EMC TEST REPORT

for
Shenzhen Pengchu Industry Co., Ltd.

Power Supply
Model No.: PC-XXXYYY(XXX=050-500 means output voltage 5V -50V, Step is 0.5V; YYY=050-500 means output current 5A-50A, Step is 0.1A)

Prepared for	:	Shenzhen Pengchu Industry Co., Ltd.
Address	:	Office 17D, North of Hubei Building, Binhe Rd NO. 9003, Futian district, Shenzhen, Guangdong province, China Tel: 0086-755-82138719 Fax: 0886-755-82138700
Prepared by	:	Shenzhen Anbotek Compliance Laboratory Limited
Address	:	1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road, Nanshan District, Shenzhen, Guangdong, China Tel: (86) 755-26066544 Fax: (86) 755-26014772

Report Number	:	201403680E
Date of Test	:	Mar. 01~05, 2014
Date of Report	:	Mar. 06, 2014

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APPENDIX I (Photos of the EUT) (3 pages)

TEST REPORT VERIFICATION

Applicant	:	Shenzhen Pengchu Industry Co., Ltd.
Manufacturer	:	Shenzhen Pengchu Industry Co., Ltd.
EUT	:	Power Supply
Model No.	:	PC-XXXYYY(XXX=050-500 means output voltage 5V -50V, Step is 0.5V; YYY=050-500 means output current 5A-50A, Step is 0.1A)
Rating	:	Input: AC 100-240V, 50/60Hz, 5A Output : DC 5V, 50A (for model PC-050500) DC 13V, 31A (for model PC-130310) DC 24V, 17A (for model PC-240170) DC 48V, 10.5A (for model PC-480105)
Trade Mark	:	

Measurement Procedure Used:
EN 55022: 2010;
EN 61000-3-2: 2006+A1: 2009+A2: 2009;
EN 61000-3-3: 2008;
EN 55024: 2010;
(IEC 61000-4-2; IEC 61000-4-3; IEC 61000-4-4;
IEC 61000-4-5; IEC 61000-4-6; IEC 61000-4-11)

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited 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 Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the EN 55022, EN 61000-3-2, EN 61000-3-3, and EN 55024 requirements.The Project in IEC 61000-4-3 was tested in Shenzhen EMTEK Co., Ltd.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Test : Mar. 01~05, 2014

Prepared by : (Engineer/ Barak Ban)

Reviewer : (Project Manager/ Dolly Mo)

Approve & Authorized Signer : (Manager/ Tom Chen)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	:	Power Supply
Model Number	:	PC-XXXYYY(XXX=050-500 means output voltage 5V -50V, Step is 0.5V; YYY=050-500 means output current 5A-50A, Step is 0.1A) (Note: All samples are the same except the model number & appearance, so we prepare “PC-130310 and PC-240170” for EMC test only.)
Test Power Supply	:	AC 230V, 50Hz
Applicant	:	Shenzhen Pengchu Industry Co., Ltd.
Address	:	Office 17D, North of Hubei Building, Binhe Rd NO. 9003, Futian district, Shenzhen, Guangdong province, China
Manufacturer	:	Shenzhen Pengchu Industry Co., Ltd.
Address	:	Office 17D, North of Hubei Building, Binhe Rd NO. 9003, Futian district, Shenzhen, Guangdong province, China
Factory	:	Pengchu Industrial (Huizhou) Electronics Factory
Address	:	Junyuan Industrial Park, Qiubao Rd, Qiuchang Town, Huiyang district, Huizhou, Guangdong province , China
Date of receipt	:	Mar. 01, 2014
Date of Test	:	Mar. 01~05, 2014

1.2. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 752021
Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Loads Commission. The acceptance letter from the FCC is maintained in our files. Registration 752021, July 10, 2013.

IC-Registration No.: 8058A-1
Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration 8058A-1, Feb. 22, 2013.

CNAS - LAB Code: L3503
Shenzhen Anbotek Compliance Laboratory Limited., Laboratory has been assessed and in compliance with CNAS/CL01: 2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing Laboratories.

Test Location
All Emissions tests were performed
Shenzhen Anbotek Compliance Laboratory Limited. at 1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road, Nanshan District, Shenzhen, Guangdong, China

1.3. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 4.3dB
Conduction Uncertainty	:	Uc = 3.4dB

1.4. Test Summary

For the EUT described above. The standards used were EN 55022 for Emissions & EN 55024 for Immunity.

Table 1 : Tests Carried Out Under EN 55022: 2010

Standard	Test Items	Status
EN 55022: 2010	Power Line Conducted Emission Test (150KHz To 30MHz)	√
EN 55022: 2010	Radiated Emission Test (30MHz To 1000MHz)	√

Table 2 : Tests Carried Out Under EN 61000-3-2: 2006+A1: 2009+A2: 2009 / EN 61000-3-3: 2008

Standard	Test Items	Status
EN 61000-3-2: 2006+A1:2009+A2: 2009	Harmonic Current Test	√
EN 61000-3-3: 2008	Voltage Fluctuations and FlickerTest	√

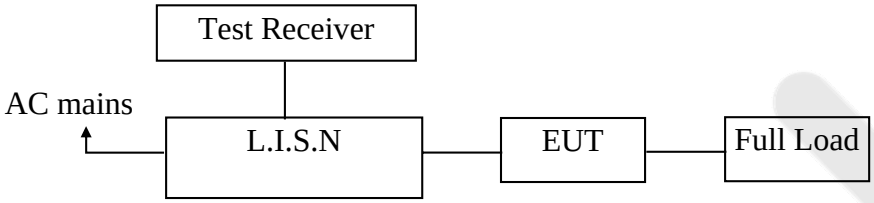
Table 3 : Tests Carried Out Under EN 55024: 2010

Standard	Test Items	Status
EN 55024: 2010	Electrostatic Discharge immunity Test	√
EN 55024: 2010	RF Field Strength susceptibility Test	√
EN 55024: 2010	Electrical Fast Transient/Burst Immunity Test	√
EN 55024: 2010	Surge Immunity Test	√
EN 55024: 2010	Injected Currents Susceptibility Test	√
EN 55024: 2010	Magnetic Field Susceptibility Test	x
EN 55024: 2010	Voltage Dips and Interruptions Test	√

√ Indicates that the test is applicable
x Indicates that the test is not applicable

2. POWER LINE CONDUCTED EMISSION TEST

2.1. Block Diagram of Test Setup



2.2. Measuring Standard

EN 55022: 2010

2.3. Power Line Conducted Emission Limits

EN 55022: 2010

Power Line Conducted Emission Limits

Frequency (MHz)	Limit (dBμV)	
	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. NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.		

2.4. 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.

2.5. Operating Condition of EUT

2.5.1. Setup the EUT as shown on Section 2.1.

2.5.2. Turn on the Power of all equipments.

2.5.3. Let the EUT work in measuring mode (Full Load) and measure it.

2.6. Test Procedure

The EUT is put on the plane 0.8 m 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 50ohm coupling impedance for the tested equipments. Both sides of AC line are investigated to find out the maximum conducted emission according to the EN55022 regulations during conducted emission measurement.

The bandwidth of the field strength meter (R&S Test Receiver ESCI) is set at 9kHz in 150kHz~30MHz.

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

The test results are listed in Section 2.8.

2.7. Test Equipment

The following test equipments are used during the power line conducted measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Two-Line V-network	Rohde & Schwarz	ENV216	100055	Apr. 23, 2014	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Apr. 23, 2014	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Apr. 23, 2014	1 Year

2.8. Measuring Results

PASS.

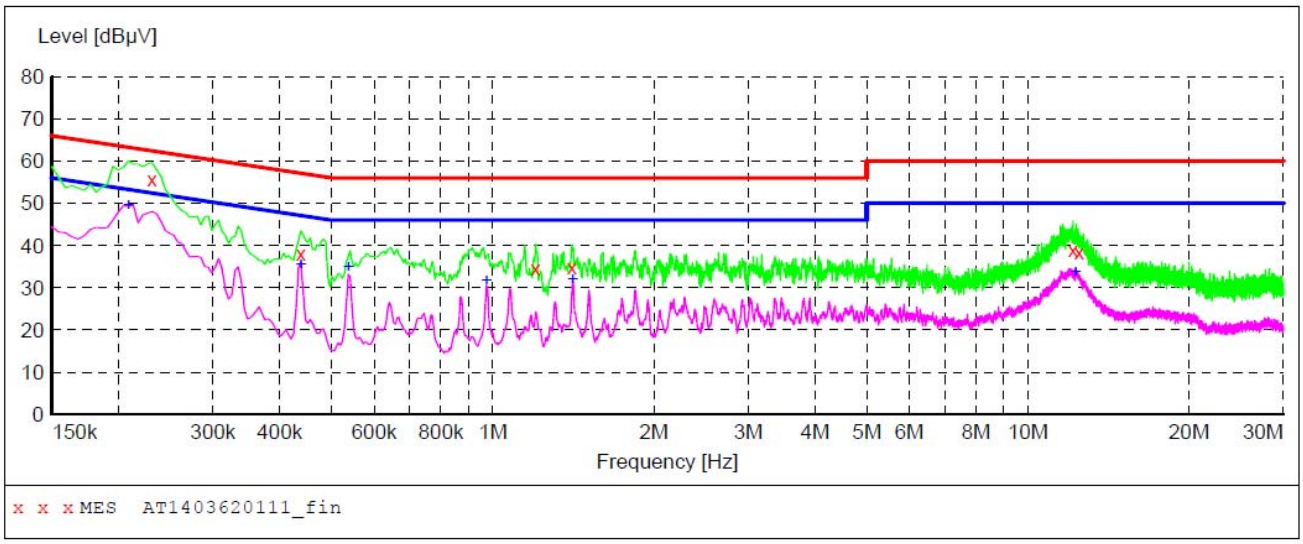
The frequency range 150KHz to 30MHz is investigated

The test curves are shown in the following pages.

CONDUCTED EMISSION TEST DATA

Test Site:	1# Shielded Room
Operating Condition:	Full Load
Test Specification:	AC 230V, 50Hz
Comment:	L
Model:	PC-240170
	Tem:22.2℃ Hum:60%

SCAN TABLE: "Voltage(150K~30M)FIN"
Short Description: 150K-30M Disturbance Voltages



MEASUREMENT RESULT: "AT1403620111_fin"

3/1/2014 3:55PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.231000	55.70	20.1	62	6.7	QP	L1	GND
0.438000	38.20	20.1	57	18.9	QP	L1	GND
1.202500	34.50	20.2	56	21.5	QP	L1	GND
1.405000	35.00	20.2	56	21.0	QP	L1	GND
12.146500	38.90	20.6	60	21.1	QP	L1	GND
12.466000	38.30	20.7	60	21.7	QP	L1	GND

MEASUREMENT RESULT: "AT1403620111_fin2"

3/1/2014 3:55PM

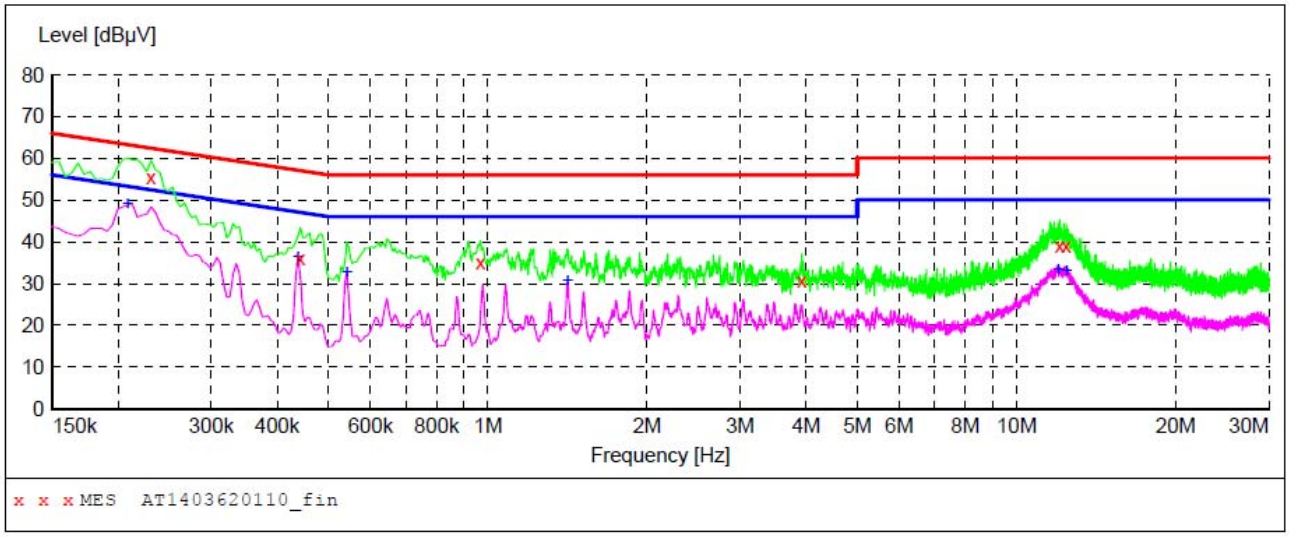
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.208500	49.60	20.1	53	3.4	AV	L1	GND
0.438000	35.60	20.1	47	11.5	AV	L1	GND
0.537000	34.80	20.1	46	11.2	AV	L1	GND
0.973500	31.50	20.2	46	14.5	AV	L1	GND
1.409500	32.10	20.2	46	13.9	AV	L1	GND
12.277000	33.70	20.7	50	16.3	AV	L1	GND

CONDUCTED EMISSION TEST DATA

Test Site:	1# Shielded Room
Operating Condition:	Full Load
Test Specification:	AC 230V, 50Hz
Comment:	N
Model:	PC-240170
	Tem:22.2℃ Hum:60%

SCAN TABLE: "Voltage(150K~30M)FIN"

Short Description: 150K-30M Disturbance Voltages



MEASUREMENT RESULT: "AT1403620110_fin"

3/1/2014 3:52PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.231000	55.30	20.1	62	7.1	QP	N	GND
0.442500	36.10	20.1	57	20.9	QP	N	GND
0.969000	35.00	20.2	56	21.0	QP	N	GND
3.925000	30.80	20.4	56	25.2	QP	N	GND
12.061000	39.10	20.6	60	20.9	QP	N	GND
12.407500	38.90	20.7	60	21.1	QP	N	GND

MEASUREMENT RESULT: "AT1403620110_fin2"

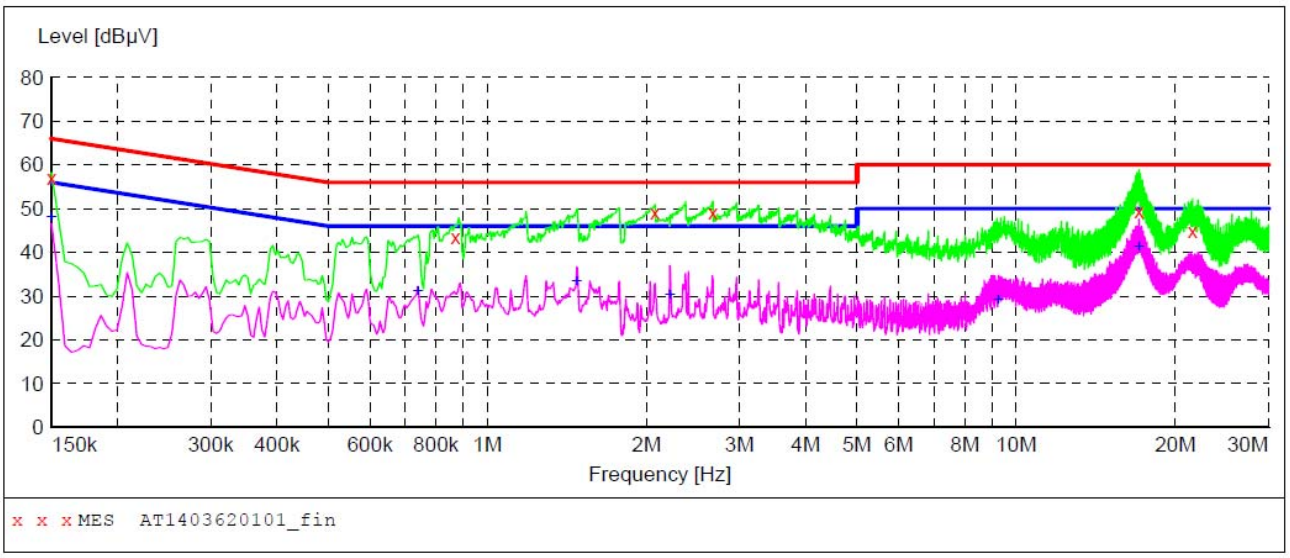
3/1/2014 3:52PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.208500	48.90	20.1	53	4.1	AV	N	GND
0.438000	36.40	20.1	47	10.7	AV	N	GND
0.541500	32.70	20.1	46	13.3	AV	N	GND
1.414000	30.80	20.2	46	15.2	AV	N	GND
11.993500	33.50	20.6	50	16.5	AV	N	GND
12.412000	33.00	20.7	50	17.0	AV	N	GND

CONDUCTED EMISSION TEST DATA

Test Site:	1# Shielded Room
Operating Condition:	Full Load
Test Specification:	AC 230V, 50Hz
Comment:	L
Model:	PC-130310
	Tem:22.2℃ Hum:60%

SCAN TABLE: "Voltage(150K~30M)FIN"
Short Description: 150K-30M Disturbance Voltages



MEASUREMENT RESULT: "AT1403620101_fin"

3/1/2014 1:34PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	57.00	20.1	66	9.0	QP	L1	GND
0.870000	43.60	20.1	56	12.4	QP	L1	GND
2.075500	49.00	20.3	56	7.0	QP	L1	GND
2.669500	49.20	20.4	56	6.8	QP	L1	GND
17.056000	49.40	20.7	60	10.6	QP	L1	GND
21.574000	45.00	20.8	60	15.0	QP	L1	GND

MEASUREMENT RESULT: "AT1403620101_fin2"

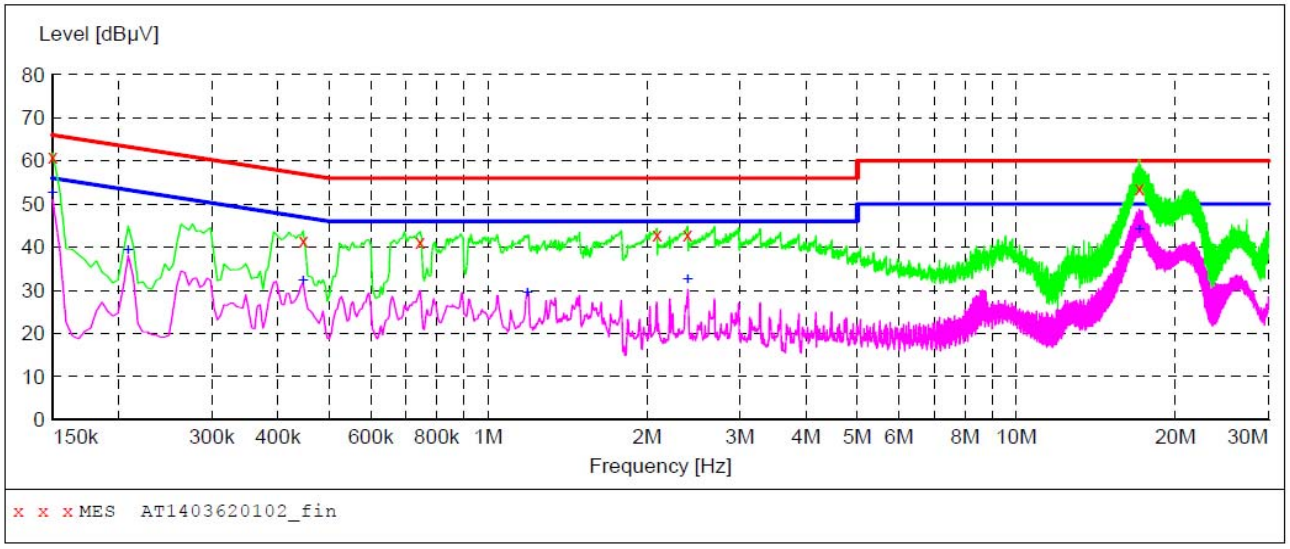
3/1/2014 1:34PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	48.10	20.1	56	7.9	AV	L1	GND
0.739500	31.00	20.1	46	15.0	AV	L1	GND
1.477000	33.20	20.3	46	12.8	AV	L1	GND
2.215000	30.20	20.3	46	15.8	AV	L1	GND
9.262000	29.00	20.6	50	21.0	AV	L1	GND
17.056000	41.30	20.7	50	8.7	AV	L1	GND

CONDUCTED EMISSION TEST DATA

Test Site:	1# Shielded Room
Operating Condition:	Full Load
Test Specification:	AC 230V, 50Hz
Comment:	N
Model:	PC-130310
	Tem:22.2℃ Hum:60%

SCAN TABLE: "Voltage(150K~30M)FIN"
Short Description: 150K-30M Disturbance Voltages



MEASUREMENT RESULT: "AT1403620102_fin"

3/1/2014 1:37PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	61.00	20.1	66	5.0	QP	N	GND
0.447000	41.60	20.1	57	15.3	QP	N	GND
0.744000	41.20	20.1	56	14.8	QP	N	GND
2.089000	42.80	20.3	56	13.2	QP	N	GND
2.386000	42.90	20.3	56	13.1	QP	N	GND
17.101000	53.50	20.7	60	6.5	QP	N	GND

MEASUREMENT RESULT: "AT1403620102_fin2"

3/1/2014 1:37PM

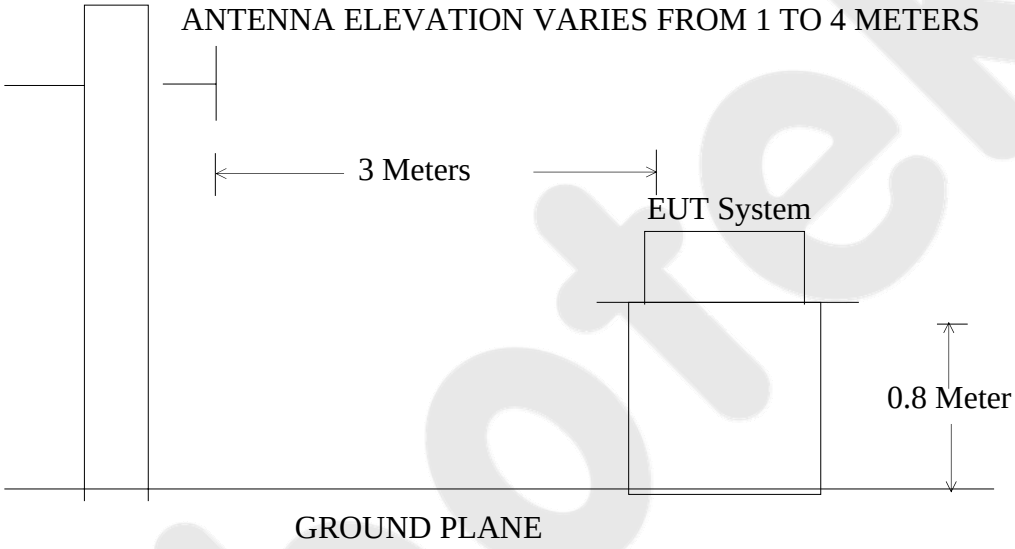
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	52.50	20.1	56	3.5	AV	N	GND
0.208500	39.20	20.1	53	14.1	AV	N	GND
0.447000	32.20	20.1	47	14.7	AV	N	GND
1.189000	29.30	20.2	46	16.7	AV	N	GND
2.390500	32.60	20.3	46	13.4	AV	N	GND
17.101000	44.10	20.7	50	5.9	AV	N	GND

3. RADIATED EMISSION TEST

3.1. Block Diagram of Test

3.1.1. Block diagram of connection between the EUT and simulators

3.1.2. Block diagram of test setup (In chamber)



3.2. Measuring Standard

EN 55022: 2010

3.3. Radiated Emission Limits

3.3.1. EN 55022: 2010

Radiated Emission Limits

All emanations from an EN 55022 device 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 LIMIT (dBμV/m)
30 ~ 230	3	40
230 ~ 1000	3	47

Note: (1) The smaller limit shall apply at the combination point 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.

3.4. EUT Configuration on Test

The EN 55022 regulations test method must be used to find the maximum emission during radiated emission measurement.

3.5. Operating Condition of EUT

3.5.1. Turn on the Power .

3.5.2. Let the EUT work in measuring mode (Full Load) and measure it.

3.6. Test Procedure

The EUT is placed on a turn table which is 0.8 meter high above the 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 be moved up and down from 1 to 4 meters to find out the maximum emission level. Bilog antenna is used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the Receiver (ESCI) is set at 120kHz.

The EUT is tested in 9*6*6 Chamber.

The test results are listed in Section 3.8.

3.7. Test Equipment

The following test equipments are used during radiated emission measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Test Receiver	Rohde & Schwarz	ESPI	101604	Apr. 23, 2014	1 Year
2.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	May 14, 2013	3 Year
3.	Pre-amplifier	SONOMA	310N	186860	Aug. 09, 2013	1 Year

3.8. Measuring Results

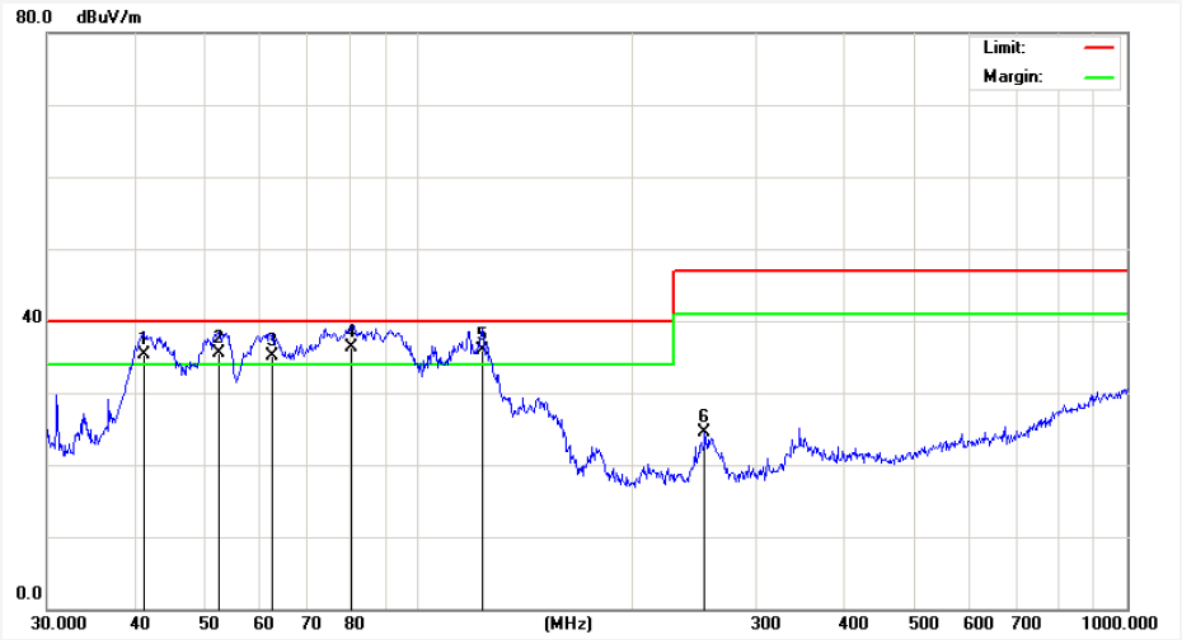
PASS.

The frequency range from 30MHz to 1000MHz is investigated.

The test curves are shown in the following pages.

Job No.:	**AT1403620E**	**Polarization:**	**Vertical**
Standard:	**(RE)EN 55022_Class B_3m**	**Power Source:**	**AC 230V, 50Hz**
Test item:	**Radiation Test**	**Temp.(C)/Hum.(%RH):**	**24.3(C)/55%RH**
Note:	**Full Load**	**Distance:**	**3m**

Model: PC-240170



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	41.1319	46.11	-10.81	35.30	40.00	-4.70	QP	100	360	
2	52.3912	50.19	-14.75	35.44	40.00	-4.56	QP	100	0	
3	62.2128	51.48	-16.32	35.16	40.00	-4.84	QP	100	0	
4	80.6441	56.11	-19.77	36.34	40.00	-3.66	QP	100	0	
5	123.2655	52.80	-16.82	35.98	40.00	-4.02	QP	100	360	
6	253.8367	38.54	-14.03	24.51	47.00	-22.49	peak			

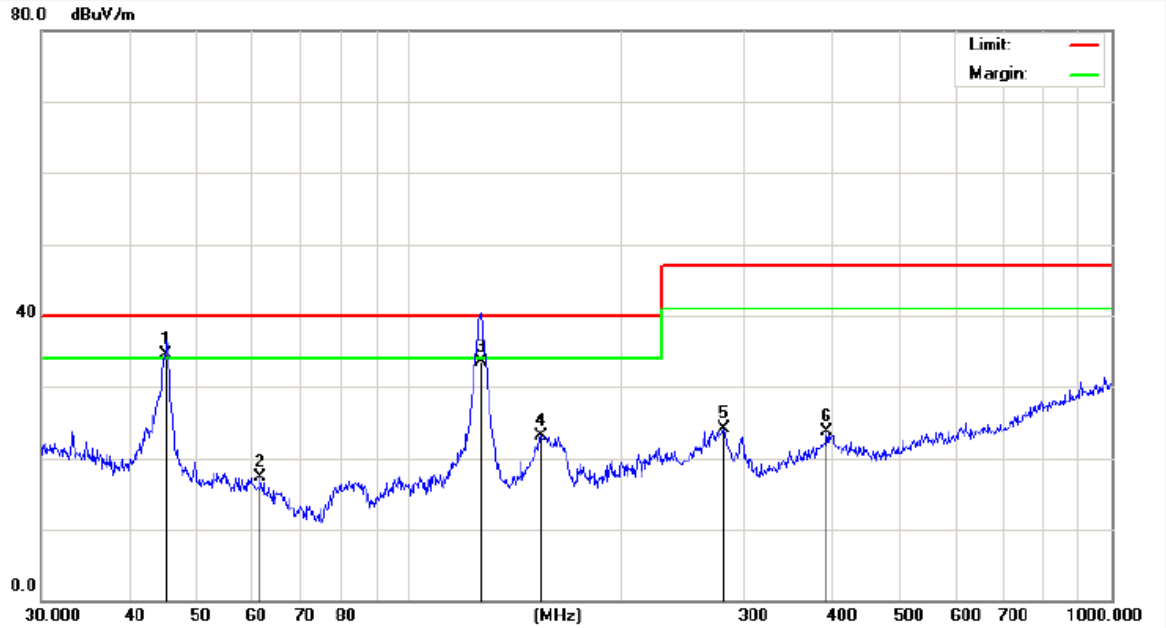
Job No.:	**AT1403620E**	**Polarization:**	**Horizontal**
Standard:	**(RE)EN 55022_Class B_3m**	**Power Source:**	**AC 230V, 50Hz**
Test item:	**Radiation Test**	**Temp.(C)/Hum.(%RH):**	**24.3(C)/55%RH**
Note:	**Full Load**	**Distance:**	**3m**

Model: PC-240170

No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	30.9619	40.96	-16.44	24.52	40.00	-15.48	peak			
2	41.7129	36.45	-11.05	25.40	40.00	-14.60	peak			
3	54.8348	44.88	-14.91	29.97	40.00	-10.03	peak			
4	68.3908	47.07	-18.93	28.14	40.00	-11.86	peak			
5	123.2655	50.97	-21.82	29.15	40.00	-10.85	peak			
6	351.7079	39.01	-13.92	25.09	47.00	-21.91	peak			

Job No.:	**AT1403620E**	**Polarization:**	**Vertical**
Standard:	**(RE)EN 55022_Class B_3m**	**Power Source:**	**AC 230V, 50Hz**
Test item:	**Radiation Test**	**Temp.(C)/Hum.(%RH):**	**24.3(C)/55%RH**
Note:	**Full Load**	**Distance:**	**3m**

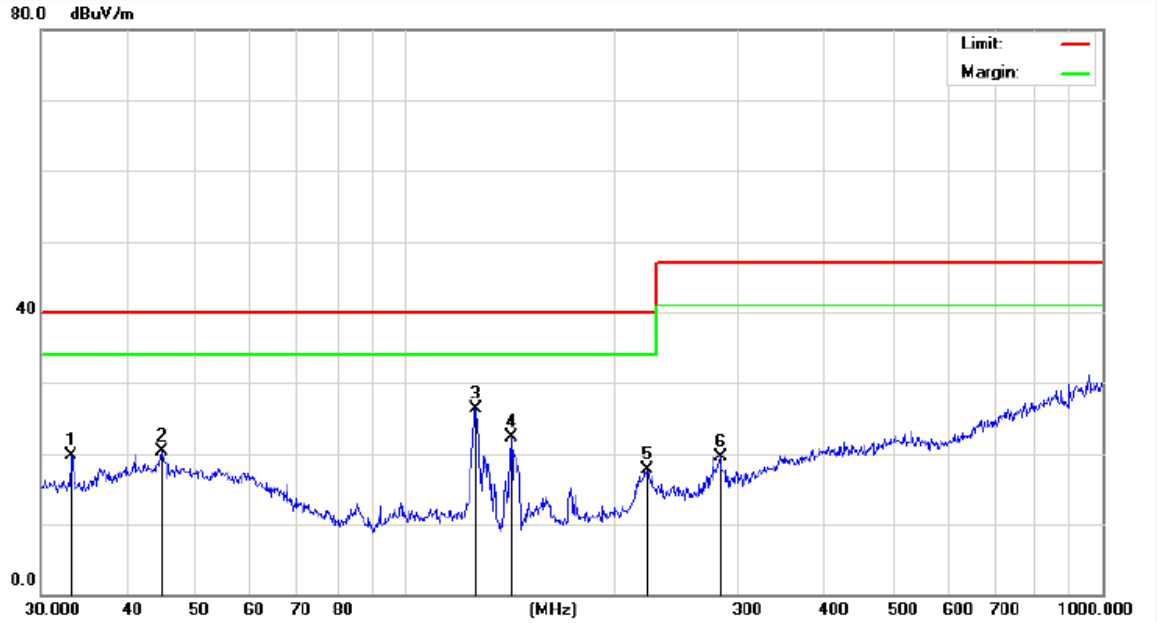
Model: PC-130310



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	45.2166	48.91	-14.34	34.57	40.00	-5.43	peak	100	360	
2	61.5618	33.38	-16.05	17.33	40.00	-22.67	peak			
3	126.5623	50.88	-17.31	33.57	40.00	-6.43	QP	200	360	
4	154.2786	41.25	-18.14	23.11	40.00	-16.89	peak			
5	281.0075	39.21	-15.20	24.01	47.00	-22.99	peak			
6	393.4723	35.73	-12.00	23.73	47.00	-23.27	peak			

Job No.:	**AT1403620E**	**Polarization:**	**Horizontal**
Standard:	**(RE)EN 55022_Class B_3m**	**Power Source:**	**AC 230V, 50Hz**
Test item:	**Radiation Test**	**Temp.(C)/Hum.(%RH):**	**24.3(C)/55%RH**
Note:	**Full Load**	**Distance:**	**3m**

Model: PC-130310

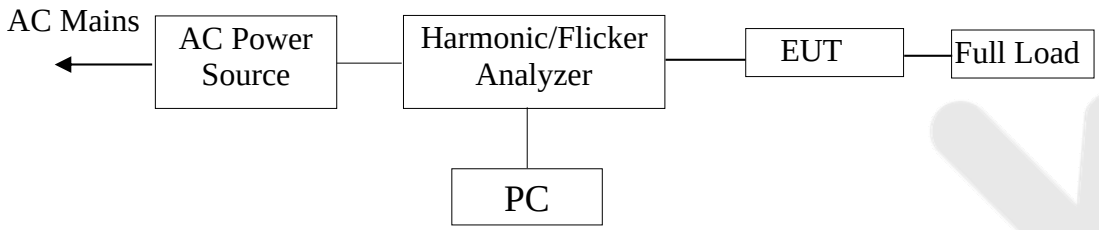


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	33.2112	36.15	-16.52	19.63	40.00	-20.37	peak			
2	44.7433	34.58	-14.33	20.25	40.00	-19.75	peak			
3	126.3286	48.54	-22.27	26.27	40.00	-13.73	peak			
4	141.8262	45.74	-23.47	22.27	40.00	-17.73	peak			
5	222.1698	37.55	-19.89	17.66	40.00	-22.34	peak			
6	282.9852	37.59	-18.15	19.44	47.00	-27.56	peak			

4. HARMONIC CURRENT EMISSION TEST

4.1. Block Diagram of Test Setup

4.1.1. Block diagram of connection between the EUT and simulators



4.2. Measuring Standard

EN 61000-3-2: 2006+A1: 2009+A2: 2009 Class A

4.3. Operation Condition of EUT

4.3.1. Setup the EUT as shown on Section 4.1.

4.3.2. Turn on the Power of all equipments.

4.3.3. After that, let the EUT work and measure it.

4.4. Test Equipment

The following test equipments are used during harmonic current emission measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Programmable AC Power source	SOPH POWER	PAG-1050	630250	Apr. 23, 2014	1 Year
2.	Harmonic and Flicker Analyzer	LAPLACE	AC2000A	272629	Apr. 23, 2014	1 Year

4.5. Measuring Results

PASS

The test dates are shown in the following pages.

Harmonic Current Test Result Summary (Run time)

Tested On : Mar. 02, 2014 10:12 for 150 Seconds.
Model: PC-240170

Supply Voltage : 229.9 Vrms 326.9 Vpk Frequency : 49.98 to 50.04 Hz
Supply Fails : Harmonic Requirements and Crest Limits.

Load Power : 87.3 to 94.3W 95.29VA Power Factor 0.952
Load Current : 419.1 to 427.4mArms 723 to 765mApk Crest Factor: 1.083

Measurement Standard : EN61000-4-7 2002
Limits Applied : EN61000-3-2 Class A. Limits Apply.

Harmonic Number	Limit Current mA	Average (filtered) mA	% Limit	max. Value (Filtered) mA	% Limit	Assessment
Fundamental:		712.6	-		-	
2:	1080.0	1.4	0.1	1.5	0.1	Pass
3:	2300.0	84.3	3.7	84.9	3.7	Pass
4:	430.0	0.5	0.1	0.5	0.1	Pass
5:	1140.0	37.4	3.3	37.5	3.3	Pass
6:	300.0	0.4	0.1	0.5	0.2	Pass
7:	770.0	11.5	1.5	11.9	1.5	Pass
8:	230.0	0.5	0.2	0.6	0.3	Pass
9:	400.0	7.0	1.8	7.2	1.8	Pass
10:	184.0	0.6	0.3	0.6	0.3	Pass
11:	330.0	5.7	1.7	6.2	1.9	Pass
12:	153.3	0.8	0.5	0.8	0.5	Pass
13:	210.0	6.2	3.0	6.2	3.0	Pass
14:	131.4	0.8	0.6	0.8	0.6	Pass
15:	150.0	8.7	5.8	8.7	5.8	Pass
16:	115.0	0.6	0.5	0.7	0.6	Pass
17:	132.3	8.7	6.6	9.5	7.2	Pass
18:	102.2	0.5	0.5	0.5	0.5	Pass
19:	118.4	4.8	4.1	5.5	4.6	Pass
20:	92.0	0.4	0.4	0.4	0.4	Pass
21:	107.1	8.7	8.1	8.7	8.1	Pass
22:	83.6	0.3	0.4	0.3	0.4	Pass
23:	97.8	11.2	11.5	11.3	11.6	Pass
24:	76.7	0.4	0.5	0.4	0.5	Pass
25:	90.0	6.2	6.9	6.3	7.0	Pass
26:	70.8	0.3	0.4	0.3	0.4	Pass
27:	83.3	4.7	5.6	4.7	5.6	Pass
28:	65.7	0.2	0.3	0.3	0.5	Pass
29:	77.6	4.9	6.3	4.9	6.3	Pass
30:	61.3	0.2	0.3	0.2	0.3	Pass
31:	72.6	4.5	6.2	4.5	6.2	Pass
32:	57.5	0.1	0.2	0.1	0.2	Pass
33:	68.2	4.6	6.7	4.7	6.9	Pass
34:	54.1	0.1	0.2	0.2	0.4	Pass
35:	64.3	3.9	6.1	3.9	6.1	Pass
36:	51.1	0.3	0.6	0.3	0.6	Pass
37:	60.8	2.6	4.3	2.6	4.3	Pass
38:	48.4	0.3	0.6	0.3	0.6	Pass
39:	57.7	2.5	4.3	2.6	4.5	Pass
40:	46.0	0.2	0.4	0.2	0.4	Pass
21 - 39:	251.4	18.9	7.5	19.0	7.6	-

Harmonic Current Test Result Summary (Run time)

Tested On : Mar. 02, 2014 10:41 for 150 Seconds.
Model: PC-130310

Supply Voltage : 229.9 Vrms 326.9 Vpk Frequency : 49.99 to 50.04 Hz
Supply Fails : Harmonic Requirements and Crest Limits.

Load Power : 86.8 to 92.8W 92.45VA Power Factor 0.955
Load Current : 432.7 to 461.9mArms 615 to 647mApk Crest Factor: 1.089

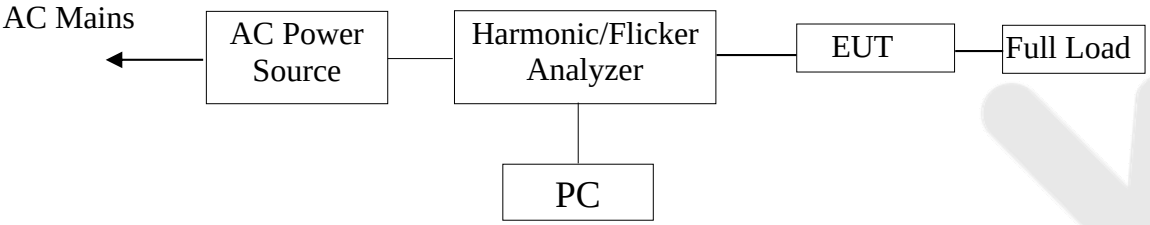
Measurement Standard : EN61000-4-7 2002
Limits Applied : EN61000-3-2 Class A. Limits Apply.

Harmonic Number	Limit Current mA	Average (filtered) mA	% Limit	max. Value (Filtered) mA	% Limit	Assessment
Fundamental:		727.0	-		-	
2:	1080.0	1.4	0.1	2.0	0.2	Pass
3:	2300.0	78.9	3.4	79.4	3.5	Pass
4:	430.0	0.4	0.1	0.5	0.1	Pass
5:	1140.0	35.3	3.1	36.1	3.2	Pass
6:	300.0	0.4	0.1	0.6	0.2	Pass
7:	770.0	10.6	1.4	10.7	1.4	Pass
8:	230.0	0.4	0.2	0.5	0.2	Pass
9:	400.0	8.9	2.2	10.4	2.6	Pass
10:	184.0	0.6	0.3	0.7	0.4	Pass
11:	330.0	9.2	2.8	11.6	3.5	Pass
12:	153.3	0.8	0.5	0.8	0.5	Pass
13:	210.0	6.6	3.1	7.3	3.5	Pass
14:	131.4	0.8	0.6	0.8	0.6	Pass
15:	150.0	6.3	4.2	6.3	4.2	Pass
16:	115.0	0.6	0.5	0.7	0.6	Pass
17:	132.3	11.2	8.5	11.4	8.6	Pass
18:	102.2	0.3	0.3	0.3	0.3	Pass
19:	118.4	8.0	6.8	11.1	9.4	Pass
20:	92.0	0.4	0.4	0.4	0.4	Pass
21:	107.1	8.4	7.8	8.5	7.9	Pass
22:	83.6	0.3	0.4	0.3	0.4	Pass
23:	97.8	11.0	11.2	11.0	11.2	Pass
24:	76.7	0.3	0.4	0.4	0.5	Pass
25:	90.0	5.9	6.6	6.2	6.9	Pass
26:	70.8	0.2	0.3	0.2	0.3	Pass
27:	83.3	4.0	4.8	4.0	4.8	Pass
28:	65.7	0.1	0.2	0.2	0.3	Pass
29:	77.6	4.7	6.1	4.9	6.3	Pass
30:	61.3	0.1	0.2	0.1	0.2	Pass
31:	72.6	4.0	5.5	4.4	6.1	Pass
32:	57.5	0.1	0.2	0.1	0.2	Pass
33:	68.2	4.2	6.2	4.3	6.3	Pass
34:	54.1	0.1	0.2	0.1	0.2	Pass
35:	64.3	3.5	5.4	3.6	5.6	Pass
36:	51.1	0.3	0.6	0.3	0.6	Pass
37:	60.8	2.0	3.3	2.4	3.9	Pass
38:	48.4	0.3	0.6	0.3	0.6	Pass
39:	57.7	2.1	3.6	2.1	3.6	Pass
40:	46.0	0.2	0.4	0.3	0.7	Pass
21 - 39:	251.4	18.0	7.2	18.0	7.2	-

5. VOLTAGE FLUCTUATION AND FLICKER TEST

5.1. Block Diagram of Test Setup

5.1.1. Block diagram of connection between the EUT and simulators



5.2. Measuring Standard

EN 61000-3-3: 2008

5.3. Operation Condition of EUT

5.3.1. Setup the EUT as shown on Section 5.1.

5.3.2. Turn on the Power of all equipments.

5.3.3. After that, let the EUT work and measure it.

5.4. Test Equipment

The following test equipments are used during the voltage fluctuations and flicker measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Programmable AC Power source	SOPH POWER	PAG-1050	630250	Apr. 23, 2014	1 Year
2.	Harmonic and Flicker Analyzer	LAPLACE	AC2000A	272629	Apr. 23, 2014	1 Year

5.5. Measuring Results

PASS

The test dates are shown in the following pages.

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

HA-PC Link Plus. Software v2.02. Firmware v2.81
Tested On : Mar. 02, 2014 10:16 for 600 Seconds.
Model: PC-240170

Supply Voltage : 229.8 to 229.9 Vrms 327.0 Vpk Frequency : 49.97 to 50.04 Hz
Load Current : 423.4 to 476.9 mArms 630 to 672 mApk Crest Factor: 1.073

Test Method: EN61000-3-3:2008

Voltage Variations :

Highest Level:	+0.08%	
Lowest Level:	-0.22%	
d(max):	0.30%	PASS
Highest d(t) of 500ms:	0.00%	PASS
Present d(t) over 3.33%:	0.00 Seconds	
Longest d(t) over 3.33%:	0.00 Seconds	
Highest Steady State:	-0.06%	
Lowest Steady State:	-0.06%	
Max d(c) Between Adjacent:	0.00%	PASS
Max d(c) Between Any:	0.00%	
Short Term Flicker Pst:	0.02	PASS

Flicker Results :

Pst Classifier Duration	Flicker	Plt Calculation Interval	Pst
0.1%	0.02		
0.7%	0.01		
1.0%	0.00		
1.5%	0.00		
2.2%	0.00		
3%	0.00		
4%	0.00		
6%	0.00		
8%	0.00		
10%	0.00		
13%	0.00		
17%	0.00		
30%	0.00		
50%	0.00		
80%	0.00		

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

HA-PC Link Plus. Software v2.02. Firmware v2.81
Tested On : Mar. 02, 2014 10:45 for 600 Seconds.
Model: PC-130310

Supply Voltage : 229.8 to 229.9 Vrms 326.9 Vpk Frequency : 49.97 to 50.03 Hz
Load Current : 401.8 to 417.3 mArms 763 to 795 mApk Crest Factor: 1.075

Test Method: EN61000-3-3:2008

Voltage Variations :

Highest Level:	+0.08%	
Lowest Level:	-0.23%	
d(max):	0.31%	PASS
Highest d(t) of 500ms:	0.00%	PASS
Present d(t) over 3.33%:	0.00 Seconds	
Longest d(t) over 3.33%:	0.00 Seconds	
Highest Steady State:	-0.07%	
Lowest Steady State:	-0.07%	
Max d(c) Between Adjacent:	0.00%	PASS
Max d(c) Between Any:	0.00%	
Short Term Flicker Pst:	0.03	PASS

Flicker Results :

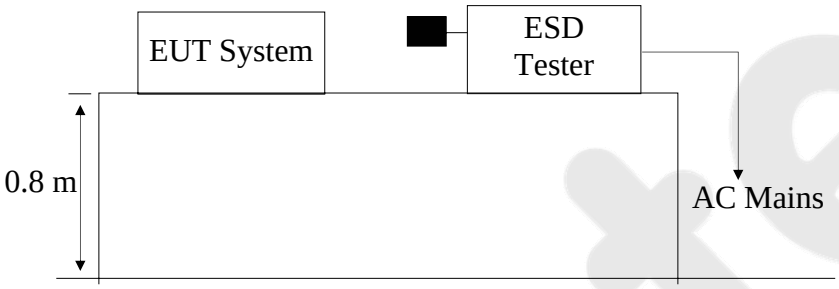
Pst Classifier Duration	Pst Flicker	Plt Calculation Interval	Plt Pst
0.1%	0.03		
0.7%	0.01		
1.0%	0.00		
1.5%	0.00		
2.2%	0.00		
3%	0.00		
4%	0.00		
6%	0.00		
8%	0.00		
10%	0.00		
13%	0.00		
17%	0.00		
30%	0.00		
50%	0.00		
80%	0.00		

6. ELECTROSTATIC DISCHARGE IMMUNITY TEST

6.1. Block Diagram of Test Setup

6.1.1. Block diagram of connection between the EUT and simulators

6.1.2. Block diagram of test setup



6.2. Measuring Standard

EN 55024: 2010
IEC 61000-4-2
Severity Level: 3 / Air Discharge: ±8kV Level: 2 / Contact Discharge: ±4kV

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 following equipments are installed on Electrostatic Discharge immunity Measurement to meet EN 55024 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

6.5. Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 2.5 except the test set up replaced by Section 6.1.

6.6. Test Procedure

6.6.1. 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 100 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed

6.6.2. Contact Discharge:

All the procedure shall be same as Section 6.6.1. except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

6.6.3. Indirect discharge for horizontal coupling plane

At least 50 single discharges shall be applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode positions vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.

6.6.4. Indirect discharge for vertical coupling plane

At least 50 single discharge 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.

6.7. Test Equipment

The following test equipments are used during the Electrostatic Discharge measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	ESD Simulators	KIKUSUI	KES4021	LJ003477	Apr. 25, 2014	1 Year

6.8. Measuring Results

PASS

Please refer to the following pages

Electrostatic Discharge Test Results

Shenzhen Anbotek Compliance Laboratory Limited

Test Mode	: Full Load	Temperature	: 25℃
Air discharge	: ±8.0kV	Humidity	: 54%
Contact discharge:	±4.0kV	Criterion	: B
Power Supply : AC 230V, 50Hz			

Location		Kind A-Air Discharge C-Contact Discharge	Result
Slot of the EUT	8 points	A	PASS
Others	8 points	A	PASS
Screws	4 points	C	PASS
HCP	4 points	C	PASS
VCP of front	4 points	C	PASS
VCP of rear	4 points	C	PASS
VCP of left	4 points	C	PASS
VCP of right	4 points	C	PASS

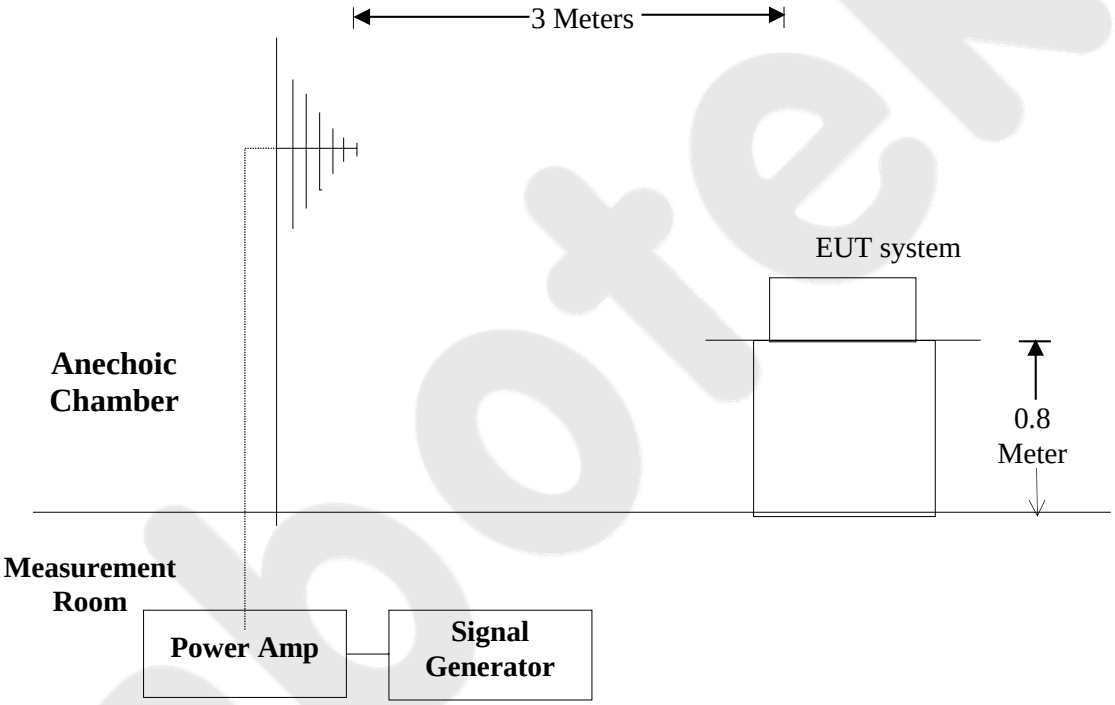
Note:

7. RF FIELD STRENGTH SUSCEPTIBILITY TEST

7.1. Block Diagram of Test

7.1.1. Block diagram of connection between the EUT and simulators

7.1.2. Block diagram of RS test setup



7.2. Measuring Standard

EN 55024: 2010
IEC 61000-4-3
Severity Level: 2, 3V / m

7.3. Severity Levels and Performance Criterion

7.3.1. Severity Levels

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 following equipments are installed on RF Field Strength susceptibility Measurement to meet EN 55024 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

7.5. Operating Condition of EUT

Same as conducted emission measurement which is listed in Section 2.5. except the test setup replaced as Section 7.1.

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 polarization 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
2. Dwell Time	1 Sec.

7.7. Test Equipment

The following test equipments are used during the R/S (Shenzhen EMTEK) measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	RF Power Meter. Dual Channel	BOONTON	4232A	10539	May 29, 2013	1 year
2.	50ohm Diode Power Sensor	BOONTON	51011EMC	34236/34238	May 29, 2013	1 year
3.	Broad-Band Horn Antenna	SCHWARZBECK	BBHA9120 L3F	332	May 29, 2013	1 year
4.	Power Amplifier	PRANA	AP32MT215	N/A	May 29, 2013	1 year
5.	Power Amplifier	MILMEGA	AS0102-55	N/A	May 29, 2013	1 year
6.	Signal Generator	AEROFLEX	2023B	N/A	May 29, 2013	1 year
7.	Field Strength Meter	HOLADAY	HI-6005	N/A	May 29, 2013	1 year
8.	RS232 Fiber Optic Modem	HOLADAY	HI-4413P	N/A	May 29, 2013	1 year
9.	Log.-Per. Antenna	SCHWARZBECK	VULP 9118E	N/A	May 29, 2013	1 year

7.8. Measuring Results

PASS.
Please refer to the following page.

RF Field Strength Susceptibility Test Results

Shenzhen Anbotek Compliance Laboratory Limited

Test Mode :	Full Load	Temperature :	25℃
Field Strength:	3 V/m	Humidity :	54%
Criterion :	A	Frequency Range:	80 MHz to 1000 MHz
Power Supply :	AC 230V, 50Hz		

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

	Frequency Rang 1: 80~ 1000MHz		Frequency Rang 2:	
Steps	# / %		# / %	
	Horizontal	Vertical	Horizontal	Vertical
Front	PASS	PASS		
Right	PASS	PASS		
Rear	PASS	PASS		
Left	PASS	PASS		

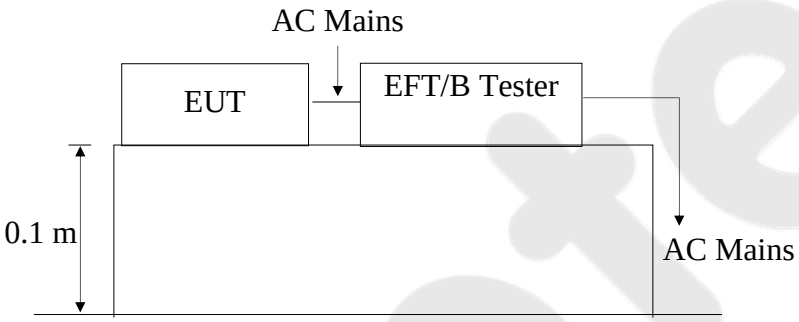
Note: The Project was tested in Shenzhen EMTEK Co., Ltd.

8. ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST

8.1. Block Diagram of Test Setup

8.1.1. Block diagram of connection between the EUT and simulators

8.1.2. EFT Test Setup



8.2. Measuring Standard

EN 55024: 2010
IEC 61000-4-4
Severity Level, Level 2**:** 1kV

8.3. Severity Levels and Performance Criterion

8.3.1. Severity level

Open Circuit Output Test Voltage ±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

8.3.2. Performance criterion**: B**

8.4. EUT Configuration

The following equipments are installed on Electrical Fast Transient/Burst Immunity Measurement to meet EN 55024 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

8.5. Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 2.5, except the test set up replaced by Section 8.1.

8.6. Test Procedure

The EUT is put on the table which is 0.1 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.

8.6.1. 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.

8.6.2. For signal lines and control lines ports**:**

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

8.6.3. For DC output line ports**:**

It's unnecessary to test.

8.7. Test Equipment

The following test equipments are used during the Electrical Fast Transient /Burst Immunity measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EFT Burst Simulator	PRIMA	EFT61004B	PR10114282	Apr. 23, 2014	1 Year

8.8. Measuring Results

PASS.

Please refer to the following page.

Electrical Fast Transient/Burst Test Results

Shenzhen Anbotek Compliance Laboratory Limited

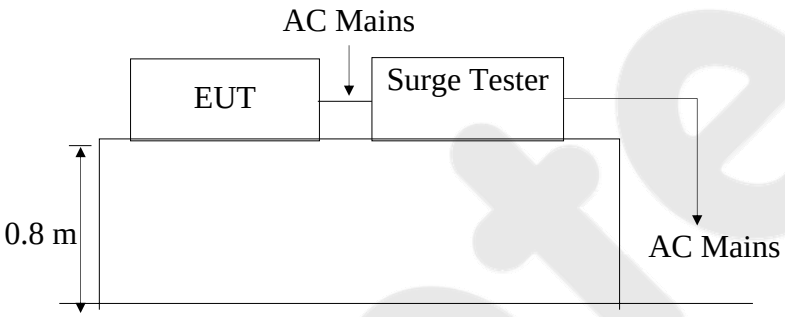
Operation Mode: Full Load		Criterion : **B**	
Power Supply : AC 230V, 50Hz			
Ambient Condition : 24℃		55% RH	
Inject Line : AC Mains	Inject Method: Direct	Inject Time(s): 120	
Line	Test Voltage	Result(+)	Result(-)
L	1kV	PASS	PASS
N	1kV	PASS	PASS
PE	1kV	PASS	PASS
L、N	1kV	PASS	PASS
L、PE	1kV	PASS	PASS
N、PE	1kV	PASS	PASS
L、N、PE	1kV	PASS	PASS
Signal Line			
DC Line			
Note :			
Remark:			

9. SURGE IMMUNITY TEST

9.1. Block Diagram of Test Setup

9.1.1. Block diagram of connection between the EUT and simulators

9.1.2. Surge Test Setup



9.2. Measuring Standard

EN 55024: 2010
IEC 61000-4-5
Severity Level**:** Level 2, Line to Line: 1.0kV; Level 3, 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
*	Special

9.3.2. Performance criterion**: B**

9.4. EUT Configuration

The following equipments are installed on SURGE immunity Measurement to meet EN 55024 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

9.5. Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 2.5, except the test set up replaced by Section 9.1.1.

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 2.0 kV 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to EUT selected points.
3) For line to earth coupling mode, provide a 4.0 kV 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to EUT selected points.
4) At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are conducted during test.
5) Different phase angles are done individually.
6) Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

9.7. Test Equipment

The following test equipments are used during the Surge Immunity measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	6kV Surge Generator	EMPEK	LSG-5060G	06010017N	Apr. 23, 2014	1 Year
2.	CDN	EMPEK	CDN-5110G	06110005N	Apr. 23, 2014	1 Year

9.8. Measuring Results

PASS.

Please refer to the following page.

Surge Immunity Test Results

Shenzhen Anbotek Compliance Laboratory Limited

Test Mode:	Full Load	Temperature:	24℃
Humidity:	55%	Criterion:	B

Power Supply : AC 230V, 50Hz

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	+	0°	5	2.0	PASS
	+	90°	5	2.0	PASS
	+	180°	5	2.0	PASS
	+	270°	5	2.0	PASS
	-	0°	5	2.0	PASS
	-	90°	5	2.0	PASS
	-	180°	5	2.0	PASS
	-	270°	5	2.0	PASS
N-PE	+	0°	5	2.0	PASS
	+	90°	5	2.0	PASS
	+	180°	5	2.0	PASS
	+	270°	5	2.0	PASS
	-	0°	5	2.0	PASS
	-	90°	5	2.0	PASS
	-	180°	5	2.0	PASS
	-	270°	5	2.0	PASS

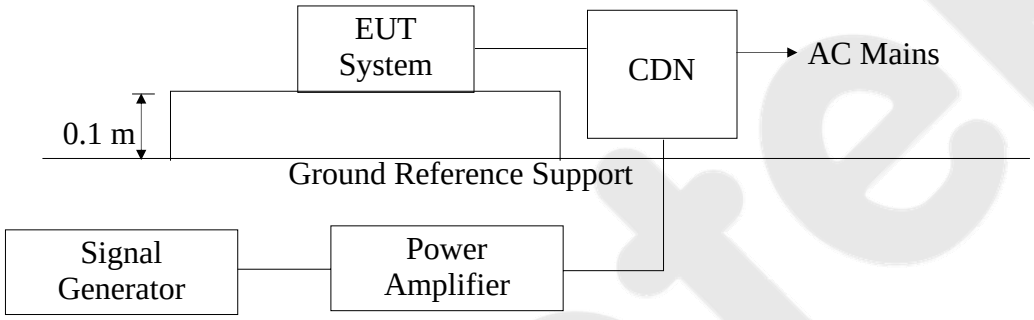
Remark:

10. INJECTED CURRENTS SUSCEPTIBILITY TEST

10.1. Block Diagram of Test Setup

10.1.1. Block diagram of connection between the EUT and simulators

10.1.2. Block Diagram of Test Setup



10.2. Measuring Standard

EN 55024: 2010
IEC 61000-4-6, Severity Level 2**:** 3V (rms), (0.15MHz ~ 80MHz)

10.3. Severity Levels and Performance Criterion

10.3.1. Severity level

Level	Field Strength V(rms)
1.	1
2.	3
3.	10
X	Special

10.3.2. Performance criterion: A

10.4. EUT Configuration

The following equipments are installed on currents susceptibility Measurement to meet EN 55024 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

10.5. Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 2.5, except the test set up replaced by Section 10.1.

10.6. Test Procedure

10.6.1. For AC Mains

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 to80MHz 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.

10.6.2. For signal lines and control lines ports**:**

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

10.6.3. For DC output line ports**:**

It's unnecessary to test.

10.7. Test Equipment

The following test equipments are used during the Injected Current Susceptibility measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	C/S Conducted Immunity Test System	FRANKONIA	CIT-10	126A1196/2012	Jul. 23, 2013	1 Year
2.	CDN	FRANKONIA	CDN - M2+ M3	A2210178/2012	Apr. 23, 2014	1 Year
3.	6dB attenuator	FRANKONIA	DAM 26W	1172202	Apr. 23, 2014	1 Year

10.8. Measuring Results

PASS.

Please refer to the following page.

Injected Currents Susceptibility Test Results

Shenzhen Anbotek Compliance Laboratory Limited

Test Mode : Full Load	Temperature : 24℃	Humidity : 53%
Power Supply : AC 230V, 50Hz		

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

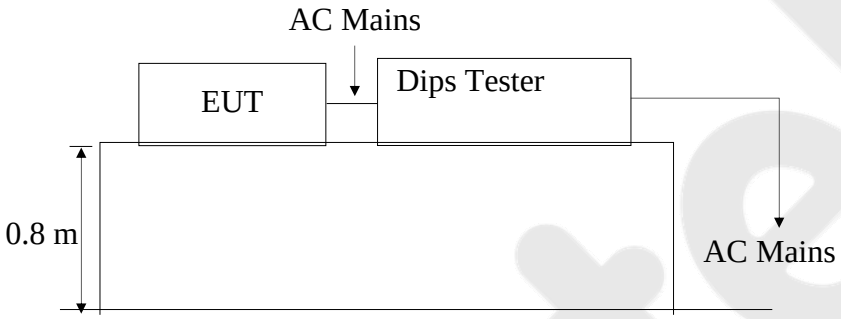
Remark :	Note:

11. VOLTAGE DIPS AND INTERRUPTIONS TEST

11.1. Block Diagram of Test Setup

11.1.1. Block diagram of connection between the EUT and simulators

11.1.2. Dips Test Setup



11.2. Measuring Standard

EN 55024: 2010
IEC 61000-4-11

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 1 5 10 25 50 *
40	60	
70	30	
0	100	

11.3.2. Performance criterion**: B&C**

11.4. EUT Configuration

The following equipments are installed on Voltage dips and interruptions Measurement to meet EN 55024 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

11.5. Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 2.5, except the test set up replaced by Section 11.1.

11.6. Test Procedure

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

11.7. Test Equipment

The following test equipments are used during the Dips Immunity measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	CYCLE SAG Simulator	PRIMA	DRP61011AG	PR12046234	Apr. 23, 2014	1 Year

11.8. Measuring Results

PASS.

Please refer to the following page.

Voltage Dips and Interruptions Test Results

Shenzhen Anbotek Compliance Laboratory Limited

Test Mode	:	Full Load	Temperature	:	24℃	Humidity	: 55%

Power Supply : AC 230V, 50Hz

Test Level % U_T	Voltage Dips & Short Interruptions % U_T	Duration (in periods)	Criterion ☐ A ☑ B ☑ C ☐ D	Result P=PASS F=Fail
0	100	0.5P	B	PASS
40	60	5P	B	PASS
70	30	25P	C	PASS
0	100	250P	C	PASS

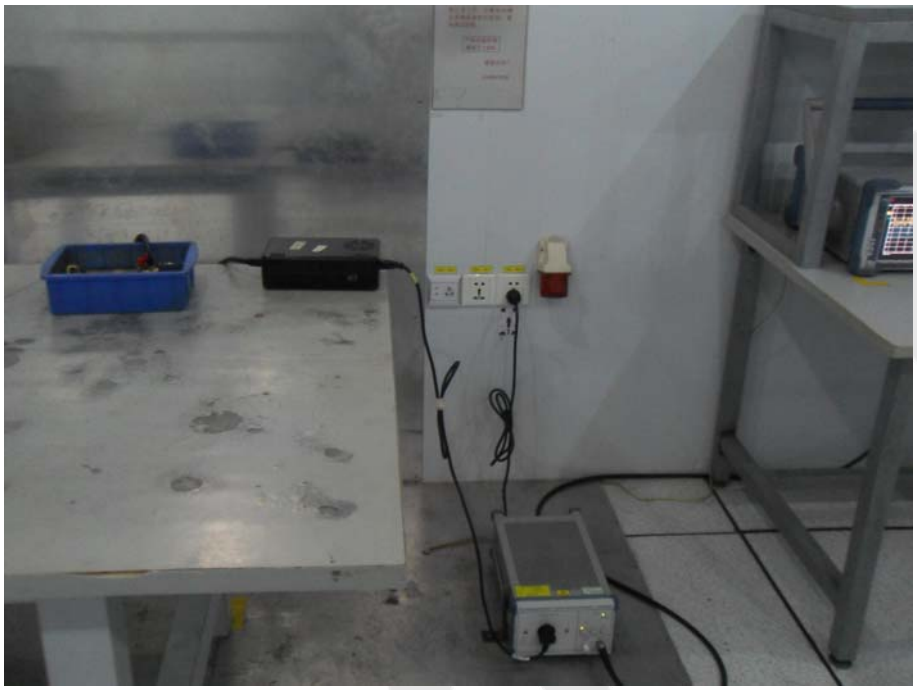
Test Mode :

Test Level % U_T	Voltage Dips & Short Interruptions % U_T	Duration (in periods)	Criterion ☐ A ☐ B ☐ C ☐ D	Result P=PASS F=Fail

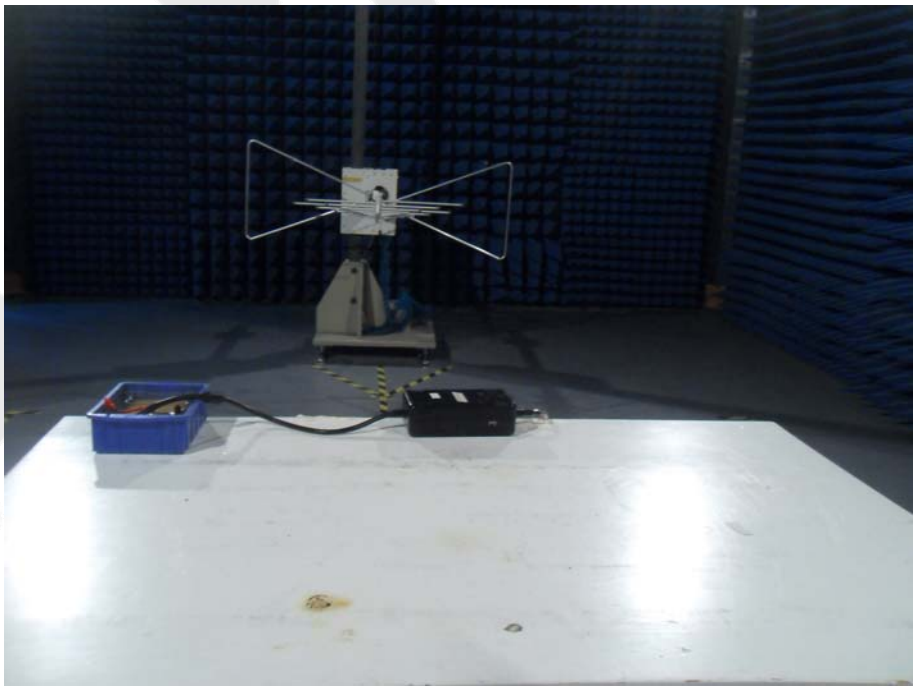
Remark:

12. PHOTOGRAPHS

12.1. Photo of Power Line Conducted Emission Test

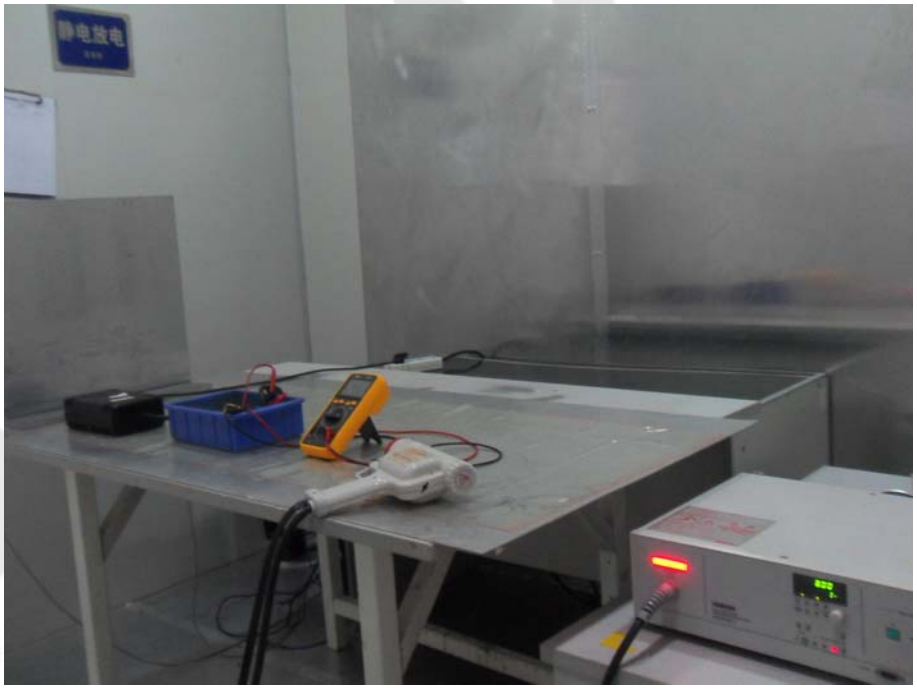


12.2. Photo of Radiated Emission Test

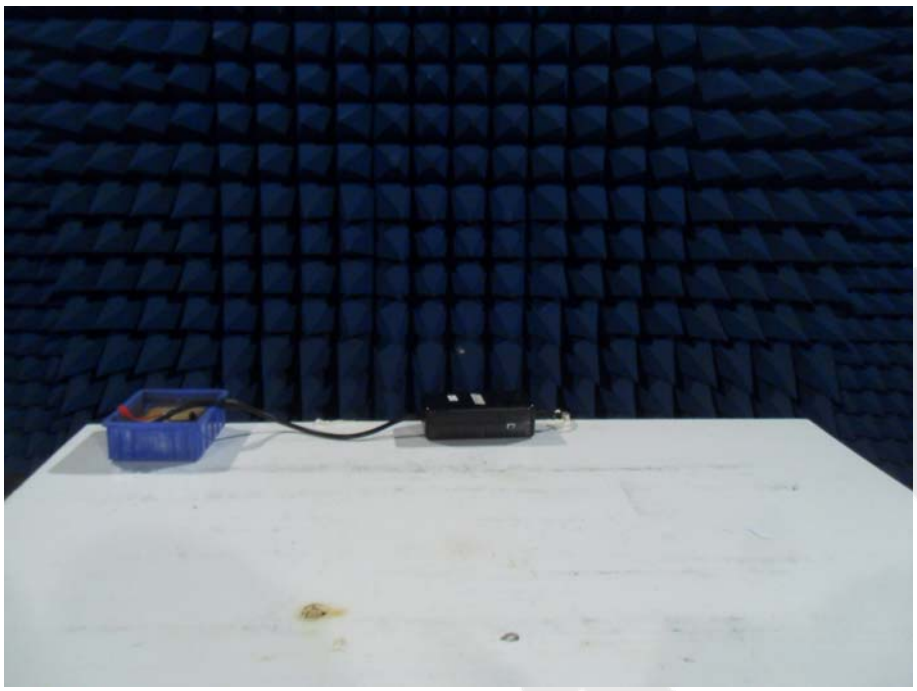


12.3. Photo of Flicker/Harmonic Test

12.4. Photo of Electrostatic Discharge Test



12.5. Photo of RF Field Strength susceptibility Test



12.6. Photo of Electrical Fast Transient/Burst Immunity Test

12.7. Photo of Surge Immunity Test

12.8. Photo of Injected Currents Susceptibility Test

12.9. Photo of Voltage Dips and Interruptions Test

APPENDIX I
(Photos of EUT)

Figure 1
The EUT-Outside View

Figure 2
The EUT-Back View

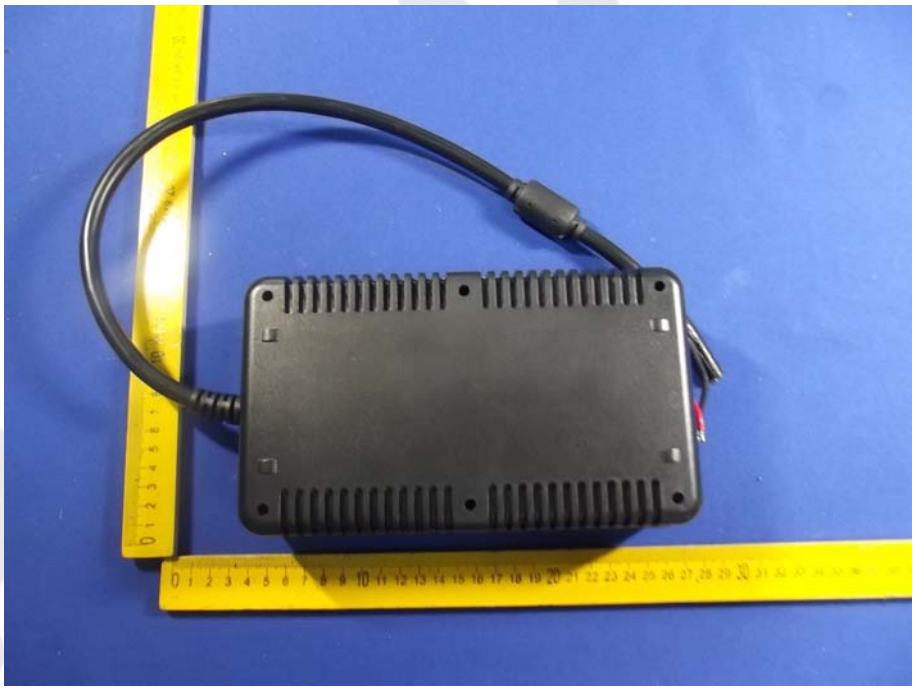


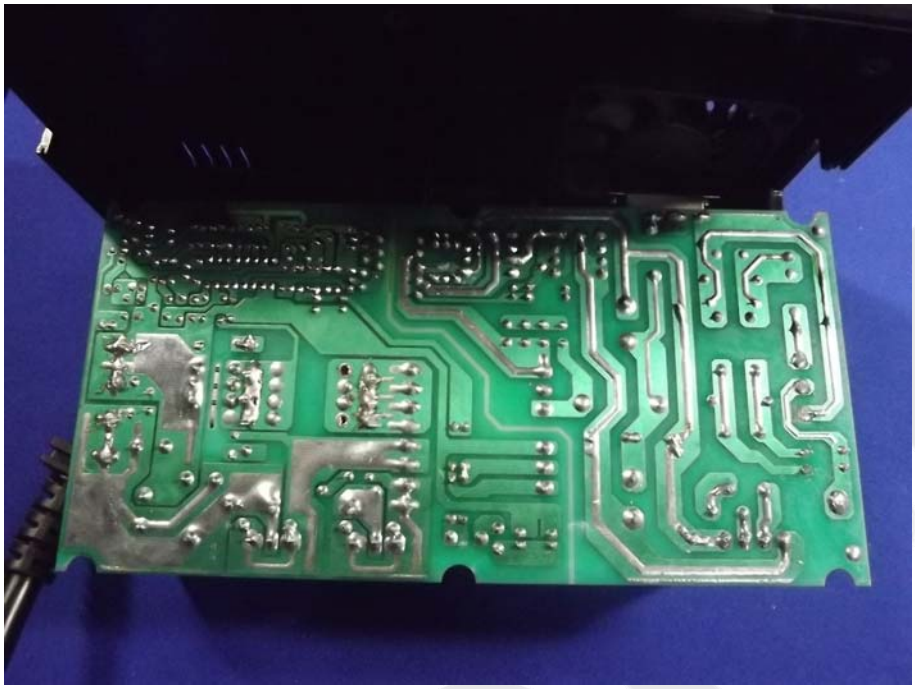
Figure 3

The EUT- Side View

Figure 4

The EUT- Inside View

Figure 5
The EUT- Inside View



CE Label

1. The CE conformity marking must consist of the initials ‘CE’ taking the following form:
   If the CE marking is reduced or enlarged, the proportions given in the above graduated drawing must be respected.
2. The CE marking must have a height of at least 5 mm except where this is not possible on account of the nature of the apparatus.
3. The CE marking must be affixed to the product or to its data plate. Additionally it must be affixed to the packaging, if any, and to the accompanying documents.
4. The CE marking must be affixed visibly, legibly and indelibly.
   It must have the same height as the initials ‘CE’.