



# FCC Test Report

**APPLICANT** : ZTE CORPORATION  
**EQUIPMENT** : WCDMA/LTE Multi-mode Digital Mobile Phone  
**BRAND NAME** : ZTE  
**MODEL NAME** : VFD 600, Vodafone Smart prime 7, Vodacom Smart prime 7  
**MARKETING NAME** : Vodafone Smart prime 7, Vodacom Smart prime 7  
**FCC ID** : SRQ-VFD600  
**STANDARD** : FCC 47 CFR FCC Part 15 Subpart B  
**CLASSIFICATION** : Certification

The product was received on Dec. 02, 2015 and testing was completed on Jan. 05, 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 C63.4-2009 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.**  
**No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China**



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### SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	Under limit 8.87 dB at 13.620 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 3.03 dB at 165.270 MHz for Quasi-Peak



# 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	WCDMA/LTE Multi-mode Digital Mobile Phone
Brand Name	ZTE
Model Name	VFD 600, Vodafone Smart prime 7, Vodacom Smart prime 7
Marketing Name	Vodafone Smart prime 7, Vodacom Smart prime 7
FCC ID	SRQ-VFD600
EUT supports Radios application	GSM/GPRS/EGPRS/LTE/NFC WLAN2.4GHz 802.11b/g/n HT20 Bluetooth v2.1+EDR/Bluetooth v4.1 LE
IMEI Code	Conduction: 355595070010442 Radiation: 355595070010152
HW Version	P809V50HW1.0
SW Version	VDF-VFD600B01-DE02a
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 subjective to this standard

Product Specification subjective to this standard	
<b>Tx Frequency</b>	GSM1900: 1850.2 MHz ~ 1909.8MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz 802.11b/g/n : 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
<b>Rx Frequency</b>	GSM1900: 1930.2 MHz ~ 1989.8 MHz LTE Band 7 : 2622.5 MHz ~ 2687.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GPS : 1.57542 GHz Glonass: 1602 MHz + $n \times 0.5625\text{MHz}$ ( $n=-7,-6,-5,\dots,0,\dots,6$ ) NFC : 13.56 MHz
<b>Antenna Type</b>	WWAN : PIFA Antenna WLAN : PIFA Antenna Bluetooth : PIFA Antenna GPS/Glonass : PIFA Antenna NFC : PIFA Antenna
<b>Type of Modulation</b>	GSM: GMSK GPRS: GMSK EGPRS : GMSK/8PSK 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 NFC: ASK

### 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, Jiangsu Province, P. R. 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

### 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 C63.4-2009

**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 C63.4-2009 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)	☒	☒	Note 1
2.	Data application transferred mode (EUT connected with Notebook)	☒	☒	☒

#### Abbreviations:

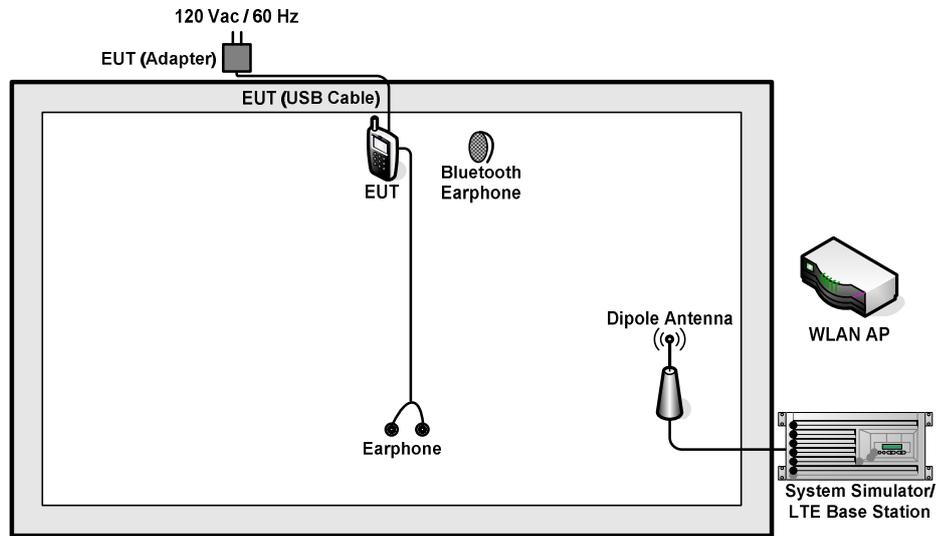
- EMI AC: AC conducted emissions
- EMI RE ≥ 1G: EUT radiated emissions ≥ 1GHz
- EMI RE < 1G: EUT radiated emissions < 1GHz

**Note 1:** Testing for this mode is not required or not the worst case.

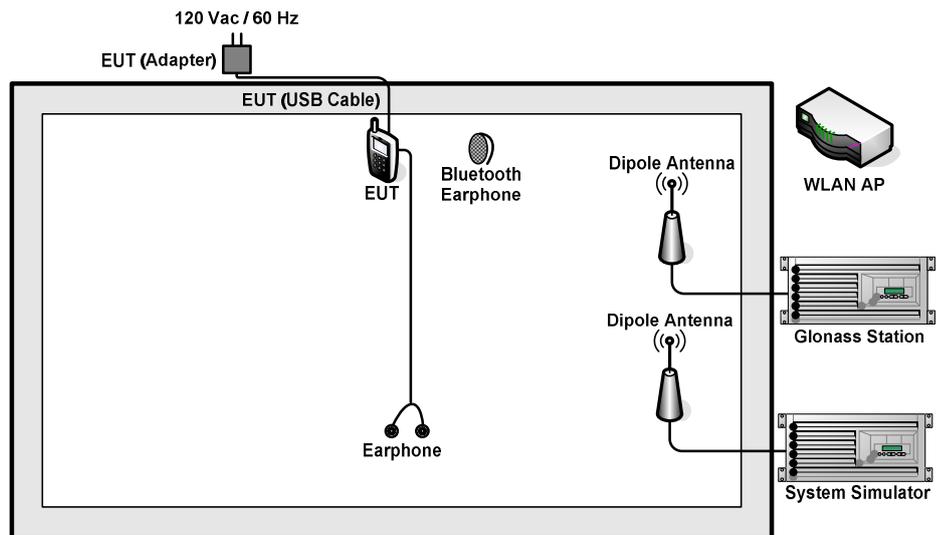
**Remark:** For signal above 1GHz, the worst case was test item 2.

Test Items	EUT Configure Mode	Function Type
AC Conducted Emission	1/2	Mode 1: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Rear) <Fig.1> Mode 2: LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Front) <Fig.1> Mode 3: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4<Fig.1> Mode 4: LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + NFC On<Fig.1> Mode 5: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Glonass Rx<Fig.2> Mode 6: LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + Earphone + USB Cable (Data Link with Notebook) + GPS Rx<Fig.3>
Radiated Emissions < 1GHz	1/2	Mode 1: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Rear) <Fig.1> Mode 2: LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Front) <Fig.1> Mode 3: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4<Fig.1> Mode 4: LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + NFC On<Fig.1> Mode 5: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Glonass Rx<Fig.2> Mode 6: LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + Earphone + USB Cable (Data Link with Notebook) + GPS Rx<Fig.3>
Radiated Emissions ≥ 1GHz	2	Mode 1: LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + Earphone + USB Cable (Data Link with Notebook) + GPS Rx<Fig.3>
<b>Remark:</b> <ol style="list-style-type: none"> <li>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.</li> <li>The worst case of RE &lt; 1G is mode 6; only the test data of this mode was reported.</li> <li>Data Link with Notebook means data application transferred mode between EUT and Notebook.</li> </ol>		

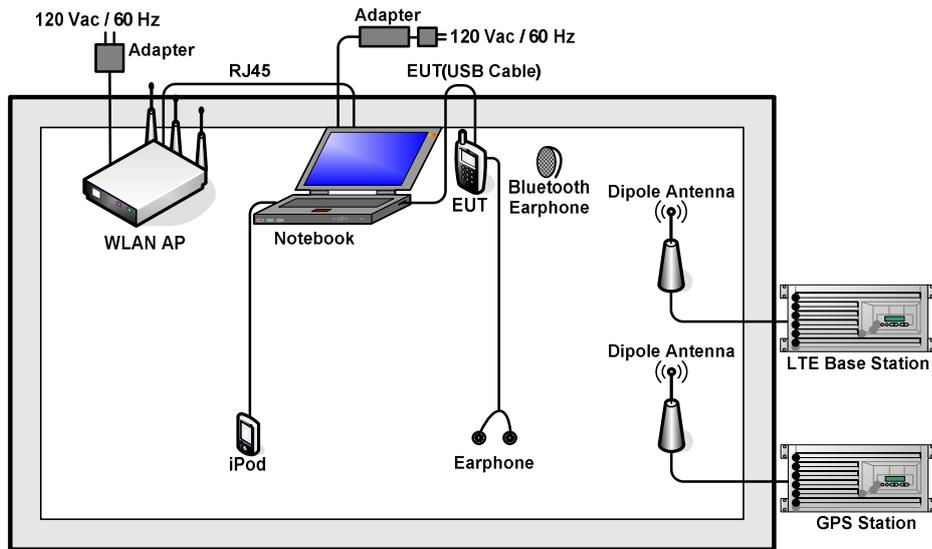
## 2.2. Connection Diagram of Test System



<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.	System simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
3.	GPS Station	ADIVIC	MP9000	N/A	N/A	Unshielded, 1.8 m
4.	Glomass Station	RACELOGIC	RLLS03-2RP	N/A	N/A	Unshielded, 1.8 m
5.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded, 1.8 m
6.	WLAN AP	LINKSYS	WRT600N	Q87-WRT600NV11	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
7.	Bluetooth Earphone	Nokia	BH-102	PYAHS-107W	N/A	N/A
8.	iPod	Apple	A1199	FCC DoC	Shielded, 1.2 m	N/A
9.	Notebook	Lenovo	G480	N/A	N/A	AC I/P: Unshielded, 0.8 m DC O/P: Shielded, 1.8 m
10.	Notebook	DELL	Latitude 3440	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
11.	Earphone	Lenovo	LH102	N/A	Unshielded,1.2m	N/A
12.	Earphone	Lenovo	SH100	N/A	Unshielded,1.2m	N/A
13.	SD Card	Kingston	4GB	N/A	N/A	N/A
14.	SD Card	SanDisk	Uitra	N/A	N/A	N/A



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

The EUT was in GSM 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. Execute "GPS Test" 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.

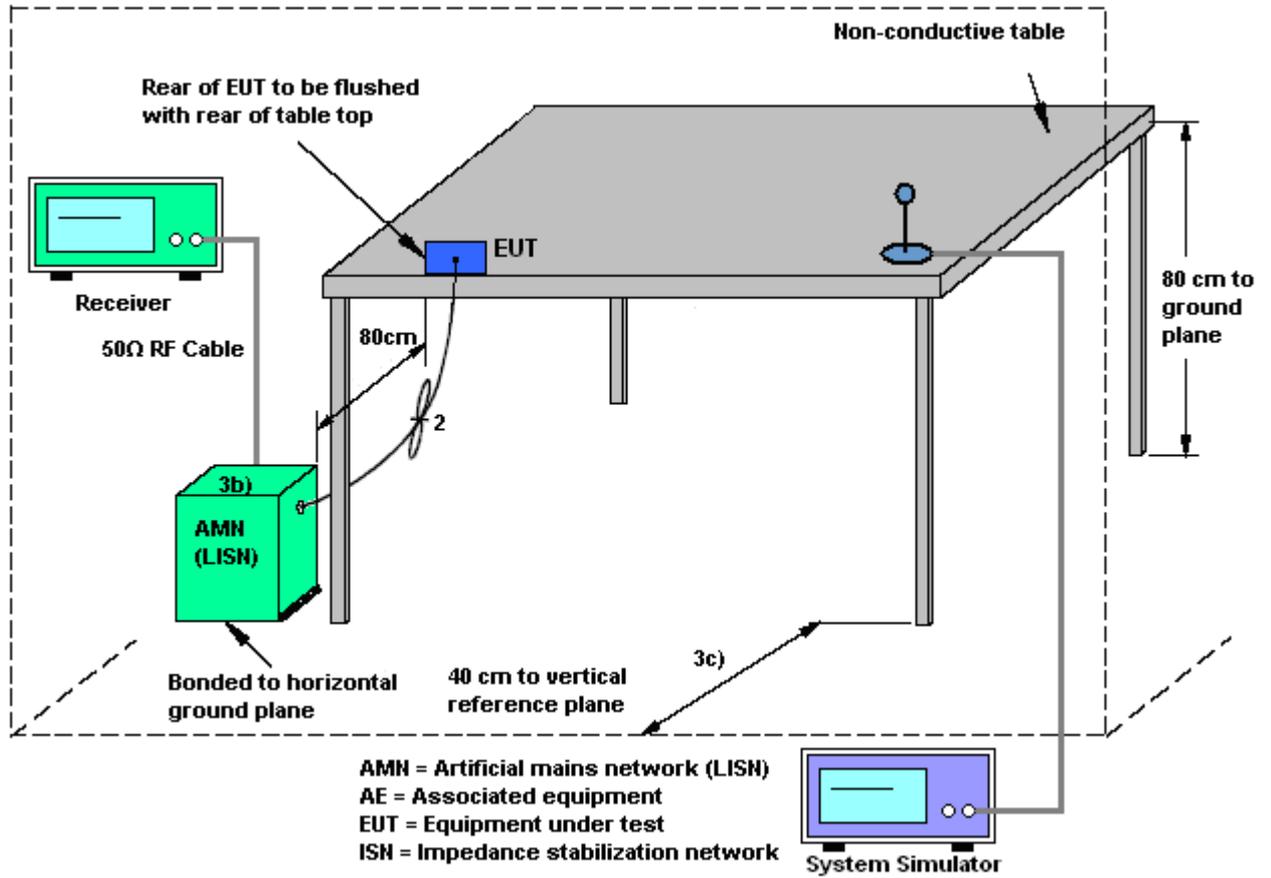
##### 3.1.2 Measuring Instruments

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.

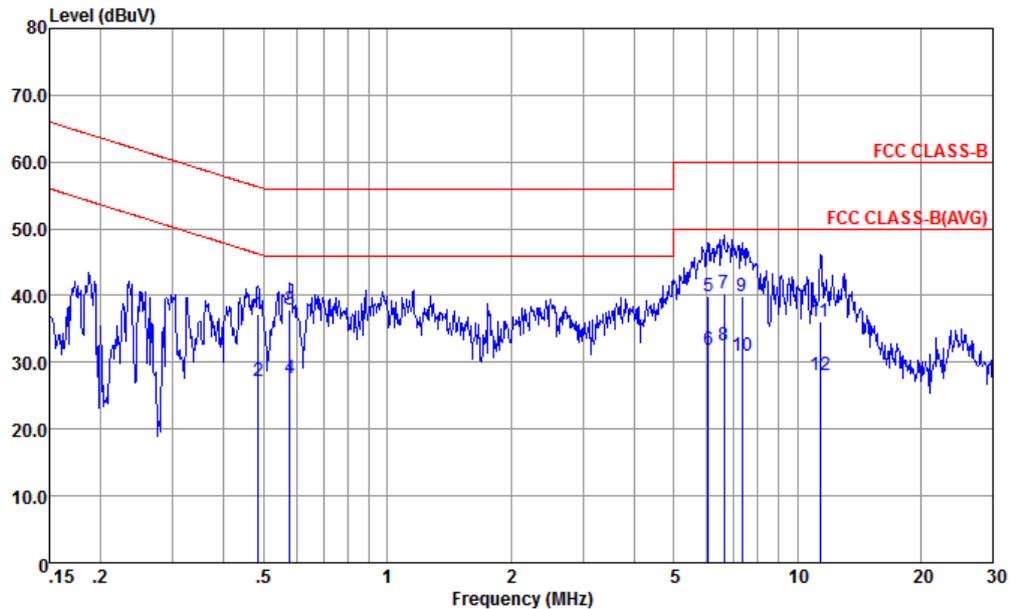
### 3.1.4 Test Setup





3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 4	Temperature :	22~24°C
Test Engineer :	Eko Guan	Relative Humidity :	41~43%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + NFC On		

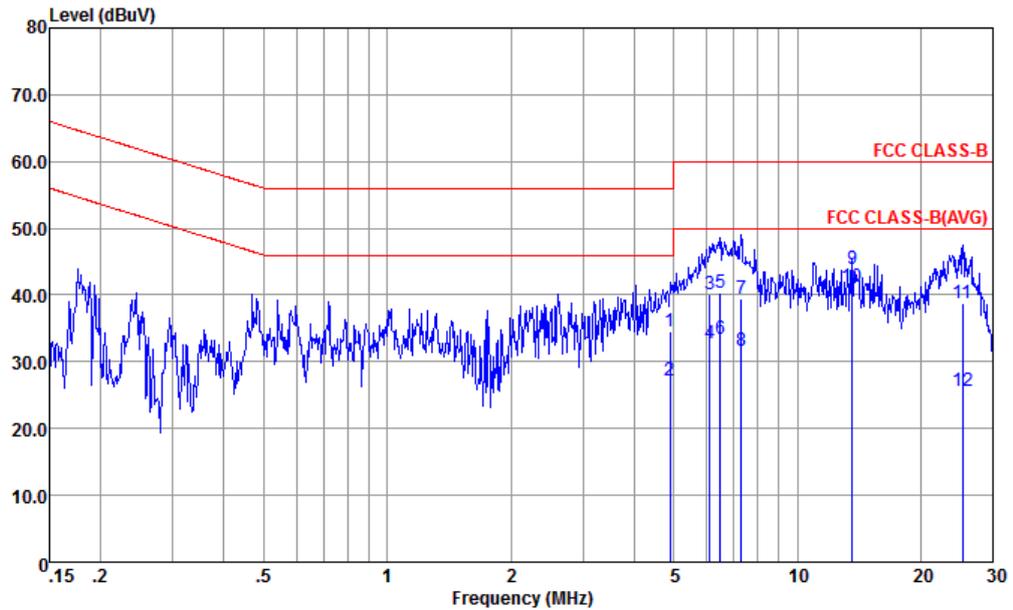


Site : CO01-kS  
 Condition : FCC CLASS-B LISN-L-20151024 LINE  
 Project : (FC) 5D0215  
 mode : Mode 4

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.48	37.19	-19.08	56.27	26.80	0.23	10.16	QP
2	0.48	27.09	-19.18	46.27	16.70	0.23	10.16	Average
3	0.58	37.99	-18.01	56.00	27.60	0.23	10.16	QP
4	0.58	27.59	-18.41	46.00	17.20	0.23	10.16	Average
5	6.06	39.91	-20.09	60.00	29.50	0.21	10.20	QP
6	6.06	31.91	-18.09	50.00	21.50	0.21	10.20	Average
7	6.63	40.33	-19.67	60.00	29.90	0.22	10.21	QP
8 *	6.63	32.63	-17.37	50.00	22.20	0.22	10.21	Average
9	7.33	39.96	-20.04	60.00	29.51	0.23	10.22	QP
10	7.33	30.96	-19.04	50.00	20.51	0.23	10.22	Average
11	11.38	36.05	-23.95	60.00	25.50	0.25	10.30	QP
12	11.38	28.15	-21.85	50.00	17.60	0.25	10.30	Average



Test Mode :	Mode 4	Temperature :	22~24°C
Test Engineer :	Eko Guan	Relative Humidity :	41~43%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + NFC On		

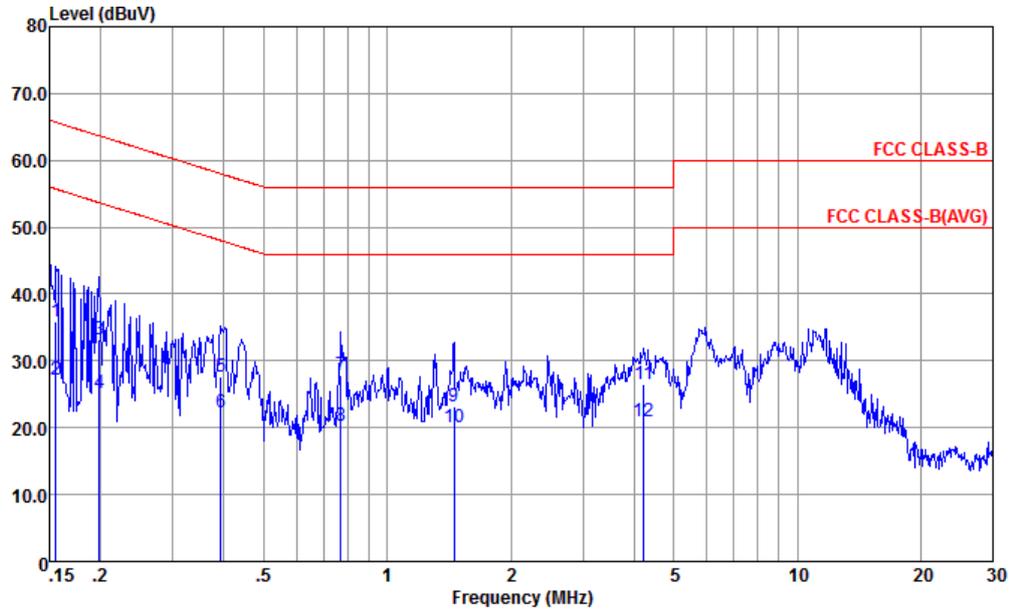


Site : CO01-kS  
 Condition : FCC CLASS-B LISN-N-20151024 NEUTRAL  
 Project : (FC) 5D0215  
 mode : Mode 4

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	4.90	34.44	-21.56	56.00	23.90	0.36	10.18	QP
2	4.90	27.14	-18.86	46.00	16.60	0.36	10.18	Average
3	6.12	40.02	-19.98	60.00	29.50	0.32	10.20	QP
4	6.12	32.82	-17.18	50.00	22.30	0.32	10.20	Average
5	6.49	40.41	-19.59	60.00	29.89	0.31	10.21	QP
6	6.49	33.41	-16.59	50.00	22.89	0.31	10.21	Average
7	7.29	39.41	-20.59	60.00	28.90	0.29	10.22	QP
8	7.29	31.71	-18.29	50.00	21.20	0.29	10.22	Average
9	13.62	43.93	-16.07	60.00	33.31	0.27	10.35	QP
10 *	13.62	41.13	-8.87	50.00	30.51	0.27	10.35	Average
11	25.32	38.84	-21.16	60.00	27.90	0.24	10.70	QP
12	25.32	25.74	-24.26	50.00	14.80	0.24	10.70	Average



Test Mode :	Mode 6	Temperature :	22~24°C
Test Engineer :	Eko Guan	Relative Humidity :	41~43%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + Earphone + USB Cable (Data Link with Notebook) + GPS Rx		

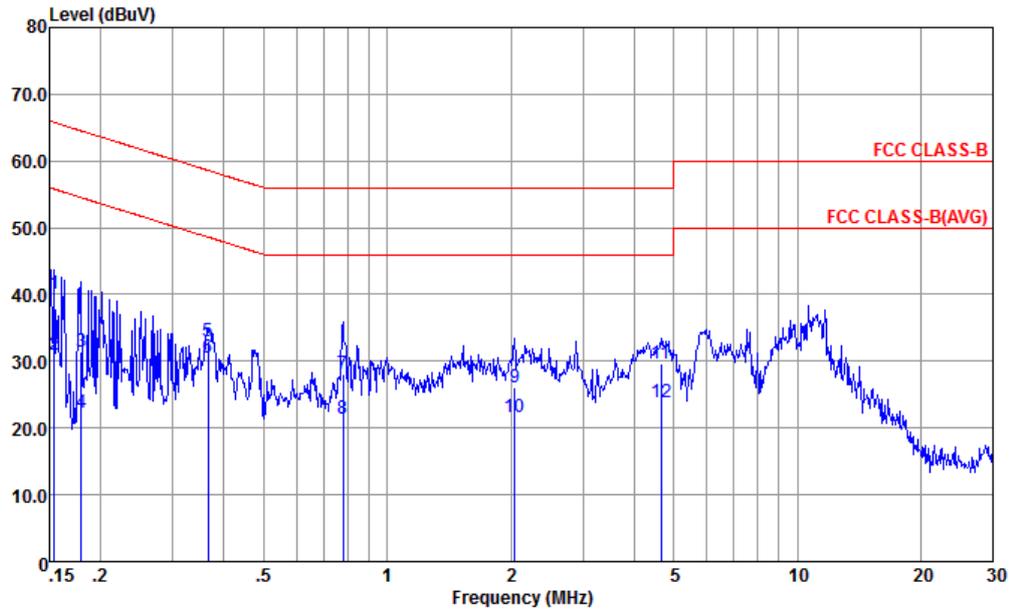


Site : C001-kS  
 Condition : FCC CLASS-B LISN-L-20151024 LINE  
 Project : (FC) 5D0215  
 mode : Mode 6

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.16	35.80	-29.89	65.69	25.20	0.49	10.11	QP
2	0.16	27.20	-28.49	55.69	16.60	0.49	10.11	Average
3	0.20	33.26	-30.41	63.67	22.90	0.23	10.13	QP
4	0.20	25.16	-28.51	53.67	14.80	0.23	10.13	Average
5	0.39	27.70	-30.29	57.99	17.30	0.23	10.17	QP
6	0.39	22.20	-25.79	47.99	11.80	0.23	10.17	Average
7	0.77	27.89	-28.11	56.00	17.50	0.24	10.15	QP
8	0.77	20.19	-25.81	46.00	9.80	0.24	10.15	Average
9	1.46	23.15	-32.85	56.00	12.80	0.21	10.14	QP
10	1.46	19.95	-26.05	46.00	9.60	0.21	10.14	Average
11	4.22	26.56	-29.44	56.00	16.20	0.19	10.17	QP
12 *	4.22	21.06	-24.94	46.00	10.70	0.19	10.17	Average



Test Mode :	Mode 6	Temperature :	22~24°C
Test Engineer :	Eko Guan	Relative Humidity :	41~43%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + Earphone + USB Cable (Data Link with Notebook) + GPS Rx		



Site : CO01-kS  
 Condition : FCC CLASS-B LISN-N-20151024 NEUTRAL  
 Project : (FC) 5D0215  
 mode : Mode 6

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.15	40.21	-25.57	65.78	29.80	0.30	10.11	QP
2	0.15	30.91	-24.87	55.78	20.50	0.30	10.11	Average
3	0.18	31.33	-33.17	64.50	20.90	0.31	10.12	QP
4	0.18	22.23	-32.27	54.50	11.80	0.31	10.12	Average
5	0.37	32.98	-25.63	58.61	22.50	0.32	10.16	QP
6 *	0.37	30.58	-18.03	48.61	20.10	0.32	10.16	Average
7	0.78	28.00	-28.00	56.00	17.50	0.35	10.15	QP
8	0.78	21.40	-24.60	46.00	10.90	0.35	10.15	Average
9	2.04	26.12	-29.88	56.00	15.60	0.38	10.14	QP
10	2.04	21.72	-24.28	46.00	11.20	0.38	10.14	Average
11	4.65	29.64	-26.36	56.00	19.10	0.36	10.18	QP
12	4.65	23.94	-22.06	46.00	13.40	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

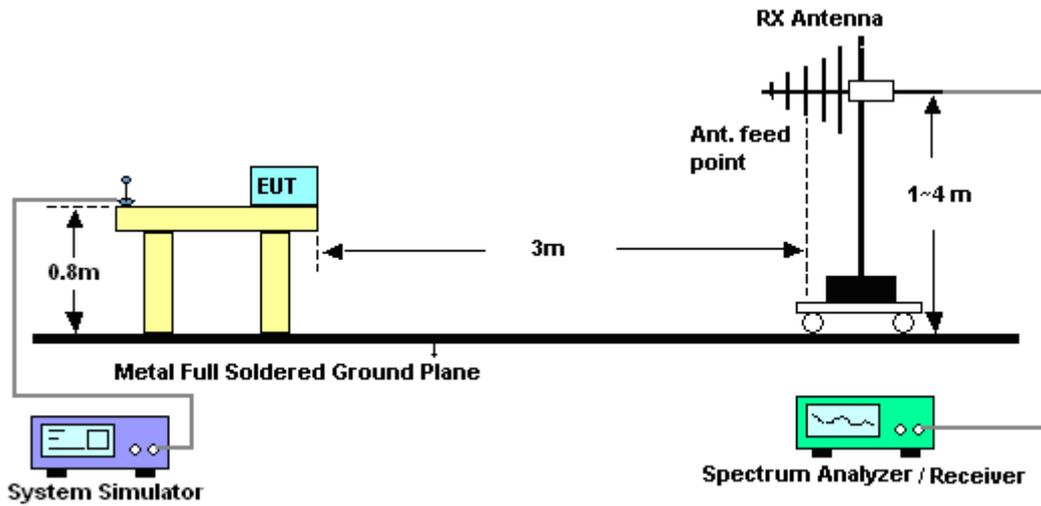
The measuring equipment is listed in the section 4 of this test report.

#### 3.2.3. Test Procedures

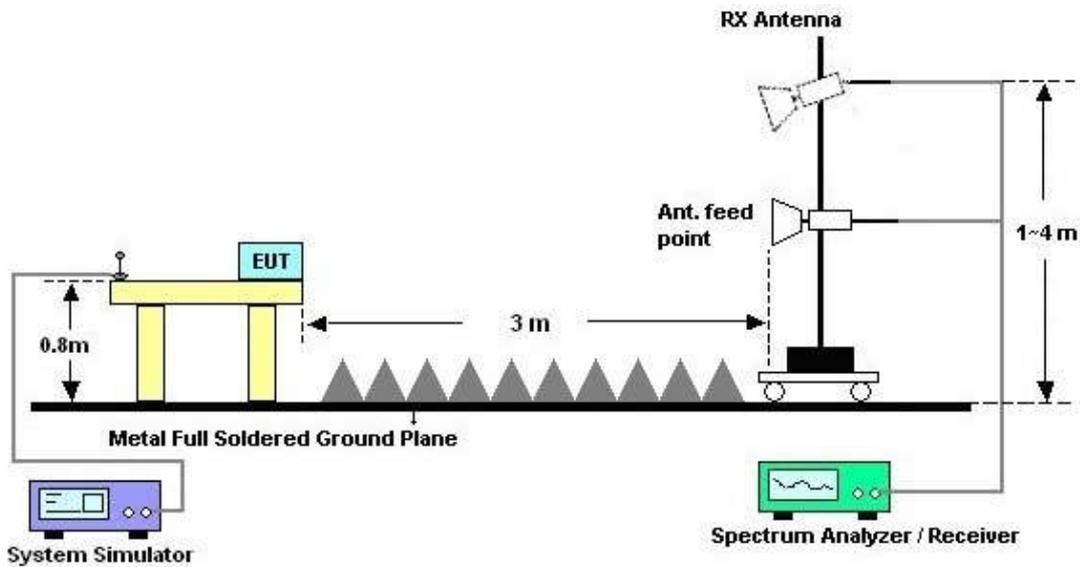
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna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



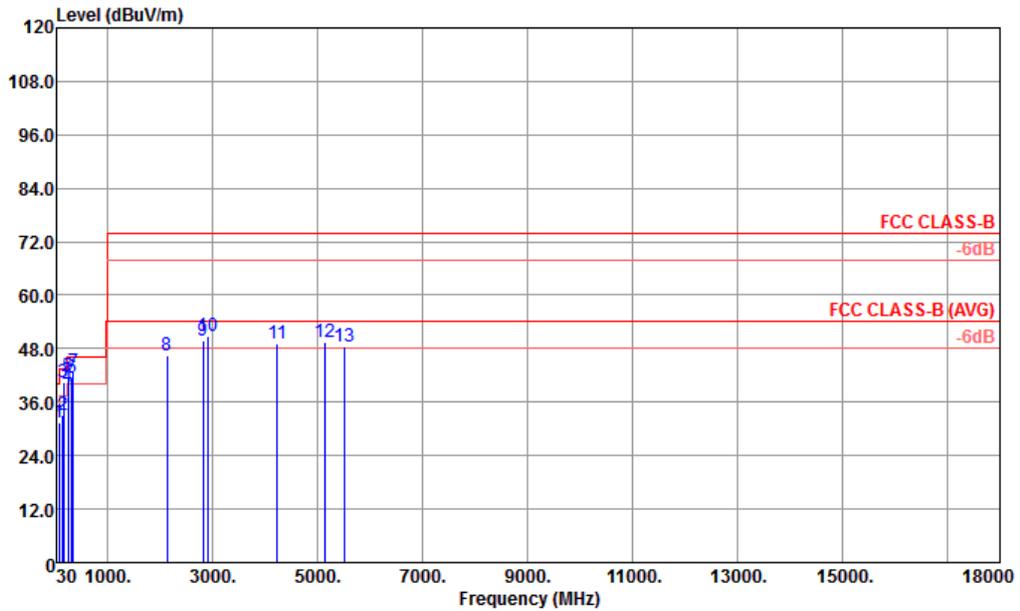
For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 6	Temperature :	22~24°C
Test Engineer :	Nick Su	Relative Humidity :	40~43%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + Earphone + USB Cable (Data Link with Notebook) + GPS Rx		

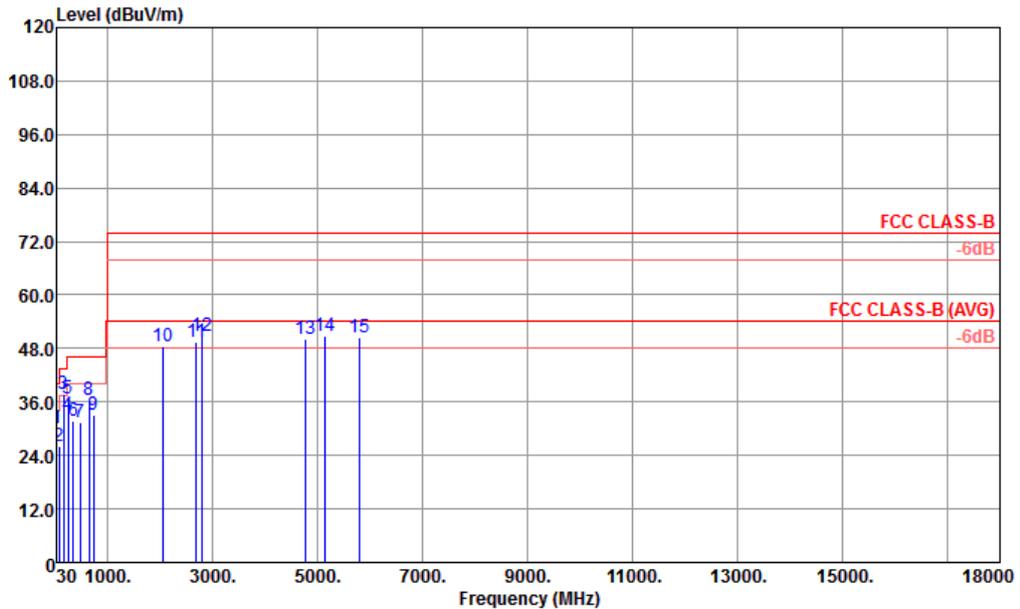


Site : 03CH02-KS  
 Condition : FCC CLASS-B 3m LF\_ANT\_37879 HORIZONTAL  
 Project : (FC) 5D0215  
 Mode : 6  
 IMEI : 355595070010152

	Freq	Level	Over Limit	Limit Line	ReadAntenna 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	84.54	31.57	-8.43	40.00	51.03	9.54	1.50	30.50	---	---	Peak	HORIZONTAL
2	156.63	33.01	-10.49	43.50	49.91	11.44	2.06	30.40	---	---	Peak	HORIZONTAL
3 !	165.27	40.47	-3.03	43.50	57.60	11.14	2.13	30.40	200	259	QP	HORIZONTAL
4	248.97	39.59	-6.41	46.00	55.44	12.06	2.59	30.50	---	---	Peak	HORIZONTAL
5 !	254.10	41.92	-4.08	46.00	57.60	12.17	2.65	30.50	100	26	QP	HORIZONTAL
6 !	324.50	41.46	-4.54	46.00	55.01	14.00	3.00	30.55	---	---	Peak	HORIZONTAL
7 !	344.80	42.94	-3.06	46.00	55.71	14.81	3.01	30.59	---	---	Peak	HORIZONTAL
8	2134.00	46.32	-27.68	74.00	41.55	31.00	5.85	32.08	---	---	Peak	HORIZONTAL
9	2822.00	49.93	-24.07	74.00	40.28	32.43	6.72	29.50	---	---	Peak	HORIZONTAL
10	2926.00	50.93	-23.07	74.00	41.14	32.63	6.86	29.70	---	---	Peak	HORIZONTAL
11	4230.00	48.98	-25.02	74.00	35.95	34.78	8.52	30.27	---	---	Peak	HORIZONTAL
12	5145.00	49.62	-24.38	74.00	39.42	35.04	9.01	33.85	---	---	Peak	HORIZONTAL
13	5502.00	48.50	-25.50	74.00	39.47	35.16	9.40	35.53	---	---	Peak	HORIZONTAL



Test Mode :	Mode 6	Temperature :	22~24°C
Test Engineer :	Nick Su	Relative Humidity :	40~43%
Test Distance :	3m	Polarization :	Vertical
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + Earphone + USB Cable (Data Link with Notebook) + GPS Rx		



Site : 03CH02-KS  
 Condition : FCC CLASS-B 3m LF\_ANT\_37879 VERTICAL  
 Project : (FC) 5D0215  
 Mode : 6  
 IMEI : 355595070010152

	Freq	Level	Over Limit	Limit Line	ReadAntenna 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	31.35	30.09	-9.91	40.00	41.43	18.71	0.97	31.02	---	---	Peak	VERTICAL
2	80.22	26.00	-14.00	40.00	45.89	9.10	1.51	30.50	---	---	Peak	VERTICAL
3	165.54	37.83	-5.67	43.50	55.00	11.10	2.13	30.40	120	60	Peak	VERTICAL
4	248.70	33.22	-12.78	46.00	49.13	12.01	2.58	30.50	---	---	Peak	VERTICAL
5	254.37	36.85	-9.15	46.00	52.53	12.17	2.65	30.50	---	---	Peak	VERTICAL
6	344.80	31.81	-14.19	46.00	44.58	14.81	3.01	30.59	---	---	Peak	VERTICAL
7	479.90	31.52	-14.48	46.00	41.10	17.18	3.68	30.44	---	---	Peak	VERTICAL
8	645.80	36.52	-9.48	46.00	43.18	19.35	4.28	30.29	---	---	Peak	VERTICAL
9	734.70	33.20	-12.80	46.00	38.80	20.14	4.73	30.47	---	---	Peak	VERTICAL
10	2064.00	48.39	-25.61	74.00	44.29	30.90	5.75	32.55	---	---	Peak	VERTICAL
11	2698.00	49.47	-24.53	74.00	40.86	32.05	6.57	30.01	---	---	Peak	VERTICAL
12	2792.00	50.65	-23.35	74.00	41.20	32.34	6.67	29.56	---	---	Peak	VERTICAL
13	4767.00	50.24	-23.76	74.00	39.01	34.86	8.68	32.31	---	---	Peak	VERTICAL
14	5139.00	50.84	-23.16	74.00	40.59	35.04	9.01	33.80	---	---	Peak	VERTICAL
15	5814.00	50.40	-23.60	74.00	41.05	35.35	9.70	35.70	---	---	Peak	VERTICAL



### 4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max x 30dBm	Sep. 10, 2015	Jan. 05, 2016	Sep. 09, 2016	Radiation (03CH02-KS)
Spectrum Analyzer	R&S	FSV40	101040	10kHz~40GHz; Max 30dBm	Sep. 10, 2015	Jan. 05, 2016	Sep. 09, 2016	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	37879	30MHz-2GHz	Sep. 12, 2015	Jan. 05, 2016	Sep. 11, 2016	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Nov. 07, 2015	Jan. 05, 2016	Nov. 06, 2016	Radiation (03CH02-KS)
Amplifier	com-power	PA-103A	161069	1kHz~1000MHz / 32 dB	May 04, 2015	Jan. 05, 2016	May 03, 2016	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1-26.5GHz Gain 30dB	Oct. 24, 2015	Jan. 05, 2016	Oct. 23, 2016	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Jan. 05, 2016	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Jan. 05, 2016	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Jan. 05, 2016	NCR	Radiation (03CH02-KS)
EMI Receiver	R&S	ESC17	100768	9kHz~7GHz;	May 04, 2015	Dec. 26, 2015	May 03, 2016	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 24, 2015	Dec. 26, 2015	Oct. 23, 2016	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 24, 2015	Dec. 26, 2015	Oct. 23, 2016	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 24, 2015	Dec. 26, 2015	Oct. 23, 2016	Conduction (CO01-KS)

NCR: No Calibration Required



## 5. Uncertainty of Evaluation

### Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.3dB
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

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