

**EN IEC 55015:2019
EN 61547:2009
EN IEC 61000-3-2:2019
EN 61000-3-3:2013+A1:2019**

Measurement and Test Report

For

Artdon Lighting Limited

NO.15, Zhihe 3rd street, Yumin Dongsheng Town, zhongshan, China

Report Concerns: Original Report	Equipment Type: LED Track Light
Model No.:	32.06219
Series Model(s):	See page 4.
Report No.:	CTR2206140095E
Test/Witness Engineer:	David Lee
Issued Date:	June 14, 2022
Prepared By:	CTC Compliance Service Co., Ltd. 7F, Xingzhong Building, Xingzhong Road, Shiqi District, Zhongshan, Guangdong, P.R.C. (528400)
Approved & Authorized By:	 Richard Chow / Assistant Manager



Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by CTC Compliance Service Co., Ltd.

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Artdon Lighting Limited
 Address of applicant: NO.15, Zhihe 3rd street, Yumin Dongsheng Town, zhongshan, China

Manufactory: Artdon Lighting Limited
 Address of Manufactory: NO.15, Zhihe 3rd street, Yumin Dongsheng Town, zhongshan, China

General Description of E.U.T

Items	Description
EUT Description	LED Track Light
Trade Name	ARTDON
EUT Model	32.06219
Rated Voltage	220-240V~
Frequency	50/60Hz
Rated Power	15W
Series Models listed below:	
31.012XX, 31.015XX, 31.020XX, 31.025XX, 31.030XX, 31.035XX, 31.040XX, 31.045XX, 31.053XX, 31.055XX, 31.058XX, 31.062XX, 31.065XX, 31.073XX, 31.075XX, 31.080XX, 31.084XX, 31.085XX, 31.090XX, 31.100XX, 31.105XX, 31.110XX, 31.120XX, 31.130XX, 31.140XX, 31.150XX, 32.012XX, 32.015XX, 32.020XX, 32.025XX, 32.030XX, 32.035XX, 32.040XX, 32.045XX, 32.053XX, 32.055XX, 32.058XX, 32.062XX, 32.065XX, 32.073XX, 32.075XX, 32.080XX, 32.084XX, 32.085XX, 32.090XX, 32.100XX, 32.105XX, 32.110XX, 32.120XX, 32.130XX, 32.140XX, 32.150XX, 33.012XX, 33.015XX, 33.020XX, 33.025XX, 33.030XX, 33.035XX, 33.040XX, 33.045XX, 33.053XX, 33.055XX, 33.058XX, 33.062XX, 33.065XX, 33.073XX, 33.075XX, 33.080XX, 33.084XX, 33.085XX, 33.090XX, 33.100XX, 33.105XX, 33.110XX, 33.120XX, 33.130XX, 33.140XX, 33.150XX, 35.012XX, 35.015XX, 35.020XX, 35.025XX, 35.030XX, 35.035XX, 35.040XX, 35.045XX, 35.053XX, 35.055XX, 35.058XX, 35.062XX, 35.065XX, 35.073XX, 35.075XX, 35.080XX, 35.084XX, 35.085XX, 35.090XX, 35.100XX, 35.105XX, 35.110XX, 35.120XX, 35.130XX, 35.140XX, 35.150XX, 36.012XX, 36.015XX, 36.020XX, 36.025XX, 36.030XX, 36.035XX, 36.040XX, 36.045XX, 36.053XX, 36.055XX, 36.058XX, 36.062XX, 36.065XX, 36.073XX, 36.075XX, 36.080XX, 36.084XX, 36.085XX, 36.090XX, 36.100XX, 36.105XX, 36.110XX, 36.120XX, 36.130XX, 36.140XX, 36.150XX	
<i>Note: The XX(01-99) of the above model number represents the serial number of our model number.</i>	

Note: the test data is gathered from a production sample, provided by the manufacturer. All models listed above have same electrical principle, construction and components, and all the tests are carried out on model 32.06219.

1.2 Test Standards

The following report is prepared on behalf of the **Artdon Lighting Limited** in accordance with:

EN IEC 55015:2019 - 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 IEC 61000-3-2:2019 - 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+A1:2019 - 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.

The objective of the manufacturer is to determine compliance with EN 55015, EN 61547, EN 61000-3-2 and EN 61000-3-3.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product maybe which result in lowering the emission/immunity should be checked to ensure compliance has been maintained.

1.3 Related Submittal(s)/Grant(s)

No Related Submittal(s)

1.4 Test Methodology

The equipment under test (EUT) was configured to measure its highest possible emission/immunity level. The test setup was adapted accordingly in reference to the Operating Instructions.

All the test is carried out under the requirements of IEC/ISO 17025.

1.5 EUT Exercise Software

The EUT exercise program used during the testing was designed to exercise the system components.

1.6 Accessories Equipment List and Details

Manufacturer	Description	Model	Serial Number
/	/	/	/

1.7 EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
/	/	/	/

1.8 Performance criteria

All the test data has been collected, reduced, and analyzed within this report in accordance with Immunity requires the following as specific performance criteria:

- A. The apparatus shall continue to operate as intended during and after the test. The manufacturer specifies some minimum performance level. The performance level may be specified by the manufacturer as a permissible loss of performance.
- B. The apparatus shall continue to operate as intended after the test. This indicates that the EUT does not need to function at normal performance levels during the test, but must recover. Again some minimal performance is defined by the manufacture. No change in operating state or loss or data is permitted.
- C. Temporary loss of function is allowed. Operation of the EUT may stop as long as it is either automatically reset or can be manually restored by operation of the controls.

2. SUMMARY OF TEST RESULTS

Test Standards	Description of Test	Result
EN 55015 §4.3 Emission Test Requirement	Disturbance Voltage	PASS
EN 55015 §4.4 Emission Test Requirement	Radiated Electromagnetic Disturbances	PASS
EN 61000-3-2 Harmonic Current Emissions	Harmonic Current Emissions	PASS
EN 61000-3-3 Voltage Fluctuation and Flicker	Voltage Fluctuation and Flicker	PASS
EN 61547 §5.2 Immunity Test Requirement	Electrostatic Discharges	PASS
EN 61547 §5.3 Immunity Test Requirement	Radio Frequency Electronic magnetic Fields	PASS
EN 61547 §5.4 Immunity Test Requirement	Power Frequency Magnetic Fields	PASS
EN 61547 §5.5 Immunity Test Requirement	Fast Transients	PASS
EN 61547 §5.6 Immunity Test Requirement	Injected Currents	PASS
EN 61547 §5.7 Immunity Test Requirement	Surges	PASS
EN 61547 §5.8 Immunity Test Requirement	Voltage Dips/Interruption Test and Voltage Variation Test	PASS

3. DISTURBANE VOLTAGE

3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is $\pm 1.5\text{dB}$

3.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESCS30	830245/009	2022-1-26	2023-1-25
Spectrum Analyzer	Aglient	E4402B-EST	US41192821	2022-1-26	2023-1-25
AMN	Rohde & Schwarz	ESH2-Z5	100002	2022-1-26	2023-1-25
Limiter	Rohde & Schwarz	ESH3-Z2	357.8810.52	2022-1-26	2023-1-25
AMN	Rohde & Schwarz	ESH3-Z5	828304/014	2022-1-26	2023-1-25

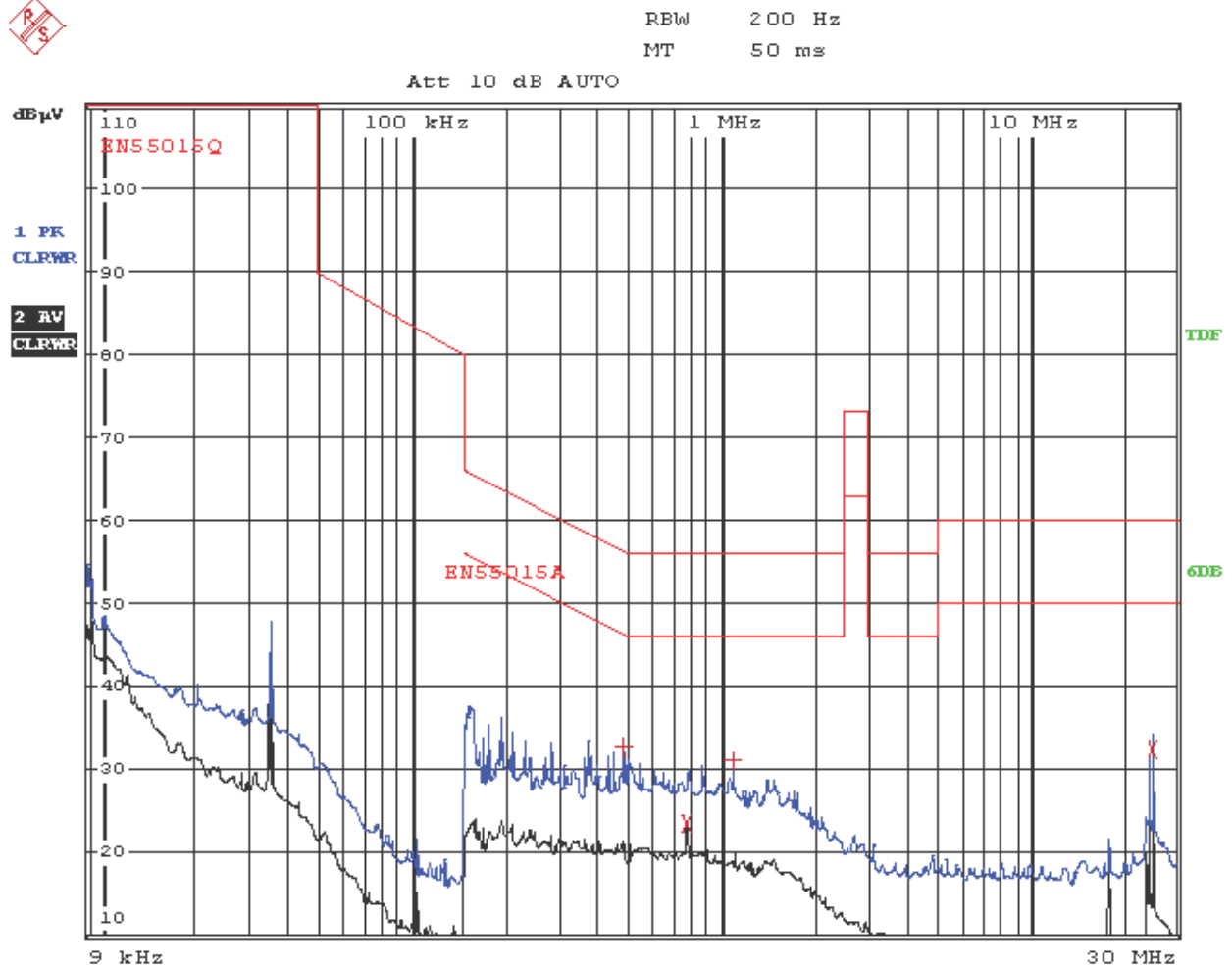
3.3 Test Procedure

Test is conducted under the description of EN 55015, According to Clause 5.3.2.2, 6 & 8.3.1.

3.4 Test Data/Polts

-17.47 dB μ V at 25.002 MHz in the Neutral mode, 0.009-30MHz

LINE CONDUCTED EMISSIONS				EN55015 CLASS B	
Frequency MHz	Amplitude dB μ V	Detector QP/Ave/Pk	Phase Line/Neutral	Limit dB μ V	Margin dB
25.002	32.52	Ave	Neutral	49.99	-17.47
25.002	28.11	Ave	Line	49.99	-21.88
0.778	23.54	Ave	Neutral	45.99	-22.45
0.778	23.49	Ave	Line	45.99	-22.50
0.434	34.30	PK	Line	57.17	-22.87
0.542	32.62	PK	Line	55.99	-23.38
0.482	32.78	PK	Neutral	56.30	-23.52
1.086	31.21	PK	Neutral	55.99	-24.78

Plot of Disturbances Voltage*Disturbances Voltage**EUT: LED Track Light**M/N: 32.06219**Operating Spec: N**Comment: AC 230V/50Hz*

Plot of Disturbances Voltage

Disturbances Voltage

EUT: LED Track Light

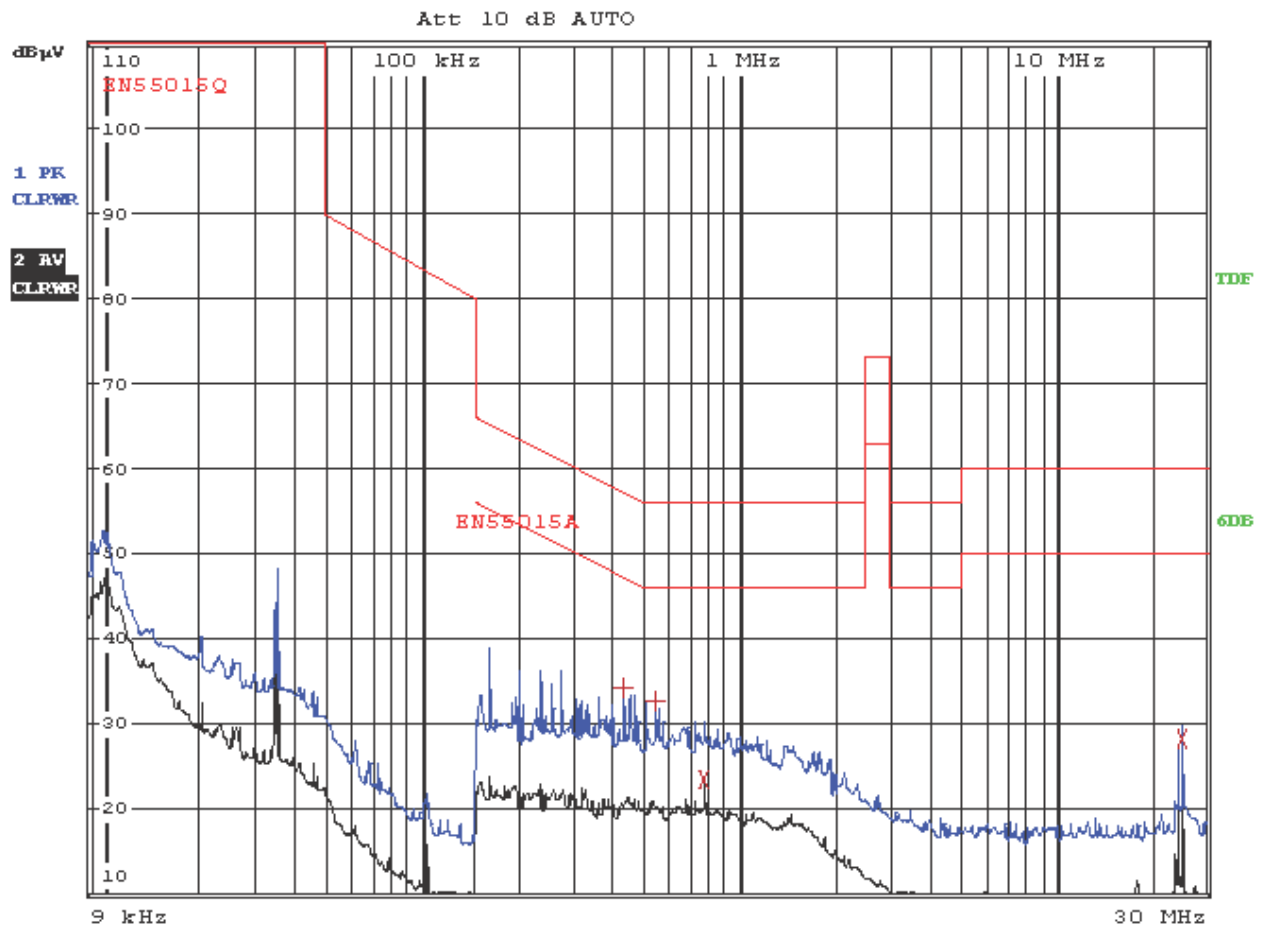
M/N: 32.06219

Operating Spec: L

Comment: AC 230V/50Hz



RBW 200 Hz
MT 50 ms



4. RADIATED ELECTROMAGNETIC DISTURBANCES

4.1 Measurement Uncertainty

Base on NIS81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is $\pm 3.0\text{dB}$.

4.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESI26	838786/013	2022-1-26	2023-1-25
Triple Loop Antenna	Schwarzbeck	HXYZ9170	9124	2022-1-26	2023-1-25

4.3 Test Procedure

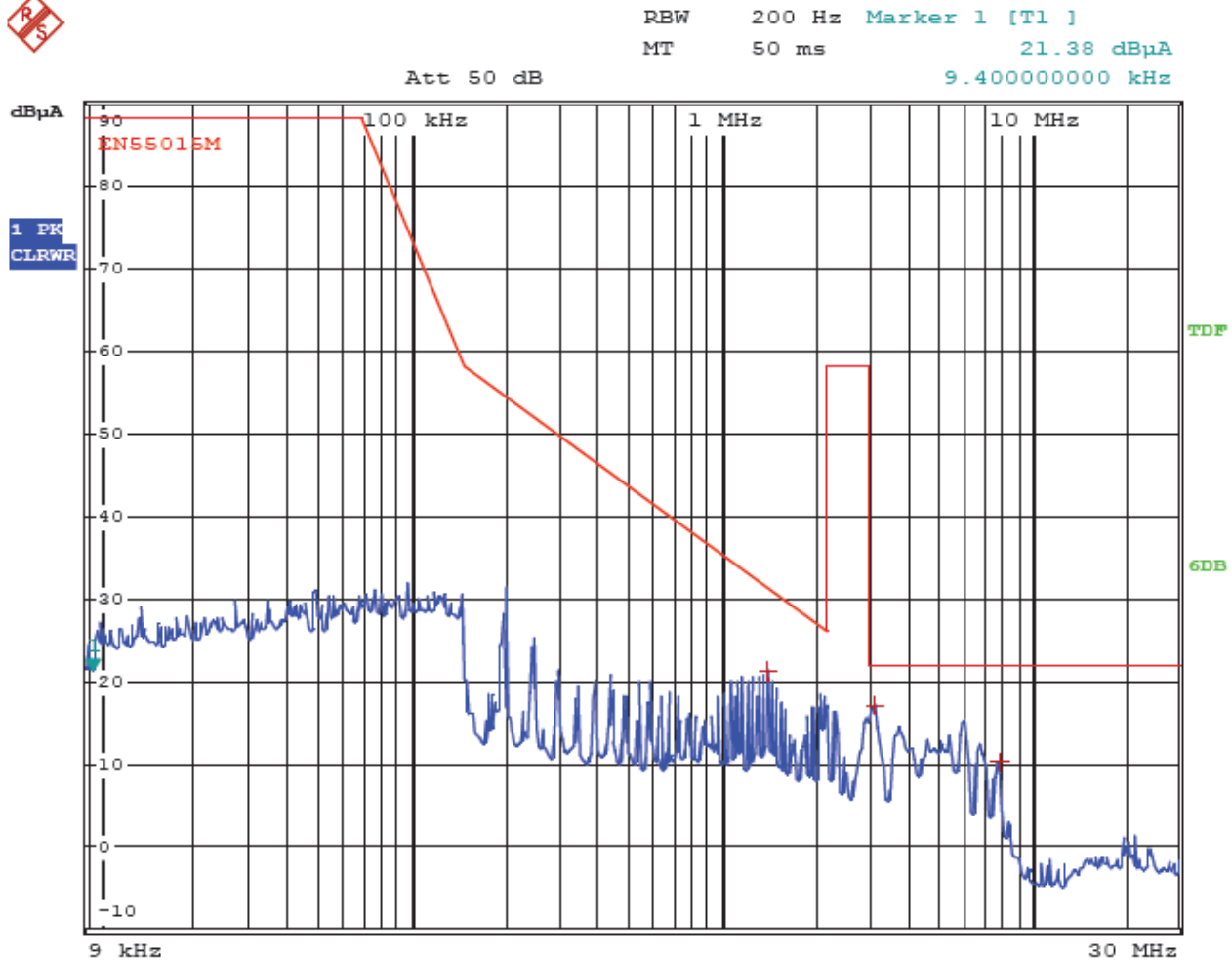
Test is conducted under the description of EN 55015, According to Clause 4.4.

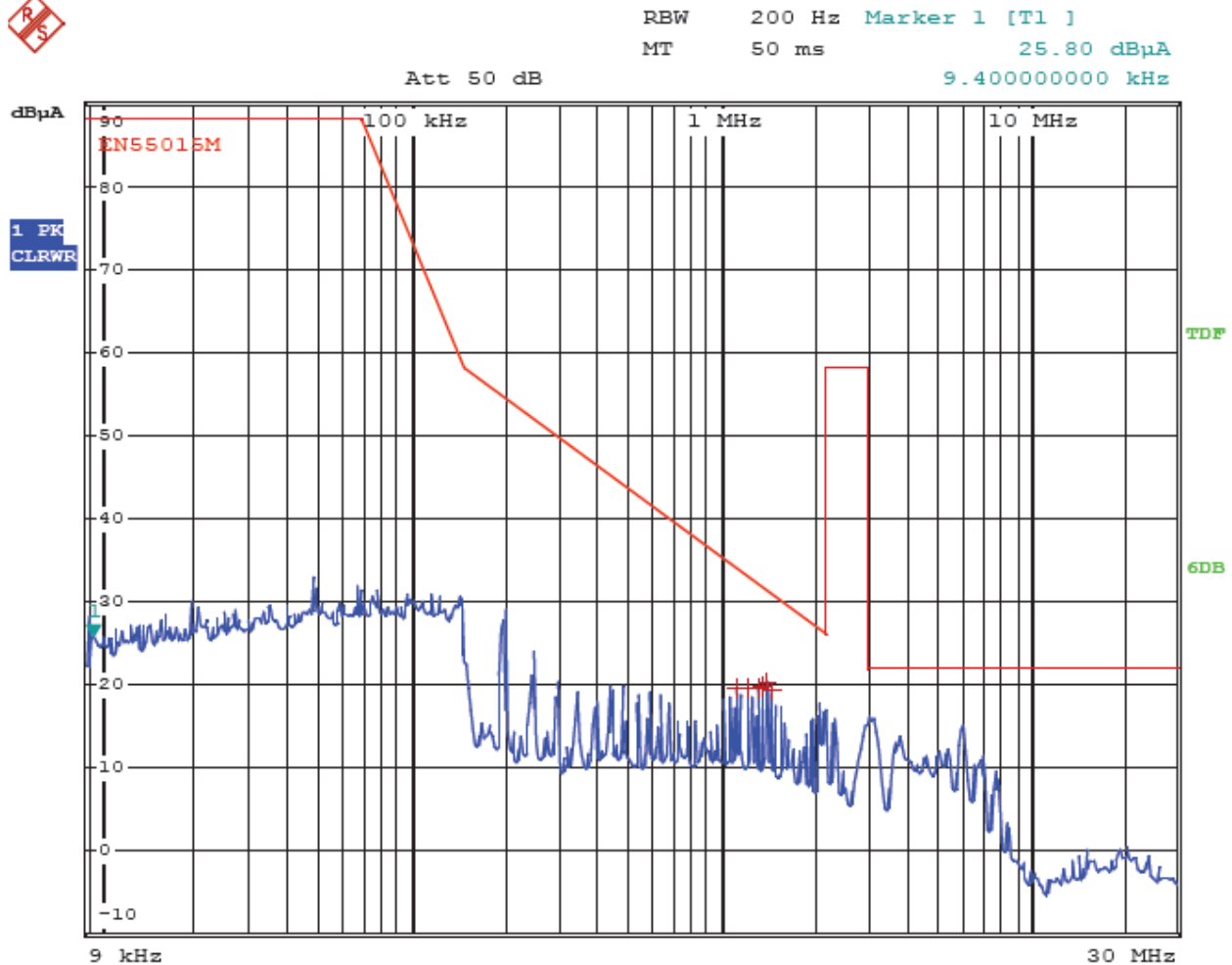
4.4 Test Result

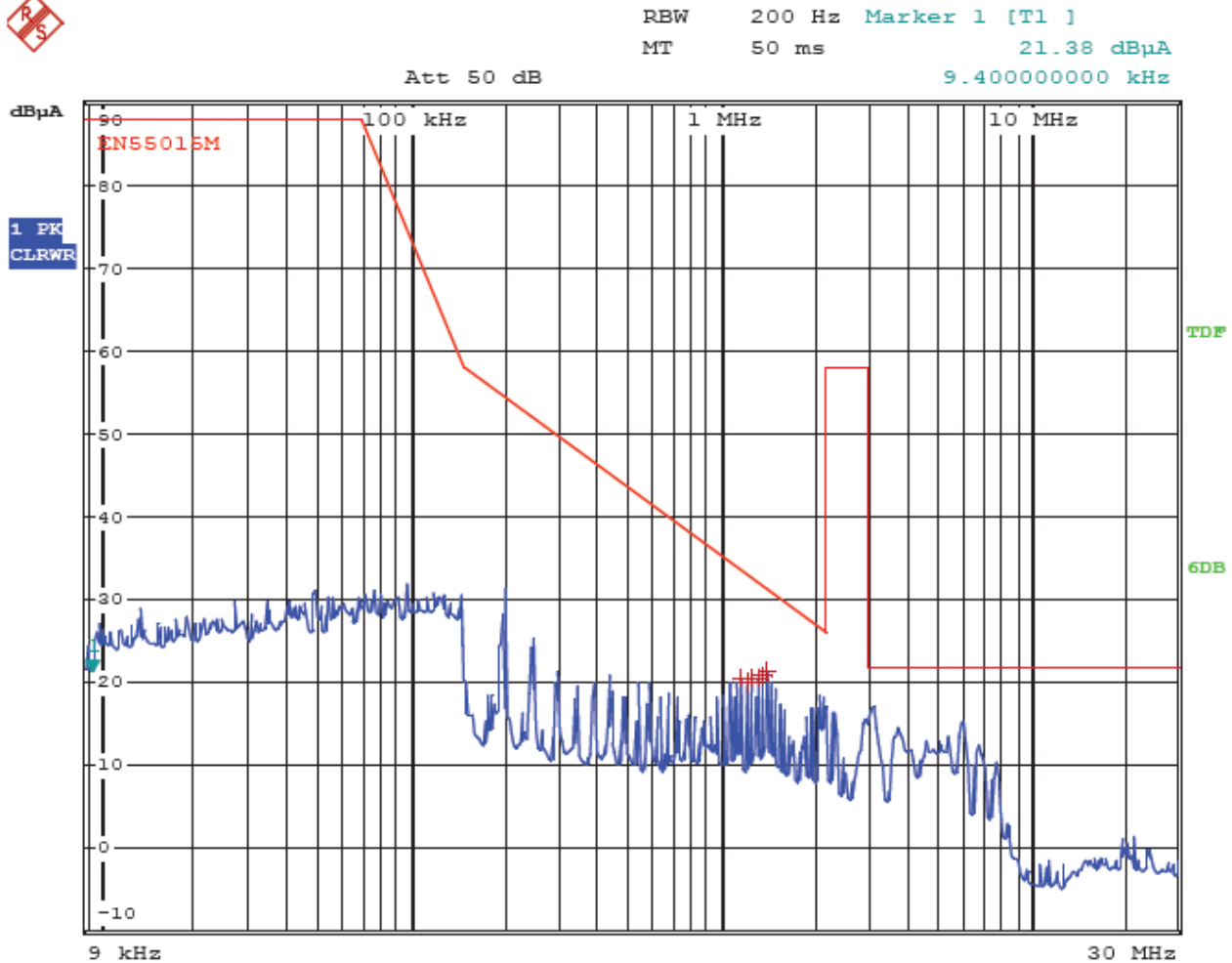
Testing according to limit table 3b and the emissions below 10dB are not report.

Test Result: Pass

Please refer to the plots:

Plot of Radiated Electromagnetic Disturbances Test Data*Radiated Electromagnetic Disturbances**EUT: LED Track Light**M/N: 32.06219**Operating Spec: X**Comment: AC 230V/50Hz*

Plot of Radiated Electromagnetic Disturbances Test Data*Radiated Electromagnetic Disturbances**EUT: LED Track Light**M/N: 32.06219**Operating Spec: Y**Comment: AC 230V/50Hz*

Plot of Radiated Electromagnetic Disturbances Test Data*Radiated Electromagnetic Disturbances**EUT: LED Track Light**M/N: 32.06219**Operating Spec: Z**Comment: AC 230V/50Hz*

5. EN 61000-3-2 HARMONIC CURRENT EMISSIONS

5.1 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Power	CI	5001ix-CTS-4 00	X71730	2022-1-26	2023-1-25
Three Phase Harmonic flicker test system	CI	PACS-3	71906	2022-1-26	2023-1-25
Power	CI	5001ix-CTS-4 00-NO	55772	2022-1-26	2023-1-25
Power	CI	5001ix-CTS-4 00-NO	55773	2022-1-26	2023-1-25

5.2 Test Procedure

Test is conducting under the description of EN IEC 61000-3-2:2019.

5.3 Test Standards

EN IEC 61000-3-2:2019

Limit: Clause 7

5.4 Environmental Conditions

Temperature:	25°C
Relative Humidity:	45%
ATM Pressure:	1022 mbar

5.5 EN 61000-3-2: Harmonic Current Emissions Test Data

This is conducting under the description of EN IEC 61000-3-2:2019.

Harmonics – Class-C per A-14 (Run time)

EUT: LED Track Light

Tested by: David Lee

Test category: Class-C per A-14 (European limits)

Test Margin: 100

Test date: 2022-06-02

Start time: 4:19:32 PM

End time: 4:29:12 PM

Test duration (min): 10

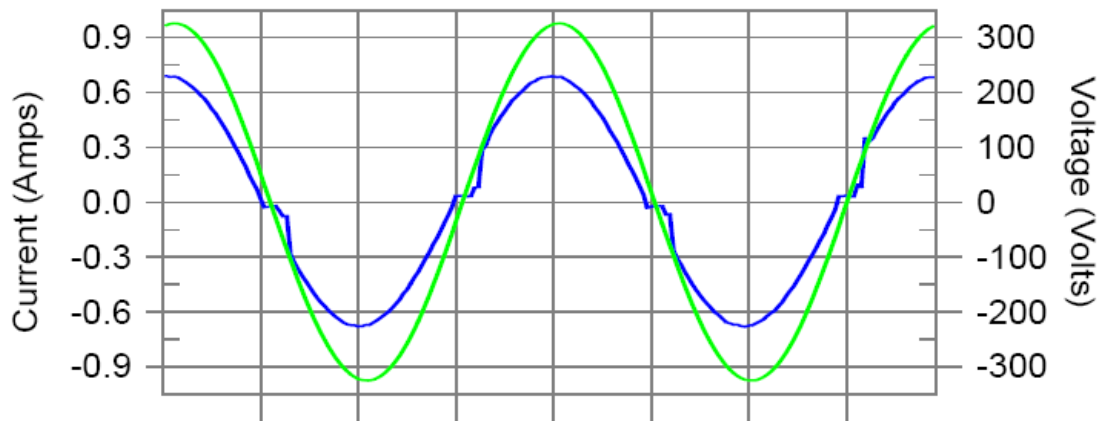
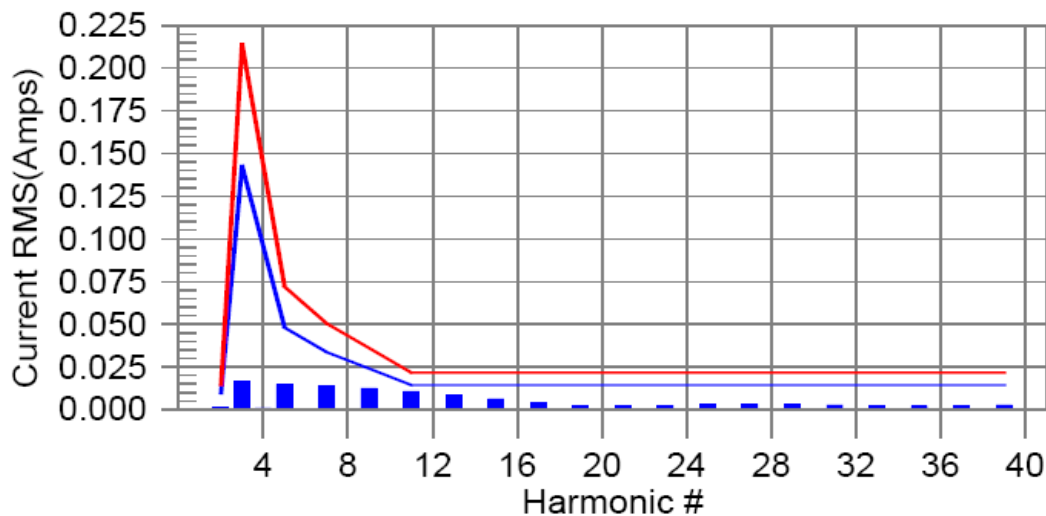
Data file name: H-0000602.cts_data

Comment: 32.06219

Customer: Artdon Lighting Limited

Test Result: Pass

Source qualification: Normal

Current & voltage waveformsHarmonics and Class C limit lineEuropean Limits

Test result: Pass Worst harmonic was #11 with 49.12% of the limit.

Current Test Result Summary (Run time)

EUT: LED Track Light
 Test category: Class-C per A-14 (European limits)
 Test date: 2022-06-02 Start time: 4:19:32 PM End time: 4:29:12 PM
 Test duration (min): 10 Data file name: H-0000602.cts_data
 Comment: 32.06219
 Customer: Artdon Lighting Limited

Test Result: Pass

Source qualification: Normal

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	0.010	11.8	0.001	0.014	9.42	Pass
3	0.016	0.143	11.0	0.016	0.214	7.69	Pass
4	0.001						
5	0.015	0.048	30.4	0.015	0.072	20.63	Pass
6	0.000						
7	0.014	0.034	40.8	0.014	0.050	27.97	Pass
8	0.000						
9	0.012	0.024	50.9	0.012	0.036	34.61	Pass
10	0.000						
11	0.010	0.014	72.6	0.011	0.022	49.12	Pass
12	0.000						
13	0.008	0.014	57.9	0.008	0.022	39.40	Pass
14	0.000						
15	0.006	0.014	42.1	0.006	0.022	28.61	Pass
16	0.000						
17	0.004	0.014	27.5	0.004	0.022	18.86	Pass
18	0.000						
19	0.002	0.014	16.4	0.002	0.022	11.27	Pass
20	0.000						
21	0.002	0.014	12.7	0.002	0.022	8.72	Pass
22	0.000						
23	0.002	0.014	15.9	0.002	0.022	10.97	Pass
24	0.000						
25	0.003	0.014	19.6	0.003	0.022	13.42	Pass
26	0.000						

27	0.003	0.014	20.9	0.003	0.022	14.27	Pass
28	0.000						
29	0.003	0.014	20.0	0.003	0.022	13.67	Pass
30	0.000						
31	0.002	0.014	17.3	0.003	0.022	11.90	Pass
32	0.000						
33	0.002	0.014	14.6	0.002	0.022	10.02	Pass
34	0.000						
35	0.002	0.014	13.6	0.002	0.022	9.30	Pass
36	0.000						
37	0.002	0.014	15.0	0.002	0.022	10.24	Pass
38	0.000						
39	0.003	0.014	17.4	0.003	0.022	11.96	Pass
40	0.000						

Note: Dynamic limits were applied for this test. The highest harmonics values in the above table may not occur at the same window as the maximum harmonics/limit ratio.

Voltage Source Verification Data (Run time)

EUT: LED Track Light
Test category: Class-C per A-14 (European limits)
Test date: 2022-06-02 Start time: 4:19:32 PM End time: 4:29:12 PM
Test duration (min): 10 Data file name: H-0000602.cts_data
Comment: 32.06219
Customer: Artdon Lighting Limited

Test Result: Pass

Source qualification: Normal

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.142	0.460	30.78	OK
3	0.519	2.071	25.06	OK
4	0.058	0.460	12.62	OK
5	0.039	0.921	4.27	OK
6	0.054	0.460	11.81	OK
7	0.031	0.690	4.43	OK
8	0.028	0.460	6.12	OK
9	0.113	0.460	24.61	OK
10	0.019	0.460	4.05	OK
11	0.125	0.230	54.39	OK
12	0.012	0.230	5.33	OK
13	0.063	0.230	27.30	OK
14	0.010	0.230	4.31	OK
15	0.020	0.230	8.60	OK
16	0.022	0.230	9.37	OK
17	0.010	0.230	4.46	OK
18	0.014	0.230	6.00	OK
19	0.008	0.230	3.37	OK
20	0.013	0.230	5.84	OK
21	0.009	0.230	3.85	OK
22	0.011	0.230	4.93	OK
23	0.008	0.230	3.28	OK
24	0.006	0.230	2.58	OK
25	0.009	0.230	3.85	OK
26	0.012	0.230	5.11	OK

27	0.009	0.230	3.90	OK
28	0.009	0.230	3.91	OK
29	0.011	0.230	4.59	OK
30	0.008	0.230	3.42	OK
31	0.009	0.230	3.99	OK
32	0.007	0.230	3.04	OK
33	0.006	0.230	2.78	OK
34	0.004	0.230	1.86	OK
35	0.011	0.230	4.76	OK
36	0.007	0.230	3.25	OK
37	0.005	0.230	2.33	OK
38	0.007	0.230	3.12	OK
39	0.013	0.230	5.58	OK
40	0.009	0.230	3.97	OK

6. EN 61000-3-3 VOLTAGE FLUCTUATION AND FLICKER

6.1 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Power	CI	5001ix-CTS-400	X71730	2022-1-26	2023-1-25
Three Phase Harmonic flicker test system	CI	PACS-3	71906	2022-1-26	2023-1-25
Power	CI	5001ix-CTS-400-NO	55772	2022-1-26	2023-1-25
Power	CI	5001ix-CTS-400-NO	55773	2022-1-26	2023-1-25

6.2 Test Procedure

Test is conducting under the description of EN 61000-3-3:2013+A1:2019.

6.3 Test Standards

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

Limit: Clause 5

6.4 Environmental Conditions

Temperature:	22°C
Relative Humidity:	48%
ATM Pressure:	1022 mbar

6.5 EN 61000-3-3: Voltage Fluctuation and Flicker Test Data

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

EUT: LED Track Light

Tested by: David Lee

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

Test Margin: 100

Test date: 2022-06-02

Start time: 5:24:04 PM

End time: 5:34:17 PM

Test duration (min): 10

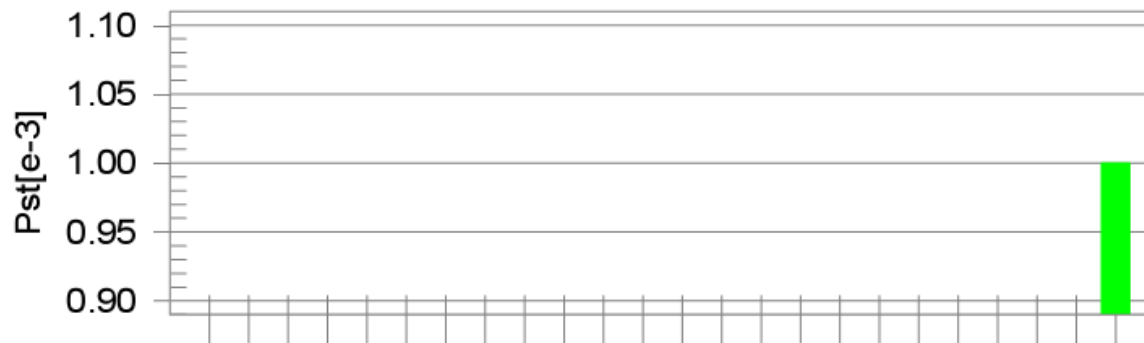
Data file name: F-0000602.cts_data

Comment: 32.06219

Customer: Artdon Lighting Limited

Test Result: Pass

Status: Test Completed

Pst and limit lineEuropean LimitsTime is too short for Plt plot

Parameter values recorded during the test:

Vrms at the end of test (Volt): 230.45

Highest dt (%)	0.15	Test limit (%)	3.30	Pass
Time(mS) > dt:	0.0	Test limit (mS):	500.0	Pass
Highest dc (%)	0.00	Test limit (%)	3.30	Pass
Highest dmax (%)	0.10	Test limit (%)	4.00	Pass
Highest Pst (10 min. period):	0.005	Test limit:	1.000	Pass
Highest Plt (2 hr. period):	0.002	Test limit:	0.650	Pass

7. Electrostatic Discharge Immunity (ESD)

7.1 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
NOISEKEN	ESD GENERATOR	ESS-200AX	H467644	2022-1-26	2023-1-25

7.2 Test Procedure

Test is conducting under the description of IEC 61000-4-2.

Test Performance

Performance Criterion: B

Environmental Conditions

Temperature:	25°C
Relative Humidity:	45%
ATM Pressure:	1022 mbar

7.3 EN61000-4-2: Electrostatic Discharge Immunity test Data

Table 1: Electrostatic Discharge Immunity (Air Discharge)

EN61000-4-2 Test Points	Test Levels (kV)									
	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Slots	A	A	A	A	A	A	A	A		

Table 2: Electrostatic Discharge Immunity (Direct Contact)

EN61000-4-2 Test Points	Test Levels (kV)									
	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Metal enclosure	A	A	A	A						
Metal screws	A	A	A	A						

Table 3: Electrostatic Discharge Immunity (Indirect Contact HCP)

EN61000-4-2 Test Points	Test Levels (kV)									
	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Front Side	A	A	A	A						
Top Side	A	A	A	A						
Back Side	A	A	A	A						
Left Side	A	A	A	A						
Right Side	A	A	A	A						

Table 4: Electrostatic Discharge Immunity (Indirect Contact VCP)

EN61000-4-2 Test Points	Test Levels (kV)									
	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Front Side	A	A	A	A						
Top Side	A	A	A	A						
Back Side	A	A	A	A						
Left Side	A	A	A	A						
Right Side	A	A	A	A						

Test Result: Pass

8. RADIO FREQUENCY ELECTROMAGNETIC FIELDS

8.1 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
Signal Generator	Rohde & Schwarz	SMT03	100059	2022-1-26	2023-1-25
Voltage Probe	Rohde & Schwarz	URV5-Z2	100013	2022-1-26	2023-1-25
Power Amplifier	AR	150W1000	300999	2022-1-26	2023-1-25
Power Amplifier	AR	25S1G4AM1	305993	2022-1-26	2023-1-25
Bilog Antenna	Chase	CBL6111C	2576	2022-1-26	2023-1-25
Anechoic Chamber	Albatross Projects	MCDC	----	2022-1-26	2023-1-25

8.2 Test Procedure

Test is conducting under the description of IEC 61000-4-3.

Test Performance

Performance Criterion: A

Environmental Conditions

Temperature:	25°C
Relative Humidity:	45%
ATM Pressure:	1022 mbar

8.3 EN61000-4-3: Continuous Radiated Disturbances Test Data

Frequency Range (MHz)	Front (3 V/m)		Rear (3 V/m)		Left Side (3 V/m)		Right Side (3 V/m)	
	VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-1000	A	A	A	A	A	A	A	A

Test Result: Pass

9. Electrical Fast Transients

9.1 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
EMC Partner	Transient 2000	TRA2000	863	2022-1-26	2023-1-25
EMC Partner	Coupling Clamp	CN-EFT1000	513	2022-1-26	2023-1-25

9.2 Test Procedure

Test is conducting under the description of IEC 61000-4-4.

Test Performance

Performance Criterion: B

Environmental Conditions

Temperature:	25°C
Relative Humidity:	45%
ATM Pressure:	1022 mbar

9.3 EN61000-4-4: Electrical Fast Transients Test Data

EN61000-4-4 Test Point		Test Levels (kV)							
		+0.5	-0.5	+1.0	-1.0	+2.0	-2.0	+4.0	-4.0
Power Supply Power Line of EUT	L1	A	A	B	B	/	/	/	/
	L2	A	A	B	B	/	/	/	/
	Earth	A	A	B	B	/	/	/	/
	L1+L2	A	A	B	B	/	/	/	/
	L1+Earth	A	A	B	B	/	/	/	/
	L2+Earth	A	A	B	B	/	/	/	/
	L1+L2+Earth	A	A	B	B	/	/	/	/
Signal ports	/	/	/	/	/	/	/	/	/

Test Result: Pass

10. Injected Currents

10.1 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
EMC Partner	Transient 2000	TRA2000	863	2022-1-26	2023-1-25
EMC Partner	Coupling Clamp	CN-EFT1000	513	2022-1-26	2023-1-25

10.2 Test Procedure

Test is conducting under the description of IEC 61000-4-6.

Test Performance

Performance Criterion: A

Environmental Conditions

Temperature:	25°C
Relative Humidity:	45%
ATM Pressure:	1022 mbar

10.3 EN61000-4-6: Continuous Conducted Disturbance Test Data

Level	Voltage Level (e.m.f.) U_0	Modulation:	Pass	Fail
1	1	AM 80%, 1kHz sinewave	/	/
2	3	AM 80%, 1kHz sinewave	A	/
3	10	AM 80%, 1kHz sinewave	/	/
X	Special	/	/	/

Test Result: Pass

11. Surge

11.1 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
EMTEST	Immunity Simulator	UCS500M4	0800-44	2022-1-26	2023-1-25
EMTEST	Three Phase Coupling Network	CNI5036	0101-01	2022-1-26	2023-1-25
EMTEST	Data Line Coupling Network	CNV504	1000-10	2022-1-26	2023-1-25

11.2 Test Procedure

Test is conducting under the description of IEC 61000-4-5.

Test Performance

Performance Criterion: B

Environmental Conditions

Temperature:	25°C
Relative Humidity:	45%
ATM Pressure:	1022 mbar

11.3 EN61000-4-5: Surge Test Data

Level	Voltage	Poll	Path	Pass	Fail
1	0.5kV	±	L-N, L-PE, N-PE	B	/
2	1kV	±	L-N	B	/
3	2kV	±	L-PE, N-PE	/	/
4	4kV	±	L-N, L-PE, N-PE	/	/

Test Result: Pass

12. Voltage Dips and Interruptions

12.1 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
EMC Partner	Transient 2000	TRA2000	863	2022-1-26	2023-1-25
EMC Partner	Coupling Clamp	CN-EFT1000	513	2022-1-26	2023-1-25

12.2 Test Procedure

Test is conducting under the description of IEC 61000-4-11.

Test Performance

Performance Criterion: B/C

Environmental Conditions

Temperature:	25°C
Relative Humidity:	45%
ATM Pressure:	1022 mbar

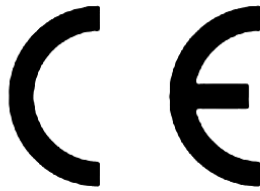
12.3 EN61000-4-11: Voltage Dips and Interruptions Test Data

Level	U2	td	Phase Angle	N	Pass	Fail
1	100%	10ms	0/90/180/270	3	B	/
2	30%	500ms	0/90/180/270	3	B	/

Test Result: Pass

EXHIBIT 1 – PRODUCT LABELING

Proposed CE Label Format



Specification: Text is Black in Color and is left justified. Labels are printed in indelible ink on permanent adhesive backing or silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT.

Proposed Label Location on EUT

CE Label Location



EXHIBIT 2 – EUT PHOTOGRAPHS

Model No.:
32.06219

Photo 1

View:

- ☒ General
☐ Front
☐ Rear
☐ Side
☐ Top
☐ Bottom
☐ Internal
☐ Detail



Model No.:
32.06219

Photo 2

View:

- ☐ General
☒ Front
☐ Rear
☐ Side
☐ Top
☐ Bottom
☐ Internal
☐ Detail



EXHIBIT 2 – EUT PHOTOGRAPHS

Model No.:
32.06219

Photo 3

View:

- ☐ General
- ☐ Front
- ☐ Rear
- ☐ Side
- ☐ Top
- ☐ Bottom
- ☒ Internal
- ☐ Detail



Model No.:
32.06219

Photo 4

View:

- ☐ General
- ☐ Front
- ☐ Rear
- ☐ Side
- ☐ Top
- ☐ Bottom
- ☐ Internal
- ☒ Detail



EXHIBIT 2 – EUT PHOTOGRAPHS

Model No.:

32.06219

Photo 5

View:

- ☐ General
- ☐ Front
- ☐ Rear
- ☐ Side
- ☐ Top
- ☐ Bottom
- ☐ Internal
- ☒ Detail



Model No.:

32.06219

Photo 6

View:

- ☐ General
- ☐ Front
- ☐ Rear
- ☐ Side
- ☐ Top
- ☐ Bottom
- ☐ Internal
- ☒ Detail



EXHIBIT 2 – EUT PHOTOGRAPHS

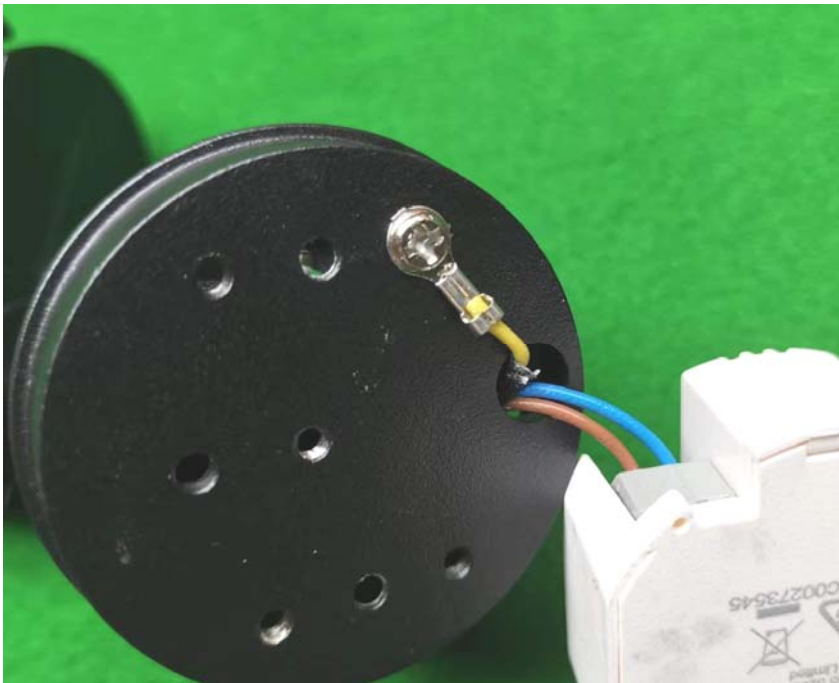
Model No.: 32.06219 <u>Photo 7</u> View: ☐ General ☐ Front ☐ Rear ☐ Side ☐ Top ☐ Bottom ☐ Internal ☒ Detail	
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EXHIBIT 3 – SCHEMATICS

EXHIBIT 4 – USERS MANUAL

※ end of the report ※