

FCC TEST REPORT
For
Beijing Kangdexin Film Material Co., Ltd.
TABLET PC
Model No.: SENIORSimple

Prepared for : Beijing Kangdexin Film Material Co., Ltd.
Address : No.26,Zhenxing Rd. Changping Dist . Beijing, China

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
Address : 1/F., Xingyuan Industrial Park, Tongda Road, Bao'an Avenue,
Bao'an District, Shenzhen, Guangdong, China

Date of receipt of test sample : December 16, 2014
Number of tested samples : 1
Serial number : Prototype
Date of Test : December 16, 2014 – January 13 , 2015
Date of Report : January 13 , 2015

FCC TEST REPORT
FCC CFR 47 PART 22 SUBPART H AND PART 24 SUBPART E

Report Reference No. : **LCS1501130431E**

Date of Issue : January 13, 2015

Testing Laboratory Name : **Shenzhen LCS Compliance Testing Laboratory Ltd.**

Address : 1/F., Xingyuan Industrial Park, Tongda Road, Bao'an Avenue,
Bao'an District, Shenzhen, Guangdong, China
Full application of Harmonised standards

Testing Location/ Procedure : Partial application of Harmonised standards
Other standard testing method

Applicant's Name : **Beijing Kangdexin Film Material Co., Ltd.**

Address : No.26,Zhenxing Rd. Changping Dist . Beijing, China

Test Specification

Standard : FCC CFR 47 PART 2, FCC CFR 47 PART 22 SUBPART H
AND PART 24 SUBPART E

Test Report Form No. : LCSEMC-1.0

TRF Originator : Shenzhen LCS Compliance Testing Laboratory Ltd.

Master TRF : Dated 2011-03

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Test Item Description : **TABLET PC**

Trade Mark : 

Model/ Type reference : SENIORSimple

Ratings : DC 3.7V by battery
Charging:DC 5V

Result : **Positive**

Compiled by:



Jacky Li/ File administrators

Supervised by:



Danny Huang/ Technique principal

Approved by:



Gavin Liang/ Manager

FCC -- TEST REPORT

| | |
|---|--|
| Test Report No. : LCS1501130431E | <u>January 13, 2015</u> Date of issue |
|---|--|

Type / Model..... : SENIORSimple

EUT..... : TABLET PC

Applicant..... : Beijing Kangdexin Film Material Co., Ltd.

Address..... : No.26,Zhenxing Rd. Changping Dist . Beijing, China

Telephone..... : /

Fax..... : /

Manufacturer..... : Shenzhen Mingzhi Integrated Circuit Technology Co., Ltd.

Address..... : No. 181, Tengfeng Rd, 2nd Industry Zone, Fenghuang Village,
FuyongBaoan Dist,Shenzhen,China.

Telephone..... : /

Fax..... : /

Factory..... : Shenzhen Mingzhi Integrated Circuit Technology Co., Ltd.

Address..... : No. 181, Tengfeng Rd, 2nd Industry Zone, Fenghuang Village,
FuyongBaoan Dist,Shenzhen,China.

Telephone..... : /

Fax..... : /

| | |
|--------------------|-----------------|
| Test Result | Positive |
|--------------------|-----------------|

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT : TABLET PC

Test Model : SENIORSimple

Power Supply : DC 3.7V by battery
Charging:DC 5V

GSM 850 (U.S.-Band) PCS 1900 (U.S.-Band)

Support Band : UMTS FDD Band II (U.S.-Band)
UMTS FDD Band V (U.S.-Band)

Uplink : GSM 850: 824.2MHz ~ 848.8MHz
PCS 1900: 1850.2MHz ~ 1909.8MHz

Downlink : GSM 850: 869.2MHz ~ 893.8MHz
PCS 1900: 1930.2MHz ~ 1989.8MHz

Type Of Modulation : GSM/GPRS (CS-1~CS-4):GMSK,

Antenna Description : Integral Antenna,2.0 dBi

Software Version : ANDROID 4.4.2

Hardware Version : AL-MT8312D-706E-V1.3

1.2. Host System Configuration List and Details

| Manufacturer | Description | Model | Serial Number | Certificate |
|--------------|---------------|--------|---------------|-------------|
| -- | AC/DC Adapter | WQ0520 | -- | Voc |

1.3. External I/O Cable

| I/O Port Description | Quantity | Cable |
|----------------------|----------|----------------|
| USB Port | 1 | 0.8m, Shielded |
| Earphone Port | 1 | N/A |
| SD Card Port | 1 | N/A |
| SIM Card Port | 1 | N/A |

1.4. Description of Test Facility

Site Description

EMC Lab. : Accredited by CNAS, June 04, 2010
 The Certificate Registration Number. is L4595.
 Accredited by FCC, July 14, 2011
 The Certificate Registration Number. is 899208.
 Accredited by Industry Canada, May. 02, 2011
 The Certificate Registration Number. is 9642A-1
 Accredited by VCCI, Japan January 30, 2012
 The Certificate Registration Number. is C-4260 and R-3804
 Accredited by ESMD, April 24, 2012
 The Certificate Registration Number. is ARCB0108.
 Accredited by UL, June 11, 2012
 The Certificate Registration Number. is 100571-492.
 Accredited by TUV, November 21, 2012
 The Certificate Registration Number. is SCN1081
 Accredited by Intertek, December 21, 2012
 The Certificate Registration Number. is 2011-RTL-L1-50.

1.5. Statement of The Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the LCS quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

1.6. Measurement Uncertainty

| Test Item | Frequency Range | Uncertainty | Note |
|------------------------|-----------------|-------------|------|
| Radiation Uncertainty | 9KHz~30MHz | ±3.10dB | (1) |
| | 30MHz~200MHz | ±2.96dB | (1) |
| | 200MHz~1000MHz | ±3.10dB | (1) |
| | 1GHz~26.5GHz | ±3.80dB | (1) |
| Conduction Uncertainty | 150kHz~30MHz | ±1.63dB | (1) |
| Power disturbance | 30MHz~300MHz | ±1.60dB | (1) |

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.7. Test environment

All tests were performed under the following environmental conditions:

| Condition | Minimum value | Maximum value |
|---------------------|-----------------------|---------------|
| Barometric pressure | 86kPa | 106kPa |
| Temperature | 15 °C | 30 °C |
| Relative Humidity | 20 % | 75 % |
| Power supply range | ±5% of rated voltages | |

2. TEST METHODOLOGY

All tests and measurements indicated in this document were performed in accordance with FCC CFR 47 part 2, FCC CFR 47 part 22 subpart H and part 24 subpart E.

Applicable Standards: TIA/EIA603-C, ANSI C63.4-2003. The radiated testing was performed at an antenna-to-EUT distance of 3 meters. All radiated and conducted emissions measurement was performed at Shenzhen LCS Compliance Testing Laboratory Ltd..

2.1. EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

2.2. Objective

This type approval report is prepared on behalf of **Beijing Kangdexin Film Material Co., Ltd.** in accordance with FCC CFR 47 part 2, FCC CFR 47 part 22 subpart H and part 24 subpart E.

The objective is to determine compliance with FCC rules for RF output power, modulation characteristics, occupied bandwidth, spurious emissions at antenna terminal, field strength of spurious radiation, frequency stability, band edge, and conducted and radiated margin.

2.3. General Test Procedures

2.3.1 Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using Quasi-peak and average detector modes.

2.3.2 Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4

2.4. Test Mode

GSM / GPRS 850: Channel Low (CH128), Channel Mid (CH190) and Channel High (CH251) were chosen for full testing. The test PCL(Power Control Level)/Class is level 5/class 3.

PCS / GPRS 1900: Channel Low (CH512), Channel Mid (CH661) and Channel High (CH810) were chosen for full testing. The test PCL(Power Control Level)/Class is level 0/class 3.

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz and power line conducted emissions below 30MHz, which worst case was in normal link mode only.

For the field strength of spurious emission, the worst emission was found in lie-down position (X axis) for GSM /GPRS 850, lie-down position (X axis) for PCS / GPRS 1900 and the worst case was recorded.

Note: Two SIM Card slot have been tested and we only record the worst results.

3. SYSTEM TEST CONFIGURATION

3.1. Justification

The EUT had been tested under operating condition. EUT staying in continuous transmitting mode.

3.2. EUT Exercise Software

N/A.

3.3. Special Accessories

N/A.

3.4. Block Diagram/Schematics

Please refer to the related document

3.5. Equipment Modifications

Shenzhen LCS Compliance Testing Laboratory Ltd. has not done any modification on the EUT.

3.6. Test Setup

Please refer to the test setup photo.

4. SUMMARY OF TEST RESULTS

| Applied Standard: 47 CFR FCC Part 22 Subpart H, Part 24 Subpart E | | | |
|---|---|------------------------|-----------|
| FCC Rules | Description of Test | | Result |
| §2.1046, §22.913 / §24.232 | RF Output Power | Conducted Output Power | Compliant |
| | | Radiated Output Power | |
| §2.1049, §22.905 §2.917, §24.238 | Occupied Bandwidth | | Compliant |
| §2.1053 §2.917, §24.238 | Spurious Radiated Emissions | | Compliant |
| §2.1051 §2.917, §24.238 | Spurious Emissions at Antenna Terminals | | Compliant |
| §2.917, §24.238 | Band Edge | | Compliant |
| §2.1055 §22.355, §24.235 | Frequency Stability | | Compliant |
| §15.107 / §15.207 | AC power line conducted emissions | | Compliant |
| §2.1047 | Modulation Characteristics | | Compliant |
| §1.1310, §2.1091 | RF Exposure Information | | Compliant |
| §24.232(d) | Peak-to-Average Ratio | | Compliant |

5. TEST RESULT

5.1. RF OUTPUT POWER

5.1.1. Standard Applicable

According to FCC §2.1046 and §22.913, the maximum effective radiated power (ERP) of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

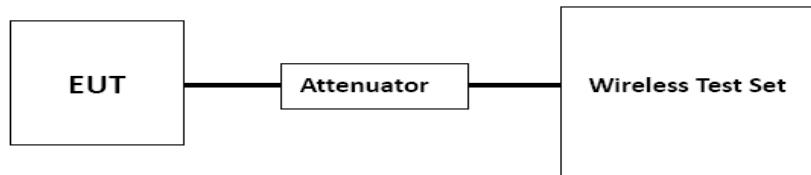
According to FCC §2.1046 and §22.232, mobile and portable stations are limited to 2 Watts and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

5.1.2. Measuring Instruments

Please refer to section 6 of equipments list in this report.

5.1.3. Test Procedures

Conducted method:



Radiated method:

TIA 603-D section 2.2.17

5.1.4. Test Results

| | | | |
|---------------|----------|---------------|-------|
| Temperature | 25°C | Humidity | 60% |
| ATM Pressure: | 101.4kPa | Test Engineer | Jacky |

Conducted Power:

| Mode | Channel | Frequency (MHz) | Output Power (Average, dBm) | Limit (dBm) |
|-------------------|---------|-----------------|-----------------------------|-------------|
| GSM 850 | 128 | 824.2 | 33.30 | 38.45 |
| | 190 | 836.6 | 33.20 | 38.45 |
| | 251 | 848.8 | 33.20 | 38.45 |
| GPRS 850 (Slot 1) | 128 | 824.2 | 30.28 | 38.45 |
| | 190 | 836.6 | 30.32 | 38.45 |
| | 251 | 848.8 | 30.30 | 38.45 |
| GPRS 850 (Slot 2) | 128 | 824.2 | 28.42 | 38.45 |
| | 190 | 836.6 | 28.46 | 38.45 |
| | 251 | 848.8 | 28.43 | 38.45 |
| GPRS 850 (Slot 3) | 128 | 824.2 | 27.12 | 38.45 |
| | 190 | 836.6 | 27.15 | 38.45 |
| | 251 | 848.8 | 27.13 | 38.45 |
| GPRS 850 (Slot 4) | 128 | 824.2 | 26.75 | 38.45 |
| | 190 | 836.6 | 26.72 | 38.45 |
| | 251 | 848.8 | 26.73 | 38.45 |

| Mode | Channel | Frequency (MHz) | Output Power (Average, dBm) | Limit (dBm) |
|--------------------|---------|-----------------|-----------------------------|-------------|
| PCS 1900 | 512 | 1850.2 | 29.52 | 33 |
| | 661 | 1880.0 | 29.56 | 33 |
| | 810 | 1909.8 | 29.57 | 33 |
| GPRS 1900 (Slot 1) | 512 | 1850.2 | 27.45 | 33 |
| | 661 | 1880.0 | 27.42 | 33 |
| | 810 | 1909.8 | 27.40 | 33 |
| GPRS 1900 (Slot 2) | 512 | 1850.2 | 26.52 | 33 |
| | 661 | 1880.0 | 26.56 | 33 |
| | 810 | 1909.8 | 26.54 | 33 |
| GPRS 1900 (Slot 3) | 512 | 1850.2 | 25.45 | 33 |
| | 661 | 1880.0 | 25.42 | 33 |
| | 810 | 1909.8 | 25.43 | 33 |
| GPRS 1900 (Slot 4) | 512 | 1850.2 | 24.37 | 33 |
| | 661 | 1880.0 | 24.35 | 33 |
| | 810 | 1909.8 | 24.36 | 33 |

Radiated Power:

The worst test data as follow:

| Mode | Channel | Frequency (MHz) | Test Result | | Limit (dBm) |
|---------|---------|--------------------|------------------------|--------------|----------------|
| | | | Max. Peak ERP (dBm) | Polarization | |
| GSM 850 | 128 | 824.2 | 30.40 | H | 38.45 |
| | 190 | 836.6 | 30.48 | H | 38.45 |
| | 251 | 848.8 | 30.55 | H | 38.45 |

| Mode | Channel | Frequency (MHz) | Test Result | | Limit (dBm) |
|----------|---------|--------------------|-------------------------|--------------|----------------|
| | | | Max. Peak EIRP (dBm) | Polarization | |
| PCS 1900 | 512 | 1850.2 | 27.76 | H | 33 |
| | 661 | 1880.0 | 27.72 | H | 33 |
| | 810 | 1909.8 | 27.85 | H | 33 |

NOTE:All conditions have been tested and we only record the worst results in each bands.

5.2. OCCUPIED BANDWIDTH

5.2.1. Standard Applicable

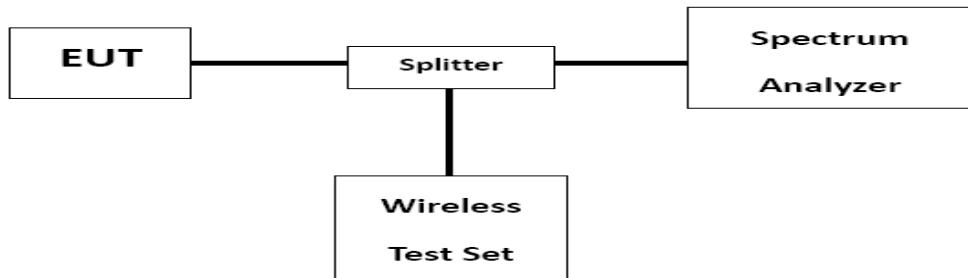
FCC §2.1049, §22.917, §22.905 and §24.238.

5.2.2. Measuring Instruments

Please refer to section 6 of equipments list in this report.

5.2.3. Test Procedures

The RF output of the transmitter was connected to the wireless communication tester and spectrum analyzer through attenuation.



The -26dB & 99% bandwidth was recorded.

5.2.4. Test Results

| | | | |
|---------------|----------|---------------|-------|
| Temperature | 25°C | Humidity | 60% |
| ATM Pressure: | 101.4kPa | Test Engineer | Jacky |

The worst test data as follow:

| Mode | Channel | Frequency (MHz) | Emission Bandwidth (-26dBc) (kHz) | Occupied Bandwidth (99%) (kHz) |
|---------|---------|-----------------|-----------------------------------|--------------------------------|
| GSM 850 | 128 | 824.2 | 386.50 | 292.76 |
| | 190 | 836.6 | 384.60 | 294.32 |
| | 251 | 848.8 | 360.00 | 288.40 |

| Mode | Channel | Frequency (MHz) | Emission Bandwidth (-26dBc) (kHz) | Occupied Bandwidth (99%) (kHz) |
|----------|---------|-----------------|-----------------------------------|--------------------------------|
| PCS 1900 | 512 | 1850.2 | 355.70 | 287.69 |
| | 661 | 1880.0 | 350.70 | 287.78 |
| | 810 | 1909.8 | 349.50 | 283.56 |

NOTE:All conditions have been tested and we only record the worst results in each bands.

Test Plots For GSM 850



Test Plots For PCS 1900



5.3. SPURIOUS AND HARMONIC EMISSION AT ANTENNA TERMINAL

5.3.1. Standard Applicable

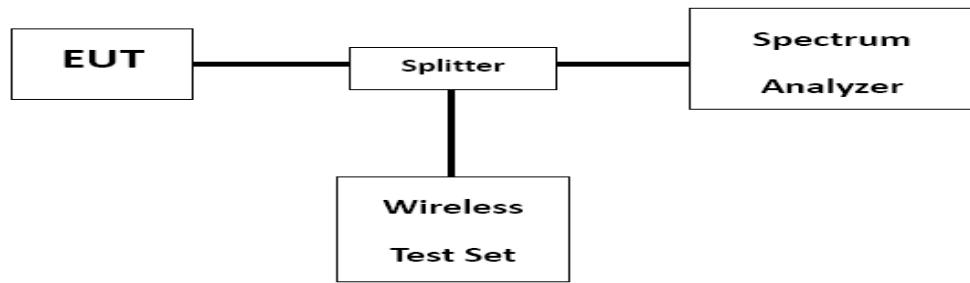
FCC §2.1051, §22.917 and §24.238.

5.3.2. Measuring Instruments

Please refer to section 6 of equipments list in this report.

5.3.3. Test Procedures

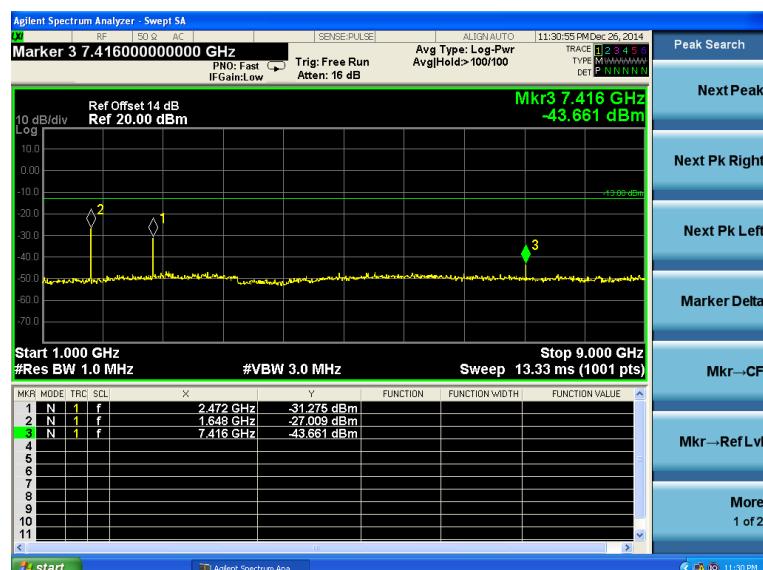
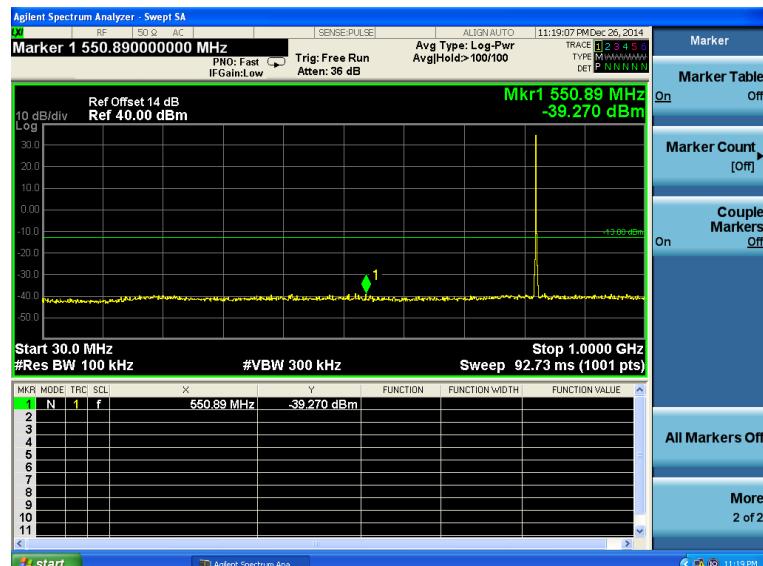
The RF output of the transmitter was connected to the wireless communication tester and spectrum analyzer through attenuation.



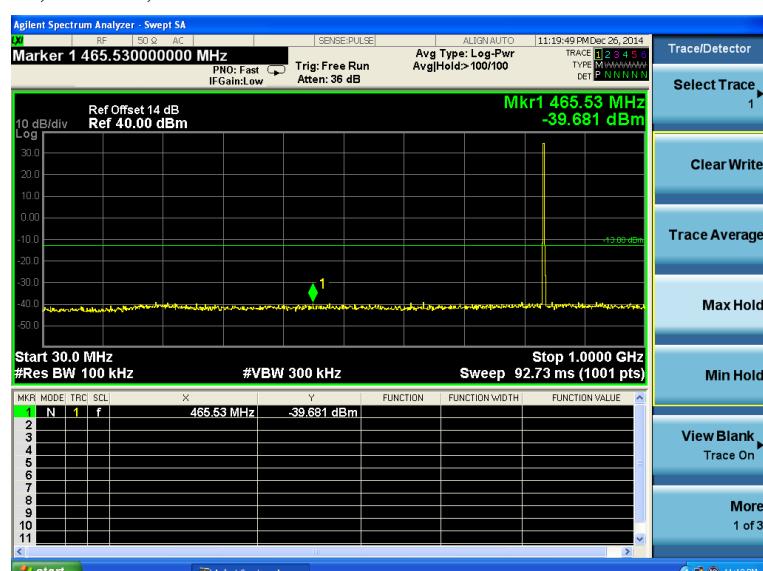
5.3.4. Test Results

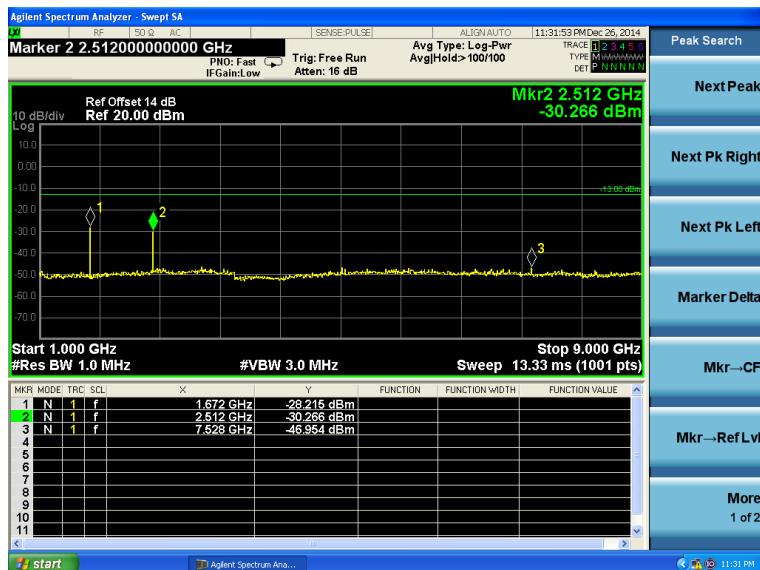
Please refer to the following plots.

Transmitting Mode, CH 128, GSM 850

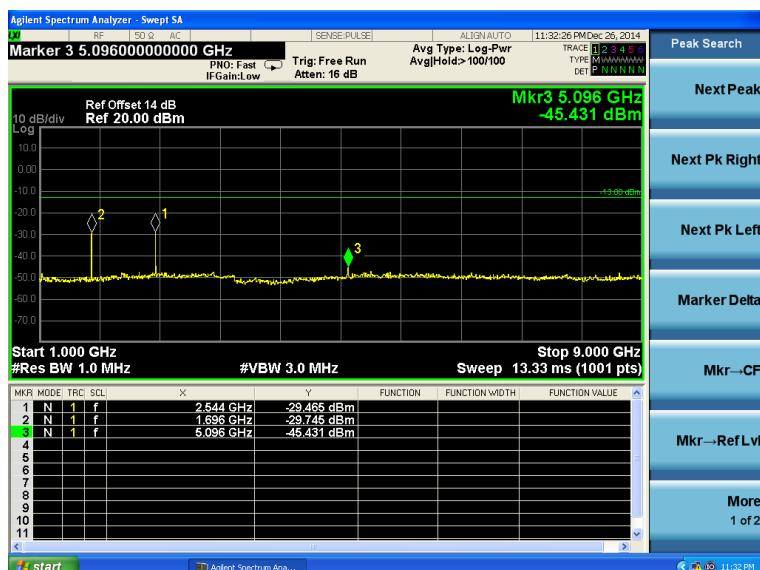
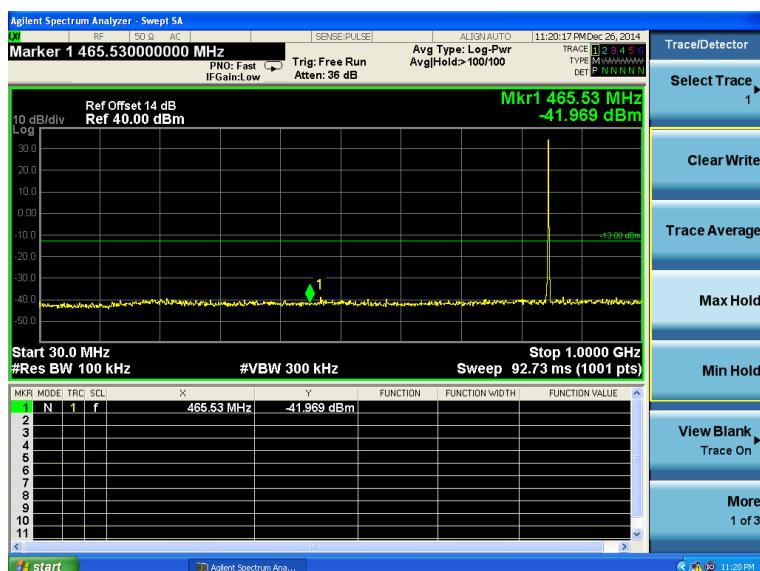


Transmitting Mode, CH 190, GSM 850

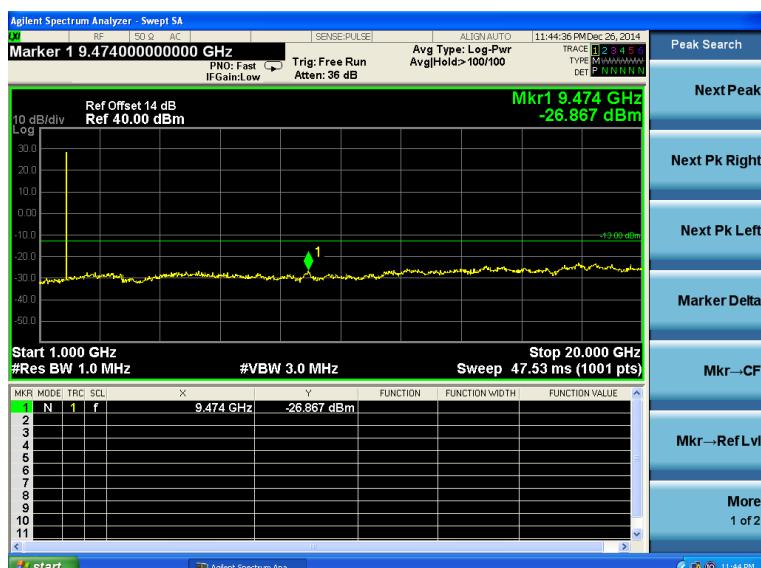
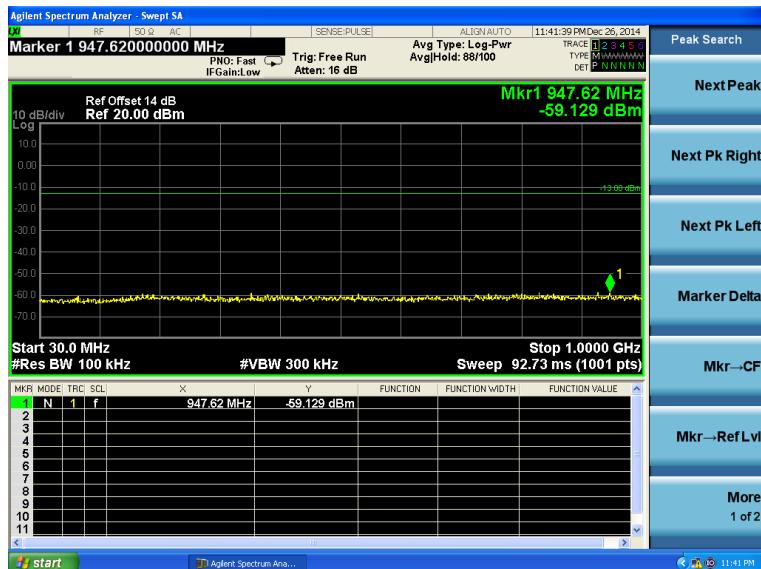




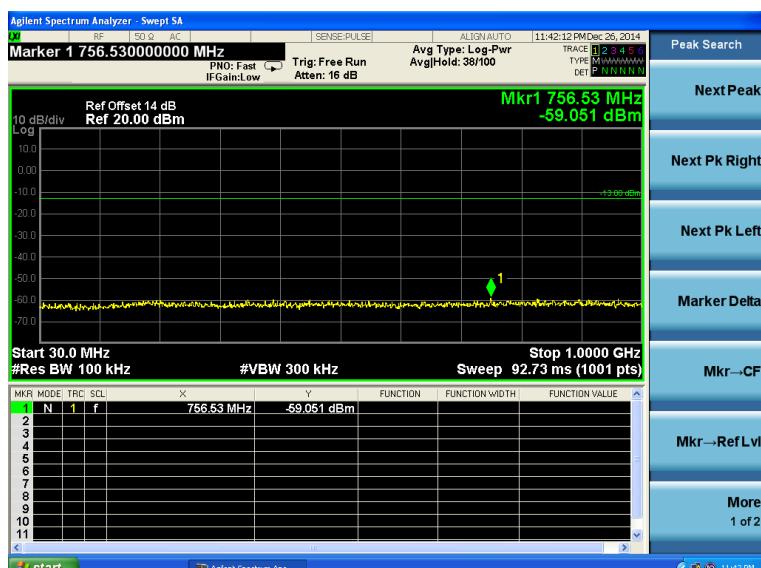
Transmitting Mode, CH 251, GSM 850



Transmitting Mode, CH 512, PCS 1900

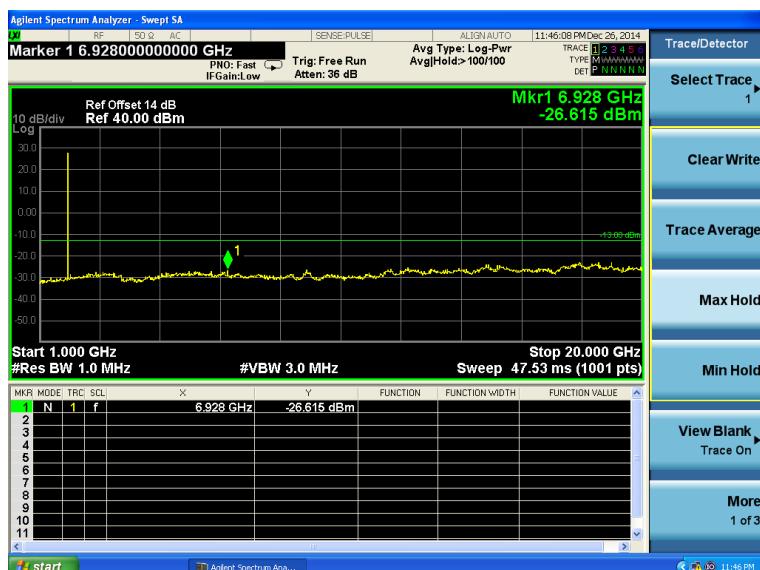
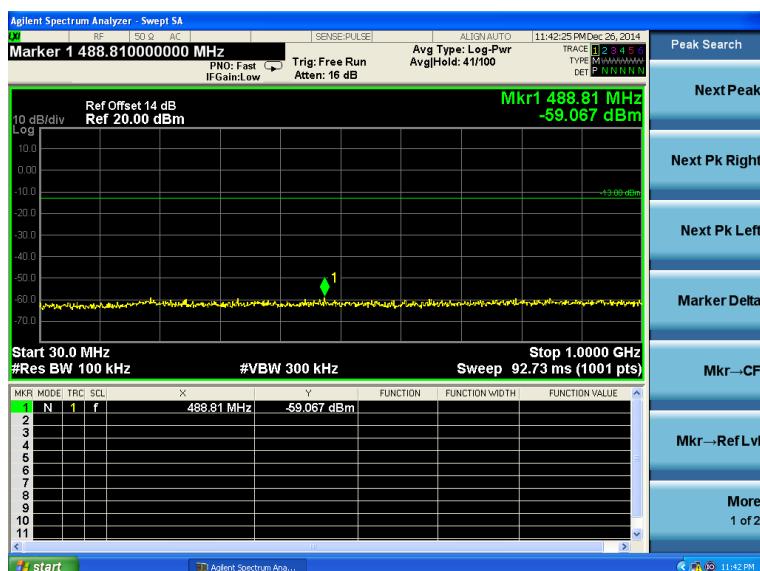


Transmitting Mode, CH 661, PCS 1900





Transmitting Mode, CH 810, PCS 1900



Test Result of Band Edge Emissions, GSM 850



Test Result of Band Edge Emissions, PCS 1900





NOTE: All conditions have been tested and we only record the worst results in each bands.

5.4. RADIATED SPURIOUS EMISSIONS MEASUREMENT

5.4.1. Standard Applicable

FCC §2.1053, §22.917 and §24.238.

5.4.2. Measuring Instruments

Please refer to section 6 of equipments list in this report.

5.4.3. Test Procedures

The EUT was placed on a non-conductive, the measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

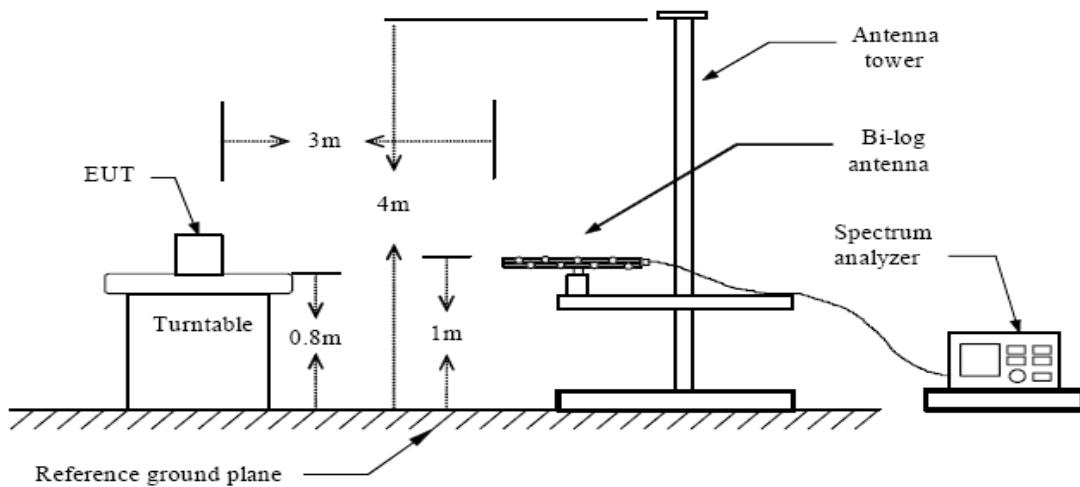
The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission were identified, the power of the emission was determined using the substitution method.

The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.

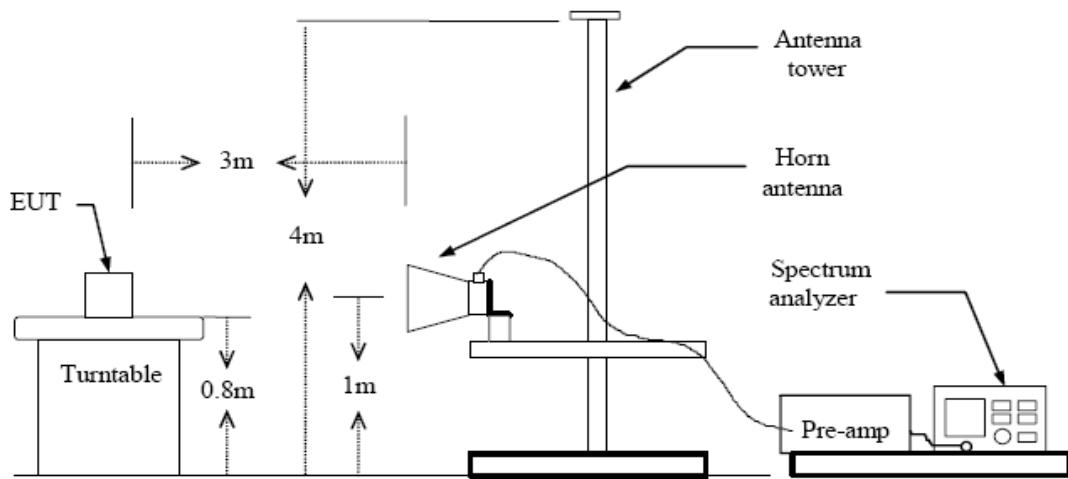
ERP = S.G. output (dBm) + Antenna Gain (dBd) – Cable (dB)

EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable (dB)

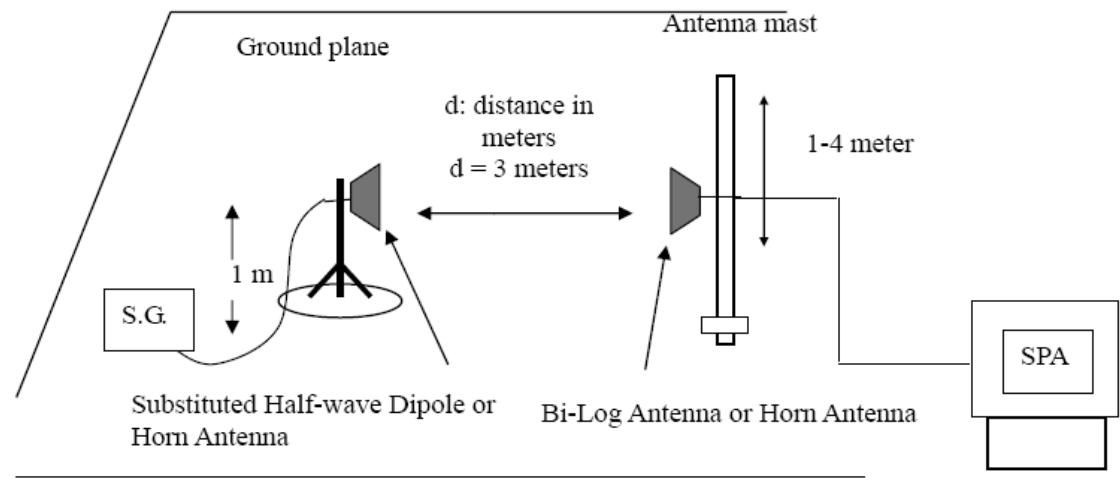
For radiated spurious emissions below 1GHz



For radiated spurious emissions above 1GHz



Substituted Method



5.4.4. Test Results

The worst test data as follow:

30MHz~10GHz

| The Worst Test Result For GSM 850, CH 128 | | | | |
|---|----------------------|-------------|--------|----------|
| Frequency (MHz) | Emission Level (dBm) | Limit (dBm) | Result | Polarity |
| 71.83 | -66.78 | -13 | Pass | H |
| 83.23 | -68.03 | | | |
| 434.07 | -65.12 | | | |
| 1648.42 | -25.14 | | | |
| 2472.58 | -29.55 | | | |
| 60.07 | -66.24 | -13 | Pass | V |
| 72.08 | -67.11 | | | |
| 83.23 | -69.32 | | | |
| 1648.42 | -26.62 | | | |
| 2472.58 | -31.45 | | | |

| The Worst Test Result For GSM 850, CH 190 | | | | |
|---|----------------------|-------------|--------|----------|
| Frequency (MHz) | Emission Level (dBm) | Limit (dBm) | Result | Polarity |
| 71.83 | -66.06 | -13 | Pass | H |
| 83.23 | -68.14 | -13 | | |
| 434.07 | -65.75 | -13 | | |
| 1672.58 | -25.29 | -13 | | |
| 2508.44 | -29.25 | -13 | | |
| 60.07 | -66.46 | -13 | Pass | V |
| 72.08 | -67.58 | -13 | | |
| 83.23 | -69.03 | -13 | | |
| 1672.03 | -26.12 | -13 | | |
| 2508.48 | -31.47 | -13 | | |

| The Worst Test Result For GSM 850, CH 251 | | | | |
|---|----------------------|-------------|--------|----------|
| Frequency (MHz) | Emission Level (dBm) | Limit (dBm) | Result | Polarity |
| 71.83 | -65.23 | -13 | Pass | H |
| 83.23 | -72.56 | -13 | | |
| 434.07 | -73.79 | -13 | | |
| 1697.68 | -28.62 | -13 | | |
| 2546.36 | -33.41 | -13 | | |
| 60.07 | -65.05 | -13 | Pass | V |
| 72.08 | -71.12 | -13 | | |
| 83.23 | -73.78 | -13 | | |
| 1697.68 | -28.23 | -13 | | |
| 2546.36 | -33.71 | -13 | | |

30MHz~20GHz

| The Worst Test Result For PCS 1900, CH 512 | | | | |
|--|----------------------|-------------|--------|----------|
| Frequency (MHz) | Emission Level (dBm) | Limit (dBm) | Result | Polarity |
| 71.83 | -65.68 | -13 | Pass | H |
| 83.23 | -72.42 | -13 | | |
| 434.07 | -73.49 | -13 | | |
| 3700.56 | -28.76 | -13 | | |
| 5550.64 | -34.68 | -13 | | |
| 60.07 | -65.45 | -13 | Pass | V |
| 72.08 | -71.06 | -13 | | |
| 83.23 | -73.01 | -13 | | |
| 3700.56 | -30.25 | -13 | | |
| 5550.64 | -35.71 | -13 | | |

| The Worst Test Result For PCS 1900, CH 661 | | | | |
|--|----------------------|-------------|--------|----------|
| Frequency (MHz) | Emission Level (dBm) | Limit (dBm) | Result | Polarity |
| 71.83 | -65.98 | -13 | Pass | H |
| 83.23 | -72.18 | -13 | | |
| 434.07 | -73.22 | -13 | | |
| 3760.52 | -28.46 | -13 | | |
| 5640.57 | -34.58 | -13 | | |
| 60.07 | -65.36 | -13 | Pass | V |
| 72.08 | -71.02 | -13 | | |
| 83.23 | -73.14 | -13 | | |
| 3760.52 | -30.78 | -13 | | |
| 5640.57 | -35.34 | -13 | | |

| The Worst Test Result For PCS 1900, CH 810 | | | | |
|--|----------------------|-------------|--------|----------|
| Frequency (MHz) | Emission Level (dBm) | Limit (dBm) | Result | Polarity |
| 71.83 | -65.44 | -13 | Pass | H |
| 83.23 | -72.98 | -13 | | |
| 434.07 | -73.64 | -13 | | |
| 3819.67 | -28.08 | -13 | | |
| 5729.74 | -34.45 | -13 | | |
| 60.07 | -65.76 | -13 | Pass | V |
| 72.08 | -71.35 | -13 | | |
| 83.23 | -73.02 | -13 | | |
| 3819.67 | -30.41 | -13 | | |
| 5729.74 | -35.48 | -13 | | |

NOTE: The result below 30MHz is too low, there is only base environmental noise. We Only record the worst results above 30MHz.

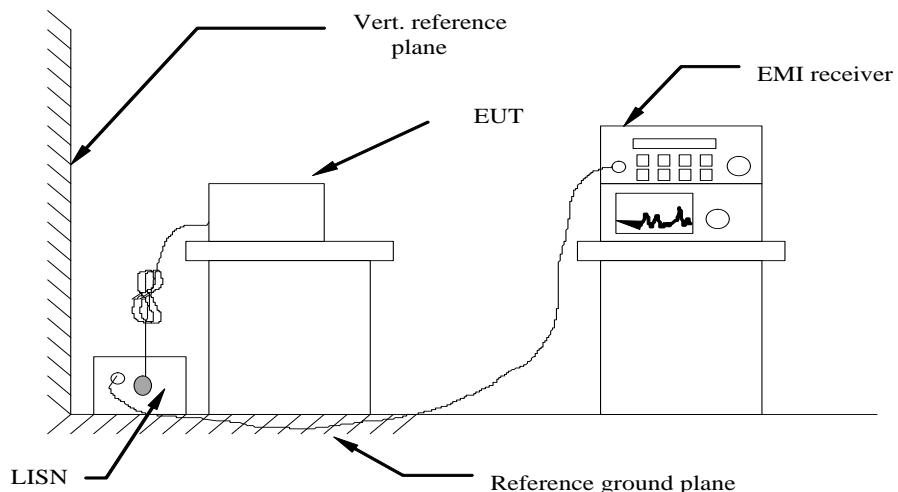
5.5. POWER LINE CONDUCTED EMISSIONS

5.5.1 Standard Applicable

According to §15.107 (a): For an intentional radiator which 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 250 microvolt (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

| Frequency Range (MHz) | Limits (dB μ V) | |
|-----------------------|---------------------|----------|
| | Quasi-peak | Average |
| 0.15 to 0.50 | 66 to 56 | 56 to 46 |
| 0.50 to 5 | 56 | 46 |
| 5 to 30 | 60 | 50 |

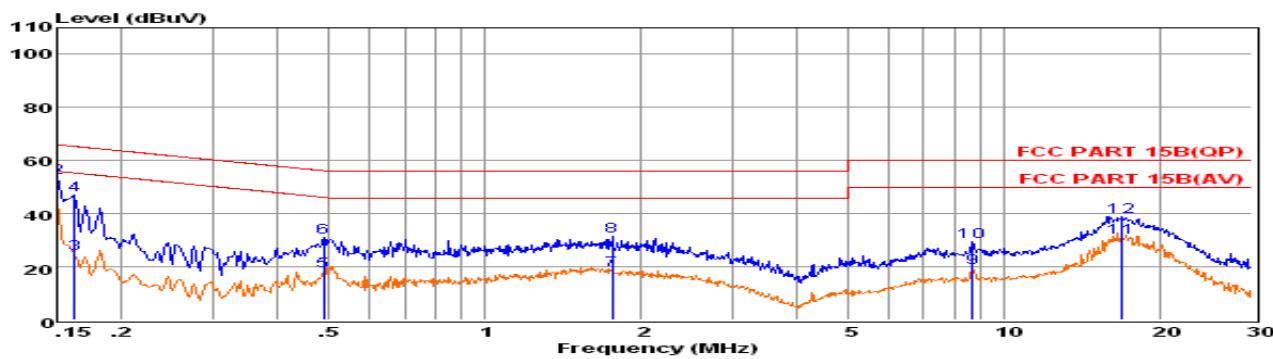
5.5.2 Block Diagram of Test Setup



5.5.3 Test Results

PASS.

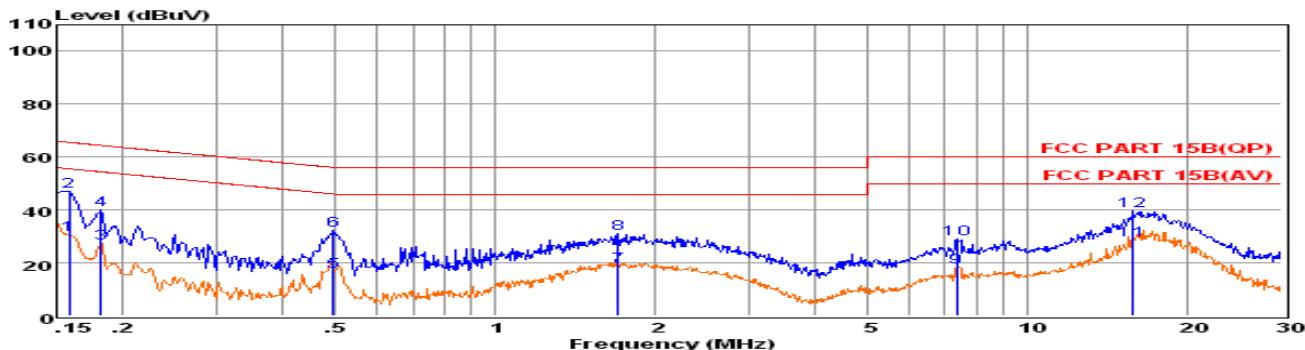
The test data please refer to following page.



Env. Ins: 24*/56%
 EUT: TABLET PC
 M/N: SENIORSimple
 Power Rating: AC 120V/60Hz
 Test Mode: GSM 850-Low channel
 Operator: Jacky
 Memo:
 Pol: LINE

| Freq | Reading | LisnFac | CabLos | Atten_Fac | Measured | Limit | Over | Remark |
|------------|---------|---------|--------|-----------|----------|-------|--------|---------|
| MHz | dBuV | dB | dB | dB | dBuV | dBuV | dB | |
| 1 0.15000 | 21.69 | 9.57 | 0.02 | 10.00 | 41.28 | 56.00 | -14.72 | Average |
| 2 0.15000 | 34.00 | 9.57 | 0.02 | 10.00 | 53.59 | 66.00 | -12.41 | QP |
| 3 0.16241 | 5.38 | 9.59 | 0.02 | 10.00 | 24.99 | 55.34 | -30.35 | Average |
| 4 0.16241 | 27.40 | 9.59 | 0.02 | 10.00 | 47.01 | 65.34 | -18.33 | QP |
| 5 0.48890 | -1.10 | 9.62 | 0.04 | 10.00 | 18.56 | 46.19 | -27.63 | Average |
| 6 0.48890 | 11.49 | 9.62 | 0.04 | 10.00 | 31.15 | 56.19 | -25.04 | QP |
| 7 1.76226 | -1.07 | 9.64 | 0.05 | 10.00 | 18.62 | 46.00 | -27.38 | Average |
| 8 1.76226 | 11.60 | 9.64 | 0.05 | 10.00 | 31.29 | 56.00 | -24.71 | QP |
| 9 8.68321 | -0.01 | 9.69 | 0.08 | 10.00 | 19.76 | 50.00 | -30.24 | Average |
| 10 8.68321 | 9.53 | 9.69 | 0.08 | 10.00 | 29.30 | 60.00 | -30.70 | QP |
| 1116.83872 | 11.18 | 9.73 | 0.11 | 10.00 | 31.02 | 50.00 | -18.98 | Average |
| 1216.83872 | 19.17 | 9.73 | 0.11 | 10.00 | 39.01 | 60.00 | -20.99 | QP |

Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss+Atten_Fac.
 2. The emission levels that are 20dB below the official limit are not reported.



Env. Ins: 24*/56%
 EUT: TABLET PC
 M/N: SENIORSimple
 Power Rating: AC 120V/60Hz
 Test Mode: GSM 850-Low channel
 Operator: Jacky
 Memo:
 Pol: NEUTRAL

| Freq | Reading | LisnFac | CabLos | Atten_Fac | Measured | Limit | Over | Remark |
|------------|---------|---------|--------|-----------|----------|-------|--------|---------|
| MHz | dBuV | dB | dB | dB | dBuV | dBuV | dB | |
| 1 0.15816 | 11.11 | 9.68 | 0.02 | 10.00 | 30.81 | 55.56 | -24.75 | Average |
| 2 0.15816 | 27.51 | 9.68 | 0.02 | 10.00 | 47.21 | 65.56 | -18.35 | QP |
| 3 0.18152 | 7.79 | 9.63 | 0.02 | 10.00 | 27.44 | 54.42 | -26.98 | Average |
| 4 0.18152 | 20.39 | 9.63 | 0.02 | 10.00 | 40.04 | 64.42 | -24.38 | QP |
| 5 0.49673 | -2.82 | 9.62 | 0.04 | 10.00 | 16.84 | 46.05 | -29.21 | Average |
| 6 0.49673 | 12.55 | 9.62 | 0.04 | 10.00 | 32.21 | 56.05 | -23.84 | QP |
| 7 1.69810 | -0.76 | 9.63 | 0.05 | 10.00 | 18.92 | 46.00 | -27.08 | Average |
| 8 1.69810 | 11.23 | 9.63 | 0.05 | 10.00 | 30.91 | 56.00 | -25.09 | QP |
| 9 7.36798 | -1.52 | 9.69 | 0.07 | 10.00 | 18.24 | 50.00 | -31.76 | Average |
| 10 7.36798 | 9.27 | 9.69 | 0.07 | 10.00 | 29.03 | 60.00 | -30.97 | QP |
| 1115.80144 | 8.98 | 9.75 | 0.10 | 10.00 | 28.83 | 50.00 | -21.17 | Average |
| 1215.80144 | 19.84 | 9.75 | 0.10 | 10.00 | 39.69 | 60.00 | -20.31 | QP |

Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss+Atten_Fac.
 2. The emission levels that are 20dB below the official limit are not reported.

Note: Pre-scan all mode and recorded the worst case results in this report (GSM 850, Normal Link)

5.6.MODULATION CHARACTERISTIC

According to FCC § 2.1047(d), Part 22H & 24E there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

5.7. FREQUENCY STABILITY OVER TEMPERATURE AND VOLTAGE

VARIATIONS

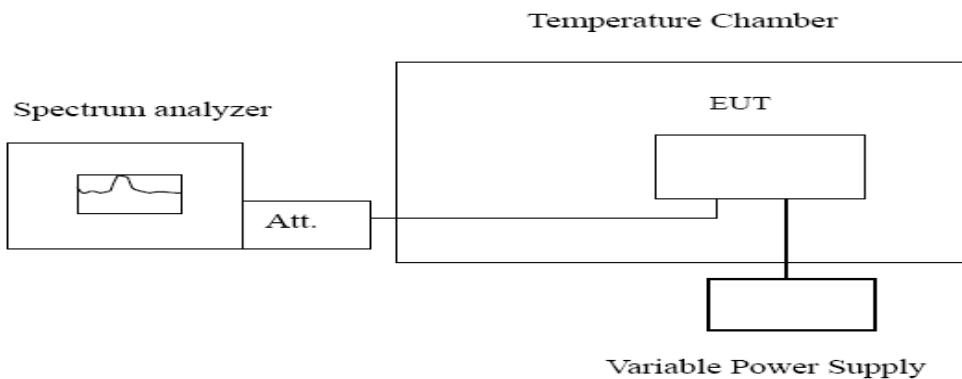
5.7.1. Standard Applicable

FCC §2.1055, §22.355 and §24.235, Frequency Tolerance: 2.5ppm

5.7.2. Test Procedures

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency.

Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.



5.7.3. Test Results

Pass

The worst test data as follow:

| Reference Frequency: GSM850 Middle channel=190 channel=836.6MHz | | | | | |
|---|------------------|-----------------|--------|-------------|--------|
| Power supplied (Vdc) | Temperature (°C) | Frequency error | | Limit (ppm) | Result |
| | | Hz | ppm | | |
| 3.70 | -30 | 5 | 0.0059 | 2.5 | Pass |
| | -20 | 6 | 0.0071 | | |
| | -10 | 5 | 0.0059 | | |
| | 0 | 7 | 0.0083 | | |
| | 10 | 4 | 0.0047 | | |
| | 20 | 6 | 0.0071 | | |
| | 30 | 8 | 0.0095 | | |
| | 40 | 7 | 0.0083 | | |
| | 50 | 5 | 0.0059 | | |

| Reference Frequency: PCS1900 Middle channel=661 channel=1880MHz | | | | | |
|---|------------------|-----------------|--------|--------|------|
| Power supplied (Vdc) | Temperature (°C) | Frequency error | | Result | |
| | | Hz | ppm | | |
| 3.70 | -30 | 7 | 0.0037 | 2.5 | Pass |
| | -20 | 3 | 0.0016 | | |
| | -10 | 5 | 0.0026 | | |
| | 0 | 6 | 0.0031 | | |
| | 10 | 4 | 0.0021 | | |
| | 20 | 6 | 0.0031 | | |
| | 30 | 7 | 0.0037 | | |
| | 40 | 5 | 0.0026 | | |
| | 50 | 4 | 0.0021 | | |

| Reference Frequency: GSM850 Middle channel=190 channel=836.6MHz | | | | | |
|---|----------------------|-----------------|--------|-------------|--------|
| Temperature (°C) | Power supplied (Vdc) | Frequency error | | Limit (ppm) | Result |
| | | Hz | ppm | | |
| 25 | 4.25 | 8 | 0.0095 | 2.5 | Pass |
| | 3.70 | 6 | 0.0071 | | |
| | 3.40 | 4 | 0.0047 | | |

| Reference Frequency: PCS1900 Middle channel=661 channel=1880MHz | | | | | |
|---|----------------------|-----------------|--------|-------------|--------|
| Temperature (°C) | Power supplied (Vdc) | Frequency error | | Limit (ppm) | Result |
| | | Hz | ppm | | |
| 25 | 4.25 | 5 | 0.0026 | 2.5 | Pass |
| | 3.70 | 7 | 0.0037 | | |
| | 3.40 | 6 | 0.0071 | | |

NOTE:All conditions have been tested and we only record the worst results in each bands.

5.8. PEAK-TO-AVERAGE RATIO

5.8.1. Standard Applicable

According to FCC §2.1046 and §24.232(d), the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

5.8.2. Measuring Instruments

Please refer to section 6 of equipments list in this report.

5.8.3. Test Procedures

The following steps outline the procedure used to measure the Peak-to-Average Ratio from the EUT.

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. For GSM/EGPRS operating modes:
 - a. Set the RBW = 1MHz, VBW = 1MHz, Peak detector in spectrum analyzer.
 - b. Set EUT in maximum power output, and triggered the burst signal.
 - c. Measured respectively the Peak level and Mean level, and the deviation was recorded as Peak to Average Ratio.
3. For UMTS operating modes:
 - a. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
 - b. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.

5.8.4. Test Results

| Modes | | PCS 1900 | | |
|----------------------------|--------|----------|--------|--|
| Channel | 512 | 661 | 810 | |
| | Low | Mid | High | |
| Frequency(MHz) | 1850.2 | 1880 | 1909.8 | |
| Peak-To-Average Ratio (dB) | 1.58 | 1.44 | 1.78 | |

6. LIST OF MEASURING EQUIPMENTS

| Instrument | Manufacturer | Model No. | Serial No. | Characteristics | Cal Date | Due Date |
|-------------------------------|----------------|----------------------------------|-------------|-----------------|------------------|------------------|
| EMC Receiver | R&S | ESCS 30 | 100174 | 9kHz – 2.75GHz | June 18, 2014 | June 17, 2015 |
| Signal analyzer | Agilent | E4448A(External mixers to 40GHz) | US44300469 | 9kHz~40GHz | July 18, 2014 | July 17, 2015 |
| Signal analyzer | Agilent | N9020A | MY50510140 | 9kHz~26.5GHz | October 27, 2014 | October 26, 2015 |
| LISN | MESS Tec | NNB-2/16Z | 99079 | 9KHz-30MHz | June 25, 2014 | June 24, 2015 |
| LISN (Support Unit) | EMCO | 3819/2NM | 9703-1839 | 9KHz-30MHz | June 25, 2014 | June 24, 2015 |
| RF Cable-CON | UTIFLEX | 3102-26886-4 | CB049 | 9KHz-30MHz | June 25, 2014 | June 24, 2015 |
| ISN | SCHAFFNER | ISN ST08 | 21653 | 9KHz-30MHz | June 25, 2014 | June 24, 2015 |
| 3m Semi Anechoic Chamber | SIDT FRANKONIA | SAC-3M | 03CH03-HY | 30M-1GHz 3m | June 18, 2014 | June 17, 2015 |
| Amplifier | SCHAFFNER | COA9231A | 18667 | 9kHz-2GHz | June 16, 2014 | June 15, 2015 |
| Amplifier | Agilent | 8449B | 3008A02120 | 1GHz-26.5GHz | July 16, 2014 | July 15, 2015 |
| Amplifier | MITEQ | AMF-6F-260400 | 9121372 | 26.5GHz-40GHz | July 16, 2014 | July 15, 2015 |
| Loop Antenna | R&S | HFH2-Z2 | 860004/001 | 9k-30MHz | June 16, 2014 | June 15, 2015 |
| By-log Antenna | SCHWARZBECK | VULB9163 | 9163-470 | 30MHz-1GHz | June 16, 2014 | June 15, 2015 |
| Horn Antenna | EMCO | 3115 | 6741 | 1GHz-18GHz | June 16, 2014 | June 15, 2015 |
| Horn Antenna | SCHWARZBECK | BBHA9170 | BBHA9170154 | 15GHz-40GHz | June 16, 2014 | June 15, 2015 |
| RF Cable-R03m | Jye Bao | RG142 | CB021 | 30MHz-1GHz | June 25, 2014 | June 24, 2015 |
| RF Cable-HIGH | SUHNER | SUCOFLEX 106 | 03CH03-HY | 1GHz-40GHz | June 25, 2014 | June 24, 2015 |
| Spectrum Meter | R&S | FSP 30 | 100023 | 9kHz-30GHz | July 16, 2014 | July 15, 2015 |
| Power Meter | R&S | NRVS | 100444 | DC-40GHz | June 18, 2014 | June 17, 2015 |
| Power Sensor | R&S | NRV-Z51 | 100458 | DC-30GHz | June 18, 2014 | June 17, 2015 |
| Power Sensor | R&S | NRV-Z32 | 10057 | 30MHz-6GHz | June 18, 2014 | June 17, 2015 |
| AC Power Source | HPC | HPA-500E | HPA-9100024 | AC 0~300V | June 18, 2014 | June 17, 2015 |
| DC power Soure | GW | GPC-6030D | C671845 | DC 1V-60V | June 18, 2014 | June 17, 2015 |
| Temp. and Humidig | Giant Force | GTH-225-20-S | MAB0103-00 | N/A | June 18, 2014 | June 17, 2015 |
| RF CABLE-1m | JYE Bao | RG142 | CB034-1m | 20MHz-7GHz | June 25, 2014 | June 24, 2015 |
| RF CABLE-2m | JYE Bao | RG142 | CB)35-2m | 20MHz-1GHz | June 25, 2014 | June 24, 2015 |
| Vector signal Generator | R&S | SMU200A | 102098 | 100kHz~6GHz | June 18, 2014 | June 17, 2015 |
| Signal Generator | R&S | SMR40 | 10016 | 10MHz~40GHz | July 16, 2014 | July 15, 2015 |
| Universal Radio Communication | R&S | CMU200 | 112012 | N/A | July 18, 2014 | July 17, 2015 |

Note: All equipment through GRGT EST calibration

7. MANUFACTURER/ APPROVAL HOLDER DECLARATION

The following identical model(s):

| | | | |
|----|----|----|----|
| -- | -- | -- | -- |
|----|----|----|----|

Belong to the tested device:

Product description : TABLET PC

Model name : SENIORSimple

Remark: No additional models were tested.

-----THE END OF REPORT-----