# EMC TEST REPORT
for
Xindao (Shanghai) Co., Ltd.

Sun flower with solar panel
Model No.: P323.233

| | | |
|---|---|---|
| Prepared for | : | Xindao (Shanghai) Co., Ltd. |
| Address | : | 15th Floor, LZY Tower, No.4711, Jiao Tong Rd., Shanghai, P.R. China |
| Prepared by | : | Accurate Technology Co., Ltd.<br>F1, Bldg. A&D, Changyuan New Material Port, Keyuan Rd.<br>Science & Industry Park, Nanshan District, Shenzhen<br>518057, P.R. China<br><br>Tel: +86-755-26503290<br>Fax: +86-755-26503396 |

| | | |
|---|---|---|
| Report No. | : | ATE20120263 |
| Date of Test | : | March 2-3, 2012 |
| Date of Report | : | March 6, 2012 |

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# Test Report Declaration

Applicant: Xindao (Shanghai) Co., Ltd.

Manufacturer:

Product: Sun flower with solar panel

(A) Model No.: P323.233

(B) Serial No.: n.a.

(C) Rating: DC 5V (Powered by PC)

Measurement Procedure Used:

**EN 55022: 2010**
**EN 55024: 2010 (IEC61000-4-2: 2008**
**IEC61000-4-3: 2010**
**IEC61000-4-8: 2009)**

The device described above is tested by Accurate Technology Co., Ltd. To determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Accurate Technology Co., Ltd. Is assumed full of responsibility for the accuracy and completeness of these measurements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Accurate Technology Co., Ltd.

Date of Test : March 2-3, 2012

Prepared by : Jane Lü

(Jane Lü, Engineer)

Approved & Authorized Signer :

(Sean Liu, Manager)

# 1. TEST RESULTS SUMMARY

| Test Items | Test Standard | Test Results |
|---|---|---|
| Power Line Conducted Emission | EN 55022: 2010 | Pass |
| Radiated Emission | EN 55022: 2010 | Pass |
| Electrostatic Discharge Immunity | EN 55024: 2010 (IEC61000-4-2: 2008) | Pass |
| Radiated Electromagnetic Fields Immunity | EN 55024: 2010 (IEC 61000-4-3: 2010) | Pass |
| Magnetic Field Immunity | EN 55024: 2010 (IEC 61000-4-8: 2009) | Pass |

# 2. GENERAL INFORMATION

## 2.1.Description of Device (EUT)

| | | |
|---|---|---|
| Product | : | Sun flower with solar panel |
| Model No. | : | P323.233 |
| Rating | : | DC 5V (Powered by PC) |
| Applicant | : | Xindao (Shanghai) Co., Ltd. |
| Address | : | 15th Floor, LZY Tower, No.4711, Jiao Tong Rd., Shanghai, P.R. China |
| Manufacturer | : | |
| Address | : | |
| Date of sample received | : | February 28, 2012 |
| Date of Test | : | March 2-3, 2012 |

## 2.2.Accessory and Auxiliary Equipment

| | | |
|---|---|---|
| PC | : | Manufacturer: DELL<br>Model No.: DMC<br>Serial No.: 3R7LF1X |
| LCD Monitor | : | Manufacturer: DELL<br>Model No.: E172FPt<br>Serial No.: 434 |
| Keyboard | : | Manufacturer: DELL<br>Model No.: SK-8110<br>Serial No.: LR86682 |
| Mouse | : | Manufacturer: DELL<br>Model No.: M071KC<br>Serial No.: 410042355 |
| Printer | : | Manufacturer: Canon<br>Model No.: BJC-1000SP |

## 2.3. Description of Test Facility

| | | |
|---|---|---|
| EMC Lab | : | Accredited by TUV Rheinland Shenzhen, May 10, 2004<br><br>Listed by FCC<br>The Registration Number is 253065<br>The Registration Number is 752051<br><br>Listed by Industry Canada<br>The Registration Number is 5077A-1<br>The Registration Number is 5077A-2<br><br>Accredited by China National Accreditation Committee for Laboratories<br>The Certificate Registration Number is L3193 |
| Name of Firm | : | Accurate Technology Co., Ltd. |
| Site Location | : | F1, Bldg. A, Changyuan New Material Port, Keyuan Rd. Science & Industry Park, Nanshan, Shenzhen, Guangdong P.R. China |
| Subcontracted Items | : | RF Field Strength Susceptibility Test |
| Subcontractor | : | Shenzhen Academy of Metrology and Quality Inspection |
| Site Location | : | Bldg. of Shenzhen Academy of Metrology and Quality Inspection, Longzhu Road, Nanshan, Shenzhen, China. |

## 2.4. Measurement Uncertainty

| | | |
|---|---|---|
| Conducted Emission Expanded Uncertainty | = | 2.23dB, k=2 |
| Power Disturbance Expanded Uncertainty | = | 2.92 dB, k=2 |
| Radiated emission expanded uncertainty (9kHz-30MHz) | = | 3.08dB, k=2 |
| Radiated emission expanded uncertainty (30MHz-1000MHz) | = | 4.42dB, k=2 |
| Radiated emission expanded uncertainty (Above 1GHz) | = | 4.06dB, k=2 |

# 3. MEASURING DEVICE AND TEST EQUIPMENT

## 3.1.For Power Line Conducted Emission

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|---|---|---|---|---|---|
| 1. | Test Receiver | Rohde & Schwarz | ESCS30 | 100307 | Jan. 7, 2012 | 1 Year |
| 2. | L.I.S.N. | Schwarzbeck | NSLK8126 | 8126431 | Jan. 7, 2012 | 1 Year |
| 3. | L.I.S.N. | Rohde & Schwarz | ESH3-Z5 | 100310 | Jan. 7, 2012 | 1 Year |
| 4. | Pulse Limiter | Rohde & Schwarz | ESH3-Z2 | 100815 | Jan. 7, 2012 | 1 Year |
| 5. | 50Ω Coaxial Switch | Anritsu Corp | MP59B | 6200283933 | Jan. 7, 2012 | 1 Year |
| 6. | RF Coaxial Cable | SUHNER | N-2m | No.3 | Jan. 7, 2012 | 1 Year |

## 3.2. For Radiated Emission Measurement

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|---|---|---|---|---|---|
| 1. | Spectrum Analyzer | ANRITSU | MS2651B | 6200238856 | Jan. 7, 2012 | 1 Year |
| 2. | Test Receiver | Rohde&Schwarz | ESCS30 | 100307 | Jan. 7, 2012 | 1 Year |
| 3. | Bilog Antenna | Schwarzbeck | VULB9163 | 9163-194 | Jan. 7, 2012 | 1 Year |
| 4. | 50 Coaxial Switch | Anritsu Corp | MP59B | 6200237248 | Jan. 7, 2012 | 1 Year |
| 5. | RF Coaxial Cable | Schwarzbeck | N-5m | No.1 | Jan. 7, 2012 | 1 Year |
| 6. | RF Coaxial Cable | Schwarzbeck | N-1m | No.6 | Jan. 7, 2012 | 1 Year |
| 7. | RF Coaxial Cable | Schwarzbeck | N-1m | No.7 | Jan. 7, 2012 | 1 Year |
| 8. | RF Coaxial Cable | RESENBERGER | N-0.5m | No.12 | Jan. 7, 2012 | 1 Year |
| 9. | Pre-Amplifier | Agilent | 8447D | 294A10619 | Jan. 7, 2012 | 1 Year |

## 3.3. For Electrostatic Discharge Immunity Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|---|---|---|---|---|---|
| 1. | ESD Tester | HAEFELY | PESD1610 | H4001552 | Jan. 11, 2012 | 1 Year |

## 3.4.For RF Strength Susceptibility Test

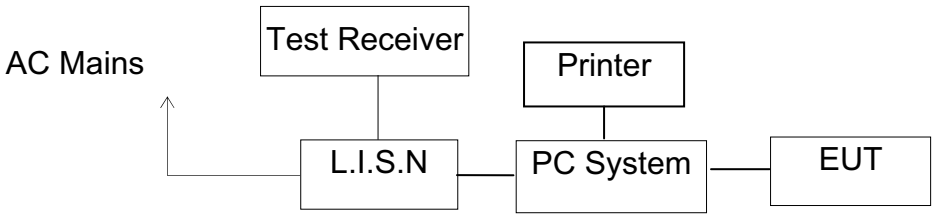
| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|---|---|---|---|---|---|
| 1. | Signal Generator | Rohde&Schwarz | SMT03 | 100059 | Jan. 23, 2012 | 1 Year |
| 2. | Voltage Probe | Rohde&Schwarz | URV5-Z2 | 100013 | Jan. 23, 2012 | 1 Year |
| 3. | Power Amplifier | AR | 150W1000 | 300999 | Jan. 23, 2012 | 1 Year |
| 4. | Power Amplifier | AR | 25S1G4AM1 | 305993 | Mar. 10, 2012 | 2 Year |
| 5. | Bilog Antenna | Chase | CBL6111C | 2576 | Jan. 23, 2012 | 1 Year |
| 6. | Anechoic chamber | Albatross Projects | MCDC | ---- | Mar. 20, 2012 | 2 Year |

## 3.5.For Magnetic Field Immunity Test

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|---|---|---|---|---|---|
| 1. | Magnetic Field Tester | HAEFELY | MAG100 | 150577 | Jan. 7, 2012 | 1 Year |

# 4. POWER LINE CONDUCTED EMISSION MEASUREMENT

## 4.1.Block Diagram of Test Setup




(EUT: Sun flower with solar panel)

## 4.2.Measuring Standard

EN 55022: 2010

## 4.3.Power Line Conducted Emission Limits (Class B)

| Frequency (MHz) | Limit dB(μV) | |
|---|---|---|
| | Quasi-peak Level | Average Level |
| 0.15 - 0.50 | 66.0 – 56.0 * | 56.0 - 46.0 * |
| 0.50 - 5.00 | 56.0 | 46.0 |
| 5.00 - 30.00 | 60.0 | 50.0 |
| Note1-The lower limit shall apply at the transition frequencies.<br>Note2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz. | | |

## 4.4.EUT Configuration on Measurement

The following equipments are installed on Conducted Emission Measurement to meet EN 55022 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

### 4.4.1.Sun flower with solar panel (EUT)

Model No.: P323.233
Serial No.: N/A
Manufacturer:

## 4.5.Operating Condition of EUT

4.5.1. Setup the EUT as shown on Section 4.1.

4.5.2. Turn on the power of all equipments.

4.5.3. Let the EUT work in test mode (Connect to PC) and measure it.

## 4.6.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and connected to the AC mains through Line Impedance Stability Network (L.I.S.N). This provided a 50Ω coupling impedance for the tested equipments. Both sides of AC line are investigated to find out the maximum conducted emission according to the EN 55022 regulations during conducted emission measurement.

The bandwidth of the field strength meter (R&S Test Receiver ESCS30) is set at 9kHz in 150kHz-30MHz and 200Hz in 9kHz -150kHz.

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

## 4.7.Measuring Results

**PASS.**

The frequency range 150 kHz to 30MHz is investigated.

Test mode : Connect to PC

***MEASUREMENT RESULT: "T02_fin"***

3/3/2012 3:22AM

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Detector | Line | PE |
|---|---|---|---|---|---|---|---|
| 0.151202 | 39.00 | 11.0 | 66 | 26.9 | QP | L1 | GND |
| 0.551165 | 27.50 | 12.0 | 56 | 28.5 | QP | L1 | GND |
| 2.082610 | 26.20 | 11.7 | 56 | 29.8 | QP | L1 | GND |

***MEASUREMENT RESULT: "T02_fin2"***

3/3/2012 3:22AM

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Detector | Line | PE |
|---|---|---|---|---|---|---|---|
| 0.183137 | 40.30 | 11.2 | 54 | 14.0 | AV | L1 | GND |
| 1.593857 | 28.50 | 11.7 | 46 | 17.5 | AV | L1 | GND |
| 2.512422 | 26.80 | 11.6 | 46 | 19.2 | AV | L1 | GND |

***MEASUREMENT RESULT: "T01_fin"***

3/3/2012 3:17AM

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Detector | Line | PE |
|---|---|---|---|---|---|---|---|
| 0.182408 | 42.90 | 11.2 | 64 | 21.5 | QP | N | GND |
| 0.304059 | 35.70 | 11.6 | 60 | 24.4 | QP | N | GND |
| 0.609010 | 31.60 | 12.0 | 56 | 24.4 | QP | N | GND |

***MEASUREMENT RESULT: "T01_fin2"***

3/3/2012 3:17AM

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Detector | Line | PE |
|---|---|---|---|---|---|---|---|
| 0.548969 | 33.90 | 12.0 | 46 | 12.1 | AV | N | GND |
| 0.792592 | 32.20 | 11.9 | 46 | 13.8 | AV | N | GND |
| 1.039781 | 34.00 | 11.8 | 46 | 12.0 | AV | N | GND |

Emissions attenuated more than 20 dB below the permissible value are not reported.
The spectral diagrams are attached as below.

***ACCURATE TECHNOLOGY CO.,LTD***

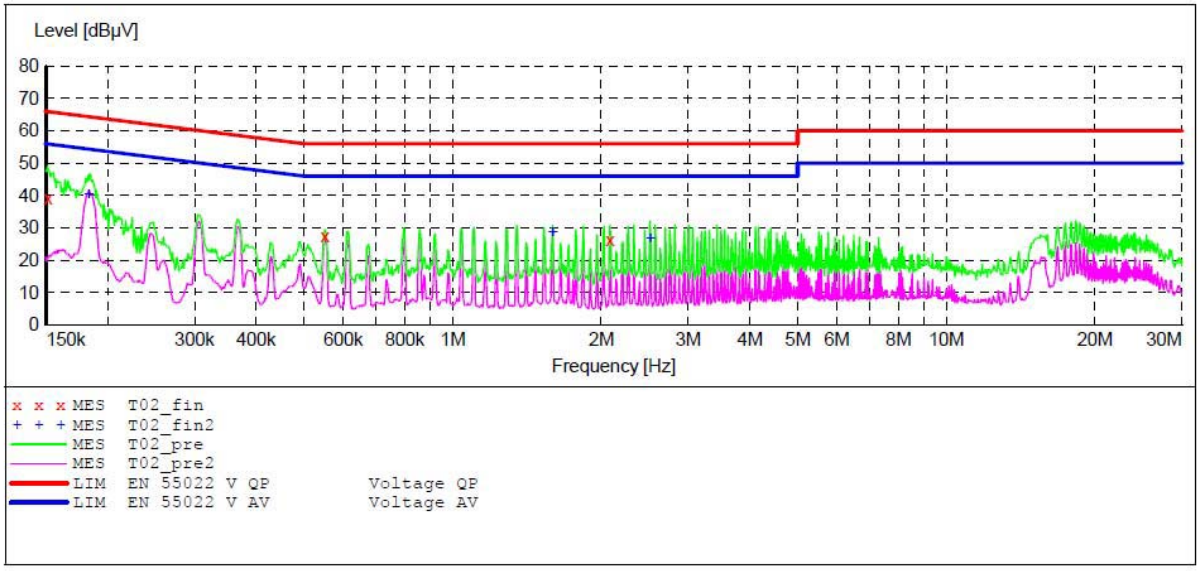
***CONDUCTED EMISSION STANDARD EN 55022 B***

| | |
|---|---|
| EUT: | Sun flower with solar panel M/N:P323.233 |
| Manufacturer: | YuanGuangHao |
| Operating Condition: | CONNECT TO PC |
| Test Site: | 1#Shielding Room |
| Operator: | TOM |
| Test Specification: | L 230V/50Hz |
| Comment: | Report No.:ATE20120263 |
| Start of Test: | 3/3/2012 / 3:19:25AM |

***SCAN TABLE: "V 150K-30MHz fin"***

Short Description: _SUB_STD_VTERM2 1.70

| Start Frequency | Stop Frequency | Step Width | Detector | Meas. Time | IF Bandw. | Transducer |
|---|---|---|---|---|---|---|
| 150.0 kHz | 30.0 MHz | 0.8 % | QuasiPeak<br>Average | 1.0 s | 9 kHz | NSLK8126 2008 |



***ACCURATE TECHNOLOGY CO.,LTD***

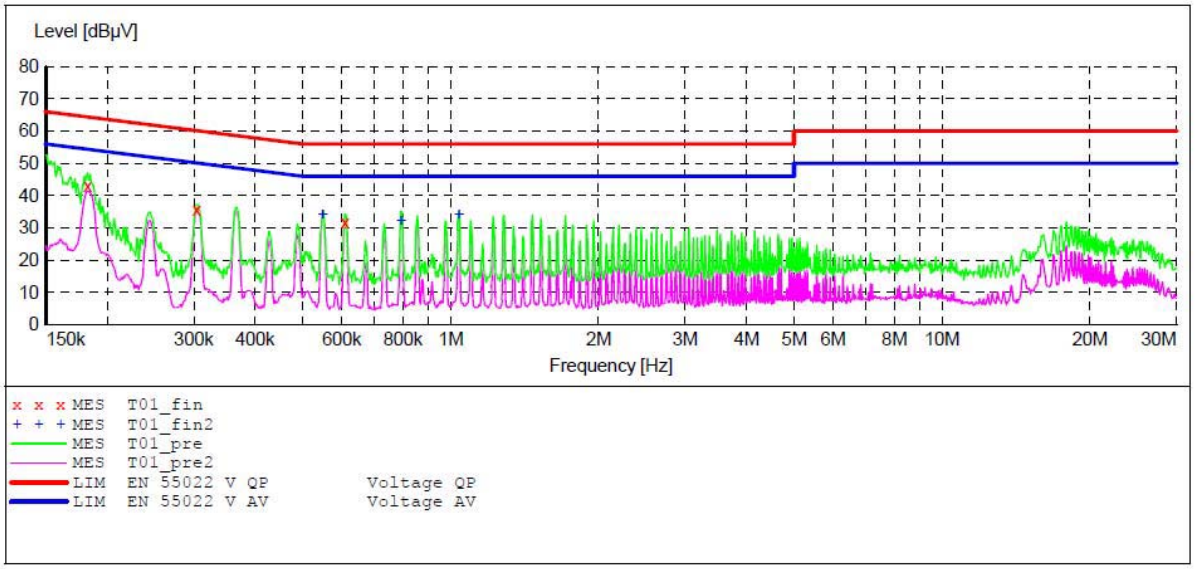
***CONDUCTED EMISSION STANDARD EN 55022 B***

| | |
|---|---|
| EUT: | Sun flower with solar panel M/N:P323.233 |
| Manufacturer: | YuanGuangHao |
| Operating Condition: | CONNECT TO PC |
| Test Site: | 1#Shielding Room |
| Operator: | TOM |
| Test Specification: | N 230V/50Hz |
| Comment: | Report No.:ATE20120263 |
| Start of Test: | 3/3/2012 / 3:14:35AM |

***SCAN TABLE: "V 150K-30MHz fin"***

Short Description: _SUB_STD_VTERM2 1.70

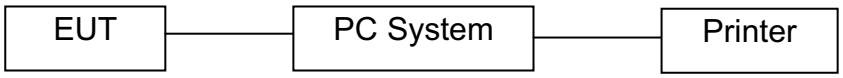
| Start Frequency | Stop Frequency | Step Width | Detector | Meas. Time | IF Bandw. | Transducer |
|---|---|---|---|---|---|---|
| 150.0 kHz | 30.0 MHz | 0.8 % | QuasiPeak<br>Average | 1.0 s | 9 kHz | NSLK8126 2008 |



# 5. RADIATED EMISSION MEASUREMENT

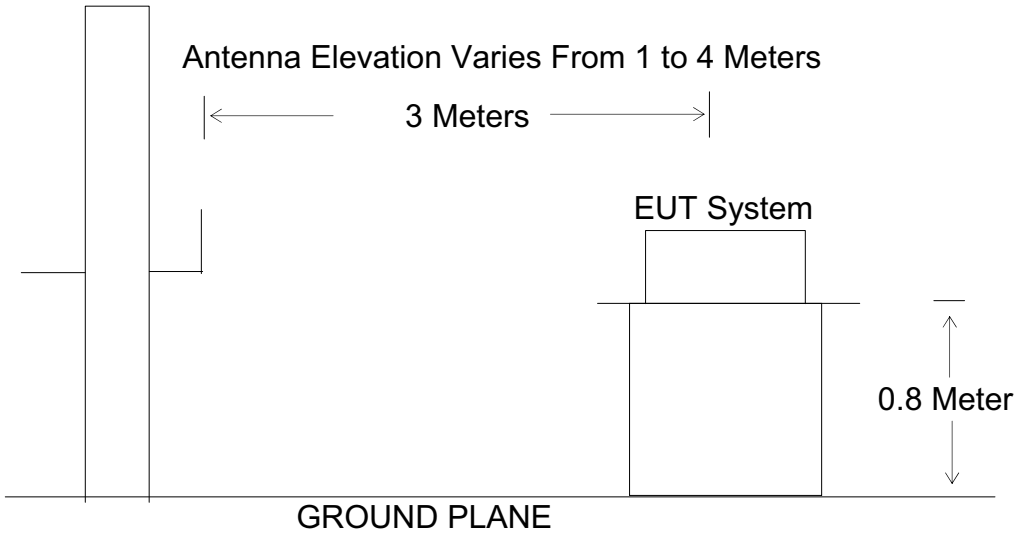
## 5.1.Block Diagram of Test

### 5.1.1.Block diagram of connection between the EUT and simulators




(EUT: Sun flower with solar panel)

### 5.1.2.Block diagram of test setup (In chamber)




(EUT: Sun flower with solar panel)

## 5.2.Measuring Standard

EN 55022: 2010

## 5.3.Radiated Emission Limits (Class B)

### 5.3.1. Limit below 1GHz

| Frequency (MHz) | Quasi-peak limits dB(μV/m) |
|---|---|
| 30 – 230 | 40 |
| 230 - 1000 | 47 |
| Note: (1) The smaller limit shall apply at the combination point between two frequency bands.<br>(2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT. | |

### 5.3.2. Limit above 1GHz

| Frequency (GHz) | Average Limit dB(μV/m) | Peak Limit dB(μV/m) |
|---|---|---|
| 1 – 3 | 50 | 70 |
| 3 - 6 | 54 | 74 |
| Note: The lower limit applies at the transition frequency. | | |

## 5.4.Conditional Testing Procedure

If the highest frequency of the internal sources of the EUT is less than 108MHz, the measurement shall only be made up to 1GHz.

If the highest frequency of the internal sources of the EUT is between 108MHz and 500MHz, the measurement shall only be made up to 2GHz.

If the highest frequency of the internal sources of the EUT is between 500MHz and 1GHz, the measurement shall only be made up to 5GHz.

If the highest frequency of the internal sources of the EUT is above 1GHz, the measurement shall only be made up to 5 times the highest frequency or 6GHz, whichever is less.

## 5.5.EUT Configuration on Test

Test equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

### 5.5.1.Sun flower with solar panel (EUT)

Model No.: P323.233
Serial No.: N/A
Manufacturer:

## 5.6.Operating Condition of EUT

5.6.1.Turn on the power.

5.6.2.Let the EUT work in test mode (Connect to PC) and measure it.

## 5.7.Test Procedure

The EUT is placed on a turntable, which is 0.8 meter high above the ground. The turntable 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 an antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Bilog antenna (calibrated by Dipole Antenna) is used as a receiving antenna. Both horizontal and vertical polarizations of the antenna are set on test.

The bandwidth of the Receiver (ESCS30) is set at 120 kHz in 30-1000MHz, and 1MHz in above 1000MHz.

## 5.8.Measuring Results

**PASS.**

The highest frequency of the internal sources of the EUT is less than 108MHz; the measurement shall only be made up to 1GHz.

Test Mode: Connect to PC

Polarization

Horizontal

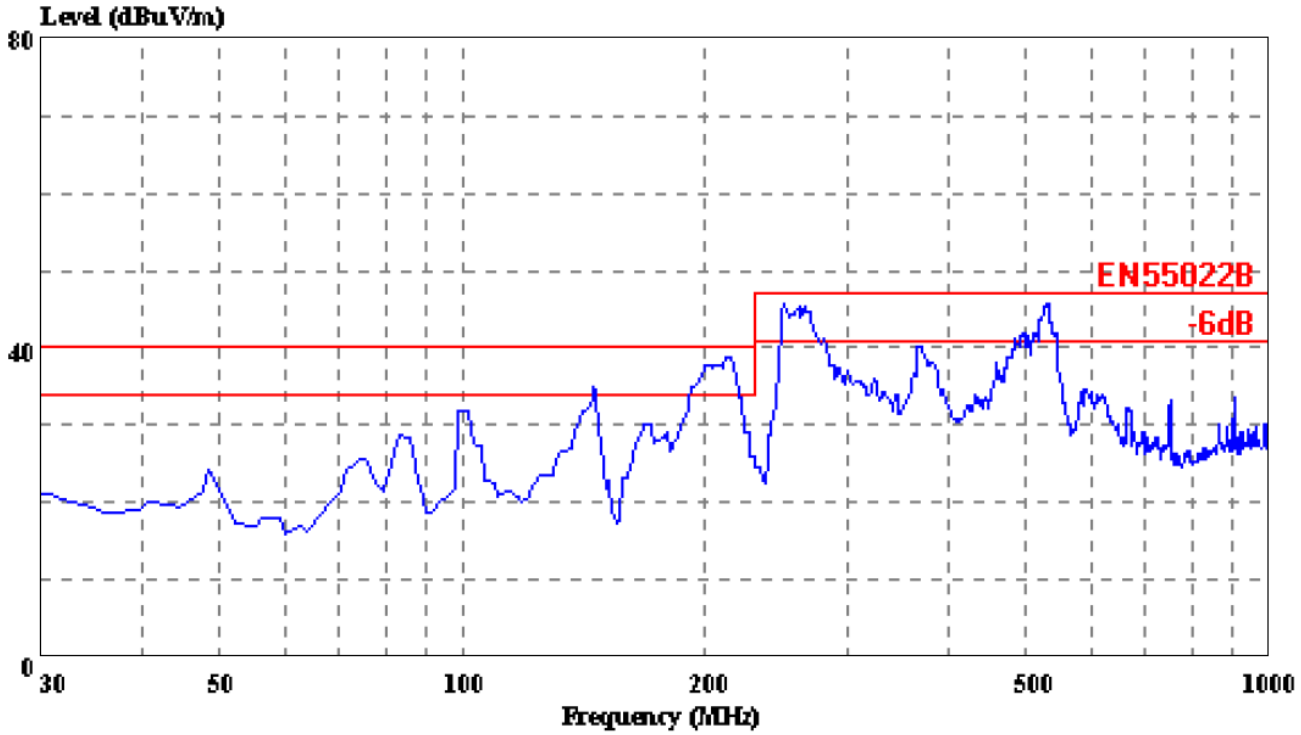
| | | Freq | Level | Limit Line | Over Limit | Probe Factor |
|---|---|---|---|---|---|---|
| | | MHz | dBuV/m | dBuV/m | dB | dB |
| 1 | ! | 211.390 | 37.82 | 40.00 | -2.18 | 9.65 |
| 2 | ! | 249.220 | 44.73 | 47.00 | -2.27 | 9.79 |
| 3 | ! | 532.460 | 44.75 | 47.00 | -2.25 | 17.44 |

Vertical

| | | Freq | Level | Limit Line | Over Limit | Probe Factor |
|---|---|---|---|---|---|---|
| | | MHz | dBuV/m | dBuV/m | dB | dB |
| 1 | | 101.780 | 31.89 | 40.00 | -8.11 | 6.66 |
| 2 | ! | 214.300 | 37.77 | 40.00 | -2.23 | 8.88 |
| 3 | | 393.750 | 37.07 | 47.00 | -9.93 | 15.00 |

Emissions attenuated more than 20 dB below the permissible value are not reported.
The spectral diagrams are attached as below.

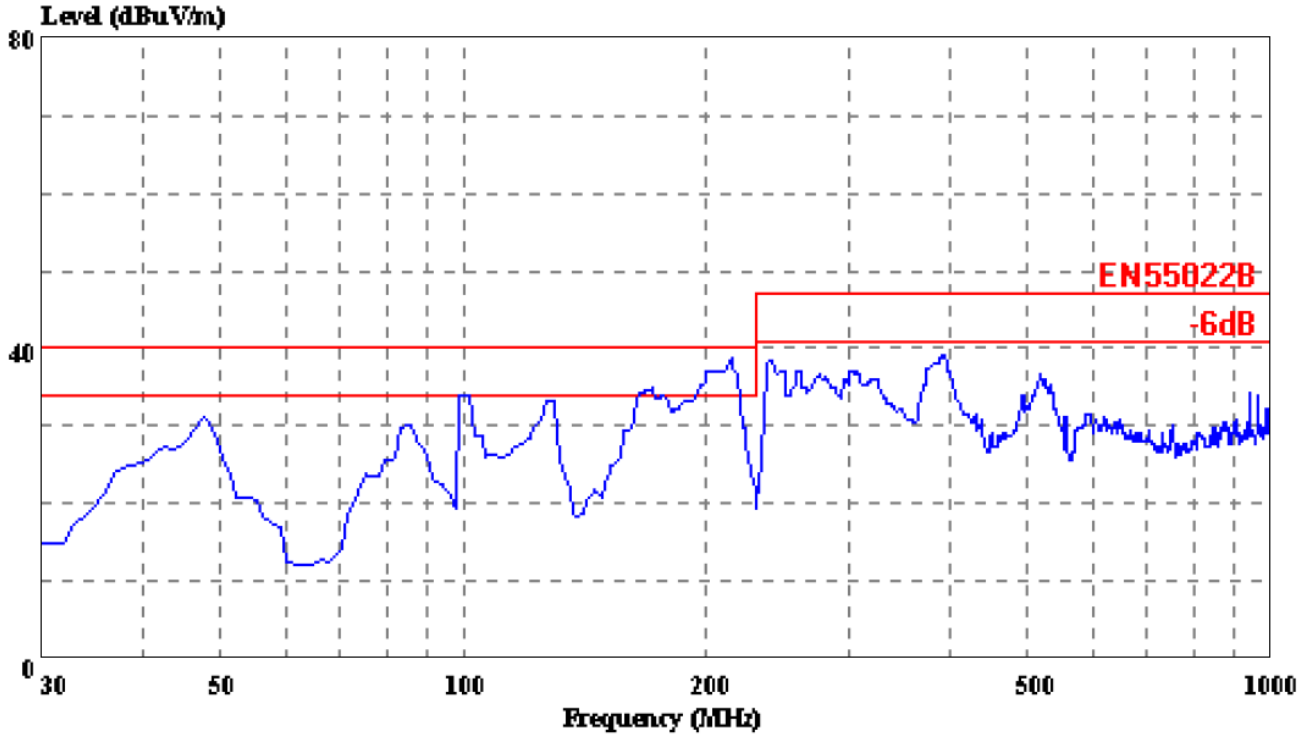
Data#: 3426 File#: tom.EMI Date: 2012-03-03 Time: 00:15:03




Trace: Ref Trace:

Condition: EN55022B 3m ATC VULB9163(NEW) HORIZONTAL
Manufacturer: YuanGuangHao
EUT : Sun flower with solar panel
M/N : P323.233
memo : CONNECT TO PC
Power : DC 5V
Report No. : ATE20120263
Sample No. : 1200438

Data#: 3428 File#: tom.EMI Date: 2012-03-03 Time: 00:16:04



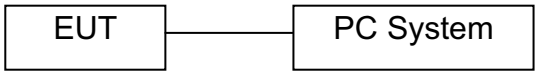

Trace: Ref Trace:

Condition: EN55022B 3m ATC VULB9163(NEW) VERTICAL
Manufacturer: YuanGuangHao
EUT : Sun flower with solar panel
M/N : P323.233
memo : CONNECT TO PC
Power : DC 5V
Report No. : ATE20120263
Sample No. : 1200438

# 6. ELECTROSTATIC DISCHARGE IMMUNITY TEST

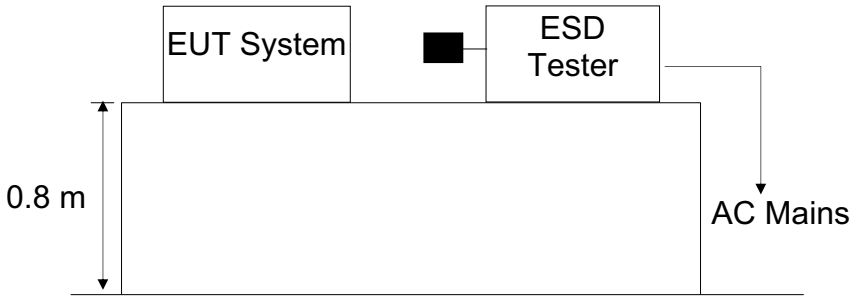
## 6.1.Block Diagram of Test Setup

### 6.1.1.Block diagram of connection between the EUT and simulators




(EUT: Sun flower with solar panel)

### 6.1.2.Block diagram of test setup




(EUT: Sun flower with solar panel)

## 6.2.Test Standard

EN 55024: 2010
(IEC61000-4-2: 2008, Severity Level: 2
Contact Discharge: ±4kV, Severity Level: 3/ Air Discharge: ±8kV)
Testing shall also be satisfied at the lower levels.

## 6.3.Severity Levels and Performance Criterion

### 6.3.1.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 |

### 6.3.2.Performance Criterion: **B**

## 6.4.EUT Configuration

The configuration of EUT is listed in Section 4.4.

## 6.5.Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 4.5 except for the test set up replaced by Section 6.1.

## 6.6.Test Procedure

### 6.6.1.Contact discharges to the conductive surfaces and to coupling planes:

The EUT shall be exposed to at lease 200 discharges, 100 each at negative and positive polarity, at a minimum of four test points (a minimum of 50 discharges at each point). One of the test points shall be subjected to at least 50 indirect discharges (contact) to the centre of the front edge of the horizontal coupling plane. The remaining three test points shall each receive at least 50 direct contact discharges. If no direct contact test points are available, then at least 200 indirect discharges shall be applied in the indirect mode [see IEC 61000-4-2 for use of the Vertical Conducting Plane (VCP)]. Tests shall be performed at a maximum repetition rate of one discharge per second.

### 6.6.2.Air discharge at slots and apertures, and insulating surfaces:

On those parts of the EUT where it is not possible to perform contact discharge testing, the equipment should be investigated to identify user accessible points where breakdown may occur; examples are openings at edges of keys, or in the cover of keyboards and telephone handsets. Such points are tested using the air discharge method. See also IEC 61000-4-2 regarding painted surfaces. This investigation should be restricted to those areas normally handled by the user. A minimum of 10 single air discharges shall be applied to the selected test point for each such area.

The application of electrostatic discharges to the contacts of open connectors is not required by this publication.

## 6.7.Test Results

PASS

Please refer to the following page.

# Electrostatic Discharge Test Results

Accurate Technology Co., Ltd.

| | | | |
|---|---|---|---|
| Applicant: | Xindao (Shanghai) Co., Ltd. | Test Date: | March 3, 2012 |
| EUT: | Sun flower with solar panel | Temperature: | 25ºC |
| M/N: | P323.233 | Humidity: | 46% |
| Air discharge: | ±2.0kV, ±4.0kV, ±8.0kV | Criterion: | B |
| Contact discharge: | ±2.0kV, ±4.0kV | Test Engineer: | Mason |
| Test Mode: | Connect to PC | | |

| Location | Kind<br>A-Air Discharge<br>C-Contact Discharge | Result |
|---|---|---|
| Nonconductive Enclosure | A | PASS |
| Conductive Enclosure | C | PASS |
| Function keys | A | PASS |
| Earphone port | A | PASS |
| Metal | C | PASS |
| HCP | C | PASS |
| VCP of front | C | PASS |
| VCP of rear | C | PASS |
| VCP of left | C | PASS |
| VCP of right | C | PASS |
| | | |
| | | |

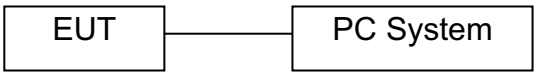
Note:

Test Equipment: ESD Simulator (HAEFELY, PESD1610)

# 7. RF FIELD STRENGTH SUSCEPTIBILITY TEST

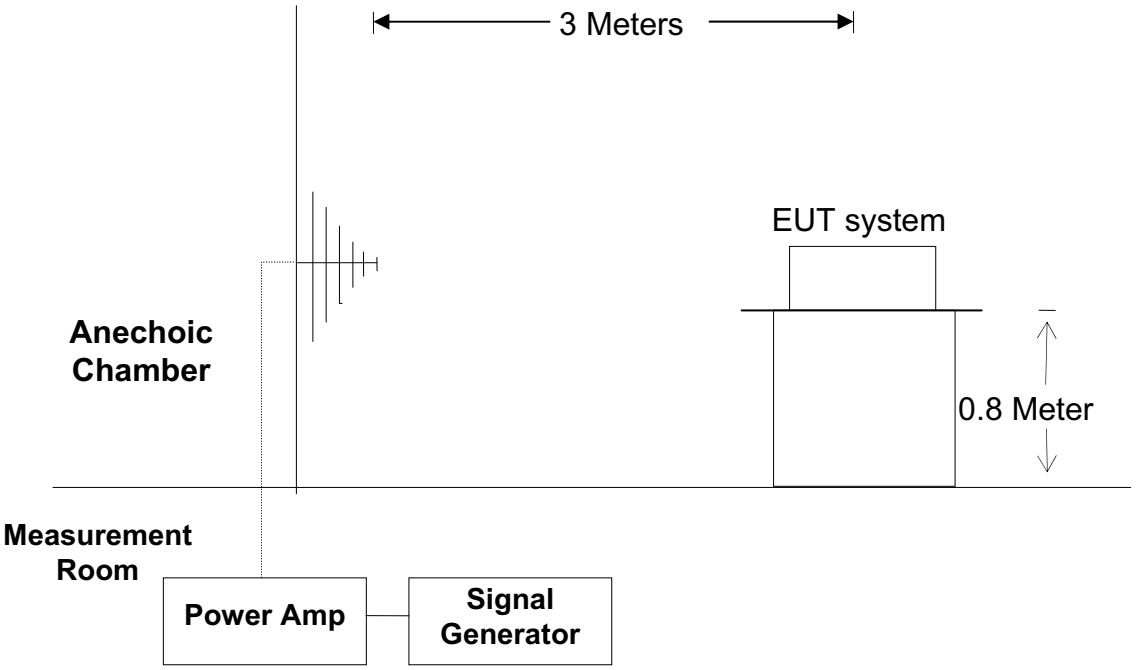
## 7.1.Block Diagram of Test

### 7.1.1.Block diagram of connection between the EUT and simulators




(EUT: Sun flower with solar panel)

### 7.1.2.Block diagram of R/S test setup




(EUT: Sun flower with solar panel)

## 7.2.Test Standard

EN 55024: 2010
(IEC61000-4-3: 2010, Severity Level: 2, 3V/m)

## 7.3.Severity Levels and Performance Criterion

### 7.3.1.Severity Level

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

### 7.3.2.Performance Criterion: **A**

## 7.4.EUT Configuration on Test

The configuration of the EUT is same as Section 4.4.

## 7.5.Operating Condition of EUT

### 7.5.1.Turn on the power.

### 7.5.2.Let the EUT work in test mode (Connect to PC) and measure it.

## 7.6.Test Procedure

The EUT are placed on a table, which is 0.8 meter high 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 polarizations of the antenna are set on test. Each of the four sides of the EUT must be faced this transmitting antenna and measured individually.
In order to judge the EUT performance, a CCD camera is used to monitor its screen.
All the scanning conditions are as following:

| Condition of Test | Remark |
|---|---|
| 1. Fielded Strength | 3V/m (Severity Level 2) |
| 2. Radiated Signal | Unmodulated |
| 3. Scanning Frequency | 80-1000MHz |
| 4. Sweep time of radiated | 0.0015 Decade/s |
| 5. Dwell Time | 1 Sec. |

## 7.7.Test Results

**PASS.**

Please refer to the following page.

# RF Field Strength Susceptibility Test Results

Accurate Technology Co., Ltd.

| | | | |
|---|---|---|---|
| Applicant: | Xindao (Shanghai) Co., Ltd. | Test Date: | March 3, 2012 |
| EUT: | Sun flower with solar panel | Temperature: | 25ºC |
| M/N: | P323.233 | Humidity: | 46% |
| Field Strength: | 3 V/m | Criterion: | A |
| Frequency Range: | 80 MHz to1000 MHz | Power Supply: | DC 5V |
| Test Mode: | Connect to PC | Test Engineer: | SMQ |

Modulation: ☐ None ☐ Pulse ☑ AM 1kHz 80%

| | Frequency Range 1: 80- 1000MHz | | Frequency Range 2: | |
|---|---|---|---|---|
| Steps | # / % | | # / % | |
| | Horizontal | Vertical | Horizontal | Vertical |
| Front | PASS | PASS | | |
| Right | PASS | PASS | | |
| Rear | PASS | PASS | | |
| Left | PASS | PASS | | |

Test Equipment **:**

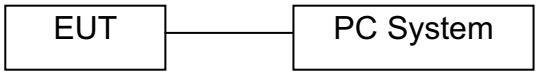
1. Signal Generator : SMT03 (Rohde & Schwarz)
2. Power Amplifier : 150W1000 (AR)
3. Bilog Antenna : CBL6111C (Chase)

Note:

# 8. MAGNETIC FIELD IMMUNITY TEST

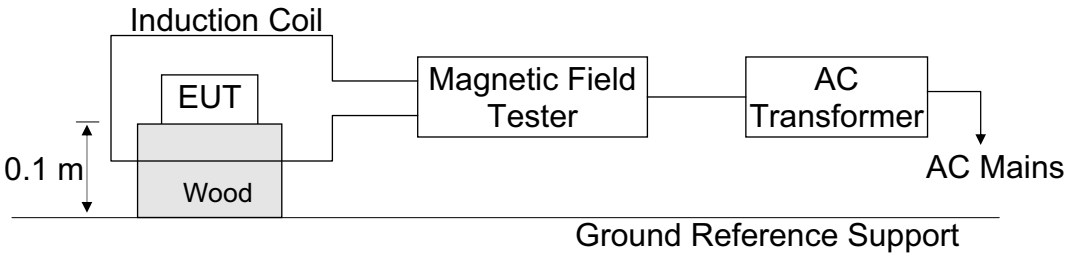
## 8.1.Block Diagram of Test Setup

### 8.1.1.Block diagram of connection between the EUT and simulators




(EUT: Sun flower with solar panel)

### 8.1.2. Block Diagram of Test Setup




(EUT: Sun flower with solar panel)

## 8.2.Test Standard

EN 55024: 2010
(IEC61000-4-8: 2009, Severity Level 1**:** 1A/m)

## 8.3.Severity Levels and Performance Criterion

### 8.3.1. Severity level

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

### 8.3.2.Performance Criterion: **A**

## 8.4.EUT Configuration

The configuration of the EUT is same as Section 4.4.

## 8.5.Operating Condition of EUT

8.5.1.Turn on the power.

8.5.2.Let the EUT work in test mode (Connect to PC) and measure it.

## 8.6.Test Procedure

1) Set up the EUT system as shown on Section 8.1.2.
2) The Induction coil is set up in horizontal or vertical.
3) Let the EUT work in test mode and measure it.

## 8.7.Test Results

**PASS.**

Please refer to the following page.

# Magnetic Field Immunity Test Results

Accurate Technology Co., Ltd.

| | |
|---|---|
| Applicant : Xindao (Shanghai) Co., Ltd. | Test Date : March 3, 2012 |
| EUT : Sun flower with solar panel | Temperature : 25ºC |
| M/N : P323.233 | Humidity : 46% |
| Test Mode : Connect to PC | Test Engineer: Mason |

| Test Level | Testing Duration | Coil Orientation | Criterion | Result |
|---|---|---|---|---|
| 1A/m | 5 mins | Horizontal | A | PASS |
| 1A/m | 5 mins | Vertical | A | PASS |

Remark:

Test Equipment:
Magnetic Field Tester: MAG100
AC Transformer: TDGC2J-5

# 9. PHOTOGRAPHS

## 9.1.Photo of Conducted Emission Measurement

## 9.2.Photos of Radiated Emission Measurement

## 9.3.Photo of Electrostatic Discharge Test

## 9.4.Photos of RF Field Strength susceptibility Test

## 9.5.Photos of Magnetic Field Susceptibility Test

## 9.6.Photo of EUT