



TEST REPORT

Reference No. : WTD15S0730643E
Applicant : HOMING LIGHTING (SHENZHEN) LIMITED
Address : Building 15 and 9, Nandong Huangpu Road No 46, Shajing Town,
Baoan County, Shenzhen City.
Manufacturer : HOMING LIGHTING (SHENZHEN) LIMITED
Address : Building 15 and 9, Nandong Huangpu Road No 46, Shajing Town,
Baoan County, Shenzhen City.
Product Name : FLOOR LAMP
Model No. : FL1089E-2, 49150003/01
Standards : EN 55015: 2013
EN 61547: 2009
EN 61000-3-2: 2014
EN 61000-3-3: 2013
Date of Receipt sample : Jul. 27, 2015
Date of Test : Jul. 28 - Aug. 18, 2015
Date of Issue : Sep. 11, 2015
Test Result : Pass

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company.

The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

Waltek Services (Shenzhen) Co., Ltd.

Address: 1/F., Fukangtai Building, West Baima Road, Songgang Street, Baoan District, Shenzhen,
Guangdong, China

Tel :+86-755-83551033

Fax:+86-755-83552400

Compiled by:

Lake.Xie

Lake.Xie / Project Engineer

Approved by:



Philo Zhong

Philo Zhong / Manager



1 Test Summary

EMISSION				
Test Item	Test Standard		Class / Severity	Result
Conducted Disturbance at Mains Terminal, 9kHz to 30MHz	EN 55015: 2013		Clause 4.3.1	Pass
Radiation electromagnetic disturbance, 9kHz to 30MHz	EN 55015: 2013		Clause 4.4.1	Pass
Radiation Emission, 30MHz to 300MHz	EN 55015: 2013		Clause 4.4.2	Pass
Harmonic Current emission	EN 61000-3-2: 2014		Class C	N/A
Voltage Fluction and Flicker	EN 61000-3-3: 2013		Clause 5	Pass
IMMUNITY (EN 61547:2009)				
Test Item	Test Method	Class / Severity	Performance Criteria	Result
Electrostatic Discharge(ESD)	IEC 61000-4-2:2008	±4 kV Contact ±8 kV Air	B	Pass
Radio-frequency electromagnetic fields (80MHz to 1GHz)	IEC 61000-4-3:2010	3V/m, 80%, 1kHz, Amp. Mod.	A	Pass
Electrical Fast Transients (EFT)	IEC 61000-4-4:2012	AC ±1.0kV DC ±0.5kV Signal Line ±0.5kV	B	Pass
Surges	IEC 61000-4-5:2014	<25W: ±0.5kV D.M.† ±1kV C.M.‡ ≥25W: ±1kV D.M.† ±2kV C.M.‡	B	Pass
Injected Currents, 0.15MHz to 80MHz	IEC 61000-4-6:2013	3Vr.m.s.(emf), 80%, 1kHz Amp. Mod.	A	Pass
Power-frequency magnetic field	IEC 61000-4-8:2009	3A/m	A	N/A
Voltage Dips and Interruptions	IEC 61000-4-11:2004	0 % UT* for 0.5per	B	Pass
		70 % UT* for 10per	C	Pass

Remark:

Pass

Fail

N/A

A.M

†

‡

*

Test item meets the requirement

Test item does not meet the requirement

Test case does not apply to the test object

Amplitude Modulation

Differential Mode

Common Mode

UT is the nominal supply voltage



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3 General Information

3.1 General Description of E.U.T.

Product Name..... : FLOOR LAMP
Model No...... : FL1089E-2, 49150003/01
Model Difference..... : Only the model name is different.
Remark..... : The EUT has been tested as an independent unit. The model FL1089E-2 is the tested sample. The DV, Loop, RE test items were performed under the condition of AC 235V/50Hz; The Flicker and all the EMS test items were performed under the condition of AC 230V/50Hz.

3.2 Details of E.U.T.

Technical Data..... : Input: AC 230V, 50Hz, 3*6W+6W

3.3 Standards Applicable for Testing

The tests were performed according to following standards:

EN 55015: 2013	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
EN 61547: 2009	Equipment for general lighting purposes — EMC immunity requirements
EN 61000-3-2: 2014	Electromagnetic compatibility (EMC) -- Part 3-2:Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase).
EN 61000-3-3: 2013	Electromagnetic compatibility (EMC) -- Part 3-3:Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection.

3.4 Test Facility

The test facility has a test site registered with the following organizations:

- **IC – Registration No.: 7760A-1**

Waltek Services (Shenzhen) Co., Ltd. has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files. Registration 7760A-1, July 12, 2012.

- **FCC – Registration No.: 880581**

Waltek Services (Shenzhen) Co., Ltd. has been registered 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 880581, April 29, 2014.

- **FCC – Registration No.: 328995**



Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered 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 328995, December 3, 2014.

3.5 Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

☐ Yes ☒ No

If Yes, list the related test items and lab information:

Test Lab: N/A

Lab address: N/A

Test items: N/A

3.6 Abnormalities from Standard Conditions

None.



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4 Equipment Used during Test

4.1 Equipment List

Conducted Emissions at Mains Terminals Disturbance Voltage						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	EMI Test Receiver	R&S	ESCI	101155	Sep.15, 2014	Sep.14, 2015
2.	LISN	SCHWARZBECK	NSLK 8128	8128-289	Sep.15, 2014	Sep.14, 2015
3.	Limiter	York	MTS-IMP-136	261115-001-0024	Sep.15, 2014	Sep.14, 2015
4.	Cable	LARGE	RF300	-	Sep.15, 2014	Sep.14, 2015
Radiation electromagnetic disturbance(9kHz to 30MHz)						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	EMI Test Receiver	R&S	ESCI	101155	Sep.15, 2014	Sep.14, 2015
2.	LARGE LOOP ANTENNA	Laplace	RF300	9057	Sep.15, 2014	Sep.14, 2015
3.	Cable	LARGE	RF300	-	Sep.15, 2014	Sep.14, 2015
3m Semi-anechoic Chamber for Radiation						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1.	Test Receiver	R&S	ESCI	101296	Apr.10, 2015	Apr.09, 2016
2.	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	Apr.10, 2015	Apr.09, 2016
3.	Amplifier	Compliance pirection systems inc	PAP-0203	22024	Apr.10, 2015	Apr.09, 2016
4.	Cable	HUBER+SUHNER	CBL2	525178	Apr.10, 2015	Apr.09, 2016
Harmonics and Flicker Measuring System						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Digital Power Analyzer	SCHAFFNER	CCN 1000-1	72625	Jun.03,2015	Jun.02,2016
2	Power Source	SCHAFFNER	NSG 1007	58477	Jun.03,2015	Jun.02,2016
Electrostatic Discharge						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Electrostatic Discharge Simulator	Em Test	DITO	V0745103094	Oct.28, 2014	Oct.27, 2015



Radio-frequency electromagnetic fields						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Signal Generator	R&S	SMB100A	105942	Sep.15, 2014	Sep.14, 2015
2	RF Power Amplifier	R&S	BLWA0830-160/100/40D	128740	Sep.15, 2014	Sep.14, 2015
3	Gestockte Breitband (S tacked) Log.-per.Antenna	R&S	STLP9128D	043	Sep.15, 2014	Sep.14, 2015
4	Power Meter	R&S	NRP2	102031	Sep.15, 2014	Sep.14, 2015
Surge, EFT, Voltage dips and Interruption						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	All Modules Generator	SCHAFFNER	6150	34579	N/A	N/A
2	Capacitive Coupling Clamp	SCHAFFNER	CDN 8014	25311	Sep.15, 2014	Sep.14, 2015
3	Signal and Data Line Coupling Network	SCHAFFNER	CDN 117	25627	Sep.15, 2014	Sep.14, 2015
4	AC Power Supply	TONGYUN	DTDGC-4	-	Sep.15, 2014	Sep.14, 2015
Conducted Immunity						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	RF Generator	TESEQ	NSG4070	25781	Sep.15, 2014	Sep.14, 2015
2	CDN M-Type	TESEQ	CDN M016	25112	Sep.15, 2014	Sep.14, 2015
3	EM-Clamp	TESEQ	KEMZ 801	25453	Sep.15, 2014	Sep.14, 2015
4	Attenuator 6dB	TESEQ	ATN6050	25365	Sep.15, 2014	Sep.14, 2015

4.2 Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Conducted Emission	9kHz~30MHz	±3.64dB	(1)
Radiation electromagnetic disturbance	9kHz~30MHz	±3.00dB	(1)
Radiation Emission	30MHz~300MHz	±5.03dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.



5 Emission Test Results

5.1 Conducted Disturbance at Mains Terminal

Test Requirement..... : EN 55015 Clause 4.3.1
 Test Method : EN 55015 Clause 8
 Test Result : Pass
 Frequency Range..... : 9kHz to 30MHz
 Class/Severity : Table 2a of EN 55015

5.1.1 E.U.T. Operation

Operating Environment:

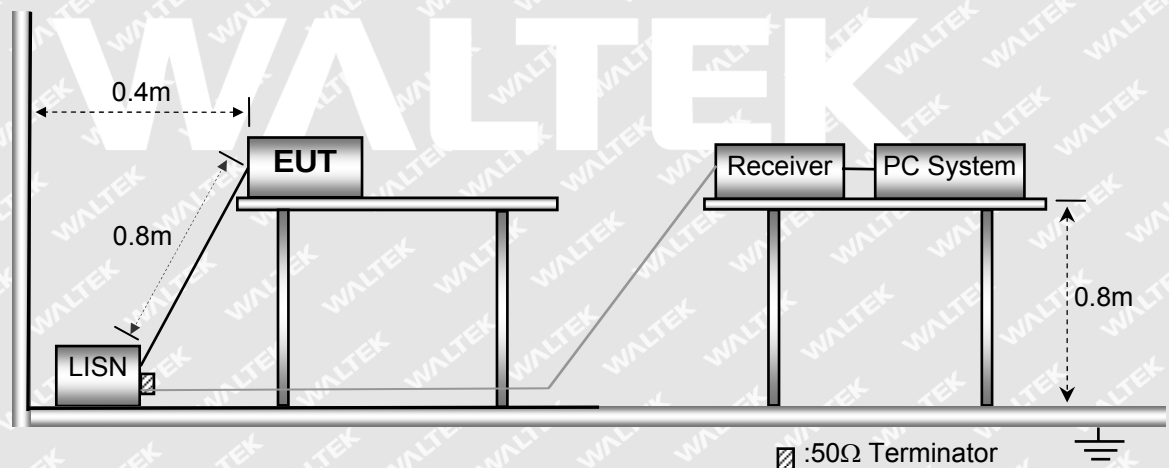
Temperature..... : 25.5°C
 Humidity..... : 52.6%RH
 Atmospheric Pressure : 101.2kPa

EUT Operation:

Input Voltage : AC 235V/50Hz , AC 225V/50Hz
 Operating Mode..... : Working mode
 Remark..... : The worst case is under condition AC 235V/50Hz and the data is shown as follow.

5.1.2 Block Diagram of Test Setup

The Conducted Disturbance at Mains Terminal tests were performed in accordance with the EN 55015.



5.1.3 Measurement Data

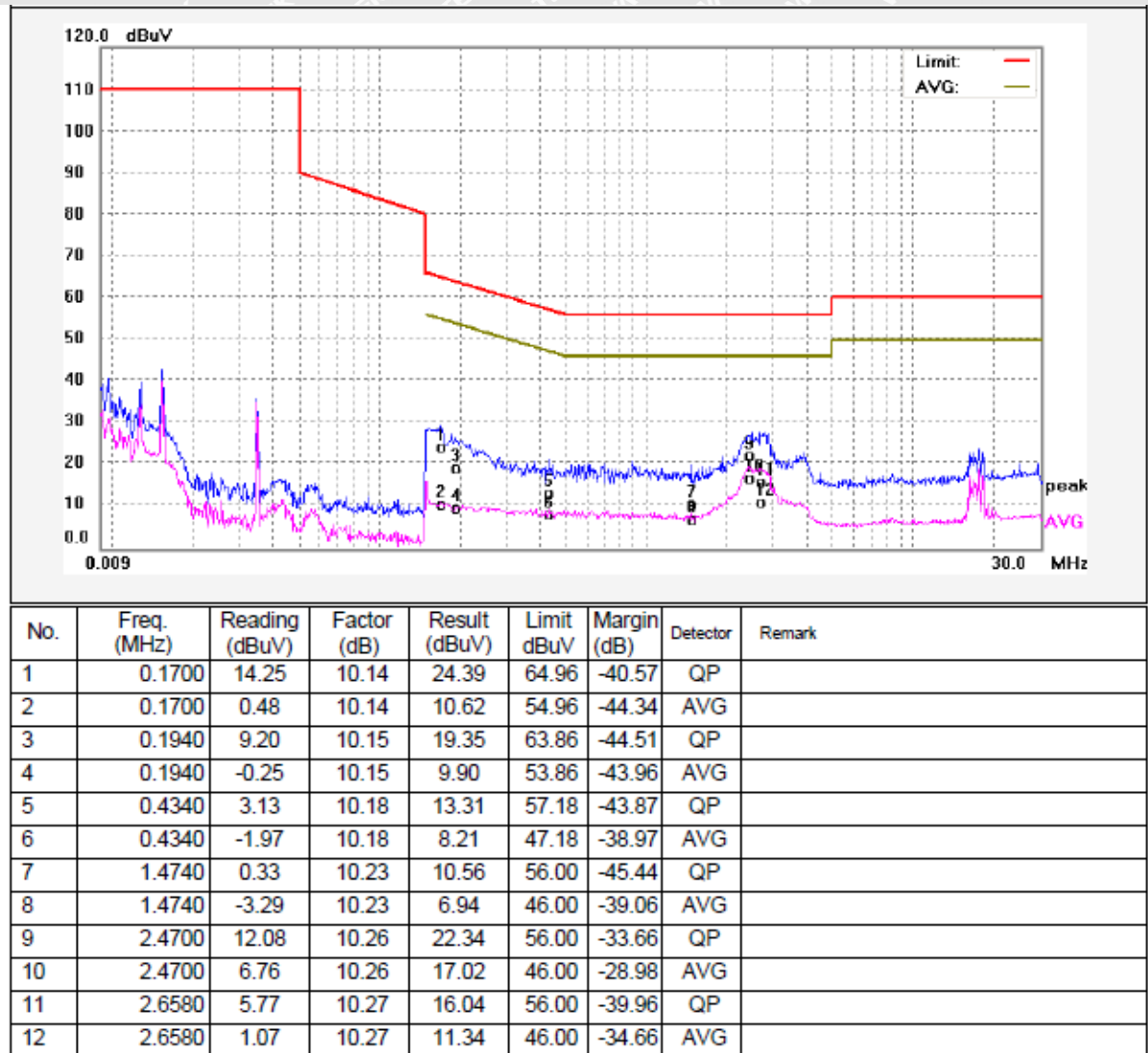
The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within



6dB of the average limit line.

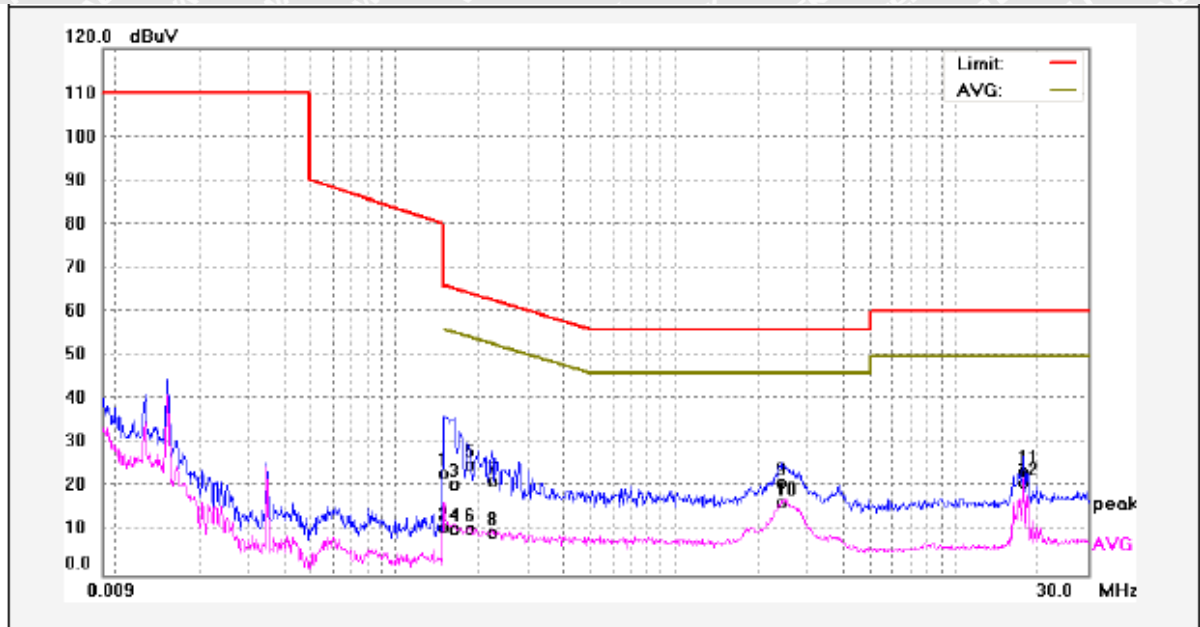
5.1.4 Conducted Disturbance at Mains Terminal Test Data

Live Line :





Neutral Line :



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1500	13.12	10.13	23.25	65.99	-42.74	QP	
2	0.1500	0.74	10.13	10.87	55.99	-45.12	AVG	
3	0.1620	10.71	10.13	20.84	65.36	-44.52	QP	
4	0.1620	0.43	10.13	10.56	55.36	-44.80	AVG	
5	0.1819	15.32	10.14	25.46	64.39	-38.93	QP	
6	0.1819	0.39	10.14	10.53	54.39	-43.86	AVG	
7	0.2220	11.33	10.15	21.48	62.74	-41.26	QP	
8	0.2220	-0.52	10.15	9.63	52.74	-43.11	AVG	
9	2.4260	10.84	10.26	21.10	56.00	-34.90	QP	
10	2.4260	6.30	10.26	16.56	46.00	-29.44	AVG	
11	17.6940	13.14	10.74	23.88	60.00	-36.12	QP	
12	17.6940	10.46	10.74	21.20	50.00	-28.80	AVG	



5.2 Radiation Electromagnetic Disturbance, 9kHz to 30MHz

Test Requirement.....	:	EN 55015 Clause 4.4.1
Test Method.....	:	EN 55015 Clause 9.1
Test Result	:	Pass
Frequency Range.....	:	9kHz to 30MHz
Class/Severity.....	:	Table 3a of EN 55015

5.2.1 E.U.T. Operation

Operating Environment:

Temperature	:	25.5°C
Humidity	:	53.3%RH
Barometric Pressure	:	101.3kPa

EUT Operation:

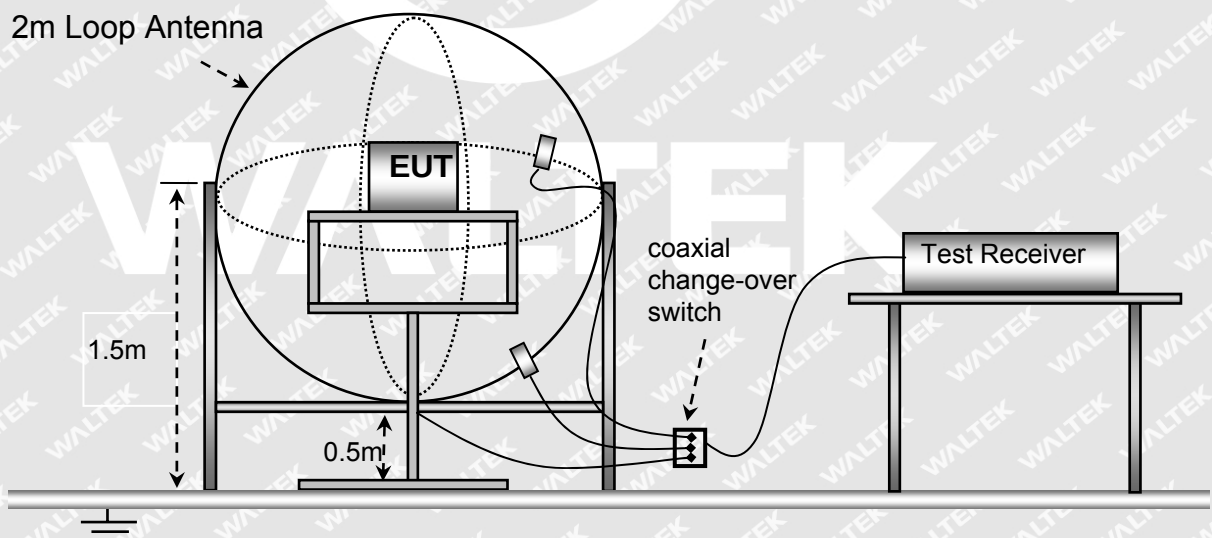
Input Voltage.....	:	AC 235V/50Hz , AC 225V/50Hz
Operating Mode	:	Working mode

Remark

The worst case is under condition AC 235V/50Hz and the data is shown as follow.

5.2.2 Block Diagram of Test Setup

The Radiation Electromagnetic Disturbance (9kHz to 30MHz) test was performed in accordance with the EN 55015.



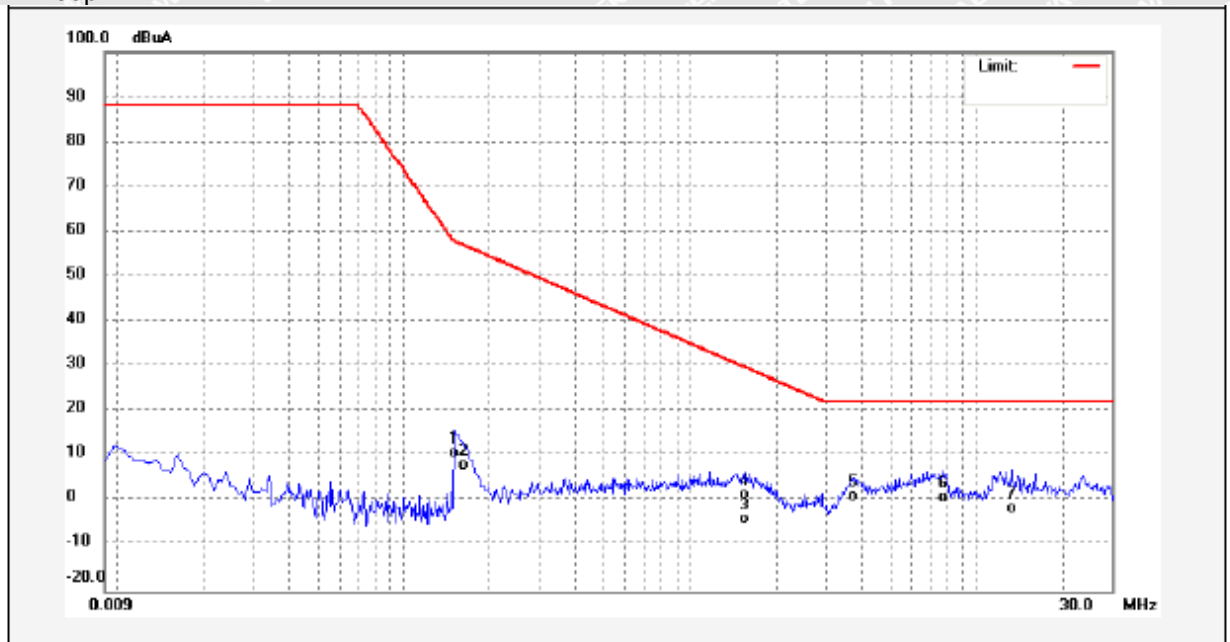
5.2.3 Measurement Data

The maximised peak emissions from the EUT was scanned and measured for the loop antenna three directions. Quasi-peak measurements were performed if peak emissions were within 6dB of the Quasi-peak limit line.



5.2.4 Radiation Electromagnetic Disturbance Test Data, 9kHz to 30MHz

Loop X:

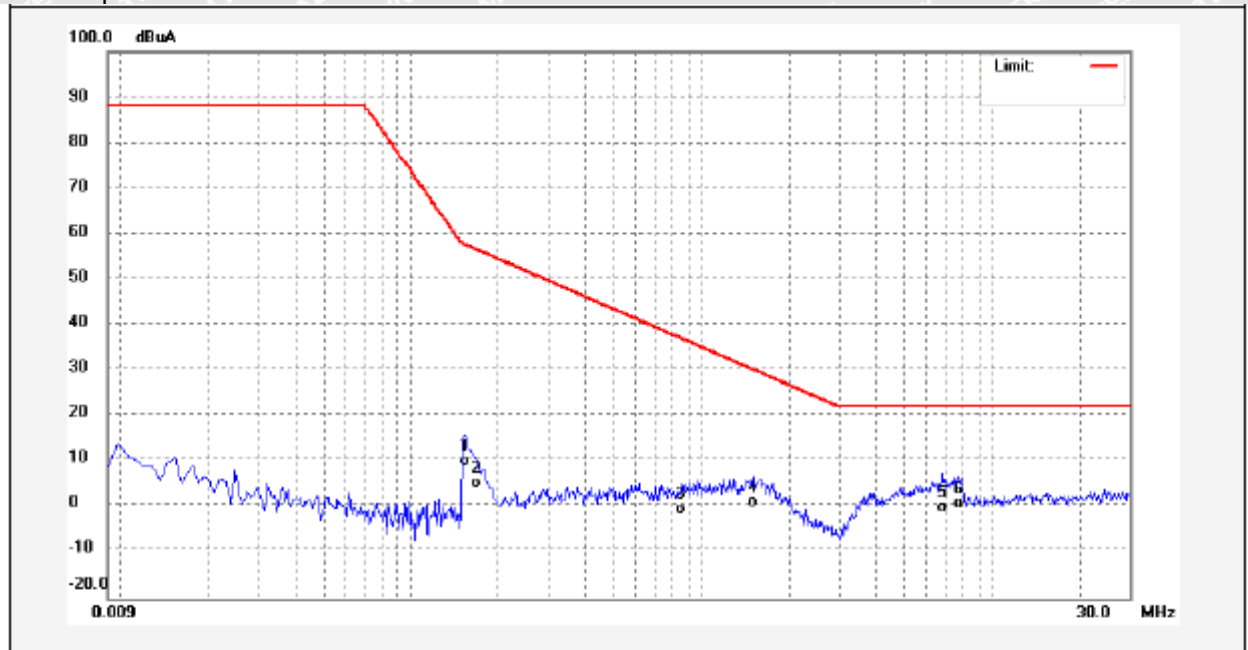


No.	Freq. (MHz)	Reading (dBuA)	Factor (dB)	Result (dBuA)	Limit dBuA	Margin (dB)	Detector	Remark
1	0.1505	0.78	10.10	10.88	57.95	-47.07	QP	
2	0.1629	-1.98	10.10	8.12	57.00	-48.88	QP	
3	1.5546	-14.28	10.20	-4.08	29.90	-33.98	QP	
4	1.5546	-8.80	10.20	1.40	29.90	-28.50	QP	
5	3.7306	-9.16	10.22	1.06	22.00	-20.94	QP	
6	7.6786	-9.34	10.30	0.96	22.00	-21.04	QP	
7	13.3306	-12.18	10.50	-1.68	22.00	-23.68	QP	

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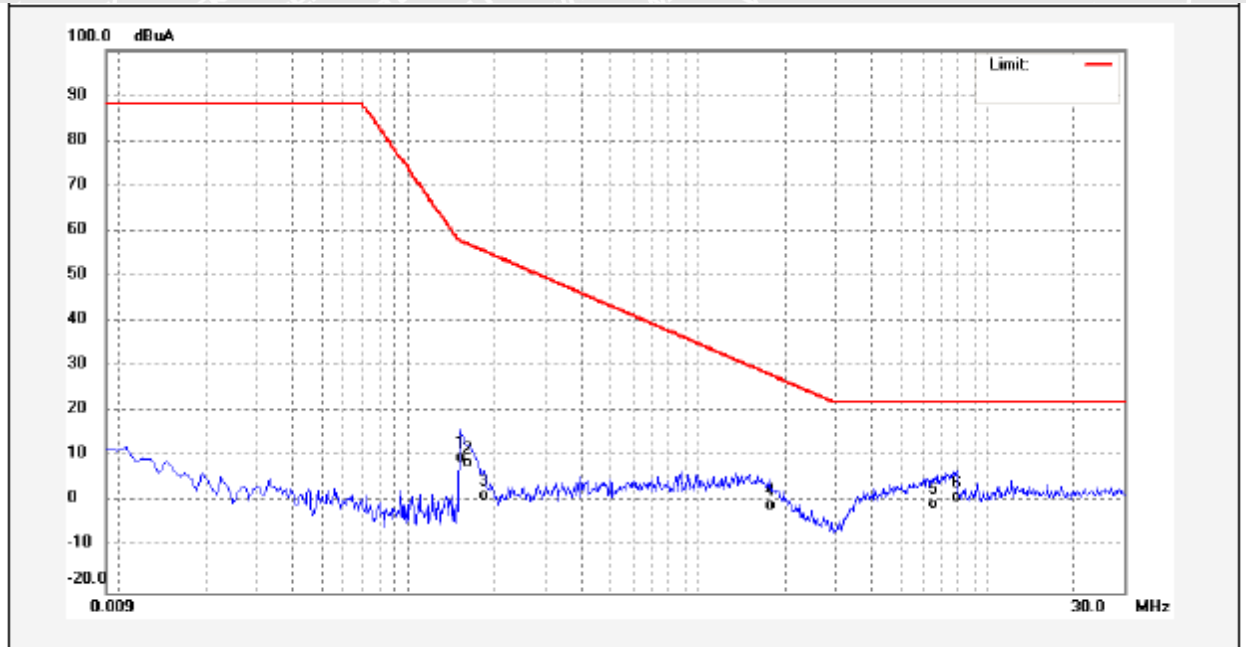
Loop Y:



No.	Freq. (MHz)	Reading (dBuA)	Factor (dB)	Result (dBuA)	Limit dBuA	Margin (dB)	Detector	Remark
1	0.1546	0.03	10.10	10.13	57.63	-47.50	QP	
2	0.1706	-4.83	10.10	5.27	56.45	-51.18	QP	
3	0.8546	-10.50	10.19	-0.31	37.09	-37.40	QP	
4	1.5066	-9.01	10.20	1.19	30.28	-29.09	QP	
5	6.8026	-10.20	10.29	0.09	22.00	-21.91	QP	
6	7.6786	-9.47	10.30	0.83	22.00	-21.17	QP	



Loop Z:



No.	Freq. (MHz)	Reading (dBuA)	Factor (dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Detector	Remark
1	0.1546	-0.23	10.10	9.87	57.63	-47.76	QP	
2	0.1603	-1.51	10.10	8.59	57.19	-48.60	QP	
3	0.1826	-8.67	10.10	1.43	55.63	-54.20	QP	
4	1.7986	-10.89	10.19	-0.70	28.15	-28.85	QP	
5	6.5306	-10.68	10.28	-0.40	22.00	-22.40	QP	
6	7.8706	-9.28	10.31	1.03	22.00	-20.97	QP	



5.3 Radiation Emission, 30MHz to 300MHz

Test Requirement	: EN 55015 Clause 4.4.2
Test Method	: EN 55015 Annex B
Test Result	: Pass
Frequency Range	: 30MHz to 300MHz
Class/Severity	: Table B.1 of EN 55015
Antenna polarisation	: Horizontal & Vertical

5.3.1 E.U.T. Operation

Operating Environment:

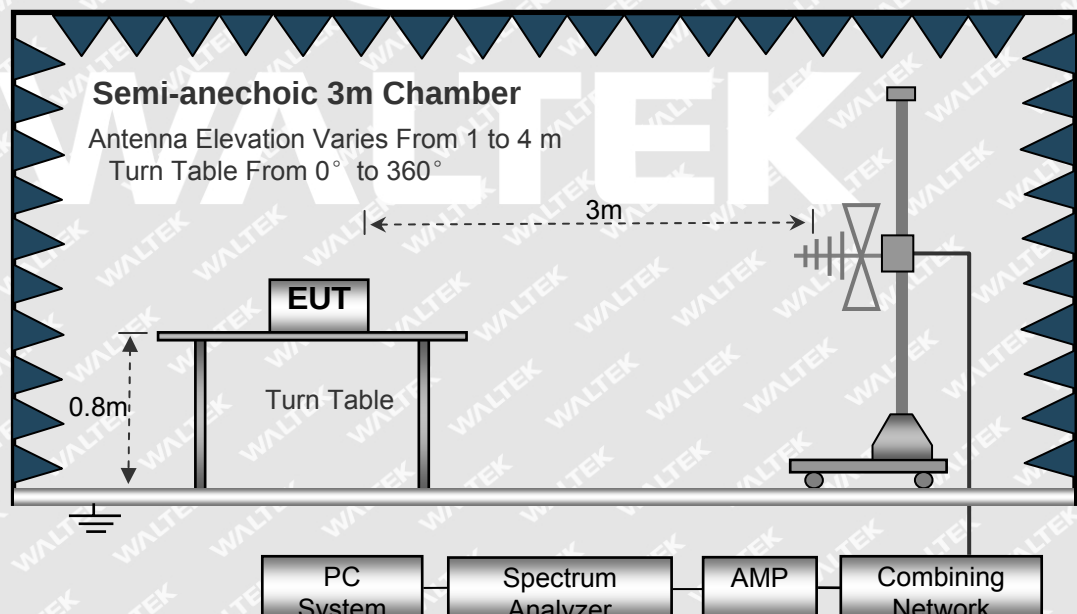
Temperature	: 24°C
Humidity	: 54.3%RH
Atmospheric Pressure	: 101.5kPa

EUT Operation :

Input Voltage	: AC 235V/50Hz , AC 225V/50Hz
Operating Mode	: Working mode
Remark	: The worst case is under condition AC 235V/50Hz and the data is shown as follow.

5.3.2 Block Diagram of Setup

The Radiation Emission test was performed in accordance with EN 55015 Annex B.



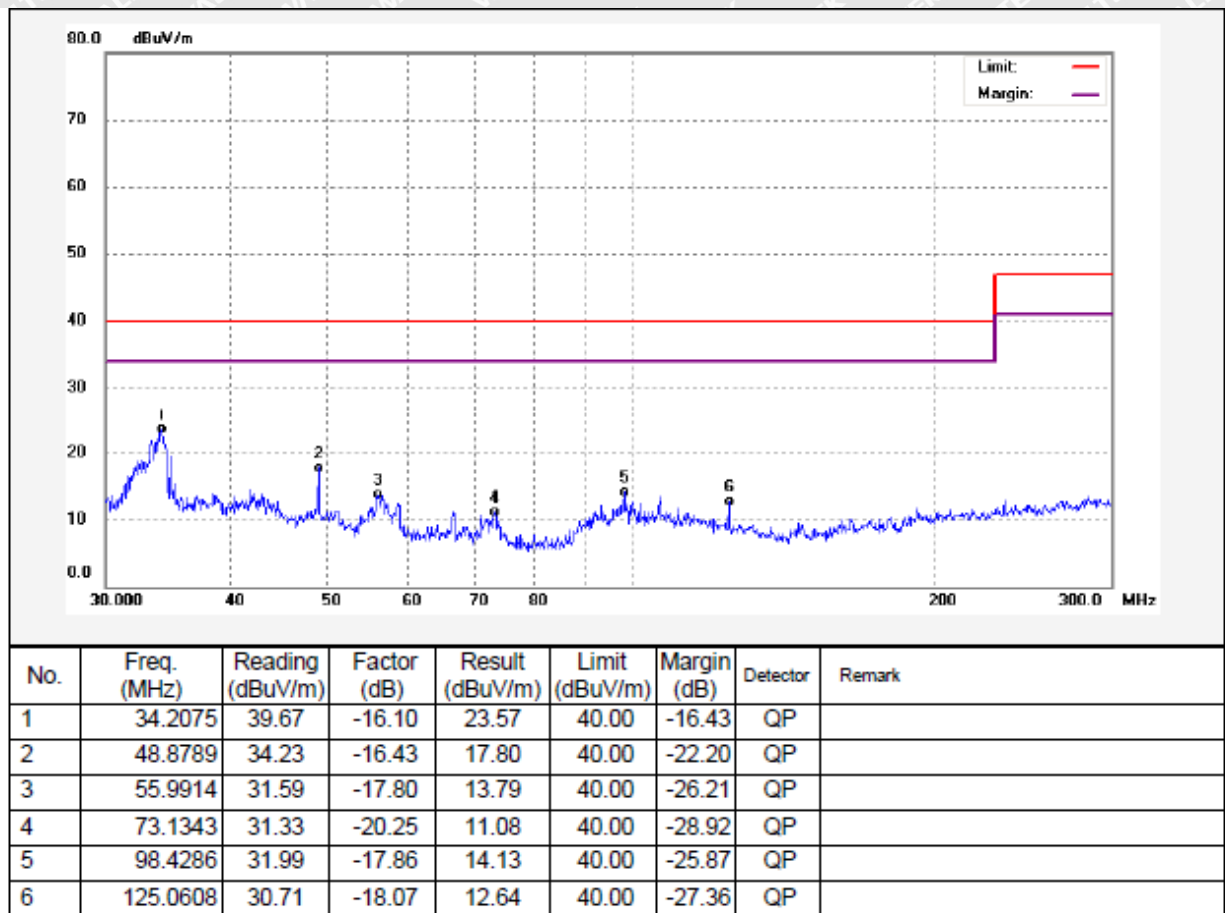


5.3.3 Measurement Data

The maximised peak emissions from the EUT was scanned and measured for both the Antenna Vertical Polarization and Antenna Horizontal Polarization. Quasi-peak measurements were performed if peak emissions were within 6dB of the Quasi-peak limit line.

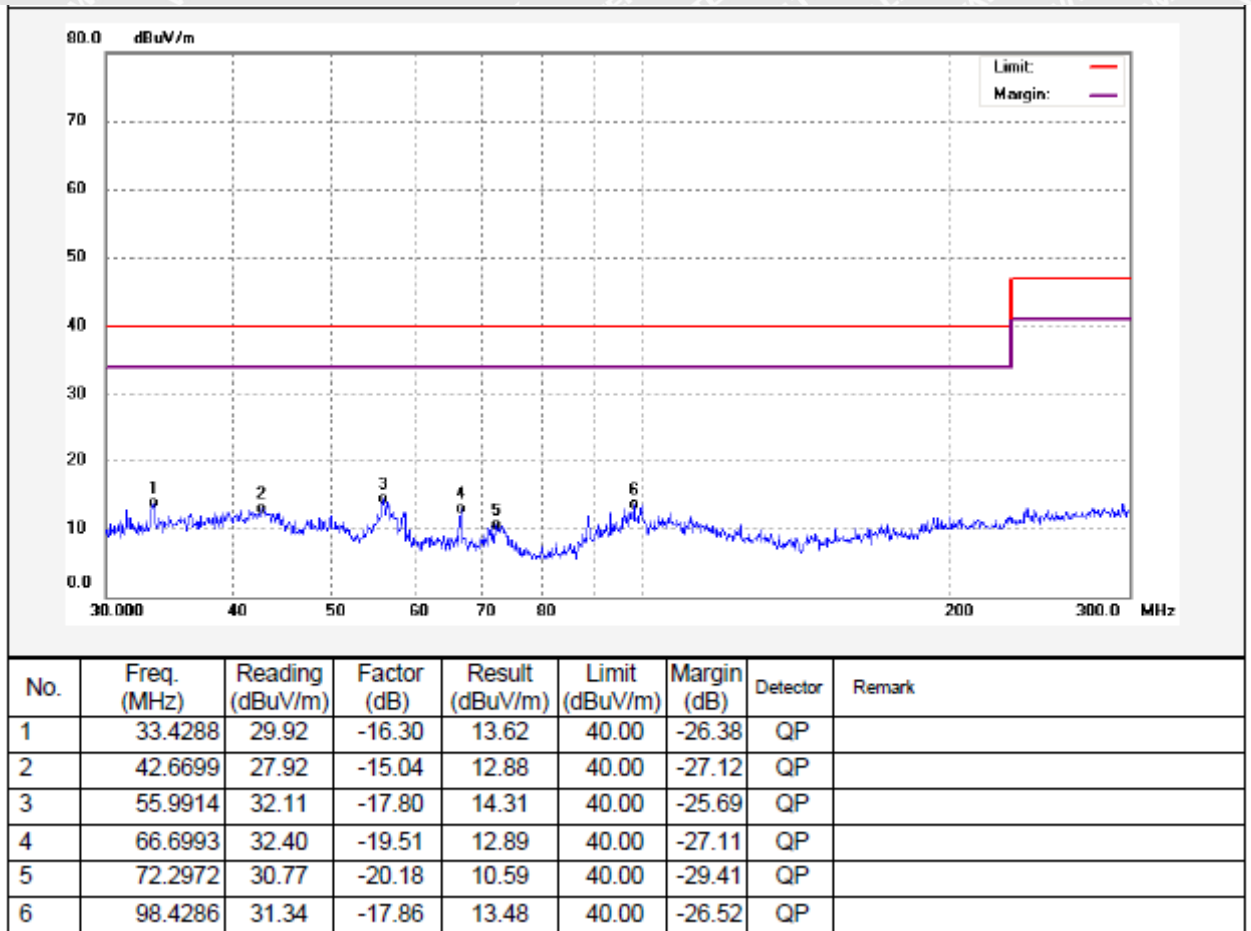
5.3.4 Radiation Emission Test Data, 30MHz to 300MHz

Antenna Polarization: Vertical





Antenna Polarization: Horizontal



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5.4 Harmonics Current Emission

Test Requirement	:	EN 61000-3-2
Test Method	:	EN 61000-4-7
Test Result	:	N/A
Class/Severity	:	Class C
Remark	:	This equipment uses symmetrical control method and the rated power is less than 25W. According to section 7 of EN 61000-3-2, tests need not be made on equipment.



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5.5 Voltage Fluctuation and Flicker

Test Requirement : EN 61000-3-3
Test Method : EN 61000-4-15
Test Result : Pass

5.5.1 E.U.T. Operation

Operating Environment:

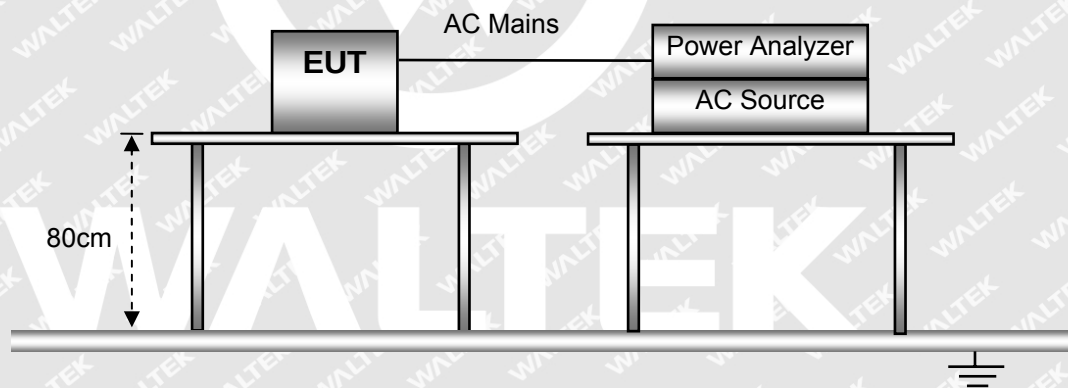
Temperature : 25°C
Humidity : 54.2%RH
Barometric Pressure : 101.1kPa

EUT Operation:

Input Voltage : AC 230V/50Hz
Operating Mode : Working mode

5.5.2 Block Diagram of Setup

The Voltage Fluctuation and Flicker test was performed in accordance with the EN 61000-4-15.





5.5.3 Voltage Fluctuation and Flicker Test Data

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

EUT: FLOOR LAMP

Test category: dt,dmax and dc only (European limits)

Test date: 2015-7-28

Test duration (min): 10

Comment: WORKING

Customer: FL1089E-2

Tested by: WENPENG

Test Margin: 100

Start time: 15:11:13

End time: 15:21:44

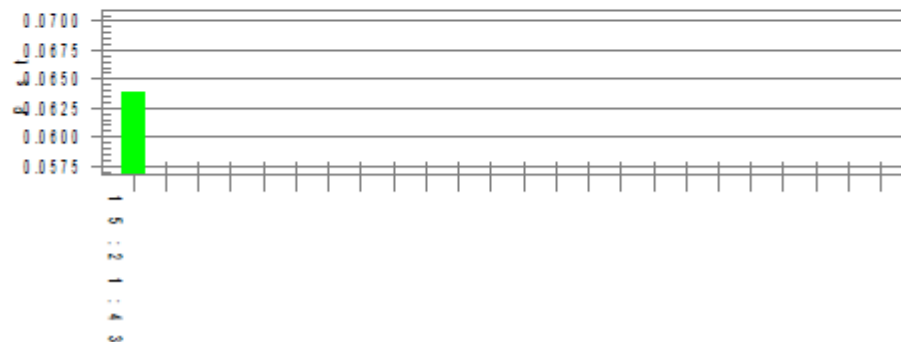
Data file name: F-000213.cts_data

Test Result: Pass

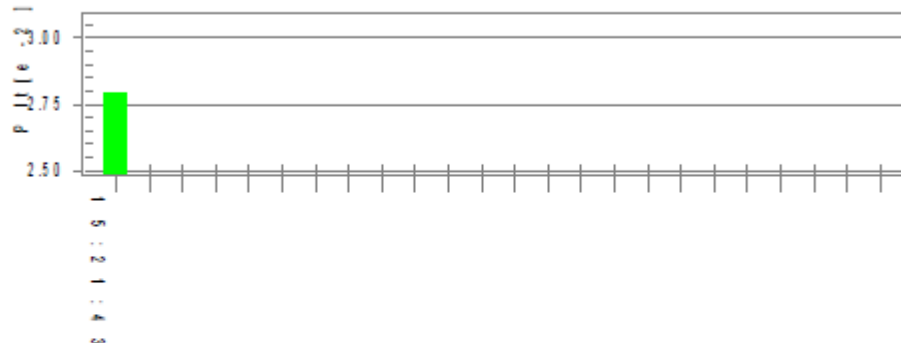
Status: Test Completed

Pst, and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt): 229.43

Highest dt (%): 0.00

T-max (mS): 0

Highest dc (%): 0.00

Highest dmax (%): 0.03

Test limit (%): N/A

Test limit (mS): 500.0

Test limit (%): 3.30

Test limit (%): 4.00

N/A

Pass

Pass

Pass



6 Immunity Test Results

6.1 Performance Criteria

Performance criterion A: During the test, no change of the luminous intensity shall be observed and the regulating control, if any, shall operate during the test as intended.

Performance criterion B: During the test, the luminous intensity may change to any value. After the test, the luminous intensity shall be restored to its initial value within 1 min. Regulating controls need not function during the test, but after the test, the mode of the control shall be the same as before the test provided that during the test no mode changing commands were given.

Performance criterion C: During and after the test, any change of the luminous intensity is allowed and the lamp(s) may be extinguished. After the test, within 30 min, all functions shall return to normal, if necessary by temporary interruption of the mains supply and/or operating the regulating control.



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6.2.3 Direct Discharge Test Results

Observations:

Test points:

1. All Exposed Surface & Seams;
2. All metallic part

Direct Discharge			Test Results	
Applied Voltage (kV)	Performance Criterion	Test Point	Contact Discharge	Air Discharge
±8	B	1	N/A	Pass*
±4	B	2	Pass*	N/A

Remark: * During the test no deviation was detected to the selected operation mode(s)

6.2.4 Indirect Discharge Test Results

Observations:

Test points: 1. All sides.

Indirect Discharge			Test Results	
Applied Voltage (kV)	Performance Criterion	Test Point	Horizontal Coupling	Vertical Coupling
±4	B	1	Pass*	Pass*

Remark: * During the test no deviation was detected to the selected operation mode(s)



6.3 Radio-frequency electromagnetic fields, 80MHz to 1GHz

Test Requirement	: EN 61547
Test Method	: IEC 61000-4-3
Test Result	: Pass
Frequency Range	: 80MHz to 1GHz
Test level	: 3V/m
Modulation	: 80%, 1kHz Amplitude Modulation.
Face of EUT	: Front, Back, Left, Right
Antenna polarisation	: Horizontal & Vertical

6.3.1 E.U.T. Operation

Operating Environment:

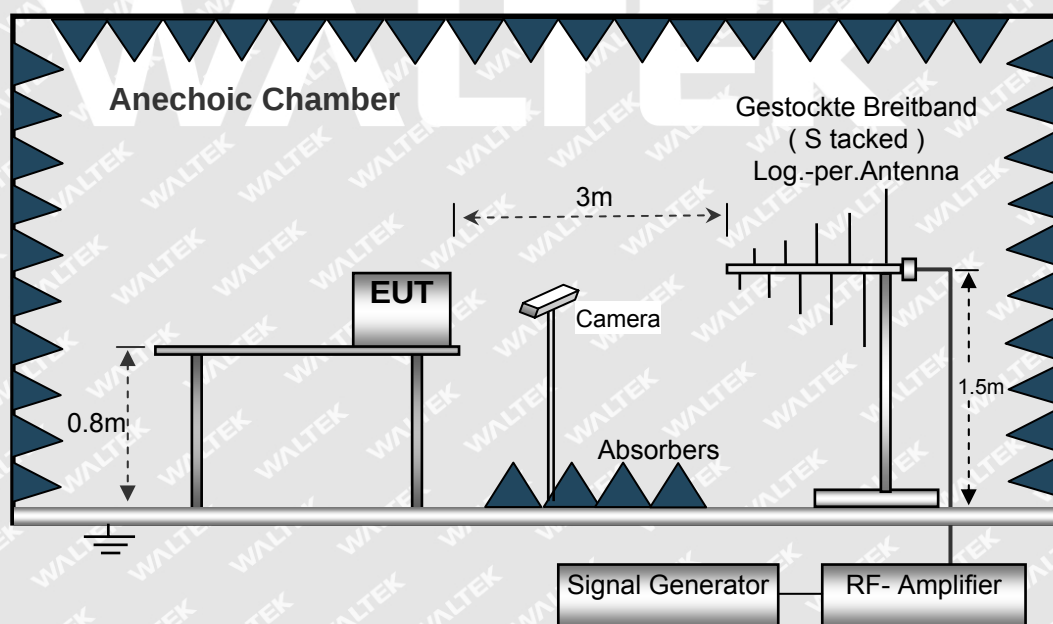
Temperature	: 26°C
Humidity	: 52.4% RH
Barometric Pressure	: 102.4kPa

EUT Operation:

Input Voltage	: AC 230V/50Hz
Operating Mode	: Working mode

6.3.2 Block Diagram of Setup

The Radio-frequency electromagnetic fields Immunity test was performed in accordance with the IEC 61000-4-3.





6.3.3 Test Results

Frequency	Face of EUT	Antenna polarisation	Test Level	Step Size	Dwell Time	Performance Criterion	Result
80 to 1000MHz	Front, Back, Left, Right	Horizontal	3V/m	1%	1s	A	Pass*
80 to 1000MHz	Front, Back, Left, Right	Vertical	3V/m	1%	1s	A	Pass*

Remark:

- * During the test no deviation was detected to the selected operation mode(s)



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6.4 Electrical Fast Transients (EFT)

Test Requirement.....	: EN 61547
Test Method	: IEC 61000-4-4
Test Result	: Pass
Polarity.....	: Positive & Negative
Repetition Frequency	: 5kHz
Burst Duration	: 300ms
Test Duration.....	: 2 minutes per level & polarity

6.4.1 E.U.T. Operation

Operating Environment:

Temperature.....	: 25°C
Humidity.....	: 53.5%RH
Barometric Pressure	: 102.3kPa

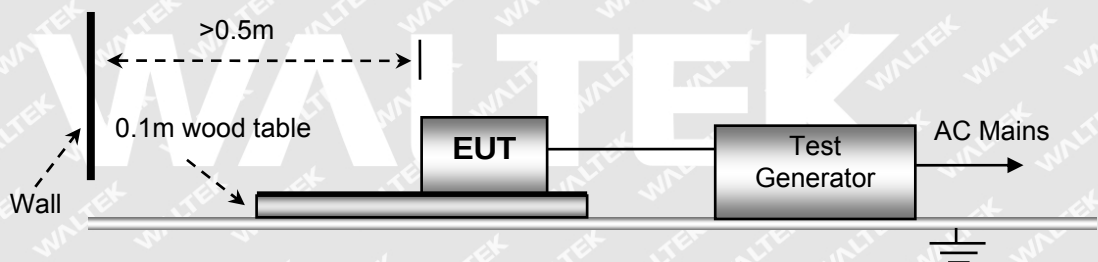
EUT Operation:

Input Voltage	: AC 230V/50Hz
Operating Mode.....	: Working mode

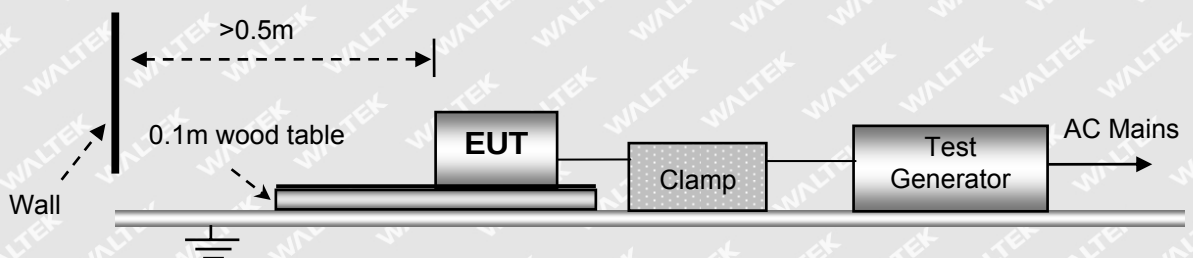
6.4.2 Block Diagram of Setup

The Electrical Fast Transients Immunity test was performed in accordance with IEC 61000-4-4.

For AC Mains or DC Ports:



For Signal and Control Ports:





6.4.3 Test Results

Test Ports	Test Level(kV)	Performance Criterion	Result
AC Mains (Live-Neutral)	± 1.0	B	PASS *
Signal	± 0.5	B	N/A ^a *
DC Ports	± 0.5	B	N/A *

Remark:

* During the test no deviation was detected to the selected operation mode(s)

a Applicable only to cables which according to the manufacturer's specification supports communication on cable lengths greater than 3 m.



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6.5 Surges

Test Requirement.....	: EN 61547
Test Method	: IEC 61000-4-5
Test Result	: Pass
Interval.....	: 60s between each surge
No. of surges	: 5 positive at 90°, 5 negative at 270°.

6.5.1 E.U.T. Operation

Operating Environment:

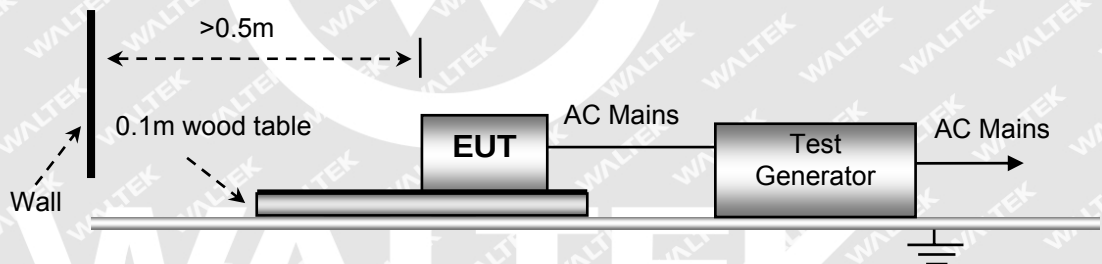
Temperature.....	: 25.5°C
Humidity.....	: 53.1%RH
Barometric Pressure .	: 101.2kPa

EUT Operation:

Input Voltage	: AC 230V/50Hz
Operating Mode.....	: Working mode

6.5.2 Block Diagram of Setup

The Surge Immunity test was performed in accordance with the IEC 61000-4-5.



6.5.3 Test Results

Test Port	Applied Voltage (kV)	Performance criterion	Result
AC Mains (Between Live And Neutral)	± 0.5	B	PASS *
AC Mains (Between Live And Earth)	± 1	B	N/A *
AC Mains (Between Neutral And Earth)	± 1	B	N/A *

Remark:

* During the test no deviation was detected to the selected operation mode(s)



6.6 Injected Currents Immunity 0.15MHz to 80MHz

Test Requirement	: EN 61547
Test Method	: IEC 61000-4-6
Test Result	: Pass
Frequency Range	: 0.15MHz to 80MHz
Test level	: 3V r.m.s. (unmodulated emf into 150 Ω)
Modulation	: 80%, 1kHz Amplitude Modulation.

6.6.1 E.U.T. Operation

Operating Environment:

Temperature	: 24.9°C
Humidity	: 51.2% RH
Barometric Pressure	: 103.2kPa

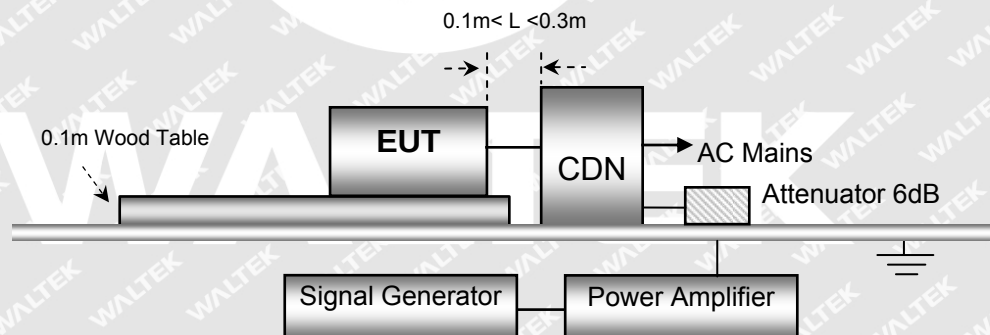
EUT Operation:

Input Voltage	: AC 230V/50Hz
Operating Mode	: Working mode

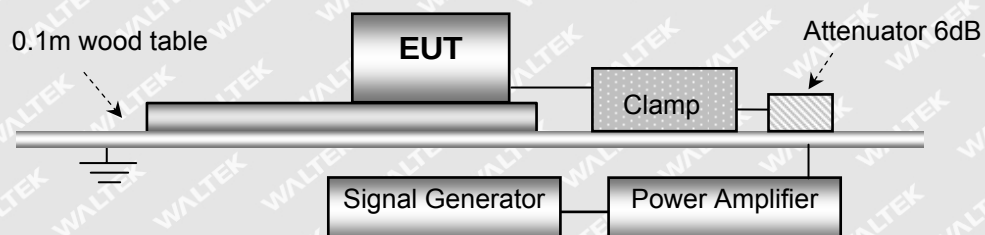
6.6.2 Block Diagram of Setup

The Injected Currents Immunity test was performed in accordance with IEC 61000-4-6.

For AC Mains or DC Port:



For Signal or Control Ports:





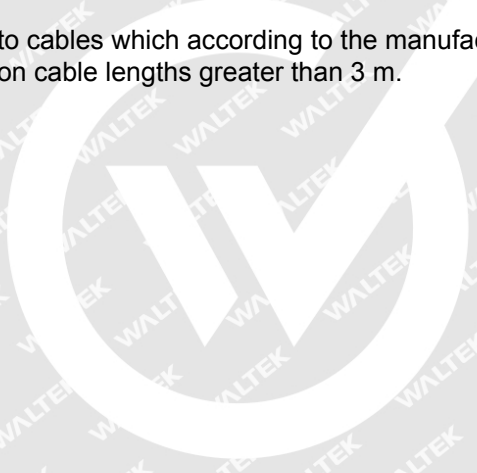
6.6.3 Test Results

Line	Test Level	Modulation	Step Size	Dwell Time	Criterion Required	Observations
AC mains	3Vrms	80%, 1kHz Amp. Mod.	1%	1s	A	A *
DC Line	3Vrms	80%, 1kHz Amp. Mod.	1%	1s	A	N/A
Signal Line	3Vrms	80%, 1kHz Amp. Mod.	1%	1s	A	N/A ^a
Control Line	3Vrms	80%, 1kHz Amp. Mod.	1%	1s	A	N/A ^a

Remark:

* During the test no deviation was detected to the selected operation mode(s)

^a Applicable only to cables which according to the manufacturer's specification supports communication on cable lengths greater than 3 m.



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6.7 Voltage Dips and Interruptions

Test Requirement.....	: EN 61547
Test Method	: IEC 61000-4-11
Test Result	: Pass
Test Level(Voltage reduction)	: 0%&70 % of U_T (Supply Voltage)
No. of Dips / Interruptions	: 1 per Level at 20ms intervals

6.7.1 E.U.T. Operation

Operating Environment:

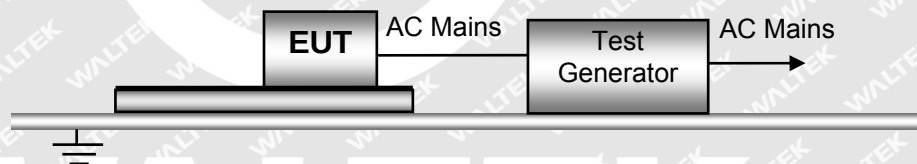
Temperature.....	: 24.5°C
Humidity.....	: 53.7%RH
Barometric Pressure	: 102.4kPa

EUT Operation:

Input Voltage	: AC 230V/50Hz
Operating Mode.....	: Working mode

6.7.2 Block Diagram of Setup

The Voltage Dips and Interruptions Immunity test was performed in accordance with the IEC 61000-4-11.



6.7.3 Test Results

Test Level in % U_T	Phase	Performance criterion	Duration	Result
0	0°	B	0.5	Pass*
	180°			Pass*
70	0°	C	10	Pass*
	180°			Pass*

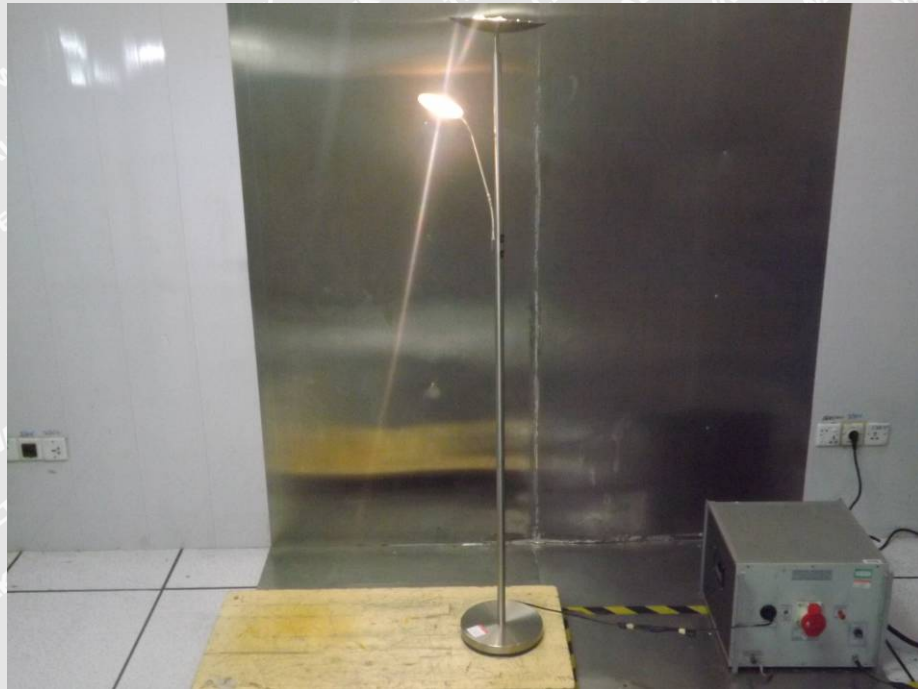
Remark:

* During the test no deviation was detected to the selected operation mode(s)



7 Photographs – Test Setup

7.1 Photograph – Conducted Disturbance at Mains Terminal Test Setup

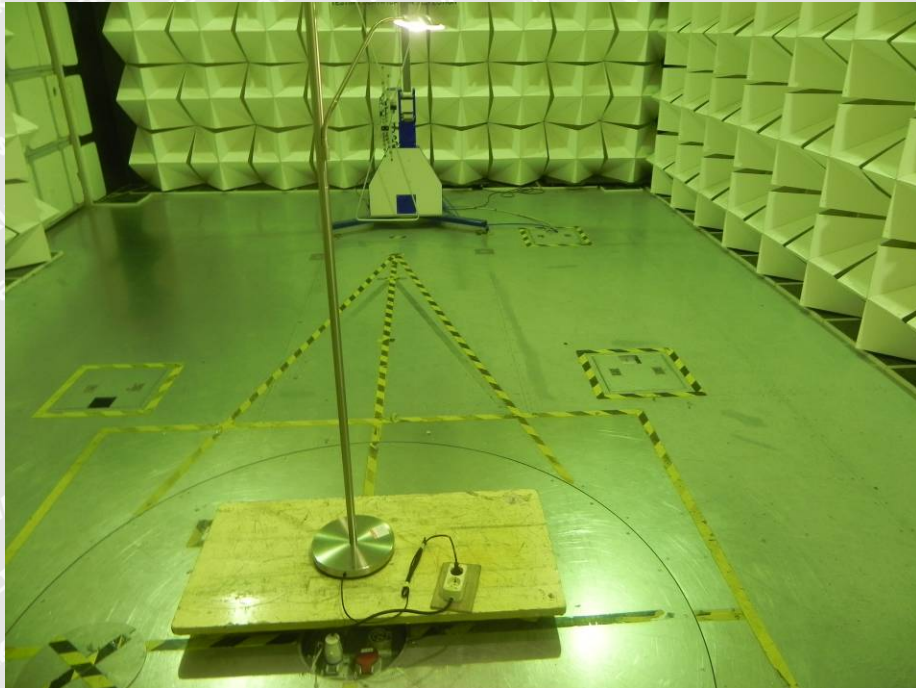


7.2 Photograph – Radiation electromagnetic disturbance Test Setup, 9kHz to 30MHz





7.3 Photograph – Radiation Emission Test Setup, 30MHz to 300MHz



7.4 Photograph –Voltage Fluctuation and Flicker Test Setup





7.5 Photograph – ESD Immunity Test Setup



7.6 Photograph – Radio-frequency electromagnetic fields Immunity Test Setup





7.7 Photograph-EFT&Surges& Voltage Dips and Interruptions Immunity Test Setup



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7.8 Photograph – Injected Currents Immunity Test Setup



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8 Photographs – Constructional Details

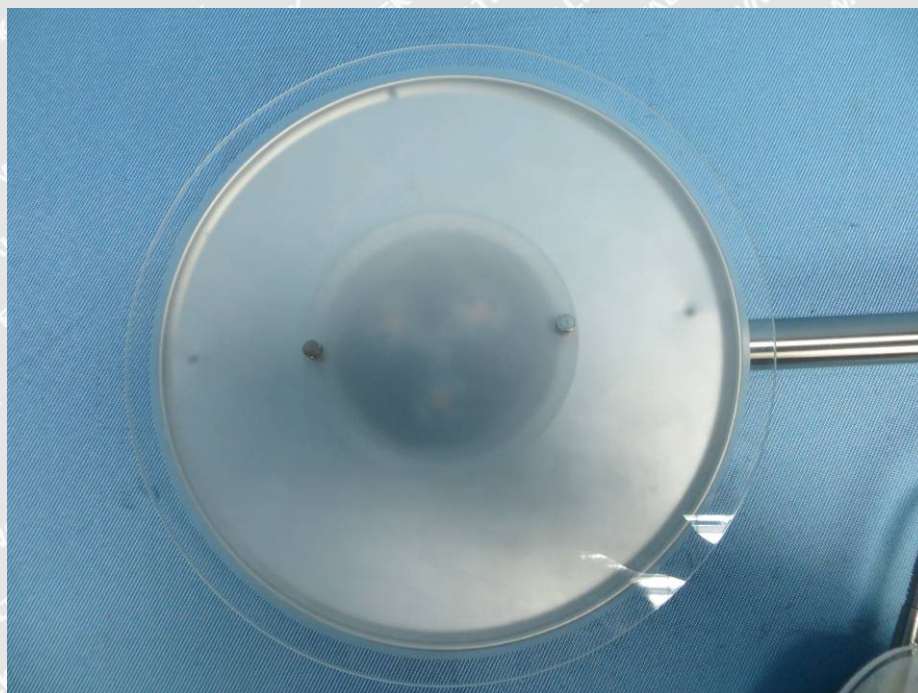
8.1 EUT – Appearance View

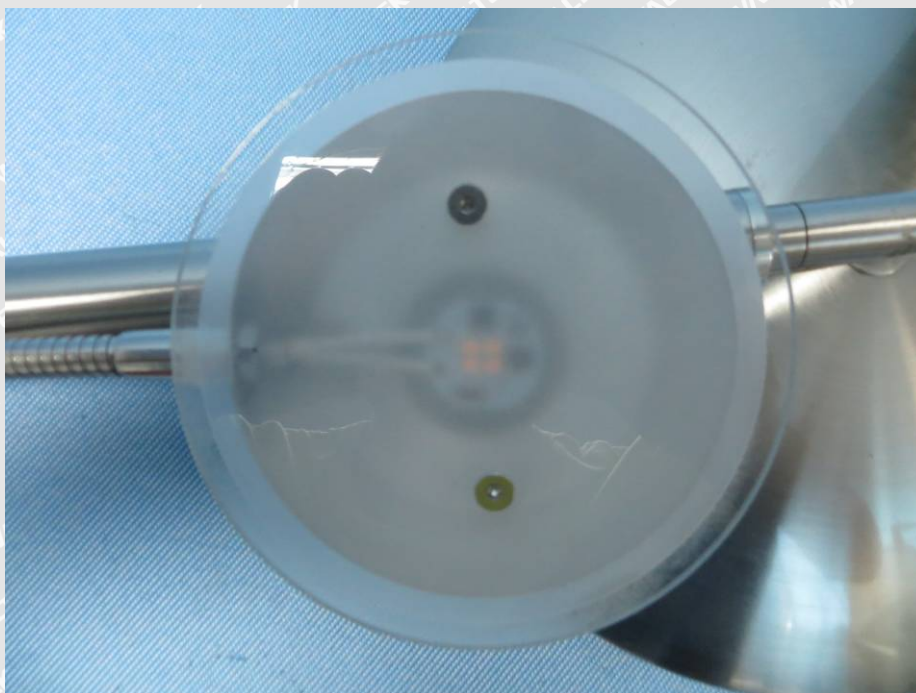












=====End of Report=====

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