EMC TEST REPORT
For

AOK LED Light Company Limited

LED High Bay Light
Model No: See Chapter 1.8 for model list

Prepared for	:	AOK LED Light Company Limited
Address	:	East of third floor, Building 1, St George's Industrial Park, Shajing street, Baoan District, Shenzhen, China (Second floor, Building 4, St George's Industrial Park)
Prepared By	:	Shenzhen Anbotek Compliance Laboratory Limited 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	:	R0117110003E
Date of Test	:	Oct. 26~Nov. 07, 2017
Date of Report	:	Nov. 07, 2017

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TEST REPORT VERIFICATION

Applicant	:	AOK LED Light Company Limited
Manufacturer	:	AOK LED Light Company Limited
EUT	:	LED High Bay Light
Model No.	:	See Chapter 1.8 for model list
Rating	:	AC 100-240V, 50/60Hz, See Chapter 1.8 for model list
Trade Mark	:	AOK

Measurement Procedure Used:
EN 55015: 2013+A1: 2015;
EN 61000-3-2: 2014;
EN 61000-3-3: 2013;
EN 61547: 2009
(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 responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the EN 55015, EN 61000-3-2, EN 61000-3-3 and EN 61547 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 : C 17

Prepared by : (Ei Wen)

Reviewer : (Project Manager/ Oliay Yang)

Approved & Authorized Signer : (Manager/ Tom Chen)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	:	LED High Bay Light
Model Number	:	See Chapter 1.8 for model list (Note: All samples are the same except the model number & appearance, so we prepare "AOK-100WoH-NV-L3-0(B0)" for EMC test only.)
Test Power Supply	:	AC 230V, 50Hz
Applicant	:	AOK LED Light Company Limited
Address	:	East of third floor, Building 1, St George's Industrial Park, Shajing street, Baoan District, Shenzhen, China (Second floor, Building 4, St George's Industrial Park)
Manufacturer	:	Shenzhen Yongnuo Photographic Equipment Co., Ltd Dalang Plant
Address	:	4/F、5/F East Building 2, Donglongxing Technology Park, East Huaning Road, Dalang Street, Longhua District, Shenzhen, Guangdong, P.R. China
Factory	:	Shenzhen Yongnuo Photographic Equipment Co., Ltd Dalang Plant
Address	:	4/F、5/F East Building 2, Donglongxing Technology Park, East Huaning Road, Dalang Street, Longhua District, Shenzhen, Guangdong, P.R. China

1.2. Auxiliary Equipment Used during Test

N/A

1.3. Description of Test Facility

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

FCC-Registration No.: 184111
Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has beenregist ed and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 184111, July 31, 2017.

ISED-Registration No.: 8058A-1
Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A-1, June 13, 2016.

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

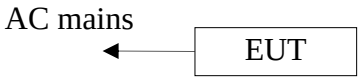
1.4. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 4.1dB (Horizontal) Ur = 4.3dB (Vertical)
Conduction Uncertainty	:	Uc = 3.4dB
Magnetic Uncertainty	:	Um = 3.3dB

1.5. Description of Test Mode

Pretest Mode	Description
Mode 1	On

For Mode 1 Block Diagram of Test Setup



1.6. Test Summary

Test Items	Test Mode	Status
Power Line Conducted Emission Test (9KHz To 30MHz)	Mode 1	P
Radiated Emission Test (30MHz To 300MHz)	Mode 1	P
Magnetic Radiated Emission Test (9KHz To 30MHz)	Mode 1	P
Harmonic Current Test	Mode 1	P
Voltage Fluctuations and Flicker Test	Mode 1	P
Electrostatic Discharge immunity Test	Mode 1	P
RF Field Strength susceptibility Test	Mode 1	P
Electrical Fast Transient/Burst Immunity Test	Mode 1	P
Surge Immunity Test	Mode 1	P
Injected Currents Susceptibility Test	Mode 1	P
Voltage Dips and Interruptions Test	Mode 1	P

P）Indicates that the through the test.
N）Don't test.

1.7. EMS Performance Criteria

√ A: Normal performance within the specification limits

√ B: Temporary degradation or loss of function or performance which is self-recoverable

√ C: Temporary degradation or loss of function or performance which requires operator intervention or system reset

√ D: Degradation or loss of function which is not recoverable due to damage of equipment (components) or software, or loss of data

Note: The manufacturer's specification may define effects on the EUT which may be considered insignificant, and therefore acceptable.

This classification may be used as a guide in formulating performance criteria, by committees responsible for generic, product and product-family standards, or as a framework for the agreement on performance criteria between the manufacturer and the purchaser, for example where no suitable generic, product or product-family standard exists.

1.8. Model List

Model No.	Input power (W)	LED driver	Dimension
AOK-60WoH-NV-X-0(B)	60W	HBG-100-48B	Φ248*138
AOK-100WoH-NV-X-0(B)	100W	HBG-100-48B	Φ248*138
AOK-150WoH-NV-X-0(B)	150W	HBG-160-48B	Φ319*138
AOK-200WoH-NV-X-0(B)	200W	HBG-200-48B	Φ400*141
AOK-240WoH-NV-X-0(B)	240W	HBG-240-48B	Φ400*141

Remark:
"X" can be L3, L5, O3, O5 and N3 which stands for different LEDs type; when X=L3, stands for LED type is LUXEON 3030 2D; when X=L5, stands for LED type is LUXEON 5050; when X=O3, stands for LED type is GW PSLR31.PM; when X=O5, stands for LED type is GW P9LR31.EM 5050; when X=N3, stands for LED type is NICHIA 3030.
"B" can be B0 and B1 which stands for different light type; when Y=B0, stands for light from front; when Y=B1, stands for light from front and light from back.

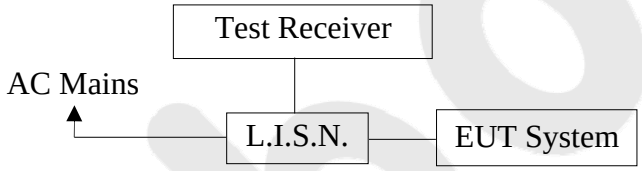
2. POWER LINE CONDUCTED EMISSION TEST

2.1. 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.	L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	100055	May 27, 2017	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	May 27, 2017	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	May 27, 2017	1 Year
4.	Software Name EZ-EMC	Ferrari Tcchnology	ANB-03A	N/A	N/A	N/A

2.2. Block Diagram of Test Setup



2.3. Measuring Standard

EN 55015

2.4. Power Line Conducted Emission Limits

Frequency	At mains terminals (dBμV)	
	Quasi-peak Level	Average Level
9KHz ~ 50KHz	110	--
50KHz ~ 150KHz	90 ~ 80*	--
150KHz ~ 0.5MHz	66 ~ 56*	56 ~ 46*
0.5MHz ~ 5.0MHz	56	46
5.0MHz ~ 30MHz	60	50

1. At the transition frequency the lower limit applies.
2. * decreasing linearly with logarithm of the frequency.

2.5. EUT Configuration on Measurement

The following equipments are installed on Conducted Emission Measurement to meet EN 55015 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

2.6. Operating Condition of EUT

2.6.1. Setup the EUT as shown in Section 2.2.

2.6.2. Turn on the power of all equipments.

2.6.3. Let the EUT work in test mode and measure it.

2.7. Test Procedure

The EUT is put on the table which is 0.8 meter high above the ground and connected to the AC mains through a Line Impedance Stabilization Network (L.I.S.N.). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission according to the EN 55015 regulations during conducted emission measurement. And the voltage probe had been used for the load terminals measurement according to the EN 55015 standard.

The bandwidth of the test receiver (R&S ESCI) is set at 200Hz in 9K~150KHz range and 9KHz in 150K~30MHz range.

The frequency range from 9KHz to 30MHz is checked.

All the test results are listed in Section 2.8.

2.8. Measuring Results

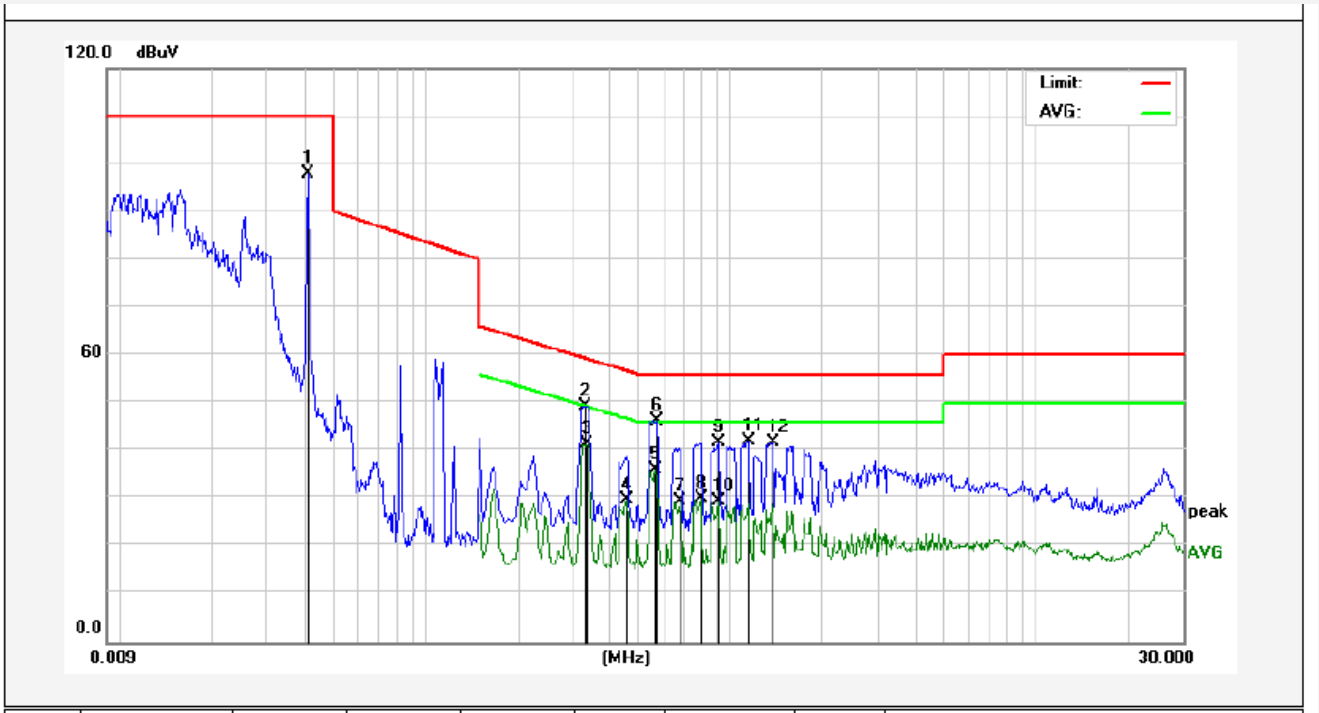
PASS

The frequency range 9KHz to 30MHz is investigated.

The test curves are shown in the following pages.

CONDUCTED EMISSION TEST DATA

Test Site: 1# Shielded Room
Test Specification: AC 230V, 50Hz
Comment: L
Temp.: 22.2℃ Hum.: 60%

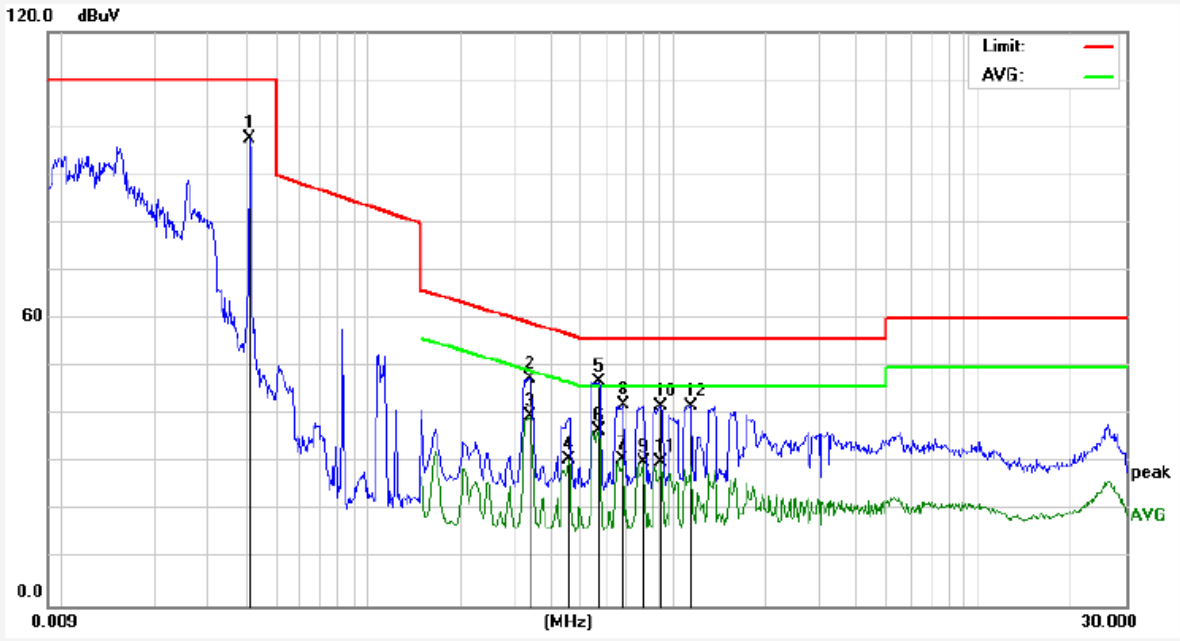


No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Over Limit (dB)	Detector	Remark
1	0.0412	78.21	19.84	98.05	110.00	-11.95	QP	
2	0.3300	29.43	19.90	49.33	59.45	-10.12	QP	
3	0.3379	21.78	19.91	41.69	49.25	-7.56	AVG	
4	0.4540	9.92	19.96	29.88	46.80	-16.92	AVG	
5	0.5660	16.12	20.00	36.12	46.00	-9.88	AVG	
6	0.5700	26.43	20.00	46.43	56.00	-9.57	QP	
7	0.6780	9.62	20.03	29.65	46.00	-16.35	AVG	
8	0.7940	10.03	20.07	30.10	46.00	-15.90	AVG	
9	0.9060	21.76	20.09	41.85	56.00	-14.15	QP	
10	0.9060	9.60	20.09	29.69	46.00	-16.31	AVG	
11	1.1340	22.04	20.12	42.16	56.00	-13.84	QP	
12	1.3660	21.64	20.13	41.77	56.00	-14.23	QP	

Note: Result=Reading+Factor Over Limit=Result-Limit

CONDUCTED EMISSION TEST DATA

Test Site: 1# Shielded Room
Test Specification: AC 230V, 50Hz
Comment: N
Temp.: 22.2℃ Hum.: 60%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Over Limit (dB)	Detector	Remark
1	0.0413	77.89	19.84	97.73	110.00	-12.27	QP	
2	0.3379	27.59	19.91	47.50	59.25	-11.75	QP	
3	0.3379	19.82	19.91	39.73	49.25	-9.52	AVG	
4	0.4540	10.70	19.96	30.66	46.80	-16.14	AVG	
5	0.5700	26.89	20.00	46.89	56.00	-9.11	QP	
6	0.5700	16.85	20.00	36.85	46.00	-9.15	AVG	
7	0.6820	10.74	20.03	30.77	46.00	-15.23	AVG	
8	0.6860	22.16	20.04	42.20	56.00	-13.80	QP	
9	0.7980	10.17	20.07	30.24	46.00	-15.76	AVG	
10	0.9100	21.89	20.10	41.99	56.00	-14.01	QP	
11	0.9100	9.95	20.10	30.05	46.00	-15.95	AVG	
12	1.1420	21.85	20.12	41.97	56.00	-14.03	QP	

Note: Result=Reading+Factor Over Limit=Result-Limit

3. RADIATED EMISSION TEST

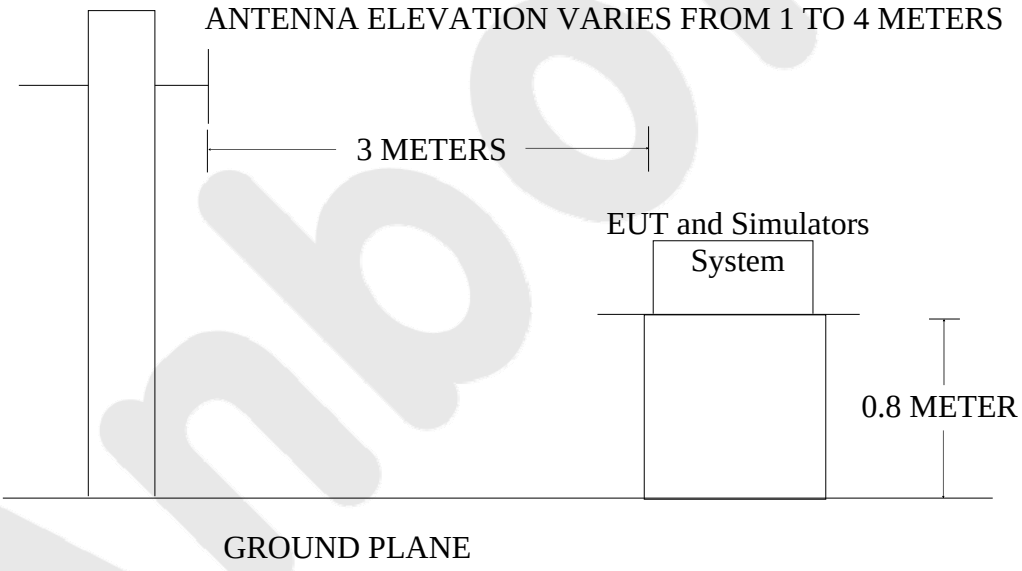
3.1. Test Equipment

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	May 27, 2017	1 Year
2.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	May 31, 2017	1 Year
3.	Pre-amplifier	SONOMA	310N	186860	May 27, 2017	1 Year
4.	Software Name EZ-EMC	Ferrari Tcchnology	ANB-03A	N/A	N/A	N/A

3.2. Block Diagram of Test

3.2.1. Block diagram of test setup in chamber



3.3. Measuring Standard and Limits

3.3.1. Measuring Standard

EN 55015

3.3.2. Measuring Limits

All emanations from an EN 55015 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 ~ 300	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 55015 regulations test method must be used to find the maximum emission during radiated emission measurement.

3.5. Operating Condition of EUT

3.5.1. Setup the EUT as shown in Section 3.2.

3.5.2. Turn on the power of all equipments.

3.5.3. Let the EUT work in test mode 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 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 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 Chamber.

The test results are listed in Section 3.7.

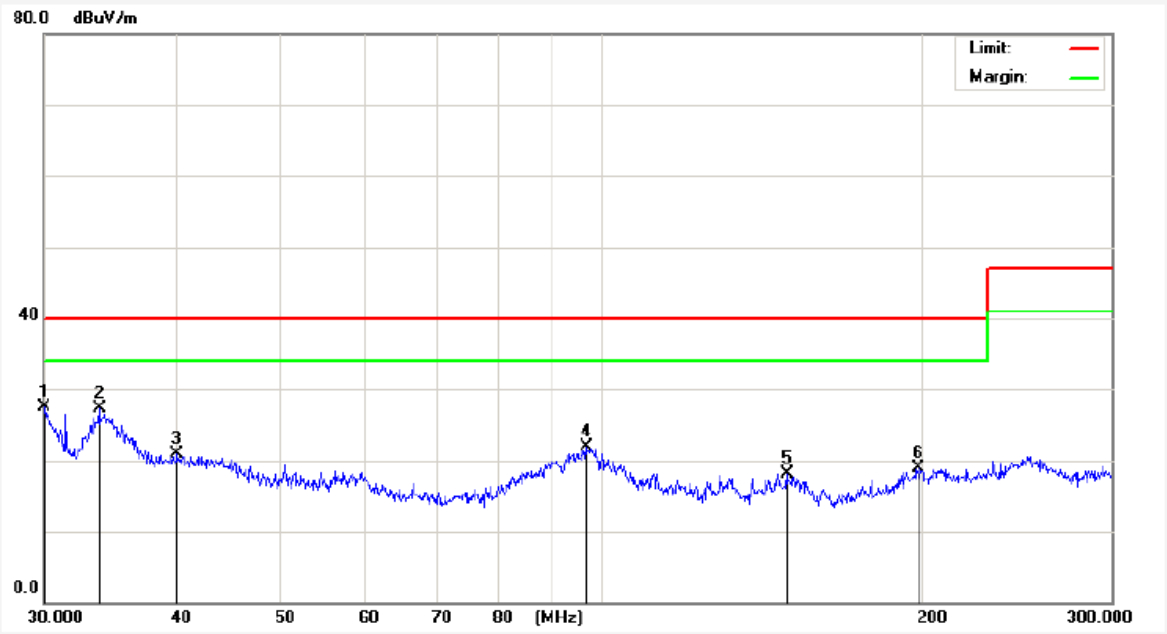
3.7. Measuring Results

PASS

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

The test curves are shown in the following pages.

Test item:	**Radiation Test**	**Polarization:**	**Horizontal**
Standard:	**(RE)EN55015**	**Power Source:**	**AC 230V, 50Hz**
Distance:	**3m**	**Temp.(℃)/Hum.(%RH):**	**24.3(℃)/55%RH**



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	30.0692	44.38	-16.92	27.46	40.00	-12.54	peak			
2	33.8159	42.33	-15.11	27.22	40.00	-12.78	peak			
3	40.0056	31.70	-10.87	20.83	40.00	-19.17	peak			
4	96.6321	42.80	-20.94	21.86	40.00	-18.14	peak			
5	148.9777	41.56	-23.36	18.20	40.00	-21.80	peak			
6	197.7521	39.78	-20.88	18.90	40.00	-21.10	peak			

Note: **Result=Reading+Factor** **Over Limit=Result-Limit**

Test item:	**Radiation Test**	**Polarization:**	**Vertical**
Standard:	**(RE)EN55015**	**Power Source:**	**AC 230V, 50Hz**
Distance:	**3m**	**Temp.(℃)/Hum.(%RH):**	**24.3(℃)/55%RH**

No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	30.6282	45.59	-16.64	28.95	40.00	-11.05	peak			
2	40.5621	39.26	-11.06	28.20	40.00	-11.80	peak			
3	51.8945	39.59	-14.71	24.88	40.00	-15.12	peak			
4	73.1343	43.56	-20.23	23.33	40.00	-16.67	peak			
5	139.6758	39.68	-18.46	21.22	40.00	-18.78	peak			
6	211.8953	34.71	-15.42	19.29	40.00	-20.71	peak			

Note: **Result=Reading+Factor** **Over Limit=Result-Limit**

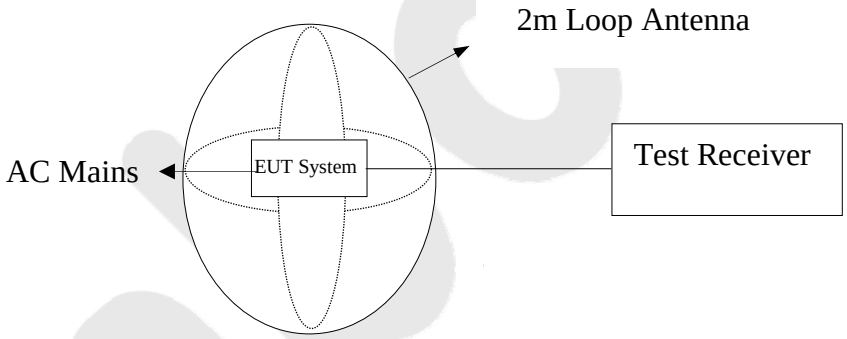
4. MAGNETIC RADIATED EMISSION TEST

4.1. Test Equipment

The following test equipments are used during the Magnetic Radiated emission measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	May 27, 2017	1 Year
2.	Triple-Loop Antenna(2M)	EVERFINE	LLA-2	905003	May 27, 2017	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	May 27, 2017	1 Year
4.	Software Name EZ-EMC	Ferrari Tcchnology	ANB-03A	N/A	N/A	N/A

4.2. Block Diagram of Test Setup



4.3. Magnetic Field Emission Measurement Standard and Limits

4.3.1. Measuring Standard

EN 55015

4.3.2. Measuring Limits

Frequency	Limits for loop diameter (dBμA)
	2m
9KHz ~ 70KHz	88
70KHz ~ 150KHz	88 ~ 58*
150KHz ~ 3.0MHz	58 ~ 22*
3.0MHz ~ 30MHz	22

1. At the transition frequency the lower limit applies.
2. * decreasing linearly with logarithm of the frequency.

4.4. EUT Configuration on Measurement

The following equipments are installed on Magnetic Radiated emission Measurement to meet EN 55015 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

4.5. Operating Condition of EUT

4.5.1. Setup the EUT as shown in Section 4.2.

4.5.2. Turn on the power of all equipments.

4.5.3. Let the EUT work in test mode and measure it.

4.6. Test Procedure

The EUT is placed on a wood table in the center of a loop antenna. The induced current in the loop antenna is measured by means of a current probe and the test receiver. Three field components are checked by means of a coaxial switch.

The frequency range from 9KHz to 30MHz is investigated. The receiver is measured with the quasi-peak detector. For frequency band 9KHz to 150KHz, the bandwidth of the test receiver (ESCI) is set at 200Hz. For frequency band 150KHz to 30MHz, the bandwidth is set at 9KHz.

All the test results are listed in Section 4.7.

4.7. Measuring Results

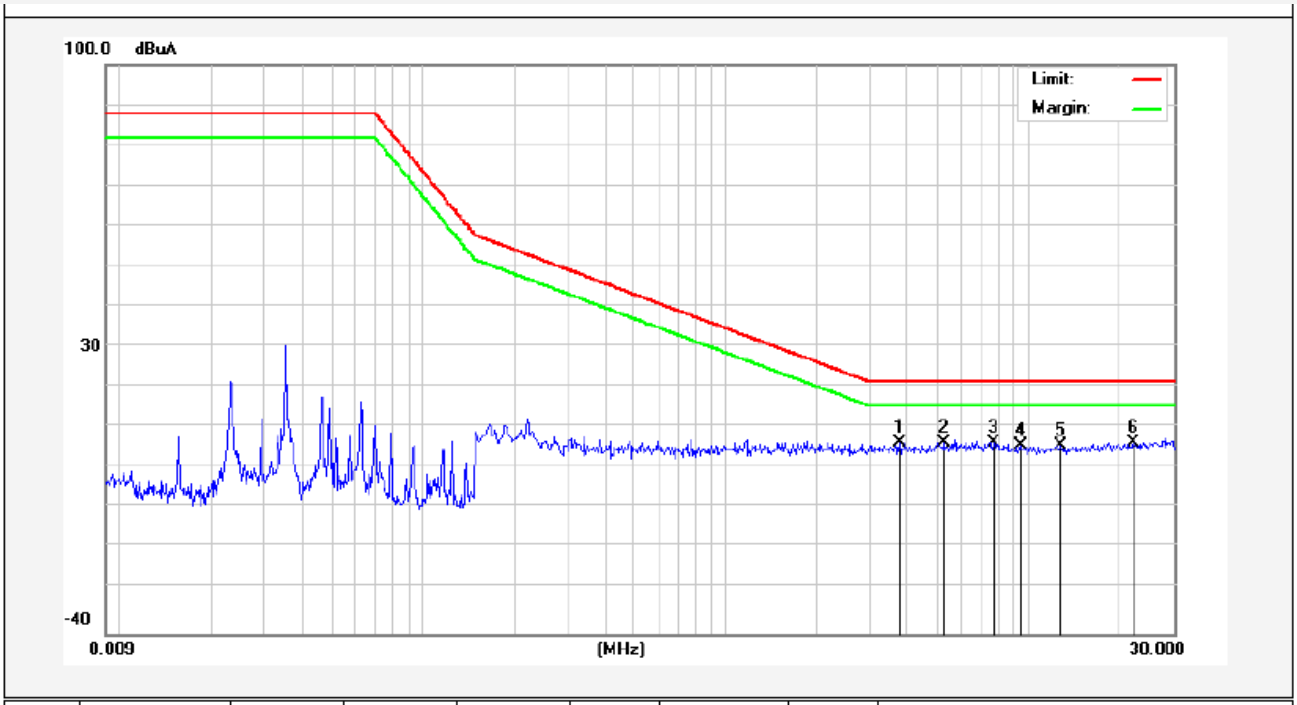
PASS

The frequency range from 9KHz to 30MHz is investigated.

The test curves are shown in the following pages.

MAGNETIC RADIATED EMISSION TEST

Test Site: 1# Shielded Room
Test Specification: AC 230V, 50Hz
Comment: X
Temp.: 22.2℃ Hum.: 59%

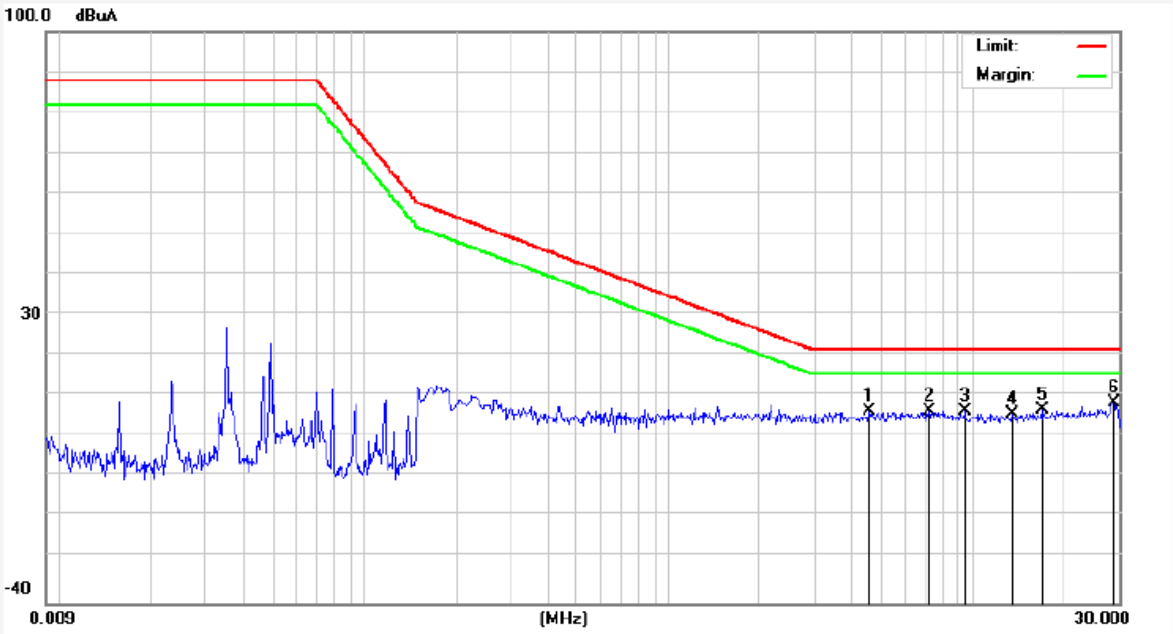


No.	Freq. (MHz)	Reading (dBuA)	Factor (dB)	Result (dBuA)	Limit dBuA	Over Limit (dB)	Detector	Remark
1	3.7379	7.16	0.03	7.19	22.00	-14.81	QP	
2	5.2538	7.13	0.05	7.18	22.00	-14.82	QP	
3	7.6260	7.01	0.07	7.08	22.00	-14.92	QP	
4	9.3580	6.24	0.02	6.26	22.00	-15.74	QP	
5	12.7660	6.39	0.02	6.41	22.00	-15.59	QP	
6	22.0419	7.12	0.02	7.14	22.00	-14.86	QP	

Note: Result=Reading+Factor Over Limit=Result-Limit

MAGNETIC RADIATED EMISSION TEST

Test Site: 1# Shielded Room
Test Specification: AC 230V, 50Hz
Comment: Y
Temp.: 22.2℃ Hum.: 59%

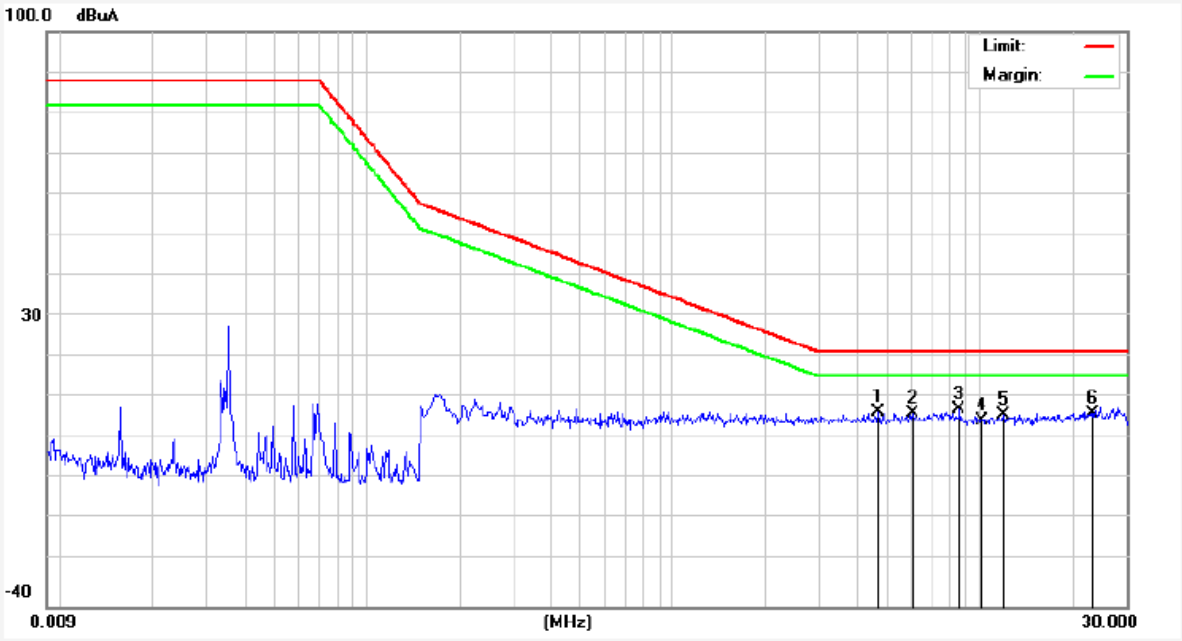


No.	Freq. (MHz)	Reading (dBuA)	Factor (dB)	Result (dBuA)	Limit dBuA	Over Limit (dB)	Detector	Remark
1	4.5658	6.89	0.04	6.93	22.00	-15.07	QP	
2	7.1779	7.11	0.08	7.19	22.00	-14.81	QP	
3	9.3420	7.18	0.03	7.21	22.00	-14.79	QP	
4	13.3580	6.47	0.02	6.49	22.00	-15.51	QP	
5	16.7420	7.31	0.02	7.33	22.00	-14.67	QP	
6	28.8580	9.29	0.02	9.31	22.00	-12.69	QP	

Note: Result=Reading+Factor Over Limit=Result-Limit

MAGNETIC RADIATED EMISSION TEST

Test Site:	1# Shielded Room
Test Specification:	AC 230V, 50Hz
Comment:	Z
	Temp.: 22.2℃ Hum.: 59%



No.	Freq. (MHz)	Reading (dBuA)	Factor (dB)	Result (dBuA)	Limit dBuA	Over Limit (dB)	Detector	Remark
1	4.6779	7.51	0.04	7.55	22.00	-14.45	QP	
2	6.0380	7.00	0.06	7.06	22.00	-14.94	QP	
3	8.5659	8.01	0.04	8.05	22.00	-13.95	QP	
4	10.1737	5.44	0.01	5.45	22.00	-16.55	QP	
5	11.9618	6.57	0.01	6.58	22.00	-15.42	QP	
6	23.3738	6.90	0.02	6.92	22.00	-15.08	QP	

Note: Result=Reading+Factor Over Limit=Result-Limit

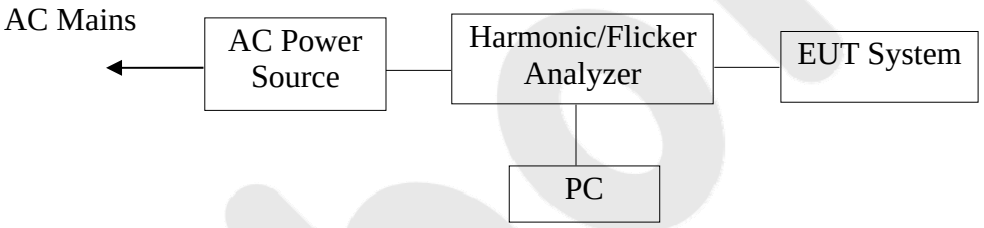
5. HARMONIC CURRENT EMISSION TEST

5.1. 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	May 27, 2017	1 Year
2.	Harmonic and Flicker Analyzer	EMC-PARTNER	HRRMOINCS-1000-1P	164	Apr. 07, 2017	1 Year
3.	Harmonics-1000	N/A	Ed.3.0+4.0	N.A	N/A	N/A

5.2. Block Diagram of Test Setup



5.3. Measuring Standard

EN 61000-3-2

5.4. Operating Condition of EUT

5.4.1. Setup the EUT as shown on Section 5.2.

5.4.2. Turn on the power of all equipments.

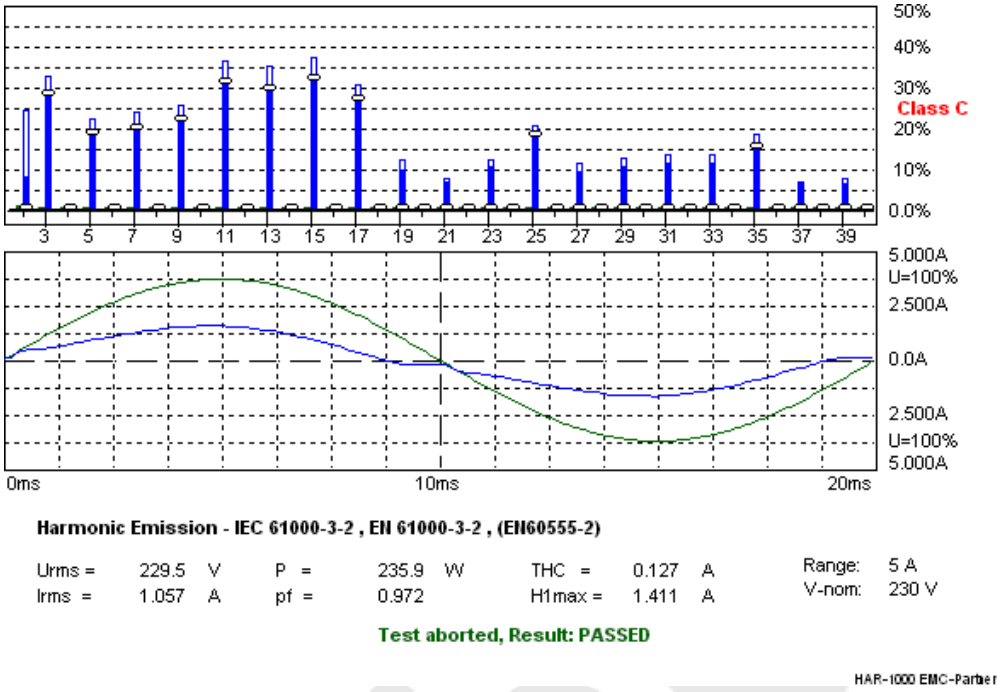
5.4.3. After that, let the EUT work in test mode measure it.

5.5. Measuring Results

PASS

The test curves are shown in the following pages.

Harmonic Current Test Result Summary (Run time)



Harmonic Emission - IEC 61000-3-2 , EN 61000-3-2 , (EN60555-2)

Urms =	229.5	V	P =	235.9	W	THC =	0.127	A	Range: 5 A
Irms =	1.057	A	pf =	0.972		H1max =	1.411	A	V-nom: 230 V

Test aborted, Result: PASSED

HAR-1000 EMC-Partner

Full Bar : Actual Values
Empty Bar : Maximum Values
Blue : Current , Green : Voltage , Red : Failed

Harmonic Current Test Result Summary (Run time)

Urms =	229.5V	Freq =	50.000	Range:	5 A
Irms =	1.057A	Ipk =	1.667A	cf =	1.577
P =	235.9W	S =	242.6VA	pf =	0.972
THDi =	12.2 %	THDu =	0.10 %	Class C	

Test - Time : 3min (100 %)

Limit Reference: H1(max)= 1.4112A pf(max)= 1.000

Order	Freq. [Hz]	Iavg [A]	Iavg%L [%]	Irms [A]	Irms% [%]	Irms%L [%]	Imax [A]	Imax%L [%]	Limit [A]	Status
1	50	1.0525		1.0480	99.134		1.2085			
2	100	0.0000	0.1314	0.0021	0.2021	7.5689	0.0067	23.788	0.0282	
3	150	0.1187	28.041	0.1184	11.201	27.969	0.1364	32.222	0.4234	
4	200	0.0000		0.0009	0.0866		0.0027			
5	250	0.0264	18.699	0.0262	2.4827	18.598	0.0305	21.625	0.1411	
6	300	0.0000		0.0009	0.0866		0.0015			
7	350	0.0196	19.879	0.0195	1.8476	19.772	0.0232	23.479	0.0988	
8	400	0.0000		0.0006	0.0577		0.0021			
9	450	0.0153	21.680	0.0153	1.4434	21.625	0.0177	25.086	0.0706	
10	500	0.0000		0.0006	0.0577		0.0015			
11	550	0.0132	31.104	0.0131	1.2413	30.997	0.0153	36.042	0.0423	
12	600	0.0000		0.0006	0.0577		0.0015			
13	650	0.0126	29.710	0.0125	1.1836	29.555	0.0146	34.601	0.0423	
14	700	0.0000		0.0006	0.0577		0.0012			
15	750	0.0133	31.455	0.0131	1.2413	30.997	0.0156	36.763	0.0423	
16	800	0.0000		0.0009	0.0866		0.0012			
17	850	0.0112	26.452	0.0110	1.0393	25.951	0.0128	30.276	0.0423	
18	900	0.0000		0.0006	0.0577		0.0012			
19	950	0.0000	0.0000	0.0040	0.3753	9.3710	0.0049	11.534	0.0423	
20	1000	0.0000		0.0006	0.0577		0.0009			
21	1050	0.0000	0.0000	0.0027	0.2598	6.4876	0.0031	7.2085	0.0423	
22	1100	0.0000		0.0006	0.0577		0.0012			
23	1150	0.0000	0.0000	0.0043	0.4042	10.092	0.0049	11.534	0.0423	
24	1200	0.0000		0.0009	0.0866		0.0012			
25	1250	0.0076	17.878	0.0073	0.6928	17.300	0.0085	20.184	0.0423	
26	1300	0.0000		0.0009	0.0866		0.0012			
27	1350	0.0000	0.0000	0.0037	0.3464	8.6502	0.0046	10.813	0.0423	
28	1400	0.0000		0.0009	0.0866		0.0012			
29	1450	0.0000	0.0000	0.0043	0.4042	10.092	0.0052	12.254	0.0423	
30	1500	0.0000		0.0009	0.0866		0.0012			
31	1550	0.0000	0.0000	0.0046	0.4330	10.813	0.0055	12.975	0.0423	
32	1600	0.0000		0.0009	0.0866		0.0015			
33	1650	0.0000	0.0000	0.0046	0.4330	10.813	0.0055	12.975	0.0423	
34	1700	0.0000		0.0006	0.0577		0.0012			
35	1750	0.0066	15.472	0.0067	0.6351	15.859	0.0076	18.021	0.0423	
36	1800	0.0000		0.0009	0.0866		0.0012			
37	1850	0.0000	0.0000	0.0024	0.2309	5.7668	0.0027	6.4876	0.0423	
38	1900	0.0000		0.0006	0.0577		0.0012			
39	1950	0.0000	0.0000	0.0024	0.2309	5.7668	0.0031	7.2085	0.0423	
40	2000	0.0000		0.0009	0.0866		0.0015			

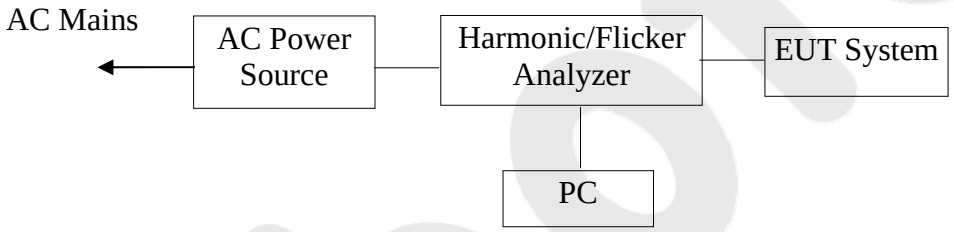
6. VOLTAGE FLUCTUATIONS & FLICKER TEST

6.1. 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	May 27, 2017	1 Year
2.	Harmonic and Flicker Analyzer	EMC-PARTNER	HRRMOINCS-1000-1P	164	Apr. 07, 2017	1 Year
3.	Harmonics-1000	N/A	Ed.3.0+4.0	N.A	N/A	N/A

6.2. Block Diagram of Test Setup



6.3. Measuring Standard

EN 61000-3-3

6.4. Operating Condition of EUT

6.4.1. Setup the EUT as shown on Section 6.2.

6.4.2. Turn on the power of all equipments.

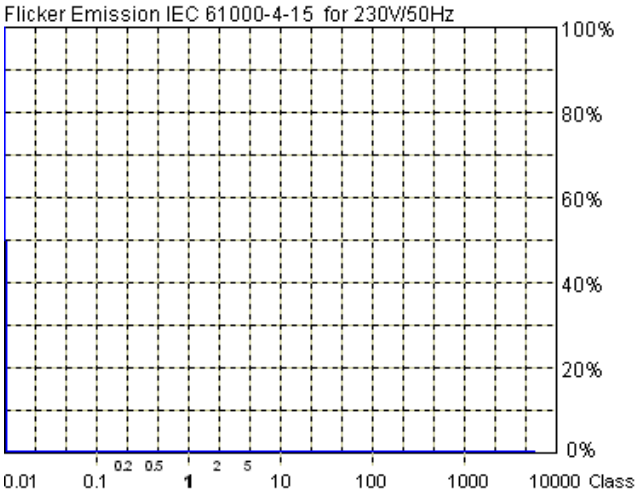
6.4.3. After that, let the EUT work in test mode measure it.

6.5. Measuring Results

PASS

The test curves are shown in the following pages.

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



Actual Flicker (Fli):	**0.00**
Short-term Flicker (Pst):	**0.07**
Limit (Pst):	1.00
Long-term Flicker (Plt):	**0.00**
Limit (Plt):	0.65
Maximum Relative Volt. Change (dmax):	**0.00%**
Limit (dmax):	4.00%
Relative Steady-state Voltage Change (dc):	**0.00%**
Limit (dc):	3.30%
Tmax 3.30% (dt):	**0.00ms**
Limit (dt>Lim):	500ms

Flicker Emission - IEC 61000-3-3 , EN 61000-3-3

Urms =	229.1	V	P =	237.1	W
Irms =	1.064	A	pf =	0.972	

Range: 5 A
V-nom: 230 V

Test aborted, Result: PASSED

HAR-1000 EMC-Partner

Full Bar : Actual Values
Empty Bar : Maximum Values
Circles : Average Values
Blue : Current , Green : Voltage , Red : Failed

Urms =	**229.1V**	**Freq =**	**50.013**	**Range:**	**5 A**
Irms =	**1.064A**	**Ipk =**	**1.672A**	**cf =**	**1.571**
P =	**237.1W**	**S =**	**243.9VA**	**pf =**	**0.972**

Test - Time : 1 x 10min = 10min (100 %)

LIN (Line Impedance Network) : L: 0.24ohm +j0.15ohm N: 0.16ohm +j0.10ohm

Limits :		**Plt :**	**0.65**	**Pst :**	**1.00**
		dmax :	**4.00 %**	**dc :**	**3.30 %**
		dtLim:	**3.30 %**	**dt>Lim:**	**500ms**

	dmax [%]	dc [%]	dt>Lim [ms]
1	0.000	0.000	0.000

7. ELECTROSTATIC DISCHARGE IMMUNITY TEST

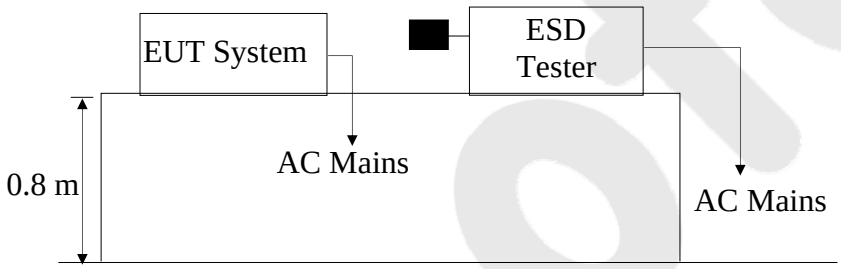
7.1. Test Equipment

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	3Ctest	ESD-30T	ES0131505	May 27, 2017	1 Year

7.2. Block Diagram of Test Setup

7.2.1. Test Setup Diagram



7.3. Measuring Standard

EN 61547 (IEC 61000-4-2)
Severity Level: 3 / Air Discharge: ±8kV, Level: 2 / Contact Discharge: ±4kV

7.4. Severity Levels and Performance Criterion

7.4.1. 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

7.4.2. Performance criterion: **B**

7.5. EUT Configuration

The following equipments are installed on Electrostatic Discharge immunity

Measurement to meet EN 61547 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

7.6. Operating Condition of EUT

7.6.1. Setup the EUT as shown on Section 7.2.

7.6.2. Turn on the power of all equipments.

7.6.3. After that, let the EUT work in test mode measure it.

7.7. Test Procedure

7.7.1. 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

7.7.2. Contact Discharge**:**

All the procedure shall be same as Section 7.7.1. except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

7.7.3. Indirect discharge for horizontal coupling plane

At least 20 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.

7.7.4. Indirect discharge for vertical coupling plane

At least 20 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.

7.8. Measuring Results

PASS

Please refer to the following page.

Electrostatic Discharge Test Results

Shenzhen Anbotek Compliance Laboratory Limited

Air discharge :	±8.0kV	Temperature :	24℃
Contact discharge :	±4.0kV	Humidity :	53%
Power Supply :	AC 230V, 50Hz	Criterion required :	B

Test Result : ☒ Pass ☐ Fail

For each point positive 10 times and negative 10 times discharge

Location		Kind A-Air Discharge C-Contact Discharge	Result
Slot of the EUT	10 points	A	☑ A ☐ B ☐ C ☐ D
Others	8 points	A	☑ A ☐ B ☐ C ☐ D
Screws	6 points	C	☑ A ☐ B ☐ C ☐ D
Metal surface of EUT	8 points	C	☑ A ☐ B ☐ C ☐ D
HCP	4 points	C	☑ A ☐ B ☐ C ☐ D
VCP of the front	4 points	C	☑ A ☐ B ☐ C ☐ D
VCP of the rear	4 points	C	☑ A ☐ B ☐ C ☐ D
VCP of the left	4 points	C	☑ A ☐ B ☐ C ☐ D
VCP of the right	4 points	C	☑ A ☐ B ☐ C ☐ D

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

8. RF FIELD STRENGTH SUSCEPTIBILITY TEST

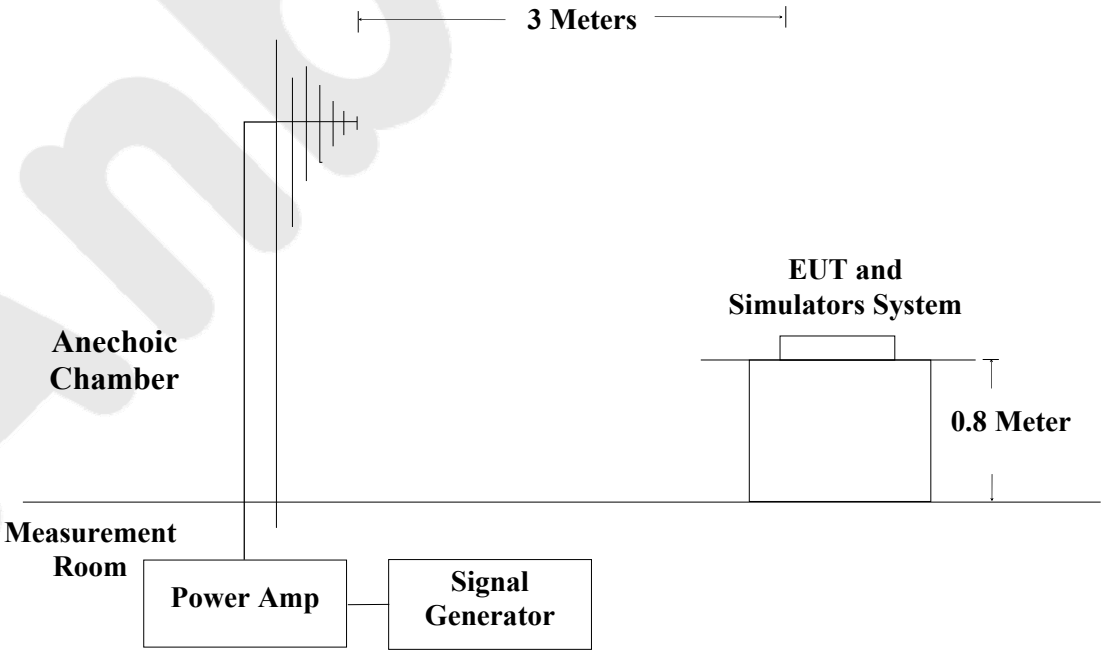
8.1. Test Equipment

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 20, 2017	1 year
2	50ohm Diode Power Sensor	BOONTON	51011EMC	34236/36164	May 20, 2017	1 year
3	Broad-Band Horn Antenna	SCHWARZBECK	BBHA9120 L3F	332	May 20, 2017	1 year
4	Power Amplifier (0.08-1G)	MILMEGA	80RF1000-175	1059345	May 20, 2017	1 year
5	Power Amplifier (1-2G)	MILMEGA	AS0102-55	1018770	May 20, 2017	1 year
6	Power Amplifier (2-6G)	MILMEGA	AS1860-50	1059346	May 20, 2017	1 year
7	Signal Generator	Agilent	N5181A	MY50145187	May 20, 2017	1 year
8	Field Strength Meter	HOLADAY	HI-6005	N/A	May 20, 2017	1 year
9	RS232 Fiber Optic Modem	HOLADAY	HI-4413P	N/A	May 20, 2017	1 year
10	Log.-Per. Antenna	SCHWARZBECK	VULP 9118E	N/A	May 20, 2017	1 year

8.2. Block Diagram of Test Setup

8.2.1. R/S Test Setup



8.3. Measuring Standard

EN 61547 ((IEC 61000-4-3)
Severity Level 2: 3V/m

8.4. Severity Levels and Performance Criterion

8.4.1. Severity level

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

8.4.2. Performance criterion**: A**

8.5. EUT Configuration

The following equipments are installed on RF Field Strength susceptibility Measurement to meet EN 61547 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

8.6. Operating Condition of EUT

8.6.1. Setup the EUT as shown on Section 8.2.

8.6.2. Turn on the power of all equipments.

8.6.3. After that, let the EUT work in test mode measure it.

8.7. Test Procedure

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

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

8.8. Measuring Results

PASS

Please refer to the following page.

RF Field Strength Susceptibility Test Results

Shenzhen Anbotek Compliance Laboratory Limited

Field Strength :	3 V/m	Temperature :	25℃
Criterion required :	A	Humidity :	54%
Power Supply :	AC 230V, 50Hz	Frequency Range:	80 MHz to 1000 MHz
Test Result :	☒ Pass ☐ Fail		

Modulation:	☐None	☐ Pulse	☑AM 1KHz 80%
			Result
Steps	# / %		
	Horizontal	Vertical	
Front	3 V/m	3 V/m	☑ A ☐ B ☐ C ☐ D
Right	3 V/m	3 V/m	☑ A ☐ B ☐ C ☐ D
Rear	3 V/m	3 V/m	☑ A ☐ B ☐ C ☐ D
Left	3 V/m	3 V/m	☑ A ☐ B ☐ C ☐ D

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

9. ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST

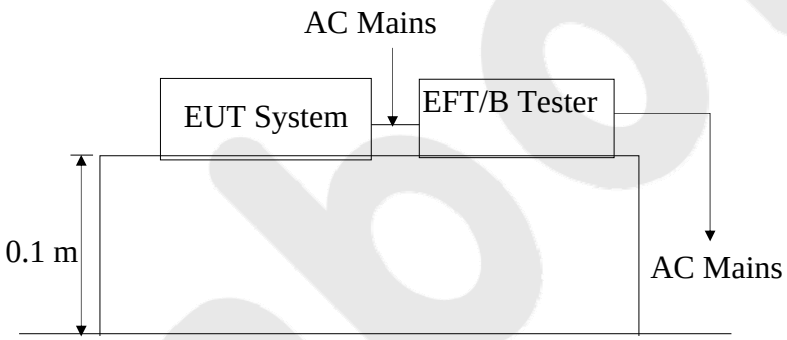
9.1. Test Equipment

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
1.1	EFT Burst Simulator	PRIMA	EFT61004B	PR10114282	May 30, 2017	1 Year
1.2	EFT-Clamp	PRIMA	EFT-Clamp	/	May 30, 2017	1 Year
2.1	EFT Burst Simulator	TESEQ	NSG 3060	1480	May 27, 2017	1 Year
2.2	CDN	TESEQ	CDN 3061	1408	May 27, 2017	1 Year

9.2. Block Diagram of Test Setup

9.2.1. Block Diagram of the AC Mains



9.3. Measuring Standard

EN 61547 (IEC 61000-4-4)
Severity Level 2: 1.00kV

9.4. Severity Levels and Performance Criterion

9.4.1. Severity level

Open Circuit Output Test Voltage ± 10%		
Level	On Power Supply Lines	On I/O (Input/Output) Signal data and control lines
1.	0.50 kV	0.25 kV
2.	1.00 kV	0.50 kV
3.	2.00 kV	1.00 kV
4.	4.00 kV	2.00 kV
X	Special	Special

9.4.2. Performance criterion: **B**

9.5. EUT Configuration

The following equipments are installed on Electrical Fast Transient/Burst Immunity Measurement to meet EN 61547 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

9.6. Operating Condition of EUT

9.6.1. Setup the EUT as shown in Section 9.2.

9.6.2. Turn on the power of all equipments.

9.6.3. Let the EUT work in test mode and measure it.

9.7. 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.

9.7.1. 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.

9.7.2. For signal lines and control lines ports:

It’s unnecessary to test.

9.7.3. For DC output line ports:

It’s unnecessary to test.

9.8. Measuring Results

PASS

Please refer to the following page.

Electrical Fast Transient/Burst Test Results

Shenzhen Anbotek Compliance Laboratory Limited

Ambient Condition : 25℃ / 56% RH

Criterion required : B

Power Supply: AC 230V, 50Hz

Test Result : ☒ Pass ☐ Fail

Inject Line : AC Mains	Inject Method: Direct	Inject Time(s): 120

Line	Polarity	Test Voltage	Result
L	±	1.00kV	☑ A ☐ B ☐ C ☐ D
N	±	1.00kV	☑ A ☐ B ☐ C ☐ D
PE	±	1.00kV	☑ A ☐ B ☐ C ☐ D
L、N	±	1.00kV	☑ A ☐ B ☐ C ☐ D
L、PE	±	1.00kV	☑ A ☐ B ☐ C ☐ D
N、PE	±	1.00kV	☑ A ☐ B ☐ C ☐ D
L、N、PE	±	1.00kV	☑ A ☐ B ☐ C ☐ D
Signal Line			
DC output Line			

Note :

Remark:

10. SURGE IMMUNITY TEST

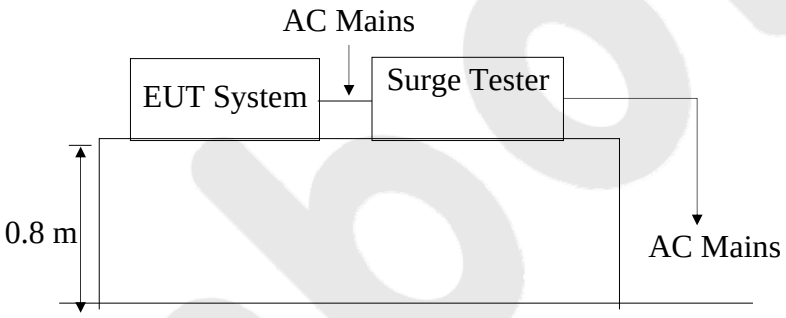
10.1. Test Equipment

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

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.1	6kV Surge Generator	TESEQ	NSG 3060	1480	May 27, 2017	1 Year
1.2	CDN	TESEQ	CDN 3061	1408	May 27, 2017	1 Year
2.1	6kV Surge Generator	EMPEK	LSG-5060G	06010017N	May 27, 2017	1 Year
2.2	CDN	EMPEK	CDN-5110G	061100005 N	May 27, 2017	1 Year

10.2. Block Diagram of Test Setup

10.2.1. Surge Test Setup



10.3. Measuring Standard

EN 61547 (IEC 61000-4-5)
Severity Level 2, Line to Line: 1.0kV; Severity Level 3, Line to Earth: 2.0kV

10.4. Severity Levels and Performance Criterion

10.4.1. Severity level

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

10.4.2. Performance criterion**: B**

10.5. EUT Configuration

The following equipments are installed on Surge immunity Measurement to meet EN 61547 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

10.6. Operating Condition of EUT

10.6.1. Setup the EUT as shown in Section 10.2.1.

10.6.2. Turn on the power of all equipments.

10.6.3. Let the EUT work in test mode and measure it.

10.7. Test Procedure

1) Set up the EUT and test generator as shown on Section 10.2.1.
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) For line to earth 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.
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.

10.8. Measuring Results

PASS

Please refer to the following page

Surge Immunity Test Results

Shenzhen Anbotek Compliance Laboratory Limited

Humidity : 56% Temperature : 25℃

Power Supply : AC 230V, 50Hz Criterion required: B

Test Result : ☒ Pass ☐ Fail

Location	Polarity	Phase Angle	Number of Pulse	Pulse Voltage (kV)	Result
L-N	±	☐ 0° ☒ 90° ☐ 180° ☒ 270°	5	1.0kV	☑ A ☐ B ☐ C ☐ D
L-PE	±	☐ 0° ☒ 90° ☐ 180° ☒ 270°	5	2.0kV	☑ A ☐ B ☐ C ☐ D
N-PE	±	☐ 0° ☒ 90° ☐ 180° ☒ 270°	5	2.0kV	☑ A ☐ B ☐ C ☐ D

Remark:

11. INJECTED CURRENTS SUSCEPTIBILITY TEST

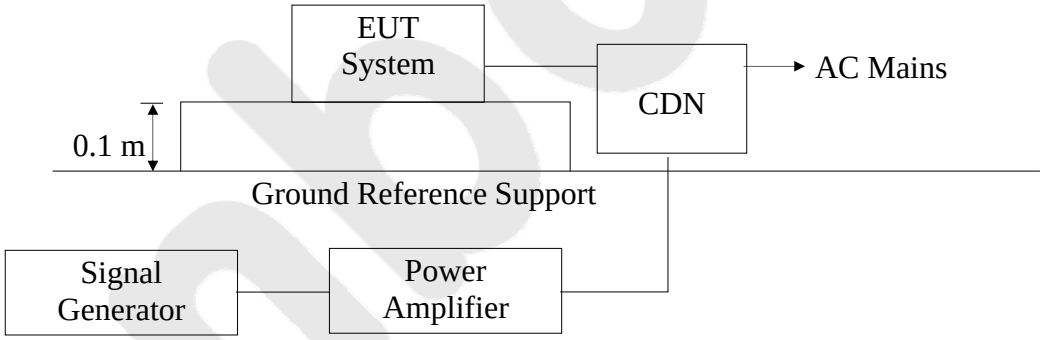
11.1. Test Equipment

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	May 27, 2017	1 Year
2.	CDN	FRANKONIA	CDN - M2+ M3	A2210178/2012	May 27, 2017	1 Year
3.	6dB Attenuator	FRANKONIA	DAM 26W	1172202	May 27, 2017	1 Year
4.	CIT-10	FRANKONIA	Version1.1.7	N/A	N.A	N/A

11.2. Block Diagram of Test Setup

11.2.1. Block Diagram of AC Mains



11.3. Measuring Standard

EN 61547 (IEC 61000-4-6)
Severity Level 2**:** 3V (rms), (0.15MHz ~80MHz)

11.4. Severity Levels and Performance Criterion

11.4.1. Severity level

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

11.4.2. Performance criterion: **A**

11.5. EUT Configuration

The following equipments are installed on currents susceptibility Measurement to meet EN 61547 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

11.6. Operating Condition of EUT

11.6.1. Setup the EUT as shown in Section 11.2.

11.6.2. Turn on the power of all equipments.

11.6.3. Let the EUT work in test mode and measure it.

11.7. Test Procedure

1) Set up the EUT, CDN and test generators as shown on Section 11.2.
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 80MHz 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.

11.8. Measuring Results

PASS

Please refer to the following page.

Injected Currents Susceptibility Test Results

Shenzhen Anbotek Compliance Laboratory Limited

Humidity : 56%

Temperature : 24℃

Power Supply : AC 230V, 50Hz

Criterion required: A

Test Result : ☒ Pass ☐ Fail

Frequency Range (MHz)	Injected Position	Strength (Unmodulated)	Result
0.15 ~ 80	AC Mains	3V	☑ A ☐ B ☐ C ☐ D

Frequency Range (MHz)	Injected Position	Strength (Unmodulated)	Result

Remark : 1. Modulation Signal:1KHz 80% AM

12. VOLTAGE DIPS AND INTERRUPTIONS TEST

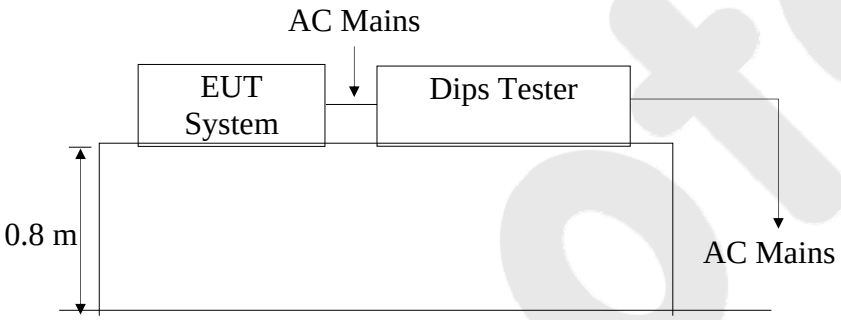
12.1. Test Equipment

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	May 27, 2017	1 Year

12.2. Block Diagram of Test Setup

12.2.1. Dips Test Setup



12.3. Measuring Standard

EN 61547 (IEC 61000-4-11)

12.4. Severity Levels and Performance Criterion

12.4.1. Severity level

Test Level %U_T	Voltage dip and short interruptions %U_T	Duration (in period)
0	100	0.5 10 *
70	30	

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

12.5. EUT Configuration

The following equipments are installed on Voltage dips and interruptions Measurement to meet EN 61547 requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

12.6. Operating Condition of EUT

12.6.1. Setup the EUT as shown in Section 12.2.

12.6.2. Turn on the power of all equipments.

12.6.3. Let the EUT work in test mode and measure it.

12.7. Test Procedure

1) Set up the EUT and test generator as shown on Section 12.2.
2) The interruptions is introduced at selected phase angles with specified duration.
3) Record any degradation of performance.

12.8. Measuring Results

PASS

Please refer to the following page.

Voltage Dips and Interruptions Test Results

Shenzhen Anbotek Compliance Laboratory Limited

Temperature : 25℃ Humidity : 56%

Power Supply : AC 230V, 50Hz Criterion required : B&C

Test Result : ☒ Pass ☐ Fail

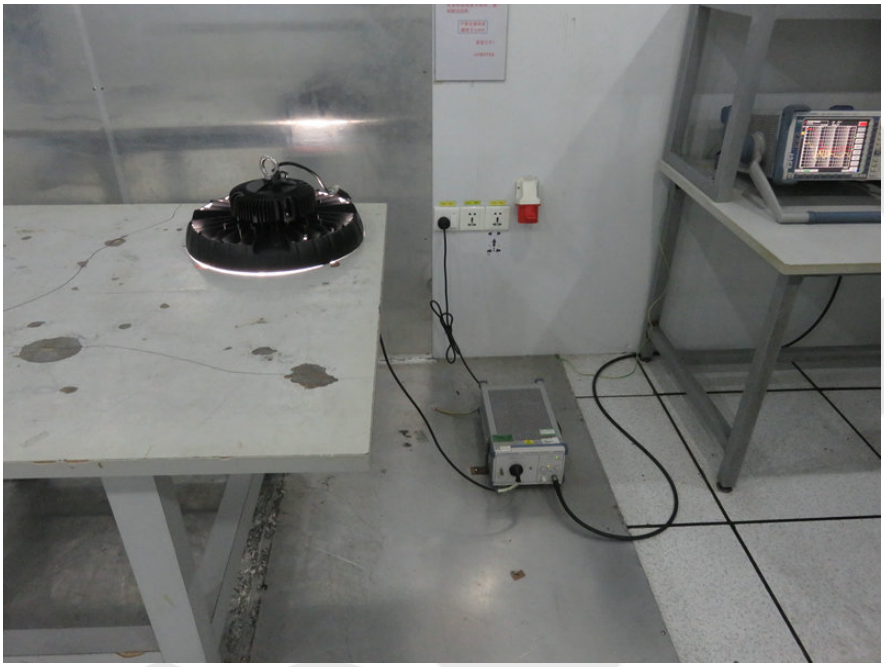
Test Level % U_T	Voltage Dips & Short Interruptions % U_T	Duration (in periods)	Result
0	100	0.5P	☐ A ☑ B ☐ C ☐ D
70	30	10P	☐ A ☐ B ☑ C ☐ D

Test Level % U_T	Voltage Dips & Short Interruptions % U_T	Duration (in periods)	Result

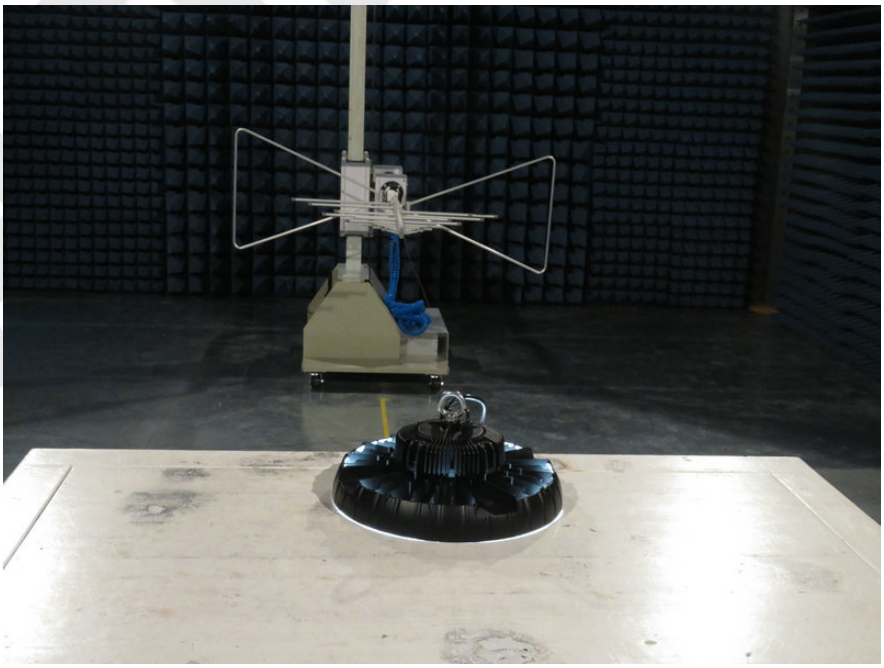
Remark:

13. PHOTOGRAPHS

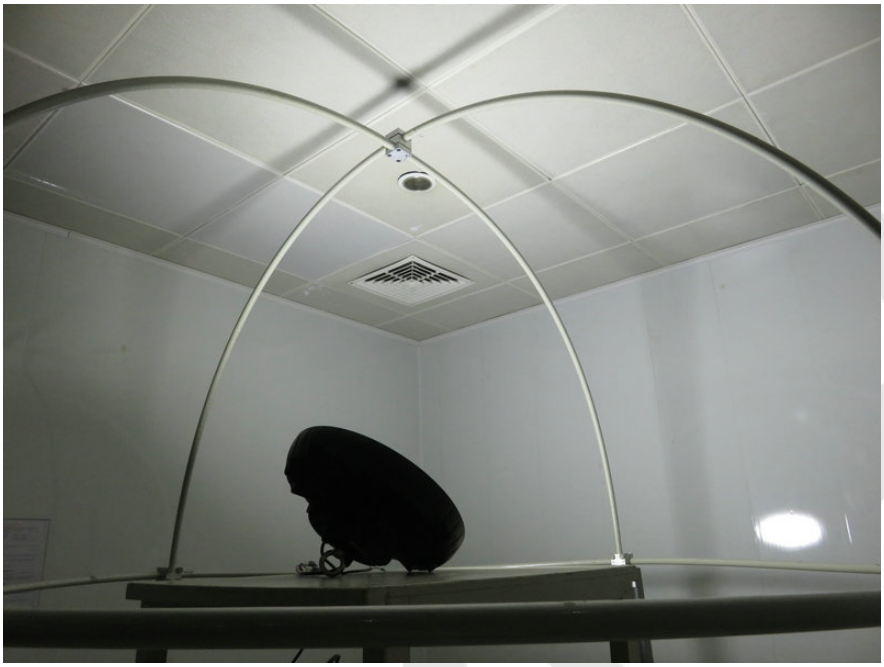
13.1. Photo of Power Line Conducted Emission Test



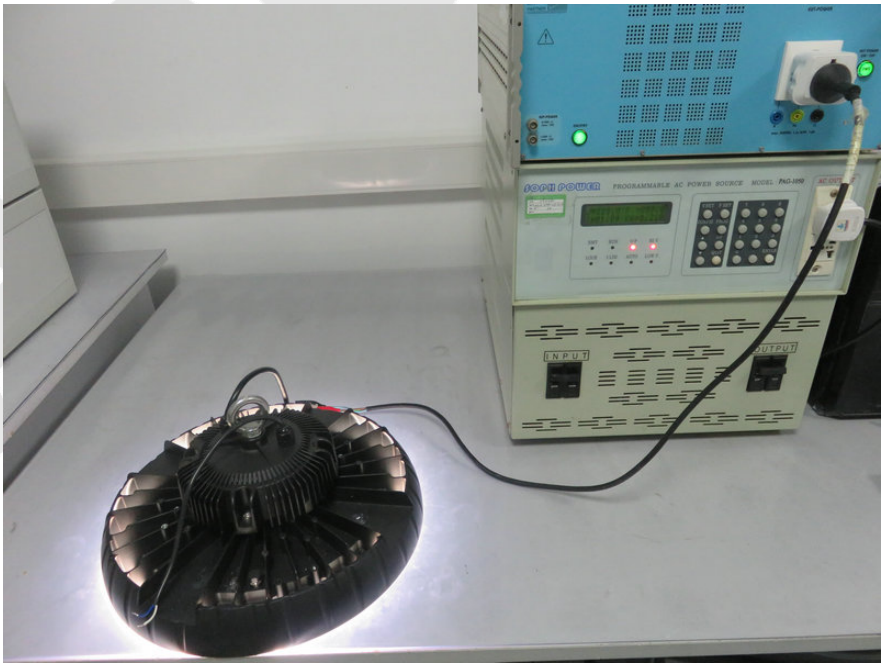
13.2. Photo of Radiated Emission Test



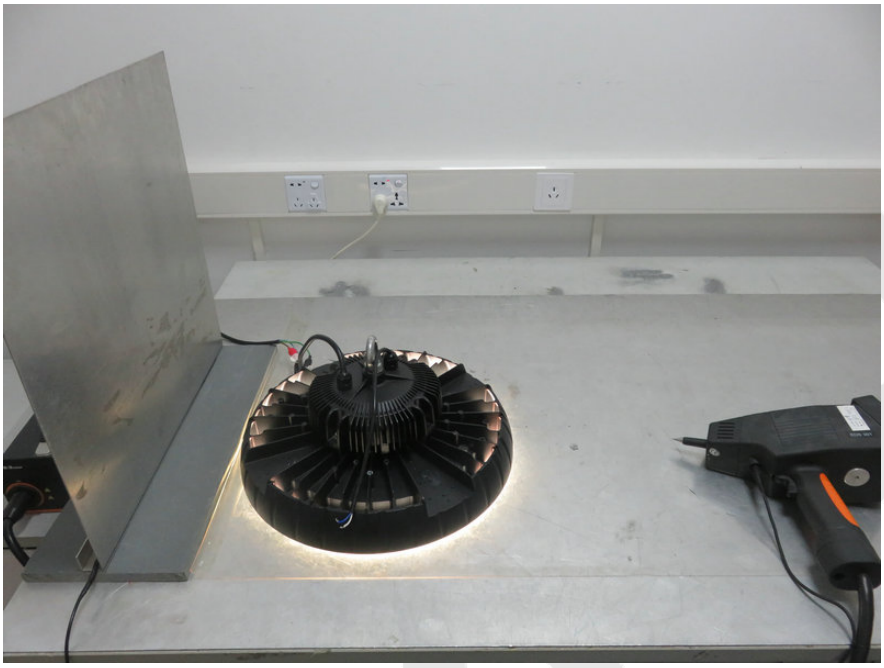
13.3. Photo of Magnetic Radiated Emission Test



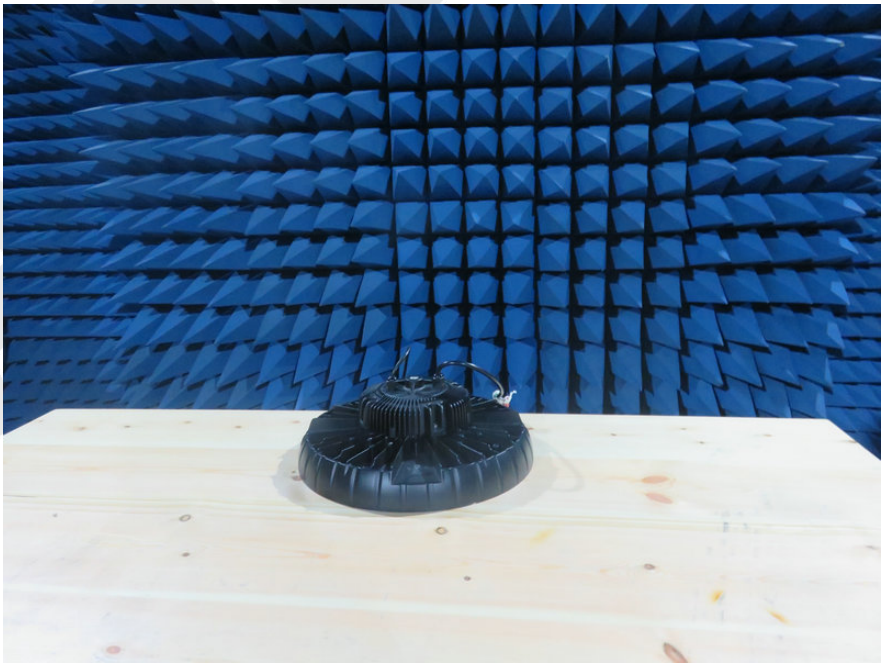
13.4. Photo of Flicker/ Harmonic Test



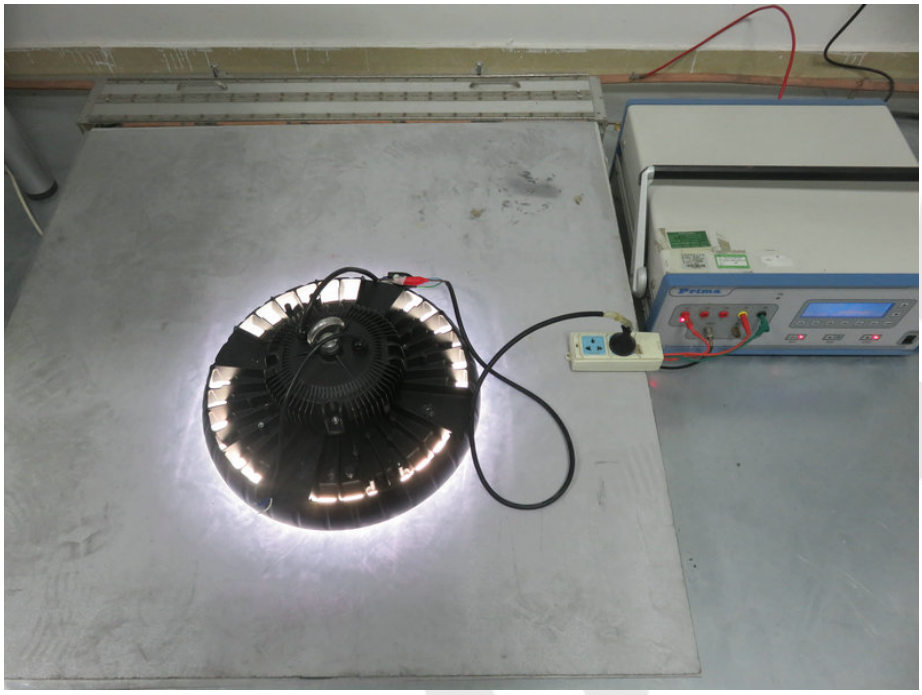
13.5. Photo of Electrostatic Discharge Immunity Test



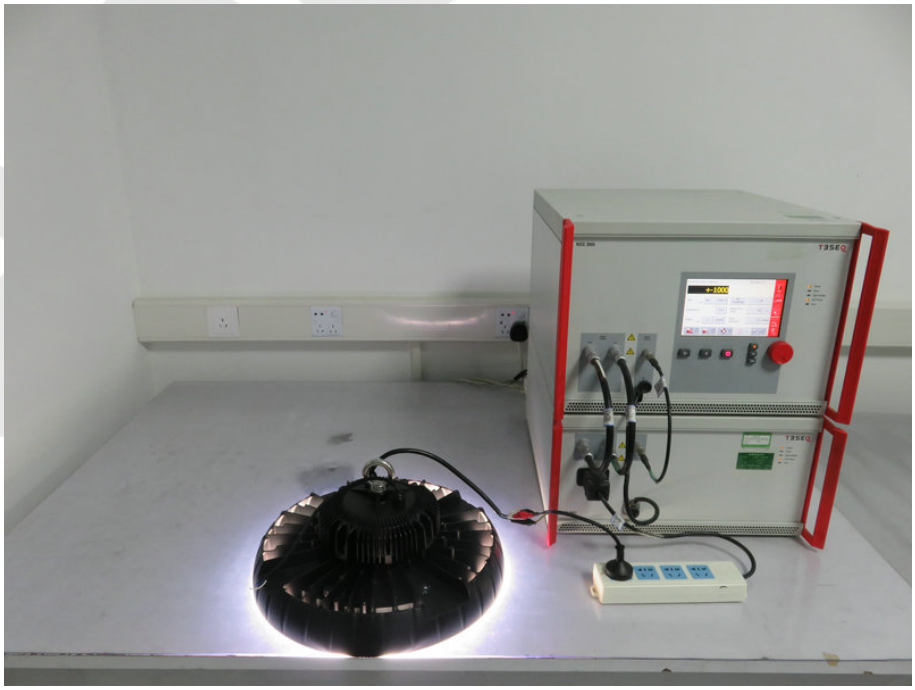
13.6. Photo of RF Field Strength susceptibility Test



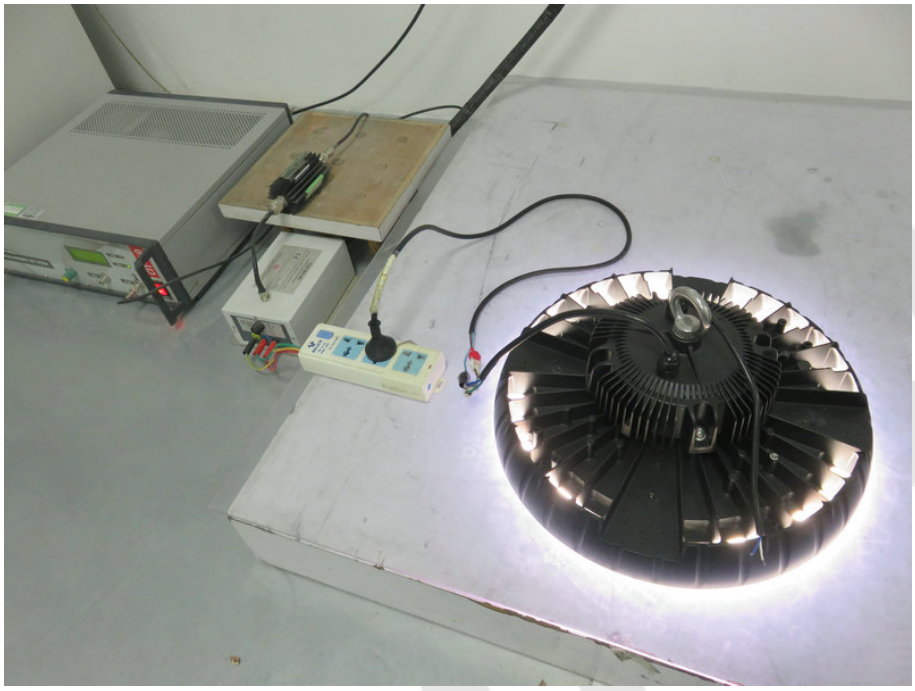
13.7. Photo of Electrical Fast Transient/Burst Immunity Test



13.8. Photo of Surge Immunity Test



13.9. Photo of Injected currents susceptibility Test



APPENDIX I
(Photos of EUT)

Figure 1
The EUT- Top View (Model: AOK-100WoH-NV-L3-0(B0))

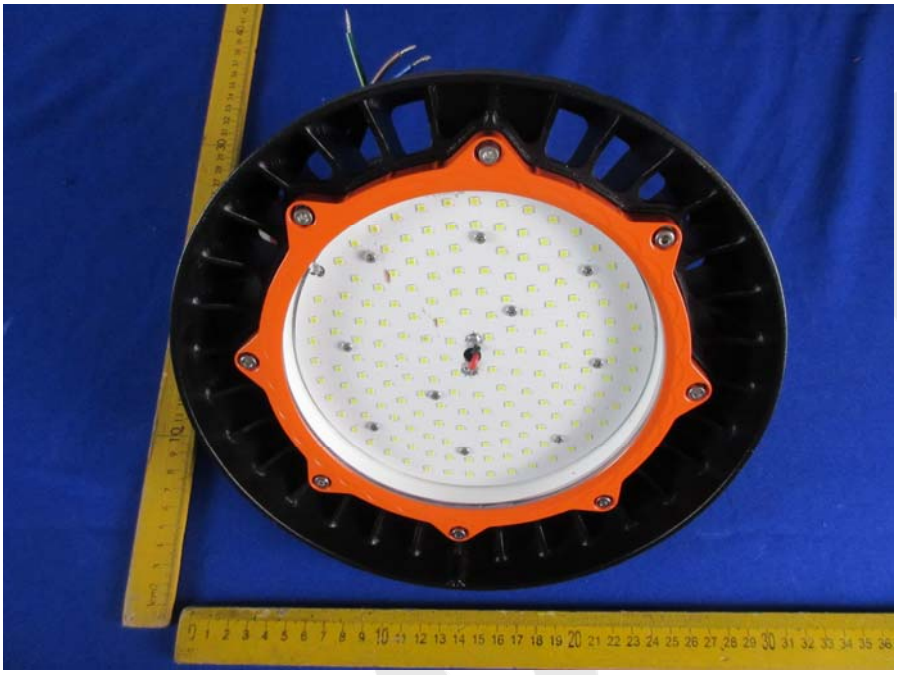


Figure 2
The EUT- Bottom View (Model: AOK-100WoH-NV-L3-0(B0))

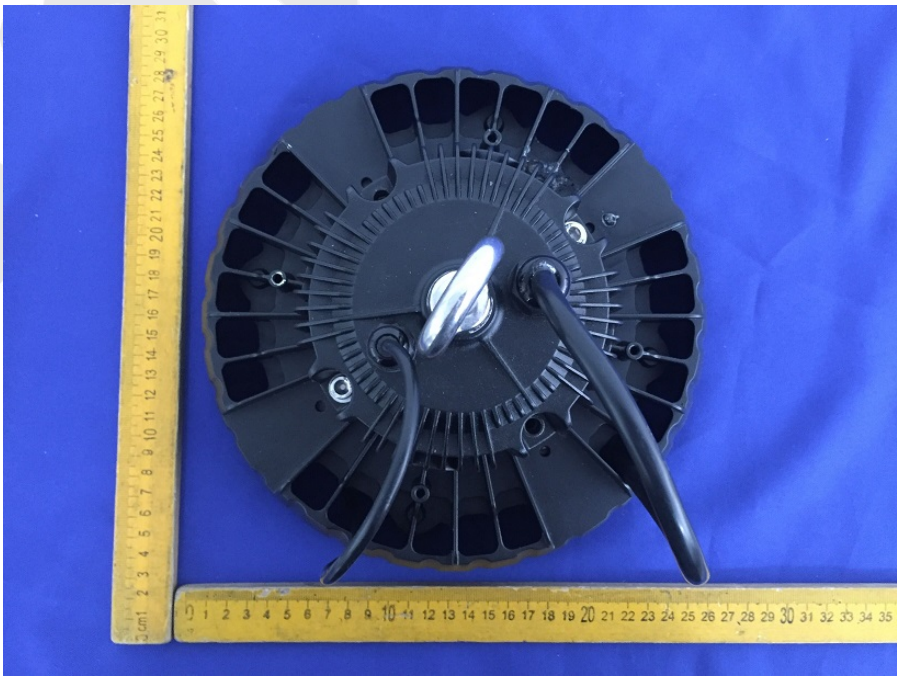


Figure 3
The EUT- Inside View (Model: AOK-100WoH-NV-L3-0(B0))

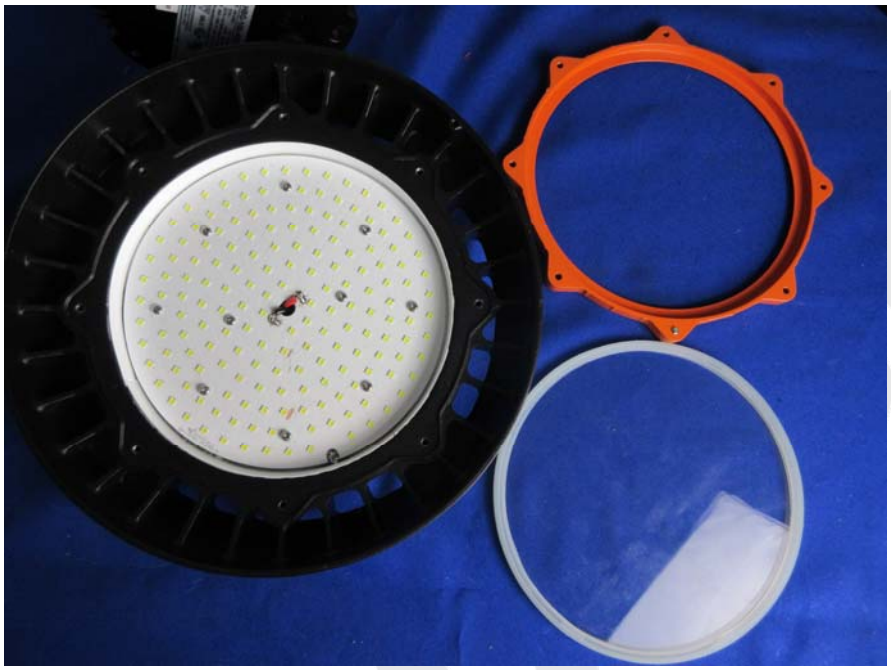


Figure 4
The EUT- Top View (Model: AOK-150WoH-NV-L3-0(B0))

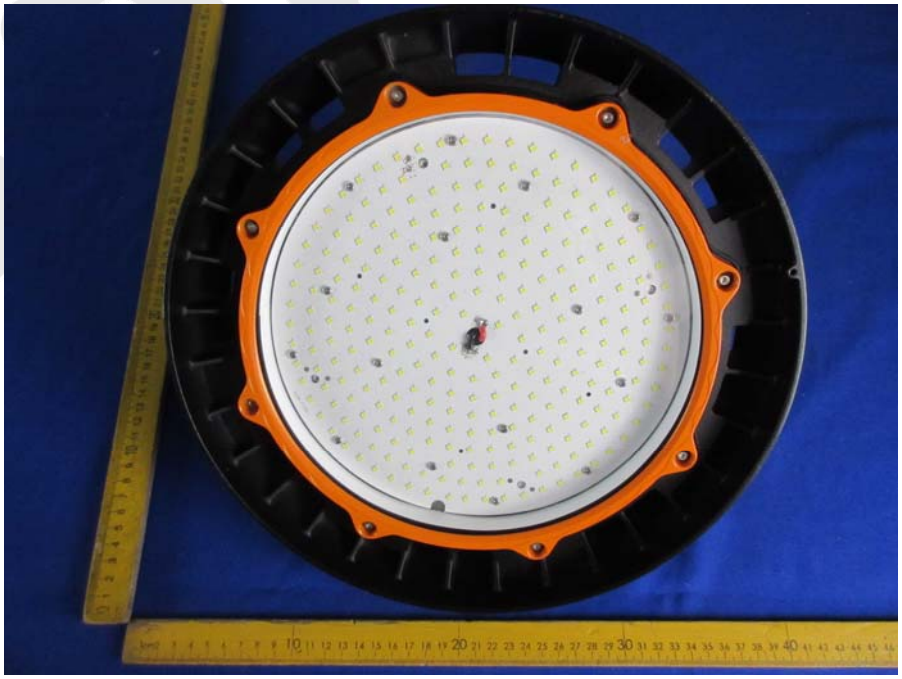


Figure 5
The EUT- Bottom View (Model: AOK-150WoH-NV-L3-0(B0))

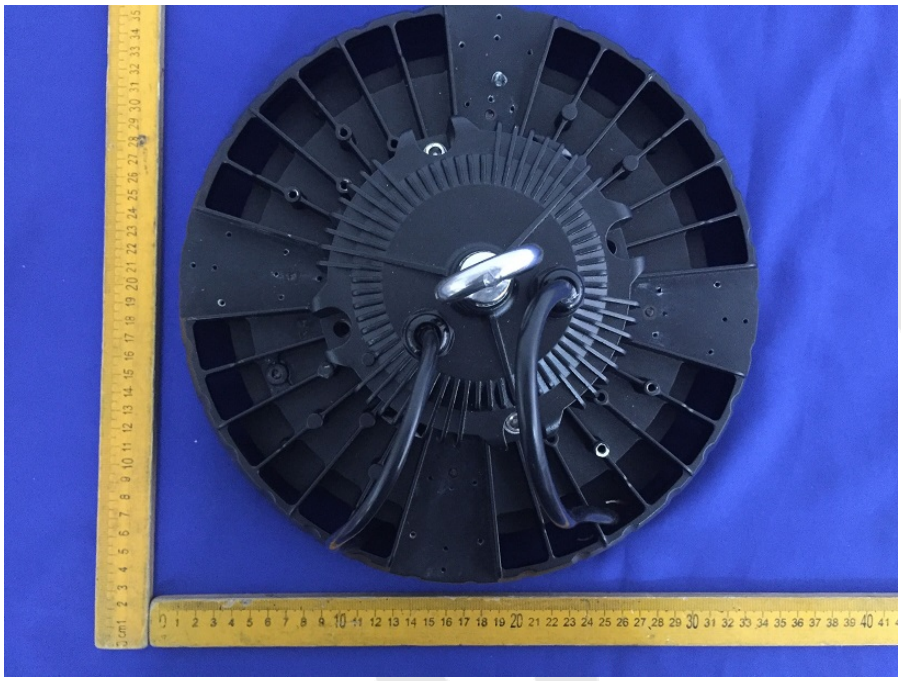


Figure 6
The EUT- Inside View (Model: AOK-150WoH-NV-L3-0(B0))

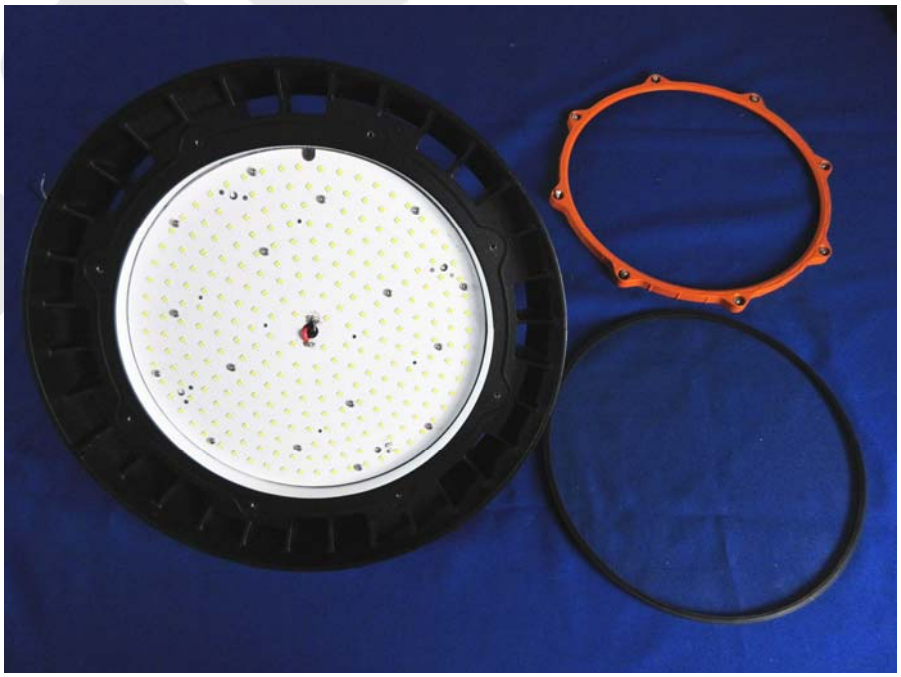


Figure 7
The EUT- Top View (Model: AOK-240WoH-NV-L3-0(B0))

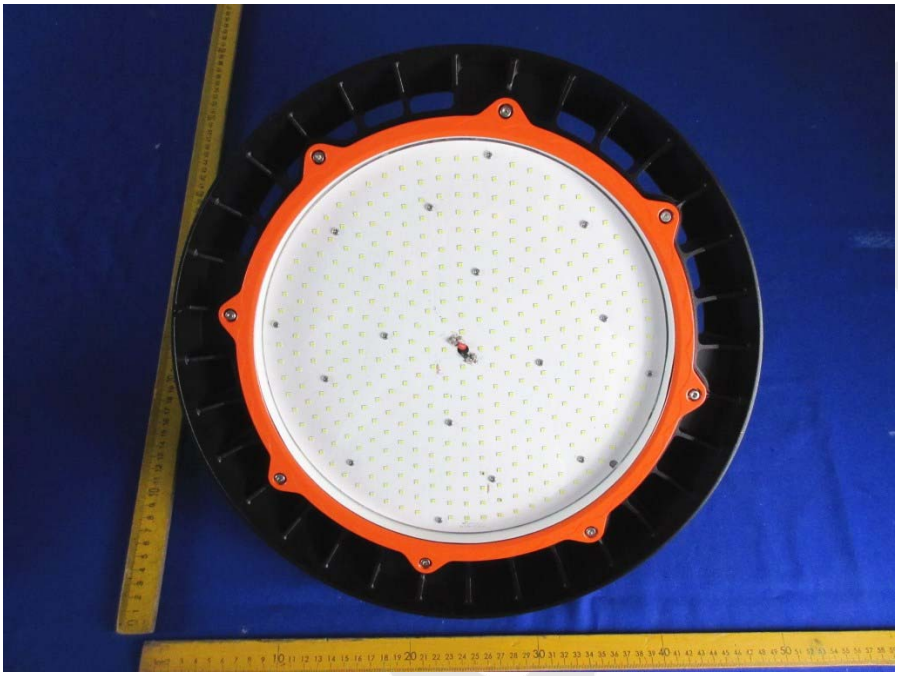


Figure 8
The EUT- Bottom View (Model: AOK-240WoH-NV-L3-0(B0))

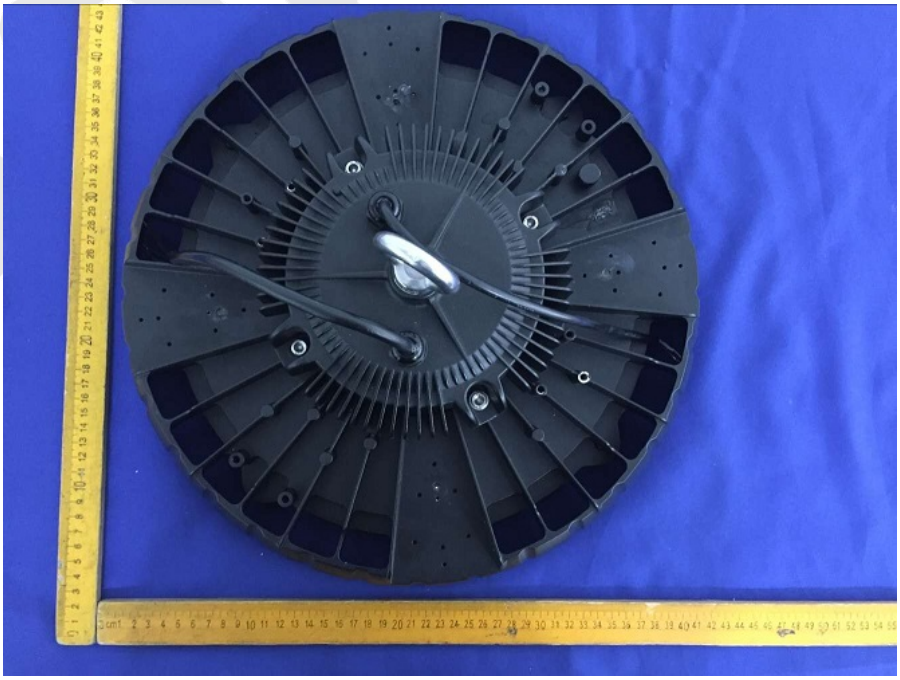


Figure 9
The EUT- Inside View (Model: AOK-240WoH-NV-L3-0(B0))

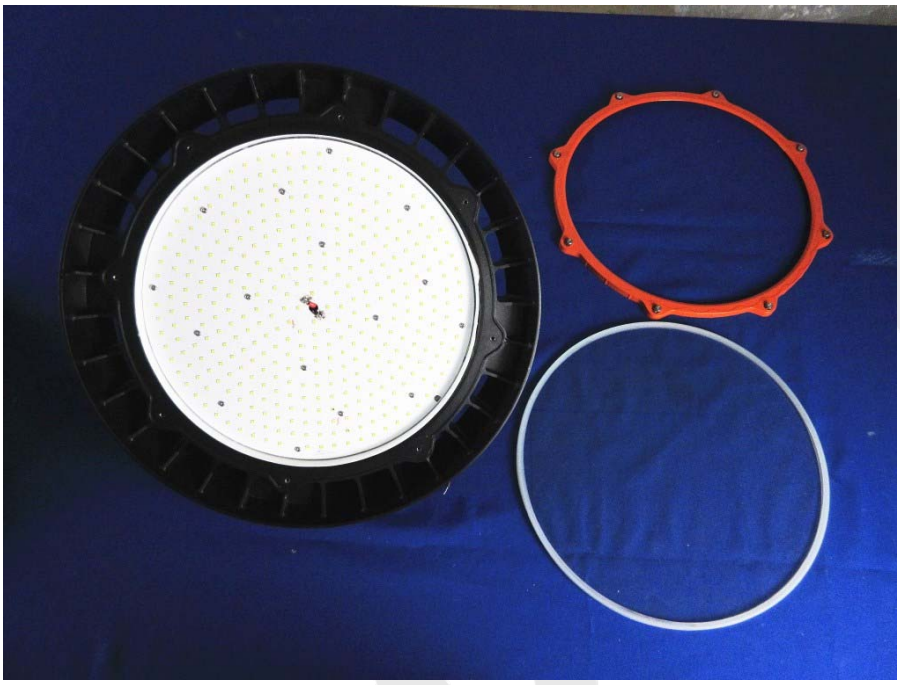


Figure 10
The EUT- Inside View (Model: AOK-240WoH-NV-L3-0(B0))

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’.

---------- End of Report ----------