

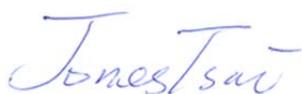
FCC Test Report

APPLICANT : Huawei Technologies Co., Ltd.
EQUIPMENT : HUAWEI Ascend G 301;
HSDPA/UMTS/GSM/GPRS/EDGE Mobile Phone with
Bluetooth
BRAND NAME : HUAWEI
MODEL NAME : HUAWEI U8816-1, U8816-1
FCC ID : QISU8816-1
STANDARD : FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION : Certification

The product was received on Apr. 06, 2012 and completely tested on May 25, 2012. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2003 and shown the 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.

Reviewed by:



Jones Tsai / Manager



SPORTON INTERNATIONAL (KUNSHAN) INC.
No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.



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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 8.66 dB at 0.66 MHz |
| 3.2 | 15.109 | Radiated Emission | < 15.109 limits > | PASS | Under limit 5.52 dB at 239.520 MHz for Peak Under limit 3.42 dB at 34.850 MHz for Quasi-Peak |



1. General Description

1.1. Applicant

Huawei Technologies Co., Ltd.

Bantian, Longgang District, Shenzhen, 51829 Guangdong, P.R.China

1.2. Manufacturer

Huawei Technologies Co., Ltd.

Bantian, Longgang District, Shenzhen, 51829 Guangdong, P.R.China

1.3. Feature of Equipment Under Test

| Product Feature & Specification | |
|---------------------------------|--|
| Equipment | HUAWEI Ascend G 301; HSDPA/UMTS/GSM/GPRS/EDGE Mobile Phone with Bluetooth |
| Brand Name | HUAWEI |
| Model Name | HUAWEI U8816-1, U8816-1 |
| FCC ID | QISU8816-1 |
| Tx Frequency Range | GSM850 : 824 MHz ~ 849 MHz GSM1900 : 1850 MHz ~ 1910 MHz Bluetooth : 2402 MHz ~ 2480 MHz WLAN : 2412 MHz ~ 2462 MHz |
| Rx Frequency Range | GSM850 : 869 MHz ~ 894 MHz GSM1900 : 1930 MHz ~ 1990 MHz Bluetooth : 2402 MHz ~ 2480 MHz WLAN : 2412 MHz ~ 2462 MHz GPS : 1.57542 GHz FM: 88 MHz ~ 108 MHz |
| Antenna Type | WWAN : Fixed Internal Antenna Bluetooth : Loop Antenna WLAN : Loop Antenna |
| HW Version | HD3U8815M |
| SW Version | U8816V100R001C00B879 |
| Type of Modulation | GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK Bluetooth (1Mbps) : GFSK Bluetooth EDR (2Mbps) : $\pi/4$ -DQPSK Bluetooth EDR (3Mbps) : 8-DPSK 802.11b : DSSS (BPSK / QPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) GPS : BPSK FM |
| 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. Test Site

| | | | |
|---------------------------|--|-----------|--------------------------------|
| Test Site | SPORTON INTERNATIONAL (KUNSHAN) INC. | | |
| Test Site Location | No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958 | | |
| Test Site No. | Sporton Site No. | | FCC/IC Registration No. |
| | CO01-KS | 03CH01-KS | 149928/4086E-1 |

1.5. Applied 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 C63.4-2003

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

1.6. Ancillary Equipment List

| Item | Equipment | Trade Name | Model Name | FCC ID | Data Cable | Power Cord |
|------|--------------------|------------|----------------|-------------|---------------------------|-------------------|
| 1. | System Simulator | R&S | CMU 200 | N/A | N/A | Unshielded, 1.8 m |
| 2. | GPS Station | ADIVIC | MP9000 | N/A | N/A | Unshielded, 1.8 m |
| 3. | Signal Generator | R&S | SMR40 | N/A | N/A | Unshielded, 1.8 m |
| 4. | WLAN AP | D-Link | DIR-855 | KA2DIR855A2 | N/A | Unshielded, 1.8 m |
| 5. | Bluetooth Earphone | Nokia | BH-102 | PYAHS-107W | N/A | N/A |
| 6. | Bluetooth Earphone | Nokia | BH-106 | QTLBH-106 | N/A | N/A |
| 7. | PC | DELL | MT380 | FCC DoC | N/A | Unshielded, 1.8 m |
| 8. | Monitor | DELL | E1910Hc | FCC DoC | Shielded, 1.2 m | Unshielded, 1.8 m |
| 9. | Printer | HP | Laser Jet 1018 | FCC DoC | Shielded, 1.8 m | Unshielded, 1.8 m |
| 10. | (USB)Mouse | DELL | MO56UC | FCC DoC | Shielded, 1.8 m | N/A |
| 11. | (USB)Keyboard | DELL | L100 | FCC DoC | Shielded, 1.8 m with Core | N/A |
| 12. | iPod | Apple | A1199 | FCC DoC | Shielded, 1.2 m | N/A |

2. Test Configuration of Equipment Under Test

2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 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 | Note 1 |
| 2. | Data application transferred mode (EUT with PC) | Note 1 | ☒ | ☒ |

Abbreviations:

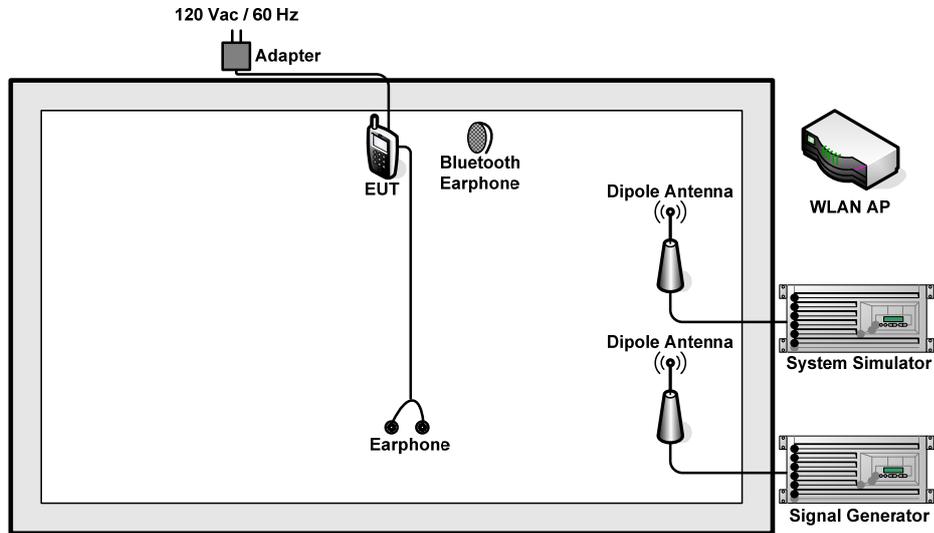
- EMI AC: AC conducted emissions
- EMI RE ≥ 1G: EUT radiated emissions ≥ 1GHz
- EMI RE < 1G: EUT radiated emissions < 1GHz

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

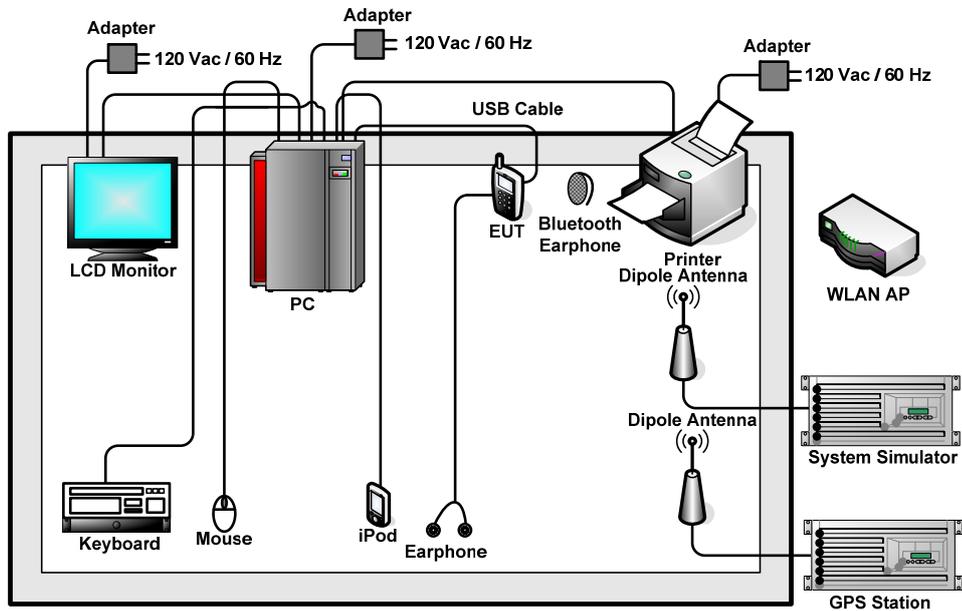
| Test Items | EUT Configure Mode | Function Type |
|---------------------------|--------------------|--|
| AC Conducted Emission | 1 | Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + Adapter 1 + Earphone 1 + FM Rx + Battery 3 <Fig.1> |
| Radiated Emissions < 1GHz | 2 | Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable 1 (Data Link with PC) + Earphone 2 + GPS Rx + Battery 1 <Fig.2> |
| Radiated Emissions ≥ 1GHz | 2 | Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable 1 (Data Link with PC) + Earphone 2 + GPS Rx + Battery 1 <Fig.2> |

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

2.2. Connection Diagram of Test System



<Fig.1>



<Fig.2>



2.3. Test Software

The EUT was in GSM or WCDMA 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. Execute the program, "Winthrax" installed in PC for files transfer with EUT via USB cable.
2. Turn on GPS function to make the EUT receive continuous signals from GPS station.
3. Turn on FM function to make the EUT receive continuous signals from Signal Generator.

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.

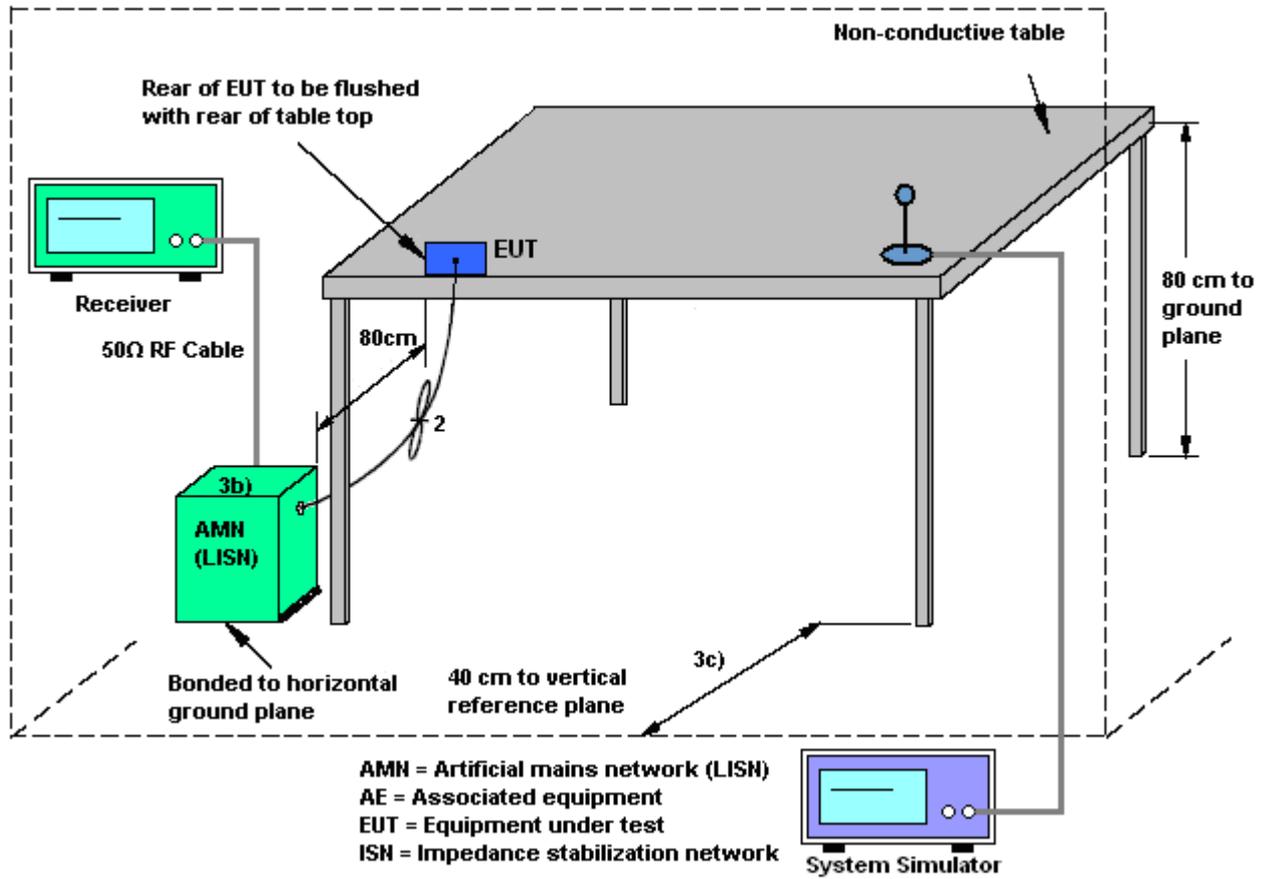
3.1.2. Measuring Instruments

See list of measuring instruments 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 with Maximum Hold Mode.

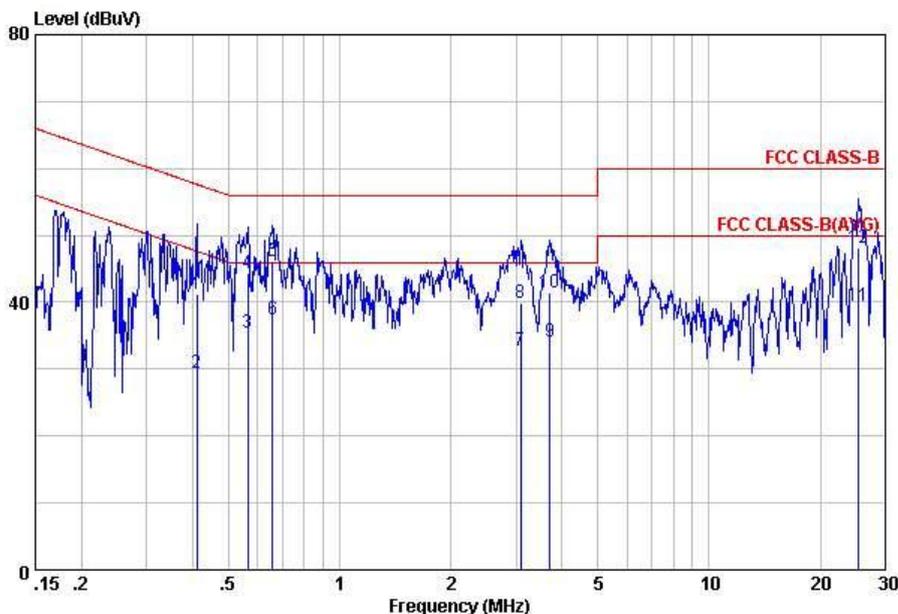
3.1.4. Test Setup





3.1.5. Test Result of AC Conducted Emission

| | | | |
|-----------------|---|---------------------|---------|
| Test Mode : | Mode 1 | Temperature : | 19~20°C |
| Test Engineer : | Tom Wang | Relative Humidity : | 39~40% |
| Test Voltage : | 120Vac / 60Hz | Phase : | Line |
| Function Type : | GSM850 Idle + Bluetooth Idle + WLAN Idle + Adapter 1 + Earphone 1 + FM Rx + Battery 3 | | |
| Remark : | All emissions not reported here are more than 10 dB below the prescribed limit. | | |

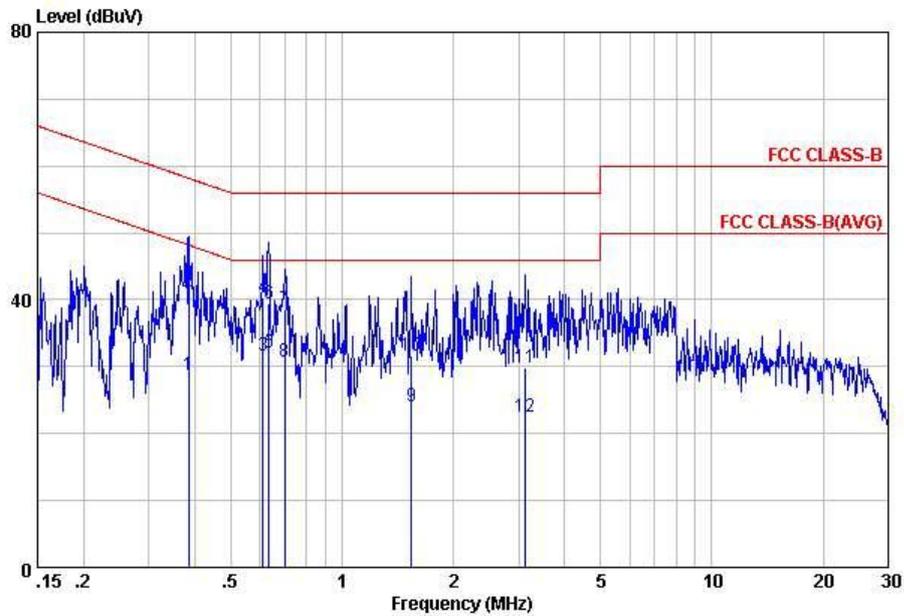


Site : C001-KS
 Condition: FCC CLASS-B LISN-100807 LINE
 mode : Mode 1

| | Freq | Level | Over | Limit | Read | LISN | Cable | Remark |
|----|-------|-------|--------|-------|-------|--------|-------|---------|
| | MHz | dBuV | Limit | Line | Level | Factor | Loss | |
| | | | dB | dBuV | dBuV | dB | dB | |
| 1 | 0.41 | 41.21 | -16.43 | 57.64 | 31.10 | -0.08 | 10.19 | QP |
| 2 | 0.41 | 29.41 | -18.23 | 47.64 | 19.30 | -0.08 | 10.19 | Average |
| 3 | 0.56 | 35.53 | -10.47 | 46.00 | 25.39 | -0.08 | 10.22 | Average |
| 4 | 0.56 | 44.23 | -11.77 | 56.00 | 34.09 | -0.08 | 10.22 | QP |
| 5 | 0.66 | 46.24 | -9.76 | 56.00 | 36.10 | -0.09 | 10.23 | QP |
| 6 | 0.66 | 37.34 | -8.66 | 46.00 | 27.20 | -0.09 | 10.23 | Average |
| 7 | 3.09 | 32.85 | -13.15 | 46.00 | 22.60 | -0.12 | 10.37 | Average |
| 8 | 3.09 | 39.85 | -16.15 | 56.00 | 29.60 | -0.12 | 10.37 | QP |
| 9 | 3.70 | 34.16 | -11.84 | 46.00 | 23.91 | -0.13 | 10.38 | Average |
| 10 | 3.70 | 41.46 | -14.54 | 56.00 | 31.21 | -0.13 | 10.38 | QP |
| 11 | 25.46 | 39.35 | -10.65 | 50.00 | 28.49 | 0.20 | 10.66 | Average |
| 12 | 25.46 | 48.15 | -11.85 | 60.00 | 37.29 | 0.20 | 10.66 | QP |



| | | | |
|-----------------|---|---------------------|---------|
| Test Mode : | Mode 1 | Temperature : | 19~20°C |
| Test Engineer : | Tom Wang | Relative Humidity : | 39~40% |
| Test Voltage : | 120Vac / 60Hz | Phase : | Neutral |
| Function Type : | GSM850 Idle + Bluetooth Idle + WLAN Idle + Adapter 1 + Earphone 1 + FM Rx + Battery 3 | | |
| Remark : | All emissions not reported here are more than 10 dB below the prescribed limit. | | |



Site : C001-KS
 Condition: FCC CLASS-B LISN-100807 NEUTRAL

mode : Mode 1

| | Freq | Level | Over | Limit | Read | LISN | Cable | Remark |
|----|------|-------|--------|-------|-------|--------|-------|---------|
| | MHz | dBuV | Limit | Line | Level | Factor | Loss | |
| | | | dB | dBuV | dBuV | dB | dB | |
| 1 | 0.39 | 28.81 | -19.36 | 48.17 | 18.70 | -0.08 | 10.19 | Average |
| 2 | 0.39 | 41.21 | -16.96 | 58.17 | 31.10 | -0.08 | 10.19 | QP |
| 3 | 0.61 | 31.64 | -14.36 | 46.00 | 21.50 | -0.08 | 10.22 | Average |
| 4 | 0.61 | 40.34 | -15.66 | 56.00 | 30.20 | -0.08 | 10.22 | QP |
| 5 | 0.63 | 32.15 | -13.85 | 46.00 | 22.00 | -0.08 | 10.23 | Average |
| 6 | 0.63 | 39.45 | -16.55 | 56.00 | 29.30 | -0.08 | 10.23 | QP |
| 7 | 0.70 | 38.65 | -17.35 | 56.00 | 28.50 | -0.08 | 10.23 | QP |
| 8 | 0.70 | 30.75 | -15.25 | 46.00 | 20.60 | -0.08 | 10.23 | Average |
| 9 | 1.54 | 24.00 | -22.00 | 46.00 | 13.80 | -0.10 | 10.30 | Average |
| 10 | 1.54 | 31.60 | -24.40 | 56.00 | 21.40 | -0.10 | 10.30 | QP |
| 11 | 3.14 | 29.95 | -26.05 | 56.00 | 19.70 | -0.12 | 10.37 | QP |
| 12 | 3.14 | 22.45 | -23.55 | 46.00 | 12.20 | -0.12 | 10.37 | 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

See list of measuring instruments of this test report.

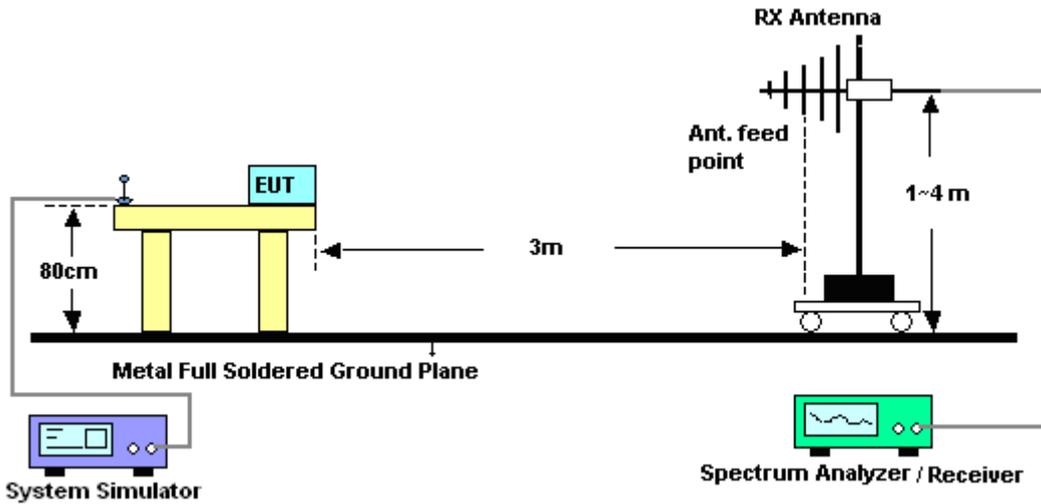


3.2.3. Test Procedures

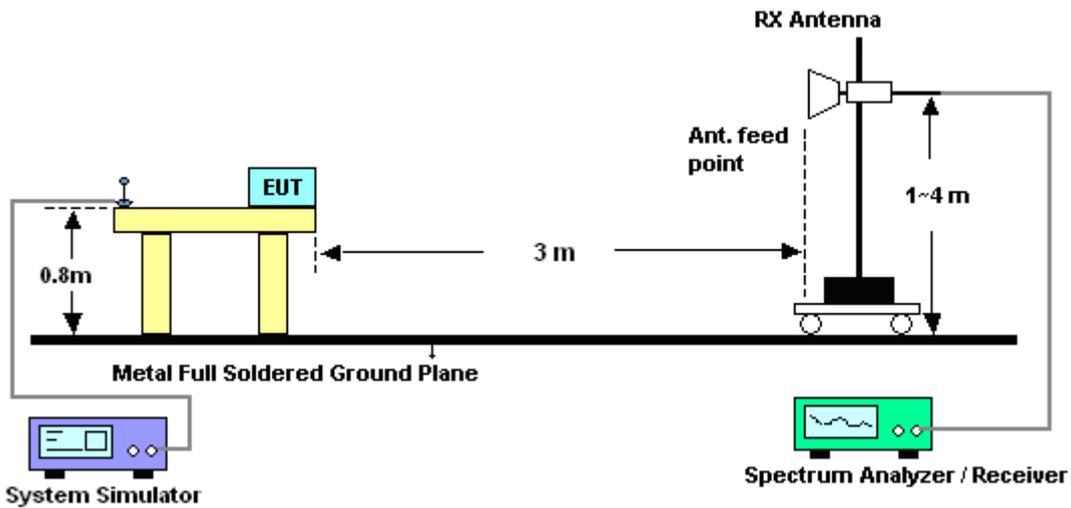
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a Bi-Log antenna and its height is adjusted between one meter and 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.
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported
8. Emission level (dBuV/m) = 20 log Emission level (uV/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

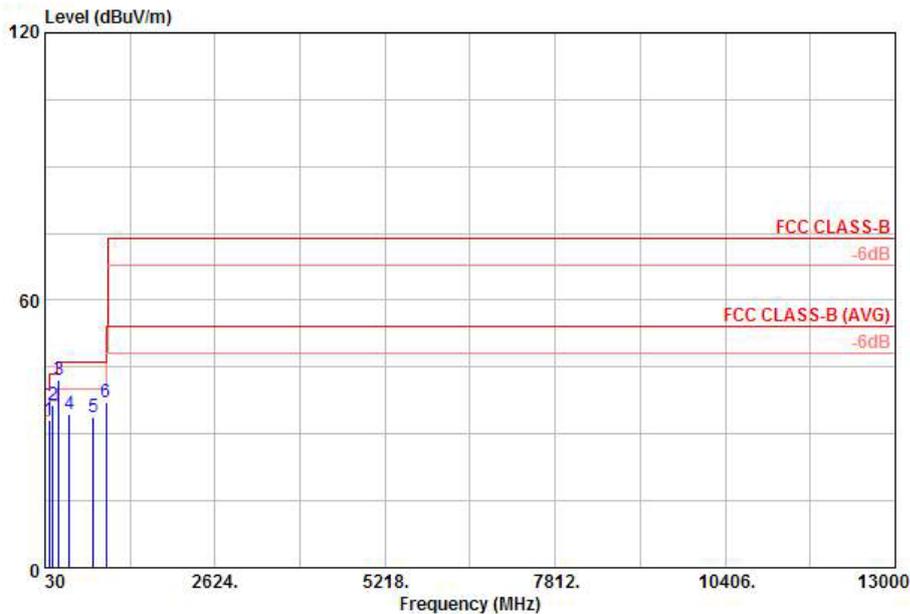


For radiated emissions above 1GHz



3.2.5. Test Result of Radiated Emission

| | | | |
|-----------------|--|---------------------|------------|
| Test Mode : | Mode 1 | Temperature : | 24~25°C |
| Test Engineer : | Jack Li | Relative Humidity : | 40~41% |
| Test Distance : | 3m | Polarization : | Horizontal |
| Function Type : | GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable 1 (Data Link with PC) + Earphone 2 + GPS Rx + Battery 1 | | |



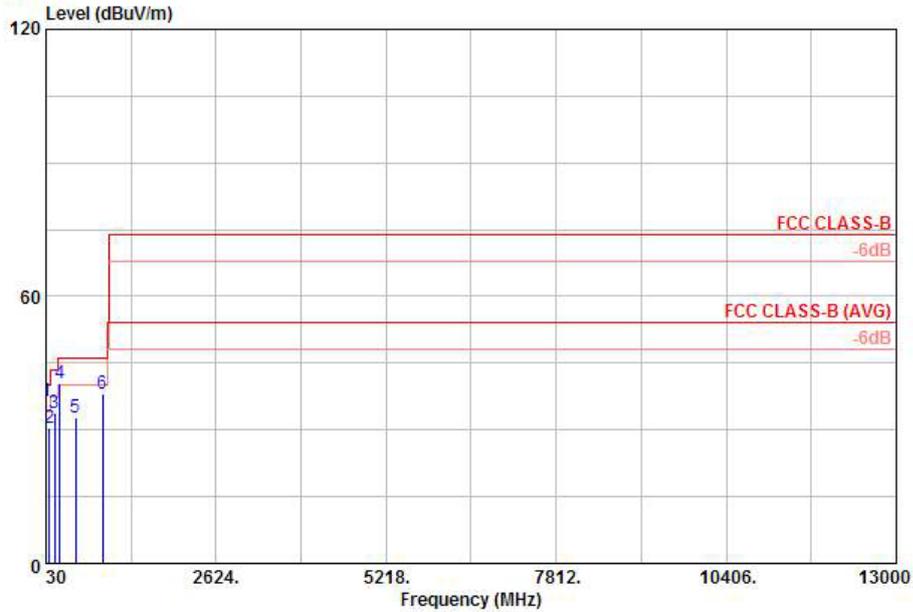
Site : 03CH01-KS
 Condition: FCC CLASS-B 3m LF_ANT_100803 HORIZONTAL

Mode : mode 1

| | Freq | Level | Over Limit | Limit Line | ReadAntenna Level | Cable Loss | Preamp Factor | Ant Pos | Table Pos | Remark |
|---|--------|--------|------------|------------|-------------------|------------|---------------|---------|-----------|--------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB | dB | cm | deg | |
| 1 | 90.14 | 33.20 | -10.30 | 43.50 | 53.90 | 8.90 | 0.39 | 29.99 | --- | Peak |
| 2 | 155.13 | 36.51 | -6.99 | 43.50 | 56.14 | 9.80 | 0.52 | 29.95 | --- | Peak |
| 3 | 239.52 | 42.24 | -3.76 | 46.00 | 59.89 | 11.51 | 0.66 | 29.82 | 100 | 297 QP |
| 4 | 398.60 | 34.37 | -11.63 | 46.00 | 47.38 | 15.98 | 0.84 | 29.83 | --- | Peak |
| 5 | 764.29 | 33.79 | -12.21 | 46.00 | 42.25 | 19.89 | 1.20 | 29.55 | --- | Peak |
| 6 | 960.23 | 36.94 | -17.06 | 54.00 | 44.35 | 20.79 | 1.34 | 29.54 | --- | Peak |



| | | | |
|-----------------|--|---------------------|----------|
| Test Mode : | Mode 1 | Temperature : | 24~25°C |
| Test Engineer : | Jack Li | Relative Humidity : | 40~41% |
| Test Distance : | 3m | Polarization : | Vertical |
| Function Type : | GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable 1 (Data Link with PC) + Earphone 2 + GPS Rx + Battery 1 | | |



Site : 03CH01-KS
 Condition: FCC CLASS-B 3m LF_ANT_100803 VERTICAL

Mode : mode 1

| | Freq | Level | Over | Limit | ReadAntenna | Cable | Preamp | Ant | Table | Remark |
|---|--------|--------|--------|--------|-------------|-------|--------|-------|-------|--------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB | dB | cm | deg | |
| 1 | 34.85 | 36.58 | -3.42 | 40.00 | 51.34 | 15.10 | 0.23 | 30.09 | 100 | 255 QP |
| 2 | 84.32 | 30.33 | -9.67 | 40.00 | 52.45 | 7.53 | 0.37 | 30.02 | --- | Peak |
| 3 | 156.10 | 33.77 | -9.73 | 43.50 | 53.44 | 9.76 | 0.52 | 29.95 | --- | Peak |
| 4 | 239.52 | 40.48 | -5.52 | 46.00 | 58.13 | 11.51 | 0.66 | 29.82 | --- | Peak |
| 5 | 480.08 | 32.91 | -13.09 | 46.00 | 44.85 | 16.87 | 0.94 | 29.75 | --- | Peak |
| 6 | 898.15 | 38.12 | -7.88 | 46.00 | 45.85 | 20.45 | 1.30 | 29.48 | --- | 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 | Jun. 02, 2011 | May 25, 2012 | Jun. 01, 2012 | Conduction (CO01-KS) |
| LISN | MessTec | AN3016 | 60103 | 9kHz~30MHz | Dec. 30, 2011 | May 25, 2012 | Dec. 29, 2012 | Conduction (CO01-KS) |
| LISN | MessTec | AN3016 | 60105 | 9kHz~30MHz | Dec. 30, 2011 | May 25, 2012 | Dec. 29, 2012 | Conduction (CO01-KS) |
| AC Power Source | Chroma | 61602 | ABP0000008 11 | N/A | Nov. 16, 2011 | May 25, 2012 | Nov. 15, 2012 | Conduction (CO01-KS) |
| EMI Test Receiver | R&S | ESCI | 100534 | 9kHz~3GHz | Nov. 09, 2011 | May 24, 2012 | Nov. 08, 2012 | Radiation (03CH01-KS) |
| Spectrum Analyzer | R&S | FSP40 | 100319 | 9kHz~40GHz | Dec. 30, 2011 | May 24, 2012 | Dec. 29, 2012 | Radiation (03CH01-KS) |
| Bilog Antenna | SCHAFFNER | CBL6112D | 23182 | 25MHz~2GHz | Dec. 08, 2011 | May 24, 2012 | Dec. 07, 2012 | Radiation (03CH01-KS) |
| Double Ridge Horn Antenna | EMCO | 3117 | 00075959 | 1GHz~18GHz | Jan. 06, 2012 | May 24, 2012 | Jan. 05, 2013 | Radiation (03CH01-KS) |
| Amplifier | Wireless | FPA-6592G | 060007 | 30MHz~2GHz | Dec. 30, 2011 | May 24, 2012 | Dec. 29, 2012 | Radiation (03CH01-KS) |
| Amplifier | Agilent | 8449B | 3008A02370 | 1GHz~26.5GHz | Dec. 30, 2011 | May 24, 2012 | Dec. 29, 2012 | Radiation (03CH01-KS) |
| System Simulator | R&S | CMU200 | 837587/066 | 2G Full-Band | Dec. 30, 2011 | May 24, 2012~ May 25, 2012 | Dec. 29, 2012 | - |
| Signal Generator | R&S | SMR40 | 100455 | 10GHz~40GHz | Dec. 30, 2011 | May 24, 2012~ May 25, 2012 | Dec. 29, 2012 | - |
| GPS Station | ADIVIC | MP9000 | MP9000-111 046 | N/A | Dec. 15, 2011 | May 24, 2012~ May 25, 2012 | Dec. 14, 2012 | - |

5. Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150 KHz ~ 30 MHz)

| Contribution | Uncertainty of X_i | | $u(X_i)$ |
|--|----------------------|--------------------------|----------|
| | dB | Probability Distribution | |
| Receiver Reading | 0.10 | Normal (k=2) | 0.05 |
| Cable Loss | 0.10 | Normal (k=2) | 0.05 |
| AMN Insertion Loss | 2.50 | Rectangular | 0.63 |
| Receiver Specification | 1.50 | Rectangular | 0.43 |
| Site Imperfection | 1.39 | Rectangular | 0.80 |
| Mismatch | +0.34 / -0.35 | U-Shape | 0.24 |
| Combined Standard Uncertainty $U_c(y)$ | 1.13 | | |
| Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$) | 2.26 | | |

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

| Contribution | Uncertainty of X_i | | $u(X_i)$ |
|--|----------------------|--------------------------|----------|
| | dB | Probability Distribution | |
| Receiver Reading | 0.41 | Normal (k=2) | 0.21 |
| Antenna Factor Calibration | 0.83 | Normal (k=2) | 0.42 |
| Cable Loss Calibration | 0.25 | Normal (k=2) | 0.13 |
| Pre-Amplifier Gain Calibration | 0.27 | Normal (k=2) | 0.14 |
| RCV/SPA Specification | 2.50 | Rectangular | 0.72 |
| Antenna Factor Interpolation for Frequency | 1.00 | Rectangular | 0.29 |
| Site Imperfection | 1.43 | Rectangular | 0.83 |
| Mismatch | +0.39 / -0.41 | U-Shape | 0.28 |
| Combined Standard Uncertainty $U_c(y)$ | 1.27 | | |
| Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$) | 2.54 | | |

Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

| Contribution | Uncertainty of X_i | | $u(X_i)$ | C_i | $C_i * u(X_i)$ |
|--|----------------------|--------------------------|----------|-------|----------------|
| | dB | Probability Distribution | | | |
| Receiver Reading | ± 0.10 | Normal (k=2) | 0.10 | 1 | 0.10 |
| Antenna Factor Calibration | ± 1.70 | Normal (k=2) | 0.85 | 1 | 0.85 |
| Cable Loss Calibration | ± 0.50 | Normal (k=2) | 0.25 | 1 | 0.25 |
| Receiver Correction | ± 2.00 | Rectangular | 1.15 | 1 | 1.15 |
| Antenna Factor Directional | ± 1.50 | Rectangular | 0.87 | 1 | 0.87 |
| Site Imperfection | ± 2.80 | Triangular | 1.14 | 1 | 1.14 |
| Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20\text{Log}(1-\Gamma_1*\Gamma_2)$ | +0.34 / -0.35 | U-Shape | 0.244 | 1 | 0.244 |
| Combined Standard Uncertainty $U_c(y)$ | 2.36 | | | | |
| Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$) | 4.72 | | | | |