FCC Test Report

APPLICANT	:	Motorola Mobility LLC
EQUIPMENT	:	Mobile Cellular Phone
BRAND NAME	:	Motorola
MODEL NAME	:	XT1922-6, XT1922-7, XT1922-9
FCC ID	:	IHDT56XB1
STANDARD	:	FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION	:	Certification

The product was received on Mar. 20, 2018 and testing was completed on Mar. 31, 2018. We, Sporton International (Shenzhen) 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 (Shenzhen) Inc., the test report shall not be reproduced except in full.

Eric Shih

Approved by: Eric Shih / Manager

TESTING
NVLAP LAB CODE 600156-0

Sporton International (Shenzhen) Inc.
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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC832002	Rev. 01	Initial issue of report	May 31, 2018

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 14.30 dB at 0.590 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 5.07 dB at 32.910 MHz for Quasi-Peak

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	XT1922-6, XT1922-7, XT1922-9
FCC ID	IHDT56XB1
EUT supports Radios application	CDMA/EV-DO/GSM/GPRS/EGPRS/WCDMA/HSPA/ DC-HSDPA/HSPA+(16QAM uplink is not supported)/LTE WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 Bluetooth v3.0 + EDR/Bluetooth v4.0 LE Bluetooth v4.1 LE / Bluetooth v4.2 LE
IMEI Code	Conduction: 351864090042841 Radiation: 351864090042718
HW Version	DVT2
SW Version	jeter_oem_userdebug_8.0.0_OPP27.34_970_intcfg-test-keys_oem
EUT Stage	Identical Prototype

Remark:

1. For XT1922-6, XT1922-7, XT1922-9, they are the same product except model name different for market segment.
2. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
3. This is a variant report for XT1922-6, XT1922-7, XT1922-9. The product equality declaration could be referred to Appendix B. According to the difference, only the test cases from original test report (Sporton Report Number FC7D1310) were verified for the differences.

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 14: 790.5 MHz ~ 795.5 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 30 : 2307.5 MHz ~ 2312.5 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: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500MHz ~ 5700 MHz ; 5745 MHz ~ 5825 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 12 : 729.7 MHz ~ 745.3 MHz LTE Band 13 : 748.5 MHz ~ 753.5 MHz LTE Band 14: 760.5 MHz ~ 765.5 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 29 : 718.5 MHz ~ 726.5 MHz LTE Band 30 : 2352.5 MHz ~ 2357.5 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: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz;

	5500MHz ~ 5700 MHz ; 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz GNSS : 1559 MHz ~ 1610 MHz FM : 88 MHz ~ 108 MHz
Antenna Type	WWAN : PIFA Antenna WLAN : IFA Antenna Bluetooth : IFA Antenna GNSS: IFA Antenna FM: External headset 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 : QPSK CDMA2000 1xEV-DO : QPSK/8PSK 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : π/4-DQPSK Bluetooth (3Mbps) : 8-DPSK GNSS : BPSK FM

Note:

1. WLAN operation in 5600 MHz ~ 5650 MHz is notched.
2. GNSS Rx = GPS Rx + Glonass Rx

1.5. Specification of Accessory

Specification of Accessory				
AC Adapter 1	**Brand Name**	Motorola (Acbel)	**Model Name**	C-P35 SPN5945A
	Power Rating	I/P: 100-240 Vac, 300mA, O/P: 5.2Vdc,2000mA		
AC Adapter 2	**Brand Name**	Motorola (Salom)	**Model Name**	SSW-2919UMTJ C-P35 SPN5945A
	Power Rating	I/P: 100-240 Vac, 300mA, O/P: 5.2Vdc,2000mA		
Battery(sample 1/3)	**Brand Name**	Lenovo (SCUD)	**Model Name**	BL270
	Power Rating	3.85/4.4Vdc,4000mAh	**Type**	Li-ion
Battery(sample 2/4)	**Brand Name**	Lenovo (ATL)	**Model Name**	BL270
	Power Rating	3.85/4.4Vdc,4000mAh	**Type**	Li-ion
USB Cable 1	**Brand Name**	Motorola (Saibao)	**Model Name**	SLQ-A077A
	Signal Line Type	1.0 meter, shielded cable, without ferrite core		
USB Cable 2	**Brand Name**	Motorola (Saibao)	**Model Name**	SLQ-A077A
	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 (Shenzhen) Inc. is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600156-0) and the FCC designation No are CN5018 and CN5019.

Test Site	Sporton International (Shenzhen) Inc.	
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan Shenzhen City Guangdong Province 518055 China TEL: +86-755-8637-9589 FAX: +86-755-8637-9595	
Test Site No.	**Sporton Site No.**	**FCC Test Firm Registration No.**
	CO01-SZ	251365

Test Site	Sporton International (Shenzhen) Inc.	
Test Site Location	No. 3 Bldg the third floor of south, Shahe River west, Fengzeyuan Warehouse, Nanshan District Shenzhen City Guangdong Province 518055 China TEL: +86-755-3320-2398	
Test Site No.	**Sporton Site No.**	**FCC Test Firm Registration No.**
	03CH01-SZ	577730

Note: The test site complies with ANSI C63.4 2014 requirement.

1.8. 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
- 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 (150 kHz to 30 MHz), radiation (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

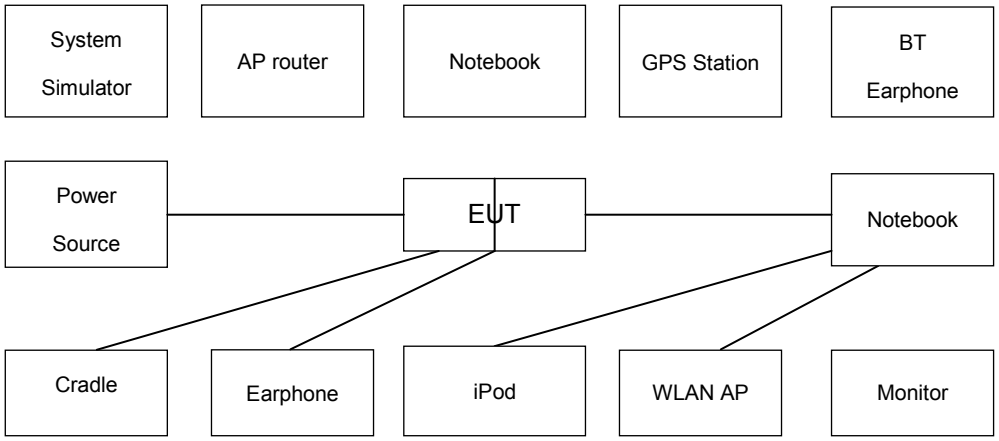
Test Items	Function Type
AC Conducted Emission	Mode 1: WCDMA Band II Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2(Charging from Adapter 2) + Earphone + Battery + SD card load + Camera(Front) for Sample 1 Mode 2: WCDMA Band II Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2(Charging from Adapter 2) + Earphone + Battery + SD card load + Camera(Front) for Sample 2 Mode 3: USB Cable 2(Charging from Adapter 2) + FM Rx (108MHz) + Earphone + Battery + SD card load for Sample 1 Mode 4: USB Cable 2(Charging from Adapter 2) + FM Rx (108MHz) + Earphone + Battery + SD card load for Sample 2 Mode 5: GSM850 Idle + WLAN Idle + EUT (SD) USB Cable 2 Data Link to NB + Earphone + Battery + SD card + GNSS Rx for Sample 1 Mode 6: GSM850 Idle + WLAN Idle + EUT (SD) USB Cable 2 Data Link to NB + Earphone + Battery + SD card + GNSS Rx for Sample 2 Mode 7: GSM850 Idle + WLAN Idle + EUT (SD) USB Cable 2 Data Link to NB + Earphone + Battery + SD card + GNSS Rx for Sample 3 Mode 8: GSM850 Idle + WLAN Idle + EUT (SD) USB Cable 2 Data Link to NB + Earphone + Battery + SD card + GNSS Rx for Sample 4
Radiated Emissions < 1GHz	Mode 1: WCDMA Band II Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2(Charging from Adapter 1) + Earphone + Battery + SD card load + Camera(Front) for Sample 1 Mode 2: WCDMA Band II Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2(Charging from Adapter 1) + Earphone + Battery + SD card load + Camera(Front) for Sample 2 Mode 3: USB Cable 2(Charging from Adapter 1) + FM Rx (98MHz) + Earphone + Battery + SD card load for Sample 1 Mode 4: USB Cable 2(Charging from Adapter 1) + FM Rx (98MHz) + Earphone + Battery + SD card load for Sample 2 Mode 5: GSM850 Idle + WLAN Idle + EUT (eMMC) USB Cable 2 Data Link to NB + Earphone + Battery + SD card + GNSS Rx for Sample 1 Mode 6: GSM850 Idle + WLAN Idle + EUT (eMMC) USB Cable 2 Data Link to NB + Earphone + Battery + SD card + GNSS Rx for Sample 2 Mode 7: GSM850 Idle + WLAN Idle + EUT (eMMC) USB Cable 2 Data Link to NB + Earphone + Battery + SD card + GNSS Rx for Sample 3 Mode 8: GSM850 Idle + WLAN Idle + EUT (eMMC) USB Cable 2 Data Link to NB + Earphone + Battery + SD card + GNSS Rx for Sample 4

Radiated Emissions ≥ 1GHz	Mode 1 : WCDMA Band II Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2(Charging from Adapter 1) + Earphone + Battery + SD card load + Camera(Front) for Sample 2

Remark:

1. The worst case of AC is mode 4; only the test data of this mode is reported.
2. The worst case of RE < 1G is mode 2; only the test data of this mode is reported.
3. Data Link with Notebook means data application transferred mode between EUT and Notebook.

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	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	FM Generator	R&S	SMBV100A	N/A	N/A	Unshielded, 1.8 m
3.	GNSS Station	T&E	GS-50	N/A	N/A	Unshielded,1.8m
4.	GNSS Station	RACELOGIC	18645	N/A	N/A	Unshielded,1.8m
5.	WLAN AP	D-Link	DIR-820L	KA2IR820LA1	N/A	Unshielded,1.8m
6.	WLAN AP	D-Link	DIR-815	KA2IR815A1	N/A	Unshielded,1.8m
7.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,1.8m
8.	Bluetooth Earphone	Samsung	EO-MG900	PYAHS-107W	N/A	N/A
9.	Bluetooth Earphone	Samsung	HS3000	A3LHS3000	N/A	N/A
10.	Notebook	Lenovo	E540	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
11.	SD Card	Kingston	SDC4/16GB 122	FCC DoC	N/A	N/A
12.	SD Card	Samsung	MicroSD HC	FCC DoC	N/A	N/A
13.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A
14.	Earphone	Apple	MC690ZP/A	N/A	Shielded, 1.0m	N/A
15.	Earphone	Moto	Ashley ROW	N/A	Unshielded,1.2m	N/A
16.	iPod	Apple	MC525 ZP/A	DoC	Shielded, 1.0m	N/A
17.	iPod nano 8GB	Apple	MC690ZP/A	FCC DoC	Shielded, 1.2m	N/A

2.4. EUT Operation Test Setup

The EUT was in GSM or WCDMA 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 GNSS function to make the EUT receive continuous signals from GNSS station.
3. Turn on camera to capture images.
4. The EUT was turned to Radio frequency channels, FM88 MHz, FM98 MHz and FM108 MHz, from FM Generator.

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.

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.

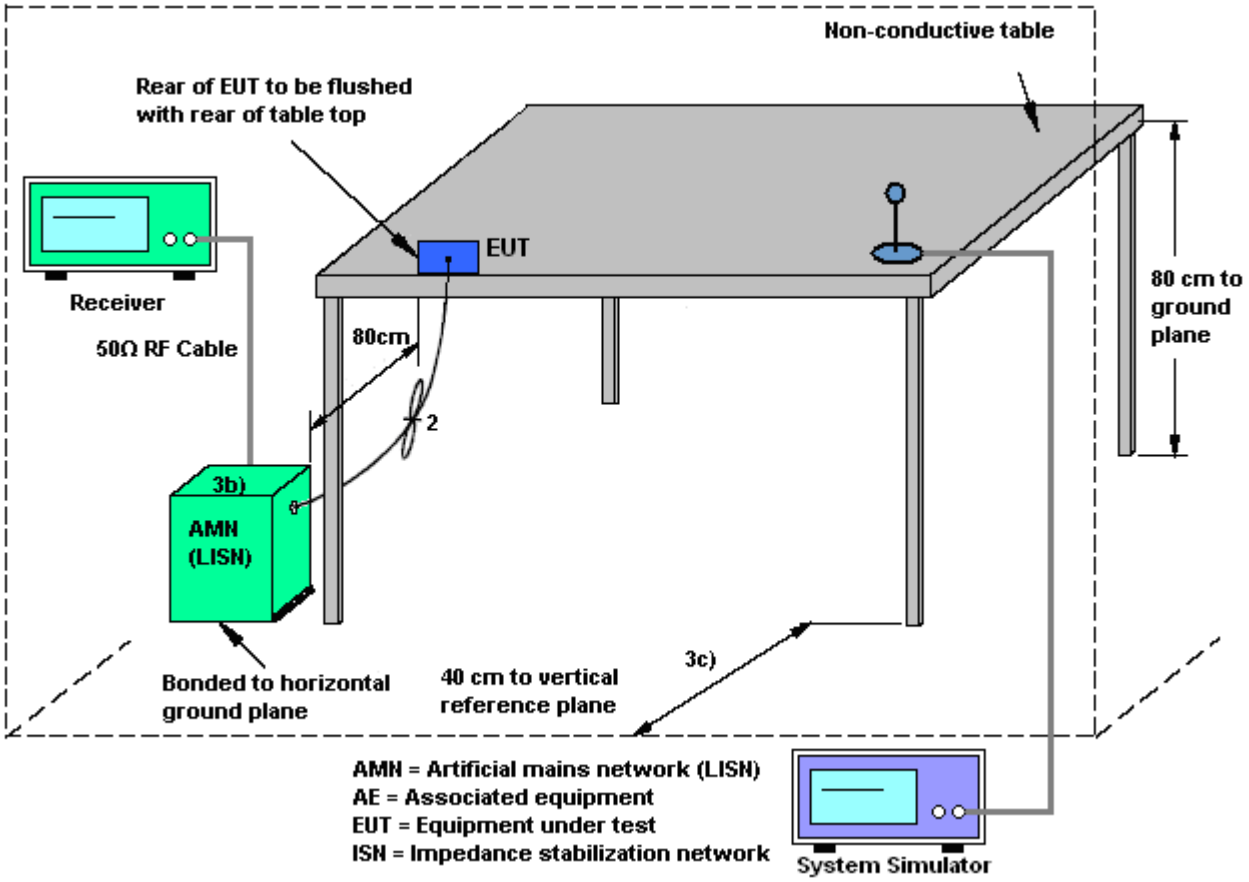
3.1.2 Measuring Instruments

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

3.1.3 Test Procedure

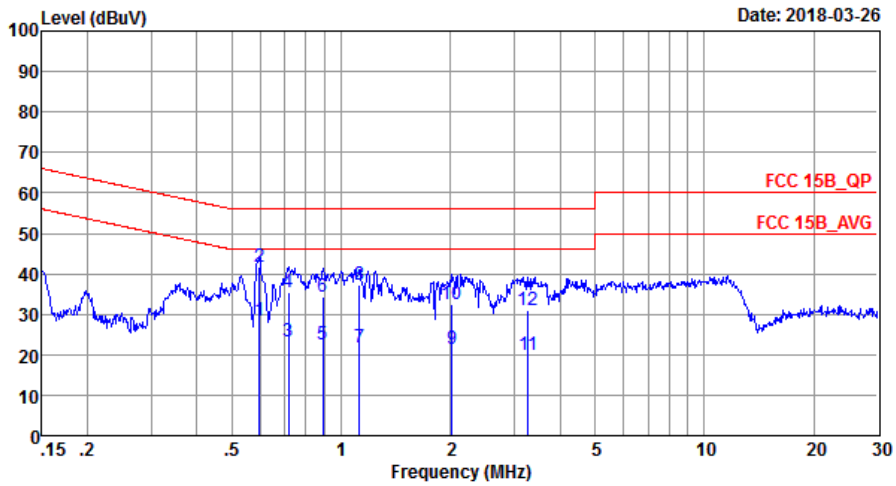
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
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 Mode :	Mode 4	**Temperature :**	23~25℃
Test Engineer :	Lion Gao	**Relative Humidity :**	50~52%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	USB Cable 2(Charging from Adapter 2) + FM Rx (108MHz) + Earphone + Battery + SD card load for Sample 2		

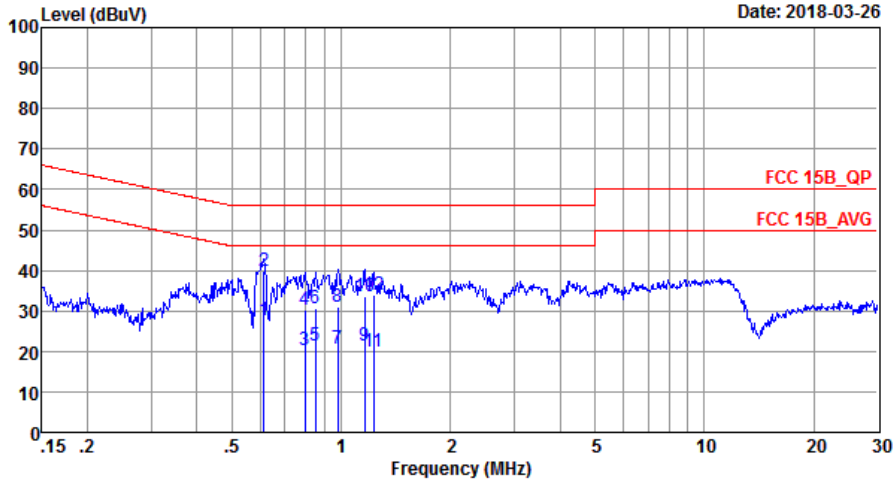


Site : CO01-SZ
Condition: FCC 15B_QP LISN_20170907_L LINE

IMEI : 351864090042841

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.59	28.40	-17.60	46.00	18.30	0.02	10.08	Average
2	*	0.59	41.70	-14.30	56.00	31.60	0.02	10.08	QP
3		0.72	23.30	-22.70	46.00	13.20	0.02	10.08	Average
4		0.72	35.50	-20.50	56.00	25.40	0.02	10.08	QP
5		0.89	22.64	-23.36	46.00	12.50	0.05	10.09	Average
6		0.89	34.14	-21.86	56.00	24.00	0.05	10.09	QP
7		1.12	21.67	-24.33	46.00	11.50	0.08	10.09	Average
8		1.12	37.17	-18.83	56.00	27.00	0.08	10.09	QP
9		2.02	21.22	-24.78	46.00	11.00	0.11	10.11	Average
10		2.02	32.42	-23.58	56.00	22.20	0.11	10.11	QP
11		3.28	19.81	-26.19	46.00	9.49	0.17	10.15	Average
12		3.28	31.11	-24.89	56.00	20.79	0.17	10.15	QP

Test Mode :	Mode 4	**Temperature :**	23~25℃
Test Engineer :	Lion Gao	**Relative Humidity :**	50~52%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Function Type :	USB Cable 2(Charging from Adapter 2) + FM Rx (108MHz) + Earphone + Battery + SD card load for Sample 2		



Site : CO01-SZ
Condition: FCC 15B_QP LISN_20170907_N NEUTRAL

IMEI : 351864090042841

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.61	27.50	-18.50	46.00	17.40	0.02	10.08	Average
2	*	0.61	39.80	-16.20	56.00	29.70	0.02	10.08	QP
3		0.80	20.41	-25.59	46.00	10.30	0.03	10.08	Average
4		0.80	30.11	-25.89	56.00	20.00	0.03	10.08	QP
5		0.85	21.42	-24.58	46.00	11.29	0.04	10.09	Average
6		0.85	30.72	-25.28	56.00	20.59	0.04	10.09	QP
7		0.98	20.84	-25.16	46.00	10.70	0.05	10.09	Average
8		0.98	31.14	-24.86	56.00	21.00	0.05	10.09	QP
9		1.16	21.54	-24.46	46.00	11.40	0.05	10.09	Average
10		1.16	33.74	-22.26	56.00	23.60	0.05	10.09	QP
11		1.23	19.74	-26.26	46.00	9.60	0.05	10.09	Average
12		1.23	33.94	-22.06	56.00	23.80	0.05	10.09	QP

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:

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

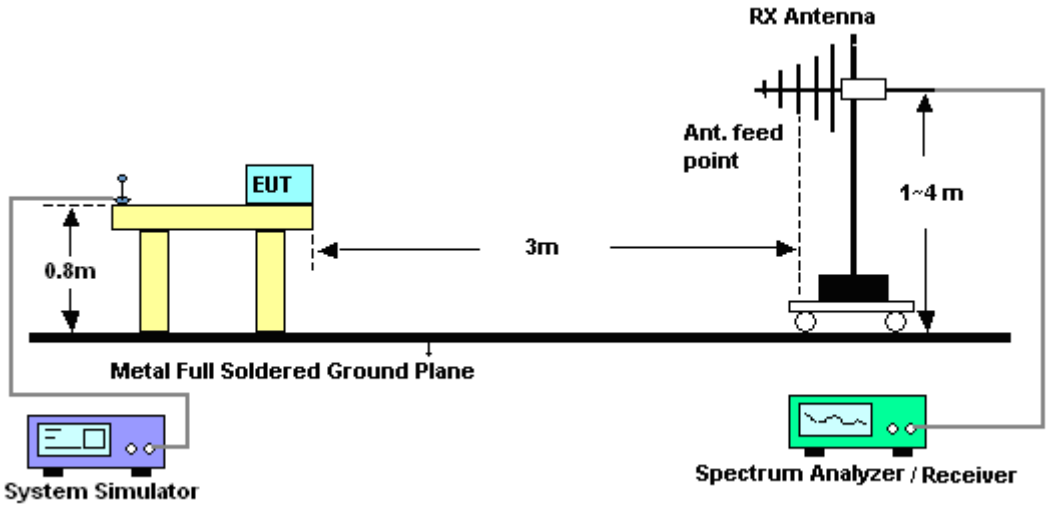
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

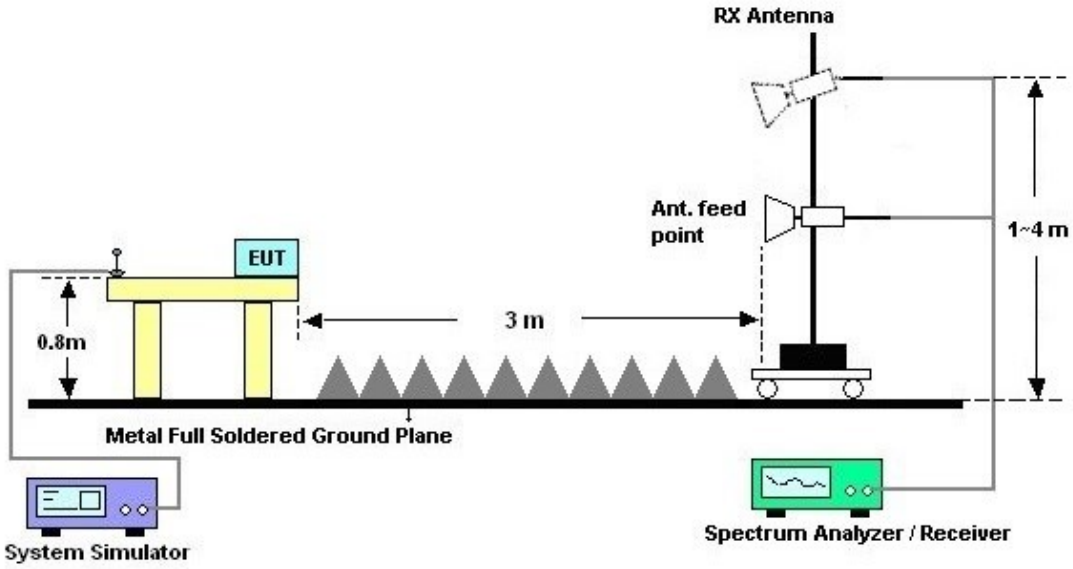
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna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

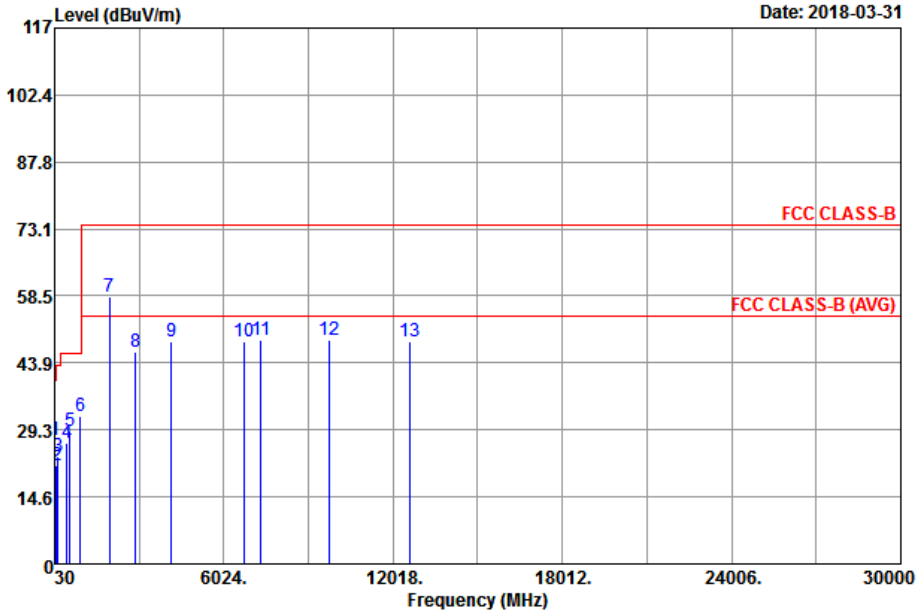


For radiated emissions above 1GHz



3.2.5. Test Result of Radiated Emission

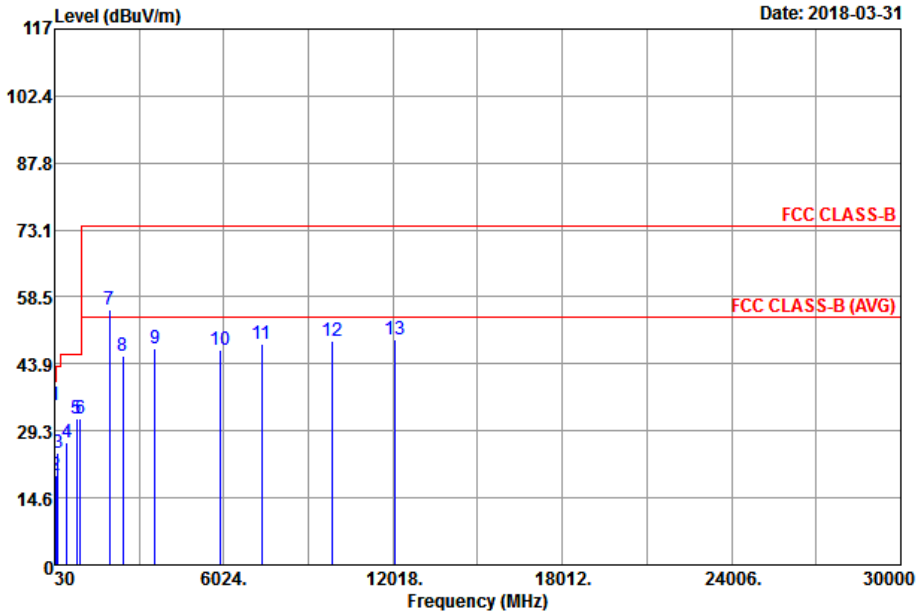
Test Mode :	Mode 2	**Temperature :**	24~25℃
Test Engineer :	Maker Qi	**Relative Humidity :**	48~49%
Test Distance :	3m	**Polarization :**	Horizontal
Function Type :	WCDMA Band II Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2(Charging from Adapter 1) + Earphone + Battery + SD card load + Camera(Front) for Sample 2		
Remark :	#7 is system simulator signal which can be ignored.		



Site : 03CH01-SZ
Condition : FCC CLASS-B 3m LF_CBL6112D-37879 HORIZONTAL

	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	34.85	27.09	-12.91	40.00	32.47	25.90	0.32	31.60	100	0	Peak
2	100.81	21.44	-22.06	43.50	33.57	18.51	0.86	31.50	---	---	Peak
3	156.10	23.32	-20.18	43.50	34.94	18.41	1.35	31.38	---	---	Peak
4	457.77	26.26	-19.74	46.00	29.72	25.05	2.59	31.10	---	---	Peak
5	581.93	28.90	-17.10	46.00	32.12	25.03	2.95	31.20	---	---	Peak
6	940.83	32.30	-13.70	46.00	30.11	29.57	3.92	31.30	---	---	Peak
7	1960.00	58.41			79.85	30.87	6.03	58.34	---	---	Peak
8	2902.00	46.43	-27.57	74.00	63.14	32.35	8.34	57.40	---	---	Peak
9	4166.00	48.53	-25.47	74.00	64.03	33.50	10.31	59.31	---	---	Peak
10	6728.00	48.54	-25.46	74.00	56.25	34.99	15.74	58.44	---	---	Peak
11	7348.00	48.88	-25.12	74.00	57.97	35.52	13.21	57.82	100	0	Peak
12	9782.00	48.82	-25.18	74.00	54.05	36.63	13.65	55.51	---	---	Peak
13	12584.00	48.66	-25.34	74.00	51.58	38.62	15.08	56.62	---	---	Peak

Test Mode :	Mode 2	**Temperature :**	24~25°C
Test Engineer :	Maker Qi	**Relative Humidity :**	48~49%
Test Distance :	3m	**Polarization :**	Vertical
Function Type :	WCDMA Band II Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2(Charging from Adapter 1) + Earphone + Battery + SD card load + Camera(Front) for Sample 2		
Remark :	#7 is system simulator signal which can be ignored.		



Site : 03CH01-SZ
Condition : FCC CLASS-B 3m LF_CBL6112D-37879 VERTICAL

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	32.91	34.93	-5.07	40.00	40.03	26.22	0.28	31.60	100	197	QP
2	81.41	19.50	-20.50	40.00	33.52	16.76	0.72	31.50	---	---	Peak
3	150.28	24.33	-19.17	43.50	35.83	18.60	1.30	31.40	---	---	Peak
4	455.83	26.70	-19.30	46.00	30.09	25.12	2.59	31.10	---	---	Peak
5	798.24	31.84	-14.16	46.00	30.47	29.07	3.60	31.30	---	---	Peak
6	950.53	31.94	-14.06	46.00	29.48	29.81	3.95	31.30	---	---	Peak
7	1960.00	55.65			77.09	30.87	6.03	58.34	---	---	Peak
8	2436.00	45.72	-28.28	74.00	65.10	31.64	6.86	57.88	---	---	Peak
9	3588.00	47.30	-26.70	74.00	62.17	34.17	9.61	58.65	---	---	Peak
10	5880.00	47.07	-26.93	74.00	56.97	34.41	12.97	57.28	---	---	Peak
11	7370.00	48.22	-25.78	74.00	57.14	35.58	13.21	57.71	---	---	Peak
12	9880.00	48.96	-25.04	74.00	53.77	36.70	14.08	55.59	---	---	Peak
13	12070.00	49.32	-24.68	74.00	50.64	38.51	15.01	54.84	100	0	Peak

4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Receiver	R&S	ESR7	101630	9kHz~7GHz;	Dec. 26, 2017	Mar. 26, 2018	Dec. 25, 2018	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	00103912	9kHz~30MHz	Dec. 26, 2017	Mar. 26, 2018	Dec. 25, 2018	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	MessTec	3816/2SH	00103892	9kHz~30MHz	Nov. 01, 2017	Mar. 26, 2018	Oct. 31, 2018	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Jul. 19, 2017	Mar. 26, 2018	Jul. 18, 2018	Conduction (CO01-SZ)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Apr. 20, 2017	Mar. 31, 2018	Apr. 19, 2018	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270104	0.5GHz~26.5Ghz	Oct. 19, 2017	Mar. 31, 2018	Oct. 18, 2018	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	May 10, 2017	Mar. 31, 2018	May 09, 2018	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	119436	1GHz~18GHz	Jul. 28, 2017	Mar. 31, 2018	Jul. 27, 2018	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 20, 2017	Mar. 31, 2018	Apr. 19, 2018	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1707137	1GHz~18GHz	Oct. 19, 2017	Mar. 31, 2018	Oct. 18, 2018	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 18, 2017	Mar. 31, 2018	Jul. 17, 2018	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Jun. 16, 2017	Mar. 31, 2018	Jun. 15, 2018	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Mar. 31, 2018	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Mar. 31, 2018	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Mar. 31, 2018	NCR	Radiation (03CH01-SZ)

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))	2.6dB

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

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

Uncertainty of Radiated Emission Measurement (1GHz ~ 18GHz)

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

Uncertainty of Radiated Emission Measurement (18GHz ~ 40GHz)

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

Appendix B. Product Equality Declaration

Motorola Mobility LLC.

222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

Product Equality Declaration

We, Motorola Mobility LLC. declare on our sole responsibility for the product of XT1922-6/XT1922-7/XT1922-9.

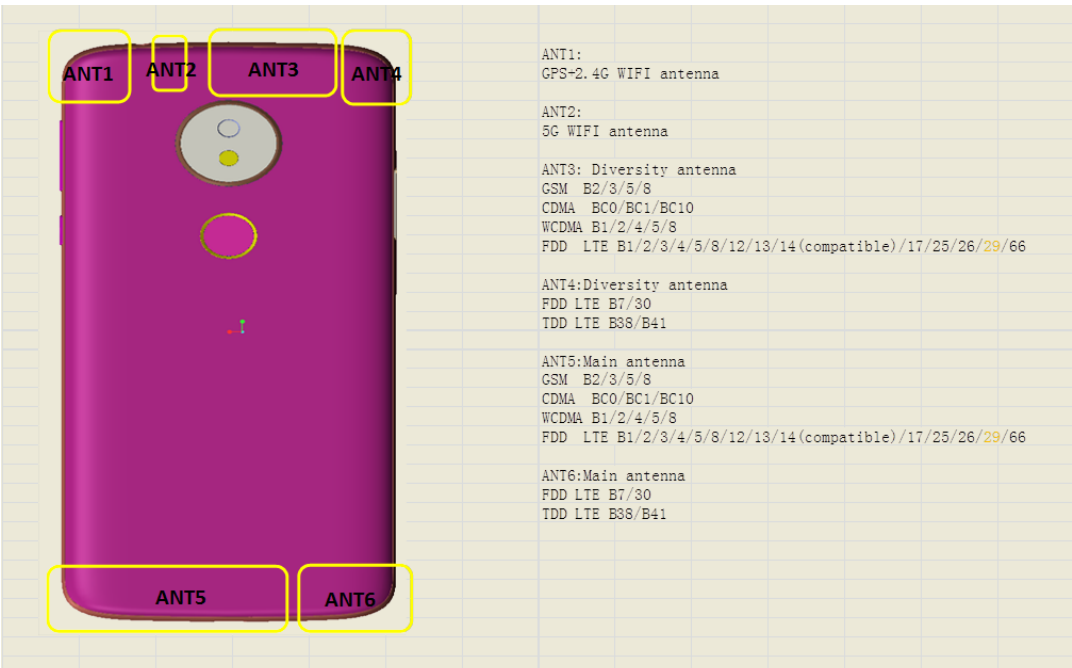
The detail differences between variant and original as below:

◆ Add 2nd source suppliers component

component	Original Sample	Variant Sample 1	Variant Sample 2	Variant Sample 3	Variant Sample 4
CPU	Qualcomm MSM-8920-9-720BNSP-TR-00-0-AA	Qualcomm MSM-8953-2-857NSP-TR-01-0-AB	Qualcomm MSM-8953-2-857NSP-TR-01-0-AB	Qualcomm MSM-8953-2-857NSP-TR-01-0-AB	Qualcomm MSM-8953-2-857NSP-TR-01-0-AB
Front Camera	Kingcome 06B5-L3100FF	Kingcome 06B5-L3100FF	Holitech PLQ8816M	Kingcome 06B5-L3100FF	Holitech PLQ8816M
Rear Camera	Truly CMC958-B13BA-E	Truly CMC958-B13BA-E	Holitech TLQ8817M	Truly CMC958-B13BA-E	Holitech TLQ8817M
Memory	Samsung KMGX6001BM-B514	Samsung KMGX6001BM-B514	Hynix H9TQ26ADFTBCUR-KUM	Samsung KMQE60013M-B318	Micron MT29TZZZ5D6DKFRL-107W.9A6
Battery	SCUD BL270 3.85V 4000mAh	SCUD BL270 3.85V 4000mAh	ATL BL270 3.85V 4000mAh	SCUD BL270 3.85V 4000mAh	ATL BL270 3.85V 4000mAh
PCB	EEK LLDM311B6-5	EEK LLDM311B6-5	MEIKO LLDM311B6-5	EEK LLDM311B6-5	MEIKO LLDM311B6-5
LCM	Tianma TM057JVSS12-00	Tianma TM057JVSS12-00	DJN 98-03057-6483B-H	Tianma TM057JVSS12-00	DJN 98-03057-6483B-H
Motor	AWA FS-3032	AWA FS-3032	DMEGC CHENJI DM-YX416-2	AWA FS-3032	DMEGC CHENJI DM-YX416-2
FPS	O-film ETW-0898-03	O-film ETW-0898-03	Kerr 9111-040006201	O-film ETW-0898-03	Kerr 9111-040006201

◆ Antenna difference

Sample 1 and 3 in the variant 4 Sample files are different from 5G WiFi Pattern, but others are the same as the original ones.



Except listings above, the others are all the same.

Should you have any questions or comments regarding this matter, please have my best attention.

Sincerely yours,

Dai Lihua

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E-Mail: dailh@lenovo.com