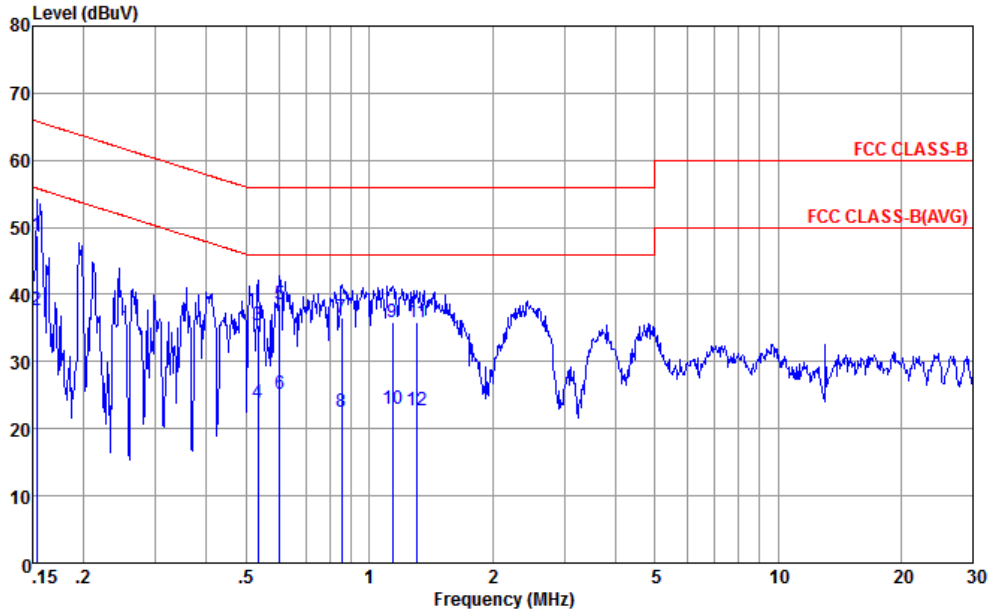
Test Engineer :	Amos Zhang	**Temperature :**	25.3~26.2℃
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS
Condition : FCC CLASS-B LISN-L-181119-060105 LINE
Project : (FC) 932901-02
mode : Mode 5
: 357235100007666

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.156	44.76	-20.89	65.65	34.21	0.09	10.46	QP
2	0.156	30.86	-24.79	55.65	20.31	0.09	10.46	Average
3	0.346	40.04	-19.01	59.05	29.60	0.15	10.29	QP
4	0.346	31.94	-17.11	49.05	21.50	0.15	10.29	Average
5	0.549	43.91	-12.09	56.00	33.49	0.18	10.24	QP
6 *	0.549	39.31	-6.69	46.00	28.89	0.18	10.24	Average
7	0.647	39.92	-16.08	56.00	29.49	0.19	10.24	QP
8	0.647	35.02	-10.98	46.00	24.59	0.19	10.24	Average
9	1.021	35.53	-20.47	56.00	25.10	0.20	10.23	QP
10	1.021	30.63	-15.37	46.00	20.20	0.20	10.23	Average
11	2.321	35.56	-20.44	56.00	25.10	0.23	10.23	QP
12	2.321	29.76	-16.24	46.00	19.30	0.23	10.23	Average

Test Engineer :	Amos Zhang	**Temperature :**	25.3~26.2℃
		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 CLASS-B LISN-N-181119-060105 NEUTRAL
Project : (FC) 932901-02
mode : Mode 5
: 357235100007666

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1 *	0.153	48.85	-16.97	65.82	38.20	0.18	10.47	QP
2	0.153	37.75	-18.07	55.82	27.10	0.18	10.47	Average
3	0.535	35.48	-20.52	56.00	25.09	0.15	10.24	QP
4	0.535	23.88	-22.12	46.00	13.49	0.15	10.24	Average
5	0.604	38.48	-17.52	56.00	28.10	0.14	10.24	QP
6	0.604	25.28	-20.72	46.00	14.90	0.14	10.24	Average
7	0.857	36.47	-19.53	56.00	26.10	0.13	10.24	QP
8	0.857	22.57	-23.43	46.00	12.20	0.13	10.24	Average
9	1.141	35.87	-20.13	56.00	25.51	0.13	10.23	QP
10	1.141	22.97	-23.03	46.00	12.61	0.13	10.23	Average
11	1.310	35.87	-20.13	56.00	25.50	0.14	10.23	QP
12	1.310	22.67	-23.33	46.00	12.30	0.14	10.23	Average

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

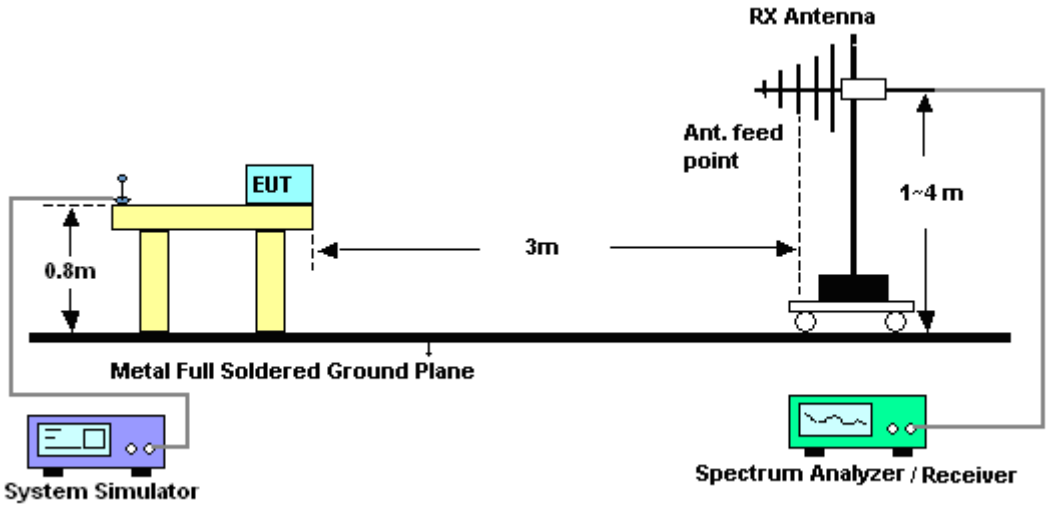
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

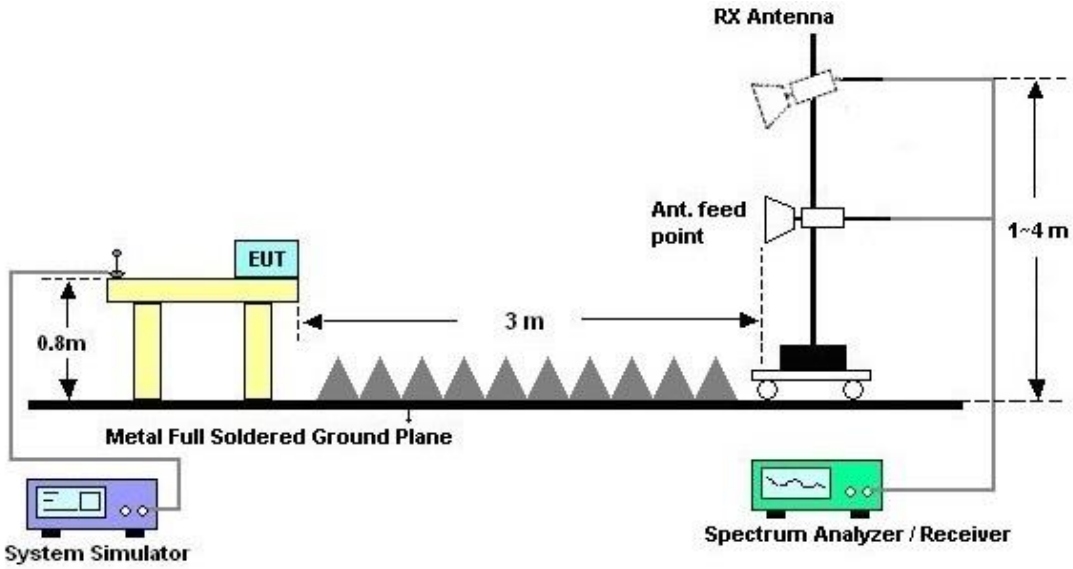
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna 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 (dBμV/m) = 20 log Emission level (μV/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz

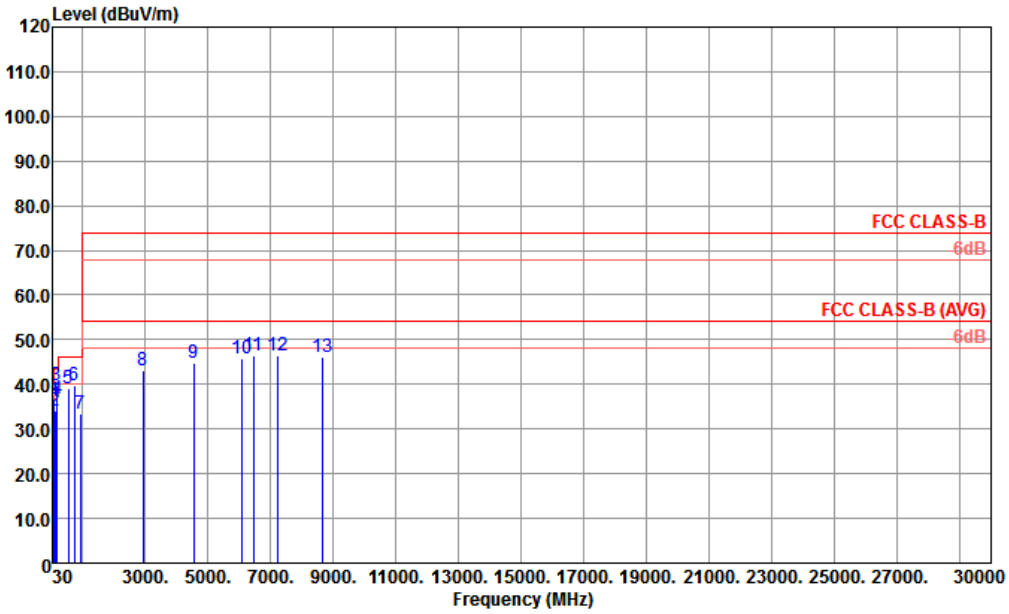


For radiated emissions above 1GHz



3.2.5. Test Result of Radiated Emission

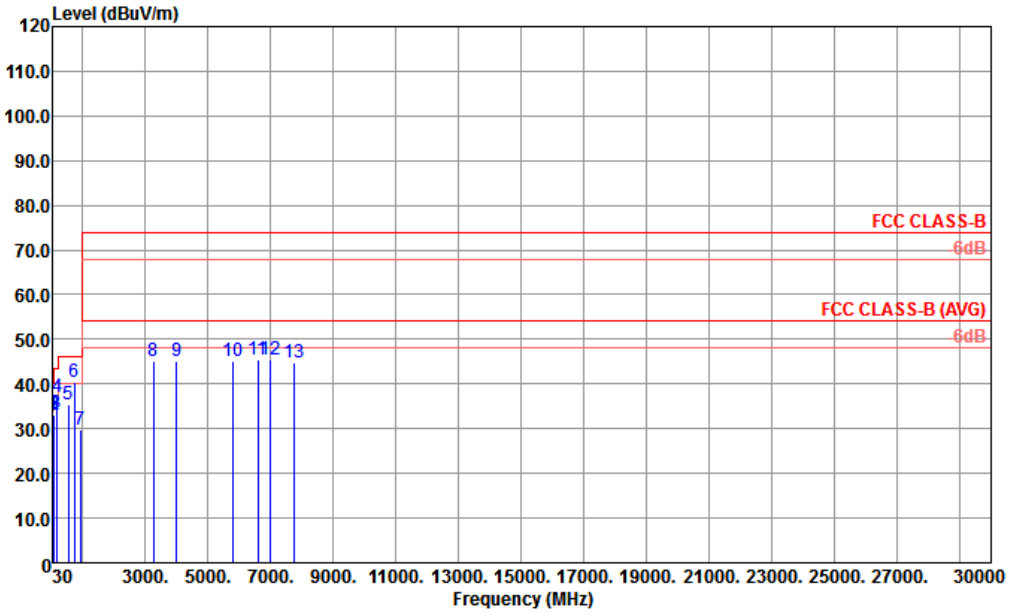
Test Engineer :	Carl Ni	**Temperature :**	21~22°C
		Relative Humidity :	41~42%
Test Distance :	3m	**Polarization :**	Horizontal
Remark :	#6 is system simulator signal which can be ignored.		



Site : 03CH02-KS
Condition : FCC CLASS-B 3m LF 49922-3M HORIZONTAL
Project : (FC)932901-02
Mode : 6
IMEI : 357235100006924

		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	!	84.32	36.39	-3.61	40.00	52.98	14.26	1.08	31.93	200	0	QP
2		101.78	34.17	-9.33	43.50	48.70	16.24	1.16	31.93	---	---	Peak
3	!	165.80	39.78	-3.72	43.50	53.66	16.54	1.51	31.93	200	0	QP
4		195.87	36.70	-6.80	43.50	51.72	15.26	1.62	31.90	---	---	Peak
5		530.52	39.26	-6.74	46.00	44.08	24.89	2.60	32.31	---	---	Peak
6		740.04	39.93	----	-----	40.93	28.15	3.12	32.27	---	---	Peak
7		920.46	33.38	-12.62	46.00	31.26	29.90	3.49	31.27	---	---	Peak
8		2936.00	43.28	-30.72	74.00	36.66	32.63	6.24	32.25	---	---	Peak
9		4536.00	44.67	-29.33	74.00	34.93	33.43	7.94	31.63	---	---	Peak
10		6104.00	45.72	-28.28	74.00	32.98	35.01	9.25	31.52	---	---	Peak
11		6440.00	46.40	-27.60	74.00	33.27	35.18	9.54	31.59	---	---	Peak
12		7248.00	46.55	-27.45	74.00	32.28	35.77	10.12	31.62	---	---	Peak
13		8640.00	46.12	-27.88	74.00	30.07	36.42	11.45	31.82	---	---	Peak

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



Site : 03CH02-KS
Condition : FCC CLASS-B 3m LF 49922-3M VERTICAL
Project : (FC)932901-02
Mode : 6
IMEI : 357235100006924#6

		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		50.37	33.26	-6.74	40.00	49.56	14.80	0.84	31.94	---	---	Peak
2		84.32	33.23	-6.77	40.00	49.82	14.26	1.08	31.93	---	---	Peak
3		165.80	33.40	-10.10	43.50	47.28	16.54	1.51	31.93	---	---	Peak
4		195.87	37.16	-6.34	43.50	52.18	15.26	1.62	31.90	100	0	Peak
5		533.43	35.41	-10.59	46.00	40.14	24.97	2.61	32.31	---	---	Peak
6	!	736.16	40.57			41.73	28.01	3.11	32.28	---	---	Peak
7		911.73	29.61	-16.39	46.00	27.90	29.60	3.47	31.36	---	---	Peak
8		3256.00	44.97	-29.03	74.00	37.87	32.84	6.68	32.42	---	---	Peak
9		4000.00	45.06	-28.94	74.00	35.83	33.71	7.49	31.97	---	---	Peak
10		5792.00	45.26	-28.74	74.00	32.76	34.84	8.98	31.32	---	---	Peak
11		6584.00	45.39	-28.61	74.00	32.11	35.24	9.66	31.62	---	---	Peak
12		6968.00	45.42	-28.58	74.00	31.45	35.30	9.95	31.28	---	---	Peak
13		7744.00	44.83	-29.17	74.00	29.97	36.15	10.72	32.01	---	---	Peak

4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max 30dBm	Aug. 06, 2018	Jul. 30, 2019	Aug. 05, 2019	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz-44G,MAX 30dB	Apr. 15, 2019	Jul. 30, 2019	Apr. 16, 2020	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	May 30, 2019	Jul. 30, 2019	May 29, 2020	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75959	1GHz~18GHz	Jan. 27, 2019	Jul. 30, 2019	Jan. 26, 2020	Radiation (03CH02-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2019	Jul. 30, 2019	Jan. 04, 2020	Radiation (03CH02-KS)
Amplifier	MITEQ	TTA1840-35-HG	1887435	18~40GHz	Feb. 08, 2019	Jul. 30, 2019	Feb. 07, 2020	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Aug. 06, 2018	Jul. 30, 2019	Aug. 05, 2019	Radiation (03CH02-KS)
Amplifier	Keysight	83017A	MY57280106	500MHz~26.5GHz	Apr. 15, 2019	Jul. 30, 2019	Apr. 14, 2020	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Jul. 30, 2019	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Jul. 30, 2019	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Jul. 30, 2019	NCR	Radiation (03CH02-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 16, 2019	Aug. 13, 2019	Apr. 15, 2020	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 12, 2018	Aug. 13, 2019	Oct. 11, 2019	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Nov. 19, 2018	Aug. 13, 2019	Nov. 18, 2019	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 12, 2018	Aug. 13, 2019	Oct. 11, 2019	Conduction (CO01-KS)

NCR: No Calibration Required

5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.9dB

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0dB

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.1dB