



# **FCC Part 15B TEST REPORT**

## **FCC ID: 2AC8V-F9**

**Product :** GSM mobile phone

**Trade Name :** WINCOM, FreshFun

**Model Number :** F9

**Serial Model :** F2,F3,F5,F6,F8,S8,V3

**Report No. :** STS1409021E01

### **Prepared for**

**WING CHONG INTERNATIONAL ELECTRONIC LIMITED**

**7/F KIN ON COMM BLDG 49-1 JERVOIS ST SHEUNG WAN HK**

### **Prepared by**

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## TEST RESULT CERTIFICATION

**Applicant's name** ..... : WING CHONG INTERNATIONAL ELECTRONIC LIMITED  
**Address** ..... : 7/F KIN ON COMM BLDG 49-1 JERVOIS ST SHEUNG WAN  
 HK

**Manufacture's Name** ..... : WINCOM ELECTRONIC LIMITED  
**Address** ..... : Not1 NOTRH DISTRICT CHANG XUE INDUSTRIAL PARK  
 BANTIAN SHENZHEN CHINA

**Product description**

**Product name** ..... : GSM mobile phone  
**Brand name** ..... : WINCOM, FreshFun  
**Model and/or type reference** .. : F9  
**Serial Model** ..... : F2,F3,F5,F6,F8,S8,V3  
**Ratings** ..... : DC 5V/0.50A

**Standards** ..... : FCC 47 CFR Part 15 Subpart B

**Test procedure** ..... : ANSI C63.4-2009

This device described above has been tested by BZT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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**Date of Test** .....

**Date (s) of performance of tests**.. 09 Sep, 2014 ~18 Sep, 2014

**Date of Issue** ..... 19 Sep, 2014

**Test Result** ..... **Pass**

Testing Engineer :



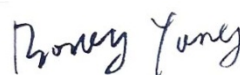
(Tony Liu)

Technical Manager :



(Vita Li)

Authorized Signatory :



(Bovey Yang)



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**1. SUMMARY OF TEST RESULTS**

Test procedures according to the technical standards:

| EMISSION  |                    |        |                    |
|---|--------------------|--------|--------------------|
| Standard  | Item               | Result | Remarks            |
| FCC 47 CFR Part 15 Subpart B<br>(10-1-05 Edition) | Conducted Emission | PASS   | Meet Class B limit |
|   | Radiated Emission  | PASS   | Meet Class B limit |

NOTE:

(1) "N/A" denotes test is not applicable in this Test Report

**1.1 TEST FACILITY**

Shenzhen STS Test Services Co., Ltd.  
 1/F, Building 2, Zhuoke Science Park, Chongqing Road, Fuyong,  
 Baoan District, Shenzhen, China  
 FCC Registration No.: 842334

**1.2 MEASUREMENT UNCERTAINTY**

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately **95 %**.

| No. | Item                         | Uncertainty               |
|-----|------------------------------|---------------------------|
| 1   | Conducted Emission Test      | $\pm 1.38\text{dB}$       |
| 2   | RF power,conducted           | $\pm 0.16\text{dB}$       |
| 3   | Spurious emissions,conducted | $\pm 0.21\text{dB}$       |
| 4   | All emissions,radiated(<1G)  | $\pm 4.68\text{dB}$       |
| 5   | All emissions,radiated(>1G)  | $\pm 4.89\text{dB}$       |
| 6   | Temperature                  | $\pm 0.5^{\circ}\text{C}$ |
| 7   | Humidity                     | $\pm 2\%$                 |

## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

|                            |  |
|----------------------------|--|
| Equipment                  | GSM mobile phone   |
| Trade Name                 | WINCOM, FreshFun   |
| Model Name                 | F9   |
| Serial Model               | F2,F3,F5,F6,F8,S8,V3   |
| Model Difference           | Only difference in model name                                  |
| Channel List               | Please refer to the Note 2.                                    |
| Adapter                    | Input:AC 110V,50/60Hz,0.15A<br>Output:DC 5V,500mA              |
| Battery                    | Rated Voltage: 3.7V<br>Charge Limit: 4.2V<br>capacity :1100mAh |
| Hardware version number    | S8DA V3.2  |
| Software versioning number | --   |
| Connecting I/O Port(s)     | Please refer to the User's Manual                              |
| CPU processor speed        | 1.2GHz   |

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

## 2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

| Pretest Mode | Description  |
|--------------|--------------|
| Mode 1       | USB Model    |
| Mode 2       | GSM Mode     |
| Mode 3       | MP3/MP4 Mode |
| Mode 4       | Idle Mode    |

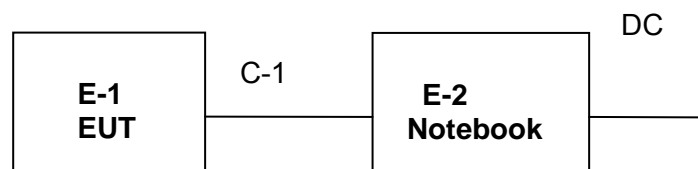
| For Conducted Emission |             |
|------------------------|-------------|
| Final Test Mode        | Description |
| Mode1                  | USB Model   |

| For Radiated Emission |             |
|-----------------------|-------------|
| Final Test Mode       | Description |
| Mode 1                | USB Model   |

Note:

(1) Due to the different configuration and test, in this list only some worse mode. The worst test data of the worse mode is reported by this report.

## 2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



**2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)**

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| Item | Equipment        | Mfr/Brand           | Model/Type No. | Series No. | Note |
|------|------------------|---------------------|----------------|------------|------|
| E-1  | GSM mobile phone | WINCOM,<br>FreshFun | F9             | N/A        | EUT  |
| E-2  | Notebook         | Lenovo              | B460           | WB03928113 |      |
|      |                  |                     |                |            |      |
|      |                  |                     |                |            |      |
|      |                  |                     |                |            |      |
|      |                  |                     |                |            |      |

| Item | Shielded Type | Ferrite Core | Length | Note |
|------|---------------|--------------|--------|------|
| C-1  | NO            | NO           | 0.5m   |      |
| C-2  | NO            | NO           | 1.2m   |      |
|      |               |              |        |      |
|      |               |              |        |      |
|      |               |              |        |      |

**Note:**

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.



**2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS****Radiation Test equipment**

| Item | Kind of Equipment      | Manufacturer | Type No.    | Serial No.       | Calibrated Due |
|------|------------------------|--------------|-------------|------------------|----------------|
| 1    | Spectrum Analyzer      | Agilent      | E4407B      | 160400005        | Jul. 06. 2015  |
| 2    | Test Receiver          | R&S          | ESPI        | 101318           | Jul. 06. 2015  |
| 3    | Bilog Antenna          | TESEQ        | CBL6111D    | 31216            | Nov.23. 2014   |
| 4    | 50Ω Coaxial Switch     | Anritsu      | MP59B       | 6200264416       | Jul. 06. 2015  |
| 5    | Spectrum Analyzer      | ADVANTEST    | R3132       | 150900201        | Jul. 06. 2015  |
| 6    | Horn Antenna           | EM           | EM-AH-10180 | 2011071402       | Nov.23. 2014   |
| 7    | Horn Ant               | Schwarzbeck  | BBHA 9170   | 9170-181         | Jul. 06. 2015  |
| 8    | Amplifier              | EM           | EM-30180    | 060538           | Jul. 06. 2015  |
| 9    | Loop Antenna           | ARA          | PLA-1030/B  | 1029             | Jul. 06. 2015  |
| 10   | Power Meter            | R&S          | NRVS        | 100696           | Jul. 06. 2015  |
| 11   | Power Sensor<br>(Peak) | R&S          | NRV-Z31     | 0396.0101.1<br>9 | Jul. 06. 2015  |

**Conduction Test equipment**

| Item | Kind of Equipment        | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|--------------------------|--------------|----------|------------|------------------|
| 1    | Test Receiver            | R&S          | ESCI     | 101160     | Jul. 06. 2015    |
| 2    | LISN                     | R&S          | ENV216   | 101313     | Jul. 06. 2015    |
| 3    | LISN                     | EMCO         | 3816/2   | 00042990   | Jul. 06. 2015    |
| 4    | 50Ω Coaxial Switch       | Anritsu      | MP59B    | 6200264417 | Jul. 06. 2015    |
| 5    | Passive Voltage<br>Probe | R&S          | ESH2-Z3  | 100196     | Jul. 06. 2015    |
| 6    | Absorbing clamp          | R&S          | MOS-21   | 100423     | Jul. 06. 2015    |

### 3. EMC EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT

##### 3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

| FREQUENCY (MHz) | Class A (dBuV) |         | Class B (dBuV) |           | Standard |
|-----------------|----------------|---------|----------------|-----------|----------|
|                 | Quasi-peak     | Average | Quasi-peak     | Average   |          |
| 0.15 -0.5       | 79.00          | 66.00   | 66 - 56 *      | 56 - 46 * | CISPR    |
| 0.50 -5.0       | 73.00          | 60.00   | 56.00          | 46.00     | CISPR    |
| 5.0 -30.0       | 73.00          | 60.00   | 60.00          | 50.00     | CISPR    |

|           |       |       |           |           |     |
|-----------|-------|-------|-----------|-----------|-----|
| 0.15 -0.5 | 79.00 | 66.00 | 66 - 56 * | 56 - 46 * | FCC |
| 0.50 -5.0 | 73.00 | 60.00 | 56.00     | 46.00     | FCC |
| 5.0 -30.0 | 73.00 | 60.00 | 60.00     | 50.00     | FCC |

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

| Receiver Parameters | Setting  |
|---------------------|----------|
| Attenuation         | 10 dB    |
| Start Frequency     | 0.15 MHz |
| Stop Frequency      | 30 MHz   |
| IF Bandwidth        | 9 kHz    |

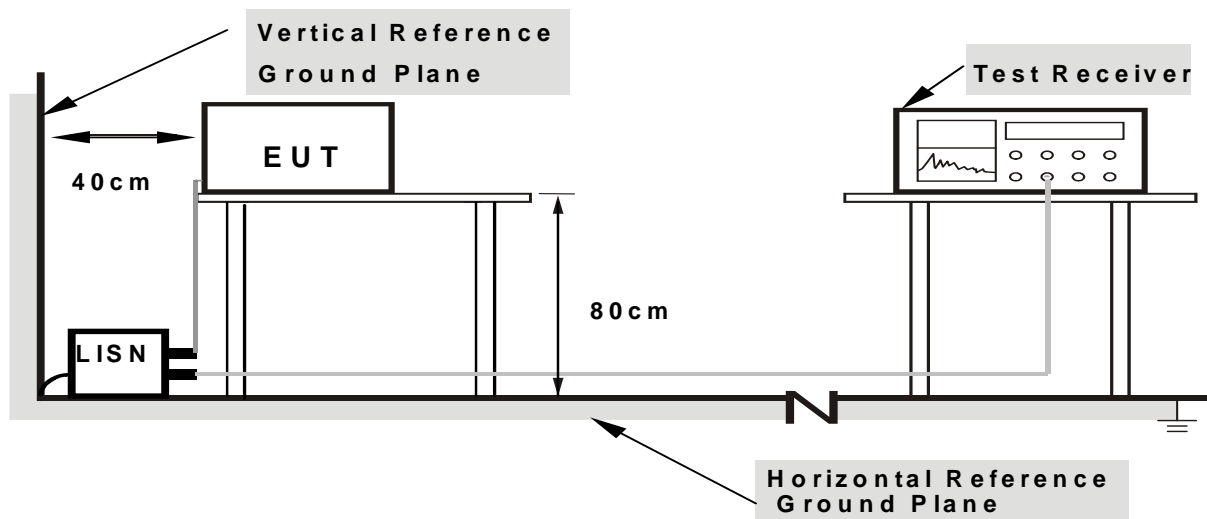
### 3.1.2 TEST PROCEDURE

- The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.1.3 DEVIATION FROM TEST STANDARD

No deviation

### 3.1.4 TEST SETUP



**Note: 1.**Support units were connected to second LISN.

**2.**Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

### 3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

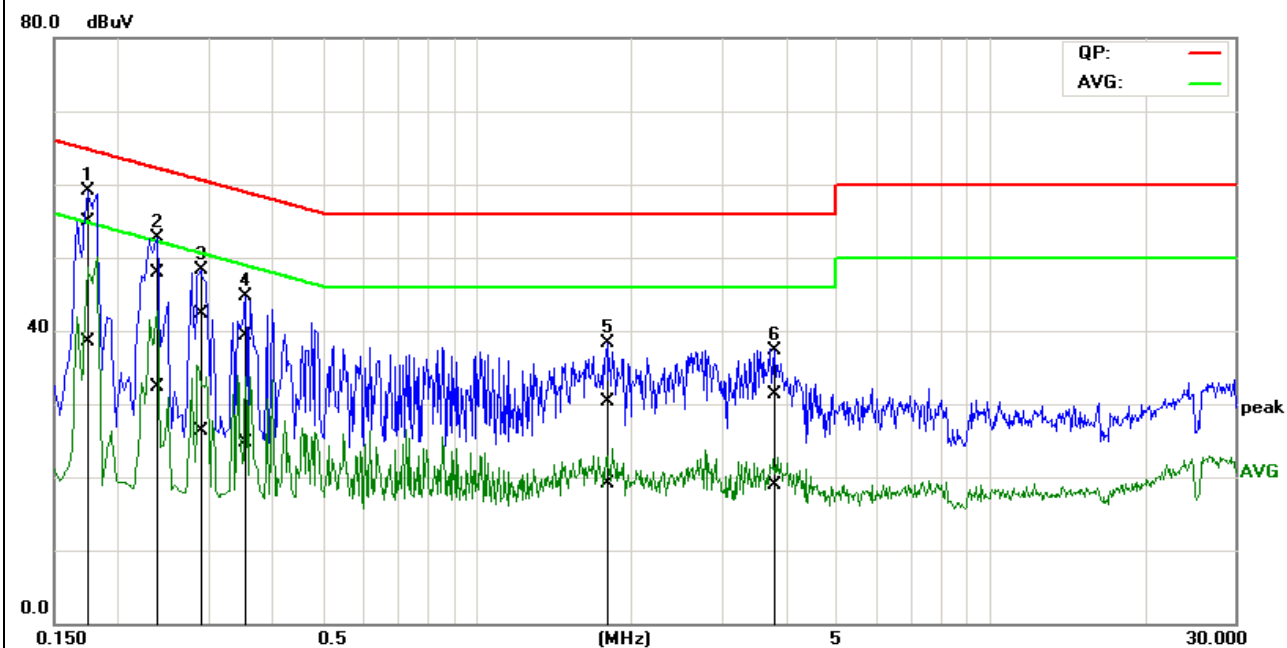
### 3.1.6 TEST RESULTS

|                |                                      |                     |     |
|----------------|--------------------------------------|---------------------|-----|
| EUT :          | GSM mobile phone                     | Model Name. :       | F9  |
| Temperature :  | 26 °C                                | Relative Humidity : | 54% |
| Pressure :     | 1010hPa                              | Phase :             | L   |
| Test Voltage : | DC 5V from Adapter with AC 120V/60Hz | Test Mode :         | 1   |

| Frequency | QuasiPeak reading | Average reading | Correction factor | QuasiPeak result | Average result | QuasiPeak limit | Average limit | QuasiPeak margin | Average margin | Remark |
|-----------|-------------------|-----------------|-------------------|------------------|----------------|-----------------|---------------|------------------|----------------|--------|
| (MHz)     | (dBuV)            | (dBuV)          | (dB)              | (dBuV)           | (dBuV)         | (dBuV)          | (dBuV)        | (dB)             | (dB)           |        |
| 0.1753    | 7.13              | 0.72            | 19.71             | 26.84            | 20.43          | 65.32           | 55.32         | -38.48           | -34.89         | Pass   |
| 0.2347    | 4.48              | -1.82           | 19.84             | 24.32            | 18.02          | 56.34           | 46.34         | -32.02           | -28.32         | Pass   |
| 0.2889    | 0.81              | -2.44           | 19.85             | 20.66            | 17.41          | 56              | 46            | -35.34           | -28.59         | Pass   |
| 0.3518    | 8.76              | 3.19            | 20.09             | 28.85            | 23.28          | 56              | 46            | -27.15           | -22.72         | Pass   |
| 1.7656    | 6.74              | 0.91            | 20.97             | 27.71            | 21.88          | 60              | 50            | -32.29           | -28.12         | Pass   |
| 3.7766    | 2.16              | -3.15           | 21.31             | 23.47            | 18.16          | 60              | 50            | -36.53           | -31.84         | Pass   |

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.



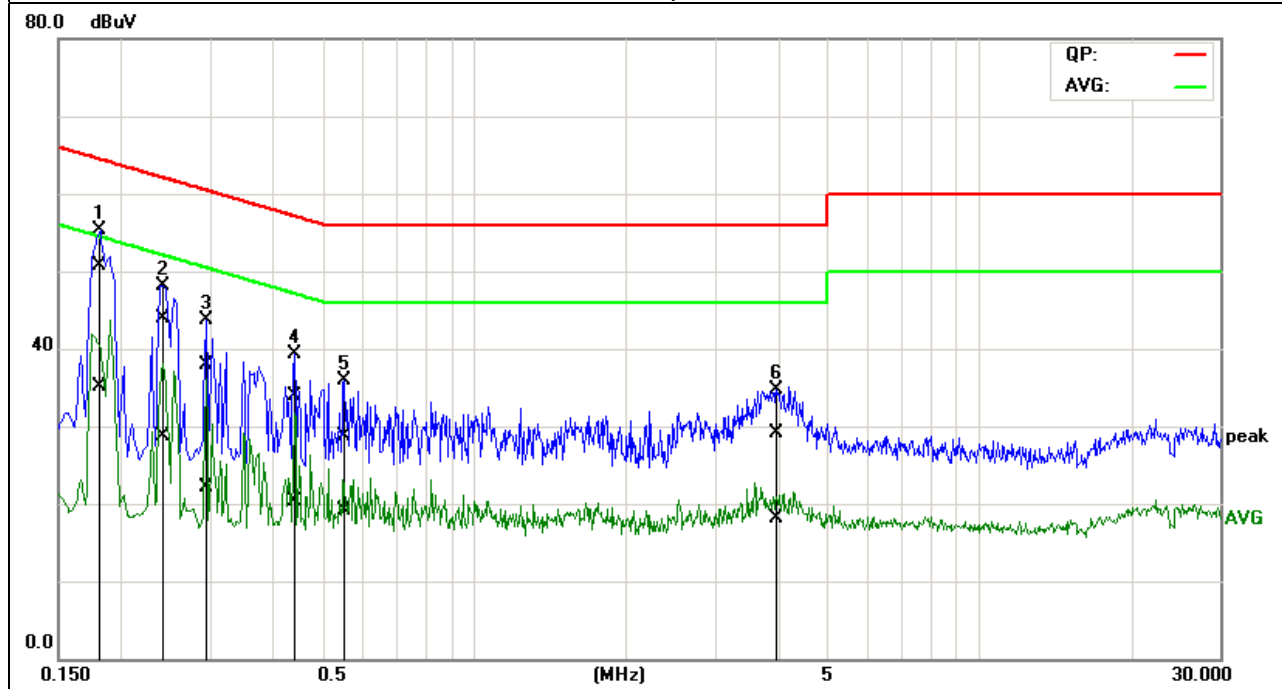
|       |                  |               |    |
|-------|------------------|---------------|----|
| EUT : | GSM mobile phone | Model Name. : | F9 |
|-------|------------------|---------------|----|

|                |                                      |                     |     |
|----------------|--------------------------------------|---------------------|-----|
| Temperature :  | 26 °C                                | Relative Humidity : | 54% |
| Pressure :     | 1010hPa                              | Phase :             | N   |
| Test Voltage : | DC 5V from Adapter with AC 120V/60Hz | Test Mode :         | 1   |

| Frequency | QuasiPeak reading | Average reading | Correction factor | QuasiPeak result | Average result | QuasiPeak limit | Average limit | QuasiPeak margin | Average margin | Remark |
|-----------|-------------------|-----------------|-------------------|------------------|----------------|-----------------|---------------|------------------|----------------|--------|
| (MHz)     | (dBuV)            | (dBuV)          | (dB)              | (dBuV)           | (dBuV)         | (dBuV)          | (dBuV)        | (dB)             | (dB)           |        |
| 0.1784    | 31.13             | 15.38           | 19.68             | 50.81            | 35.06          | 64.72           | 54.72         | -13.91           | -19.66         | Pass   |
| 0.2412    | 24.26             | 8.99            | 19.67             | 43.93            | 28.66          | 62.25           | 52.25         | -18.32           | -23.59         | Pass   |
| 0.2956    | 18.14             | 2.34            | 19.71             | 37.85            | 22.05          | 60.58           | 50.58         | -22.73           | -28.53         | Pass   |
| 0.4421    | 14.07             | 0.56            | 19.81             | 33.88            | 20.37          | 58.92           | 48.92         | -25.04           | -28.55         | Pass   |
| 0.5563    | 8.87              | -0.81           | 19.85             | 28.72            | 19.04          | 56              | 46            | -27.28           | -26.96         | Pass   |
| 3.9891    | 8.94              | -2.19           | 20.19             | 29.13            | 18             | 56              | 46            | -26.87           | -28            | Pass   |

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.



### 3.2 RADIATED EMISSION MEASUREMENT

#### 3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

| Frequencies<br>(MHz) | Field Strength<br>(micorvolts/meter) | Measurement Distance<br>(meters) |
|----------------------|--------------------------------------|----------------------------------|
| 0.009~0.490          | 2400/F(KHz)                          | 300                              |
| 0.490~1.705          | 24000/F(KHz)                         | 30                               |
| 1.705~30.0           | 30                                   | 30                               |
| 30~88                | 100                                  | 3                                |
| 88~216               | 150                                  | 3                                |
| 216~960              | 200                                  | 3                                |
| Above 960            | 500                                  | 3                                |

#### LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

| FREQUENCY (MHz) | Class A (dBuV/m) (at 3M) |         | Class B (dBuV/m) (at 3M) |         |
|-----------------|--------------------------|---------|--------------------------|---------|
|                 | PEAK                     | AVERAGE | PEAK                     | AVERAGE |
| Above 1000      | 80                       | 60      | 74                       | 54      |

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

#### FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

| Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz) | Range (MHz)   |
|---|---|
| Below 1.705   | 30  |
| 1.705 – 108   | 1000  |
| 108 – 500   | 2000  |
| 500 – 1000  | 5000  |
| Above 1000  | 5 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower |

| Spectrum Parameter                    | Setting  |
|---------------------------------------|--|
| Attenuation                           | Auto   |
| Start Frequency                       | 1000 MHz   |
| Stop Frequency                        | 10th carrier harmonic                            |
| RB / VB (emission in restricted band) | 1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average |

| Receiver Parameter     | Setting                          |
|------------------------|----------------------------------|
| Attenuation            | Auto                             |
| Start ~ Stop Frequency | 9kHz~150kHz / RB 200Hz for QP    |
| Start ~ Stop Frequency | 150kHz~30MHz / RB 9kHz for QP    |
| Start ~ Stop Frequency | 30MHz~1000MHz / RB 120kHz for QP |

### 3.2.2 TEST PROCEDURE

- The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- The EUT was placed on the top of a rotating table 1 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- The height of the equipment or of the substitution antenna shall be 1 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

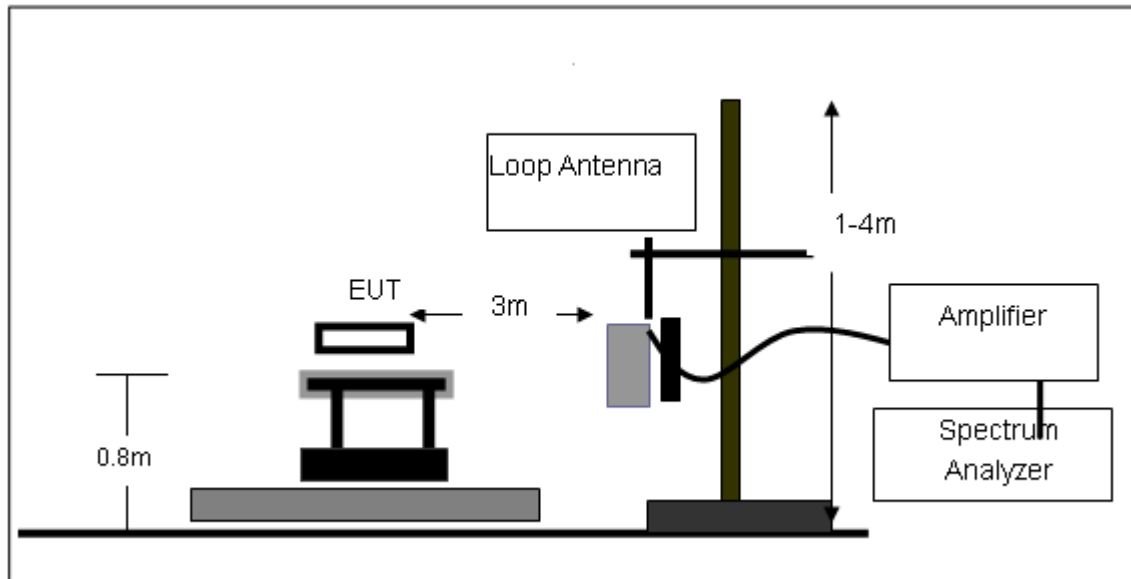
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

### 3.2.3 DEVIATION FROM TEST STANDARD

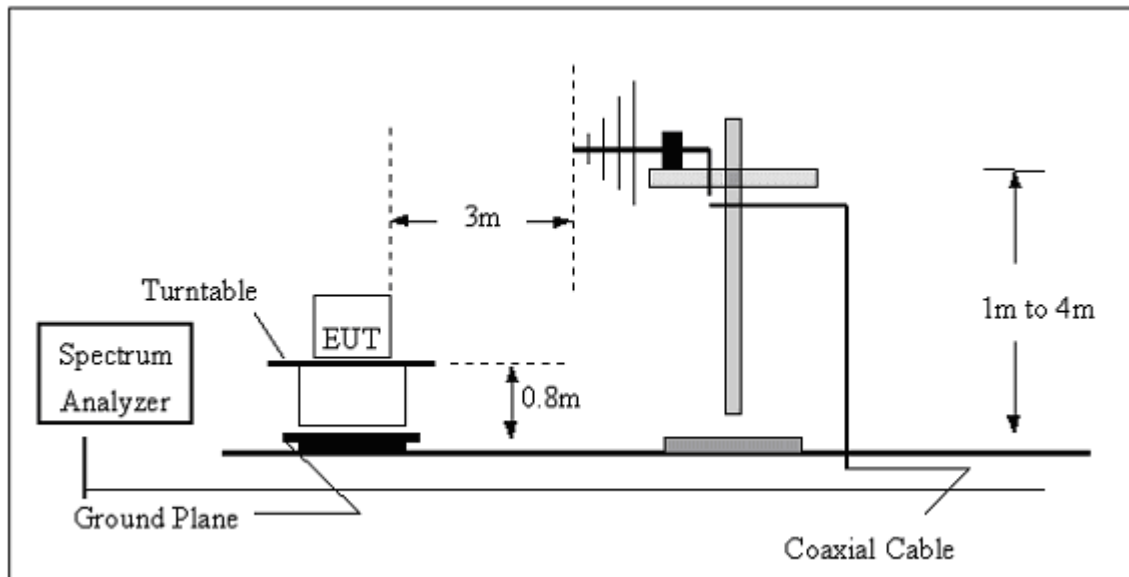
No deviation

### 3.2.4 TEST SETUP

#### (A) Radiated Emission Test-Up Frequency Below 30MHz

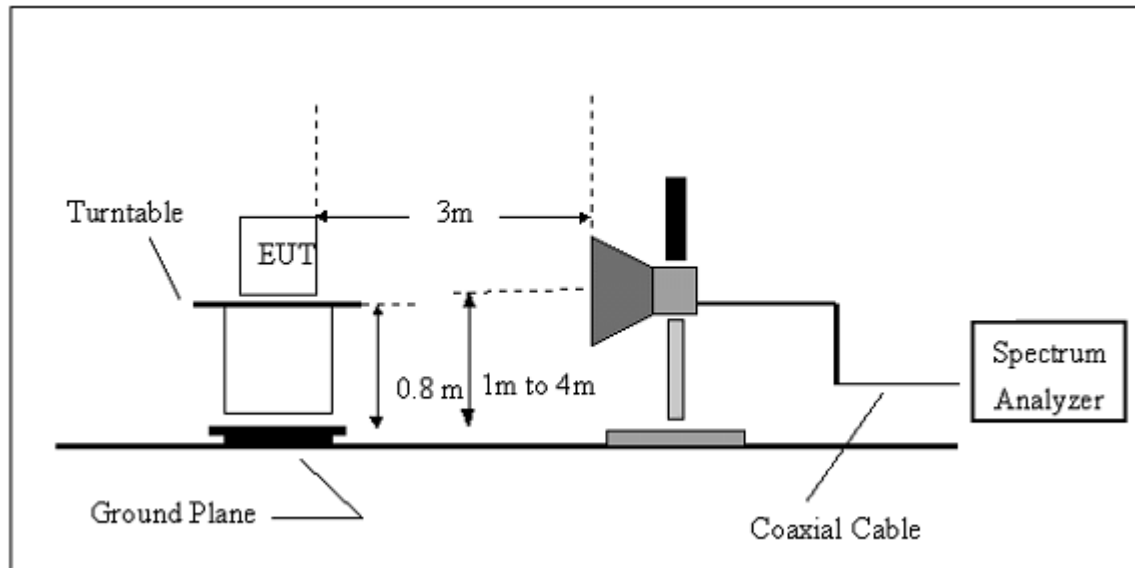


#### (B) Radiated Emission Test-Up Frequency 30MHz~1GHz





(C) Radiated Emission Test-Up Frequency Above 1GHz



### 3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

**3.2.6 TEST RESULTS (BELOW 30 MHZ)**

|                |                                 |                     |     |
|----------------|---------------------------------|---------------------|-----|
| EUT :          | GSM mobile phone                | Model Name. :       | F9  |
| Temperature :  | 20 °C                           | Relative Humidity : | 48% |
| Pressure :     | 1010 hPa                        | Polarization :      | --- |
| Test Voltage : | DC 5V from Adapter AC 120V/60Hz |                     |     |
| Test Mode :    | Mode 1                          |                     |     |

| Freq. | Reading  | Limit    | Margin | State |
|-------|----------|----------|--------|-------|
| (MHz) | (dBuV/m) | (dBuV/m) | (dB)   | P/F   |
| --    | --       | --       | --     | PASS  |
| --    | --       | --       | --     | PASS  |

**NOTE:**

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =  $40 \log (\text{specific distance}/\text{test distance})$ (dB);

Limit line = specific limits(dBuV) + distance extrapolation factor.

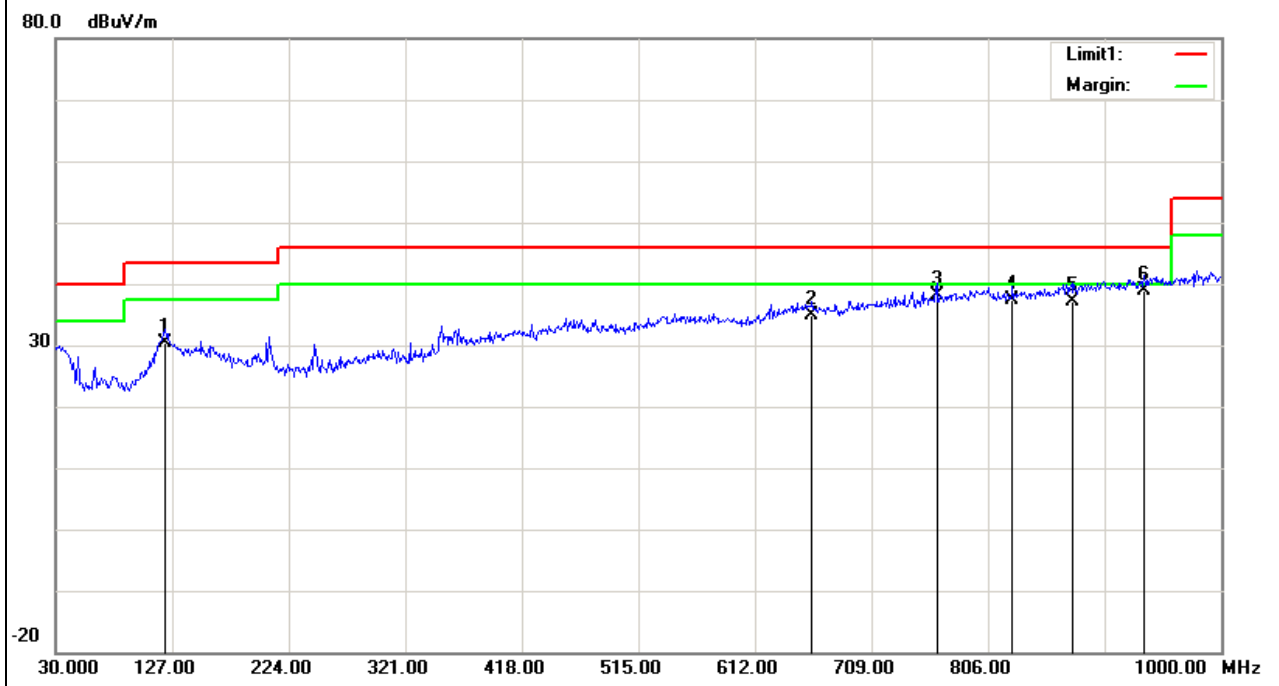
**3.2.7 TEST RESULTS (BETWEEN 30M – 1000 MHZ)**

|                |                                 |                     |            |
|----------------|---------------------------------|---------------------|------------|
| EUT :          | GSM mobile phone                | Model Name. :       | F9         |
| Temperature :  | 20 °C                           | Relative Humidity : | 48%        |
| Pressure :     | 1010 hPa                        | Polarization :      | Horizontal |
| Test Voltage : | DC 5V from Adapter AC 120V/60Hz |                     |            |
| Test Mode :    | Mode 1                          |                     |            |

| Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>Factor(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Height<br>(cm) | Degree<br>(deg.) | Remark |
|--------------------|-------------------|-------------------------|--------------------|-------------------|----------------|----------------|------------------|--------|
| 121.14             | 16.2              | 14.06                   | 30.26              | 43.5              | -13.24         | 200            | 129              | QP     |
| 659.55             | 13.18             | 21.77                   | 34.95              | 46                | -11.05         | 200            | 66               | QP     |
| 763.37             | 15.15             | 22.87                   | 38.02              | 46                | -7.98          | 100            | 246              | QP     |
| 826.41             | 14.37             | 22.98                   | 37.35              | 46                | -8.65          | 200            | 360              | QP     |
| 875.85             | 13.47             | 23.73                   | 37.2               | 46                | -8.8           | 200            | 360              | QP     |
| 935.96             | 13.94             | 24.9                    | 38.84              | 46                | -7.16          | 100            | 1                | QP     |

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

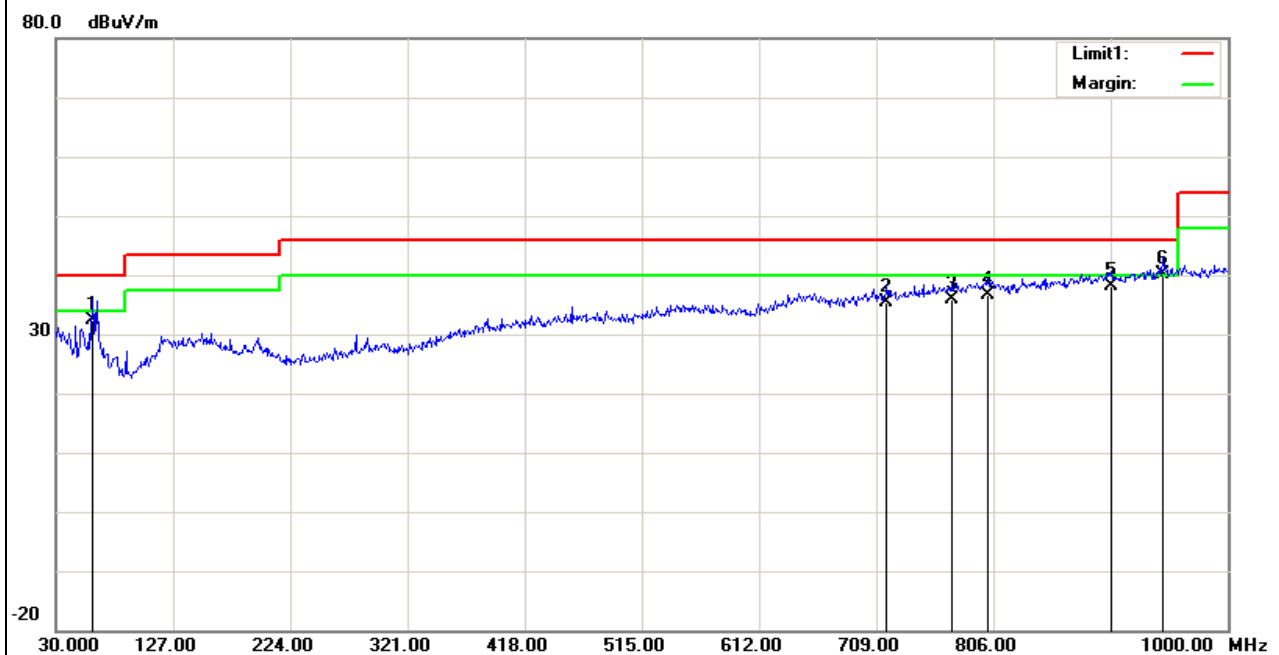


|                |                                 |                     |          |
|----------------|---------------------------------|---------------------|----------|
| EUT :          | GSM mobile phone                | Model Name. :       | F9       |
| Temperature :  | 20 °C                           | Relative Humidity : | 48%      |
| Pressure :     | 1010 hPa                        | Polarization :      | Vertical |
| Test Voltage : | DC 5V from Adapter AC 120V/60Hz |                     |          |
| Test Mode :    | Mode 1                          |                     |          |

| Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>Factor(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Height<br>(cm) | Degree<br>(deg.) | Remark |
|--------------------|-------------------|-------------------------|--------------------|-------------------|----------------|----------------|------------------|--------|
| 60.08              | 24.16             | 8.22                    | 32.38              | 40                | -7.62          | 200            | 276              | QP     |
| 717.74             | 13.08             | 22.2                    | 35.28              | 46                | -10.72         | 100            | 156              | QP     |
| 771.11             | 12.95             | 22.89                   | 35.84              | 46                | -10.16         | 100            | 270              | QP     |
| 801.16             | 13.13             | 23.48                   | 36.61              | 46                | -9.39          | 200            | 354              | QP     |
| 903.87             | 13.91             | 24.33                   | 38.24              | 46                | -7.76          | 200            | 345              | QP     |
| 946.73             | 14.93             | 25.17                   | 40.1               | 46                | -5.9           | 100            | 118              | QP     |

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.



**The worst test data above 1 GHz was showed as thefollow:**

|                |                                 |                     |          |
|----------------|---------------------------------|---------------------|----------|
| EUT :          | GSM mobile phone                | Model Name. :       | F9       |
| Temperature :  | 20 °C                           | Relative Humidity : | 48%      |
| Pressure :     | 1010 hPa                        | Polarization :      | Vertical |
| Test Voltage : | DC 5V from Adapter AC 120V/60Hz |                     |          |
| Test Mode :    | Mode 1                          |                     |          |

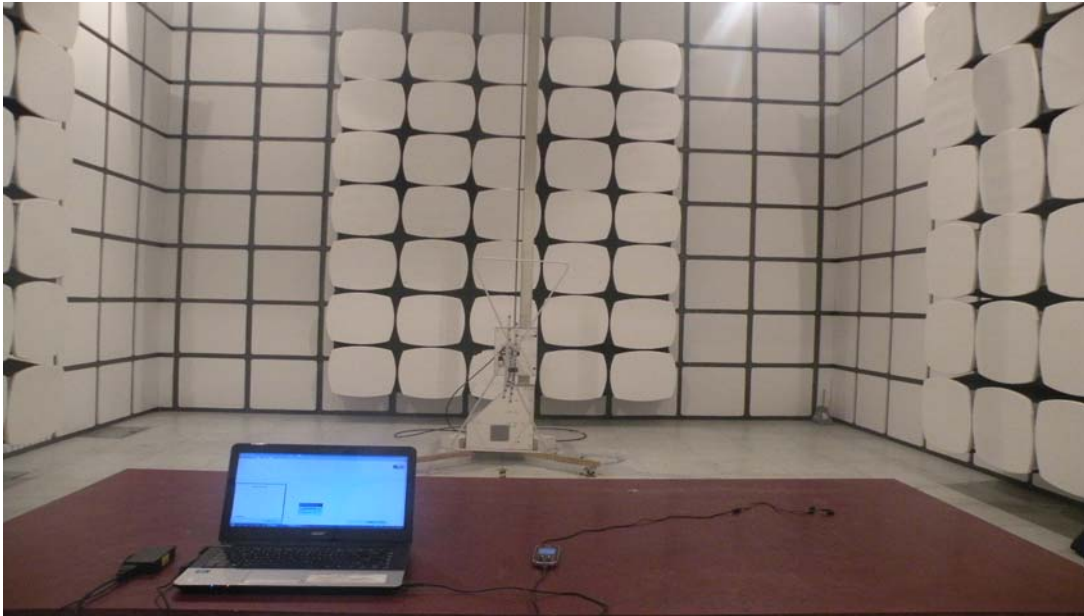
| Freq.     | Ant. Pol | Peak    | AV      | Ant./CL | Actual Fs |          | Peak     | AV       | Peak     | AV       |
|-----------|----------|---------|---------|---------|-----------|----------|----------|----------|----------|----------|
| (MHz)     | H/V      | Reading | Reading | CF      |           |          | Limit    | Limit    | margin   | margin   |
|           |          | (dBuV)  | (dBuV)  | (dB)    | Peak      | AV       | (dBuV/m) | (dBuV/m) | (dBuV/m) | (dBuV/m) |
|           |          |         |         |         | (dBuV/m)  | (dBuV/m) |          |          |          |          |
| 12360.577 | H        | 41.27   | 30.02   | 10.66   | 51.93     | 40.68    | 74       | 54       | -22.07   | -13.32   |
| 17019.231 | H        | 38.66   | 27.39   | 14.12   | 52.78     | 41.51    | 74       | 54       | -21.22   | -12.49   |
| N/A       |          |         |         |         |           |          |          |          |          |          |
|           |          |         |         |         |           |          |          |          |          |          |
| 11189.103 | V        | 43.09   | 34.42   | 9.42    | 52.51     | 43.84    | 74       | 54       | -21.49   | -10.16   |
| 17318.91  | V        | 44.12   | 30.64   | 14.47   | 58.59     | 40.68    | 74       | 54       | -15.41   | -13.32   |
| N/A       |          |         |         |         |           |          |          |          |          |          |

**Notes:**

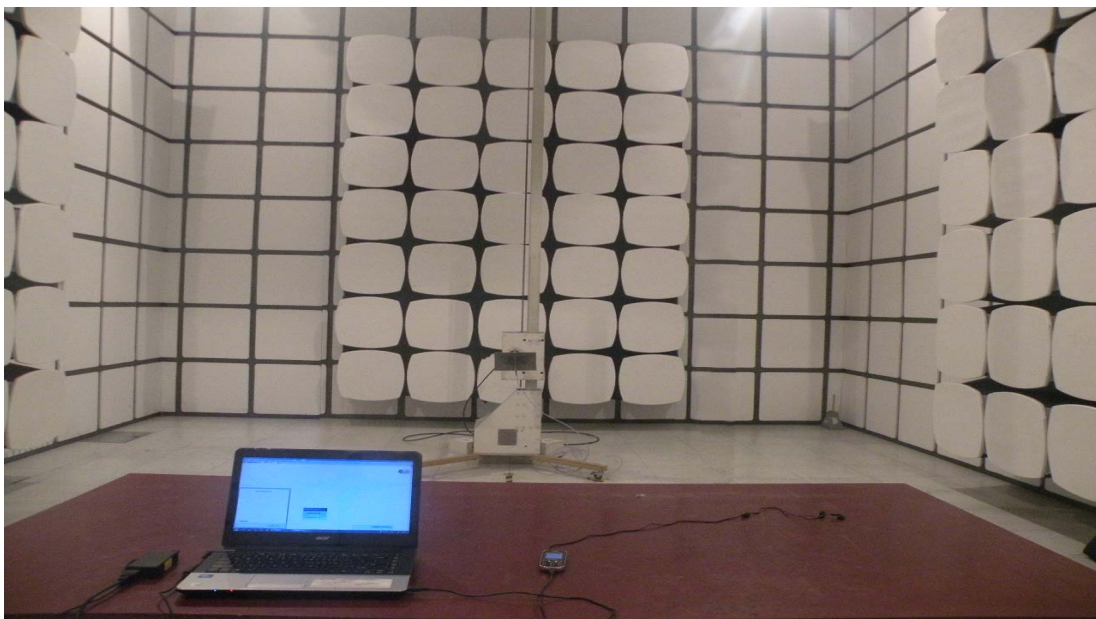
1. Measuring frequencies from 1 GHz to 6GHz.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
3. The frequency that above 3GHz is mainly from the environment noise.

#### 4. EUT TEST PHOTO

##### Radiated Measurement Photos Blow 1GHz



##### Above 1GHz



### Conducted Measurement Photos

