



FCC Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : 9843
FCC ID : IHDT56VE5
STANDARD : FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION : Certification

The product was received on Oct. 15, 2016 and testing was completed on Nov. 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 C63.4-2014 and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (KUNSHAN) INC., the test report shall not be reproduced except in full.

Prepared by: James Huang / Manager



Approved by: Jones Tsai / Manager

SPORTON INTERNATIONAL (KUNSHAN) INC.

No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China



TABLE OF CONTENTS

REVISION HISTORY..... 3

SUMMARY OF TEST RESULT 4

1. GENERAL DESCRIPTION 5

 1.1. Applicant..... 5

 1.2. Manufacturer 5

 1.3. Product Feature of Equipment Under Test 5

 1.4. Product Specification of Equipment Under Test 6

 1.5. Specification of Accessory 8

 1.6. Modification of EUT 8

 1.7. Test Location 8

 1.8. Applicable Standards 9

2. TEST CONFIGURATION OF EQUIPMENT UNDER TEST 10

 2.1. Test Mode 10

 2.2. Connection Diagram of Test System 11

 2.3. Support Unit used in test configuration and system 12

 2.4. EUT Operation Test Setup 12

3. TEST RESULT 13

 3.1. Test of AC Conducted Emission Measurement 13

 3.2. Test of Radiated Emission Measurement 17

4. LIST OF MEASURING EQUIPMENT 21

5. UNCERTAINTY OF EVALUATION 22

APPENDIX A. SETUP PHOTOGRAPHS



REVISION HISTORY

| REPORT NO. | VERSION | DESCRIPTION | ISSUED DATE |
|-------------|---------|-------------------------|---------------|
| FC6O1212-09 | Rev. 01 | Initial issue of report | Nov. 09, 2016 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |



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 12.20 dB at 0.476 MHz |
| 3.2 | 15.109 | Radiated Emission | < 15.109 limits | PASS | Under limit 9.13 dB at 705.300 MHz |



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 | 9843 |
| FCC ID | IHDT56VE5 |
| EUT supports Radios application | GSM/GPRS/EGPRS/WCDMA/HSPA/DC-HSDPA/ HSPA+(16QAM uplink is not supported)/LTE/NFC/ WLAN2.4GHz 802.11b/g/n HT20/ WLAN5GHz 802.11a/n HT20/HT40/ Bluetooth v3.0+EDR/Bluetooth v4.2 LE |
| IMEI Code | Conduction: 358958060021539/51200659853A08 Radiation: 358958060021455/358958060021463 |
| HW Version | DVT2 |
| SW Version | NPN25.94_1198 |
| 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 LTE Band 5 : 824.7 MHz ~ 848.3 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz 802.11a/n: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500MHz ~ 5720 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 LTE Band 5 : 869.7 MHz ~ 893.3 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz 802.11a/n: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500MHz ~ 5720 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 2.4GHz: Loop Antenna WLAN 5GHz: PIFA Antenna Bluetooth: Loop Antenna GPS/Glonass: Loop Antenna FM: External headset Antenna NFC: Loop Antenna |



| Standards-related Product Specification | |
|---|--|
| 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 (Uplink is not supported) DC-HSDPA: 64QAM LTE: QPSK / 16QAM 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : $\pi/4$ -DQPSK Bluetooth (3Mbps) : 8-DPSK GPS/Glonass : BPSK FM NFC: ASK |

1.5. Specification of Accessory

| Specification of Accessory | | | | |
|----------------------------|------------------|---|------------|-----------------|
| AC Adapter | Brand Name | Motorola(Salom) | Model Name | SSW-2680IN |
| | Power Rating | I/P: 100-240 Vac, 500mA, O/P: 5 Vdc,1600mA or 9Vdc,1600mA or 12Vdc,1200mA | | |
| Battery | Brand Name | motorola(Amperex) | Model Name | HG40 |
| | Power Rating | 3.8Vdc,2810/3000mAh (Min/Typ) | Type | Li-ion |
| USB Cable | Brand Name | Motorola | Model Name | SKN6461A |
| | Signal Line Type | 1.0 meter, non-shielded cable, without ferrite core | | |
| Earphone | Brand Name | Motorola (Jiangxi Lianchuang) | Model Name | MEMD1532B080008 |
| | Signal Line Type | 1.2 meter, non-shielded cable, without ferrite core | | |

1.6. Modification of EUT

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

1.7. 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 |

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



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:

1. 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.

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).

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 |
| 1. | Data application transferred mode (EUT with notebook) | ☒ | ☒ |

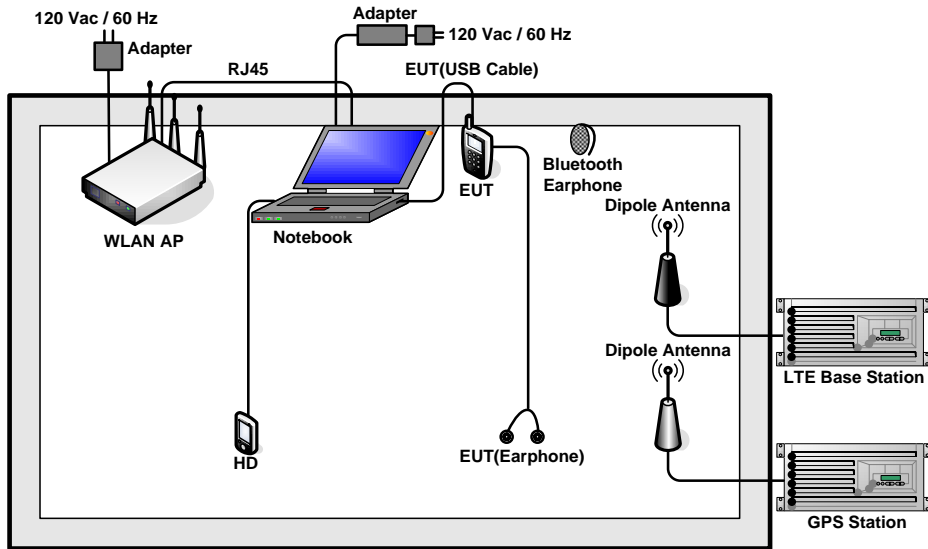
Abbreviations:

- EMI AC: AC conducted emissions
- EMI RE: EUT radiated emissions

| Test Items | EUT Configure Mode | Function Type |
|-----------------------|--------------------|--|
| AC Conducted Emission | 1 | Mode 1: LTE Band 5 Idle + Bluetooth Idle + WLAN(2.4G) Idle + Earphone + USB Cable(Data Link with Notebook) + GPS Rx + SIM1 |
| Radiated Emissions | 1 | Mode 1: LTE Band 5 Idle + Bluetooth Idle + WLAN(2.4G) Idle + Earphone + USB Cable(Data Link with Notebook) + GPS Rx + SIM1 |

Remark: Data Link with Notebook means data application transferred mode between EUT and Notebook.

2.2. Connection Diagram of Test System



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. | WLAN AP | SAUS | RT-AC66U | MSQ-RAC66U | N/A | Unshielded, 1.8 m |
| 4. | WLAN AP | D-link | DIR-855 | KA2DIR855A2 | N/A | Unshielded, 1.8 m |
| 5. | Notebook | Lenovo | G480 | N/A | N/A | AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m |
| 6. | Bluetooth Earphone | Lenovo | LBH308 | QTLBH-106 | N/A | N/A |
| 7. | Bluetooth Earphone | Lenovo | LBH301 | QTLBH-106 | N/A | N/A |
| 8. | SD Card | Kingston | 4GB | N/A | N/A | N/A |
| 9. | SD Card | SanDisk | Uitra | N/A | N/A | N/A |
| 10. | Hard Disk | Lenovo | F310 | FCC DoC | Shielded, 0.5 m | 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.

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.



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.

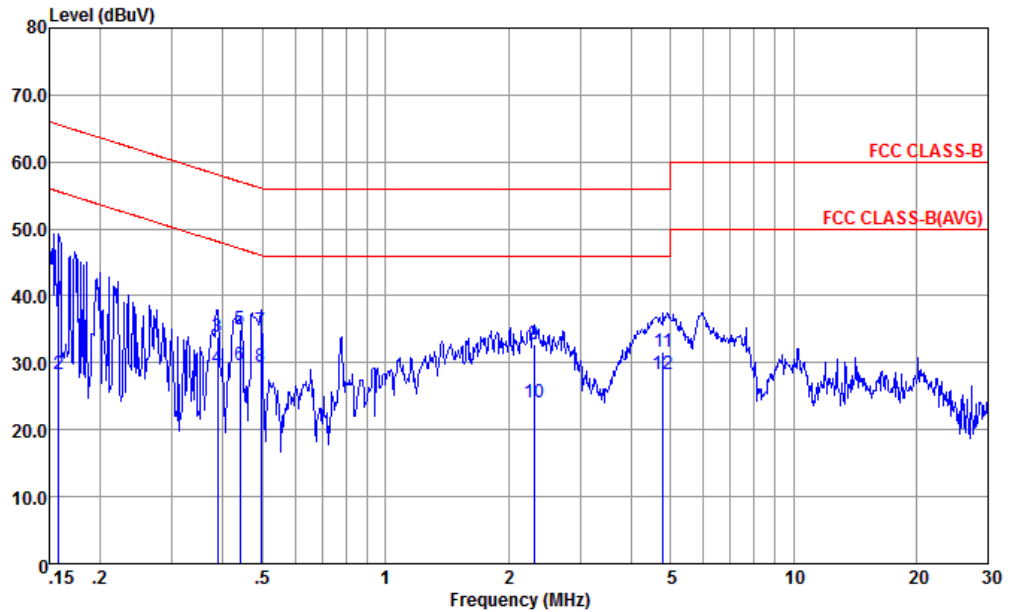
3.1.4 Test Setup





3.1.5 Test Result of AC Conducted Emission

| | | | |
|-----------------|--|---------------------|---------|
| Test Mode : | Mode 1 | Temperature : | 22~24°C |
| Test Engineer : | Morris Li | Relative Humidity : | 48~50% |
| Test Voltage : | 120Vac / 60Hz | Phase : | Line |
| Function Type : | LTE Band 5 Idle + Bluetooth Idle + WLAN(2.4G) Idle + Earphone + USB Cable(Data Link with Notebook) + GPS Rx + SIM1 | | |

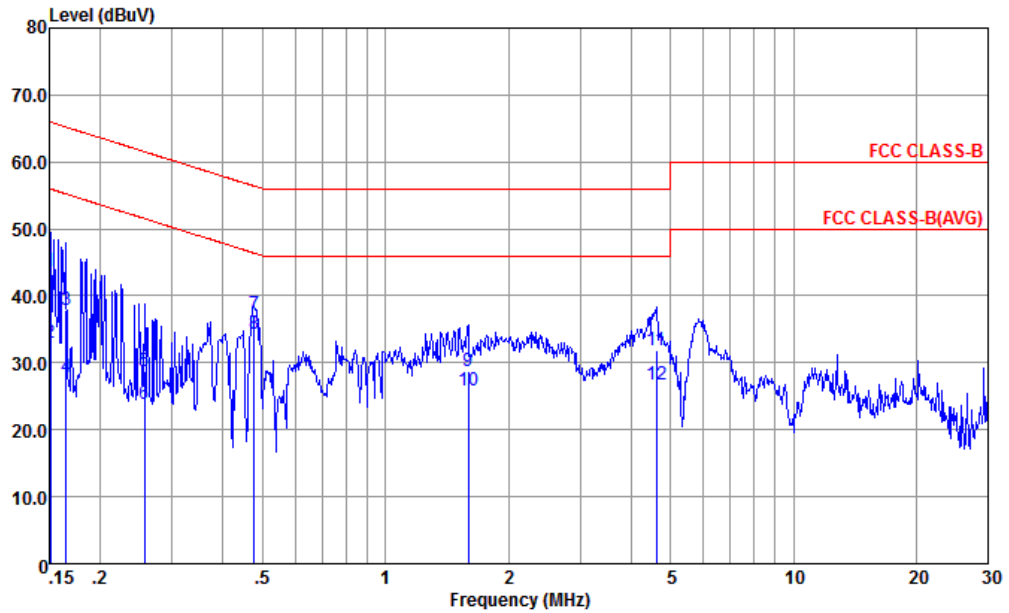


Site : CO01-KS
 Condition : FCC CLASS-B LISN-L-20151024 LINE
 mode : Mode 1
 IMEI : 358958060021539/51200659853A08

| | Freq | Level | Over | Limit | Read | LISN | Cable | Remark |
|-----|-------|-------|--------|-------|-------|--------|-------|---------|
| | MHz | dBuV | Limit | Line | Level | Factor | Loss | |
| | | | dB | dBuV | dBuV | dB | dB | |
| 1 | 0.158 | 39.46 | -26.10 | 65.56 | 28.60 | 0.48 | 10.38 | QP |
| 2 | 0.158 | 28.36 | -27.20 | 55.56 | 17.50 | 0.48 | 10.38 | Average |
| 3 | 0.387 | 33.93 | -24.19 | 58.12 | 23.49 | 0.23 | 10.21 | QP |
| 4 | 0.387 | 29.23 | -18.89 | 48.12 | 18.79 | 0.23 | 10.21 | Average |
| 5 | 0.440 | 34.92 | -22.15 | 57.07 | 24.50 | 0.23 | 10.19 | QP |
| 6 | 0.440 | 29.72 | -17.35 | 47.07 | 19.30 | 0.23 | 10.19 | Average |
| 7 | 0.494 | 34.72 | -21.38 | 56.10 | 24.30 | 0.23 | 10.19 | QP |
| 8 * | 0.494 | 29.32 | -16.78 | 46.10 | 18.90 | 0.23 | 10.19 | Average |
| 9 | 2.309 | 32.78 | -23.22 | 56.00 | 22.40 | 0.18 | 10.20 | QP |
| 10 | 2.309 | 23.98 | -22.02 | 46.00 | 13.60 | 0.18 | 10.20 | Average |
| 11 | 4.797 | 31.73 | -24.27 | 56.00 | 21.30 | 0.19 | 10.24 | QP |
| 12 | 4.797 | 28.23 | -17.77 | 46.00 | 17.80 | 0.19 | 10.24 | Average |



| | | | |
|-----------------|--|---------------------|---------|
| Test Mode : | Mode 1 | Temperature : | 22~24°C |
| Test Engineer : | Morris Li | Relative Humidity : | 48~50% |
| Test Voltage : | 120Vac / 60Hz | Phase : | Neutral |
| Function Type : | LTE Band 5 Idle + Bluetooth Idle + WLAN(2.4G) Idle + Earphone + USB Cable(Data Link with Notebook) + GPS Rx + SIM1 | | |



Site : CO01-KS
 Condition : FCC CLASS-B LISN-N-20151024 NEUTRAL
 mode : Mode 1
 IMEI : 358958060021539/51200659853A08

| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Remark |
|-----|-------|-------|------------|------------|------------|-------------|------------|---------|
| | MHz | dBuV | dB | dBuV | dBuV | dB | dB | |
| 1 | 0.151 | 43.59 | -22.37 | 65.96 | 32.90 | 0.30 | 10.39 | QP |
| 2 | 0.151 | 32.99 | -22.97 | 55.96 | 22.30 | 0.30 | 10.39 | Average |
| 3 | 0.165 | 37.98 | -27.23 | 65.21 | 27.31 | 0.30 | 10.37 | QP |
| 4 | 0.165 | 27.88 | -27.33 | 55.21 | 17.21 | 0.30 | 10.37 | Average |
| 5 | 0.256 | 28.80 | -32.76 | 61.56 | 18.21 | 0.31 | 10.28 | QP |
| 6 | 0.256 | 23.80 | -27.76 | 51.56 | 13.21 | 0.31 | 10.28 | Average |
| 7 | 0.476 | 37.11 | -19.30 | 56.41 | 26.60 | 0.32 | 10.19 | QP |
| 8 * | 0.476 | 34.21 | -12.20 | 46.41 | 23.70 | 0.32 | 10.19 | Average |
| 9 | 1.593 | 28.76 | -27.24 | 56.00 | 18.19 | 0.38 | 10.19 | QP |
| 10 | 1.593 | 25.86 | -20.14 | 46.00 | 15.29 | 0.38 | 10.19 | Average |
| 11 | 4.622 | 31.90 | -24.10 | 56.00 | 21.30 | 0.36 | 10.24 | QP |
| 12 | 4.622 | 26.70 | -19.30 | 46.00 | 16.10 | 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

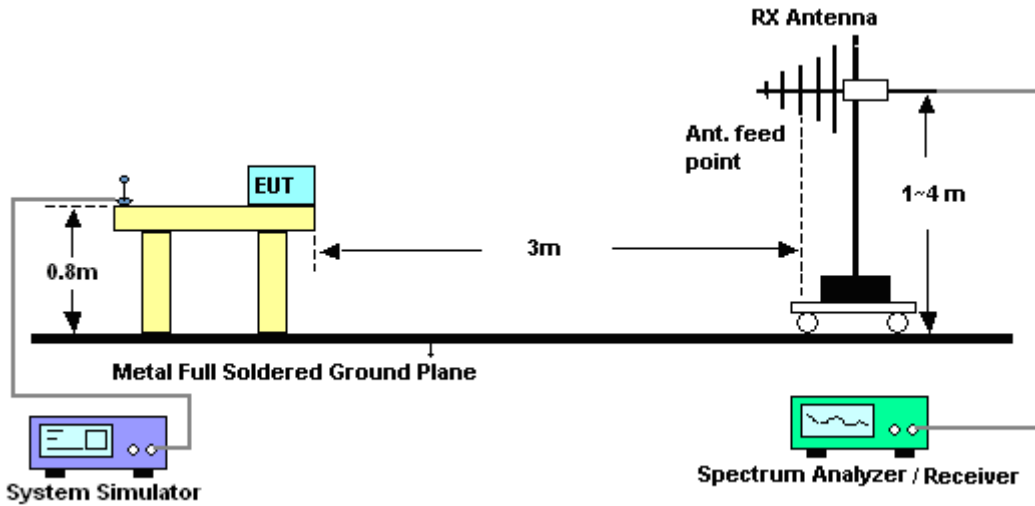
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

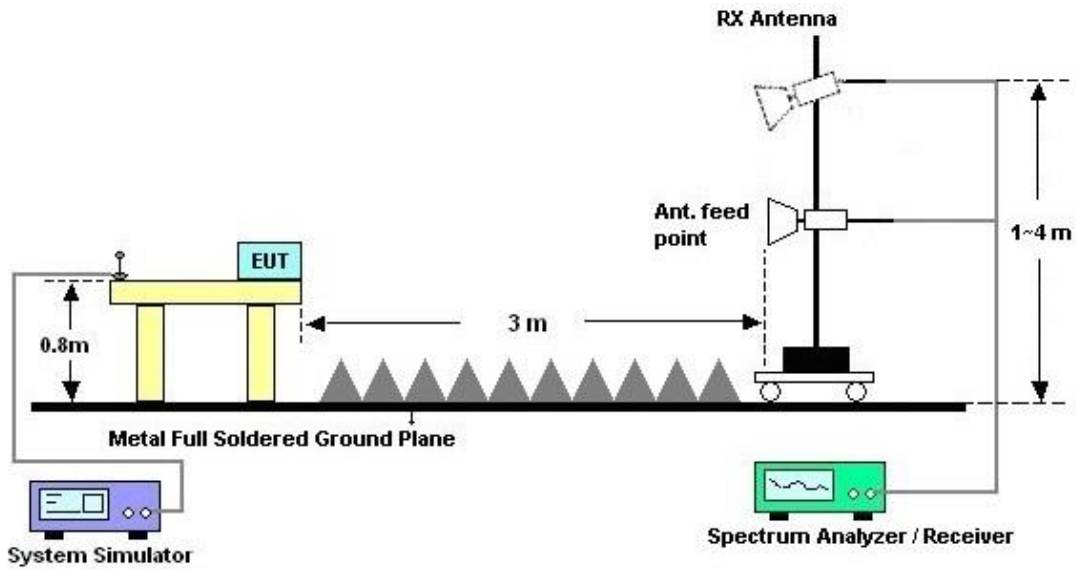
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna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



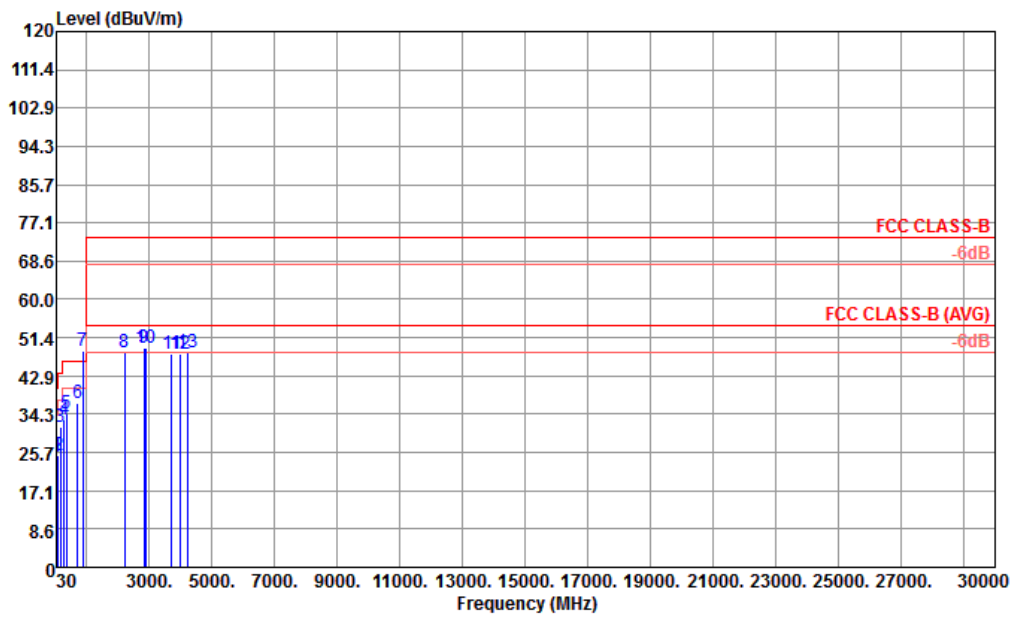
For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

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

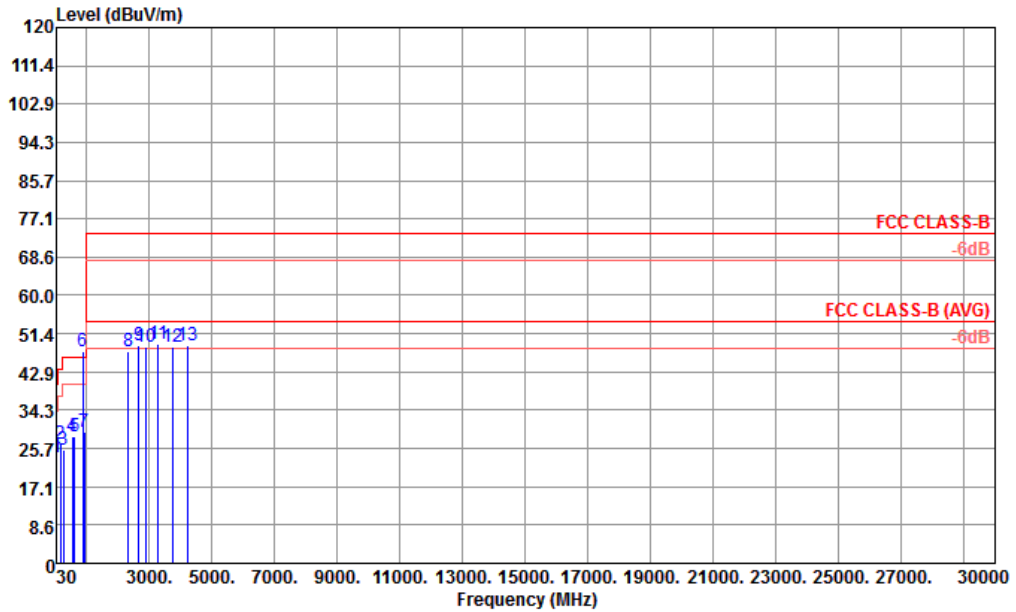


Site : 03CH02-KS
 Condition : FCC CLASS-B 3m 966-02 LF ANT HORIZONTAL
 Mode : 1
 IMEI : 358958060021455 358958060021463 #2

| | Freq | Level | Over Limit | Limit Line | ReadAntenna Level | Cable Factor | Preamp Loss | A/Pos | T/Pos | Remark | Pol/Phas |
|-----|---------|--------|------------|------------|-------------------|--------------|-------------|-------|-------|--------|-----------------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | cm | deg | |
| 1 | 41.88 | 24.64 | -15.36 | 40.00 | 35.26 | 21.10 | 0.13 | 31.85 | --- | --- | Peak HORIZONTAL |
| 2 | 84.00 | 25.19 | -14.81 | 40.00 | 40.79 | 15.87 | 0.21 | 31.68 | --- | --- | Peak HORIZONTAL |
| 3 | 165.81 | 31.54 | -11.96 | 43.50 | 45.72 | 16.91 | 0.35 | 31.44 | --- | --- | Peak HORIZONTAL |
| 4 | 284.07 | 33.09 | -12.91 | 46.00 | 45.82 | 17.67 | 0.56 | 30.96 | --- | --- | Peak HORIZONTAL |
| 5 | 344.80 | 34.53 | -11.47 | 46.00 | 44.35 | 20.10 | 0.71 | 30.63 | --- | --- | Peak HORIZONTAL |
| 6 | 705.30 | 36.87 | -9.13 | 46.00 | 37.12 | 26.73 | 1.20 | 28.18 | 100 | 200 | Peak HORIZONTAL |
| 7 * | 881.70 | 48.36 | | | 46.35 | 27.45 | 1.59 | 27.03 | --- | --- | Peak HORIZONTAL |
| 8 | 2216.00 | 48.07 | -25.93 | 74.00 | 45.24 | 31.22 | 5.78 | 34.17 | --- | --- | Peak HORIZONTAL |
| 9 | 2818.00 | 48.98 | -25.02 | 74.00 | 41.70 | 32.14 | 2.76 | 27.62 | --- | --- | Peak HORIZONTAL |
| 10 | 2912.00 | 49.24 | -24.76 | 74.00 | 42.22 | 32.35 | 2.95 | 28.28 | --- | --- | Peak HORIZONTAL |
| 11 | 3702.00 | 47.82 | -26.18 | 74.00 | 38.57 | 34.30 | 6.29 | 31.34 | --- | --- | Peak HORIZONTAL |
| 12 | 4002.00 | 47.86 | -26.14 | 74.00 | 38.64 | 34.86 | 6.10 | 31.74 | --- | --- | Peak HORIZONTAL |
| 13 | 4221.00 | 48.19 | -25.81 | 74.00 | 38.53 | 35.12 | 6.38 | 31.84 | --- | --- | Peak HORIZONTAL |



| | | | |
|-----------------|--|---------------------|----------|
| Test Mode : | Mode 1 | Temperature : | 21~22°C |
| Test Engineer : | Jason Peng | Relative Humidity : | 41~42% |
| Test Distance : | 3m | Polarization : | Vertical |
| Function Type : | LTE Band 5 Idle + Bluetooth Idle + WLAN(2.4G) Idle + Earphone + USB Cable(Data Link with Notebook) + GPS Rx + SIM1 | | |
| Remark : | #6 is system simulator signal which can be ignored. | | |



Site : 03CH02-KS
 Condition : FCC CLASS-B 3m 966-02 LF ANT VERTICAL
 Mode : 1
 IMEI : 358958060021455 358958060021463 #2

| | 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 | 41.88 | 23.65 | -16.35 | 40.00 | 34.27 | 21.10 | 0.13 | 31.85 | 100 | 0 | Peak | VERTICAL |
| 2 | 153.12 | 26.70 | -16.80 | 43.50 | 40.42 | 17.46 | 0.33 | 31.51 | --- | --- | Peak | VERTICAL |
| 3 | 254.64 | 25.31 | -20.69 | 46.00 | 38.45 | 17.44 | 0.49 | 31.07 | --- | --- | Peak | VERTICAL |
| 4 | 535.90 | 28.54 | -17.46 | 46.00 | 32.94 | 24.18 | 0.89 | 29.47 | --- | --- | Peak | VERTICAL |
| 5 | 615.00 | 28.39 | -17.61 | 46.00 | 31.69 | 24.58 | 0.94 | 28.82 | --- | --- | Peak | VERTICAL |
| 6 * | 881.50 | 47.46 | | | 45.46 | 27.45 | 1.58 | 27.03 | --- | --- | Peak | VERTICAL |
| 7 | 914.60 | 29.52 | -16.48 | 46.00 | 26.77 | 27.82 | 1.71 | 26.78 | --- | --- | Peak | VERTICAL |
| 8 | 2318.00 | 47.39 | -26.61 | 74.00 | 44.01 | 31.33 | 5.67 | 33.62 | --- | --- | Peak | VERTICAL |
| 9 | 2672.00 | 48.82 | -25.18 | 74.00 | 43.76 | 31.82 | 3.21 | 29.97 | --- | --- | Peak | VERTICAL |
| 10 | 2884.00 | 48.51 | -25.49 | 74.00 | 41.41 | 32.31 | 2.90 | 28.11 | --- | --- | Peak | VERTICAL |
| 11 | 3273.00 | 48.98 | -25.02 | 74.00 | 40.51 | 33.51 | 6.01 | 31.05 | --- | --- | Peak | VERTICAL |
| 12 | 3744.00 | 48.53 | -25.47 | 74.00 | 39.20 | 34.43 | 6.39 | 31.49 | --- | --- | Peak | VERTICAL |
| 13 | 4203.00 | 48.76 | -25.24 | 74.00 | 38.90 | 35.11 | 6.59 | 31.84 | --- | --- | Peak | VERTICAL |



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. 29, 2016 | Nov. 05, 2016 | Apr. 28, 2017 | Conduction (CO01-KS) |
| AC LISN | MessTec | AN3016 | 060103 | 9kHz~30MHz | Oct. 13, 2016 | Nov. 05, 2016 | Oct. 12, 2017 | Conduction (CO01-KS) |
| AC LISN (for auxiliary equipment) | MessTec | AN3016 | 060105 | 9kHz~30MHz | Oct. 13, 2016 | Nov. 05, 2016 | Oct. 12, 2017 | Conduction (CO01-KS) |
| AC Power Source | Chroma | 61602 | ABP000000811 | AC 0V~300V, 45Hz~1000Hz | Oct. 13, 2016 | Nov. 05, 2016 | Oct. 12, 2017 | Conduction (CO01-KS) |
| EMI Test Receiver | R&S | ESR7 | 101403 | 9kHz~7GHz; Max 30dBm | Aug. 09, 2016 | Nov. 05, 2016 | Aug. 08, 2017 | Radiation (03CH02-KS) |
| EXA Spectrum Analyzer | Keysight | N9010A | MY55150208 | 10Hz~44GHz; Max 30dB | Apr. 22, 2016 | Nov. 05, 2016 | Apr. 21, 2017 | Radiation (03CH02-KS) |
| Bilog Antenna | TeseQ | CBL6112D | 37879 | 30MHz~2GHz | Aug. 20, 2016 | Nov. 05, 2016 | Aug. 19, 2017 | Radiation (03CH02-KS) |
| Double Ridge Horn Antenna | ETS-Lindgren | 3117 | 75957 | 1GHz~18GHz | Nov. 07, 2015 | Nov. 05, 2016 | Nov. 06, 2016 | Radiation (03CH02-KS) |
| SHF-EHF Horn | Schwarzbeck | BBHA 9170 | BBHA170249 | 15GHz~40GHz | Mar. 03, 2016 | Nov. 05, 2016 | Mar. 02, 2017 | Radiation (03CH02-KS) |
| Amplifier | com-power | PA-103A | 161069 | 1kHz~1000MHz / 32 dB | Apr. 22, 2016 | Nov. 05, 2016 | Apr. 21, 2017 | Radiation (03CH02-KS) |
| Amplifier | Agilent | 8449B | 3008A02384 | 1~26.5GHz Gain 30dB | Oct. 13, 2016 | Nov. 05, 2016 | Oct. 12, 2017 | Radiation (03CH02-KS) |
| Amplifier | MITEQ | TTA1840-35-H G | 1887435 | 18GHz~40GHz | Jan. 20, 2016 | Nov. 05, 2016 | Jan. 19, 2017 | Radiation (03CH02-KS) |
| AC Power Source | Chroma | 61601 | 616010002473 | N/A | NCR | Nov. 05, 2016 | NCR | Radiation (03CH02-KS) |
| Turn Table | MF | MF7802 | N/A | 0~360 degree | NCR | Nov. 05, 2016 | NCR | Radiation (03CH02-KS) |
| Antenna Mast | MF | MF7802 | N/A | 1 m~4 m | NCR | Nov. 05, 2016 | 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 (1GHz ~ 18GHz)

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

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

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