FCC Test Report

APPLICANT	:	**FIH International Co., Ltd.**
EQUIPMENT	:	**GSM/WCDMA/LTE Mobile Phone**
BRAND NAME	:	**Nokia**
MODEL NAME	:	**TA-1056**
FCC ID	:	**2AJOTTA-1056**
STANDARD	:	**FCC 47 CFR FCC Part 15 Subpart B**
CLASSIFICATION	:	**Certification**

The product was completed on Dec. 23, 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.

James Huang

NVLAP®
TESTING
NVLAP LAB CODE 600155-0

Approved by: James Huang / Manager

Sporton International (Kunshan) Inc.
No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC7O2602-02	Rev. 01	Initial issue of report	Jan. 25, 2018

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	Under limit 9.84 dB at 0.172 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 5.32 dB at 398.700 MHz

1. General Description

1.1. Applicant

FIH International Co., Ltd.
No.18, Tongji zhonglu, Beijing Economic&Technological Development Area

1.2. Manufacturer

HMD Global Oy
Karaportti 2 02610 Espoo FINLAND

1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	GSM/WCDMA/LTE Mobile Phone
Brand Name	Nokia
Model Name	TA-1056
FCC ID	2AJOTTA-1056
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/DC-HSDPA/HSPA+/LTE WLAN 2.4GHz 802.11b/g/n HT20 Bluetooth v2.1 + EDR/Bluetooth v4.2 LE
IMEI Code	Conduction: 004402970945089/004402970945097 Radiation: 004402970945246/0044029709452531
HW Version	HW0302
SW Version	000C_0_190
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 38 : 2572.5 MHz ~ 2617.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 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 38 : 2572.5 MHz ~ 2617.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GPS : 1.57542 GHz FM : 88 MHz ~ 108 MHz
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna GPS: PIFA Antenna FM: External headset Antenna
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK WCDMA : BPSK (Uplink) HSDPA/DC-HSDPA : QPSK (Uplink) HSUPA : QPSK (Uplink) HSPA+ : 16QAM DC-HSDPA : 64QAM 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) : π/4-DQPSK Bluetooth (3Mbps) : 8-DPSK GPS : BPSK FM

1.5. Modification of EUT

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

1.6. Test Location

Sporton International (Kunshan) Inc. is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600155-0) and the FCC designation No. is CN5013.

<table>
<tr><td>Test Site</td><td colspan="3">Sporton International (Kunshan) Inc.</td></tr>
<tr><td>Test Site Location</td><td colspan="3">No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China
TEL : +86-512-57900158
FAX : +86-512-57900958</td></tr>
<tr><td rowspan="2">Test Site No.</td><td colspan="2">Sporton Site No.</td><td>FCC Test Firm Registration No.</td></tr>
<tr><td>CO01-KS</td><td>03CH02-KS</td><td>630927</td></tr>
</table>

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: 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

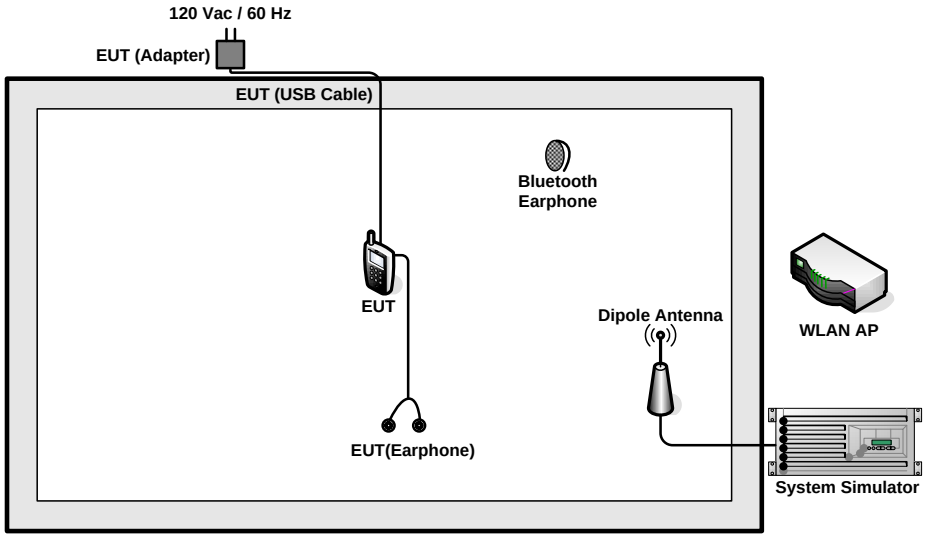
2.1. Test Mode

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.

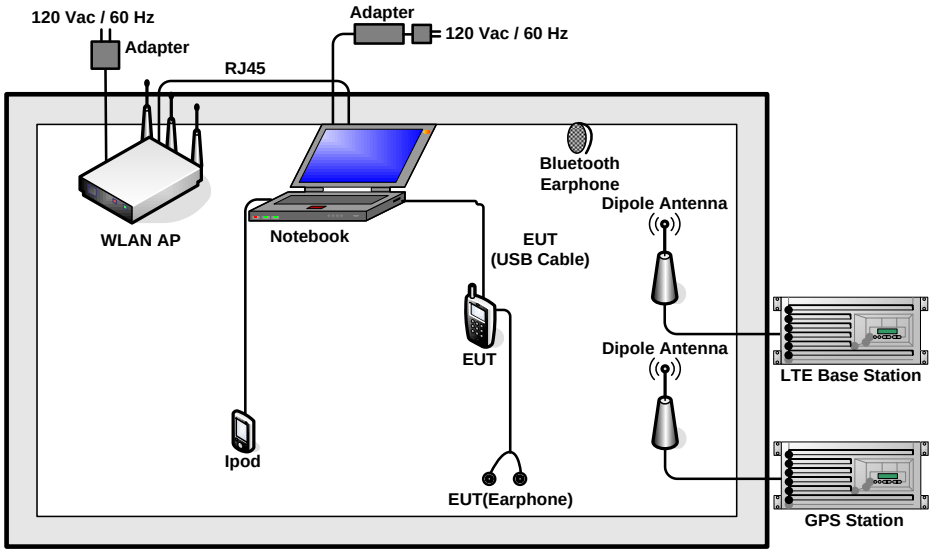
Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

Test Items	Function Type
AC Conducted Emission	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Charging from Adapter) + Camera(Rear) + SIM 1 <Fig. 1> Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Charging from Adapter) + Camera(Front) + SIM 2 <Fig. 1> Mode 3: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Charging from Adapter) + MPEG4 + SIM 1 <Fig. 1> Mode 4: LTE Band 7 Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Data Link with Notebook) + GPS RX + SIM2 <Fig. 2> Mode 5: Earphone + USB Cable(Charging from Adapter) + FM(88MHz) RX<Fig. 3> Mode 6: Earphone + USB Cable(Charging from Adapter) + FM(98MHz) RX<Fig. 3> Mode 7: Earphone + USB Cable(Charging from Adapter) + FM(108MHz) RX<Fig. 3>
Radiated Emissions	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Charging from Adapter) + Camera(Rear) + SIM 1 <Fig. 1> Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Charging from Adapter) + Camera(Front) + SIM 2 <Fig. 1> Mode 3: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Charging from Adapter) + MPEG4 + SIM 1 <Fig. 1> Mode 4: LTE Band 7 Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Data Link with Notebook) + GPS RX + SIM2 <Fig. 2> Mode 5: Earphone + USB Cable(Charging from Adapter) + FM(88MHz) RX<Fig. 3> Mode 6: Earphone + USB Cable(Charging from Adapter) + FM(98MHz) RX<Fig. 3> Mode 7: Earphone + USB Cable(Charging from Adapter) + FM(108MHz) RX<Fig. 3>
Remark: 1. The worst case of AC is mode 3; and USB Link is mode 4, the test data of this mode was reported. 2. The worst case of RE is mode 4, only the test data of this mode was reported. 3. Data Link with Notebook means data application transferred mode between EUT and Notebook.	

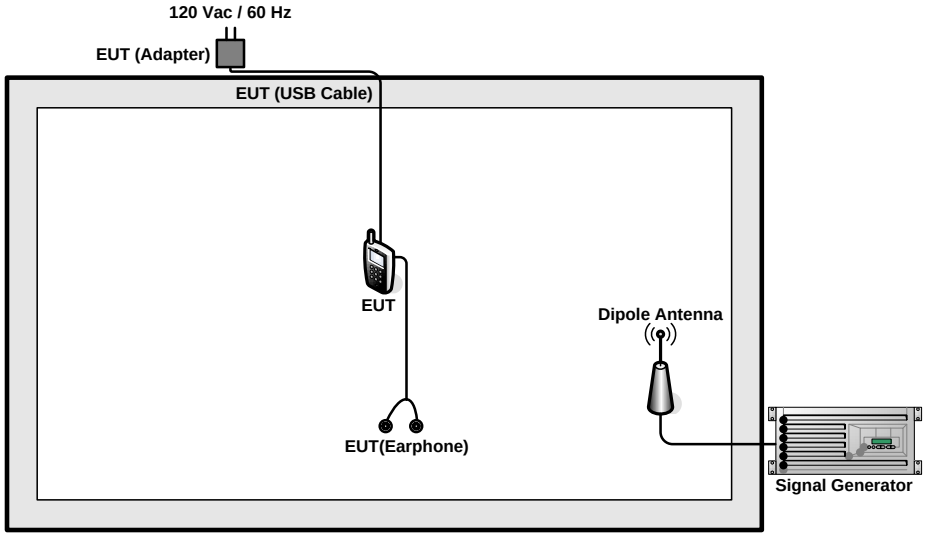
2.2. Connection Diagram of Test System



<Fig. 1>



<Fig. 2>



<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	CMU200	N/A	N/A	Unshielded, 1.8 m
3.	GPS Station	ADIVIC	MP9000	N/A	N/A	Unshielded,1.8 m
4.	Signal Generator	R&S	SMBV100A	N/A	N/A	Unshielded,1.8 m
5.	WLAN AP	D-link	DIR-855	KA2DIR855A2	N/A	Unshielded,1.8m
6.	WLAN AP	TP-Link	TL-WDR5600	N/A	N/A	Unshielded,1.8m
7.	Bluetooth Earphone	Lenovo	LBH308	N/A	N/A	N/A
8.	Notebook	DELL	Latitude3440	N/A	N/A	AC I/P：Unshielded, 1.8m DC O/P：Shielded, 1.8m
9.	Notebook	Lenovo	G480	N/A	N/A	AC I/P：Unshielded, 1.8m DC O/P：Shielded, 1.8m
10.	SD Card	Kingston	8GB	N/A	N/A	N/A
11.	SD Card	SanDisk	Uitra	N/A	N/A	N/A
12.	iPod	Apple	A1199	FCC DoC	Shielded, 1.2m	N/A

2.4. EUT Operation Test Setup

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 station
3. Execute “Video player” to play MPEG4 files
4. Turn on camera to capture images.
5. Turn on FM Rx 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.

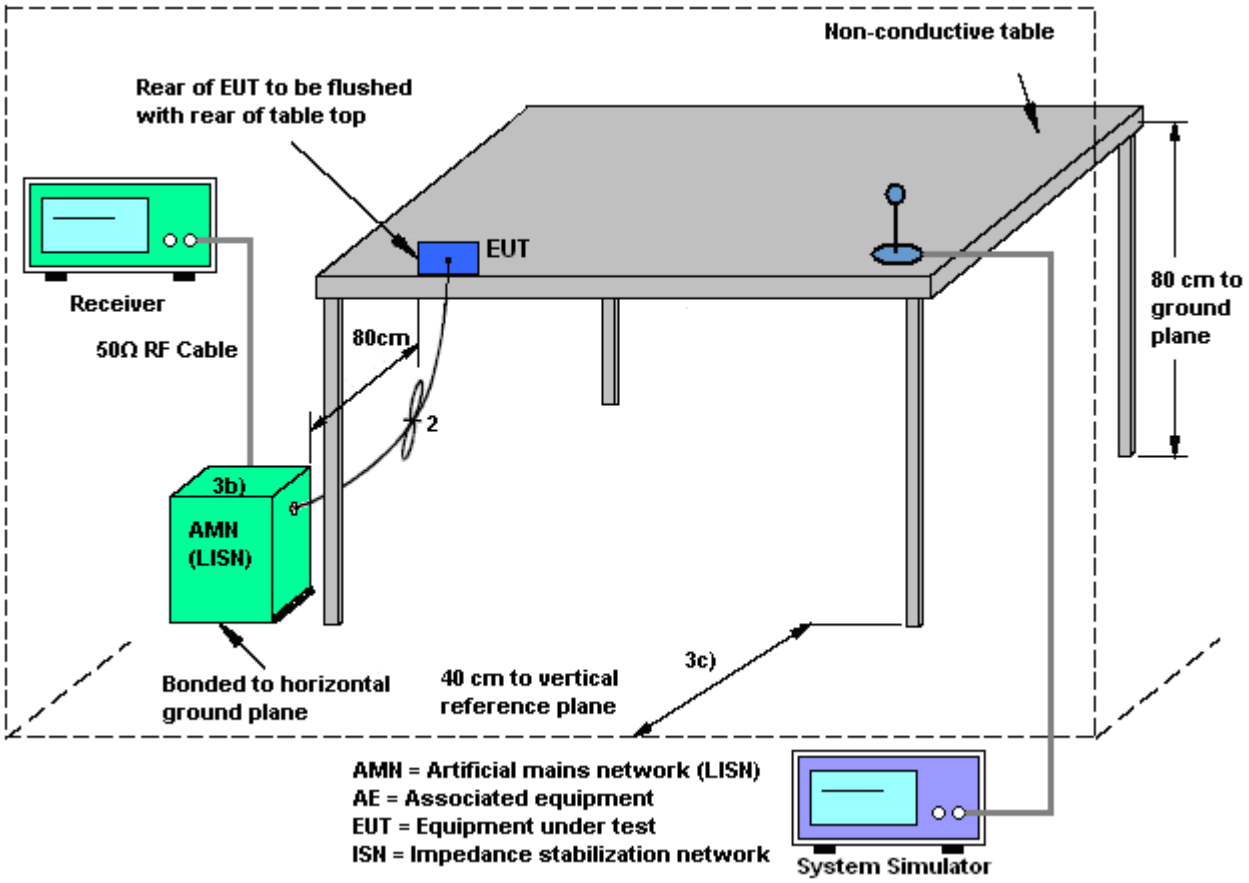
3.1.2 Measuring Instruments

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

3.1.3 Test Procedure

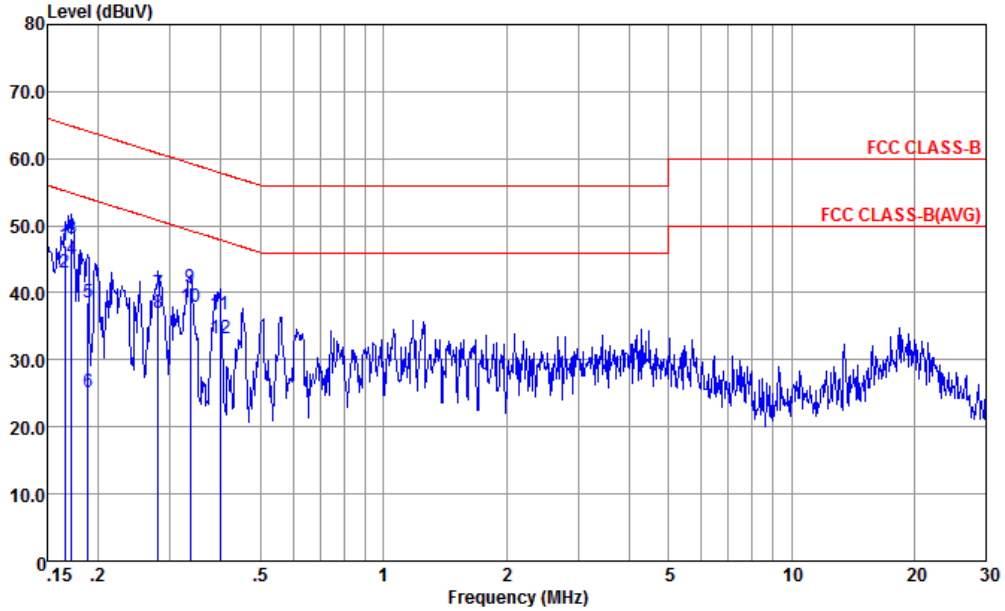
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.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

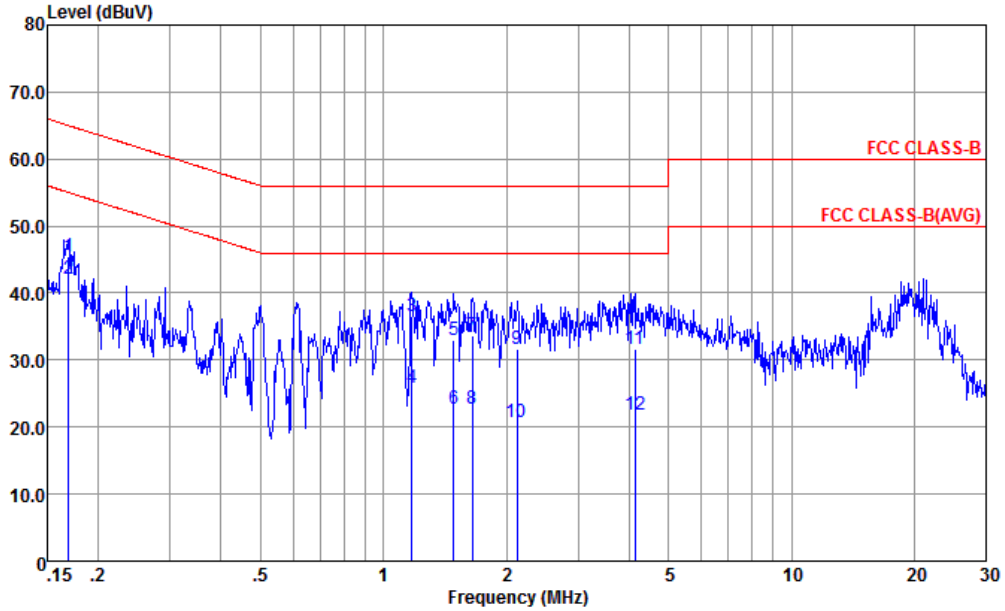
Test Mode :	Mode 3	Temperature :	22~24℃
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WCDMA Band V Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Charging from Adapter) + MPEG4 + SIM 1		



Site : CO01-KS
Condition : FCC CLASS-B LISN-L-171013-060103 LINE
Project : (FC) 7O2602-02
mode : Mode 3
: 004402970945089/004402970945097 #31

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.166	46.93	-18.23	65.16	36.20	0.17	10.56	QP
2		0.166	42.93	-12.23	55.16	32.20	0.17	10.56	Average
3		0.172	48.22	-16.64	64.86	37.50	0.18	10.54	QP
4	*	0.172	45.02	-9.84	54.86	34.30	0.18	10.54	Average
5		0.188	38.48	-25.63	64.11	27.80	0.19	10.49	QP
6		0.188	25.18	-28.93	54.11	14.50	0.19	10.49	Average
7		0.280	39.85	-20.96	60.81	29.20	0.22	10.43	QP
8		0.280	36.95	-13.86	50.81	26.30	0.22	10.43	Average
9		0.336	40.85	-18.46	59.31	30.20	0.23	10.42	QP
10		0.336	37.85	-11.46	49.31	27.20	0.23	10.42	Average
11		0.398	36.85	-21.05	57.90	26.19	0.25	10.41	QP
12		0.398	33.15	-14.75	47.90	22.49	0.25	10.41	Average

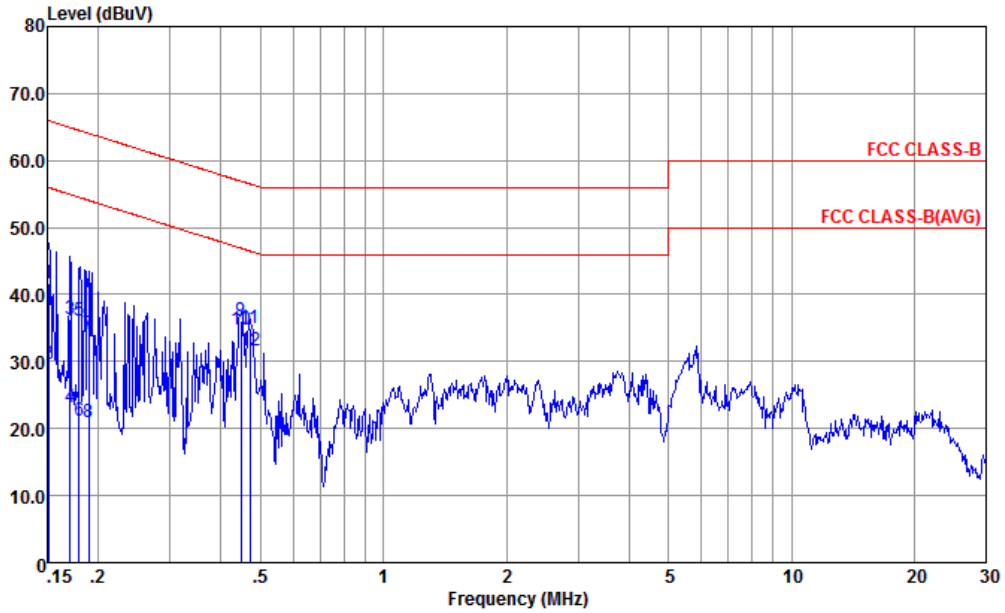
Test Mode :	Mode 3	Temperature :	22~24℃
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WCDMA Band V Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Charging from Adapter) + MPEG4 + SIM 1		



Site : CO01-KS
Condition : FCC CLASS-B LISN-N-171013-060103 NEUTRAL
Project : (FC) 7O2602-02
mode : Mode 3
: 004402970945089/004402970945097 #31

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.169	45.43	-19.56	64.99	34.60	0.28	10.55	QP
2	*	0.169	42.03	-12.96	54.99	31.20	0.28	10.55	Average
3		1.172	36.64	-19.36	56.00	26.20	0.31	10.13	QP
4		1.172	25.94	-20.06	46.00	15.50	0.31	10.13	Average
5		1.487	33.08	-22.92	56.00	22.59	0.32	10.17	QP
6		1.487	22.78	-23.22	46.00	12.29	0.32	10.17	Average
7		1.654	33.70	-22.30	56.00	23.19	0.32	10.19	QP
8		1.654	22.70	-23.30	46.00	12.19	0.32	10.19	Average
9		2.121	31.73	-24.27	56.00	21.20	0.32	10.21	QP
10		2.121	20.83	-25.17	46.00	10.30	0.32	10.21	Average
11		4.136	31.71	-24.29	56.00	21.19	0.34	10.18	QP
12		4.136	21.81	-24.19	46.00	11.29	0.34	10.18	Average

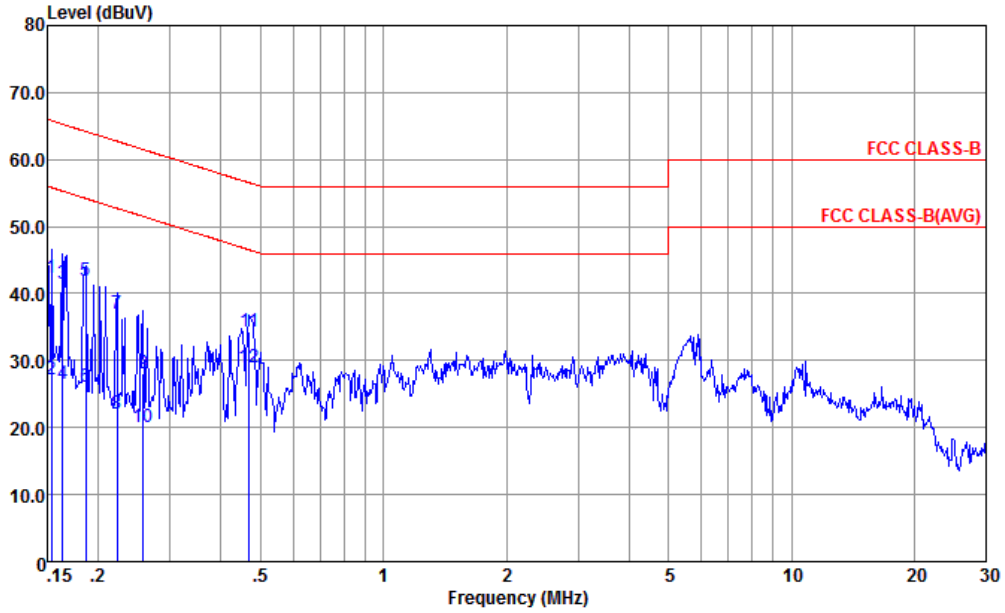
Test Mode :	Mode 4	**Temperature :**	22~24℃
Test Engineer :	Amos Zhang	**Relative Humidity :**	42~46%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Data Link with Notebook) + GPS RX + SIM2		



Site : CO01-KS
Condition : FCC CLASS-B LISN-L-161017-060103 LINE
Project : (FC) 7O2602-02
mode : Mode 4
: 004402970945089/004402970945097 #31

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.151	41.67	-24.29	65.96	30.50	0.55	10.62	QP
2		0.151	29.67	-26.29	55.96	18.50	0.55	10.62	Average
3		0.170	36.27	-28.67	64.94	25.30	0.42	10.55	QP
4		0.170	23.17	-31.77	54.94	12.20	0.42	10.55	Average
5		0.180	36.09	-28.41	64.50	25.20	0.37	10.52	QP
6		0.180	21.19	-33.31	54.50	10.30	0.37	10.52	Average
7		0.189	34.01	-30.05	64.06	23.20	0.32	10.49	QP
8		0.189	21.01	-33.05	54.06	10.20	0.32	10.49	Average
9		0.448	36.13	-20.78	56.91	25.50	0.27	10.36	QP
10	*	0.448	34.73	-12.18	46.91	24.10	0.27	10.36	Average
11		0.471	34.90	-21.59	56.49	24.30	0.27	10.33	QP
12		0.471	31.70	-14.79	46.49	21.10	0.27	10.33	Average

Test Mode :	Mode 4	Temperature :	22~24℃
Test Engineer :	Amos Zhang	Relative Humidity :	42~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Data Link with Notebook) + GPS RX + SIM2		



Site : CO01-KS
Condition : FCC CLASS-B LISN-N-161017-060103 NEUTRAL
Project : (FC) 7O2602-02
mode : Mode 4
: 004402970945089/004402970945097 #31

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.153	42.25	-23.57	65.82	31.30	0.34	10.61	QP
2		0.153	27.25	-28.57	55.82	16.30	0.34	10.61	Average
3		0.163	41.41	-23.89	65.30	30.50	0.34	10.57	QP
4		0.163	26.41	-28.89	55.30	15.50	0.34	10.57	Average
5		0.186	41.93	-22.27	64.20	31.10	0.33	10.50	QP
6		0.186	26.03	-28.17	54.20	15.20	0.33	10.50	Average
7		0.222	36.98	-25.76	62.74	26.19	0.34	10.45	QP
8		0.222	22.08	-30.66	52.74	11.29	0.34	10.45	Average
9		0.258	28.08	-33.43	61.51	17.30	0.34	10.44	QP
10		0.258	19.98	-31.53	51.51	9.20	0.34	10.44	Average
11		0.469	34.21	-22.33	56.54	23.49	0.38	10.34	QP
12	*	0.469	28.91	-17.63	46.54	18.19	0.38	10.34	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

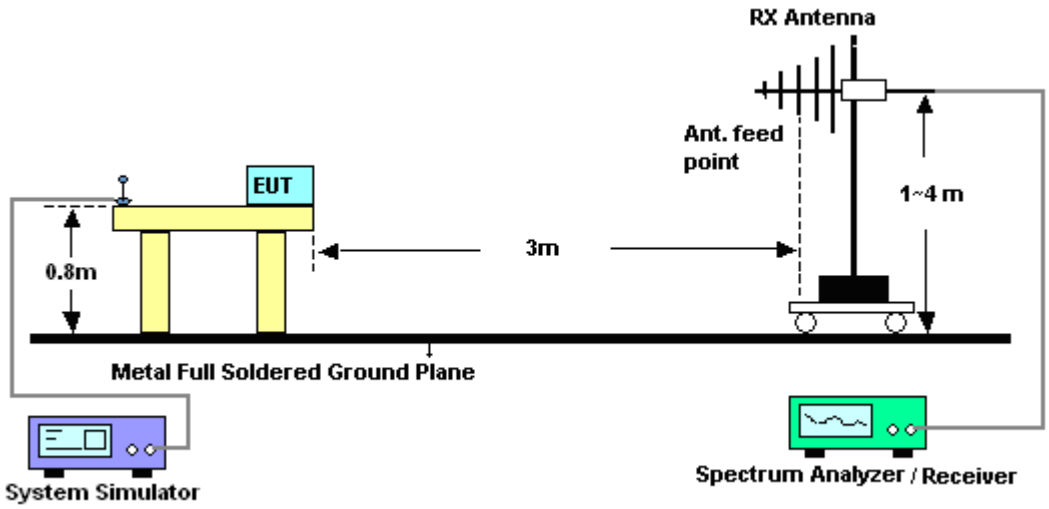
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

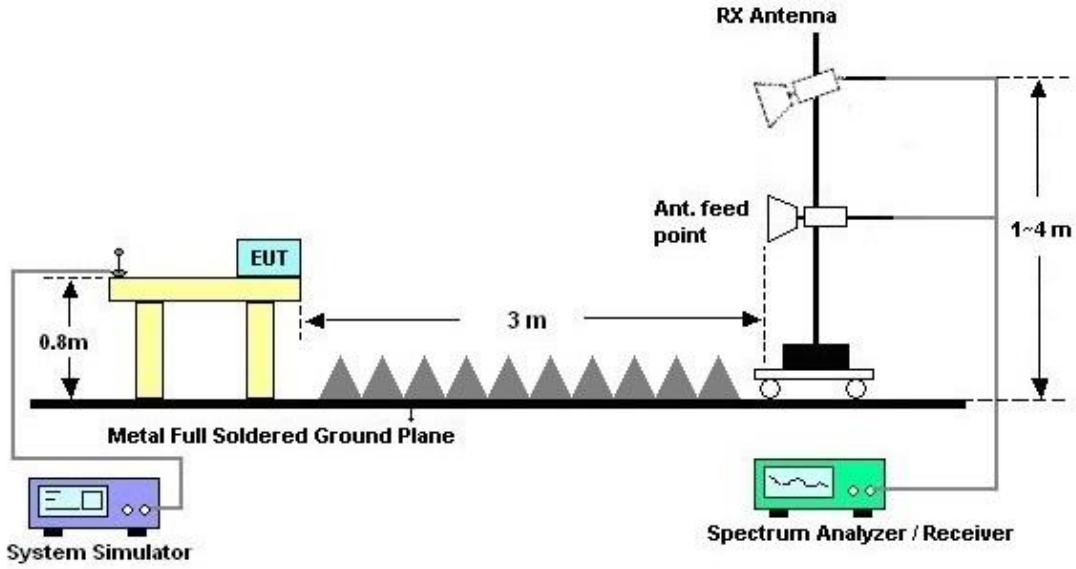
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna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

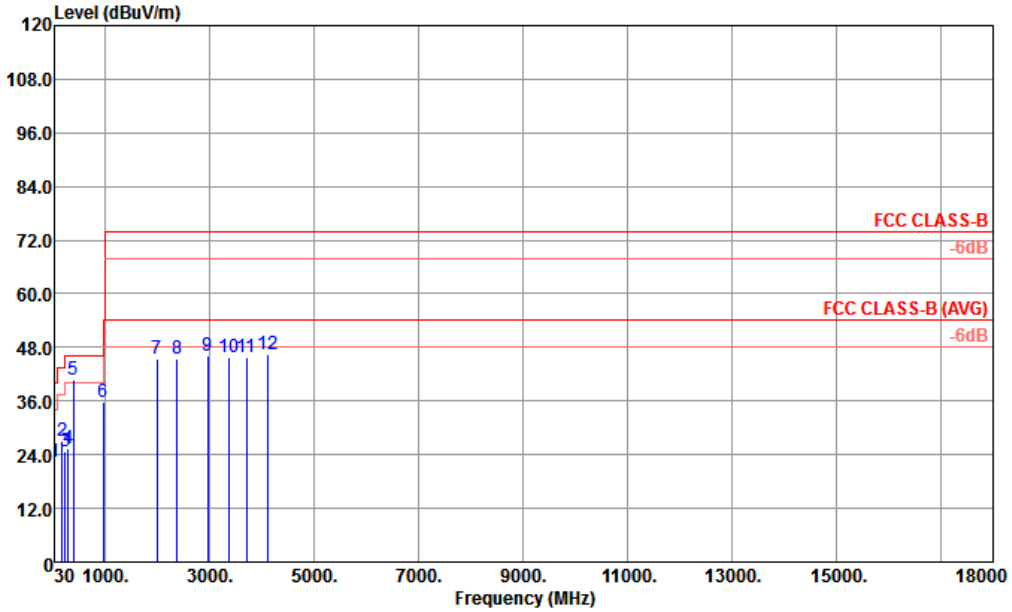


For radiated emissions above 1GHz



3.2.5. Test Result of Radiated Emission

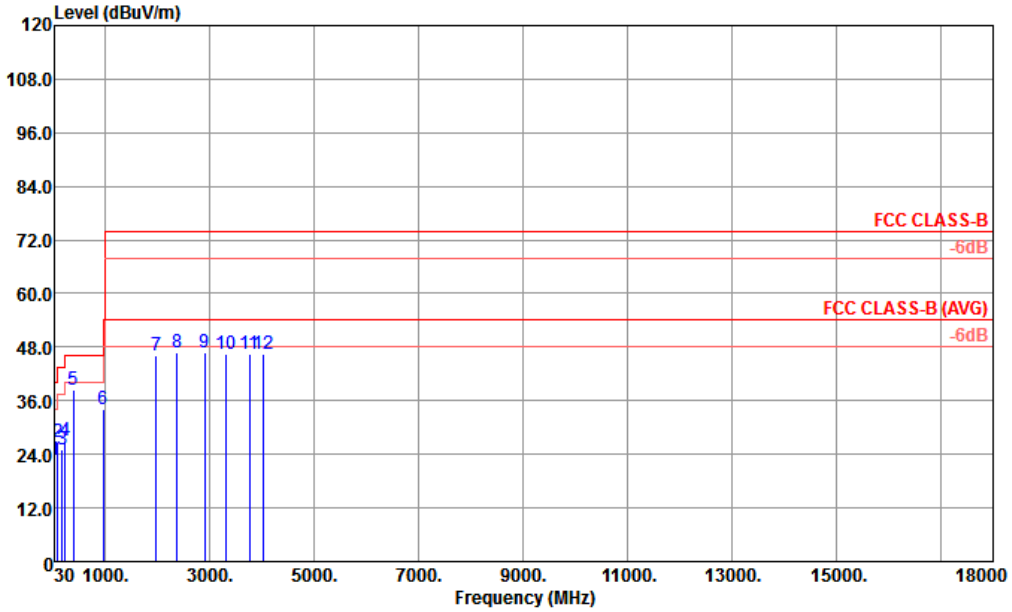
Test Mode :	Mode 4	**Temperature :**	21~22°C
Test Engineer :	Leo Li	**Relative Humidity :**	41~42%
Test Distance :	3m	**Polarization :**	Horizontal
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Data Link with Notebook) + GPS RX + SIM2		



Site : 03CH02-KS
Condition : FCC CLASS-B 3m 02 LF ANT HORIZONTAL
Project : (FC)7O2602-02
Mode : 4
IMEI : 004402970945246 004402970945253 #24

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	34.32	22.27	-17.73	40.00	28.80	24.87	0.64	32.04	---	---	Peak
2	183.09	26.96	-16.54	43.50	40.97	16.34	1.38	31.73	---	---	Peak
3	232.50	24.67	-21.33	46.00	38.10	16.52	1.64	31.59	---	---	Peak
4	289.74	25.48	-20.52	46.00	36.86	17.94	1.88	31.20	---	---	Peak
5 !	398.70	40.68	-5.32	46.00	43.85	25.47	2.07	30.71	100	0	Peak
6	959.90	35.75	-10.25	46.00	30.92	28.70	3.21	27.08	---	---	Peak
7	1990.00	45.61	-28.39	74.00	43.43	30.19	4.61	32.62	---	---	Peak
8	2380.00	45.56	-28.44	74.00	40.33	31.27	5.14	31.18	---	---	Peak
9	2972.00	46.18	-27.82	74.00	36.78	32.50	5.94	29.04	---	---	Peak
10	3369.00	45.82	-28.18	74.00	36.56	33.33	6.27	30.34	---	---	Peak
11	3708.00	45.73	-28.27	74.00	34.92	34.37	6.55	30.11	---	---	Peak
12	4125.00	46.43	-27.57	74.00	34.91	35.32	7.09	30.89	---	---	Peak

Test Mode :	Mode 4	Temperature :	21~22°C
Test Engineer :	Leo Li	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Function Type :	LTE Band 7 Idle + Bluetooth Idle + WLAN Idle(2.4G) + Earphone + USB Cable(Data Link with Notebook) + GPS RX + SIM2		



Site : 03CH02-KS
Condition : FCC CLASS-B 3m 02 LF ANT VERTICAL
Project : (FC)7O2602-02
Mode : 4
IMEI : 004402970945246 004402970945253 #24

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.81	22.77	-17.23	40.00	28.61	25.60	0.59	32.03	---	---	Peak
2	101.01	26.64	-16.86	43.50	39.65	17.90	1.02	31.93	---	---	Peak
3	175.53	25.12	-18.38	43.50	38.89	16.62	1.36	31.75	---	---	Peak
4	232.23	27.14	-18.86	46.00	40.57	16.52	1.64	31.59	---	---	Peak
5	399.40	38.42	-7.58	46.00	41.36	25.70	2.07	30.71	100	0	Peak
6	959.90	34.05	-11.95	46.00	29.22	28.70	3.21	27.08	---	---	Peak
7	1978.00	46.16	-27.84	74.00	44.20	30.19	4.61	32.84	---	---	Peak
8	2380.00	46.76	-27.24	74.00	41.53	31.27	5.14	31.18	---	---	Peak
9	2912.00	46.69	-27.31	74.00	37.95	32.30	5.91	29.47	---	---	Peak
10	3315.00	46.50	-27.50	74.00	37.42	33.26	6.25	30.43	---	---	Peak
11	3768.00	46.50	-27.50	74.00	35.35	34.73	6.59	30.17	---	---	Peak
12	4026.00	46.34	-27.66	74.00	35.08	35.15	6.79	30.68	---	---	Peak

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. 20, 2017	Dec. 23, 2017	Apr. 19, 2018	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2017	Dec. 23, 2017	Oct. 12, 2018	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 13, 2017	Dec. 23, 2017	Oct. 12, 2018	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 12, 2017	Dec. 23, 2017	Oct. 11, 2018	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz; Max 30dBm	Aug. 08, 2017	Dec. 22, 2017	Aug. 07, 2018	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz~44GHz, MAX 30dB	Apr. 18, 2017	Dec. 22, 2017	Apr. 17, 2018	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	23182	30MHz~2GHz	Jan. 22, 2017	Dec. 22, 2017	Jan. 21, 2018	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 21, 2017	Dec. 22, 2017	Oct. 20, 2018	Radiation (03CH02-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Feb. 15, 2017	Dec. 22, 2017	Feb. 14, 2018	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9kHz~1GHz	Aug. 07, 2017	Dec. 22, 2017	Aug. 06, 2018	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1GHz~26.5GHz	Oct. 12, 2017	Dec. 22, 2017	Oct. 11, 2018	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Dec. 22, 2017	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Dec. 22, 2017	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Dec. 22, 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))	**5.2dB**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

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