



TEST REPORT

Applicant: BRAYTRON S.R.L.

Address of Applicant: B.DUL IULIU MANIU, NR.616, CORP B, ETAJ 1 SECTOR 6,
061129, BUCHAREST, ROMANIA

Equipment Under Test (EUT)

Product Name: LED LIGHTING FIXTURE

Brand Name: **Braytron**

Model No.: Please Refer To Page 5-6.

Applicable standards: EN IEC 55015:2019+A11:2020

EN IEC 61547: 2023

EN IEC 61000-3-2:2019+A1:2021

EN 61000-3-3:2013+A1:2019+A2:2021

Date of sample receipt: June 5, 2024

Date of Test: June 5, 2024 To June 12, 2024

Date of report issued: June 12, 2024

Test Result : PASS *

*In the configuration tested, the EUT complied with the standards specified above.

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EU Declaration of Conformity and compliance with all relevant EU Directives.

Authorized Signature

Kevin Wang
Laboratory Manager





2 Version

Version No.	Date	Description
00	June 12, 2024	Original

Prepared By:

Gary Wang

Project Engineer

Date:

June 12, 2024



Reviewed By:

Kevin Wang

Reviewer

Date:

June 12, 2024

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



3 Contents

	Page
1 COVER PAGE	1
2 VERSION	2
3 CONTENTS	3
4 TEST SUMMARY	4
5 GENERAL INFORMATION	7
5.1 CLIENT INFORMATION	7
5.2 GENERAL DESCRIPTION OF E.U.T	7
5.3 TEST MODE	7
5.4 DESCRIPTION OF SUPPORT UNITS	7
5.5 DEVIATION FROM STANDARDS.....	7
5.6 ABNORMALITIES FROM STANDARD CONDITIONS.....	7
5.7 MONITORING OF EUT FOR ALL IMMUNITY TEST.....	7
6 TEST INSTRUMENTS LIST	8
7 EMISSION TEST RESULTS	11
7.1 RADIATED EMISSIONS (9KHz-30MHz).....	11
7.2 RADIATED EMISSIONS (30MHz-1000MHz).....	15
7.3 CONDUCTED EMISSIONS	18
7.4 HARMONICS CURRENT EMISSION	21
7.5 VOLTAGE FLUCTUATIONS AND FLICKER.....	21
8 IMMUNITY TEST RESULTS	22
8.1 PERFORMANCE CRITERIA DESCRIPTION OF EN IEC 61547	22
8.2 ELECTROSTATIC DISCHARGE.....	23
8.3 RADIATED IMMUNITY	25
8.4 ELECTRICAL FAST TRANSIENTS.....	27
8.5 SURGES.....	29
8.6 CONDUCTED IMMUNITY	31
8.7 VOLTAGE DIPS AND INTERRUPTIONS.....	33
9 EUT CONSTRUCTIONAL DETAILS	34

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



4 Test Summary

Test Item	Test Requirement	Test Method	Class / Severity	Result
Radiated Emissions (30MHz-1000MHz)	EN IEC 55015	EN IEC 55015	Table 10	Pass
Radiated Emissions (9kHz-30MHz)	EN IEC 55015	EN IEC 55015	Table 8	Pass
Conducted Emissions	EN IEC 55015	EN IEC 55015	Table 1	Pass
Harmonic Current Emission	EN IEC 61000-3-2	EN IEC 61000-3-2	Class C	Pass
Voltage Fluctuations and Flicker	EN 61000-3-3	EN 61000-3-3	Clause 5 of EN61000-3-3	Pass
Electrostatic discharges	EN IEC 61547	EN 61000-4-2	Contact \pm 4 kV Air \pm 8 kV	Pass
Radiated Immunity	EN IEC 61547	EN 61000-4-3	3V/m 80%, 1kHz, AM	Pass
Electrical Fast Transients	EN IEC 61547	EN 61000-4-4	AC \pm 1.0kV	Pass
Surges	EN IEC 61547	EN 61000-4-5	1kV Line to Line 2kV Line to Ground	Pass
Conducted Immunity	EN IEC 61547	EN 61000-4-6	3Vrms (emf), 80%, 1kHz Amp. Mod.	Pass
Voltage dips and Interruptions	EN IEC 61547	EN 61000-4-11	0 % UT for 0.5per 70 % UT for 10per UT is Supply Voltage	Pass

Remark:

UT* is the nominal supply voltage.

N/A: Not applicable.



Model No.:

BP28-56630	BP15-030X0	BP15-031X0	BP15-062X0
BP15-066X0	BP15-330X0	BP15-331X0	BP15-362X0
BP15-366X0	BP15-430X0	BP15-431X0	BP15-462X0
BP15-466X0	BP15-530X0	BP15-531X0	BP15-562X0
BP15-566X0	BP15-630X0	BP15-631X0	BP15-662X0
BP15-666X0	BP16-030X0	BP16-031X0	BP16-062X0
BP16-066X0	BP16-330X0	BP16-331X0	BP16-362X0
BP16-366X0	BP16-430X0	BP16-431X0	BP16-462X0
BP16-466X0	BP16-530X0	BP16-531X0	BP16-562X0
BP16-566X0	BP16-630X0	BP16-631X0	BP16-662X0
BP16-666X0	BP21-030X0	BP21-031X0	BP21-062X0
BP21-066X0	BP21-330X0	BP21-331X0	BP21-362X0
BP21-366X0	BP21-430X0	BP21-431X0	BP21-462X0
BP21-466X0	BP21-530X0	BP21-531X0	BP21-562X0
BP21-566X0	BP21-630X0	BP21-631X0	BP21-662X0
BP21-666X0	BP22-030X0	BP22-031X0	BP22-062X0
BP22-066X0	BP22-330X0	BP22-331X0	BP22-362X0
BP22-366X0	BP22-430X0	BP22-431X0	BP22-462X0
BP22-466X0	BP22-530X0	BP22-531X0	BP22-562X0
BP22-566X0	BP22-630X0	BP22-631X0	BP22-662X0
BP22-666X0	BP23-030X0	BP23-031X0	BP23-062X0
BP23-066X0	BP23-330X0	BP23-331X0	BP23-362X0
BP23-366X0	BP23-430X0	BP23-431X0	BP23-462X0
BP23-466X0	BP23-530X0	BP23-531X0	BP23-562X0
BP23-566X0	BP23-630X0	BP23-631X0	BP23-662X0
BP23-666X0	BP24-030X0	BP24-031X0	BP24-062X0
BP24-066X0	BP24-330X0	BP24-331X0	BP24-362X0
BP24-366X0	BP24-430X0	BP24-431X0	BP24-462X0
BP24-466X0	BP24-530X0	BP24-531X0	BP24-562X0
BP24-566X0	BP24-630X0	BP24-631X0	BP24-662X0
BP24-666X0	BP25-030X0	BP25-031X0	BP25-062X0
BP25-066X0	BP25-330X0	BP25-331X0	BP25-362X0
BP25-366X0	BP25-430X0	BP25-431X0	BP25-462X0

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



BP25-466X0	BP25-530X0	BP25-531X0	BP25-562X0
BP25-566X0	BP25-630X0	BP25-631X0	BP25-662X0
BP25-666X0	BP27-030X0	BP27-031X0	BP27-062X0
BP27-066X0	BP27-330X0	BP27-331X0	BP27-362X0
BP27-366X0	BP27-430X0	BP27-431X0	BP27-462X0
BP27-466X0	BP27-530X0	BP27-531X0	BP27-562X0
BP27-566X0	BP27-630X0	BP27-631X0	BP27-662X0
BP27-666X0	BP28-030X0	BP28-031X0	BP28-062X0
BP28-066X0	BP28-330X0	BP28-331X0	BP28-362X0
BP28-366X0	BP28-430X0	BP28-431X0	BP28-462X0
BP28-466X0	BP28-530X0	BP28-531X0	BP28-562X0
BP28-566X0	BP28-630X0	BP28-631X0	BP28-662X0
BP28-666X0	BP15-X30XX	BP15-X31XX	BP15-X62XX
BP15-X66XX	BP16-X30XX	BP16-X31XX	BP16-X62XX
BP16-X66XX	BP17-X30XX	BP17-X31XX	BP17-X62XX
BP17-X66XX	BP18-X30XX	BP18-X31XX	BP18-X62XX
BP18-X66XX	BP19-X30XX	BP19-X31XX	BP19-X62XX
BP19-X66XX	BP20-X30XX	BP20-X31XX	BP20-X62XX
BP20-X66XX	BP21-X30XX	BP21-X31XX	BP21-X62XX
BP21-X66XX	BP22-X30XX	BP22-X31XX	BP22-X62XX
BP22-X66XX	BP23-X30XX	BP23-X31XX	BP23-X62XX
BP23-X66XX	BP24-X30XX	BP24-X31XX	BP24-X62XX
BP24-X66XX	BP25-X30XX	BP25-X31XX	BP25-X62XX
BP25-X66XX	BP26-X30XX	BP26-X31XX	BP26-X62XX
BP26-X66XX	BP27-X30XX	BP27-X31XX	BP27-X62XX
BP27-X66XX	BP28-X30XX	BP28-X31XX	BP28-X62XX
BP28-X66XX	BP29-X30XX	BP29-X31XX	BP29-X62XX
BP29-X66XX			

X=0,1,2,3,4,5,6,7,8,9

Remark: All models are identical in the same PCB layout, interior structure and electrical circuits. The only differences are the model name and appearance color for commercial purpose.

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



5 General Information

5.1 Client Information

Applicant:	BRAYTRON S.R.L.
Address of Applicant:	B.DUL IULIU MANIU, NR.616, CORP B, ETAJ 1 SECTOR 6, 061129, BUCHAREST, ROMANIA
Manufacturer:	DEMGRUP INTERNATIONAL LIGHTING LIMITED
Address of Manufacturer:	UNIT D 16/F, ONE CAPITAL PLACE, 18 LUARD ROAD, WAN CHAI, HONG KONG

5.2 General Description of E.U.T

Product Name:	LED LIGHTING FIXTURE
Brand Name:	Braytron
Model No.:	Please Refer To Page 5-6.
Test Model No.:	BP28-56630
Power Supply:	AC 220-240V, 50/60Hz, 50W

5.3 Test mode

On mode	Keep the EUT lighting
---------	-----------------------

5.4 Description of Support Units

None.

5.5 Deviation from Standards

None.

5.6 Abnormalities from Standard Conditions

None.

5.7 Monitoring of EUT for All Immunity Test

Visual:	Monitor the lighting of EUT
Audio:	N/A



6 Test Instruments List

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	N/A	N/A
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	ROHDE & SCHWARZ	ESRP	GTS602	Mar. 16 2024	Mar. 15 2025
4	BiConiLog Antenna	SCHWARZBECK	VULB 9168	GTS606	Mar. 16 2024	Mar. 15 2025
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June. 21 2023	June. 20 2024
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 21 2023	June. 20 2024
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	June. 21 2023	June. 20 2024
9	Coaxial Cable	GTS	N/A	GTS211	June. 21 2023	June. 20 2024
10	Coaxial cable	GTS	N/A	GTS210	June. 21 2023	June. 20 2024
11	Coaxial Cable	GTS	N/A	GTS212	June. 21 2023	June. 20 2024
12	Amplifier(100kHz-3GHz)	N/A	LNA 0920N	GTS605	Mar. 16 2024	Mar. 15 2025
13	Amplifier(2GHz-20GHz)	HP	84722A	GTS206	June. 21 2023	June. 20 2024
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 21 2023	June. 20 2024
15	Band filter	Amindeon	82346	GTS219	June. 21 2023	June. 20 2024
16	Power Meter	Anritsu	ML2495A	GTS540	June. 21 2023	June. 20 2024
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 21 2023	June. 20 2024
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	June. 21 2023	June. 20 2024
19	Splitter	Agilent	11636B	GTS237	June. 21 2023	June. 20 2024
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	June. 21 2023	June. 20 2024
21	Breitband hornantenne	SCHWARZBECK	BBHA 9170	GTS579	Oct. 6 2023	Oct. 5 2024
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 6 2023	Oct. 5 2024
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 6 2023	Oct. 5 2024
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June. 21 2023	June. 20 2024

Conducted Emission						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May.14 2022	May.13 2025
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 21 2023	June. 20 2024
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June. 21 2023	June. 20 2024
4	ENV216 2-L-V-NETZNACHB.DE	ROHDE&SCHWARZ	ENV216	GTS226	June. 21 2023	June. 20 2024
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Thermo meter	KTJ	TA328	GTS233	June. 21 2023	June. 20 2024
8	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	June. 21 2023	June. 20 2024

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



9	ISN	SCHWARZBECK	NTFM 8158	GTS565	June. 21 2023	June. 20 2024
---	-----	-------------	-----------	--------	---------------	---------------

ESD						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	ESD Simulator	KIKUSUI	KES4021A	GTS242	June. 21 2023	June. 20 2024
2	Thermo meter	KTJ	TA328	GTS243	June. 21 2023	June. 20 2024

Conducted Immunity						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Signal Generator	ROHDE & SCHWARZ	SMB 100A	GTS553	June. 21 2023	June. 20 2024
2	CDN	LionCEL	CDN-M3-16	GTS554	June. 21 2023	June. 20 2024
3	CDN	CYBERTEK	EM 5070	GTS559	June. 21 2023	June. 20 2024
4	Power amplifier	rflight	NTWPA-00010475	GTS555	June. 21 2023	June. 20 2024
5	ATT	SUNWAVE	SJ-50-06DB	GTS556	June. 21 2023	June. 20 2024
6	Clamp	SCHAFFNER	KEMZ 801	GTS558	June. 21 2023	June. 20 2024

Harmonic/ Flicker						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Power Analyzer H/F	EMTEST	DPA500	GTS235	June. 21 2023	June. 20 2024
2	AC POWER SUPPLY	EMTEST	ACS500	GTS236	June. 21 2023	June. 20 2024
3	Thermo meter	KTJ	TA328	GTS256	June. 21 2023	June. 20 2024

EFT, Surge, Voltage dips and Interruption						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	EMTEST system	EMTEST	UCS500N	GTS239	June. 21 2023	June. 20 2024
2	Clamp	EMTEST	HFK	GTS557	June. 21 2023	June. 20 2024
3	Thermo meter	KTJ	TA328	GTS238	June. 21 2023	June. 20 2024

Radiated Immunity						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Fully-Anechoic Chamber 2	Chang Zhou Zhong Shuo	854	SEM001-05	April. 07, 2024	April. 06, 2025
2	Power Sensor	Rohde & Schwarz	NRP-Z91	SEM009-09	April. 07, 2024	April. 06, 2025
3	Stacked Log.-Per.-Broadband Antenna (70MHz-10GHz)	Schwarzbeck	STLP 9129	SEM003-25	N/A	N/A
4	Signal Generator (9kHz-6GHz)	Rohde & Schwarz	SMB100A	SEM006-11	April. 07, 2024	April. 06, 2025
5	Broadband Amplifier (80MHz-1GHz)	Rohde & Schwarz	BBA150-BC250	SEM005-12	Sep. 19 2024	Sep. 18 2025
6	Broadband Amplifier(800MHz-3GHz)	Rohde & Schwarz	BBA150-D110	SEM005-13	April. 07, 2024	April. 06, 2025
7	Broadband Amplifier(2.5GHz-	Rohde & Schwarz	BBA150-E60	SEM005-16	April. 07, 2024	April. 06, 2025

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



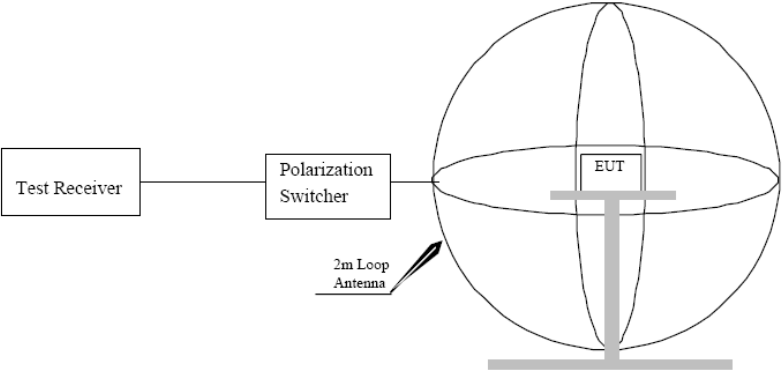
	6GHz)					
8	Measurement Software	Rohde & Schwarz	EMC32 V9.25.00	N/A	N/A	N/A

General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	June. 21 2023	June. 20 2024
2	Barometer	ChangChun	DYM3	GTS255	June. 21 2023	June. 20 2024

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.

7 Emission Test Results

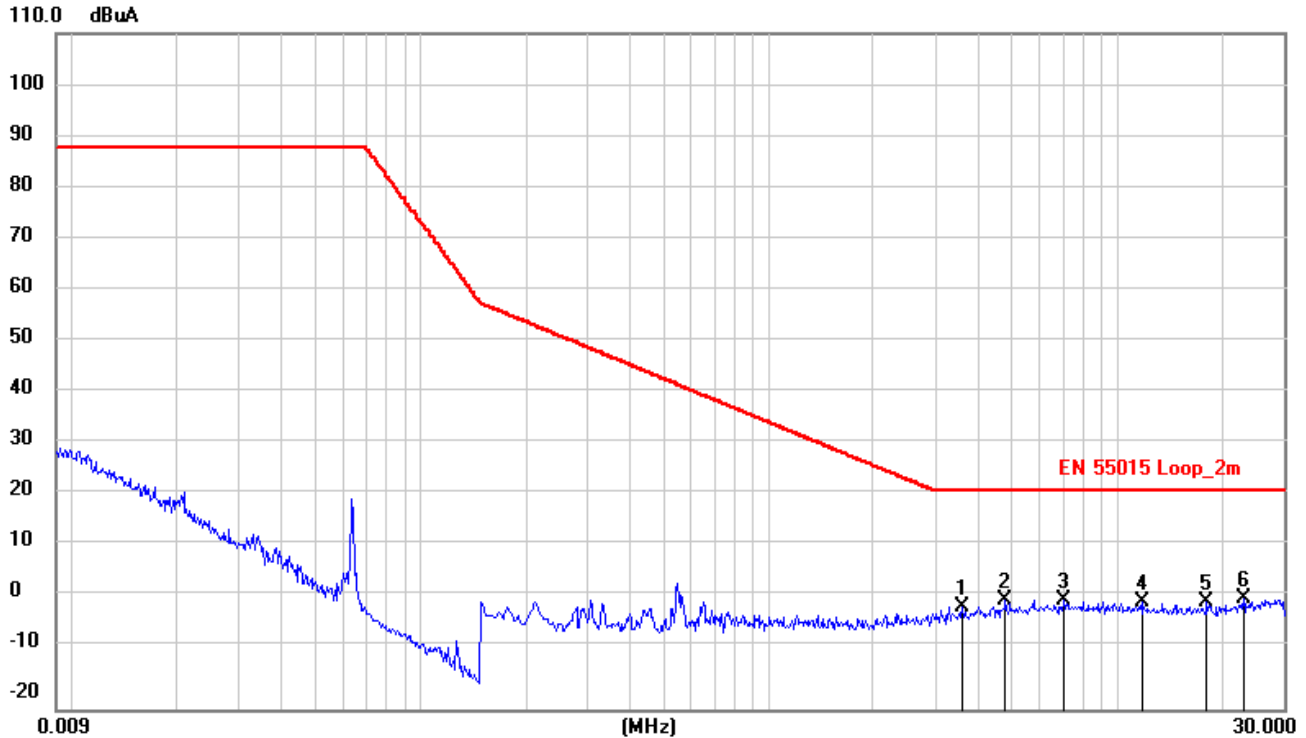
7.1 Radiated Emissions (9kHz-30MHz)

Test Requirement:	EN IEC 55015		
Test Method:	EN IEC 55015		
Test Frequency Range:	9kHz to 30MHz		
Limit:	Frequency range (MHz)		Limits for loop diameter dBuA @2m
	0.009-0.070		88
	0.070-0.150		88 to 58*
	0.15-3.0		58 to 22*
	3.0-30		22
<p>*Decreasing linearly with the logarithm of the frequency. For electrodeless lamps and luminaires, the limit in the frequency range of 2,2 MHz to 3,0 MHz is 58 dB(μA) for 2 m, 51dB(μA) for 3 m and 45 dB(μA) for 4 m loop diameter.</p>			
Test Setup:			
Test procedure	<ol style="list-style-type: none"> 1. An initial pre-scan was performed in the 2m loop antenna using the spectrum analyser in peak detection mode. 2. The EUT was measured for X(A), Y(B), Z(C) polarities. 3. No further quasi-peak measurements were performed since no peak emissions from the EUT were detected within 6dB of the limit for 2m diameter loop antenna. 		
Test Instruments:	Temp.: 25 °C	Humid.: 50%	Press.: 1012mbar
Measurement Record:	Uncertainty: ± 4.5dB		
Test Instruments:	Refer to section 6 for details		
Test mode:	Refer to section 5.3 for details.		
Test results:	Pass		



Measurement Data

Axial: X

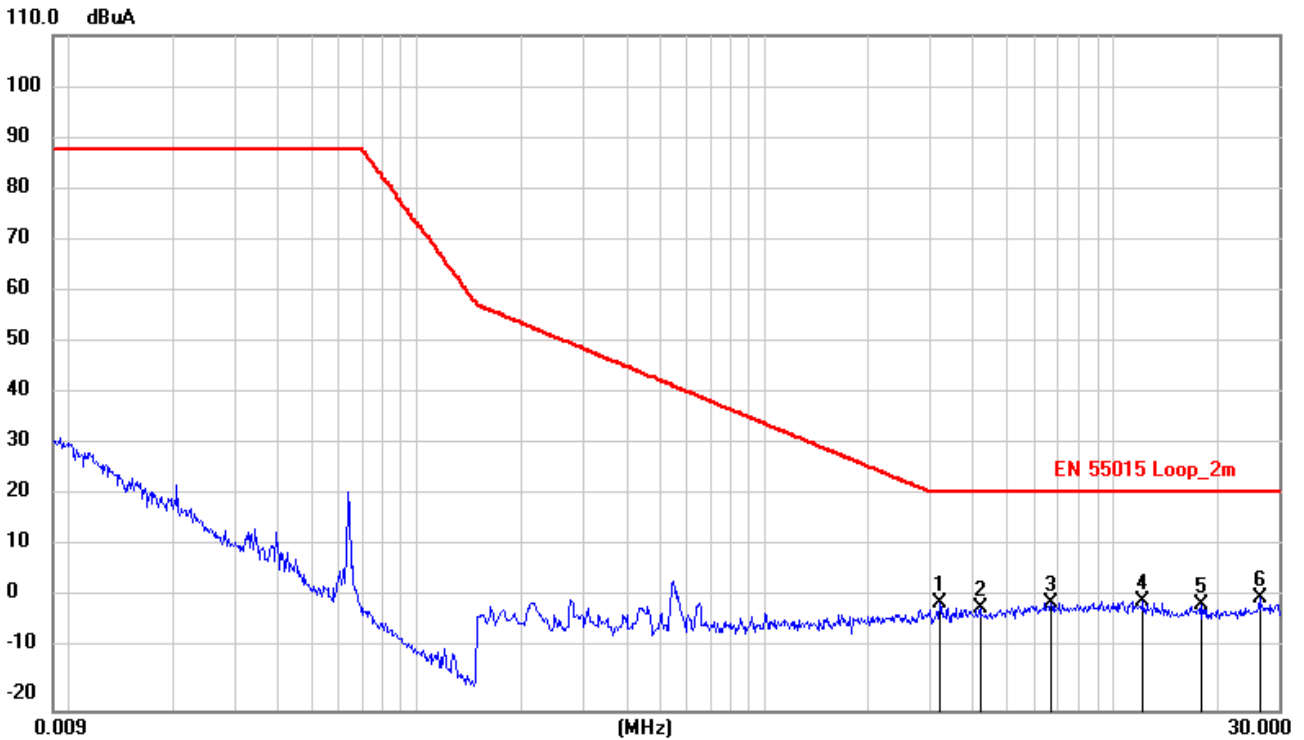


No.	Frequency (MHz)	Reading (dBuA)	Correct (dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	3.6106	-34.84	34.61	-0.23	22.00	-22.23	QP
2	4.7941	-33.87	34.93	1.06	22.00	-20.94	QP
3	7.0306	-34.02	35.08	1.06	22.00	-20.94	QP
4	11.8051	-34.17	34.70	0.53	22.00	-21.47	QP
5	18.0916	-34.16	34.67	0.51	22.00	-21.49	QP
6	23.1316	-33.50	34.95	1.45	22.00	-20.55	QP

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



Axial: Y

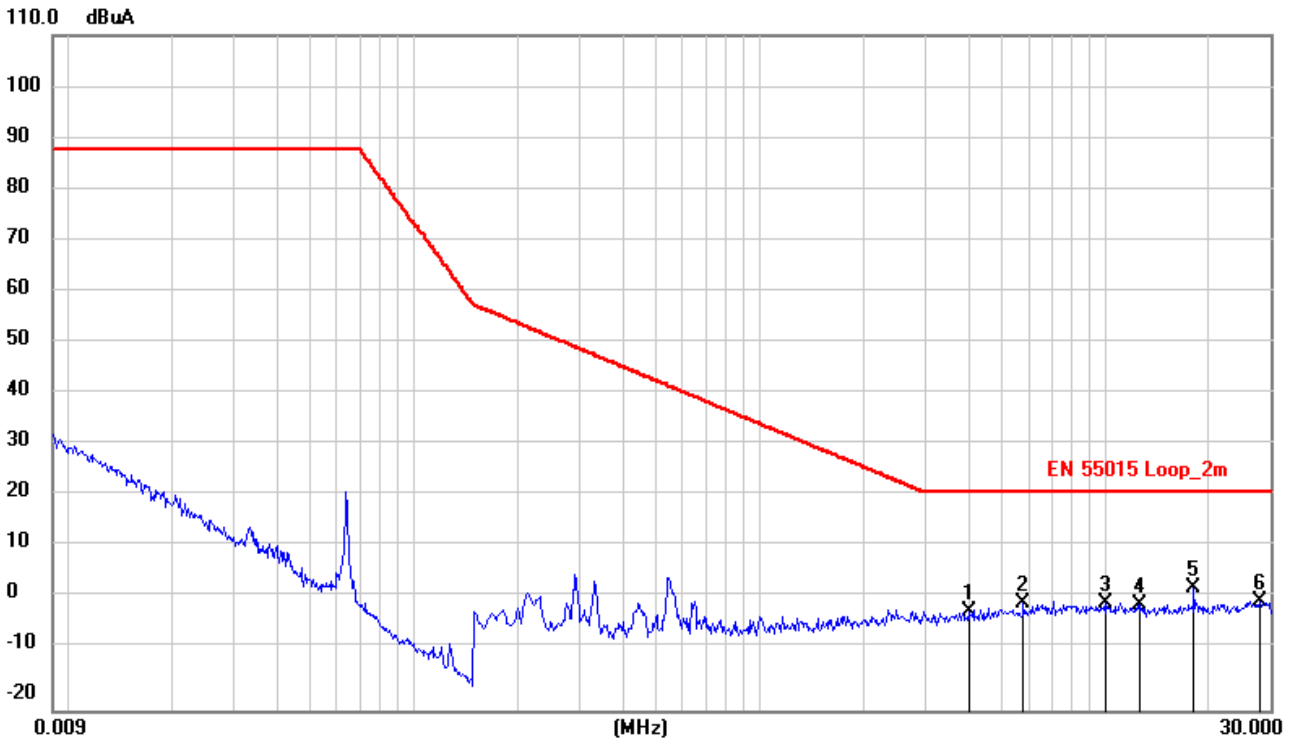


No.	Frequency (MHz)	Reading (dBuA)	Correct (dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	3.1921	-33.94	34.50	0.56	22.00	-21.44	QP
2	4.1461	-34.97	34.53	-0.44	22.00	-22.44	QP
3	6.6391	-34.35	34.99	0.64	22.00	-21.36	QP
4	12.2596	-33.77	34.87	1.10	22.00	-20.90	QP
5	18.0780	-34.08	34.27	0.19	22.00	-21.81	QP
6	26.3986	-32.91	34.41	1.50	22.00	-20.50	QP

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



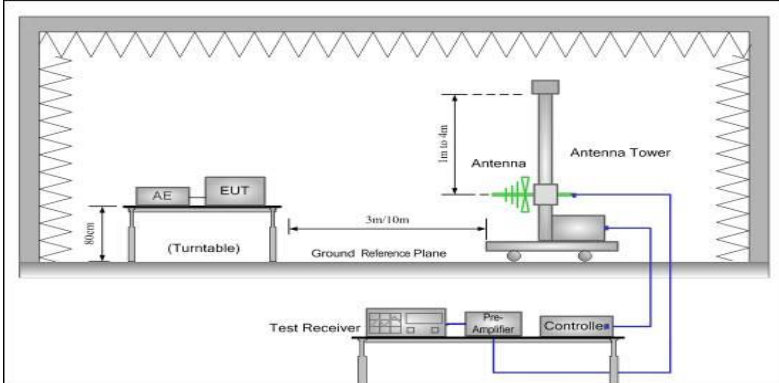
Axial: Z



No.	Frequency (MHz)	Reading (dBuA)	Correct (dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	4.0381	-35.31	34.22	-1.09	22.00	-23.09	QP
2	5.8110	-34.18	34.67	0.49	22.00	-21.51	QP
3	9.9781	-34.25	34.92	0.67	22.00	-21.33	QP
4	12.6555	-34.46	34.89	0.43	22.00	-21.57	QP
5	18.0826	-31.43	34.87	3.44	22.00	-18.56	QP
6	27.9556	-33.99	35.10	1.11	22.00	-20.89	QP

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.

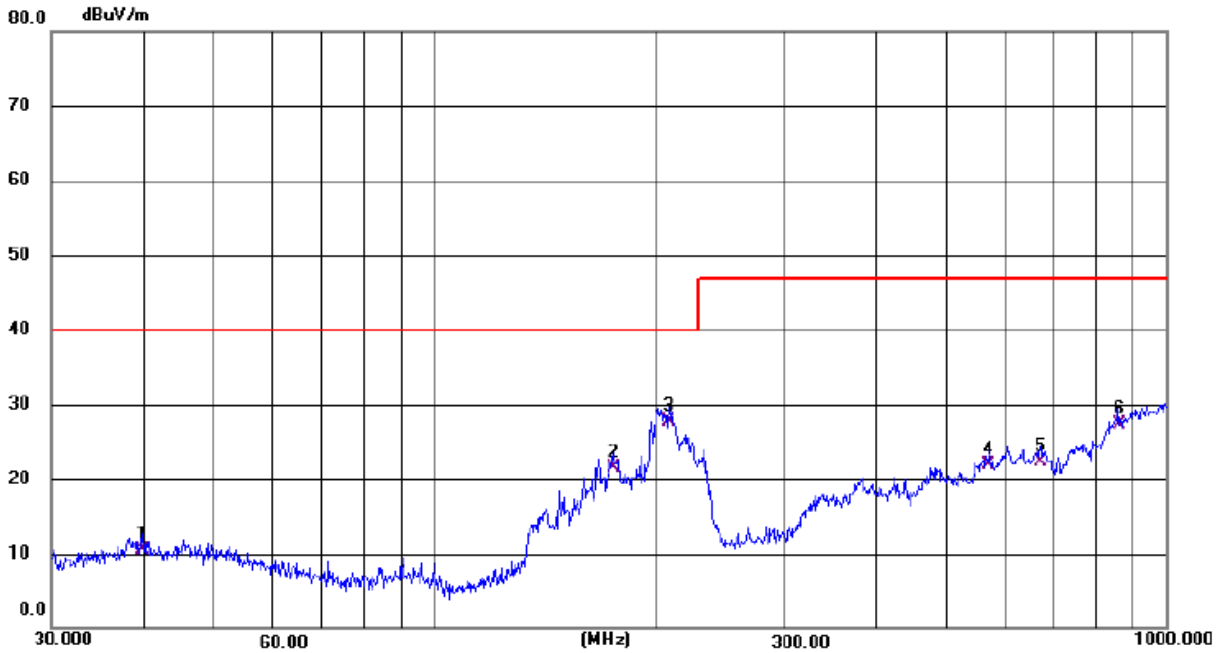
7.2 Radiated Emissions (30MHz-1000MHz)

Test Requirement:	EN IEC 55015		
Test Method:	EN IEC 55015		
Test Frequency Range:	30MHz to 1000MHz		
Measurement Distance:	3m		
Limit:	Frequency range(MHz)	Limit (dBuV/m)	
	30 to 230	40.00	
	230 to 1000	47.00	
Test setup:			
Test procedure	<ol style="list-style-type: none"> 1. The radiated emissions test was conducted in a semi-anechoic chamber. 2. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation. 3. Before final measurements of radiated emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emissions spectrum plots of the EUT. 4. The frequencies of maximum emission were determined in the final radiated emissions measurement. At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the maximum disturbance. Measurements were performed for both horizontal and vertical antenna polarization. 		
Test Instruments:	Temp.: 25 °C	Humid.: 50%	Press.: 1012mbar
Measurement Record:	Uncertainty: ± 4.50dB		
Test Instruments:	Refer to section 6 for details		
Test mode:	Refer to section 5.3 for details.		
Test results:	Pass		



Measurement Data

Test mode:	On mode	Antenna Polarity:	Horizontal
------------	---------	-------------------	------------

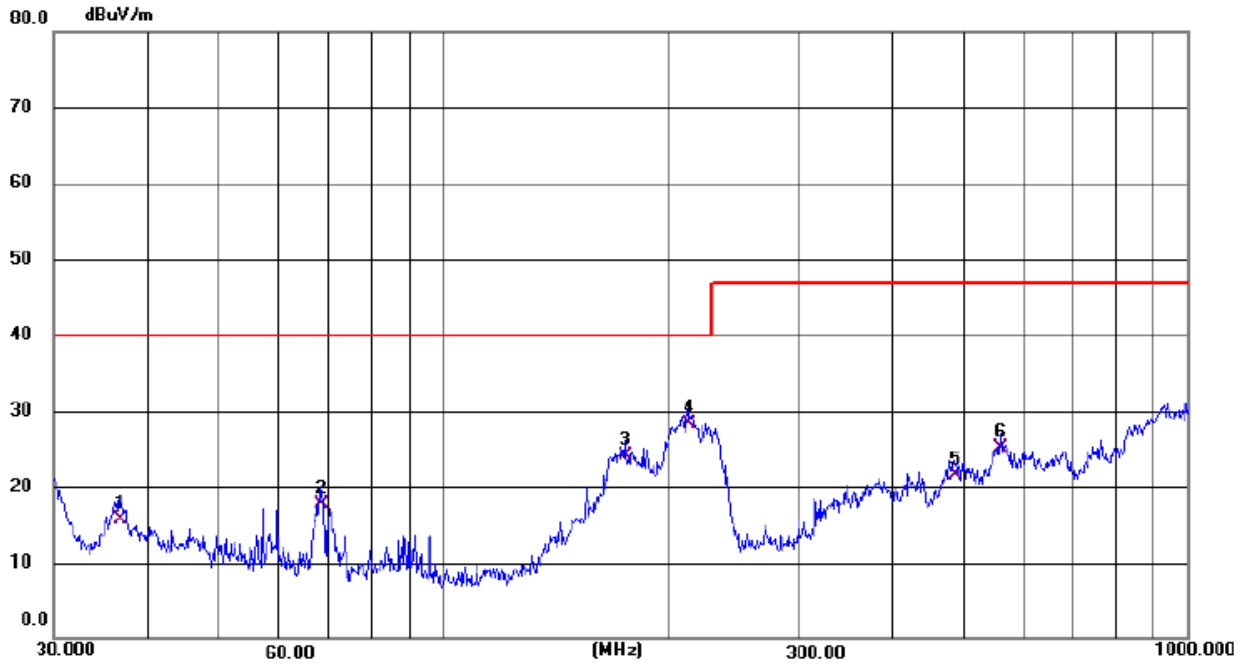


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	39.9942	21.32	-10.82	10.50	40.00	-29.50	QP
2	175.6516	38.75	-17.26	21.49	40.00	-18.51	QP
3 *	209.3129	46.14	-18.47	27.67	40.00	-12.33	QP
4	572.6144	29.87	-7.90	21.97	47.00	-25.03	QP
5	672.8444	28.04	-5.75	22.29	47.00	-24.71	QP
6	860.0352	28.72	-1.33	27.39	47.00	-19.61	QP

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



Test mode:	On mode	Antenna Polarity:	Vertical
------------	---------	-------------------	----------



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	36.7662	32.35	-16.56	15.79	40.00	-24.21	QP
2	68.3908	37.40	-19.62	17.78	40.00	-22.22	QP
3	175.6516	42.78	-18.69	24.09	40.00	-15.91	QP
4 *	213.0151	45.17	-16.79	28.38	40.00	-11.62	QP
5	485.6092	29.18	-7.70	21.48	47.00	-25.52	QP
6	560.6928	31.81	-6.78	25.03	47.00	-21.97	QP

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



7.3 Conducted Emissions

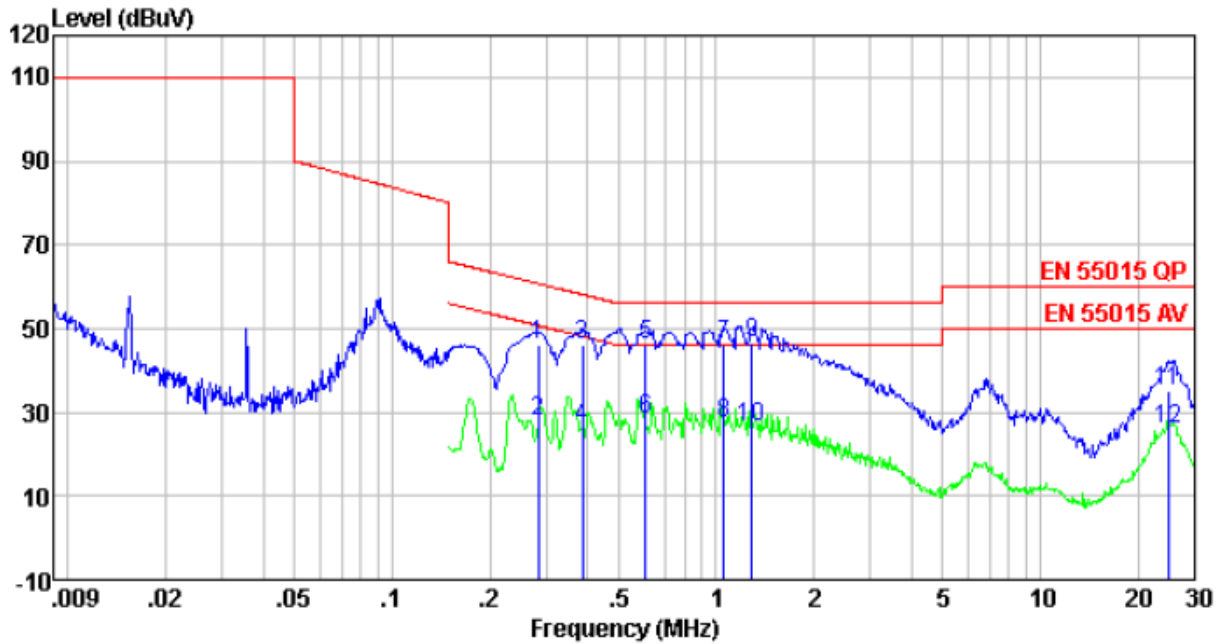
Test Requirement:	EN IEC 55015		
Test Method:	EN IEC 55015		
Test Frequency Range:	9kHz to 30MHz		
Limit:	Frequency range (MHz)	Limit (dBuV)	
		Quasi-peak	Average
	0.009-0.05	110	-
	0.05-0.15	90-80*	-
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
* Decreases with the logarithm of the frequency.			
Test setup:	<p><i>Remark:</i> E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</p>		
Test procedure	<ol style="list-style-type: none"> 1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to EN55022 Class B on conducted measurement. 		
Test Instruments:	Temp.: 25 °C	Humid.: 50%	Press.: 1012mbar
Measurement Record:	Uncertainty: ± 3.45dB		
Test Instruments:	Refer to section 6 for details		
Test mode:	Refer to section 5.3 for details.		
Test results:	Pass		

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



Measurement Data

Test mode:	On mode	Antenna Polarity:	Line
------------	---------	-------------------	------

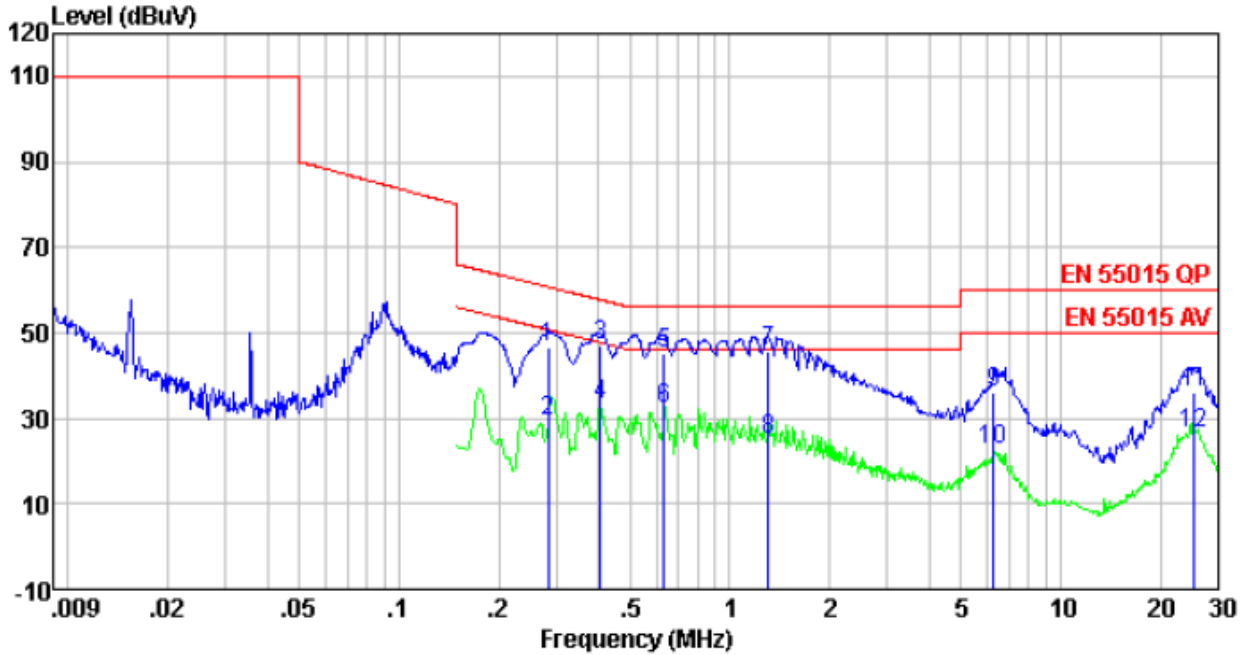


Freq MHz	Reading level dBuV	LISN/ISN factor dB/m	Cable loss dB	Level dBuV	Limit level dBuV	Over limit dB	Remark
0.28	25.46	20.40	0.10	45.96	60.72	-14.76	QP
0.28	7.27	20.40	0.10	27.77	50.72	-22.95	Average
0.39	25.78	20.36	0.10	46.24	58.17	-11.93	QP
0.39	6.20	20.36	0.10	26.66	48.17	-21.51	Average
0.60	25.91	20.28	0.12	46.31	56.00	-9.69	QP
0.60	8.19	20.28	0.12	28.59	46.00	-17.41	Average
1.05	25.81	20.20	0.15	46.16	56.00	-9.84	QP
1.05	7.30	20.20	0.15	27.65	46.00	-18.35	Average
1.29	26.17	20.20	0.16	46.53	56.00	-9.47	QP
1.29	5.94	20.20	0.16	26.30	46.00	-19.70	Average
24.79	14.60	20.35	0.23	35.18	60.00	-24.82	QP
24.79	5.33	20.35	0.23	25.91	50.00	-24.09	Average

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



Test mode:	On mode	Antenna Polarity:	Neutral
------------	---------	-------------------	---------



Freq MHz	Reading level dBuV	LISN/ISN factor dB/m	Cable loss dB	Level dBuV	Limit level dBuV	Over limit dB	Remark
0.28	26.26	20.40	0.10	46.76	60.72	-13.96	QP
0.28	9.04	20.40	0.10	29.54	50.72	-21.18	Average
0.41	26.51	20.35	0.11	46.97	57.73	-10.76	QP
0.41	12.85	20.35	0.11	33.31	47.73	-14.42	Average
0.63	24.77	20.28	0.12	45.17	56.00	-10.83	QP
0.63	11.59	20.28	0.12	31.99	46.00	-14.01	Average
1.31	25.29	20.20	0.16	45.65	56.00	-10.35	QP
1.31	4.82	20.20	0.16	25.18	46.00	-20.82	Average
6.29	15.66	20.20	0.18	36.04	60.00	-23.96	QP
6.29	2.35	20.20	0.18	22.73	50.00	-27.27	Average
25.32	15.33	20.36	0.23	35.92	60.00	-24.08	QP
25.32	5.95	20.36	0.23	26.54	50.00	-23.46	Average

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



7.4 Harmonics Current Emission

Test Requirement:	EN IEC 61000-3-2		
Test Method:	EN IEC 61000-3-2		
Frequency range:	100Hz to 2kHz		
Measurement Time:	2.5 min		
Class/Severity:	Class C		
Detector:	As per EN 61000-3-2		
Test environment:	Temp.:24 °C	Humid.: 51%	Press.: 1012mbar
Test Instruments:	Refer to section 6 for details		
Test mode:	Refer to section 5.3 for details		
Test results:	Pass		

7.5 Voltage Fluctuations and Flicker

Test Requirement:	EN 61000-3-3		
Test Method:	EN 61000-3-3		
Class/Severity:	Clause 5 of EN 61000-3-3		
Measurement Time:	10 min		
Detector:	As per EN 61000-3-3		
Test environment:	Temp.:24 °C	Humid.: 51%	Press.: 1012mbar
Test Instruments:	Refer to section 6 for details		
Test mode:	Refer to section 5.3 for details		
Test results:	Pass		

Measurement Data

	EUT values	Limit	Result
Pst	0.038	1.00	PASS
dc [%]	0.000	3.30	PASS
dmax [%]	0.062	4.00	PASS
dt [s]	0.000	0.50	PASS

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



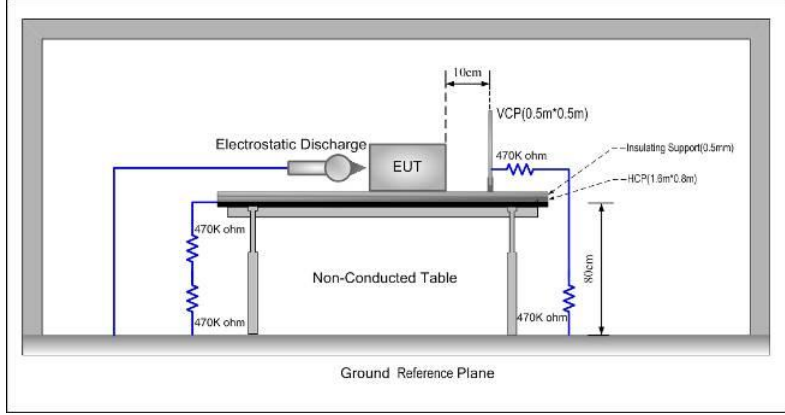
8 Immunity Test Results

8.1 Performance Criteria Description of EN IEC 61547

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.
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(30min for high pressure gas discharge lamps). 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.
Criterion C:	During and after the test any change of the luminous intensity is allowed and the light source(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.

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.

8.2 Electrostatic Discharge

Test Requirement:	EN IEC 61547
Test Method:	EN 61000-4-2
Discharge Voltage:	Contact Discharge: $\pm 4\text{kV}$ Air Discharge: $\pm 8\text{kV}$ HCP/VCP: $\pm 4\text{kV}$
Polarity:	Positive & Negative
Number of Discharge:	Minimum 10 times at each test point.
Discharge Mode:	Single Discharge
Discharge Period:	1 second minimum
Performance Criterion:	B
Test setup:	
Test Procedure:	<ol style="list-style-type: none"> Air discharge: The test was applied on non-conductive surfaces of EUT. The round discharge tip of the discharge electrode was approached as fast as possible to touch the EUT. After each discharge, the discharge electrode was removed from the EUT. The generator was re-triggered for a new single discharge and repeated 10 times for each pre-selected test point. This procedure was repeated until all the air discharge completed Contact Discharge: The test was applied on conductive surfaces of EUT. the generator was re-triggered for a new single discharge and repeated 10 times for each pre-selected test point. the tip of the discharge electrode was touch the EUT before the discharge switch was operated. Indirect discharge for horizontal coupling plane At least 10 single discharges shall be applied at the front edge of each HCP opposite the centre point of each unit of the EUT and 0.1m from the front of the EUT. The long axis of the discharge electrode shall be in the plane of the HCP and perpendicular to its front edge during the discharge. Consideration should be given to exposing all sides of the EUT.



	4. Indirect discharge for vertical coupling plane At least 10 single discharges were applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, was placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges were applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.		
Test environment:	Temp.: 24 °C	Humid.: 51%	Press.: 1012mbar
Test mode:	Refer to section 5.3 for detail		
Test Instruments:	Refer to section 6 for details		
Test results:	Pass		

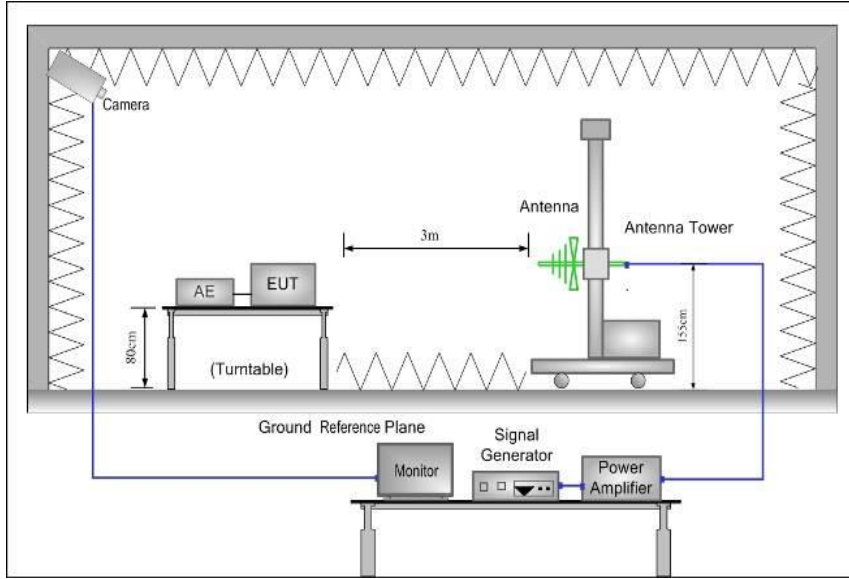
Measurement Record:

Test points:	I: Screw			
	II: Seams			
Direct discharge				
Discharge Voltage (KV)	Type of discharge	Test points	Observations (Performance Criterion)	Result
± 4	Contact	I	A	Pass
± 8	Air	II	A	Pass
Indirect discharge				
Discharge Voltage (KV)	Type of discharge	Test points	Observation Performance	Result
± 4	HCP-Bottom/Top/ Front/Back/Left/Right	Edge of the HCP	A	Pass
± 4	VCP-Front/Back /Left/Right	Center of the VCP	A	Pass

Remark:

Performance Criteria: A, B, C: Refer to section 8.1 for details

8.3 Radiated Immunity

Test Requirement:	EN IEC 61547
Test Method:	EN 61000-4-3
Frequency range:	80MHz to 1GHz
Test Level:	3V/m
Modulation:	80%, 1kHz Amplitude Modulation
Performance Criterion:	A
Test setup:	
Test Procedure:	<ol style="list-style-type: none"> 1. For table-top equipment, the EUT was placed in the chamber on a non-conductive table 0.8m high. For arrangement of floor-standing equipment, the EUT was mounted on a non-conductive support 0.1m above the supporting plane. For human body-mounted equipment, the EUT may be tested in the same manner as table top items. 2. If possible, a minimum of 1 m of cable is exposed to the electromagnetic field. Excess length of cables interconnecting units of the EUT shall be bundled low-inductively in the approximate center of the cable to form a bundle 30 cm to 40 cm in length. 3. The EUT was initially placed with one face coincident with the calibration plane. The EUT face being illuminated was contained within the UFA (Uniform Field Area). 4. The frequency ranges to be considered were swept with the signal modulated and pausing to adjust the RF signal level or to switch oscillators and antennas as necessary. Where the frequency range was swept incrementally, the step size was not exceed 1 % of the preceding frequency value. 5. The dwell time of the amplitude modulated carrier at each frequency was not be less than the time necessary for the EUT to be exercised and to respond, and was not less than 0,5 s. 6. The test normally was performed with the generating antenna facing

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



	each side of the EUT. 7. The polarization of the field generated by each antenna necessitates testing each selected side twice, once with the antenna positioned vertically and again with the antenna positioned horizontally. 8. The EUT was performed in a configuration to actual installation conditions, a video camera and/or a audio monitor were used to monitor the performance of the EUT.		
Test environment:	Temp.: 25 °C	Humid.: 52%	Press.: 1012mbar
Test Instruments:	Refer to section 6 for details		
Test mode:	Refer to section 5.3 for details		
Test results:	Pass		

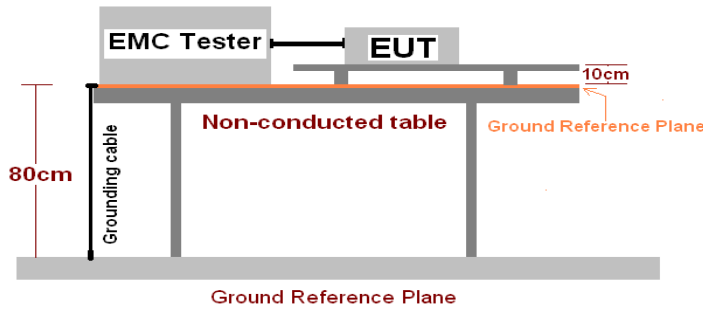
Measurement Record:

Frequency	Level	Modulation	Antenna Polarization	EUT Face	Observations (Performance Criterion)
80 MHz-1 GHz	3 V/m	1 kHz, 80 % Amp. Mod, 1 % increment, dwell time=3seconds	V	Front	A
			H		A
			V	Rear	A
			H		A
			V	Left	A
			H		A
			V	Right	A
			H		A
			V	Top	A
			H		A
			V	Bottom	A
			H		A

Remarks:

Performance Criteria: A, B, C: Refer to section 8.1 for details

8.4 Electrical fast transients

Test Requirement:	EN IEC 61547
Test Method:	EN 61000-4-4
Test Level:	1.0kV on AC port
Polarity:	Positive & Negative
Repetition Frequency:	5kHz
Burst Duration:	15ms
Burst Period:	300ms
Test Duration:	2 minute per level & polarity
Performance Criterion:	B
Test setup:	
Test Procedure:	<ol style="list-style-type: none"> 1. The EUT and its simulators were placed on the ground reference plane and were insulated from it by a wood support 0.1m + 0.01m thick. 2. The ground reference plane was 1m*1m metallic sheet with 0.65mm minimum thickness. 3. This reference ground plane was 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 was more than 0.5m. All cables to the EUT was placed on the wood support, cables not subject to EFT/B was routed as far as possible from the cable under test to minimize the coupling between the cables. 4. The EUT is connected to the power mains through a coupling device that directly couples the EFT/B interference signal. 5. Each of the Line and Neutral conductors is impressed with burst noise for 2 minutes. 6. The length of the signal and power lines between the coupling device and the EUT is 0.5m
Test environment:	Temp.: 26 °C Humid.: 54% Press.: 1012mbar
Test Instruments:	Refer to section 6 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass



Measurement Record:

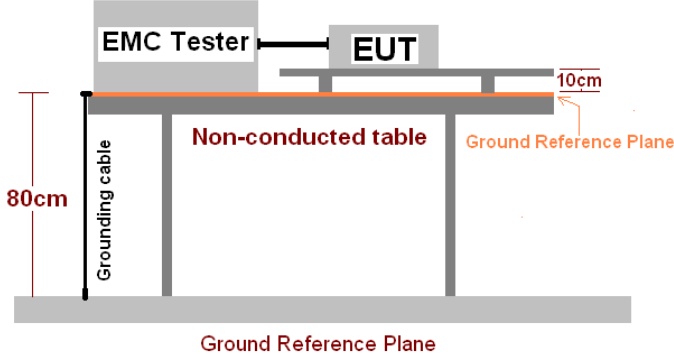
Lead under Test	Level (\pmkV)	Coupling Direct/Clamp	Observations (Performance Criterion)	Result
L	± 1.0	Direct	A	Pass
N	± 1.0	Direct	A	Pass
L-N	± 1.0	Direct	A	Pass

Remarks:

Performance Criteria: A, B, C: Refer to section 8.1 for details

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.

8.5 Surges

Test Requirement:	EN IEC 61547		
Test Method:	EN 61000-4-5		
Test Level:	Test Levels		
	Characteristics	Self-ballasted lamps	Lighting equipment (except self-ballasted lamps ≤ 25W)
	Line to line	±0.5kV	±1kV
	Line to ground	N/A	±2kV
	Note: In addition to the specified test level, all lower test levels as detailed in IEC 61000-4-5 should also be satisfied.		
Polarity:	Positive & Negative		
Generator source impedance:	2Ω (line-line coupling)		
No. of surges:	5 positive at 90°, 5 negative at 270°		
Performance Criterion:	C		
Test setup:			
Test procedure	<ol style="list-style-type: none"> For line-to-line coupling mode, provide a 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to EUT selected points, and for active line / neutral lines to ground. At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are applied during test. Different phase angles are done individually. Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test. 		
Test environment:	Temp.: 26 °C	Humid.: 53% Press.: 1012mbar	
Test Instruments:	Refer to section 6 for details		
Test mode:	Refer to section 5.3 for details		
Test results:	Pass		



Measurement Record:

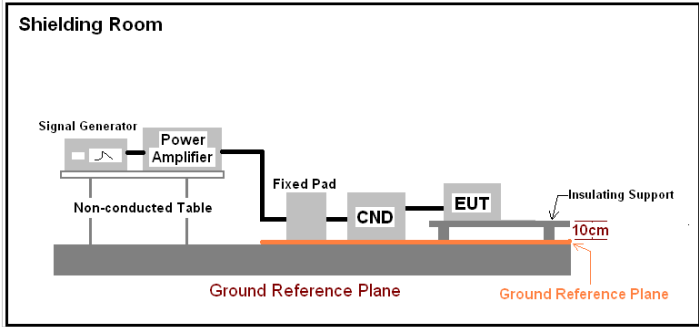
Location	Level(kV)	Pulse No	Surge Interval	Phase(deg)	Observations (Performance Criterion)	Result
L-N	+1	5	60s	90°	A	Pass
	-1			270°		

Remarks:

Performance Criteria: A, B, C: Refer to section 8.1 for details

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.

8.6 Conducted Immunity

Test Requirement:	EN IEC 61547
Test Method:	EN 61000-4-6
Frequency range:	0.15MHz to 80MHz
Test Level:	3V rms on AC Ports (unmodulated emf into 150 Ω)
Modulation:	80%, 1kHz Amplitude Modulation
Performance Criterion:	A
Test setup:	
Test Procedure:	<ol style="list-style-type: none"> 1. 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). 2. The disturbance signal described below is injected to EUT through CDN. 3. The EUT operates within its operational mode(s) under intended climatic conditions after power on. 4. Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.
Test environment:	Temp.: 24 °C Humid.: 51% Press.: 1012mbar
Test Instruments:	Refer to section 6 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass



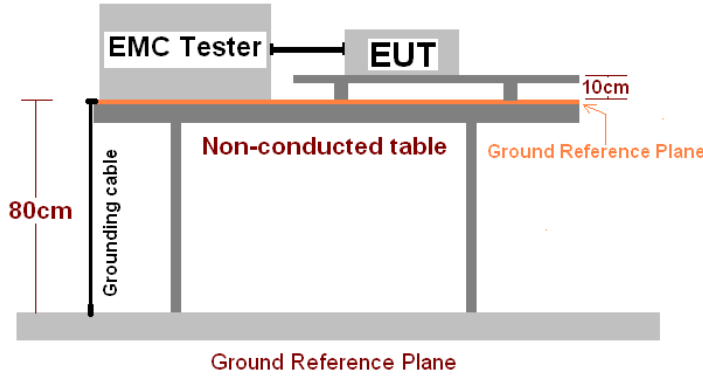
Measurement Record:

Frequency	Injected Position	Level	Modulation	Observations (Performance Criterion)	Result
150kHz to 80MHz	AC Mains	3Vrms	1 kHz, 80 % Amp. Mod, 1 % increment, dwell time=2seconds	A	Pass

Remark:

Performance Criteria: A, B, C: Refer to section 8.1 for details

8.7 Voltage Dips and Interruptions

Test Requirement:	EN IEC 61547
Test Method:	EN 61000-4-11
Test Level:	0% of U_T (Supply Voltage) for 0.5 Periods 70 % of U_T (Supply Voltage) for 10 Periods
No. of Dips / Interruptions:	3 per Level
Performance Criterion:	100% VD ----Performance criterion: B 30% VD ----Performance criterion: B
Test setup:	
Test Procedure:	<ol style="list-style-type: none"> The EUT and test generator were setup as shown on above setup photo. The interruptions are introduced at selected phase angles with specified duration. Record any degradation of performance.
Test environment:	Temp.: 26 °C Humid.: 53% Press.: 1 012mbar
Test Instruments:	Refer to section 6 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

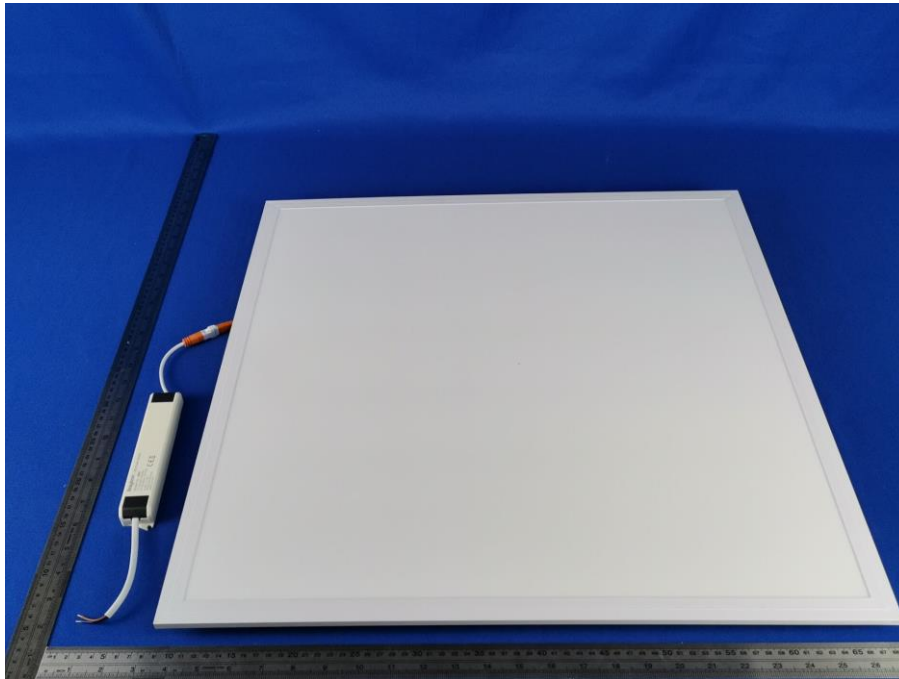
Measurement Record:

Test Level % U_T	Duration (Periods)	Phase angle	No. of drop out	Time between dropout	Observations (Performance Criterion)	Result
0	0.5	0°,90°,180°,270°	3	10s	A	Pass
70	10	0°,90°,180°,270°	3	10s	B	Pass

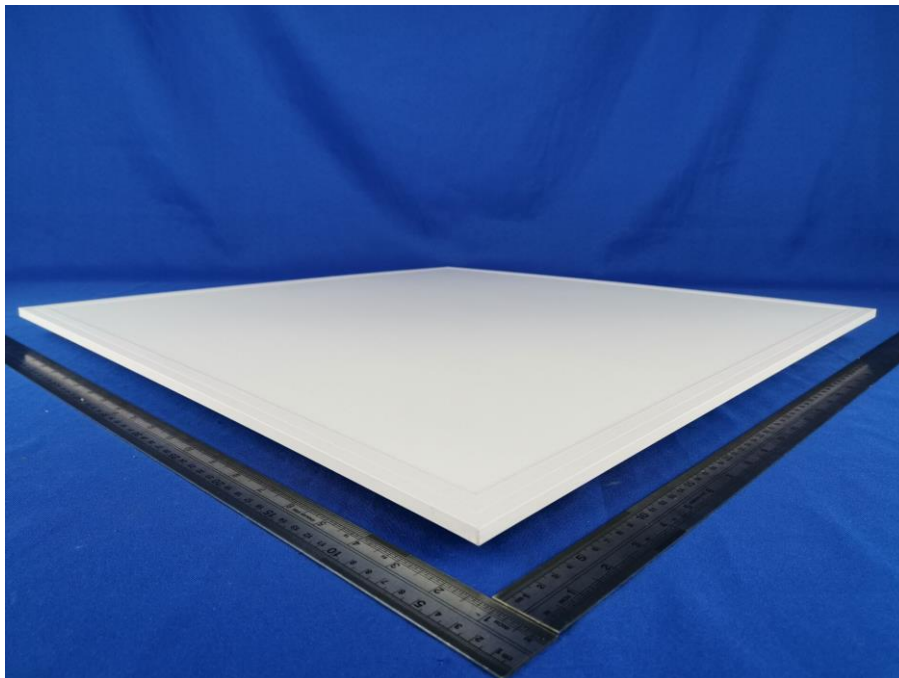
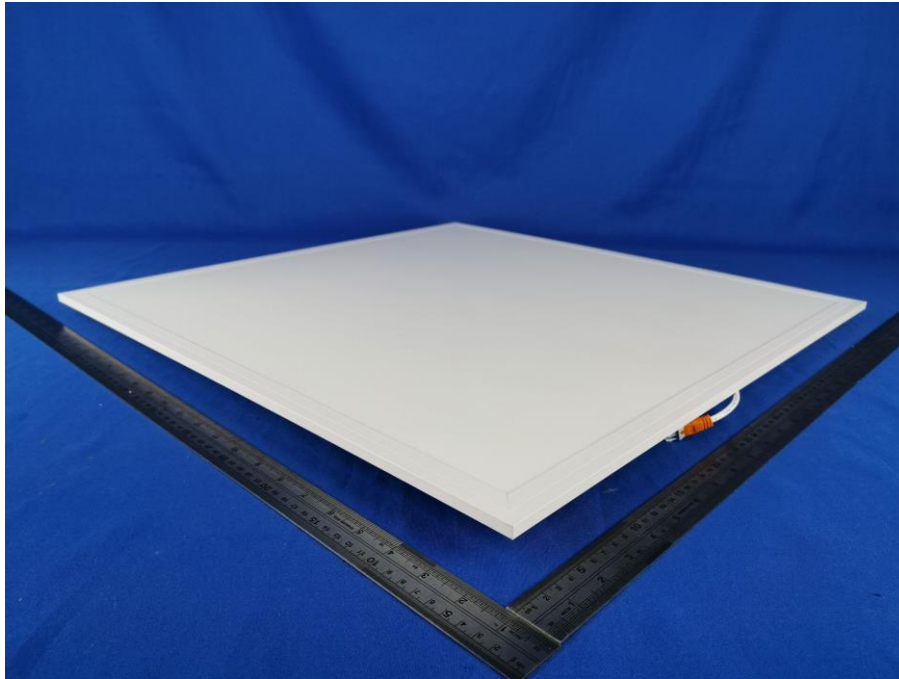
Remark:

Performance Criteria: A, B, C: Refer to section 8.1 for details

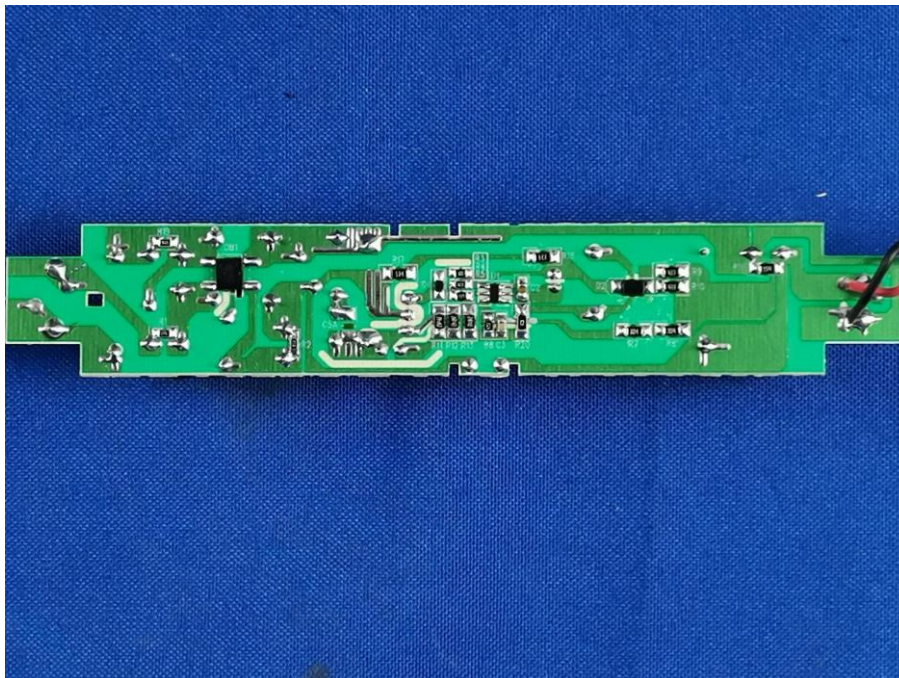
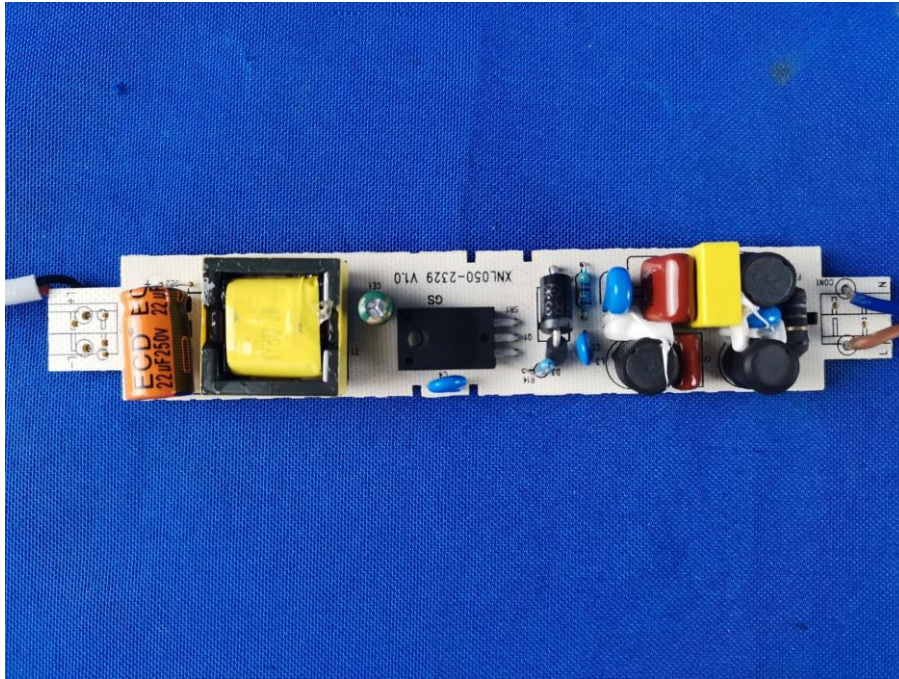
9 EUT Constructional Details



EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.



----- End-----

EBO assures objectivity and justness of the test, and fulfill the duty of confidentiality for applicant's information. Applicant should undertake responsibility for the authenticity of submitted sample and information. The result(s) shown in this report refer only to the sample(s) tested. The test results only reflect the evaluation of the sample under test and are not authorized for other purposes. EBO do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise. This report is invalid without signatures of approver and special seal for inspection of EBO, or it has been reproduced in full or part. This report shall not be published as advertisement without the approval of EBO. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. This document is issued by the company under its General Conditions of Service accessible at <http://www.ebotest.com/zjyb/318.html>.