

EMC TEST REPORT

For

Wenzhou Yijie Electric Co., Ltd

Socket

**MODEL: AB2001,AN2001,AG2001,VA2001,AB2016,AN2016,AG2016,VA2016,
AB2102,AN2102,AG2102,VA2102,AB3503,AN3503,AG3503,VA3503,
MT3503,LB3503,LN3503,LG3503,EV3503AB3506,AN3506,AG3506,
VA3506,MT3506,LB3506,LN3506,LG3506,EV3506**

Prepared for :

Wenzhou Yijie Electric Co., Ltd

**No. 83, Fengquan Road, Tianhe street, Wenzhou Economic and
Technological Development Zone, Wenzhou City, Zhejiang
Province**

Prepared by :

Beide (Shenzhen) Product Service Limited

**China: 6F, Bldg E, Hourui 3rd Ind Zone, Xixiang, Bao'an Dist,
Shenzhen, China**

Report Number: B-E2212A4338

Date of Test: 2022-12-09 to 2022-12-15

Date of Report: 2022-12-15

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APPENDIX I (EUT PHOTOS)

(3 pages)

TEST REPORT DECLARATION

Applicant : Wenzhou Yijie Electric Co., Ltd
Address : No. 83, Fengquan Road, Tianhe street, Wenzhou Economic and Technological Development Zone, Wenzhou City, Zhejiang Province
Client ID : CA1158
Report Query : 
Manufacturer : Same As Holder
EUT Description : Socket
Model No. : See Page 1
Remark : Use LG3503 do all tests
Power Supply : AC250V~, 50/60Hz, 16A

Test Procedure Used:


EN 61000-6-3:2007+A1:2011; EN IEC 61000-3-2:2019+A1:2021;
EN 61000-3-3:2013+A1:2019+A2:2021;
EN IEC 61000-6-1:2019 (EN 61000-4-2:2009, EN 61000-4-3:2006+A2:2010,
EN 61000-4-4:2012, EN 61000-4-5:2014+A1:2017,
EN 61000-4-6:2014+AC:2015, EN 61000-4-8:2010,
EN 61000-4-11:2004+A1:2017)

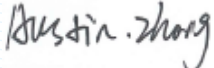
The device described above is tested by Beide(Shenzhen)Product Service Limited to determine the maximum emission levels emanating from the device, the severe levels which the device can endure and EUT's performance criterion. The test results are contained in this test report. Beide(Shenzhen)Product Service Limited is assumed of full responsibility for the accuracy and completeness of these tests.

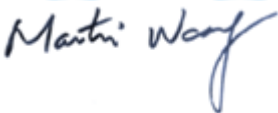
This report applies to above tested sample only and shall not be reproduced in part without written approval of Beide(Shenzhen)Product Service Limited.

Note: P=PASS, F=Fail, N/A= Not Applicable

Date of Test : 2022-12-09 to 2022-12-15

Prepared by : 
(Sophia jiang)

Checked by : 
(Austin zhong)

Approved by : 
(Martin wang)



1. TEST RESULTS SUMMARY

Test Results Summary

| Test Items | Test Results |
|---|--------------|
| 1 Conducted Disturbance Test | N/A |
| 2 Radiation Emission Test | N/A |
| 3 Harmonic Current Emission Test | N/A |
| 4 Voltage Fluctuations & Flicker Test | N/A |
| 5 Electrostatic Discharge Test | PASS |
| 6 Radio Frequency Electromagnetic Field | N/A |
| 7 Electrical Fast Transient/Burst Test | N/A |
| 8 Surge Test | N/A |
| 9 Injected Currents Susceptibility Test | N/A |
| 10 Magnetic Field Immunity Test | N/A |
| 11 Voltage Dips And Interruptions Test | N/A |



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 BEIDE approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that BEIDE 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, BEIDE therefore assumes no responsibility for the accuracy of information on the brand names, model number, origin of manufacture or any information supplied.

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 BEIDE, unless the applicant has authorized BEIDE in writing to do so.

2.2.Description of Device (EUT)

Description : Socket
Number Model : LG3503
Applicant : Wenzhou Yijie Electric Co., Ltd
No. 83, Fengquan Road, Tianhe street, Wenzhou Economic and Technological Development Zone, Wenzhou City, Zhejiang Province

Manufacturer : Wenzhou Yijie Electric Co., Ltd
No. 83, Fengquan Road, Tianhe street, Wenzhou Economic and Technological Development Zone, Wenzhou City, Zhejiang Province

2.3.Test Facility

Site Description

Tested by : Beide (Shenzhen) Product Service Limited

Site Location : 6F, Bldg E, Hourui 3rd Ind Zone, Xixiang, Bao'an Dist, Shenzhen, China

2.4.Test Uncertainty

Conducted Emission Uncertainty = $\pm 2.66\text{dB}$
Radiated Emission Uncertainty = $\pm 4.26\text{dB}$

2.5. Test Condition

Test Mode: ON

2.6. Test Conditions

Temperature: 22°C-28°C

Relative Humidity: 45%-58%

2.7. Performance Criterion

Performance criterion **A**:

The equipment shall continue to operate as intended during the test.

No change of actual operating state (for example change of channel) is allowed as a result of the application of the test.

Multifunction equipment shall for each function meet the relevant requirements.

Evaluation is carried out for audio and video functions.

Performance criterion **B**:

The equipment shall continue to operate as intended after the test. No loss of function is allowed after the test when the apparatus is used as intended. But failures which are recovered automatically but which cause temporary delay in processing, are permissible. No change of actual operating state for example change of channel or stored data and settings is allowed as a result of the application of the test. During the test, degradation of performance is allowed.

3. TEST INSTRUMENT USED

3.1. For Conducted Emission Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------|--------------|-----------|------------|------------|---------------|
| 1. | Spectrum analyzer | ADVANTEST | R3261C | 51720141 | 2022.05.05 | 1 Year |
| 2. | EMI Test receiver | R&S | ESS | 92822-1 | 2022.05.05 | 1 Year |
| 3. | Pre Amplifier | Anritsu | MH648A | 0983 | 2022.05.05 | 1 Year |
| 4. | LISN | Kyoritsu | KNW-242C | 23-2 | 2022.05.05 | NCR |
| 5. | RF Selector | TOYO | NS4000 | 432099 | NCR | 1 Year |

3.2. For Radiation Emission Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------|--------------|-----------|------------|------------|---------------|
| 1. | EMC Analyzer | Agilent | E7402A | 7233 | 2022.05.05 | 1 Year |
| 2. | EMI Test receiver | R&S | ESS | 92822-1 | 2022.05.05 | 1 Year |
| 3. | Pre Amplifier | Anritsu | MH648A | 0983 | 2022.05.05 | 1 Year |
| 4. | Bilog Antenna | SCHAFFNER | CBL6111C | 9332 | 2022.05.05 | 1 Year |
| 5. | RF Selector | TOYO | NS4901A | 22302 | NCR | NCR |
| 6. | Turn Disc | HD | DS4901A | 0292833 | NCR | NCR |
| 7. | Antenna Mast | HD | MA2400 | 09334 | NCR | NCR |

3.3. For Harmonic / Flicker Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|--------------------------------|--------------|-----------|------------|------------|---------------|
| 1. | Signal Conditioning Unit | SCHAFFNER | CCN1000-1 | 23980/7 | 2022.05.05 | 1 Year |
| 2. | Signal Phase Impedance Network | SCHAFFNER | INA2152 | 0929-2 | 2022.05.05 | 1 Year |
| 3. | 75KVA AC Power Source | SCHAFFNER | NSG1007 | 2983332 | 2022.05.05 | 1 Year |

3.4. For Electrostatic Discharge Immunity Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|------------|--------------|-----------|------------|------------|---------------|
| 1. | ESD Tester | Noiseken | ESS-200AX | 0223 | 2022.05.05 | 1 Year |

3.5.For Radio Frequency Electromagnetic Field

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|--------------------------|--------------|-----------|------------|------------|---------------|
| 1. | Signal Generator | IFR | 2032 | 203002/100 | 2022.05.05 | 1 Year |
| 2. | Amplifier | A&R | 150W1000 | 301584 | 2022.05.05 | 1 Year |
| 3. | Dual Directional Coupler | A&R | DC6080 | 301508 | 2022.05.05 | 1 Year |
| 4. | Power Head | A&R | PH2000 | 301193 | 2022.05.05 | 1 Year |
| 5. | Power Meter | A&R | PM2002 | 302799 | 2022.05.05 | 1 Year |
| 6. | Field Monitor | A&R | FM5004 | 300329 | 2022.05.05 | 1 Year |
| 7. | Field Probe | A&R | FP5000 | 300221 | 2022.05.05 | 1 Year |

3.6.For Electrical Fast Transient/Burst Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------------|--------------|-----------|------------|------------|---------------|
| 1. | Ultra Compact Simulator | EM TEST | UCS500M6 | 0500-19 | 2022.05.05 | 1 Year |

3.7.For Surge Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|--------------|--------------|-----------|------------|------------|---------------|
| 1. | Surge Tester | HAEFELY | PSURGE4.1 | 080107-04 | 2022.05.05 | 1 Year |

3.8.For Injected Currents Susceptibility Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|------------------|--------------|-----------|------------|------------|---------------|
| 1. | Signal Generator | IFR | 2032 | 203002/100 | 2022.05.05 | 1 Year |
| 2. | Amplifier | A&R | 150W1000 | 301584 | 2022.05.05 | NCR |

3.9.For Magnetic Field Immunity Test

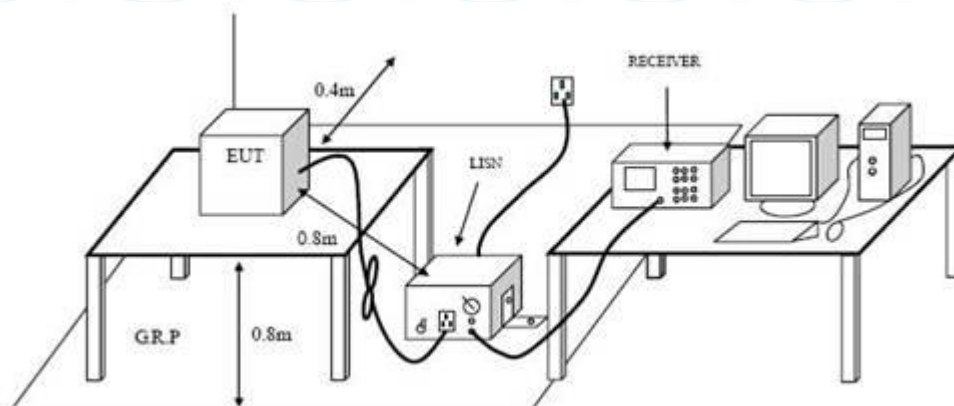
| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-----------------------|--------------|-----------|------------|------------|---------------|
| 1. | Magnetic Field Tester | HAEFELY | MAG100 | 250040.1 | 2022.05.05 | 1 Year |

3.10.For Voltage Dips and Interruptions Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-------------|--------------|------------|------------|------------|---------------|
| 1. | Dips Tester | HEAFELY | PLINE 1610 | 083732-18 | 2022.05.05 | 1 Year |

4. POWER LINE CONDUCTED EMISSION TEST

4.1. Block Diagram of Test Setup



4.2. Test Standard

EN 61000-6-3:2007+A1:2011

4.3. Power Line Conducted Emission Limit

| Frequency MHz | Limits dB(μ V) | |
|------------------|---------------------|---------------|
| | Quasi-peak Level | Average Level |
| 0.15 ~ 0.50 | 66 ~ 56* | 56 ~ 46* |
| 0.50 ~ 5.00 | 56 | 46 |
| 5.00 ~ 30.00 | 60 | 50 |

Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

4.4. EUT Configuration on Test

The following equipments are installed on conducted emission test to meet the test requirement and operating in a manner, which tends to maximize its emission characteristics in a normal application.

- 4.4.1. Socket
 Model Number : LG3503
 Manufacturer : Wenzhou Yijie Electric Co., Ltd

4.5. Operating Condition of EUT

4.5.1. Setup the EUT and simulators as shown in Section 4.1.

4.5.2. Turn on the power of all equipments.

4.5.3. Let the EUT work in test mode (ON) and test it.

4.6. Test Procedure

The EUT is put on the ground and connected to the AC mains through an Artificial Mains Network (L.I.S.N.). This provided 50ohm-coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission levels according to the EN 61000-6-3 regulations during conducted emission test.

The bandwidth of the test receiver (R&S Test Receiver ESS) is set at 10kHz.

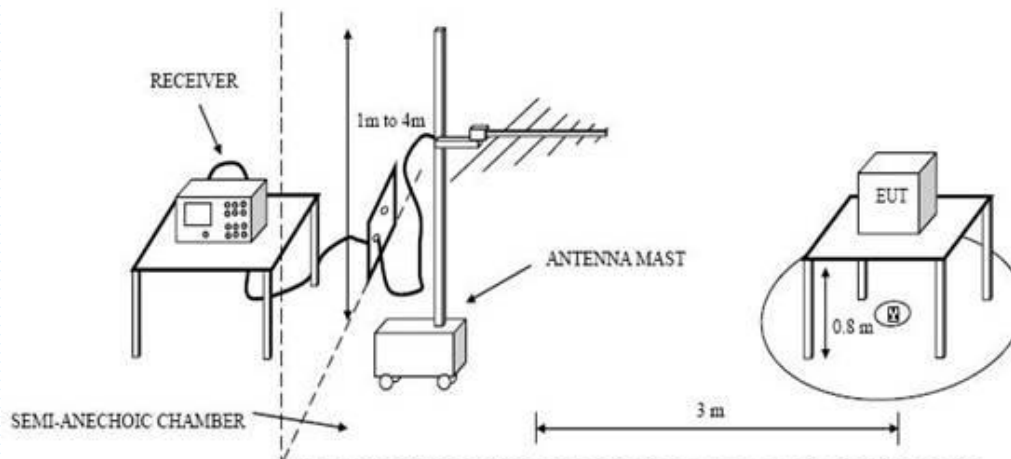
The frequency range from 150 kHz to 30 MHz is investigated.

4.7. Power Line Conducted Emission Test Results

N/A

5.RADIATION EMISSION TEST

5.1.Block Diagram of Test Setup



5.2.Test Standard

EN 61000-6-3:2007+A1:2011

5.3.Radiation Emission Limit

All emanations from a Class B computing devices or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

| FREQUENCY (MHz) | DISTANCE (Meters) | FIELD STRENGTHS LIMITS (dB μ V/m) |
|--------------------|----------------------|--|
| 30 ~ 230 | 3 | 40 |
| 230 ~ 1000 | 3 | 47 |

- Notes: 1. The tighter limit shall apply at the edge between two frequency bands.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT.

5.4.EUT Configuration on Test

The test Class B regulations test method must be used to find the maximum emission during radiated emission test.

The configuration of EUT is same as used in the test.

5.5.Operating Condition of EUT

- 5.5.1. Setup the EUT as shown on Section 5.1.
- 5.5.2. Turn on the power of all equipments.
- 5.5.3. Let the EUT work in test mode (ON) and measure it and test it.

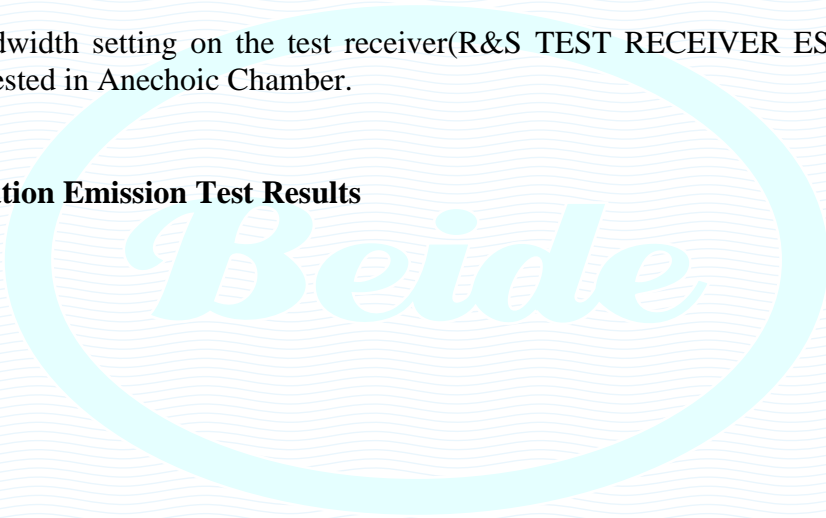
5.6.Test Procedure

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna(calibrated by dipole antenna) are used as a receiving antenna. Both horizontal and vertical polarization of the antenna is set on test.

The bandwidth setting on the test receiver(R&S TEST RECEIVER ESS) is 120kHz. The EUT is tested in Anechoic Chamber.

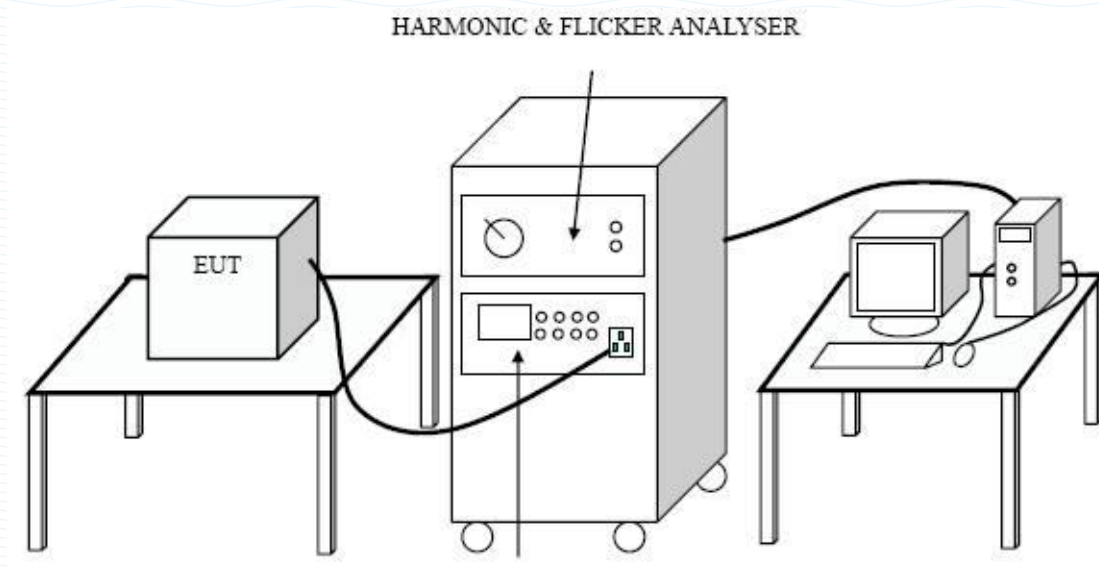
5.7.Radiation Emission Test Results

N/A



6.HARMONIC CURRENT EMISSION TEST

6.1.Block Diagram of Test Setup



6.2.Test Standard

EN IEC61000-3-2:2019+A1:2021, Class-A

6.3.Operating Condition of EUT

Same as Section 4.5 except the test set up replaced by Section 6.1.

6.4.Test Results

N/A

7.VOLTAGE FLUCTUATIONS & FLICKER TEST

7.1.Block Diagram of Test Setup

Same as Section 6.1.

7.2.Test Standard

EN 61000-3-3:2013+A1:2019+A2:2021

7.3.Operating Condition of EUT

Same as Section 4.5 except the test set up replaced by Section 7.1.

7.4.Test Results

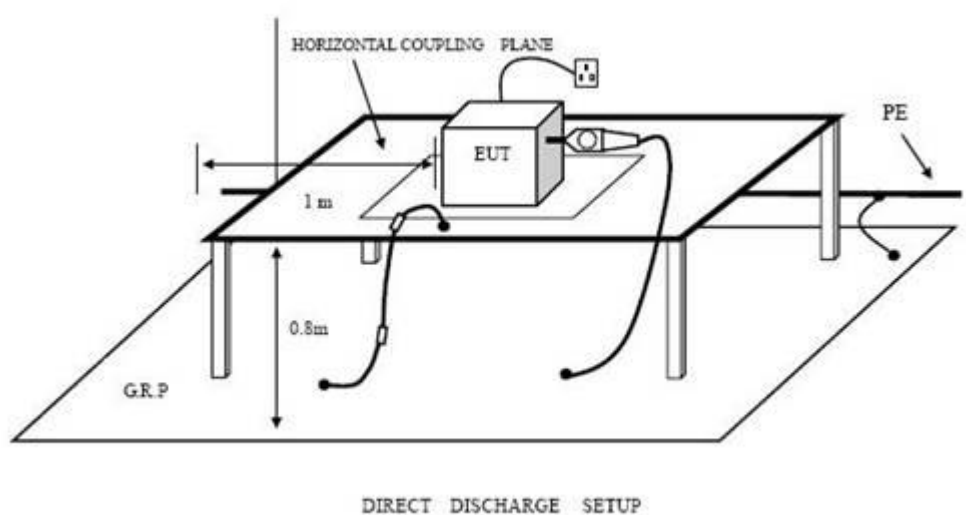
N/A



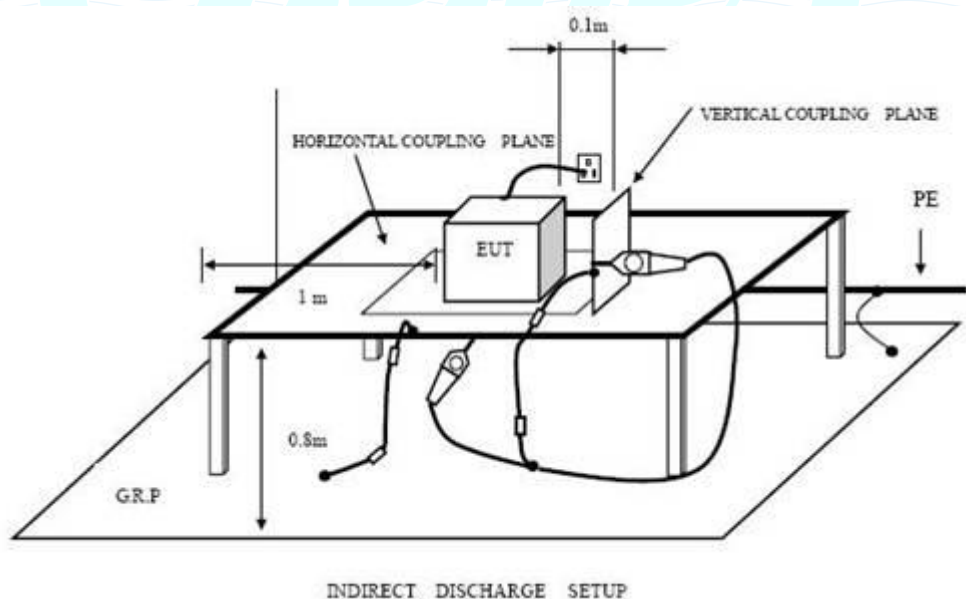
8.ELECTROSTATIC DISCHARGE TEST

8.1.Block Diagram of Test Setup

8.1.1. Block Diagram of ESD Test Setup (Direct Discharge)



8.1.2. Block Diagram of ESD Test Setup (Indirect Discharge)



8.2.Test Standard

EN IEC 61000-6-1:2019 (EN 61000-4-2:2009)

Severity Level 3 for Air Discharge at 8kV

Severity Level 2 for Contact Discharge at 4kV

8.3. Severity level and Performance criterion

8.3.1. Severity level

| Level | Test Voltage Contact Discharge (kV) | Test Voltage Air Discharge (kV) |
|-------|--|------------------------------------|
| 1. | 2 | 2 |
| 2. | 4 | 4 |
| 3. | 6 | 8 |
| 4. | 8 | 15 |
| X. | Special | Special |

Performance criterion: **B**

8.4. EUT Configuration on Test

The configuration of EUT is listed in Section 4.4.

8.5. Operating Condition of EUT

8.5.1. Setup the EUT as shown in Section 4.5. except the test set up replaced by section 8.1.

8.6. Test Procedure

8.6.1. Air Discharge:

This test is done on non-conductive surfaces. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the EUT.

After each discharge, the discharge electrode shall be removed from the EUT.

The generator is then re-triggered for a new single discharge and repeated 10 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed.

8.6.2. Contact Discharge:

All the procedure shall be same as Section 8.6.1 except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

8.7. Test Results

PASS

Please refer to the following page.

Electrostatic Discharge Test Results

Beide (Shenzhen) Product Service Limited

Date: 2022-12-12

| | | | |
|---------------|-----------------------------------|-------------|--------------|
| Applicant | : Wenzhou Yijie Electric Co., Ltd | Test Date | : 2022-12-12 |
| EUT | : Socket | Temperature | : 24°C |
| M/N | : LG3503 | Humidity | : 53% |
| Test Voltage | : -- | Test Mode | : ON |
| Test Engineer | : Jack | | |

Air Discharge: $\pm 8\text{kV}$ For each point positive 10 times and negative 10 times

Contact Discharge: $\pm 4\text{kV}$ For each point positive 25 times and negative 25 times

| Location | Kind | Result |
|-------------------------|--|--------|
| | A-Air Discharge C-Contact Discharge | |
| Slot of EUT | A | A |
| surface | A | A |
| Screw | A | A |
| Indirect Discharge(HCP) | C | A |
| Indirect Discharge(VCP) | C | A |

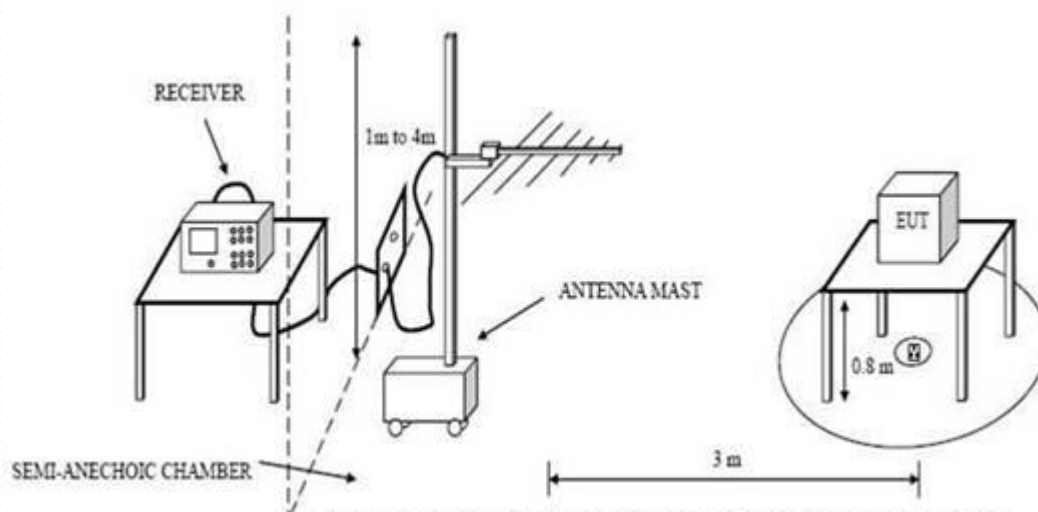
Discharge should be considered on Contact and Air and Horizontal Coupling Plane (HCP) and Vertical Coupling Plane (VCP).

Reviewer: Austin Zhong

9. RF FIELD STRENGTH SUSCEPTIBILITY TEST

9.1. Block Diagram of Test Setup

9.1.1. Block diagram of Test Setup



9.2. Test Standard

EN IEC 61000-6-1:2019 (EN 61000-4-3:2006+A2:2010)

Severity Level 2 at 3V/m

9.3. Severity level and Performance criterion

9.3.1. Severity level

| Level | Field Strength V/m |
|-------|--------------------|
| 1. | 1 |
| 2. | 3 |
| 3. | 10 |
| X. | Special |

Performance criterion : A

9.4. EUT Configuration on Test

The configuration of EUT is listed in Section 4.4.

9.5. Operating Condition of EUT

Setup the EUT as shown in Section 9.1. The operating conditions of EUT are listed in section 4.5.

9.6. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above the ground. The EUT is set 3 meters away from the transmitting antenna which is mounted on an antenna tower. Both horizontal and vertical polarization of the antenna are set on test. Each of the four sides of EUT must be faced this transmitting antenna and measured individually. In order to judge the EUT performance, a CCD camera is used to monitor the EUT. All the scanning conditions are as follows:

| Condition of Test | Remarks |
|------------------------------|-----------------|
| 1. Fielded Strength | 3V/m |
| 2. Radiated Signal | Modulated |
| 3. Scanning Frequency | - |
| 4. Sweeping time of radiated | 0.0015 decade/s |
| 5. Dwell Time | 1 Sec. |

9.7. Test Results

N/A

Please refer to the following page.

RF Field Strength Susceptibility Test Results

Beide (Shenzhen) Product Service Limited

Date: 2022-12-12

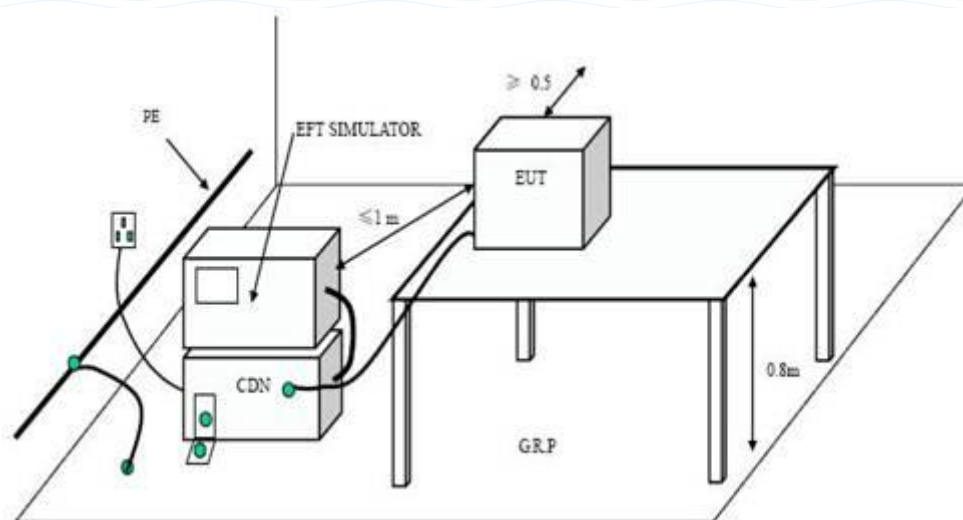
| | | | |
|---|--------------------------------------|-----------------------------------|--------------|
| Applicant | : Wenzhou Yijie Electric Co., Ltd | Test Date | : 2022-12-12 |
| EUT | : Socket | Temperature | : 24°C |
| M/N | : LG3503 | Humidity | : 53% |
| Test Voltage | : -- | Test Mode | : ON |
| Test Engineer | : Jack | Frequency Range | : - |
| Modulation: <input checked="" type="checkbox"/> AM <input type="checkbox"/> Pulse <input type="checkbox"/> none 1 kHz 80% | | | |
| Criterion : A | | | |
| | | Frequency Range: 80MHz-6.0 GHz | |
| Steps | 1% | 1% | |
| | Horizontal | Vertical | |
| Front | N/A | N/A | |
| Right | N/A | N/A | |
| Rear | N/A | N/A | |
| Left | N/A | N/A | |

Reviewer : Austin Zhang

10. ELECTRICAL FAST TRANSIENT/BURST TEST

10.1. Block Diagram of Test Setup

10.1.1. Block diagram of Test Setup



10.2. Test Standard

EN IEC 61000-6-1:2019 (EN 61000-4-4:2012)
Severity Level 2 at 1kV

10.3. Severity level and Performance criterion

10.3.1. Severity level

| Open Circuit Output Test Voltage $\pm 10\%$ | | |
|---|-----------------------|---|
| Level | On Power Supply Lines | On I/O (Input/Output) Signal data and control lines |
| 1. | 0.5 kV | 0.25 kV |
| 2. | 1 kV | 0.5 kV |
| 3. | 2 kV | 1 kV |
| 4. | 4 kV | 2 kV |
| X | Special | Special |

Performance criterion : **B**

10.4. EUT Configuration on Test

The configuration of EUT is listed in Section 4.4.

10.5. Operating Condition of EUT

Setup the EUT as shown in Section 10.1. The operating condition of EUT is listed in section 4.5.

10.6. Test Procedure

The EUT is put on the table which is 0.8 meter high above the ground reference plane which is a min 1m*1m metallic sheet with 0.65mm minimum thickness. This reference ground plane shall project beyond the EUT by at least 0.8m on all sides and the minimum distance between the EUT and all other conductive structure, except the ground plane beneath the EUT, shall be more than 0.5m.

10.6.1. For input and output AC power ports:

The EUT is connected to the power mains by using a coupling device which couples the EFT interference signal to AC power lines. Both polarities of the test voltage should be applied during compliance test and the duration of the test is 2 mins.

10.6.2. For signal lines and control lines ports:

It's unnecessary to test.

10.6.3. For DC output line ports:

It's unnecessary to test.

10.7. Test Results

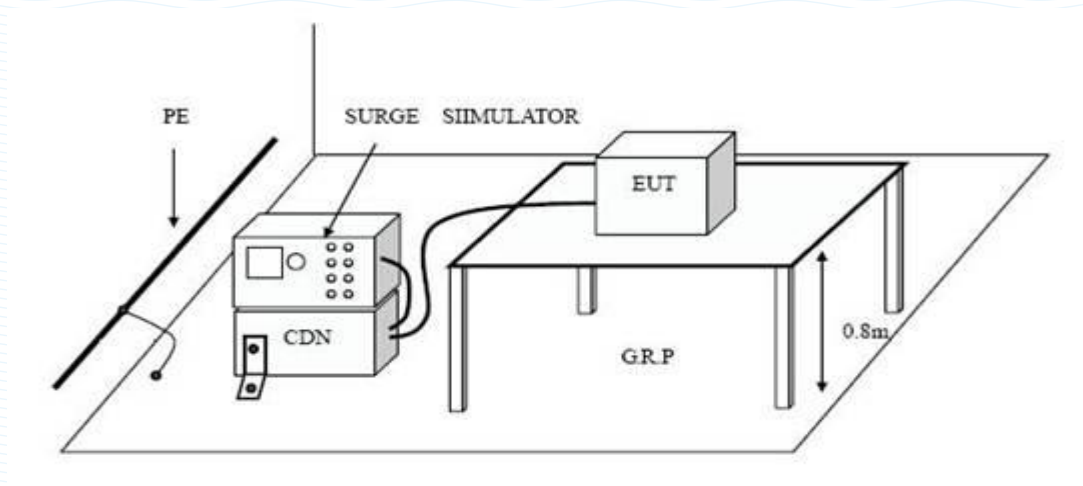
N/A

Please refer to the following page.

11. SURGE TEST

11.1. Block Diagram of Test Setup

11.1.1. Block diagram of Test Setup



11.2. Test Standard

EN IEC 61000-6-1:2019 (EN 61000-4-5:2014+A1:2017)

Severity Level 2 at 1kV for line-line, Severity Level 3 at 2 kV for line-earth

11.3. Severity level and Performance criterion

11.3.1. Severity level

| Severity Level | Open-Circuit Test Voltage kV |
|----------------|---------------------------------|
| 1 | 0.5 |
| 2 | 1.0 |
| 3 | 2.0 |
| 4 | 4.0 |
| * | Special |

Performance criterion : **B**

11.4. EUT Configuration on Test

The configuration of EUT is listed in Section 4.4.

11.5. Operating Condition of EUT

Setup the EUT as shown in Section 11.1. The operating condition of EUT is listed in section 4.5.

11.6. Test Procedure

- 1) Set up the EUT and test generator as shown on section 11.1.
- 2) For line to line coupling mode, provide a 1kV 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to EUT selected points.
- 3) At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are conducted during test.
- 4) Different phase angles are done individually.
- 5) Repeat procedure 2) to 4) except the open-circuit test voltage change from 1kV to 2kV for line to earth coupling mode test.
- 6) Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

11.7. Test Results

N/A

Please refer to the following page.



Beide

Surge Immunity Test Results

Beide (Shenzhen) Product Service Limited

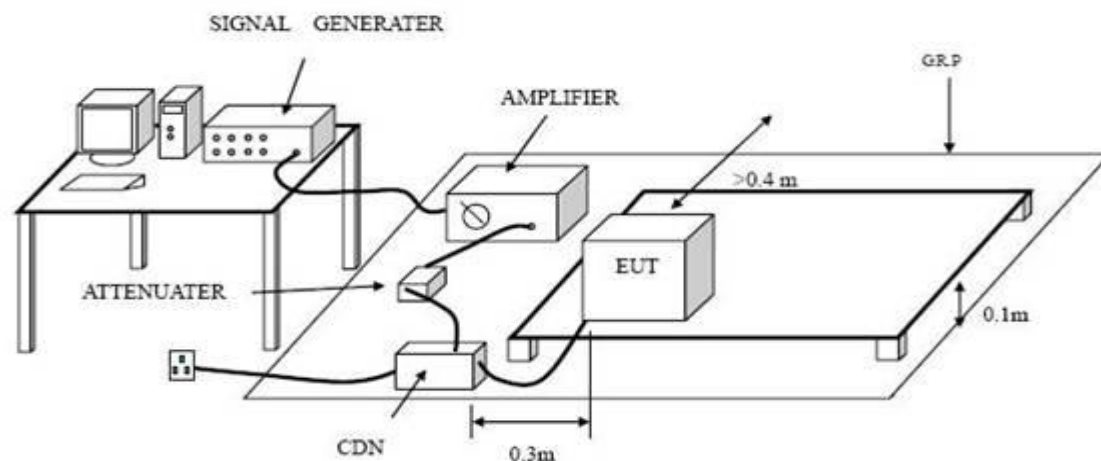
Date : 2022-12-12

| Applicant : <u>Wenzhou Yijie Electric Co., Ltd</u> | | | | Test Date : <u>2022-12-12</u> | |
|--|----------|-------------|-------------|-------------------------------------|----------|
| EUT : <u>Socket</u> | | | | Temperature : <u>24°C</u> | |
| M/N : <u>LG3503</u> | | | | Humidity : <u>53%</u> | |
| Test Voltage : <u>--</u> | | | | Test Mode : <u>ON</u> | |
| Location | Polarity | Phase Angle | No of Pulse | Pulse Voltage (kV) IEC 61000-4-5 | Result |
| L1-N | ± | 0 | 5 | 1 | A N/A |
| | ± | 90 | 5 | 1 | |
| | ± | 180 | 5 | 1 | |
| | ± | 270 | 5 | 1 | |
| L1-PE | ± | 0 | 5 | 2 | A N/A |
| | ± | 90 | 5 | 2 | |
| | ± | 180 | 5 | 2 | |
| | ± | 270 | 5 | 2 | |
| N-PE | ± | 0 | 5 | 2 | A N/A |
| | ± | 90 | 5 | 2 | |
| | ± | 180 | 5 | 2 | |
| | ± | 270 | 5 | 2 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Remark: | | | | | |

Reviewer: Austin Zhang

12. INJECTED CURRENTS SUSCEPTIBILITY TEST

12.1. Block Diagram of Test Setup



12.2. Test Standard

EN IEC 61000-6-1:2019 (EN 61000-4-6:2014+AC:2015)
Severity Level 2 at 3V (rms), 0.15MHz ~ 80MHz

12.3. Severity Levels and Performance Criterion

12.3.1 Severity level

| Level | Field Strength V/m |
|-------|--------------------|
| 1. | 1 |
| 2. | 3 |
| 3. | 10 |
| X | Special |

Performance criterion: A

12.4. EUT Configuration on Test

The configuration of EUT is listed in Section 4.4.

12.5. Operating Condition of EUT

12.5.1 Setup the EUT as shown in Section 12.1.

12.5.2 Turn on the power of all equipments.

12.6. Test Procedure

- 1) Set up the EUT, CDN and test generators as shown on Section 12.1.
- 2) Let the EUT work in test mode and test it.
- 3) The EUT are placed on an insulating support 0.8m high above a ground reference plane. CDN(coupling and decoupling device) is placed on the ground plane about 0.3m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).
- 4) The disturbance signal described below is injected to EUT through CDN.
- 5) The EUT operates within its operational mode(s) under intended climatic conditions after power on.
- 6) The frequency range is swept from 150kHz to 80MHz using 3V signal level, and with the disturbance signal 80% amplitude modulated with a 1 kHz sine wave.
- 7) The rate of sweep shall not exceed 1.5×10^{-3} decades/s. Where the frequency is swept incrementally, the step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value.
- 8) Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

12.7. Test Results

N/A

Please refer to the following page.

Injected Currents Susceptibility Test Results

Beide (Shenzhen) Product Service Limited

Date: 2022-12-12

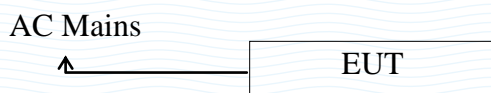
| Applicant : <u>Wenzhou Yijie Electric Co., Ltd</u> | | | Test Date : <u>2022-12-12</u> | |
|--|-------------------|-------------------------|-------------------------------|--------|
| EUT : <u>Socket</u> | | | Temperature : <u>24°C</u> | |
| M/N : <u>LG3503</u> | | | Humidity : <u>53%</u> | |
| Test Voltage : <u>--</u> | | | Test Mode : <u>ON</u> | |
| Test Engineer : <u>Jack</u> | | | | |
| Frequency Range (MHz) | Injected Position | Strength | Criterion | Result |
| 0.15 ~ 80 | AC Mains | 3V(rms), Unmodulated | A | N/A |
| Remark : 1. Modulation Signal:1kHz 80% AM | | | Note: | |

Reviewer: Justin Zhong

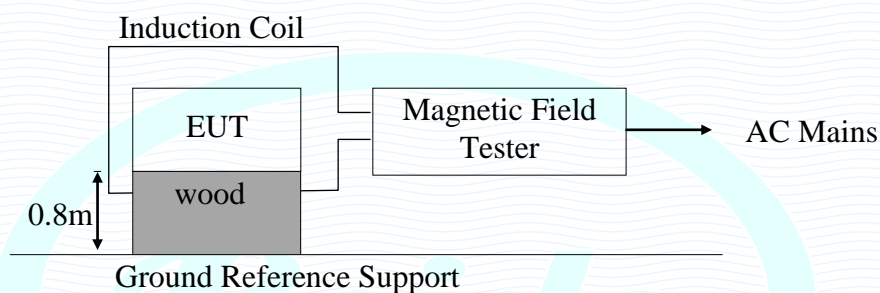
13.MAGNETIC FIELD IMMUNITY TEST

13.1.Block Diagram of Test Setup

13.1.1.Block Diagram of the EUT



13.1.2.Block Diagram of Test Setup



13.2.Test Standard

EN IEC 61000-6-1:2019 (EN 61000-4-8:2010)
Severity Level 2 at 3A/m

13.3.Severity Levels and Performance Criterion

13.3.1.Severity level

| Level | Magnetic Field Strength A/m |
|-------|-----------------------------|
| 1. | 1 |
| 2. | 3 |
| 3. | 10 |
| 4. | 30 |
| 5. | 100 |
| X. | Special |

Performance criterion: A

13.4.EUT Configuration on Test

The test must be used to find severity level in different phrase performance criterion during test.

The configuration of EUT is same as used in the test.

13.5.Operating Condition of EUT

13.5.1. Setup the EUT as shown in Section 13.1.1 and 13.1.2

13.5.2. Turn on the power of all equipments.

13.5.3. Let the EUT work in test mode (ON) and test it.

13.6.Test Procedure

The EUT shall be subjected to the test magnetic field by using the induction coil of standard dimensions (1m×1m) and shown in Section 13.1.1.and 13.1.2 The induction coil shall then be rotated by 90 °in order to expose the EUT to the test field with different orientations

13.7.Test Results

N/A

Please refer to the following page.

Magnetic Field Immunity Test Results

Beide (Shenzhen) Product Service Limited

Date: 2022-12-12

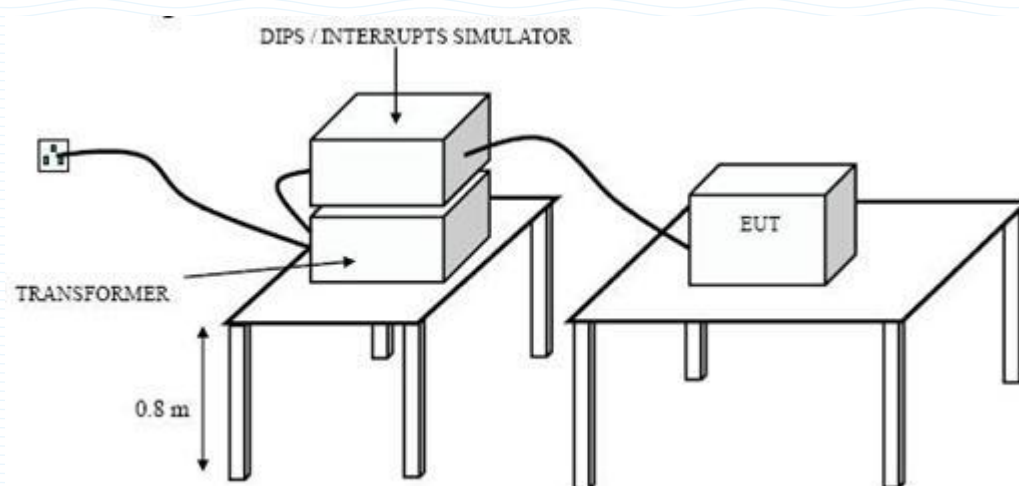
| Applicant : <u>Wenzhou Yijie Electric Co., Ltd</u> EUT : <u>Socket</u> M/N : <u>LG3503</u> Test Mode: <u>ON</u> Test Voltage: <u>--</u> | | | Test Date : <u>2022-12-12</u> Temperature : <u>24°C</u> Humidity : <u>49%</u> Test Engineer : <u>Jack</u> | |
|---|------------------|------------------|--|--------|
| Test Level | Testing Duration | Coil Orientation | Criterion | Result |
| 3A/m | 5 mins | X | A | N/A |
| 3A/m | 5 mins | Y | A | N/A |
| 3A/m | 5 mins | Z | A | N/A |
| Remark: | | | Test Equipment : Magnetic Field Tester EM TEST | |

Reviewer: Justin Zhang

14. VOLTAGE DIPS AND INTERRUPTIONS TEST

14.1. Block Diagram of Test Setup

14.1.1. Block diagram of Test Setup



14.2. Test Standard

EN IEC 61000-6-1:2019 (EN 61000-4-11:2004+A1:2017)

14.3. Severity level and Performance criterion

14.3.1. Severity level

| Test Level $\% U_T$ | Voltage dip and short interruptions $\% U_T$ | Duration (in period) |
|------------------------|--|-------------------------|
| 0 | 100 | 1P |
| 40 | 100 | 10/12P |
| 70 | 30 | 25/30P |
| 0 | 100 | 250/300P |
| | | |
| | | |

Performance criterion : B&C

14.4. EUT Configuration

The configuration of EUT is listed in section 4.4

14.5. Operating Condition of EUT

- 14.5.1. Setup the EUT as shown on Section 14.1.
- 14.5.2. Turn on the power of all equipments.
- 14.5.3. Let the EUT work in test mode (ON) and measure it and test it.

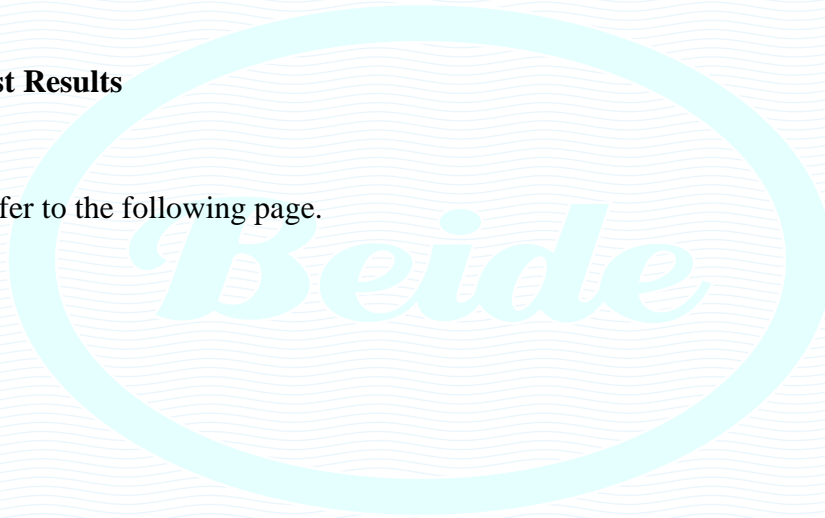
14.6. Test Procedure

- 1) Set up the EUT and test generator as shown on section 14.1.
- 2) The interruption is introduced at selected phase angles with specified duration. There is a 3mins minimum interval between each test event.
- 3) After each test a full functional check is performed before the next test.
- 4) Repeat procedures 2 & 3 for voltage dips, only the test level and duration is changed. Record any degradation of performance.

14.7. Test Results

N/A

Please refer to the following page.




Voltage Dips And Interruptions Test Results

Beide (Shenzhen) Product Service Limited

Date : 2022-12-12

| Applicant : <u>Wenzhou Yijie Electric Co., Ltd</u> | | | Test Date : <u>2022-12-12</u> | | |
|--|---|----------------------|--|------------------|-----|
| EUT : <u>Socket</u> | | | Temperature : <u>24°C</u> | | |
| M/N : <u>LG3503</u> | | | Humidity : <u>53%</u> | | |
| Test Voltage : <u>--</u> | | | | | |
| <input checked="" type="checkbox"/> Single Test Voltage | | | <input type="checkbox"/> Dual Test Voltage | | |
| Test Mode: ON | | | | | |
| Test Level % U _T | Voltage Dips & Short Interruptions % U _T | Duration (in period) | Phase Angle | Result Criterion | |
| 0 | 100 | 1P | 0-360 | B | N/A |
| 40 | 60 | 10P | 0-360 | B | N/A |
| 70 | 100 | 25P | 0-360 | A | N/A |
| 0 | 100 | 250P | 0-360 | B | N/A |
| Remark: U _T is the rated voltage for the equipment. | | | | | |

Reviewer: Austin.Zhong



APPENDIX I
(Photos of the EUT)

Figure 1
APPEARANCE OF EUT

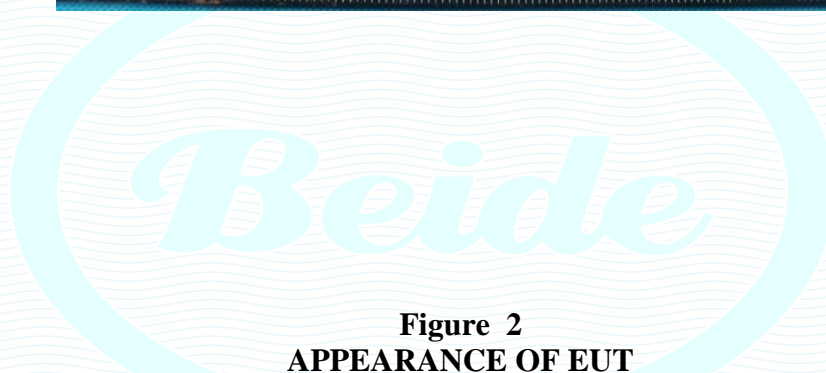
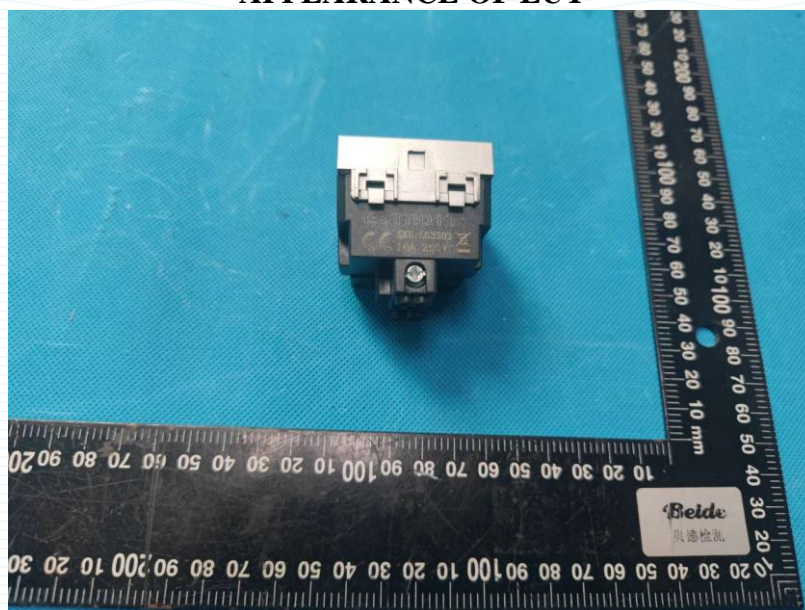


Figure 2
APPEARANCE OF EUT

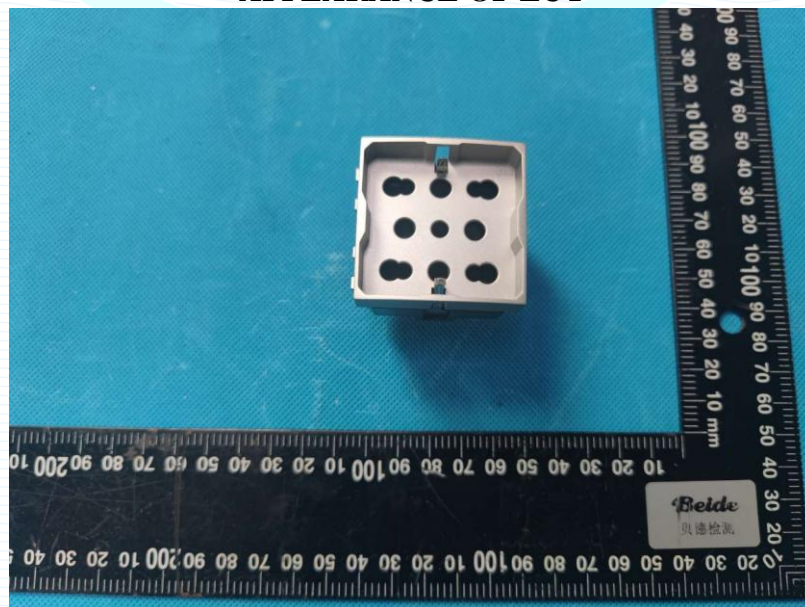


Figure 3
APPEARANCE OF EUT

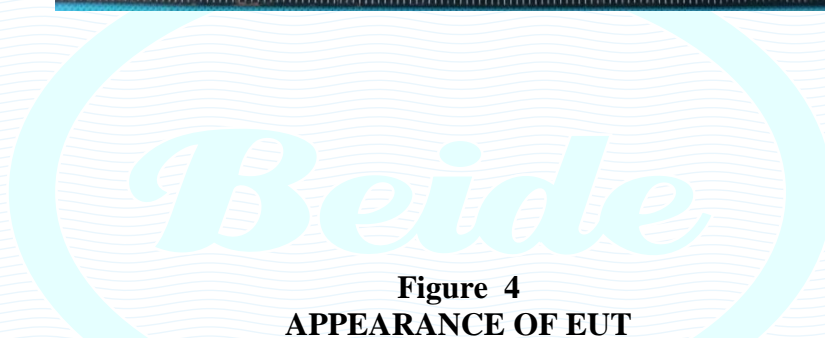


Figure 4
APPEARANCE OF EUT



Figure 5
APPEARANCE OF EUT

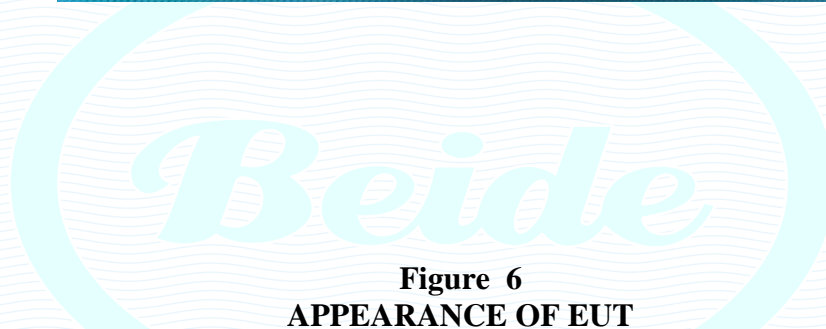
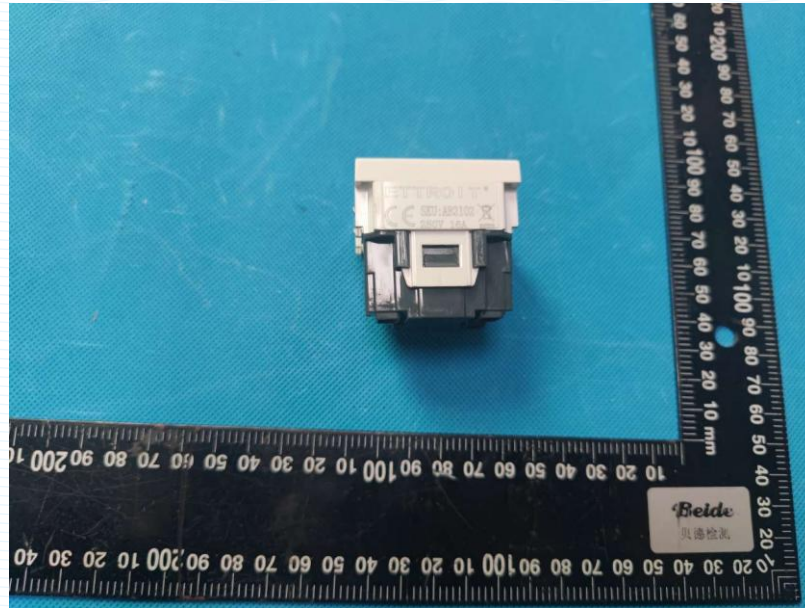


Figure 6
APPEARANCE OF EUT

