



# FCC Test Report

**APPLICANT** : Motorola Mobility LLC  
**EQUIPMENT** : Mobile Cellular Phone  
**BRAND NAME** : Motorola  
**MODEL NAME** : XT2041-3  
**FCC ID** : IHDT56YL3  
**STANDARD** : 47 CFR Part 15 Subpart B  
**CLASSIFICATION** : Certification

The product was received on Oct. 09, 2019 and testing was completed on Nov. 01, 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



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### 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 10.46 dB at 0.183 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 9.37 dB at 38.730 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.



# 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	XT2041-3
FCC ID	IHDT56YL3
EUT supports Radios application	GSM/WCDMA/LTE WLAN 2.4GHz 802.11b/g/n HT20 Bluetooth BR/EDR/LE FM Receiver and GNSS
IMEI Code	Conduction: 359095100017158/359095100017166 Radiation: 359095100014411/359095100014429
HW Version	DVT2
SW Version	QPE30.61
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. There are two types of EUT, the sample 1 is dual SIM card, the sample 2 is single SIM card. We only choose dual SIM sample to perform full tests and the sample 2 is verified worse case for Radiation.



### 1.4. Product Specification of Equipment Under Test

Standards-related Product Specification	
<b>Tx Frequency</b>	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 26 : 814.7 MHz ~ 848.3 MHz LTE Band 38 : 2572.5 MHz ~ 2617.5 MHz LTE Band 41 : 2537.5 MHz ~ 2652.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz
<b>Rx Frequency</b>	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 26 : 859.7 MHz ~ 893.3 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41 : 2537.5 MHz ~ 2652.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GNSS : 1559 MHz ~ 1610 MHz FM: 87.5 MHz ~ 108 MHz
<b>Antenna Type</b>	WWAN : MDA Antenna WLAN : MDA Antenna Bluetooth : MDA Antenna GNSS: MDA Antenna FM : External Handset Antenna
<b>Type of Modulation</b>	GSM: GMSK GPRS: GMSK EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK WCDMA : QPSK (Uplink) HSDPA/DC-HSDPA : QPSK (Uplink) HSUPA : QPSK (Uplink) HSPA+ : 16QAM (16QAM uplink is not supported) 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
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Note: GNSS Rx = GLONASS + GPS + Galileo

### 1.5. Modification of EUT

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

### 1.6. Test Location

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

<b>Test Firm</b>	Sporton International (Kunshan) Inc.		
<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 FAX : +86-512-57900958		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	CO01-KS 03CH02-KS	CN1257	314309

### 1.7. 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.

### 1.8. Test Software

Item	Site	Manufacture	Name	Version
1.	03CH02-KS	AUDIX	E3	6.2009-8-24a
2.	CO01-KS	AUDIX	E3	6.2009-8-24



### 1.9. Specification of Accessory

Specification of Accessory				
AC Adapter 1(US)	Brand Name	Motorola (Chenyang)	Model Name	SC-51
	Power Rating	I/P: 100-240 Vac, 600mA, O/P: 5/9/12Vdc, 3000/2000/1500mA		
AC Adapter 1(EU)	Brand Name	Motorola (Chenyang)	Model Name	SC-52
	Power Rating	I/P: 100-240 Vac, 600mA, O/P: 5/9/12Vdc, 3000/2000/1500mA		
AC Adapter 1(AU)	Brand Name	Motorola (Chenyang)	Model Name	SC-55
	Power Rating	I/P: 100-240 Vac, 600mA, O/P: 5/9/12Vdc, 3000/2000/1500mA		
AC Adapter 1(UK)	Brand Name	Motorola (Chenyang)	Model Name	SC-53
	Power Rating	I/P: 100-240 Vac, 600mA, O/P: 5/9/12Vdc, 3000/2000/1500mA		
AC Adapter 2(US)	Brand Name	Motorola (Acbel)	Model Name	SC-51
	Power Rating	I/P: 100-240 Vac, 600mA, O/P: 5/9/12Vdc, 3000/2000/1500mA		
AC Adapter 2(EU)	Brand Name	Motorola (Acbel)	Model Name	SC-52
	Power Rating	I/P: 100-240 Vac, 600mA, O/P: 5/9/12Vdc, 3000/2000/1500mA		
Battery	Brand Name	Motorola(Amperex)	Model Name	KZ50
	Power Rating	3.8Vdc, 5000mAh	Type	Li-ion polymer
Earphone	Brand Name	Motorola (New Leader)	Model Name	NLD-EM307K-01SF
	Signal Line Type	1.2 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 (BRL)	Model Name	711310002781
	Signal Line Type	1.0 meter, shielded cable, without ferrite core		



## 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).

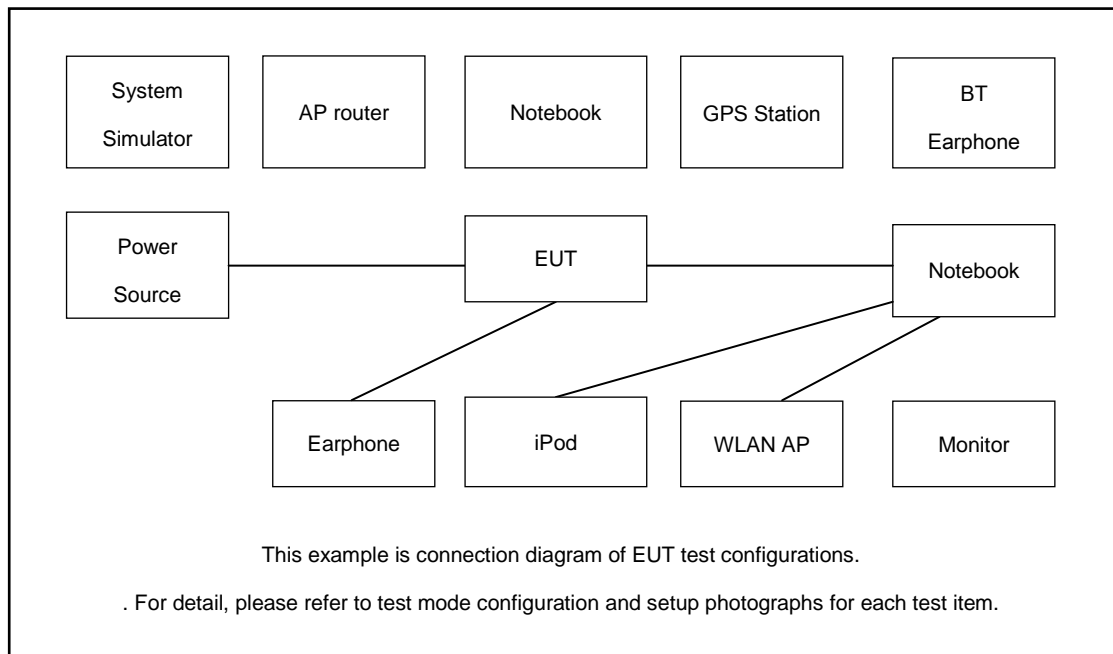
Test Items	Function Type
AC Conducted Emission	Mode 1: GSM 850 Rx(Middle) + BT Idle + Earphone + Camera(Rear) + WLAN Idle(2.4G) + USB Cable1(Charging from Adapter1) for Sample1
	Mode 2: WCDMA Band 1900 Rx + BT Idle + Earphone + Camera(Front) + WLAN Idle(2.4G) + USB Cable2(Charging from Adapter2) for Sample1
	Mode 3: LTE Band 5 Rx(Middle) + BT Idle + Earphone + MP4 + WLAN Idle(2.4G) + USB Cable3(Charging from Adapter2) for Sample1
	Mode 4: LTE Band 26 Rx(High) + BT Idle + Earphone + FM Rx( 98 ) + WLAN Idle(2.4G) + USB Cable2(Charging from Adapter 2) for Sample1
	Mode 5: LTE Band 2 Rx + BT Idle + Earphone + GNSS Rx + WLAN Idle(2.4G) + USB Cable1(Data Link with Notebook) for Sample1
	Mode 6: LTE Band 7 Rx + BT Idle + Earphone + GNSS Rx + WLAN Idle(2.4G) + USB Cable2(Data Link with Notebook) for Sample1
	Mode 7: LTE Band 38 Rx + BT Idle + Earphone + GNSS Rx + WLAN Idle(2.4G) + USB Cable3(Data Link with Notebook) for Sample1
Radiated Emissions	Mode 1: GSM 850 Rx(Middle) + BT Idle + WLAN Idle(2.4G) + Camera(Rear) + Earphone + USB Cable1(Charging from Adapter1) for Sample1
	Mode 2: WCDMA Band 1900 Rx + BT Idle + WLAN Idle(2.4G) + Camera(Front) + Earphone + USB Cable2(Charging from Adapter2) for Sample1
	Mode 3: LTE Band 5 Rx(Middle) + BT Idle + WLAN Idle(2.4G) + MPEG4 + Earphone + USB Cable3(Charging from Adapter2) for Sample1
	Mode 4: LTE Band 26 Rx(High) + BT Idle + WLAN Idle(2.4G) + FM Rx(88MHZ) + Earphone + USB Cable2(Charging from Adapter 2) for Sample1
	Mode 5: LTE Band 2 Rx + BT Idle + WLAN Idle(2.4G) + GNSS Rx + Earphone + USB Cable1(Data Link with Notebook) for Sample1
	Mode 6: LTE Band 7 Rx + BT Idle + WLAN Idle(2.4G) + GNSS Rx + Earphone + USB Cable2(Data Link with Notebook) for Sample1
	Mode 7: LTE Band 38 Rx + BT Idle + WLAN Idle(2.4G) + GNSS Rx + Earphone + USB Cable3(Data Link with Notebook) for Sample1
	Mode 8: LTE Band 26 Rx(High) + BT Idle + WLAN Idle(2.4G) + FM Rx( 88 ) + Earphone + USB Cable2(Charging from Adapter2) for Sample2



**Remark:**

1. The worst case of AC is mode 2; only the test data of this mode is reported.
2. The worst case of RE is mode 4; 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 GSM 850/WCDMA Band V/LTE Band 5/26 and FM Rx, 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	Anritsu	MT8820C	N/A	N/A	Unshielded,1.8m
2.	Base Station	R&S	CMU 200	N/A	N/A	Unshielded,1.8m
3.	Vector Signal Generator	R&S	SMBV100A	N/A	N/A	Unshielded,1.8m
4.	WLAN AP	D-Link	DIR-655	KA21R655B1	N/A	Unshielded,1.8m
5.	WLAN AP	TP-Link	TL-WDR5600	N/A	N/A	Unshielded,1.8m
6.	Bluetooth Earphone	Lenovo	LBH308	N/A	N/A	N/A
7.	Bluetooth Earphone	Xiaomi	LYEJ02LM	N/A	N/A	N/A
8.	Notebook	Lenovo	G480	QDS-BRCM1050I	N/A	shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m
9.	Notebook	Dell	Latitude3440	N/A	N/A	shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m
10.	Hard Disk	Lenovo	F310	DoC	Shielded, 1.2m	N/A
11.	SD Card	Kingston	8GB	N/A	N/A	N/A
12.	SD Card	SanDisk	Uitra	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 FM Function.
4. Turn on MPEG4 function.
5. Turn on GNSS function to make the EUT receive continuous signals from GNSS 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.

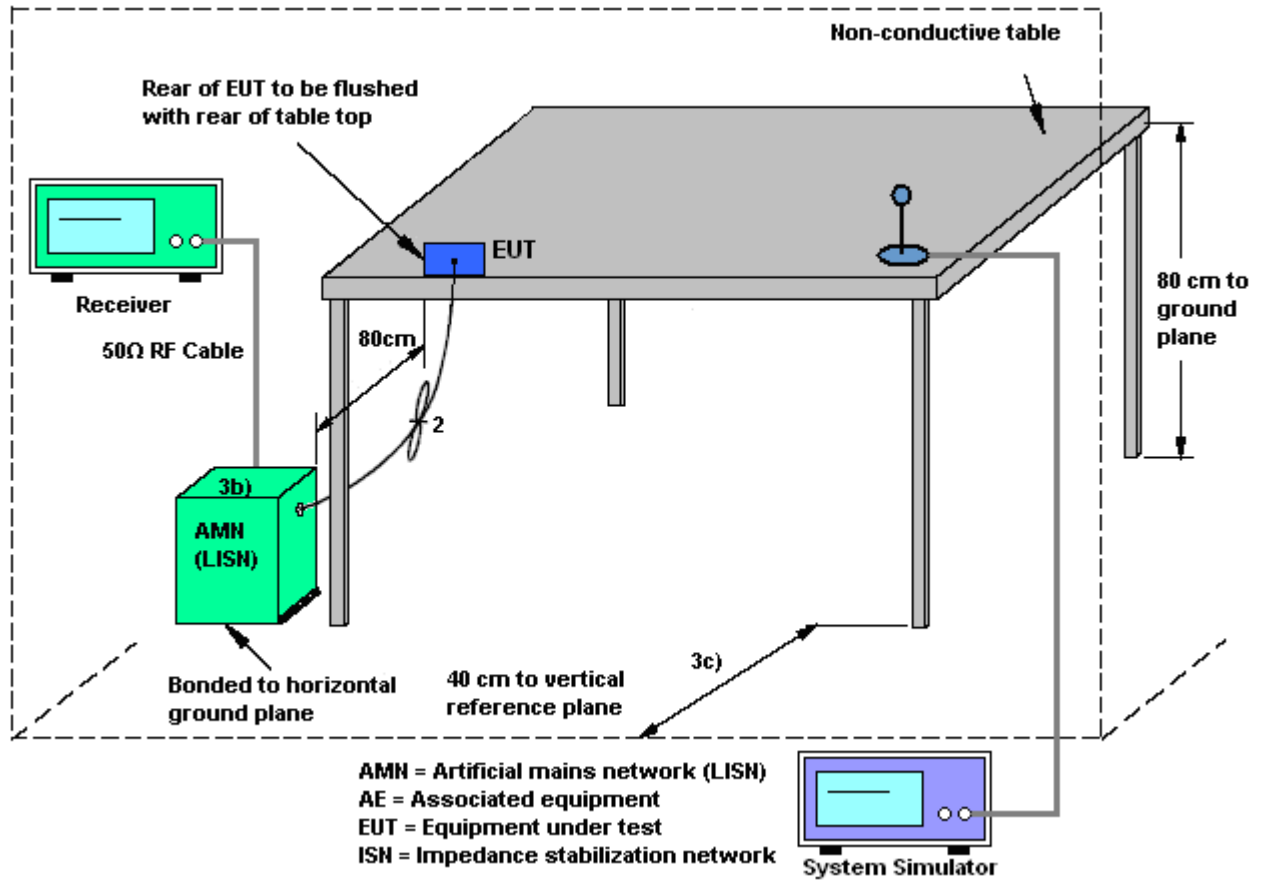
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedure

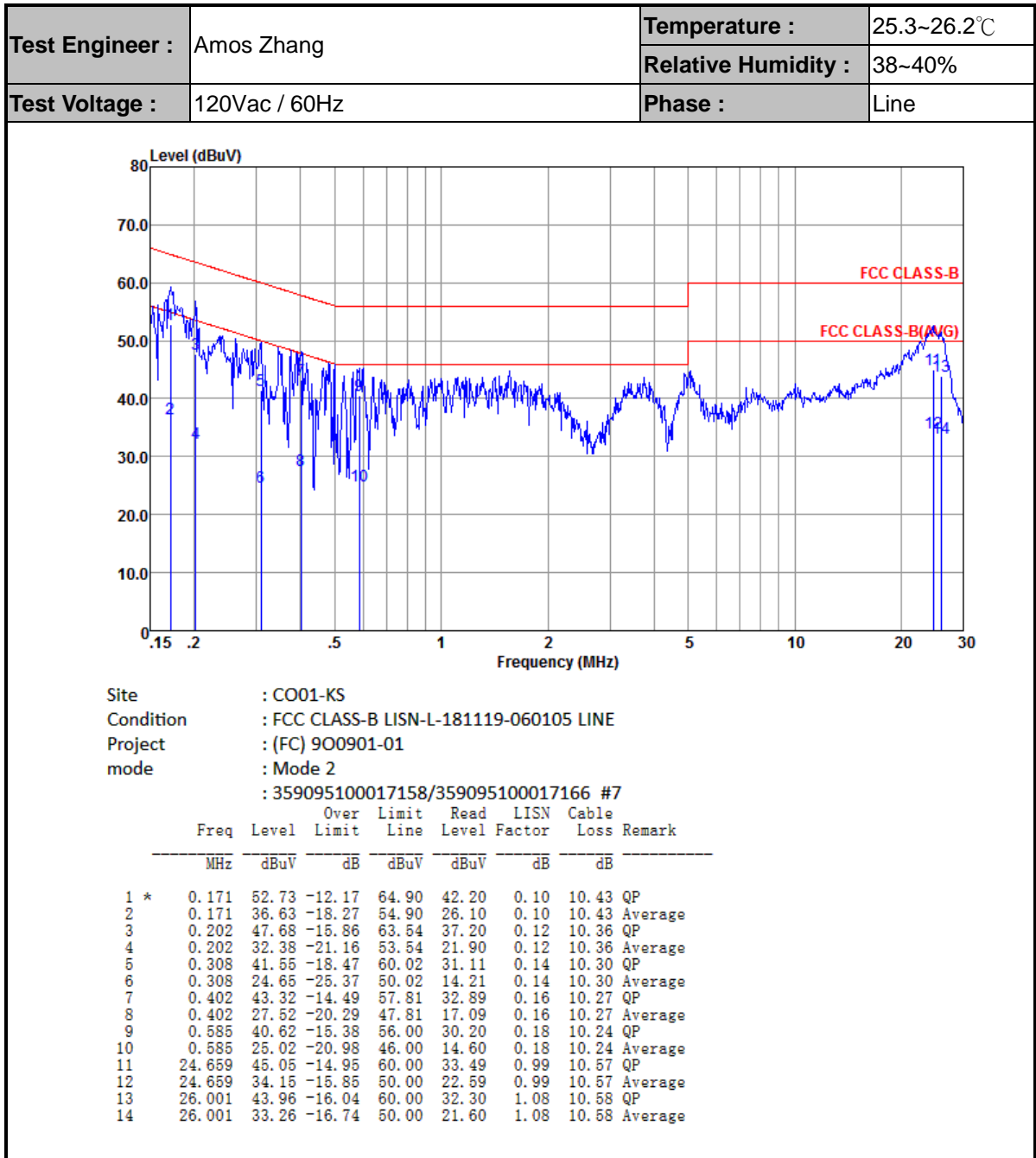
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.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



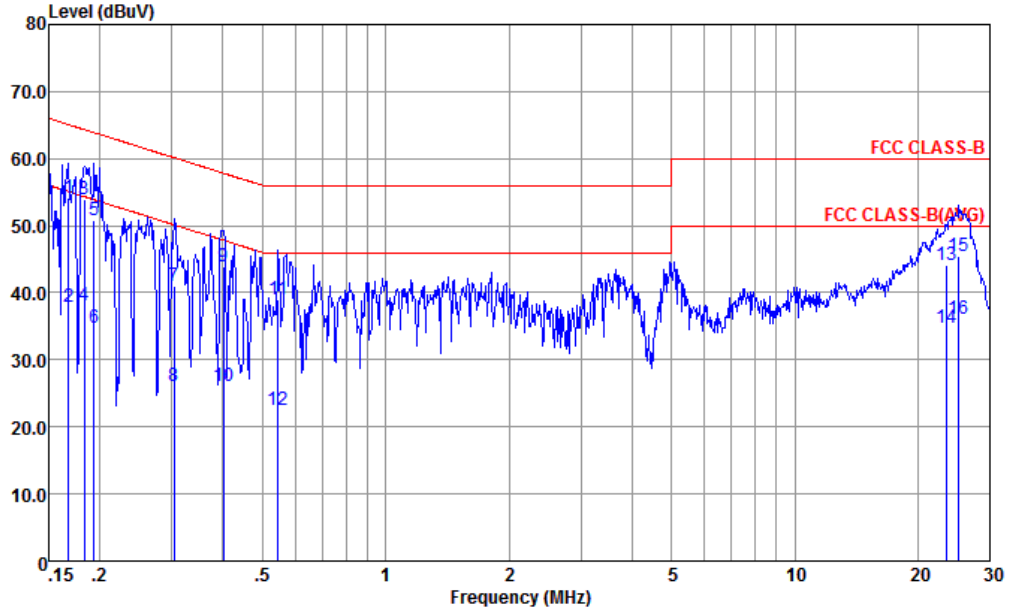


3.1.5 Test Result of AC Conducted Emission





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



Site : CO01-KS  
 Condition : FCC CLASS-B LISN-N-181119-060105 NEUTRAL  
 Project : (FC) 900901-01  
 mode : Mode 2  
 : 359095100017158/359095100017166 #7

Line	Freq MHz	Level dBuV	Over Limit dB	Limit Line dBuV	Read Level dBuV	LISN Factor dB	Cable Loss dB	Remark
1	0.168	54.11	-10.97	65.08	43.50	0.18	10.43	QP
2	0.168	37.81	-17.27	55.08	27.20	0.18	10.43	Average
3 *	0.183	53.87	-10.46	64.33	43.30	0.17	10.40	QP
4	0.183	38.07	-16.26	54.33	27.50	0.17	10.40	Average
5	0.193	50.75	-13.14	63.89	40.20	0.17	10.38	QP
6	0.193	34.85	-19.04	53.89	24.30	0.17	10.38	Average
7	0.303	40.97	-19.18	60.15	30.50	0.16	10.31	QP
8	0.303	25.97	-24.18	50.15	15.50	0.16	10.31	Average
9	0.402	43.92	-13.89	57.81	33.50	0.15	10.27	QP
10	0.402	26.02	-21.79	47.81	15.60	0.15	10.27	Average
11	0.546	38.98	-17.02	56.00	28.59	0.15	10.24	QP
12	0.546	22.58	-23.42	46.00	12.19	0.15	10.24	Average
13	23.511	44.04	-15.96	60.00	32.60	0.89	10.55	QP
14	23.511	34.74	-15.26	50.00	23.30	0.89	10.55	Average
15	25.188	45.37	-14.63	60.00	33.60	1.20	10.57	QP
16	25.188	36.07	-13.93	50.00	24.30	1.20	10.57	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.

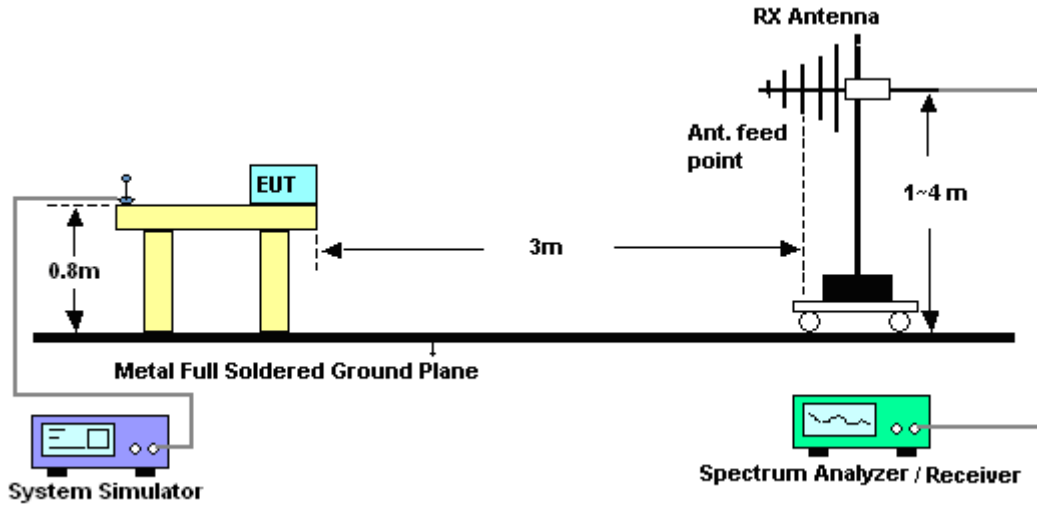


### **3.2.3. Test Procedures**

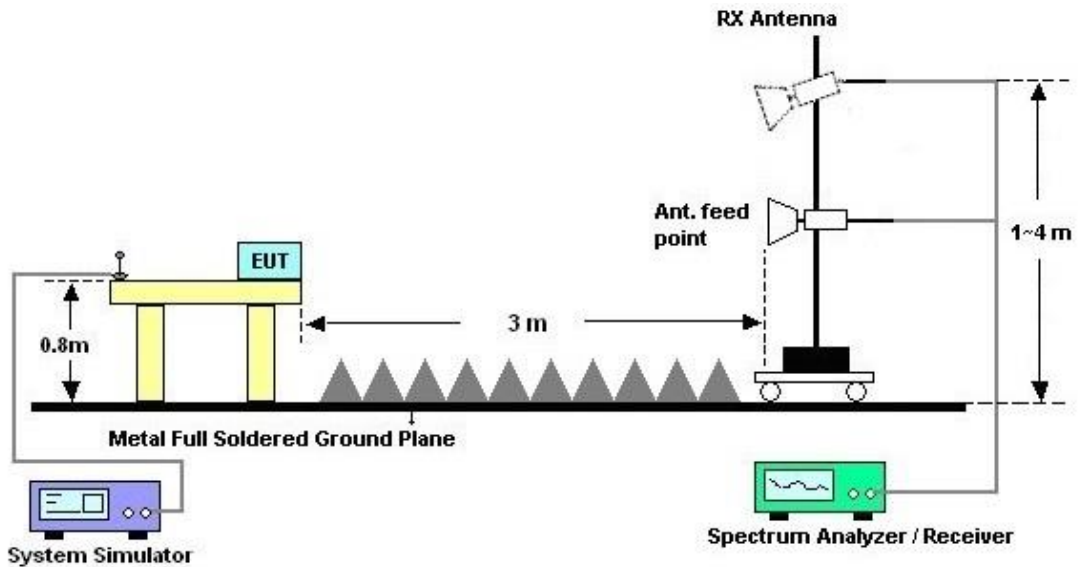
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna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

### 3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



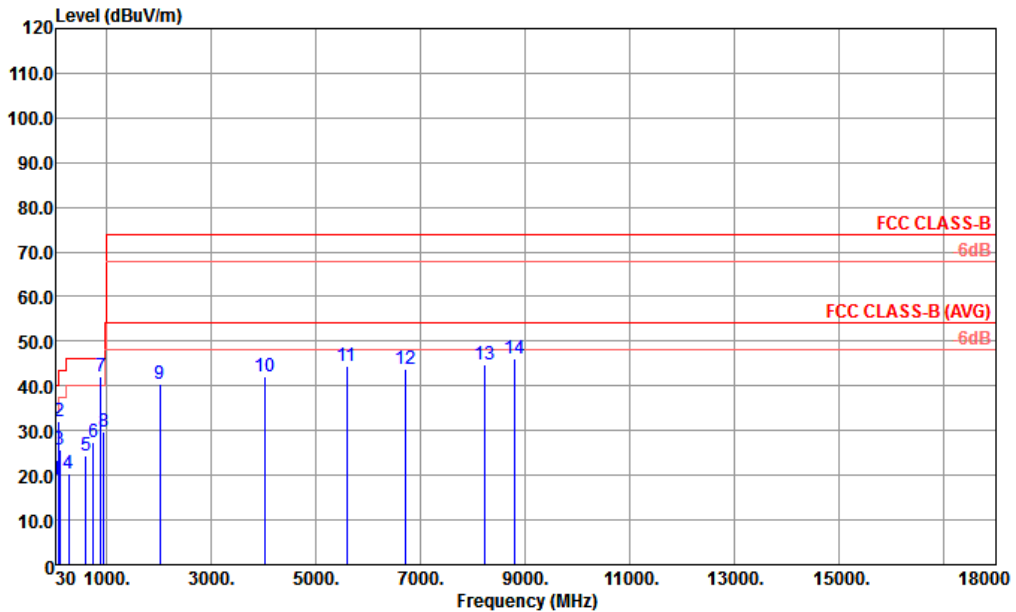
For radiated emissions above 1GHz





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 :	#2 is Base station (FM option) signal which can be ignored. #7 is system simulator signal which can be ignored.		

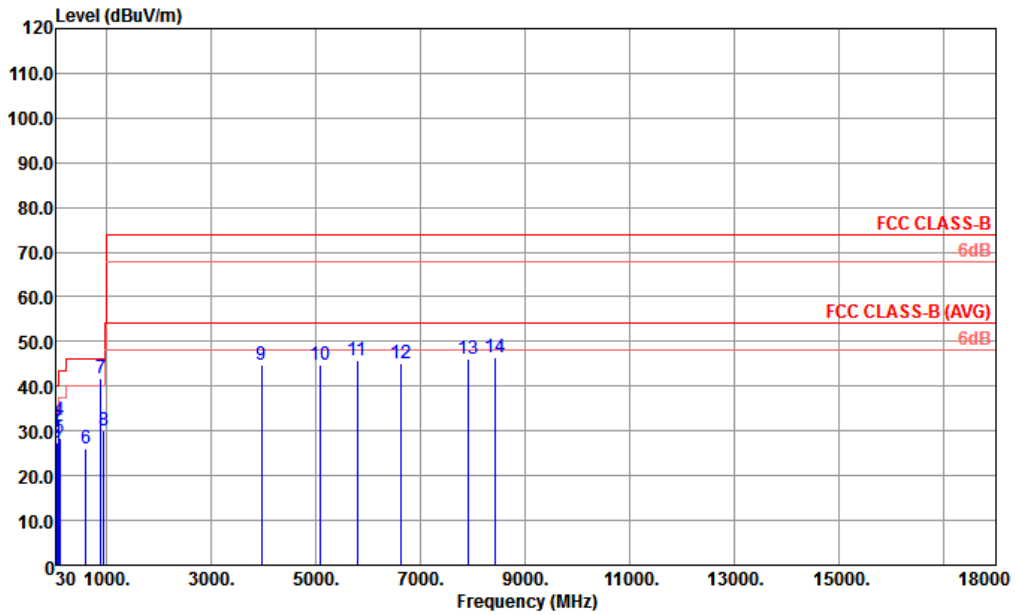


Site : 03CH02-KS  
 Condition : FCC CLASS-B 3m LF 49922-3M HORIZONTAL  
 Project : (FC)900901-01  
 Mode : 4  
 IMEI : 359095100014411 359095100014429 #10

	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	36.790	18.96	-21.04	40.00	29.06	21.14	0.72	31.96	---	---	Peak
2	88.200	32.02			48.09	14.76	1.09	31.92	---	---	Peak
3	102.750	25.89	-17.61	43.50	40.39	16.26	1.17	31.93	---	---	Peak
4	273.470	20.37	-25.63	46.00	31.49	18.98	1.92	32.02	---	---	Peak
5	614.910	24.51	-21.49	46.00	27.95	26.18	2.78	32.40	---	---	Peak
6	757.500	27.34	-18.66	46.00	27.96	28.45	3.16	32.23	---	---	Peak
7 !	888.450	42.22			41.11	29.22	3.43	31.54	---	---	Peak
8	952.470	29.68	-16.32	46.00	26.21	30.88	3.55	30.96	100	0	Peak
9	2016.000	40.45	-33.55	74.00	37.50	30.92	5.13	33.10	---	---	Peak
10	4024.000	42.11	-31.89	74.00	32.83	33.73	7.51	31.96	---	---	Peak
11	5600.000	44.48	-29.52	74.00	31.88	34.66	8.94	31.00	---	---	Peak
12	6728.000	43.86	-30.14	74.00	30.34	35.30	9.81	31.59	---	---	Peak
13	8240.000	44.66	-29.34	74.00	29.31	36.29	11.06	32.00	---	---	Peak
14	8808.000	46.14	-27.86	74.00	29.89	36.32	11.58	31.65	---	---	Peak



Test Engineer :	Jack Guo	Temperature :	21~22°C
		Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Remark :	#4 is Base station (FM option) signal which can be ignored. #7 is system simulator signal which can be ignored.		



Site : 03CH02-KS  
 Condition : FCC CLASS-B 3m LF 49922-3M VERTICAL  
 Project : (FC)900901-01  
 Mode : 4  
 IMEI : 359095100014411 359095100014429 #10

	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.000	29.69	-10.31	40.00	39.43	21.60	0.64	31.98	---	---	Peak
2	38.730	30.63	-9.37	40.00	41.70	20.18	0.71	31.96	100	0	Peak
3	47.460	27.42	-12.58	40.00	42.65	15.90	0.81	31.94	---	---	Peak
4	88.200	32.55			48.62	14.76	1.09	31.92	---	---	Peak
5	110.510	28.46	-15.04	43.50	42.76	16.41	1.22	31.93	---	---	Peak
6	604.240	25.93	-20.07	46.00	29.55	26.05	2.74	32.41	---	---	Peak
7 !	888.450	41.75			40.64	29.22	3.43	31.54	---	---	Peak
8	954.410	29.97	-16.03	46.00	26.50	30.86	3.55	30.94	---	---	Peak
9	3968.000	44.69	-29.31	74.00	35.49	33.70	7.47	31.97	---	---	Peak
10	5080.000	44.70	-29.30	74.00	33.46	33.99	8.45	31.20	---	---	Peak
11	5792.000	45.78	-28.22	74.00	33.28	34.84	8.98	31.32	---	---	Peak
12	6624.000	45.14	-28.86	74.00	31.79	35.27	9.71	31.63	---	---	Peak
13	7928.000	46.12	-27.88	74.00	31.11	36.11	10.94	32.04	---	---	Peak
14	8440.000	46.59	-27.41	74.00	30.95	36.46	11.14	31.96	---	---	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 Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max 30dBm	Aug. 06, 2019	Oct. 18, 2019	Aug. 05, 2020	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz-44G,MAX 30dB	Apr. 15, 2019	Oct. 18, 2019	Apr. 16, 2020	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	May 30, 2019	Oct. 18, 2019	May 29, 2020	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75959	1GHz~18GHz	Jan. 27, 2019	Oct. 18, 2019	Jan. 26, 2020	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Aug. 06, 2019	Oct. 18, 2019	Aug. 05, 2020	Radiation (03CH02-KS)
Amplifier	Keysight	83017A	MY57280106	500MHz~26.5GHz	Apr. 15, 2019	Oct. 18, 2019	Apr. 14, 2020	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Oct. 18, 2019	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Oct. 18, 2019	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Oct. 18, 2019	NCR	Radiation (03CH02-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 16, 2019	Nov. 01, 2019	Apr. 15, 2020	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 11, 2019	Nov. 01, 2019	Oct. 10, 2020	Conduction (CO01-KS)
AC LISN (for auxiliary)	MessTec	AN3016	060105	9kHz~30MHz	Nov. 19, 2018	Nov. 01, 2019	Nov. 18, 2019	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 11, 2019	Nov. 01, 2019	Oct. 10, 2020	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
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.9dB
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### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

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