

EMC Measurement and Test Report

For

Vonino Electronics LTD.

Miramar Tower 10F- NO.1010, 132 Nathan Road, Tsim Sha Tsui,

Kowloon, Hong Kong

| | |
|--------------------------------------|---|
| Test Standards: | EN 55032:2012+AC:2013 EN 61000-3-2:2014 EN 61000-3-3:2013 <u>EN 55024:2010</u> |
| Product Description: | <u>Smart Phone</u> |
| Tested Model: | <u>JAX S</u> |
| Report No.: | <u>STR16108061E-7</u> |
| Tested Date: | <u>2016-10-13 to 2016-10-14</u> |
| Issued Date: | <u>2016-10-14</u> |
| Tested By: | <u>Iven Guo / Engineer</u> <i>Iven Guo</i> |
| Reviewed By: | <u>Silin Chen / EMC Manager</u> <i>Silin Chen</i> |
| Approved & Authorized By: | <u>Jandy So / PSQ Manager</u> <i>Jandy So</i> |
| Prepared By: | |

Shenzhen SEM.Test Technology Co., Ltd.
1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road,
Bao'an District, Shenzhen, P.R.C. (518101)
Tel.: +86-755-33663308 Fax.: +86-755-33663309 Website: www.semtest.com.cn

Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen SEM.Test Technology Co., Ltd.

TABLE OF CONTENTS

1. GENERAL INFORMATION.....4

1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT).....4

1.2 TEST STANDARDS.....5

1.3 TEST METHODOLOGY5

1.4 TEST FACILITY5

1.5 EUT SETUP AND OPERATION MODE6

1.6 PERFORMANCE CRITERIA FOR EMS6

1.7 TEST EQUIPMENT LIST AND DETAILS7

2. SUMMARY OF TEST RESULTS8

3. CONDUCTED EMISSION.....9

3.1 MEASUREMENT UNCERTAINTY9

3.2 TEST PROCEDURE.....9

3.3 BASIC TEST SETUP BLOCK DIAGRAM.....9

3.4 ENVIRONMENTAL CONDITIONS10

3.5 SUMMARY OF TEST RESULTS/PLOTS10

3.6 CONDUCTED EMISSIONS TEST DATA.....10

4. RADIATED EMISSION13

4.1 MEASUREMENT UNCERTAINTY13

4.2 TEST PROCEDURE.....13

4.3 CORRECTED AMPLITUDE & MARGIN CALCULATION.....14

4.4 ENVIRONMENTAL CONDITIONS14

4.5 SUMMARY OF TEST RESULTS/PLOTS14

5. HARMONIC CURRENT EMISSIONS21

5.1 TEST PROCEDURE.....21

5.2 TEST STANDARDS21

5.3 HARMONIC CURRENT EMISSIONS TEST DATA.....21

6. VOLTAGE FLUCTUATION FLICKER.....22

6.1 TEST PROCEDURE.....22

6.2 TEST STANDARDS22

6.3 VOLTAGE FLUCTUATION AND FLICKER TEST DATA.....22

7. ELECTROSTATIC DISCHARGES (ESD)24

7.1 TEST PROCEDURE.....24

7.2 ELECTROSTATIC DISCHARGE IMMUNITY TEST DATA24

8. CONTINUOUS RADIATED DISTURBANCES (R/S)26

8.1 TEST PROCEDURE.....26

8.2 CONTINUOUS RADIATED DISTURBANCES TEST DATA.....26

9. ELECTRICAL FAST TRANSIENTS (EFT)27

9.1 TEST PROCEDURE.....27

9.2 ELECTRICAL FAST TRANSIENTS TEST DATA27

10. SURGES29

10.1 TEST PROCEDURE.....29

10.2 SURGE TEST DATA.....29

11. CONTINUOUS CONDUCTED DISTURBANCES (C/S).....30

11.1 TEST PROCEDURE.....30

11.2 CONTINUOUS CONDUCTED DISTURBANCES TEST DATA30

12. VOLTAGE DIPS AND INTERRUPTIONS.....31

12.1 TEST PROCEDURE.....31

12.2 VOLTAGE DIPS AND INTERRUPTIONS TEST DATA31

EXHIBIT 1 - PRODUCT LABELING32

PROPOSED CE LABEL FORMAT32

PROPOSED LABEL LOCATION ON EUT32



EXHIBIT 2 - EUT PHOTOGRAPHS.....33
EXHIBIT 3 - TEST SETUP PHOTOGRAPHS.....41

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Vonino Electronics LTD.
Address of applicant: Miramar Tower 10F- NO.1010, 132 Nathan Road, Tsim Sha Tsui, Kowloon, Hong Kong

Manufacturer: Shenzhen Fortuneship Technology Co., Ltd
Address of manufacturer: Room 701-716, 7th Floor, Kanghesheng Building, No.1 ChuangSheng Road, Nanshan District, Shenzhen, Guangdong, P. R. China

| General Description of EUT | |
|--|-------------|
| Product Name: | Smart Phone |
| Trade Name: | VONINO |
| Model No.: | JAX S |
| Adding Model(s): | / |
| <i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i> | |

| Technical Characteristics of EUT | |
|----------------------------------|--|
| Rated Voltage: | DC 3.8V Rechargeable Li-Polymer Battery |
| Rated Current: | 2000mAh |
| Rated Power: | / |
| Power Adapter: | VNA-V50JS |
| | Input: 100-240Vac, 50/60Hz, 0.2A; Output: 5.0V $\overline{=}$ 1.0A, L.P.S |
| Highest Internal Frequency: | 1.3GHz |
| Classification of Equipment: | Class B |

1.2 Test Standards

The following report is prepared on behalf of the Vonino Electronics LTD. in accordance with EN55032, Electromagnetic compatibility of multimedia equipment - Emission requirements, and EN61000-3-2, Electromagnetic compatibility (EMC) -- Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase), and EN61000-3-3, Electromagnetic compatibility (EMC) -- Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection, and EN55024, Immunity characteristics Limits and methods of measurement.

The objective of the manufacturer is to demonstrate compliance with the standards EN55032, EN61000-3-2, EN61000-3-3, and EN55024 for multimedia equipment.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product maybe which result in lowering the emission/immunity should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with the standards EN55032, EN61000-3-2, EN61000-3-3, and EN55024 for Information Technology Equipment, and all related testing and measurement techniques intentional standards.

1.4 Test Facility

FCC – Registration No.: 934118

Shenzhen SEM.Test Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the Registration is 934118.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

CNAS Registration No.: L4062

Shenzhen SEM.Test Technology Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C (518101).

1.5 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission/immunity level. The test modes were adapted according to the operation manual for use, more detailed description as follows:

Test Mode List:

| Test Mode | Description | Remark |
|-----------|--------------------|----------------------|
| TM1 | Charging & Playing | Connected to Adapter |
| TM2 | Downloading | Connected to PC |
| TM3 | Camera On | Camera |

EUT Cable List and Details

| Cable Description | Length (M) | Shielded/Unshielded | With Core/Without Core |
|-------------------|------------|---------------------|------------------------|
| USB Cable | 1.0 | Shielded | Without Ferrite |
| Earplug Cable | 1.4 | Unshielded | Without Ferrite |

Auxiliary Equipment List and Details

| Description | Manufacturer | Model | Serial Number |
|-------------|--------------|-------|---------------|
| Notebook | Lenovo | T410 | / |

Special Cable List and Details

| Cable Description | Length (M) | Shielded/Unshielded | With Core/Without Core |
|-------------------|------------|---------------------|------------------------|
| / | / | / | / |

1.6 Performance Criteria for EMS

All the test data has been collected, reduced, and analyzed within this report in accordance with Immunity requires the following as specific performance criteria:

- A. The apparatus shall continue to operate as intended during and after the test. The manufacturer specifies some minimum performance level. The performance level may be specified by the manufacturer as a permissible loss of performance.
- B. The apparatus shall continue to operate as intended after the test. This indicates that the EUT does not need to function at normal performance levels during the test, but must recover. Again some minimal performance is defined by the manufacture. No change in operating state or loss or data is permitted.
- C. Temporary loss of function is allowed. Operation of the EUT may stop as long as it is either automatically reset or can be manually restored by operation of the controls.

1.7 Test Equipment List and Details

| No. | Description | Manufacturer | Model | Serial No. | Cal Date | Due. Date |
|-----------|--------------------------|-----------------------|----------------|----------------|------------|------------|
| SEMT-1031 | Spectrum Analyzer | Rohde & Schwarz | FSP | 836079/035 | 2016-06-04 | 2017-06-03 |
| SEMT-1007 | EMI Test Receiver | Rohde & Schwarz | ESVB | 825471/005 | 2016-06-04 | 2017-06-03 |
| SEMT-1008 | Amplifier | Agilent | 8447F | 3113A06717 | 2016-06-04 | 2017-06-03 |
| SEMT-1043 | Amplifier | C&D | PAP-1G18 | 2002 | 2016-06-04 | 2017-06-03 |
| SEMT-1011 | Trilog Broadband Antenna | Schwarz beck | VULB9163 | 9163-333 | 2016-06-04 | 2017-06-03 |
| SEMT-1068 | Trilog Broadband Antenna | Schwarz beck | VULB9163(B) | 9163-333 | 2016-06-04 | 2017-06-03 |
| SEMT-1042 | Horn Antenna | ETS | 3117 | 00086197 | 2016-06-04 | 2017-06-03 |
| SEMT-1069 | Loop Antenna | Schwarz beck | FMZB 1516 | 9773 | 2016-06-04 | 2017-06-03 |
| SEMT-1001 | EMI Test Receiver | Rohde & Schwarz | ESPI | 101611 | 2016-06-04 | 2017-06-03 |
| SEMT-1066 | EMI Test Receiver | Rohde & Schwarz | ESPI | 101391 | 2016-06-04 | 2017-06-03 |
| SEMT-1002 | Pulse Limiter | Rohde & Schwarz | ESH3-Z2 | 100911 | 2016-06-04 | 2017-06-03 |
| SEMT-1003 | AC LISN | Schwarz beck | NSLK8126 | 8126-224 | 2016-06-04 | 2017-06-03 |
| SEMT-1060 | DC LISN | Schwarz beck | NNBM8126D | 279 | 2016-06-04 | 2017-06-03 |
| SEMT-1061 | DC LISN | Schwarz beck | NNBM8126D | 280 | 2016-06-04 | 2017-06-03 |
| SEMT-1085 | 8-WIRE LISN | Schwarz beck | 8158 | CAT3-8158-0059 | 2016-06-04 | 2017-06-03 |
| SEMT-1086 | 8-WIRE LISN | Schwarz beck | 8158 | CAT5-8158-0117 | 2016-06-04 | 2017-06-03 |
| SEMT-1005 | Clamp | Schwarz beck | MDS21 | 3809 | 2016-06-04 | 2017-06-03 |
| SEMT-1014 | Loop Antenna | EVERFINE | LLA-2 | 711001 | 2016-06-04 | 2017-06-03 |
| SEMT-1071 | VDH Test Head | AFJ | VDH 30 | SC022Z | 2016-06-04 | 2017-06-03 |
| SEMT-1056 | Digital Power Analyzer | California Instrument | CTS | 72831 | 2016-06-04 | 2017-06-03 |
| SEMT-1057 | Power Source | California Instrument | 5001IX-CTS-400 | 25965 | 2016-06-04 | 2017-06-03 |
| SEMT-1027 | ESD Generator | TESQ AG | NSG 437 | 161 | 2016-06-04 | 2017-06-03 |
| SEMT-1055 | Signal Generator | HP | 8648A | 3642U01277 | 2016-06-04 | 2017-06-03 |
| SEMT-1008 | Amplifier | Agilent | 8447F | 3113A06717 | 2016-06-04 | 2017-06-03 |
| SEMT-1067 | Amplifier | Agilent | 8447D | 2944A10179 | 2016-06-04 | 2017-06-03 |
| SEMT-1024 | Transient 2000 | EMC PARTNER | TRA2000 | 863 | 2016-06-04 | 2017-06-03 |
| SEMT-1045 | CS Immunity Tester | EMTEST | CWS500 | 0900-03 | 2016-06-04 | 2017-06-03 |

2. SUMMARY OF TEST RESULTS

| Standards | Description of Test Item | Result |
|-------------|---|-----------|
| EN55032 | Conducted Emission | Compliant |
| | Radiated Emission | Compliant |
| EN61000-3-2 | Harmonic Current Emission | Compliant |
| EN61000-3-3 | Voltage Fluctuation and Flicker | Compliant |
| EN55024 | Electrostatic Discharge Immunity in accordance with IEC 61000-4-2 | Compliant |
| | Continuous Radiated Disturbances Immunity in accordance with IEC 61000-4-3 | Compliant |
| | Electrical Fast Transient/Burst Immunity in accordance with IEC 61000-4-4 | Compliant |
| | Surges Immunity in accordance with IEC 61000-4-5 | Compliant |
| | Continuous Conducted Disturbances Immunity in accordance with IEC 61000-4-6 | Compliant |
| | Power-frequency Magnetic Fields Immunity in accordance with IEC 61000-4-8 | N/A |
| | Voltage Dips/Interruptions Immunity in accordance with IEC 61000-4-11 | Compliant |

N/A: not applicable

3. Conducted Emission

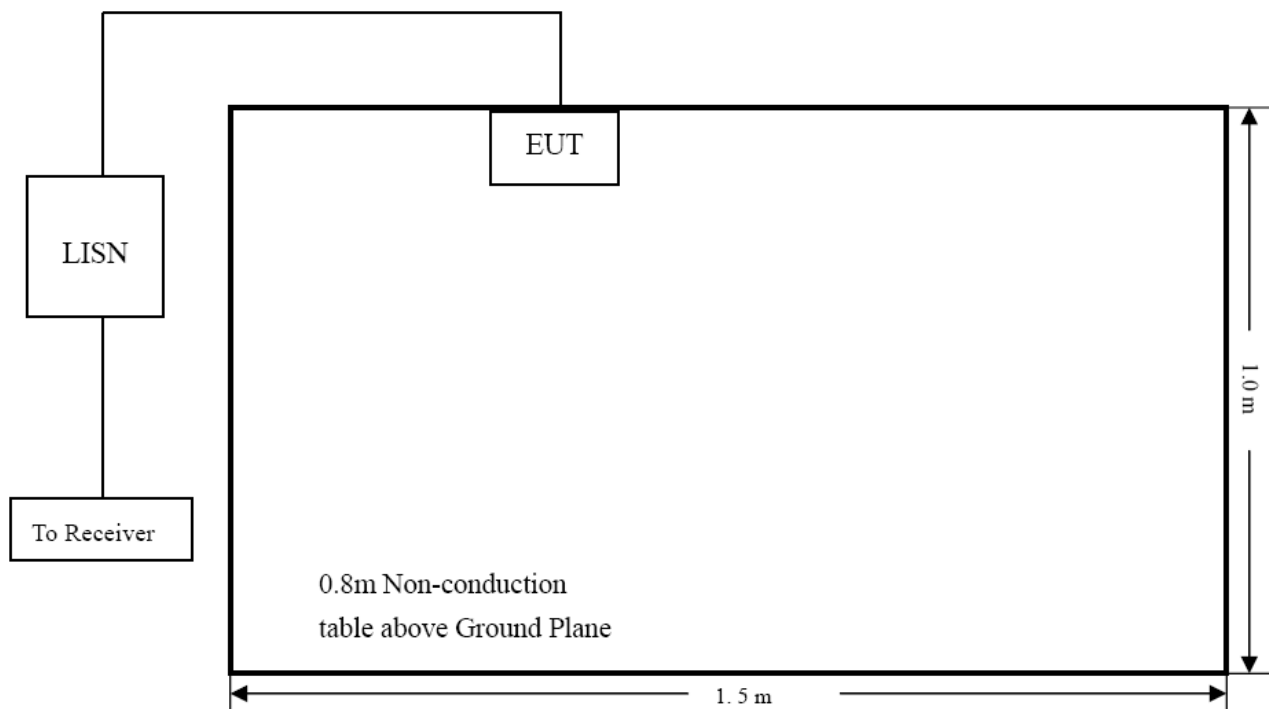
3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 2.88 dB.

3.2 Test Procedure

Test is conducting under the description of EN55032 Annex A.3.5.

3.3 Basic Test Setup Block Diagram



3.4 Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 22 ° C |
| Relative Humidity: | 55 % |
| ATM Pressure: | 1015 mbar |

3.5 Summary of Test Results/Plots

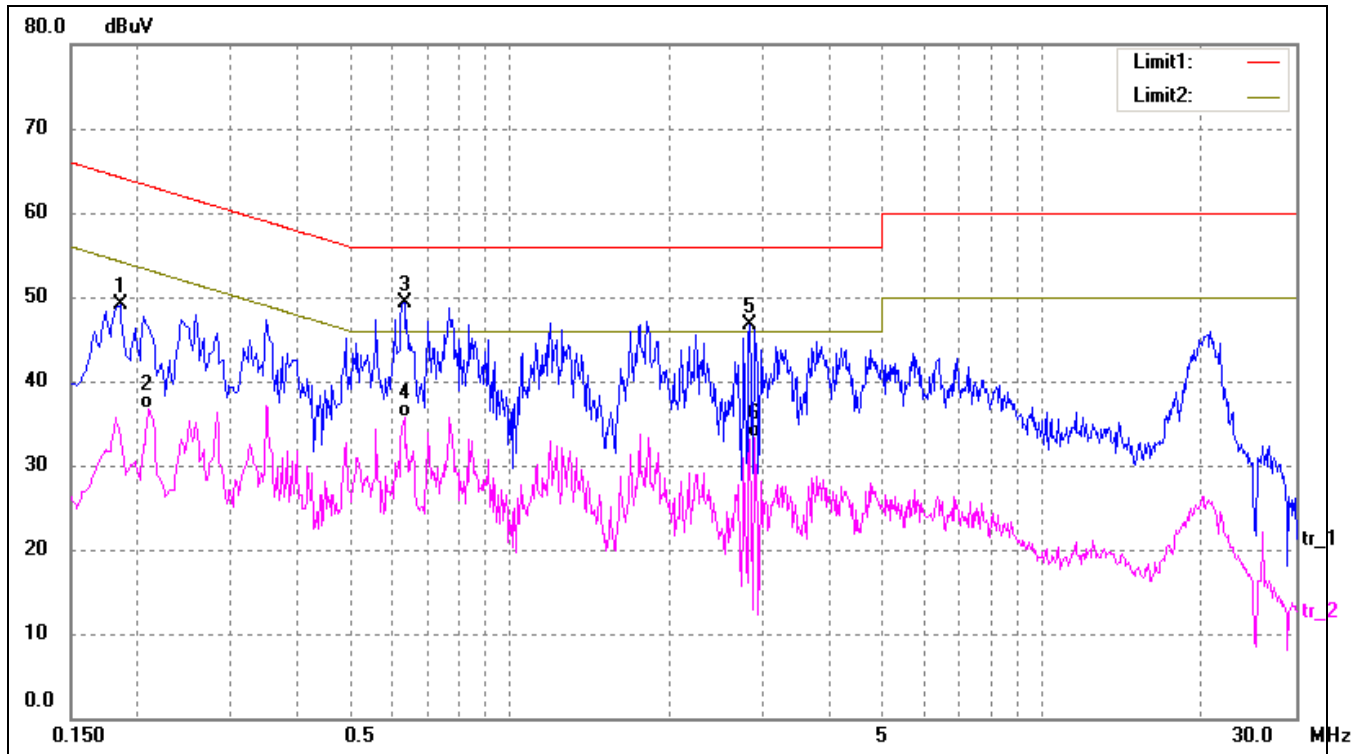
According to the data in section 3.6, the EUT complied with the EN55032 Conducted margin for a Class B device, with the *worst* margin reading of:

-6.67 dB at 0.6340 MHz in the Line mode, peak detector, **0.15-30MHz**

3.6 Conducted Emissions Test Data

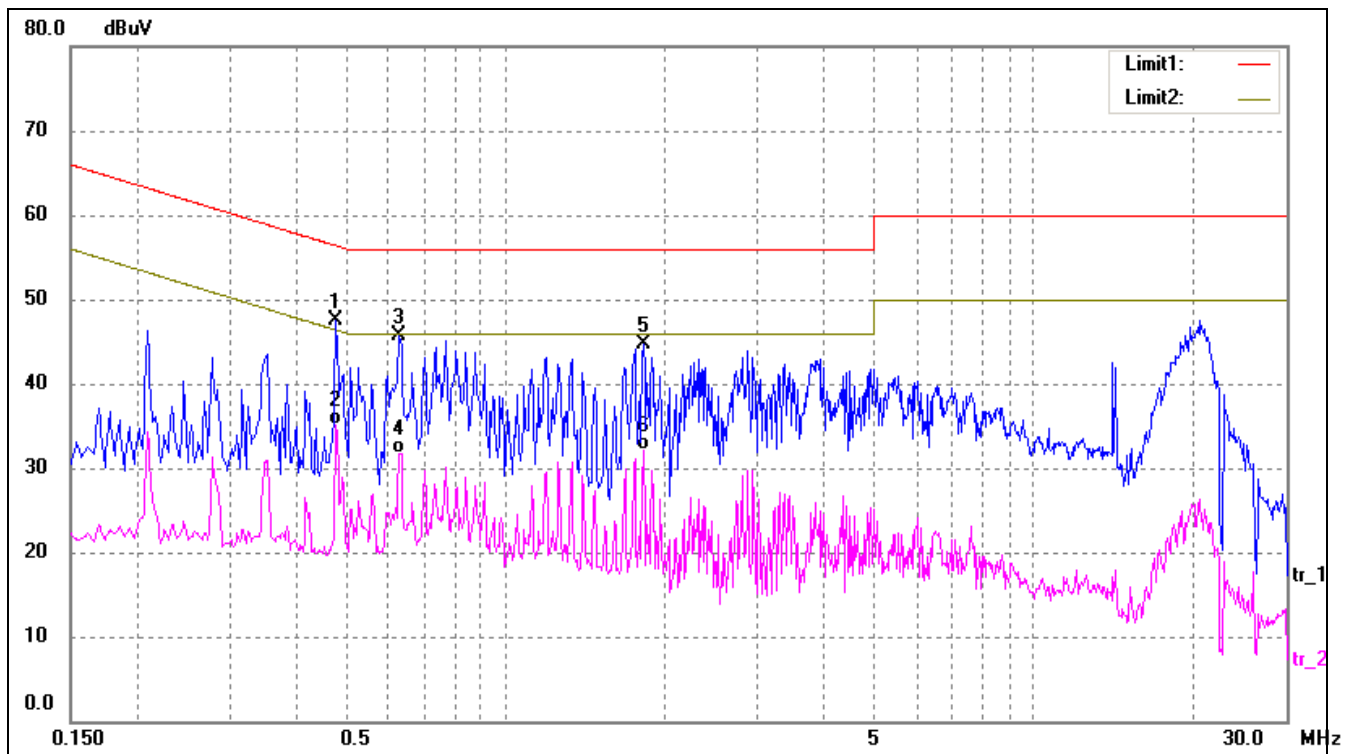
Plot of Conducted Emissions Test Data

EUT: Smart Phone
 Tested Model: JAX S
 Operating Condition: TM1
 Comment: AC 230V/50Hz; adapter DC 5V
 Test Specification: Line



| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Detector |
|-----|-----------------|----------------|----------------|---------------|--------------|-------------|----------|
| 1 | 0.1860 | 39.59 | 9.50 | 49.09 | 64.21 | -15.12 | peak |
| 2 | 0.2100 | 27.16 | 9.50 | 36.66 | 53.21 | -16.55 | AVG |
| 3* | 0.6340 | 39.74 | 9.59 | 49.33 | 56.00 | -6.67 | peak |
| 4 | 0.6340 | 26.21 | 9.59 | 35.80 | 46.00 | -10.20 | AVG |
| 5 | 2.8300 | 36.70 | 9.94 | 46.64 | 56.00 | -9.36 | peak |
| 6 | 2.8980 | 23.33 | 9.95 | 33.28 | 46.00 | -12.72 | AVG |

Test Specification: Neutral



| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Detector |
|-----|-----------------|----------------|----------------|---------------|--------------|-------------|----------|
| 1* | 0.4780 | 37.96 | 9.55 | 47.51 | 56.37 | -8.86 | peak |
| 2 | 0.4780 | 25.52 | 9.55 | 35.07 | 46.37 | -11.30 | AVG |
| 3 | 0.6300 | 36.04 | 9.59 | 45.63 | 56.00 | -10.37 | peak |
| 4 | 0.6300 | 22.11 | 9.59 | 31.70 | 46.00 | -14.30 | AVG |
| 5 | 1.8220 | 34.99 | 9.80 | 44.79 | 56.00 | -11.21 | peak |
| 6 | 1.8220 | 22.31 | 9.80 | 32.11 | 46.00 | -13.89 | AVG |

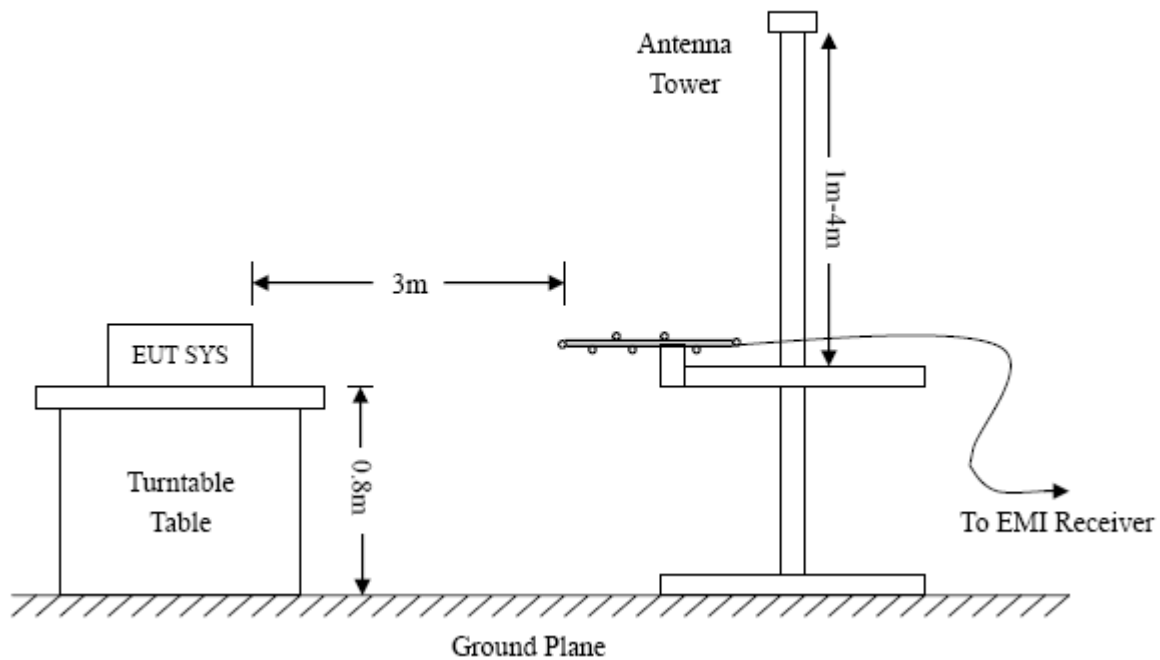
4. Radiated Emission

4.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 5.10 dB.

4.2 Test Procedure

Test is conducting under the description of EN55032 Annex A.3.4.



4.3 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB μ V means the emission is 6dB μ V below the maximum limit for Class B device. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{EN55032 Class B Limit}$$

4.4 Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 23° C |
| Relative Humidity: | 53% |
| ATM Pressure: | 1011 mbar |

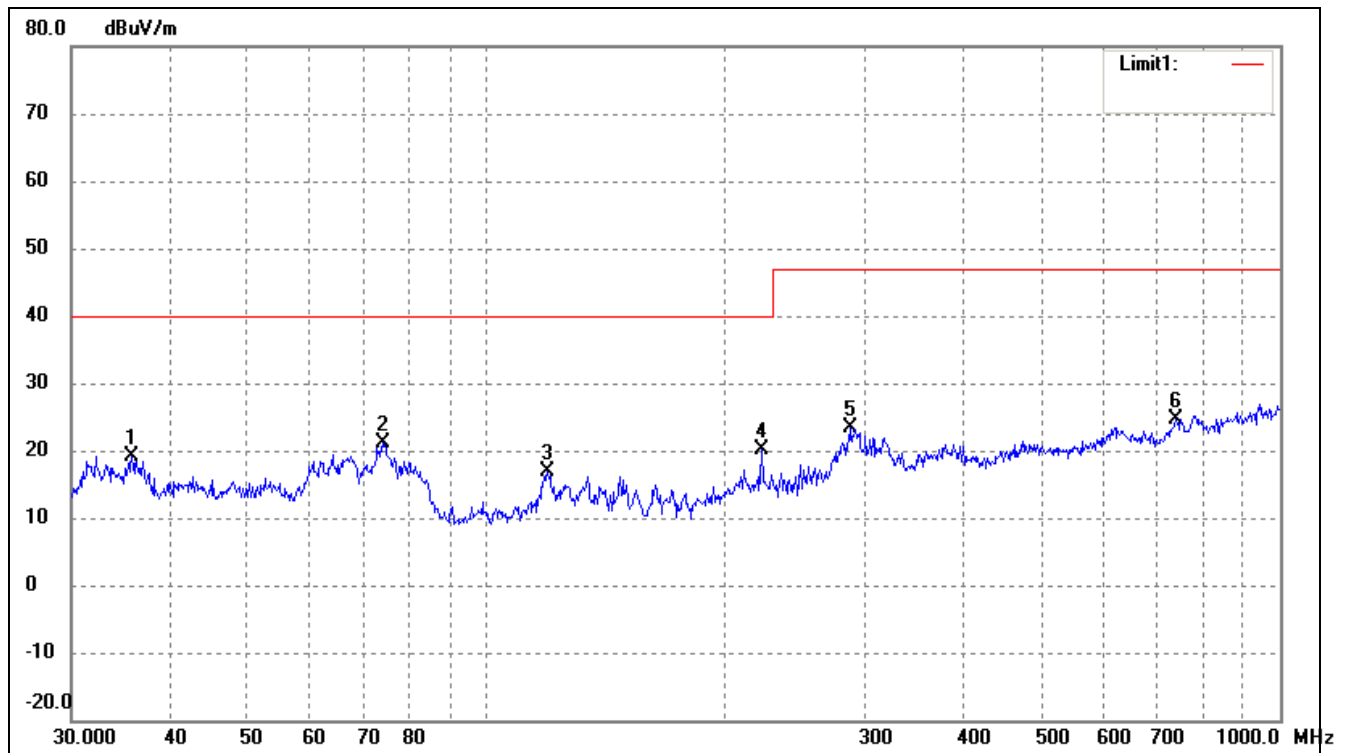
4.5 Summary of Test Results/Plots

According to the data in section 4.5, the EUT complied with the EN55032 Class B standards, and had the worst margin is:

-3.94 dB at 31.6202 MHz in the Vertical polarization **TM3 mode, 30 MHz to 6 GHz, 3Meters**

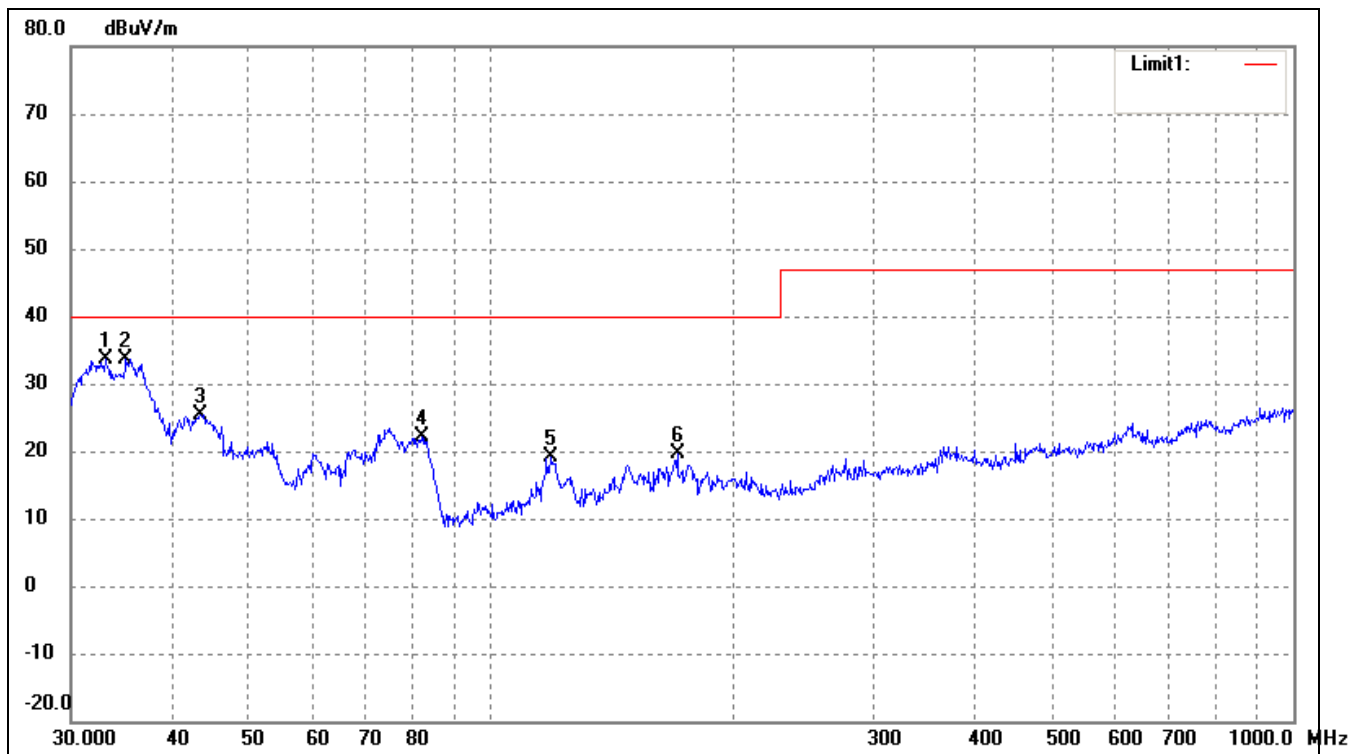
Plot of Radiated Emissions Test Data

EUT: *Smart Phone*
 Tested Model: *JAX S*
 Operating Condition: *TM1*
 Comment: *AC 230V/50Hz, adapter DC 5V*
 Test Specification: *Horizontal*



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct dB/m | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree () | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|---------------|----------------|--------|
| 1 | 35.7491 | 28.00 | -8.84 | 19.16 | 40.00 | -20.84 | 0 | 100 | peak |
| 2 | 74.1351 | 33.61 | -12.49 | 21.12 | 40.00 | -18.88 | 0 | 100 | peak |
| 3 | 119.4361 | 28.23 | -11.41 | 16.82 | 40.00 | -23.18 | 0 | 100 | peak |
| 4 | 222.1698 | 28.94 | -8.78 | 20.16 | 40.00 | -19.84 | 0 | 100 | peak |
| 5 | 287.9904 | 29.38 | -5.92 | 23.46 | 47.00 | -23.54 | 0 | 100 | peak |
| 6 | 739.6605 | 22.60 | 2.10 | 24.70 | 47.00 | -22.30 | 0 | 100 | peak |

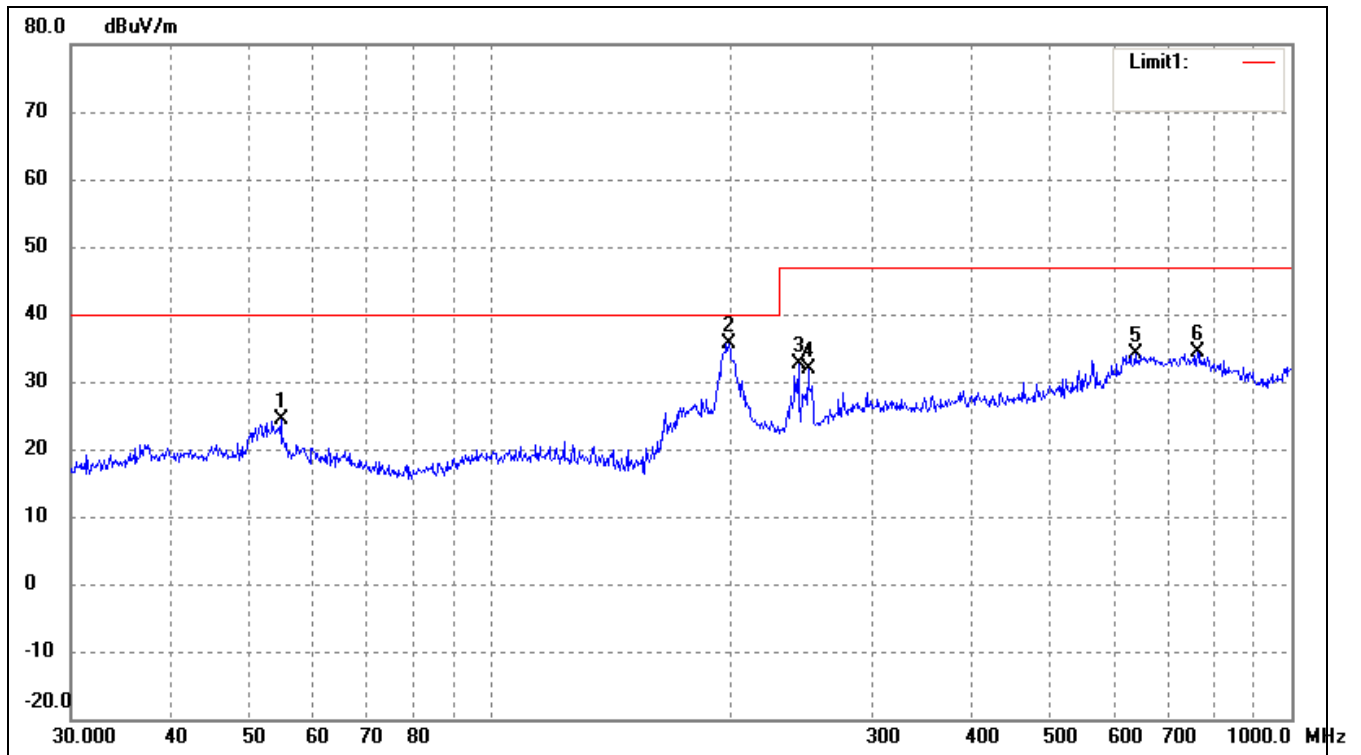
Test Specification: Vertical



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree () | Height (cm) | Remark |
|-----|-----------------|------------------|----------------|-----------------|----------------|-------------|------------|-------------|--------|
| 1 | 33.0950 | 43.11 | -9.53 | 33.58 | 40.00 | -6.42 | 0 | 100 | peak |
| 2 | 35.1278 | 42.73 | -9.01 | 33.72 | 40.00 | -6.28 | 0 | 100 | peak |
| 3 | 43.5057 | 33.39 | -7.90 | 25.49 | 40.00 | -14.51 | 0 | 100 | peak |
| 4 | 82.0706 | 34.33 | -12.19 | 22.14 | 40.00 | -17.86 | 0 | 100 | peak |
| 5 | 118.6014 | 30.56 | -11.39 | 19.17 | 40.00 | -20.83 | 0 | 100 | peak |
| 6 | 170.7926 | 31.40 | -11.78 | 19.62 | 40.00 | -20.38 | 0 | 100 | peak |

Plot of Radiated Emissions Test Data

EUT: Smart Phone
 Tested Model: JAX S
 Operating Condition: TM2
 Comment: USB: DC5V
 Test Specification: Horizontal



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree () | Height (cm) | Remark |
|-----|-----------------|------------------|----------------|-----------------|----------------|-------------|------------|-------------|--------|
| 1 | 54.8348 | 19.46 | 5.03 | 24.49 | 40.00 | -15.51 | 32 | 100 | peak |
| 2 | 198.5880 | 32.38 | 3.29 | 35.67 | 40.00 | -4.33 | 32 | 100 | peak |
| 3 | 242.5253 | 23.57 | 9.03 | 32.60 | 47.00 | -14.40 | 32 | 100 | peak |
| 4 | 249.4250 | 22.56 | 9.29 | 31.85 | 47.00 | -15.15 | 32 | 100 | peak |
| 5 | 638.3686 | 16.03 | 18.01 | 34.04 | 47.00 | -12.96 | 32 | 100 | peak |
| 6 | 763.3757 | 16.31 | 17.95 | 34.26 | 47.00 | -12.74 | 32 | 100 | peak |

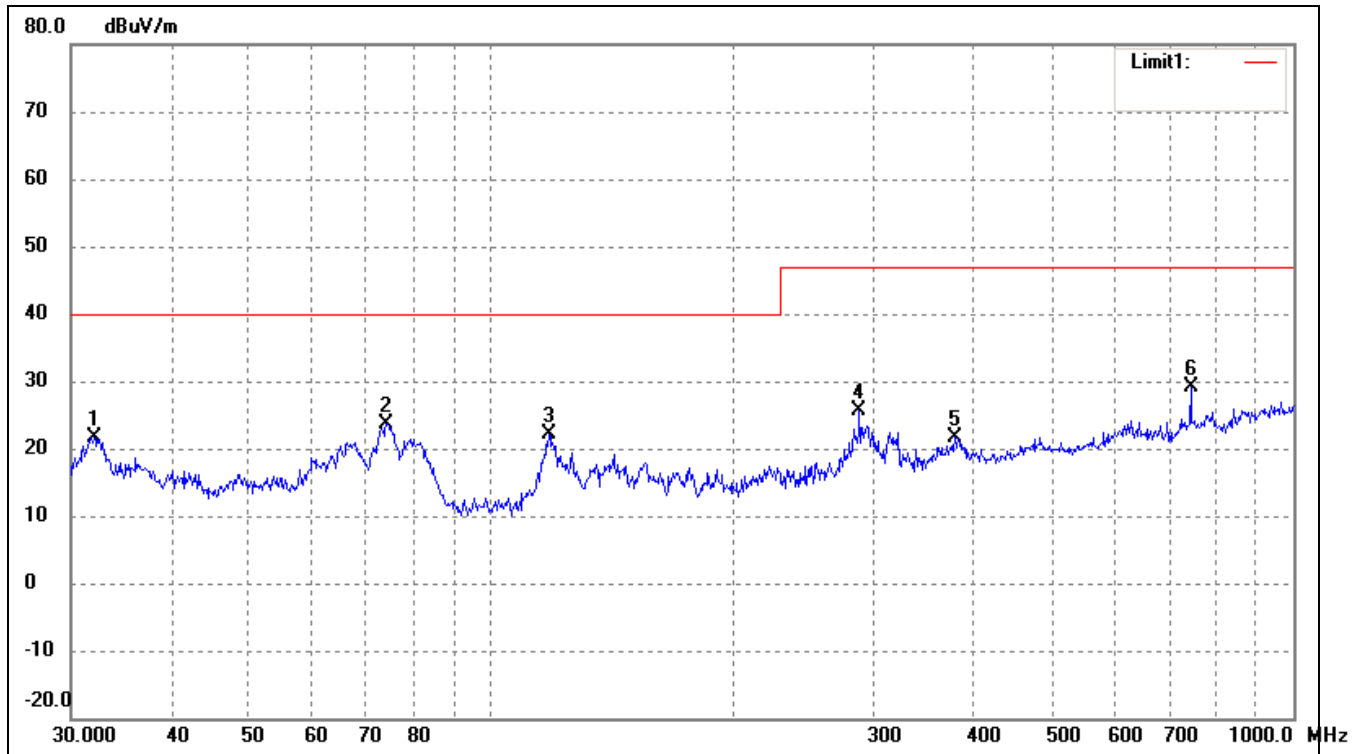
Test Specification: Vertical



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree () | Height (cm) | Remark |
|-----|-----------------|------------------|----------------|-----------------|----------------|-------------|------------|-------------|--------|
| 1 | 51.8430 | 26.53 | 5.04 | 31.57 | 40.00 | -8.43 | 52 | 100 | peak |
| 2 | 146.3735 | 32.34 | 2.89 | 35.23 | 40.00 | -4.77 | 52 | 100 | peak |
| 3 | 150.5378 | 33.23 | 2.74 | 35.97 | 40.00 | -4.03 | 52 | 100 | peak |
| 4 | 197.8928 | 29.21 | 3.26 | 32.47 | 40.00 | -7.53 | 52 | 100 | peak |
| 5 | 239.9874 | 23.95 | 8.93 | 32.88 | 47.00 | -14.12 | 52 | 100 | peak |
| 6 | 265.6757 | 27.39 | 10.10 | 37.49 | 47.00 | -9.51 | 52 | 100 | peak |

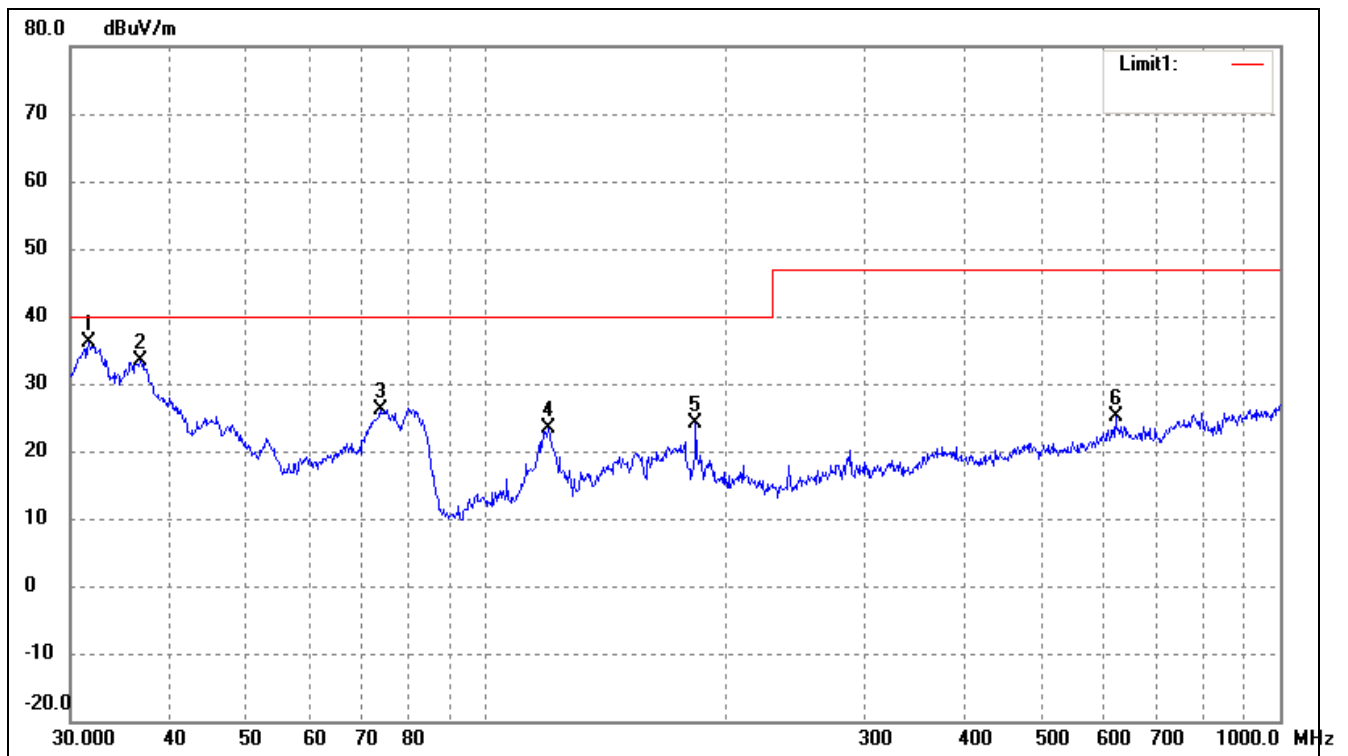
Plot of Radiated Emissions Test Data

EUT: *Smart Phone*
 Tested Model: *JAX S*
 Operating Condition: *TM3*
 Comment: *AC 230V/50Hz, adapter DC 5V*
 Test Specification: *Horizontal*



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct dB/m | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|--------------------|---------------------|-----------------|--------------------|-------------------|----------------|-----------------|----------------|--------|
| 1 | 32.0668 | 31.50 | -9.78 | 21.72 | 40.00 | -18.28 | 66 | 100 | peak |
| 2 | 74.1351 | 36.21 | -12.49 | 23.72 | 40.00 | -16.28 | 124 | 100 | peak |
| 3 | 118.1862 | 33.60 | -11.38 | 22.22 | 40.00 | -17.78 | 195 | 100 | peak |
| 4 | 287.9904 | 31.47 | -5.92 | 25.55 | 47.00 | -21.45 | 38 | 100 | peak |
| 5 | 378.5843 | 23.92 | -2.17 | 21.75 | 47.00 | -25.25 | 5 | 100 | peak |
| 6 | 744.8661 | 27.06 | 2.04 | 29.10 | 47.00 | -17.90 | 355 | 100 | peak |

Test Specification: Vertical



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Degree (°) | Height (cm) | Remark |
|-----|-----------------|------------------|----------------|-----------------|----------------|-------------|------------|-------------|--------|
| 1 | 31.6202 | 45.96 | -9.90 | 36.06 | 40.00 | -3.94 | 37 | 100 | peak |
| 2 | 36.7662 | 41.82 | -8.55 | 33.27 | 40.00 | -6.73 | 162 | 100 | peak |
| 3 | 73.6170 | 38.70 | -12.52 | 26.18 | 40.00 | -13.82 | 201 | 100 | peak |
| 4 | 119.8556 | 34.70 | -11.42 | 23.28 | 40.00 | -16.72 | 137 | 100 | peak |
| 5 | 183.8440 | 34.97 | -10.84 | 24.13 | 40.00 | -15.87 | 352 | 100 | peak |
| 6 | 620.7096 | 23.90 | 1.21 | 25.11 | 47.00 | -21.89 | 111 | 100 | peak |

5. Harmonic Current Emissions

5.1 Test Procedure

Test is conducting under the description of EN61000-3-2.

5.2 Test Standards

EN61000-3-2, Clause 7.1 Limits for Class A equipment.

Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 22 °C |
| Relative Humidity: | 48% |
| ATM Pressure: | 1022 mbar |

5.3 Harmonic Current Emissions Test Data

According to Clause 7 of EN61000-3-2, the rated power of the EUT is less than 75W, belong to 'equipment with a rated power of 75W or less', therefore 'limits are not specified in this edition of the standards'. It is deem to full fit the requirements of the standards.

Result: The EUT is compliance with the requirements of this section.

6. Voltage Fluctuation Flicker

6.1 Test Procedure

Test is conducting under the description of EN61000-3-3.

6.2 Test Standards

EN61000-3-3, Limit: Clause 5.

Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 22 °C |
| Relative Humidity: | 48% |
| ATM Pressure: | 1022 mbar |

6.3 Voltage Fluctuation and Flicker Test Data

Flicker Test Summary per EN/IEC61000-3-3 (Run time)

EUT: Smart Phone Tested by: Iven
 Test category: All parameters (European limits) Test Margin: 100
 Test date: 2016-10-13 Start time: 15:28:19 AM End time: 15:38:47 AM
 Test duration (min): 10 Data file name: F-000095.cts_data
 Comment: TM1
 Customer: Vonino Electronics LTD.

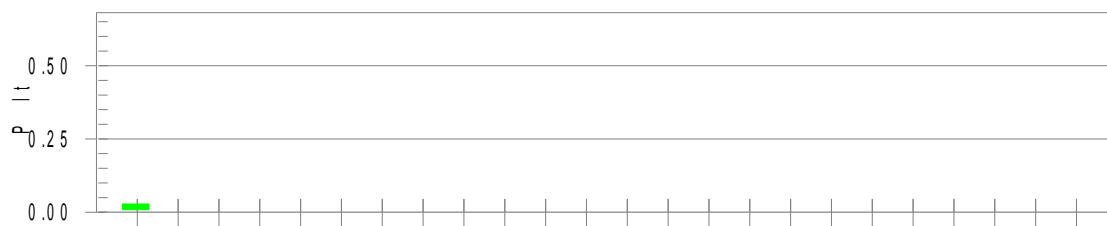
Test Result: Pass Status: Test Completed

Pst_t and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

| | | | | |
|---------------------------------|---------|------------------|-------|------|
| Vrms at the end of test (Volt): | 231.011 | | | |
| Highest dt (%): | 0.00 | Test limit (%): | 3.30 | Pass |
| Time(mS) > dt: | 0.0 | Test limit (mS): | 500.0 | Pass |
| Highest dc (%): | 0.00 | Test limit (%): | 3.30 | Pass |
| Highest dmax (%): | 0.00 | Test limit (%): | 4.00 | Pass |
| Highest Pst (10 min. period): | 0.063 | Test limit: | 1.000 | Pass |
| Highest Plt (2 hr. period): | 0.031 | Test limit: | 0.630 | Pass |

7. Electrostatic Discharges (ESD)

7.1 Test Procedure

Test is conducting under the description of IEC61000-4-2.

Test Performance

Performance Criterion: B

Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 26 °C |
| Relative Humidity: | 55% |
| ATM Pressure: | 1011 mbar |

7.2 Electrostatic Discharge Immunity Test Data

Test mode: TM1/TM2/TM3

Test mode: Charging & Playing & Camera

| EN 61000-4-2 Test Points | Test Levels (kV) | | | | | | | |
|---------------------------------|------------------|----|----|----|----|----|----|----|
| | -2 | +2 | -4 | +4 | -6 | +6 | -8 | +8 |
| Air Discharge | | | | | | | | |
| Screen | A | A | A | A | A | A | A | A |
| Buttons | A | A | A | A | A | A | A | A |
| Flashlight | A | A | A | A | A | A | A | A |
| Slots | A | A | A | A | A | A | A | A |
| I/O Port | A | A | A | A | A | A | A | A |
| Direct Contact Discharge | | | | | | | | |
| Camera | A | A | A | A | / | / | / | / |

| EN 61000-4-2 Test Points | Test Levels (kV) | | | | | | | |
|-----------------------------|----------------------------------|----|----|----|----------------------------------|----|----|----|
| | Indirect Contact Discharge (HCP) | | | | Indirect Contact Discharge (VCP) | | | |
| | -2 | +2 | -4 | +4 | -2 | +2 | -4 | +4 |
| Front Side | A | A | A | A | A | A | A | A |
| Top Side | A | A | A | A | A | A | A | A |
| Back Side | A | A | A | A | A | A | A | A |
| Left Side | A | A | A | A | A | A | A | A |
| Right Side | A | A | A | A | A | A | A | A |

Test mode: Downloading

| EN 61000-4-2 Test Points | Test Levels (kV) | | | | | | | |
|---------------------------------|------------------|----|----|----|----|----|----|----|
| | -2 | +2 | -4 | +4 | -6 | +6 | -8 | +8 |
| Air Discharge | | | | | | | | |
| Screen | A | A | A | A | A | A | A | A |
| Buttons | A | A | A | A | A | A | A | A |
| Flashlight | A | A | A | A | A | A | A | A |
| Slots | A | A | A | A | A | A | A | A |
| I/O Port | A | A | A | A | A | A | A | A |
| Direct Contact Discharge | | | | | | | | |
| Camera | A | A | A | A | / | / | / | / |

| EN 61000-4-2 Test Points | Test Levels (kV) | | | | | | | |
|-----------------------------|----------------------------------|----|----|----|----------------------------------|----|----|----|
| | Indirect Contact Discharge (HCP) | | | | Indirect Contact Discharge (VCP) | | | |
| | -2 | +2 | -4 | +4 | -2 | +2 | -4 | +4 |
| Front Side | A | A | A | A | A | A | A | A |
| Top Side | A | A | A | A | A | A | A | A |
| Back Side | A | A | A | A | A | A | A | A |
| Left Side | A | A | A | A | A | A | A | A |
| Right Side | A | A | A | A | A | A | A | A |

Test Result: Pass

8. Continuous Radiated Disturbances (R/S)

8.1 Test Procedure

Test is conducting under the description of IEC61000-4-3.

Test Performance

Performance Criterion: A

Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 25 °C |
| Relative Humidity: | 52% |
| ATM Pressure: | 1010 mbar |

8.2 Continuous Radiated Disturbances Test Data

Frequency step: 1% of fundamental

Dwell time: 1 second

Modulation: AM by 1kHz sine wave with 80% modulation depth

Test mode: TM1/TM2/TM3

Test model: Charging & Playing & Camera

| Frequency Range(MHz) | Field (V/m) | Front | | Rear | | Left Side | | Right Side | |
|----------------------|-------------|-------|------|------|------|-----------|------|------------|------|
| | | VERT | HORI | VERT | HORI | VERT | HORI | VERT | HORI |
| 80-1000 | 3 | A | A | A | A | A | A | A | A |
| 1400-2700 | 3 | A | A | A | A | A | A | A | A |

Test model: Downloading

| Frequency Range(MHz) | Field (V/m) | Front | | Rear | | Left Side | | Right Side | |
|----------------------|-------------|-------|------|------|------|-----------|------|------------|------|
| | | VERT | HORI | VERT | HORI | VERT | HORI | VERT | HORI |
| 80-1000 | 3 | A | A | A | A | A | A | A | A |
| 1400-2700 | 3 | A | A | A | A | A | A | A | A |

Test Result: Pass

9. Electrical Fast Transients (EFT)

9.1 Test Procedure

Test is conducting under the description of IEC61000-4-4.

Test Performance

Performance Criterion: B

Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 22 °C |
| Relative Humidity: | 53% |
| ATM Pressure: | 1011 mbar |

9.2 Electrical Fast Transients Test Data

Test mode: TM1/TM2/TM3

Test mode: Charging & Playing & Camera

| EN 61000-4-4 Test Points | | Test Levels (kV) | | | | | | | |
|---------------------------------------|----------|------------------|------|------|------|------|------|------|------|
| | | +0.5 | -0.5 | +1.0 | -1.0 | +2.0 | -2.0 | +4.0 | -4.0 |
| Power Supply Power Port of EUT | L1 | A | A | A | A | / | / | / | / |
| | L2 | A | A | A | A | / | / | / | / |
| | PE | / | / | / | / | / | / | / | / |
| | L1+L2 | A | A | A | A | / | / | / | / |
| | L1 + PE | / | / | / | / | / | / | / | / |
| | L2 + PE | / | / | / | / | / | / | / | / |
| | L1+L2+PE | / | / | / | / | / | / | / | / |
| Signal ports | | / | / | / | / | / | / | / | / |

Test mode: Downloading

| EN 61000-4-4 Test Points | | Test Levels (kV) | | | | | | | |
|-----------------------------------|----------|------------------|------|------|------|------|------|------|------|
| | | +0.5 | -0.5 | +1.0 | -1.0 | +2.0 | -2.0 | +4.0 | -4.0 |
| Power Supply Power Port of EUT | L1 | A | A | A | A | / | / | / | / |
| | L2 | A | A | A | A | / | / | / | / |
| | PE | / | / | / | / | / | / | / | / |
| | L1+L2 | A | A | A | A | / | / | / | / |
| | L1 + PE | / | / | / | / | / | / | / | / |
| | L2 + PE | / | / | / | / | / | / | / | / |
| | L1+L2+PE | / | / | / | / | / | / | / | / |
| Signal ports | | / | / | / | / | / | / | / | / |

10. Surges

10.1 Test Procedure

Test is conducting under the description of IEC 61000-4-5.

Test Performance

Performance Criterion: B

Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 25 °C |
| Relative Humidity: | 53% |
| ATM Pressure: | 1011 mbar |

10.2 Surge Test Data

Test mode: TM1/TM2/TM3

Test mode: Charging & Playing & Camera

| Level | Voltage | Poll | Path | Pass | Fail |
|-------|---------|------|-----------------|------|------|
| 1 | 0.5kV | ± | L-N | A | / |
| 2 | 1kV | ± | L-N | A | / |
| 3 | 2kV | ± | L-N, L-PE, N-PE | / | / |
| 4 | 4kV | ± | L-N, L-PE, N-PE | / | / |

Test mode: Downloading

| Level | Voltage | Poll | Path | Pass | Fail |
|-------|---------|------|-----------------|------|------|
| 1 | 0.5kV | ± | L-N | A | / |
| 2 | 1kV | ± | L-N | B | / |
| 3 | 2kV | ± | L-N, L-PE, N-PE | / | / |
| 4 | 4kV | ± | L-N, L-PE, N-PE | / | / |

Test Result: Pass

11. Continuous Conducted Disturbances (C/S)

11.1 Test Procedure

Test is conducting under the description of IEC 61000-4-6.

Test Performance

Performance Criterion: A

Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 25 °C |
| Relative Humidity: | 53% |
| ATM Pressure: | 1011 mbar |

11.2 Continuous Conducted Disturbances Test Data

Sweep frequency range: 150kHz~80MHz

Frequency step: 1% of fundamental

Dwell time: 1 second

Test mode: TM1/TM2/TM3

Test mode: Charging & Playing & Camera

| Level | Voltage (V) (rms, unmodulated) | Modulation: | Pass | Fail |
|-------|-----------------------------------|-----------------------|------|------|
| 1 | 1 | AM 80%, 1kHz sinewave | / | / |
| 2 | 3 | AM 80%, 1kHz sinewave | A | / |
| 3 | 10 | AM 80%, 1kHz sinewave | / | / |
| X | Special | / | / | / |

Test mode: Downloading

| Level | Voltage (V) (rms, unmodulated) | Modulation: | Pass | Fail |
|-------|-----------------------------------|-----------------------|------|------|
| 1 | 1 | AM 80%, 1kHz sinewave | / | / |
| 2 | 3 | AM 80%, 1kHz sinewave | A | / |
| 3 | 10 | AM 80%, 1kHz sinewave | / | / |
| X | Special | / | / | / |

Test Result: Pass

12. Voltage Dips and Interruptions

12.1 Test Procedure

Test is conducting under the description of IEC 61000-4-11.

Test Performance

Performance Criterion: B/C

Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 25 °C |
| Relative Humidity: | 50% |
| ATM Pressure: | 1011 mbar |

12.2 Voltage Dips And Interruptions Test Data

U: Voltage dips in % U_T (U_T is rated voltage for the EUT)

T: Test duration

Test mode: TM1/TM2/TM3

| Level | U | T | Phase Angle | N | Pass | Fail |
|-------|------|--------|--------------|---|------|------|
| 1 | 100% | 10ms | 0/90/180/270 | 3 | A | / |
| 2 | 30% | 500ms | 0/90/180/270 | 3 | A | / |
| 3 | 100% | 5000ms | 0/90/180/270 | 3 | A | / |

Test Result: Pass

EXHIBIT 1 - PRODUCT LABELING

Proposed CE Label Format

VONINO Smart Phone
Model: JAX S
Input: 5V $\overline{=}$ 1.0A or Powered by 3.8V, 2000mAh
Rechargeable Li-ion Battery

CE 0700 
Made in China

Specifications: Text is Black in color and is justified. Labels are printed in indelible ink on permanent adhesive backing or silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT. The 'CE' marking must be affixed to the EUT or to its data plate. Where this is not possible or not warranted on account of the nature of the apparatus, it must be affixed to the packaging, if any, and to the accompanying documents. The 'CE' marking is allowed less than 5 mm but must clear. If the 'CE' marking is reduced or enlarged the proportions given in the above graduated drawing must be respected. The Importer name, address and Manufacturer name and address should indicate on marking label or packaging or in a document accompanying

Proposed Label Location on EUT

CE Label Location



EXHIBIT 2 - EUT PHOTOGRAPHS

EUT View 1



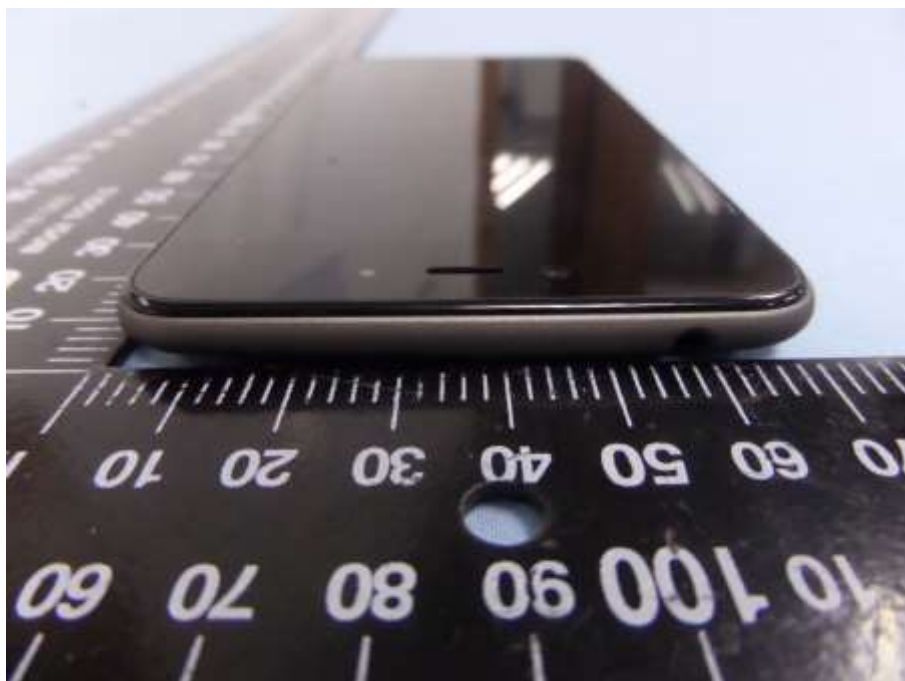
EUT View 2



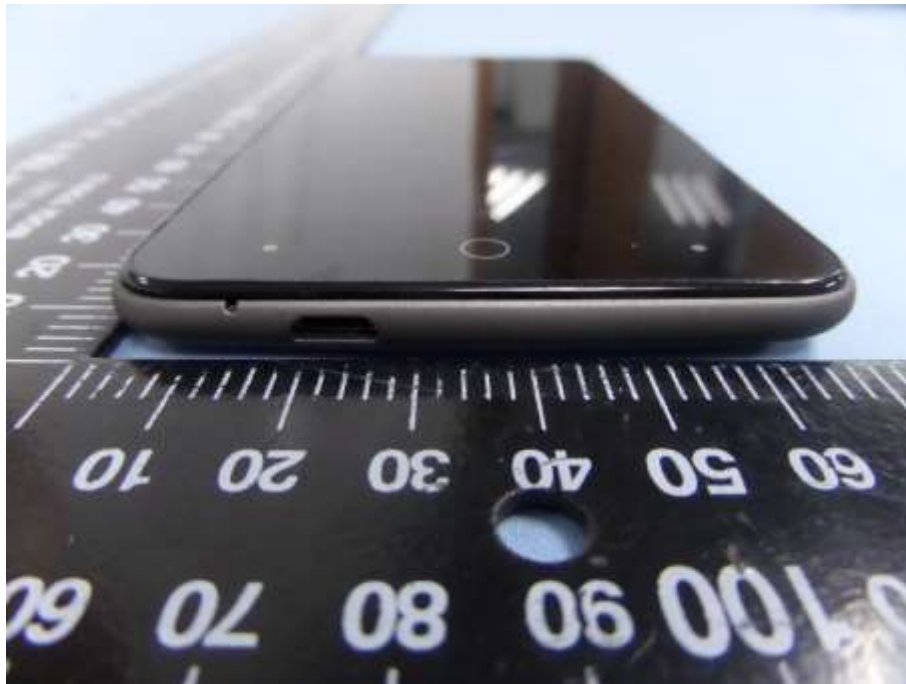
EUT View 3



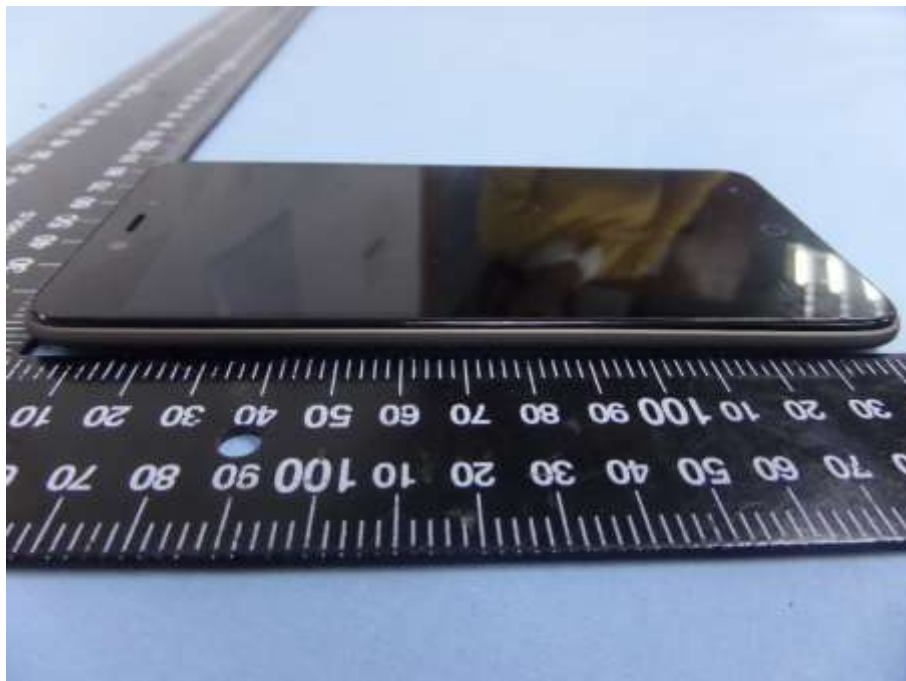
EUT View 4



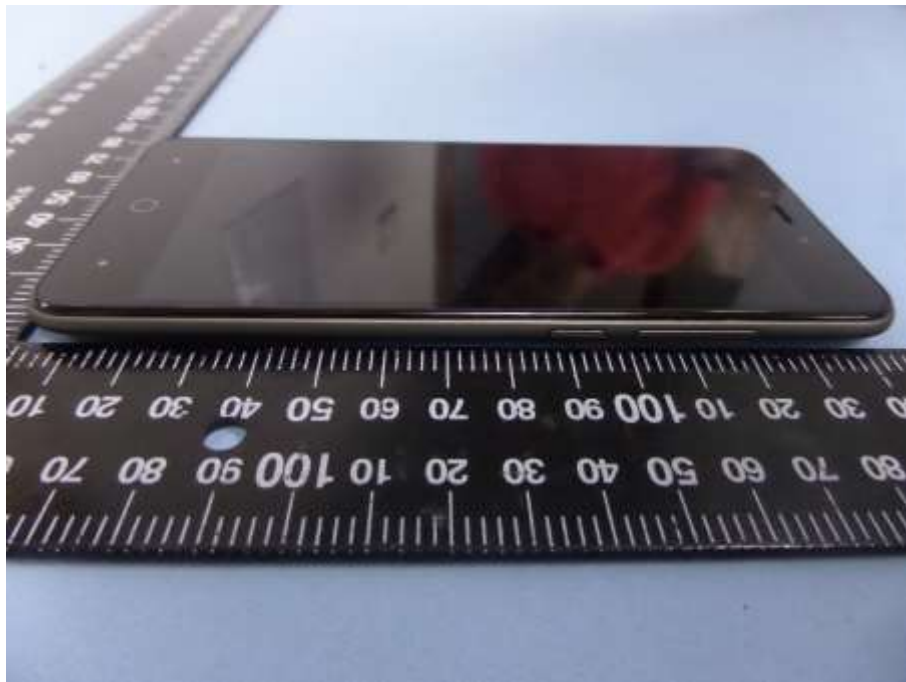
EUT View 5



EUT View 6



EUT View 7



EUT Housing and Board View 1



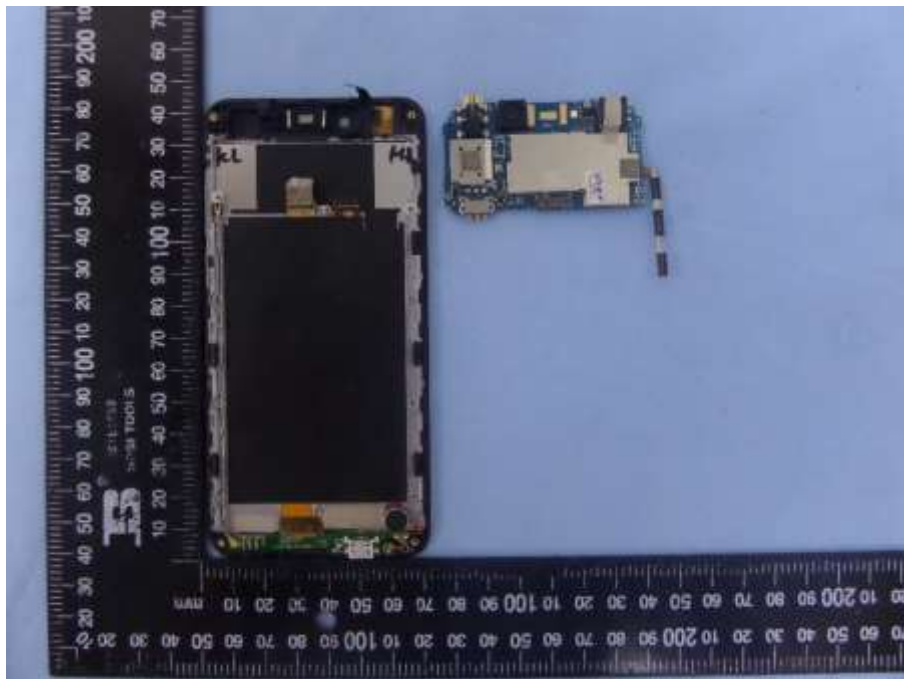
Wi-Fi/BT/GPS Ant.

GSM/WCDMA Ant.

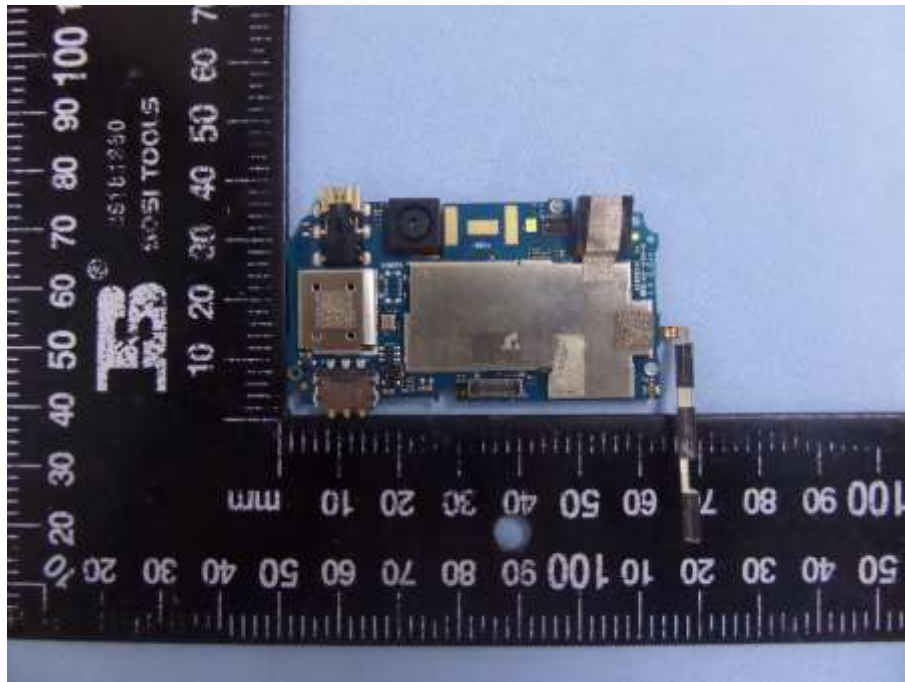
EUT Housing and Board View 2



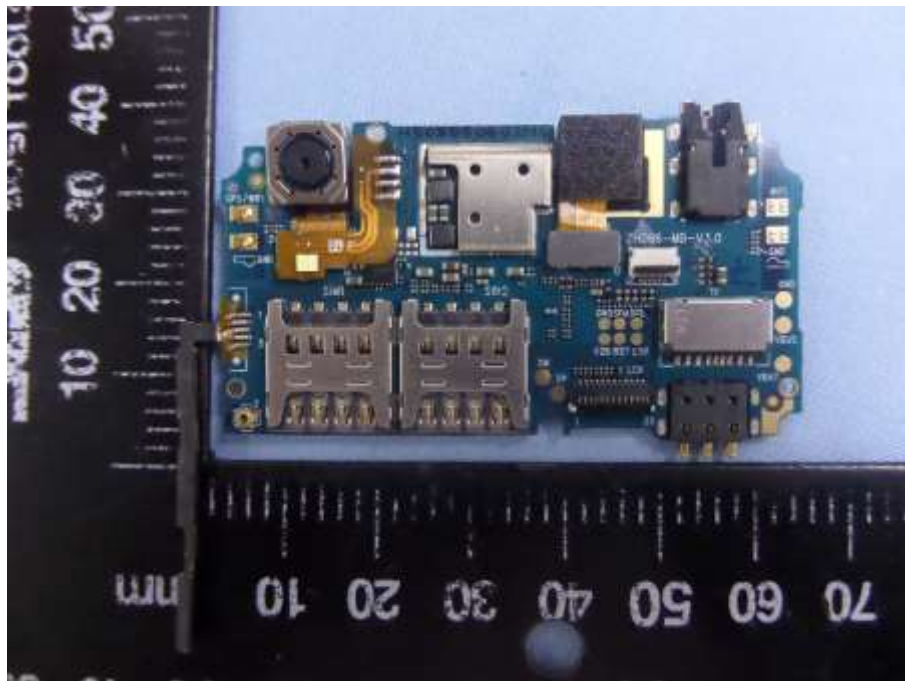
EUT Housing and Board View 3



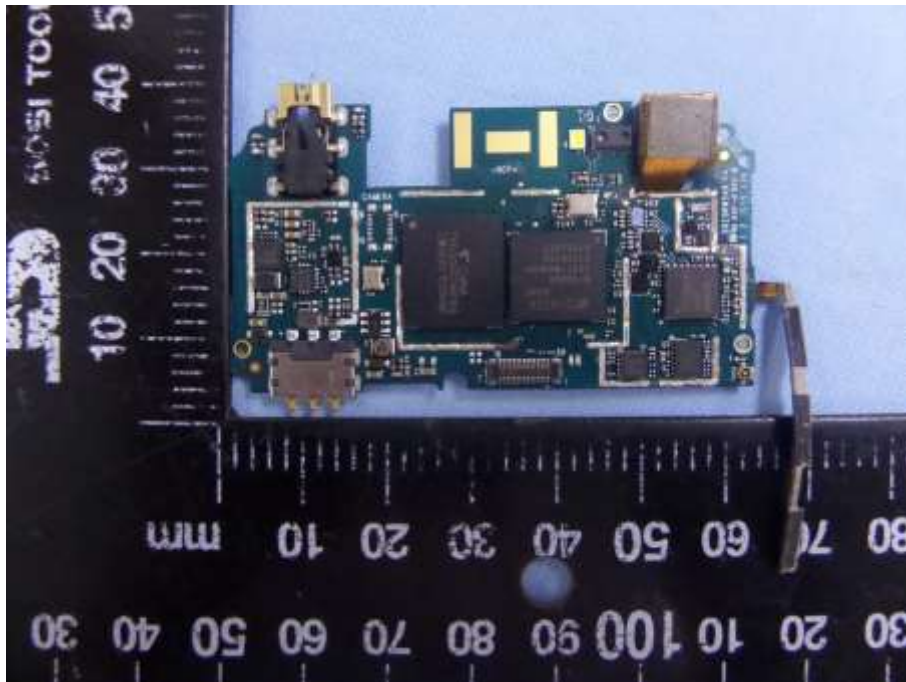
Solder Board-Component View 1



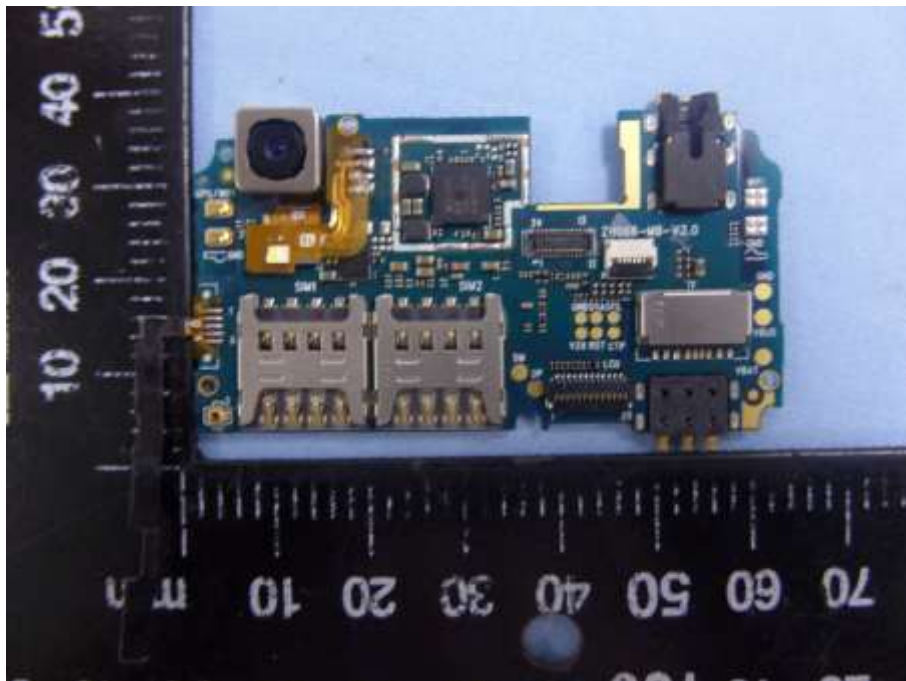
Solder Board-Component View 2



Solder Board-Component View 3



Solder Board-Component View 4



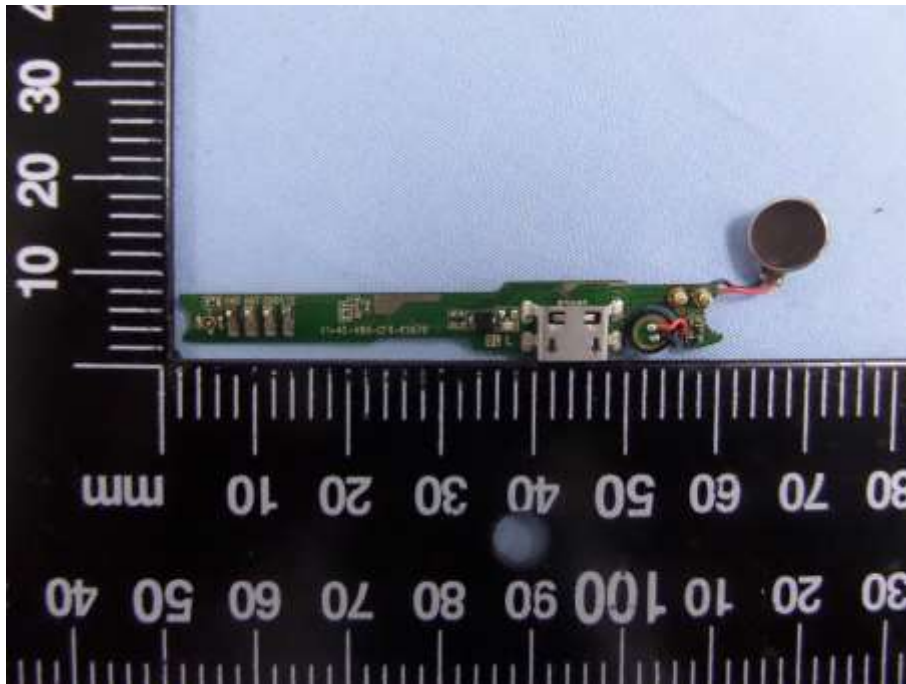
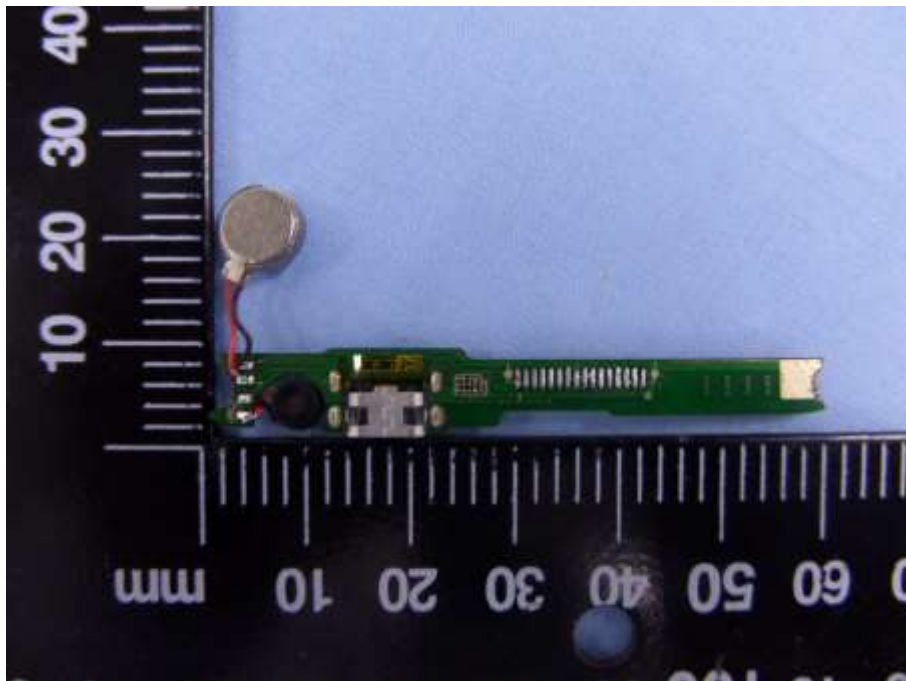
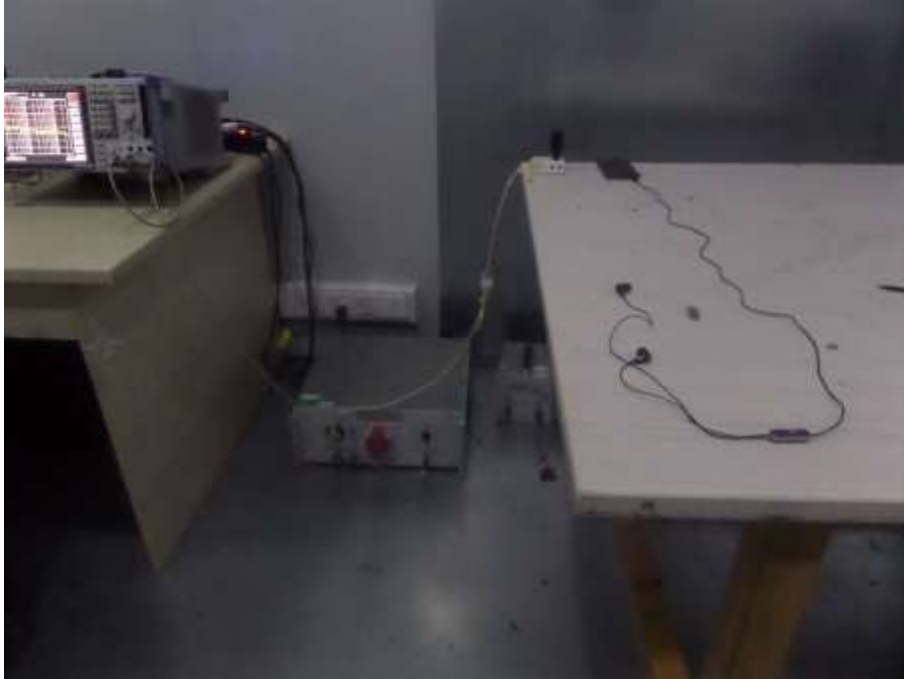
Solder Board-Component View 5**Solder Board-Component View 6**

EXHIBIT 3 - TEST SETUP PHOTOGRAPHS

Conduction Emission Test View



Radiation Emission Test View





Harmonic/Flicker Test View



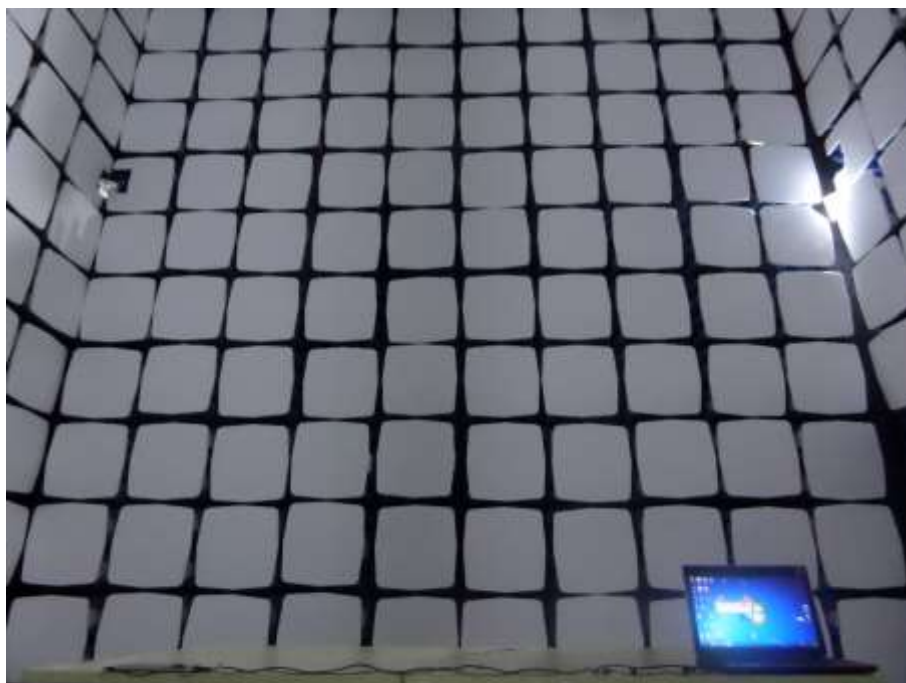
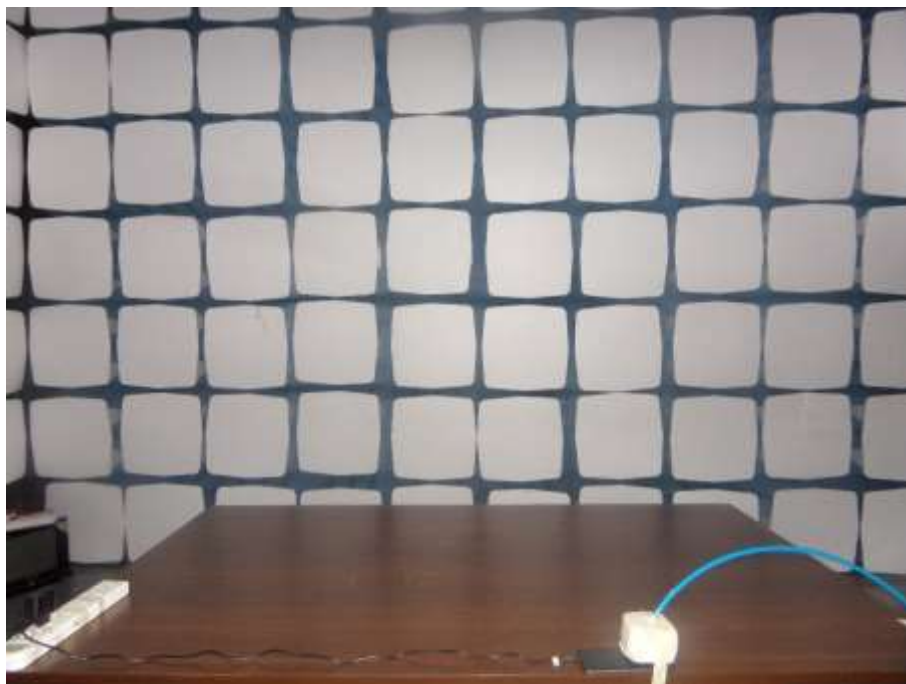
IEC61000-4-2 Test View









IEC61000-4-3 Test View

IEC61000-4-4/5/11 Test View



IEC61000-4-6 Test View

****** END OF REPORT ******