# EMC TEST REPORT



Report No.: 17070388-FCC-E Supersede Report No: N/A

| Applicant BLU Products, Inc.                    |  |             |  |
|---|--|-------------|--|
| Product Name                                    | Mobile Phone   |             |  |
| Model No.                                       | R2   |             |  |
| Serial No.                                      | N/A  |             |  |
| Test Standard                                   | FCC Part 15 Subpart B Class B:2016, ANSI C63.4: 2014 |             |  |
| Test Date                                       | May 27 to June 19, 2017                              |             |  |
| Issue Date                                      | June 20, 2017  |             |  |
| Test Result                                     | Pass Fail  |             |  |
| Equipment complied with the specification       |  |             |  |
| Equipment did not comply with the specification |  |             |  |
| mas. He   |  | David Huang |  |
| Evans He  |  | David Huang |  |
| Test Engineer                                   |  | Checked By  |  |

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Test result presented in this test report is applicable to the tested sample only

#### Issued by:

#### SIEMIC (SHENZHEN-CHINA) LABORATORIES

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# **Laboratories Introduction**

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## **Accreditations for Conformity Assessment**

| Country/Region | Scope                              |
|----------------|------------------------------------|
| USA            | EMC, RF/Wireless, SAR, Telecom     |
| Canada         | EMC, RF/Wireless, SAR, Telecom     |
| Taiwan         | EMC, RF, Telecom, SAR, Safety      |
| Hong Kong      | RF/Wireless, SAR, Telecom          |
| Australia      | EMC, RF, Telecom, SAR, Safety      |
| Korea          | EMI, EMS, RF, SAR, Telecom, Safety |
| Japan          | EMI, RF/Wireless, SAR, Telecom     |
| Singapore      | EMC, RF, SAR, Telecom              |
| Europe         | EMC, RF, SAR, Telecom, Safety      |



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# 1. Report Revision History

| Report No.     | Report Version | Description | Issue Date    |
|----------------|----------------|-------------|---------------|
| 17070388-FCC-E | NONE           | Original    | June 20, 2017 |
|                |                |             |               |
|                |                |             |               |
|                |                |             |               |
|                |                |             |               |
|                |                |             |               |
|                |                |             |               |

# 2. Customer information

| Applicant Name   | BLU Products, Inc.                     |  |
|------------------|--|--|
| Applicant Add    | 10814 NW 33rd St # 100 Doral, FL 33172 |  |
| Manufacturer     | BLU Products, Inc.                     |  |
| Manufacturer Add | 10814 NW 33rd St # 100 Doral, FL 33172 |  |

# 3. Test site information

| Lab performing tests | SIEMIC (Shenzhen-China) LABORATORIES                                    |  |
|----------------------|---|--|
|                      | Zone A, Floor 1, Building 2 Wan Ye Long Technology Park                 |  |
| Lab Address          | South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China |  |
|                      | 518108  |  |
| FCC Test Site No.    | 718246  |  |
| IC Test Site No.     | 4842E-1   |  |
| Test Software of     | Radiated Emission Program-To Shenzhen v2.0                              |  |
| Radiated Emission    |   |  |
| Test Software of     | EZ-EMC(ver.lcp-03A1)  |  |
| Conducted Emission   |   |  |



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## 4. Equipment under Test (EUT) Information

| Description of EUT: | Mobile Phone |
|---------------------|--------------|
|                     |              |

R2 Main Model:

Serial Model: N/A

> GSM850: -2.8dBi PCS1900: -2.3dBi

UMTS-FDD Band V: -2.5dBi UMTS-FDD Band IV: -2.5dBi UMTS-FDD Band II: -2.5dBi

Antenna Gain:

LTE Band VII: -3.0dBi

WIFI: -2.7dBi

Bluetooth/BLE: -2.7dBi

GPS: -2.9dBi

Antenna Type: PIFA antenna

Adapter:

Model: US-WT-1500

Input: AC100-240V~50/60Hz,0.3A

Output: DC 5V,1.5A

Input Power: Battery:

Model: C716041300P

Spec: 3.8V,3000mAh,11.4Wh

Input: 5.0V,1.5A

**Equipment Category: JBP** 

> GSM / GPRS: GMSK EGPRS: GMSK,8PSK UMTS-FDD: QPSK

LTE Band: QPSK, 16QAM

Type of Modulation: 802.11b/g/n: DSSS, OFDM

Bluetooth: GFSK,  $\pi$  /4DQPSK, 8DPSK

**BLE: GFSK GPS:BPSK** 



RF Operating Frequency (ies):

Number of Channels:

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GSM850 TX: 824.2 ~ 848.8 MHz; RX: 869.2 ~ 893.8 MHz

PCS1900 TX: 1850.2 ~ 1909.8 MHz; RX: 1930.2 ~ 1989.8 MHz

UMTS-FDD Band V TX: 826.4 ~ 846.6 MHz; RX: 871.4 ~ 891.6 MHz

UMTS-FDD Band IV TX:1712.4 ~ 1752.6 MHz:

RX: 2112.4 ~ 2152.6 MHz

UMTS-FDD Band II TX:1852.4 ~ 1907.6 MHz;

RX: 1932.4 ~ 1987.6 MHz LTE Band VII TX: 2502.5 ~ 2567.5 MHz; RX: 2622.5 ~ 2687.5 MHz

WIFI: 802.11b/g/n(20M): 2412-2462 MHz WIFI: 802.11n(40M): 2422-2452 MHz

Bluetooth& BLE: 2402-2480 MHz

GPS: 1575.42 MHz

GSM 850: 124CH PCS1900: 299CH

UMTS-FDD Band V: 102CH UMTS-FDD Band IV: 202CH UMTS-FDD Band II: 277CH

WIFI:802.11b/g/n(20M): 11CH

WIFI:802.11n(40M): 7CH

Bluetooth: 79CH

BLE: 40CH GPS:1CH

Port: USB Port, Earphone Port

Trade Name: **BLU** 

FCC ID: YHLBLUR2

GPRS/ EGPRS Multi-slot class 8/10/12

Date EUT received: May 26, 2017

Test Date(s): May 27 to June 19, 2017



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# 5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

| FCC Rules                 | Description of Test               | Result     |
|---------------------------|-----------------------------------|------------|
| §15.107; ANSI C63.4: 2014 | AC Power Line Conducted Emissions | Compliance |
| §15.109; ANSI C63.4: 2014 | Radiated Emissions                | Compliance |



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# **Measurement Uncertainty**

| Parameter                         | Uncertainty |  |
|-----------------------------------|-------------|--|
| AC Power Line Conducted Emissions | ±3.11dB     |  |
| (150kHz~30MHz)                    |             |  |
| Radiated Emission(30MHz~1GHz)     | ±5.12dB     |  |
| Radiated Emission(1GHz~6GHz)      | ±5.34dB     |  |



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# 6. Measurements, Examination And Derived Results

# 6.1 AC Power Line Conducted Emissions

| Temperature          | 22 °C         |  |
|----------------------|---------------|--|
| Relative Humidity    | 51%           |  |
| Atmospheric Pressure | 1009mbar      |  |
| Test date :          | June 09, 2017 |  |
| Tested By :          | Evans He      |  |

#### Requirement(s):

| Spec             | Item   | Requirement App  |         | Applicable |  |
|------------------|--|--|---------|------------|--|
| 47CFR§15.<br>107 |  | For Low-power radio-frequency devices 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, as measured using a 50 [mu] H/50 ohms line impedance stabilization network (LISN). The lower limit applies at the boundary between the frequencies ranges. |         | <b>\</b>   |  |
| 107              |  | Frequency ranges   | Limit ( |            |  |
|                  |  | (MHz)  | QP      | Average    |  |
|                  |  | 0.15 ~ 0.5   | 66 – 56 | 56 – 46    |  |
|                  |  | 0.5 ~ 5  | 56      | 46         |  |
|                  |  | 5 ~ 30   | 60      | 50         |  |
| Test Setup       | Vertical Ground Reference Plane  EUT  Horizontal Ground Reference Plane  |  |         |            |  |
|                  | Note: 1.Support units were connected to second LISN.  2.Both of LISNs (AMN) are 80cm from EUT and at least 80cm from other units and other metal planes support units.   |  |         |            |  |
| Procedure        | <ol> <li>The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m x 1m x 0.8m high, non-metallic table.</li> <li>The power supply for the EUT was fed through a 50Ω /50mH EUT LISN, connected to filtered mains.</li> </ol> |  |         |            |  |



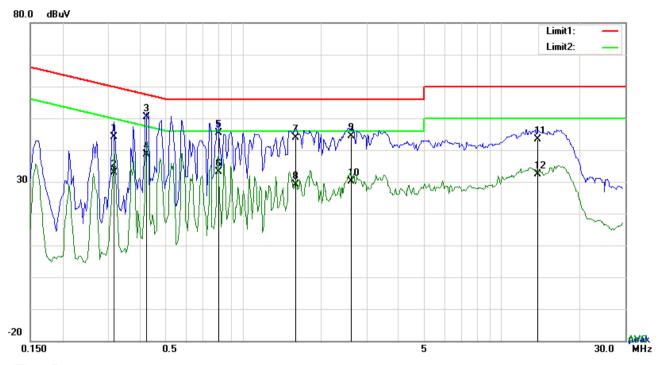
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|           | 3. The RF OUT of the EUT LISN was connected to the EMI test receiver via a low-loss     |
|-----------|---|
|           | coaxial cable.  |
|           | 4. All other supporting equipment were powered separately from another main supply.     |
|           | 5. The EUT was switched on and allowed to warm up to its normal operating condition.    |
|           | 6. A scan was made on the NEUTRAL line (for AC mains) or Earth line (for DC power)      |
|           | over the required frequency range using an EMI test receiver.                           |
|           | 7. High peaks, relative to the limit line, The EMI test receiver was then tuned to the  |
|           | selected frequencies and the necessary measurements made with a receiver bandwidth      |
|           | setting of 10 kHz.  |
|           | 8. Step 7 was then repeated for the LIVE line (for AC mains) or DC line (for DC power). |
| Remark    |   |
| INGILIAIN |   |
| Result    | Pass Fail   |
|           |   |
| _         | _   |

| Test Data | Yes             | □ <sub>N/A</sub> |
|-----------|-----------------|------------------|
| Test Plot | Yes (See below) | □ <sub>N/A</sub> |



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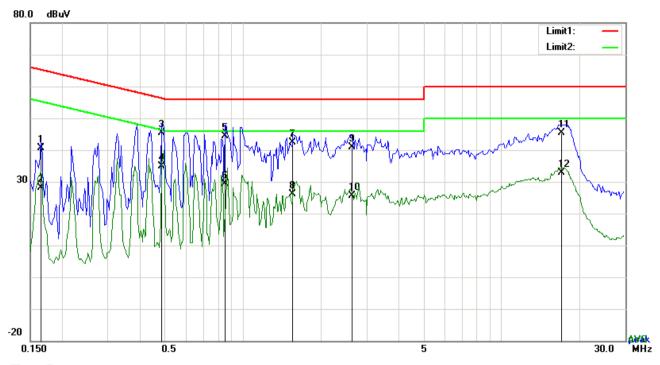
#### Test Data

## Phase Line Plot at 120Vac, 60Hz

| No. | P/L | Frequency | Reading | Detector | Corrected | Result | Limit  | Margin |
|-----|-----|-----------|---------|----------|-----------|--------|--------|--------|
|     |     | (MHz)     | (dBuV)  |          | (dB)      | (dBuV) | (dBuV) | (dB)   |
| 1   | L1  | 0.3177    | 34.18   | QP       | 10.03     | 44.21  | 59.77  | -15.56 |
| 2   | L1  | 0.3177    | 22.96   | AVG      | 10.03     | 32.99  | 49.77  | -16.78 |
| 3   | L1  | 0.4230    | 40.32   | QP       | 10.03     | 50.35  | 57.39  | -7.04  |
| 4   | L1  | 0.4230    | 28.64   | AVG      | 10.03     | 38.67  | 47.39  | -8.72  |
| 5   | L1  | 0.8013    | 35.34   | QP       | 10.03     | 45.37  | 56.00  | -10.63 |
| 6   | L1  | 0.8013    | 23.03   | AVG      | 10.03     | 33.06  | 46.00  | -12.94 |
| 7   | L1  | 1.6008    | 33.73   | QP       | 10.04     | 43.77  | 56.00  | -12.23 |
| 8   | L1  | 1.6008    | 19.06   | AVG      | 10.04     | 29.10  | 46.00  | -16.90 |
| 9   | L1  | 2.6148    | 34.21   | QP       | 10.05     | 44.26  | 56.00  | -11.74 |
| 10  | L1  | 2.6148    | 20.07   | AVG      | 10.05     | 30.12  | 46.00  | -15.88 |
| 11  | L1  | 13.8069   | 33.11   | QP       | 10.21     | 43.32  | 60.00  | -16.68 |
| 12  | L1  | 13.8069   | 22.06   | AVG      | 10.21     | 32.27  | 50.00  | -17.73 |



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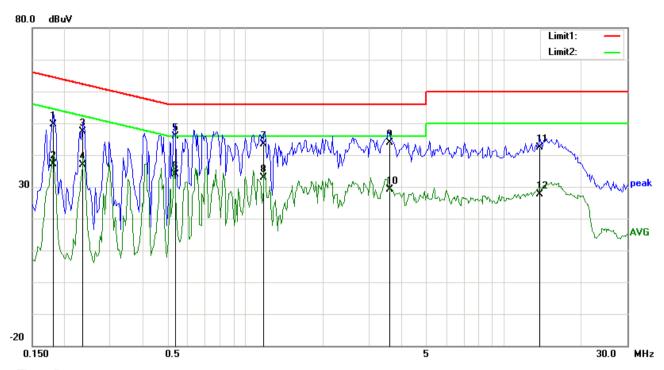
Test Data

## Phase Neutral Plot at 120Vac, 60Hz

| No. | P/L | Frequency | Reading | Detector | Corrected | Result | Limit  | Margin |
|-----|-----|-----------|---------|----------|-----------|--------|--------|--------|
|     |     | (MHz)     | (dBuV)  |          | (dB}      | (dBuV) | (dBuV) | (dB)   |
| 1   | N   | 0.1656    | 30.72   | QP       | 10.02     | 40.74  | 65.18  | -24.44 |
| 2   | N   | 0.1656    | 18.23   | AVG      | 10.02     | 28.25  | 55.18  | -26.93 |
| 3   | N   | 0.4815    | 35.48   | QP       | 10.02     | 45.50  | 56.31  | -10.81 |
| 4   | N   | 0.4815    | 24.90   | AVG      | 10.02     | 34.92  | 46.31  | -11.39 |
| 5   | N   | 0.8520    | 34.39   | QP       | 10.03     | 44.42  | 56.00  | -11.58 |
| 6   | N   | 0.8520    | 19.26   | AVG      | 10.03     | 29.29  | 46.00  | -16.71 |
| 7   | N   | 1.5579    | 32.30   | QP       | 10.04     | 42.34  | 56.00  | -13.66 |
| 8   | N   | 1.5579    | 15.98   | AVG      | 10.04     | 26.02  | 46.00  | -19.98 |
| 9   | N   | 2.6343    | 30.87   | QP       | 10.05     | 40.92  | 56.00  | -15.08 |
| 10  | N   | 2.6343    | 15.52   | AVG      | 10.05     | 25.57  | 46.00  | -20.43 |
| 11  | N   | 17.0361   | 35.20   | QP       | 10.22     | 45.42  | 60.00  | -14.58 |
| 12  | Ν   | 17.0361   | 22.69   | AVG      | 10.22     | 32.91  | 50.00  | -17.09 |



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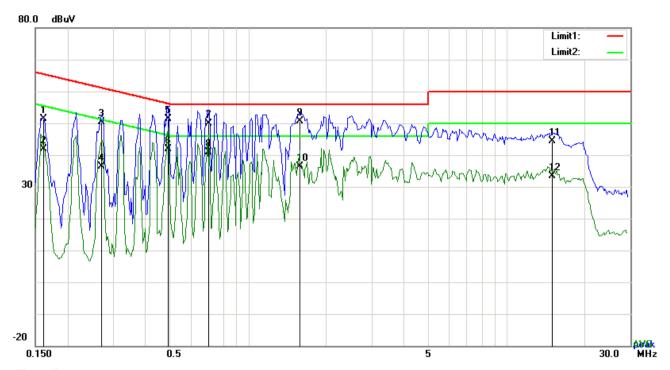
Test Data

## Phase Line Plot at 240Vac, 60Hz

| No. | P/L | Frequency | Reading | Detector | Corrected | Result | Limit  | Margin |
|-----|-----|-----------|---------|----------|-----------|--------|--------|--------|
|     |     | (MHz)     | (dBuV)  |          | (dB)      | (dBuV) | (dBuV) | (dB)   |
| 1   | L1  | 0.1812    | 39.55   | QP       | 10.03     | 49.58  | 64.43  | -14.85 |
| 2   | L1  | 0.1812    | 27.17   | AVG      | 10.03     | 37.20  | 54.43  | -17.23 |
| 3   | L1  | 0.2358    | 37.30   | QP       | 10.03     | 47.33  | 62.24  | -14.91 |
| 4   | L1  | 0.2358    | 26.82   | AVG      | 10.03     | 36.85  | 52.24  | -15.39 |
| 5   | L1  | 0.5361    | 35.82   | QP       | 10.03     | 45.85  | 56.00  | -10.15 |
| 6   | L1  | 0.5361    | 23.90   | AVG      | 10.03     | 33.93  | 46.00  | -12.07 |
| 7   | L1  | 1.1796    | 33.42   | QP       | 10.03     | 43.45  | 56.00  | -12.55 |
| 8   | L1  | 1.1796    | 22.76   | AVG      | 10.03     | 32.79  | 46.00  | -13.21 |
| 9   | L1  | 3.6318    | 33.72   | QP       | 10.06     | 43.78  | 56.00  | -12.22 |
| 10  | L1  | 3.6318    | 19.17   | AVG      | 10.06     | 29.23  | 46.00  | -16.77 |
| 11  | L1  | 13.7991   | 32.23   | QP       | 10.21     | 42.44  | 60.00  | -17.56 |
| 12  | L1  | 13.7991   | 17.47   | AVG      | 10.21     | 27.68  | 50.00  | -22.32 |



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#### Test Data

## Phase Neutral Plot at 240Vac, 60Hz

| No. | P/L | Frequency | Reading | Detector | Corrected | Result | Limit  | Margin |
|-----|-----|-----------|---------|----------|-----------|--------|--------|--------|
|     |     | (MHz)     | (dBuV)  |          | (dB)      | (dBuV) | (dBuV) | (dB)   |
| 1   | N   | 0.1617    | 41.40   | QP       | 10.02     | 51.42  | 65.38  | -13.96 |
| 2   | Ν   | 0.1617    | 31.92   | AVG      | 10.02     | 41.94  | 55.38  | -13.44 |
| 3   | Ν   | 0.2709    | 40.47   | QP       | 10.02     | 50.49  | 61.09  | -10.60 |
| 4   | N   | 0.2709    | 26.42   | AVG      | 10.02     | 36.44  | 51.09  | -14.65 |
| 5   | N   | 0.4893    | 41.40   | QP       | 10.02     | 51.42  | 56.18  | -4.76  |
| 6   | N   | 0.4893    | 31.75   | AVG      | 10.02     | 41.77  | 46.18  | -4.41  |
| 7   | N   | 0.7038    | 39.87   | QP       | 10.02     | 49.89  | 56.00  | -6.11  |
| 8   | Ν   | 0.7038    | 30.85   | AVG      | 10.02     | 40.87  | 46.00  | -5.13  |
| 9   | Ν   | 1.5813    | 40.51   | QP       | 10.04     | 50.55  | 56.00  | -5.45  |
| 10  | N   | 1.5813    | 26.33   | AVG      | 10.04     | 36.37  | 46.00  | -9.63  |
| 11  | Ν   | 14.9730   | 34.29   | QP       | 10.20     | 44.49  | 60.00  | -15.51 |
| 12  | N   | 14.9730   | 23.09   | AVG      | 10.20     | 33.29  | 50.00  | -16.71 |



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# 6.2 Radiated Emissions

| Temperature          | 23 °C         |
|----------------------|---------------|
| Relative Humidity    | 56%           |
| Atmospheric Pressure | 1014mbar      |
| Test date :          | June 14, 2017 |
| Tested By :          | Evans He      |

#### Requirement(s):

| Spec  | Item  | Requirement   |  | Applicable  |
|---|---|---|--|-------------|
| 47CFR§15.<br>109(d)   | a)  | Except higher limit as specified else emissions from the low-power radio exceed the field strength levels spet the level of any unwanted emission the fundamental emission. The tight edges  Frequency range (MHz)  30 - 88  88 - 216  216 960  Above 960 | o-frequency devices shall not ocified in the following table and s shall not exceed the level of ter limit applies at the band  Field Strength (µV/m)  100  150  200 | <b>&gt;</b> |
| Test Setup  | Above 960  Ant. Tower  Support Units  Ground Plane  Test Receiver |   |  |             |
| Procedure  1. The EUT was switched on and allowed to warm up to its normal operating of the test was carried out at the selected frequency points obtained from the light characterization. Maximization of the emissions, was carried out by rotating changing the antenna polarization, and adjusting the antenna height in the formanner:  a. Vertical or horizontal polarization (whichever gave the higher emission) |   |   | ating the EUT,<br>the following  |             |



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|           |               | over a full rotation of the EUT) was chosen.                                     |
|-----------|---------------|--|
|           | b.            | The EUT was then rotated to the direction that gave the maximum                  |
|           |               | emission.  |
|           | C.            | Finally, the antenna height was adjusted to the height that gave the maximum     |
|           |               | emission.  |
|           | 3. The res    | solution bandwidth and video bandwidth of test receiver/spectrum analyzer is     |
|           | 120 kH        | z for Quasiy Peak detection at frequency below 1GHz.                             |
|           | 4. The res    | olution bandwidth of test receiver/spectrum analyzer is 1MHz and video           |
|           | bandwi        | dth is 3MHz with Peak detection for Peak measurement at frequency above          |
|           | 1GHz.         |  |
|           | The re        | esolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video     |
|           | bandw         | vidth with Peak detection for Average Measurement as below at frequency          |
|           | above         | 1GHz.  |
|           | ■ 1 kH        | Hz (Duty cycle < 98%) □ 10 Hz (Duty cycle > 98%)                                 |
|           | 5. Steps 2    | 2 and 3 were repeated for the next frequency point, until all selected frequency |
|           | points        | were measured.   |
| Remark    |               |  |
| Result    | Pass          | Fail   |
|           |               |  |
| Test Data | Yes           | N/A  |
| Test Plot | Yes (See belo | w) N/A   |



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400

600 700 1000.0 MHz

Test Mode : USB Mode

#### Below 1GHz



#### Test Data

30.000

60 70 80

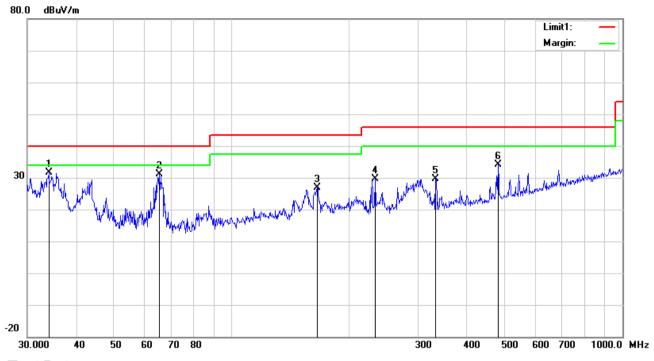
## Horizontal Polarity Plot @3m

| No. | P/L | Frequency | Reading  | Detector | Ant_F  | PA_G  | Cab_L | Result   | Limit    | Margin | Height | Degree |
|-----|-----|-----------|----------|----------|--------|-------|-------|----------|----------|--------|--------|--------|
|     |     | (MHz)     | (dBuV/m) |          | (dB/m) | (dB)  | (dB)  | (dBuV/m) | (dBuV/m) | (dB)   | (cm)   | ()     |
| 1   | Н   | 33.9174   | 34.44    | peak     | 18.38  | 22.26 | 0.73  | 31.29    | 40.00    | -8.71  | 100    | 192    |
| 2   | Н   | 43.6585   | 39.32    | peak     | 11.49  | 22.29 | 0.76  | 29.28    | 40.00    | -10.72 | 100    | 148    |
| 3   | Η   | 65.3432   | 40.80    | peak     | 7.57   | 22.39 | 0.89  | 26.87    | 40.00    | -13.13 | 200    | 308    |
| 4   | Н   | 232.5318  | 46.07    | peak     | 11.64  | 22.32 | 1.64  | 37.03    | 46.00    | -8.97  | 100    | 33     |
| 5   | Н   | 303.5437  | 44.23    | peak     | 13.67  | 22.28 | 1.81  | 37.43    | 46.00    | -8.57  | 100    | 259    |
| 6   | Н   | 480.5276  | 39.51    | peak     | 17.31  | 21.85 | 2.31  | 37.28    | 46.00    | -8.72  | 100    | 351    |



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## Below 1GHz



#### Test Data

## Vertical Polarity Plot @3m

| No. | P/L | Frequency | Reading  | Detector | Ant_F  | PA_G  | Cab_L | Result   | Limit    | Margin | Height | Degree |
|-----|-----|-----------|----------|----------|--------|-------|-------|----------|----------|--------|--------|--------|
|     |     | (MHz)     | (dBuV/m) |          | (dB/m) | (dB)  | (dB)  | (dBuV/m) | (dBuV/m) | (dB)   | (cm)   | ()     |
| 1   | ٧   | 34.0365   | 34.97    | peak     | 18.29  | 22.26 | 0.73  | 31.73    | 40.00    | -8.27  | 100    | 289    |
| 2   | V   | 65.3432   | 45.05    | peak     | 7.57   | 22.39 | 0.89  | 31.12    | 40.00    | -8.88  | 100    | 89     |
| 3   | ٧   | 165.4867  | 35.70    | peak     | 12.16  | 22.26 | 1.37  | 26.97    | 43.50    | -16.53 | 100    | 160    |
| 4   | V   | 232.5318  | 38.73    | peak     | 11.64  | 22.32 | 1.64  | 29.69    | 46.00    | -16.31 | 100    | 277    |
| 5   | ٧   | 332.5187  | 35.58    | peak     | 14.28  | 22.20 | 1.95  | 29.61    | 46.00    | -16.39 | 100    | 360    |
| 6   | V   | 480.5276  | 36.45    | peak     | 17.31  | 21.85 | 2.31  | 34.22    | 46.00    | -11.78 | 100    | 110    |



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#### Above 1GHz

| Frequency | Read_level | A : : 4b- | Height | Polarity | Level    | Factors | Limit    | Margin | Detector |
|-----------|------------|-----------|--------|----------|----------|---------|----------|--------|----------|
| (MHz)     | (dBµV/m)   | Azimuth   | (cm)   | (H/V)    | (dBµV/m) | (dB)    | (dBµV/m) | (dB)   | (PK/AV)  |
| 1012.621  | 68.62      | 113       | 100    | V        | 50.11    | -18.51  | 74       | -23.89 | PK       |
| 1515.413  | 74.82      | 72        | 100    | ٧        | 57.92    | -16.9   | 74       | -16.08 | PK       |
| 2594.039  | 72.03      | 241       | 100    | ٧        | 58.64    | -13.39  | 74       | -15.36 | PK       |
| 1194.09   | 68.56      | 165       | 100    | Н        | 50.65    | -17.91  | 74       | -23.35 | PK       |
| 1982.685  | 70.24      | 319       | 100    | Н        | 55.73    | -14.51  | 74       | -18.27 | PK       |
| 2924.911  | 70.71      | 98        | 100    | Н        | 58.06    | -12.65  | 74       | -15.94 | PK       |

Note1: The highest frequency of the EUT is 2480 MHz, so the testing has been conformed to 5\*2480 MHz=12,400 MHz.

Note2: The frequency that above 3GHz is mainly from the environment noise.

Note3: The AV measurement performed, more than 20dB below limit so AV test data was not presented.



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# Annex A. TEST INSTRUMENT

| Instrument                  | Model          | Serial#       | Cal Date   | Cal Due    | In use      |  |  |
|-----------------------------|----------------|---------------|------------|------------|-------------|--|--|
| AC Line Conducted Emissions |                |               |            |            |             |  |  |
| EMI test receiver           | ESCS30         | 8471241027    | 09/16/2016 | 09/15/2017 | ~           |  |  |
| Line Impedance              | LI-125A        | 191106        | 09/24/2016 | 09/23/2017 | <b>V</b>    |  |  |
| Stabilization Network       | LI-12JA        | 191100        | 09/24/2010 | 09/23/2017 | •           |  |  |
| Line Impedance              | LI-125A        | 191107        | 09/24/2016 | 09/23/2017 | <b>V</b>    |  |  |
| Stabilization Network       | LI-125A        | 191107        | 09/24/2010 | 09/23/2017 |             |  |  |
| LISN                        | ISN T800       | 34373         | 09/24/2016 | 09/23/2017 | <b>~</b>    |  |  |
| Transient Limiter           | LIT-153        | 531118        | 08/31/2016 | 08/30/2017 | <u>&lt;</u> |  |  |
| Radiated Emissions          |                |               |            |            |             |  |  |
| EMI test receiver           | ESL6           | 100262        | 09/16/2016 | 09/15/2017 | <u>&lt;</u> |  |  |
| OPT 010 AMPLIFIER           | 8447E          | 2727A02430    | 08/31/2016 | 08/30/2017 | <u>&lt;</u> |  |  |
| (0.1-1300MHz)               | 0441⊏          | 2121A02430    | 00/31/2010 | 06/30/2017 | 1           |  |  |
| Microwave Preamplifier      | 0440D          | 2000 4 02 402 | 03/23/2017 | 02/22/2010 | <u>&lt;</u> |  |  |
| (1 ~ 26.5GHz)               | 8449B          | 3008A02402    | 03/23/2017 | 03/22/2018 | 1           |  |  |
| Bilog Antenna               | JB6            | A110712       | 09/20/2016 | 09/19/2017 | <u>&lt;</u> |  |  |
| (30MHz~6GHz)                | JD0            | A110/12       | 09/20/2016 | 09/19/2017 | •           |  |  |
| Double Ridge Horn           | AH-118         | 71259         | 09/23/2016 | 09/22/2017 | <u>&lt;</u> |  |  |
| Antenna                     | <i>A</i> ∏-110 | 7 1239        | 09/23/2010 | 09/22/2017 | I*          |  |  |



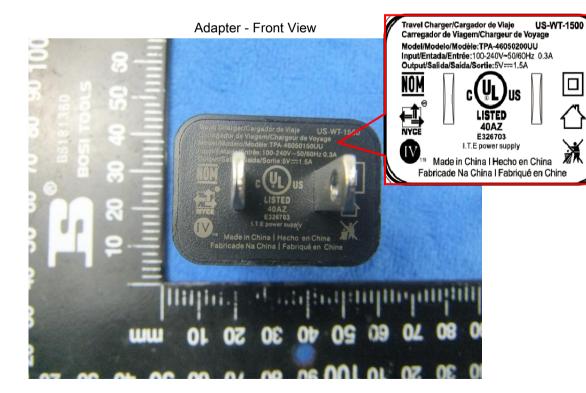
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## Annex B. EUT And Test Setup Photographs

## Annex B.i. Photograph: EUT External Photo









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**EUT - Front View** 



EUT - Rear View



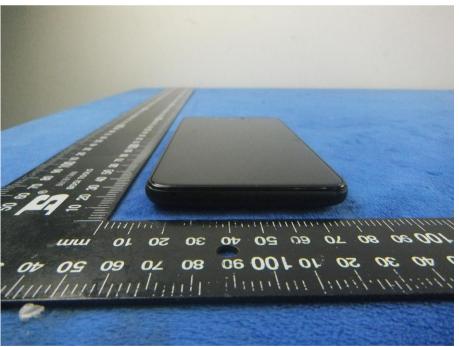


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EUT - Top View



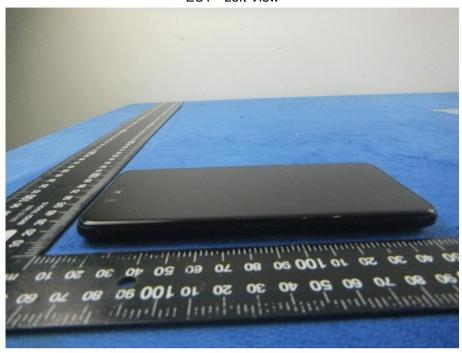
EUT - Bottom View



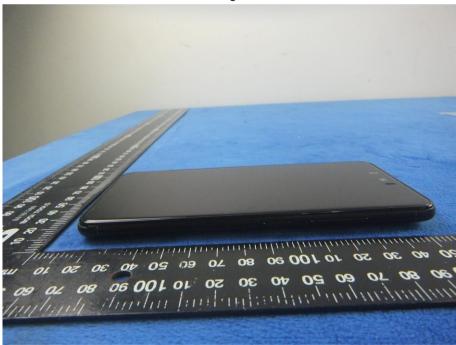


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EUT - Left View



EUT - Right View





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## Annex B.ii. Photograph: EUT Internal Photo

Cover Off - Top View 1



Cover Off - Top View 2



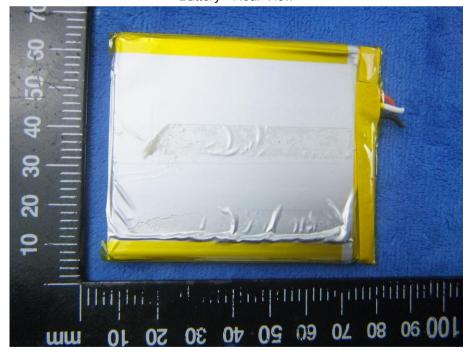


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Battery - Front View



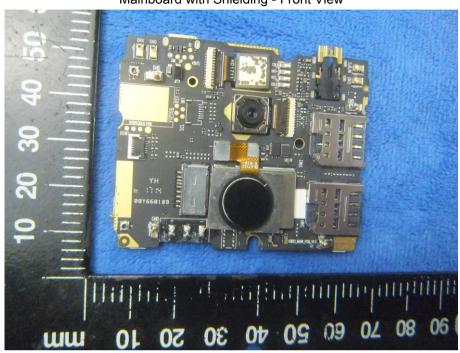
Battery - Rear View



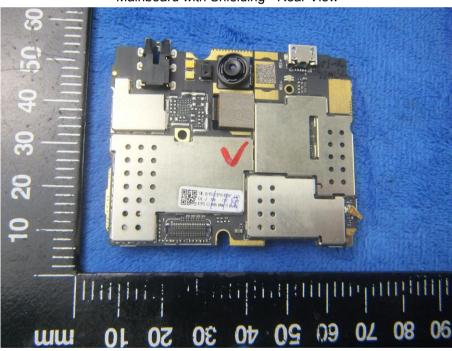


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Mainboard with Shielding - Front View



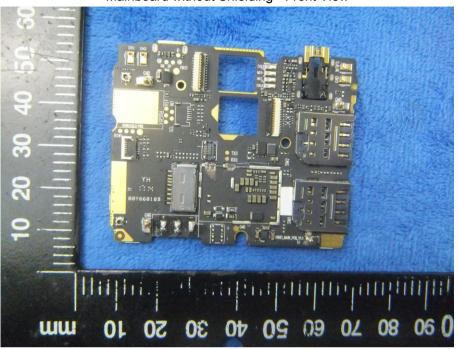
Mainboard with Shielding - Rear View



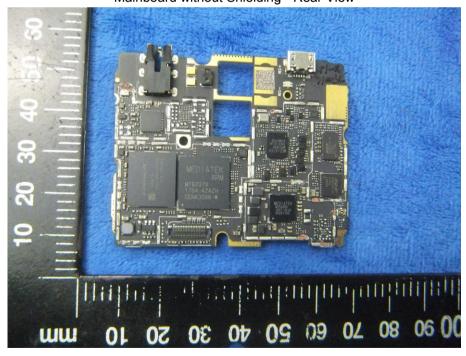


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Mainboard without Shielding - Front View



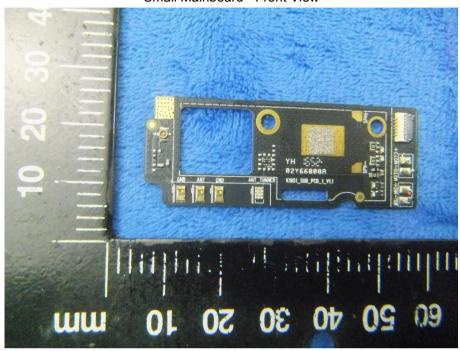
Mainboard without Shielding - Rear View



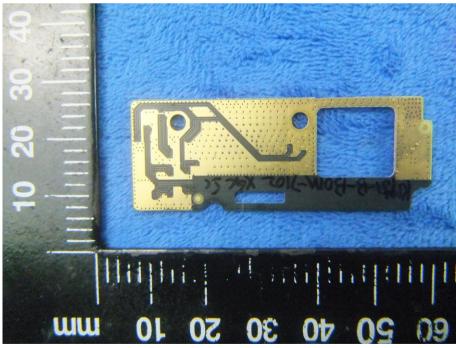


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#### Small Mainboard - Front View



Small Mainboard - Rear View



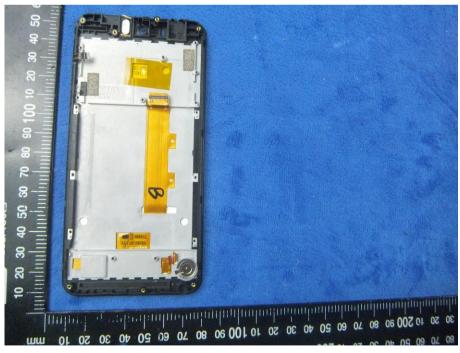


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LCD - Front View



LCD - Rear View



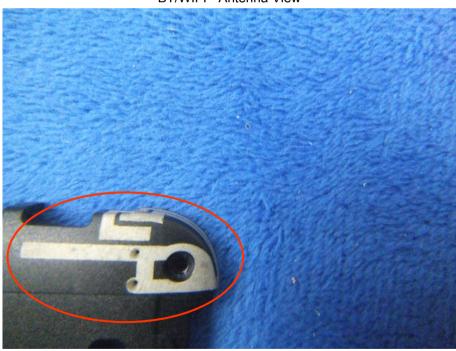


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#### GSM/PCS/UMTS - Antenna View



BT/WIFI - Antenna View





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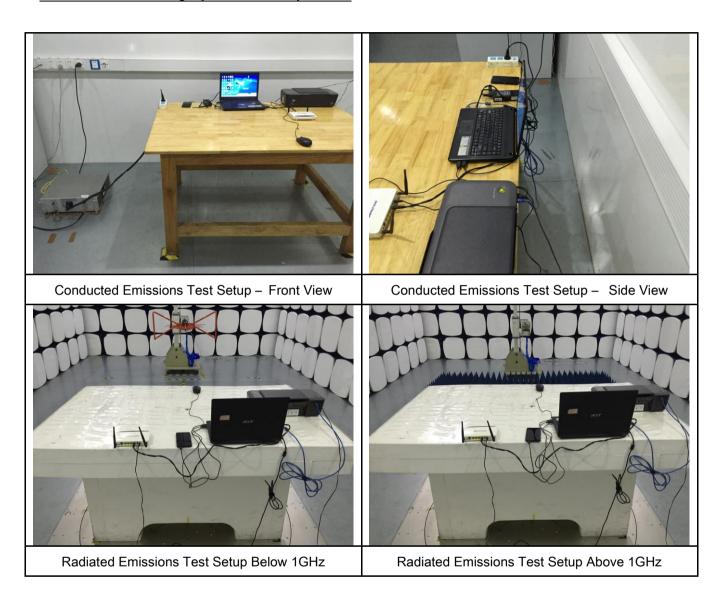
#### LTE - Antenna View





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## Annex B.iii. Photograph: Test Setup Photo

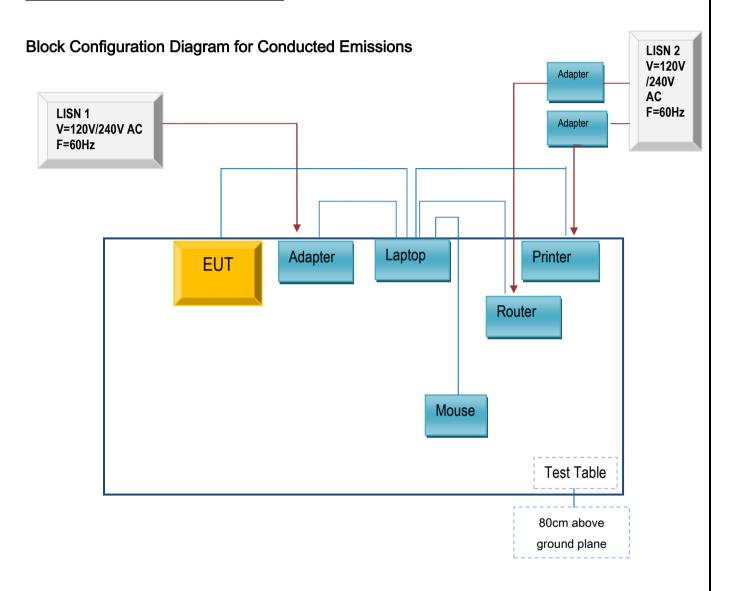




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## Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

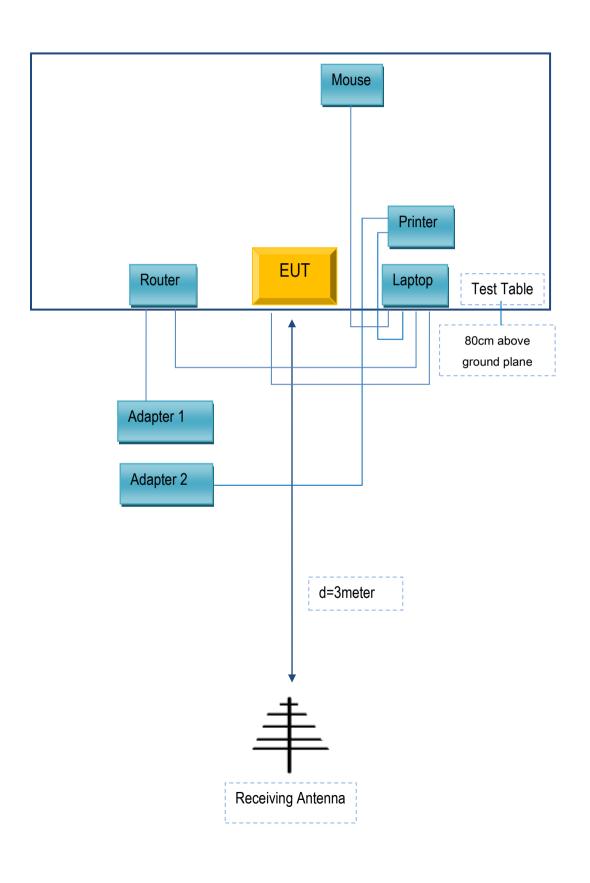
#### Annex C.ii. TEST SET UP BLOCK





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## **Block Configuration Diagram for Radiated Emissions**





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## Annex C. il. SUPPORTING EQUIPMENT DESCRIPTION

The following is a description of supporting equipment and details of cables used with the EUT.

## Supporting Equipment:

| Manufacturer | Equipment<br>Description | Model      | Serial No     |
|--------------|--------------------------|------------|---------------|
| Lenovo       | Laptop                   | E40        | LR-1EHRX      |
| GOLDWEB      | Router                   | R102       | 1202032094    |
| Lenovo       | AC Adapter               | 42T4416    | 21D9JU        |
| HP           | Printer                  | VCVRA-1003 | CN36M19JWX    |
| DELL         | Mouse                    | E100       | 912NMTUT41481 |
| BULL         | Socket                   | GN-403     | GN201203      |

## Supporting Cable:

| Cable type          | Shield Type  | Ferrite Core | Length | Serial No    |
|---------------------|--------------|--------------|--------|--------------|
| USB Cable           | Un-shielding | No           | 2m     | JX120051274  |
| USB Cable           | Un-shielding | No           | 2m     | CBA3000AH0C1 |
| RJ45 Cable          | Un-shielding | No           | 2m     | KX156327541  |
| Router Power cable  | Un-shielding | No           | 2m     | 13274630Z    |
| Printer Power cable | Un-shielding | No           | 2m     | 127581031    |
| Power Cable         | Un-shielding | No           | 0.8m   | GT211032     |



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# Annex D. User Manual / Block Diagram / Schematics / Partlist

Please see the attachment



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# Annex E. DECLARATION OF SIMILARITY

N/A