

FCC TEST REPORT

For

Mobile Phone

Model Number: L575

FCC ID: RQQHLT-GL5H0

Report Number : WT158003394

Test Laboratory : Shenzhen Academy of Metrology and Quality
Inspection
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TEST REPORT DECLARATION

Applicant : HYUNDAI CORPORATION
Address : 140-2, Kye-dong, Chongro-ku, Seoul, South Korea
Manufacturer : Gionee Communication Equipment Co.,Ltd.
Address : 21/F,Times Technology Building,No. 7028,Shennan Avenue,Futian District,Shenzhen,China
EUT Description : Mobile Phone
Model No : L575
Trade mark : HYUNDAI
Serial Number : /
FCC ID : RQQHLT-GL5H0

Test Standards:

FCC Part 15 Subpart B 15.107, 15.109 (2014)

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the maximum emissions from the EUT. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003).

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Project Engineer: 陈司林 Date: Jul.29.2015
(Chen Silin 陈司林)
Checked by: 林奕翔 Date: Jul.29.2015
(Lin Yixiang 林奕翔)
Approved by: 林斌 Date: Jul.29.2015
(Lin Bin 林斌)

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1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

| Test Items | FCC Rules | Test Results |
|-----------------------|-----------|--------------|
| Conducted Disturbance | 15.107 | Pass |
| Radiation Emission | 15.109 | Pass |

Remark: "N/A" means "Not applicable."

2. GENERAL INFORMATION

2.1. Report information

- 2.1.1. This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that SMQ approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that SMQ in any way guarantees the later performance of the product/equipment.
- 2.1.2. The sample/s mentioned in this report is/are supplied by Applicant, SMQ therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.
- 2.1.3. Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through SMQ, unless the applicant has authorized SMQ in writing to do so.

2.2. Laboratory Accreditation and Relationship to Customer

The testing report were performed by the Shenzhen Academy of Metrology and quality Inspection EMC Laboratory (Guangdong EMC compliance testing center), in their facilities located at Bldg. of Metrology & Quality Inspection, Longzhu Road, Nanshan District, Shenzhen, Guangdong, China. At the time of testing, Laboratory is accredited by the following organizations:

China National Accreditation Committee for Laboratories (CNAS) accredits the Laboratory for conformance to FCC standards, EMC international standards and EN standards. The Registration Number is L0579.

The Laboratory is listed in the United States of American Federal Communications Commission (FCC), and the registration number are 446246 806614 994606(semi anechoic chamber).

The Laboratory is registered to perform emission tests with Industry Canada (IC), and the registration number is IC4174.

TUV Rhineland accredits the Laboratory for conformance to IEC and EN standards, the registration number is E2024086Z02.

Measurement Uncertainty

2.3. Measurement Uncertainty

Conducted Emission

9kHz~30MHz 3.5dB

Radiated Emission

30MHz~1000MHz 4.5dB

1GHz~18GHz 4.6dB

3. PRODUCT DESCRIPTION

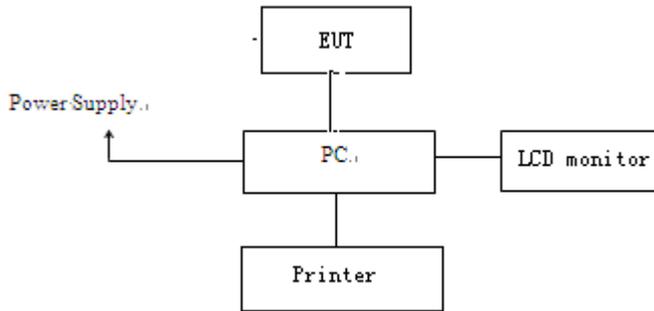
3.1.EUT Description

Table 2 Specification of the Equipment under Test

| | |
|-------------------------|---|
| Product Type: | Mobile Phone |
| Hardware Version: | L575_Mainboard_P3 |
| Software Version : | L575_0303_V5647 |
| FCC-ID: | RQQHLT-GL5H0 |
| Frequency: | GSM850/PCS1900MHz/WCDMA850MHz/WCDMA1700MHz/WCDMA1900MHz / LTE Bnad 4/LTE Band 7 Wifi:2412MHz-2462MHz; Bluetooth: 2402MHz-2480MHz |
| Type(s) of Modulation : | GSM850/PCS1900MHz :GMSK,8PSK WCDMA850MHz/WCDMA1700MHz/WCDMA1900MHz:QPSK LTE Bnad 4/LTE Band 7:QPSK,16QAM 802.11b: DSSS (DBPSK / DQPSK / CCK) 802.11g: OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth: GFSK, pi/4DQPSK, 8DPSK |
| Antenna Type: | BT:PIFA Antenna 0dBi WiFi:PIFA Antenna 0dBi GPS:PIFA Antenna 0dBi 2G/3G/4G: Fixed 0dBi |
| Operating voltage: | Internal battery, 120V AC Adapter; 3.5V (Low)/3.7V (Nominal)/ 4.2V (Max) |

Remark: /

3.2. Block Diagram of EUT Configuration



Test mode 1

3.3. Operating Condition of EUT

Test mode 1: data transmitter with PC by USB port

Prescan for other test mode: Playback and OTG mode was carried out. The test mode mentioned above is identified as worst case for this EUT and the test results for this mode is recored in this report.

The Radiated emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission (X plane).

3.4. Support Equipment List

| Name | Model No | S/N | Manufacturer | FCC |
|---------------------|-------------|------------|--------------|-----|
| Computer | 9439 | L3BDF2K | Lenovo | DOC |
| Keyboard (USB) | SK-8825 (L) | 02553778 | Lenovo | DOC |
| Mouse (USB) | MO28UOL | 4418011108 | Lenovo | DOC |
| Monitor | 9227-AE1 | V1TDB38 | Lenovo | DOC |
| Printer | BJC-265SP | EVX81604 | CANON | DOC |
| Adaptor for Printer | AD-300 | --- | CANON | DOC |

3.5. Test Conditions

Date of test: Jul 24,2015-Jul 28, 2015

Date of EUT Receive: Jul 16,2015

Temperature: -15~45 °C

Relative Humidity: 40~53%

3.6. Modifications

No modification was made.

4. TEST EQUIPMENT USED

4.1. Test Equipment Used to Measure Conducted Disturbance

Table 3 Conducted Disturbance Test Equipment

| No. | Equipment | Manufacturer | Model No. | LAST CALIB | Period |
|--------|-------------------------------|--------------|------------|-------------|--------|
| SB3319 | EMI Test Receiver | R&S | ESCS30 | Dec.20,2014 | 1 Year |
| SB4357 | AMN | R&S | ENV216 | Oct.14,2014 | 1 Year |
| SB3321 | AMN | R&S | ESH2-Z5 | Jan.19,2015 | 1 Year |
| --- | Conducted Emissions Cable set | HUBER+SUHNER | FAC X3/AP1 | Dec.20,2014 | 1 Year |

4.2. Test Equipment Used to Measure Radiated Disturbance

Table 4 Radiated Disturbance Test Equipment

| No. | Equipment | Manufacturer | Model No. | LAST CALIB | Period |
|-----------|------------------------------|-----------------|-----------|--------------|--------|
| SB3436 | EMI Test Receiver | Rohde & Schwarz | ES126 | Dec.29,2014 | 1 Year |
| SB5472/02 | Bilog Antenna | SCHWARZBECK | VULB9163 | Jan.18,2015 | 1 Year |
| SB9422/16 | Horn Antenna | Rohde & Schwarz | HF907 | May.19.2015 | 1Year |
| ---- | Radiated Emissions Cable set | HUBER+SUHNER | --- | Jan.19, 2015 | 1 Year |
| --- | Radiated Emissions Cable set | HUBER+SUHNER | --- | Jan.19, 2015 | 1 Year |
| SB8501/17 | Preamplifier | Rohde & Schwarz | SCU-18 | Mar.27, 2015 | 1 Year |
| SB8501/16 | Preamplifier | Rohde & Schwarz | SCU-26 | Mar.27, 2015 | 1 Year |

5. CONDUCTED DISTURBANCE TEST

5.1. Test Standard and Limit

5.1.1. Test Standard

FCC Part 15: Section 15.107

5.1.2. Test Limit

Table 5 Conducted Disturbance Test Limit (Class B)

| Frequency | Power Port limits (dB μ V) | |
|------------------|--------------------------------|---------|
| | Quasi-peak | Average |
| 0.15MHz ~ 0.5MHz | 66~56* | 56~46* |
| 0.5MHz ~ 5 MHz | 56 | 46 |
| 5 MHz ~ 30MHz | 60 | 50 |

* Decreasing linearly with logarithm of the frequency

5.2. Test Procedure

The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI test receiver (R&S Test Receiver ESCS30) is used to test the emissions form both sides of AC line. The bandwidth of EMI test receiver is set at 9kHz.

5.3. Test Arrangement

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

5.4. Test Data

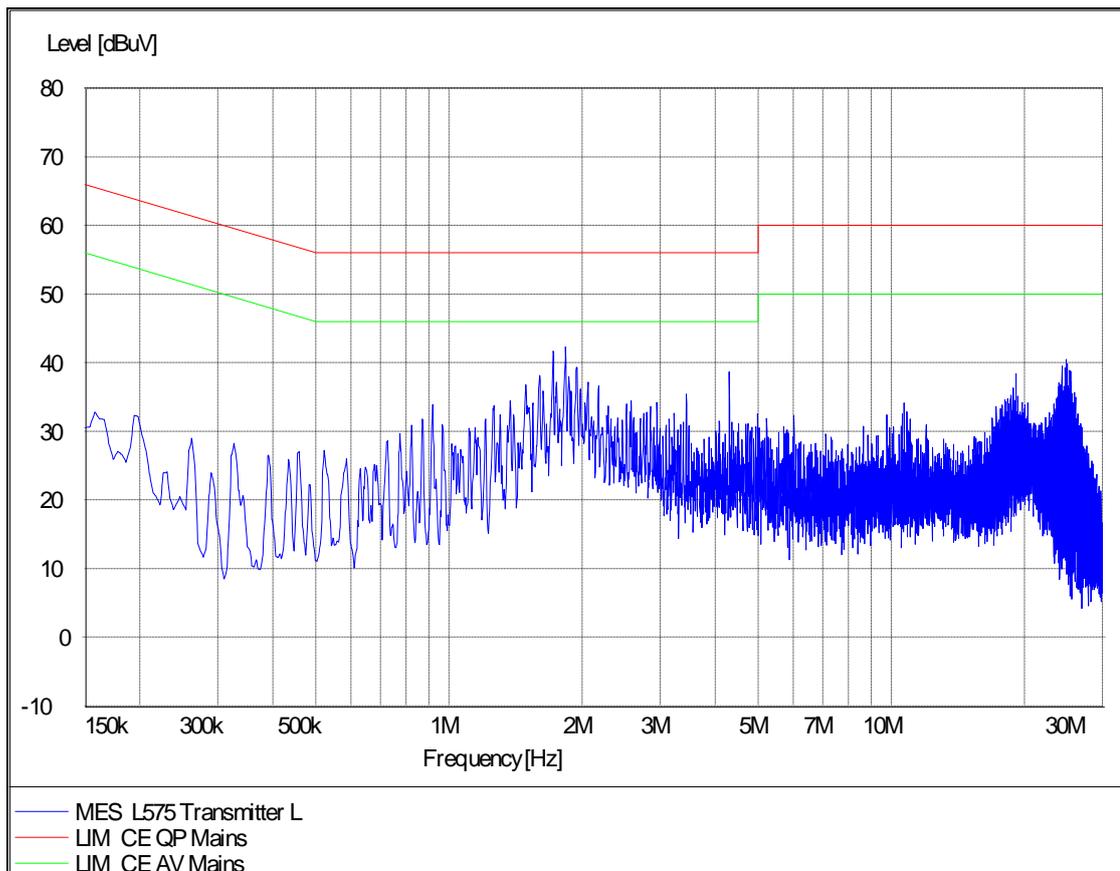
The emissions don't show in following result tables are more than 20dB below the limits, the test curves are shown in the next page.

Table 6 Conducted Disturbance Test Data at mains Port

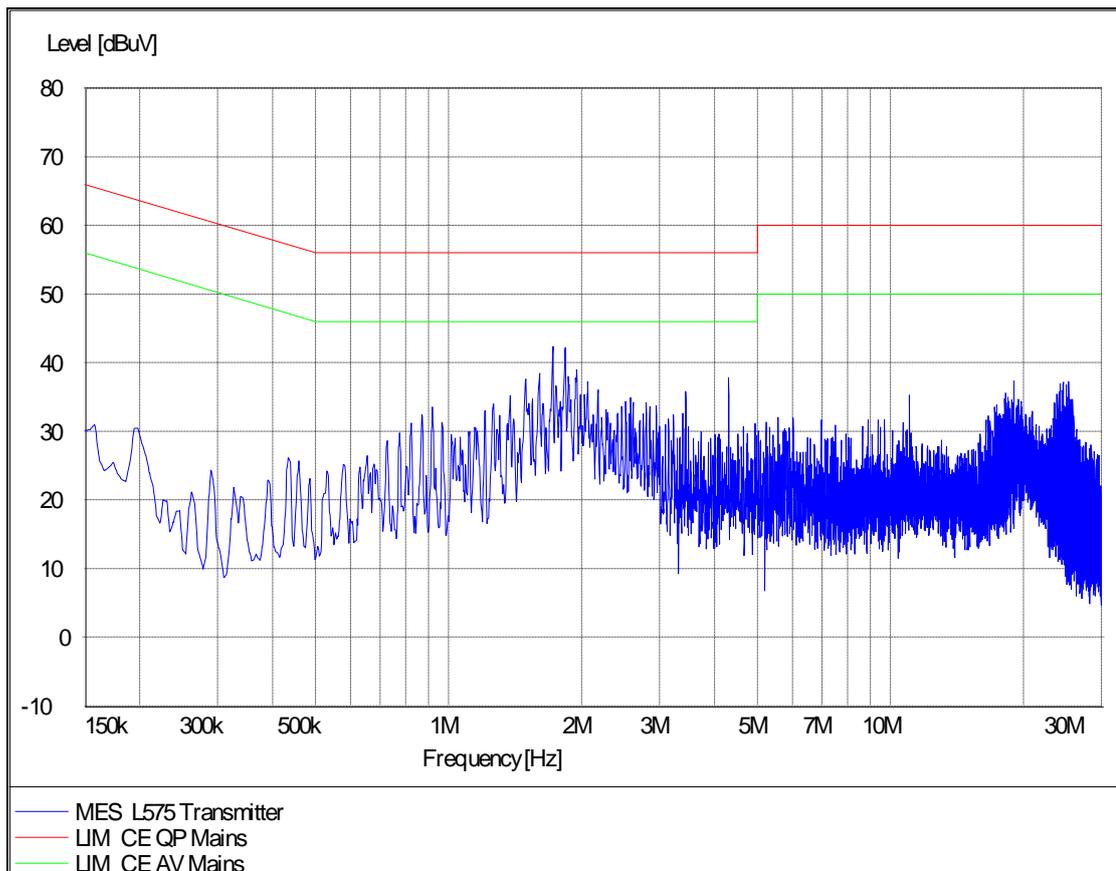
| Model No.: L575 | | | | | | | | |
|---|-----------------|------------------------|----------------------|-----------------------------|---------------------|----------------------|-----------------------------|---------------------|
| Test mode: data transmitter with PC by USB port | | | | | | | | |
| | Frequency (MHz) | Correction Factor (dB) | Quasi-Peak | | | Average | | |
| | | | Reading (dB μ V) | Emission Level (dB μ V) | Limits (dB μ V) | Reading (dB μ V) | Emission Level (dB μ V) | Limits (dB μ V) |
| Line | 0.87 | 9.8 | 19.4 | 29.2 | 56 | 9.1 | 18.9 | 46 |
| | 0.918 | 9.8 | 19.7 | 29.5 | 56 | 15.1 | 24.9 | 46 |
| | 0.966 | 9.8 | 17.4 | 27.2 | 56 | 12.5 | 22.3 | 46 |
| | 1.718 | 9.8 | 30.4 | 40.2 | 56 | 28.0 | 37.8 | 46 |
| | 1.834 | 9.8 | 30.7 | 40.5 | 56 | 30.0 | 39.8 | 46 |
| | 1.942 | 9.8 | 25.7 | 35.5 | 56 | 18.2 | 28 | 46 |
| Neutral | 0.918 | 9.8 | 23.7 | 33.5 | 56 | 15.4 | 25.2 | 46 |
| | 1.262 | 9.8 | 21.4 | 31.2 | 56 | 20.3 | 30.1 | 46 |
| | 1.49 | 9.8 | 25.8 | 35.6 | 56 | 25.2 | 35 | 46 |
| | 1.606 | 9.8 | 26.9 | 36.7 | 56 | 26.1 | 35.9 | 46 |
| | 1.722 | 9.8 | 31.1 | 40.9 | 56 | 28.2 | 38 | 46 |
| | 1.83 | 9.8 | 27.9 | 37.7 | 56 | 24.6 | 34.4 | 46 |

- REMARKS: 1. Emission level(dBuV)=Read Value(dBuV) + Correction Factor(dB)
 2. Correction Factor(dB) =LISN Factor (dB) + Cable Factor (dB)+Limiter Factor(dB)
 3. The other emission levels were are more than 20dB below the limits.

EUT: L575
Manufacturer:
Operating Condition: Data transmitter with PC by USB port
Test Site:
Operator:
Test Specification: L
Comment: AC 120V/60Hz



EUT: L575
Manufacturer:
Operating Condition: Data transmitter with PC by USB port
Test Site:
Operator:
Test Specification: N
Comment: AC 120V/60Hz



6. RADIATION DISTURBANCE TEST

6.1. Test Standard and Limit

6.1.1. Test Standard

FCC Part 15: Section 15.109

6.1.2. Test Limit

Table 7 Radiation Disturbance Test Limit for FCC (Class B)(9KHz-1GHz)

| Frequency (MHz) | Field Strength (microvolts/meter) | Measurement Distance (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 |
| 960~1000 | 500 | 3 |

Table 8 Radiation Disturbance Test Limit for FCC (Class B)(Above 1G)

| Frequency (MHz) | (dBuV/m) (at 3 meters) | |
|-----------------|------------------------|---------|
| | PEAK | AVERAGE |
| Above 1000 | 74 | 54 |

* The lower limit shall apply at the transition frequency.

* The test distance is 3m.

6.2. Test Procedure

The EUT is placed on a turntable, which is 0.8 meter above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set **3 meters** away from the receiving antenna, which is mounted on an antenna tower. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna is used as a receiving antenna. Both horizontal and vertical polarization of the antenna is set on test. Set RBW=100 kHz for $f < 1$ GHz; VBW \geq RBW; Detector function = peak; Set RBW = 1 MHz, VBW= 3MHz for $f > 1$ GHz for peak measurement.

6.3. Test Arrangement

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

6.4. Test Data

The emissions don't show in following result tables are more than 20dB below the limits, the test curves are shown in the next page.

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

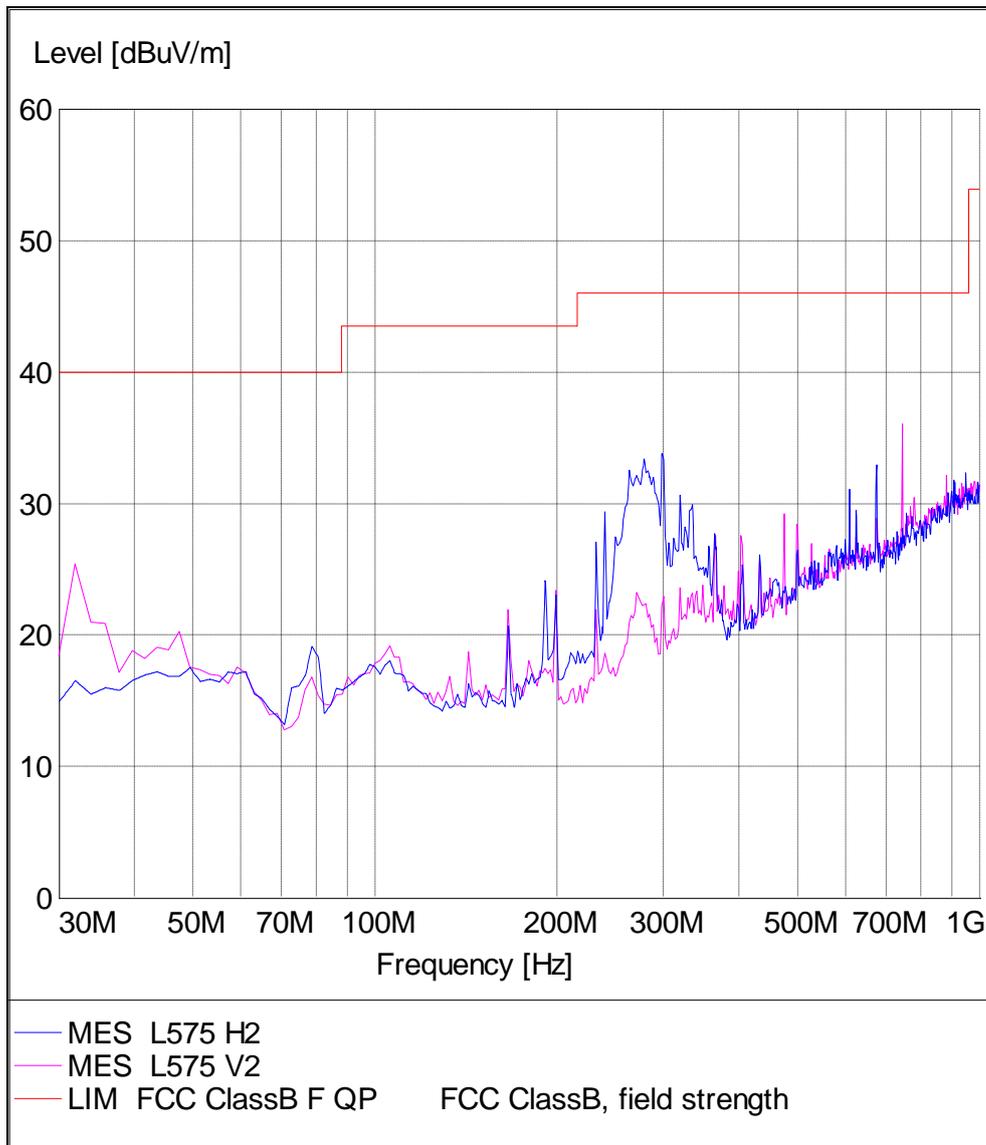
Table 9 Radiated Disturbance Test Data

| Frequency MHz | Cable Loss +pre amp(dB) | Antenna Factor(dB) | Readings(dBμV/m) | Level(dBμV/m) | Polarity(H/V) | Turntable Angle(deg) | Antenna Height(m) | Limits(dBμV/m) | Margin(dB) |
|---------------|-------------------------|--------------------|------------------|---------------|---------------|----------------------|-------------------|----------------|------------|
| 31.943 | 0.6 | 12.3 | 11.2 | 24.1 | V | 31.1 | 1.0 | 40.0 | 19.4 |
| 200.006 | 1.6 | 10.6 | 10.2 | 22.4 | V | 195 | 1.0 | 43.5 | 18.9 |
| 403.226 | 2.4 | 15.1 | 10.0 | 27.5 | V | 343 | 1.0 | 46.0 | 16.6 |
| 500.000 | 2.7 | 16.6 | 9.0 | 28.3 | V | 75 | 1.0 | 46.0 | 15.6 |
| 745.350 | 3.5 | 18.8 | 13.5 | 35.8 | V | 340 | 1.0 | 46.0 | 15.3 |
| 475.000 | 2.6 | 15.6 | 11.0 | 29.2 | V | 311 | 1.0 | 46.0 | 15.4 |
| 192.002 | 1.6 | 10.6 | 11.9 | 24.1 | H | 33 | 2.0 | 43.5 | 19.1 |
| 232.164 | 1.7 | 11.2 | 14.2 | 27.1 | H | 45 | 2.0 | 46.0 | 20.3 |
| 240.002 | 1.9 | 12.1 | 15.4 | 29.4 | H | 26 | 1.0 | 46.0 | 24.2 |
| 278.817 | 1.9 | 12.1 | 16.4 | 30.4 | H | 355 | 1.0 | 46.0 | 23.7 |
| 300.200 | 2.1 | 13.1 | 15.5 | 30.7 | H | 77 | 1.0 | 46.0 | 21.4 |
| 675.370 | 3.2 | 18.5 | 8.9 | 30.6 | H | 89 | 1.0 | 46.0 | 25.3 |
| PK | | | | | | | | | |
| 1320.641 | -40.8 | 24.3 | 55.3 | 38.8 | H | 345 | 1.0 | 74 | 35.2 |
| 1480.961 | -40.8 | 25.1 | 53.1 | 37.4 | H | 360 | 1.0 | 74 | 36.6 |
| 1661.322 | -40.6 | 26.7 | 52.5 | 38.6 | H | 15 | 1.0 | 74 | 35.4 |
| 2520.344 | -40.1 | 28.6 | 51.5 | 40.0 | H | 45 | 1.0 | 74 | 34.0 |
| 3785.573 | -39.2 | 32.0 | 49.0 | 41.8 | H | 13 | 1.0 | 74 | 32.2 |
| 4867.735 | -39.3 | 34.0 | 47.6 | 42.3 | H | 90 | 1.0 | 74 | 31.7 |
| 1280.560 | -40.8 | 24.3 | 54.7 | 38.2 | V | 346 | 1.0 | 74 | 35.8 |
| 1501.002 | -40.8 | 25.1 | 52.5 | 36.8 | V | 118 | 1.0 | 74 | 37.2 |
| 1551.102 | -40.7 | 25.1 | 53.3 | 37.7 | V | 356 | 1.0 | 74 | 36.3 |
| 2362.725 | -40.3 | 28.3 | 51.5 | 39.5 | V | 296 | 1.0 | 74 | 34.5 |
| 3004.008 | -39.4 | 30.4 | 49.6 | 40.6 | V | 115 | 1.0 | 74 | 33.4 |
| 4176.352 | -39.3 | 32.9 | 48.1 | 41.7 | V | 43 | 1.0 | 74 | 32.3 |
| AV | | | | | | | | | |
| 1320.641 | -40.8 | 24.3 | 40.6 | 24.1 | H | 16 | 1.0 | 54 | 29.9 |
| 1480.961 | -40.8 | 25.1 | 40.7 | 25.0 | H | 306 | 1.0 | 54 | 29.0 |
| 1661.322 | -40.6 | 26.7 | 38.3 | 24.4 | H | 295 | 1.0 | 54 | 29.6 |
| 2520.344 | -40.1 | 28.6 | 35.8 | 24.3 | H | 178 | 1.0 | 54 | 29.7 |
| 3785.573 | -39.2 | 32.0 | 33.1 | 25.9 | H | 196 | 1.0 | 54 | 28.1 |
| 4867.735 | -39.3 | 34.0 | 32.0 | 26.7 | H | 223 | 1.0 | 54 | 27.3 |
| 1280.560 | -40.8 | 24.3 | 41.0 | 24.5 | V | 346 | 1.0 | 54 | 29.5 |
| 1501.002 | -40.8 | 25.1 | 39.3 | 23.6 | V | 118 | 1.0 | 54 | 30.4 |
| 1551.102 | -40.7 | 25.1 | 39.9 | 24.3 | V | 356 | 1.0 | 54 | 29.7 |
| 2362.725 | -40.3 | 28.3 | 37.4 | 25.4 | V | 296 | 1.0 | 54 | 28.6 |
| 3004.008 | -39.4 | 30.4 | 35.7 | 26.7 | V | 115 | 1.0 | 54 | 27.3 |
| 4176.352 | -39.3 | 32.9 | 33.8 | 27.4 | V | 43 | 1.0 | 54 | 26.6 |

1. Emission level(dBuV)=Read Value(dBuV/m) + Antenna Factor(dB)+ Cable Loss +pre amp(dB)

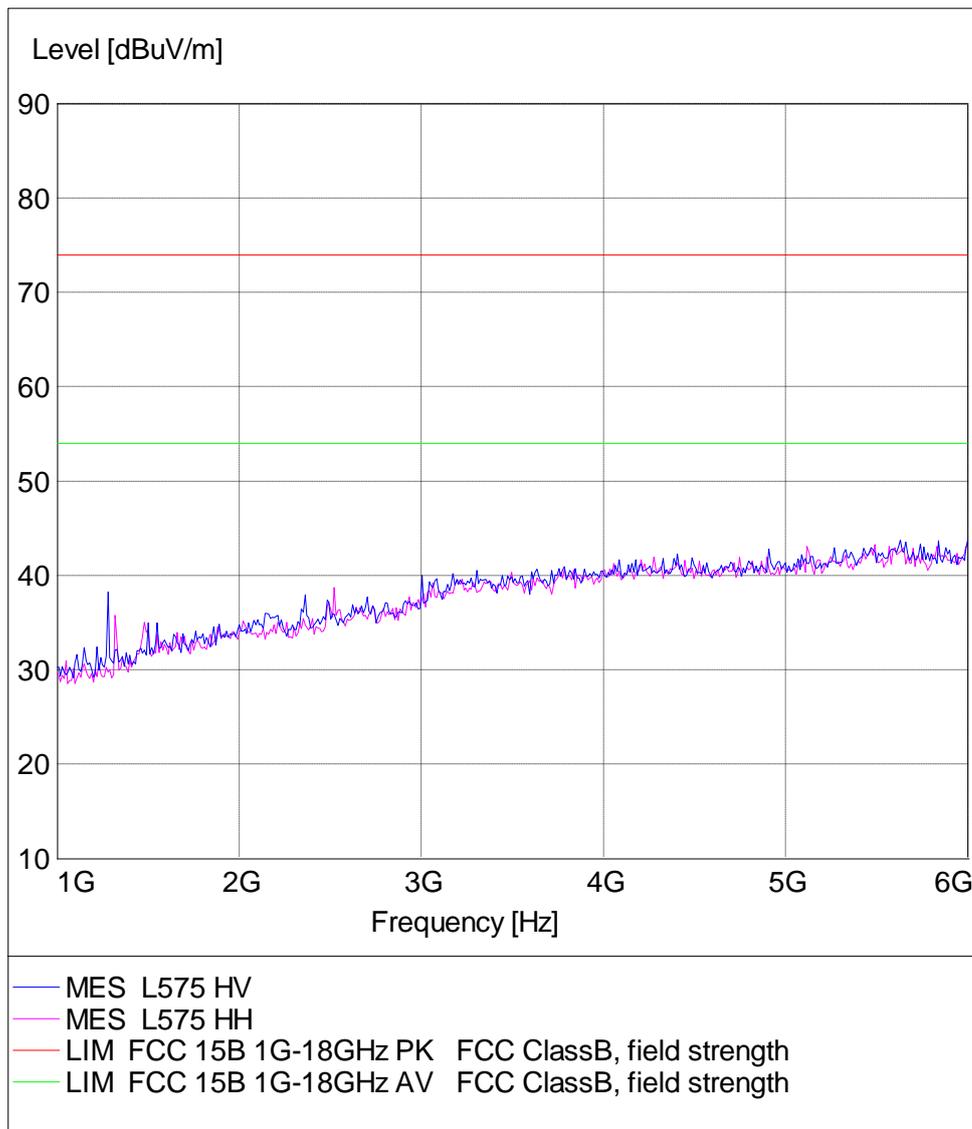
Radiated Emission

EUT Name: L575
Operating Condition: Data transmitter with PC by USB Port
Test site: SMQ NETC EMC Lab.3m Chamber
Antenna Position: Vertical & Horizontal
Comment: AC 120V60Hz



Radiated Emission

EUT Name: L575
Operating Condition: Data transmitter with PC by USB Port
Test site: SMQ NETC EMC Lab.3m Chamber
Antenna Position: Vertical & Horizontal
Comment: AC 120V60Hz



Radiated Emission

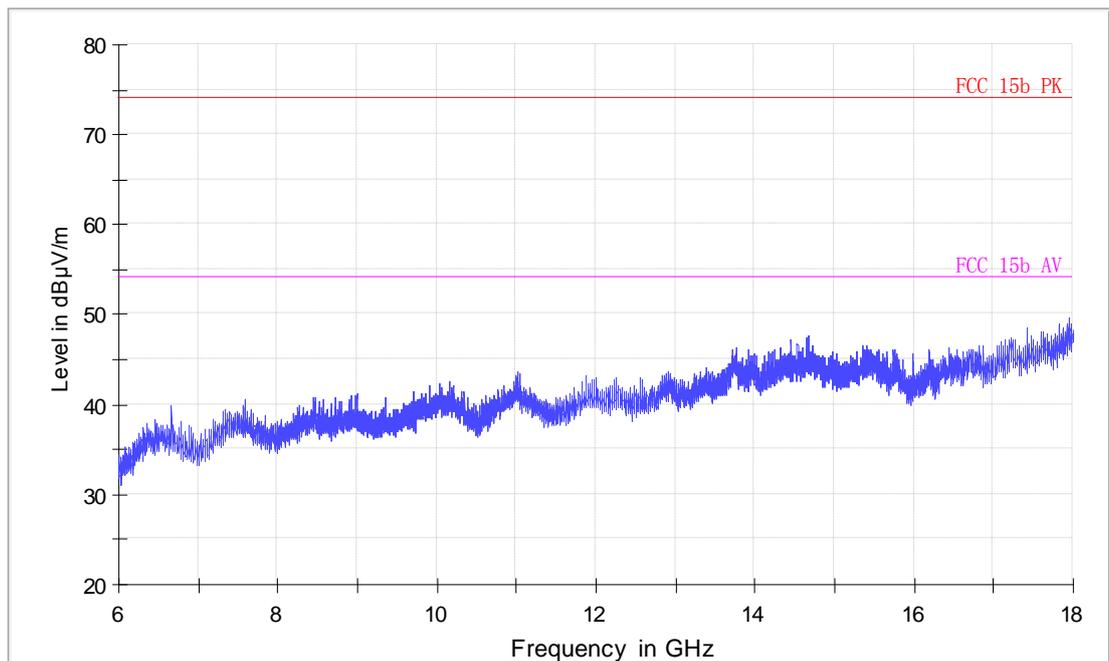
EUT Information

EUT Model name: L575
Operator Mode: Data transmitter with PC by USB port
Comment:

Common Information

Test Description: SMQ NETC EMC Lab.3m Chamber
Customer
Antenna Position: Horizontal
Operator Name:
Comment1: AC 120V/60Hz
Comment2:

Copy (2) of FCC Electric Field Strength 1-18GHz operate on 2.4GHz



Radiated Emission

EUT Information

EUT Model name: L575
Operator Mode: Data transmitter with PC by USB port
Comment:

Common Information

Test Description: SMQ NETC EMC Lab.3m Chamber
Customer
Antenna Position: Vertical
Operator Name:
Comment1: AC 120V/60Hz
Comment2:

Copy (2) of FCC Electric Field Strength 1-18GHz operate on 2.4GHz

