FCC Test Report

APPLICANT	:	TCL Communication Ltd.
EQUIPMENT	:	GSM Quad-band / UMTS Quad-band / LTE hexa-band mobile phone
BRAND NAME	:	alcatel
MODEL NAME	:	6055P
FCC ID	:	2ACCJA019
STANDARD	:	FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION	:	Certification

The product was received on Mar. 31, 2016 and testing was completed on May 14, 2016. 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.

Prepared by: James Huang / Manager

Approved by: Jones Tsai / Manager

Testing Laboratory 2627

SPORTON INTERNATIONAL (KUNSHAN) INC.
No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China

TABLE OF CONTENTS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC611504-04	Rev. 01	Initial issue of report	May 26, 2016

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 7.51 dB at 0.540 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 2.37 dB at 44.850 MHz for Quasi-Peak

1. General Description

1.1. Applicant

TCL Communication Ltd.
5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park, Pudong Area Shanghai, P.R.China 201203

1.2. Manufacturer

TCL Communication Ltd.
5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park, Pudong Area Shanghai, P.R.China 201203

1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	GSM Quad-band / UMTS Quad-band / LTE hexa-band mobile phone
Brand Name	alcatel
Model Name	6055P
FCC ID	2ACCJA019
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/DC-HSDPA/ HSPA+(16QAM uplink is not supported)/LTE/NFC WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 Bluetooth v3.0 + EDR/Bluetooth v4.0 LE Bluetooth v4.2 LE
IMEI Code	Conduction: 358476070060750/358476070060768 Radiation: 358476070060750/358476070060768
HW Version	PIO
SW Version	A2E
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 II : 1852.4 MHz ~ 1907.6 MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz 802.11b/g/n: 2412 MHz ~ 2472 MHz 802.11a/n: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500 MHz ~ 5700 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 II : 1932.4 MHz ~ 1987.6 MHz LTE Band 7: 2622.5 MHz~ 2687.5 MHz 802.11b/g/n: 2412 MHz ~ 2472 MHz 802.11a/n: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500 MHz ~ 5700 MHz ; Bluetooth: 2402 MHz ~ 2480 MHz GPS : 1.57542 GHz Glonass: 1602 MHz + n× 0.5625MHz (n=−7,−6,−5,...0,...,6) NFC : 13.56 MHz
Antenna Type	WWAN : IFA Antenna WLAN : IFA Antenna Bluetooth : IFA Antenna GPS/Glonass : IFA Antenna NFC : LOOP Antenna
Type of Modulation	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 uplink is not supported) DC-HSDPA : 64QAM LTE: QPSK / 16QAM 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth v4.0 LE : GFSK Bluetooth v4.2 LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : π/4-DQPSK Bluetooth (3Mbps) : 8-DPSK GPS/Glonass : BPSK NFC: ASK

1.5. Modification of EUT

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

1.6. Test Location

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.		
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958		
Test Site No.	**Sporton Site No.**		**FCC Registration No.**
	CO01-KS	03CH02-KS	418269

1.7. 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.

1.8. Specification of Accessory

Specification of Accessory				
AC Adapter 1	**Brand Name**	ALCATEL onetouch	**Model Name**	UC13US
	Power Rating	I/P: 100-240Vac, 400mA, O/P: 5Vdc, 2000mA		
	P/N	CBA0059AG0C2		
AC Adapter 2	**Brand Name**	ALCATEL onetouch	**Model Name**	UC13US
	Power Rating	I/P: 100-240Vac, 350mA, O/P: 5Vdc, 2000mA		
	P/N	CBA0059AG0C4		
AC Adapter 3	**Brand Name**	N/A	**Model Name**	UC13US
	Power Rating	I/P: 100-240Vac, 500mA, O/P: 5Vdc, 2000mA		
	P/N	CBA0059AG4C1		
AC Adapter 4	**Brand Name**	alcatel	**Model Name**	UC13US
	Power Rating	I/P: 100-240Vac, 350mA, O/P: 5Vdc, 2000mA		
	P/N	CBA0059AGAC4		
AC Adapter 5	**Brand Name**	alcatel	**Model Name**	UC13US
	Power Rating	I/P: 100-240Vac, 500mA, O/P: 5Vdc, 2000mA		
	P/N	CBA0059AGAC1		
Battery 1	**Brand Name**	ALCATEL onetouch	**Model Name**	TLp026EJ
	Power Rating	3.85Vdc, 2610mAh		
Battery 2	**Brand Name**	ALCATEL onetouch	**Model Name**	TLp026E2
	Power Rating	3.84Vdc, 2610mAh		
Battery 3	**Brand Name**	alcatel	**Model Name**	TLp026EJ
	Power Rating	3.85Vdc, 2610mAh		
Battery 4	**Brand Name**	alcatel	**Model Name**	TLp026E2
	Power Rating	3.84Vdc, 2610mAh		
USB Cable 1	**Brand Name**	N/A	**Model Name**	CDA0000043C8
	Signal Line Type	1.0m shielded without core		
USB Cable 2	**Brand Name**	N/A	**Model Name**	CDA0000043C2
	Signal Line Type	1.0m shielded without core		
Earphone 1	**Brand Name**	alcatel	**Model Name**	J22C
	Signal Line Type	1.4m non-shielded without core		
	P/N	CCB0029A10CC		
Earphone 2	**Brand Name**	alcatel	**Model Name**	J22H
	Signal Line Type	1.0m non-shielded without core		
	P/N	CCB0047A10CC		

Note: The adapter 4, 5 and battery 3, 4 are just with different logo, all the designs are identical with adapter 2, 3 and battery 1, 2.

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).

The following tables are showing the test modes as the worst cases and recorded in this report.

Item	EUT Configuration	Test Condition		
		EMI AC	EMI RE<1G	EMI RE≥1G
1.	Charging Mode (EUT with adapter)	☒	☒	☒
2.	Data application transferred mode (EUT connected with notebook)	☒	☒	☒

Abbreviations:

- EMI AC: AC conducted emissions
- EMI RE ≥ 1G: EUT radiated emissions ≥ 1GHz
- EMI RE < 1G: EUT radiated emissions < 1GHz

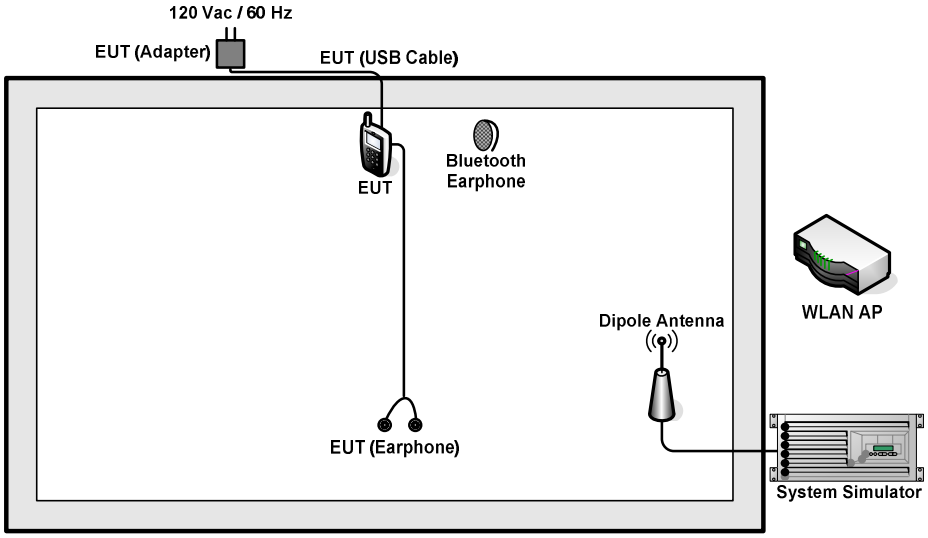
Test Items	EUT Configure Mode	Function Type
AC Conducted Emission	1/2	Mode 1 : GSM850 Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable 1 (Charging from Adapter 1) + Earphone 1 + Battery 1 + Camera (Rear) <Fig.1> Mode 2 : GSM1900 Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2 (Charging from Adapter 2) + Earphone 2 + Battery 2 + Camera (Front) <Fig.1> Mode 3 : WCDMA Band V Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable 2 (Charging from Adapter 3) + Earphone 2 + Battery 2 + MPEG4 <Fig.1> Mode 4 : WCDMA Band II Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2 (Charging from Adapter 2) + Earphone 2 + Battery 2 + NFC On <Fig.1> Mode 5 : WCDMA Band II Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable 2 (Charging from Adapter 2) + Earphone 2 + Battery 2 + Glonass Rx <Fig.2> Mode 6 : LTE Band 7 Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 1 (Data Link with Notebook) + Earphone 2 + Battery 2 + GPS Rx <Fig.3> Mode 7 : LTE Band 7 Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2 (Data Link with Notebook) + Earphone 2 + Battery 2 + GPS Rx <Fig.3>

Radiated Emissions < 1GHz	1/2	Mode 1 : GSM850 Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable 1 (Charging from Adapter 1) + Earphone 1 + Battery 1 + Camera (Rear) <Fig.1> Mode 2 : GSM1900 Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2 (Charging from Adapter 2) + Earphone 2 + Battery 2 + Camera (Front) <Fig.1> Mode 3 : WCDMA Band V Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable 1 (Charging from Adapter 3) + Earphone 1 + Battery 1 + MPEG4 <Fig.1> Mode 4 : WCDMA Band II Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 1 (Charging from Adapter 1) + Earphone 1 + Battery 1 + NFC On <Fig.1> Mode 5 : WCDMA Band II Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable 1 (Charging from Adapter 1) + Earphone 1 + Battery 1 + Glonass Rx <Fig.2> Mode 6 : LTE Band 7 Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 1 (Data Link with Notebook) + Earphone 1 + Battery 1 + GPS Rx <Fig.3> Mode 7 : LTE Band 7 Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2 (Data Link with Notebook) + Earphone 1 + Battery 1 + GPS Rx <Fig.3>
Radiated Emissions ≥ 1GHz	1/2	Mode 1 : WCDMA Band II Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable 1 (Charging from Adapter 1) + Earphone 1 + Battery 1 + Glonass Rx <Fig.2> Mode 2 : LTE Band 7 Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2 (Data Link with Notebook) + Earphone 1 + Battery 1 + GPS Rx <Fig.3>

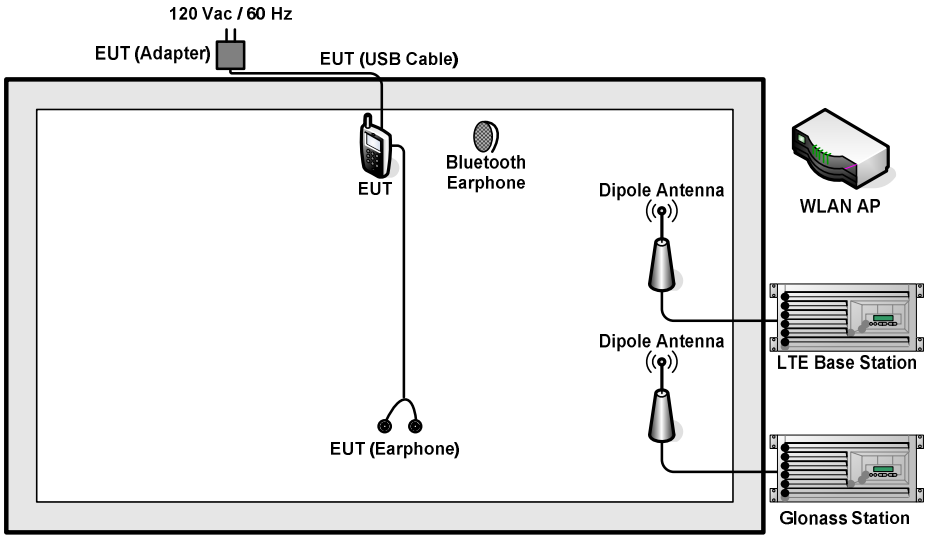
Remark:

1. The worst case of AC is mode 4, and the USB Link mode of AC is mode 6, the test data of these modes were reported.
2. The worst case of RE < 1G is mode 5, and the USB Link mode of RE is mode 7, the test data of these modes were reported.
3. Data Link with Notebook means data application transferred mode between EUT and Notebook.

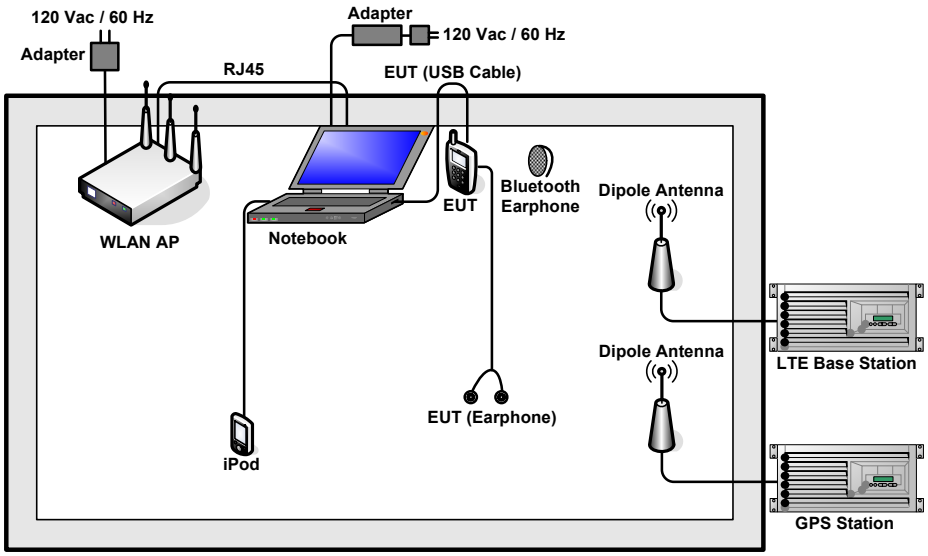
2.2. Connection Diagram of Test System



<Fig.1>



<Fig.2>


120 Vac / 60 Hz
Adapter
Adapter
120 Vac / 60 Hz
RJ45
EUT (USB Cable)
WLAN AP
Notebook
EUT
Bluetooth
Earphone
Dipole Antenna
Dipole Antenna
LTE Base Station
EUT (Earphone)
iPod
GPS Station

<Fig.3>

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.	LTE Base Station	Anritus	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	GPS Station	ADIVIC	MP9000	N/A	N/A	Unshielded, 1.8 m
4.	Glonass Station	RACELOGIC	RLLS03-2RP	N/A	N/A	Unshielded, 1.8 m
5.	WLAN AP	ASUSTek	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
6.	WLAN AP	LINKSYS	WRT600N	Q87-WRT600NV11	N/A	Unshielded, 1.8 m
7.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded, 1.8 m
8.	Bluetooth Earphone	Nokia	BH-106	QTLBH-106	Unshielded, 0.5 m	N/A
9.	Bluetooth Earphone	Lenovo	LBH301	N/A	N/A	N/A
10.	Notebook	Lenovo	G480	N/A	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	4GB	N/A	N/A	N/A
13.	SD Card	SanDisk	Uitra	N/A	N/A	N/A
14.	iPod	Apple	A1199	FCC DoC	Shielded, 1.2 m	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 was 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 GPS/Glonass function to make the EUT receive continuous signals from GPS/Glonass station.
3. Execute "Video player" to play MPEG4 files.
4. Turn on camera to capture images.
5. Turn on NFC 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.

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.

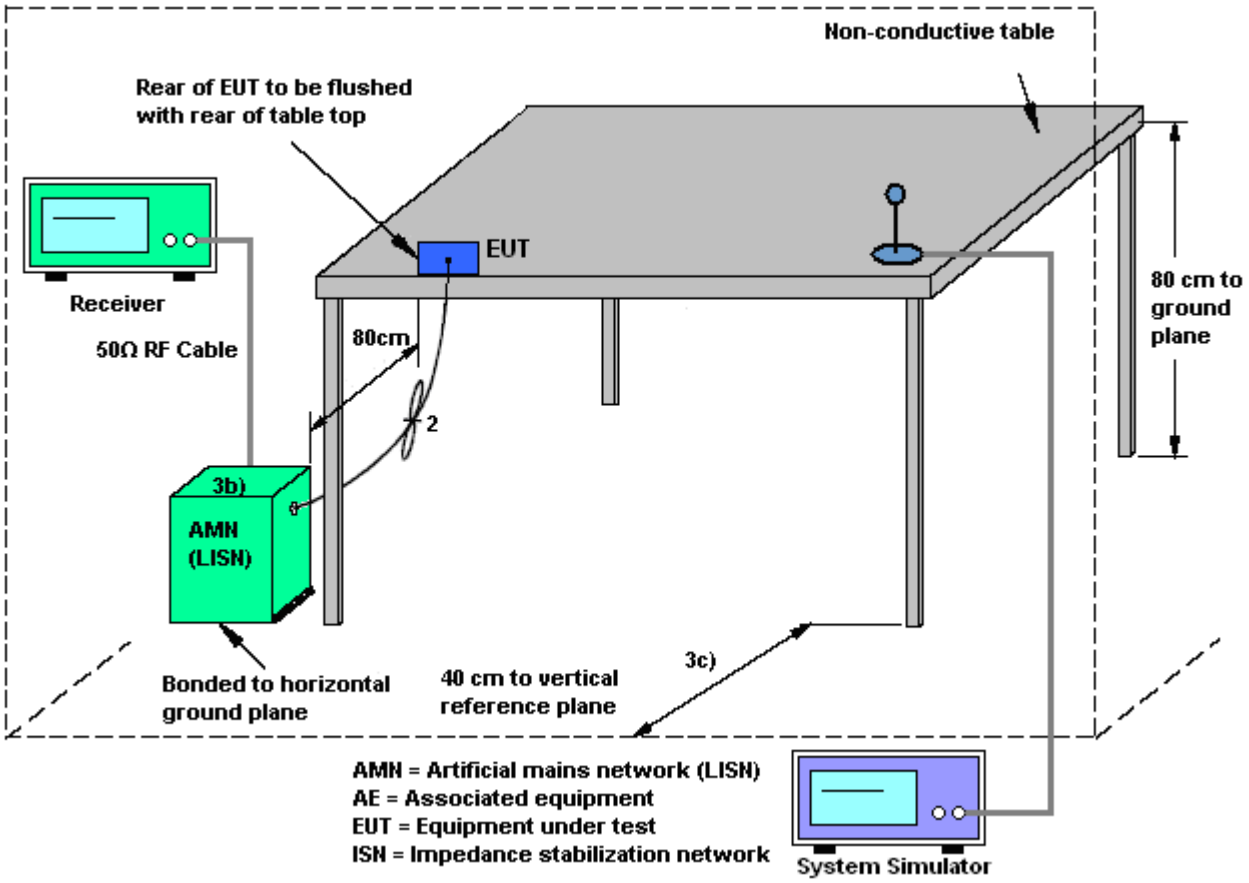
3.1.2 Measuring Instruments

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

3.1.3 Test Procedure

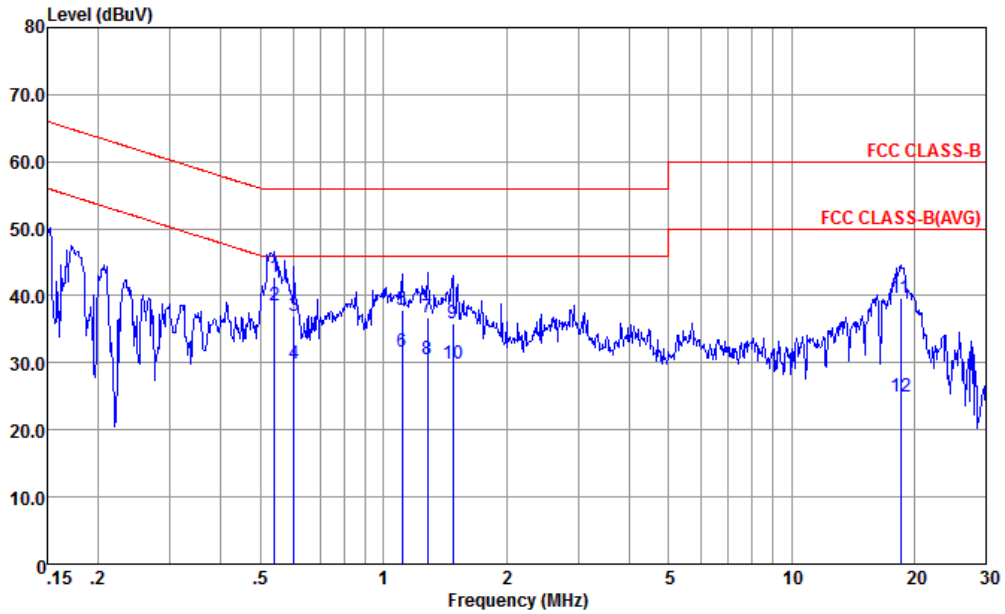
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.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

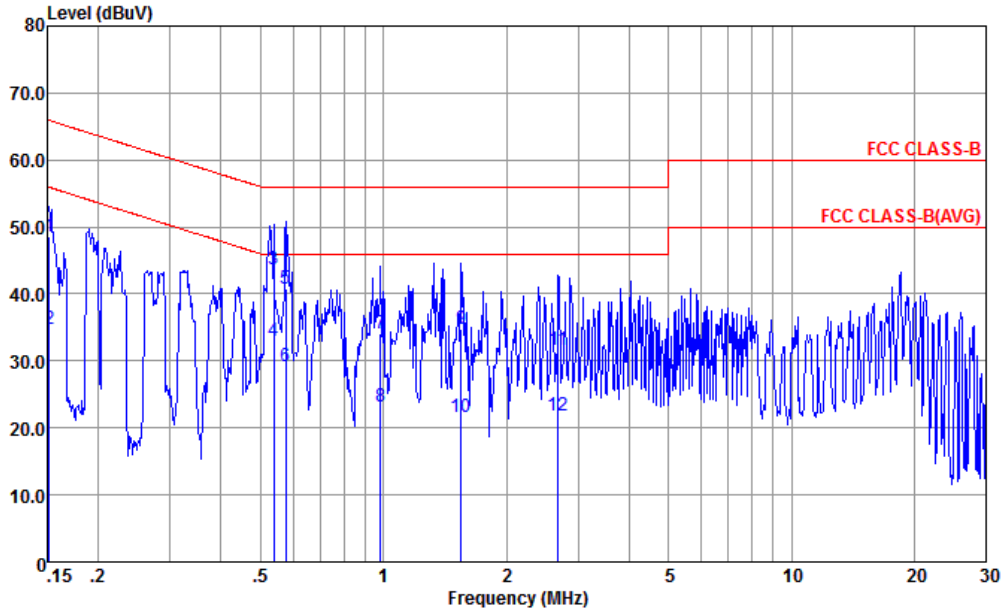
Test Mode :	Mode 4	**Temperature :**	22~24℃
Test Engineer :	Amos Zhang	**Relative Humidity :**	44~46%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	WCDMA Band II Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2 (Charging from Adapter 2) + Earphone 2 + Battery 2 + NFC On		



Site : CO01-KS
Condition : FCC CLASS-B LISN-L-20151024 LINE
Project : (FC) 611504-04
mode : Mode 4
: 356133070060750/356136070060768 #9

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.54	42.89	-13.11	56.00	32.50	0.23	10.16	QP
2	*	0.54	38.49	-7.51	46.00	28.10	0.23	10.16	Average
3		0.60	36.99	-19.01	56.00	26.59	0.24	10.16	QP
4		0.60	29.89	-16.11	46.00	19.49	0.24	10.16	Average
5		1.11	37.88	-18.12	56.00	27.50	0.24	10.14	QP
6		1.11	31.68	-14.32	46.00	21.30	0.24	10.14	Average
7		1.28	36.66	-19.34	56.00	26.29	0.23	10.14	QP
8		1.28	30.56	-15.44	46.00	20.19	0.23	10.14	Average
9		1.48	35.95	-20.05	56.00	25.60	0.21	10.14	QP
10		1.48	29.95	-16.05	46.00	19.60	0.21	10.14	Average
11		18.52	39.56	-20.44	60.00	28.80	0.27	10.49	QP
12		18.52	24.86	-25.14	50.00	14.10	0.27	10.49	Average

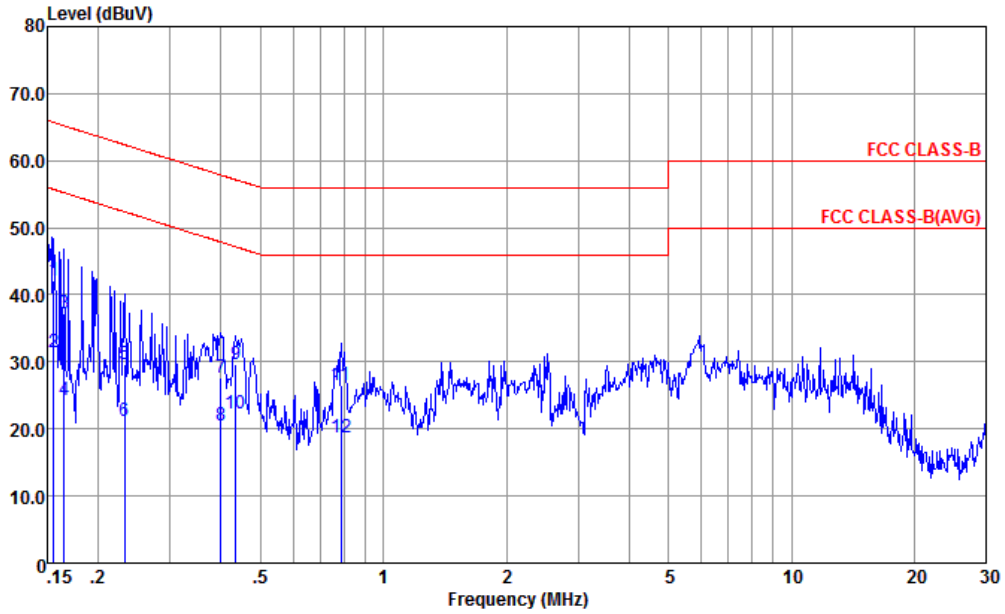
Test Mode :	Mode 4	**Temperature :**	22~24℃
Test Engineer :	Amos Zhang	**Relative Humidity :**	44~46%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Function Type :	WCDMA Band II Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2 (Charging from Adapter 2) + Earphone 2 + Battery 2 + NFC On		



Site : CO01-KS
Condition : FCC CLASS-B LISN-N-20151024 NEUTRAL
Project : (FC) 611504-04
mode : Mode 4
: 356133070060750/356136070060768 #9

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.15	48.61	-17.30	65.91	38.20	0.30	10.11	QP
2		0.15	34.71	-21.20	55.91	24.30	0.30	10.11	Average
3	*	0.54	43.69	-12.31	56.00	33.21	0.32	10.16	QP
4		0.54	33.09	-12.91	46.00	22.61	0.32	10.16	Average
5		0.58	40.79	-15.21	56.00	30.30	0.33	10.16	QP
6		0.58	29.09	-16.91	46.00	18.60	0.33	10.16	Average
7		0.98	34.10	-21.90	56.00	23.59	0.37	10.14	QP
8		0.98	23.10	-22.90	46.00	12.59	0.37	10.14	Average
9		1.55	34.72	-21.28	56.00	24.20	0.38	10.14	QP
10		1.55	21.72	-24.28	46.00	11.20	0.38	10.14	Average
11		2.68	31.62	-24.38	56.00	21.10	0.37	10.15	QP
12		2.68	21.82	-24.18	46.00	11.30	0.37	10.15	Average

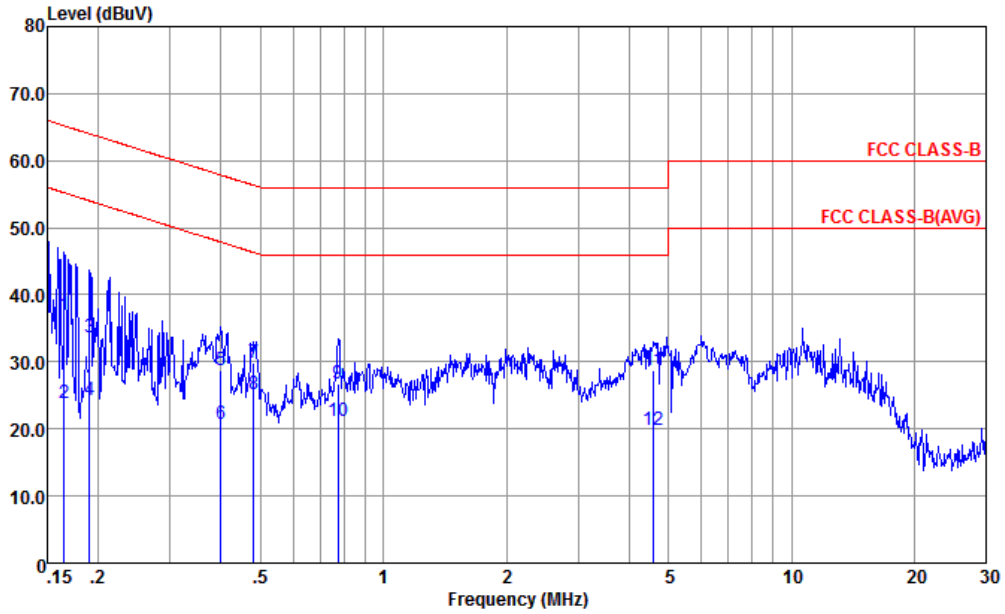
Test Mode :	Mode 6	Temperature :	22~24℃
Test Engineer :	Amos Zhang	Relative Humidity :	44~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 1 (Data Link with Notebook) + Earphone 2 + Battery 2 + GPS Rx		



Site : CO01-KS
Condition : FCC CLASS-B LISN-L-20151024 LINE
Project : (FC) 611504-04
mode : Mode 6
: 356133070060750/356136070060768 #9

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1 *	0.16	42.20	-23.49	65.69	31.60	0.49	10.11	QP
2	0.16	31.50	-24.19	55.69	20.90	0.49	10.11	Average
3	0.17	37.14	-28.07	65.21	26.60	0.42	10.12	QP
4	0.17	24.34	-30.87	55.21	13.80	0.42	10.12	Average
5	0.23	29.56	-32.83	62.39	19.20	0.22	10.14	QP
6	0.23	21.16	-31.23	52.39	10.80	0.22	10.14	Average
7	0.40	27.70	-30.16	57.86	17.30	0.23	10.17	QP
8	0.40	20.60	-27.26	47.86	10.20	0.23	10.17	Average
9	0.44	29.60	-27.55	57.15	19.20	0.23	10.17	QP
10	0.44	22.30	-24.85	47.15	11.90	0.23	10.17	Average
11	0.79	26.59	-29.41	56.00	16.20	0.24	10.15	QP
12	0.79	18.69	-27.31	46.00	8.30	0.24	10.15	Average

Test Mode :	Mode 6	Temperature :	22~24℃
Test Engineer :	Amos Zhang	Relative Humidity :	44~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 1 (Data Link with Notebook) + Earphone 2 + Battery 2 + GPS Rx		



Site : CO01-KS
Condition : FCC CLASS-B LISN-N-20151024 NEUTRAL
Project : (FC) 611504-04
mode : Mode 6
: 356133070060750/356136070060768 #9

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.17	37.02	-28.19	65.21	26.60	0.30	10.12	QP
2		0.17	23.92	-31.29	55.21	13.50	0.30	10.12	Average
3		0.19	33.73	-30.29	64.02	23.30	0.31	10.12	QP
4		0.19	24.33	-29.69	54.02	13.90	0.31	10.12	Average
5		0.40	28.69	-29.17	57.86	18.20	0.32	10.17	QP
6		0.40	20.79	-27.07	47.86	10.30	0.32	10.17	Average
7		0.48	29.78	-26.54	56.32	19.30	0.32	10.16	QP
8	*	0.48	25.28	-21.04	46.32	14.80	0.32	10.16	Average
9		0.78	26.80	-29.20	56.00	16.30	0.35	10.15	QP
10		0.78	21.10	-24.90	46.00	10.60	0.35	10.15	Average
11		4.60	28.74	-27.26	56.00	18.20	0.36	10.18	QP
12		4.60	19.84	-26.16	46.00	9.30	0.36	10.18	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:

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

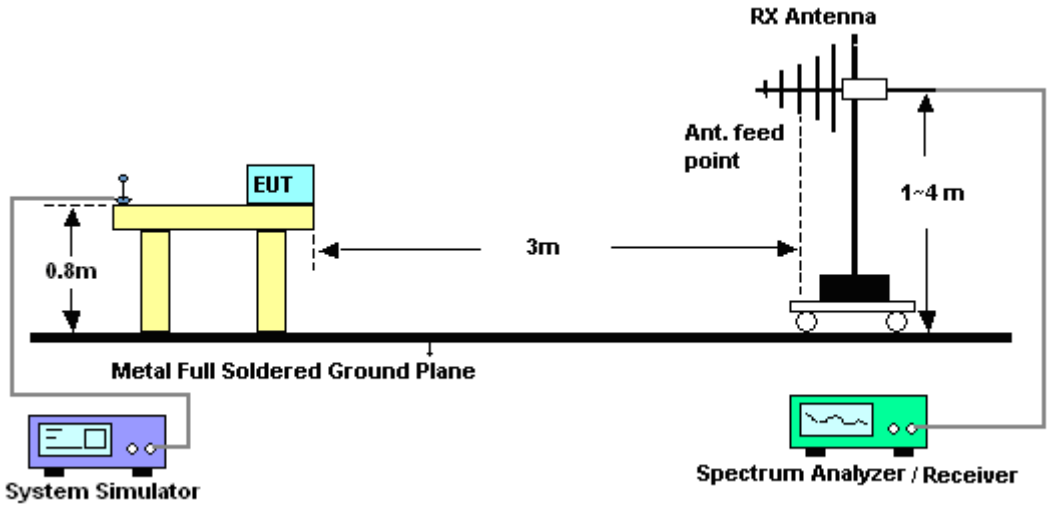
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

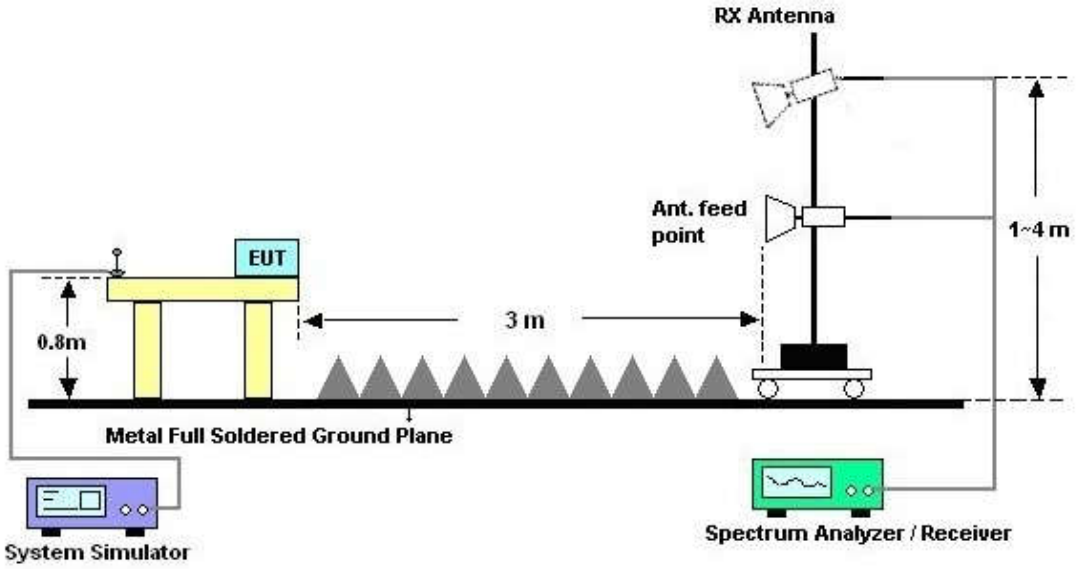
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna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

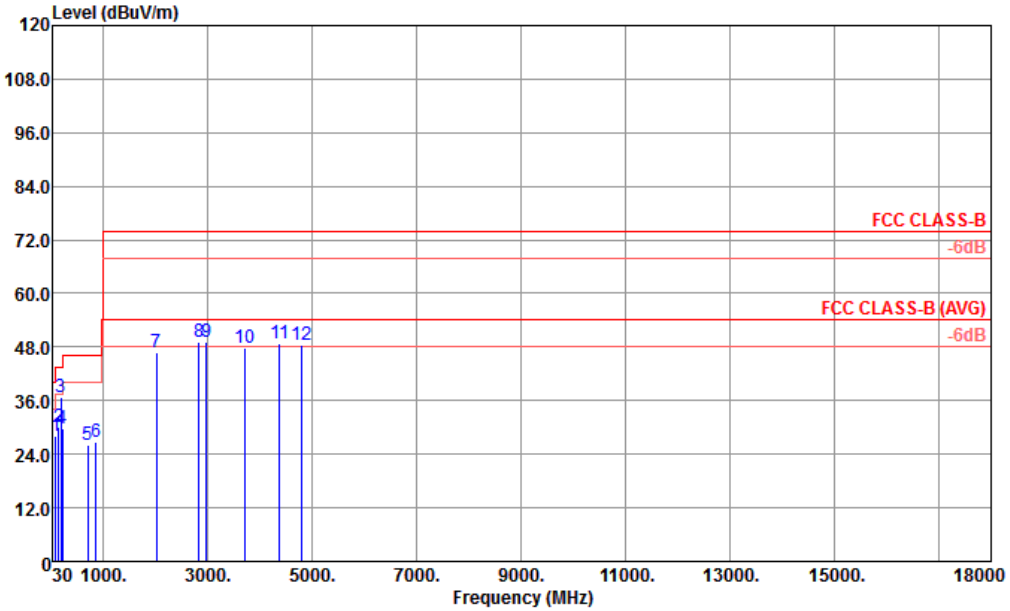


For radiated emissions above 1GHz



3.2.5. Test Result of Radiated Emission

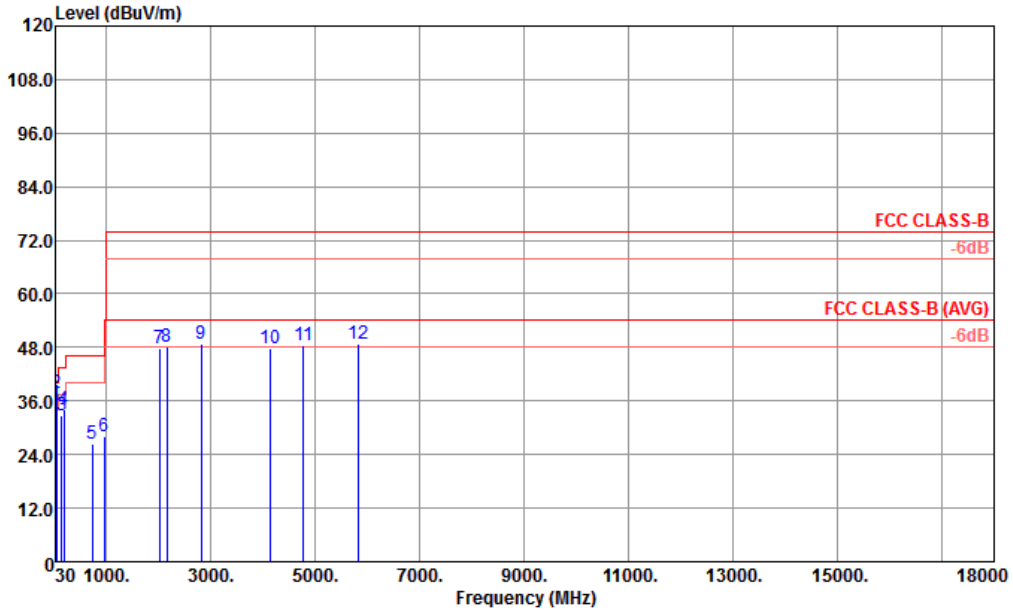
Test Mode :	Mode 5	**Temperature :**	21~22°C
Test Engineer :	Jack Wang	**Relative Humidity :**	41~42%
Test Distance :	3m	**Polarization :**	Horizontal
Function Type :	WCDMA Band II Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable 1 (Charging from Adapter 1) + Earphone 1 + Battery 1 + Glonass Rx		



Site : 03CH02-KS
Condition : FCC CLASS-B 3m 966-02 LF ANT HORIZONTAL
Project : (FC) 611504-04
Mode : 5
IMEI : #9 356133070060750 356133070060768

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phas
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		
1	96.96	28.06	-15.44	43.50	40.46	17.77	0.23	30.40	---	---	Peak	HORIZONT
2	155.82	30.05	-13.45	43.50	42.80	17.32	0.33	30.40	---	---	Peak	HORIZONT
3	196.86	36.92	-6.58	43.50	51.52	15.39	0.41	30.40	136	98	Peak	HORIZONT
4	223.05	29.65	-16.35	46.00	43.38	16.27	0.45	30.45	---	---	Peak	HORIZONT
5	712.30	26.08	-19.92	46.00	28.62	26.66	1.22	30.42	---	---	Peak	HORIZONT
6	870.50	26.74	-19.26	46.00	28.34	27.37	1.51	30.48	---	---	Peak	HORIZONT
7	2020.00	46.91	-27.09	74.00	46.41	30.56	4.61	34.67	---	---	Peak	HORIZONT
8	2844.00	49.21	-24.79	74.00	42.00	32.18	2.81	27.78	---	---	Peak	HORIZONT
9	2974.00	49.06	-24.94	74.00	42.06	32.52	3.09	28.61	---	---	Peak	HORIZONT
10	3720.00	47.67	-26.33	74.00	38.38	34.37	6.34	31.42	---	---	Peak	HORIZONT
11	4383.00	48.70	-25.30	74.00	39.89	35.23	4.93	31.35	---	---	Peak	HORIZONT
12	4788.00	48.45	-25.55	74.00	40.40	35.02	6.09	33.06	---	---	Peak	HORIZONT

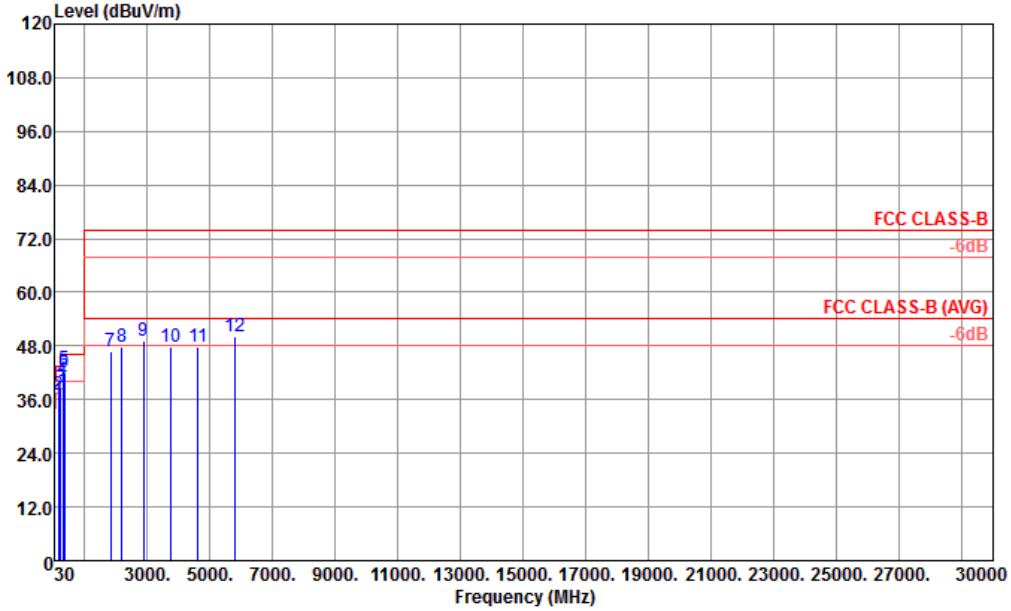
Test Mode :	Mode 5	Temperature :	21~22°C
Test Engineer :	Jack Wang	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Function Type :	WCDMA Band II Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable 1 (Charging from Adapter 1) + Earphone 1 + Battery 1 + Glonass Rx		



Site : 03CH02-KS
Condition : FCC CLASS-B 3m 966-02 LF ANT VERTICAL
Project : (FC) 611504-04
Mode : 5
IMEI : #9 356133070060750 356133070060768

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phas
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		
1	!	36.21	35.38	-4.62	40.00	41.86	24.30	0.12	30.90	---	---	Peak	VERTICAL
2	!	44.85	37.63	-2.37	40.00	48.80	19.50	0.13	30.80	100	238	QP	VERTICAL
3		151.77	32.61	-10.89	43.50	45.17	17.51	0.33	30.40	---	---	Peak	VERTICAL
4		198.21	34.04	-9.46	43.50	48.64	15.39	0.41	30.40	---	---	Peak	VERTICAL
5		730.50	26.30	-19.70	46.00	29.05	26.42	1.29	30.46	---	---	Peak	VERTICAL
6		960.80	28.18	-25.82	54.00	28.28	28.66	1.76	30.52	---	---	Peak	VERTICAL
7		2020.00	47.65	-26.35	74.00	47.15	30.56	4.61	34.67	---	---	Peak	VERTICAL
8		2162.00	48.04	-25.96	74.00	45.72	31.03	5.65	34.36	---	---	Peak	VERTICAL
9		2826.00	48.80	-25.20	74.00	41.68	32.14	2.76	27.78	---	---	Peak	VERTICAL
10		4155.00	47.73	-26.27	74.00	38.01	35.08	6.53	31.89	---	---	Peak	VERTICAL
11		4773.00	48.54	-25.46	74.00	40.41	35.03	6.00	32.90	---	---	Peak	VERTICAL
12		5841.00	48.88	-25.12	74.00	42.51	35.12	6.47	35.22	---	---	Peak	VERTICAL

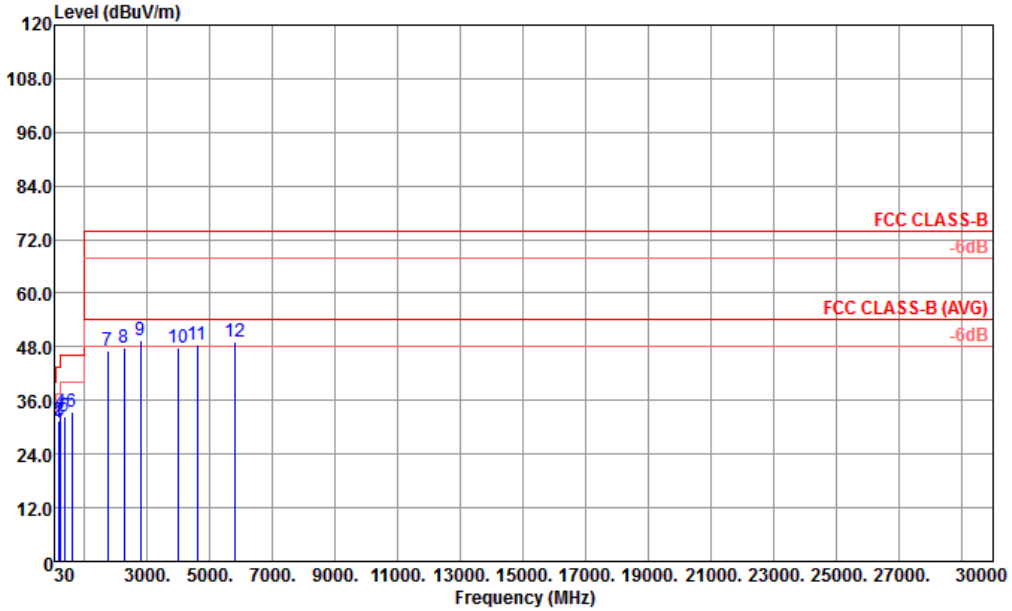
Test Mode :	Mode 7	Temperature :	21~22°C
Test Engineer :	Jack Wang	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2 (Data Link with Notebook) + Earphone 1 + Battery 1 + GPS Rx		



Site : 03CH02-KS
Condition : FCC CLASS-B 3m 966-02 LF ANT HORIZONTAL
Project : (FC) 611504-04
Mode : 7
IMEI : #9 356133070060750 356133070060768

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phas
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		
1		155.55	35.87	-7.63	43.50	48.62	17.32	0.33	30.40	---	---	Peak	HORIZONT
2		165.54	37.13	-6.37	43.50	50.32	16.86	0.35	30.40	---	---	Peak	HORIZONT
3		239.25	38.74	-7.26	46.00	51.82	16.92	0.48	30.48	---	---	Peak	HORIZONT
4	!	314.70	40.32	-5.68	46.00	51.62	18.60	0.63	30.53	---	---	Peak	HORIZONT
5	!	335.00	42.72	-3.28	46.00	53.01	19.60	0.68	30.57	---	---	Peak	HORIZONT
6	!	344.80	42.12	-3.88	46.00	51.90	20.10	0.71	30.59	100	272	QP	HORIZONT
7		1834.00	46.76	-27.24	74.00	48.29	29.40	4.57	35.50	---	---	Peak	HORIZONT
8		2190.00	47.76	-26.24	74.00	45.13	31.14	5.80	34.31	---	---	Peak	HORIZONT
9		2876.00	49.13	-24.87	74.00	42.07	32.27	2.90	28.11	---	---	Peak	HORIZONT
10		3765.00	47.86	-26.14	74.00	38.39	34.52	6.44	31.49	---	---	Peak	HORIZONT
11		4620.00	47.84	-26.16	74.00	39.18	35.18	5.38	31.90	---	---	Peak	HORIZONT
12		5781.00	50.30	-23.70	74.00	44.36	35.22	6.75	36.03	---	---	Peak	HORIZONT

Test Mode :	Mode 7	Temperature :	21~22°C
Test Engineer :	Jack Wang	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable 2 (Data Link with Notebook) + Earphone 1 + Battery 1 + GPS Rx		



Site : 03CH02-KS
Condition : FCC CLASS-B 3m 966-02 LF ANT VERTICAL
Project : (FC) 611504-04
Mode : 7
IMEI : #9 356133070060750 356133070060768

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phas
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		
1	155.28	31.18	-12.32	43.50	43.93	17.32	0.33	30.40	---	---	Peak	VERTICAL
2	165.27	31.58	-11.92	43.50	44.77	16.86	0.35	30.40	125	87	Peak	VERTICAL
3	196.05	31.42	-12.08	43.50	45.93	15.48	0.41	30.40	---	---	Peak	VERTICAL
4	239.25	33.30	-12.70	46.00	46.38	16.92	0.48	30.48	---	---	Peak	VERTICAL
5	344.80	32.44	-13.56	46.00	42.22	20.10	0.71	30.59	---	---	Peak	VERTICAL
6	598.20	33.54	-12.46	46.00	38.52	24.32	0.90	30.20	---	---	Peak	VERTICAL
7	1742.00	47.03	-26.97	74.00	49.33	29.23	4.43	35.96	---	---	Peak	VERTICAL
8	2268.00	47.83	-26.17	74.00	44.74	31.27	5.72	33.90	---	---	Peak	VERTICAL
9	2770.00	49.40	-24.60	74.00	43.12	32.03	2.81	28.56	---	---	Peak	VERTICAL
10	3981.00	47.93	-26.07	74.00	38.80	34.81	6.03	31.71	---	---	Peak	VERTICAL
11	4602.00	48.33	-25.67	74.00	39.48	35.20	5.38	31.73	---	---	Peak	VERTICAL
12	5790.00	49.13	-24.87	74.00	42.95	35.19	6.75	35.76	---	---	Peak	VERTICAL

4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 29, 2016	May 12, 2016	Apr. 28, 2017	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 24, 2015	May 12, 2016	Oct. 23, 2016	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 24, 2015	May 12, 2016	Oct. 23, 2016	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 24, 2015	May 12, 2016	Oct. 23, 2016	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max 30dBm	Sep. 10, 2015	May 14, 2016	Sep. 09, 2016	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz-44G,MAX 30dB	Apr. 22, 2016	May 14, 2016	Apr. 21, 2017	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	23182	25MHz-2GHz	Mar. 12, 2016	May 14, 2016	Mar. 11, 2017	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Nov. 07, 2015	May 14, 2016	Nov. 06, 2016	Radiation (03CH02-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz ~40GHz	Mar. 03, 2016	May 14, 2016	Mar. 02, 2017	Radiation (03CH02-KS)
Amplifier	com-power	PA-103A	161069	1kHz~1000MHz / 32 dB	Apr. 22, 2016	May 14, 2016	Apr. 21, 2017	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1-26.5GHz Gain 30dB	Oct. 24, 2015	May 14, 2016	Oct. 23, 2016	Radiation (03CH02-KS)
Amplifier	MITEQ	TTA1840-35-HG	1887435	18~40GHz	Jan. 20, 2016	May 14, 2016	Jan. 19, 2017	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	May 14, 2016	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	May 14, 2016	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	May 14, 2016	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))	2.3dB

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

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