



# FCC Test Report

**APPLICANT** : ZTE CORPORATION  
**EQUIPMENT** : LTE/WCDMA/GSM(GPRS)  
Multi-Mode Digital Mobile Phone  
**BRAND NAME** : ZTE  
**MODEL NAME** : Z852  
**FCC ID** : SRQ-Z852  
**STANDARD** : FCC 47 CFR FCC Part 15 Subpart B  
**CLASSIFICATION** : Certification

The product was received on Jun. 03, 2017 and testing was completed on Jun. 25, 2017. 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



**Sporton International (KunShan) INC.**

**No.3-2, Pingxiang Road, Kunshan Development Zone, Jiangsu, 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 < ICES003 6.1 limits	PASS	Under limit 6.51 dB at 1.141 MHz
3.2	15.109	Radiated Emission	< 15.109 limits < ICES003 6.2 limits	PASS	Under limit 3.18 dB at 196.05 MHz



# 1. General Description

## 1.1. Applicant

**ZTE CORPORATION**

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

## 1.2. Manufacturer

**ZTE CORPORATION**

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

## 1.3. Product Feature of Equipment Under Test

Product Feature	
<b>Equipment</b>	LTE/WCDMA/GSM(GPRS) Multi-Mode Digital Mobile Phone
<b>Brand Name</b>	ZTE
<b>Model Name</b>	Z852
<b>FCC ID</b>	SRQ-Z852
<b>EUT supports Radios application</b>	GSM/GPRS/EGPRS/WCDMA/HSPA/ HSPA+ (16QAM uplink is not supported)/LTE WLAN2.4GHz 802.11b/g/n HT20/HT40 Bluetooth v3.0 + EDR/ Bluetooth v4.0LE/ Bluetooth v4.1LE/ Bluetooth v4.2LE
<b>IMEI Code</b>	Conduction: 864864030004992 Radiation: 864864030004539
<b>HW Version</b>	Z852HW1.0
<b>SW Version</b>	Z852V1.1.9
<b>EUT Stage</b>	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	
<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 12: 699.7 MHz ~ 715.3 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 12 : 729.7 MHz ~ 745.3 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GPS/Glonass : 1559 MHz ~ 1610 MHz FM: 87.5MHz~108MHz
<b>Antenna Type</b>	WWAN : PIFA Antenna WLAN : PIFA Antenna Bluetooth : PIFA Antenna FM: External Headset Antenna GPS/Glonass: PIFA Antenna
<b>Type of Modulation</b>	GSM: GMSK GPRS: GMSK EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK WCDMA : BPSK (Uplink) HSDPA : QPSK (Uplink) HSUPA : QPSK (Uplink) HSPA+ : 16QAM (16QAM uplink is not supported) LTE: QPSK / 16QAM 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 GPS/Glonass : BPSK FM: FM



### 1.5. Modification of EUT

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

### 1.6. Test Location

<b>Test Site</b>	Sporton International (KunShan) INC.		
<b>Test Site Location</b>	No.3-2, Pingxiang Road, Kunshan Development Zone, Jiangsu, China TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958		
<b>Test Site No.</b>	<b>Sporton Site No.</b>		<b>FCC Registration No.</b>
	CO01-KS	03CH02-KS	418269

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

### 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:**

1. 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

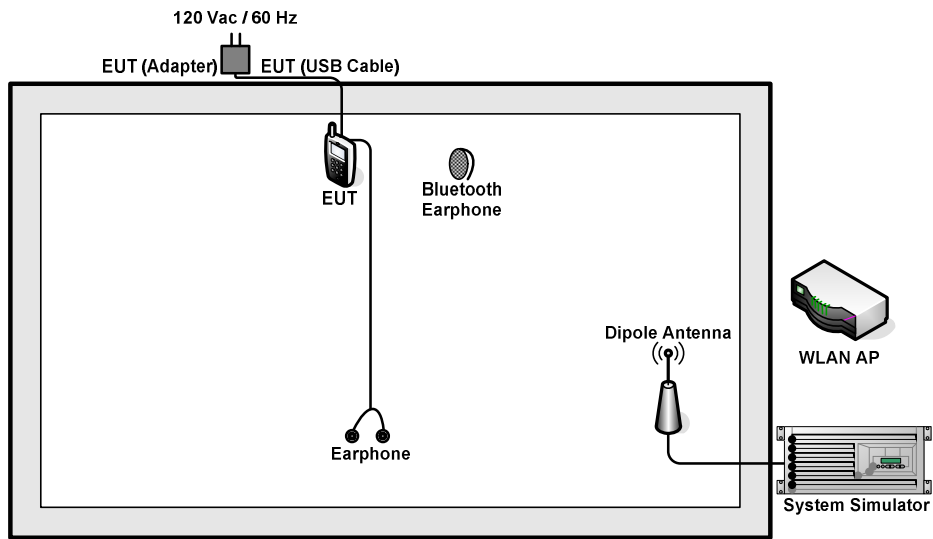
The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

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).

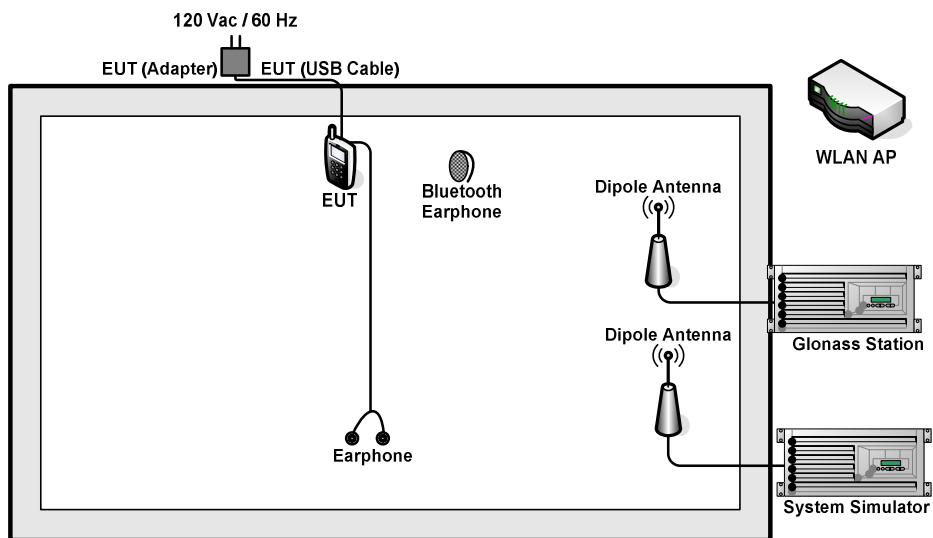
Test Items	Function Type
AC Conducted Emission	Mode 1: GSM 850 Idle + USB Cable(Charging from Adapter1) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 1 + Camera(Rear) <Fig. 1>
	Mode 2: GSM 1900 Idle + USB Cable(Charging from Adapter2) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 2 + Camera(Front) <Fig. 1>
	Mode 3: WCDMA Band V Idle + USB Cable(Charging from Adapter2) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 2 + MPEG4<Fig. 1>
	Mode 4: LTE Band 2 Idle + USB Cable(Charging from Adapter2) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 2 + Glonass Rx<Fig. 2>
	Mode 5: LTE Band 12 Idle + USB Cable(Data Link from Notebook) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 2 + GPS RX<Fig. 3>
Radiated Emissions < 1GHz	Mode 1: GSM 850 Idle + USB Cable(Charging from Adapter1) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 1 + Camera(Rear) <Fig. 1>
	Mode 2: GSM 1900 Idle + USB Cable(Charging from Adapter2) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 2 + Camera(Front) <Fig. 1>
	Mode 3: WCDMA Band V Idle + USB Cable(Charging from Adapter1) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 1 + MPEG4<Fig. 1>
	Mode 4: LTE Band 2 Idle + USB Cable(Charging from Adapter1) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 1 + Glonass Rx<Fig. 2>
	Mode 5: LTE Band 12 Idle + USB Cable(Data Link from Notebook) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 1 + GPS RX<Fig. 3>
Radiated Emissions ≥ 1GHz	Mode 1: LTE Band 12 Idle + USB Cable(Data Link from Notebook) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 1 + GPS RX<Fig. 3>
<b>Remark:</b>	
<ol style="list-style-type: none"> <li>1. The worst case of AC Conducted Emission is mode 2, and USB data link mode is mode5, the test data of these modes were reported.</li> <li>2. The worst case of RE &lt; 1G is mode 5; only the test data of this mode was reported.</li> <li>3. Data Link with Notebook means data application transferred mode between EUT and Notebook.</li> </ol>	



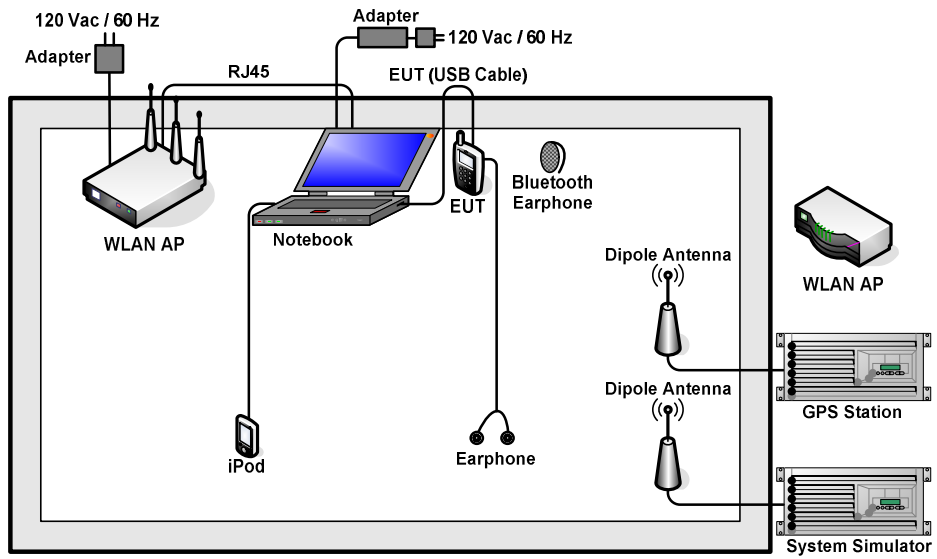
## 2.2. Connection Diagram of Test System



<Fig. 1>



<Fig. 2>



<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.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	ADIVIC	MP9000	N/A	N/A	N/A
3.	Glomass Station					
4.	Bluetooth Earphone	Lenovo	LBH308	N/A	N/A	N/A
5.	Bluetooth Earphone	Lenovo	LBH301	N/A	N/A	N/A
6.	WLAN AP	TP-LINK	TL-WDR5600	N/A	N/A	Unshielded, 1.8 m
7.	WLAN AP	LINKSYS	WRT600N	Q87-WRT600NV11	N/A	Unshielded, 1.8 m
8.	Notebook	Lenovo	G480	PRC4	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
9.	Notebook	Dell	Latitude3440	N/A	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
10.	Earphone	Lenovo	LH102	N/A	N/A	Unshielded,1.2m
11.	Earphone	Lenovo	SH100	N/A	N/A	Unshielded,1.2m
12.	SD Card	Kingston	8GB	N/A	N/A	N/A
13.	SD Card	SanDisk	Uitra	N/A	N/A	N/A
14.	iPod	Apple	A1199	FCC DoC	N/A	Unshielded,1.2m



## **2.4. EUT Operation Test Setup**

The EUT was in GSM or WCDMA or EDGE or LTE or HSDPA 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 Laptop and EUT via USB cable.
2. Execute "GPS Test" to make the EUT receive continuous signals from GPS station.
3. Execute "Glonass Test" to make the EUT receive continuous signals from Glonass station
4. Execute "Video player" to play MPEG4 files.
5. Turn on camera to capture images.



### 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.

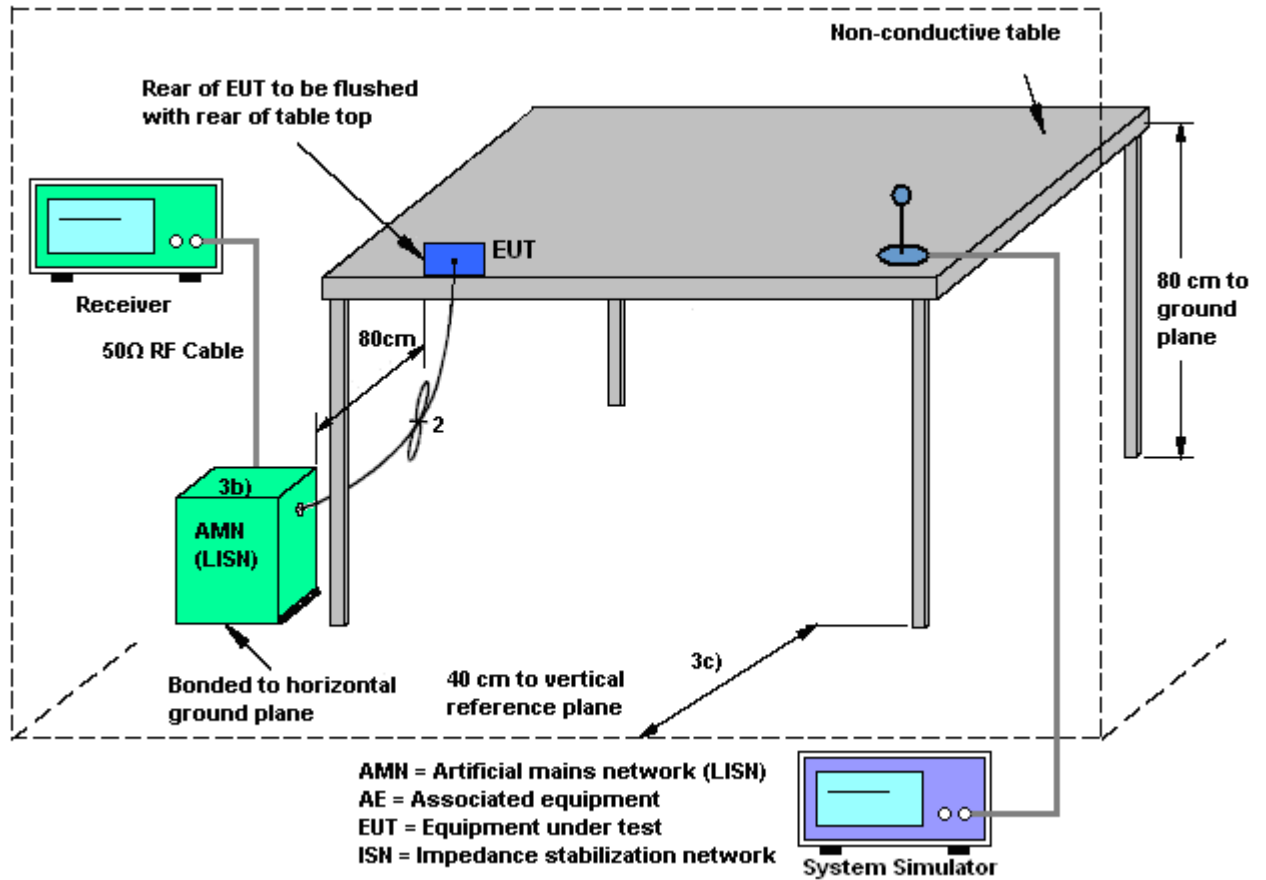
##### 3.1.2 Measuring Instruments

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.

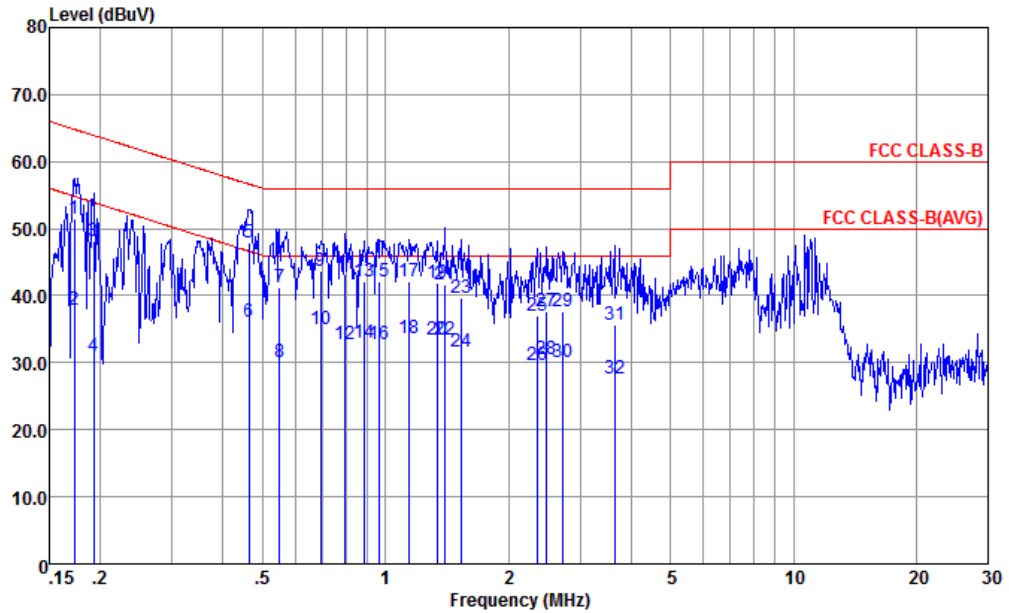
### 3.1.4 Test Setup





3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 2	Temperature :	22~24°C
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM 1900 Idle + USB Cable(Charging from Adapter2) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 2 + Camera(Front)		

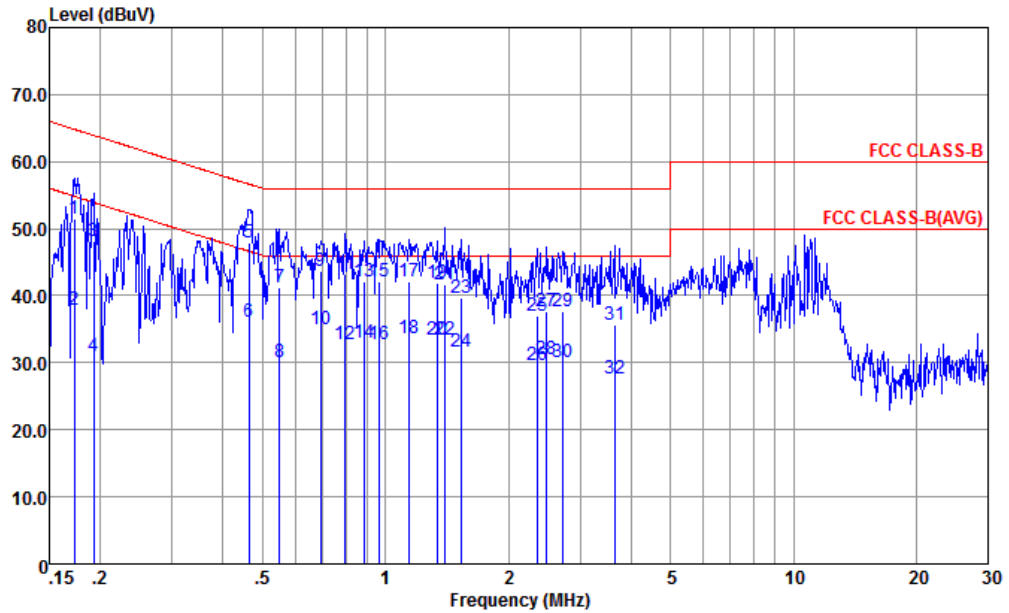


Site : CO01-KS  
 Condition : FCC CLASS-B LISN-L-161017-060103 LINE  
 Project : (FC) 760304  
 mode : Mode 2  
 : 864864030004992

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.173	51.38	-13.43	64.81	40.61	0.41	10.36	QP
2	0.173	37.98	-16.83	54.81	27.21	0.41	10.36	Average
3	0.192	48.24	-15.69	63.93	37.60	0.30	10.34	QP
4	0.192	30.94	-22.99	53.93	20.30	0.30	10.34	Average
5 *	0.464	47.96	-8.67	56.63	37.50	0.27	10.19	QP
6	0.464	36.06	-10.57	46.63	25.60	0.27	10.19	Average
7	0.549	41.25	-14.75	56.00	30.81	0.26	10.18	QP
8	0.549	30.05	-15.95	46.00	19.61	0.26	10.18	Average
9	0.694	43.63	-12.37	56.00	33.20	0.25	10.18	QP
10	0.694	35.03	-10.97	46.00	24.60	0.25	10.18	Average
11	0.796	43.23	-12.77	56.00	32.81	0.25	10.17	QP
12	0.796	32.73	-13.27	46.00	22.31	0.25	10.17	Average
13	0.885	42.04	-13.96	56.00	31.60	0.26	10.18	QP
14	0.885	33.04	-12.96	46.00	22.60	0.26	10.18	Average
15	0.968	42.05	-13.95	56.00	31.60	0.26	10.19	QP
16	0.968	32.75	-13.25	46.00	22.30	0.26	10.19	Average
17	1.141	42.04	-13.96	56.00	31.60	0.25	10.19	QP



Test Mode :	Mode 2	Temperature :	22~24°C
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM 1900 Idle + USB Cable(Charging from Adapter2) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 2 + Camera(Front)		



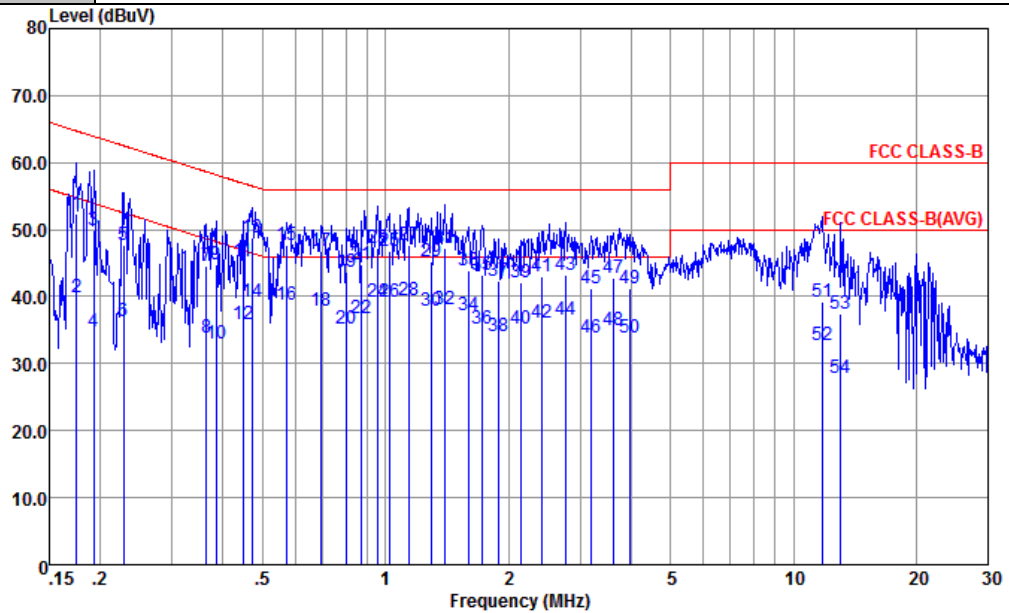
Site : CO01-KS  
 Condition : FCC CLASS-B LISN-L-161017-060103 LINE  
 Project : (FC) 760304  
 mode : Mode 2  
 : 864864030004992

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
18	1.141	33.74	-12.26	46.00	23.30	0.25	10.19	Average
19	1.338	41.93	-14.07	56.00	31.50	0.24	10.19	QP
20	1.338	33.33	-12.67	46.00	22.90	0.24	10.19	Average
21	1.403	41.62	-14.38	56.00	31.19	0.24	10.19	QP
22	1.403	33.32	-12.68	46.00	22.89	0.24	10.19	Average
23	1.535	39.62	-16.38	56.00	29.20	0.23	10.19	QP
24	1.535	31.72	-14.28	46.00	21.30	0.23	10.19	Average
25	2.358	37.01	-18.99	56.00	26.60	0.21	10.20	QP
26	2.358	29.71	-16.29	46.00	19.30	0.21	10.20	Average
27	2.487	37.61	-18.39	56.00	27.20	0.21	10.20	QP
28	2.487	30.61	-15.39	46.00	20.20	0.21	10.20	Average
29	2.721	37.72	-18.28	56.00	27.30	0.21	10.21	QP
30	2.721	30.02	-15.98	46.00	19.60	0.21	10.21	Average
31	3.642	35.64	-20.36	56.00	25.20	0.21	10.23	QP
32	3.642	27.54	-18.46	46.00	17.10	0.21	10.23	Average





Test Mode :	Mode 2	Temperature :	22~24°C
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM 1900 Idle + USB Cable(Charging from Adapter2) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 2 + Camera(Front)		

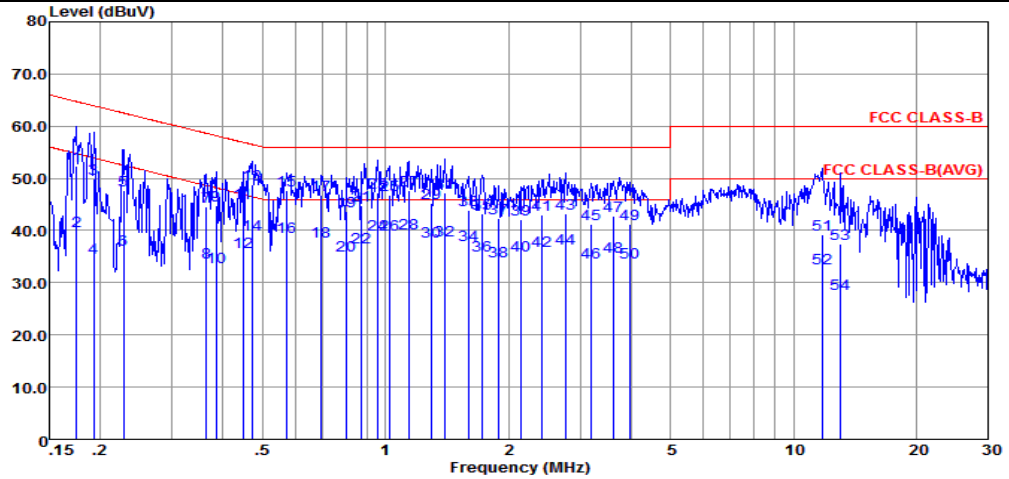


Site : CO01-KS  
 Condition : FCC CLASS-B LISN-N-161017-060103 NEUTRAL  
 Project : (FC) 760304  
 mode : Mode 2  
 : 864864030004992

	Over	Limit	Read	LISN	Cable			
Freq	Level	Limit	Line	Level	Factor	Loss		
MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.175	52.30	-12.42	64.72	41.61	0.33	10.36	QP
2	0.175	39.90	-14.82	54.72	29.21	0.33	10.36	Average
3	0.192	49.97	-13.96	63.93	39.30	0.33	10.34	QP
4	0.192	34.87	-19.06	53.93	24.20	0.33	10.34	Average
5	0.228	47.75	-14.77	62.52	37.10	0.34	10.31	QP
6	0.228	36.25	-16.27	52.52	25.60	0.34	10.31	Average
7	0.363	44.48	-14.17	58.65	33.90	0.36	10.22	QP
8	0.363	33.88	-14.77	48.65	23.30	0.36	10.22	Average
9	0.385	44.87	-13.30	58.17	34.29	0.37	10.21	QP
10	0.385	32.87	-15.30	48.17	22.29	0.37	10.21	Average
11	0.447	45.17	-11.76	56.93	34.61	0.37	10.19	QP
12	0.447	35.77	-11.16	46.93	25.21	0.37	10.19	Average
13	0.474	48.77	-7.68	56.45	38.20	0.38	10.19	QP
14	0.474	39.17	-7.28	46.45	28.60	0.38	10.19	Average
15	0.570	47.66	-8.34	56.00	37.10	0.38	10.18	QP
16	0.570	38.86	-7.14	46.00	28.30	0.38	10.18	Average
17	0.694	46.86	-9.14	56.00	36.30	0.38	10.18	QP



Test Mode :	Mode 2	Temperature :	22~24°C
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM 1900 Idle + USB Cable(Charging from Adapter2) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 2 + Camera(Front)		

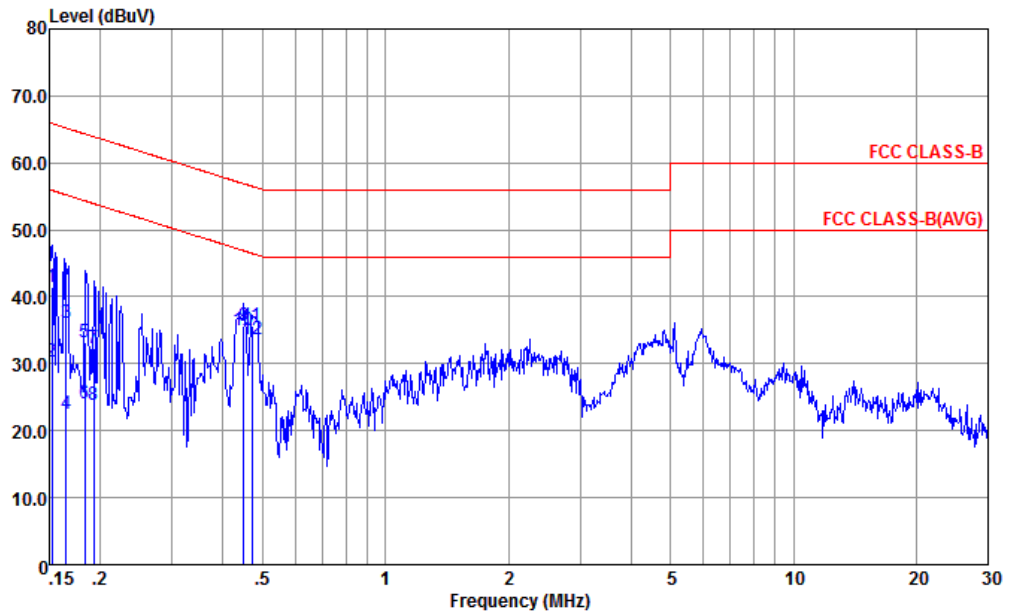


Site : CO01-KS  
 Condition : FCC CLASS-B LISN-N-161017-060103 NEUTRAL  
 Project : (FC) 760304  
 mode : Mode 2  
 : 864864030004992

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
18	0.694	37.86	-8.14	46.00	27.30	0.38	10.18	Average
19	0.804	43.76	-12.24	56.00	33.20	0.39	10.17	QP
20	0.804	35.16	-10.84	46.00	24.60	0.39	10.17	Average
21	0.876	44.87	-11.13	56.00	34.30	0.39	10.18	QP
22	0.876	36.87	-9.13	46.00	26.30	0.39	10.18	Average
23	0.953	47.18	-8.82	56.00	36.59	0.40	10.19	QP
24	0.953	39.18	-6.82	46.00	28.59	0.40	10.19	Average
25	1.021	46.79	-9.21	56.00	36.20	0.40	10.19	QP
26	1.021	39.19	-6.81	46.00	28.60	0.40	10.19	Average
27	1.141	47.69	-8.31	56.00	37.10	0.40	10.19	QP
28 *	1.141	39.49	-6.51	46.00	28.90	0.40	10.19	Average
29	1.296	45.19	-10.81	56.00	34.60	0.40	10.19	QP
30	1.296	37.89	-8.11	46.00	27.30	0.40	10.19	Average
31	1.403	47.19	-8.81	56.00	36.60	0.40	10.19	QP
32	1.403	38.19	-7.81	46.00	27.60	0.40	10.19	Average
33	1.593	43.89	-12.11	56.00	33.29	0.41	10.19	QP
34	1.593	37.19	-8.81	46.00	26.59	0.41	10.19	Average
35	1.725	43.20	-12.80	56.00	32.60	0.41	10.19	QP
36	1.725	35.20	-10.80	46.00	24.60	0.41	10.19	Average
37	1.898	42.40	-13.60	56.00	31.80	0.41	10.19	QP
38	1.898	34.20	-11.80	46.00	23.60	0.41	10.19	Average
39	2.155	42.20	-13.80	56.00	31.60	0.41	10.19	QP
40	2.155	35.20	-10.80	46.00	24.60	0.41	10.19	Average
41	2.422	42.91	-13.09	56.00	32.31	0.40	10.20	QP
42	2.422	36.21	-9.79	46.00	25.61	0.40	10.20	Average
43	2.765	43.21	-12.79	56.00	32.60	0.40	10.21	QP
44	2.765	36.51	-9.49	46.00	25.90	0.40	10.21	Average
45	3.190	41.22	-14.78	56.00	30.61	0.39	10.22	QP
46	3.190	33.82	-12.18	46.00	23.21	0.39	10.22	Average
47	3.623	42.82	-13.18	56.00	32.20	0.39	10.23	QP
48	3.623	34.92	-11.08	46.00	24.30	0.39	10.23	Average
49	3.985	41.23	-14.77	56.00	30.60	0.39	10.24	QP
50	3.985	33.83	-12.17	46.00	23.20	0.39	10.24	Average
51	11.745	39.26	-20.74	60.00	28.60	0.28	10.38	QP
52	11.745	32.76	-17.24	50.00	22.10	0.28	10.38	Average
53	13.057	37.49	-22.51	60.00	26.80	0.28	10.41	QP
54	13.057	27.79	-22.21	50.00	17.10	0.28	10.41	Average



Test Mode :	Mode 5	Temperature :	22~24°C
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	LTE Band 12 Idle + USB Cable(Data Link from Notebook) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 2 + GPS RX		

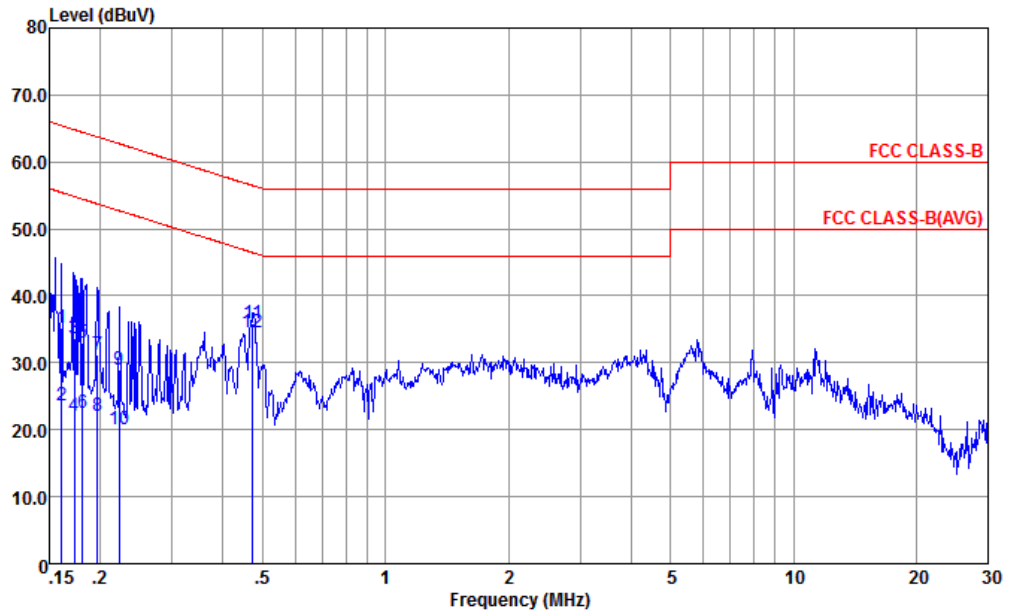


Site : CO01-KS  
 Condition : FCC CLASS-B LISN-L-161017-060103 LINE  
 Project : (FC) 760304  
 mode : Mode 5  
 : 864864030004992

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	41.52	-24.35	65.87	30.60	0.53	10.39	QP
2	0.152	30.22	-25.65	55.87	19.30	0.53	10.39	Average
3	0.165	36.03	-29.18	65.21	25.21	0.45	10.37	QP
4	0.165	22.43	-32.78	55.21	11.61	0.45	10.37	Average
5	0.183	33.30	-31.03	64.33	22.60	0.35	10.35	QP
6	0.183	24.00	-30.33	54.33	13.30	0.35	10.35	Average
7	0.192	32.24	-31.69	63.93	21.60	0.30	10.34	QP
8	0.192	23.94	-29.99	53.93	13.30	0.30	10.34	Average
9	0.449	35.66	-21.23	56.89	25.20	0.27	10.19	QP
10 *	0.449	34.96	-11.93	46.89	24.50	0.27	10.19	Average
11	0.471	35.66	-20.83	56.49	25.20	0.27	10.19	QP
12	0.471	33.66	-12.83	46.49	23.20	0.27	10.19	Average



Test Mode :	Mode 5	Temperature :	22~24°C
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	LTE Band 12 Idle + USB Cable(Data Link from Notebook) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 2 + GPS RX		



Site : CO01-KS  
 Condition : FCC CLASS-B LISN-N-161017-060103 NEUTRAL  
 Project : (FC) 760304  
 mode : Mode 5  
 : 864864030004992

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.161	35.32	-30.11	65.43	24.60	0.34	10.38	QP
2	0.161	23.62	-31.81	55.43	12.90	0.34	10.38	Average
3	0.173	33.60	-31.21	64.81	22.90	0.34	10.36	QP
4	0.173	22.00	-32.81	54.81	11.30	0.34	10.36	Average
5	0.181	32.99	-31.47	64.46	22.31	0.33	10.35	QP
6	0.181	22.59	-31.87	54.46	11.91	0.33	10.35	Average
7	0.197	31.27	-32.49	63.76	20.60	0.33	10.34	QP
8	0.197	22.17	-31.59	53.76	11.50	0.33	10.34	Average
9	0.222	28.95	-33.79	62.74	18.30	0.34	10.31	QP
10	0.222	20.15	-32.59	52.74	9.50	0.34	10.31	Average
11	0.474	35.87	-20.58	56.45	25.30	0.38	10.19	QP
12 *	0.474	34.47	-11.98	46.45	23.90	0.38	10.19	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

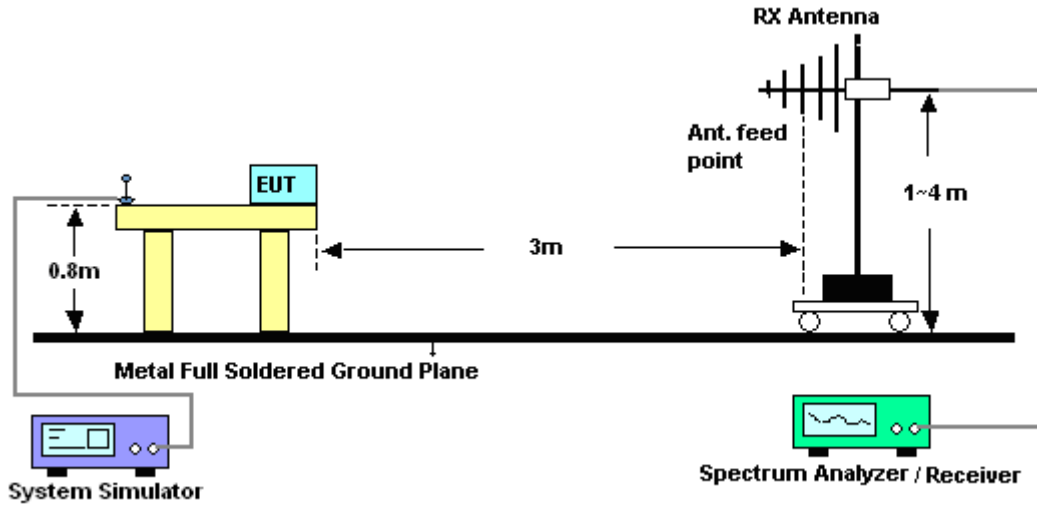
The measuring equipment is listed in the section 4 of this test report.

#### 3.2.3. Test Procedures

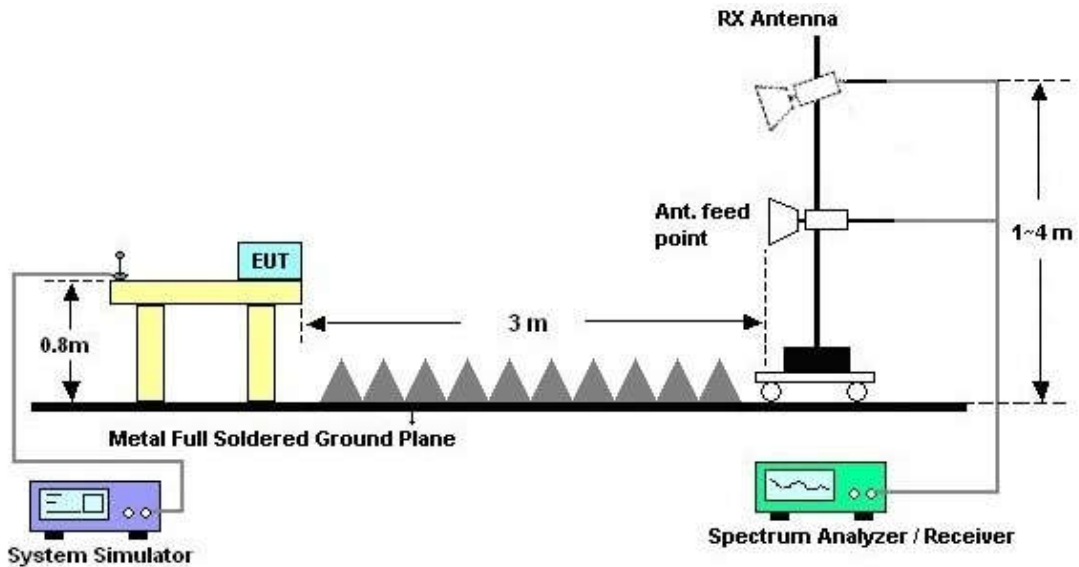
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna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



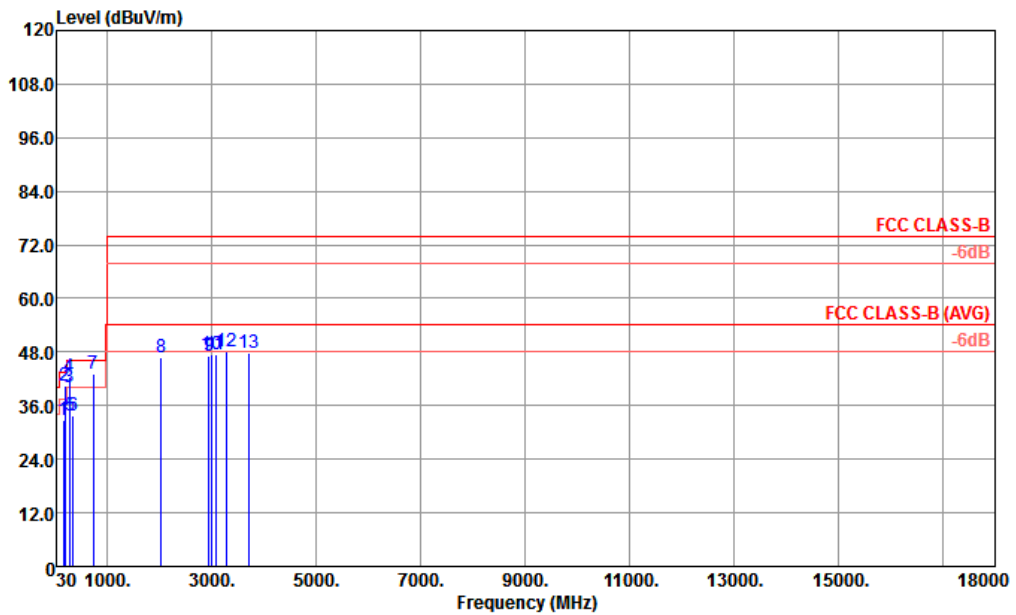
For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 5	Temperature :	21~22°C
Test Engineer :	Jason Peng	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	LTE Band 12 Idle + USB Cable(Data Link from Notebook) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 1 + GPS RX		
Remark :	#7 is system simulator signal which can be ignored.		



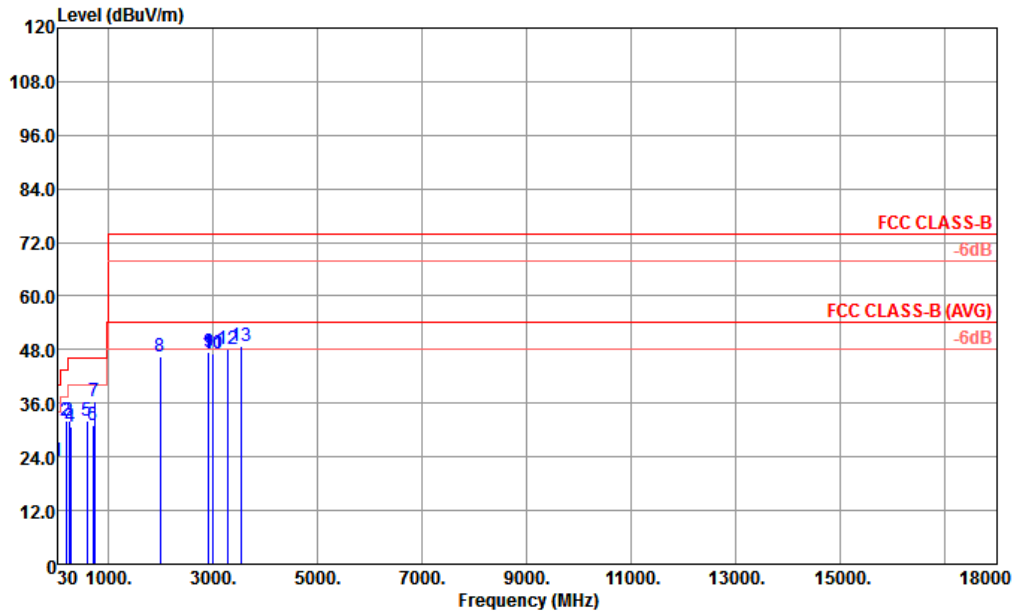
Site : 03CH02-KS  
 Condition : FCC CLASS-B 3m 02 LF ANT HORIZONTAL  
 Project : (FC) 760304  
 Mode : 5  
 IMEI : 864864030004539 #10

: EUT (eMMC) USB Data Link to PC/NB

	Freq	Level	Over Limit	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	165.81	32.69	-10.81	43.50	47.13	16.96	0.35	31.75	---	---	Peak
2 !	196.05	40.32	-3.18	43.50	55.62	15.94	0.41	31.65	100	0	Peak
3 !	284.07	40.18	-5.82	46.00	53.09	17.78	0.56	31.25	---	---	Peak
4 !	285.69	42.41	-3.59	46.00	55.25	17.84	0.56	31.24	---	---	Peak
5	300.00	33.73	-12.27	46.00	46.09	18.20	0.60	31.16	---	---	Peak
6	344.80	33.83	-12.17	46.00	44.41	19.67	0.71	30.96	---	---	Peak
7 !	736.80	43.20			43.86	26.63	1.31	28.60	---	---	Peak
8	2034.00	46.95	-27.05	74.00	44.78	30.30	4.76	32.89	---	---	Peak
9	2950.00	47.09	-26.91	74.00	41.06	32.25	3.04	29.26	---	---	Peak
10	2994.00	47.47	-26.53	74.00	40.81	32.35	3.14	28.83	---	---	Peak
11	3084.00	47.30	-26.70	74.00	39.93	32.72	4.43	29.78	---	---	Peak
12	3285.00	48.00	-26.00	74.00	39.32	33.16	6.01	30.49	---	---	Peak
13	3711.00	47.83	-26.17	74.00	37.33	34.27	6.34	30.11	---	---	Peak



Test Mode :	Mode 5	Temperature :	21~22°C
Test Engineer :	Jason Peng	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Function Type :	LTE Band 12 Idle + USB Cable(Data Link from Notebook) + Earphone + Bluetooth Idle + WLAN Idle(2.4G) + Battery 1 + GPS RX		
Remark :	#7 is system simulator signal which can be ignored.		



Site : 03CH02-KS  
 Condition : FCC CLASS-B 3m 02 LF ANT VERTICAL  
 Project : (FC) 760304  
 Mode : 5  
 IMEI : 864864030004539 #10

: EUT (eMMC) USB Data Link to PC/NB										
Freq	Level	Over Limit	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg		
1	30.27	-16.89	40.00	29.48	25.60	0.11	32.08	---	---	Peak
2	196.05	-11.46	43.50	47.34	15.94	0.41	31.65	100	0	Peak
3	254.37	-13.77	46.00	46.15	17.00	0.50	31.42	---	---	Peak
4	285.15	-15.12	46.00	43.72	17.84	0.56	31.24	---	---	Peak
5	597.50	-14.02	46.00	36.00	24.60	0.90	29.52	---	---	Peak
6	706.00	-14.82	46.00	32.35	26.44	1.20	28.81	---	---	Peak
7	737.50	36.48		37.14	26.63	1.31	28.60	---	---	Peak
8	1994.00	-27.37	74.00	44.72	30.07	4.46	32.62	---	---	Peak
9	2922.00	-26.70	74.00	41.62	32.15	3.00	29.47	---	---	Peak
10	2990.00	-26.76	74.00	40.58	32.35	3.14	28.83	---	---	Peak
11	3012.00	-26.79	74.00	40.74	32.40	3.14	29.07	---	---	Peak
12	3288.00	-25.81	74.00	39.50	33.17	6.01	30.49	---	---	Peak
13	3537.00	-25.34	74.00	39.30	33.49	6.04	30.17	---	---	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. 20, 2017	Jun. 25, 2017	Apr. 19, 2018	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2016	Jun. 25, 2017	Oct. 13, 2017	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 13, 2016	Jun. 25, 2017	Oct. 13, 2017	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP0000008 11	AC 0V~300V, 45Hz~1000Hz	Oct. 13, 2016	Jun. 25, 2017	Oct. 13, 2017	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Ma x 30dBm	Aug.09, 2016	Jun. 21, 2017	Aug. 08, 2017	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz-44G,MAX 30dB	Apr.18, 2017	Jun. 21, 2017	Apr. 17, 2018	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	37879	30MHz-2GHz	Aug. 20, 2016	Jun. 21, 2017	Aug. 19, 2017	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 22, 2016	Jun. 21, 2017	Oct. 21, 2017	Radiation (03CH02-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz ~40GHz	Feb. 15, 2017	Jun. 21, 2017	Feb. 14, 2018	Radiation (03CH01-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Aug.09, 2016	Jun. 21, 2017	Aug.08, 2017	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1-26.5GHz Gain 30dB	Oct. 13, 2016	Jun. 21, 2017	Oct. 12, 2017	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	61601000247 3	N/A	NCR	Jun. 21, 2017	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Jun. 21, 2017	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Jun. 21, 2017	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
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.2dB
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### Uncertainty of Radiated Emission Measurement (1GHz ~ 18GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.7dB
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