# **FCC Test Report**

APPLICANT : Motorola Mobility LLC EQUIPMENT : Mobile Cellular Phone

BRAND NAME : Motorola

MODEL NAME : 10874, 12665 FCC ID : IHDT56WK3

STANDARD : FCC 47 CFR FCC Part 15 Subpart B

**CLASSIFICATION**: Certification

The product was received on Jun. 17, 2017 and testing was completed on Jul. 24, 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.



Approved by: James Huang / Manager

## Sporton International (Kunshan) Inc.

No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China

Sporton International (Kunshan) Inc.

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Report Issued Date : Aug. 09, 2017
Report Version : Rev. 01

Report No.: FC761702-02

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## **REVISION HISTORY**

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC761702-02	Rev. 01	Initial issue of report	Aug. 09, 2017

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## **SUMMARY OF TEST RESULT**

Report Section	FCC Rule	Description	Limit	Result	Remark
					Under limit
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	11.33 dB at
					0.449 MHz
					Under limit
3.2	45 400	Dedicted Emission	4.5.400 limita	DACC	3.04 dB at
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	165.81 MHz
					for Quasi-Peak

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## 1. General Description

## 1.1. Applicant

#### **Motorola Mobility LLC**

222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

### 1.2. Manufacturer

### **Motorola Mobility LLC**

222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

## 1.3. Product Feature of Equipment Under Test

Product Feature				
Equipment	Mobile Cellular Phone			
Brand Name	Motorola			
Model Name	10874, 12665			
FCC ID	IHDT56WK3			
	GSM/GPRS/EGPRS/WCDMA/HSPA/ DC-HSDPA/			
	HSPA+ (16QAM uplink is not supported)/LTE/NFC			
	WLAN 2.4G 802.11b/g/n HT20/HT40/			
EUT supports Radios application	WLAN 5G 802.11a/n HT20/HT40/			
	WLAN 5G 802.11ac VHT20/VHT40/VHT80/			
	Bluetooth V3.0 + EDR/ Bluetooth V4.0 LE/			
	Bluetooth v4.1 LE / Bluetooth v4.2 LE / Bluetooth v5.0 LE			
IMELO. J.	Conduction: 356516080008035/356516080008043			
IMEI Code	Radiation: 356516080008050/356516080008068			
HW Version	DVT2			
SW Version	NPW26.75			
EUT Stage	Identical Prototype			

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#### Remark:

- **1.** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
- 2. There are two types of EUT, the differences between two samples are only for SIM slot: sample 1(Model name: 12665) is dual SIM slot, sample 2(Model name: 10874) is single SIM slot. We only choose sample 1 to perform full tests.

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## 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 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 802.11a/n/ac: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500MHz ~ 5700 MHz; 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz		
Rx Frequency	GSM850: 869.2 MHz ~ 893.8 MHz GSM1900: 1930.2 MHz ~ 1989.8 MHz WCDMA Band V: 871.4 MHz ~ 891.6 MHz WCDMA Band IV: 2112.4 MHz ~ 2152.6 MHz WCDMA Band II: 1932.4 MHz ~ 1987.6 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 802.11a/n/ac: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500MHz ~ 5700 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) FM: 88 MHz ~ 108 MHz NFC: 13.56 MHz		
Antenna Type	WWAN : Fixed Internal Antenna WLAN : Loop Antenna Bluetooth : Loop Antenna GPS/Glonass : Internal Loop Antenna NFC : Frame Loop Antenna FM: External headset Antenna		

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	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 (uplink is not supported)
	DC-HSDPA: 64QAM
	LTE: QPSK / 16QAM / 64QAM (Uplink)
Type of Modulation	802.11b: DSSS (DBPSK / DQPSK / CCK)
	802.11a/g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM)
	802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM /
	256QAM)
	Bluetooth LE : GFSK
	Bluetooth (1Mbps) : GFSK
	Bluetooth (2Mbps) : π /4-DQPSK
	Bluetooth (3Mbps) : 8-DPSK
	GPS/Glonass : BPSK
	FM
	NFC: ASK

Note: WLAN operation in 5600 MHz  $\sim$  5650 MHz is notched.

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## 1.5. Specification of Accessory

	Specification of Accessory				
A O A d a vida vida (UIO)	Brand Name		Model Name	SC-22	
AC Adapter 1 (US)	Power Rating	I/P: 100 – 240 Vac, 500	mA, O/P: 5/9/	12 Vdc, 3000/1600/1200 mA	
AC Adoptor 2 (US)	Brand Name	Motorola (Chenyang)	Model Name	SC-22	
AC Adapter 2 (US)	Power Rating	I/P: 100 - 240 Vac, 500	mA, O/P: 5/9/	12 Vdc, 3000/1600/1200 mA	
AC Adapter 3 (US)	Brand Name	Motorola (LiteOn)	<b>Model Name</b>	SC-22	
AC Adapter 3 (03)	Power Rating	I/P: 100 - 240 Vac, 500	mA, O/P: 5/9/	12 Vdc, 3000/1600/1200 mA	
Battery	Brand Name	Motorola (Sunwoda)	<b>Model Name</b>	HX40	
Dallery	Power Rating	3.8Vdc, 2810mAh	Type	Li-ion	
Earnhone	Brand Name	Motorola (Cosonic)	<b>Model Name</b>	SH38C16617	
Earphone	Signal Line Type	1.10 meter, non-shielde	d cable, with w	ı/o ferrite core	
USB Cable 1	Brand Name	Motorola (Saibao)	Model Name	SKN6473A	
USB Cable 1	Signal Line Type	1.10 meter, shielded cable, with w/o ferrite core			
USB Cable 2	Brand Name	Motorola (Foxlink)	Model Name	SKN6473A	
USB Cable 2	Signal Line Type	1.10 meter, shielded cal	ble, with w/o fe	errite core	
USB Cable 3	Brand Name	Motorola (Cabletech)	Model Name	SKN6473A	
OSB Cable 3	Signal Line Type	1.10 meter, shielded cal	ble, with w/o fe	errite core	

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## 1.6. Modification of EUT

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

## 1.7. Test Location

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

Test Site	Sporton International (Kunshan) Inc.			
Test Site Location	No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China TEL: +86-512-57900158 FAX: +86-512-57900958			
Test Site No.	Sportor	n Site No.	FCC Test Firm Registration No.	
	CO01-KS	03CH02-KS	630927	

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

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## 1.8. 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. For FCC 15 Subpart B Unintentional Radiators, device supporting USB interface or similar peripherals (defined as the Section 15.3 (r) Peripheral device) acting as a peripheral for personal computers shall be authorized as "The Class B personal computers and peripherals" per the Section 15.101 (a) Equipment authorization of unintentional radiators.
- 3. For other Unintentional Radiators features of this EUT, test reports are be issued separately. Per the Note of the Section 15.101, when device supports features (USB, FM Radio, digital devices...etc) more than one category of authorization, type of authorization shall be appropriately chosen for FCC 15B compliance rule, and the Section 15.101 (b), only those receivers that operate (tune) within the frequency range of 30-960 MHz, CB receivers and radar detectors are subject to the authorizations shown in paragraph (a) of the Section 15.101. However, receivers indicated as being subject to Declaration of Conformity that are contained within a transceiver, the transmitter portion of which is subject to certification, shall be authorized under the verification procedure.

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## 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
	Mode 1: LTE Band 5 Idle + Bluetooth Idle + WLAN (2.4G) Idle + Earphone + USB Cable 1(Data Link with Notebook) + Battery + GPS Rx + SIM1 for Sample 1
AC Conducted Emission	Mode 2: LTE Band 5 Idle + Bluetooth Idle + WLAN (5G) Idle + Earphone + USB Cable 2(Data Link with Notebook) + Battery + GPS Rx + SIM1 for Sample 1
	Mode 3: LTE Band 5 Idle + Bluetooth Idle + WLAN (5G) Idle + Earphone + USB Cable 3(Data Link with Notebook) + Battery + GPS Rx + SIM1 for Sample 1
	Mode 1: LTE Band 5 Idle + Bluetooth Idle + WLAN (5G) Idle + Earphone + USB Cable 1(Data Link with Notebook) + Battery + GPS Rx + SIM1 for Sample 1
Radiated Emissions < 1GHz	Mode 2: LTE Band 5 Idle + Bluetooth Idle + WLAN (2.4G) Idle + Earphone + USB Cable 2(Data Link with Notebook) + Battery + GPS Rx + SIM1 for Sample 1
	Mode 3: LTE Band 5 Idle + Bluetooth Idle + WLAN (2.4G) Idle + Earphone + USB Cable 3(Data Link with Notebook) + Battery + GPS Rx + SIM1 for Sample 1
Radiated Emissions ≥ 1GHz	Mode 1: LTE Band 5 Idle + Bluetooth Idle + WLAN (2.4G) Idle + Earphone + USB Cable 3(Data Link with Notebook) + Battery + GPS Rx + SIM1 for Sample 1

#### Remark:

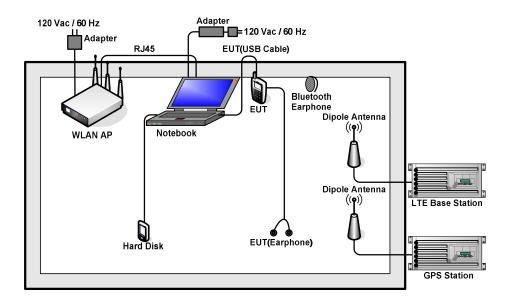
- 1. The worst case of AC is mode 2; only the test data of this mode was reported.
- 2. The worst case of RE < 1G is mode 3; only the test data of this mode was reported.

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## 2.2. Connection Diagram of Test System



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## 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	Anritus	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	ADIVIE	MP9000	N/A	N/A	Unshielded,1.8m
3.	WLAN AP	D-link	DIR-855	KA2DIR855A2	N/A	Unshielded,1.8m
4.	WLAN AP	TP-LINK	TL-WDR5600	N/A	N/A	N/A
5.	Notebook	Dell	Latitude3440	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
6.	Notebook	Lenovo	G480	N/A	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
7.	Bluetooth Earphone	Lenovo	LBH301	QTLBH-106	N/A	N/A
8.	Bluetooth Earphone	Lenovo	LBH308	QTLBH-106	N/A	N/A
9.	Hard Disk	Lenovo	F310	FCC DoC	Shielded, 1.2 m	N/A
10.	SD Card	Kingston	8GB	N/A	N/A	N/A
11.	SD Card	SanDisk	Uitra	N/A	N/A	N/A

## 2.4. EUT Operation Test Setup

The EUT was in 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 function to make the EUT receive continuous signals from GPS station.

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## 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	Conducted limit (dBuV)		
(MHz)	Quasi-peak	Average	
0.15-0.5	66 to 56*	56 to 46*	
0.5-5	56	46	
5-30	60	50	

<sup>\*</sup>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.

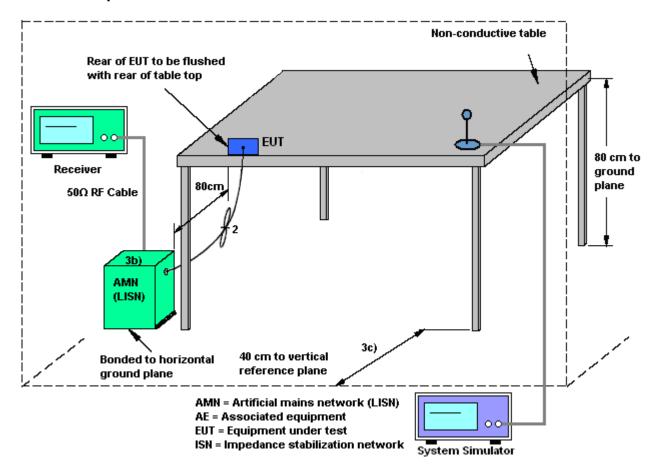
#### 3.1.3 Test Procedure

- 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.

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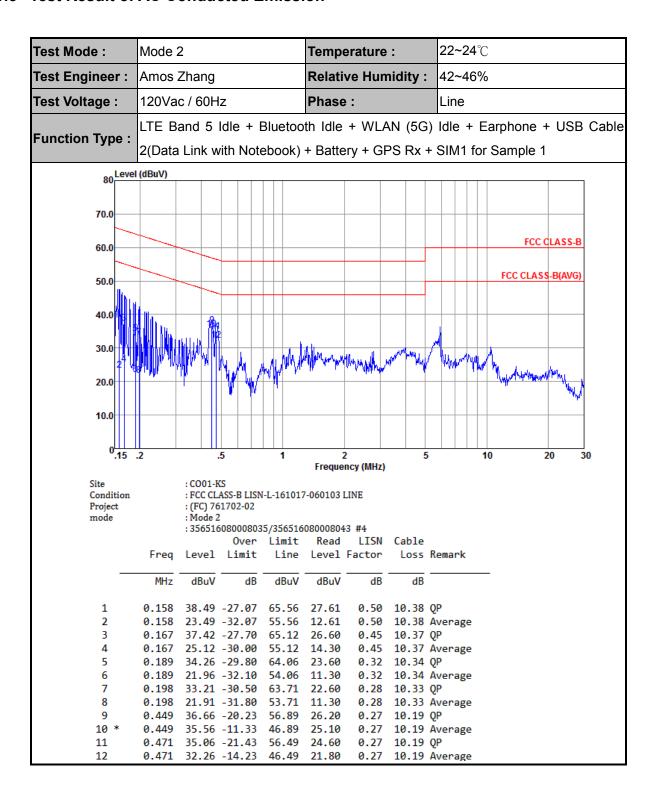
## 3.1.4 Test Setup



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### 3.1.5 Test Result of AC Conducted Emission



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22~24°C Test Mode: Mode 2 Temperature: Test Engineer: Amos Zhang **Relative Humidity:** 42~46% Test Voltage: 120Vac / 60Hz Phase: Neutral LTE Band 5 Idle + Bluetooth Idle + WLAN (5G) Idle + Earphone + USB Cable Function Type: 2(Data Link with Notebook) + Battery + GPS Rx + SIM1 for Sample 1 80 Level (dBuV) 70.0 FCC CLASS-B 60.0 FCC CLASS-B(AVG) 50.0 40.0 30.0 20.0 10.0 0.15 .2 .5 1 5 10 20 30 2 Frequency (MHz) : CO01-KS Condition : FCC CLASS-B LISN-N-161017-060103 NEUTRAL Project : (FC) 761702-02 mode : Mode 2 :356516080008035/356516080008043 #4 Read LISN Over Limit Cable Freq Limit Line Level Factor Loss Remark MHz dBuV dB dBuV dBuV dB dB 1 0.152 43.33 -22.58 65.91 32.60 0.34 10.39 OP 2 0.152 32.33 -23.58 55.91 21.60 0.34 10.39 Average 0.34 10.37 OP 3 0.169 41.90 -23.09 64.99 31.19 0.169 31.30 -23.69 54.99 20.59 0.34 10.37 Average 5 35.18 -29.15 64.33 24.50 0.33 10.35 QP 0.183 6 0.183 26.98 -27.35 54.33 16.30 0.33 10.35 Average 7 0.197 38.17 -25.59 63.76 27.50 0.33 10.34 QP 26.97 -26.79 53.76 0.33 10.34 Average 8 0.197 16.30 9 0.205 36.26 -27.14 63.40 25.60 0.33 10.33 QP 10 0.205 26.96 -26.44 53.40 16.30 0.33 10.33 Average 36.07 -20.38 11 0.474 56.45 25.50 0.38 10.19 QP 12 \* 33.87 -12.58 0.474 46.45 23.30 0.38 10.19 Average

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### 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	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(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.
- 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 $\mu$ V/m) = 20 log Emission level ( $\mu$ V/m)
- 9. Corrected Reading: Antenna Factor + Cable Loss + Read Level Preamp Factor = Level

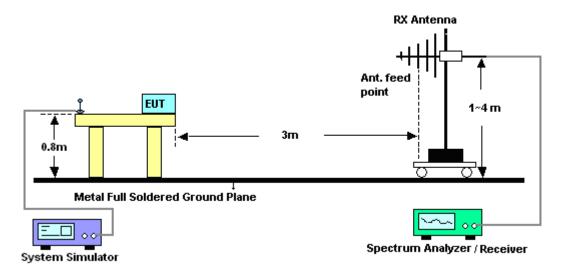
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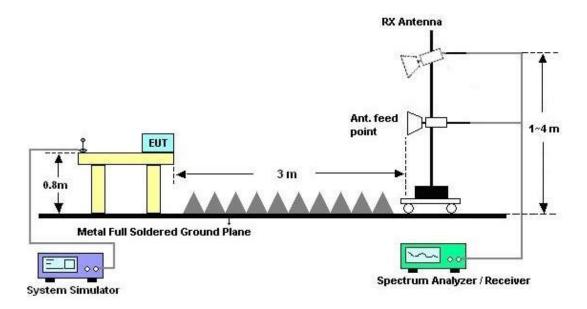
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## 3.2.4. Test Setup of Radiated Emission

### For radiated emissions from 30MHz to 1GHz



### For radiated emissions above 1GHz



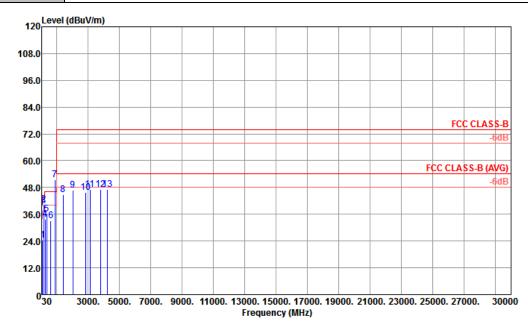
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### 3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 3	Temperature :	21~22°C				
Test Engineer :	Carl Ni	Relative Humidity :	41~42%				
Test Distance :	3m	Polarization :	Horizontal				
Function Type: LTE Band 5 Idle + Bluetooth Idle + WLAN (2.4G) Idle + Earphone + US 3(Data Link with Notebook) + Battery + GPS Rx + SIM1 for Sample 1							
						Remark :	#7 is system simulator signal which can be ignored.



Condition : FCC CLASS-B 3m 02 LF ANT HORIZONTAL

: (FC) 761702-02 : 3 Project

Mode

: 356516080008050 356516080008068 #3 IMEI

	Freq	Level		Limit Line				Preamp Factor	A/Pos	T/Pos	Remark
-	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		deg	
1	96.15	24.42	-19.08	43.50	38.65	17.50	0.23	31.96			Peak
2!	165.81	40.46	-3.04	43.50	54.90	16.96	0.35	31.75	200	0	QP
3!	170.40	39.73	-3.77	43.50	54.28	16.82	0.36	31.73			Peak
4	254.37	33.67	-12.33	46.00	47.59	17.00	0.50	31.42			Peak
5	345.50	36.02	-9.98	46.00	46.60	19.67	0.71	30.96			Peak
6	615.00	33.10	-12.90	46.00	36.72	24.85	0.94	29.41			Peak
7 *	876.80	51.52			50.30	27.32	1.55	27.65			Peak
8	1388.00	44.74	-29.26	74.00	47.90	28.48	3.35	34.99			Peak
9	2014.00	46.71	-27.29	74.00	44.60	30.25	4.61	32.75			Peak
10	2864.00	45.83	-28.17	74.00	40.88	32.00	2.85	29.90			Peak
11	3111.00	47.07	-26.93	74.00	39.55	32.78	4.76	30.02			Peak
12	3804.00	47.07	-26.93	74.00	36.02	34.68	6.59	30.22			Peak
13	4236.00	47.13	-26.87	74.00	36.67	35.35	6.17	31.06			Peak

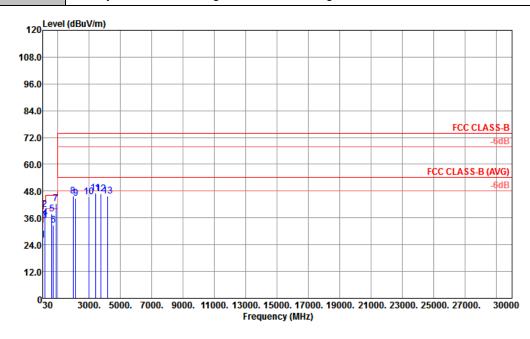
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SPORTON LAB.	FCC Test Report

Test Mode :	Mode 3	Temperature :	21~22°C			
Test Engineer :	Carl Ni	Relative Humidity :	41~42%			
Test Distance :	3m	Polarization :	Vertical			
Function Type : LTE Band 5 Idle + Bluetooth Idle + WLAN (2.4G) Idle + Earphone + 3(Data Link with Notebook) + Battery + GPS Rx + SIM1 for Sample 1						
						Remark :



Condition : FCC CLASS-B 3m 02 LF ANT VERTICAL

Project : (FC) 761702-02

Mode

: 356516080008050 356516080008068 #3 IMEI

			0ver	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
-	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	42.96	25.95	-14.05	40.00	37.31	20.57	0.13	32.06			Peak
2!	165.27	39.84	-3.66	43.50	54.28	16.96	0.35	31.75	100	0	Peak
3	170.67	34.88	-8.62	43.50	49.43	16.82	0.36	31.73			Peak
4	174.72	35.94	-7.56	43.50	50.61	16.68	0.37	31.72			Peak
5	615.00	37.70	-8.30	46.00	41.32	24.85	0.94	29.41			Peak
6	705.30	32.61	-13.39	46.00	33.79	26.44	1.20	28.82			Peak
7!	883.10	42.49			41.14	27.36	1.59	27.60			Peak
8	1966.00	45.81	-28.19	74.00	44.24	29.94	4.47	32.84			Peak
9	2144.00	44.92	-29.08	74.00	42.24	30.60	5.50	33.42			Peak
10	2966.00	45.53	-28.47	74.00	39.23	32.30	3.04	29.04			Peak
11	3399.00	47.00	-27.00	74.00	38.10	33.28	5.93	30.31			Peak
12	3756.00	46.64	-27.36	74.00	35.72	34.60	6.44	30.12			Peak
13	4167.00	45.89	-28.11	74.00	34.96	35.27	6.60	30.94			Peak

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## 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	Jul. 24, 2017	Apr. 19, 2018	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2016	Jul. 24, 2017	Oct. 12, 2017	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 13, 2016	Jul. 24, 2017	Oct. 12, 2017	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP0000008 11	AC 0V~300V, 45Hz~1000Hz	Oct. 13, 2016	Jul. 24, 2017	Oct. 12, 2017	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Ma x 30dBm	Aug. 09, 2016	Jul. 16, 2017	Aug. 08, 2017	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz-44G,MAX 30dB	Apr. 18, 2017	Jul. 16, 2017	Apr. 17, 2018	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	37879	30MHz-2GHz	Aug. 20, 2016	Jul. 16, 2017	Aug. 19, 2017	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 22, 2016	Jul. 16, 2017	Oct. 21, 2017	Radiation (03CH02-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz ~40GHz	Feb. 15, 2017	Jul. 16, 2017	Feb. 14, 2018	Radiation (03CH02-KS)
Amplifier	MITEQ	TTA1840-35-H G	1887435	18~40GHz	Oct. 13, 2016	Jul. 16, 2017	Oct. 12, 2017	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Aug. 09, 2016	Jul. 16, 2017	Aug. 08, 2017	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1-26.5GHz Gain 30dB	Oct. 13, 2016	Jul. 16, 2017	Oct. 12, 2017	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	61601000247 3	N/A	NCR	Jul. 16, 2017	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Jul. 16, 2017	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Jul. 16, 2017	NCR	Radiation (03CH02-KS)

NCR: No Calibration Required

Sporton International (Kunshan) Inc.

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## 5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of	2.3dB
Confidence of 95% (U = 2Uc(y))	2.3ub

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### <u>Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)</u>

Magazzina Ungortainty for a Loyal of	
Measuring Uncertainty for a Level of	5.2dB
Confidence of 95% (U = 2Uc(y))	V.205

### <u>Uncertainty of Radiated Emission Measurement (1GHz ~ 18GHz)</u>

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

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

Measuring Uncertainty for a Level of	5.3dB
Confidence of 95% (U = 2Uc(y))	5.3ub

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