

EMC TEST REPORT
for
BEIHAI YAST ELECTRIC APPLIANCE CO., LTD.

MOSQUITO TRAP
Model No.: M3

Prepared for : BEIHAI YAST ELECTRIC APPLIANCE CO., LTD.
Address : Beihai industrial zone 206, Hongkong Road, Beihai,
Guangxi, China.
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Report No. : E0902030E
Date of Test : February 11, 2009 to February 23, 2009
Date of Report : March 02, 2009

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TEST REPORT DESCRIPTION

Applicant : BEIHAI YAST ELECTRIC APPLIANCE CO., LTD.
Manufacturer : BEIHAI YAST ELECTRIC APPLIANCE CO., LTD.
EUT : MOSQUITO TRAP
(A) Model No. : M3
(B) Serial No. : N/A
(C) Input : 230V~, 50Hz

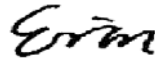
Test Procedure Used:


EN55014-1: 2006,
EN61000-3-2: 2006, EN61000-3-3: 1995+A1: 2001+A2: 2005,
EN55014-2: 1997+A1: 2001 (EN61000-4-2: 2001, EN61000-4-4: 2004, EN61000-4-5: 2006,
EN61000-4-6: 2007, EN61000-4-11: 2004)


The device described above is tested by SHENZHEN EMTEK 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. This report shows the EUT to be technically compliant with the EN55014-1, EN61000-3-2, EN61000-3-3 and EN55014-2 requirements. The test results are contained in this report and SHENZHEN EMTEK CO., LTD. is assumed 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 SHENZHEN EMTEK CO., LTD.

Date of Test: February 11, 2009 to February 23, 2009

Prepared by: 
(Engineer)

Reviewer: 
(Quality Manager)

Approved & Authorized Signer: 
(Manager)

1. GENERAL INFORMATION

1.1 Description of Device (EUT)

EUT : MOSQUITO TRAP

Model Number : M3

Test voltage : 230V~50Hz

Power : 28W

Power Cord : Unshielded, Undetachable, 1.2m

Applicant : BEIHAI YAST ELECTRIC APPLIANCE CO., LTD.

Address : Beihai industrial zone 206, Hongkong Road, Beihai, Guangxi, China.

Manufacturer : BEIHAI YAST ELECTRIC APPLIANCE CO., LTD.

Address : Beihai industrial zone 206, Hongkong Road, Beihai, Guangxi, China.

Date of received : February 11, 2009

Date of Test : February 11, 2009 to February 23, 2009

1.2 Test Facility

Site Description

EMC Lab.

: Accredited by CNAS, 2005.11.02
The certificate is valid until 2010.11
The Laboratory has been assessed and proved to be in compliance with CNAS-CL01: 2006(identical to ISO/IEC17025: 2005)
The Certificate Registration Number is L2291

Accredited by TUV Rheinland Shenzhen 2008. 3
The Laboratory has been assessed according to the requirements ISO/IEC 17025:1999
Accredited by FCC, March 18,2008
The Certificate Registration Number is 709623.

Accredited by Industry Canada, May 24, 2008
The Certificate Registration Number is 46405-4480

Name of Firm

: SHENZHEN EMTEK CO., LTD

Site Location

: Bldg 69, Majialong Industry Zone,
Nanshan District, Shenzhen, Guangdong, China

1.3 Measurement Uncertainty

Conducted Emission Uncertainty : $\pm 1.4118\text{dB}$

Radiated Emission Uncertainty : $\pm 1.6656\text{dB}$

Power Clamp Uncertainty : $\pm 1.2656\text{dB}$

2. MEASURING DEVICE AND TEST EQUIPMENT

2.1 For Power Line Conducted Emission & Clicks

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	828985/018	May 29, 2008	1 Year
2.	L.I.S.N	Rohde & Schwarz	ESH2-Z5	834549/005	May 29, 2008	1 Year
3.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100006	May 29, 2008	1 Year
4.	50 Coaxial Switch	Anritsu	MP59B	M20531	N/A	N/A

2.2 For Disturbance Power Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	828985/018	May 29, 2008	1 Year
2.	Absorbing Clamp	Rohde & Schwarz	MDS21	833711/025	May 29, 2008	1 Year
3.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100006	May 29, 2008	1 Year
4.	50 Coaxial Switch	Anritsu	MP59B	M20531	N/A	N/A

2.3 For Harmonic Current / Flicker Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Power Frequency Test System	HAEFELY	PHF555	080419-03	May 29, 2008	1 Year
2.	PC	N/A	P2L97	N/A	N/A	N/A

2.4 For Electrostatic Discharge Immunity Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	ESD Tester	EM TEST	ESD 30C	V0526100500	May 29, 2008	1 Year

2.5 For Electrical Fast Transient /Burst Immunity Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Burst Tester	HAEFELY	PEFT4010	080981-16	May 29, 2008	1Year
2.	Coupling Clamp	HAEFELY	IP-4A	147147	May 29, 2008	1Year

2.6 For Surge Immunity Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Surge Tester	EM TEST	VCS500-M6T	V0526100503	May 29, 2008	1Year

2.7 For Injected Current Susceptibility Test

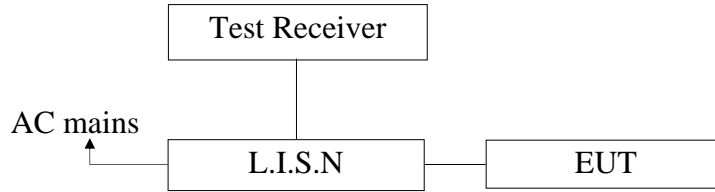
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Simulator	EMTEST	CWS500C	0900-12	May 29, 2008	1Year
2.	CDN	EMTEST	CDN-M2	5100100100	May 29, 2008	1Year
3.	CDN	EMTEST	CDN-M3	0900-11	May 29, 2008	1Year
4.	Injection Clamp	EMTEST	F-2031-23 MM	368	May 29, 2008	1Year
5.	Attenuator	EMTEST	ATT6	0010222A	May 29, 2008	1Year

2.8 For Voltage Dips and Interruptions Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Dips Tester	HAEFELY	Pline1610	083732-18	May 29, 2008	1Year

3. POWER LINE CONDUCTED EMISSION MEASUREMENT

3.1 Block Diagram of Test Setup



(EUT: MOSQUITO TRAP)

3.2 Measuring Standard

EN55014-1: 2006

3.3 Power Line Conducted Emission Limits

Frequency (MHz)	Limit (dB μ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66.0 ~ 56.0 *	59.0 ~ 46.0 *
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	60.0	50.0

Remark: * means decreasing linearly with logarithm of frequency.

3.4 EUT Configuration on Measurement

The following equipments are installed on Conducted Emission Measurement to meet EN 55014 –1 requirements and operating in a manner, which tends to maximize its emission characteristics in a normal application.

MOSQUITO TRAP

Model Number : M3
 Serial Number : N/A
 Power Cord : Unshielded, Undetachable, 1.2m

3.5 Operating Condition of EUT

- 3.5.1. Setup the EUT as shown on Section 3.1.
- 3.5.2. Turn on the power of all equipments.
- 3.5.3. Let the EUT work in measuring mode (ON) and measure it.

3.6 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 a Line Impedance Stability Network (L.I.S.N). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are investigated to find out the maximum conducted emission according to the EN 55014-1 regulations during conducted emission measurement. The bandwidth of the field strength meter (R&S Test Receiver ESCS30) is set at 9KHz. The frequency range from 150kHz to 30MHz is investigated. All the scanning waveform is put in Appendix I.

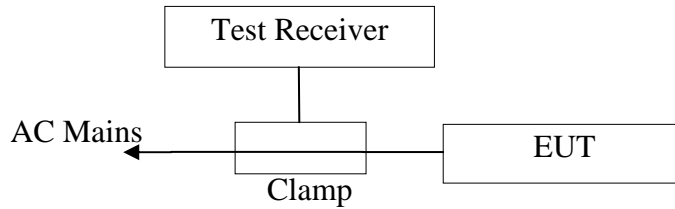
3.7 Measuring Results

PASS.

The frequency range 150kHz to 30MHz is investigated.

4. DISTURBANCE POWER MEASUREMENT

4.1 Block Diagram of Test Setup



(EUT: MOSQUITO TRAP)

4.2 Measuring Standard

EN55014-1: 2006

4.3 Disturbance Power Limits

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

Frequency MHz	Limits dB (pW)	
	Quasi-peak Value	Average Value
30 ~ 300	45 Increasing Linearly with Frequency to 55	35 Increasing Linearly with Frequency to 45

4.4 EUT Configuration on Measurement

The EN 55014-1 Regulations test method must be used to find the maximum emission during radiated emission measurement. The configuration of the EUT is the same as used in conducted emission measurement.

4.5 Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 3.5 except the test set up replaced as Section 4.1.

4.6 Test Procedure

The EUT is placed on the plane 0.8m high above the ground by insulating support and away from other metallic surface at least 0.4m. It is connected to the power mains through an extension cord of 6m min. The absorber clamp clamps the cord and moves from the far end to the EUT to measure the disturbing energy emitted from the cord.

The bandwidth of the field strength meter (R&S TEST RECEIVER ESCS30) is set at 120kHz.

All the test results are listed in Section 4.7, the scanning waveform attached in Appendix III

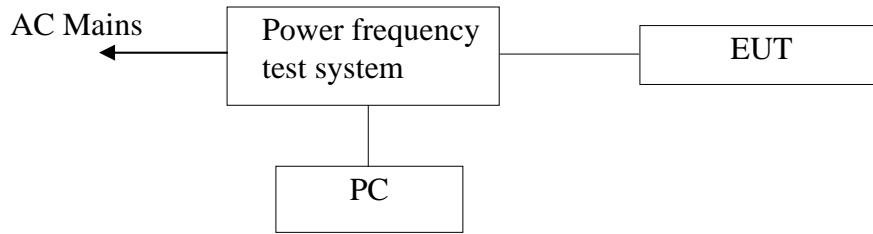
4.7 Measuring Results

PASS.

The frequency spectrum from 30 MHz to 300 MHz is investigated.

5. HARMONIC CURRENT EMISSION MEASUREMENT

5.1 Block Diagram of Test Setup



(EUT: MOSQUITO TRAP)

5.2 Measuring Standard

EN61000-3-2: 2006 CLASS A

5.3 Operation Condition of EUT

Same as Section 3.5 except the test setup replaced as Section 5.1.

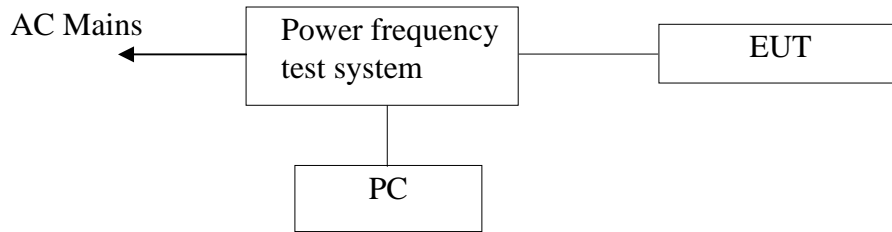
5.4 Measuring Results

PASS.

Because the power of EUT is less than 75W, according standard EN61000-3-2, Harmonic current is unnecessary to test.

6. VOLTAGE FLUCTUATION AND FLICKER MEASUREMENT

6.1 Block Diagram of Test Setup



(EUT: MOSQUITO TRAP)

6.2 Measuring Standard

EN61000-3-3: 1995+A1: 2001+A2: 2005

6.3 Operation Condition of EUT

- 6.3.1 Setup the EUT as shown Section 6.1.
- 6.3.2 Turn on the power of all equipments.
- 6.3.3 Let EUT work in test mode (On/Off) and measure it.

6.4 Measuring Results

PASS.

Please see the attached pages.

 EN61000-3-3 TEST REPORT 2009/02/12 09:09

Unit: MOSQUITO TRAP M/N: M3
 Test mode: ON/OFF
 Manuf: YAST
 Operator: Zone
 =====

TEST SETUP

Test Freq.: 50.00 Hz. Test Voltage: 230.0 vac
 Waveform : SINE
 Test Time: 10.0 min. Tshort: 10.0 min.
 Prog. Zo Enabled: YES Prog. Zo: 0.000
 Voltage Change less than once per Hour: NO
 Impedance selected: IEC-725 STD. REF.
 Synthetic R+L Enabled: NO
 Resistance: 0.380 Ohms Inductance: 460.000 uH

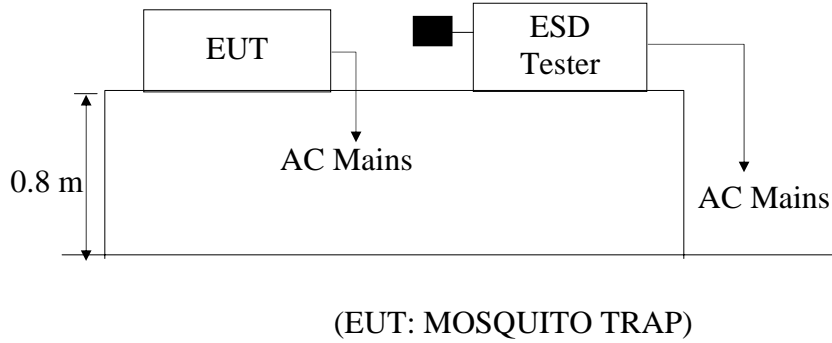
TEST DATA

Result:	PASS			
	EUT Data	Limit	Result	Test Enabled
Pst max	0.059	1.00	PASS	true
Plt max	0.059	0.65	PASS	false
dc %	0.00	3.00	PASS	true
dmax %	0.65	4.00	PASS	true
d(t) sec.	0.00	0.20	PASS	true
	Power Source Data			
Source Pst max	0.022	0.400	PASS	true
% THD	0.03	3.00	PASS	true

END OF REPORT

7. ELECTROSTATIC DISCHARGE IMMUNITY TEST

7.1 Block Diagram of Test Setup



7.2 Test Standard

EN55014-2: 1997+A1: 2001(EN61000-4-2: 2001 Severity Level: 3 / Air Discharge: ± 8 KV Level: 2 / Contact Discharge: ± 4 KV)

7.3 Severity Levels and Performance Criterion

7.3.1 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

7.3.2 Performance criterion: B

7.4 EUT Configuration

The configurations of EUT are listed in Section 3.4.

7.5 Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 3.5 except the test set up replaced by Section 7.1.

7.6 Test Procedure

7.6.1 Air Discharge:

This test is done on a non-conductive surface. 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.

7.6.2 Contact Discharge:

All the procedure shall be same as Section 7.6.1. Except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

7.6.3 Indirect discharge for horizontal coupling plane:

At least 10 single discharges (in the most sensitive polarity) shall be applied at the front edge of each HCP opposite the center point of each unit (if applicable) of the EUT and 0.1m from the front of the EUT. The long axis of the discharge electrode shall be in the plane of the HCP and perpendicular to its front edge during the discharge.

7.6.4 Indirect discharge for vertical coupling plane:

At least 10 single discharges (in the most sensitive polarity) shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, is placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

7.7 Test Results

PASS.

Please refer to the following pages

Electrostatic Discharge Test Results

SHENZHEN EMTEK CO., LTD.

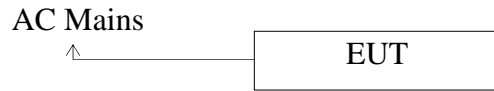
Applicant : BEIHAI YAST ELECTRIC APPLIANCE CO., LTD.	Test Date: February 13, 2009	
EUT : MOSQUITO TRAP	Temperature: 22°C	
M/N : M3	Humidity: 50%	
Power Supply : AC 230V/50Hz	Test Engineer: ANN	
Test Mode : ON		
Air Discharge: \pm 8KV		
Contact Discharge: \pm 4KV # For each point positive 10 times and negative 10 times discharge		
Location	Kind A-Air Discharge C-Contact Discharge	Result
Slot 10 points	A	PASS
Button 1 points	A	PASS
Metal Net 5 points	C	PASS0
Screw 10 points	C	PASS
Metal 10 points	C	PASS
HCP	C	PASS
VCP of the front	C	PASS
VCP of the rear	C	PASS
VCP of the left	C	PASS
VCP of the right	C	PASS
Note:	Test Equipment: ESD Tester (EM TEST, ESD 30C)	

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

8. ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST

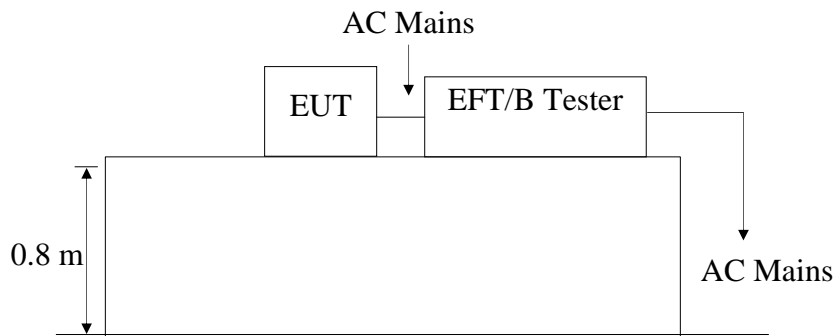
8.1 Block Diagram of Test Setup

8.1.1. Block Diagram of the EUT



(EUT: MOSQUITO TRAP)

9.1.2 EFT Test Setup



(EUT: MOSQUITO TRAP)

8.2 Test Standard

EN55014-2: 1997+A1: 2001(EN61000-4-4: 2004, Severity Level, Level 2: 1KV)

8.3 Severity Levels and Performance Criterion

8.3.1 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.	0.50 KV	0.25 KV
2.	1.0 0KV	0.50 KV
3.	2 .00KV	1 .00KV
4.	4 .00KV	2.00 KV
X	Special	Special

9.3.2 Performance criterion: **B**

8.4 EUT Configuration

The configurations of EUT are listed in Section 3.4.

8.5 Operating Condition of EUT

- 8.5.1 Setup the EUT as shown in Section 8.1.
- 8.5.2 Turn on the power of all equipments.
- 8.5.3 Let the EUT work in test mode (ON) and measure it.

8.6 Test Procedure

The EUT is put on the table, which is 0.8 meter high above the ground. This reference ground plane shall project beyond the EUT by at least 0.1m on all sides and the minimum distance between EUT and all other conductive structure, except the ground plane beneath the EUT, shall be more than 0.5m.

9.6.1 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.

9.6.2 For signal lines and control lines ports:

No I/O ports. It's unnecessary to test.

9.6.3 For DC output line ports:

No DC output ports. It's unnecessary to test.

8.7 Test Result

PASS.

Please refer to the following pages

Electrical Fast Transient/Burst Test Results

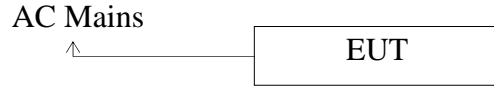
SHENZHEN EMTEK CO., LTD.

Standard	<input type="checkbox"/> IEC 61000-4-4 <input checked="" type="checkbox"/> EN 61000-4-4	Result : <input checked="" type="checkbox"/> PASS / <input type="checkbox"/> FAIL	
Applicant : <u>BEIHAI YAST ELECTRIC APPLIANCE CO., LTD.</u>			
EUT : <u>MOSQUITO TRAP</u>		M/N : <u>M3</u>	
Input Voltage: <u>AC 230V/50Hz</u>			
Criterion : <u>B</u>			
Ambient Condition : <u>22 °C</u>		<u>50% RH</u>	
Operation Mode: ON			
Line : <input checked="" type="checkbox"/> AC Mains		Line : <input type="checkbox"/> Signal <input type="checkbox"/> I/O Cable	
Coupling : <input checked="" type="checkbox"/> Direct		Coupling : <input type="checkbox"/> Capacitive	
Test Time : 120s			
Line	Test Voltage	Result (+)	Result (-)
L	1KV	PASS	PASS
N	1KV	PASS	PASS
PE			
L、N	1KV	PASS	PASS
L、PE			
N、PE			
L、N、PE			
Signal Line			
I/O Cable			
Note:			
Test Equipment		Burst Tester Model : VCS500-M6T	

9. SURGE IMMUNITY TEST

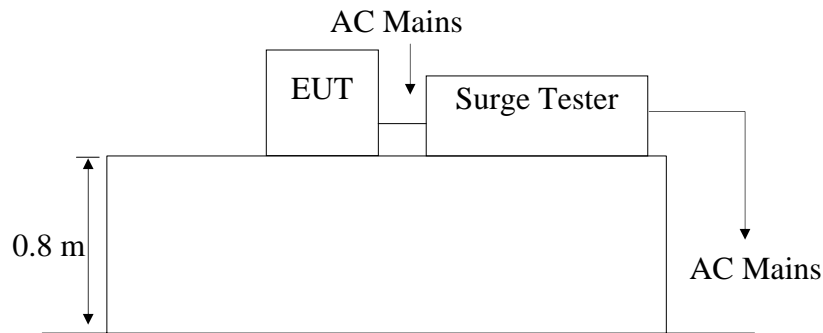
9.1 Block Diagram of Test Setup

9.1.1. Block Diagram of the EUT



(EUT: MOSQUITO TRAP)

9.1.2. Surge Test Setup



(EUT: MOSQUITO TRAP)

9.2 Test Standard

EN55014-2: 1997+A1: 2001

(EN61000-4-5: 2006, Severity Level: Level 2, Line to Line: 1.0KV, Line to earth 2.0KV)

9.3 Severity Levels and Performance Criterion

9.3.1 Severity level

Severity Level	Open-Circuit Test Voltage KV
1	0.5
2	1.0
3	2.0
4	4.0
X	Special

9.3.2 Performance criterion: **B**

9.4 EUT Configuration

The configurations of EUT are listed in Section 3.4.

9.5 Operating Condition of EUT

- 9.5.1. Setup the EUT as shown in Section 9.1.
- 9.5.2. Turn on the power of all equipments.
- 9.5.3. Let the EUT work in test mode (On) and measure it.

9.6 Test Procedure

- 1) Set up the EUT and test generator as shown on Section 9.1.2.
- 2) For line to line coupling mode, provide a 1.0 KV 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) Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

9.7 Test Result

PASS.

Please refer to the following pages

Surge Immunity Test Results

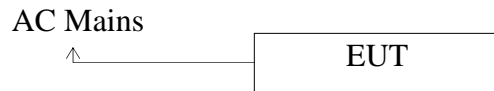
SHENZHEN EMTEK CO., LTD.

Applicant : <u>BEIHAI YAST ELECTRIC APPLIANCE CO., LTD.</u> EUT : <u>MOSQUITO TRAP</u> M/N : <u>M3</u> Power Supply : <u>AC 230V / 50Hz</u> Test Mode : <u>ON</u>					Test Date : <u>February 13, 2009</u> Temperature : <u>22°C</u> Humidity : <u>50%</u> Test Engineer : <u>ANN</u> Criterion : <u>B</u>
Location	Polarity	Phase Angle	Number of Pulse	Pulse Voltage (KV)	Result
L-N	+	0°	5	1.0	PASS
	+	90°	5	1.0	PASS
	+	180°	5	1.0	PASS
	+	270°	5	1.0	PASS
	-	0°	5	1.0	PASS
	-	90°	5	1.0	PASS
	-	180°	5	1.0	PASS
	-	270°	5	1.0	PASS
L-PE					
N-PE					
Remark:				Test Equipment: Surge Tester Psurge4.1	

10. INJECTED CURRENTS SUSCEPTIBILITY TEST

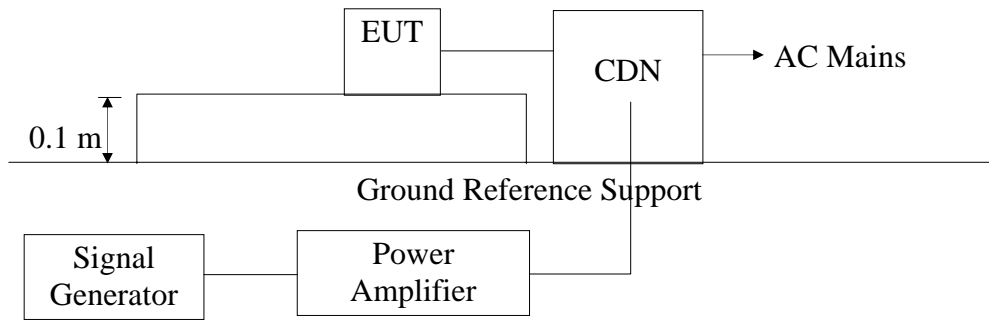
10.1 Block Diagram of Test Setup

10.1.1 Block Diagram of the EUT



(EUT: MOSQUITO TRAP)

10.1.2 Block Diagram of Test Setup



(EUT: MOSQUITO TRAP)

10.2 Test Standard

EN55014-2: 1997+A1: 2001(EN61000-4-6: 2007, Severity Level: 3V (rms),
(0.15MHz ~ 230MHz))

10.3 Severity Levels and Performance Criterion

10.3.1 Severity level

Level	Field Strength V
1.	1
2.	3
3.	10
X	Special

10.3.2. Performance criterion: A

10.4 EUT Configuration

The configurations of EUT are listed in Section 3.4.

10.5 Operating Condition of EUT

10.5.1 Setup the EUT as shown in Section 10.1.

10.5.2 Turn on the power of all equipments.

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

10.6 Test Procedure

- 1) Set up the EUT, CDN and test generators as shown on Section 10.1.2.
- 2) Let the EUT work in test mode and measure it.
- 3) The EUT are placed on an insulating support 0.1m 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 230MHz using 3V signal level, and with the disturbance signal 80% amplitude modulated with a 1KHz 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.

10.7 Test Results

PASS.

Please refer to the following pages

Injected Currents Susceptibility Test Results

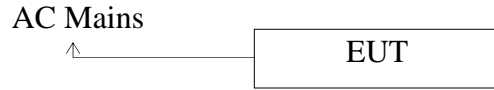
SHENZHEN EMTEK CO., LTD.

Applicant : <u>BEIHAI YAST ELECTRIC APPLIANCE CO., LTD.</u>			Test Date : <u>February 13, 2009</u>	
EUT : <u>MOSQUITO TRAP</u>			Temperature : <u>22°C</u>	
M/N : <u>M3</u>			Humidity : <u>50%</u>	
Power Supply : <u>AC 230V / 50Hz</u>			Test Engineer: <u>ANN</u>	
Test Mode : <u>ON</u>				
Frequency Range (MHz)	Injected Position	Strength (Unmodulated)	Criterion	Result
0.15 ~80	AC Mains	3V	A	PASS
Test Mode : _____				
Frequency Range (MHz)	Injected Position	Strength (Unmodulated)	Criterion	Result
Remark : 1. Modulation Signal:1KHz 80% AM Measurement Equipment : Simulator: CWS 500C (SWITZERLAND EMTEST) CDN : <input checked="" type="checkbox"/> CDN-M2 (SWITZERLAND EMTEST) <input type="checkbox"/> CDN-M3 (SWITZERLAND EMTEST)			Note:	

11. VOLTAGE DIPS AND INTERRUPTIONS TEST

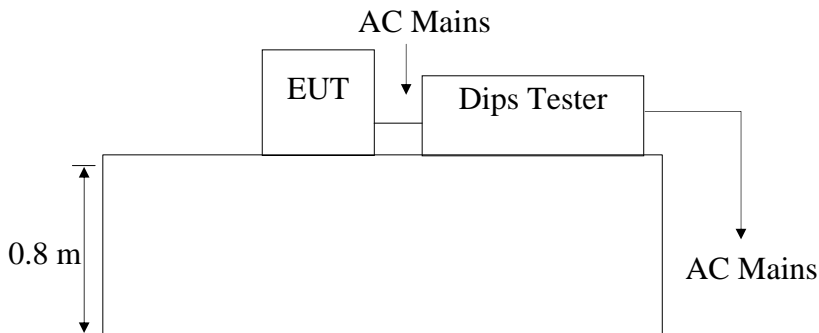
11.1 Block Diagram of Test Setup

11.1.1 Block Diagram of the EUT



(EUT: MOSQUITO TRAP)

11.1.2 Dips Test Setup



11.2 Test Standard

EN55014-2: 1997+A1: 2001(EN61000-4-11: 2004)

11.3 Severity Levels and Performance Criterion

11.3.1 Severity level

Test Level %U _T	Voltage dip and short interruptions %U _T	Duration (in period)
0	100	0.5
40	60	1
70	30	5
		10
		25
		50
		*

11.3.2 Performance criterion: B&C

11.4 EUT Configuration

The configurations of EUT are listed in Section 3.4.

11.5 Operating Condition of EUT

11.5.1 Setup the EUT as shown in Section 11.1.

11.5.2 Turn on the power of all equipments.

11.5.3 Let the EUT work in test mode (On) and measure it.

11.6 Test Procedure

- 1) Set up the EUT and test generator as shown on Section 11.1.2.
- 2) The interruption is introduced at selected phase angles with specified duration.
- 3) Record any degradation of performance.

11.7 Test Result

PASS.

Please refer to the following page.

Voltage Dips And Interruptions Test Results

SHENZHEN EMTEK CO., LTD.

Applicant : <u>BEIHAI YAST ELECTRIC APPLIANCE CO., LTD.</u>		Test Date : <u>February 13, 2009</u>		
EUT : <u>MOSQUITO TRAP</u>		Temperature : <u>22°C</u>		
M/N : <u>M3</u>		Humidity : <u>50%</u>		
Power Supply : <u>AC 230V / 50Hz</u>		Test Engineer: <u>ANN</u>		
Test Mode: <u>On</u>				
Test Level % U _T	Voltage Dips & Short Interruptions % U _T	Duration (in periods)	Criterion <input type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D	Result P=PASS F=FAIL
0	100	0.5P	B	PASS
100	0	10P	C	PASS
70	30	50P	C	PASS
Test Mode : _____				
Test Level % U _T	Voltage Dips & Short Interruptions % U _T	Duration (in periods)	Criterion <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	Result P=PASS F=FAIL
Remark: U _T is the rated voltage for the equipment.			Test Equipment: Dips Tester PLINE 1610	

12. PHOTOGRAPHS

12.1 Photo of Power Line Conducted Emission & Clicks Measurement



12.2 Photo of Disturbance Power Measurement



12.3 Photo of Harmonic Current / Flicker Measurement



12.4 Photo of Electrostatic Discharge Immunity Measurement



12.5 Photo of Electrical Fast Transient /Burst Immunity Measurement



12.6 Photo of Surge Immunity Test



12.7 Photo of Injected Current Immunity Test



12.8 Photo of Voltage Dips & Interruption Immunity Test



APPENDIX I

Conducted Emission Measurement

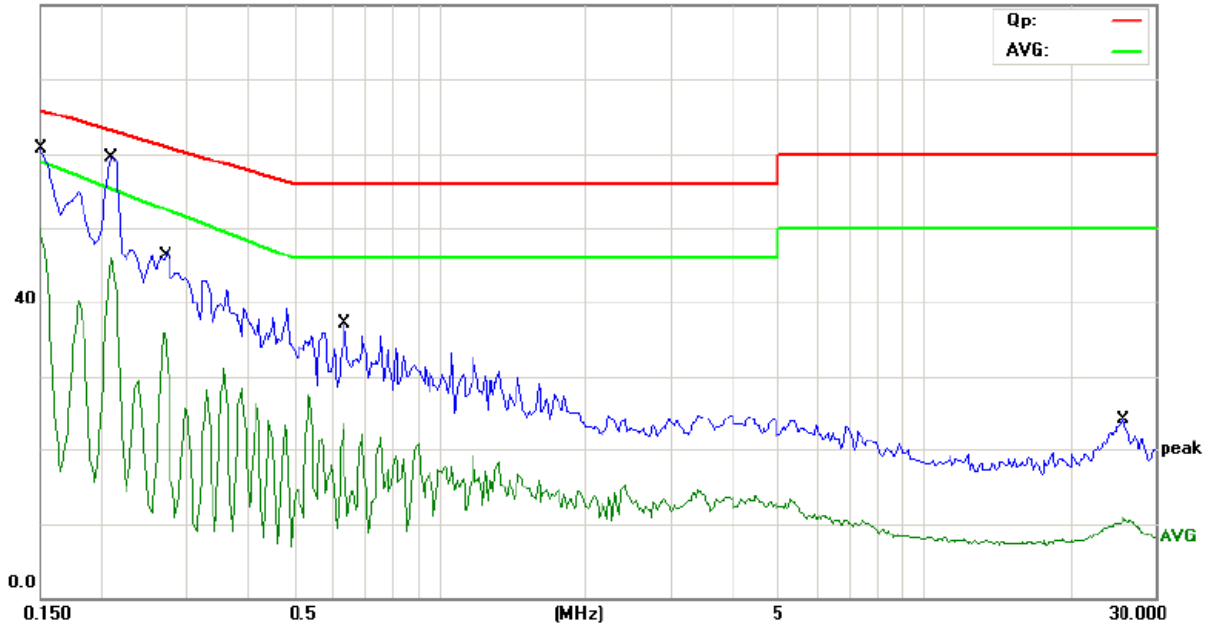
File :YASTER

Data :#4

Date: 09/02/23/

Time: 8/54/18

80.0 dBuV



Site site #1

Phase: L1

Temperature: 22

Limit: (CE)EN55014_QP

Power: AC 230V/50Hz

Humidity: 50 %

EUT: Mosquito Trap

M/N: M3

Mode: ON

Note: AC MAINS

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1500	60.70	0.00	60.70	66.00	-5.30	QP	
2		0.1500	49.80	0.00	49.80	59.00	-9.20	AVG	
3		0.2100	57.50	0.00	57.50	63.21	-5.71	QP	
4		0.2100	45.90	0.00	45.90	55.37	-9.47	AVG	
5		0.2700	35.90	0.00	35.90	52.65	-16.75	AVG	
6		0.6350	37.00	0.00	37.00	56.00	-19.00	QP	
7		25.7500	24.00	0.00	24.00	60.00	-36.00	QP	
8		25.7500	10.80	0.00	10.80	50.00	-39.20	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator:

Conducted Emission Measurement

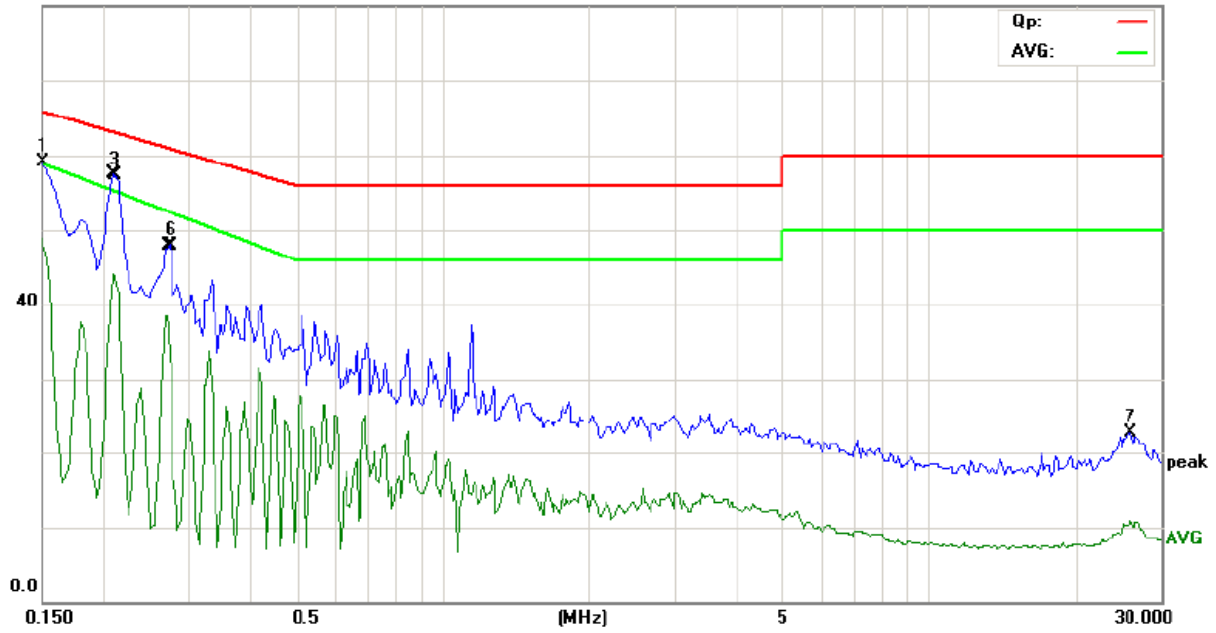
File :YASTER

Data :#5

Date: 09/02/23/

Time: 8/57/55

80.0 dBuV



Site site #1

Phase: N

Temperature: 22

Limit: (CE)EN55014_QP

Power: AC 230V/50Hz

Humidity: 50 %

EUT: Mosquito Trap

M/N: M3

Mode: ON

Note: AC MAINS

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1500	59.10	0.00	59.10	66.00	-6.90	peak	
2		0.1500	48.80	0.00	48.80	59.00	-10.20	AVG	
3	*	0.2100	57.40	0.00	57.40	63.21	-5.81	peak	
4		0.2100	44.00	0.00	44.00	55.37	-11.37	AVG	
5		0.2700	38.50	0.00	38.50	52.65	-14.15	AVG	
6		0.2750	48.00	0.00	48.00	60.97	-12.97	peak	
7		25.8000	22.70	0.00	22.70	60.00	-37.30	peak	
8		26.0750	10.90	0.00	10.90	50.00	-39.10	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator:

APPENDIX II

Disturbance Power Measurement

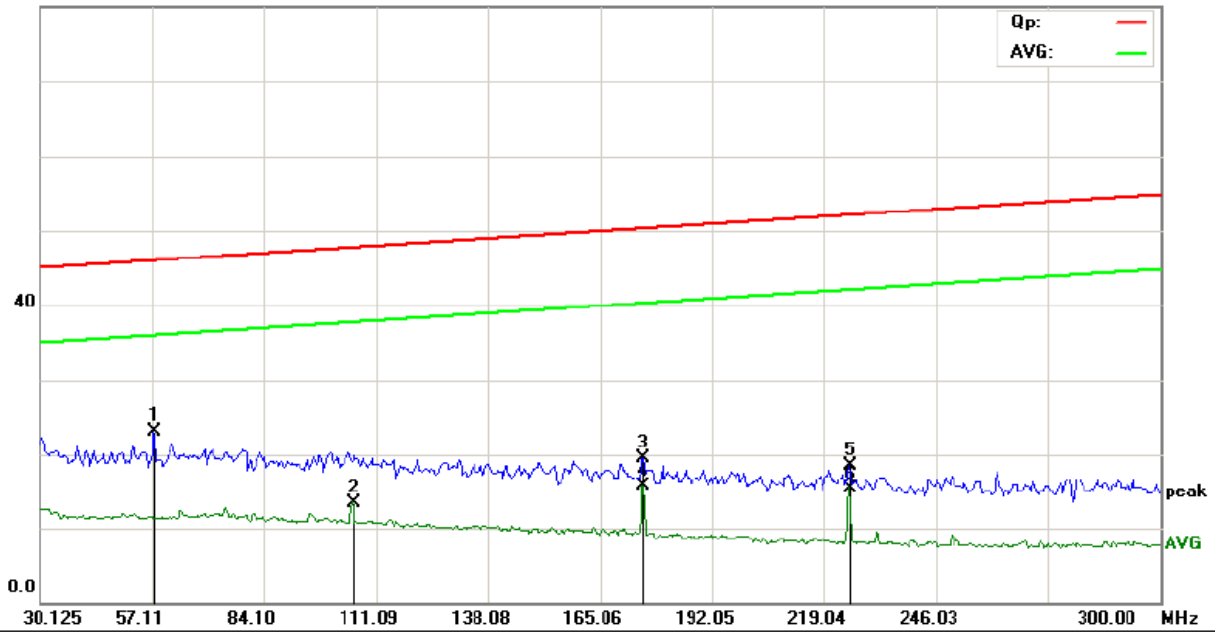
File :YASTER

Data :#3

Date: 2009/02/11

Time: 13:35:52

80.0 dBpW



Site site #1

Temperature: 22

Limit: (CE)EN55014_QP

Power: AC 230V/50Hz

Humidity: 50 %

EUT: Mosquito Trap

M/N: M3

Mode: ON

Note: AC MAINS

No.	Mk.	Freq. MHz	Reading Level dBpW	Final Correct dB	Measure- ment dBpW	Limit dBpW	Over dB	Detector	Position cm	Comment
1	*	57.5000	23.10	0.00	23.10	46.02	-22.92	QP	0	
2		105.5000	13.40	0.00	13.40	37.80	-24.40	AVG	0	
3		175.2500	19.50	0.00	19.50	50.38	-30.88	QP	0	
4		175.2500	15.70	0.00	15.70	40.38	-24.68	AVG	0	
5		225.0000	18.50	0.00	18.50	52.22	-33.72	QP	0	
6		225.0000	15.40	0.00	15.40	42.22	-26.82	AVG	0	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator:

APPENDIX III (Photos of EUT)

FIGURE 1
GENERAL APPEARANCE OF EUT



