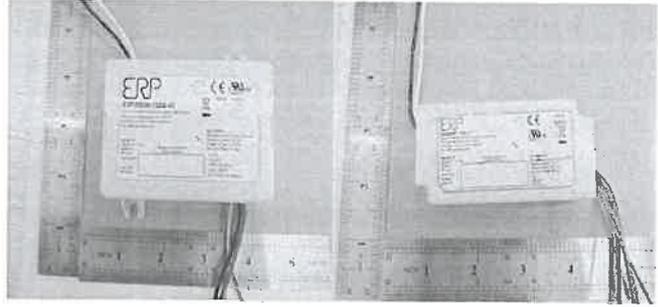


Prüfbericht-Nr.: <i>Test Report No.:</i>	50050570 001	Auftrags-Nr.: <i>Order No.:</i>	164063818	Seite 1 von 31 Page 1 of 31	
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	60004769	Auftragsdatum: <i>Order date.:</i>	19 May 2016		
Auftraggeber: <i>Client:</i>	Energy Recovery Products (Zhuhai) Co., Ltd. No.8, Pingdong Road 2, Nanping Science Park, Zhuhai, Guangdong, P.R. China				
Prüfgegenstand: <i>Test item:</i>	LED Driver				
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	Details refer to section 3.1				
Auftrags-Inhalt: <i>Order content:</i>	TUV Rheinland - EMC service				
Prüfgrundlage: <i>Test specification:</i>	EN 55015:2013 EN 61547:2009 EN 61000-3-2:2014 EN 61000-3-3:2013				
Wareneingangsdatum: <i>Date of receipt:</i>	19 May 2016				
Prüfmuster-Nr.: <i>Test sample No.:</i>	LCZE16050105-001 to 007				
Prüfzeitraum: <i>Testing period:</i>	Refer to test report				
Ort der Prüfung: <i>Place of testing:</i>	Refer to section 2.1				
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.				
Prüfergebnis*: <i>Test result*:</i>	Pass				
geprüft von / tested by:	kontrolliert von / reviewed by:				
09.08.2016	Tiger Su Project Manager		09.08.2016	Tongle Lee Assistant Manager	
Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	
					
Sonstiges / Other:					
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged				
* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
Legend:	1 = very good	2 = good	3 = satisfactory	4 = sufficient	5 = poor
	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet	
	P(ass) = passed a.m. test specifications(s)	F(ail) = failed a.m. test specifications(s)	N/A = not applicable	N/T = not tested	
<p>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</p> <p><i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i></p>					

TEST SUMMARY

5.1.1 HARMONICS ON AC MAINS*RESULT: Pass***5.1.2 VOLTAGE FLUCTUATIONS ON AC MAINS***RESULT: Pass***5.1.3 TERMINAL CONTINUOUS DISTURBANCE VOLTAGE AT AC MAINS***RESULT: Pass***5.1.4 TERMINAL CONTINUOUS DISTURBANCE VOLTAGE AT LOAD TERMINAL***Not Applicable***5.1.5 TERMINAL CONTINUOUS DISTURBANCE VOLTAGE AT CONTROL TERMINAL***RESULT: Pass***5.1.6 RADIATED ELECTROMAGNETIC DISTURBANCES***RESULT: Pass***5.2.1 RADIATED ELECTROMAGNETIC DISTURBANCES***RESULT: Pass***6.2.1 RADIO-FREQUENCY ELECTROMAGNETIC FIELD (RS)***RESULT: Pass***6.2.2 INJECTED CURRENTS / CONDUCTED SUSCEPTIBILITY (CS)***RESULT: Pass***6.3.1 ELECTRICAL FAST TRANSIENTS (EFT)***RESULT: Pass***6.3.2 SURGE***RESULT: Pass***6.3.3 ELECTROSTATIC DISCHARGES (ESD)***RESULT: Pass***6.4.1 VOLTAGE DIP AND INTERRUPTION***RESULT: Pass*

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1. General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix 1: Test result

Appendix 2: Measurement Uncertainties

2. Test Sites

2.1 Test Facilities

Dongguan Dongdian Testing Service Co., Ltd.
No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City,
Guangdong Province, China, 523808

LCTECH (Zhongshan) Testing Service Co., Ltd.
2/F., Technology and Enterprise Development Center, Guangyuan Road, Xiaolan,
Zhongshan, Guangdong, China

The tests at the test sites have been conducted under the supervision of a TÜV engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Kind of Equipment	Manufacturer	Type	S/N	Calibrated until
Disturbance Voltage (LCTECH)				
EMI Test Receiver	Rohde&Schwarz	ESCI	100939	29 Aug, 2016
Artificial Mains Network	Rohde&Schwarz	ENV216	3560655012	29 Aug, 2016
Shield Room	ZhongYu Elertron	8X5X3.5	N/A	29 Aug, 2016
Conducted Emission Software	FALA	EZ-EMC	N/A	29 Aug, 2016
ISN	SCHWARZECK	CAT5 8158	--	29 Aug, 2016
Radiated Electromagnetic Disturbance(9k-30MHz) (LCTECH)				
EMI Test Receiver	Rohde&Schwarz	ESCI	100939	29 Aug, 2016
Triple-loop Antenna	SCHWARZECK	FMZB 1519	045	28 Aug, 2016
Radiated Electromagnetic Disturbance(30M-300MHz) (LCTECH)				
EMI Test Receiver	R&S	ESCI 7	100965	11 Feb, 2017
Log-periodic Dipole Antenna	Schwarzbeck	VULB 9162	058	11 Feb, 2017
3m Semi-anechoic	Zhongshuo Electronics	9mx6mx6m	N/A	11 Feb, 2017
RF Cable	R&S	R01	10403	11 Feb, 2017
Harmonics (LCTECH)				
Harmonic and Flicker Analyzer	CI	PACS-1	S59176	28 Aug, 2016
AC Power Source	CI	5001ix-CTS-400	59176	28 Aug, 2016
Electrostatic Discharge (LCTECH)				
ESD Simulator	TESEQ AG	NSG 437	268	28 Aug, 2016
Injected Current (LCTECH)				
Conducted Immunity Test System	Frankonia	CIT-10/75	12B1113	28 Aug, 2016
6dB Attenuator	Weinschel	WA59-6-33	2537	28 Aug, 2016
Coupling Decoupling Network	SCHWARZECK	L-801M2/M3	2531	28 Aug, 2016
Coupling Decoupling Network	SCHWARZECK	L-801AF2	2536	28 Aug, 2016
EFT, Surge and Voltage Dips (LCTECH)				
Ultra Compact Simulator	EM TEST	UCS 500N5	V0925104927	28 Aug, 2016

Kind of Equipment	Manufacturer	Type	S/N	Calibrated until
Single-Phase Toroidal Transformer with autowinding	EM TEST	V4780S2	2538	28 Aug, 2016
Radio-Frequency Electromagnetic Field Amplitude Modulated(LCTECH)				
Signal generator	R&S	SMB 100A	102710	11 Feb, 2017
Power amplifier	BONN Elektronik	BLWA 0810-160/100D	149644	11 Feb, 2017
Isotropic Field Probe	Narda	EP-601	511WX30620	11 Feb, 2017
Log-periodic Antenna	SCHWARZBECK	STLP 9128D	078	11 Feb, 2017
Power Meter	FEANKONIA	PMS 1084	108B1289	11 Feb, 2017
Injected Current (Dongdian)				
CONDUCTED IMMUNITY TEST SYSTEM	FRANKONIA	CIT-10	126B1207	02 Jul, 2017
CDN	FRANKONIA	CDN M2+M3	A2210191	02 Jul, 2017
Attenuation	BIRD	DAM75W (6dB)	1143	02 Jul, 2017
EM lamp	FRANKONIA	EMC	132A1143/2012	02 Jul, 2017
Electrical Fast Transient(Dongdian)				
EFT Generator	EMC PARTNER	TRA3000F	TRA3000F-1502	02 Jul, 2017
Capacitive Coupling lamp	EMC PARTNER	CN-EFT1000-1514	103648	03 Jul, 2017

3. General Product Information

3.1 Product Function and Intended Use

The EUTs are LED drivers for illumination purpose, and for built-in use. Typically the driver will be mounted in metal housing or on top of the heat sink.

Differences among models:

1. In each series, models have the same circuit diagram, layout, except transformer secondary winding turns, parameters of some components in secondary circuit are different.
2. All models filled with potting material.

Table 2: Model list & classification table

Series	Model	Output current range (mA)	Max Output voltage (Vdc)	Max. output power
ESS	ESS010A-XXXX-VV-YYYYY-ZZZZZ	150-1100	60	10W
	ESS015A-XXXX-VV-YYYYY-ZZZZZ	200-1100	60	15W
	ESS020A-XXXX-VV-YYYYY-ZZZZZ	200-1100	60	20W
	ESS030A-XXXX-VV-YYYYY-ZZZZZ	300-1100	60	30W
ESP	ESP010A-XXXX-VV-YYYYY-ZZZZZ	150-1400	60	10W
	ESP020A-XXXX-VV-YYYYY-ZZZZZ	200-1400	60	20W
	ESP030A-XXXX-VV-YYYYY-ZZZZZ	300-1400	60	30W
	ESP040A-XXXX-VV-YYYYY-ZZZZZ	400-1400	60	40W
	ESP050A-XXXX-VV-YYYYY-ZZZZZ	500-1400 500-1200	60 60	48W 50W

1. A= W or E, for marketing purpose only, products are the same.
2. XXXX = 4 digits, means output current in mA, and current step is 50mA.
3. VV= 2 digits, means max. rated output voltage.
4. YYYYY: Y =0~9, A~Z or blank, for marketing purpose only, products are the same.
5. ZZZZZ: Z =0~9, A~Z or blank, for marketing purpose only, products are the same.

For more information refer to the Circuit diagram & Instruction Manual.

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3.2 Ratings and System Details

System input voltage:	AC 220-240V
Frequency:	50/60Hz
Output:	Refer to above table 2
Protection class:	II

3.3 Independent Operation Modes

The basic operation modes are:

- A. On (Dimmable)
 - 1, Maximum load
 - 2, Medium load
 - 3, Minimum load
- B. Off.

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Schematic Diagram.

3.5 Submitted Documents

- Rating label
- PCB layout
- Instruction manual
- Schematic diagram

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

Immunity: The equipment under test (EUT) was configured to have its highest possible susceptibility against the tested phenomena. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5 & 6. According to models' difference indicated in Clause 3.1, full tests were carried out on models ESP050W-1200-42 & ESS030W-1100-27, and additional EMI tests were applied to models ESP020W-0440-25, ESP040W-0700-56, ESP050W-1400-34, ESS010W-0225-27-ABL1 & ESS030W-0500-56. The test setup complied with typically installation described in section 3.1.

4.3 Special Accessories and Auxiliary Equipment

The EUTs were tested together with the dimmer during testing, and the dimmer was provided by client, refer to the below information for details:

Description	Manufacturer	M/N	S/N
Dimmer	GUOSHENG	3296	--

4.4 Countermeasures to achieve EMC Compliance

The test samples, which have been tested, contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

5. Test Results EMISSION

5.1 Emission in the Frequency Range up to 30 MHz

5.1.1 Harmonics on AC Mains

RESULT: **Pass**

Date of testing	:	2016-07-07
Test procedure	:	EN 61000-3-2:2014
Class	:	C
Limit	:	Table 2
Measuredharmonics	:	1 – 40

Test setup

Input Voltage	:	AC 230V±2%, 50Hz
Operation Condition	:	According to Annex C.5
Operation mode	:	A
Earthing	:	Not connected

Refer to attached Appendix 1.

Remark: Since the active input power of the EUT is $\leq 25W$ and there is no applicable limit described in EN61000-3-2:2014 for class C equipment below 25W other than discharge lighting equipment. In conclusion, the harmonics test was applied to models ESP050W-1200-42, ESS030W-1100-27, ESP050W-1400-34, ESP040W-0700-56 & ESS030W-0500-56 only.

5.1.2 Voltage Fluctuations on AC Mains

RESULT:**Pass**

Test procedure	:	EN 61000-3-3:2013
Limit	:	Clause 5
Frequency range	:	0 - 2kHz

The max.rated input power of the EUTs is about 50W only, which unlikely to produce significant voltage fluctuation. Therefore no test was applied.

See clause 6.1***

*** EN 61000-3-3:2013, clause 6.1:" ... Tests need not be made on equipment which is unlikely to produce significant voltage fluctuations or flicker. ..."

5.1.3 Terminal Continuous Disturbance Voltage at AC Mains

RESULT:**Pass**

Date of testing : 2016-05-23 to 2016-06-25
Test standard : EN 55015:2013
Frequency range : 0.009 - 30MHz
Limits : Table 2a
Kind of test site : Shielded room

Test setup

Input Voltage : AC 220-240V±2%, 50/60Hz
Operation Condition : According to Clause 6, 8.1.1, 8.1.4 & 8.4.2
Operation mode : A
Earthing : Not connected

Detailed test data refer to attached Appendix 1.

Remark: The measured result is below the specification limit by a margin less than the measurement uncertainty (the minimum margin is 0.47dB at frequency 4.8100MHz and the test lab's measurement uncertainty of this test is 3.12dB); And as the test lab's measurement uncertainty of this test item is less than U_{cispr} (3.6dB), (U_{cispr} - the uncertainty recommended by CISPR (3.6dB), therefore the EUT is deemed to comply with the disturbance limit according to Clause 4.1 of CISPR 16-4-2: 2003. Above situation was aware to the client, and it was considered as acceptable by the client as well.

5.1.4 Terminal Continuous Disturbance Voltage at Load Terminal

Not Applicable

Date of testing	:	--
Test standard	:	EN 55015:2013
Frequency range	:	0.009 - 30MHz
Limits	:	Table 2b
Kind of test site	:	Shielded room

Remark: The EUTs are for built-in use, comply with the condition described in clause 5.3.3.3 b) of EN 55015:2013, therefore no need test for disturbance voltage at load terminal.

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Page 15 of 31**5.1.5 Terminal Continuous Disturbance Voltage at Control Terminal****RESULT:** **Pass**

Date of testing : 2016-06-22 to 2016-07-01
Test standard : EN 55015:2013
Frequency range : 0.009 - 30MHz
Limits : Table 2c
Kind of test site : Shielded room

Test setup

Input Voltage : AC 220-240V±2%, 50/60Hz
Operation Condition : According to Clause 6, 8.1.3 & 8.1.4
Operation mode : A
Earthing : Not connected

Detailed test data refer to attached Appendix 1.

Prüfbericht - Nr.: 50050570 001
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Page 16 of 31**5.1.6 Radiated Electromagnetic Disturbances****RESULT:****Pass**

Date of testing : 2016-07-01 to 2016-07-02
Test standard : EN 55015:2013
Frequency range : 0.009 – 30MHz
Limits : Table 3a
Kind of test site : Shielded room

Test setup

Input Voltage : AC 220-240±2%, 50/60Hz
Operation Condition : According to Clause 6, 9.1 & 9.4
Operation mode : A
Earthing : Not connected

Detailed test data refer to attached Appendix 1.

5.2 Emission in the Frequency Range above 30 MHz

5.2.1 Radiated Electromagnetic Disturbances

RESULT:**Pass**

Date of testing : 2016-06-22 to 2016-07-05
Test standard : EN 55015:2013
Basic standard : CISPR 32:2012
Frequency range : 30 – 300MHz
Limits : Table 3b of EN 55015:2013
Kind of test site : 3m semi-anechoic chamber

Test setup:

Input Voltage : AC 220-240±2%, 50/60Hz
Operation Condition : According to Clause 6 & 9.2
Operation mode : A
Earthing : Not connected

Detailed test data refer to attached Appendix 1.

Remark: The measured result is below the specification limit by a margin less than the measurement uncertainty (the minimum margin is 1.59dB and the test lab's measurement uncertainty of this test is 3.16dB); And as the test lab's measurement uncertainty of this test item is less than Ucispr (5.2dB), (Ucispr - the uncerainty recommended by CISPR (5.2dB), therefore the EUT is deemed to comply with the disturbance limit according to Clause 4.1 of CISPR 16-4-2: 2003. Above situation was awared to the client, and it was considered as acceptable by the client as well.

6. Test Results IMMUNITY

6.1 Classification of apparatus

According to EN 61547:2009, the EUTs belong to independent auxiliaries, and shall be tested in accordance with clause 5 and comply with the performance criterion of table 14.

Continuous Disturbance

Radio-Frequency Electromagnetic Fields (RS)	Criterion A
Injected Currents	Criterion A
Power Frequency Magnetic Fields *	Criterion A

Transient Disturbance

Fast Transient (EFT)	Criterion B
Surge	Criterion C
Electrostatic Discharges (ESD)	Criterion B

Power supply Alterations

Voltage Dips and Interruptions 30% Voltage Reduction, 10 Periods	Criterion C
100% Voltage Reduction, 0.5 Periods	Criterion B

Remark:

- *- Power Frequency Magnetic Fields is not applicable, since the EUTs do not contain any components susceptible to magnetic fields.
- For EFT & Injected Currents tests at control line, only applicable to ports interfacing with cables whose total length, according to the manufacturer's specification, may exceed 3 m. According to description of client, the length of control line is less than 3 m, hence no need EFT & inject currents tests for control line.

6.2 Continuous Disturbances

6.2.1 Radio-Frequency Electromagnetic Field (RS)

RESULT:**Pass**

Date of Testing	:	2016-06-28
Test Specification	:	EN 61547:2009 Table 2
Basic Standard	:	IEC 61000-4-3:2006
Criterion	:	A
Frequency Range	:	80 – 1,000MHz
Test Level	:	3V/m (Unmodulated, rms)
Modulation	:	80% AM, 1kHz

Test setup

Input Voltage	:	AC 220-240V, 50/60Hz
Operation Mode	:	A
Earthing	:	Not connected
Ambient Temperature	:	See Appendix 1
Relative Humidity	:	See Appendix 1
Atmospheric Pressure	:	See Appendix 1

Refer to attached Appendix 1

6.2.2 Injected Currents / Conducted Susceptibility (CS)

RESULT:**Pass**

Date of testing : 2016-06-28 & 2016-07-19
Test Specification : EN 61547:2009, Table 8 & 9
Basic Standard : IEC 61000-4-6:2006
Criterion : A
Frequency range : 0.15 – 80MHz
Source impedance : 150Ω
Test level : Level 2 (3V) (unmodulated, rms.)
Modulation : AM 80%, 1kHz sine-wave
Sweep mode : automatic
Sweep rate : < 1.5×10⁻³ decade / sec.

Test setup

Input Voltage : AC 220-240V, 50/60Hz
Operation Mode : A
Earthing : Not connected
Ambient temperature : See Appendix 1
Relative humidity : See Appendix 1
Atmospheric pressure : See Appendix 1

Refer to attached Appendix 1

6.3 Transient Disturbances

6.3.1 Electrical Fast Transients (EFT)

RESULT: **Pass**

Date of testing	:	2016-06-28 & 2016-07-19
Test Specification	:	EN 61547:2009, Table 5 & 6
Basic Standard	:	IEC 61000-4-4:2004
Criterion	:	B
Test level	:	±0.5kV (DC output) ±1kV (AC input)
Test duration	:	≥60sec
Rise time	:	5/50ns
Repetition frequency	:	5 kHz

Test setup

Input Voltage	:	AC 220-240V, 50/60Hz
Operation Mode	:	A
Earthing	:	Not connected
Ambient temperature	:	See Appendix 1
Relative humidity	:	See Appendix 1
Atmospheric pressure	:	See Appendix 1

Refer to attached Appendix 1

6.3.2 Surge

RESULT:**Pass**

Date of testing	:	2016-06-28
Test Specification	:	EN 61547:2009, Table 10
Basic Standard	:	IEC 61000-4-5:2005
Criterion	:	C
Source impedance	:	2 Ω
Test level	:	$\pm 0.5\text{kV}$, $\pm 1\text{kV}$
Coupling phases	:	$\pi/2$, $3\pi/2$
Number of surges	:	5 (for each combination of parameters)
Repetition rate	:	Max. 1/min

Test Setup

Input Voltage	:	AC 220-240V, 50/60Hz
Operation Mode	:	A
Earthing	:	Not connected
Ambient temperature	:	See Appendix 1
Relative humidity	:	See Appendix 1
Atmospheric pressure	:	See Appendix 1

Refer to attached Appendix 1

6.3.3 Electrostatic Discharges (ESD)

RESULT:**Pass**

Date of testing	:	2016-06-28
Test Specification	:	EN 61547:2009, Table 1
Basic Standard	:	IEC 61000-4-2:2008
Criterion	:	B
Discharge voltage	:	±2kV, ±4kV, ±8kV (air discharge) ±4kV (contact discharge)
Number of discharges	:	>10

Test Setup

Input Voltage	:	AC 220-240V, 50/60Hz
Operation Mode	:	A
Earthing	:	Not connected
Ambient temperature	:	See Appendix 1
Relative humidity	:	See Appendix 1
Atmospheric pressure	:	See Appendix 1

Refer to attached Appendix 1

6.4 Power Supply Alterations

6.4.1 Voltage Dip and Interruption

RESULT:**Pass**

Date of testing : 2016-06-28
Test Specification : EN 61547:2009, Table 11 & 12
Basic Standard : IEC 61000-4-11:2004
Criterion : C - table 11
 : B - table 12

Test Setup

Input Voltage : AC 220-240V, 50/60Hz
Operation Mode : A
Earthing : Not connected
Ambient temperature : See Appendix 1
Relative humidity : See Appendix 1
Atmospheric pressure : See Appendix 1

Refer to attached Appendix 1

7. Photographs of the Test Set-Up

Photograph 1: Set-up for Harmonics



Photograph 2: Set-up for Disturbance Voltage
AC Mains:



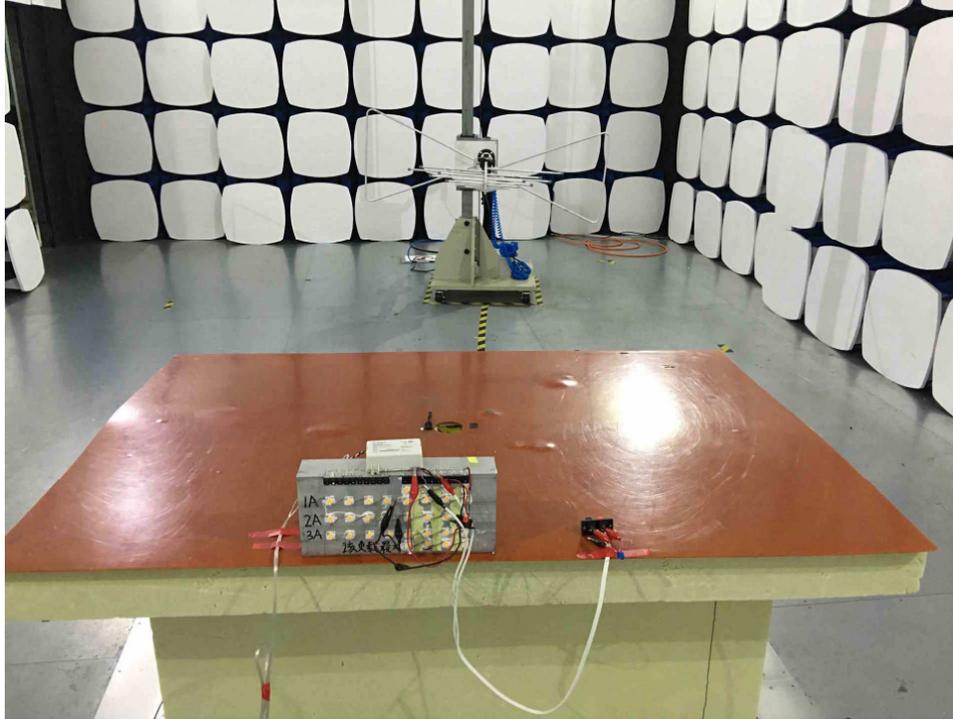
Control terminal:



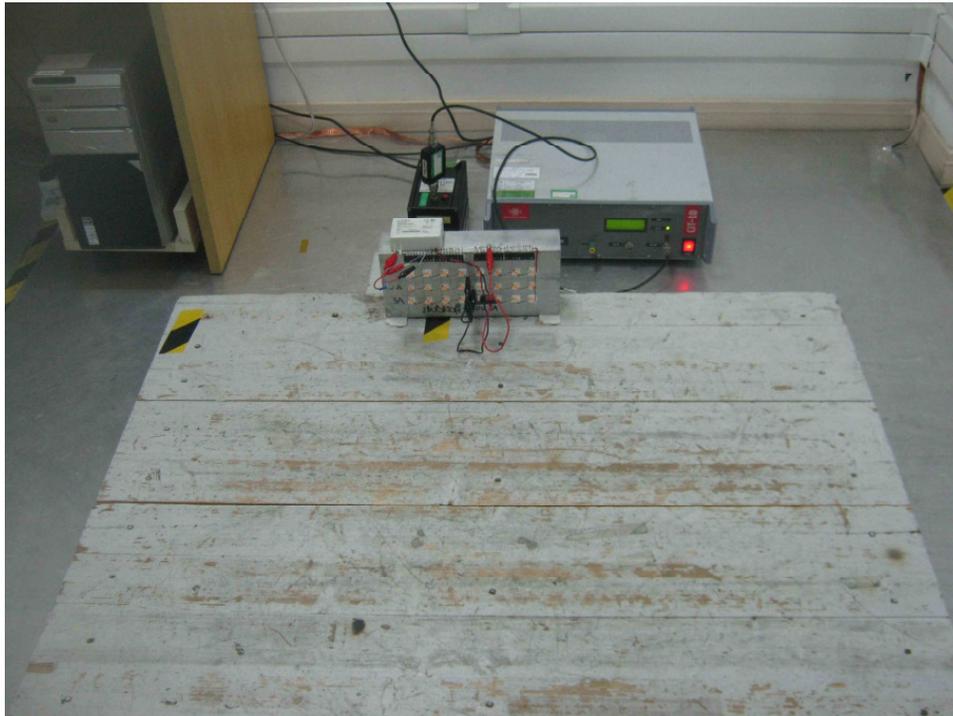
Photograph 3: Set-up for Radiated Electromagnetic Disturbances (Table 3a)



Photograph 4: Set-up for Radiated Electromagnetic Disturbances (Table 3b)



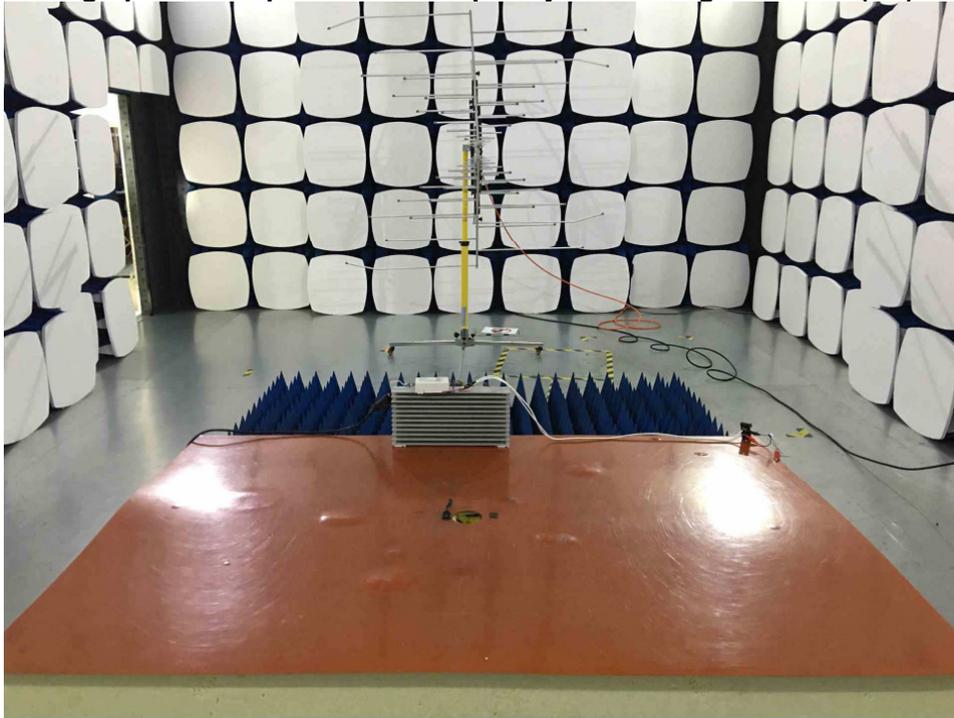
Photograph 5: Set-up for Injected Currents on AC Mains & DC Output (CS)
AC Mains:



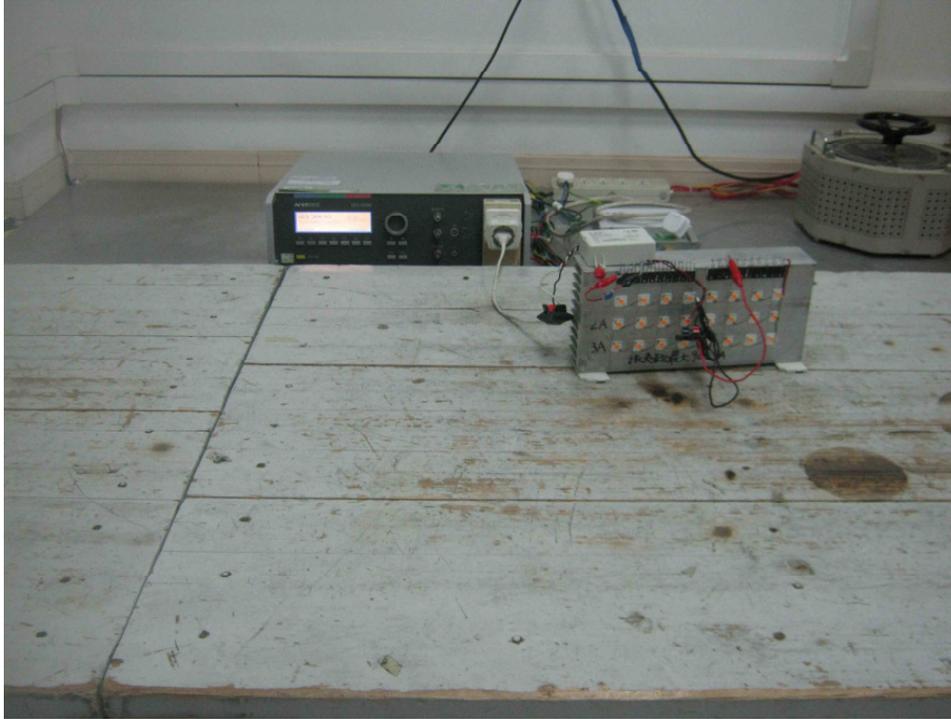
DC output:



Photograph 6: Set-up for Radio-Frequency Electromagnetic Field (RS)



Photograph 7: Set-up for EFT, Surge & Voltage Dips on AC Mains



Photograph 8: Set-up for EFT on DC output



Photograph 9: Set-up for Electrostatic Discharges (ESD)



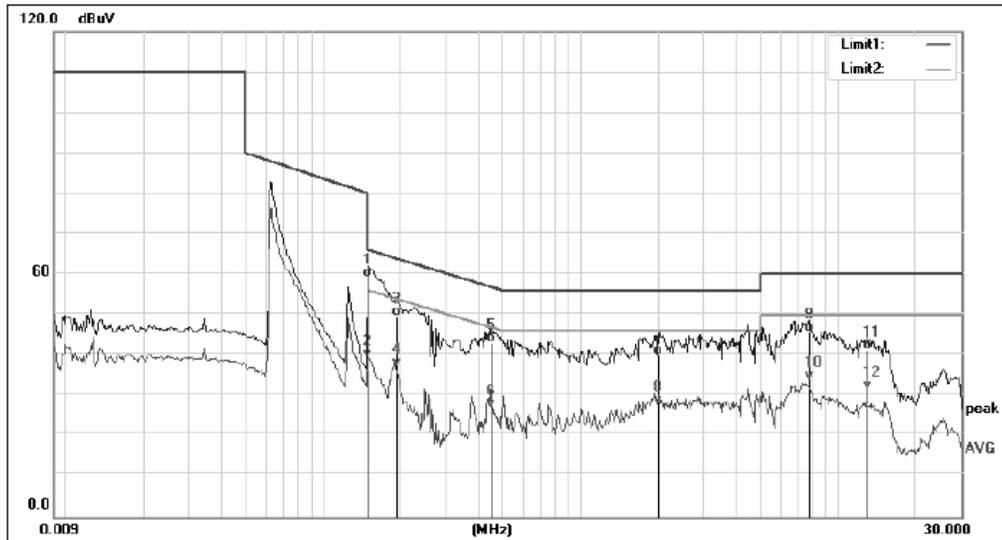
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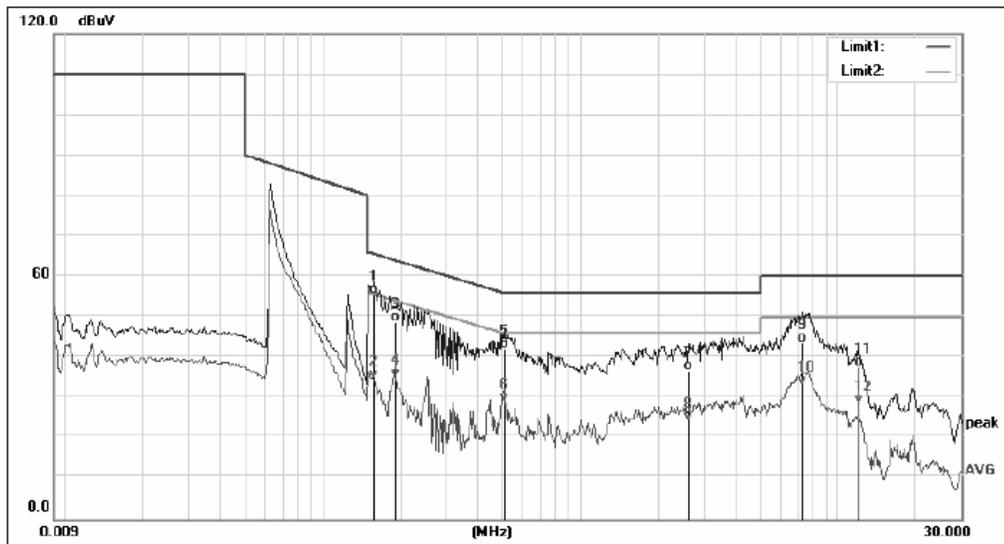
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Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/25/
Test item:	Conduction Test	Time:	10/25/33
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP020W- 0440-25		
Note:	L1		



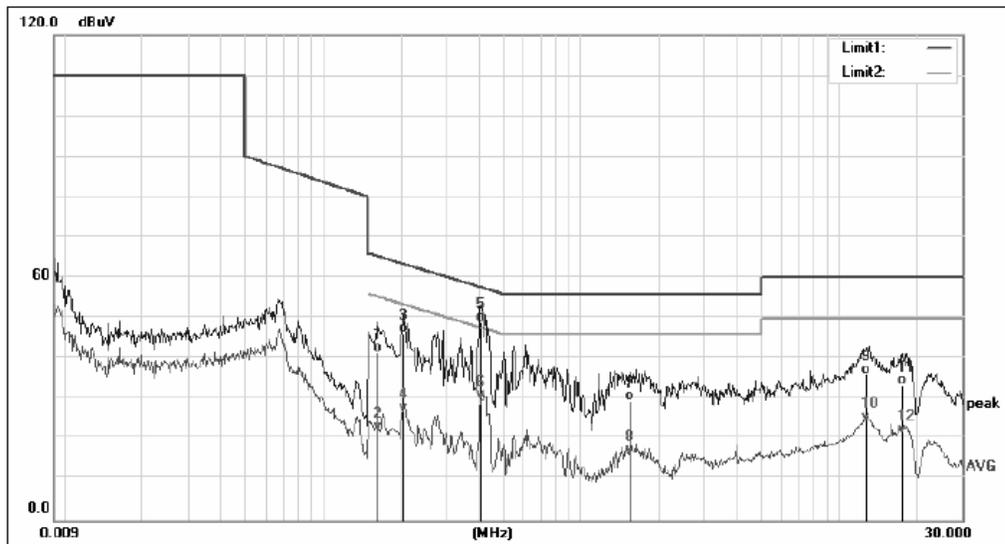
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	49.48	9.64	59.12	66.00	-6.88	QP
2	0.1500	29.59	9.64	39.23	55.99	-16.76	AVG
3	0.1916	40.08	9.66	49.74	63.97	-14.23	QP
4	0.1916	27.53	9.66	37.19	53.96	-16.77	AVG
5	0.4500	33.45	9.67	43.12	56.88	-13.76	QP
6	0.4500	17.30	9.67	26.97	46.87	-19.90	AVG
7	2.0059	30.30	9.74	40.04	56.00	-15.96	QP
8	2.0059	17.97	9.74	27.71	46.00	-18.29	AVG
9	7.6940	35.68	10.01	45.69	60.00	-14.31	QP
10	7.6940	23.63	10.01	33.64	50.00	-16.36	AVG
11	13.0300	31.06	10.13	41.19	60.00	-18.81	QP
12	13.0300	21.35	10.13	31.48	50.00	-18.52	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/25/
Test item:	Conduction Test	Time:	10/30/28
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP020W- 0440-25		
Note:	N		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1580	46.05	9.64	55.69	65.57	-9.88	QP
2	0.1580	25.03	9.64	34.67	55.57	-20.90	AVG
3	0.1916	39.18	9.66	48.84	63.97	-15.13	QP
4	0.1916	25.28	9.66	34.94	53.97	-19.03	AVG
5	0.5060	32.34	9.67	42.01	56.00	-13.99	QP
6	0.5060	19.15	9.67	28.82	46.00	-17.18	AVG
7	2.6260	27.02	9.79	36.81	56.00	-19.19	QP
8	2.6260	14.29	9.79	24.08	46.00	-21.92	AVG
9	7.3060	33.69	9.99	43.68	60.00	-16.32	QP
10	7.3060	23.20	9.99	33.19	50.00	-16.81	AVG
11	12.0540	27.57	10.12	37.69	60.00	-22.31	QP
12	12.0540	18.32	10.12	28.44	50.00	-21.56	AVG

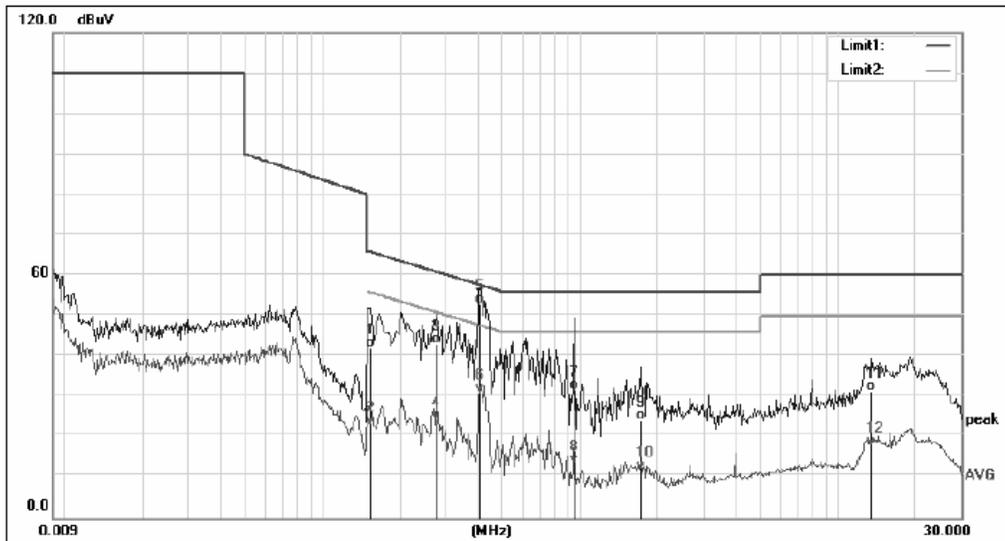
Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/06/23/
Test item:	Conduction Test	Time:	9/04/04
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESP020W- 0440-25		
Note:	L1		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1620	31.98	9.65	41.63	65.36	-23.73	QP
2	0.1620	12.47	9.65	22.12	55.36	-33.24	AVG
3	0.2060	36.55	9.66	46.21	63.37	-17.16	QP
4	0.2060	17.10	9.66	26.76	53.37	-26.61	AVG
5	0.4100	39.47	9.68	49.15	57.65	-8.50	QP
6	0.4100	20.11	9.68	29.79	47.65	-17.86	AVG
7	1.5420	19.97	9.73	29.70	56.00	-26.30	QP
8	1.5420	6.53	9.73	16.26	46.00	-29.74	AVG
9	12.7900	26.13	10.13	36.26	60.00	-23.74	QP
10	12.7900	14.41	10.13	24.54	50.00	-25.46	AVG
11	17.6500	23.14	10.42	33.56	60.00	-26.44	QP

12	17.6500	11.09	10.42	21.51	50.00	-28.49	AVG
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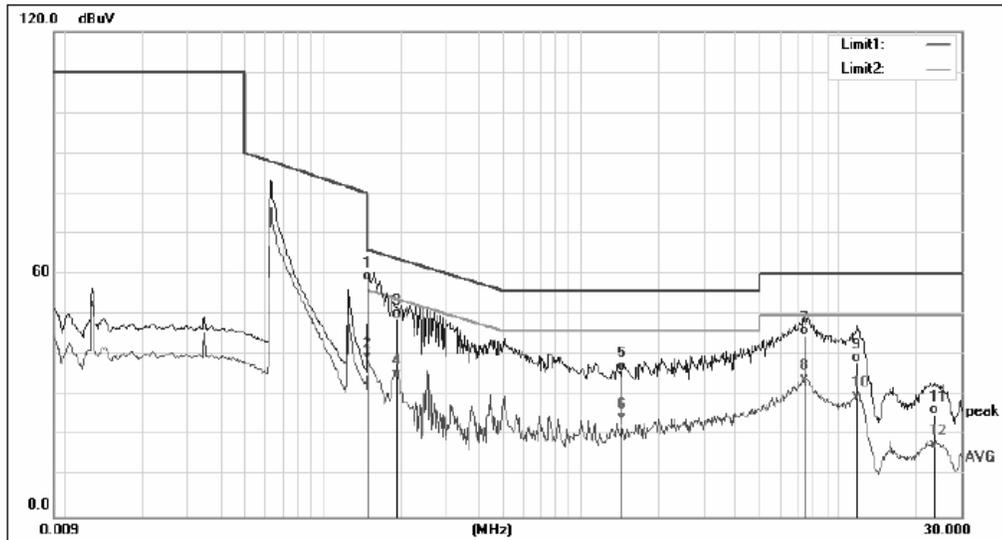
Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/06/23/
Test item:	Conduction Test	Time:	8/59/42
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESP020W- 0440-25		
Note:	N		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1540	32.56	9.64	42.20	65.78	-23.58	QP
2	0.1540	13.45	9.64	23.09	55.78	-32.69	AVG
3	0.2780	33.42	9.66	43.08	60.88	-17.80	QP
4	0.2780	14.48	9.66	24.14	50.88	-26.74	AVG
5	0.4100	43.35	9.68	53.03	57.65	-4.62	QP
6	0.4100	21.42	9.68	31.10	47.65	-16.55	AVG
7	0.9500	21.97	9.72	31.69	56.00	-24.31	QP
8	0.9500	3.51	9.72	13.23	46.00	-32.77	AVG
9	1.7180	14.42	9.73	24.15	56.00	-31.85	QP
10	1.7180	2.22	9.73	11.95	46.00	-34.05	AVG

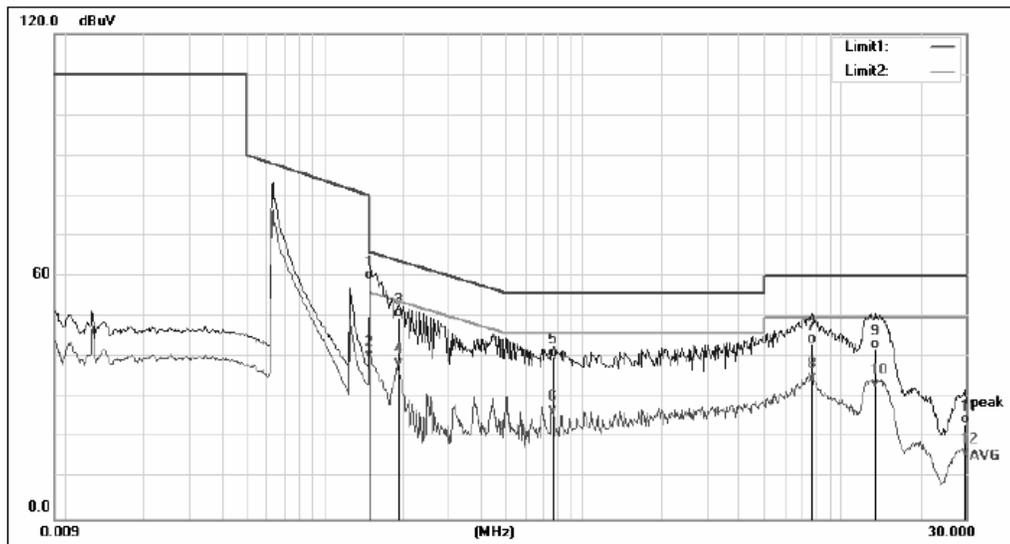
11	13.5100	21.18	10.14	31.32	60.00	-28.68	QP
12	13.5100	7.85	10.14	17.99	50.00	-32.01	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/23/
Test item:	Conduction Test	Time:	19/48/10
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP040W-0700-56		
Note:	L1		



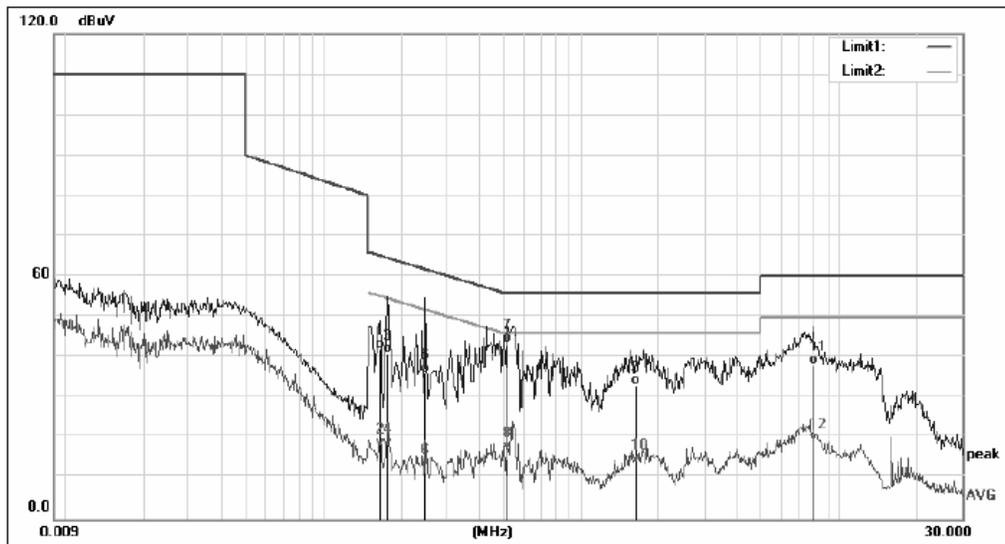
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	48.85	9.64	58.49	66.00	-7.51	QP
2	0.1500	29.00	9.64	38.64	56.00	-17.36	AVG
3	0.1940	39.37	9.66	49.03	63.86	-14.83	QP
4	0.1940	24.83	9.66	34.49	53.86	-19.37	AVG
5	1.4460	26.42	9.73	36.15	56.00	-19.85	QP
6	1.4460	13.76	9.73	23.49	46.00	-22.51	AVG
7	7.4100	34.80	10.00	44.80	60.00	-15.20	QP
8	7.4100	23.03	10.00	33.03	50.00	-16.97	AVG
9	11.8140	28.08	10.12	38.20	60.00	-21.80	QP
10	11.8140	18.89	10.12	29.01	50.00	-20.99	AVG
11	23.6340	14.71	10.59	25.30	60.00	-34.70	QP
12	23.6340	6.46	10.59	17.05	50.00	-32.95	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/23/
Test item:	Conduction Test	Time:	19/43/28
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP040W-0700-56		
Note:	N		



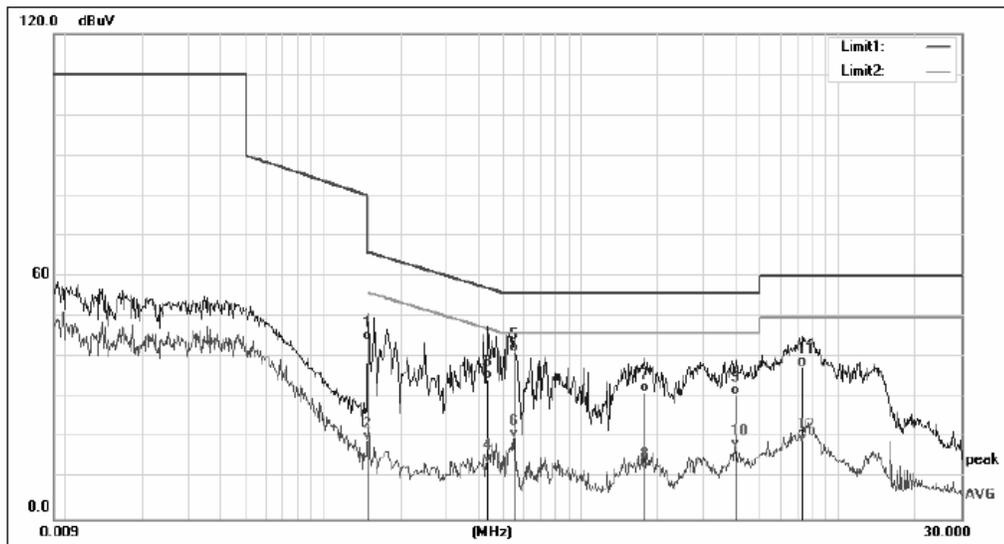
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	49.75	9.64	59.39	66.00	-6.61	QP
2	0.1500	29.96	9.64	39.60	56.00	-16.40	AVG
3	0.1916	40.34	9.66	50.00	63.97	-13.97	QP
4	0.1916	28.10	9.66	37.76	53.97	-16.21	AVG
5	0.7620	30.36	9.69	40.05	56.00	-15.95	QP
6	0.7620	16.16	9.69	25.85	46.00	-20.15	AVG
7	7.6620	33.46	10.00	43.46	60.00	-16.54	QP
8	7.6620	24.08	10.00	34.08	50.00	-15.92	AVG
9	13.3940	32.04	10.14	42.18	60.00	-17.82	QP
10	13.3940	22.34	10.14	32.48	50.00	-17.52	AVG
11	29.8780	13.13	10.49	23.62	60.00	-36.38	QP
12	29.8780	5.06	10.49	15.55	50.00	-34.45	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/06/23/
Test item:	Conduction Test	Time:	9/32/20
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESP040W-0700-56		
Note:	L1		



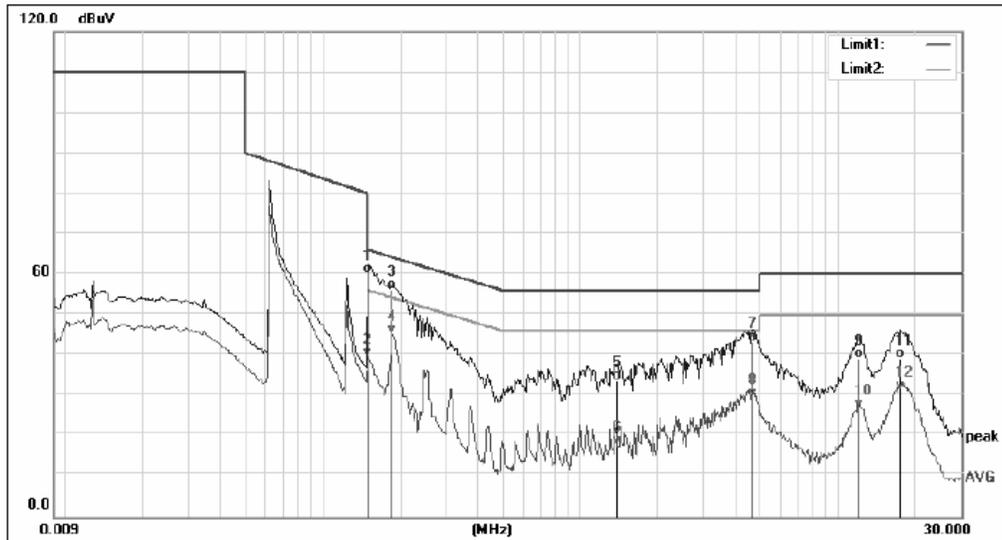
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1660	32.59	9.65	42.24	65.16	-22.92	QP
2	0.1660	8.17	9.65	17.82	55.16	-37.34	AVG
3	0.1780	31.45	9.65	41.10	64.58	-23.48	QP
4	0.1780	8.13	9.65	17.78	54.58	-36.80	AVG
5	0.2500	26.44	9.65	36.09	61.76	-25.67	QP
6	0.2500	3.05	9.65	12.70	51.76	-39.06	AVG
7	0.5180	34.05	9.67	43.72	56.00	-12.28	QP
8	0.5180	7.34	9.67	17.01	46.00	-28.99	AVG
9	1.6380	23.35	9.73	33.08	56.00	-22.92	QP
10	1.6380	4.34	9.73	14.07	46.00	-31.93	AVG
11	7.9500	28.11	10.01	38.12	60.00	-21.88	QP
12	7.9500	8.93	10.01	18.94	50.00	-31.06	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/06/23/
Test item:	Conduction Test	Time:	9/37/01
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESP040W-0700-56		
Note:	N		



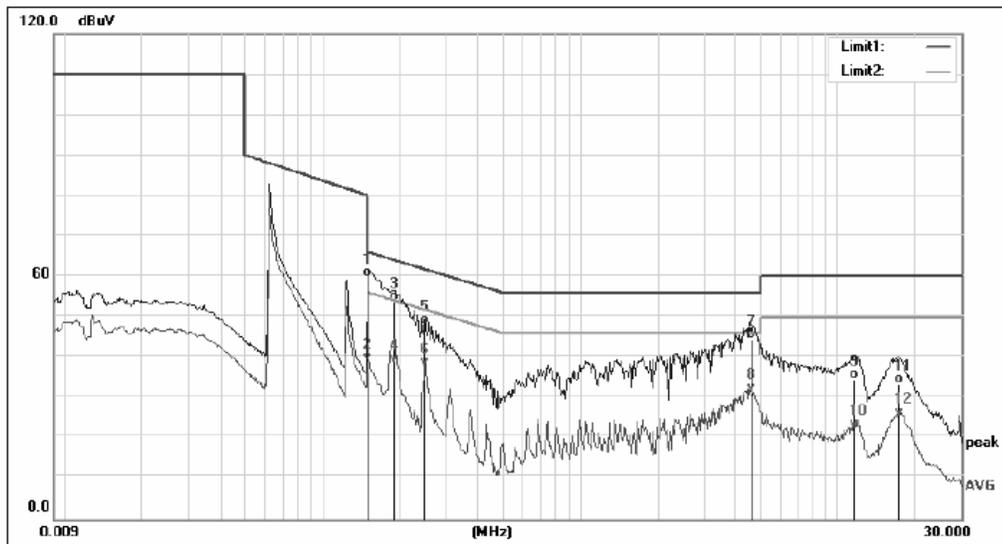
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	34.47	9.64	44.11	66.00	-21.89	QP
2	0.1500	9.79	9.64	19.43	56.00	-36.57	AVG
3	0.4380	25.03	9.68	34.71	57.10	-22.39	QP
4	0.4380	4.36	9.68	14.04	47.10	-33.06	AVG
5	0.5500	31.68	9.68	41.36	56.00	-14.64	QP
6	0.5500	10.37	9.68	20.05	46.00	-25.95	AVG
7	1.7700	21.47	9.74	31.21	56.00	-24.79	QP
8	1.7700	2.11	9.74	11.85	46.00	-34.15	AVG
9	4.0020	20.91	9.81	30.72	56.00	-25.28	QP
10	4.0020	7.68	9.81	17.49	46.00	-28.51	AVG
11	7.2380	27.81	9.99	37.80	60.00	-22.20	QP
12	7.2380	9.19	9.99	19.18	50.00	-30.82	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/23/
Test item:	Conduction Test	Time:	19/00/34
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESPO50W-1200-42		
Note:	L1		



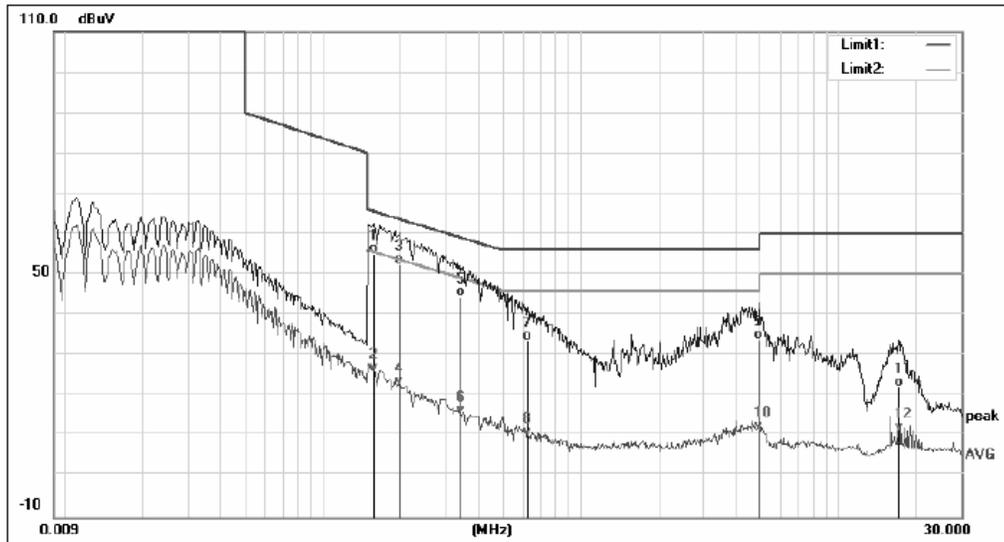
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	50.57	9.64	60.21	66.00	-5.79	QP
2	0.1500	29.67	9.64	39.31	56.00	-16.69	AVG
3	0.1860	46.67	9.66	56.33	64.21	-7.88	QP
4	0.1860	35.43	9.66	45.09	54.21	-9.12	AVG
5	1.3780	24.17	9.72	33.89	56.00	-22.11	QP
6	1.3780	8.22	9.72	17.94	46.00	-28.06	AVG
7	4.7140	33.34	9.87	43.21	56.00	-12.79	QP
8	4.7140	19.80	9.87	29.67	46.00	-16.33	AVG
9	12.0740	28.97	10.12	39.09	60.00	-20.91	QP
10	12.0740	16.83	10.12	26.95	50.00	-23.05	AVG
11	17.5260	28.66	10.41	39.07	60.00	-20.93	QP
12	17.5260	21.02	10.41	31.43	50.00	-18.57	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/23/
Test item:	Conduction Test	Time:	19/05/09
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESPO50W-1200-42		
Note:	N		



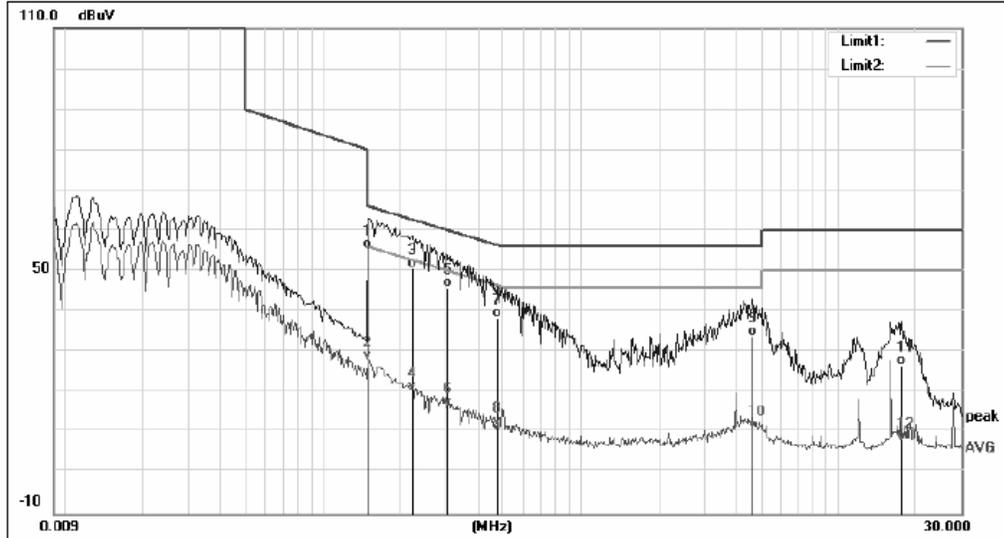
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1502	50.20	9.64	59.84	65.99	-6.15	QP
2	0.1502	29.20	9.64	38.84	55.99	-17.15	AVG
3	0.1940	44.08	9.66	53.74	63.86	-10.12	QP
4	0.1940	28.96	9.66	38.62	53.86	-15.24	AVG
5	0.2504	38.43	9.65	48.08	61.74	-13.66	QP
6	0.2504	27.87	9.65	37.52	51.74	-14.22	AVG
7	4.6300	34.67	9.86	44.53	56.00	-11.47	QP
8	4.6300	21.61	9.86	31.47	46.00	-14.53	AVG
9	11.5940	24.50	10.11	34.61	60.00	-25.39	QP
10	11.5940	12.32	10.11	22.43	50.00	-27.57	AVG
11	17.2700	23.14	10.38	33.52	60.00	-26.48	QP
12	17.2700	14.92	10.38	25.30	50.00	-24.70	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	2016/06/23
Test item:	Conduction Test	Time:	19:09:54
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESPO50W-1200-42		
Note:	L1		



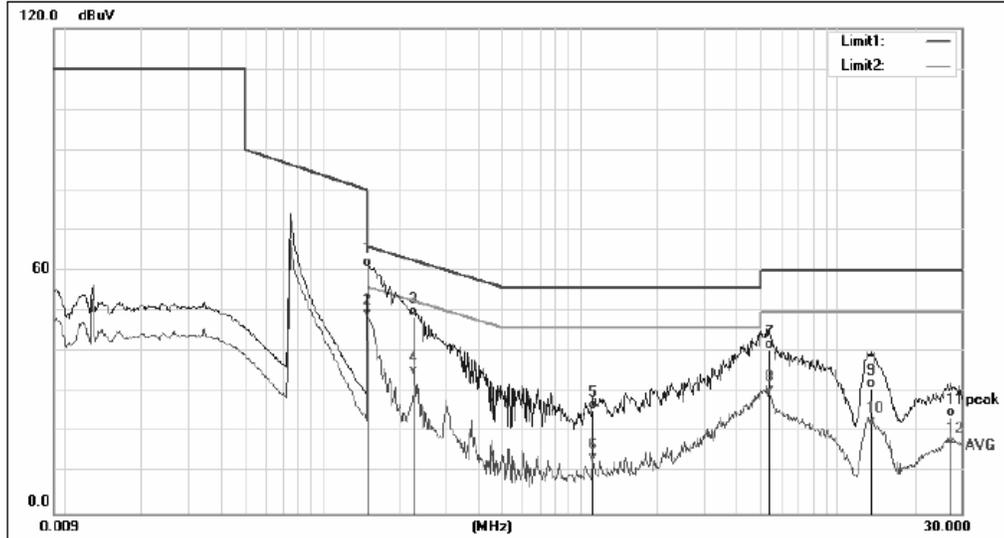
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1580	45.69	9.64	55.33	65.57	-10.24	QP
2	0.1580	16.11	9.64	25.75	55.57	-29.82	AVG
3	0.1980	42.98	9.66	52.64	63.69	-11.05	QP
4	0.1980	12.85	9.66	22.51	53.69	-31.18	AVG
5	0.3420	34.83	9.67	44.50	59.15	-14.65	QP
6	0.3420	5.71	9.67	15.38	49.15	-33.77	AVG
7	0.6260	24.05	9.69	33.74	56.00	-22.26	QP
8	0.6260	0.15	9.69	9.84	46.00	-36.16	AVG
9	4.9180	23.93	9.88	33.81	56.00	-22.19	QP
10	4.9180	1.49	9.88	11.37	46.00	-34.63	AVG
11	17.4980	11.88	10.40	22.28	60.00	-37.72	QP
12	17.4980	0.83	10.40	11.23	50.00	-38.77	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	2016/06/23
Test item:	Conduction Test	Time:	19:15:07
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESPO50W-1200-42		
Note:	N		



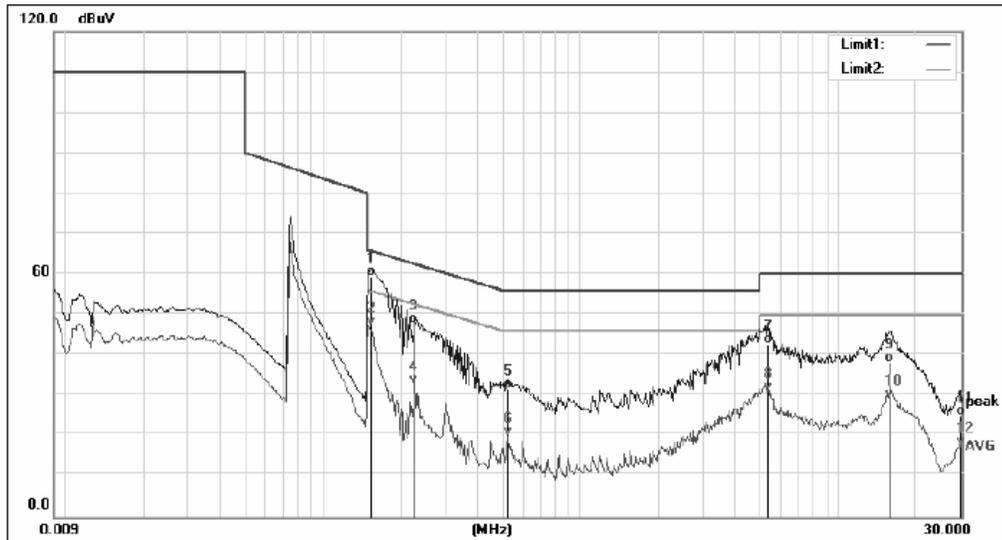
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	46.03	9.64	55.67	66.00	-10.33	QP
2	0.1500	18.18	9.64	27.82	56.00	-28.18	AVG
3	0.2220	41.11	9.66	50.77	62.74	-11.97	QP
4	0.2220	10.70	9.66	20.36	52.74	-32.38	AVG
5	0.3060	36.21	9.66	45.87	60.08	-14.21	QP
6	0.3060	7.01	9.66	16.67	50.08	-33.41	AVG
7	0.4740	28.78	9.67	38.45	56.44	-17.99	QP
8	0.4740	2.06	9.67	11.73	46.44	-34.71	AVG
9	4.6700	23.98	9.86	33.84	56.00	-22.16	QP
10	4.6700	0.93	9.86	10.79	46.00	-35.21	AVG
11	17.6340	16.43	10.42	26.85	60.00	-33.15	QP
12	17.6340	-2.48	10.42	7.94	50.00	-42.06	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/23/
Test item:	Conduction Test	Time:	19/29/41
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESPO50W-1400-34		
Note:	L1		



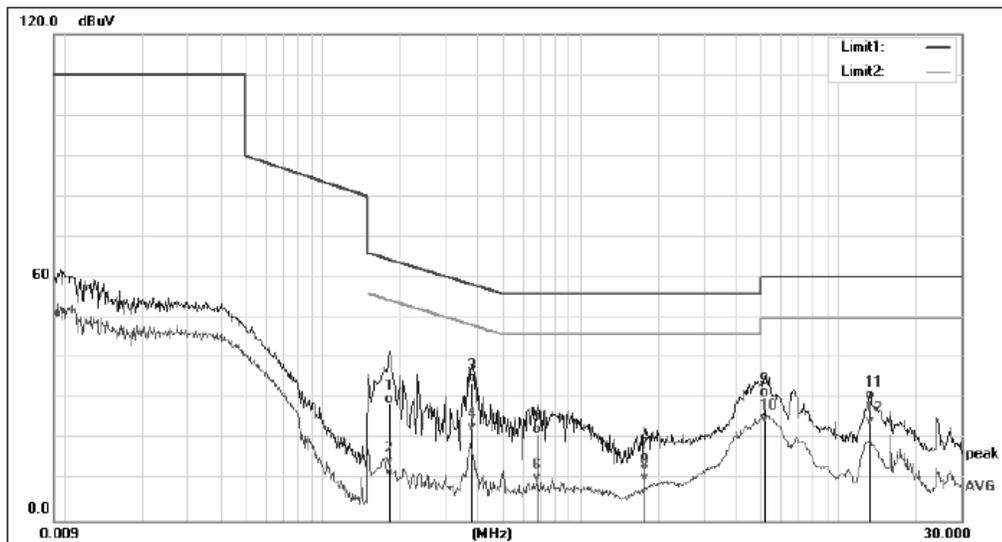
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	51.48	9.64	61.12	66.00	-4.88	QP
2	0.1500	38.80	9.64	48.44	56.00	-7.56	AVG
3	0.2260	39.04	9.65	48.69	62.59	-13.90	QP
4	0.2260	24.55	9.65	34.20	52.59	-18.39	AVG
5	1.1220	16.07	9.71	25.78	56.00	-30.22	QP
6	1.1220	3.16	9.71	12.87	46.00	-33.13	AVG
7	5.3740	30.65	9.91	40.56	60.00	-19.44	QP
8	5.3740	19.69	9.91	29.60	50.00	-20.40	AVG
9	13.4260	20.82	10.14	30.96	60.00	-29.04	QP
10	13.4260	11.72	10.14	21.86	50.00	-28.14	AVG
11	27.4740	13.41	10.53	23.94	60.00	-36.06	QP
12	27.4740	6.02	10.53	16.55	50.00	-33.45	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/23/
Test item:	Conduction Test	Time:	19/34/35
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESPO50W-1400-34		
Note:	N		



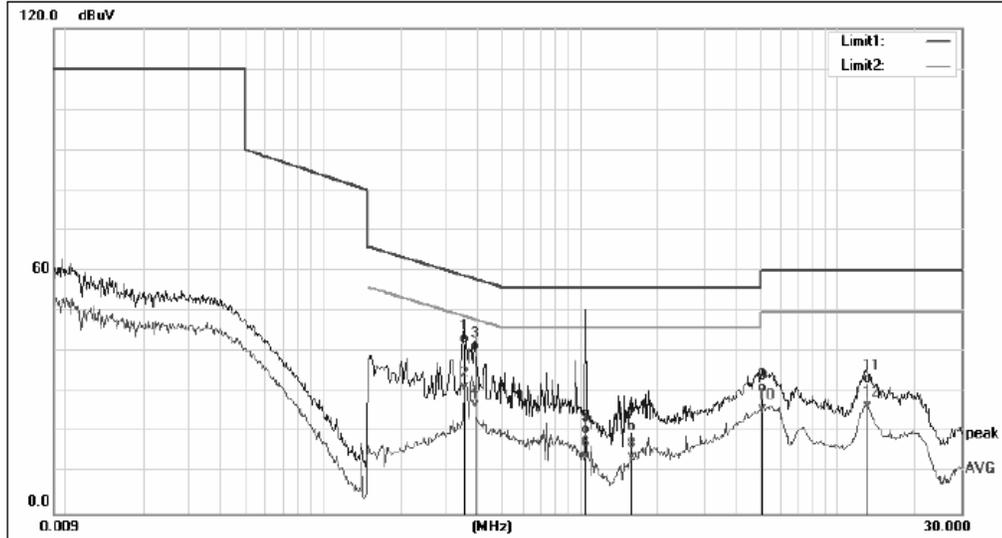
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1527	50.01	9.64	59.65	65.85	-6.20	QP
2	0.1527	37.72	9.64	47.36	55.85	-8.49	AVG
3	0.2260	38.09	9.65	47.74	62.60	-14.86	QP
4	0.2260	23.19	9.65	32.84	52.60	-19.76	AVG
5	0.5220	21.89	9.67	31.56	56.00	-24.44	QP
6	0.5220	10.29	9.67	19.96	46.00	-26.04	AVG
7	5.3420	32.75	9.91	42.66	60.00	-17.34	QP
8	5.3420	21.16	9.91	31.07	50.00	-18.93	AVG
9	15.7180	28.06	10.23	38.29	60.00	-21.71	QP
10	15.7180	19.09	10.23	29.32	50.00	-20.68	AVG
11	29.9420	14.54	10.49	25.03	60.00	-34.97	QP
12	29.9420	7.05	10.49	17.54	50.00	-32.46	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/06/23/
Test item:	Conduction Test	Time:	9/09/56
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESP050W-1400-34		
Note:	L1		



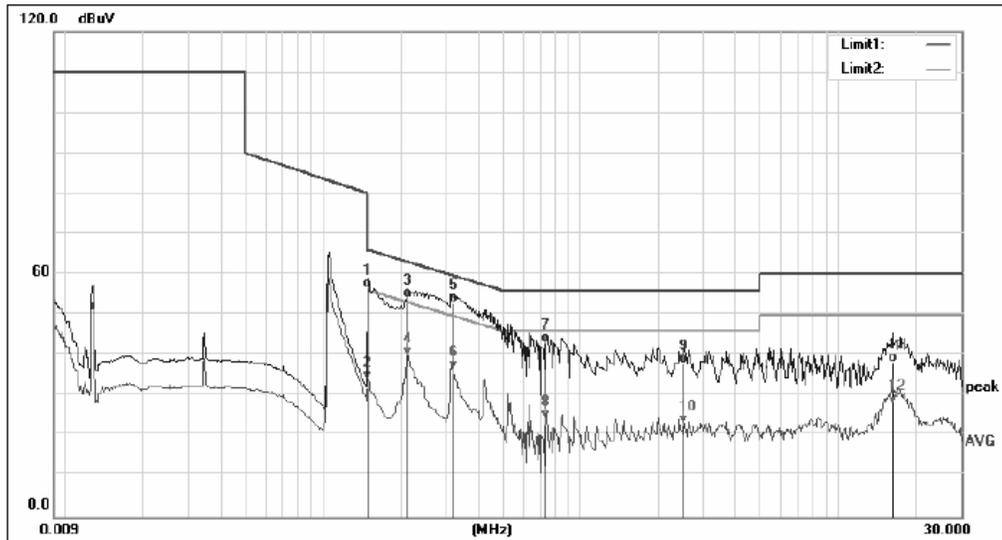
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1820	19.30	9.65	28.95	64.39	-35.44	QP
2	0.1820	3.88	9.65	13.53	54.39	-40.86	AVG
3	0.3780	24.47	9.68	34.15	58.32	-24.17	QP
4	0.3780	12.40	9.68	22.08	48.32	-26.24	AVG
5	0.6820	11.74	9.69	21.43	56.00	-34.57	QP
6	0.6820	-0.32	9.69	9.37	46.00	-36.63	AVG
7	1.7820	4.85	9.74	14.59	56.00	-41.41	QP
8	1.7820	-0.28	9.74	9.46	46.00	-36.54	AVG
9	5.1740	20.51	9.90	30.41	60.00	-29.59	QP
10	5.1740	14.24	9.90	24.14	50.00	-25.86	AVG
11	13.3300	19.73	10.14	29.87	60.00	-30.13	QP
12	13.3300	13.43	10.14	23.57	50.00	-26.43	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/06/23/
Test item:	Conduction Test	Time:	9/14/50
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESP050W-1400-34		
Note:	N		



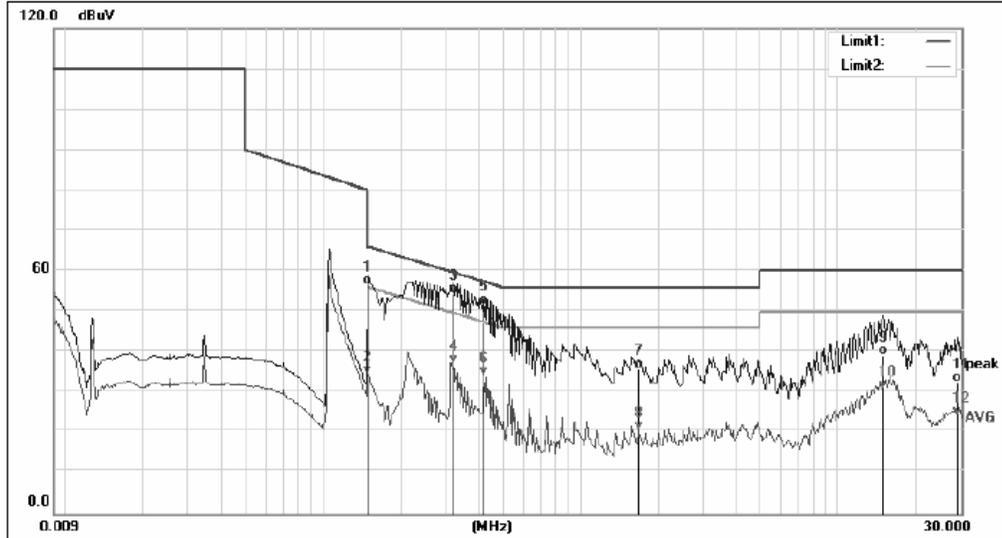
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.3540	32.46	9.67	42.13	58.87	-16.74	QP
2	0.3540	20.87	9.67	30.54	48.87	-18.33	AVG
3	0.3900	30.71	9.68	40.39	58.06	-17.67	QP
4	0.3900	16.39	9.68	26.07	48.06	-21.99	AVG
5	1.0460	9.90	9.71	19.61	56.00	-36.39	QP
6	1.0460	3.71	9.71	13.42	46.00	-32.58	AVG
7	1.5820	10.49	9.73	20.22	56.00	-35.78	QP
8	1.5820	3.23	9.73	12.96	46.00	-33.04	AVG
9	5.0740	20.05	9.89	29.94	60.00	-30.06	QP
10	5.0740	15.13	9.89	25.02	50.00	-24.98	AVG
11	12.9300	22.14	10.13	32.27	60.00	-27.73	QP
12	12.9300	15.50	10.13	25.63	50.00	-24.37	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/23/
Test item:	Conduction Test	Time:	19/20/57
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS010W-0225-27-ABL1		
Note:	L1		



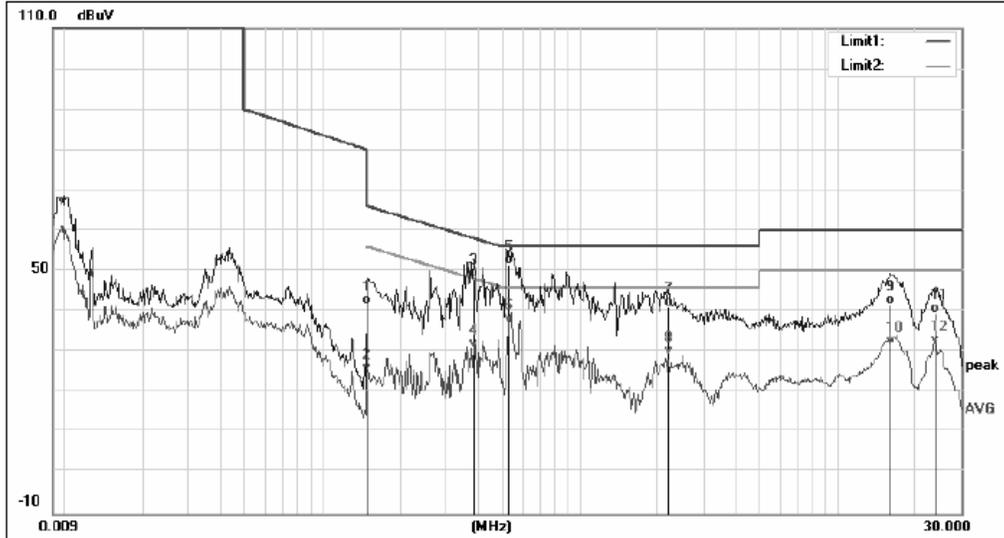
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	46.82	9.64	56.46	66.00	-9.54	QP
2	0.1500	24.26	9.64	33.90	56.00	-22.10	AVG
3	0.2140	44.41	9.66	54.07	63.05	-8.98	QP
4	0.2140	30.08	9.66	39.74	53.05	-13.31	AVG
5	0.3220	43.41	9.66	53.07	59.66	-6.59	QP
6	0.3220	26.74	9.66	36.40	49.66	-13.26	AVG
7	0.7340	33.49	9.69	43.18	56.00	-12.82	QP
8	0.7340	14.47	9.69	24.16	46.00	-21.84	AVG
9	2.5180	28.20	9.79	37.99	56.00	-18.01	QP
10	2.5180	13.12	9.79	22.91	46.00	-23.09	AVG
11	16.3180	27.92	10.29	38.21	60.00	-21.79	QP
12	16.3180	17.64	10.29	27.93	50.00	-22.07	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/23/
Test item:	Conduction Test	Time:	19/15/59
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS010W-0225-27-ABL1		
Note:	N		



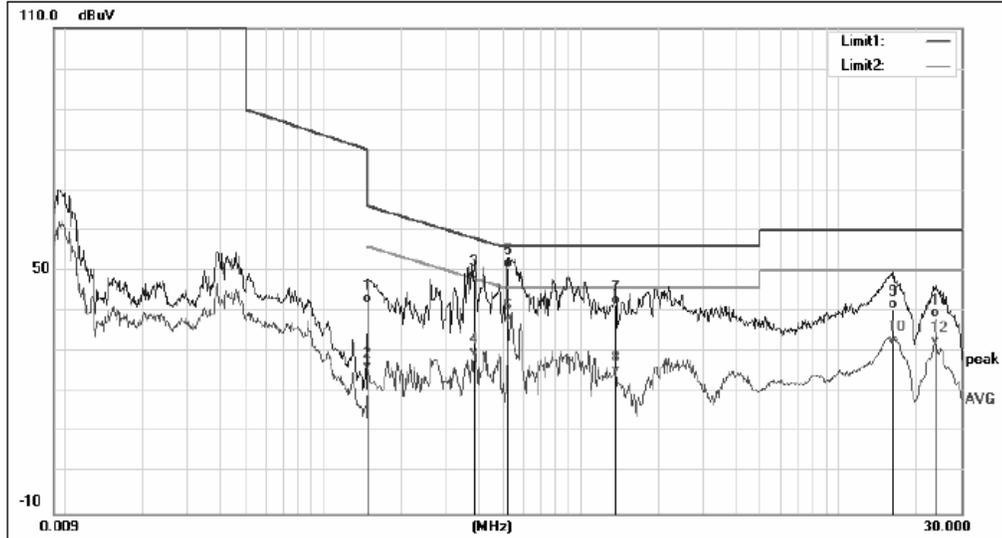
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	46.97	9.64	56.61	66.00	-9.39	QP
2	0.1500	24.64	9.64	34.28	56.00	-21.72	AVG
3	0.3220	44.88	9.66	54.54	59.66	-5.12	QP
4	0.3220	27.25	9.66	36.91	49.66	-12.75	AVG
5	0.4220	42.19	9.68	51.87	57.41	-5.54	QP
6	0.4220	24.34	9.68	34.02	47.41	-13.39	AVG
7	1.6820	25.98	9.73	35.71	56.00	-20.29	QP
8	1.6820	10.80	9.73	20.53	46.00	-25.47	AVG
9	15.0500	29.14	10.16	39.30	60.00	-20.70	QP
10	15.0500	20.53	10.16	30.69	50.00	-19.31	AVG
11	29.0100	22.02	10.51	32.53	60.00	-27.47	QP
12	29.0100	13.62	10.51	24.13	50.00	-25.87	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	2016/06/23
Test item:	Conduction Test	Time:	20:20:43
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESS010W-0225-27-ABL1		
Note:	N		



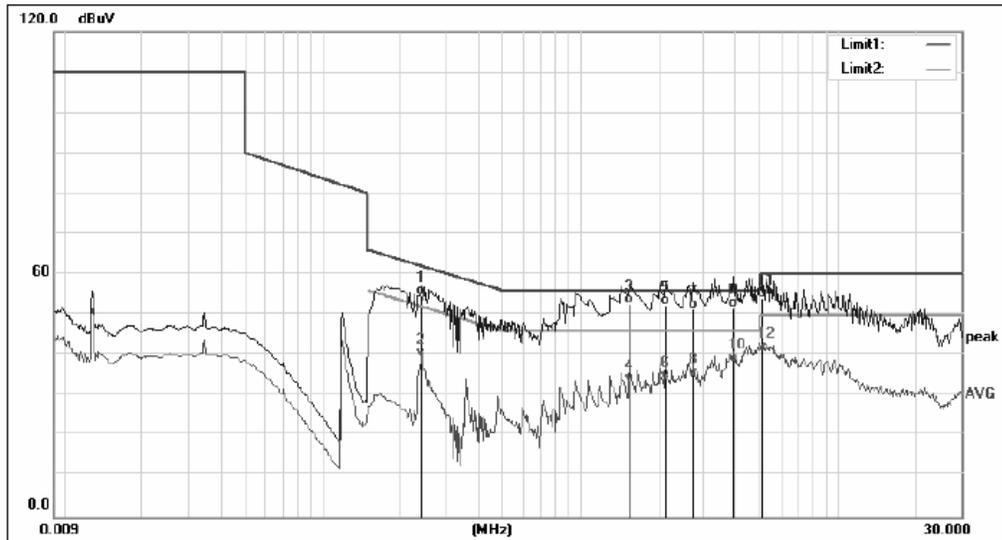
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	32.15	9.64	41.79	66.00	-24.21	QP
2	0.1500	15.23	9.64	24.87	56.00	-31.13	AVG
3	0.3860	38.78	9.68	48.46	58.15	-9.69	QP
4	0.3860	21.13	9.68	30.81	48.15	-17.34	AVG
5	0.5420	42.09	9.68	51.77	56.00	-4.23	QP
6	0.5420	27.50	9.68	37.18	46.00	-8.82	AVG
7	2.2020	31.49	9.76	41.25	56.00	-14.75	QP
8	2.2020	19.30	9.76	29.06	46.00	-16.94	AVG
9	16.0420	31.36	10.26	41.62	60.00	-18.38	QP
10	16.0420	21.44	10.26	31.70	50.00	-18.30	AVG
11	23.7780	29.15	10.59	39.74	60.00	-20.26	QP
12	23.7780	21.28	10.59	31.87	50.00	-18.13	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	2016/06/23
Test item:	Conduction Test	Time:	20:15:58
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESS010W-0225-27-ABL1		
Note:	L1		



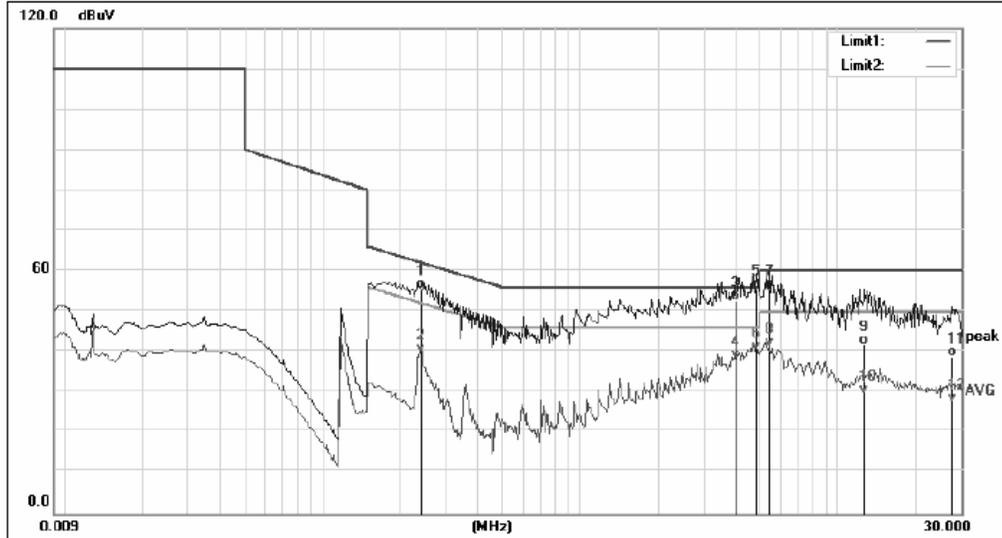
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	32.31	9.64	41.95	66.00	-24.05	QP
2	0.1500	15.59	9.64	25.23	56.00	-30.77	AVG
3	0.3860	38.40	9.68	48.08	58.15	-10.07	QP
4	0.3860	19.29	9.68	28.97	48.15	-19.18	AVG
5	0.5420	41.03	9.68	50.71	56.00	-5.29	QP
6	0.5420	27.60	9.68	37.28	46.00	-8.72	AVG
7	1.3700	31.90	9.72	41.62	56.00	-14.38	QP
8	1.3700	14.62	9.72	24.34	46.00	-21.66	AVG
9	16.4020	30.34	10.30	40.64	60.00	-19.36	QP
10	16.4020	21.47	10.30	31.77	50.00	-18.23	AVG
11	23.8020	27.96	10.59	38.55	60.00	-21.45	QP
12	23.8020	20.91	10.59	31.50	50.00	-18.50	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/23/
Test item:	Conduction Test	Time:	19/57/37
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS030W-0500-56		
Note:	L1		



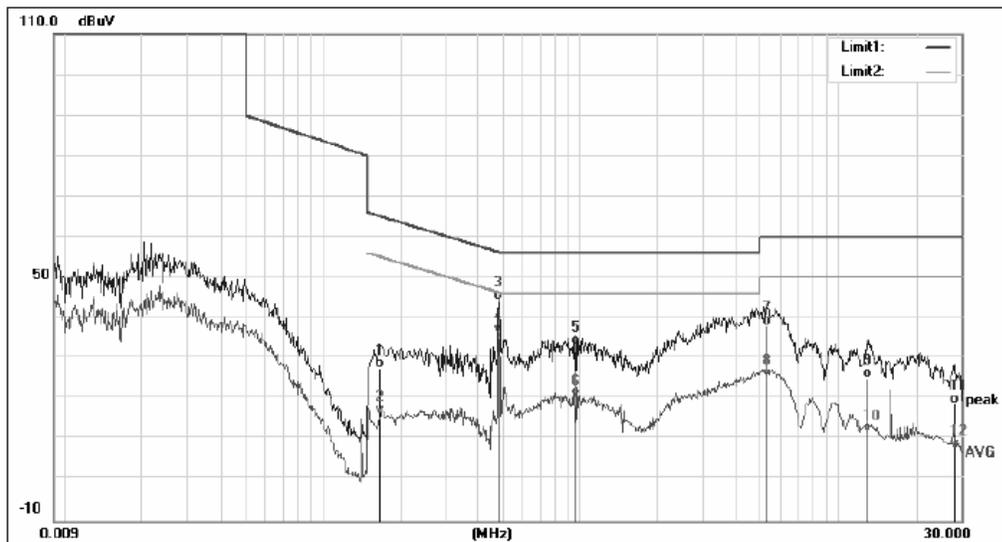
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2420	45.22	9.65	54.87	62.03	-7.16	QP
2	0.2420	29.93	9.65	39.58	52.03	-12.45	AVG
3	1.5460	42.91	9.73	52.64	56.00	-3.36	QP
4	1.5460	23.43	9.73	33.16	46.00	-12.84	AVG
5	2.1380	42.51	9.75	52.26	56.00	-3.74	QP
6	2.1380	23.89	9.75	33.64	46.00	-12.36	AVG
7	2.7340	41.52	9.79	51.31	56.00	-4.69	QP
8	2.7340	24.93	9.79	34.72	46.00	-11.28	AVG
9	3.9140	41.83	9.81	51.64	56.00	-4.36	QP
10	3.9140	28.56	9.81	38.37	46.00	-7.63	AVG
11	5.0980	44.16	9.89	54.05	60.00	-5.95	QP
12	5.0980	30.93	9.89	40.82	50.00	-9.18	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/23/
Test item:	Conduction Test	Time:	20/03/48
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS030W-0500-56		
Note:	N		



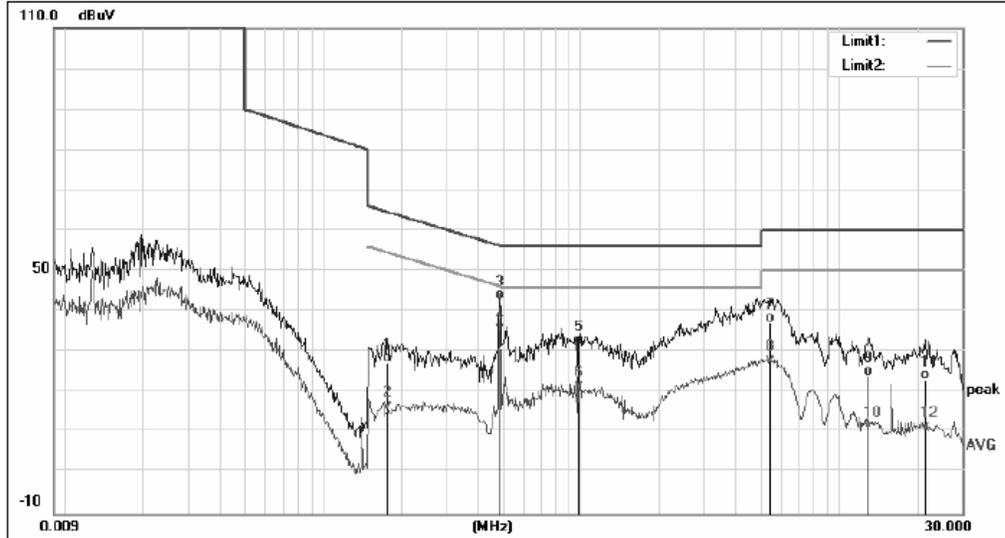
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2420	45.89	9.65	55.54	62.03	-6.49	QP
2	0.2420	29.99	9.65	39.64	52.03	-12.39	AVG
3	3.9900	42.92	9.81	52.73	56.00	-3.27	QP
4	3.9900	28.45	9.81	38.26	46.00	-7.74	AVG
5	4.8100	45.66	9.87	55.53	56.00	-0.47	QP
6	4.8100	30.62	9.87	40.49	46.00	-5.51	AVG
7	5.3980	45.80	9.91	55.71	60.00	-4.29	QP
8	5.3980	31.43	9.91	41.34	50.00	-8.66	AVG
9	12.6300	31.65	10.13	41.78	60.00	-18.22	QP
10	12.6300	19.57	10.13	29.70	50.00	-20.30	AVG
11	27.7180	28.44	10.53	38.97	60.00	-21.03	QP
12	27.7180	17.01	10.53	27.54	50.00	-22.46	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	2016/06/23
Test item:	Conduction Test	Time:	20:04:38
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESS030W-0500-56		
Note:	L1		



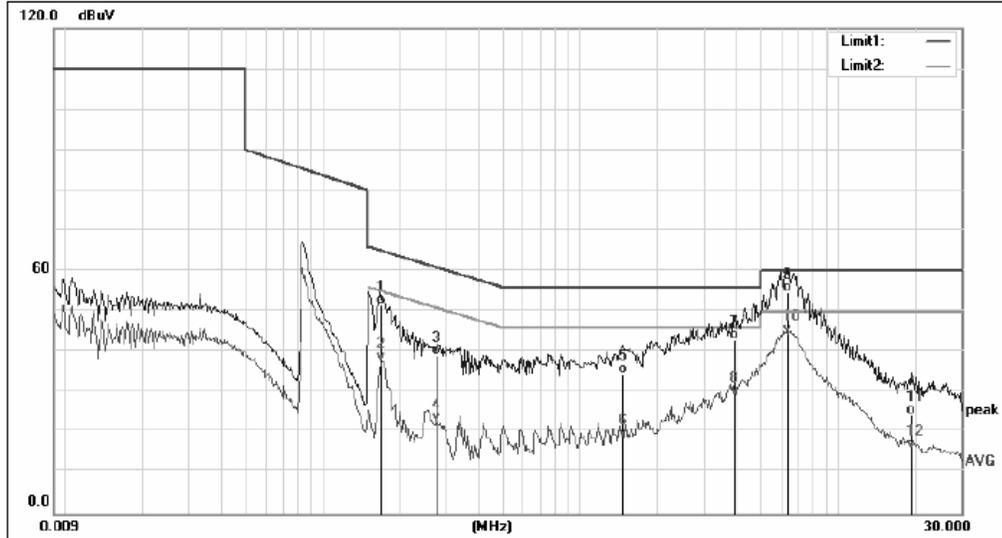
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1660	18.09	9.65	27.74	65.16	-37.42	QP
2	0.1660	6.72	9.65	16.37	55.16	-38.79	AVG
3	0.4820	34.89	9.67	44.56	56.30	-11.74	QP
4	0.4820	26.31	9.67	35.98	46.30	-10.32	AVG
5	0.9620	23.48	9.72	33.20	56.00	-22.80	QP
6	0.9620	10.42	9.72	20.14	46.00	-25.86	AVG
7	5.3260	28.32	9.90	38.22	60.00	-21.78	QP
8	5.3260	15.39	9.90	25.29	50.00	-24.71	AVG
9	12.9100	15.25	10.13	25.38	60.00	-34.62	QP
10	12.9100	1.25	10.13	11.38	50.00	-38.62	AVG
11	28.2860	8.54	10.52	19.06	60.00	-40.94	QP
12	28.2860	-2.63	10.52	7.89	50.00	-42.11	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	2016/06/23
Test item:	Conduction Test	Time:	20:09:06
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESS030W-0500-56		
Note:	N		



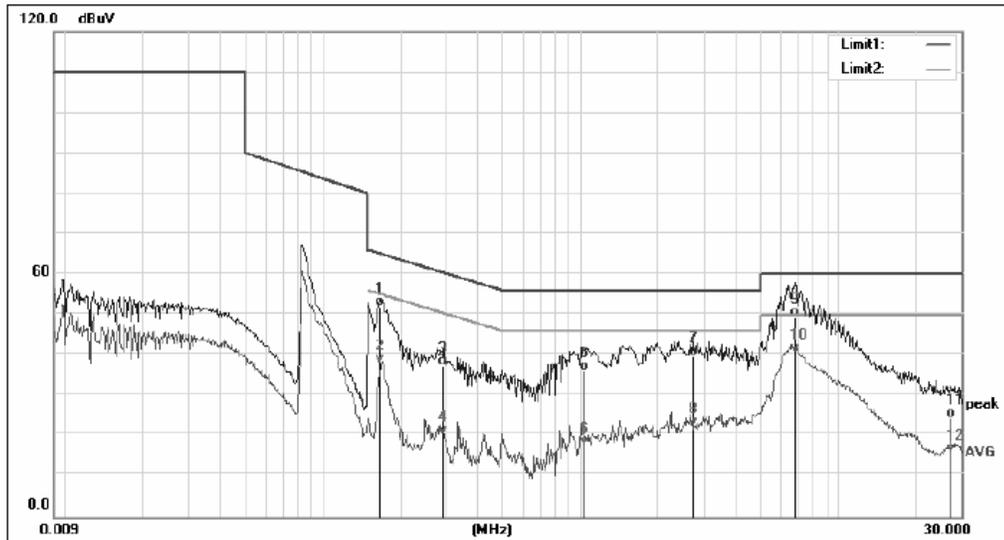
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1780	17.74	9.65	27.39	64.58	-37.19	QP
2	0.1780	5.93	9.65	15.58	54.58	-39.00	AVG
3	0.4860	33.21	9.67	42.88	56.24	-13.36	QP
4	0.4860	25.06	9.67	34.73	46.24	-11.51	AVG
5	0.9940	22.06	9.71	31.77	56.00	-24.23	QP
6	0.9940	11.18	9.71	20.89	46.00	-25.11	AVG
7	5.4540	27.23	9.91	37.14	60.00	-22.86	QP
8	5.4540	17.10	9.91	27.01	50.00	-22.99	AVG
9	13.0300	14.07	10.13	24.20	60.00	-35.80	QP
10	13.0300	0.49	10.13	10.62	50.00	-39.38	AVG
11	21.5180	12.47	10.63	23.10	60.00	-36.90	QP
12	21.5180	-0.08	10.63	10.55	50.00	-39.45	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/24/
Test item:	Conduction Test	Time:	8/56/46
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS030W-1100-27		
Note:	L1		



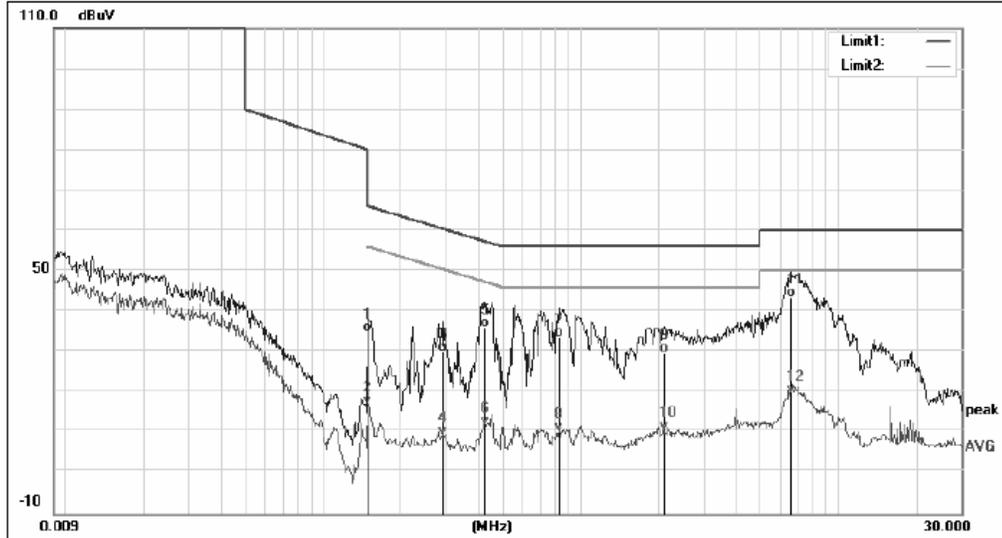
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1710	42.23	9.65	51.88	64.91	-13.03	QP
2	0.1710	28.05	9.65	37.70	54.91	-17.21	AVG
3	0.2780	29.36	9.66	39.02	60.88	-21.86	QP
4	0.2780	12.85	9.66	22.51	50.88	-28.37	AVG
5	1.4620	25.00	9.73	34.73	56.00	-21.27	QP
6	1.4620	8.94	9.73	18.67	46.00	-27.33	AVG
7	3.9740	33.11	9.81	42.92	56.00	-13.08	QP
8	3.9740	19.55	9.81	29.36	46.00	-16.64	AVG
9	6.3820	44.83	9.95	54.78	60.00	-5.22	QP
10	6.3820	34.49	9.95	44.44	50.00	-5.56	AVG
11	19.0660	13.90	10.56	24.46	60.00	-35.54	QP
12	19.0660	5.60	10.56	16.16	50.00	-33.84	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	16/05/24/
Test item:	Conduction Test	Time:	9/02/09
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS030W-1100-27		
Note:	N		



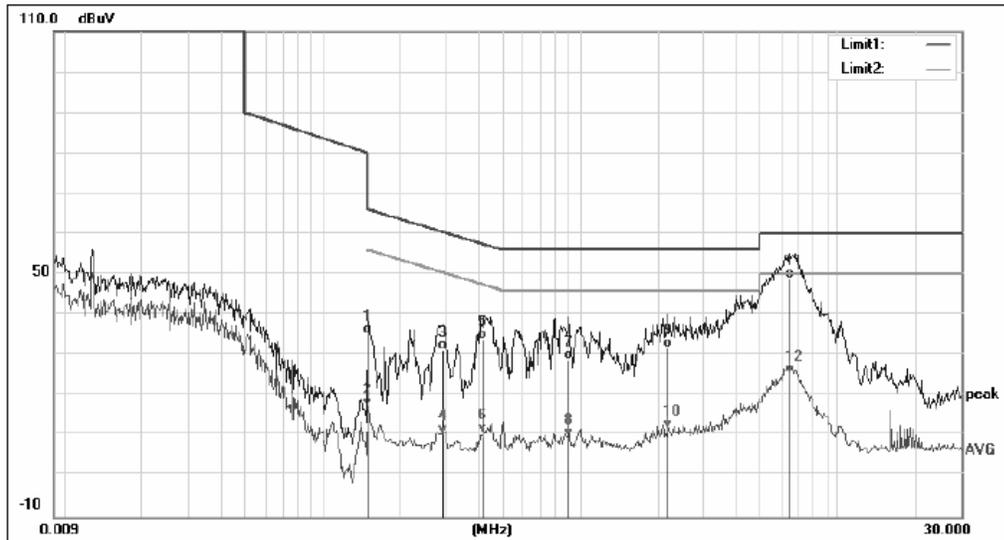
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1683	42.50	9.65	52.15	65.04	-12.89	QP
2	0.1683	28.39	9.65	38.04	55.04	-17.00	AVG
3	0.2940	27.69	9.66	37.35	60.41	-23.06	QP
4	0.2940	10.64	9.66	20.30	50.41	-30.11	AVG
5	1.0300	26.40	9.71	36.11	56.00	-19.89	QP
6	1.0300	7.77	9.71	17.48	46.00	-28.52	AVG
7	2.7300	29.96	9.79	39.75	56.00	-16.25	QP
8	2.7300	12.46	9.79	22.25	46.00	-23.75	AVG
9	6.7700	39.25	9.97	49.22	60.00	-10.78	QP
10	6.7700	30.83	9.97	40.80	50.00	-9.20	AVG
11	27.2780	14.03	10.53	24.56	60.00	-35.44	QP
12	27.2780	5.11	10.53	15.64	50.00	-34.36	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	2016/06/23
Test item:	Conduction Test	Time:	19:41:44
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESS030W-1100-27		
Note:	L1		



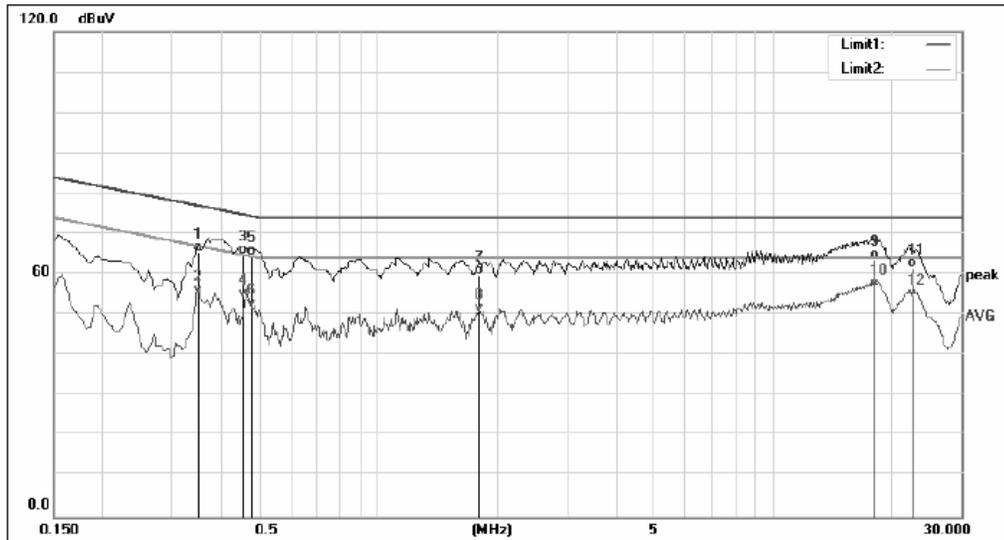
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	25.16	9.64	34.80	66.00	-31.20	QP
2	0.1500	7.36	9.64	17.00	56.00	-39.00	AVG
3	0.2900	20.42	9.66	30.08	60.52	-30.44	QP
4	0.2900	-0.30	9.66	9.36	50.52	-41.16	AVG
5	0.4260	26.24	9.68	35.92	57.33	-21.41	QP
6	0.4260	2.14	9.68	11.82	47.33	-35.51	AVG
7	0.8300	23.84	9.70	33.54	56.00	-22.46	QP
8	0.8300	0.56	9.70	10.26	46.00	-35.74	AVG
9	2.0980	19.93	9.75	29.68	56.00	-26.32	QP
10	2.0980	0.77	9.75	10.52	46.00	-35.48	AVG
11	6.6020	33.59	9.96	43.55	60.00	-16.45	QP
12	6.6020	9.52	9.96	19.48	50.00	-30.52	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	(CE)EN55015_QP	Date:	2016/06/23
Test item:	Conduction Test	Time:	19:46:04
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESS030W-1100-27		
Note:	N		



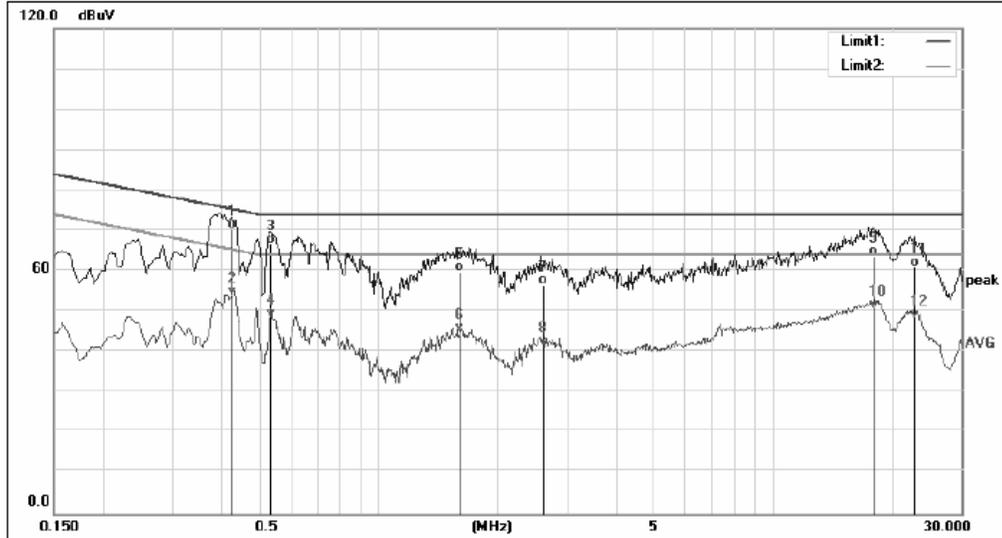
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	25.48	9.64	35.12	66.00	-30.88	QP
2	0.1500	7.38	9.64	17.02	56.00	-38.98	AVG
3	0.2940	21.74	9.66	31.40	60.41	-29.01	QP
4	0.2940	0.76	9.66	10.42	50.41	-39.99	AVG
5	0.4180	24.41	9.68	34.09	57.49	-23.40	QP
6	0.4180	1.06	9.68	10.74	47.49	-36.75	AVG
7	0.8980	19.03	9.73	28.76	56.00	-27.24	QP
8	0.8980	-0.02	9.73	9.71	46.00	-36.29	AVG
9	2.1900	22.20	9.76	31.96	56.00	-24.04	QP
10	2.1900	1.87	9.76	11.63	46.00	-34.37	AVG
11	6.5100	38.94	9.96	48.90	60.00	-11.10	QP
12	6.5100	15.35	9.96	25.31	50.00	-24.69	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	2016-6-22
Test item:	Conduction Test	Time:	13:41:13
Temp./Hum.(%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (maximum light)
Model:	ESP020W-0440-25		
Note:			



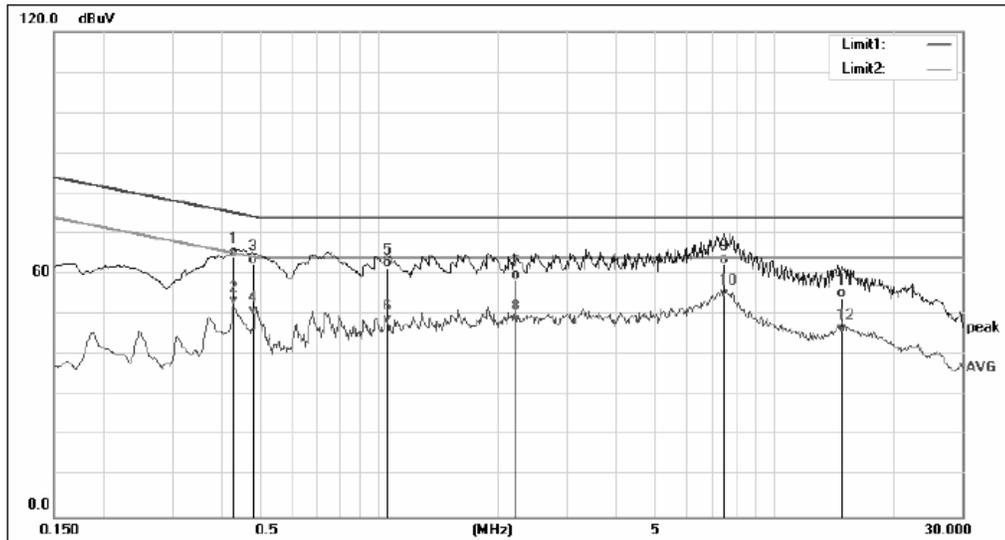
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.3500	55.72	9.90	65.62	76.96	-11.34	QP
2	0.3500	45.17	9.90	55.07	66.96	-11.89	AVG
3	0.4580	55.03	9.90	64.93	74.73	-9.80	QP
4	0.4580	44.20	9.90	54.10	64.73	-10.63	AVG
5	0.4780	54.89	9.90	64.79	74.37	-9.58	QP
6	0.4780	41.90	9.90	51.80	64.37	-12.57	AVG
7	1.8020	50.25	9.72	59.97	74.00	-14.03	QP
8	1.8020	40.72	9.72	50.44	64.00	-13.56	AVG
9	18.2100	54.16	9.50	63.66	74.00	-10.34	QP
10	18.2100	47.04	9.50	56.54	64.00	-7.46	AVG
11	22.5740	52.34	9.45	61.79	74.00	-12.21	QP
12	22.5740	44.85	9.45	54.30	64.00	-9.70	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	2016-6-22
Test item:	Conduction Test	Time:	13:44:05
Temp./Hum.(%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESP020W-0440-25		
Note:			



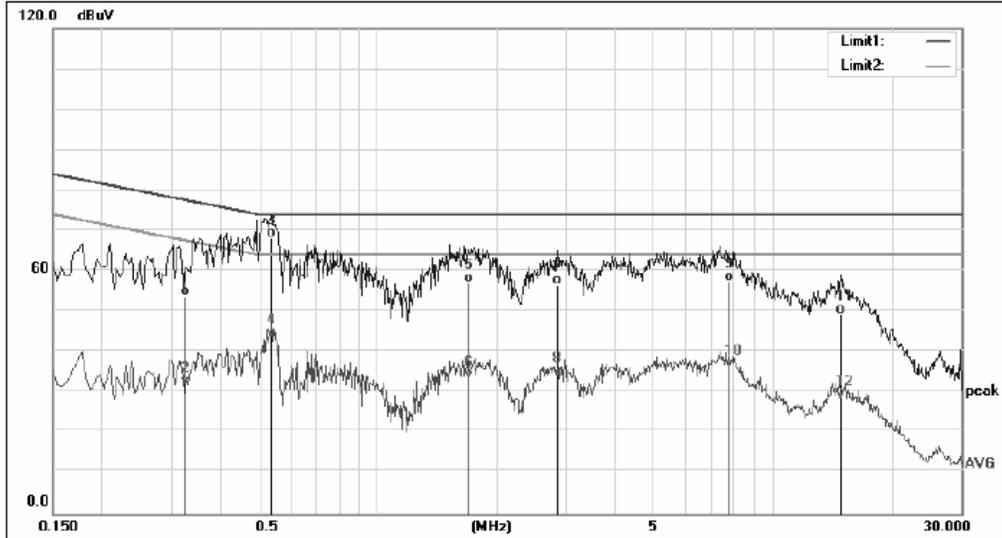
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.4300	60.38	9.90	70.28	75.25	-4.97	QP
2	0.4300	43.93	9.90	53.83	65.25	-11.42	AVG
3	0.5380	56.77	9.89	66.66	74.00	-7.34	QP
4	0.5380	38.61	9.89	48.50	64.00	-15.50	AVG
5	1.6300	50.14	9.74	59.88	74.00	-14.12	QP
6	1.6300	35.18	9.74	44.92	64.00	-19.08	AVG
7	2.6380	46.99	9.70	56.69	74.00	-17.31	QP
8	2.6380	31.92	9.70	41.62	64.00	-22.38	AVG
9	17.8460	54.19	9.50	63.69	74.00	-10.31	QP
10	17.8460	41.14	9.50	50.64	64.00	-13.36	AVG
11	22.8980	51.70	9.44	61.14	74.00	-12.86	QP
12	22.8980	38.61	9.44	48.05	64.00	-15.95	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	2016-6-22
Test item:	Conduction Test	Time:	13:14:28
Temp./Hum.(%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (maximum light)
Model:	ESP040W -0700-56		
Note:			



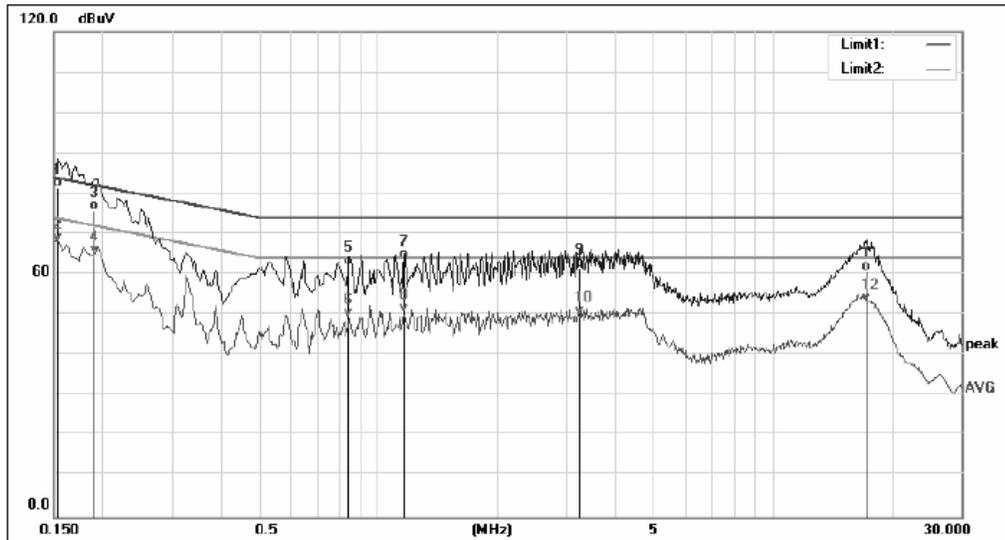
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.4300	54.58	9.90	64.48	75.25	-10.77	QP
2	0.4300	42.56	9.90	52.46	65.25	-12.79	AVG
3	0.4860	52.70	9.90	62.60	74.24	-11.64	QP
4	0.4860	40.05	9.90	49.95	64.24	-14.29	AVG
5	1.0500	51.98	9.79	61.77	74.00	-12.23	QP
6	1.0500	37.98	9.79	47.77	64.00	-16.23	AVG
7	2.2420	48.86	9.70	58.56	74.00	-15.44	QP
8	2.2420	38.23	9.70	47.93	64.00	-16.07	AVG
9	7.5100	52.84	9.60	62.44	74.00	-11.56	QP
10	7.5100	44.68	9.60	54.28	64.00	-9.72	AVG
11	14.8500	44.63	9.50	54.13	74.00	-19.87	QP
12	14.8500	36.09	9.50	45.59	64.00	-18.41	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	2016-6-22
Test item:	Conduction Test	Time:	13:17:18
Temp./Hum.(%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESP040W-0700-56		
Note:			



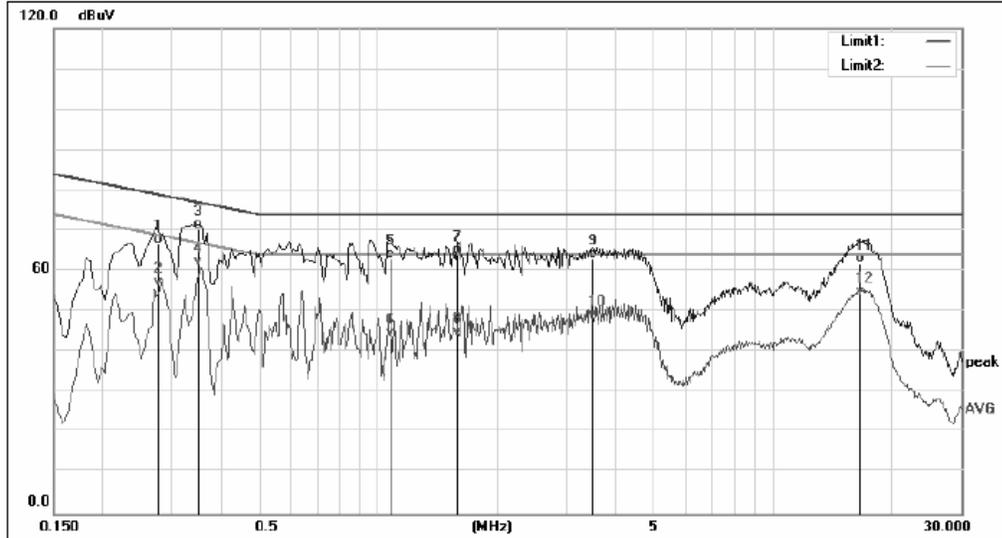
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.3260	44.03	9.90	53.93	77.55	-23.62	QP
2	0.3260	21.70	9.90	31.60	67.55	-35.95	AVG
3	0.5380	58.27	9.89	68.16	74.00	-5.84	QP
4	0.5380	33.79	9.89	43.68	64.00	-20.32	AVG
5	1.7020	47.46	9.73	57.19	74.00	-16.81	QP
6	1.7020	23.55	9.73	33.28	64.00	-30.72	AVG
7	2.8740	46.84	9.70	56.54	74.00	-17.46	QP
8	2.8740	24.36	9.70	34.06	64.00	-29.94	AVG
9	7.7500	47.85	9.59	57.44	74.00	-16.56	QP
10	7.7500	26.40	9.59	35.99	64.00	-28.01	AVG
11	14.8540	39.87	9.50	49.37	74.00	-24.63	QP
12	14.8540	18.90	9.50	28.40	64.00	-35.60	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	2016-6-22
Test item:	Conduction Test	Time:	12:41:06
Temp./Hum.(%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (maximum light)
Model:	ESPO50W-1200-42		
Note:			



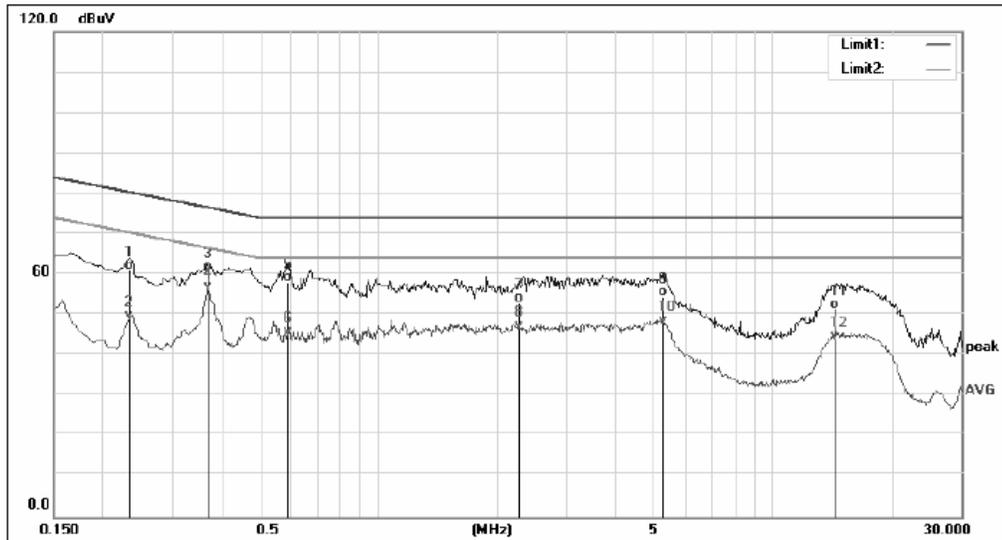
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1540	71.41	9.90	81.31	83.78	-2.47	QP
2	0.1540	57.96	9.90	67.86	73.78	-5.92	AVG
3	0.1900	65.89	9.90	75.79	82.04	-6.25	QP
4	0.1900	55.15	9.90	65.05	72.04	-6.99	AVG
5	0.8420	52.50	9.83	62.33	74.00	-11.67	QP
6	0.8420	39.44	9.83	49.27	64.00	-14.73	AVG
7	1.1620	53.95	9.78	63.73	74.00	-10.27	QP
8	1.1620	40.73	9.78	50.51	64.00	-13.49	AVG
9	3.2260	51.96	9.70	61.66	74.00	-12.34	QP
10	3.2260	40.11	9.70	49.81	64.00	-14.19	AVG
11	17.2500	51.40	9.50	60.90	74.00	-13.10	QP
12	17.2500	43.51	9.50	53.01	64.00	-10.99	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	2016-6-22
Test item:	Conduction Test	Time:	12:43:36
Temp./Hum.(%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESP050W-1200-42		
Note:			



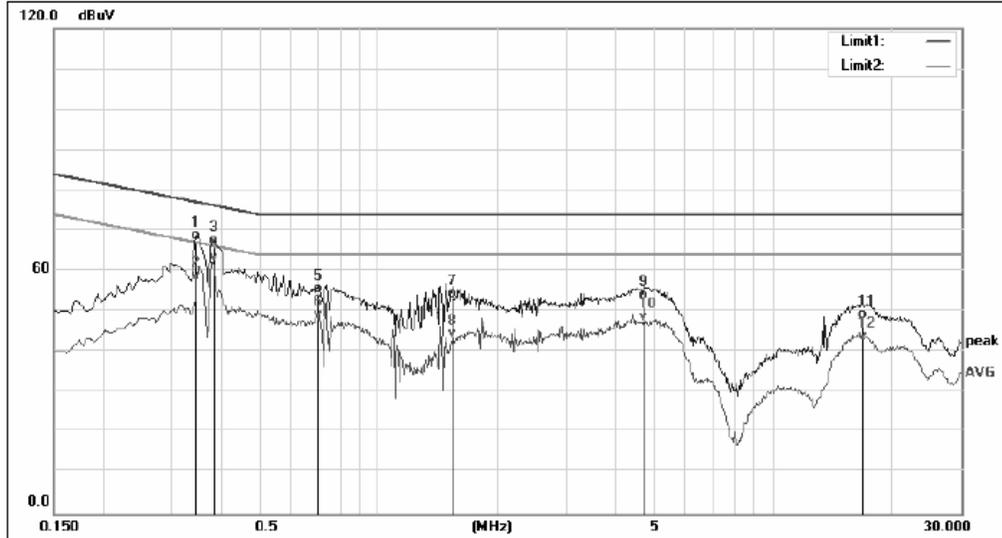
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2820	56.76	9.90	66.66	78.76	-12.10	QP
2	0.2820	46.37	9.90	56.27	68.76	-12.49	AVG
3	0.3540	60.39	9.90	70.29	76.87	-6.58	QP
4	0.3540	51.46	9.90	61.36	66.87	-5.51	AVG
5	1.0740	53.46	9.79	63.25	74.00	-10.75	QP
6	1.0740	33.92	9.79	43.71	64.00	-20.29	AVG
7	1.5820	54.41	9.74	64.15	74.00	-9.85	QP
8	1.5820	34.14	9.74	43.88	64.00	-20.12	AVG
9	3.5060	53.57	9.70	63.27	74.00	-10.73	QP
10	3.5060	38.46	9.70	48.16	64.00	-15.84	AVG
11	16.6740	52.53	9.50	62.03	74.00	-11.97	QP
12	16.6740	44.34	9.50	53.84	64.00	-10.16	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	2016-6-22
Test item:	Conduction Test	Time:	13:34:34
Temp./Hum.(%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (maximum light)
Model:	ESPO50W-1400-34		
Note:			



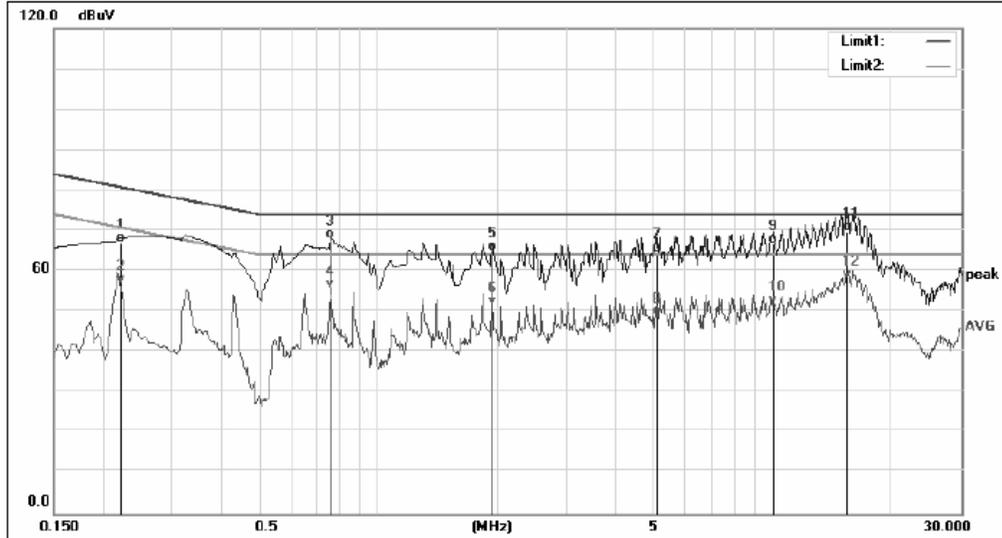
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2340	51.13	9.90	61.03	80.31	-19.28	QP
2	0.2340	38.84	9.90	48.74	70.31	-21.57	AVG
3	0.3700	50.89	9.90	60.79	76.50	-15.71	QP
4	0.3700	46.08	9.90	55.98	66.50	-10.52	AVG
5	0.5900	48.19	9.88	58.07	74.00	-15.93	QP
6	0.5900	34.85	9.88	44.73	64.00	-19.27	AVG
7	2.2660	43.28	9.70	52.98	74.00	-21.02	QP
8	2.2660	36.53	9.70	46.23	64.00	-17.77	AVG
9	5.2660	44.85	9.69	54.54	74.00	-19.46	QP
10	5.2660	37.89	9.69	47.58	64.00	-16.42	AVG
11	14.4180	41.95	9.50	51.45	74.00	-22.55	QP
12	14.4180	34.28	9.50	43.78	64.00	-20.22	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	2016-6-22
Test item:	Conduction Test	Time:	13:37:32
Temp./Hum.(%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESPO50W-1400-34		
Note:			



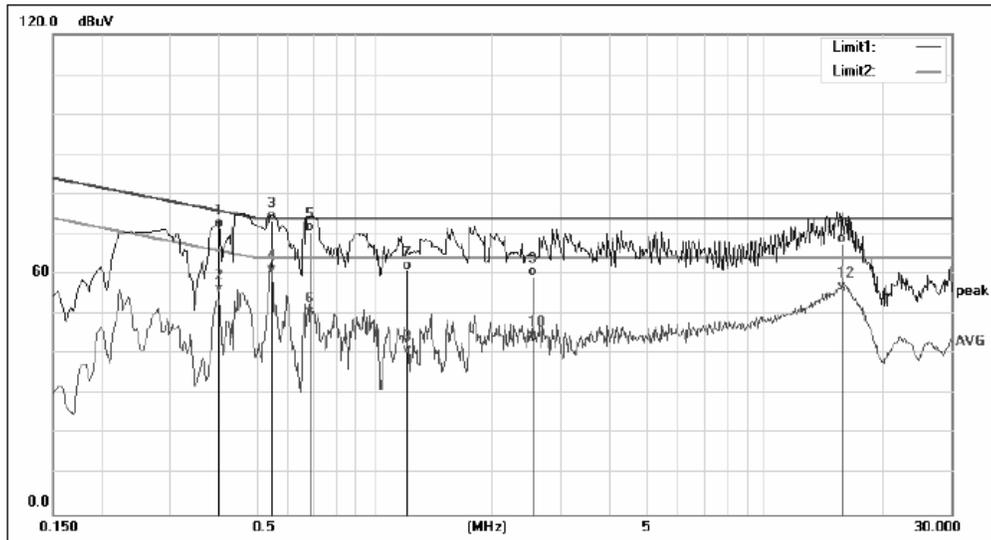
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.3465	57.73	9.90	67.63	77.05	-9.42	QP
2	0.3465	47.90	9.90	57.80	67.05	-9.25	AVG
3	0.3791	56.45	9.90	66.35	76.30	-9.95	QP
4	0.3791	52.44	9.90	62.34	66.30	-3.96	AVG
5	0.7020	44.50	9.86	54.36	74.00	-19.64	QP
6	0.7020	38.30	9.86	48.16	64.00	-15.84	AVG
7	1.5420	43.37	9.75	53.12	74.00	-20.88	QP
8	1.5420	33.62	9.75	43.37	64.00	-20.63	AVG
9	4.7100	43.25	9.70	52.95	74.00	-21.05	QP
10	4.7100	37.78	9.70	47.48	64.00	-16.52	AVG
11	16.9100	38.53	9.50	48.03	74.00	-25.97	QP
12	16.9100	33.22	9.50	42.72	64.00	-21.28	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	2016-6-22
Test item:	Conduction Test	Time:	13:50:15
Temp./Hum.(%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (maximum light)
Model:	ESS010W- 0225-27-ABL1		
Note:			



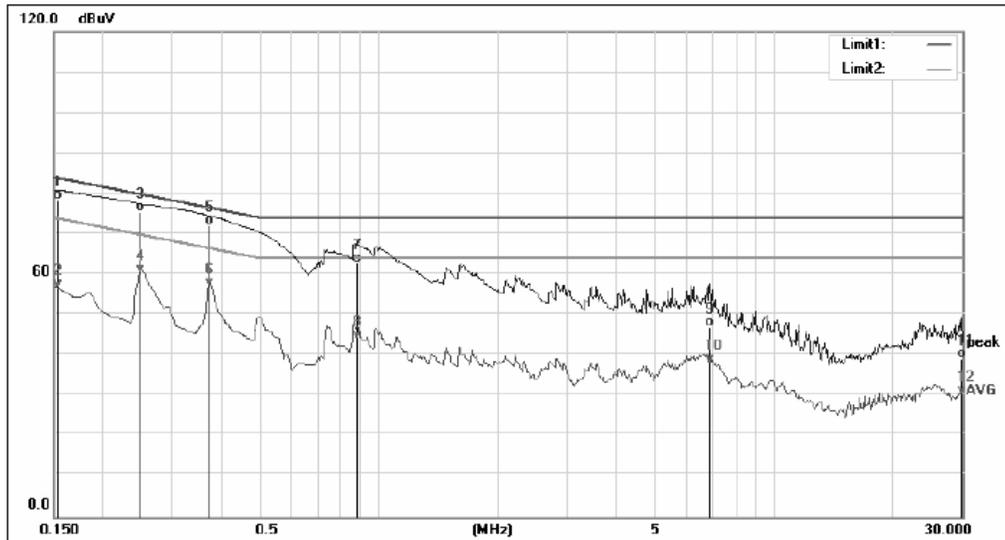
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2185	57.20	9.90	67.10	80.88	-13.78	QP
2	0.2185	46.97	9.90	56.87	70.88	-14.01	AVG
3	0.7540	58.13	9.85	67.98	74.00	-6.02	QP
4	0.7540	45.75	9.85	55.60	64.00	-8.40	AVG
5	1.9420	55.27	9.71	64.98	74.00	-9.02	QP
6	1.9420	41.64	9.71	51.35	64.00	-12.65	AVG
7	5.0700	55.03	9.70	64.73	74.00	-9.27	QP
8	5.0700	39.15	9.70	48.85	64.00	-15.15	AVG
9	10.0180	57.38	9.50	66.88	74.00	-7.12	QP
10	10.0180	42.12	9.50	51.62	64.00	-12.38	AVG
11	15.4060	60.33	9.50	69.83	74.00	-4.17	QP
12	15.4060	48.41	9.50	57.91	64.00	-6.09	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	2016-6-22
Test item:	Conduction Test	Time:	13:53:27
Temp./Hum.(%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESS010W- 0225-27-ABL1		
Note:			



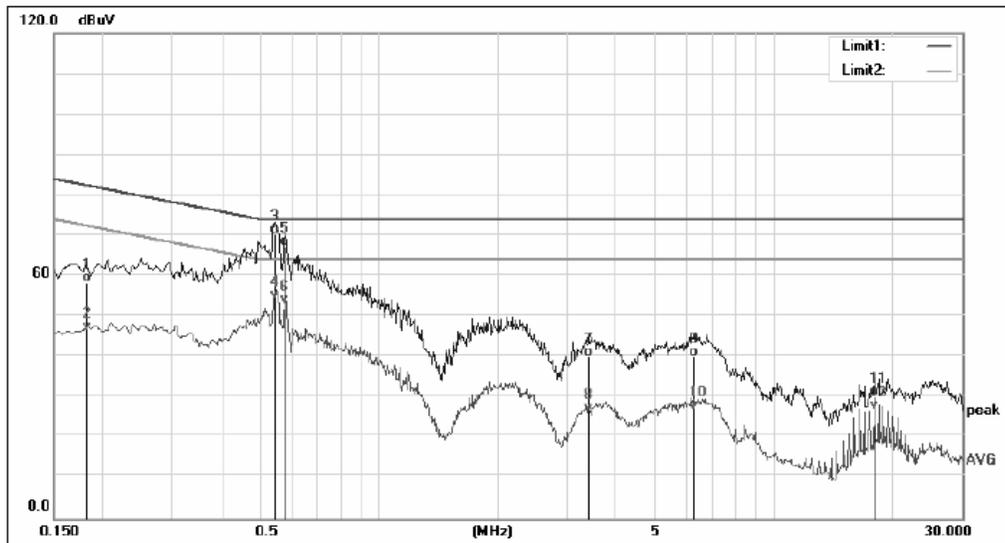
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.3940	61.68	9.90	71.58	75.98	-4.40	QP
2	0.3940	45.53	9.90	55.43	65.98	-10.55	AVG
3	0.5420	63.48	9.89	72.97	74.00	-1.03	QP
4	0.5420	50.15	9.89	60.04	64.00	-3.96	AVG
5	0.6940	60.92	9.86	70.78	74.00	-3.22	QP
6	0.6940	39.83	9.86	49.69	64.00	-14.31	AVG
7	1.2180	51.16	9.78	60.94	74.00	-13.06	QP
8	1.2180	30.23	9.78	40.01	64.00	-23.99	AVG
9	2.5660	49.82	9.70	59.52	74.00	-14.48	QP
10	2.5660	33.83	9.70	43.53	64.00	-20.47	AVG
11	15.8820	58.13	9.50	67.63	74.00	-6.37	QP
12	15.8820	46.39	9.50	55.89	64.00	-8.11	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	16/07/01/
Test item:	Conduction Test	Time:	10/58/32
Temp./Hum.(%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (maximum light)
Model:	ESS030W-0500-56		
Note:	Highest end		



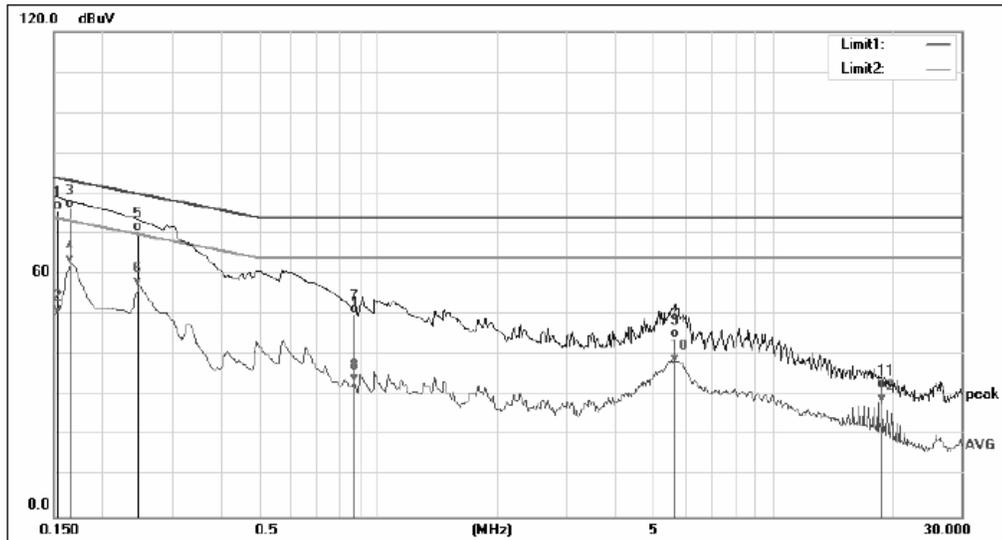
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	68.46	9.90	78.36	83.99	-5.63	QP
2	0.1500	46.56	9.90	56.46	73.99	-17.53	AVG
3	0.2521	65.63	9.90	75.53	79.68	-4.15	QP
4	0.2521	50.24	9.90	60.14	69.68	-9.54	AVG
5	0.3751	62.34	9.90	72.24	76.39	-4.15	QP
6	0.3751	47.09	9.90	56.99	66.39	-9.40	AVG
7	0.8980	52.97	9.82	62.79	74.00	-11.21	QP
8	0.8980	34.11	9.82	43.93	64.00	-20.07	AVG
9	6.8820	37.38	9.62	47.00	74.00	-27.00	QP
10	6.8820	28.34	9.62	37.96	64.00	-26.04	AVG
11	29.8940	29.76	9.40	39.16	74.00	-34.84	QP
12	29.8940	20.68	9.40	30.08	64.00	-33.92	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	16/07/01/
Test item:	Conduction Test	Time:	11/01/27
Temp./Hum.(%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESS030W-0500-56		
Note:	Lowest end		



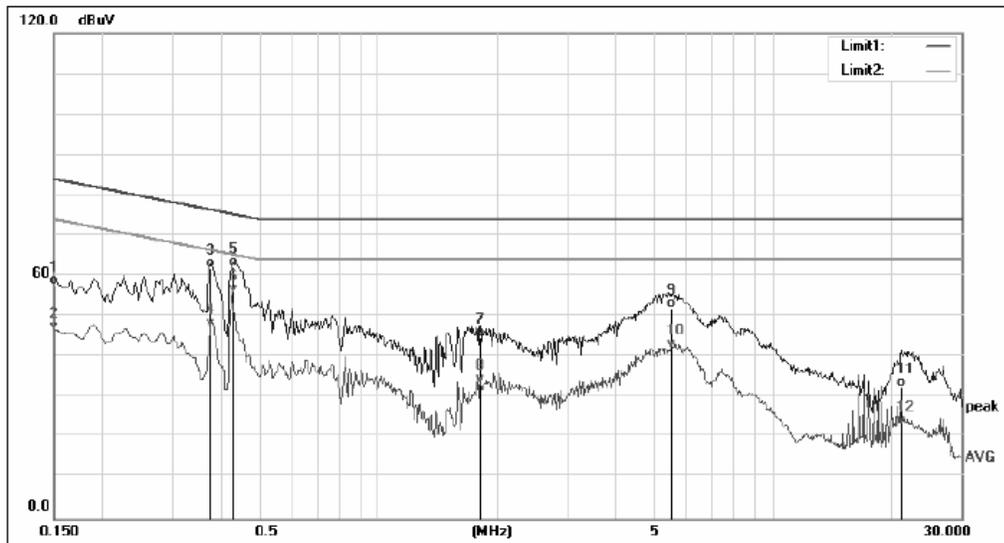
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1819	48.38	9.90	58.28	82.39	-24.11	QP
2	0.1819	36.44	9.90	46.34	72.39	-26.05	AVG
3	0.5460	60.35	9.89	70.24	74.00	-3.76	QP
4	0.5460	44.28	9.89	54.17	64.00	-9.83	AVG
5	0.5780	57.39	9.88	67.27	74.00	-6.73	QP
6	0.5780	43.10	9.88	52.98	64.00	-11.02	AVG
7	3.4020	30.39	9.70	40.09	74.00	-33.91	QP
8	3.4020	16.60	9.70	26.30	64.00	-37.70	AVG
9	6.2940	30.42	9.65	40.07	74.00	-33.93	QP
10	6.2940	17.28	9.65	26.93	64.00	-37.07	AVG
11	17.9940	20.71	9.50	30.21	74.00	-43.79	QP
12	17.9940	17.43	9.50	26.93	64.00	-37.07	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	16/07/01/
Test item:	Conduction Test	Time:	11/08/33
Temp./Hum.(%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (maximum light)
Model:	ESS030W-1100-27		
Note:	Highest end		



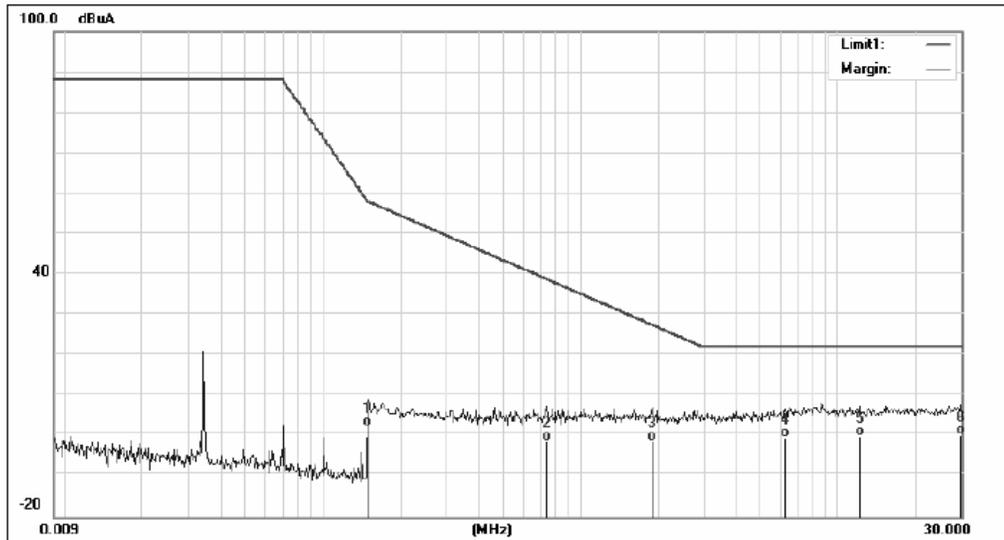
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	65.91	9.90	75.81	83.99	-8.18	QP
2	0.1500	40.43	9.90	50.33	73.99	-23.66	AVG
3	0.1677	66.59	9.90	76.49	83.07	-6.58	QP
4	0.1677	52.56	9.90	62.46	73.07	-10.61	AVG
5	0.2481	60.68	9.90	70.58	79.82	-9.24	QP
6	0.2481	47.37	9.90	57.27	69.82	-12.55	AVG
7	0.8700	40.57	9.83	50.40	74.00	-23.60	QP
8	0.8700	23.18	9.83	33.01	64.00	-30.99	AVG
9	5.6300	34.70	9.67	44.37	74.00	-29.63	QP
10	5.6300	28.14	9.67	37.81	64.00	-26.19	AVG
11	18.9940	22.22	9.50	31.72	74.00	-42.28	QP
12	18.9940	18.58	9.50	28.08	64.00	-35.92	AVG

Project No.:	LCZE16050105	Power Source:	AC 245V/50Hz
Standard:	Control terminals(QP)	Date:	2016/07/01
Test item:	Conduction Test	Time:	16:00:14
Temp./Hum. (%RH):	23/60%RH	Test By:	LEO
EUT:	LED driver	Test Mode:	Full Load (minimum light)
Model:	ESS030W-1100-27		
Note:	Lowest end		



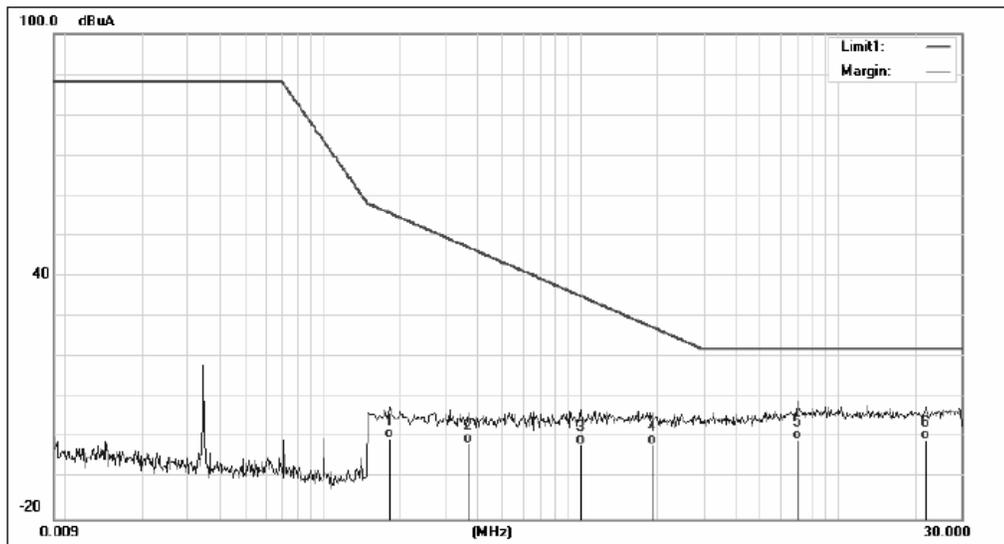
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	47.97	9.90	57.87	83.99	-26.12	QP
2	0.1500	36.56	9.90	46.46	73.99	-27.53	AVG
3	0.3740	52.10	9.90	62.00	76.41	-14.41	QP
4	0.3740	37.32	9.90	47.22	66.41	-19.19	AVG
5	0.4260	52.22	9.90	62.12	75.33	-13.21	QP
6	0.4260	45.62	9.90	55.52	65.33	-9.81	AVG
7	1.8140	35.01	9.72	44.73	74.00	-29.27	QP
8	1.8140	23.84	9.72	33.56	64.00	-30.44	AVG
9	5.5260	42.42	9.68	52.10	74.00	-21.90	QP
10	5.5260	32.55	9.68	42.23	64.00	-21.77	AVG
11	21.2260	23.12	9.48	32.60	74.00	-41.40	QP
12	21.2260	13.90	9.48	23.38	64.00	-40.62	AVG

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/02/
Test item:	Conduction Test	Time:	08/29/05
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP020W-0440-25		
Note:	LOOP-Z		



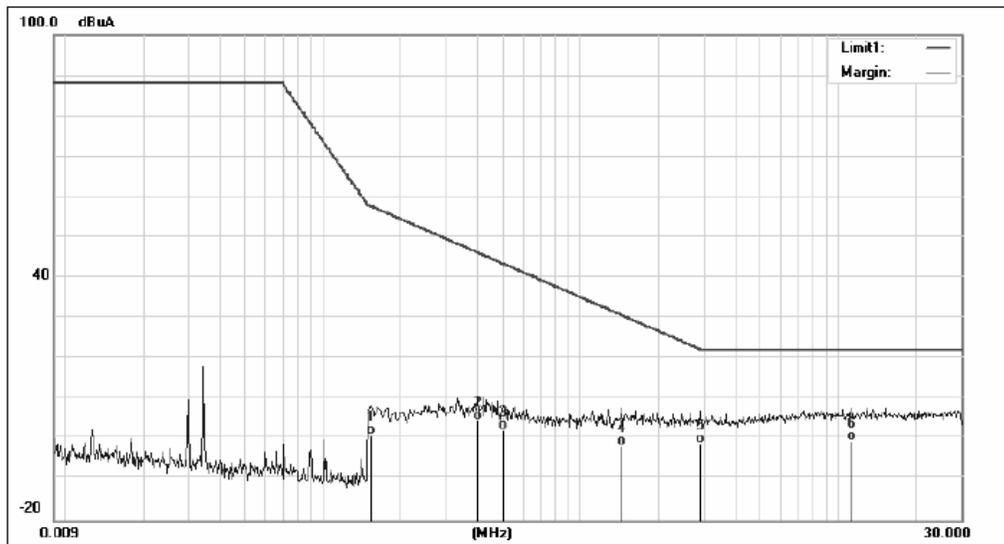
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1500	2.84	-0.53	2.31	58.00	-55.69	QP
2	0.7380	-0.68	-0.71	-1.39	38.85	-40.24	QP
3	1.8900	-0.87	-0.52	-1.39	27.55	-28.94	QP
4	6.2500	-0.01	-0.19	-0.20	22.00	-22.20	QP
5	12.1180	-0.05	0.03	-0.02	22.00	-22.02	QP
6	29.8700	-0.26	0.64	0.38	22.00	-21.62	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/02/
Test item:	Conduction Test	Time:	08/33/29
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP020W-0440-25		
Note:	LOOP-Y		



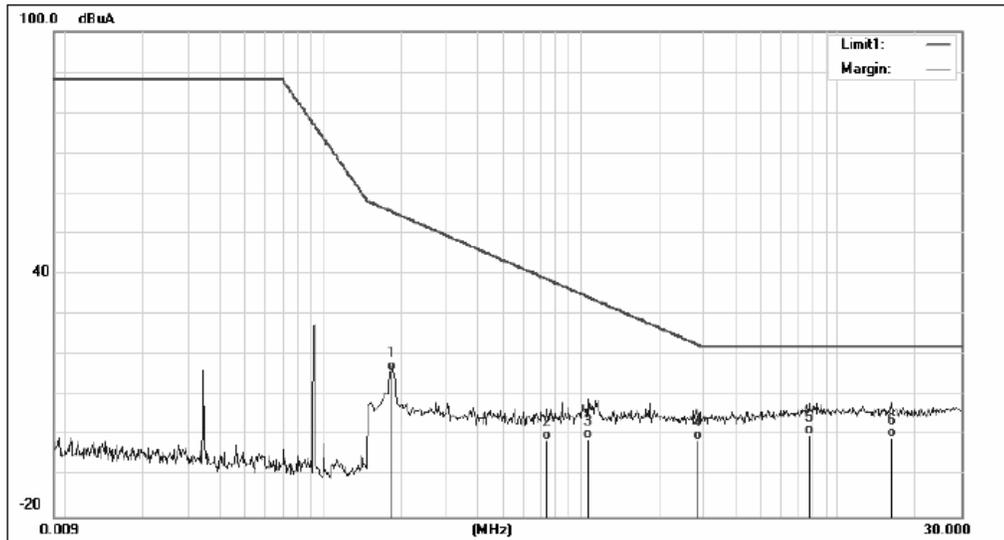
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1820	0.63	-0.62	0.01	55.68	-55.67	QP
2	0.3660	-0.50	-0.66	-1.16	47.28	-48.44	QP
3	1.0020	-1.13	-0.52	-1.65	35.18	-36.83	QP
4	1.8900	-1.04	-0.52	-1.56	27.55	-29.11	QP
5	6.9260	-0.09	-0.15	-0.24	22.00	-22.24	QP
6	22.0060	-0.59	0.19	-0.40	22.00	-22.40	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/02/
Test item:	Conduction Test	Time:	08/38/10
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP020W-0440-25		
Note:	LOOP-X		



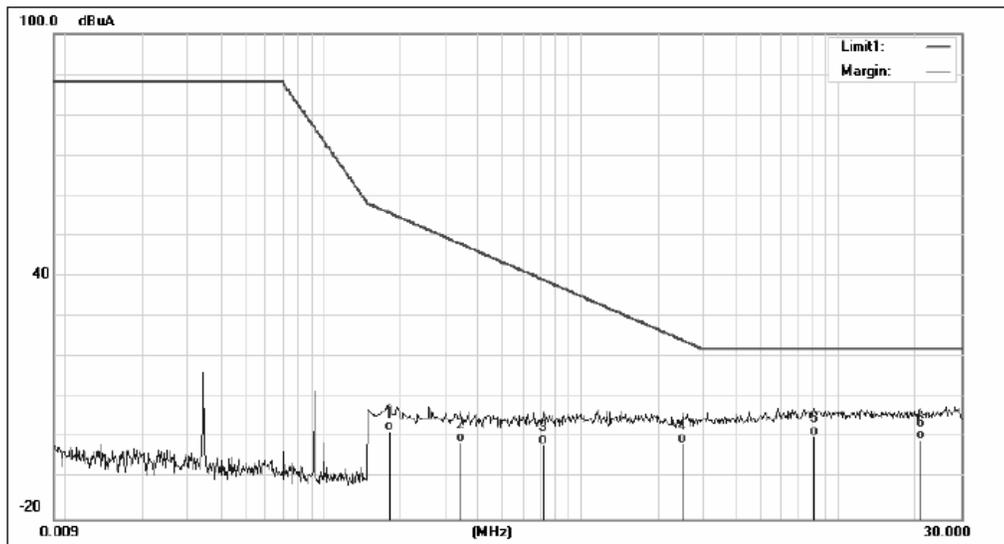
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1540	1.60	-0.54	1.06	57.68	-56.62	QP
2	0.3980	5.43	-0.66	4.77	46.27	-41.50	QP
3	0.5020	3.12	-0.64	2.48	43.48	-41.00	QP
4	1.4540	-1.08	-0.52	-1.60	30.70	-32.30	QP
5	2.9060	-0.41	-0.68	-1.09	22.38	-23.47	QP
6	11.3140	-0.26	0.03	-0.23	22.00	-22.23	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/02/
Test item:	Conduction Test	Time:	10/18/21
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP040W-0700-56		
Note:	LOOP-Z		



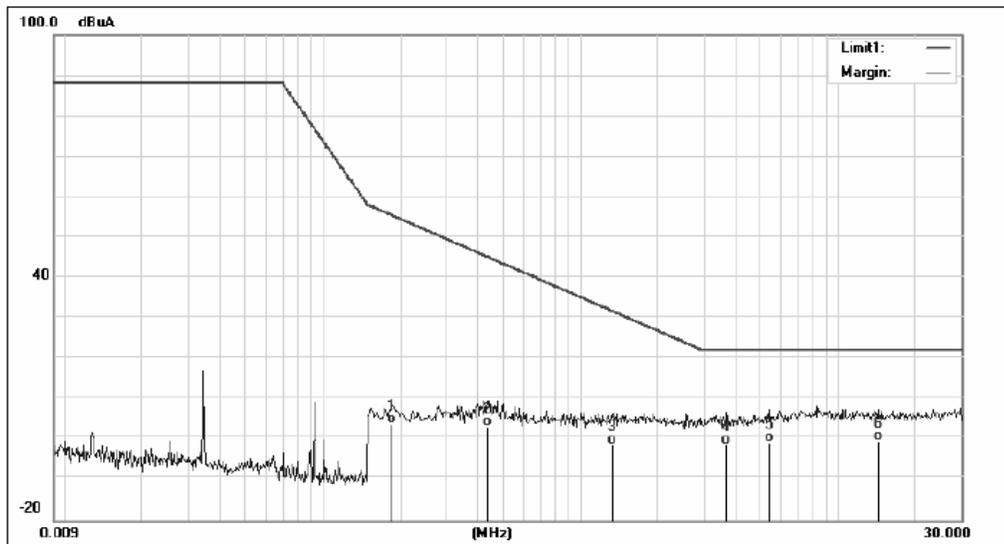
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1860	16.65	-0.63	16.02	55.41	-39.39	QP
2	0.7380	-0.27	-0.71	-0.98	38.85	-39.83	QP
3	1.0660	-0.15	-0.52	-0.67	34.43	-35.10	QP
4	2.8660	-0.22	-0.67	-0.89	22.55	-23.44	QP
5	7.7300	0.35	-0.10	0.25	22.00	-21.75	QP
6	16.1460	-0.31	0.00	-0.31	22.00	-22.31	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/02/
Test item:	Conduction Test	Time:	10/24/15
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP040W-0700-56		
Note:	LOOP-Y		



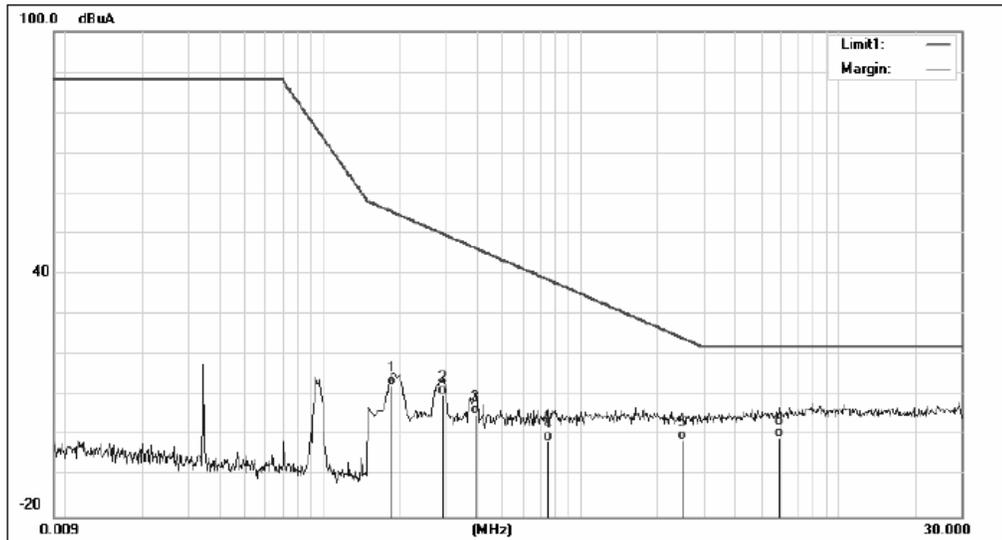
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor (dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1820	2.33	-0.62	1.71	55.68	-53.97	QP
2	0.3420	-0.25	-0.66	-0.91	48.10	-49.01	QP
3	0.7140	-0.85	-0.69	-1.54	39.25	-40.79	QP
4	2.5060	-0.51	-0.61	-1.12	24.16	-25.28	QP
5	8.0860	0.55	-0.08	0.47	22.00	-21.53	QP
6	20.8540	-0.62	0.13	-0.49	22.00	-22.49	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/02/
Test item:	Conduction Test	Time:	10/29/39
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP040W-0700-56		
Note:	LOOP-X		



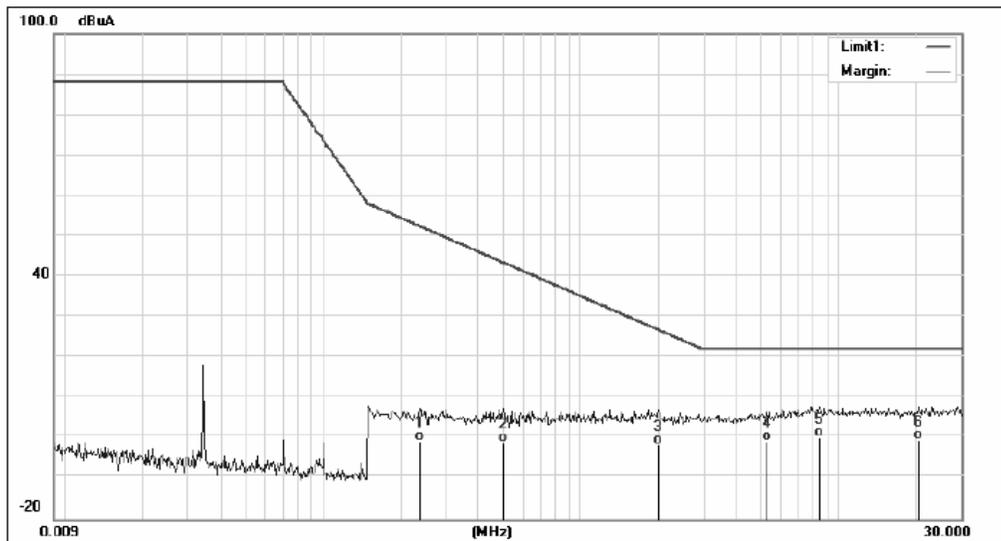
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1860	4.40	-0.63	3.77	55.41	-51.64	QP
2	0.4380	3.79	-0.65	3.14	45.12	-41.98	QP
3	1.3460	-0.84	-0.52	-1.36	31.63	-32.99	QP
4	3.6900	-0.30	-0.82	-1.12	22.00	-23.12	QP
5	5.4300	-0.27	-0.40	-0.67	22.00	-22.67	QP
6	14.2700	-0.24	0.01	-0.23	22.00	-22.23	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/02/
Test item:	Conduction Test	Time:	10/36/22
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP050W-1200-42		
Note:	LOOP-Z		



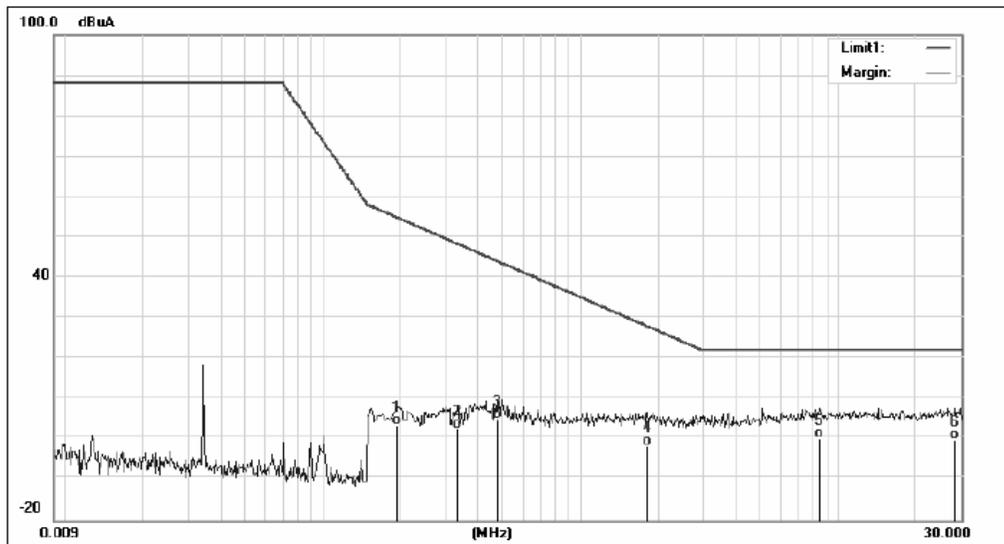
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1860	13.21	-0.63	12.58	55.41	-42.83	QP
2	0.2940	10.94	-0.67	10.27	49.91	-39.64	QP
3	0.3940	6.11	-0.66	5.45	46.39	-40.94	QP
4	0.7500	-0.60	-0.71	-1.31	38.66	-39.97	QP
5	2.4820	-0.39	-0.60	-0.99	24.28	-25.27	QP
6	5.9020	-0.21	-0.24	-0.45	22.00	-22.45	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/02/
Test item:	Conduction Test	Time:	10/42/00
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP050W-1200-42		
Note:	LOOP-Y		



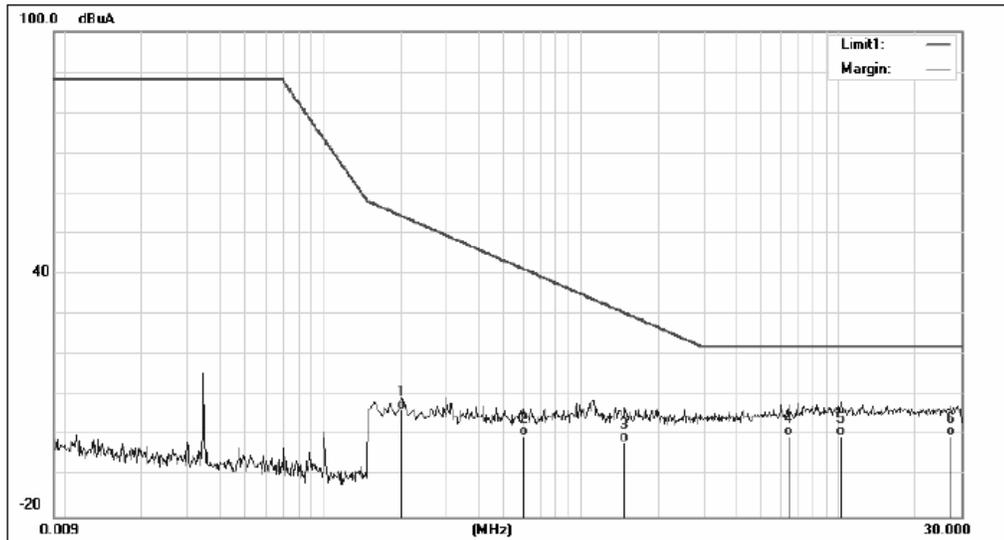
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.2380	0.12	-0.67	-0.55	52.45	-53.00	QP
2	0.5020	-0.35	-0.64	-0.99	43.48	-44.47	QP
3	1.9980	-1.12	-0.52	-1.64	26.88	-28.52	QP
4	5.3100	-0.28	-0.44	-0.72	22.00	-22.72	QP
5	8.4460	0.46	-0.06	0.40	22.00	-21.60	QP
6	20.4180	-0.59	0.10	-0.49	22.00	-22.49	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/02/
Test item:	Conduction Test	Time:	10/47/50
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP050W-1200-42		
Note:	LOOP-X		



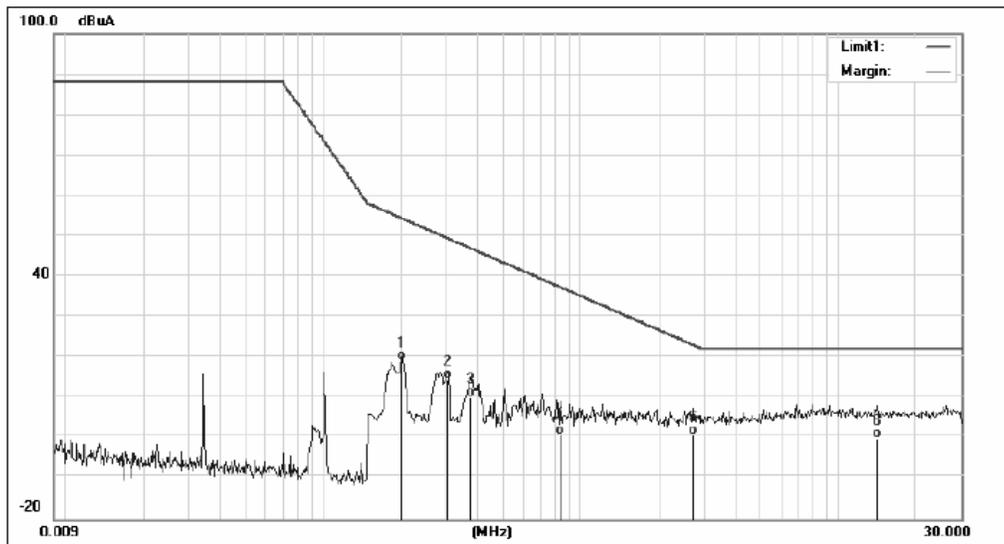
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1940	4.27	-0.65	3.62	54.91	-51.29	QP
2	0.3340	3.24	-0.66	2.58	48.38	-45.80	QP
3	0.4740	5.79	-0.65	5.14	44.17	-39.03	QP
4	1.8220	-0.88	-0.52	-1.40	27.99	-29.39	QP
5	8.4380	0.31	-0.06	0.25	22.00	-21.75	QP
6	28.3580	-0.53	0.56	0.03	22.00	-21.97	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/02/
Test item:	Conduction Test	Time:	11/01/03
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP050W-1400-34		
Note:	LOOP-Z		



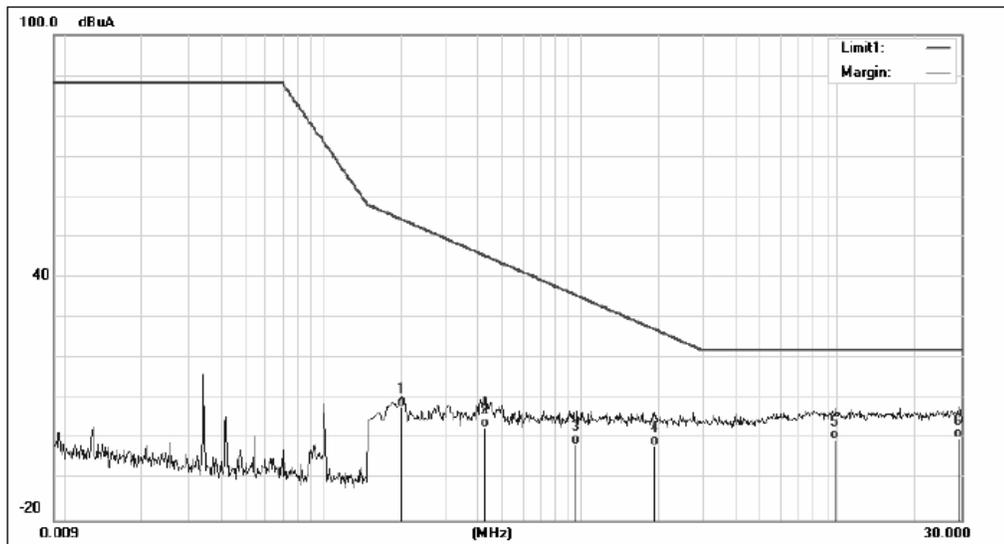
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.2020	7.11	-0.67	6.44	54.42	-47.98	QP
2	0.6060	0.49	-0.63	-0.14	41.22	-41.36	QP
3	1.4900	-0.91	-0.52	-1.43	30.41	-31.84	QP
4	6.4300	0.00	-0.18	-0.18	22.00	-22.18	QP
5	10.2420	0.05	0.04	0.09	22.00	-21.91	QP
6	27.4500	-0.47	0.50	0.03	22.00	-21.97	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/02/
Test item:	Conduction Test	Time:	11/06/04
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP050W-1400-34		
Note:	LOOP-Y		



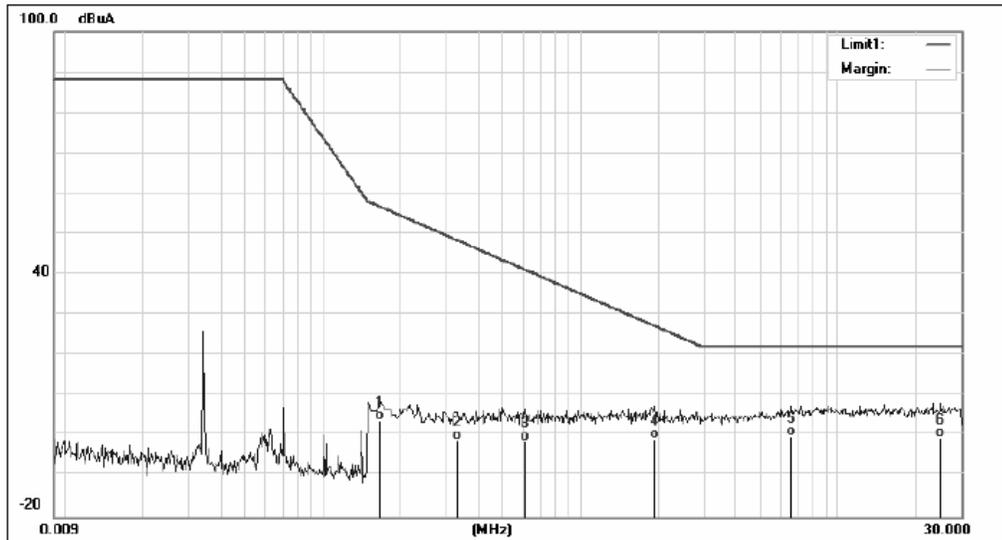
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.2020	19.30	-0.17	19.13	54.42	-35.29	QP
2	0.3060	14.75	-0.22	14.53	49.43	-34.90	QP
3	0.3740	10.55	-0.25	10.30	47.02	-36.72	QP
4	0.8380	1.32	-0.34	0.98	37.33	-36.35	QP
5	2.7380	1.02	-0.24	0.78	23.10	-22.32	QP
6	14.1860	-0.56	0.51	-0.05	22.00	-22.05	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/02/
Test item:	Conduction Test	Time:	11/11/23
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESP050W-1400-34		
Note:	LOOP-X		



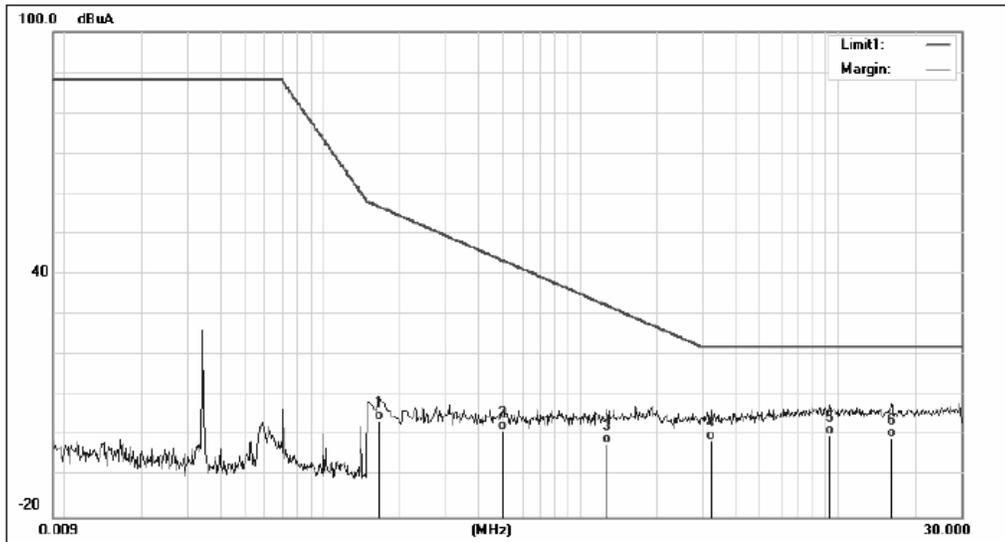
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.2020	8.30	-0.17	8.13	54.42	-46.29	QP
2	0.4260	3.24	-0.26	2.98	45.46	-42.48	QP
3	0.9780	-0.83	-0.32	-1.15	35.47	-36.62	QP
4	1.9460	-1.24	-0.23	-1.47	27.20	-28.67	QP
5	9.7700	-0.59	0.68	0.09	22.00	-21.91	QP
6	29.1340	0.09	0.15	0.24	22.00	-21.76	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/01
Test item:	Conduction Test	Time:	18:02:11
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS010W-0225-27-ABL1		
Note:	LOOP-Z		



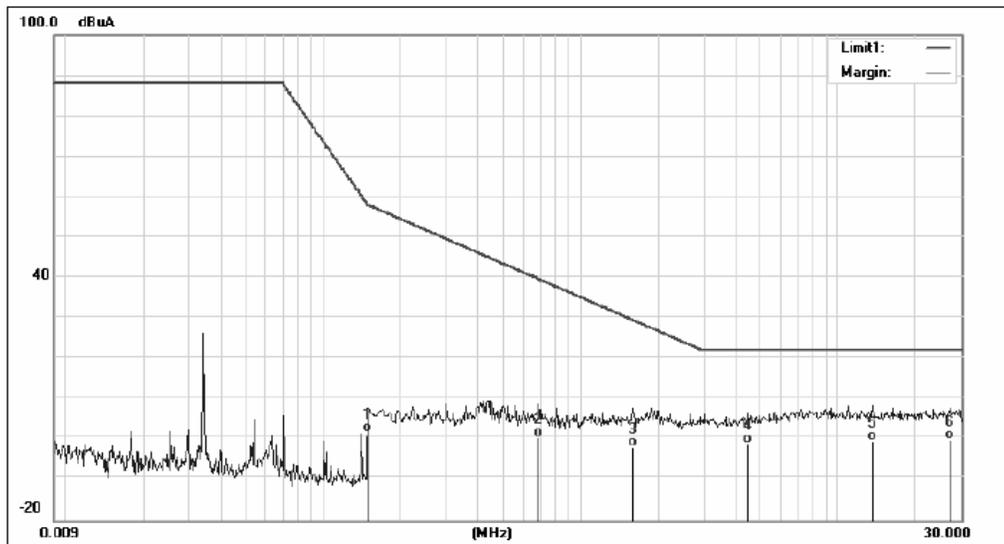
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1660	4.10	-0.14	3.96	56.77	-52.81	QP
2	0.3300	-0.61	-0.23	-0.84	48.52	-49.36	QP
3	0.6100	-1.07	-0.24	-1.31	41.14	-42.45	QP
4	1.9380	-0.28	-0.23	-0.51	27.25	-27.76	QP
5	6.6140	-0.68	0.61	-0.07	22.00	-22.07	QP
6	25.0300	-0.46	0.16	-0.30	22.00	-22.30	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/01
Test item:	Conduction Test	Time:	18:08:20
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS010W-0225-27-ABL1		
Note:	LOOP-Y		



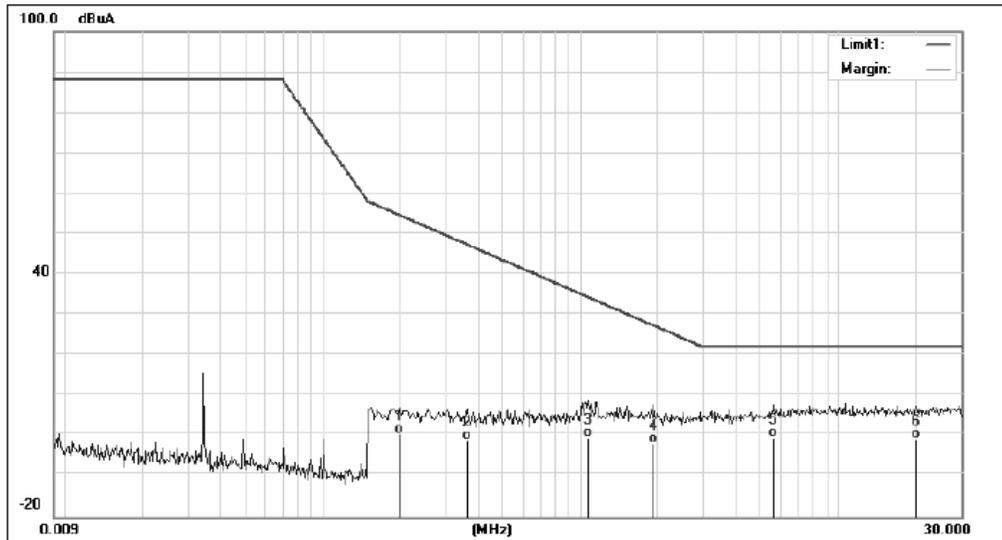
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1660	3.96	-0.14	3.82	56.77	-52.95	QP
2	0.5020	1.74	-0.24	1.50	43.48	-41.98	QP
3	1.2740	-1.51	-0.29	-1.80	32.29	-34.09	QP
4	3.2380	-0.75	-0.25	-1.00	22.00	-23.00	QP
5	9.2739	-0.54	0.67	0.13	22.00	-21.87	QP
6	16.1540	-0.74	0.42	-0.32	22.00	-22.32	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/01
Test item:	Conduction Test	Time:	18:15:08
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS010W-0225-27-ABL1		
Note:	LOOP-X		



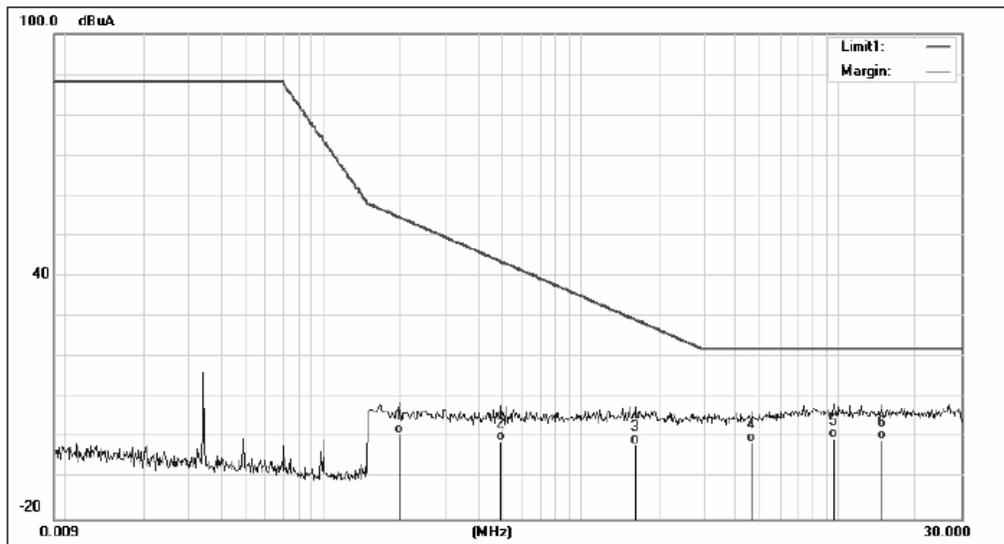
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1500	1.80	-0.13	1.67	57.99	-56.32	QP
2	0.6900	0.93	-0.28	0.65	39.66	-39.01	QP
3	1.6019	-1.51	-0.26	-1.77	29.54	-31.31	QP
4	4.4740	-0.79	-0.07	-0.86	22.00	-22.86	QP
5	13.6260	-0.81	0.53	-0.28	22.00	-22.28	QP
6	27.0180	-0.34	0.16	-0.18	22.00	-22.18	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/01
Test item:	Conduction Test	Time:	18:21:56
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS030W-0500-56		
Note:	LOOP-Z		



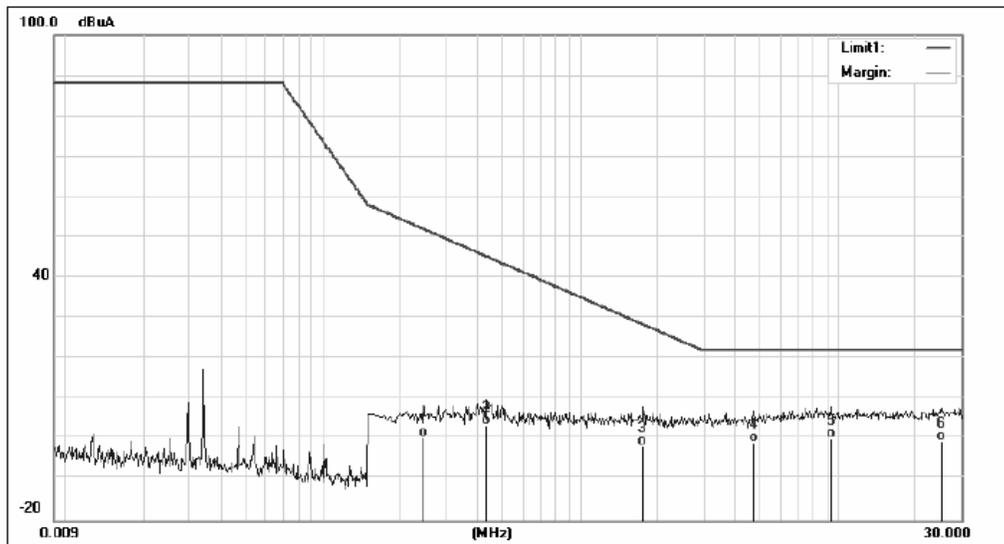
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1980	0.66	-0.17	0.49	54.66	-54.17	QP
2	0.3620	-0.84	-0.24	-1.08	47.41	-48.49	QP
3	1.0620	-0.06	-0.31	-0.37	34.48	-34.85	QP
4	1.9300	-1.59	-0.23	-1.82	27.30	-29.12	QP
5	5.5980	-0.86	0.42	-0.44	22.00	-22.44	QP
6	20.1580	-0.79	0.18	-0.61	22.00	-22.61	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/01
Test item:	Conduction Test	Time:	18:28:01
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS030W-0500-56		
Note:	LOOP-Y		



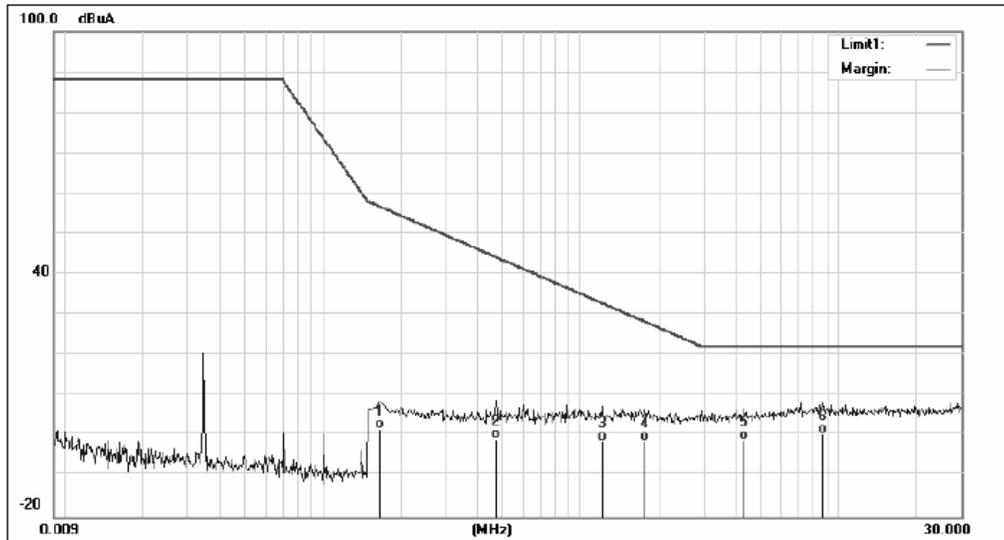
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1980	1.32	-0.17	1.15	54.66	-53.51	QP
2	0.4900	-0.35	-0.25	-0.60	43.77	-44.37	QP
3	1.6340	-1.41	-0.26	-1.67	29.30	-30.97	QP
4	4.6260	-0.81	0.00	-0.81	22.00	-22.81	QP
5	9.6260	-0.64	0.68	0.04	22.00	-21.96	QP
6	14.7500	-0.74	0.48	-0.26	22.00	-22.26	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/01
Test item:	Conduction Test	Time:	18:36:12
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS030W-0500-56		
Note:	LOOP-X		



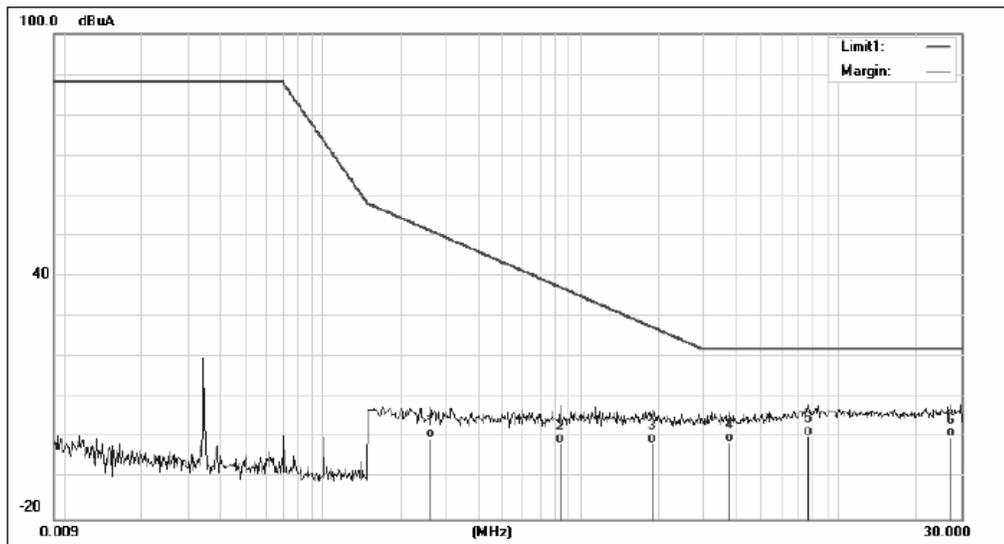
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.2460	0.85	-0.19	0.66	52.06	-51.40	QP
2	0.4340	3.92	-0.25	3.67	45.23	-41.56	QP
3	1.7420	-1.24	-0.25	-1.49	28.53	-30.02	QP
4	4.6979	-0.70	0.03	-0.67	22.00	-22.67	QP
5	9.3700	-0.54	0.67	0.13	22.00	-21.87	QP
6	25.1380	-0.44	0.16	-0.28	22.00	-22.28	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/01
Test item:	Conduction Test	Time:	18:42:36
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS030W-1100-27		
Note:	LOOP-Z		



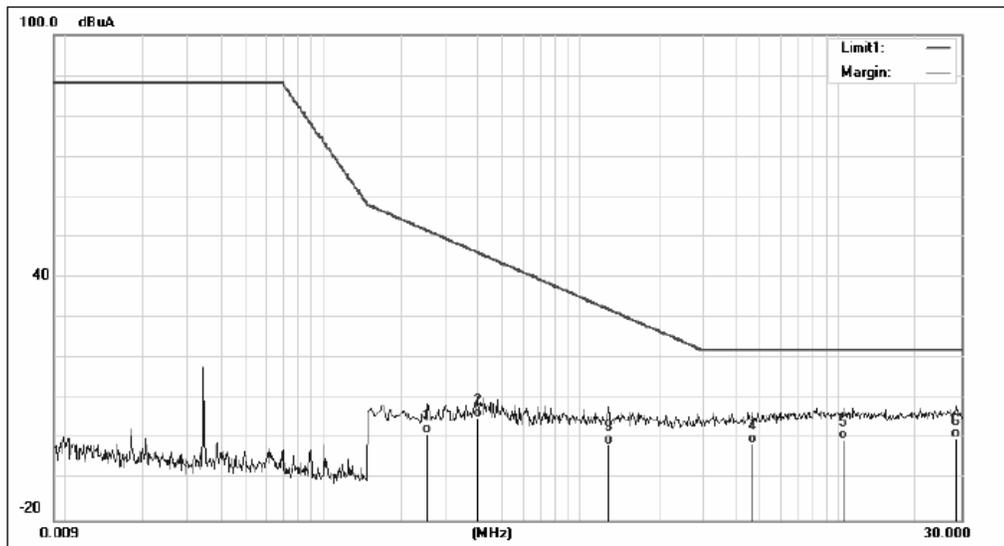
No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.1660	2.47	-0.57	1.90	56.78	-54.88	QP
2	0.4700	-0.11	-0.65	-0.76	44.28	-45.04	QP
3	1.2140	-0.77	-0.52	-1.29	32.87	-34.16	QP
4	1.7740	-0.63	-0.52	-1.15	28.31	-29.46	QP
5	4.2980	-0.04	-0.77	-0.81	22.00	-22.81	QP
6	8.7140	0.54	-0.04	0.50	22.00	-21.50	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/01
Test item:	Conduction Test	Time:	18:48:55
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS030W-1100-27		
Note:	LOOP-Y		



No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.2620	0.63	-0.67	-0.04	51.30	-51.34	QP
2	0.8380	-0.46	-0.70	-1.16	37.33	-38.49	QP
3	1.9020	-0.78	-0.52	-1.30	27.48	-28.78	QP
4	3.7980	-0.14	-0.83	-0.97	22.00	-22.97	QP
5	7.6300	0.62	-0.11	0.51	22.00	-21.49	QP
6	27.5900	-0.36	0.51	0.15	22.00	-21.85	QP

Project No.:	2016-05-23	Power Source:	AC 245V/50Hz
Standard:	(Loop)EN 55015	Date:	2016/07/01
Test item:	Conduction Test	Time:	18:54:12
Temp./Hum.(%RH):	23/60%RH	Test By:	Leo
EUT:	LED Driver	Test Mode:	Full Load (maximum light)
Model:	ESS030W-1100-27		
Note:	LOOP-X		



No.	Frequency (MHz)	Reading (dBuA)	Correct Factor (dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.2540	2.09	-0.67	1.42	51.67	-50.25	QP
2	0.3980	6.11	-0.66	5.45	46.27	-40.82	QP
3	1.2820	-0.85	-0.52	-1.37	32.22	-33.59	QP
4	4.6740	-0.19	-0.65	-0.84	22.00	-22.84	QP
5	10.5260	-0.11	0.04	-0.07	22.00	-22.07	QP
6	28.5940	-0.42	0.57	0.15	22.00	-21.85	QP

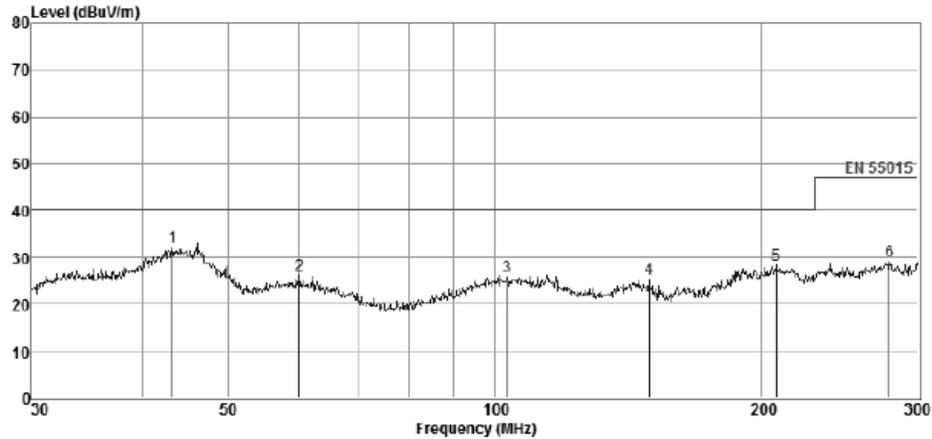


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESP020W-0440-25
 Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
 Condition : Temp: 23°C, Humi: 55%, Press: 1 Antenna/Distance : VULB9162 (30M-8G)
 : 00.1kPa : 3m/HORIZONTAL
 Memo :

Data : 0053



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	43.26	15.08	16.45	0.00	0.63	32.16	40.00	-7.84	Peak	HORIZONTAL
2	60.13	14.41	10.95	0.00	0.76	26.12	40.00	-13.88	Peak	HORIZONTAL
3	103.31	12.82	11.93	0.00	1.04	25.79	40.00	-14.21	Peak	HORIZONTAL
4	149.32	16.41	7.53	0.00	1.26	25.20	40.00	-14.80	Peak	HORIZONTAL
5	207.55	17.30	9.50	0.00	1.52	28.32	40.00	-11.68	Peak	HORIZONTAL
6	278.69	27.34	0.00	0.00	1.81	29.15	47.00	-17.85	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

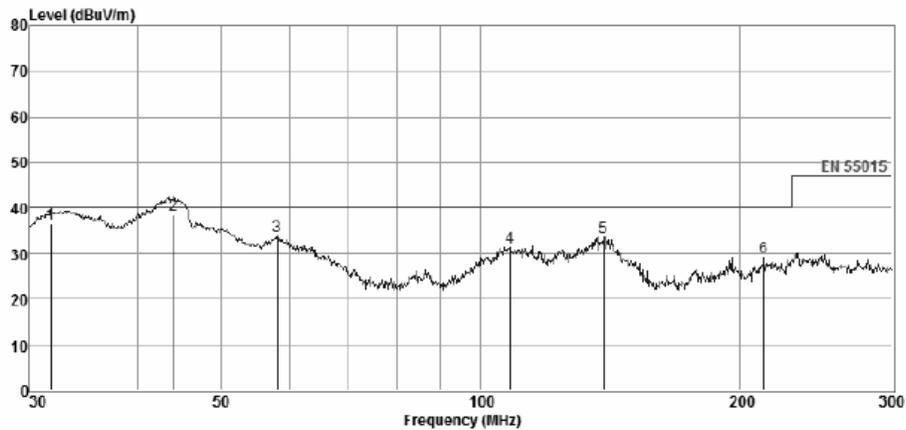


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESP020W-0440-25
 Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
 Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G)/3m/VERTICAL
 Memo :

Data : 0080



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	31.71	25.30	10.61	0.00	0.54	36.45	40.00	-3.55	QP	VERTICAL
2	44.07	20.80	16.97	0.00	0.64	38.41	40.00	-1.59	QP	VERTICAL
3	58.09	22.61	10.33	0.00	0.75	33.69	40.00	-6.31	Peak	VERTICAL
4	108.17	18.58	11.68	0.00	1.06	31.32	40.00	-8.68	Peak	VERTICAL
5	138.71	24.39	7.88	0.00	1.21	33.48	40.00	-6.52	Peak	VERTICAL
6	212.87	17.86	9.63	0.00	1.54	29.03	40.00	-10.97	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

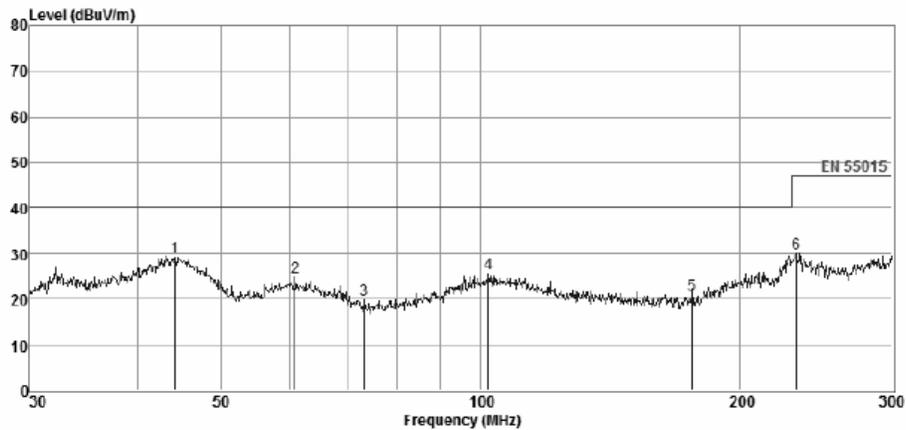


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESP020W-0440-25
 Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
 Condition : Temp:23°C, Humi: 55%, Press: 1 Antenna/Distance : VULB9162 (30M-8G)
 : 00.1kPa : /3m/HORIZONTAL
 Memo :

Data : 0055



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	44.17	11.58	16.92	0.00	0.64	29.14	40.00	-10.86	Peak	HORIZONTAL
2	60.97	13.23	10.67	0.00	0.77	24.67	40.00	-15.33	Peak	HORIZONTAL
3	73.30	12.03	6.91	0.00	0.85	19.79	40.00	-20.21	Peak	HORIZONTAL
4	102.12	12.70	11.88	0.00	1.03	25.61	40.00	-14.39	Peak	HORIZONTAL
5	175.84	12.54	6.97	0.00	1.36	20.87	40.00	-19.13	Peak	HORIZONTAL
6	232.34	16.77	11.49	0.00	1.63	29.89	47.00	-17.11	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

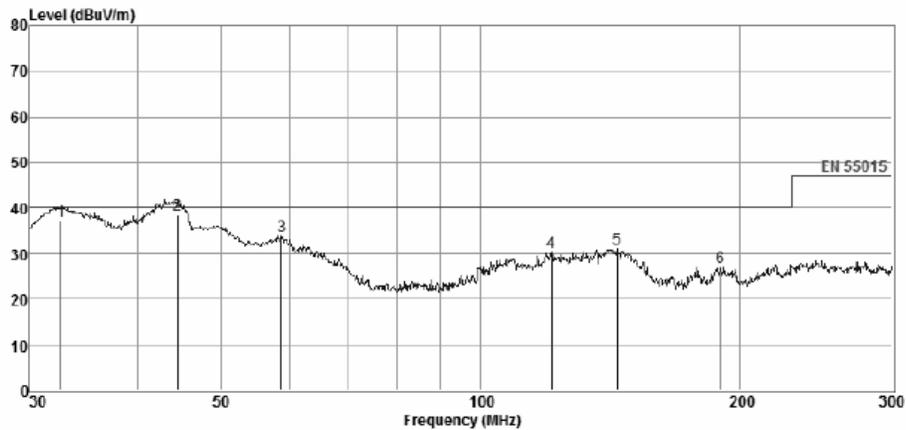


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1.EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESP020W-0440-25
 Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
 Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G)/3m/VERTICAL
 Memo :

Data : 0052



Item (Mark)	Freq (MHz)	Read Level (dBrV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBrV/m)	Limit Line (dBrV/m)	Over Limit (dB)	Detector	Polarization
1	32.59	25.60	10.85	0.00	0.55	37.00	40.00	-3.00	QP	VERTICAL
2	44.48	21.00	16.76	0.00	0.64	38.40	40.00	-1.60	QP	VERTICAL
3	58.77	22.51	10.57	0.00	0.75	33.83	40.00	-6.17	Peak	VERTICAL
4	120.82	19.88	9.20	0.00	1.11	30.19	40.00	-9.81	Peak	VERTICAL
5	143.92	22.12	7.72	0.00	1.23	31.07	40.00	-8.93	Peak	VERTICAL
6	189.72	16.57	8.96	0.00	1.43	26.96	40.00	-13.04	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

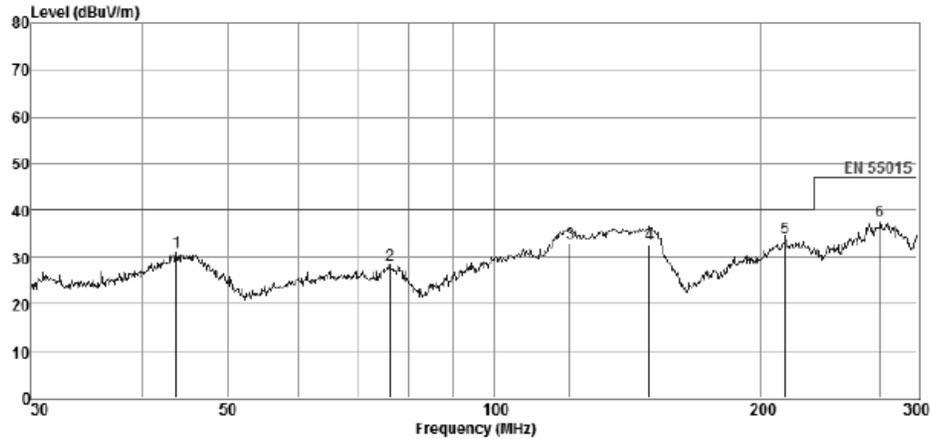


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 项目\旭源 LCZE\1.EM6
 Test Date : 2016-06-22 Tested By : Ken
 EUT : LED driver Model Number : ESP040W-0700-56
 Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
 Condition : Temp: 23°C, Humi: 55%, Press: 1 Antenna/Distance : VULB9162 (30M-8G)
 : 00.1kPa : 3m/HORIZONTAL
 Memo :

Data : 0081



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	43.66	13.73	16.75	0.00	0.64	31.12	40.00	-8.88	Peak	HORIZONTAL
2	76.23	20.92	6.50	0.00	0.87	28.29	40.00	-11.71	Peak	HORIZONTAL
3	121.65	22.80	9.10	0.00	1.12	33.02	40.00	-6.98	QP	HORIZONTAL
4	149.67	24.00	7.51	0.00	1.26	32.77	40.00	-7.23	QP	HORIZONTAL
5	212.87	22.80	9.63	0.00	1.54	33.97	40.00	-6.03	QP	HORIZONTAL
6	272.97	23.00	12.74	0.00	1.79	37.53	47.00	-9.47	Peak	HORIZONTAL

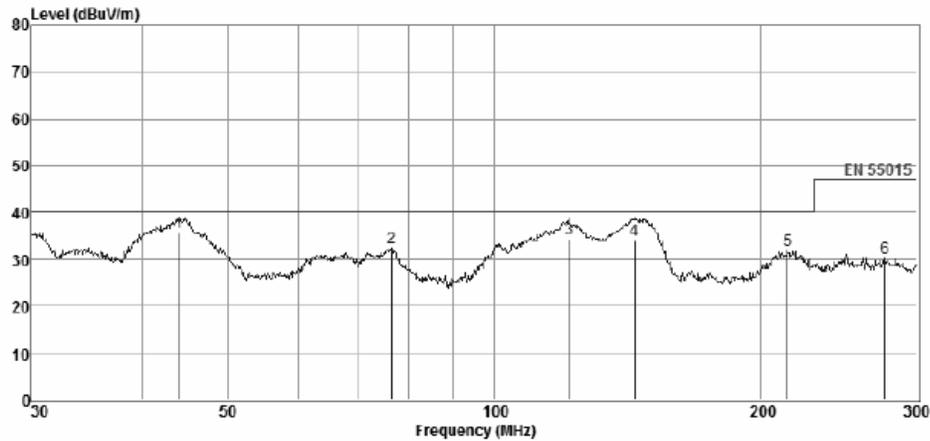
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit



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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 项目\旭源 LCZE\1.EM6
 Test Date : 2016-06-22 Tested By : Ken
 EUT : LED driver Model Number : ESP040W-0700-56
 Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
 Condition : Temp:23°C,Humi:55%, Press:1 Antenna/Distance : VULB9162 (30M-8G)/3m/VERTICAL
 Memo :
 Data : 0080



Item (Mark)	Freq (MHz)	Read Level (dB μ V)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dB μ V/m)	Limit Line (dB μ V/m)	Over Limit (dB)	Detector	Polarization
1	44.07	18.00	16.97	0.00	0.64	35.61	40.00	-4.39	QP	VERTICAL
2	76.58	24.94	6.50	0.00	0.88	32.32	40.00	-7.68	Peak	VERTICAL
3	121.37	24.00	9.13	0.00	1.12	34.25	40.00	-5.75	QP	VERTICAL
4	143.92	25.00	7.72	0.00	1.23	33.95	40.00	-6.05	QP	VERTICAL
5	214.35	20.56	9.75	0.00	1.55	31.86	40.00	-8.14	Peak	VERTICAL
6	276.14	15.53	12.88	0.00	1.80	30.21	47.00	-16.79	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit,QP Result is deemed to comply with QP limit

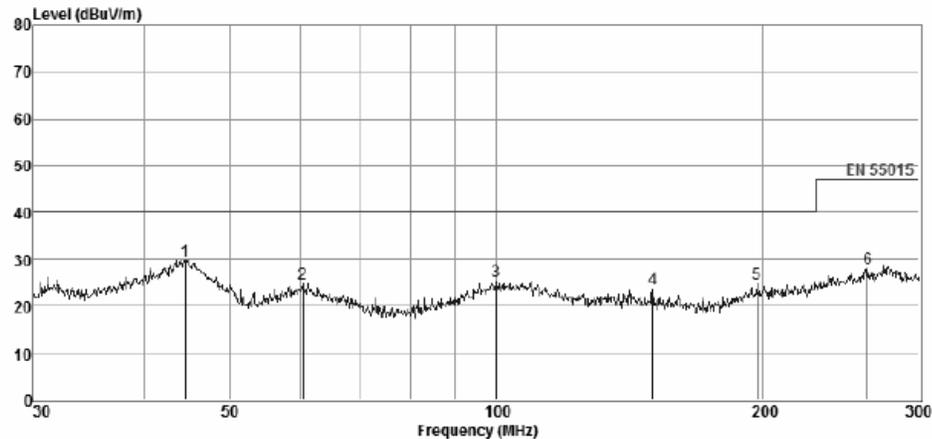


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 项目\旭源 LCZE\1.EM6
 Test Date : 2016-06-22 Tested By : Ken
 EUT : LED driver Model Number : ESP040W-0700-56
 Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
 Condition : Temp: 23°C, Humi: 55%, Press: 1 Antenna/Distance : VULB9162 (30M-8G)
 : 00.1kPa : 3m/HORIZONTAL
 Memo :

Data : 0083



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	44.48	12.30	16.76	0.00	0.64	29.70	40.00	-10.30	Peak	HORIZONTAL
2	60.41	13.24	10.86	0.00	0.76	24.86	40.00	-15.14	Peak	HORIZONTAL
3	99.80	12.65	11.76	0.00	1.02	25.43	40.00	-14.57	Peak	HORIZONTAL
4	150.01	15.00	7.50	0.00	1.26	23.76	40.00	-16.24	Peak	HORIZONTAL
5	196.84	13.39	9.80	0.00	1.46	24.65	40.00	-15.35	Peak	HORIZONTAL
6	262.50	13.87	12.35	0.00	1.75	27.97	47.00	-19.03	Peak	HORIZONTAL

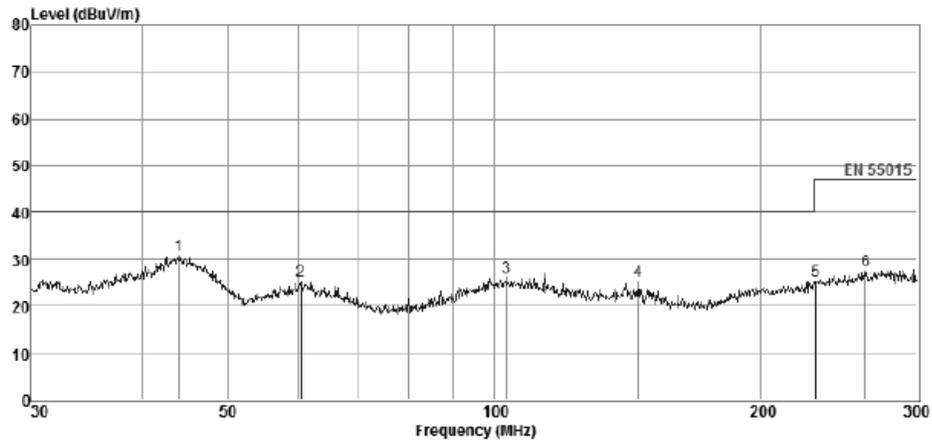
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit



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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 项目\旭源 LCZE\1.EM6
 Test Date : 2016-06-22 Tested By : Ken
 EUT : LED driver Model Number : ESP040W-0700-56
 Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
 Condition : Temp:23°C,Humi:55%, Press:1 Antenna/Distance : VULB9162 (30M-8G)/3m/VERTICAL
 Memo :
 Data : 0082



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	44.07	13.28	16.97	0.00	0.64	30.89	40.00	-9.11	Peak	VERTICAL
2	60.41	13.72	10.85	0.00	0.76	25.33	40.00	-14.67	Peak	VERTICAL
3	103.07	13.13	11.92	0.00	1.03	26.08	40.00	-13.92	Peak	VERTICAL
4	145.25	16.35	7.69	0.00	1.24	25.28	40.00	-14.72	Peak	VERTICAL
5	230.74	12.35	11.43	0.00	1.62	25.40	47.00	-21.60	Peak	VERTICAL
6	262.50	13.25	12.35	0.00	1.75	27.35	47.00	-19.65	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit,QP Result is deemed to comply with QP limit

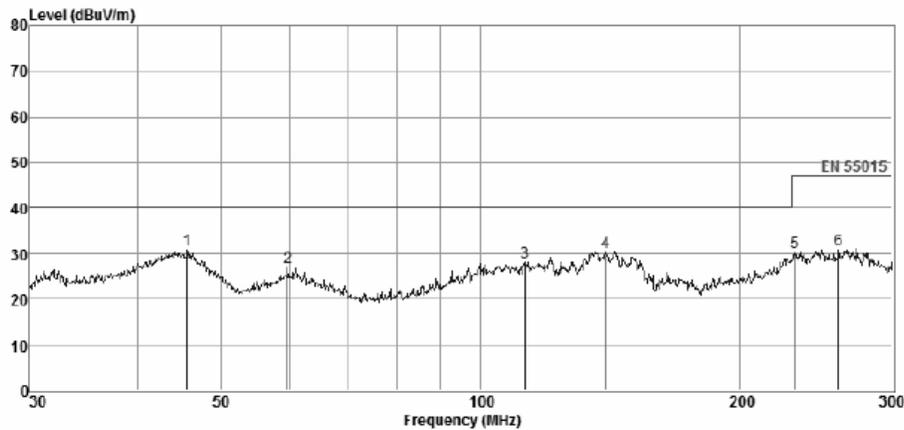


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 项目\旭源 LCZEM.EM6
Test Date : 2016-06-22 Tested By : Ken
EUT : LED driver Model Number : ESP050W-1200-42
Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G)
: 00.1kPa : /3m/HORIZONTAL
Memo :

Data : 0087



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	45.62	13.84	16.19	0.00	0.65	30.68	40.00	-9.32	Peak	HORIZONTAL
2	59.72	15.21	10.90	0.00	0.76	26.87	40.00	-13.13	Peak	HORIZONTAL
3	112.49	15.97	10.95	0.00	1.08	28.00	40.00	-12.00	Peak	HORIZONTAL
4	139.68	21.32	7.82	0.00	1.21	30.35	40.00	-9.65	Peak	HORIZONTAL
5	231.80	17.27	11.47	0.00	1.63	30.37	47.00	-16.63	Peak	HORIZONTAL
6	260.09	16.67	12.40	0.00	1.74	30.81	47.00	-16.19	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

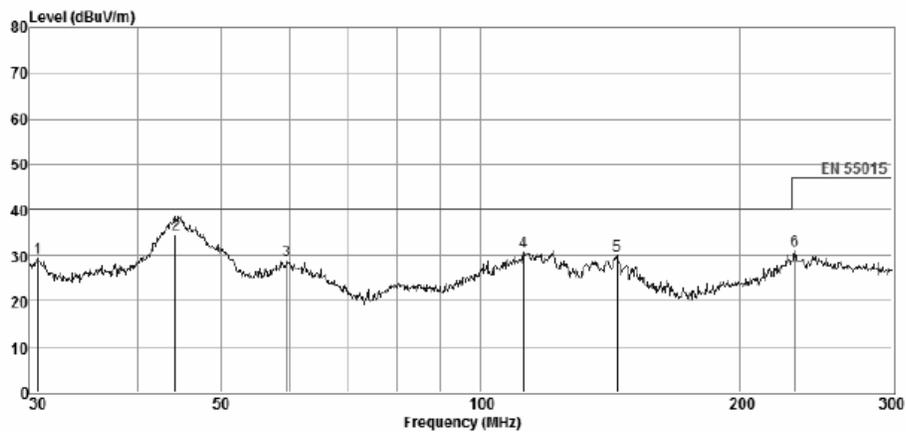


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 项目\旭源 LCZEM1 EM6
 Test Date : 2016-06-22 Tested By : Ken
 EUT : LED driver Model Number : ESP050W-1200-42
 Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
 Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G)/3m/VERTICAL
 Memo :

Data : 0086



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	30.63	18.63	10.29	0.00	0.53	29.45	40.00	-10.55	Peak	VERTICAL
2	44.27	17.00	16.86	0.00	0.64	34.50	40.00	-5.50	QP	VERTICAL
3	59.58	17.38	10.86	0.00	0.76	29.00	40.00	-11.00	Peak	VERTICAL
4	112.23	18.61	11.00	0.00	1.08	30.69	40.00	-9.31	Peak	VERTICAL
5	143.92	21.06	7.72	0.00	1.23	30.01	40.00	-9.99	Peak	VERTICAL
6	231.27	18.03	11.45	0.00	1.62	31.10	47.00	-15.90	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

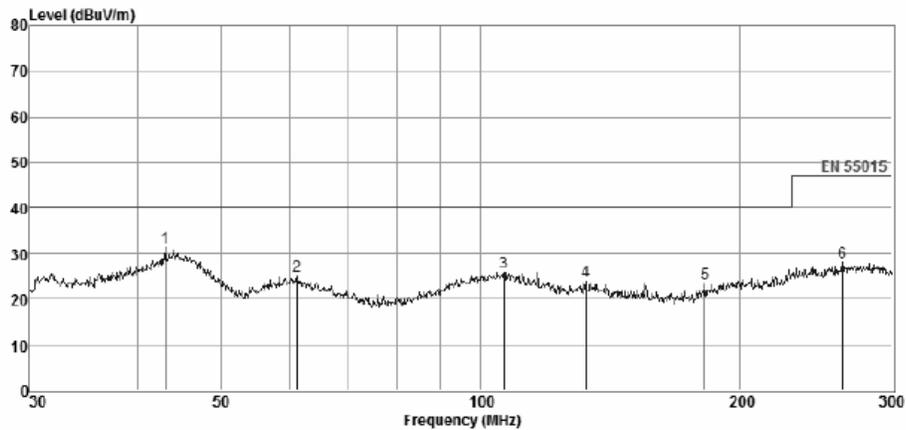


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 项目\旭源 LCZEM1 EM6
Test Date : 2016-06-22 Tested By : Ken
EUT : LED driver Model Number : ESP050W-1200-42
Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
Condition : Temp:23°C, Humi: 55%, Press: 1 Antenna/Distance : VULB9162 (30M-8G)
: 00.1kPa : /3m/HORIZONTAL
Memo :

Data : 0085



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	43.07	14.53	16.30	0.00	0.63	31.46	40.00	-8.54	Peak	HORIZONTAL
2	61.25	13.75	10.57	0.00	0.77	25.09	40.00	-14.91	Peak	HORIZONTAL
3	106.44	12.98	11.86	0.00	1.05	25.89	40.00	-14.11	Peak	HORIZONTAL
4	132.47	14.60	8.25	0.00	1.18	24.03	40.00	-15.97	Peak	HORIZONTAL
5	182.02	14.35	7.70	0.00	1.39	23.44	40.00	-16.56	Peak	HORIZONTAL
6	263.10	14.03	12.34	0.00	1.75	28.12	47.00	-18.88	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

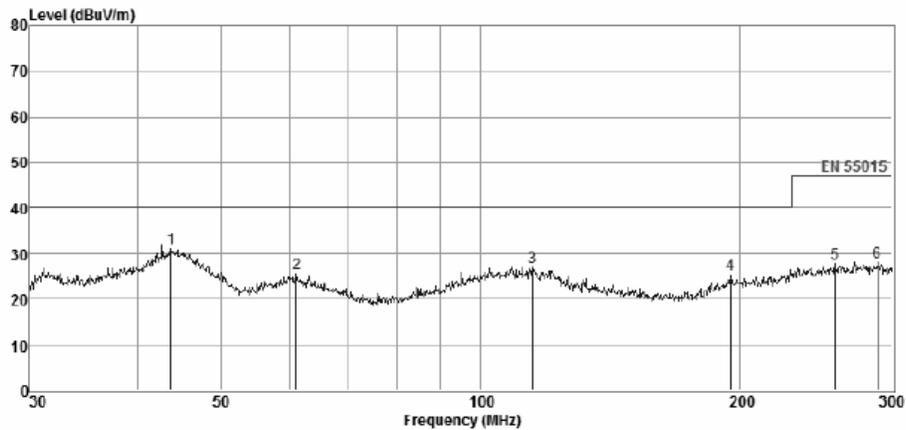


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 项目\旭源 LCZEM1 EM6
 Test Date : 2016-06-22 Tested By : Ken
 EUT : LED driver Model Number : ESP050W-1200-42
 Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
 Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G)/3m/VERTICAL
 Memo :

Data : 0084



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	43.66	13.54	16.75	0.00	0.64	30.93	40.00	-9.07	Peak	VERTICAL
2	61.11	14.18	10.61	0.00	0.77	25.56	40.00	-14.44	Peak	VERTICAL
3	114.85	15.42	10.43	0.00	1.09	26.94	40.00	-13.06	Peak	VERTICAL
4	195.04	13.99	9.80	0.00	1.46	25.25	40.00	-14.75	Peak	VERTICAL
5	257.70	13.65	12.26	0.00	1.73	27.64	47.00	-19.36	Peak	VERTICAL
6	288.48	13.70	12.60	0.00	1.84	28.14	47.00	-18.86	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

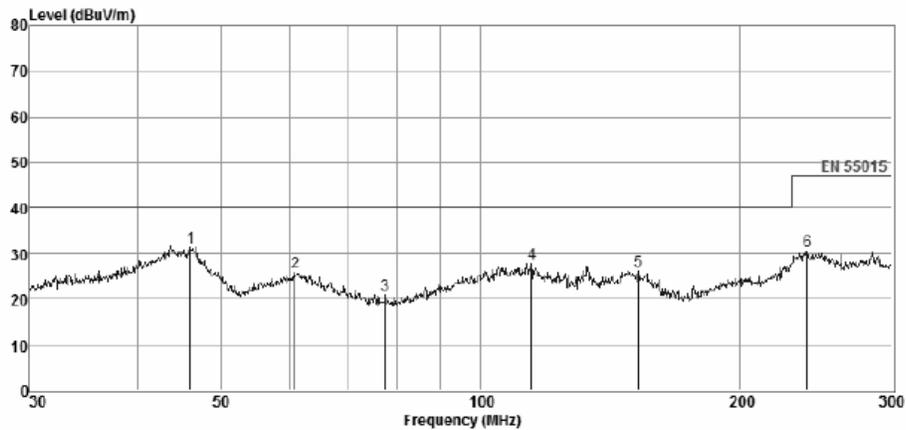


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESP050W-1400-34
 Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
 Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G)
 : 00.1kPa : /3m/HORIZONTAL
 Memo :

Data : 0075



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	46.04	14.81	15.95	0.00	0.65	31.41	40.00	-8.59	Peak	HORIZONTAL
2	60.97	14.32	10.67	0.00	0.77	25.76	40.00	-14.24	Peak	HORIZONTAL
3	77.47	13.42	6.50	0.00	0.88	20.80	40.00	-19.20	Peak	HORIZONTAL
4	114.58	16.13	10.49	0.00	1.09	27.71	40.00	-12.29	Peak	HORIZONTAL
5	152.45	17.38	7.45	0.00	1.27	26.10	40.00	-13.90	Peak	HORIZONTAL
6	239.40	17.06	11.78	0.00	1.66	30.50	47.00	-16.50	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

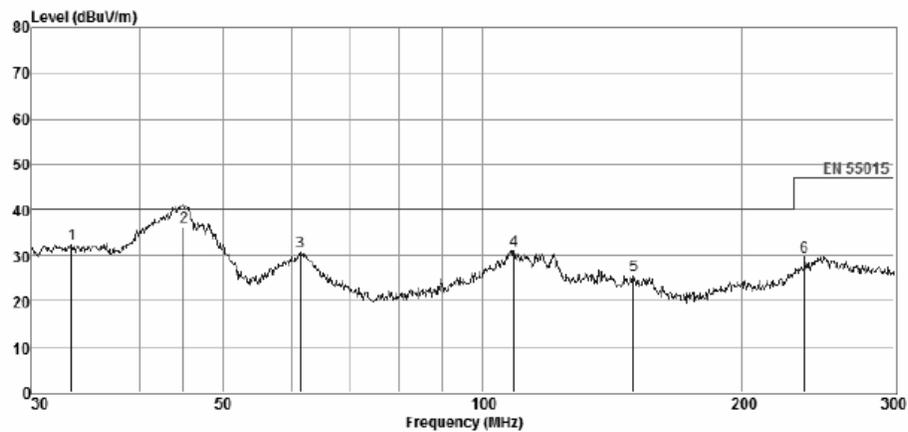


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESP050W-1400-34
 Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
 Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G)/3m/VERTICAL
 Memo :

Data : 0074



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	33.35	20.97	11.04	0.00	0.55	32.56	40.00	-7.44	Peak	VERTICAL
2	44.99	19.10	16.50	0.00	0.65	36.25	40.00	-3.75	QP	VERTICAL
3	61.39	19.38	10.51	0.00	0.77	30.66	40.00	-9.34	Peak	VERTICAL
4	108.67	18.48	11.63	0.00	1.06	31.17	40.00	-8.83	Peak	VERTICAL
5	149.67	16.81	7.51	0.00	1.26	25.58	40.00	-14.42	Peak	VERTICAL
6	236.11	16.55	11.64	0.00	1.64	29.83	47.00	-17.17	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

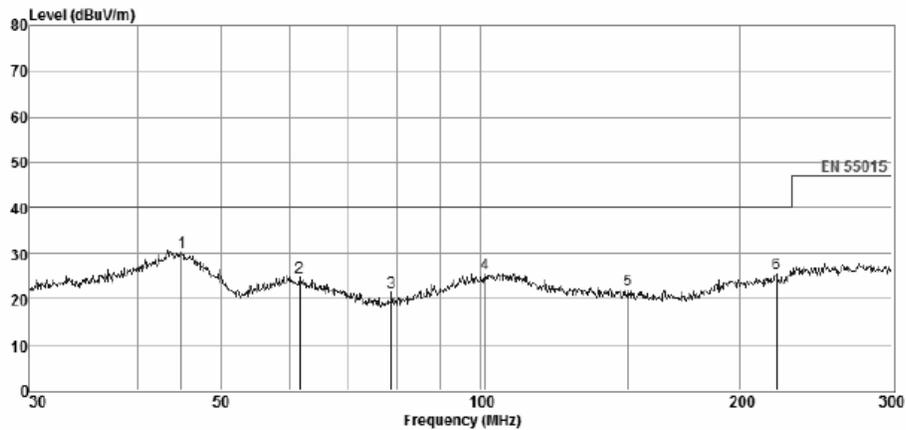


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
Test Date : 2016-07-05 Tested By : Ken
EUT : LED driver Model Number : ESP050W-1400-34
Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
Condition : Temp:23°C, Humi: 55%, Press: 1 Antenna/Distance : VULB9162 (30M-8G)
: 00.1kPa : /3m/HORIZONTAL
Memo :

Data : 0045



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	44.99	13.11	16.50	0.00	0.65	30.26	40.00	-9.74	Peak	HORIZONTAL
2	61.68	13.60	10.43	0.00	0.77	24.80	40.00	-15.20	Peak	HORIZONTAL
3	78.73	14.16	6.50	0.00	0.89	21.55	40.00	-18.45	Peak	HORIZONTAL
4	100.95	12.80	11.84	0.00	1.02	25.66	40.00	-14.34	Peak	HORIZONTAL
5	148.29	13.04	7.57	0.00	1.25	21.86	40.00	-18.14	Peak	HORIZONTAL
6	220.35	13.97	10.01	0.00	1.58	25.56	40.00	-14.44	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

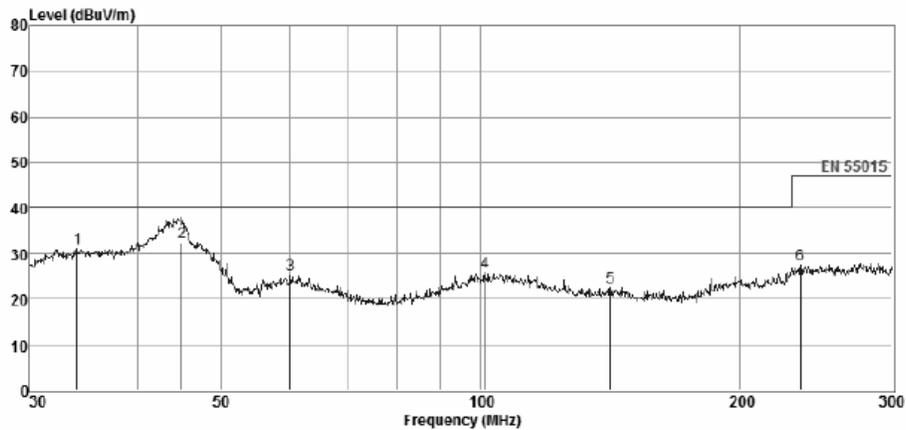


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESP050W-1400-34
 Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
 Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G)/3m/VERTICAL
 Memo :

Data : 0044



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	34.05	19.25	11.21	0.00	0.56	31.02	40.00	-8.98	Peak	VERTICAL
2	44.99	15.30	16.50	0.00	0.65	32.45	40.00	-7.55	QP	VERTICAL
3	60.13	13.54	10.95	0.00	0.76	25.25	40.00	-14.75	Peak	VERTICAL
4	100.95	13.06	11.84	0.00	1.02	25.92	40.00	-14.08	Peak	VERTICAL
5	141.29	13.62	7.77	0.00	1.22	22.61	40.00	-17.39	Peak	VERTICAL
6	235.03	14.29	11.60	0.00	1.64	27.53	47.00	-19.47	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

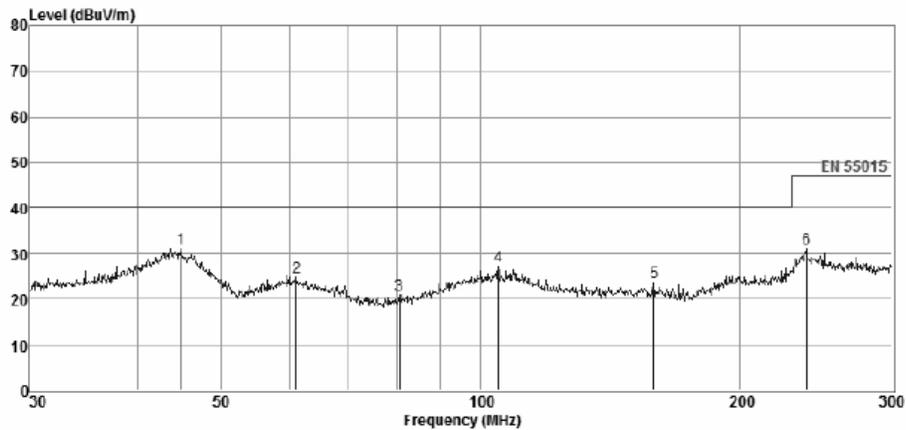


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESS010W-0225-27
 Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
 Condition : Temp:23°C, Humi: 55%, Press: 1 Antenna/Distance : VULB9162 (30M-8G)
 : 00.1kPa : /3m/HORIZONTAL
 Memo :

Data : 0057



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	44.89	13.97	16.56	0.00	0.65	31.18	40.00	-8.82	Peak	HORIZONTAL
2	61.11	13.34	10.62	0.00	0.77	24.73	40.00	-15.27	Peak	HORIZONTAL
3	80.38	13.51	6.59	0.00	0.90	21.00	40.00	-19.00	Peak	HORIZONTAL
4	104.74	14.28	11.99	0.00	1.04	27.31	40.00	-12.69	Peak	HORIZONTAL
5	158.90	15.23	7.24	0.00	1.30	23.77	40.00	-16.23	Peak	HORIZONTAL
6	238.85	17.64	11.75	0.00	1.66	31.05	47.00	-15.95	Peak	HORIZONTAL

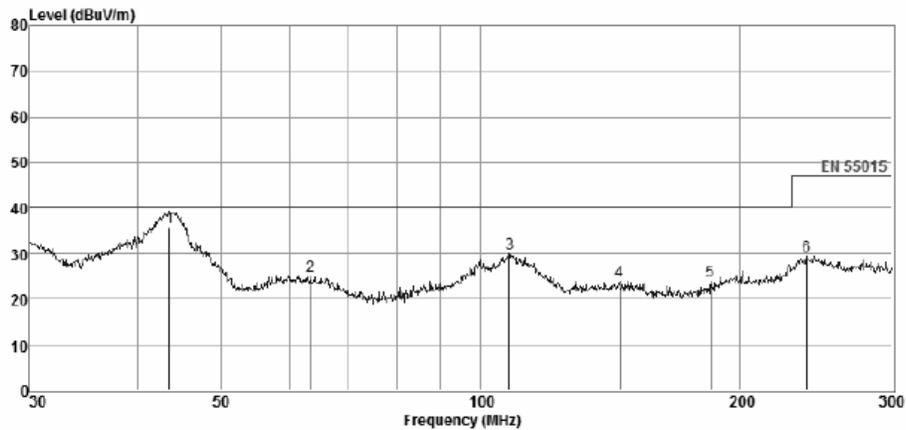
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit



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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESS010W-0225-27
 Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
 Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G)/3m/VERTICAL
 Memo :
 Data : 0056



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	43.56	18.50	16.68	0.00	0.64	35.82	40.00	-4.18	QP	VERTICAL
2	63.41	14.43	9.83	0.00	0.79	25.05	40.00	-14.95	Peak	VERTICAL
3	107.93	17.30	11.70	0.00	1.06	30.06	40.00	-9.94	Peak	VERTICAL
4	144.92	14.85	7.70	0.00	1.24	23.79	40.00	-16.21	Peak	VERTICAL
5	184.98	14.28	8.30	0.00	1.41	23.99	40.00	-16.01	Peak	VERTICAL
6	238.85	15.92	11.75	0.00	1.66	29.33	47.00	-17.67	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

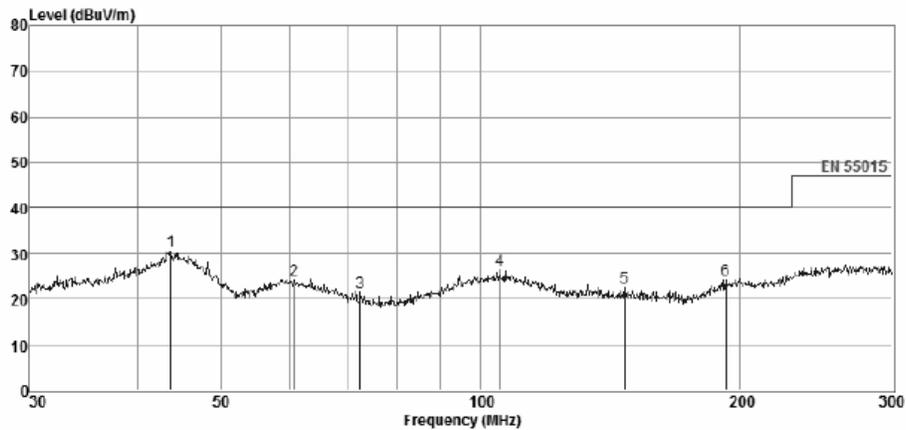


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESS010W-0225-27
 Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
 Condition : Temp:23°C, Humi: 55%, Press: 1 Antenna/Distance : VULB9162 (30M-8G)
 : 00.1kPa : /3m/HORIZONTAL
 Memo :

Data : 0059



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	43.66	13.15	16.75	0.00	0.64	30.54	40.00	-9.46	Peak	HORIZONTAL
2	60.83	12.68	10.72	0.00	0.77	24.17	40.00	-15.83	Peak	HORIZONTAL
3	72.46	13.58	7.11	0.00	0.85	21.54	40.00	-18.46	Peak	HORIZONTAL
4	105.23	13.35	11.98	0.00	1.05	26.38	40.00	-13.62	Peak	HORIZONTAL
5	146.93	13.54	7.62	0.00	1.25	22.41	40.00	-17.59	Peak	HORIZONTAL
6	192.36	13.25	9.38	0.00	1.44	24.07	40.00	-15.93	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

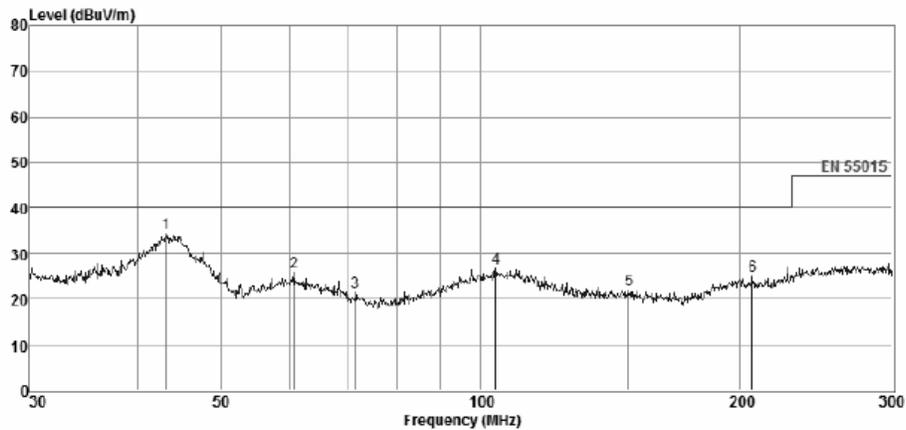


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LCTECH (Zhongshan) Testing Service Co.,Ltd
Tel:0760-22833579 http://www.lccert.com

Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESS010W-0225-27
 Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
 Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G)/3m/VERTICAL
 Memo :

Data : 0058



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	43.16	17.31	16.38	0.00	0.63	34.32	40.00	-5.68	Peak	VERTICAL
2	60.69	14.17	10.76	0.00	0.77	25.70	40.00	-14.30	Peak	VERTICAL
3	71.63	13.23	7.30	0.00	0.84	21.37	40.00	-18.63	Peak	VERTICAL
4	104.02	13.66	11.96	0.00	1.04	26.66	40.00	-13.34	Peak	VERTICAL
5	148.64	13.24	7.55	0.00	1.25	22.04	40.00	-17.96	Peak	VERTICAL
6	206.60	13.93	9.54	0.00	1.51	24.98	40.00	-15.02	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

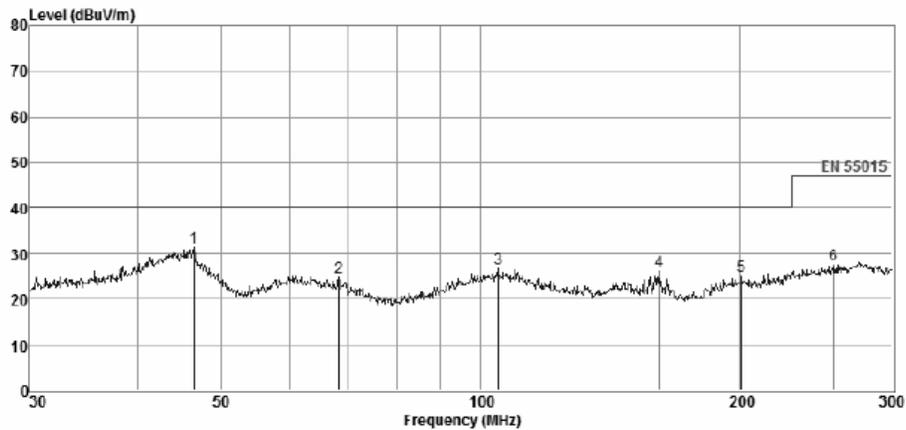


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESS030W-0550-56
 Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
 Condition : Temp: 23°C, Humi: 55%, Press: 1 Antenna/Distance : VULB9162 (30M-8G)
 : 00.1kPa : /3m/HORIZONTAL
 Memo :

Data : 0039



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	46.47	15.26	15.42	0.00	0.66	31.34	40.00	-8.66	Peak	HORIZONTAL
2	68.41	15.85	8.21	0.00	0.82	24.88	40.00	-15.12	Peak	HORIZONTAL
3	104.74	13.58	11.99	0.00	1.04	26.61	40.00	-13.39	Peak	HORIZONTAL
4	161.11	17.61	7.18	0.00	1.31	26.10	40.00	-13.90	Peak	HORIZONTAL
5	200.50	13.77	9.78	0.00	1.48	25.03	40.00	-14.97	Peak	HORIZONTAL
6	257.11	13.43	12.23	0.00	1.73	27.39	47.00	-19.61	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

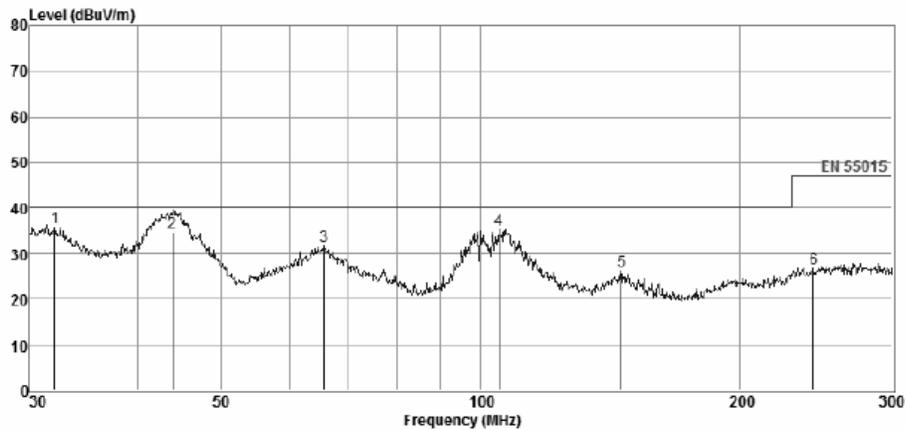


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1.EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESS030W-0550-56
 Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
 Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G)/3m/VERTICAL
 Memo :

Data : 0038



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	32.07	24.38	10.72	0.00	0.54	35.64	40.00	-4.36	Peak	VERTICAL
2	43.87	17.00	16.90	0.00	0.64	34.54	40.00	-5.46	QP	VERTICAL
3	65.78	21.72	9.04	0.00	0.80	31.56	40.00	-8.44	Peak	VERTICAL
4	104.98	22.22	12.00	0.00	1.04	35.26	40.00	-4.74	Peak	VERTICAL
5	145.59	17.25	7.68	0.00	1.24	26.17	40.00	-13.83	Peak	VERTICAL
6	243.29	13.18	11.80	0.00	1.67	26.65	47.00	-20.35	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

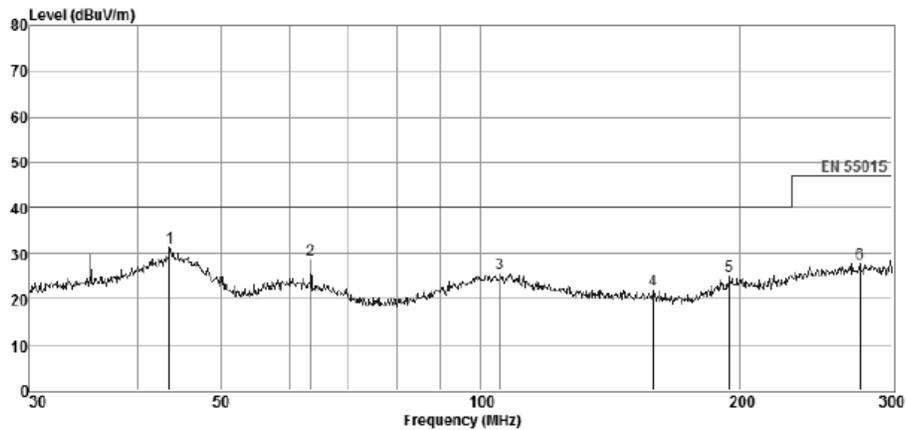


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESS030W-0550-56
 Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
 Condition : Temp:23°C, Humi: 55%, Press: 1 Antenna/Distance : VULB9162 (30M-8G)
 : 00.1kPa : /3m/HORIZONTAL
 Memo :

Data : 0041



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	43.56	13.92	16.67	0.00	0.64	31.23	40.00	-8.77	Peak	HORIZONTAL
2	63.55	18.03	9.79	0.00	0.79	28.61	40.00	-11.39	Peak	HORIZONTAL
3	105.23	12.43	11.98	0.00	1.05	25.46	40.00	-14.54	Peak	HORIZONTAL
4	158.53	13.37	7.26	0.00	1.30	21.93	40.00	-18.07	Peak	HORIZONTAL
5	194.14	13.85	9.66	0.00	1.45	24.96	40.00	-15.04	Peak	HORIZONTAL
6	275.50	13.17	12.89	0.00	1.80	27.86	47.00	-19.14	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

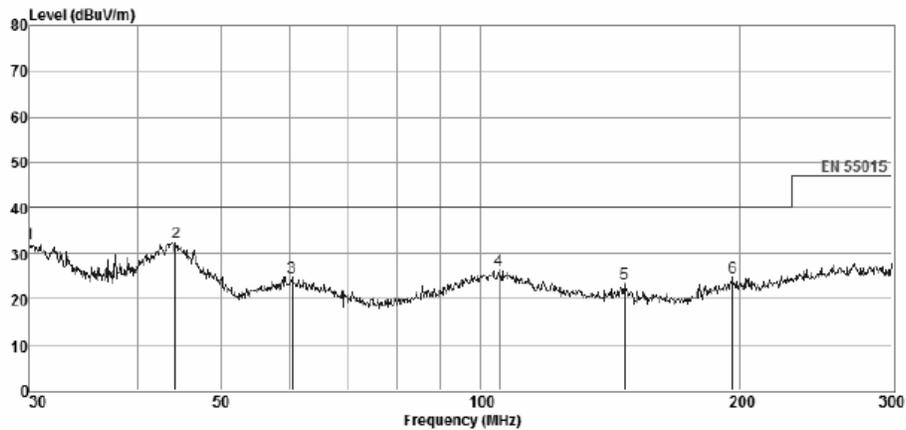


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESS030W-0550-56
 Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
 Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G) /3m/VERTICAL
 Memo :

Data : 0040



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	30.00	21.68	10.10	0.00	0.52	32.30	40.00	-7.70	Peak	VERTICAL
2	44.27	14.98	16.86	0.00	0.64	32.48	40.00	-7.52	Peak	VERTICAL
3	60.41	13.18	10.85	0.00	0.76	24.79	40.00	-15.21	Peak	VERTICAL
4	104.98	13.38	12.00	0.00	1.04	26.42	40.00	-13.58	Peak	VERTICAL
5	146.93	14.52	7.62	0.00	1.25	23.39	40.00	-16.61	Peak	VERTICAL
6	195.94	13.46	9.80	0.00	1.46	24.72	40.00	-15.28	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

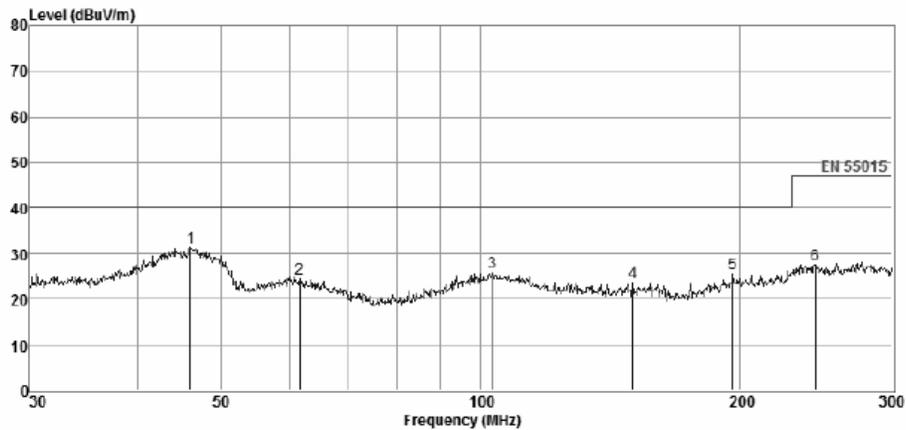


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESS030W-1100-27
 Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
 Condition : Temp:23°C, Humi: 55%, Press: 1 Antenna/Distance : VULB9162 (30M-8G)
 : 00.1kPa : /3m/HORIZONTAL
 Memo :

Data : 0047



Item (Mark)	Freq (MHz)	Read Level (dBrV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBrV/m)	Limit Line (dBrV/m)	Over Limit (dB)	Detector	Polarization
1	46.04	14.67	15.95	0.00	0.65	31.27	40.00	-8.73	Peak	HORIZONTAL
2	61.68	13.23	10.43	0.00	0.77	24.43	40.00	-15.57	Peak	HORIZONTAL
3	103.31	12.82	11.93	0.00	1.04	25.79	40.00	-14.21	Peak	HORIZONTAL
4	150.01	14.80	7.50	0.00	1.26	23.56	40.00	-16.44	Peak	HORIZONTAL
5	195.94	14.22	9.80	0.00	1.46	25.48	40.00	-14.52	Peak	HORIZONTAL
6	244.41	14.10	11.80	0.00	1.68	27.58	47.00	-19.42	Peak	HORIZONTAL

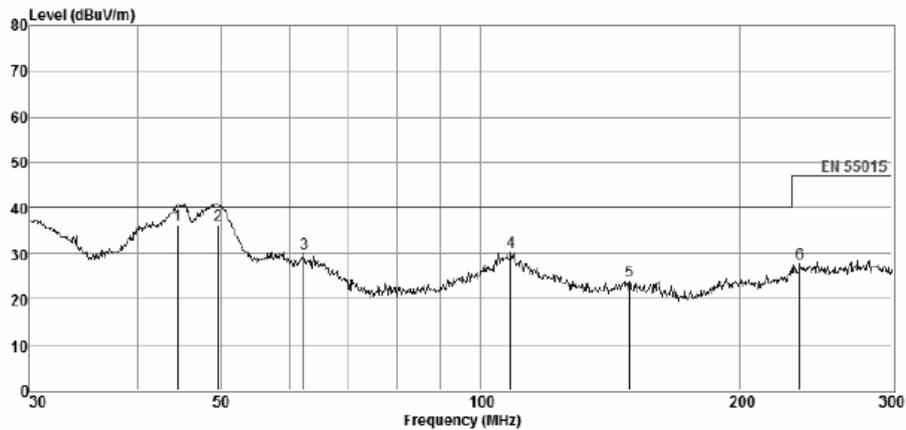
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit



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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1.EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESS030W-1100-27
 Power Supply : 245V-50Hz Test Mode : Full Load (maximum light)
 Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G) /3m/VERTICAL
 Memo :
 Data : 0046



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	44.48	19.00	16.76	0.00	0.64	36.40	40.00	-3.60	QP	VERTICAL
2	49.56	24.20	11.46	0.00	0.68	36.34	40.00	-3.66	QP	VERTICAL
3	62.39	29.05	0.00	0.00	0.78	29.83	40.00	-10.17	Peak	VERTICAL
4	108.42	17.61	11.66	0.00	1.06	30.33	40.00	-9.67	Peak	VERTICAL
5	148.98	22.63	0.00	0.00	1.26	23.89	40.00	-16.11	Peak	VERTICAL
6	234.49	14.51	11.58	0.00	1.64	27.73	47.00	-19.27	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

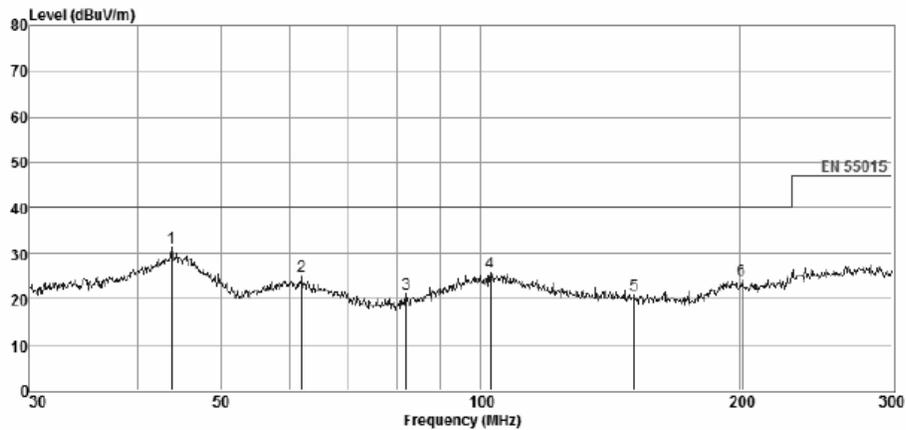


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
Test Date : 2016-07-05 Tested By : Ken
EUT : LED driver Model Number : ESS030W-1100-27
Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
Condition : Temp:23°C, Humi: 55%, Press: 1 Antenna/Distance : VULB9162 (30M-8G)
: 00.1kPa : /3m/HORIZONTAL
Memo :

Data : 0049



Item (Mark)	Freq (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Detector	Polarization
1	43.76	13.87	16.82	0.00	0.64	31.33	40.00	-8.67	Peak	HORIZONTAL
2	61.96	14.05	10.33	0.00	0.77	25.15	40.00	-14.85	Peak	HORIZONTAL
3	81.87	20.31	0.00	0.00	0.91	21.22	40.00	-18.78	Peak	HORIZONTAL
4	102.59	12.81	11.90	0.00	1.03	25.74	40.00	-14.26	Peak	HORIZONTAL
5	150.70	19.65	0.00	0.00	1.26	20.91	40.00	-19.09	Peak	HORIZONTAL
6	200.97	12.83	9.76	0.00	1.48	24.07	40.00	-15.93	Peak	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

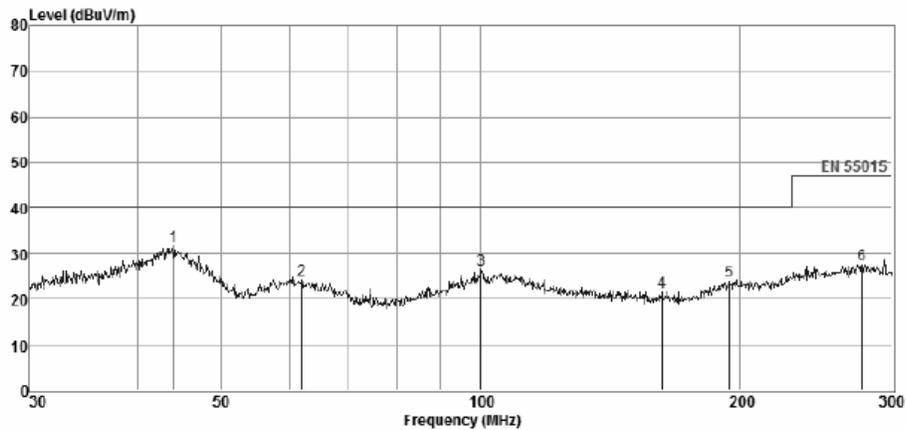


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Radiated Emission Test Result

Test Site : chamber D:\Test Data\2016 单项\2016-7-1 旭源\1 EM6
 Test Date : 2016-07-05 Tested By : Ken
 EUT : LED driver Model Number : ESS030W-1100-27
 Power Supply : 245V-50Hz Test Mode : Full Load (minimum light)
 Condition : Temp:23°C, Humi: 55%, Press:1 Antenna/Distance : VULB9162 (30M-8G) /3m/VERTICAL
 Memo :

Data : 0048



Item (Mark)	Freq (MHz)	Read Level (dBrV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBrV/m)	Limit Line (dBrV/m)	Over Limit (dB)	Detector	Polarization
1	43.97	13.88	16.98	0.00	0.64	31.50	40.00	-8.50	Peak	VERTICAL
2	61.96	13.21	10.32	0.00	0.77	24.30	40.00	-15.70	Peak	VERTICAL
3	100.03	13.58	11.80	0.00	1.02	26.40	40.00	-13.60	Peak	VERTICAL
4	162.23	20.24	0.00	0.00	1.31	21.55	40.00	-18.45	Peak	VERTICAL
5	194.14	12.81	9.66	0.00	1.45	23.92	40.00	-16.08	Peak	VERTICAL
6	276.77	25.82	0.00	0.00	1.80	27.62	47.00	-19.38	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
 2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

California Instruments
San Diego, California

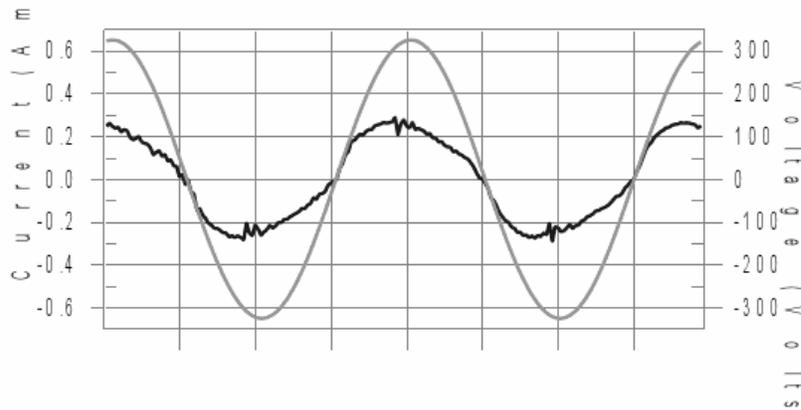
8/9/2016
8:50 AM

Harmonics – Class-C per Ed. 4.0 (2014)(Run time)

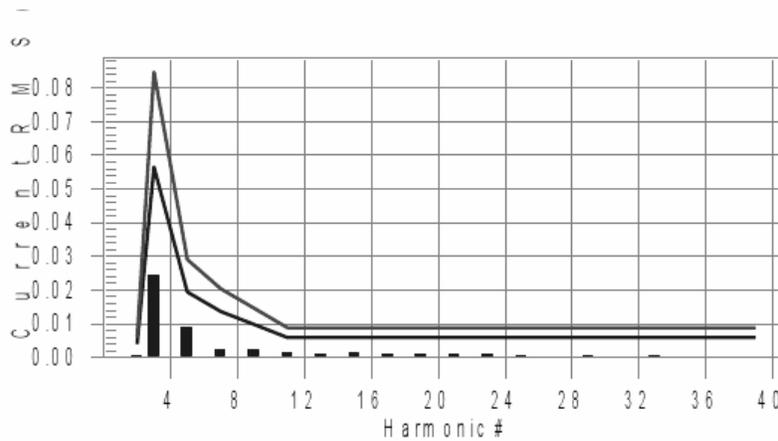
EUT: LED DRIVER
Test category: Class-C per Ed. 4.0 (2014) (European limits)
Test date: 2016-7-7
Test duration (min): 2.5
model: ESP040W-0700-56
Test Result: Pass
Source qualification: Normal

Tested by: Ken
Test Margin: 100
Start time: 16:47:43
End time: 16:50:34
Data file name: H-000225.cts_data
mode: Full Load (maximum light)

Current & voltage waveforms



Harmonics and Class C limit line European Limits



Test result: Pass Worst harmonics H5-32.3% of 150% limit, H5-46.2% of 100% limit.

California Instruments
San Diego, California

8/9/2016
8:50 AM

Current Test Result Summary (Run time)

EUT: LED DRIVER
 Test category: Class-C per Ed. 4.0 (2014) (European limits)
 Test date: 2016-7-7
 Test duration (min): 2.5
 model: ESP040W-0700-56
 Tested by: Ken
 Test Margin: 100
 Start time: 16:47:43
 End time: 16:50:34
 Data file name: H-000225.cts_data
 mode: Full Load (maximum light)

Test Result: Pass Source qualification: Normal
 THC(A): 0.027 I-THD(%): 13.8 POHC(A): 0.000 POHC Limit(A): 0.018

Highest parameter values during test:

V_{RMS} (Volts): 230.29
 I_{Peak} (Amps): 0.357
 I_{Fund} (Amps): 0.193
 Power (Watts): 43.7
 Frequency(Hz): 50.00
 I_{RMS} (Amps): 0.195
 Crest Factor: 1.838
 Power Factor: 0.973

Harm#	Harms (avg)	100% Limit	% of Limit	Harms(max)	150% Limit	% of Limit	Status
2	0.001	0.004	N/A	0.001	0.006	N/A	Pass
3	0.024	0.056	43.4	0.026	0.085	30.2	Pass
4	0.001	0.000	N/A	0.001	0.000	N/A	Pass
5	0.009	0.019	46.2	0.009	0.029	32.3	Pass
6	0.000	0.000	N/A	0.000	0.000	N/A	Pass
7	0.003	0.014	N/A	0.003	0.020	N/A	Pass
8	0.000	0.000	N/A	0.000	0.000	N/A	Pass
9	0.002	0.010	N/A	0.003	0.014	N/A	Pass
10	0.000	0.000	N/A	0.000	0.000	N/A	Pass
11	0.001	0.006	N/A	0.002	0.009	N/A	Pass
12	0.000	0.000	N/A	0.000	0.000	N/A	Pass
13	0.001	0.006	N/A	0.001	0.009	N/A	Pass
14	0.000	0.000	N/A	0.000	0.000	N/A	Pass
15	0.001	0.006	N/A	0.002	0.009	N/A	Pass
16	0.000	0.000	N/A	0.000	0.000	N/A	Pass
17	0.001	0.006	N/A	0.001	0.009	N/A	Pass
18	0.000	0.000	N/A	0.001	0.000	N/A	Pass
19	0.001	0.006	N/A	0.001	0.009	N/A	Pass
20	0.000	0.000	N/A	0.000	0.000	N/A	Pass
21	0.001	0.006	N/A	0.001	0.009	N/A	Pass
22	0.000	0.000	N/A	0.000	0.000	N/A	Pass
23	0.001	0.006	N/A	0.001	0.009	N/A	Pass
24	0.000	0.000	N/A	0.000	0.000	N/A	Pass
25	0.001	0.006	N/A	0.001	0.009	N/A	Pass
26	0.000	0.000	N/A	0.000	0.000	N/A	Pass
27	0.000	0.006	N/A	0.001	0.009	N/A	Pass
28	0.000	0.000	N/A	0.000	0.000	N/A	Pass
29	0.001	0.006	N/A	0.001	0.009	N/A	Pass
30	0.000	0.000	N/A	0.001	0.000	N/A	Pass
31	0.000	0.006	N/A	0.001	0.009	N/A	Pass
32	0.000	0.000	N/A	0.000	0.000	N/A	Pass
33	0.001	0.006	N/A	0.001	0.009	N/A	Pass
34	0.000	0.000	N/A	0.000	0.000	N/A	Pass
35	0.000	0.006	N/A	0.001	0.009	N/A	Pass
36	0.000	0.000	N/A	0.000	0.000	N/A	Pass
37	0.001	0.006	N/A	0.001	0.009	N/A	Pass
38	0.000	0.000	N/A	0.000	0.000	N/A	Pass
39	0.000	0.006	N/A	0.000	0.009	N/A	Pass
40	0.000	0.000	N/A	0.000	0.000	N/A	Pass

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.

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Voltage Source Verification Data (Run time)

EUT: LED DRIVER
 Test category: Class-C per Ed. 4.0 (2014) (European limits)
 Test date: 2016-7-7
 Test duration (min): 2.5
 model: ESP040W-0700-56
 Tested by: Ken
 Test Margin: 100
 Start time: 16:47:43
 End time: 16:50:34
 Data file name: H-000225.cts_data
 mode: Full Load (maximum light)

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 230.29	Frequency(Hz): 50.00
I _{Peak} (Amps): 0.357	I _{RMS} (Amps): 0.195
I _{Fund} (Amps): 0.193	Crest Factor: 1.838
Power (Watts): 43.7	Power Factor: 0.973

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.057	0.461	12.28	OK
3	0.522	2.072	25.17	OK
4	0.061	0.460	13.26	OK
5	0.054	0.921	5.81	OK
6	0.016	0.460	3.57	OK
7	0.038	0.691	5.44	OK
8	0.015	0.460	3.25	OK
9	0.034	0.460	7.36	OK
10	0.012	0.460	2.70	OK
11	0.010	0.230	4.44	OK
12	0.013	0.230	5.43	OK
13	0.014	0.230	6.19	OK
14	0.006	0.230	2.46	OK
15	0.013	0.230	5.48	OK
16	0.012	0.230	5.02	OK
17	0.008	0.230	3.36	OK
18	0.012	0.230	5.04	OK
19	0.008	0.230	3.64	OK
20	0.015	0.230	6.69	OK
21	0.007	0.230	3.24	OK
22	0.004	0.230	1.62	OK
23	0.006	0.230	2.50	OK
24	0.005	0.230	2.36	OK
25	0.005	0.230	2.28	OK
26	0.004	0.230	1.88	OK
27	0.006	0.230	2.62	OK
28	0.006	0.230	2.74	OK
29	0.006	0.230	2.57	OK
30	0.005	0.230	1.97	OK
31	0.006	0.230	2.40	OK
32	0.005	0.230	2.06	OK
33	0.006	0.230	2.51	OK
34	0.004	0.230	1.93	OK
35	0.005	0.230	2.36	OK
36	0.005	0.230	2.34	OK
37	0.006	0.230	2.47	OK
38	0.004	0.230	1.81	OK
39	0.006	0.230	2.76	OK
40	0.008	0.230	3.31	OK

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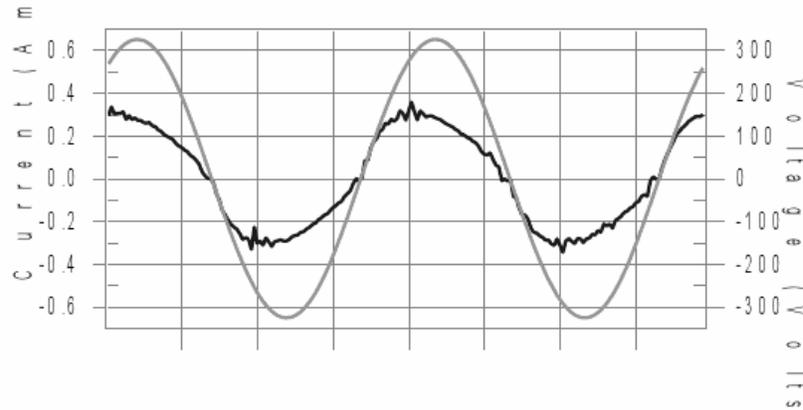
Harmonics – Class-C per Ed. 4.0 (2014)(Run time)

EUT: LED DRIVER
Test category: Class-C per Ed. 4.0 (2014) (European limits)
Test date: 2016-7-7
Test duration (min): 2.5
Model: ESP050W-1200-42 mode: Full Load (maximum light)

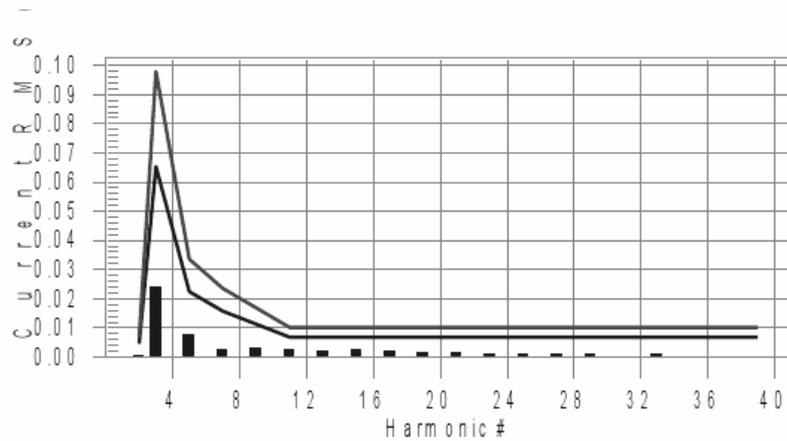
Tested by: Ken
Test Margin: 100
Start time: 16:55:25
End time: 16:58:16
Data file name: H-000227.cts_data

Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class C limit line European Limits



Test result: Pass Worst harmonics H3-26.0% of 150% limit, H3-37% of 100% limit.

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Current Test Result Summary (Run time)

EUT: LED DRIVER
 Test category: Class-C per Ed. 4.0 (2014) (European limits)
 Test date: 2016-7-7
 Test duration (min): 2.5
 Model: ESP050W-1200-42 mode: Full Load (maximum light)
 Tested by: Ken
 Test Margin: 100
 Start time: 16:55:25
 End time: 16:58:16
 Data file name: H-000227.cts_data

Test Result: Pass Source qualification: Normal
 THC(A): 0.026 I-THD(%): 11.8 POHC(A): 0.000 POHC Limit(A): 0.021

Highest parameter values during test:

V_{RMS} (Volts): 230.29
 I_{Peak} (Amps): 0.399
 I_{Fund} (Amps): 0.223
 Power (Watts): 50.3
 Frequency(Hz): 50.00
 I_{RMS} (Amps): 0.225
 Crest Factor: 1.783
 Power Factor: 0.975

Harm#	Harms (avg)	100% Limit	% of Limit	Harms(max)	150% Limit	% of Limit	Status
2	0.001	0.004	N/A	0.001	0.007	N/A	Pass
3	0.024	0.065	37.0	0.025	0.098	26.0	Pass
4	0.000	0.000	N/A	0.001	0.000	N/A	Pass
5	0.007	0.022	33.5	0.008	0.033	23.5	Pass
6	0.000	0.000	N/A	0.000	0.000	N/A	Pass
7	0.002	0.016	N/A	0.003	0.023	N/A	Pass
8	0.000	0.000	N/A	0.000	0.000	N/A	Pass
9	0.003	0.011	N/A	0.003	0.017	N/A	Pass
10	0.000	0.000	N/A	0.000	0.000	N/A	Pass
11	0.003	0.007	N/A	0.003	0.010	N/A	Pass
12	0.000	0.000	N/A	0.000	0.000	N/A	Pass
13	0.002	0.007	N/A	0.002	0.010	N/A	Pass
14	0.000	0.000	N/A	0.000	0.000	N/A	Pass
15	0.002	0.007	N/A	0.002	0.010	N/A	Pass
16	0.000	0.000	N/A	0.000	0.000	N/A	Pass
17	0.002	0.007	N/A	0.002	0.010	N/A	Pass
18	0.000	0.000	N/A	0.001	0.000	N/A	Pass
19	0.002	0.007	N/A	0.002	0.010	N/A	Pass
20	0.000	0.000	N/A	0.000	0.000	N/A	Pass
21	0.001	0.007	N/A	0.002	0.010	N/A	Pass
22	0.000	0.000	N/A	0.000	0.000	N/A	Pass
23	0.001	0.007	N/A	0.001	0.010	N/A	Pass
24	0.000	0.000	N/A	0.000	0.000	N/A	Pass
25	0.001	0.007	N/A	0.001	0.010	N/A	Pass
26	0.000	0.000	N/A	0.000	0.000	N/A	Pass
27	0.001	0.007	N/A	0.001	0.010	N/A	Pass
28	0.000	0.000	N/A	0.000	0.000	N/A	Pass
29	0.001	0.007	N/A	0.001	0.010	N/A	Pass
30	0.000	0.000	N/A	0.000	0.000	N/A	Pass
31	0.001	0.007	N/A	0.001	0.010	N/A	Pass
32	0.000	0.000	N/A	0.000	0.000	N/A	Pass
33	0.001	0.007	N/A	0.001	0.010	N/A	Pass
34	0.000	0.000	N/A	0.000	0.000	N/A	Pass
35	0.000	0.007	N/A	0.001	0.010	N/A	Pass
36	0.000	0.000	N/A	0.000	0.000	N/A	Pass
37	0.001	0.007	N/A	0.001	0.010	N/A	Pass
38	0.000	0.000	N/A	0.000	0.000	N/A	Pass
39	0.001	0.007	N/A	0.001	0.010	N/A	Pass
40	0.000	0.000	N/A	0.000	0.000	N/A	Pass

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.

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Voltage Source Verification Data (Run time)

EUT: LED DRIVER
 Test category: Class-C per Ed. 4.0 (2014) (European limits)
 Test date: 2016-7-7
 Test duration (min): 2.5
 Model: ESP050W-1200-42
 Tested by: Ken
 Test Margin: 100
 Start time: 16:55:25
 End time: 16:58:16
 Data file name: H-000227.cts_data
 mode: Full Load (maximum light)

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 230.29	Frequency(Hz): 50.00
I _{Peak} (Amps): 0.399	I _{RMS} (Amps): 0.225
I _{Fund} (Amps): 0.223	Crest Factor: 1.783
Power (Watts): 50.3	Power Factor: 0.975

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.048	0.460	10.36	OK
3	0.528	2.072	25.48	OK
4	0.057	0.460	12.40	OK
5	0.055	0.921	6.01	OK
6	0.017	0.460	3.71	OK
7	0.038	0.691	5.51	OK
8	0.013	0.460	2.81	OK
9	0.035	0.460	7.51	OK
10	0.012	0.461	2.56	OK
11	0.011	0.230	4.86	OK
12	0.011	0.230	4.99	OK
13	0.013	0.230	5.53	OK
14	0.007	0.230	2.83	OK
15	0.011	0.230	4.86	OK
16	0.012	0.230	5.02	OK
17	0.008	0.230	3.40	OK
18	0.011	0.230	4.96	OK
19	0.009	0.230	3.84	OK
20	0.014	0.230	6.27	OK
21	0.007	0.230	2.93	OK
22	0.004	0.230	1.78	OK
23	0.006	0.230	2.50	OK
24	0.005	0.230	2.25	OK
25	0.005	0.230	2.17	OK
26	0.005	0.230	1.96	OK
27	0.005	0.230	2.38	OK
28	0.005	0.230	2.28	OK
29	0.006	0.230	2.45	OK
30	0.004	0.230	1.95	OK
31	0.005	0.230	2.26	OK
32	0.004	0.230	1.86	OK
33	0.005	0.230	2.16	OK
34	0.004	0.230	1.76	OK
35	0.005	0.230	2.34	OK
36	0.005	0.230	2.04	OK
37	0.005	0.230	2.31	OK
38	0.005	0.230	1.98	OK
39	0.007	0.230	3.04	OK
40	0.008	0.230	3.29	OK

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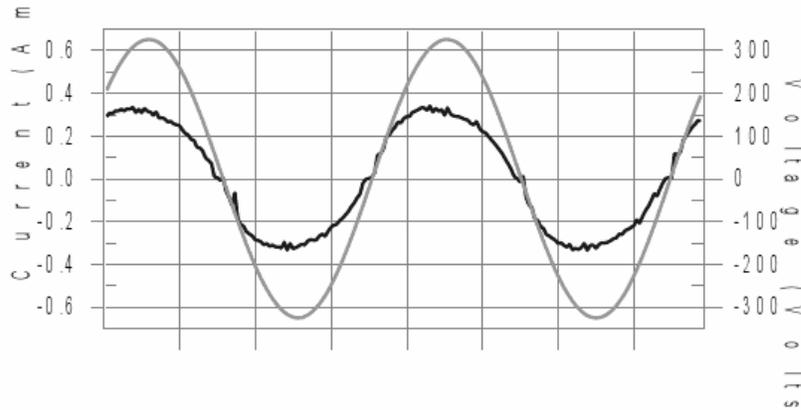
Harmonics – Class-C per Ed. 4.0 (2014)(Run time)

EUT: LED driver
Test category: Class-C per Ed. 4.0 (2014) (European limits)
Test date: 2016-7-7
Test duration (min): 2.5
Model: ESP050W-1400-34

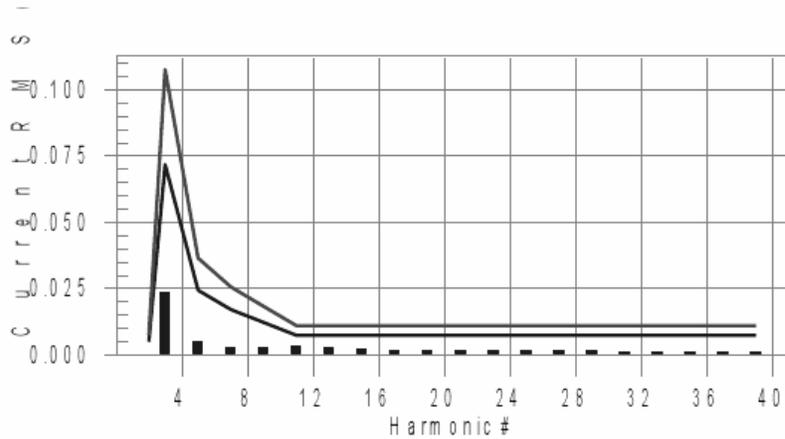
Tested by: Ken
Test Margin: 100
Start time: 16:09:03
End time: 16:11:54
Data file name: H-000214.cts_data
mode: Full Load (maximum light)

Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class C limit line European Limits



Test result: Pass Worst harmonics H3-22.9% of 150% limit, H3-33.1% of 100% limit.

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Current Test Result Summary (Run time)

EUT: LED driver
Test category: Class-C per Ed. 4.0 (2014) (European limits)
Test date: 2016-7-7
Test duration (min): 2.5
Model: ESP050W-1400-34

Tested by: Ken
Test Margin: 100
Start time: 16:09:03
End time: 16:11:54
Data file name: H-000214.cts_data
mode: Full Load (maximum light)

Test Result: Pass Source qualification: Normal
THC(A): 0.026 I-THD(%): 10.6 POHC(A): 0.000 POHC Limit(A): 0.023

Highest parameter values during test:

V_{RMS} (Volts): 230.28
I_{Peak} (Amps): 0.438
I_{Fund} (Amps): 0.243
Power (Watts): 55.4

Frequency(Hz): 50.00
I_{RMS} (Amps): 0.245
Crest Factor: 1.792
Power Factor: 0.984

Harm#	Harms (avg)	100% Limit	% of Limit	Harms(max)	150% Limit	% of Limit	Status
2	0.001	0.005	N/A	0.001	0.007	N/A	Pass
3	0.024	0.072	33.1	0.025	0.108	22.9	Pass
4	0.001	0.000	N/A	0.001	0.000	N/A	Pass
5	0.005	0.024	21.6	0.006	0.036	15.1	Pass
6	0.000	0.000	N/A	0.000	0.000	N/A	Pass
7	0.003	0.017	N/A	0.003	0.026	N/A	Pass
8	0.000	0.000	N/A	0.000	0.000	N/A	Pass
9	0.003	0.012	N/A	0.003	0.018	N/A	Pass
10	0.000	0.000	N/A	0.000	0.000	N/A	Pass
11	0.003	0.007	N/A	0.003	0.011	N/A	Pass
12	0.000	0.000	N/A	0.000	0.000	N/A	Pass
13	0.003	0.007	N/A	0.003	0.011	N/A	Pass
14	0.000	0.000	N/A	0.000	0.000	N/A	Pass
15	0.002	0.007	N/A	0.003	0.011	N/A	Pass
16	0.000	0.000	N/A	0.000	0.000	N/A	Pass
17	0.002	0.007	N/A	0.002	0.011	N/A	Pass
18	0.000	0.000	N/A	0.001	0.000	N/A	Pass
19	0.002	0.007	N/A	0.002	0.011	N/A	Pass
20	0.000	0.000	N/A	0.000	0.000	N/A	Pass
21	0.002	0.007	N/A	0.002	0.011	N/A	Pass
22	0.000	0.000	N/A	0.000	0.000	N/A	Pass
23	0.002	0.007	N/A	0.002	0.011	N/A	Pass
24	0.000	0.000	N/A	0.000	0.000	N/A	Pass
25	0.002	0.007	N/A	0.002	0.011	N/A	Pass
26	0.000	0.000	N/A	0.000	0.000	N/A	Pass
27	0.001	0.007	N/A	0.002	0.011	N/A	Pass
28	0.000	0.000	N/A	0.000	0.000	N/A	Pass
29	0.002	0.007	N/A	0.002	0.011	N/A	Pass
30	0.000	0.000	N/A	0.000	0.000	N/A	Pass
31	0.001	0.007	N/A	0.001	0.011	N/A	Pass
32	0.000	0.000	N/A	0.000	0.000	N/A	Pass
33	0.001	0.007	N/A	0.001	0.011	N/A	Pass
34	0.000	0.000	N/A	0.000	0.000	N/A	Pass
35	0.001	0.007	N/A	0.001	0.011	N/A	Pass
36	0.000	0.000	N/A	0.000	0.000	N/A	Pass
37	0.001	0.007	N/A	0.001	0.011	N/A	Pass
38	0.000	0.000	N/A	0.000	0.000	N/A	Pass
39	0.001	0.007	N/A	0.001	0.011	N/A	Pass
40	0.000	0.000	N/A	0.000	0.000	N/A	Pass

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.

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Voltage Source Verification Data (Run time)

EUT: LED driver
 Test category: Class-C per Ed. 4.0 (2014) (European limits)
 Test date: 2016-7-7
 Test duration (min): 2.5
 Model: ESP050W-1400-34
 Tested by: Ken
 Test Margin: 100
 Start time: 16:09:03
 End time: 16:11:54
 Data file name: H-000214.cts_data
 mode: Full Load (maximum light)

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 230.28	Frequency(Hz): 50.00
I _{Peak} (Amps): 0.438	I _{RMS} (Amps): 0.245
I _{Fund} (Amps): 0.243	Crest Factor: 1.792
Power (Watts): 55.4	Power Factor: 0.984

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.056	0.460	12.08	OK
3	0.508	2.072	24.50	OK
4	0.060	0.461	12.99	OK
5	0.042	0.921	4.61	OK
6	0.016	0.460	3.47	OK
7	0.033	0.691	4.83	OK
8	0.013	0.461	2.78	OK
9	0.036	0.461	7.76	OK
10	0.011	0.460	2.31	OK
11	0.008	0.230	3.49	OK
12	0.010	0.230	4.43	OK
13	0.011	0.230	4.76	OK
14	0.005	0.230	2.13	OK
15	0.010	0.230	4.37	OK
16	0.009	0.230	4.06	OK
17	0.006	0.230	2.43	OK
18	0.011	0.230	4.85	OK
19	0.009	0.230	3.77	OK
20	0.015	0.230	6.32	OK
21	0.007	0.230	2.86	OK
22	0.004	0.230	1.93	OK
23	0.006	0.230	2.57	OK
24	0.005	0.230	1.96	OK
25	0.005	0.230	2.01	OK
26	0.004	0.230	1.78	OK
27	0.005	0.230	2.34	OK
28	0.005	0.230	2.23	OK
29	0.005	0.230	2.08	OK
30	0.004	0.230	1.69	OK
31	0.006	0.230	2.44	OK
32	0.004	0.230	1.77	OK
33	0.008	0.230	3.61	OK
34	0.004	0.230	1.55	OK
35	0.006	0.230	2.72	OK
36	0.005	0.230	2.26	OK
37	0.005	0.230	2.27	OK
38	0.005	0.230	2.02	OK
39	0.006	0.230	2.81	OK
40	0.007	0.230	3.20	OK

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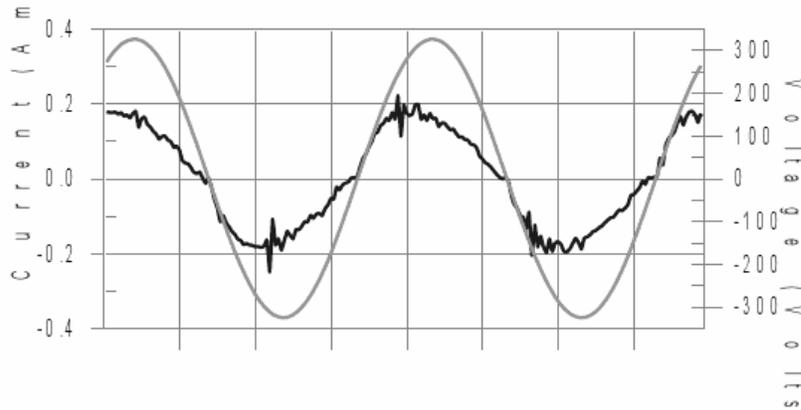
Harmonics – Class-C per Ed. 4.0 (2014)(Run time)

EUT: LED DRIVER
Test category: Class-C per Ed. 4.0 (2014) (European limits)
Test date: 2016-7-7
Test duration (min): 2.5
model: ESS030W-0500-56 mode: Full Load (maximum light)

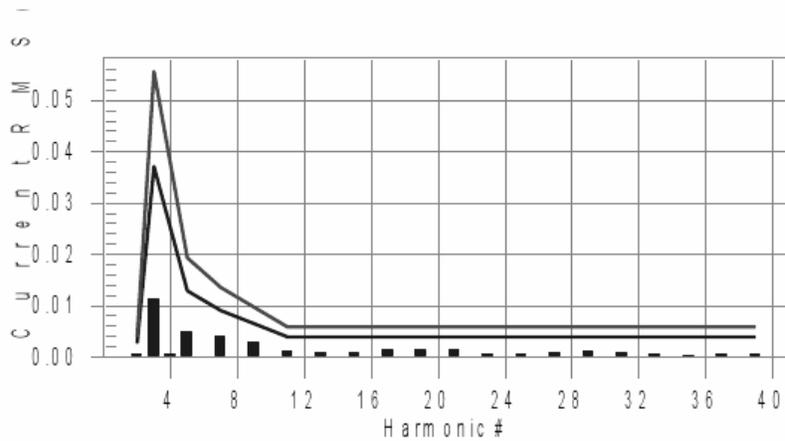
Tested by: Ken
Test Margin: 100
Start time: 17:20:48
End time: 17:23:40
Data file name: H-000234.cts_data

Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class C limit line European Limits



Test result: Pass Worst harmonics H3-22.2% of 150% limit, H3-30.3% of 100% limit.

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San Diego, California

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Current Test Result Summary (Run time)

EUT: LED DRIVER
 Test category: Class-C per Ed. 4.0 (2014) (European limits)
 Test date: 2016-7-7
 Test duration (min): 2.5
 model: ESS030W-0500-56
 Tested by: Ken
 Test Margin: 100
 Start time: 17:20:48
 End time: 17:23:40
 Data file name: H-000234.cts_data
 mode: Full Load (maximum light)

Test Result: Pass Source qualification: Normal
 THC(A): 0.014 I-THD(%): 10.8 POHC(A): 0.000 POHC Limit(A): 0.012

Highest parameter values during test:

V_{RMS} (Volts): 230.31
 I_{Peak} (Amps): 0.288
 I_{Fund} (Amps): 0.128
 Power (Watts): 28.6
 Frequency(Hz): 50.00
 I_{RMS} (Amps): 0.129
 Crest Factor: 2.250
 Power Factor: 0.962

Harm#	Harms (avg)	100% Limit	% of Limit	Harms(max)	150% Limit	% of Limit	Status
2	0.001	0.003	N/A	0.001	0.004	N/A	Pass
3	0.011	0.037	30.3	0.012	0.056	22.2	Pass
4	0.001	0.000	N/A	0.001	0.000	N/A	Pass
5	0.005	0.013	N/A	0.005	0.019	N/A	Pass
6	0.000	0.000	N/A	0.000	0.000	N/A	Pass
7	0.004	0.009	N/A	0.005	0.013	N/A	Pass
8	0.000	0.000	N/A	0.001	0.000	N/A	Pass
9	0.003	0.006	N/A	0.003	0.010	N/A	Pass
10	0.000	0.000	N/A	0.000	0.000	N/A	Pass
11	0.001	0.004	N/A	0.002	0.006	N/A	Pass
12	0.000	0.000	N/A	0.000	0.000	N/A	Pass
13	0.001	0.004	N/A	0.001	0.006	N/A	Pass
14	0.000	0.000	N/A	0.000	0.000	N/A	Pass
15	0.001	0.004	N/A	0.001	0.006	N/A	Pass
16	0.000	0.000	N/A	0.000	0.000	N/A	Pass
17	0.002	0.004	N/A	0.002	0.006	N/A	Pass
18	0.000	0.000	N/A	0.001	0.000	N/A	Pass
19	0.001	0.004	N/A	0.002	0.006	N/A	Pass
20	0.000	0.000	N/A	0.000	0.000	N/A	Pass
21	0.001	0.004	N/A	0.002	0.006	N/A	Pass
22	0.000	0.000	N/A	0.000	0.000	N/A	Pass
23	0.001	0.004	N/A	0.001	0.006	N/A	Pass
24	0.000	0.000	N/A	0.000	0.000	N/A	Pass
25	0.001	0.004	N/A	0.001	0.006	N/A	Pass
26	0.000	0.000	N/A	0.000	0.000	N/A	Pass
27	0.001	0.004	N/A	0.001	0.006	N/A	Pass
28	0.000	0.000	N/A	0.000	0.000	N/A	Pass
29	0.001	0.004	N/A	0.001	0.006	N/A	Pass
30	0.000	0.000	N/A	0.000	0.000	N/A	Pass
31	0.001	0.004	N/A	0.001	0.006	N/A	Pass
32	0.000	0.000	N/A	0.001	0.000	N/A	Pass
33	0.001	0.004	N/A	0.001	0.006	N/A	Pass
34	0.000	0.000	N/A	0.000	0.000	N/A	Pass
35	0.000	0.004	N/A	0.001	0.006	N/A	Pass
36	0.000	0.000	N/A	0.000	0.000	N/A	Pass
37	0.001	0.004	N/A	0.001	0.006	N/A	Pass
38	0.000	0.000	N/A	0.001	0.000	N/A	Pass
39	0.001	0.004	N/A	0.001	0.006	N/A	Pass
40	0.000	0.000	N/A	0.000	0.000	N/A	Pass

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.

California Instruments
San Diego, California

8/9/2016
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Voltage Source Verification Data (Run time)

EUT: LED DRIVER
 Test category: Class-C per Ed. 4.0 (2014) (European limits)
 Test date: 2016-7-7
 Test duration (min): 2.5
 model: ESS030W-0500-56
 Tested by: Ken
 Test Margin: 100
 Start time: 17:20:48
 End time: 17:23:40
 Data file name: H-000234.cts_data
 mode: Full Load (maximum light)

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 230.31	Frequency(Hz): 50.00
I _{Peak} (Amps): 0.288	I _{RMS} (Amps): 0.129
I _{Fund} (Amps): 0.128	Crest Factor: 2.250
Power (Watts): 28.6	Power Factor: 0.962

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.056	0.460	12.15	OK
3	0.530	2.072	25.58	OK
4	0.054	0.460	11.81	OK
5	0.057	0.921	6.19	OK
6	0.017	0.461	3.69	OK
7	0.040	0.691	5.76	OK
8	0.013	0.461	2.79	OK
9	0.034	0.461	7.28	OK
10	0.013	0.461	2.79	OK
11	0.011	0.230	4.70	OK
12	0.012	0.230	5.15	OK
13	0.013	0.230	5.76	OK
14	0.006	0.230	2.69	OK
15	0.012	0.230	5.19	OK
16	0.011	0.230	4.68	OK
17	0.008	0.230	3.36	OK
18	0.011	0.230	4.89	OK
19	0.009	0.230	4.10	OK
20	0.016	0.230	7.05	OK
21	0.007	0.230	3.05	OK
22	0.005	0.230	2.06	OK
23	0.007	0.230	3.06	OK
24	0.006	0.230	2.46	OK
25	0.008	0.230	3.30	OK
26	0.005	0.230	2.17	OK
27	0.008	0.230	3.29	OK
28	0.006	0.230	2.73	OK
29	0.008	0.230	3.33	OK
30	0.006	0.230	2.80	OK
31	0.007	0.230	3.03	OK
32	0.006	0.230	2.79	OK
33	0.009	0.230	3.81	OK
34	0.007	0.230	3.15	OK
35	0.007	0.230	3.06	OK
36	0.007	0.230	3.06	OK
37	0.008	0.230	3.62	OK
38	0.007	0.230	3.06	OK
39	0.009	0.230	3.79	OK
40	0.009	0.230	3.88	OK

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San Diego, California

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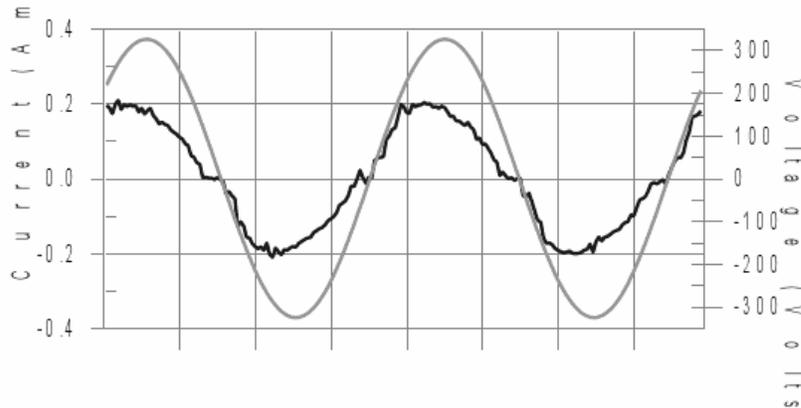
Harmonics – Class-C per Ed. 4.0 (2014)(Run time)

EUT: LED DRIVER
Test category: Class-C per Ed. 4.0 (2014) (European limits)
Test date: 2016-7-7
Test duration (min): 2.5
Model: ESS030W-1100-27 mode: Full Load (maximum light)

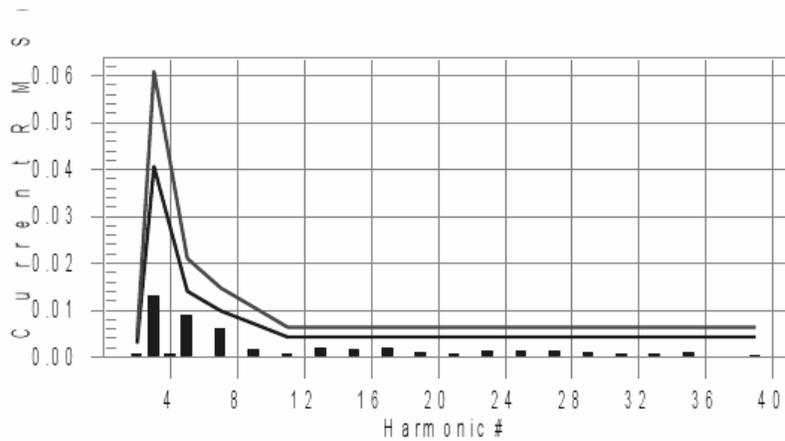
Tested by: Ken
Test Margin: 100
Start time: 17:06:46
End time: 17:09:38
Data file name: H-000230.cts_data

Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class C limit line European Limits



Test result: Pass Worst harmonics H5-50.0% of 150% limit, H5-64.5% of 100% limit.

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San Diego, California

8/9/2016
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Current Test Result Summary (Run time)

EUT: LED DRIVER
 Test category: Class-C per Ed. 4.0 (2014) (European limits)
 Test date: 2016-7-7
 Test duration (min): 2.5
 Model: ESS030W-1100-27 mode: Full Load (maximum light)
 Tested by: Ken
 Test Margin: 100
 Start time: 17:06:46
 End time: 17:09:38
 Data file name: H-000230.cts_data

Test Result: Pass Source qualification: Normal
 THC(A): 0.018 I-THD(%): 13.2 POHC(A): 0.000 POHC Limit(A): 0.013

Highest parameter values during test:

V_{RMS} (Volts): 230.29
 I_{Peak} (Amps): 0.289
 I_{Fund} (Amps): 0.140
 Power (Watts): 31.4
 Frequency(Hz): 50.00
 I_{RMS} (Amps): 0.143
 Crest Factor: 2.089
 Power Factor: 0.968

Harm#	Harms (avg)	100% Limit	% of Limit	Harms(max)	150% Limit	% of Limit	Status
2	0.001	0.003	N/A	0.001	0.004	N/A	Pass
3	0.013	0.041	32.3	0.024	0.061	39.0	Pass
4	0.001	0.000	N/A	0.001	0.000	N/A	Pass
5	0.009	0.014	64.5	0.010	0.021	50.0	Pass
6	0.000	0.000	N/A	0.001	0.000	N/A	Pass
7	0.006	0.010	61.4	0.007	0.015	45.2	Pass
8	0.000	0.000	N/A	0.000	0.000	N/A	Pass
9	0.002	0.007	N/A	0.002	0.010	N/A	Pass
10	0.000	0.000	N/A	0.000	0.000	N/A	Pass
11	0.001	0.004	N/A	0.002	0.006	N/A	Pass
12	0.000	0.000	N/A	0.000	0.000	N/A	Pass
13	0.002	0.004	N/A	0.003	0.006	N/A	Pass
14	0.000	0.000	N/A	0.000	0.000	N/A	Pass
15	0.002	0.004	N/A	0.002	0.006	N/A	Pass
16	0.000	0.000	N/A	0.000	0.000	N/A	Pass
17	0.002	0.004	N/A	0.003	0.006	N/A	Pass
18	0.000	0.000	N/A	0.000	0.000	N/A	Pass
19	0.001	0.004	N/A	0.002	0.006	N/A	Pass
20	0.000	0.000	N/A	0.000	0.000	N/A	Pass
21	0.001	0.004	N/A	0.002	0.006	N/A	Pass
22	0.000	0.000	N/A	0.000	0.000	N/A	Pass
23	0.001	0.004	N/A	0.001	0.006	N/A	Pass
24	0.000	0.000	N/A	0.000	0.000	N/A	Pass
25	0.001	0.004	N/A	0.002	0.006	N/A	Pass
26	0.000	0.000	N/A	0.000	0.000	N/A	Pass
27	0.001	0.004	N/A	0.002	0.006	N/A	Pass
28	0.000	0.000	N/A	0.000	0.000	N/A	Pass
29	0.001	0.004	N/A	0.001	0.006	N/A	Pass
30	0.000	0.000	N/A	0.000	0.000	N/A	Pass
31	0.001	0.004	N/A	0.002	0.006	N/A	Pass
32	0.000	0.000	N/A	0.000	0.000	N/A	Pass
33	0.001	0.004	N/A	0.001	0.006	N/A	Pass
34	0.000	0.000	N/A	0.000	0.000	N/A	Pass
35	0.001	0.004	N/A	0.001	0.006	N/A	Pass
36	0.000	0.000	N/A	0.000	0.000	N/A	Pass
37	0.000	0.004	N/A	0.001	0.006	N/A	Pass
38	0.000	0.000	N/A	0.000	0.000	N/A	Pass
39	0.000	0.004	N/A	0.001	0.006	N/A	Pass
40	0.000	0.000	N/A	0.000	0.000	N/A	Pass

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.

California Instruments
San Diego, California

8/9/2016
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Voltage Source Verification Data (Run time)

EUT: LED DRIVER
 Test category: Class-C per Ed. 4.0 (2014) (European limits)
 Test date: 2016-7-7
 Test duration (min): 2.5
 Model: ESS030W-1100-27 mode: Full Load (maximum light)
 Tested by: Ken
 Test Margin: 100
 Start time: 17:06:46
 End time: 17:09:38
 Data file name: H-000230.cts_data

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 230.29	Frequency(Hz): 50.00
I _{Peak} (Amps): 0.289	I _{RMS} (Amps): 0.143
I _{Fund} (Amps): 0.140	Crest Factor: 2.089
Power (Watts): 31.4	Power Factor: 0.968

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.052	0.460	11.34	OK
3	0.532	2.072	25.66	OK
4	0.054	0.460	11.67	OK
5	0.058	0.921	6.28	OK
6	0.016	0.461	3.55	OK
7	0.040	0.691	5.76	OK
8	0.012	0.460	2.67	OK
9	0.035	0.461	7.53	OK
10	0.012	0.461	2.65	OK
11	0.010	0.230	4.36	OK
12	0.010	0.230	4.56	OK
13	0.014	0.230	5.89	OK
14	0.006	0.230	2.41	OK
15	0.012	0.230	5.15	OK
16	0.010	0.230	4.46	OK
17	0.007	0.230	3.20	OK
18	0.012	0.230	5.15	OK
19	0.008	0.230	3.63	OK
20	0.016	0.230	6.74	OK
21	0.007	0.230	3.23	OK
22	0.005	0.230	2.15	OK
23	0.008	0.230	3.30	OK
24	0.006	0.230	2.55	OK
25	0.007	0.230	3.24	OK
26	0.005	0.230	2.20	OK
27	0.007	0.230	2.93	OK
28	0.006	0.230	2.63	OK
29	0.007	0.230	3.08	OK
30	0.006	0.230	2.79	OK
31	0.006	0.230	2.74	OK
32	0.006	0.230	2.63	OK
33	0.005	0.230	2.34	OK
34	0.007	0.230	2.97	OK
35	0.007	0.230	3.16	OK
36	0.007	0.230	2.93	OK
37	0.007	0.230	3.05	OK
38	0.006	0.230	2.52	OK
39	0.008	0.230	3.46	OK
40	0.009	0.230	3.88	OK

 LCTECH	中山市立创检测技术服务有限公司 EMC 实验室抗干扰试验记录表格	
	文件编号:	LC-WS-EM-013
	文件版本:	1.1
	生效日期:	2013-7-1

Project No: LCZE16050105
Firm Name: Energy Recovery Products (Zhuhai) Co., Ltd
EUT Name: LED power supply
Model: ESP020W-0440-25, ESP040W-0700-56, ESP050W-1200-42, ESP050W-1400-34, ESS010W-0225-27-ABL1, ESS030W-0500-56, ESS030W-1100-27
Rated Voltage: 220V~240Vac
Environmental requirement in testing:
 Temperature=15~35°C; Relative Humidity=30%~75%(30%~60% for ESD); Atmosphere Pressure: 86-106kPa

1st TEST
 2nd TEST
 3rd TEST
 4th TEST
 5th TEST

No.	Test Item	Test Enable	Test Result
1	ESD Immunity	✓	Pass
2	RS Immunity	✓	Pass
3	EFT Immunity	✓	Pass
4	Surge Immunity	✓	Pass
5	Inject Currents Immunity	✓	Pass
6	Voltage Dips and Interruption Immunity	✓	Pass

Note: The meaning of symbols in the fourth column: "P" - Pass, "F" - Fail.

Comment:

Prepared and Checked By/Date: *Joe Zhou / 2016-06-28*

Reviewed By/Date: *Gordon Xie 2016-06-28*

	中山市立创检测技术服务有限公司	
	EMC 实验室抗干扰试验记录表格	
	文件编号:	LC-WS-EM-013
	文件版本:	1.1
	生效日期:	2013-7-1

Electrostatic Discharge Test Result
EN 61547:2009 (IEC 61000-4-2:2008)

Operation Mode: Full Load

Environmental Condition: Temp. = 25 °C; R.H.= 56 %; A.P.= 101 kPa

Test Equipment:

√	Equip. No.	Equipment	Model	Manufacturer
√	LC-I-805	ESD Simulator	NSG 437	TESEQ AG

Electrostatic discharges - Test levels at enclosure port

Characteristics	Test levels
Air discharge	±2, 4, 8 kV
Contact discharge	±4 kV

Compliance Criterion: B

Model:

Location	Discharge Mode A=Air discharge C=Contact discharge.	Test Result
Non-conductive Enclosure	A:± 2 KV	pass
Non-conductive Enclosure	A:± 4 KV	pass
Non-conductive Enclosure	A:± 8 KV	pass
HCP	C:± 4KV	pass
VCP	C:± 4 KV	pass
Conductive Enclosure	C:± 4 KV	pass

Additional Information

No observable change

Test Result:

Tested By/ Date: Jacshon / 2016-06-28

Reviewer/Date: [Signature] / 2016-06-28

PASS

FAIL

	中山市立创检测技术服务有限公司	
	EMC 实验室抗干扰试验记录表格	
	文件编号:	LC-WS-EM-013
	文件版本:	1.1
	生效日期:	2013-7-1

Radio-frequency electromagnetic fields Test Result
EN 61547:2009 (IEC 61000-4-3:2008)

Operation Mode: Full Load

Environmental Condition: Temp. = 25 °C; R.H.= 56 %; A.P.= 101 kPa

Test Equipment:

√	Equip. No.	Equipment	Model	Manufacturer
√	LC-I-816	Signal Generator	SMB 100A	Rohde& Schwarz
√	LC-I-841	Power Amplifier	BLWA 0810-160/100D	BONN Elektronik
√	LC-I-843	Isotropic Field Probe	EP-601	Narda
√	LC-I-839	Log-periodic Antenna	STLP 9128E	SCHWARZBECK
√	LC-I-842	Power Meter	PMS1084	FEANKONIA

Frequency Range: 80 MHz to 1GHz; 1.4GHz--2.7GHz; other:

Test level: 3V/m 10V/m Other:

Steps: 1% other:

Dwell Time: 3s other:

Modulation: 80 %, 1 kHz Amplitude Modulation

Required Criterion: A

Model:

Operation Mode	EUT Position towards antenna	Antenna: Horizontal		Antenna: Vertical		Result (Pass/Fail)
		Required	Observation	Required	Observation	
Lighting	Front	A	A	A	A	Pass
	Right	A	A	A	A	Pass
	Rear	A	A	A	A	Pass
	Left	A	A	A	A	Pass

Additional Information

No observable change

Test Result:

PASS

FAIL

Tested By/ Date: Jae-zhou / 2016-06-28

Reviewer/Date: AS / 2016-06-28

 <p>LCTECH</p>	中山市立创检测技术服务有限公司 EMC 实验室抗干扰试验记录表格	
	文件编号:	LC-WS-EM-013
	文件版本:	1.1
	生效日期:	2013-7-1

Electrical Fast Transient/Burst Test Result
EN 61547:2009 (IEC 61000-4-4:2012)

Operation Mode: Full Load

Environmental Condition: Temp. = 25 °C; R.H.= 56 %; A.P.= 101 kPa

Test Equipment:

√	Equip. No.	Equipment	Model	Manufacturer
√	LC-I-806	Ultra Compact Simulator	UCS 500N5	EM Test
√	LC-I-811	Single-Phase Toroidal Transformer with autowinding	V4780S2	EM Test

Fast transients - Test levels at input and output a.c. power ports

Test level ±1 kV (peak)
Rise time/hold time 5/50 ns
Repetition frequency 5 kHz

Required Criterion: B

Model:

Coupling Line	Test Level	Test Time	Result
L-N	+1KV	2 minute	Pass
L-N	-1KV	2 minute	Pass

Additional Information

No observable change

Test Result:

PASS

FAIL

Tested By/ Date: Joe Zhou / 2016-06-28

Reviewer/Date: [Signature] / 2016-06-28

	中山市立创检测技术服务有限公司	
	EMC 实验室抗干扰试验记录表格	
	文件编号:	LC-WS-EM-013
	文件版本:	1.1
	生效日期:	2013-7-1

Surge Immunity Test Result

EN 61547:2009 (IEC 61000-4-5:2005)

Operation Mode: Full Load

Environmental Condition: Temp. = 25 °C; R.H.= 56 %; A.P.= 101 kPa

Test Equipment:

√	Equip. No.	Equipment	Model	Manufacturer
√	LC-I-806	Ultra Compact Simulator	UCS 500N5	EM Test
√	LC-I-811	Single-Phase Toroidal Transformer with autowinding	V4780S2	EM Test

Waveform Parameter: 1.2/50us; 10/700us

Repetition rate: 1/min

Phase Angle: 90°, 270°

Required Criterion: C

Model: ESS030W-1100-27, ESS030W-0500-56, ESP050W-1400-34, ESP050W-1200-42, ESP040W-0700-56

Coupling Line	Test Level	Repetition Rate	# of surges	Phase Angle	Test Result
L-N	+500V	60S	5	90	pass
L-N	-500V	60S	5	270	pass
L-N	+1000V	60S	5	90	pass
L-N	-1000V	60S	5	270	pass

Model: ESP020W-0440-25, ESS010W- 0225-27-ABL1

Coupling Line	Test Level	Repetition Rate	# of surges	Phase Angle	Test Result
L-N	+500V	60S	5	90	pass
L-N	-500V	60S	5	270	pass

Note: The positive pulses are applied 90° relative to the phase angle of the a.c. line voltage to the equipment under test, and the negative pulses are applied 270° relative to the phase angle of the a.c. line voltage to the equipment under test. Tests with other (lower) voltages are not required.

Additional Information

No observable change

Test Result:

PASS

FAIL

Tested By/ Date: Joe Zhou / 2016-06-28

Reviewer/Date: [Signature] / 2016-06-28

	中山市立创检测技术服务有限公司	
	EMC 实验室抗干扰试验记录表格	
	文件编号:	LC-WS-EM-013
	文件版本:	1.1
	生效日期:	2013-7-1

Inject Currents Immunity Test Result
EN 61547:2009 (IEC 61000-4-6:2008)

Operation Mode: Full Load

Environmental Condition: Temp. = 25 °C; R.H.= 56 %; A.P.= 101 kPa

Test Equipment:

√	Equip. No.	Equipment	Model	Manufacturer
√	LC-I-807	Conducted Immunity Test System	CIT-10/75	FRANKONIA
√	LC-I-808	Coupling Decoupling Network	L-801M2/M3	SCHWARZBECK
√	LC-I-809	Coupling Decoupling Network	L-801AF2	SCHWARZBECK
√	LC-I-810	6dB Attenuator	WA59-6-33	Weinschel

Frequency Range: 0.15 MHz to 80 MHz 0.15 MHz to 230 MHz

Test level: 3 V rms on AC Ports (unmodulated emf into 150 Ω)

Steps: 1% other:

Dwell Time: 1s other:

Modulation: 80 %, 1 kHz Amplitude Modulation

Required Criterion: A

Model:

Frequency	Line	Test Level	Modulation	Step Size	Dwell Time	Observation (Performance Criterion)
150 kHz to 80MHz	2 Wire AC Supply Cable	3 Vrms	80 %, 1kHz Amp. Mod.	1 %	1 s	pass

Additional Information

No observable change

Test Result:

PASS

FAIL

Tested By/ Date: Joe Zhou / 2016-06-28

Reviewer/Date: AS / 2016-06-28

	中山市立创检测技术服务有限公司	
	EMC 实验室抗干扰试验记录表格	
	文件编号:	LC-WS-EM-013
	文件版本:	1.1
	生效日期:	2013-7-1

Voltage Dips and Interruptions Test Result
EN 61547:2009 (IEC 61000-4-11: 2004)

Operation Mode: Full Load

Environmental Condition: Temp.= 25 °C; R.H.= 56 %; A.P.= 101 kPa

Test Equipment:

√	Equip. No.	Equipment	Model	Manufacturer
√	LC-I-806	Ultra Compact Simulator	UCS 500N5	EM Test
√	LC-I-811	Single-Phase Toroidal Transformer with autowinding	V4780S2	EM Test

Required Criterion: B+C

Model:

Phenomena	Test Level (%UT)	Duration (in period)	Test Results
Interruptions	0	0.5	A
Voltage dips	70	10	B

Note: U_T is the rated voltage for the equipment.

Additional Information

No observable change

当日电压波动70%时,负载灯熄灭;恢复正常工作电压时,电源自动恢复正常工作

Test Result:

PASS

FAIL

During the testing under test level 70% U_T , the LED load would be off, and it could restore normal working by itself after testing

Tested By/ Date: Joe Zhou / 2016-06-28

Reviewer/Date: [Signature] / 2016-06-28



东莞市东电检测技术有限公司
Dongguan Dongdian Testing Service Co., Ltd
Tel: 0769-22891499 <http://www.dgddt.com>

DDT-R003 EFT/B Test Record

V1.0-2011

Applicant : Energy Recovery Products (Zhuhai) Co., Ltd						
EUT : LED power supply						
M/N : ESP020W-0440-25, ESP040W-0700-56, ESP050W-1200-42, ESP050W-1400-34, ESS010W-0225-27-ABL1, ESS030W-0500-56, ESS030W-1100-27						
Mode : Full load(maximum light and minimum light)						
Power Supply : AC 230V/50Hz						
Ambient Condition : U <u>25</u> U °C U <u>48</u> U %RH U <u>100.1</u> U kPa						
According Standard : <input checked="" type="checkbox"/> EN 61000-4-4:2004+A1:2010 <input type="checkbox"/> EN55024:2010 <input checked="" type="checkbox"/> EN 61547:2009						
Memo :						
Port : <input type="checkbox"/> AC Mains <input checked="" type="checkbox"/> DC Supply <input type="checkbox"/> Signal: Burst Period: <input checked="" type="checkbox"/> 300ms <input type="checkbox"/> Other:						
Coupling : <input type="checkbox"/> Direct <input checked="" type="checkbox"/> Capacitive Clamp			Test Time : <input checked="" type="checkbox"/> 120S <input type="checkbox"/> Other:			
Repetition Frequency : <input checked="" type="checkbox"/> 5KHz <input type="checkbox"/> Other:			Burst Duration : <input checked="" type="checkbox"/> 15ms <input type="checkbox"/> Other:			
Operation Mode	Line/port	Test Voltage	Performance			Result (Pass/Fail)
			Required	Observation(+)	Observation(-)	
Lighting mode	DC Port	±0.5kV	B	A	A	Pass
	/	/	/	/	/	
	/	/	/	/	/	/
	/	/	/	/	/	/
	/	/	/	/	/	/
	/	/	/	/	/	/
	/	/	/	/	/	/
Observation Description : Operation as intend no loss of function during test and after test.						
Test Date : 2016/07/19						
Test Engineer : Jerry						



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DDT-R005 Injected Currents Test Record

V1.0-2011

Applicant : Energy Recovery Products (Zhuhai) Co., Ltd						
EUT : LED power supply						
M/N:ESP020W-0440-25, ESP040W-0700-56, ESP050W-1200-42, ESP050W-1400-34, ESS010W-0225-27-ABL1, ESS030W-0500-56, ESS030W-1100-27						
Mode: Full load(maximum light and minimum light)						
Power Supply : AC 230V/50Hz						
Ambient Condition : U_25_U °C U_48_U %RH U_100.1_U kPa						
According Standard : <input checked="" type="checkbox"/> EN61000-4-6:2009 <input type="checkbox"/> EN55024:2010 <input checked="" type="checkbox"/> EN61547:2009						
Memo:						
Modulation Signal: <input checked="" type="checkbox"/> 1KHz 80%AM Steps: <input checked="" type="checkbox"/> 1% <input type="checkbox"/> other: Dwell time: <input checked="" type="checkbox"/> 3s <input type="checkbox"/> other:						
Operation mode	Frequency Range	Injected Position	Strength(e.m.f) (unmodulated)	Required	Observation	Result (Pass/Fail)
Lighting mode	0.15MHz-80MHz	DC port	3V	A	A	Pass
/	/	/	/	/	/	/
/	/	/	/	/	/	/
Observation Description : Operation as intend no loss of function during test and after test.						
Test Date : 2016/07/19						
Test Engineer : Jerry						

Measurement Uncertainties

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus.

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Table 1: Measurement Uncertainty levels

Test	Parameters	Expanded uncertainty (U_{lab})	Expanded uncertainty (U_{cispr})
Conducted Emission	Level accuracy (9kHz to 150kHz) (150kHz to 30MHz)	± 3.12 dB ± 3.12 dB	± 4.0 dB ± 3.6 dB
Power disturbance	Level accuracy (30MHz to 300MHz)	± 3.28 dB	± 4.5 dB
Electromagnetic Radiated Emission (3-loop)	Level accuracy (9kHz to 30MHz)	± 3.00 dB	N/A
Radiated Emission	Level accuracy (30MHz to 1000MHz)	± 3.16 dB	± 5.2 dB
Radiated Emission	Level accuracy (above 1000MHz)	± 2.56 dB	N/A
Mains Harmonic	Voltage	$\pm 0.635\%$	N/A
Voltage Fluctuations & Flicker	Voltage	$\pm 0.635\%$	N/A

As U_{lab} in all applicable tests listed above are less than U_{cispr} according to CISPR 16-4-2:2003,

- compliance is deemed to occur if no measured disturbance exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance exceeds the disturbance limit.