



FCC Test Report

APPLICANT : ZTE CORPORATION
EQUIPMENT : LTE/CDMA/WCDMA/GSM(GPRS) Multi-Mode
Digital Mobile Phone
BRAND NAME : ZTE
MODEL NAME : N9560
FCC ID : SRQ-ZTEN9560
STANDARD : FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION : Certification

The product was received on Jan. 09, 2017 and testing was completed on Jan. 22, 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.

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Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL (KUNSHAN) INC.
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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 3.38 dB at 0.150 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 3.63 dB at 34.320 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	
Equipment	LTE/CDMA/WCDMA/GSM(GPRS) Multi-Mode Digital Mobile Phone
Brand Name	ZTE
Model Name	N9560
FCC ID	SRQ-ZTEN9560
EUT supports Radios application	CDMA/EV-DO/GSM/GPRS/EGPRS/WCDMA/HSPA/HSPA+(16QAM uplink is not supported)/LTE/WLAN 2.4GHz 802.11b/g/n HT20/HT40/WLAN 5GHz 802.11a/n HT20/HT40/WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/Bluetooth v3.0 + EDR/Bluetooth v4.0 LE/Bluetooth v4.2 LE
IMEI Code	Conduction: 990006880007206 Radiation: 990006880007206
HW Version	N9560HW1.0
SW Version	N9560V1.0.0B01
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.



1.4. Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band IV : 1712.4 MHz ~ 1752.6 MHz WCDMA Band II : 1852.4 MHz ~ 1907.6 MHz LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 25 : 1850.7 MHz ~ 1914.3 MHz LTE Band 26 : 814.7 MHz ~ 848.3 MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 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/ac: 5180 MHz ~ 5240 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 25 : 1930.7 MHz ~ 1994.3 MHz LTE Band 26 : 859.7 MHz ~ 893.3 MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 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/ac: 5180 MHz ~ 5240 MHz; 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz GPS : 1.57542 GHz Glonass: 1602 MHz + n× 0.5625MHz (n=-7,-6,-5,...0,...,6)



Antenna Type	WWAN : PIFA Antenna WLAN : PIFA Antenna Bluetooth : PIFA Antenna GPS/Glonass: PIFA Antenna
Type of Modulation	GSM/GPRS: GMSK EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK WCDMA: BPSK (Uplink) HSPA: QPSK (Uplink) HSPA+: 16QAM (Uplink is not supported) LTE: QPSK / 16QAM CDMA2000 : QPSK CDMA2000 1xEV-DO : 8PSK 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n/ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : $\pi/4$ -DQPSK Bluetooth (3Mbps) : 8-DPSK GPS/Glonass : BPSK

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.



2. Test Configuration of Equipment Under Test

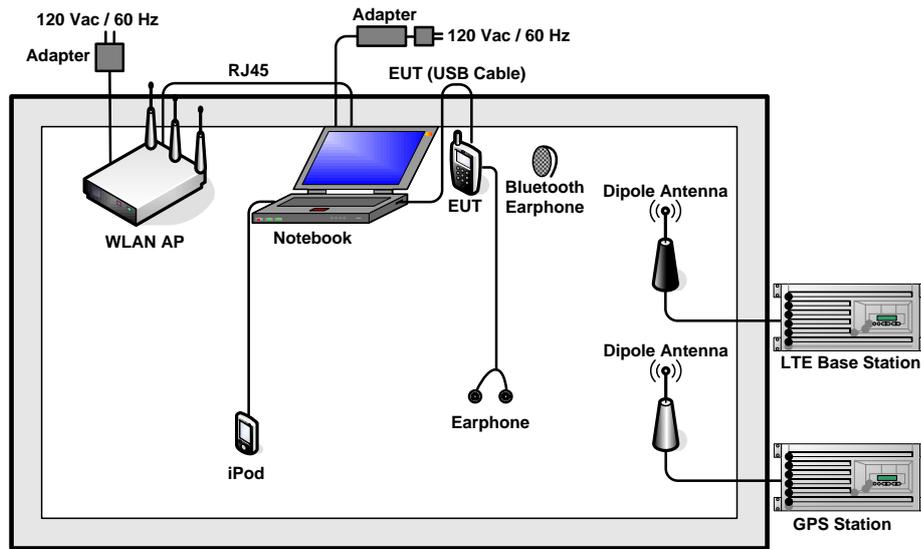
2.1. Test Mode

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: GSM850 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Rear) <Fig.1> Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN(5G)Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Front) <Fig.1> Mode 3: WCDMA Band V Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 <Fig.1> Mode 4: LTE Band 4 Idle + Bluetooth Idle + WLAN(5G)Idle + USB Cable (Charging from Adapter) + Earphone + Glonass Rx <Fig.2> Mode 5: LTE Band 7 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx <Fig.3>
Radiated Emissions < 1GHz	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Rear) <Fig.1> Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN(5G)Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Front) <Fig.1> Mode 3: WCDMA Band V Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 <Fig.1> Mode 4: LTE Band 4 Idle + Bluetooth Idle + WLAN(5G)Idle + USB Cable (Charging from Adapter) + Earphone + Glonass Rx <Fig.2> Mode 5: LTE Band 7 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx <Fig.3>
Radiated Emissions ≥ 1GHz	Mode 1: WCDMA Band V Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 <Fig.1> Mode 2: LTE Band 7 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx <Fig.3>
Remark: <ol style="list-style-type: none"> The worst case of AC is mode 1; and the USB Link mode of AC is mode 5, only the test data of these modes were reported. The worst case of RE < 1G is mode 3; and the USB Link mode is mode 5, only the test data of these modes were reported. Data Link with Notebook means data application transferred mode between EUT and Notebook. 	



<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	Unshielded, 1.8 m
3.	Glonass Station	RACELOGIC	RLLS03-2RP	N/A	N/A	Unshielded, 1.8 m
4.	WLAN AP	TP-LINK	TL-WDR5600	N/A	N/A	Unshielded, 1.8 m
5.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded, 1.8 m
6.	Bluetooth Earphone	Lenovo	LBH308	2010DP1340	N/A	N/A
7.	Notebook	Dell	Latiitude3440	N/A	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
8.	SD Card	SanDisk	Uitra	N/A	N/A	N/A
9.	iPod	Apple	A1199	FCC DoC	Shielded, 1.2 m	N/A
10.	Earphone	Lenovo	SH100	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 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.

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.

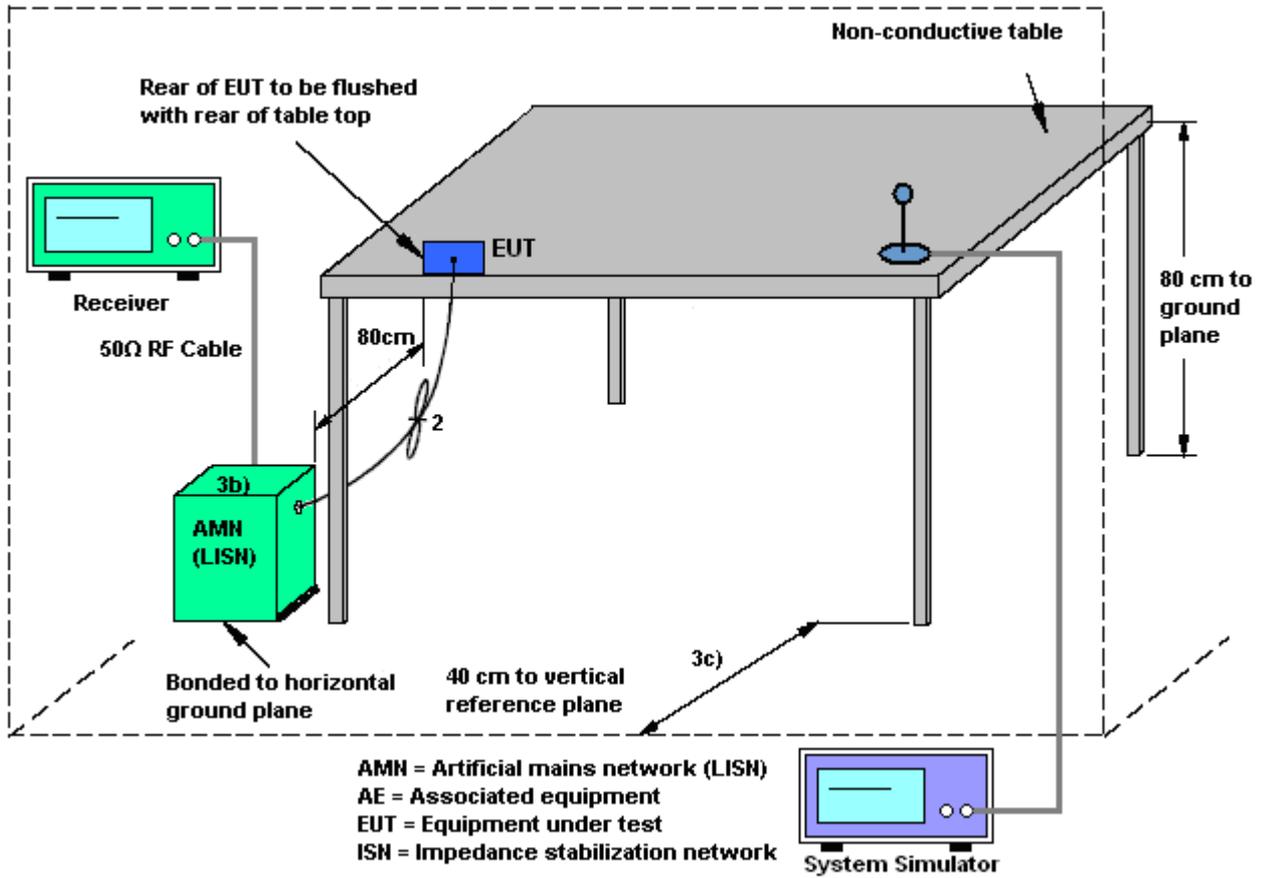
3.1.2 Measuring Instruments

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.

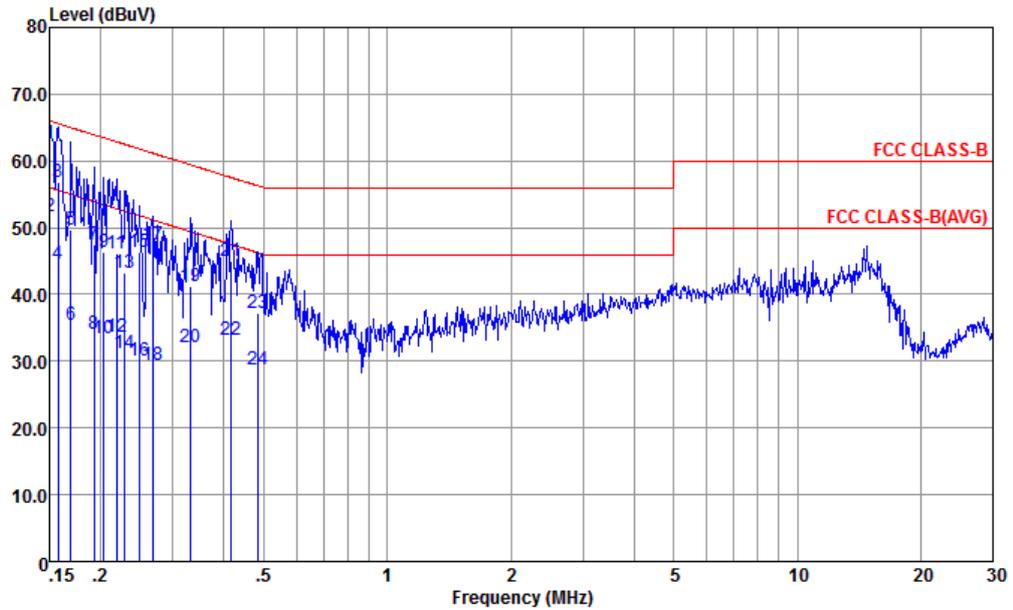
3.1.4 Test Setup





3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Peter Wei	Relative Humidity :	40~42%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Rear)		

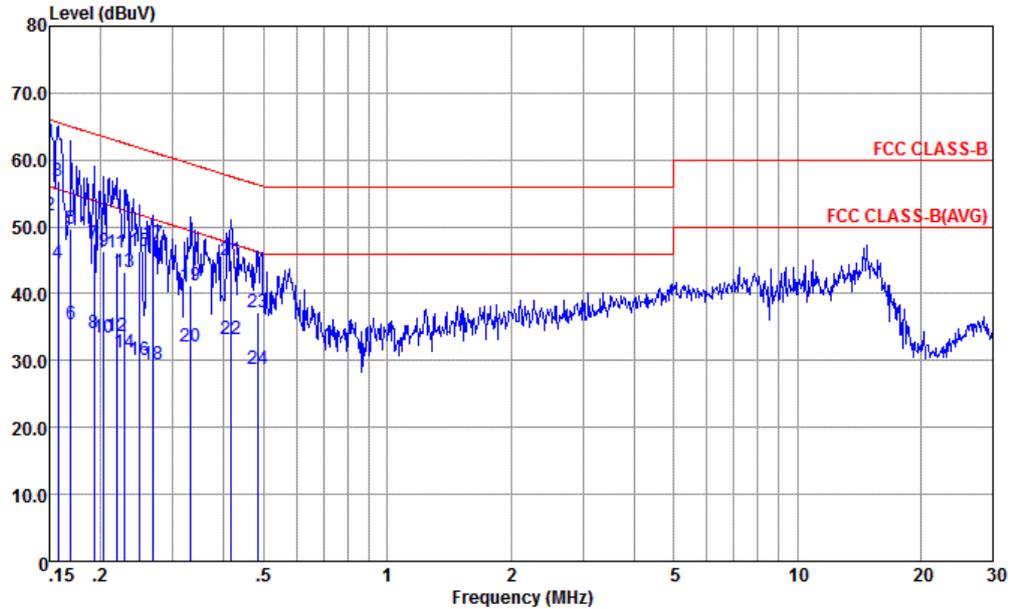


Site : CO01-KS
 Condition : FCC CLASS-B LISN-L-20151024 LINE
 Project : (FC) 710903
 mode : Mode 1
 IMEI : 990006880007206
 : #10

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1 *	0.150	62.62	-3.38	66.00	51.70	0.53	10.39	QP
2	0.150	51.72	-4.28	56.00	40.80	0.53	10.39	Average
3	0.157	56.76	-8.84	65.60	45.90	0.48	10.38	QP
4	0.157	44.56	-11.04	55.60	33.70	0.48	10.38	Average
5	0.169	49.67	-15.32	64.99	38.90	0.40	10.37	QP
6	0.169	35.47	-19.52	54.99	24.70	0.40	10.37	Average
7	0.192	47.40	-16.53	63.93	36.80	0.26	10.34	QP
8	0.192	34.00	-19.93	53.93	23.40	0.26	10.34	Average
9	0.204	46.35	-17.10	63.45	35.80	0.22	10.33	QP
10	0.204	33.45	-20.00	53.45	22.90	0.22	10.33	Average
11	0.219	46.04	-16.84	62.88	35.50	0.22	10.32	QP
12	0.219	33.74	-19.14	52.88	23.20	0.22	10.32	Average
13	0.229	43.13	-19.35	62.48	32.60	0.22	10.31	QP
14	0.229	31.23	-21.25	52.48	20.70	0.22	10.31	Average
15	0.249	46.41	-15.37	61.78	35.90	0.22	10.29	QP
16	0.249	30.01	-21.77	51.78	19.50	0.22	10.29	Average



Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Peter Wei	Relative Humidity :	40~42%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Rear)		

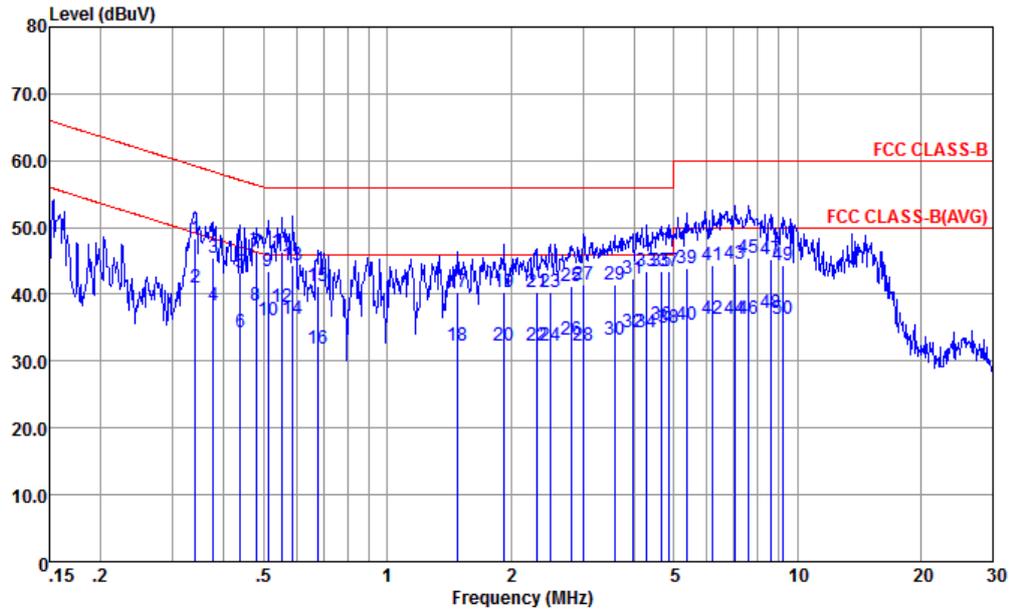


Site : CO01-KS
 Condition : FCC CLASS-B LISN-L-20151024 LINE
 Project : (FC) 710903
 mode : Mode 1
 IMEI : 990006880007206
 : #10

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
17	0.267	47.40	-13.80	61.20	36.90	0.22	10.28	QP
18	0.267	29.40	-21.80	51.20	18.90	0.22	10.28	Average
19	0.332	41.26	-18.14	59.40	30.80	0.23	10.23	QP
20	0.332	32.06	-17.34	49.40	21.60	0.23	10.23	Average
21	0.417	45.12	-12.39	57.51	34.69	0.23	10.20	QP
22	0.417	33.22	-14.29	47.51	22.79	0.23	10.20	Average
23	0.484	37.22	-19.05	56.27	26.80	0.23	10.19	QP
24	0.484	28.82	-17.45	46.27	18.40	0.23	10.19	Average



Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Peter Wei	Relative Humidity :	40~42%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Rear)		

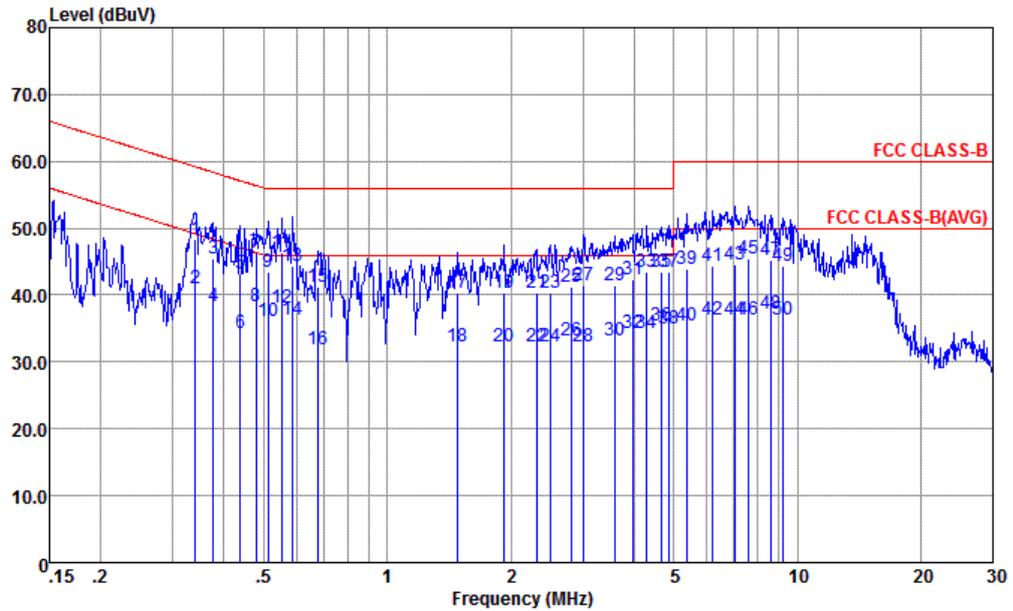


Site : CO01-KS
 Condition : FCC CLASS-B LISN-N-20151024 NEUTRAL
 Project : (FC) 710903
 mode : Mode 1
 IMEI : 990006880007206
 : #10

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.341	48.45	-10.73	59.18	37.90	0.32	10.23	QP
2	0.341	40.95	-8.23	49.18	30.40	0.32	10.23	Average
3	0.377	45.43	-12.91	58.34	34.90	0.32	10.21	QP
4	0.377	38.33	-10.01	48.34	27.80	0.32	10.21	Average
5	0.437	43.31	-13.80	57.11	32.80	0.32	10.19	QP
6	0.437	34.21	-12.90	47.11	23.70	0.32	10.19	Average
7	0.479	46.41	-9.95	56.36	35.90	0.32	10.19	QP
8	0.479	38.31	-8.05	46.36	27.80	0.32	10.19	Average
9	0.513	43.41	-12.59	56.00	32.90	0.32	10.19	QP
10	0.513	36.21	-9.79	46.00	25.70	0.32	10.19	Average
11	0.552	46.41	-9.59	56.00	35.90	0.33	10.18	QP
12 *	0.552	38.01	-7.99	46.00	27.50	0.33	10.18	Average
13	0.589	44.31	-11.69	56.00	33.80	0.33	10.18	QP
14	0.589	36.41	-9.59	46.00	25.90	0.33	10.18	Average
15	0.679	41.32	-14.68	56.00	30.80	0.34	10.18	QP
16	0.679	31.92	-14.08	46.00	21.40	0.34	10.18	Average



Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Peter Wei	Relative Humidity :	40~42%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Rear)		

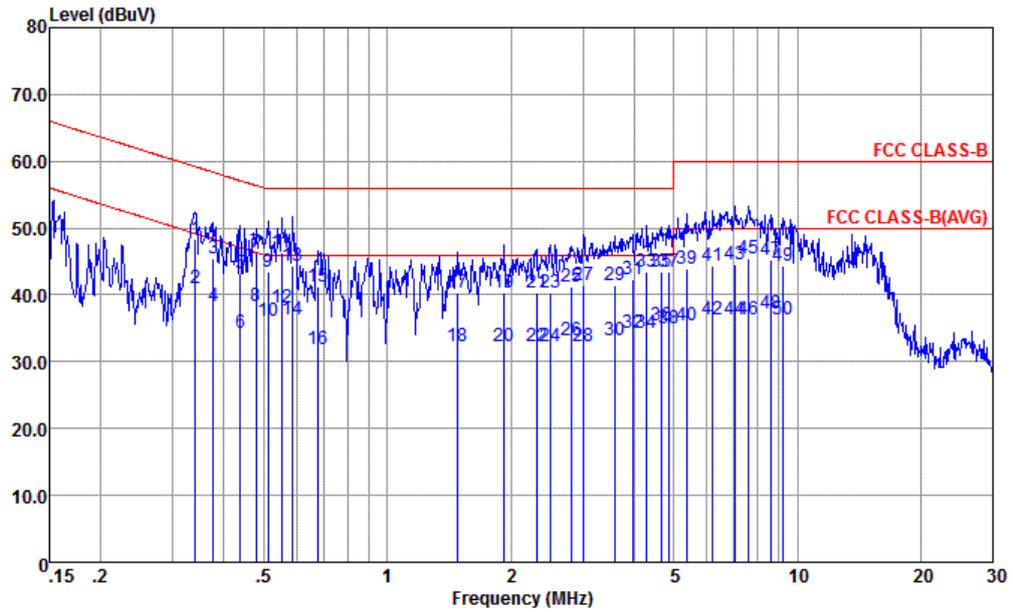


Site : CO01-KS
 Condition : FCC CLASS-B LISN-N-20151024 NEUTRAL
 Project : (FC) 710903
 mode : Mode 1
 IMEI : 990006880007206
 : #10

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
17	1.487	40.36	-15.64	56.00	29.79	0.38	10.19	QP
18	1.487	32.26	-13.74	46.00	21.69	0.38	10.19	Average
19	1.928	40.37	-15.63	56.00	29.80	0.38	10.19	QP
20	1.928	32.27	-13.73	46.00	21.70	0.38	10.19	Average
21	2.309	40.37	-15.63	56.00	29.79	0.38	10.20	QP
22	2.309	32.27	-13.73	46.00	21.69	0.38	10.20	Average
23	2.500	40.38	-15.62	56.00	29.80	0.38	10.20	QP
24	2.500	32.28	-13.72	46.00	21.70	0.38	10.20	Average
25	2.824	41.29	-14.71	56.00	30.71	0.37	10.21	QP
26	2.824	33.19	-12.81	46.00	22.61	0.37	10.21	Average
27	3.009	41.39	-14.61	56.00	30.80	0.37	10.22	QP
28	3.009	32.29	-13.71	46.00	21.70	0.37	10.22	Average
29	3.584	41.50	-14.50	56.00	30.90	0.37	10.23	QP
30	3.584	33.30	-12.70	46.00	22.70	0.37	10.23	Average
31	3.964	42.40	-13.60	56.00	31.79	0.37	10.24	QP
32	3.964	34.30	-11.70	46.00	23.69	0.37	10.24	Average
33	4.292	43.50	-12.50	56.00	32.90	0.36	10.24	QP
34	4.292	34.40	-11.60	46.00	23.80	0.36	10.24	Average



Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Peter Wei	Relative Humidity :	40~42%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Rear)		

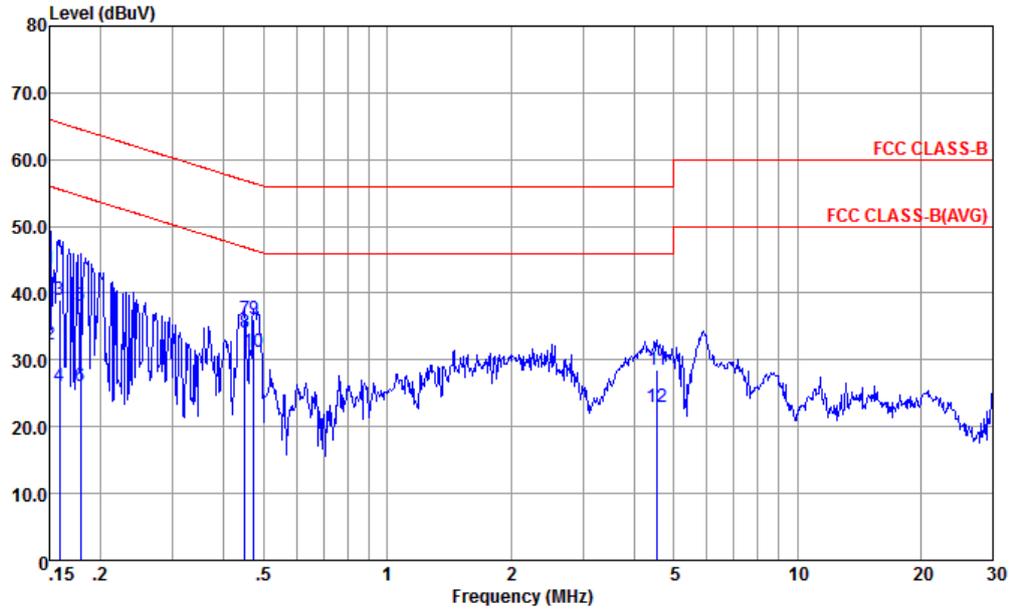


Site : CO01-KS
 Condition : FCC CLASS-B LISN-N-20151024 NEUTRAL
 Project : (FC) 710903
 mode : Mode 1
 IMEI : 990006880007206
 : #10

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
35	4.647	43.40	-12.60	56.00	32.80	0.36	10.24	QP
36	4.647	35.50	-10.50	46.00	24.90	0.36	10.24	Average
37	4.848	43.50	-12.50	56.00	32.90	0.36	10.24	QP
38	4.848	35.00	-11.00	46.00	24.40	0.36	10.24	Average
39	5.362	43.99	-16.01	60.00	33.40	0.34	10.25	QP
40	5.362	35.49	-14.51	50.00	24.90	0.34	10.25	Average
41	6.219	44.38	-15.62	60.00	33.81	0.31	10.26	QP
42	6.219	36.28	-13.72	50.00	25.71	0.31	10.26	Average
43	7.062	44.48	-15.52	60.00	33.90	0.29	10.29	QP
44	7.062	36.28	-13.72	50.00	25.70	0.29	10.29	Average
45	7.606	45.49	-14.51	60.00	34.90	0.29	10.30	QP
46	7.606	36.39	-13.61	50.00	25.80	0.29	10.30	Average
47	8.592	45.20	-14.80	60.00	34.60	0.28	10.32	QP
48	8.592	37.30	-12.70	50.00	26.70	0.28	10.32	Average
49	9.253	44.41	-15.59	60.00	33.80	0.28	10.33	QP
50	9.253	36.31	-13.69	50.00	25.70	0.28	10.33	Average



Test Mode :	Mode 5	Temperature :	20~22°C
Test Engineer :	Peter Wei	Relative Humidity :	40~42%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx		

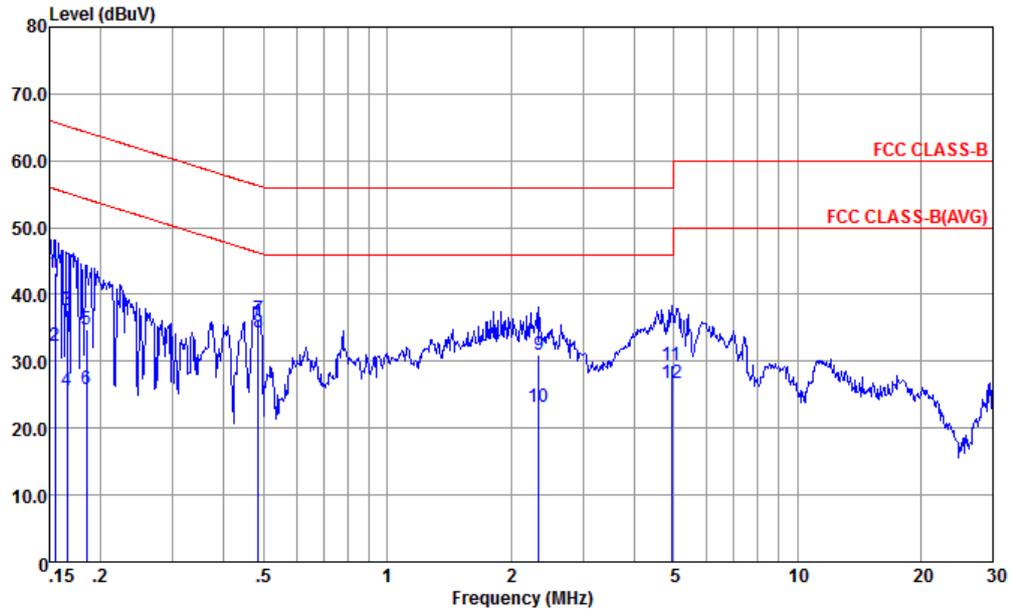


Site : CO01-KS
 Condition : FCC CLASS-B LISN-L-20151024 LINE
 Project : (FC) 710903
 mode : Mode 5
 IMEI : 990006880007206
 : #10

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.150	43.72	-22.28	66.00	32.80	0.53	10.39	QP
2	0.150	32.32	-23.68	56.00	21.40	0.53	10.39	Average
3	0.159	38.95	-26.57	65.52	28.10	0.47	10.38	QP
4	0.159	26.15	-29.37	55.52	15.30	0.47	10.38	Average
5	0.179	38.00	-26.55	64.55	27.30	0.34	10.36	QP
6	0.179	26.00	-28.55	54.55	15.30	0.34	10.36	Average
7	0.449	36.02	-20.87	56.89	25.60	0.23	10.19	QP
8 *	0.449	34.02	-12.87	46.89	23.60	0.23	10.19	Average
9	0.474	36.02	-20.43	56.45	25.60	0.23	10.19	QP
10	0.474	31.22	-15.23	46.45	20.80	0.23	10.19	Average
11	4.549	28.53	-27.47	56.00	18.10	0.19	10.24	QP
12	4.549	23.03	-22.97	46.00	12.60	0.19	10.24	Average



Test Mode :	Mode 5	Temperature :	20~22°C
Test Engineer :	Peter Wei	Relative Humidity :	40~42%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx		



Site : CO01-KS
 Condition : FCC CLASS-B LISN-N-20151024 NEUTRAL
 Project : (FC) 710903
 mode : Mode 5
 IMEI : 990006880007206
 : #10

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.155	43.29	-22.45	65.74	32.60	0.30	10.39	QP
2	0.155	32.39	-23.35	55.74	21.70	0.30	10.39	Average
3	0.166	37.58	-27.58	65.16	26.91	0.30	10.37	QP
4	0.166	25.58	-29.58	55.16	14.91	0.30	10.37	Average
5	0.184	34.76	-29.52	64.28	24.10	0.31	10.35	QP
6	0.184	25.96	-28.32	54.28	15.30	0.31	10.35	Average
7	0.484	36.41	-19.86	56.27	25.90	0.32	10.19	QP
8 *	0.484	34.41	-11.86	46.27	23.90	0.32	10.19	Average
9	2.346	31.08	-24.92	56.00	20.50	0.38	10.20	QP
10	2.346	23.18	-22.82	46.00	12.60	0.38	10.20	Average
11	4.926	29.40	-26.60	56.00	18.80	0.36	10.24	QP
12	4.926	26.80	-19.20	46.00	16.20	0.36	10.24	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.

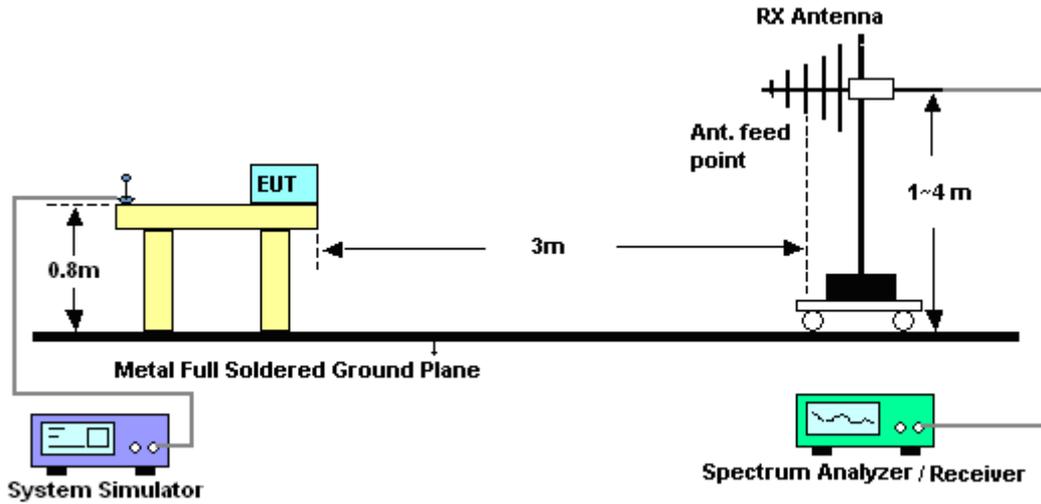


3.2.3. Test Procedures

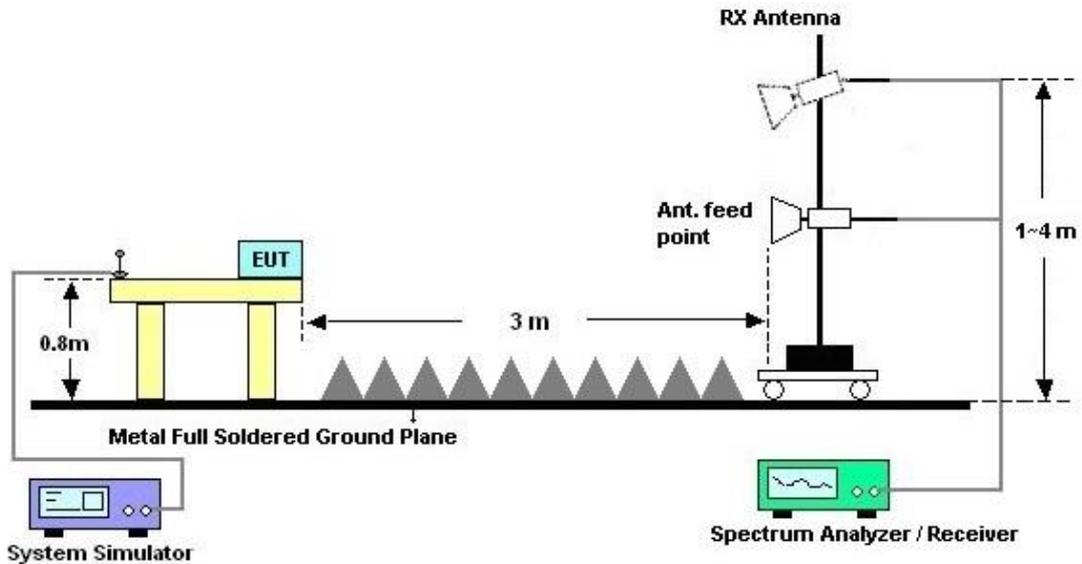
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna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

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



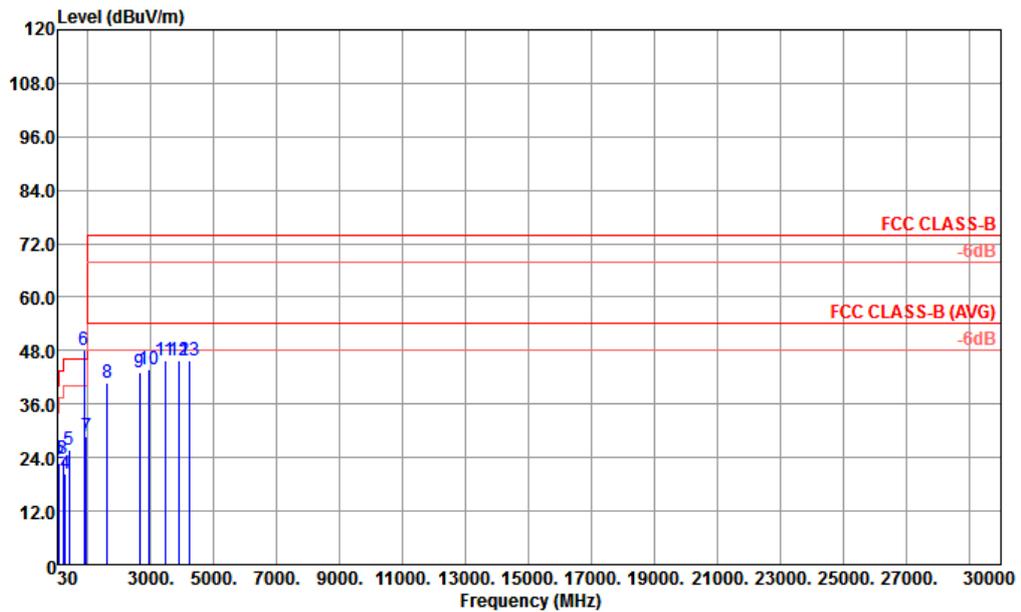
For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 3	Temperature :	21~22°C
Test Engineer :	Carl Ni	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	WCDMA Band V Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4		
Remark :	#6 is system simulator signal which can be ignored.		

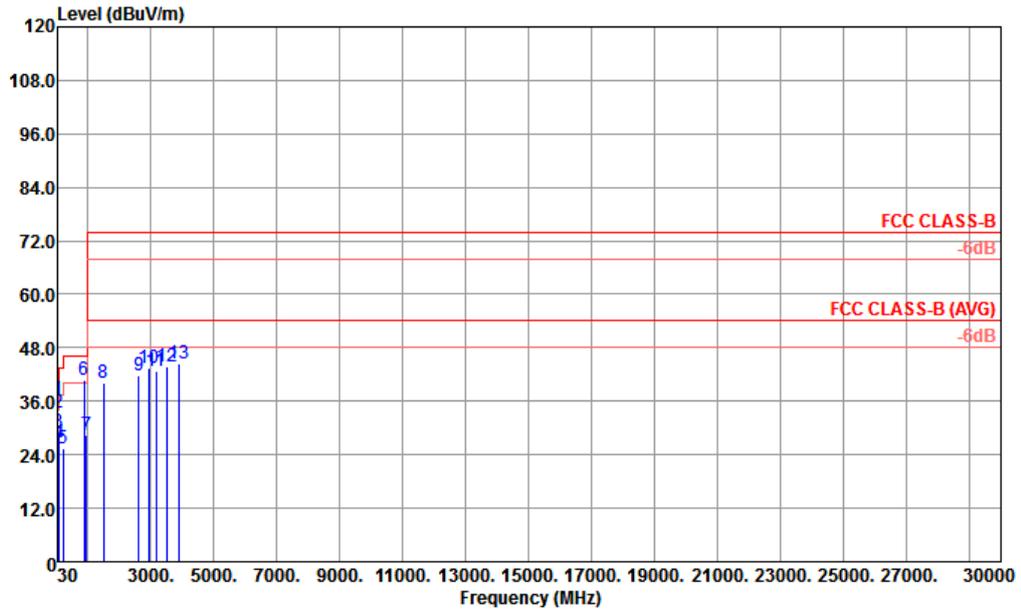


Site : 03CH02-KS
 Condition : FCC CLASS-B 3m 966-02 LF ANT HORIZONTAL
 Project : (FC) 710903
 Mode : 3
 IMEI : 990008820007206 #10

	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	30.00	23.73	-16.27	40.00	29.57	25.80	0.11	31.75	100	0 Peak	
2	82.92	22.63	-17.37	40.00	38.52	15.60	0.20	31.69	---	---	Peak
3	197.67	23.63	-19.87	43.50	38.84	15.39	0.41	31.01	---	---	Peak
4	281.64	20.40	-25.60	46.00	33.26	17.65	0.56	31.07	---	---	Peak
5	405.70	25.63	-20.37	46.00	29.93	25.22	0.93	30.45	---	---	Peak
6 *	881.70	48.27			46.26	27.45	1.59	27.03	---	---	Peak
7	956.60	28.65	-17.35	46.00	24.78	28.56	1.74	26.43	---	---	Peak
8	1610.00	40.74	-33.26	74.00	43.83	28.98	4.18	36.25	---	---	Peak
9	2642.00	43.01	-30.99	74.00	38.74	31.78	3.41	30.92	---	---	Peak
10	2950.00	43.85	-30.15	74.00	36.78	32.47	3.04	28.44	---	---	Peak
11	3441.00	45.64	-28.36	74.00	36.93	33.72	5.96	30.97	---	---	Peak
12	3912.00	45.78	-28.22	74.00	36.34	34.72	6.36	31.64	---	---	Peak
13	4209.00	45.75	-28.25	74.00	36.09	35.12	6.38	31.84	---	---	Peak



Test Mode :	Mode 3	Temperature :	21~22°C
Test Engineer :	Carl Ni	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Function Type :	WCDMA Band V Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4		
Remark :	#6 is system simulator signal which can be ignored.		

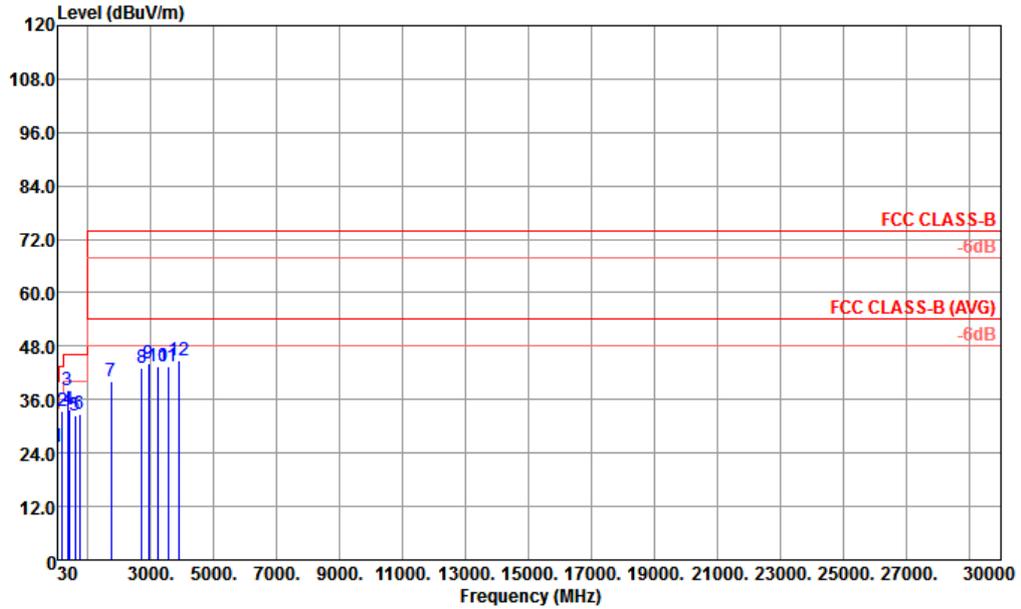


Site : 03CH02-KS
 Condition : FCC CLASS-B 3m 966-02 LF ANT VERTICAL
 Project : (FC) 710903
 Mode : 3
 IMEI : 990008820007206 #10

	Freq	Level	Over Limit	Limit Line	ReadAntenna 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 !	34.32	36.37	-3.63	40.00	43.43	24.55	0.12	31.73	100	167	Peak
2	40.80	33.57	-6.43	40.00	43.78	21.50	0.13	31.84	---	---	Peak
3	55.65	28.93	-11.07	40.00	46.49	13.90	0.15	31.61	---	---	Peak
4	85.89	26.83	-13.17	40.00	42.29	16.00	0.21	31.67	---	---	Peak
5	198.48	25.36	-18.14	43.50	40.53	15.39	0.41	30.97	---	---	Peak
6 !	880.30	40.92			38.95	27.44	1.57	27.04	---	---	Peak
7	948.90	28.53	-17.47	46.00	24.92	28.39	1.71	26.49	---	---	Peak
8	1494.00	40.00	-34.00	74.00	43.67	28.76	3.70	36.13	---	---	Peak
9	2612.00	41.79	-32.21	74.00	37.96	31.71	3.51	31.39	---	---	Peak
10	2958.00	43.59	-30.41	74.00	36.69	32.47	3.04	28.61	---	---	Peak
11	3162.00	42.71	-31.29	74.00	34.93	33.25	5.41	30.88	---	---	Peak
12	3507.00	43.94	-30.06	74.00	35.13	33.78	6.02	30.99	---	---	Peak
13	3882.00	44.48	-29.52	74.00	34.90	34.69	6.50	31.61	---	---	Peak



Test Mode :	Mode 5	Temperature :	21~22°C
Test Engineer :	Carl Ni	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx		



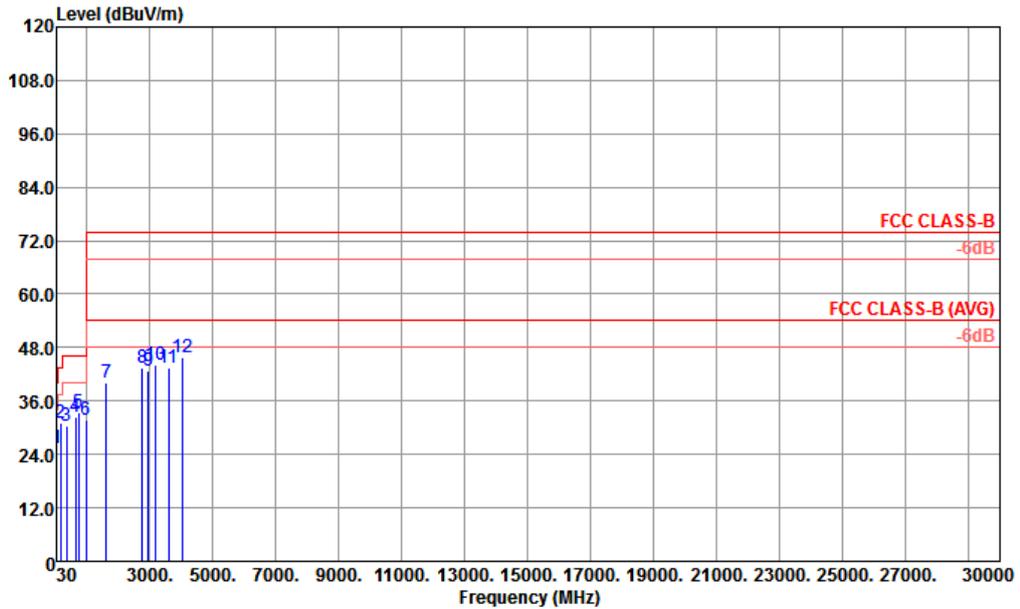
Site : 03CH02-KS
 Condition : FCC CLASS-B 3m 966-02 LF ANT HORIZONTAL
 Project : (FC) 710903
 Mode : 5
 IMEI : 990008820007206 #10

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

	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	45.52	25.44	-14.56	40.00	37.70	19.50	0.14	31.90	---	---	Peak
2	174.53	33.39	-10.11	43.50	48.10	16.50	0.37	31.58	---	---	Peak
3	344.28	38.00	-8.00	46.00	47.86	20.05	0.71	30.62	100	141	Peak
4	404.42	33.79	-12.21	46.00	38.09	25.24	0.93	30.47	---	---	Peak
5	596.48	32.43	-13.57	46.00	36.13	24.33	0.90	28.93	---	---	Peak
6	728.40	32.66	-13.34	46.00	33.03	26.45	1.28	28.10	---	---	Peak
7	1722.00	40.19	-33.81	74.00	42.71	29.17	4.38	36.07	---	---	Peak
8	2700.00	43.08	-30.92	74.00	37.58	31.89	3.11	29.50	---	---	Peak
9	2916.00	44.20	-29.80	74.00	37.14	32.39	2.95	28.28	---	---	Peak
10	3207.00	43.50	-30.50	74.00	35.17	33.42	6.05	31.14	---	---	Peak
11	3555.00	43.44	-30.56	74.00	34.57	33.84	6.05	31.02	---	---	Peak
12	3882.00	44.72	-29.28	74.00	35.14	34.69	6.50	31.61	---	---	Peak



Test Mode :	Mode 5	Temperature :	21~22°C
Test Engineer :	Carl Ni	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN(2.4G)Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx		



Site : 03CH02-KS
 Condition : FCC CLASS-B 3m 966-02 LF ANT VERTICAL
 Project : (FC) 710903
 Mode : 5
 IMEI : 990008820007206 #10

: PC/NB USB Data Link to EUT (eMMC)										
Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark			
Level	Line	Level	Loss	Factor	cm	deg				
Freq	Level	Limit	Line	Level	Factor	Factor	cm	deg		
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	45.52	25.49	-14.51	40.00	37.75	19.50	0.14	31.90	---	Peak
2	165.80	31.04	-12.46	43.50	45.22	16.91	0.35	31.44	100	Peak
3	344.28	30.30	-15.70	46.00	40.16	20.05	0.71	30.62	---	Peak
4	645.95	32.55	-13.45	46.00	35.10	25.11	1.02	28.68	---	Peak
5	724.52	33.34	-12.66	46.00	33.69	26.50	1.26	28.11	---	Peak
6	959.90	31.69	-14.31	46.00	27.67	28.66	1.75	26.39	---	Peak
7	1624.00	40.22	-33.78	74.00	43.28	29.01	4.18	36.25	---	Peak
8	2752.00	43.51	-30.49	74.00	37.17	31.99	2.91	28.56	---	Peak
9	2942.00	42.84	-31.16	74.00	35.85	32.43	3.00	28.44	---	Peak
10	3195.00	44.21	-29.79	74.00	36.26	33.40	5.73	31.18	---	Peak
11	3588.00	43.53	-30.47	74.00	34.59	33.88	6.09	31.03	---	Peak
12	4035.00	45.91	-28.09	74.00	36.59	34.91	6.17	31.76	---	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. 29, 2016	Jan. 22, 2017	Apr. 28, 2017	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2016	Jan. 22, 2017	Oct. 12, 2017	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 13, 2016	Jan. 22, 2017	Oct. 12, 2017	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP0000008 11	AC 0V~300V, 45Hz~1000Hz	Oct. 13, 2016	Jan. 22, 2017	Oct. 12, 2017	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz; Max 30dBm	Aug. 09, 2016	Jan. 15, 2017	Aug. 08, 2017	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz~44GHz, MAX 30dB	Apr. 22, 2016	Jan. 15, 2017	Apr. 21, 2017	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	37879	30MHz~2GHz	Aug. 20, 2016	Jan. 15, 2017	Aug. 19, 2017	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 22, 2016	Jan. 15, 2017	Oct. 21, 2017	Radiation (03CH02-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Mar. 03, 2016	Jan. 15, 2017	Mar. 02, 2017	Radiation (03CH02-KS)
Amplifier	com-power	PA-103A	161069	1kHz~1000MHz / 32 dB	Apr. 22, 2016	Jan. 15, 2017	Apr. 21, 2017	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1-26.5GHz Gain 30dB	Oct. 13, 2016	Jan. 15, 2017	Oct. 12, 2017	Radiation (03CH02-KS)
Amplifier	MITEQ	TTA1840-35-H G	1887435	18GHz~40GHz	Jan. 20, 2016	Jan. 15, 2017	Jan.19, 2017	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	61601000247 3	N/A	NCR	Jan. 15, 2017	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Jan. 15, 2017	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Jan. 15, 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
-------------------------------------------------------------------------	-------

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.5dB
-------------------------------------------------------------------------	-------

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

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