



FCC Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2015-2, XT2016-2
FCC ID : IHDT56YF2
STANDARD : 47 CFR Part 15 Subpart B
CLASSIFICATION : Certification

The product was received on Jun. 04, 2019 and testing was completed on Jun. 20, 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



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 7

 1.6. Modification of EUT 8

 1.7. Test Location 8

 1.8. Applicable Standards 8

2. TEST CONFIGURATION OF EQUIPMENT UNDER TEST 9

 2.1. Test Mode 9

 2.2. Connection Diagram of Test System 11

 2.3. Support Unit used in test configuration and system 11

 2.4. EUT Operation Test Setup 12

3. TEST RESULT 13

 3.1. Test of AC Conducted Emission Measurement 13

 3.2. Test of Radiated Emission Measurement 17

4. LIST OF MEASURING EQUIPMENT 22

5. UNCERTAINTY OF EVALUATION 23

APPENDIX A. SETUP PHOTOGRAPHS



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 10.23 dB at 0.150 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 3.03 dB at 39.7 MHz



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	XT2015-2, XT2016-2
FCC ID	IHDT56YF2
EUT supports Radios application	GSM/WCDMA/LTE/FM Receiver/GNSS WLAN 2.4GHz 802.11b/g/n HT20 Bluetooth BR/EDR/LE
IMEI Code	Conduction/Radiation: 357205100005333/357205100005341
HW Version	DVT2
SW Version	PMD29.56
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 66 : 1710.7 MHz ~ 1779.3 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 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 66 : 2110.7 MHz~ 2199.3 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GNSS : 1559 MHz ~ 1610 MHz FM : 88 - 108 MHz
Antenna Type	WWAN : PIFA Antenna WLAN : Loop Antenna Bluetooth : Loop Antenna GNSS: Loop Antenna FM : External Handset 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 (Uplink) DC-HSDPA : 64QAM LTE: QPSK / 16QAM / 64QAM 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : $\pi/4$ -DQPSK Bluetooth (3Mbps) : 8-DPSK GNSS : BPSK FM

Note: GNSS Rx = GPS Rx + Glonass Rx + BDS Rx + Galileo Rx

1.5. Specification of Accessory

Specification of Accessory			
AC Adapter 1(US)	Brand Name	Motorola (Salom)	Model Name SC-41
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 1(EU)	Brand Name	Motorola (Salom)	Model Name SC-42
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 1(UK)	Brand Name	Motorola (Salom)	Model Name SC-43
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 1(IN)	Brand Name	Motorola (Salom)	Model Name SC-44
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 1(AU)	Brand Name	Motorola (Salom)	Model Name SC-45
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 1(AR)	Brand Name	Motorola (Salom)	Model Name SC-46
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 1(BR)	Brand Name	Motorola (Salom)	Model Name SC-47
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 1(Chile)	Brand Name	Motorola (Salom)	Model Name SC-42
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 2(US)	Brand Name	Motorola (Acbel)	Model Name SC-41
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 2(EU)	Brand Name	Motorola (Acbel)	Model Name SC-42
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 2(UK)	Brand Name	Motorola (Acbel)	Model Name SC-43
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 2(AU)	Brand Name	Motorola (Acbel)	Model Name SC-45
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 2(AR)	Brand Name	Motorola (Acbel)	Model Name SC-46
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 3(BR)	Brand Name	Motorola(Cliptech/Tenpao)	Model Name SC-47
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
AC Adapter 4(BR)	Brand Name	Motorola (Salom/Flex)	Model Name SC-47
	Power Rating	I/P: 100-240 Vac ~ 50/60Hz, 0.3A; O/P: 5Vdc,2A	
Battery	Brand Name	Motorola (ATL)	Model Name KG40
	Power Rating	3.8Vdc, 3760/4000mAh	Type Li-ion
Earphone 1	Brand Name	Huizhou New Leader Industry Co., Ltd.	Model Name NLD-EM307K-01SF
	Signal Line Type	1.1 meter, non-shielded cable, without ferrite core	
Earphone 2 (Local Build)	Brand Name	Lianyun	Model Name SH38C37773
	Signal Line Type	1.1 meter, non-shielded cable, without ferrite core	



USB Cable 1	Brand Name	Motorola (SaiBao)	Model Name	SWT-A096A
	Signal Line Type	1.0 meter, shielded cable, without ferrite core		
USB Cable 2	Brand Name	Motorola (LiQi)	Model Name	LQ025289
	Signal Line Type	1.0 meter, shielded cable, without ferrite core		
USB Cable 3	Brand Name	Motorola (I SHENG)	Model Name	SC18C28955
	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.

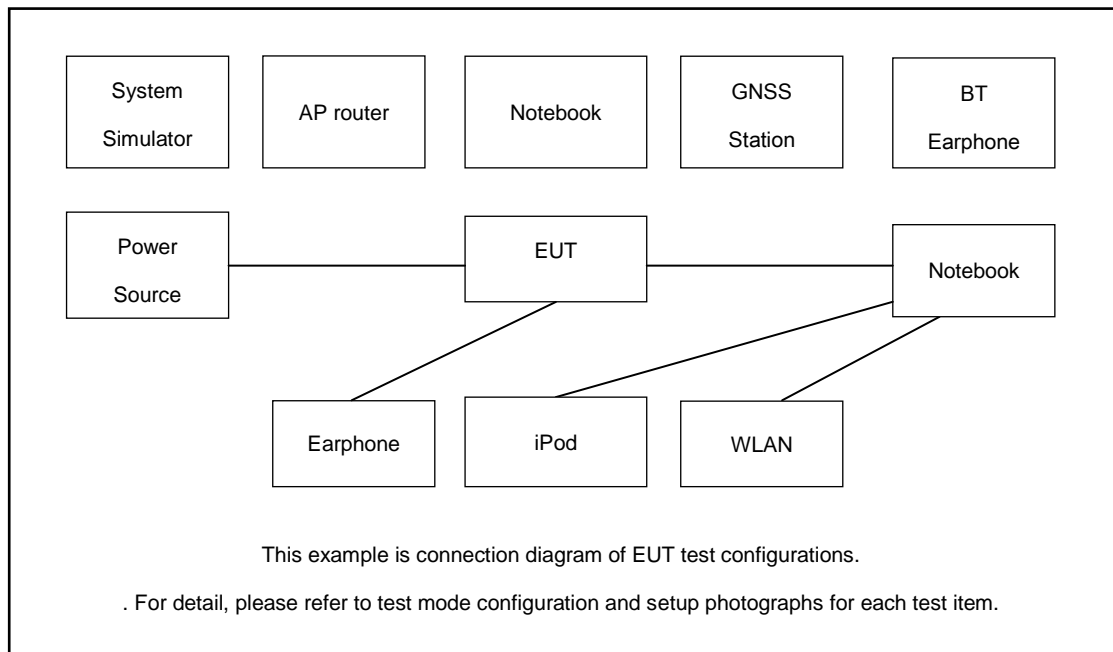
Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

Test Items	Function Type
AC Conducted Emission	Mode 1: GSM850 Rx(Middle) + USB Cable1(Charging from Adapter 1)+ Earphone 1 + Bluetooth Idle + Camera(Rear) + WLAN (2.4G) Idle + SIM1
	Mode 2: PCS 1900 Rx + USB Cable2(Charging from Adapter 2)+ Earphone 1 + Bluetooth Idle + Camera(Front) + WLAN (2.4G) Idle + SIM2
	Mode 3: WCDMA Band 5 Rx(High) + USB Cable3(Charging from Adapter 3)+ Earphone 1 + Bluetooth Idle + MPEG4 + WLAN (2.4G) Idle + SIM1
	Mode 4: LTE Band 5 Rx(Low) + USB Cable1(Charging from Adapter 4)+ Earphone 1 + Bluetooth Idle + FM Rx(98MHz) + WLAN (2.4G) Idle + SIM2
	Mode 5: LTE Band 2 Rx + USB Cable1(Data Link with Notebook) + Earphone 1 + Bluetooth Idle + GNSS Rx + WLAN (2.4G) Idle + SIM1
	Mode 6: LTE Band 4 Rx + USB Cable2(Data Link with Notebook) + Earphone 1 + Bluetooth Idle + GNSS Rx + WLAN (2.4G) Idle + SIM2
	Mode 7: LTE Band 7 Rx + USB Cable3(Data Link with Notebook) + Earphone 1 + Bluetooth Idle + GNSS Rx + WLAN (2.4G) Idle + SIM1
	Mode 8: GSM850 Rx(Middle) + USB Cable1(Charging from Adapter 1)+ Earphone 2 + Bluetooth Idle + Camera(Rear) + WLAN (2.4G) Idle + SIM1



Radiated Emissions	<p>Mode 1: GSM850 Rx(Middle) + USB Cable1(Charging from Adapter 1)+ Earphone 1 + Bluetooth Idle + Camera(Rear) + WLAN (2.4G) Idle + SIM1</p> <p>Mode 2: PCS 1900 Rx + USB Cable2(Charging from Adapter 2)+ Earphone 1 + Bluetooth Idle + Camera(Front) + WLAN (2.4G) Idle + SIM2</p> <p>Mode 3: WCDMA Band 5 Rx(High) + USB Cable3(Charging from Adapter 3)+ Earphone 1 + Bluetooth Idle + MPEG4 + WLAN (2.4G) Idle + SIM1</p> <p>Mode 4: LTE Band 5 Rx(Low) + USB Cable3(Charging from Adapter 4)+ Earphone 1 + Bluetooth Idle + FM Rx(98MHz) + WLAN (2.4G) Idle + SIM2</p> <p>Mode 5: LTE Band 2 Rx + USB Cable1(Data Link with Notebook) + Earphone 1 + Bluetooth Idle + GNSS Rx + WLAN (2.4G) Idle + SIM1</p> <p>Mode 6: LTE Band 4 Rx + USB Cable2(Data Link with Notebook) + Earphone 1 + Bluetooth Idle + GNSS Rx + WLAN (2.4G) Idle + SIM2</p> <p>Mode 7: LTE Band 7 Rx + USB Cable3(Data Link with Notebook) + Earphone 1 + Bluetooth Idle + GNSS Rx + WLAN (2.4G) Idle + SIM1</p> <p>Mode 8: WCDMA Band 5 Rx(High) + USB Cable3(Charging from Adapter 3)+ Earphone 2 + Bluetooth Idle + MPEG4 + WLAN (2.4G) Idle + SIM1</p>
<p>Remark:</p> <ol style="list-style-type: none"> 1. The worst case of AC is mode 1; only the test data of this mode is reported. 2. The worst case of RE is mode 8; only the test data of this mode is reported. 3. Data Link with Notebook means data application transferred mode between EUT and Notebook. 4. Pre-scanned Low/Middle/High channel for GSM850/WCDMA Band V/LTE Band 5 and FM Rx, the worst channel was recorded in this report. 	

2.2. Connection Diagram of Test System



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	Anritsu	MT8820C	N/A	N/A	Unshielded,1.8m
2.	Signal Generator	R&S	SMBV100A	N/A	N/A	Unshielded,1.8m
3.	Bluetooth Earphone	Lenovo	LBH308	N/A	N/A	N/A
4.	Bluetooth Earphone	Lenovo	LYEJ02LM	N/A	N/A	N/A
5.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded,1.8m
6.	WLAN AP	TP-Link	AC66U	N/A	N/A	Unshielded,1.8m
7.	WLAN AP	TP-Link	TL-WDR5600	N/A	N/A	Unshielded,1.8m
8.	SD Card	Kingston	8GB	N/A	N/A	N/A
9.	SD Card	SanDisk	Uitra	N/A	N/A	N/A
10.	Notebook	Lenovo	G480	PRC4	N/A	shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m
11.	Notebook	Lenovo	Lenove v130-14IKB001	N/A	N/A	shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m
12.	Hard Disk	Lenovo	FH310	N/A	N/A	N/A
13.	Earphone	Lenovo	N/A	N/A	N/A	N/A



2.4. EUT Operation Test Setup

The EUT was in GSM or WCDMA or LTE 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 MPEG4 function.
4. Turn on GNSS function to make the EUT receive continuous signals from GNSS station.
5. Turn on FM function to make the EUT receive continuous signals from FM station.



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.

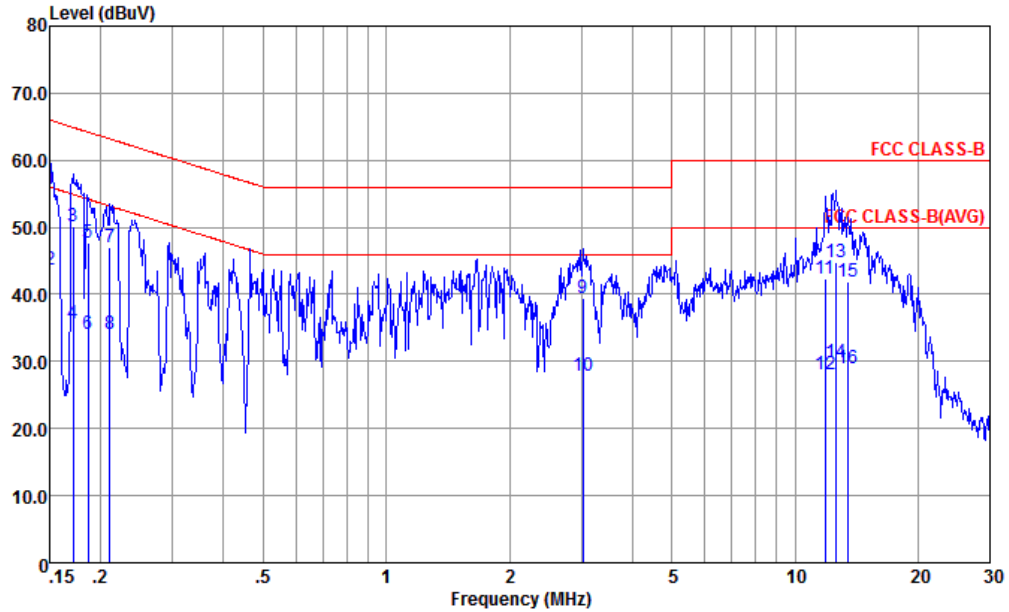
3.1.4 Test Setup





3.1.5 Test Result of AC Conducted Emission

Test Engineer :	Amos Zhang	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Line

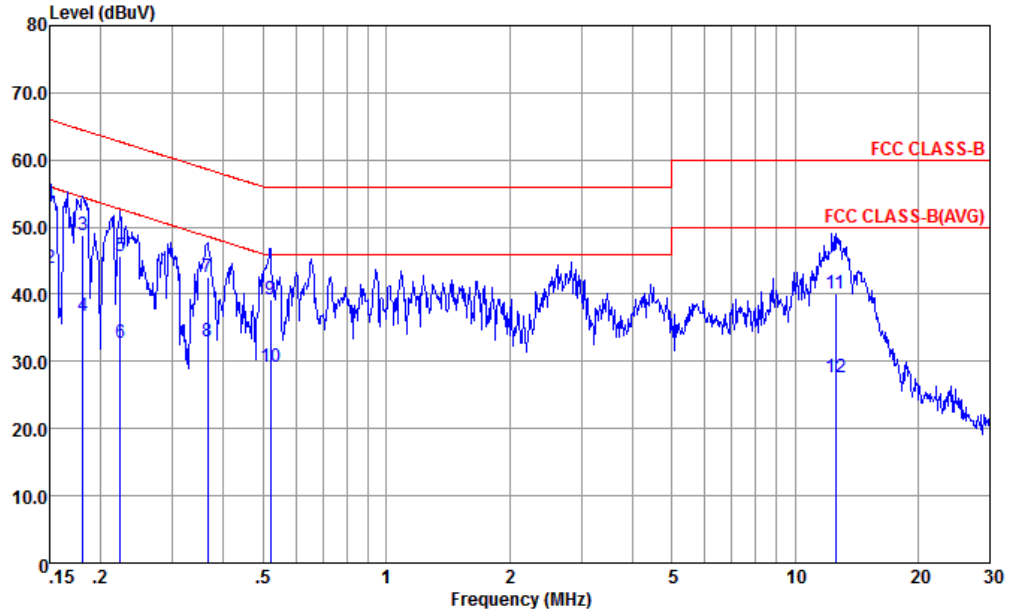


Site : CO01-KS
 Condition : FCC CLASS-B LISN-L-181119-060105 LINE
 Project : (FC) 960403
 mode : Mode 1
 : 357205100005333/357205100005341 #5

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1 *	0.150	55.77	-10.23	66.00	45.20	0.09	10.48	QP
2	0.150	43.77	-12.23	56.00	33.20	0.09	10.48	Average
3	0.171	50.03	-14.87	64.90	39.50	0.10	10.43	QP
4	0.171	35.73	-19.17	54.90	25.20	0.10	10.43	Average
5	0.186	47.70	-16.50	64.20	37.20	0.11	10.39	QP
6	0.186	34.10	-20.10	54.20	23.60	0.11	10.39	Average
7	0.211	47.08	-16.10	63.18	36.60	0.12	10.36	QP
8	0.211	34.08	-19.10	53.18	23.60	0.12	10.36	Average
9	3.025	39.38	-16.62	56.00	28.91	0.23	10.24	QP
10	3.025	27.78	-18.22	46.00	17.31	0.23	10.24	Average
11	11.870	42.40	-17.60	60.00	31.80	0.24	10.36	QP
12	11.870	28.10	-21.90	50.00	17.50	0.24	10.36	Average
13	12.582	44.81	-15.19	60.00	34.21	0.23	10.37	QP
14	12.582	29.91	-20.09	50.00	19.31	0.23	10.37	Average
15	13.479	41.81	-18.19	60.00	31.20	0.23	10.38	QP
16	13.479	28.91	-21.09	50.00	18.30	0.23	10.38	Average



Test Engineer :	Amos Zhang	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral



Site : CO01-KS
 Condition : FCC CLASS-B LISN-N-181119-060105 NEUTRAL
 Project : (FC) 960403
 mode : Mode 1
 : 357205100005333/357205100005341 #5

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.150	53.16	-12.84	66.00	42.50	0.18	10.48	QP
2 *	0.150	43.86	-12.14	56.00	33.20	0.18	10.48	Average
3	0.181	48.78	-15.68	64.46	38.20	0.18	10.40	QP
4	0.181	36.78	-17.68	54.46	26.20	0.18	10.40	Average
5	0.223	45.72	-16.98	62.70	35.20	0.17	10.35	QP
6	0.223	32.82	-19.88	52.70	22.30	0.17	10.35	Average
7	0.365	42.64	-15.97	58.61	32.20	0.16	10.28	QP
8	0.365	33.04	-15.57	48.61	22.60	0.16	10.28	Average
9	0.521	39.28	-16.72	56.00	28.89	0.15	10.24	QP
10	0.521	29.28	-16.72	46.00	18.89	0.15	10.24	Average
11	12.582	40.11	-19.89	60.00	29.60	0.14	10.37	QP
12	12.582	27.71	-22.29	50.00	17.20	0.14	10.37	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

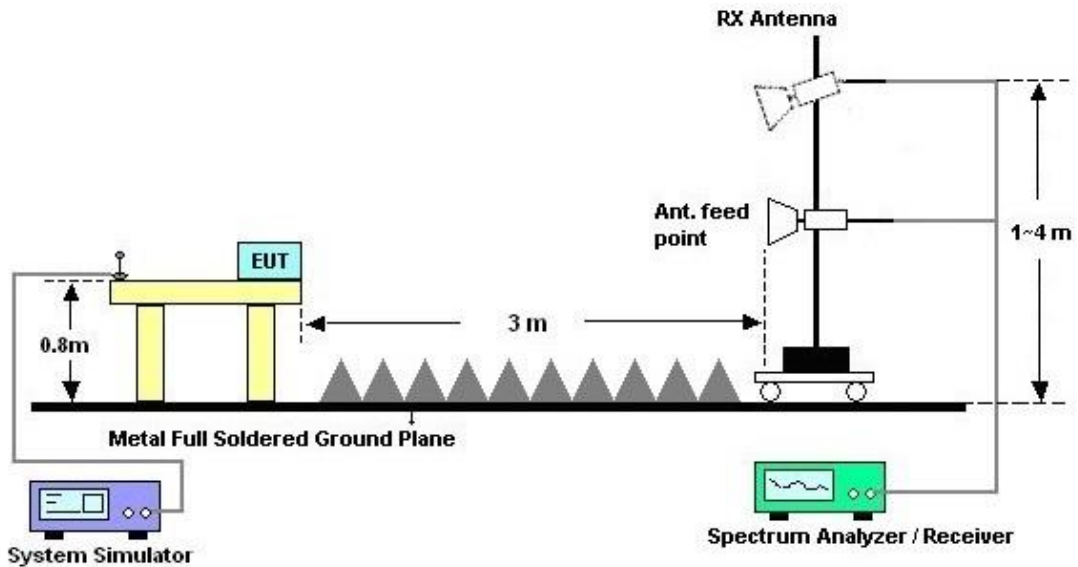
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna 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 (dB μ V/m) = 20 log Emission level (μ V/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



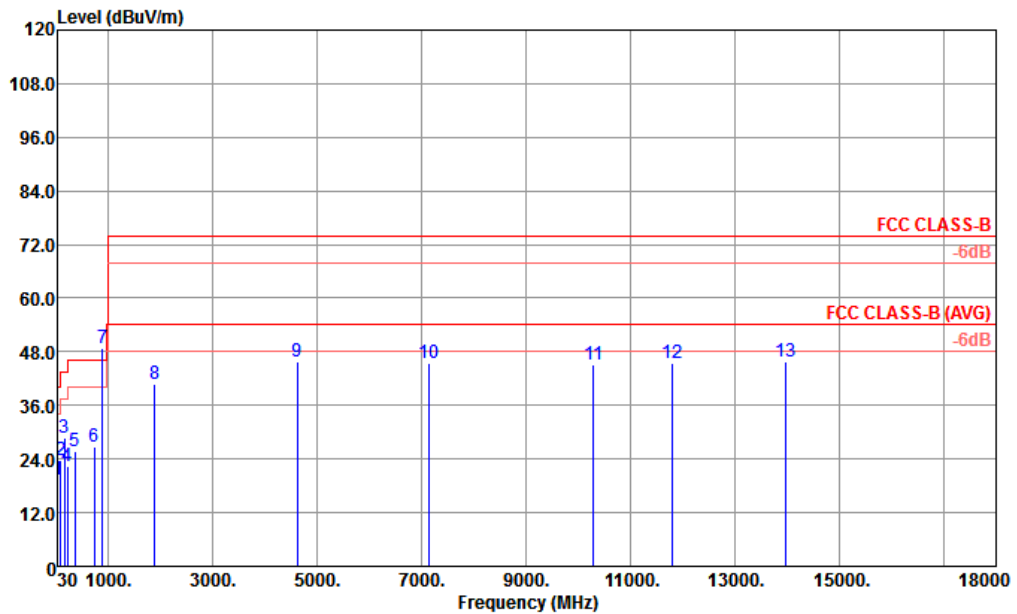
For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

Test Engineer :	Jack Guo	Temperature :	21~22°C
		Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal
Remark :	#7 is the system simulator signal which can be ignore		

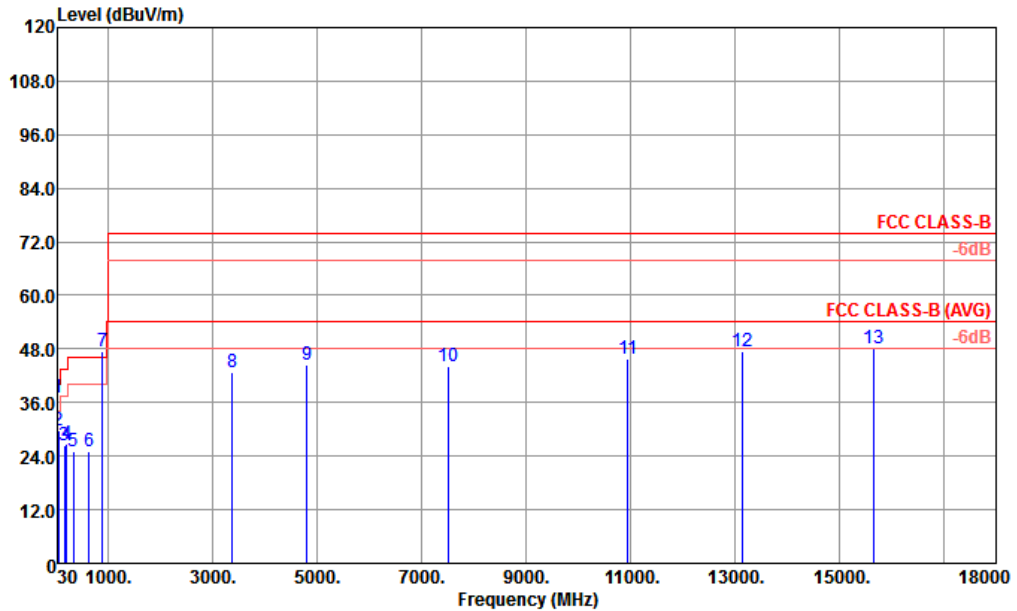


Site : 03CH02-KS
 Condition : FCC CLASS-B 3m LF 49922-3M HORIZONTAL
 Project : (FC)960403
 Mode : 8

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	33.88	19.28	-20.72	40.00	28.53	22.00	0.71	31.96	---	---	Peak
2	94.02	23.59	-19.91	43.50	38.92	15.48	1.12	31.93	---	---	Peak
3	161.92	28.89	-14.61	43.50	42.61	16.71	1.50	31.93	100	0	Peak
4	217.21	22.40	-23.60	46.00	36.26	16.35	1.71	31.92	---	---	Peak
5	365.62	25.59	-20.41	46.00	34.52	21.01	2.15	32.09	---	---	Peak
6	737.13	26.75	-19.25	46.00	27.87	28.04	3.11	32.27	---	---	Peak
7 *	892.33	48.64			47.50	29.22	3.43	31.51	---	---	Peak
8	1896.00	40.81	-33.19	74.00	39.79	29.53	4.95	33.46	---	---	Peak
9	4624.00	45.79	-28.21	74.00	35.86	33.52	7.97	31.56	---	---	Peak
10	7152.00	45.51	-28.49	74.00	31.32	35.58	10.07	31.46	---	---	Peak
11	10287.00	45.23	-28.77	74.00	27.23	36.97	12.78	31.75	---	---	Peak
12	11799.00	45.35	-28.65	74.00	25.43	38.29	13.71	32.08	---	---	Peak
13	13977.00	45.84	-28.16	74.00	22.94	38.78	15.54	31.42	---	---	Peak



Test Engineer :	Jack Guo	Temperature :	21~22°C
		Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Remark :	#7 is the system simulator signal which can be ignore		



Site : 03CH02-KS
 Condition : FCC CLASS-B 3m LF 49922-3M VERTICAL
 Project : (FC)960403
 Mode : 8

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	cm	deg	
			dB	dBuV/m	dBuV	dB	dB			
1 !	39.70	36.97	-3.03	40.00	48.53	19.70	0.70	31.96	100	0 Peak
2	52.31	29.62	-10.38	40.00	46.64	14.08	0.84	31.94	---	Peak
3	162.89	26.25	-17.25	43.50	40.02	16.66	1.50	31.93	---	Peak
4	211.39	26.72	-16.78	43.50	41.01	15.93	1.69	31.91	---	Peak
5	332.64	25.16	-20.84	46.00	35.00	20.15	2.06	32.05	---	Peak
6	640.13	25.14	-20.86	46.00	28.16	26.48	2.87	32.37	---	Peak
7 *	891.36	47.35			46.22	29.22	3.43	31.52	---	Peak
8	3384.00	42.68	-31.32	74.00	35.58	32.44	6.80	32.14	---	Peak
9	4808.00	44.49	-29.51	74.00	34.10	33.70	8.09	31.40	---	Peak
10	7528.00	44.18	-29.82	74.00	29.66	36.19	10.31	31.98	---	Peak
11	10953.00	45.91	-28.09	74.00	27.37	37.37	13.35	32.18	---	Peak
12	13149.00	47.41	-26.59	74.00	26.11	38.55	14.55	31.80	---	Peak
13	15669.00	48.10	-25.90	74.00	22.43	40.97	16.48	31.78	---	Peak



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;	Apr. 16, 2019	Jun. 20, 2019	Apr. 15, 2020	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 12, 2018	Jun. 20, 2019	Oct. 11, 2019	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Nov. 19, 2018	Jun. 20, 2019	Nov. 18, 2019	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP0000008 11	AC 0V~300V, 45Hz~1000Hz	Oct. 12, 2018	Jun. 20, 2019	Oct. 11, 2019	Conduction (CO01-KS)
EMI Test Receiver	Keysight	N9038A	MY56400004	3Hz~8.5GHz;M ax 30dBm	Oct. 12, 2018	Jun. 17, 2019	Oct. 11, 2019	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz~44G,MAX 30dB	Apr. 16, 2019	Jun. 17, 2019	Apr. 15, 2020	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6111D	44483	30MHz~1GHz	Dec. 28, 2018	Jun. 17, 2019	Dec. 27, 2019	Radiation (03CH02-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1648	1GHz~18GHz	Jan. 27, 2019	Jun. 17, 2019	Jan. 26, 2020	Radiation (03CH02-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2019	Jun. 17, 2019	Jan. 04, 2020	Radiation (03CH02-KS)
Amplifier	MITEQ	TTA1840-35-H G	2014749	18~40GHz	Jan. 14, 2019	Jun. 17, 2019	Jan. 13, 2020	Radiation (03CH02-KS)
Amplifier	Burgeon	BPA-530	102219	0.01MHz ~3000MHz	Nov. 19, 2018	Jun. 17, 2019	Nov. 18, 2019	Radiation (03CH02-KS)
Amplifier	Keysight	83017A	MY53270319	500MHz~26.5G Hz	Oct. 12, 2018	Jun. 17, 2019	Oct. 11, 2019	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Jun. 17, 2019	NCR	Radiation (03CH02-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Jun. 17, 2019	NCR	Radiation (03CH02-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Jun. 17, 2019	NCR	Radiation (03CH02-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
---	-------