EMC Test Report

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Product: LED Ceiling Light

Model: See page 6-44 for model details

Applicant: Zhejiang MEKA Electric Co., Ltd.

Address: No.8 Canghai Road,Lihai Town,Binhai New City, 312366 Shaoxing, Zhejiang Province,PEOPLE'S REPUBLIC OF CHINA

In accordance with EN IEC 55015, EN 61547,

EN IEC 61000-3-2 and EN 61000-3-3

COMMERCIAL-IN-CONFIDENCE

Issue Date: September 15, 2022
Report Number: 708882218630-00

RESPONSIBLE FOR	NAME	SIGNATURE	DATE
Approved By	Liping XUE		Sep. 15. 2022
Prepared By	Yong ZHANG		Sep. 15. 2022

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD Product Service control rules.

EXECUTIVE SUMMARY
Seven samples of this product were tested and found to be in compliance with EN IEC 55015:2019/A11:2020, EN 61547:2009, EN IEC 61000-3-2:2019/A1:2021 and EN 61000-3-3:2013/A1:2019/A2:2021.

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1 Report Summary

1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Issue	Description of Change	Date of Issue
1	First Issue	09/15/2022

1.2 Introduction

The information contained in this report is intended to show verification of the EMC Qualification Approval Testing of the requirements of the standards for the tests listed in Section 1.3.

Applicant	Zhejiang MEKA Electric Co., Ltd.
Address	No.8 Canghai Road,Lihai Town,Binhai New City, 312366 Shaoxing, Zhejiang Province, People's Republic of China
Manufacturer	Zhejiang MEKA Electric Co., Ltd.
Address	No.8 Canghai Road,Lihai Town,Binhai New City, 312366 Shaoxing, Zhejiang Province, People's Republic of China
Factory	Zhejiang MEKA Electric Co., Ltd.
Address	No.8 Canghai Road,Lihai Town,Binhai New City, 312366 Shaoxing, Zhejiang Province, People's Republic of China
Model Number(s)	All models see model list on page 6-56
Rated Input Voltage/Frequency	220-240V~, 50Hz
Rated Input Power	See model list on page 6-44
Sample Number(s)	See model list on page 5
Number of Samples Tested	7
Test Specification	EN IEC 55015:2019/A11:2020, EN 61547:2009, EN IEC 61000-3-2:2019/A1:2021 and EN 61000-3-3:2013/A1:2019/A2:2021
Date of Receipt of EUT	04/09/2022
Start of Test	04/19/2022
Finish of Test	06/17/2022
Name of Engineer(s)	Yong ZHANG

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1.3 Brief Summary of Results

The sample's mentioned in this report is/are submitted/ supplied/ manufactured by client. The laboratory therefore assumes no responsibility for accuracy of information on the brand name, model number, origin of manufacture, consignment or any information supplied.

A brief summary of the tests carried out in accordance with EN IEC 55015, EN IEC 61000-3-2 and EN 61547 is shown below.

Section	Specification	Clause	Test Description	Result	Comments/Base Standard
AC Powered Light on					
2.1	EN IEC 55015:2019/A11:2020	4.3.1	Conducted disturbance at the electric power supply interface	Pass（Minimum limit margin: >6dB）	
2.2	EN IEC 55015:2019/A11:2020	4.5.2	Radiated disturbance (9KHz to 30MHz)	Pass（Minimum limit margin: >6dB）	
2.3	EN IEC 55015:2019/A11:2020	4.5.3	Radiated disturbance (30MHz to 1000MHz)	Pass（Minimum limit margin: 5.39dB）	
2.4	EN IEC 61000-3-2:2019 /A1:2021	7	Harmonic current emissions	Pass	
2.5	EN 61547:2009	5.2	Electrostatic discharge immunity test	Pass	IEC 61000-4-2:2008
2.6	EN 61547:2009	5.3	Radiated, radio-frequency, electromagnetic field immunity test	Pass	IEC 61000-4-3:2006 /A1: 2007
2.7	EN 61547:2009	5.5	Electrical fast transient /burst immunity test	Pass	IEC 61000-4-4:2004
2.8	EN 61547:2009	5.6	Immunity to conducted disturbances, induced by radio-frequency fields	Pass	IEC 61000-4-6:2008
2.9	EN 61547:2009	5.7	Surge immunity test	Pass	IEC 61000-4-5:2005
2.10	EN 61547:2009	5.8	Voltage dips, short interruptions and voltage variations immunity test	Pass	IEC 61000-4-11:2004

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1.4 Product Information

1.4.1 Technical Description

The Equipment Under Test (EUT) was a LED Ceiling Light.

According to client's declaration, all models have 4 kinds of circuit diagrams and 7 kinds of PCB layouts, except for different appearance, size and rated power. See following model list in page 6-44 for the difference details.
So the models as follow were chosen to perform all the tests.

Model No:	Storix No.	PCB	Rated power	Remark
MK-020011012731-E	NIB-645570-1	1	18W	non dimming
MK-020011012862-E	NIB-645570-2	2	24W	non dimming
MK-020011013378-E	NIB-645570-3	3	40W	non dimming
MK-020011015010-A	NIB-645570-4	4	24W	Switch 3-setp color temperature
MK-020011012849-E	20220529.04.01	5	12W	non dimming
MK-020011014622-A	20220529.04.02	6	60W	non dimming
MK-020011014799-E	20220529.04.03	7	12W	Switch 3-setp color temperature

Pre-tests are performed under 220-240V~ 50Hz, only the maximum emission was recorded.

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Model list:

No.	Model	Rated power	current	PCB	Size
1	MK-020011011261-X	12W	Circuit 1	PCB1	φ280*65
2	MK-020011011262-X	12W	Circuit 1	PCB1	φ290*65
3	MK-020011015181-X	12W	Circuit 1	PCB1	φ265*65
4	MK-020011015182-X	12W	Circuit 1	PCB1	φ285*70
5	MK-020011015183-X	12W	Circuit 1	PCB1	φ260*55
6	MK-020011015184-X	12W	Circuit 1	PCB1	φ345*60
7	MK-020011012685-X	12W	Circuit 1	PCB1	φ260*60
8	MK-020011012686-X	12W	Circuit 1	PCB1	φ260*65
9	MK-020011011266-X	12W	Circuit 1	PCB1	φ270*70
10	MK-020011011267-X	12W	Circuit 1	PCB1	Φ260*65
11	MK-020011012687-X	12W	Circuit 1	PCB1	Φ260*55
12	MK-020011012688-X	12W	Circuit 1	PCB1	Φ280*55
13	MK-020011012689-X	12W	Circuit 1	PCB1	φ330*70
14	MK-020011012690-X	12W	Circuit 1	PCB1	φ260*65
15	MK-020011012691-X	12W	Circuit 1	PCB1	φ270*70
16	MK-020011012692-X	12W	Circuit 1	PCB1	Φ260*55
17	MK-020011012693-X	12W	Circuit 1	PCB1	φ280*60
18	MK-020011012694-X	12W	Circuit 1	PCB1	φ260*65
19	MK-020011012695-X	12W	Circuit 1	PCB1	φ270*70
20	MK-020011012696-X	12W	Circuit 1	PCB1	φ270*70
21	MK-020011012697-X	12W	Circuit 1	PCB1	φ270*70
22	MK-020011012698-X	12W	Circuit 1	PCB1	φ270*70
23	MK-020011011268-X	12W	Circuit 1	PCB1	φ270*70
24	MK-020011011269-X	12W	Circuit 1	PCB1	φ260*55
25	MK-020011011270-X	12W	Circuit 1	PCB1	φ260*55
26	MK-020011011260-X	12W	Circuit 1	PCB1	φ260*45
27	MK-020011011259-X	12W	Circuit 1	PCB1	φ260*45
28	**MK-020011011271-X**	**12W**	**Circuit 1**	**PCB1**	**Φ265*55**
29	MK-020011011272-X	12W	Circuit 1	PCB1	Φ265*55
30	MK-020011011273-X	12W	Circuit 1	PCB1	Φ265*55
31	MK-020011011274-X	12W	Circuit 1	PCB1	φ280*65
32	MK-020011012699-X	12W	Circuit 1	PCB1	φ290*65
33	MK-020011012700-X	12W	Circuit 1	PCB1	φ265*65
34	MK-020011012701-X	12W	Circuit 1	PCB1	φ285*70
35	MK-020011012702-X	12W	Circuit 1	PCB1	φ260*55
36	MK-020011012703-X	12W	Circuit 1	PCB1	φ345*60
37	MK-020011012704-X	12W	Circuit 1	PCB1	φ260*60
38	MK-020011012705-X	12W	Circuit 1	PCB1	φ260*65
39	MK-020011012706-X	12W	Circuit 1	PCB1	φ270*70
40	MK-020011012707-X	12W	Circuit 1	PCB1	Φ260*65
41	MK-020011012708-X	12W	Circuit 1	PCB1	Φ260*55
42	MK-020011012709-X	12W	Circuit 1	PCB1	Φ280*55

43	MK-020011012710-X	12W	Circuit 1	PCB1	φ330*70
44	MK-020011012711-X	12W	Circuit 1	PCB1	φ260*65
45	MK-020011011275-X	12W	Circuit 1	PCB1	φ270*70
46	MK-020011011276-X	12W	Circuit 1	PCB1	Φ260*55
47	MK-020011011277-X	12W	Circuit 1	PCB1	φ280*60
48	MK-020011011278-X	12W	Circuit 1	PCB1	φ260*65
49	MK-020011011279-X	12W	Circuit 1	PCB1	φ270*70
50	MK-020011011280-X	12W	Circuit 1	PCB1	φ270*70
51	MK-020011011281-X	12W	Circuit 1	PCB1	φ270*70
52	MK-020011011282-X	12W	Circuit 1	PCB1	φ270*70
53	MK-020011011283-X	12W	Circuit 1	PCB1	φ270*70
54	MK-020011012712-X	12W	Circuit 1	PCB1	φ260*55
55	MK-020011012713-X	12W	Circuit 1	PCB1	φ260*55
56	MK-020011012683-X	12W	Circuit 1	PCB1	φ260*45
57	MK-020011012684-X	12W	Circuit 1	PCB1	φ260*45
58	MK-020011012714-X	12W	Circuit 1	PCB1	Φ265*55
59	MK-020011012715-X	12W	Circuit 1	PCB1	Φ265*55
60	MK-020011012716-X	12W	Circuit 1	PCB1	Φ265*55
61	MK-020011012717-X	12W	Circuit 1	PCB1	211*211*55mm
62	MK-020011012718-X	12W	Circuit 1	PCB1	211*211*55mm
63	MK-020011012719-X	12W	Circuit 1	PCB1	Φ220*80mm
64	MK-020011012720-X	12W	Circuit 1	PCB1	Φ220*80mm
65	MK-020011012721-X	12W	Circuit 1	PCB1	Φ220*80mm
66	MK-020011012722-X	12W	Circuit 1	PCB1	Φ220*80mm
67	MK-020011012723-X	18W	Circuit 1	PCB1	φ280*65
68	MK-020011012724-X	18W	Circuit 1	PCB1	φ290*65
69	MK-020011012725-X	18W	Circuit 1	PCB1	φ265*65
70	MK-020011012726-X	18W	Circuit 1	PCB1	φ285*70
71	MK-020011015185-X	18W	Circuit 1	PCB1	φ260*55
72	MK-020011011285-X	18W	Circuit 1	PCB1	φ345*60
73	MK-020011012727-X	18W	Circuit 1	PCB1	φ260*60
74	MK-020011012728-X	18W	Circuit 1	PCB1	φ260*65
75	MK-020011012729-X	18W	Circuit 1	PCB1	φ270*70
76	MK-020011012730-X	18W	Circuit 1	PCB1	Φ260*65
77	**MK-020011012731-X**	**18W**	**Circuit 1**	**PCB1**	**Φ260*55**
78	MK-020011012732-X	18W	Circuit 1	PCB1	φ330*70
79	MK-020011012733-X	18W	Circuit 1	PCB1	φ260*65
80	MK-020011012734-X	18W	Circuit 1	PCB1	φ270*70
81	MK-020011012735-X	18W	Circuit 1	PCB1	Φ260*55
82	MK-020011012736-X	18W	Circuit 1	PCB1	φ280*60
83	MK-020011012737-X	18W	Circuit 1	PCB1	φ260*65
84	MK-020011012738-X	18W	Circuit 1	PCB1	φ270*70
85	MK-020011012739-X	18W	Circuit 1	PCB1	φ270*70
86	MK-020011012740-X	18W	Circuit 1	PCB1	φ270*70
87	MK-020011012741-X	18W	Circuit 1	PCB1	φ270*70

88	MK-020011012742-X	18W	Circuit 1	PCB1	φ270*70
89	MK-020011012743-X	18W	Circuit 1	PCB1	φ260*55
90	MK-020011012744-X	18W	Circuit 1	PCB1	φ260*55
91	MK-020011012745-X	18W	Circuit 1	PCB1	φ260*45
92	MK-020011012746-X	18W	Circuit 1	PCB1	Φ265*55
93	MK-020011011286-X	18W	Circuit 1	PCB1	Φ265*55
94	MK-020011011287-X	18W	Circuit 1	PCB1	Φ265*55
95	MK-020011011288-X	18W	Circuit 1	PCB1	φ280*65
96	MK-020011011289-X	18W	Circuit 1	PCB1	φ290*65
97	MK-020011011290-X	18W	Circuit 1	PCB1	φ265*65
98	MK-020011011291-X	18W	Circuit 1	PCB1	φ285*70
99	MK-020011011292-X	18W	Circuit 1	PCB1	φ260*55
100	MK-020011012747-X	18W	Circuit 1	PCB1	φ345*60
101	MK-020011012748-X	18W	Circuit 1	PCB1	φ260*60
102	MK-020011012749-X	18W	Circuit 1	PCB1	φ260*65
103	MK-020011012750-X	18W	Circuit 1	PCB1	φ270*70
104	MK-020011012751-X	18W	Circuit 1	PCB1	Φ260*65
105	MK-020011012752-X	18W	Circuit 1	PCB1	Φ260*55
106	MK-020011012753-X	18W	Circuit 1	PCB1	φ330*70
107	MK-020011012754-X	18W	Circuit 1	PCB1	φ260*65
108	MK-020011012755-X	18W	Circuit 1	PCB1	φ270*70
109	MK-020011012756-X	18W	Circuit 1	PCB1	Φ260*55
110	MK-020011012757-X	18W	Circuit 1	PCB1	φ280*60
111	MK-020011012758-X	18W	Circuit 1	PCB1	φ260*65
112	MK-020011012759-X	18W	Circuit 1	PCB1	φ270*70
113	MK-020011011293-X	18W	Circuit 1	PCB1	φ270*70
114	MK-020011011294-X	18W	Circuit 1	PCB1	φ270*70
115	MK-020011011295-X	18W	Circuit 1	PCB1	φ270*70
116	MK-020011011296-X	18W	Circuit 1	PCB1	φ270*70
117	MK-020011011297-X	18W	Circuit 1	PCB1	φ260*55
118	MK-020011011298-X	18W	Circuit 1	PCB1	φ260*55
119	MK-020011012760-X	18W	Circuit 1	PCB1	φ260*45
120	MK-020011012761-X	18W	Circuit 1	PCB1	Φ265*55
121	MK-020011012762-X	18W	Circuit 1	PCB1	Φ265*55
122	MK-020011012763-X	18W	Circuit 1	PCB1	Φ265*55
123	MK-020011012764-X	18W	Circuit 1	PCB1	φ360*65
124	MK-020011012765-X	18W	Circuit 1	PCB1	φ360*65
125	MK-020011012766-X	18W	Circuit 1	PCB1	φ360*65
126	MK-020011012767-X	18W	Circuit 1	PCB1	φ360*65
127	MK-020011012768-X	18W	Circuit 1	PCB1	φ360*65
128	MK-020011012769-X	18W	Circuit 1	PCB1	φ370*70
129	MK-020011012770-X	18W	Circuit 1	PCB1	φ380*75
130	MK-020011012771-X	18W	Circuit 1	PCB1	φ355*65
131	MK-020011011301-X	18W	Circuit 1	PCB1	φ365*80
132	MK-020011011302-X	18W	Circuit 1	PCB1	φ350*55

133	MK-020011011303-X	18W	Circuit 1	PCB1	φ435*70
134	MK-020011011304-X	18W	Circuit 1	PCB1	φ350*70
135	MK-020011011305-X	18W	Circuit 1	PCB1	φ350*70
136	MK-020011011306-X	18W	Circuit 1	PCB1	φ360*65
137	MK-020011011307-X	18W	Circuit 1	PCB1	Φ350*70
138	MK-020011012772-X	18W	Circuit 1	PCB1	Φ350*55
139	MK-020011012773-X	18W	Circuit 1	PCB1	φ420*80
140	MK-020011012774-X	18W	Circuit 1	PCB1	φ350*70
141	MK-020011012775-X	18W	Circuit 1	PCB1	Φ350*55
142	MK-020011012776-X	18W	Circuit 1	PCB1	φ355*65
143	MK-020011012777-X	18W	Circuit 1	PCB1	φ350*75
144	MK-020011012778-X	18W	Circuit 1	PCB1	φ345*75
145	MK-020011012779-X	18W	Circuit 1	PCB1	φ350*45
146	MK-020011012780-X	18W	Circuit 1	PCB1	φ360*65
147	MK-020011012781-X	18W	Circuit 1	PCB1	φ360*65
148	MK-020011012782-X	18W	Circuit 1	PCB1	φ360*65
149	MK-020011012783-X	18W	Circuit 1	PCB1	φ360*65
150	MK-020011012784-X	18W	Circuit 1	PCB1	φ360*65
151	MK-020011012785-X	18W	Circuit 1	PCB1	φ370*70
152	MK-020011012786-X	18W	Circuit 1	PCB1	φ380*75
153	MK-020011012787-X	18W	Circuit 1	PCB1	φ355*65
154	MK-020011012788-X	18W	Circuit 1	PCB1	φ365*80
155	MK-020011012789-X	18W	Circuit 1	PCB1	φ350*55
156	MK-020011012790-X	18W	Circuit 1	PCB1	φ435*70
157	MK-020011012791-X	18W	Circuit 1	PCB1	φ350*70
158	MK-020011012792-X	18W	Circuit 1	PCB1	φ350*70
159	MK-020011012793-X	18W	Circuit 1	PCB1	φ360*65
160	MK-020011012794-X	18W	Circuit 1	PCB1	Φ350*70
161	MK-020011012795-X	18W	Circuit 1	PCB1	Φ350*55
162	MK-020011012796-X	18W	Circuit 1	PCB1	φ420*80
163	MK-020011012797-X	18W	Circuit 1	PCB1	φ350*70
164	MK-020011012798-X	18W	Circuit 1	PCB1	Φ350*55
165	MK-020011012799-X	18W	Circuit 1	PCB1	φ355*65
166	MK-020011012800-X	18W	Circuit 1	PCB1	φ350*75
167	MK-020011012801-X	18W	Circuit 1	PCB1	φ345*75
168	MK-020011012802-X	18W	Circuit 1	PCB1	φ350*45
169	MK-020011012803-X	18W	Circuit 1	PCB1	φ320*65
170	MK-020011012804-X	18W	Circuit 1	PCB1	φ320*65
171	MK-020011011308-X	18W	Circuit 1	PCB1	φ320*65
172	MK-020011011309-X	18W	Circuit 1	PCB1	φ320*65
173	MK-020011012805-X	18W	Circuit 1	PCB1	φ320*65
174	MK-020011012806-X	18W	Circuit 1	PCB1	φ330*65
175	MK-020011012807-X	18W	Circuit 1	PCB1	φ340*65
176	MK-020011012808-X	18W	Circuit 1	PCB1	φ315*65
177	MK-020011012809-X	18W	Circuit 1	PCB1	φ325*75

178	MK-020011012810-X	18W	Circuit 1	PCB1	φ310*55
179	MK-020011012811-X	18W	Circuit 1	PCB1	φ395*65
180	MK-020011012812-X	18W	Circuit 1	PCB1	φ310*65
181	MK-020011012813-X	18W	Circuit 1	PCB1	φ310*70
182	MK-020011012814-X	18W	Circuit 1	PCB1	φ320*65
183	MK-020011012815-X	18W	Circuit 1	PCB1	Φ310*65
184	MK-020011012816-X	18W	Circuit 1	PCB1	Φ310*55
185	MK-020011012817-X	18W	Circuit 1	PCB1	φ380*70
186	MK-020011012818-X	18W	Circuit 1	PCB1	370*340*90
187	MK-020011012819-X	18W	Circuit 1	PCB1	φ310*65
188	MK-020011012820-X	18W	Circuit 1	PCB1	Φ310*55
189	MK-020011012821-X	18W	Circuit 1	PCB1	φ310*65
190	MK-020011012822-X	18W	Circuit 1	PCB1	φ310*70
191	MK-020011012823-X	18W	Circuit 1	PCB1	φ310*45
192	MK-020011012824-X	18W	Circuit 1	PCB1	φ320*65
193	MK-020011012825-X	18W	Circuit 1	PCB1	φ320*65
194	MK-020011012826-X	18W	Circuit 1	PCB1	φ320*65
195	MK-020011012827-X	18W	Circuit 1	PCB1	φ320*65
196	MK-020011012828-X	18W	Circuit 1	PCB1	φ320*65
197	MK-020011012829-X	18W	Circuit 1	PCB1	φ330*65
198	MK-020011012830-X	18W	Circuit 1	PCB1	φ340*65
199	MK-020011012831-X	18W	Circuit 1	PCB1	φ315*65
200	MK-020011012832-X	18W	Circuit 1	PCB1	φ325*75
201	MK-020011012833-X	18W	Circuit 1	PCB1	φ310*55
202	MK-020011012834-X	18W	Circuit 1	PCB1	φ395*65
203	MK-020011012835-X	18W	Circuit 1	PCB1	φ310*65
204	MK-020011012836-X	18W	Circuit 1	PCB1	φ310*70
205	MK-020011012837-X	18W	Circuit 1	PCB1	φ320*65
206	MK-020011012838-X	18W	Circuit 1	PCB1	Φ310*65
207	MK-020011012839-X	18W	Circuit 1	PCB1	Φ310*55
208	MK-020011012840-X	18W	Circuit 1	PCB1	φ380*70
209	MK-020011012841-X	18W	Circuit 1	PCB1	370*340*90
210	MK-020011012842-X	18W	Circuit 1	PCB1	φ310*65
211	MK-020011012843-X	18W	Circuit 1	PCB1	Φ310*55
212	MK-020011012844-X	18W	Circuit 1	PCB1	φ310*65
213	MK-020011011310-X	18W	Circuit 1	PCB1	φ310*70
214	MK-020011011311-X	18W	Circuit 1	PCB1	φ310*45
215	MK-020011011312-X	18W	Circuit 1	PCB1	270*270*55mm
216	MK-020011011313-X	18W	Circuit 1	PCB1	270*270*55mm
217	MK-020011011314-X	18W	Circuit 1	PCB1	280*280*65mm
218	MK-020011011315-X	18W	Circuit 1	PCB1	280*280*65mm
219	MK-020011011316-X	18W	Circuit 1	PCB1	270*270*55mm
220	MK-020011012845-X	18W	Circuit 1	PCB1	270*270*55mm
221	MK-020011012846-X	18W	Circuit 1	PCB1	280*280*65mm
222	MK-020011012847-X	18W	Circuit 1	PCB1	280*280*65mm

223	MK-020011012848-X	12W	Circuit 1	PCB5	270*270*55mm
224	**MK-020011012849-X**	**12W**	**Circuit 1**	**PCB5**	**270*270*55mm**
225	MK-020011011284-X	12W	Circuit 1	PCB5	270*270*60mm
226	MK-020011013426-X	12W	Circuit 1	PCB5	270*270*60mm
227	MK-020011012850-X	12W	Circuit 1	PCB5	280*280*65mm
228	MK-020011012851-X	12W	Circuit 1	PCB5	280*280*65mm
229	MK-020011012852-X	12W	Circuit 1	PCB5	270*270*55mm
230	MK-020011012853-X	12W	Circuit 1	PCB5	270*270*55mm
231	MK-020011012854-X	12W	Circuit 1	PCB5	280*280*65mm
232	MK-020011012855-X	12W	Circuit 1	PCB5	280*280*65mm
233	MK-020011012856-X	24W	Circuit 2	PCB2	φ320*65
234	MK-020011012857-X	24W	Circuit 2	PCB2	φ320*65
235	MK-020011011317-X	24W	Circuit 2	PCB2	φ320*65
236	MK-020011011318-X	24W	Circuit 2	PCB2	φ320*65
237	MK-020011011319-X	24W	Circuit 2	PCB2	φ320*65
238	MK-020011011320-X	24W	Circuit 2	PCB2	φ330*65
239	MK-020011011321-X	24W	Circuit 2	PCB2	φ340*65
240	MK-020011011322-X	24W	Circuit 2	PCB2	φ315*65
241	MK-020011011323-X	24W	Circuit 2	PCB2	φ325*75
242	MK-020011011324-X	24W	Circuit 2	PCB2	φ310*55
243	MK-020011011325-X	24W	Circuit 2	PCB2	φ395*65
244	MK-020011012858-X	24W	Circuit 2	PCB2	φ310*65
245	MK-020011012859-X	24W	Circuit 2	PCB2	φ310*70
246	MK-020011012860-X	24W	Circuit 2	PCB2	φ320*65
247	MK-020011012861-X	24W	Circuit 2	PCB2	Φ310*65
248	**MK-020011012862-X**	**24W**	**Circuit 2**	**PCB2**	**Φ310*55**
249	MK-020011012863-X	24W	Circuit 2	PCB2	φ380*70
250	MK-020011012864-X	24W	Circuit 2	PCB2	370*340*90
251	MK-020011012865-X	24W	Circuit 2	PCB2	φ310*65
252	MK-020011012866-X	24W	Circuit 2	PCB2	Φ310*55
253	MK-020011012867-X	24W	Circuit 2	PCB2	φ310*65
254	MK-020011012868-X	24W	Circuit 2	PCB2	φ310*70
255	MK-020011012869-X	24W	Circuit 2	PCB2	φ310*45
256	MK-020011012870-X	24W	Circuit 2	PCB2	φ320*65
257	MK-020011011328-X	24W	Circuit 2	PCB2	φ320*65
258	MK-020011011329-X	24W	Circuit 2	PCB2	φ320*65
259	MK-020011011330-X	24W	Circuit 2	PCB2	φ320*65
260	MK-020011011331-X	24W	Circuit 2	PCB2	φ320*65
261	MK-020011011332-X	24W	Circuit 2	PCB2	φ330*65
262	MK-020011011333-X	24W	Circuit 2	PCB2	φ340*65
263	MK-020011011334-X	24W	Circuit 2	PCB2	φ315*65
264	MK-020011012871-X	24W	Circuit 2	PCB2	φ325*75
265	MK-020011012872-X	24W	Circuit 2	PCB2	φ310*55
266	MK-020011012873-X	24W	Circuit 2	PCB2	φ395*65
267	MK-020011012874-X	24W	Circuit 2	PCB2	φ310*65

268	MK-020011012875-X	24W	Circuit 2	PCB2	φ310*70
269	MK-020011012876-X	24W	Circuit 2	PCB2	φ320*65
270	MK-020011012877-X	24W	Circuit 2	PCB2	Φ310*65
271	MK-020011012878-X	24W	Circuit 2	PCB2	Φ310*55
272	MK-020011012879-X	24W	Circuit 2	PCB2	φ380*70
273	MK-020011012880-X	24W	Circuit 2	PCB2	370*340*90
274	MK-020011012881-X	24W	Circuit 2	PCB2	φ310*65
275	MK-020011012882-X	24W	Circuit 2	PCB2	Φ310*55
276	MK-020011012883-X	24W	Circuit 2	PCB2	φ310*65
277	MK-020011011337-X	24W	Circuit 2	PCB2	φ310*70
278	MK-020011011338-X	24W	Circuit 2	PCB2	φ310*45
279	MK-020011011339-X	24W	Circuit 2	PCB2	φ360*65
280	MK-020011011340-X	24W	Circuit 2	PCB2	φ360*65
281	MK-020011012884-X	24W	Circuit 2	PCB2	φ360*65
282	MK-020011012885-X	24W	Circuit 2	PCB2	φ360*65
283	MK-020011012886-X	24W	Circuit 2	PCB2	φ360*65
284	MK-020011012887-X	24W	Circuit 2	PCB2	φ370*70
285	MK-020011012888-X	24W	Circuit 2	PCB2	φ380*75
286	MK-020011012889-X	24W	Circuit 2	PCB2	φ355*65
287	MK-020011012890-X	24W	Circuit 2	PCB2	φ365*80
288	MK-020011012891-X	24W	Circuit 2	PCB2	φ350*55
289	MK-020011012892-X	24W	Circuit 2	PCB2	φ435*70
290	MK-020011012893-X	24W	Circuit 2	PCB2	φ350*70
291	MK-020011012894-X	24W	Circuit 2	PCB2	φ350*70
292	MK-020011012895-X	24W	Circuit 2	PCB2	φ360*65
293	MK-020011012896-X	24W	Circuit 2	PCB2	Φ350*70
294	MK-020011012897-X	24W	Circuit 2	PCB2	Φ350*55
295	MK-020011012898-X	24W	Circuit 2	PCB2	φ420*80
296	MK-020011012899-X	24W	Circuit 2	PCB2	φ350*70
297	MK-020011011343-X	24W	Circuit 2	PCB2	Φ350*55
298	MK-020011011344-X	24W	Circuit 2	PCB2	φ355*65
299	MK-020011011345-X	24W	Circuit 2	PCB2	φ350*75
300	MK-020011011346-X	24W	Circuit 2	PCB2	φ345*75
301	MK-020011012900-X	24W	Circuit 2	PCB2	φ350*45
302	MK-020011012901-X	24W	Circuit 2	PCB2	φ360*65
303	MK-020011012902-X	24W	Circuit 2	PCB2	φ360*65
304	MK-020011012903-X	24W	Circuit 2	PCB2	φ360*65
305	MK-020011012904-X	24W	Circuit 2	PCB2	φ360*65
306	MK-020011012905-X	24W	Circuit 2	PCB2	φ360*65
307	MK-020011012906-X	24W	Circuit 2	PCB2	φ370*70
308	MK-020011012907-X	24W	Circuit 2	PCB2	φ380*75
309	MK-020011012908-X	24W	Circuit 2	PCB2	φ355*65
310	MK-020011012909-X	24W	Circuit 2	PCB2	φ365*80
311	MK-020011012910-X	24W	Circuit 2	PCB2	φ350*55
312	MK-020011012911-X	24W	Circuit 2	PCB2	φ435*70

313	MK-020011012912-X	24W	Circuit 2	PCB2	φ350*70
314	MK-020011012913-X	24W	Circuit 2	PCB2	φ350*70
315	MK-020011012914-X	24W	Circuit 2	PCB2	φ360*65
316	MK-020011012915-X	24W	Circuit 2	PCB2	Φ350*70
317	MK-020011011347-X	24W	Circuit 2	PCB2	Φ350*55
318	MK-020011011348-X	24W	Circuit 2	PCB2	φ420*80
319	MK-020011010186-X	24W	Circuit 2	PCB2	φ350*70
320	MK-020011010187-X	24W	Circuit 2	PCB2	Φ350*55
321	MK-020011010188-X	24W	Circuit 2	PCB2	φ355*65
322	MK-020011010189-X	24W	Circuit 2	PCB2	φ350*75
323	MK-020011010190-X	24W	Circuit 2	PCB2	φ345*75
324	MK-020011010191-X	24W	Circuit 2	PCB2	φ350*45
325	MK-020011010192-X	24W	Circuit 2	PCB2	330*330*75mm
326	MK-020011010193-X	24W	Circuit 2	PCB2	330*330*75mm
327	MK-020011010194-X	24W	Circuit 2	PCB2	330*330*65mm
328	MK-020011010195-X	24W	Circuit 2	PCB2	330*330*65mm
329	MK-020011010196-X	24W	Circuit 2	PCB2	330*330*75mm
330	MK-020011010197-X	24W	Circuit 2	PCB2	330*330*75mm
331	MK-020011010198-X	24W	Circuit 2	PCB2	330*330*65mm
332	MK-020011010199-X	24W	Circuit 2	PCB2	330*330*65mm
333	MK-020011010359-X	24W	Circuit 2	PCB2	φ390*70
334	MK-020011010360-X	24W	Circuit 2	PCB2	φ390*70
335	MK-020011010361-X	24W	Circuit 2	PCB2	φ490*80
336	MK-020011010362-X	24W	Circuit 2	PCB2	φ390*70
337	MK-020011010363-X	24W	Circuit 2	PCB2	φ390*70
338	MK-020011010364-X	24W	Circuit 2	PCB2	φ390*70
339	MK-020011010365-X	24W	Circuit 2	PCB2	φ400*70
340	MK-020011010366-X	24W	Circuit 2	PCB2	φ365*75
341	MK-020011010367-X	24W	Circuit 2	PCB2	φ380*75
342	MK-020011010368-X	24W	Circuit 2	PCB2	φ385*65
343	MK-020011010369-X	24W	Circuit 2	PCB2	φ395*80
344	MK-020011010370-X	24W	Circuit 2	PCB2	φ410*70
345	MK-020011010371-X	24W	Circuit 2	PCB2	φ380*65
346	MK-020011010372-X	24W	Circuit 2	PCB2	Φ465*75
347	MK-020011009924-X	24W	Circuit 2	PCB2	φ388*75
348	MK-020011009925-X	24W	Circuit 2	PCB2	φ390*70
349	MK-020011009926-X	24W	Circuit 2	PCB2	φ390*75
350	MK-020011009927-X	24W	Circuit 2	PCB2	φ380*80
351	MK-020011009930-X	24W	Circuit 2	PCB2	φ390*70
352	MK-020011009931-X	24W	Circuit 2	PCB2	Φ400*85
353	MK-020011010407-X	24W	Circuit 2	PCB2	Φ380*70
354	MK-020011010408-X	24W	Circuit 2	PCB2	φ380*65
355	MK-020011010201-X	24W	Circuit 2	PCB2	φ450*90
356	MK-020011010202-X	24W	Circuit 2	PCB2	φ380*70
357	MK-020011010203-X	24W	Circuit 2	PCB2	φ390*75

358	MK-020011010204-X	24W	Circuit 2	PCB2	φ390*95
359	MK-020011010205-X	24W	Circuit 2	PCB2	φ390*70
360	MK-020011010206-X	24W	Circuit 2	PCB2	φ390*95
361	MK-020011010207-X	24W	Circuit 2	PCB2	φ390*95
362	MK-020011010208-X	24W	Circuit 2	PCB2	φ390*95
363	MK-020011010209-X	24W	Circuit 2	PCB2	φ400*85
364	MK-020011010210-X	24W	Circuit 2	PCB2	φ400*70
365	MK-020011010374-X	24W	Circuit 2	PCB2	φ400*70
366	MK-020011010375-X	24W	Circuit 2	PCB2	φ400*95
367	MK-020011010376-X	24W	Circuit 2	PCB2	φ400*70
368	MK-020011010377-X	24W	Circuit 2	PCB2	φ390*95
369	MK-020011010378-X	24W	Circuit 2	PCB2	φ420*70
370	MK-020011010379-X	24W	Circuit 2	PCB2	φ400*80
371	MK-020011010380-X	24W	Circuit 2	PCB2	φ410*65
372	MK-020011010381-X	24W	Circuit 2	PCB2	φ400*70
373	MK-020011010382-X	24W	Circuit 2	PCB2	φ380*65
374	MK-020011010383-X	24W	Circuit 2	PCB2	φ410*70
375	MK-020011010211-X	24W	Circuit 2	PCB2	φ393*80
376	MK-020011010212-X	24W	Circuit 2	PCB2	φ380*80
377	MK-020011010213-X	24W	Circuit 2	PCB2	φ400*85
378	MK-020011010214-X	24W	Circuit 2	PCB2	φ400*85
379	MK-020011010215-X	24W	Circuit 2	PCB2	φ400*85
380	MK-020011010216-X	24W	Circuit 2	PCB2	φ400*85
381	MK-020011010217-X	24W	Circuit 2	PCB2	φ400*85
382	MK-020011010218-X	24W	Circuit 2	PCB2	φ390*95
383	MK-020011010219-X	24W	Circuit 2	PCB2	Φ380*55
384	MK-020011010220-X	24W	Circuit 2	PCB2	Φ380*55
385	MK-020011010221-X	24W	Circuit 2	PCB2	Φ390*65
386	MK-020011010222-X	24W	Circuit 2	PCB2	Φ390*65
387	MK-020011010223-X	24W	Circuit 2	PCB2	Φ390*65
388	MK-020011010224-X	24W	Circuit 2	PCB2	φ380*55
389	MK-020011010384-X	24W	Circuit 2	PCB2	Φ400*68
390	MK-020011010385-X	24W	Circuit 2	PCB2	Φ400*80
391	MK-020011010386-X	24W	Circuit 2	PCB2	Φ385*55
392	MK-020011010387-X	24W	Circuit 2	PCB2	Φ385*55
393	MK-020011010388-X	24W	Circuit 2	PCB2	Φ385*55
394	MK-020011010389-X	24W	Circuit 2	PCB2	Φ400*70
395	MK-020011010390-X	24W	Circuit 2	PCB2	Φ390*55
396	MK-020011010391-X	24W	Circuit 2	PCB2	Φ380*55
397	MK-020011010392-X	24W	Circuit 2	PCB2	Φ390*65
398	MK-020011010393-X	24W	Circuit 2	PCB2	φ390*70
399	MK-020011010394-X	24W	Circuit 2	PCB2	φ390*70
400	MK-020011010395-X	24W	Circuit 2	PCB2	φ490*80
401	MK-020011010396-X	24W	Circuit 2	PCB2	φ390*70
402	MK-020011010397-X	24W	Circuit 2	PCB2	φ390*70

403	MK-020011013047-X	24W	Circuit 2	PCB2	φ390*70
404	MK-020011013048-X	24W	Circuit 2	PCB2	φ400*70
405	MK-020011013049-X	24W	Circuit 2	PCB2	φ365*75
406	MK-020011013050-X	24W	Circuit 2	PCB2	φ380*75
407	MK-020011013262-X	24W	Circuit 2	PCB2	φ385*65
408	MK-020011013263-X	24W	Circuit 2	PCB2	φ395*80
409	MK-020011013264-X	24W	Circuit 2	PCB2	φ410*70
410	MK-020011013265-X	24W	Circuit 2	PCB2	φ380*65
411	MK-020011013266-X	24W	Circuit 2	PCB2	Φ465*75
412	MK-020011013267-X	24W	Circuit 2	PCB2	φ388*75
413	MK-020011013268-X	24W	Circuit 2	PCB2	φ390*70
414	MK-020011013269-X	24W	Circuit 2	PCB2	φ390*75
415	MK-020011013270-X	24W	Circuit 2	PCB2	φ380*80
416	MK-020011013271-X	24W	Circuit 2	PCB2	φ390*70
417	MK-020011013272-X	24W	Circuit 2	PCB2	Φ400*85
418	MK-020011013273-X	24W	Circuit 2	PCB2	Φ380*70
419	MK-020011013274-X	24W	Circuit 2	PCB2	φ380*65
420	MK-020011013275-X	24W	Circuit 2	PCB2	φ450*90
421	MK-020011013276-X	24W	Circuit 2	PCB2	φ380*70
422	MK-020011013277-X	24W	Circuit 2	PCB2	φ390*75
423	MK-020011013278-X	24W	Circuit 2	PCB2	φ390*95
424	MK-020011013279-X	24W	Circuit 2	PCB2	φ390*70
425	MK-020011013280-X	24W	Circuit 2	PCB2	φ390*95
426	MK-020011013281-X	24W	Circuit 2	PCB2	φ390*95
427	MK-020011013282-X	24W	Circuit 2	PCB2	φ390*95
428	MK-020011013283-X	24W	Circuit 2	PCB2	φ400*85
429	MK-020011013284-X	24W	Circuit 2	PCB2	φ400*70
430	MK-020011013285-X	24W	Circuit 2	PCB2	φ400*70
431	MK-020011013286-X	24W	Circuit 2	PCB2	φ400*95
432	MK-020011013287-X	24W	Circuit 2	PCB2	φ400*70
433	MK-020011013288-X	24W	Circuit 2	PCB2	φ390*95
434	MK-020011013289-X	24W	Circuit 2	PCB2	φ420*70
435	MK-020011013290-X	24W	Circuit 2	PCB2	φ400*80
436	MK-020011013291-X	24W	Circuit 2	PCB2	φ410*65
437	MK-020011013292-X	24W	Circuit 2	PCB2	φ400*70
438	MK-020011013293-X	24W	Circuit 2	PCB2	φ380*65
439	MK-020011009933-X	24W	Circuit 2	PCB2	φ410*70
440	MK-020011009934-X	24W	Circuit 2	PCB2	φ393*80
441	MK-020011009935-X	24W	Circuit 2	PCB2	φ380*80
442	MK-020011009936-X	24W	Circuit 2	PCB2	φ400*85
443	MK-020011009937-X	24W	Circuit 2	PCB2	φ400*85
444	MK-020011009938-X	24W	Circuit 2	PCB2	φ400*85
445	MK-020011009939-X	24W	Circuit 2	PCB2	φ400*85
446	MK-020011009940-X	24W	Circuit 2	PCB2	φ400*85
447	MK-020011009941-X	24W	Circuit 2	PCB2	φ390*95

448	MK-020011009942-X	24W	Circuit 2	PCB2	Φ380*55
449	MK-020011009943-X	24W	Circuit 2	PCB2	Φ380*55
450	MK-020011009944-X	24W	Circuit 2	PCB2	Φ390*65
451	MK-020011009945-X	24W	Circuit 2	PCB2	Φ390*65
452	MK-020011009946-X	24W	Circuit 2	PCB2	Φ390*65
453	MK-020011009947-X	24W	Circuit 2	PCB2	φ380*55
454	MK-020011009948-X	24W	Circuit 2	PCB2	φ360*65
455	MK-020011009949-X	24W	Circuit 2	PCB2	φ360*65
456	MK-020011009950-X	24W	Circuit 2	PCB2	φ360*65
457	MK-020011012944-X	24W	Circuit 2	PCB2	φ360*65
458	MK-020011009952-X	24W	Circuit 2	PCB2	φ360*65
459	MK-020011010416-X	24W	Circuit 2	PCB2	φ370*70
460	MK-020011010417-X	24W	Circuit 2	PCB2	φ380*75
461	MK-020011010418-X	24W	Circuit 2	PCB2	φ355*65
462	MK-020011010419-X	24W	Circuit 2	PCB2	φ365*80
463	MK-020011010420-X	24W	Circuit 2	PCB2	φ350*55
464	MK-020011010421-X	24W	Circuit 2	PCB2	φ435*70
465	MK-020011010422-X	24W	Circuit 2	PCB2	φ350*70
466	MK-020011010423-X	24W	Circuit 2	PCB2	φ350*70
467	MK-020011010424-X	24W	Circuit 2	PCB2	φ360*65
468	MK-020011010425-X	24W	Circuit 2	PCB2	Φ350*70
469	MK-020011010426-X	24W	Circuit 2	PCB2	Φ350*55
470	MK-020011010427-X	24W	Circuit 2	PCB2	φ420*80
471	MK-020011010428-X	24W	Circuit 2	PCB2	φ350*70
472	MK-020011010429-X	24W	Circuit 2	PCB2	Φ350*55
473	MK-020011010430-X	24W	Circuit 2	PCB2	φ355*65
474	MK-020011010431-X	24W	Circuit 2	PCB2	φ350*75
475	MK-020011010432-X	24W	Circuit 2	PCB2	φ345*75
476	MK-020011010433-X	24W	Circuit 2	PCB2	φ350*45
477	MK-020011010434-X	24W	Circuit 2	PCB2	Φ400*68
478	MK-020011010435-X	24W	Circuit 2	PCB2	Φ400*80
479	MK-020011009953-X	24W	Circuit 2	PCB2	Φ385*55
480	MK-020011009954-X	24W	Circuit 2	PCB2	Φ385*55
481	MK-020011010436-X	24W	Circuit 2	PCB2	Φ385*55
482	MK-020011010437-X	24W	Circuit 2	PCB2	Φ400*70
483	MK-020011009955-X	24W	Circuit 2	PCB2	Φ390*55
484	MK-020011009956-X	24W	Circuit 2	PCB2	Φ380*55
485	MK-020011009957-X	24W	Circuit 2	PCB2	Φ390*65
486	MK-020011009958-X	36W	Circuit 3	PCB3	φ320*65
487	MK-020011009959-X	36W	Circuit 3	PCB3	φ320*65
488	MK-020011009960-X	36W	Circuit 3	PCB3	φ320*65
489	MK-020011009961-X	36W	Circuit 3	PCB3	φ320*65
490	MK-020011009962-X	36W	Circuit 3	PCB3	φ320*65
491	MK-020011009965-X	36W	Circuit 3	PCB3	φ330*65
492	MK-020011009966-X	36W	Circuit 3	PCB3	φ340*65

493	MK-020011009967-X	36W	Circuit 3	PCB3	φ315*65
494	MK-020011009968-X	36W	Circuit 3	PCB3	φ325*75
495	MK-020011009969-X	36W	Circuit 3	PCB3	φ310*55
496	MK-020011009970-X	36W	Circuit 3	PCB3	φ395*65
497	MK-020011009971-X	36W	Circuit 3	PCB3	φ310*65
498	MK-020011009972-X	36W	Circuit 3	PCB3	φ310*70
499	MK-020011010438-X	36W	Circuit 3	PCB3	φ320*65
500	MK-020011010439-X	36W	Circuit 3	PCB3	Φ310*65
501	MK-020011010440-X	36W	Circuit 3	PCB3	Φ310*55
502	MK-020011010441-X	36W	Circuit 3	PCB3	φ380*70
503	MK-020011010442-X	36W	Circuit 3	PCB3	370*340*90
504	MK-020011010443-X	36W	Circuit 3	PCB3	φ310*65
505	MK-020011010444-X	36W	Circuit 3	PCB3	Φ310*55
506	MK-020011010445-X	36W	Circuit 3	PCB3	φ310*65
507	MK-020011010448-X	36W	Circuit 3	PCB3	φ310*70
508	MK-020011010449-X	36W	Circuit 3	PCB3	φ310*45
509	MK-020011010450-X	36W	Circuit 3	PCB3	φ320*65
510	MK-020011010451-X	36W	Circuit 3	PCB3	φ320*65
511	MK-020011010452-X	36W	Circuit 3	PCB3	φ320*65
512	MK-020011010453-X	36W	Circuit 3	PCB3	φ320*65
513	MK-020011010454-X	36W	Circuit 3	PCB3	φ320*65
514	MK-020011010455-X	36W	Circuit 3	PCB3	φ330*65
515	MK-020011010227-X	36W	Circuit 3	PCB3	φ340*65
516	MK-020011010228-X	36W	Circuit 3	PCB3	φ315*65
517	MK-020011010229-X	36W	Circuit 3	PCB3	φ325*75
518	MK-020011010230-X	36W	Circuit 3	PCB3	φ310*55
519	MK-020011010231-X	36W	Circuit 3	PCB3	φ395*65
520	MK-020011010232-X	36W	Circuit 3	PCB3	φ310*65
521	MK-020011010233-X	36W	Circuit 3	PCB3	φ310*70
522	MK-020011010234-X	36W	Circuit 3	PCB3	φ320*65
523	MK-020011010235-X	36W	Circuit 3	PCB3	Φ310*65
524	MK-020011010236-X	36W	Circuit 3	PCB3	Φ310*55
525	MK-020011010237-X	36W	Circuit 3	PCB3	φ380*70
526	MK-020011010238-X	36W	Circuit 3	PCB3	370*340*90
527	MK-020011010239-X	36W	Circuit 3	PCB3	φ310*65
528	MK-020011010240-X	36W	Circuit 3	PCB3	Φ310*55
529	MK-020011010241-X	36W	Circuit 3	PCB3	φ310*65
530	MK-020011010242-X	36W	Circuit 3	PCB3	φ310*70
531	MK-020011010243-X	36W	Circuit 3	PCB3	φ310*45
532	MK-020011010244-X	36W	Circuit 3	PCB3	φ360*65
533	MK-020011010245-X	36W	Circuit 3	PCB3	φ360*65
534	MK-020011010246-X	36W	Circuit 3	PCB3	φ360*65
535	MK-020011010247-X	36W	Circuit 3	PCB3	φ360*65
536	MK-020011010248-X	36W	Circuit 3	PCB3	φ360*65
537	MK-020011010249-X	36W	Circuit 3	PCB3	φ370*70

538	MK-020011010250-X	36W	Circuit 3	PCB3	φ380*75
539	MK-020011010251-X	36W	Circuit 3	PCB3	φ355*65
540	MK-020011010252-X	36W	Circuit 3	PCB3	φ365*80
541	MK-020011010253-X	36W	Circuit 3	PCB3	φ350*55
542	MK-020011010254-X	36W	Circuit 3	PCB3	φ435*70
543	MK-020011010255-X	36W	Circuit 3	PCB3	φ350*70
544	MK-020011010256-X	36W	Circuit 3	PCB3	φ350*70
545	MK-020011010257-X	36W	Circuit 3	PCB3	φ360*65
546	MK-020011010258-X	36W	Circuit 3	PCB3	Φ350*70
547	MK-020011010259-X	36W	Circuit 3	PCB3	Φ350*55
548	MK-020011010260-X	36W	Circuit 3	PCB3	φ420*80
549	MK-020011010261-X	36W	Circuit 3	PCB3	φ350*70
550	MK-020011010262-X	36W	Circuit 3	PCB3	Φ350*55
551	MK-020011010263-X	36W	Circuit 3	PCB3	φ355*65
552	MK-020011010264-X	36W	Circuit 3	PCB3	φ350*75
553	MK-020011010265-X	36W	Circuit 3	PCB3	φ345*75
554	MK-020011010266-X	36W	Circuit 3	PCB3	φ350*45
555	MK-020011010460-X	36W	Circuit 3	PCB3	φ360*65
556	MK-020011010461-X	36W	Circuit 3	PCB3	φ360*65
557	MK-020011010462-X	36W	Circuit 3	PCB3	φ360*65
558	MK-020011010463-X	36W	Circuit 3	PCB3	φ360*65
559	MK-020011010464-X	36W	Circuit 3	PCB3	φ360*65
560	MK-020011010465-X	36W	Circuit 3	PCB3	φ370*70
561	MK-020011010466-X	36W	Circuit 3	PCB3	φ380*75
562	MK-020011010467-X	36W	Circuit 3	PCB3	φ355*65
563	MK-020011010468-X	36W	Circuit 3	PCB3	φ365*80
564	MK-020011010469-X	36W	Circuit 3	PCB3	φ350*55
565	MK-020011010480-X	36W	Circuit 3	PCB3	φ435*70
566	MK-020011010481-X	36W	Circuit 3	PCB3	φ350*70
567	MK-020011010482-X	36W	Circuit 3	PCB3	φ350*70
568	MK-020011010483-X	36W	Circuit 3	PCB3	φ360*65
569	MK-020011010484-X	36W	Circuit 3	PCB3	Φ350*70
570	MK-020011010485-X	36W	Circuit 3	PCB3	Φ350*55
571	MK-020011010486-X	36W	Circuit 3	PCB3	φ420*80
572	MK-020011010487-X	36W	Circuit 3	PCB3	φ350*70
573	MK-020011010488-X	36W	Circuit 3	PCB3	Φ350*55
574	MK-020011010489-X	36W	Circuit 3	PCB3	φ355*65
575	MK-020011010500-X	36W	Circuit 3	PCB3	φ350*75
576	MK-020011010501-X	36W	Circuit 3	PCB3	φ345*75
577	MK-020011010502-X	36W	Circuit 3	PCB3	φ390*70
578	MK-020011010503-X	36W	Circuit 3	PCB3	φ390*70
579	MK-020011010504-X	36W	Circuit 3	PCB3	φ490*80
580	MK-020011010505-X	36W	Circuit 3	PCB3	φ390*70
581	MK-020011010506-X	36W	Circuit 3	PCB3	φ390*70
582	MK-020011010507-X	36W	Circuit 3	PCB3	φ390*70

583	MK-020011010508-X	36W	Circuit 3	PCB3	φ400*70
584	MK-020011010509-X	36W	Circuit 3	PCB3	φ365*75
585	MK-020011010520-X	36W	Circuit 3	PCB3	φ380*75
586	MK-020011010521-X	36W	Circuit 3	PCB3	φ385*65
587	MK-020011010522-X	36W	Circuit 3	PCB3	φ395*80
588	MK-020011010523-X	36W	Circuit 3	PCB3	φ410*70
589	MK-020011010524-X	36W	Circuit 3	PCB3	φ380*65
590	MK-020011010525-X	36W	Circuit 3	PCB3	Φ465*75
591	MK-020011010526-X	36W	Circuit 3	PCB3	φ388*75
592	MK-020011010527-X	36W	Circuit 3	PCB3	φ390*70
593	MK-020011010528-X	36W	Circuit 3	PCB3	φ390*75
594	MK-020011010818-X	36W	Circuit 3	PCB3	φ380*80
595	MK-020011009985-X	36W	Circuit 3	PCB3	φ390*70
596	MK-020011009986-X	36W	Circuit 3	PCB3	Φ400*85
597	MK-020011009987-X	36W	Circuit 3	PCB3	Φ380*70
598	MK-020011009988-X	36W	Circuit 3	PCB3	φ380*65
599	MK-020011009989-X	36W	Circuit 3	PCB3	φ450*90
600	MK-020011009990-X	36W	Circuit 3	PCB3	φ380*70
601	MK-020011009991-X	36W	Circuit 3	PCB3	φ390*75
602	MK-020011009992-X	36W	Circuit 3	PCB3	φ390*95
603	MK-020011009993-X	36W	Circuit 3	PCB3	φ390*70
604	MK-020011009994-X	36W	Circuit 3	PCB3	φ390*95
605	MK-020011010819-X	36W	Circuit 3	PCB3	φ390*95
606	MK-020011010820-X	36W	Circuit 3	PCB3	φ390*95
607	MK-020011010821-X	36W	Circuit 3	PCB3	φ400*85
608	MK-020011010822-X	36W	Circuit 3	PCB3	φ400*70
609	MK-020011013338-X	36W	Circuit 3	PCB3	φ400*70
610	MK-020011013339-X	36W	Circuit 3	PCB3	φ400*95
611	MK-020011010823-X	36W	Circuit 3	PCB3	φ400*70
612	MK-020011010824-X	36W	Circuit 3	PCB3	φ390*95
613	MK-020011010005-X	36W	Circuit 3	PCB3	φ420*70
614	MK-020011010006-X	36W	Circuit 3	PCB3	φ400*80
615	MK-020011010007-X	36W	Circuit 3	PCB3	φ410*65
616	MK-020011010008-X	36W	Circuit 3	PCB3	φ400*70
617	MK-020011010009-X	36W	Circuit 3	PCB3	φ380*65
618	MK-020011010010-X	36W	Circuit 3	PCB3	φ410*70
619	MK-020011010011-X	36W	Circuit 3	PCB3	φ393*80
620	MK-020011010012-X	36W	Circuit 3	PCB3	φ380*80
621	MK-020011010013-X	36W	Circuit 3	PCB3	φ400*85
622	MK-020011010014-X	36W	Circuit 3	PCB3	φ400*85
623	MK-020011010825-X	36W	Circuit 3	PCB3	φ400*85
624	MK-020011010826-X	36W	Circuit 3	PCB3	φ400*85
625	MK-020011010827-X	36W	Circuit 3	PCB3	φ400*85
626	MK-020011010828-X	36W	Circuit 3	PCB3	φ390*95
627	MK-020011013336-X	36W	Circuit 3	PCB3	Φ380*55

628	MK-020011013337-X	36W	Circuit 3	PCB3	Φ380*55
629	MK-020011010829-X	36W	Circuit 3	PCB3	Φ390*65
630	MK-020011010830-X	36W	Circuit 3	PCB3	Φ390*65
631	MK-020011010025-X	36W	Circuit 3	PCB3	Φ390*65
632	MK-020011010026-X	36W	Circuit 3	PCB3	φ380*55
633	MK-020011010027-X	36W	Circuit 3	PCB3	Φ400*68
634	MK-020011010028-X	36W	Circuit 3	PCB3	Φ400*80
635	MK-020011010029-X	36W	Circuit 3	PCB3	Φ385*55
636	MK-020011010030-X	36W	Circuit 3	PCB3	Φ385*55
637	MK-020011010031-X	36W	Circuit 3	PCB3	Φ385*55
638	MK-020011010032-X	36W	Circuit 3	PCB3	Φ400*70
639	MK-020011010033-X	36W	Circuit 3	PCB3	Φ390*55
640	MK-020011010034-X	36W	Circuit 3	PCB3	Φ380*55
641	MK-020011010831-X	36W	Circuit 3	PCB3	Φ390*65
642	MK-020011010832-X	36W	Circuit 3	PCB3	φ390*70
643	MK-020011010833-X	36W	Circuit 3	PCB3	φ390*70
644	MK-020011010834-X	36W	Circuit 3	PCB3	φ490*80
645	MK-020011013334-X	36W	Circuit 3	PCB3	φ390*70
646	MK-020011013335-X	36W	Circuit 3	PCB3	φ390*70
647	MK-020011010835-X	36W	Circuit 3	PCB3	φ390*70
648	MK-020011010836-X	36W	Circuit 3	PCB3	φ400*70
649	MK-020011010045-X	36W	Circuit 3	PCB3	φ365*75
650	MK-020011010046-X	36W	Circuit 3	PCB3	φ380*75
651	MK-020011010047-X	36W	Circuit 3	PCB3	φ385*65
652	MK-020011010048-X	36W	Circuit 3	PCB3	φ395*80
653	MK-020011010049-X	36W	Circuit 3	PCB3	φ410*70
654	MK-020011010050-X	36W	Circuit 3	PCB3	φ380*65
655	MK-020011010051-X	36W	Circuit 3	PCB3	Φ465*75
656	MK-020011010052-X	36W	Circuit 3	PCB3	φ388*75
657	MK-020011010053-X	36W	Circuit 3	PCB3	φ390*70
658	MK-020011010054-X	36W	Circuit 3	PCB3	φ390*75
659	MK-020011010837-X	36W	Circuit 3	PCB3	φ380*80
660	MK-020011010838-X	36W	Circuit 3	PCB3	φ390*70
661	MK-020011010839-X	36W	Circuit 3	PCB3	Φ400*85
662	MK-020011010840-X	36W	Circuit 3	PCB3	Φ380*70
663	MK-020011013332-X	36W	Circuit 3	PCB3	φ380*65
664	MK-020011013333-X	36W	Circuit 3	PCB3	φ450*90
665	MK-020011010841-X	36W	Circuit 3	PCB3	φ380*70
666	MK-020011010842-X	36W	Circuit 3	PCB3	φ390*75
667	MK-020011010470-X	36W	Circuit 3	PCB3	φ390*95
668	MK-020011010471-X	36W	Circuit 3	PCB3	φ390*70
669	MK-020011010472-X	36W	Circuit 3	PCB3	φ390*95
670	MK-020011010473-X	36W	Circuit 3	PCB3	φ390*95
671	MK-020011010474-X	36W	Circuit 3	PCB3	φ390*95
672	MK-020011010475-X	36W	Circuit 3	PCB3	φ400*85

673	MK-020011010476-X	36W	Circuit 3	PCB3	φ400*70
674	MK-020011010477-X	36W	Circuit 3	PCB3	φ400*70
675	MK-020011010478-X	36W	Circuit 3	PCB3	φ400*95
676	MK-020011010479-X	36W	Circuit 3	PCB3	φ400*70
677	MK-020011010843-X	36W	Circuit 3	PCB3	φ390*95
678	MK-020011010844-X	36W	Circuit 3	PCB3	φ420*70
679	MK-020011010845-X	36W	Circuit 3	PCB3	φ400*80
680	MK-020011010846-X	36W	Circuit 3	PCB3	φ410*65
681	MK-020011013330-X	36W	Circuit 3	PCB3	φ400*70
682	MK-020011013331-X	36W	Circuit 3	PCB3	φ380*65
683	MK-020011010847-X	36W	Circuit 3	PCB3	φ410*70
684	MK-020011010848-X	36W	Circuit 3	PCB3	φ393*80
685	MK-020011010490-X	36W	Circuit 3	PCB3	φ380*80
686	MK-020011010491-X	36W	Circuit 3	PCB3	φ400*85
687	MK-020011010492-X	36W	Circuit 3	PCB3	φ400*85
688	MK-020011010493-X	36W	Circuit 3	PCB3	φ400*85
689	MK-020011010494-X	36W	Circuit 3	PCB3	φ400*85
690	MK-020011010495-X	36W	Circuit 3	PCB3	φ400*85
691	MK-020011010496-X	36W	Circuit 3	PCB3	φ390*95
692	MK-020011010497-X	36W	Circuit 3	PCB3	Φ380*55
693	MK-020011010498-X	36W	Circuit 3	PCB3	Φ380*55
694	MK-020011010499-X	36W	Circuit 3	PCB3	Φ390*65
695	MK-020011010849-X	36W	Circuit 3	PCB3	Φ390*65
696	MK-020011010850-X	36W	Circuit 3	PCB3	Φ390*65
697	MK-020011010851-X	36W	Circuit 3	PCB3	φ380*55
698	MK-020011010852-X	36W	Circuit 3	PCB3	φ360*65
699	MK-020011013328-X	36W	Circuit 3	PCB3	φ360*65
700	MK-020011013329-X	36W	Circuit 3	PCB3	φ360*65
701	MK-020011010853-X	36W	Circuit 3	PCB3	φ360*65
702	MK-020011010854-X	36W	Circuit 3	PCB3	φ360*65
703	MK-020011010510-X	36W	Circuit 3	PCB3	φ370*70
704	MK-020011010511-X	36W	Circuit 3	PCB3	φ380*75
705	MK-020011010512-X	36W	Circuit 3	PCB3	φ355*65
706	MK-020011010513-X	36W	Circuit 3	PCB3	φ365*80
707	MK-020011010514-X	36W	Circuit 3	PCB3	φ350*55
708	MK-020011010515-X	36W	Circuit 3	PCB3	φ435*70
709	MK-020011010516-X	36W	Circuit 3	PCB3	φ350*70
710	MK-020011010517-X	36W	Circuit 3	PCB3	φ350*70
711	MK-020011010518-X	36W	Circuit 3	PCB3	φ360*65
712	MK-020011010519-X	36W	Circuit 3	PCB3	Φ350*70
713	MK-020011010855-X	36W	Circuit 3	PCB3	Φ350*55
714	MK-020011010856-X	36W	Circuit 3	PCB3	φ420*80
715	MK-020011010857-X	36W	Circuit 3	PCB3	φ350*70
716	MK-020011010858-X	36W	Circuit 3	PCB3	Φ350*55
717	MK-020011013326-X	36W	Circuit 3	PCB3	φ355*65

718	MK-020011013327-X	36W	Circuit 3	PCB3	φ350*75
719	MK-020011010859-X	36W	Circuit 3	PCB3	φ345*75
720	MK-020011010860-X	36W	Circuit 3	PCB3	φ350*45
721	MK-020011010530-X	36W	Circuit 3	PCB3	Φ400*68
722	MK-020011010531-X	36W	Circuit 3	PCB3	Φ400*80
723	MK-020011010532-X	36W	Circuit 3	PCB3	Φ385*55
724	MK-020011010533-X	36W	Circuit 3	PCB3	Φ385*55
725	MK-020011010534-X	36W	Circuit 3	PCB3	Φ385*55
726	MK-020011010535-X	36W	Circuit 3	PCB3	Φ400*70
727	MK-020011010536-X	36W	Circuit 3	PCB3	Φ390*55
728	MK-020011010537-X	36W	Circuit 3	PCB3	Φ380*55
729	MK-020011010538-X	36W	Circuit 3	PCB3	Φ390*65
730	MK-020011010539-X	36W	Circuit 3	PCB3	φ490*70
731	MK-020011010861-X	36W	Circuit 3	PCB3	φ490*70
732	MK-020011010862-X	36W	Circuit 3	PCB3	φ490*70
733	MK-020011010863-X	36W	Circuit 3	PCB3	φ490*70
734	MK-020011010864-X	36W	Circuit 3	PCB3	φ490*70
735	MK-020011013324-X	36W	Circuit 3	PCB3	φ500*70
736	MK-020011013325-X	36W	Circuit 3	PCB3	φ500*90
737	MK-020011010865-X	36W	Circuit 3	PCB3	φ510*80
738	MK-020011010866-X	36W	Circuit 3	PCB3	φ485*65
739	MK-020011013079-X	36W	Circuit 3	PCB3	φ500*90
740	MK-020011013080-X	36W	Circuit 3	PCB3	φ510*73
741	MK-020011013081-X	36W	Circuit 3	PCB3	φ500*80
742	MK-020011013082-X	36W	Circuit 3	PCB3	φ565*75
743	MK-020011013083-X	36W	Circuit 3	PCB3	φ500*75
744	MK-020011013084-X	36W	Circuit 3	PCB3	Φ495*125
745	MK-020011013085-X	36W	Circuit 3	PCB3	φ490*73
746	MK-020011013086-X	36W	Circuit 3	PCB3	φ490*80
747	MK-020011013087-X	36W	Circuit 3	PCB3	φ510*75
748	MK-020011013088-X	36W	Circuit 3	PCB3	φ490*85
749	MK-020011013089-X	36W	Circuit 3	PCB3	φ490*70
750	MK-020011013090-X	36W	Circuit 3	PCB3	Φ500*90
751	MK-020011013091-X	36W	Circuit 3	PCB3	Φ485*80
752	MK-020011013092-X	36W	Circuit 3	PCB3	Φ500*80
753	MK-020011013093-X	36W	Circuit 3	PCB3	φ550*90
754	MK-020011013094-X	36W	Circuit 3	PCB3	530*490*100
755	MK-020011013159-X	36W	Circuit 3	PCB3	φ485*75
756	MK-020011013160-X	36W	Circuit 3	PCB3	φ490*80
757	MK-020011013161-X	36W	Circuit 3	PCB3	φ500*90
758	MK-020011013162-X	36W	Circuit 3	PCB3	φ500*95
759	MK-020011013163-X	36W	Circuit 3	PCB3	φ490*73
760	MK-020011013172-X	36W	Circuit 3	PCB3	φ500*95
761	MK-020011013173-X	36W	Circuit 3	PCB3	φ500*95
762	MK-020011013174-X	36W	Circuit 3	PCB3	φ500*95

763	MK-020011013175-X	36W	Circuit 3	PCB3	φ500*90
764	MK-020011013176-X	36W	Circuit 3	PCB3	φ500*73
765	MK-020011013190-X	36W	Circuit 3	PCB3	φ500*73
766	MK-020011013191-X	36W	Circuit 3	PCB3	φ500*100
767	MK-020011013193-X	36W	Circuit 3	PCB3	φ500*73
768	MK-020011013194-X	36W	Circuit 3	PCB3	φ500*95
769	MK-020011013196-X	36W	Circuit 3	PCB3	φ520*80
770	MK-020011013197-X	36W	Circuit 3	PCB3	φ500*90
771	MK-020011013200-X	36W	Circuit 3	PCB3	φ510*70
772	MK-020011013201-X	36W	Circuit 3	PCB3	φ500*73
773	MK-020011013202-X	36W	Circuit 3	PCB3	Φ500*80
774	MK-020011013203-X	36W	Circuit 3	PCB3	φ510*75
775	MK-020011013206-X	36W	Circuit 3	PCB3	φ500*90
776	MK-020011013207-X	36W	Circuit 3	PCB3	φ490*80
777	MK-020011013208-X	36W	Circuit 3	PCB3	430*430*60
778	MK-020011013209-X	36W	Circuit 3	PCB3	480*480*65
779	MK-020011013210-X	36W	Circuit 3	PCB3	φ510*75
780	MK-020011013211-X	36W	Circuit 3	PCB3	φ500*90
781	MK-020011013212-X	36W	Circuit 3	PCB3	φ500*90
782	MK-020011013213-X	36W	Circuit 3	PCB3	φ500*90
783	MK-020011013340-X	36W	Circuit 3	PCB3	φ500*90
784	MK-020011013341-X	36W	Circuit 3	PCB3	φ500*90
785	MK-020011013342-X	36W	Circuit 3	PCB3	φ500*95
786	MK-020011013343-X	36W	Circuit 3	PCB3	Φ490*80
787	MK-020011013344-X	36W	Circuit 3	PCB3	Φ490*80
788	MK-020011013345-X	36W	Circuit 3	PCB3	Φ490*70
789	MK-020011013346-X	36W	Circuit 3	PCB3	φ500*70
790	MK-020011013347-X	36W	Circuit 3	PCB3	Φ495*68
791	MK-020011013348-X	36W	Circuit 3	PCB3	Φ490*90
792	MK-020011013349-X	36W	Circuit 3	PCB3	Φ485*65
793	MK-020011013350-X	36W	Circuit 3	PCB3	Φ485*65
794	MK-020011013351-X	36W	Circuit 3	PCB3	Φ485*65
795	MK-020011013352-X	36W	Circuit 3	PCB3	Φ500*80
796	MK-020011013353-X	36W	Circuit 3	PCB3	Φ490*65
797	MK-020011013354-X	36W	Circuit 3	PCB3	Φ480*65
798	MK-020011013355-X	36W	Circuit 3	PCB3	Φ490*70
799	MK-020011013356-X	40W	Circuit 3	PCB3	φ490*70
800	MK-020011013357-X	40W	Circuit 3	PCB3	φ490*70
801	MK-020011013358-X	40W	Circuit 3	PCB3	φ490*70
802	MK-020011013359-X	40W	Circuit 3	PCB3	φ490*70
803	MK-020011013360-X	40W	Circuit 3	PCB3	φ490*70
804	MK-020011013361-X	40W	Circuit 3	PCB3	φ500*70
805	MK-020011013362-X	40W	Circuit 3	PCB3	φ500*90
806	MK-020011013363-X	40W	Circuit 3	PCB3	φ510*80
807	MK-020011013364-X	40W	Circuit 3	PCB3	φ485*65

808	MK-020011013365-X	40W	Circuit 3	PCB3	φ500*90
809	MK-020011013366-X	40W	Circuit 3	PCB3	φ510*73
810	MK-020011013367-X	40W	Circuit 3	PCB3	φ500*80
811	MK-020011013368-X	40W	Circuit 3	PCB3	φ565*75
812	MK-020011013369-X	40W	Circuit 3	PCB3	φ500*75
813	MK-020011013370-X	40W	Circuit 3	PCB3	Φ495*125
814	MK-020011013371-X	40W	Circuit 3	PCB3	φ490*73
815	MK-020011013372-X	40W	Circuit 3	PCB3	φ490*80
816	MK-020011013373-X	40W	Circuit 3	PCB3	φ510*75
817	MK-020011013374-X	40W	Circuit 3	PCB3	φ490*85
818	MK-020011013375-X	40W	Circuit 3	PCB3	φ490*70
819	MK-020011013376-X	40W	Circuit 3	PCB3	Φ500*90
820	MK-020011013377-X	40W	Circuit 3	PCB3	Φ485*80
821	**MK-020011013378-X**	**40W**	**Circuit 3**	**PCB3**	**Φ500*80**
822	MK-020011013379-X	40W	Circuit 3	PCB3	φ550*90
823	MK-020011013380-X	40W	Circuit 3	PCB3	530*490*100
824	MK-020011013381-X	40W	Circuit 3	PCB3	φ485*75
825	MK-020011013382-X	40W	Circuit 3	PCB3	φ490*80
826	MK-020011013383-X	40W	Circuit 3	PCB3	φ500*90
827	MK-020011011835-X	40W	Circuit 3	PCB3	φ500*95
828	MK-020011011836-X	40W	Circuit 3	PCB3	φ490*73
829	MK-020011011837-X	40W	Circuit 3	PCB3	φ500*95
830	MK-020011011838-X	40W	Circuit 3	PCB3	φ500*95
831	MK-020011011839-X	40W	Circuit 3	PCB3	φ500*95
832	MK-020011011840-X	40W	Circuit 3	PCB3	φ500*90
833	MK-020011011841-X	40W	Circuit 3	PCB3	φ500*73
834	MK-020011011842-X	40W	Circuit 3	PCB3	φ500*73
835	MK-020011011843-X	40W	Circuit 3	PCB3	φ500*100
836	MK-020011011844-X	40W	Circuit 3	PCB3	φ500*73
837	MK-020011011845-X	40W	Circuit 3	PCB3	φ500*95
838	MK-020011011846-X	40W	Circuit 3	PCB3	φ520*80
839	MK-020011011847-X	40W	Circuit 3	PCB3	φ500*90
840	MK-020011011848-X	40W	Circuit 3	PCB3	φ510*70
841	MK-020011011849-X	40W	Circuit 3	PCB3	φ500*73
842	MK-020011012050-X	40W	Circuit 3	PCB3	Φ500*80
843	MK-020011012051-X	40W	Circuit 3	PCB3	φ510*75
844	MK-020011012052-X	40W	Circuit 3	PCB3	φ500*90
845	MK-020011012053-X	40W	Circuit 3	PCB3	φ490*80
846	MK-020011012054-X	40W	Circuit 3	PCB3	430*430*60
847	MK-020011012055-X	40W	Circuit 3	PCB3	480*480*65
848	MK-020011012056-X	40W	Circuit 3	PCB3	φ510*75
849	MK-020011012057-X	40W	Circuit 3	PCB3	φ500*90
850	MK-020011012058-X	40W	Circuit 3	PCB3	φ500*90
851	MK-020011012059-X	40W	Circuit 3	PCB3	φ500*90
852	MK-020011012060-X	40W	Circuit 3	PCB3	φ500*90

853	MK-020011012061-X	40W	Circuit 3	PCB3	φ500*90
854	MK-020011012062-X	40W	Circuit 3	PCB3	φ500*95
855	MK-020011012063-X	40W	Circuit 3	PCB3	Φ490*80
856	MK-020011012064-X	40W	Circuit 3	PCB3	Φ490*80
857	MK-020011012065-X	40W	Circuit 3	PCB3	Φ490*70
858	MK-020011012066-X	40W	Circuit 3	PCB3	φ500*70
859	MK-020011012067-X	40W	Circuit 3	PCB3	Φ495*68
860	MK-020011012068-X	40W	Circuit 3	PCB3	Φ490*90
861	MK-020011012069-X	40W	Circuit 3	PCB3	Φ485*65
862	MK-020011012070-X	40W	Circuit 3	PCB3	Φ485*65
863	MK-020011012071-X	40W	Circuit 3	PCB3	Φ485*65
864	MK-020011012072-X	40W	Circuit 3	PCB3	Φ500*80
865	MK-020011012073-X	40W	Circuit 3	PCB3	Φ490*65
866	MK-020011012074-X	40W	Circuit 3	PCB3	Φ480*65
867	MK-020011012075-X	40W	Circuit 3	PCB3	Φ490*70
868	MK-020011012076-X	36W	Circuit 3	PCB3	φ490*70
869	MK-020011012077-X	36W	Circuit 3	PCB3	φ490*70
870	MK-020011012078-X	36W	Circuit 3	PCB3	φ490*70
871	MK-020011012079-X	36W	Circuit 3	PCB3	φ490*70
872	MK-020011012114-X	36W	Circuit 3	PCB3	φ490*70
873	MK-020011012115-X	36W	Circuit 3	PCB3	φ500*70
874	MK-020011012116-X	36W	Circuit 3	PCB3	φ500*90
875	MK-020011012117-X	36W	Circuit 3	PCB3	φ510*80
876	MK-020011012126-X	36W	Circuit 3	PCB3	φ485*65
877	MK-020011012127-X	36W	Circuit 3	PCB3	φ500*90
878	MK-020011012128-X	36W	Circuit 3	PCB3	φ510*73
879	MK-020011012129-X	36W	Circuit 3	PCB3	φ500*80
880	MK-020011012134-X	36W	Circuit 3	PCB3	φ565*75
881	MK-020011012135-X	36W	Circuit 3	PCB3	φ500*75
882	MK-020011012136-X	36W	Circuit 3	PCB3	Φ495*125
883	MK-020011012137-X	36W	Circuit 3	PCB3	φ490*73
884	MK-020011012179-X	36W	Circuit 3	PCB3	φ490*80
885	MK-020011012180-X	36W	Circuit 3	PCB3	φ510*75
886	MK-020011012181-X	36W	Circuit 3	PCB3	φ490*85
887	MK-020011012182-X	36W	Circuit 3	PCB3	φ490*70
888	MK-020011012183-X	36W	Circuit 3	PCB3	Φ500*90
889	MK-020011012204-X	36W	Circuit 3	PCB3	Φ485*80
890	MK-020011012205-X	36W	Circuit 3	PCB3	Φ500*80
891	MK-020011012206-X	36W	Circuit 3	PCB3	φ550*90
892	MK-020011012207-X	36W	Circuit 3	PCB3	530*490*100
893	MK-020011012208-X	36W	Circuit 3	PCB3	φ485*75
894	MK-020011012234-X	36W	Circuit 3	PCB3	φ490*80
895	MK-020011012235-X	36W	Circuit 3	PCB3	φ500*90
896	MK-020011012236-X	36W	Circuit 3	PCB3	φ500*95
897	MK-020011012237-X	36W	Circuit 3	PCB3	φ490*73

898	MK-020011012238-X	36W	Circuit 3	PCB3	φ500*95
899	MK-020011012239-X	36W	Circuit 3	PCB3	φ500*95
900	MK-020011012240-X	36W	Circuit 3	PCB3	φ500*95
901	MK-020011012241-X	36W	Circuit 3	PCB3	φ500*90
902	MK-020011012242-X	36W	Circuit 3	PCB3	φ500*73
903	MK-020011012243-X	36W	Circuit 3	PCB3	φ500*73
904	MK-020011012259-X	36W	Circuit 3	PCB3	φ500*100
905	MK-020011012260-X	36W	Circuit 3	PCB3	φ500*73
906	MK-020011012261-X	36W	Circuit 3	PCB3	φ500*95
907	MK-020011012262-X	36W	Circuit 3	PCB3	φ520*80
908	MK-020011012263-X	36W	Circuit 3	PCB3	φ500*90
909	MK-020011012269-X	36W	Circuit 3	PCB3	φ510*70
910	MK-020011012270-X	36W	Circuit 3	PCB3	φ500*73
911	MK-020011012271-X	36W	Circuit 3	PCB3	Φ500*80
912	MK-020011012272-X	36W	Circuit 3	PCB3	φ510*75
913	MK-020011012273-X	36W	Circuit 3	PCB3	φ500*90
914	MK-020011012448-X	36W	Circuit 3	PCB3	φ490*80
915	MK-020011012449-X	36W	Circuit 3	PCB3	430*430*60
916	MK-020011012450-X	36W	Circuit 3	PCB3	480*480*65
917	MK-020011012451-X	36W	Circuit 3	PCB3	φ510*75
918	MK-020011012456-X	36W	Circuit 3	PCB3	φ500*90
919	MK-020011012457-X	36W	Circuit 3	PCB3	φ500*90
920	MK-020011012458-X	36W	Circuit 3	PCB3	φ500*90
921	MK-020011012459-X	36W	Circuit 3	PCB3	φ500*90
922	MK-020011012334-X	36W	Circuit 3	PCB3	φ500*90
923	MK-020011012335-X	36W	Circuit 3	PCB3	φ500*95
924	MK-020011012336-X	36W	Circuit 3	PCB3	Φ490*80
925	MK-020011012337-X	36W	Circuit 3	PCB3	Φ490*80
926	MK-020011012338-X	36W	Circuit 3	PCB3	Φ490*70
927	MK-020011012339-X	36W	Circuit 3	PCB3	φ500*70
928	MK-020011012340-X	36W	Circuit 3	PCB3	Φ495*68
929	MK-020011012341-X	36W	Circuit 3	PCB3	Φ490*90
930	MK-020011012342-X	36W	Circuit 3	PCB3	Φ485*65
931	MK-020011012343-X	36W	Circuit 3	PCB3	Φ485*65
932	MK-020011012344-X	36W	Circuit 3	PCB3	Φ485*65
933	MK-020011012345-X	36W	Circuit 3	PCB3	Φ500*80
934	MK-020011012346-X	36W	Circuit 3	PCB3	Φ490*65
935	MK-020011012347-X	36W	Circuit 3	PCB3	Φ480*65
936	MK-020011012348-X	36W	Circuit 3	PCB3	Φ490*70
937	MK-020011012349-X	40W	Circuit 3	PCB3	φ490*70
938	MK-020011012350-X	40W	Circuit 3	PCB3	φ490*70
939	MK-020011012351-X	40W	Circuit 3	PCB3	φ490*70
940	MK-020011012352-X	40W	Circuit 3	PCB3	φ490*70
941	MK-020011012353-X	40W	Circuit 3	PCB3	φ490*70
942	MK-020011012354-X	40W	Circuit 3	PCB3	φ500*70

943	MK-020011012355-X	40W	Circuit 3	PCB3	φ500*90
944	MK-020011012356-X	40W	Circuit 3	PCB3	φ510*80
945	MK-020011012357-X	40W	Circuit 3	PCB3	φ485*65
946	MK-020011012358-X	40W	Circuit 3	PCB3	φ500*90
947	MK-020011012359-X	40W	Circuit 3	PCB3	φ510*73
948	MK-020011012360-X	40W	Circuit 3	PCB3	φ500*80
949	MK-020011012361-X	40W	Circuit 3	PCB3	φ565*75
950	MK-020011012362-X	40W	Circuit 3	PCB3	φ500*75
951	MK-020011012363-X	40W	Circuit 3	PCB3	Φ495*125
952	MK-020011012364-X	40W	Circuit 3	PCB3	φ490*73
953	MK-020011012365-X	40W	Circuit 3	PCB3	φ490*80
954	MK-020011012400-X	40W	Circuit 3	PCB3	φ510*75
955	MK-020011012401-X	40W	Circuit 3	PCB3	φ490*85
956	MK-020011012402-X	40W	Circuit 3	PCB3	φ490*70
957	MK-020011012403-X	40W	Circuit 3	PCB3	Φ500*90
958	MK-020011012412-X	40W	Circuit 3	PCB3	Φ485*80
959	MK-020011012413-X	40W	Circuit 3	PCB3	Φ500*80
960	MK-020011012414-X	40W	Circuit 3	PCB3	φ550*90
961	MK-020011012415-X	40W	Circuit 3	PCB3	530*490*100
962	MK-020011012420-X	40W	Circuit 3	PCB3	φ485*75
963	MK-020011012421-X	40W	Circuit 3	PCB3	φ490*80
964	MK-020011012422-X	40W	Circuit 3	PCB3	φ500*90
965	MK-020011012423-X	40W	Circuit 3	PCB3	φ500*95
966	MK-020011012150-X	40W	Circuit 3	PCB3	φ490*73
967	MK-020011012151-X	40W	Circuit 3	PCB3	φ500*95
968	MK-020011012152-X	40W	Circuit 3	PCB3	φ500*95
969	MK-020011012153-X	40W	Circuit 3	PCB3	φ500*95
970	MK-020011012154-X	40W	Circuit 3	PCB3	φ500*90
971	MK-020011012155-X	40W	Circuit 3	PCB3	φ500*73
972	MK-020011012156-X	40W	Circuit 3	PCB3	φ500*73
973	MK-020011012157-X	40W	Circuit 3	PCB3	φ500*100
974	MK-020011012158-X	40W	Circuit 3	PCB3	φ500*73
975	MK-020011012159-X	40W	Circuit 3	PCB3	φ500*95
976	MK-020011012160-X	40W	Circuit 3	PCB3	φ520*80
977	MK-020011012161-X	40W	Circuit 3	PCB3	φ500*90
978	MK-020011012162-X	40W	Circuit 3	PCB3	φ510*70
979	MK-020011012163-X	40W	Circuit 3	PCB3	φ500*73
980	MK-020011012164-X	40W	Circuit 3	PCB3	Φ500*80
981	MK-020011012165-X	40W	Circuit 3	PCB3	φ510*75
982	MK-020011012166-X	40W	Circuit 3	PCB3	φ500*90
983	MK-020011012167-X	40W	Circuit 3	PCB3	φ490*80
984	MK-020011012168-X	40W	Circuit 3	PCB3	430*430*60
985	MK-020011012169-X	40W	Circuit 3	PCB3	480*480*65
986	MK-020011012170-X	40W	Circuit 3	PCB3	φ510*75
987	MK-020011012171-X	40W	Circuit 3	PCB3	φ500*90

988	MK-020011012172-X	40W	Circuit 3	PCB3	φ500*90
989	MK-020011012173-X	40W	Circuit 3	PCB3	φ500*90
990	MK-020011014433-X	40W	Circuit 3	PCB3	φ500*90
991	MK-020011014434-X	40W	Circuit 3	PCB3	φ500*90
992	MK-020011014435-X	40W	Circuit 3	PCB3	φ500*95
993	MK-020011014436-X	40W	Circuit 3	PCB3	Φ490*80
994	MK-020011014437-X	40W	Circuit 3	PCB3	Φ490*80
995	MK-020011014438-X	40W	Circuit 3	PCB3	Φ490*70
996	MK-020011014439-X	40W	Circuit 3	PCB3	φ500*70
997	MK-020011014440-X	40W	Circuit 3	PCB3	Φ490*70
998	MK-020011014441-X	40W	Circuit 3	PCB3	Φ490*70
999	MK-020011014442-X	40W	Circuit 3	PCB3	Φ490*70
1000	MK-020011014443-X	40W	Circuit 3	PCB3	Φ490*70
1001	MK-020011014444-X	40W	Circuit 3	PCB3	Φ490*70
1002	MK-020011014445-X	40W	Circuit 3	PCB3	Φ490*70
1003	MK-020011014446-X	40W	Circuit 3	PCB3	Φ490*70
1004	MK-020011014447-X	40W	Circuit 3	PCB3	Φ490*70
1005	MK-020011014448-X	40W	Circuit 3	PCB3	Φ490*70
1006	MK-020011014449-X	36W	Circuit 3	PCB3	380*380*75mm
1007	MK-020011014450-X	36W	Circuit 3	PCB3	380*380*75mm
1008	MK-020011014451-X	36W	Circuit 3	PCB3	370*370*65mm
1009	MK-020011014452-X	36W	Circuit 3	PCB3	370*370*65mm
1010	MK-020011014453-X	36W	Circuit 3	PCB3	380*380*75mm
1011	MK-020011014454-X	36W	Circuit 3	PCB3	380*380*75mm
1012	MK-020011014455-X	36W	Circuit 3	PCB3	370*370*65mm
1013	MK-020011014456-X	36W	Circuit 3	PCB3	370*370*65mm
1014	MK-020011014457-X	48W	Circuit 3	PCB6	φ490*70
1015	MK-020011014458-X	48W	Circuit 3	PCB6	φ490*70
1016	MK-020011014459-X	48W	Circuit 3	PCB6	φ490*70
1017	MK-020011014460-X	48W	Circuit 3	PCB6	φ490*70
1018	MK-020011014461-X	48W	Circuit 3	PCB6	φ490*70
1019	MK-020011014462-X	48W	Circuit 3	PCB6	φ500*70
1020	MK-020011014463-X	48W	Circuit 3	PCB6	φ500*90
1021	MK-020011014464-X	48W	Circuit 3	PCB6	φ510*80
1022	MK-020011014465-X	48W	Circuit 3	PCB6	φ485*65
1023	MK-020011014466-X	48W	Circuit 3	PCB6	φ500*90
1024	MK-020011014467-X	48W	Circuit 3	PCB6	φ510*73
1025	MK-020011014468-X	48W	Circuit 3	PCB6	φ500*80
1026	MK-020011014469-X	48W	Circuit 3	PCB6	φ565*75
1027	MK-020011014470-X	48W	Circuit 3	PCB6	φ500*75
1028	MK-020011014471-X	48W	Circuit 3	PCB6	Φ495*125
1029	MK-020011014472-X	48W	Circuit 3	PCB6	φ490*73
1030	MK-020011014473-X	48W	Circuit 3	PCB6	φ490*80
1031	MK-020011014474-X	48W	Circuit 3	PCB6	φ510*75
1032	MK-020011014475-X	48W	Circuit 3	PCB6	φ490*85

1033	MK-020011014476-X	48W	Circuit 3	PCB6	φ490*70
1034	MK-020011014477-X	48W	Circuit 3	PCB6	Φ500*90
1035	MK-020011014478-X	48W	Circuit 3	PCB6	Φ485*80
1036	MK-020011014479-X	48W	Circuit 3	PCB6	Φ500*80
1037	MK-020011014480-X	48W	Circuit 3	PCB6	φ550*90
1038	MK-020011014481-X	48W	Circuit 3	PCB6	530*490*100
1039	MK-020011014482-X	48W	Circuit 3	PCB6	φ485*75
1040	MK-020011014483-X	48W	Circuit 3	PCB6	φ490*80
1041	MK-020011014484-X	48W	Circuit 3	PCB6	φ500*90
1042	MK-020011014485-X	48W	Circuit 3	PCB6	φ500*95
1043	MK-020011014486-X	48W	Circuit 3	PCB6	φ490*73
1044	MK-020011014487-X	48W	Circuit 3	PCB6	φ500*95
1045	MK-020011014488-X	48W	Circuit 3	PCB6	φ500*95
1046	MK-020011014489-X	48W	Circuit 3	PCB6	φ500*95
1047	MK-020011014490-X	48W	Circuit 3	PCB6	φ500*90
1048	MK-020011014491-X	48W	Circuit 3	PCB6	φ500*73
1049	MK-020011014492-X	48W	Circuit 3	PCB6	φ500*73
1050	MK-020011014493-X	48W	Circuit 3	PCB6	φ500*100
1051	MK-020011014494-X	48W	Circuit 3	PCB6	φ500*73
1052	MK-020011014495-X	48W	Circuit 3	PCB6	φ500*95
1053	MK-020011014496-X	48W	Circuit 3	PCB6	φ520*80
1054	MK-020011014497-X	48W	Circuit 3	PCB6	φ500*90
1055	MK-020011014498-X	48W	Circuit 3	PCB6	φ510*70
1056	MK-020011014499-X	48W	Circuit 3	PCB6	φ500*73
1057	MK-020011014500-X	48W	Circuit 3	PCB6	Φ500*80
1058	MK-020011014501-X	48W	Circuit 3	PCB6	φ510*75
1059	MK-020011014502-X	48W	Circuit 3	PCB6	φ500*90
1060	MK-020011014503-X	48W	Circuit 3	PCB6	φ490*80
1061	MK-020011014504-X	48W	Circuit 3	PCB6	φ510*75
1062	MK-020011014505-X	48W	Circuit 3	PCB6	φ500*90
1063	MK-020011014506-X	48W	Circuit 3	PCB6	φ500*90
1064	MK-020011014507-X	48W	Circuit 3	PCB6	φ500*90
1065	MK-020011014508-X	48W	Circuit 3	PCB6	φ500*90
1066	MK-020011014509-X	48W	Circuit 3	PCB6	φ500*90
1067	MK-020011014510-X	48W	Circuit 3	PCB6	φ500*95
1068	MK-020011014511-X	48W	Circuit 3	PCB6	Φ490*80
1069	MK-020011014512-X	48W	Circuit 3	PCB6	Φ490*80
1070	MK-020011014513-X	48W	Circuit 3	PCB6	Φ490*70
1071	MK-020011014514-X	48W	Circuit 3	PCB6	φ500*70
1072	MK-020011014515-X	48W	Circuit 3	PCB6	Φ495*68
1073	MK-020011014516-X	48W	Circuit 3	PCB6	Φ490*90
1074	MK-020011014517-X	48W	Circuit 3	PCB6	Φ485*65
1075	MK-020011014518-X	48W	Circuit 3	PCB6	Φ485*65
1076	MK-020011014519-X	48W	Circuit 3	PCB6	Φ485*65
1077	MK-020011014520-X	48W	Circuit 3	PCB6	Φ500*80

1078	MK-020011014521-X	48W	Circuit 3	PCB6	Φ490*65
1079	MK-020011014522-X	48W	Circuit 3	PCB6	Φ480*65
1080	MK-020011014523-X	48W	Circuit 3	PCB6	Φ490*70
1081	MK-020011014524-X	48W	Circuit 3	PCB6	480*480*65
1082	MK-020011014525-X	48W	Circuit 3	PCB6	480*480*85
1083	MK-020011014526-X	48W	Circuit 3	PCB6	430*430*60
1084	MK-020011014527-X	48W	Circuit 3	PCB6	430*430*75
1085	MK-020011014528-X	48W	Circuit 3	PCB6	φ490*70
1086	MK-020011014529-X	48W	Circuit 3	PCB6	φ490*70
1087	MK-020011014530-X	48W	Circuit 3	PCB6	φ490*70
1088	MK-020011014531-X	48W	Circuit 3	PCB6	φ490*70
1089	MK-020011014532-X	48W	Circuit 3	PCB6	φ490*70
1090	MK-020011014533-X	48W	Circuit 3	PCB6	φ500*70
1091	MK-020011014534-X	48W	Circuit 3	PCB6	φ500*90
1092	MK-020011014535-X	48W	Circuit 3	PCB6	φ510*80
1093	MK-020011014536-X	48W	Circuit 3	PCB6	φ485*65
1094	MK-020011014537-X	48W	Circuit 3	PCB6	φ500*90
1095	MK-020011014538-X	48W	Circuit 3	PCB6	φ510*73
1096	MK-020011014539-X	48W	Circuit 3	PCB6	φ500*80
1097	MK-020011014540-X	48W	Circuit 3	PCB6	φ565*75
1098	MK-020011014541-X	48W	Circuit 3	PCB6	φ500*75
1099	MK-020011014542-X	48W	Circuit 3	PCB6	Φ495*125
1100	MK-020011014543-X	48W	Circuit 3	PCB6	φ490*73
1101	MK-020011014544-X	48W	Circuit 3	PCB6	φ490*80
1102	MK-020011014545-X	48W	Circuit 3	PCB6	φ510*75
1103	MK-020011014546-X	48W	Circuit 3	PCB6	φ490*85
1104	MK-020011014547-X	48W	Circuit 3	PCB6	φ490*70
1105	MK-020011014548-X	48W	Circuit 3	PCB6	Φ500*90
1106	MK-020011014549-X	48W	Circuit 3	PCB6	Φ485*80
1107	MK-020011014550-X	48W	Circuit 3	PCB6	Φ500*80
1108	MK-020011014551-X	48W	Circuit 3	PCB6	φ550*90
1109	MK-020011014552-X	48W	Circuit 3	PCB6	530*490*100
1110	MK-020011014553-X	48W	Circuit 3	PCB6	φ485*75
1111	MK-020011014554-X	48W	Circuit 3	PCB6	φ490*80
1112	MK-020011014555-X	48W	Circuit 3	PCB6	φ500*90
1113	MK-020011014556-X	48W	Circuit 3	PCB6	φ500*95
1114	MK-020011014557-X	48W	Circuit 3	PCB6	φ490*73
1115	MK-020011014558-X	48W	Circuit 3	PCB6	φ500*95
1116	MK-020011014559-X	48W	Circuit 3	PCB6	φ500*95
1117	MK-020011014560-X	48W	Circuit 3	PCB6	φ500*95
1118	MK-020011014561-X	48W	Circuit 3	PCB6	φ500*90
1119	MK-020011014562-X	48W	Circuit 3	PCB6	φ500*73
1120	MK-020011014563-X	48W	Circuit 3	PCB6	φ500*73
1121	MK-020011014564-X	48W	Circuit 3	PCB6	φ500*100
1122	MK-020011014565-X	48W	Circuit 3	PCB6	φ500*73

1123	MK-020011014566-X	48W	Circuit 3	PCB6	φ500*95
1124	MK-020011014567-X	48W	Circuit 3	PCB6	φ520*80
1125	MK-020011014568-X	48W	Circuit 3	PCB6	φ500*90
1126	MK-020011014569-X	48W	Circuit 3	PCB6	φ510*70
1127	MK-020011014570-X	48W	Circuit 3	PCB6	φ500*73
1128	MK-020011014571-X	48W	Circuit 3	PCB6	Φ500*80
1129	MK-020011014572-X	48W	Circuit 3	PCB6	φ510*75
1130	MK-020011014573-X	48W	Circuit 3	PCB6	φ500*90
1131	MK-020011014574-X	48W	Circuit 3	PCB6	φ490*80
1132	MK-020011014575-X	48W	Circuit 3	PCB6	430*430*60
1133	MK-020011014576-X	48W	Circuit 3	PCB6	φ510*75
1134	MK-020011014577-X	48W	Circuit 3	PCB6	φ500*90
1135	MK-020011014578-X	48W	Circuit 3	PCB6	φ500*90
1136	MK-020011014579-X	48W	Circuit 3	PCB6	φ500*90
1137	MK-020011014580-X	48W	Circuit 3	PCB6	φ500*90
1138	MK-020011014581-X	48W	Circuit 3	PCB6	φ500*90
1139	MK-020011014582-X	48W	Circuit 3	PCB6	φ500*95
1140	MK-020011014583-X	48W	Circuit 3	PCB6	Φ490*80
1141	MK-020011014584-X	48W	Circuit 3	PCB6	Φ490*80
1142	MK-020011014585-X	48W	Circuit 3	PCB6	Φ490*70
1143	MK-020011014586-X	48W	Circuit 3	PCB6	φ500*70
1144	MK-020011014587-X	48W	Circuit 3	PCB6	Φ495*68
1145	MK-020011014588-X	48W	Circuit 3	PCB6	Φ490*90
1146	MK-020011014589-X	48W	Circuit 3	PCB6	Φ485*65
1147	MK-020011014590-X	48W	Circuit 3	PCB6	Φ485*65
1148	MK-020011014591-X	48W	Circuit 3	PCB6	Φ485*65
1149	MK-020011014592-X	48W	Circuit 3	PCB6	Φ500*80
1150	MK-020011014593-X	48W	Circuit 3	PCB6	Φ490*65
1151	MK-020011014594-X	48W	Circuit 3	PCB6	Φ480*65
1152	MK-020011014595-X	48W	Circuit 3	PCB6	Φ490*70
1153	MK-020011014596-X	48W	Circuit 3	PCB6	480*480*65
1154	MK-020011014597-X	48W	Circuit 3	PCB6	480*480*65
1155	MK-020011014598-X	48W	Circuit 3	PCB6	430*430*60
1156	MK-020011014599-X	48W	Circuit 3	PCB6	430*430*75
1157	MK-020011014600-X	60W	Circuit 3	PCB6	φ490*70
1158	MK-020011014601-X	60W	Circuit 3	PCB6	φ490*70
1159	MK-020011014602-X	60W	Circuit 3	PCB6	φ490*70
1160	MK-020011014603-X	60W	Circuit 3	PCB6	φ490*70
1161	MK-020011014604-X	60W	Circuit 3	PCB6	φ490*70
1162	MK-020011014605-X	60W	Circuit 3	PCB6	φ500*70
1163	MK-020011014606-X	60W	Circuit 3	PCB6	φ500*90
1164	MK-020011014607-X	60W	Circuit 3	PCB6	φ510*80
1165	MK-020011014608-X	60W	Circuit 3	PCB6	φ485*65
1166	MK-020011014609-X	60W	Circuit 3	PCB6	φ500*90
1167	MK-020011014610-X	60W	Circuit 3	PCB6	φ510*73

1168	MK-020011014611-X	60W	Circuit 3	PCB6	φ500*80
1169	MK-020011014612-X	60W	Circuit 3	PCB6	φ565*75
1170	MK-020011014613-X	60W	Circuit 3	PCB6	φ500*75
1171	MK-020011014614-X	60W	Circuit 3	PCB6	Φ495*125
1172	MK-020011014615-X	60W	Circuit 3	PCB6	φ490*73
1173	MK-020011014616-X	60W	Circuit 3	PCB6	φ490*80
1174	MK-020011014617-X	60W	Circuit 3	PCB6	φ510*75
1175	MK-020011014618-X	60W	Circuit 3	PCB6	φ490*85
1176	MK-020011014619-X	60W	Circuit 3	PCB6	φ490*70
1177	MK-020011014620-X	60W	Circuit 3	PCB6	Φ500*90
1178	MK-020011014621-X	60W	Circuit 3	PCB6	Φ485*80
1179	**MK-020011014622-X**	**60W**	**Circuit 3**	**PCB6**	**Φ500*80**
1180	MK-020011014623-X	60W	Circuit 3	PCB6	φ550*90
1181	MK-020011014624-X	60W	Circuit 3	PCB6	530*490*100
1182	MK-020011014625-X	60W	Circuit 3	PCB6	φ485*75
1183	MK-020011014626-X	60W	Circuit 3	PCB6	φ490*80
1184	MK-020011014627-X	60W	Circuit 3	PCB6	φ500*90
1185	MK-020011014628-X	60W	Circuit 3	PCB6	φ500*95
1186	MK-020011014629-X	60W	Circuit 3	PCB6	φ490*73
1187	MK-020011014630-X	60W	Circuit 3	PCB6	φ500*95
1188	MK-020011014631-X	60W	Circuit 3	PCB6	φ500*95
1189	MK-020011014632-X	60W	Circuit 3	PCB6	φ500*95
1190	MK-020011014633-X	60W	Circuit 3	PCB6	φ500*90
1191	MK-020011014634-X	60W	Circuit 3	PCB6	φ500*73
1192	MK-020011014635-X	60W	Circuit 3	PCB6	φ500*73
1193	MK-020011014636-X	60W	Circuit 3	PCB6	φ500*100
1194	MK-020011014637-X	60W	Circuit 3	PCB6	φ500*73
1195	MK-020011014638-X	60W	Circuit 3	PCB6	φ500*95
1196	MK-020011014639-X	60W	Circuit 3	PCB6	φ520*80
1197	MK-020011014640-X	60W	Circuit 3	PCB6	φ500*90
1198	MK-020011014641-X	60W	Circuit 3	PCB6	φ510*70
1199	MK-020011014642-X	60W	Circuit 3	PCB6	φ500*73
1200	MK-020011014643-X	60W	Circuit 3	PCB6	Φ500*80
1201	MK-020011014644-X	60W	Circuit 3	PCB6	φ510*75
1202	MK-020011014645-X	60W	Circuit 3	PCB6	φ500*90
1203	MK-020011014646-X	60W	Circuit 3	PCB6	φ490*80
1204	MK-020011014647-X	60W	Circuit 3	PCB6	Φ495*68
1205	MK-020011014648-X	60W	Circuit 3	PCB6	Φ490*90
1206	MK-020011014649-X	60W	Circuit 3	PCB6	Φ485*65
1207	MK-020011014650-X	60W	Circuit 3	PCB6	Φ485*65
1208	MK-020011014651-X	60W	Circuit 3	PCB6	Φ485*65
1209	MK-020011014652-X	60W	Circuit 3	PCB6	Φ500*80
1210	MK-020011014653-X	60W	Circuit 3	PCB6	Φ490*65
1211	MK-020011014654-X	60W	Circuit 3	PCB6	Φ480*65
1212	MK-020011014655-X	60W	Circuit 3	PCB6	Φ490*70

1213	MK-020011014656-X	60W	Circuit 3	PCB6	φ490*70
1214	MK-020011014657-X	60W	Circuit 3	PCB6	φ490*70
1215	MK-020011014658-X	60W	Circuit 3	PCB6	φ490*70
1216	MK-020011014659-X	60W	Circuit 3	PCB6	φ490*70
1217	MK-020011014660-X	60W	Circuit 3	PCB6	φ490*70
1218	MK-020011014661-X	60W	Circuit 3	PCB6	φ500*70
1219	MK-020011014662-X	60W	Circuit 3	PCB6	φ500*90
1220	MK-020011014663-X	60W	Circuit 3	PCB6	φ510*80
1221	MK-020011014664-X	60W	Circuit 3	PCB6	φ485*65
1222	MK-020011014665-X	60W	Circuit 3	PCB6	φ500*90
1223	MK-020011014666-X	60W	Circuit 3	PCB6	φ510*73
1224	MK-020011014667-X	60W	Circuit 3	PCB6	φ500*80
1225	MK-020011014668-X	60W	Circuit 3	PCB6	φ565*75
1226	MK-020011014669-X	60W	Circuit 3	PCB6	φ500*75
1227	MK-020011014670-X	60W	Circuit 3	PCB6	Φ495*125
1228	MK-020011014671-X	60W	Circuit 3	PCB6	φ490*73
1229	MK-020011014672-X	60W	Circuit 3	PCB6	φ490*80
1230	MK-020011014673-X	60W	Circuit 3	PCB6	φ510*75
1231	MK-020011014674-X	60W	Circuit 3	PCB6	φ490*85
1232	MK-020011014675-X	60W	Circuit 3	PCB6	φ490*70
1233	MK-020011014676-X	60W	Circuit 3	PCB6	Φ500*90
1234	MK-020011014677-X	60W	Circuit 3	PCB6	Φ485*80
1235	MK-020011014678-X	60W	Circuit 3	PCB6	Φ500*80
1236	MK-020011014679-X	60W	Circuit 3	PCB6	φ550*90
1237	MK-020011014680-X	60W	Circuit 3	PCB6	530*490*100
1238	MK-020011014681-X	60W	Circuit 3	PCB6	φ485*75
1239	MK-020011014682-X	60W	Circuit 3	PCB6	φ490*80
1240	MK-020011014683-X	60W	Circuit 3	PCB6	φ500*90
1241	MK-020011014684-X	60W	Circuit 3	PCB6	φ500*95
1242	MK-020011014685-X	60W	Circuit 3	PCB6	φ490*73
1243	MK-020011014686-X	60W	Circuit 3	PCB6	φ500*95
1244	MK-020011014687-X	60W	Circuit 3	PCB6	φ500*95
1245	MK-020011014688-X	60W	Circuit 3	PCB6	φ500*95
1246	MK-020011014689-X	60W	Circuit 3	PCB6	φ500*90
1247	MK-020011014690-X	60W	Circuit 3	PCB6	φ500*73
1248	MK-020011014691-X	60W	Circuit 3	PCB6	φ500*73
1249	MK-020011014692-X	60W	Circuit 3	PCB6	φ500*100
1250	MK-020011014693-X	60W	Circuit 3	PCB6	φ500*73
1251	MK-020011014694-X	60W	Circuit 3	PCB6	φ500*95
1252	MK-020011014695-X	60W	Circuit 3	PCB6	φ520*80
1253	MK-020011014696-X	60W	Circuit 3	PCB6	φ500*90
1254	MK-020011014697-X	60W	Circuit 3	PCB6	φ510*70
1255	MK-020011014698-X	60W	Circuit 3	PCB6	φ500*73
1256	MK-020011014699-X	60W	Circuit 3	PCB6	Φ500*80
1257	MK-020011014700-X	60W	Circuit 3	PCB6	φ510*75

1258	MK-020011014701-X	60W	Circuit 3	PCB6	φ500*90
1259	MK-020011014702-X	60W	Circuit 3	PCB6	φ490*80
1260	MK-020011014703-X	60W	Circuit 3	PCB6	Φ495*68
1261	MK-020011014704-X	60W	Circuit 3	PCB6	Φ490*90
1262	MK-020011014705-X	60W	Circuit 3	PCB6	Φ485*65
1263	MK-020011014706-X	60W	Circuit 3	PCB6	Φ485*65
1264	MK-020011014707-X	60W	Circuit 3	PCB6	Φ485*65
1265	MK-020011014708-X	60W	Circuit 3	PCB6	Φ500*80
1266	MK-020011014709-X	60W	Circuit 3	PCB6	Φ490*65
1267	MK-020011014710-X	60W	Circuit 3	PCB6	Φ480*65
1268	MK-020011014711-X	60W	Circuit 3	PCB6	Φ490*70
1269	MK-020011014712-X	60W	Circuit 3	PCB6	430*430*60
1270	MK-020011014713-X	60W	Circuit 3	PCB6	430*430*75
1271	MK-020011014714-X	60W	Circuit 3	PCB6	430*430*60
1272	MK-020011014715-X	60W	Circuit 3	PCB6	430*430*75
1273	MK-020011014716-X	60W	Circuit 3	PCB6	480*480*65
1274	MK-020011014717-X	60W	Circuit 3	PCB6	480*480*85
1275	MK-020011014718-X	60W	Circuit 3	PCB6	480*480*65
1276	MK-020011014719-X	60W	Circuit 3	PCB6	480*480*65
1277	MK-020011014720-X	60W	Circuit 3	PCB6	φ490*70
1278	MK-020011014721-X	60W	Circuit 3	PCB6	φ490*70
1279	MK-020011014722-X	60W	Circuit 3	PCB6	φ490*70
1280	MK-020011014723-X	60W	Circuit 3	PCB6	φ490*70
1281	MK-020011014724-X	60W	Circuit 3	PCB6	φ490*70
1282	MK-020011014725-X	60W	Circuit 3	PCB6	φ500*70
1283	MK-020011014726-X	60W	Circuit 3	PCB6	φ500*90
1284	MK-020011014727-X	60W	Circuit 3	PCB6	φ510*80
1285	MK-020011014728-X	60W	Circuit 3	PCB6	φ485*65
1286	MK-020011014729-X	60W	Circuit 3	PCB6	φ500*90
1287	MK-020011014730-X	60W	Circuit 3	PCB6	φ510*73
1288	MK-020011014731-X	60W	Circuit 3	PCB6	φ500*80
1289	MK-020011014732-X	60W	Circuit 3	PCB6	φ565*75
1290	MK-020011014733-X	60W	Circuit 3	PCB6	φ500*75
1291	MK-020011014734-X	60W	Circuit 3	PCB6	Φ495*125
1292	MK-020011014735-X	60W	Circuit 3	PCB6	φ490*73
1293	MK-020011014736-X	60W	Circuit 3	PCB6	φ490*80
1294	MK-020011014737-X	60W	Circuit 3	PCB6	φ510*75
1295	MK-020011014738-X	60W	Circuit 3	PCB6	φ490*85
1296	MK-020011014739-X	60W	Circuit 3	PCB6	φ490*70
1297	MK-020011014740-X	60W	Circuit 3	PCB6	Φ500*90
1298	MK-020011014741-X	60W	Circuit 3	PCB6	Φ485*80
1299	MK-020011014742-X	60W	Circuit 3	PCB6	Φ500*80
1300	MK-020011014743-X	60W	Circuit 3	PCB6	φ550*90
1301	MK-020011014744-X	60W	Circuit 3	PCB6	530*490*100
1302	MK-020011014745-X	60W	Circuit 3	PCB6	φ485*75

1303	MK-020011014746-X	60W	Circuit 3	PCB6	φ490*80
1304	MK-020011014747-X	60W	Circuit 3	PCB6	φ500*90
1305	MK-020011014748-X	60W	Circuit 3	PCB6	φ500*95
1306	MK-020011014749-X	60W	Circuit 3	PCB6	φ490*73
1307	MK-020011014750-X	60W	Circuit 3	PCB6	φ500*95
1308	MK-020011014751-X	60W	Circuit 3	PCB6	φ500*95
1309	MK-020011014752-X	60W	Circuit 3	PCB6	φ500*95
1310	MK-020011014753-X	60W	Circuit 3	PCB6	φ500*90
1311	MK-020011014754-X	60W	Circuit 3	PCB6	φ500*73
1312	MK-020011014755-X	60W	Circuit 3	PCB6	φ500*73
1313	MK-020011014756-X	60W	Circuit 3	PCB6	φ500*100
1314	MK-020011014757-X	60W	Circuit 3	PCB6	φ500*73
1315	MK-020011014758-X	60W	Circuit 3	PCB6	φ500*95
1316	MK-020011014759-X	60W	Circuit 3	PCB6	φ520*80
1317	MK-020011014760-X	60W	Circuit 3	PCB6	φ500*90
1318	MK-020011014761-X	60W	Circuit 3	PCB6	φ510*70
1319	MK-020011014762-X	60W	Circuit 3	PCB6	φ500*73
1320	MK-020011014763-X	60W	Circuit 3	PCB6	Φ500*80
1321	MK-020011014764-X	60W	Circuit 3	PCB6	φ510*75
1322	MK-020011014765-X	60W	Circuit 3	PCB6	φ500*90
1323	MK-020011014766-X	60W	Circuit 3	PCB6	φ490*80
1324	MK-020011014767-X	60W	Circuit 3	PCB6	430*430*60
1325	MK-020011014768-X	60W	Circuit 3	PCB6	480*480*65
1326	MK-020011014769-X	60W	Circuit 3	PCB6	φ510*75
1327	MK-020011014770-X	60W	Circuit 3	PCB6	φ500*90
1328	MK-020011014771-X	60W	Circuit 3	PCB6	φ500*90
1329	MK-020011014772-X	60W	Circuit 3	PCB6	φ500*90
1330	MK-020011014773-X	60W	Circuit 3	PCB6	φ500*90
1331	MK-020011014774-X	60W	Circuit 3	PCB6	φ500*90
1332	MK-020011014775-X	60W	Circuit 3	PCB6	φ500*95
1333	MK-020011014776-X	60W	Circuit 3	PCB6	Φ490*80
1334	MK-020011014777-X	60W	Circuit 3	PCB6	Φ490*80
1335	MK-020011014778-X	60W	Circuit 3	PCB6	Φ490*70
1336	MK-020011014779-X	60W	Circuit 3	PCB6	φ500*70
1337	MK-020011014780-X	60W	Circuit 3	PCB6	Φ495*68
1338	MK-020011014781-X	60W	Circuit 3	PCB6	Φ490*90
1339	MK-020011014782-X	60W	Circuit 3	PCB6	Φ485*65
1340	MK-020011014783-X	60W	Circuit 3	PCB6	Φ485*65
1341	MK-020011014784-X	60W	Circuit 3	PCB6	Φ485*65
1342	MK-020011014785-X	60W	Circuit 3	PCB6	Φ500*80
1343	MK-020011014786-X	60W	Circuit 3	PCB6	Φ490*65
1344	MK-020011014787-X	60W	Circuit 3	PCB6	Φ480*65
1345	MK-020011014788-X	60W	Circuit 3	PCB6	Φ490*70
1346	MK-020011014789-X	12W	Circuit 4	PCB7	φ280*65
1347	MK-020011014790-X	12W	Circuit 4	PCB7	φ290*65

1348	MK-020011014791-X	12W	Circuit 4	PCB7	φ265*65
1349	MK-020011014792-X	12W	Circuit 4	PCB7	φ285*70
1350	MK-020011014793-X	12W	Circuit 4	PCB7	φ260*55
1351	MK-020011014794-X	12W	Circuit 4	PCB7	φ345*60
1352	MK-020011014795-X	12W	Circuit 4	PCB7	φ260*60
1353	MK-020011014796-X	12W	Circuit 4	PCB7	φ260*65
1354	MK-020011014797-X	12W	Circuit 4	PCB7	φ270*70
1355	MK-020011014798-X	12W	Circuit 4	PCB7	Φ260*65
1356	**MK-020011014799-X**	**12W**	**Circuit 4**	**PCB7**	**Φ260*55**
1357	MK-020011014800-X	12W	Circuit 4	PCB7	φ330*70
1358	MK-020011014801-X	12W	Circuit 4	PCB7	φ260*65
1359	MK-020011014802-X	12W	Circuit 4	PCB7	φ270*70
1360	MK-020011014803-X	12W	Circuit 4	PCB7	Φ260*55
1361	MK-020011014804-X	12W	Circuit 4	PCB7	φ280*60
1362	MK-020011014805-X	12W	Circuit 4	PCB7	φ260*65
1363	MK-020011014806-X	12W	Circuit 4	PCB7	φ270*70
1364	MK-020011014807-X	12W	Circuit 4	PCB7	φ270*70
1365	MK-020011014808-X	12W	Circuit 4	PCB7	φ270*70
1366	MK-020011014809-X	12W	Circuit 4	PCB7	φ270*70
1367	MK-020011014810-X	12W	Circuit 4	PCB7	φ270*70
1368	MK-020011014811-X	12W	Circuit 4	PCB7	φ260*55
1369	MK-020011014812-X	12W	Circuit 4	PCB7	φ260*55
1370	MK-020011014813-X	12W	Circuit 4	PCB7	φ260*45
1371	MK-020011014814-X	12W	Circuit 4	PCB7	Φ265*55
1372	MK-020011014815-X	12W	Circuit 4	PCB7	Φ265*55
1373	MK-020011014816-X	12W	Circuit 4	PCB7	Φ265*55
1374	MK-020011014817-X	12W	Circuit 4	PCB7	φ280*65
1375	MK-020011014818-X	12W	Circuit 4	PCB7	φ290*65
1376	MK-020011014819-X	12W	Circuit 4	PCB7	φ265*65
1377	MK-020011014820-X	12W	Circuit 4	PCB7	φ285*70
1378	MK-020011014821-X	12W	Circuit 4	PCB7	φ260*55
1379	MK-020011014822-X	12W	Circuit 4	PCB7	φ345*60
1380	MK-020011014823-X	12W	Circuit 4	PCB7	φ260*60
1381	MK-020011014824-X	12W	Circuit 4	PCB7	φ260*65
1382	MK-020011014825-X	12W	Circuit 4	PCB7	φ270*70
1383	MK-020011014826-X	12W	Circuit 4	PCB7	Φ260*65
1384	MK-020011014827-X	12W	Circuit 4	PCB7	Φ260*55
1385	MK-020011014828-X	12W	Circuit 4	PCB7	φ330*70
1386	MK-020011014829-X	12W	Circuit 4	PCB7	φ260*65
1387	MK-020011014830-X	12W	Circuit 4	PCB7	φ270*70
1388	MK-020011014831-X	12W	Circuit 4	PCB7	Φ260*55
1389	MK-020011014832-X	12W	Circuit 4	PCB7	φ280*60
1390	MK-020011014833-X	12W	Circuit 4	PCB7	φ260*65
1391	MK-020011014834-X	12W	Circuit 4	PCB7	φ270*70
1392	MK-020011014835-X	12W	Circuit 4	PCB7	φ270*70

1393	MK-020011014836-X	12W	Circuit 4	PCB7	φ270*70
1394	MK-020011014837-X	12W	Circuit 4	PCB7	φ270*70
1395	MK-020011014838-X	12W	Circuit 4	PCB7	φ270*70
1396	MK-020011014839-X	12W	Circuit 4	PCB7	φ260*55
1397	MK-020011014840-X	12W	Circuit 4	PCB7	φ260*55
1398	MK-020011014841-X	12W	Circuit 4	PCB7	φ260*45
1399	MK-020011014842-X	12W	Circuit 4	PCB7	Φ265*55
1400	MK-020011014843-X	12W	Circuit 4	PCB7	Φ265*55
1401	MK-020011014844-X	12W	Circuit 4	PCB7	Φ265*55
1402	MK-020011014845-X	12W	Circuit 4	PCB7	211*211*55mm
1403	MK-020011014846-X	12W	Circuit 4	PCB7	211*211*55mm
1404	MK-020011014847-X	12W	Circuit 4	PCB7	211*211*55mm
1405	MK-020011014848-X	12W	Circuit 4	PCB7	211*211*55mm
1406	MK-020011014849-X	18W	Circuit 4	PCB4	φ320*65
1407	MK-020011014850-X	18W	Circuit 4	PCB4	φ320*65
1408	MK-020011014851-X	18W	Circuit 4	PCB4	φ320*65
1409	MK-020011014852-X	18W	Circuit 4	PCB4	φ320*65
1410	MK-020011014853-X	18W	Circuit 4	PCB4	φ320*65
1411	MK-020011014854-X	18W	Circuit 4	PCB4	φ330*65
1412	MK-020011014855-X	18W	Circuit 4	PCB4	φ340*65
1413	MK-020011014856-X	18W	Circuit 4	PCB4	φ315*65
1414	MK-020011014857-X	18W	Circuit 4	PCB4	φ325*75
1415	MK-020011014858-X	18W	Circuit 4	PCB4	φ310*55
1416	MK-020011014859-X	18W	Circuit 4	PCB4	φ395*65
1417	MK-020011014860-X	18W	Circuit 4	PCB4	φ310*65
1418	MK-020011014861-X	18W	Circuit 4	PCB4	φ310*70
1419	MK-020011014862-X	18W	Circuit 4	PCB4	φ320*65
1420	MK-020011014863-X	18W	Circuit 4	PCB4	Φ310*65
1421	MK-020011014864-X	18W	Circuit 4	PCB4	Φ310*55
1422	MK-020011014865-X	18W	Circuit 4	PCB4	φ380*70
1423	MK-020011014866-X	18W	Circuit 4	PCB4	370*340*90
1424	MK-020011014867-X	18W	Circuit 4	PCB4	φ310*65
1425	MK-020011014868-X	18W	Circuit 4	PCB4	Φ310*55
1426	MK-020011014869-X	18W	Circuit 4	PCB4	φ310*65
1427	MK-020011014870-X	18W	Circuit 4	PCB4	φ310*70
1428	MK-020011014871-X	18W	Circuit 4	PCB4	φ310*45
1429	MK-020011014872-X	18W	Circuit 4	PCB4	φ320*65
1430	MK-020011014873-X	18W	Circuit 4	PCB4	φ320*65
1431	MK-020011014874-X	18W	Circuit 4	PCB4	φ320*65
1432	MK-020011014875-X	18W	Circuit 4	PCB4	φ320*65
1433	MK-020011014876-X	18W	Circuit 4	PCB4	φ320*65
1434	MK-020011014877-X	18W	Circuit 4	PCB4	φ330*65
1435	MK-020011014878-X	18W	Circuit 4	PCB4	φ340*65
1436	MK-020011014879-X	18W	Circuit 4	PCB4	φ315*65
1437	MK-020011014880-X	18W	Circuit 4	PCB4	φ325*75

1438	MK-020011014881-X	18W	Circuit 4	PCB4	φ310*55
1439	MK-020011014882-X	18W	Circuit 4	PCB4	φ395*65
1440	MK-020011014883-X	18W	Circuit 4	PCB4	φ310*65
1441	MK-020011014884-X	18W	Circuit 4	PCB4	φ310*70
1442	MK-020011014885-X	18W	Circuit 4	PCB4	φ320*65
1443	MK-020011014886-X	18W	Circuit 4	PCB4	Φ310*65
1444	MK-020011014887-X	18W	Circuit 4	PCB4	Φ310*55
1445	MK-020011014888-X	18W	Circuit 4	PCB4	φ380*70
1446	MK-020011014889-X	18W	Circuit 4	PCB4	370*340*90
1447	MK-020011014890-X	18W	Circuit 4	PCB4	φ310*65
1448	MK-020011014891-X	18W	Circuit 4	PCB4	Φ310*55
1449	MK-020011014892-X	18W	Circuit 4	PCB4	φ310*65
1450	MK-020011014893-X	18W	Circuit 4	PCB4	φ310*70
1451	MK-020011014894-X	18W	Circuit 4	PCB4	φ310*45
1452	MK-020011014895-X	18W	Circuit 4	PCB4	270*270*55mm
1453	MK-020011014896-X	18W	Circuit 4	PCB4	270*270*55mm
1454	MK-020011014897-X	18W	Circuit 4	PCB4	280*280*65mm
1455	MK-020011014898-X	18W	Circuit 4	PCB4	280*280*65mm
1456	MK-020011014899-X	18W	Circuit 4	PCB4	270*270*55mm
1457	MK-020011014900-X	18W	Circuit 4	PCB4	270*270*55mm
1458	MK-020011014901-X	18W	Circuit 4	PCB4	280*280*65mm
1459	MK-020011014902-X	18W	Circuit 4	PCB4	280*280*65mm
1460	MK-020011014903-X	18W	Circuit 4	PCB4	φ340*65
1461	MK-020011014904-X	18W	Circuit 4	PCB4	φ340*65
1462	MK-020011014905-X	18W	Circuit 4	PCB4	φ340*65
1463	MK-020011014906-X	18W	Circuit 4	PCB4	φ340*65
1464	MK-020011014907-X	18W	Circuit 4	PCB4	φ340*65
1465	MK-020011014908-X	18W	Circuit 4	PCB4	φ350*70
1466	MK-020011014909-X	18W	Circuit 4	PCB4	φ360*70
1467	MK-020011014910-X	18W	Circuit 4	PCB4	φ335*65
1468	MK-020011014911-X	18W	Circuit 4	PCB4	φ345*75
1469	MK-020011014912-X	18W	Circuit 4	PCB4	φ330*55
1470	MK-020011014913-X	18W	Circuit 4	PCB4	φ415*70
1471	MK-020011014914-X	18W	Circuit 4	PCB4	φ330*65
1472	MK-020011014915-X	18W	Circuit 4	PCB4	φ330*70
1473	MK-020011014916-X	18W	Circuit 4	PCB4	φ340*65
1474	MK-020011014917-X	18W	Circuit 4	PCB4	Φ330*70
1475	MK-020011014918-X	18W	Circuit 4	PCB4	Φ330*55
1476	MK-020011014919-X	18W	Circuit 4	PCB4	φ400*80
1477	MK-020011014920-X	18W	Circuit 4	PCB4	370*340*90
1478	MK-020011014921-X	18W	Circuit 4	PCB4	φ330*70
1479	MK-020011014922-X	18W	Circuit 4	PCB4	Φ330*55
1480	MK-020011014923-X	18W	Circuit 4	PCB4	φ330*65
1481	MK-020011014924-X	18W	Circuit 4	PCB4	φ393*75
1482	MK-020011014925-X	18W	Circuit 4	PCB4	φ330*70

1483	MK-020011014926-X	18W	Circuit 4	PCB4	φ330*45
1484	MK-020011014927-X	18W	Circuit 4	PCB4	Φ335*55
1485	MK-020011014928-X	18W	Circuit 4	PCB4	Φ335*55
1486	MK-020011014929-X	18W	Circuit 4	PCB4	Φ335*55
1487	MK-020011014930-X	18W	Circuit 4	PCB4	φ340*65
1488	MK-020011014931-X	18W	Circuit 4	PCB4	φ340*65
1489	MK-020011014932-X	18W	Circuit 4	PCB4	φ340*65
1490	MK-020011014933-X	18W	Circuit 4	PCB4	φ340*65
1491	MK-020011014934-X	18W	Circuit 4	PCB4	φ340*65
1492	MK-020011014935-X	18W	Circuit 4	PCB4	φ350*70
1493	MK-020011014936-X	18W	Circuit 4	PCB4	φ360*70
1494	MK-020011014937-X	18W	Circuit 4	PCB4	φ335*65
1495	MK-020011014938-X	18W	Circuit 4	PCB4	φ345*75
1496	MK-020011014939-X	18W	Circuit 4	PCB4	φ330*55
1497	MK-020011014940-X	18W	Circuit 4	PCB4	φ415*70
1498	MK-020011014941-X	18W	Circuit 4	PCB4	φ330*65
1499	MK-020011014942-X	18W	Circuit 4	PCB4	φ330*70
1500	MK-020011014943-X	18W	Circuit 4	PCB4	φ340*65
1501	MK-020011014944-X	18W	Circuit 4	PCB4	Φ330*70
1502	MK-020011014945-X	18W	Circuit 4	PCB4	Φ330*55
1503	MK-020011014946-X	18W	Circuit 4	PCB4	φ400*80
1504	MK-020011014947-X	18W	Circuit 4	PCB4	370*340*90
1505	MK-020011014948-X	18W	Circuit 4	PCB4	φ330*70
1506	MK-020011014949-X	18W	Circuit 4	PCB4	Φ330*55
1507	MK-020011014950-X	18W	Circuit 4	PCB4	φ330*65
1508	MK-020011014951-X	18W	Circuit 4	PCB4	φ393*75
1509	MK-020011014952-X	18W	Circuit 4	PCB4	φ330*70
1510	MK-020011014953-X	18W	Circuit 4	PCB4	φ330*45
1511	MK-020011014954-X	18W	Circuit 4	PCB4	Φ335*55
1512	MK-020011014955-X	18W	Circuit 4	PCB4	Φ335*55
1513	MK-020011014956-X	18W	Circuit 4	PCB4	Φ335*55
1514	MK-020011014957-X	20W	Circuit 4	PCB4	φ340*65
1515	MK-020011014958-X	20W	Circuit 4	PCB4	φ340*65
1516	MK-020011014959-X	20W	Circuit 4	PCB4	φ340*65
1517	MK-020011014960-X	20W	Circuit 4	PCB4	φ340*65
1518	MK-020011014961-X	20W	Circuit 4	PCB4	φ340*65
1519	MK-020011014962-X	20W	Circuit 4	PCB4	φ350*70
1520	MK-020011014963-X	20W	Circuit 4	PCB4	φ360*70
1521	MK-020011014964-X	20W	Circuit 4	PCB4	φ335*65
1522	MK-020011014965-X	20W	Circuit 4	PCB4	φ345*75
1523	MK-020011014966-X	20W	Circuit 4	PCB4	φ330*55
1524	MK-020011014967-X	20W	Circuit 4	PCB4	φ415*70
1525	MK-020011014968-X	20W	Circuit 4	PCB4	φ330*65
1526	MK-020011014969-X	20W	Circuit 4	PCB4	φ330*70
1527	MK-020011014970-X	20W	Circuit 4	PCB4	φ340*65

1528	MK-020011014971-X	20W	Circuit 4	PCB4	Φ330*70
1529	MK-020011014972-X	20W	Circuit 4	PCB4	Φ330*55
1530	MK-020011014973-X	20W	Circuit 4	PCB4	φ400*80
1531	MK-020011014974-X	20W	Circuit 4	PCB4	370*340*90
1532	MK-020011014975-X	20W	Circuit 4	PCB4	φ330*70
1533	MK-020011014976-X	20W	Circuit 4	PCB4	Φ330*55
1534	MK-020011014977-X	20W	Circuit 4	PCB4	φ330*65
1535	MK-020011014978-X	20W	Circuit 4	PCB4	φ330*70
1536	MK-020011014979-X	20W	Circuit 4	PCB4	φ330*45
1537	MK-020011014980-X	20W	Circuit 4	PCB4	Φ335*55
1538	MK-020011014981-X	20W	Circuit 4	PCB4	Φ335*55
1539	MK-020011014982-X	20W	Circuit 4	PCB4	Φ335*55
1540	MK-020011014983-X	20W	Circuit 4	PCB4	φ340*65
1541	MK-020011014984-X	20W	Circuit 4	PCB4	φ340*65
1542	MK-020011014985-X	20W	Circuit 4	PCB4	φ340*65
1543	MK-020011014986-X	20W	Circuit 4	PCB4	φ340*65
1544	MK-020011014987-X	20W	Circuit 4	PCB4	φ340*65
1545	MK-020011014988-X	20W	Circuit 4	PCB4	φ350*70
1546	MK-020011014989-X	20W	Circuit 4	PCB4	φ360*70
1547	MK-020011014990-X	20W	Circuit 4	PCB4	φ335*65
1548	MK-020011014991-X	20W	Circuit 4	PCB4	φ345*75
1549	MK-020011014992-X	20W	Circuit 4	PCB4	φ330*55
1550	MK-020011014993-X	20W	Circuit 4	PCB4	φ415*70
1551	MK-020011014994-X	20W	Circuit 4	PCB4	φ330*65
1552	MK-020011014995-X	20W	Circuit 4	PCB4	φ330*70
1553	MK-020011014996-X	20W	Circuit 4	PCB4	φ340*65
1554	MK-020011014997-X	20W	Circuit 4	PCB4	Φ330*70
1555	MK-020011014998-X	20W	Circuit 4	PCB4	Φ330*55
1556	MK-020011014999-X	20W	Circuit 4	PCB4	φ400*80
1557	MK-020011015000-X	20W	Circuit 4	PCB4	370*340*90
1558	MK-020011015001-X	20W	Circuit 4	PCB4	φ330*70
1559	MK-020011015002-X	20W	Circuit 4	PCB4	Φ330*55
1560	MK-020011015003-X	20W	Circuit 4	PCB4	φ330*65
1561	MK-020011015004-X	20W	Circuit 4	PCB4	φ330*70
1562	MK-020011015005-X	20W	Circuit 4	PCB4	φ330*45
1563	MK-020011015006-X	20W	Circuit 4	PCB4	Φ335*55
1564	MK-020011015007-X	20W	Circuit 4	PCB4	Φ335*55
1565	MK-020011015008-X	20W	Circuit 4	PCB4	Φ335*55
1566	MK-020011015009-X	24W	Circuit 4	PCB4	φ360*65
1567	**MK-020011015010-X**	**24W**	**Circuit 4**	**PCB4**	**φ360*65**
1568	MK-020011015011-X	24W	Circuit 4	PCB4	φ360*65
1569	MK-020011015012-X	24W	Circuit 4	PCB4	φ360*65
1570	MK-020011015013-X	24W	Circuit 4	PCB4	φ360*65
1571	MK-020011015014-X	24W	Circuit 4	PCB4	φ370*70
1572	MK-020011015015-X	24W	Circuit 4	PCB4	φ380*75

1573	MK-020011015016-X	24W	Circuit 4	PCB4	φ355*65
1574	MK-020011015017-X	24W	Circuit 4	PCB4	φ365*80
1575	MK-020011015018-X	24W	Circuit 4	PCB4	φ350*55
1576	MK-020011015019-X	24W	Circuit 4	PCB4	φ435*70
1577	MK-020011015020-X	24W	Circuit 4	PCB4	φ350*70
1578	MK-020011015021-X	24W	Circuit 4	PCB4	φ350*70
1579	MK-020011015022-X	24W	Circuit 4	PCB4	φ360*65
1580	MK-020011015023-X	24W	Circuit 4	PCB4	Φ350*70
1581	MK-020011015024-X	24W	Circuit 4	PCB4	Φ350*55
1582	MK-020011015025-X	24W	Circuit 4	PCB4	φ420*80
1583	MK-020011015026-X	24W	Circuit 4	PCB4	φ350*70
1584	MK-020011015027-X	24W	Circuit 4	PCB4	Φ350*55
1585	MK-020011015028-X	24W	Circuit 4	PCB4	φ355*65
1586	MK-020011015029-X	24W	Circuit 4	PCB4	φ350*75
1587	MK-020011015030-X	24W	Circuit 4	PCB4	φ345*75
1588	MK-020011015031-X	24W	Circuit 4	PCB4	φ350*45
1589	MK-020011015032-X	24W	Circuit 4	PCB4	φ360*65
1590	MK-020011015033-X	24W	Circuit 4	PCB4	φ360*65
1591	MK-020011015034-X	24W	Circuit 4	PCB4	φ360*65
1592	MK-020011015035-X	24W	Circuit 4	PCB4	φ360*65
1593	MK-020011015036-X	24W	Circuit 4	PCB4	φ360*65
1594	MK-020011015037-X	24W	Circuit 4	PCB4	φ370*70
1595	MK-020011015038-X	24W	Circuit 4	PCB4	φ380*75
1596	MK-020011015039-X	24W	Circuit 4	PCB4	φ355*65
1597	MK-020011015040-X	24W	Circuit 4	PCB4	φ365*80
1598	MK-020011015041-X	24W	Circuit 4	PCB4	φ350*55
1599	MK-020011015042-X	24W	Circuit 4	PCB4	φ435*70
1600	MK-020011015043-X	24W	Circuit 4	PCB4	φ350*70
1601	MK-020011015044-X	24W	Circuit 4	PCB4	φ350*70
1602	MK-020011015045-X	24W	Circuit 4	PCB4	φ360*65
1603	MK-020011015046-X	24W	Circuit 4	PCB4	Φ350*70
1604	MK-020011015047-X	24W	Circuit 4	PCB4	Φ350*55
1605	MK-020011015048-X	24W	Circuit 4	PCB4	φ420*80
1606	MK-020011015049-X	24W	Circuit 4	PCB4	φ350*70
1607	MK-020011015050-X	24W	Circuit 4	PCB4	Φ350*55
1608	MK-020011015051-X	24W	Circuit 4	PCB4	φ355*65
1609	MK-020011015052-X	24W	Circuit 4	PCB4	φ350*75
1610	MK-020011015053-X	24W	Circuit 4	PCB4	φ345*75
1611	MK-020011015054-X	24W	Circuit 4	PCB4	φ350*45
1612	MK-020011015055-X	24W	Circuit 4	PCB4	φ390*70
1613	MK-020011015056-X	24W	Circuit 4	PCB4	φ390*70
1614	MK-020011015057-X	24W	Circuit 4	PCB4	φ490*80
1615	MK-020011015058-X	24W	Circuit 4	PCB4	φ390*70
1616	MK-020011015059-X	24W	Circuit 4	PCB4	φ390*70
1617	MK-020011015060-X	24W	Circuit 4	PCB4	φ390*70

1618	MK-020011015061-X	24W	Circuit 4	PCB4	φ400*70
1619	MK-020011015062-X	24W	Circuit 4	PCB4	φ365*75
1620	MK-020011015063-X	24W	Circuit 4	PCB4	φ380*75
1621	MK-020011015064-X	24W	Circuit 4	PCB4	φ385*65
1622	MK-020011015065-X	24W	Circuit 4	PCB4	φ395*80
1623	MK-020011015066-X	24W	Circuit 4	PCB4	φ410*70
1624	MK-020011015067-X	24W	Circuit 4	PCB4	φ380*65
1625	MK-020011015068-X	24W	Circuit 4	PCB4	Φ465*75
1626	MK-020011015069-X	24W	Circuit 4	PCB4	φ388*75
1627	MK-020011015070-X	24W	Circuit 4	PCB4	φ390*70
1628	MK-020011015071-X	24W	Circuit 4	PCB4	φ390*75
1629	MK-020011015072-X	24W	Circuit 4	PCB4	φ380*80
1630	MK-020011015073-X	24W	Circuit 4	PCB4	φ390*70
1631	MK-020011015074-X	24W	Circuit 4	PCB4	Φ400*85
1632	MK-020011015075-X	24W	Circuit 4	PCB4	Φ380*70
1633	MK-020011015076-X	24W	Circuit 4	PCB4	φ380*65
1634	MK-020011015077-X	24W	Circuit 4	PCB4	φ450*90
1635	MK-020011015078-X	24W	Circuit 4	PCB4	φ380*70
1636	MK-020011015079-X	24W	Circuit 4	PCB4	φ390*75
1637	MK-020011015080-X	24W	Circuit 4	PCB4	φ390*95
1638	MK-020011015081-X	24W	Circuit 4	PCB4	φ390*70
1639	MK-020011015082-X	24W	Circuit 4	PCB4	φ390*95
1640	MK-020011015083-X	24W	Circuit 4	PCB4	φ390*95
1641	MK-020011015084-X	24W	Circuit 4	PCB4	φ390*95
1642	MK-020011015085-X	24W	Circuit 4	PCB4	φ400*85
1643	MK-020011015086-X	24W	Circuit 4	PCB4	φ400*70
1644	MK-020011015087-X	24W	Circuit 4	PCB4	φ400*70
1645	MK-020011015088-X	24W	Circuit 4	PCB4	φ400*95
1646	MK-020011015089-X	24W	Circuit 4	PCB4	φ400*70
1647	MK-020011015090-X	24W	Circuit 4	PCB4	φ390*95
1648	MK-020011015091-X	24W	Circuit 4	PCB4	φ420*70
1649	MK-020011015092-X	24W	Circuit 4	PCB4	φ400*80
1650	MK-020011015093-X	24W	Circuit 4	PCB4	φ410*65
1651	MK-020011015094-X	24W	Circuit 4	PCB4	φ400*70
1652	MK-020011015095-X	24W	Circuit 4	PCB4	φ380*65
1653	MK-020011015096-X	24W	Circuit 4	PCB4	φ410*70
1654	MK-020011015097-X	24W	Circuit 4	PCB4	φ393*80
1655	MK-020011015098-X	24W	Circuit 4	PCB4	φ380*80
1656	MK-020011015099-X	24W	Circuit 4	PCB4	φ400*85
1657	MK-020011015100-X	24W	Circuit 4	PCB4	φ400*85
1658	MK-020011015101-X	24W	Circuit 4	PCB4	φ400*85
1659	MK-020011015102-X	24W	Circuit 4	PCB4	φ400*85
1660	MK-020011015103-X	24W	Circuit 4	PCB4	φ400*85
1661	MK-020011015104-X	24W	Circuit 4	PCB4	φ390*95
1662	MK-020011015105-X	24W	Circuit 4	PCB4	Φ380*55

1663	MK-020011015106-X	24W	Circuit 4	PCB4	Φ380*55
1664	MK-020011015107-X	24W	Circuit 4	PCB4	Φ390*65
1665	MK-020011015108-X	24W	Circuit 4	PCB4	Φ390*65
1666	MK-020011015109-X	24W	Circuit 4	PCB4	Φ390*65
1667	MK-020011015110-X	24W	Circuit 4	PCB4	φ380*55
1668	MK-020011015111-X	24W	Circuit 4	PCB4	Φ335*55
1669	MK-020011015112-X	24W	Circuit 4	PCB4	Φ335*55
1670	MK-020011015113-X	24W	Circuit 4	PCB4	Φ335*55
1671	MK-020011015114-X	24W	Circuit 4	PCB4	φ390*70
1672	MK-020011015115-X	24W	Circuit 4	PCB4	φ390*70
1673	MK-020011015116-X	24W	Circuit 4	PCB4	φ490*80
1674	MK-020011015117-X	24W	Circuit 4	PCB4	φ390*70
1675	MK-020011015118-X	24W	Circuit 4	PCB4	φ390*70
1676	MK-020011015119-X	24W	Circuit 4	PCB4	φ390*70
1677	MK-020011015120-X	24W	Circuit 4	PCB4	φ400*70
1678	MK-020011015121-X	24W	Circuit 4	PCB4	φ365*75
1679	MK-020011015122-X	24W	Circuit 4	PCB4	φ380*75
1680	MK-020011015123-X	24W	Circuit 4	PCB4	φ385*65
1681	MK-020011015124-X	24W	Circuit 4	PCB4	φ395*80
1682	MK-020011015125-X	24W	Circuit 4	PCB4	φ410*70
1683	MK-020011015126-X	24W	Circuit 4	PCB4	φ380*65
1684	MK-020011015127-X	24W	Circuit 4	PCB4	Φ465*75
1685	MK-020011015128-X	24W	Circuit 4	PCB4	φ388*75
1686	MK-020011015129-X	24W	Circuit 4	PCB4	φ390*70
1687	MK-020011015130-X	24W	Circuit 4	PCB4	φ390*75
1688	MK-020011015131-X	24W	Circuit 4	PCB4	φ380*80
1689	MK-020011015132-X	24W	Circuit 4	PCB4	φ390*70
1690	MK-020011015133-X	24W	Circuit 4	PCB4	Φ400*85
1691	MK-020011015134-X	24W	Circuit 4	PCB4	Φ380*70
1692	MK-020011015135-X	24W	Circuit 4	PCB4	φ380*65
1693	MK-020011015136-X	24W	Circuit 4	PCB4	φ450*90
1694	MK-020011015137-X	24W	Circuit 4	PCB4	φ380*70
1695	MK-020011015138-X	24W	Circuit 4	PCB4	φ390*75
1696	MK-020011015139-X	24W	Circuit 4	PCB4	φ390*95
1697	MK-020011015140-X	24W	Circuit 4	PCB4	φ390*70
1698	MK-020011015141-X	24W	Circuit 4	PCB4	φ390*95
1699	MK-020011015142-X	24W	Circuit 4	PCB4	φ390*95
1700	MK-020011015143-X	24W	Circuit 4	PCB4	φ390*95
1701	MK-020011015144-X	24W	Circuit 4	PCB4	φ400*85
1702	MK-020011015145-X	24W	Circuit 4	PCB4	φ400*70
1703	MK-020011015146-X	24W	Circuit 4	PCB4	φ400*70
1704	MK-020011015147-X	24W	Circuit 4	PCB4	φ400*95
1705	MK-020011015148-X	24W	Circuit 4	PCB4	φ400*70
1706	MK-020011015149-X	24W	Circuit 4	PCB4	φ390*95
1707	MK-020011015150-X	24W	Circuit 4	PCB4	φ420*70

1708	MK-020011015151-X	24W	Circuit 4	PCB4	φ400*80
1709	MK-020011015152-X	24W	Circuit 4	PCB4	φ410*65
1710	MK-020011015153-X	24W	Circuit 4	PCB4	φ400*70
1711	MK-020011015154-X	24W	Circuit 4	PCB4	φ380*65
1712	MK-020011015155-X	24W	Circuit 4	PCB4	φ410*70
1713	MK-020011015156-X	24W	Circuit 4	PCB4	φ393*80
1714	MK-020011015157-X	24W	Circuit 4	PCB4	φ380*80
1715	MK-020011015158-X	24W	Circuit 4	PCB4	φ400*85
1716	MK-020011015159-X	24W	Circuit 4	PCB4	φ400*85
1717	MK-020011015160-X	24W	Circuit 4	PCB4	φ400*85
1718	MK-020011015161-X	24W	Circuit 4	PCB4	φ400*85
1719	MK-020011015162-X	24W	Circuit 4	PCB4	φ400*85
1720	MK-020011015163-X	24W	Circuit 4	PCB4	φ390*95
1721	MK-020011015164-X	24W	Circuit 4	PCB4	Φ380*55
1722	MK-020011015165-X	24W	Circuit 4	PCB4	Φ380*55
1723	MK-020011015166-X	24W	Circuit 4	PCB4	Φ390*65
1724	MK-020011015167-X	24W	Circuit 4	PCB4	Φ390*65
1725	MK-020011015168-X	24W	Circuit 4	PCB4	Φ390*65
1726	MK-020011015169-X	24W	Circuit 4	PCB4	φ380*55
1727	MK-020011015170-X	24W	Circuit 4	PCB4	Φ335*55
1728	MK-020011015171-X	24W	Circuit 4	PCB4	Φ335*55
1729	MK-020011015172-X	24W	Circuit 4	PCB4	Φ335*55
1730	MK-020011015173-X	24W	Circuit 4	PCB4	330*330*75mm
1731	MK-020011015174-X	24W	Circuit 4	PCB4	330*330*75mm
1732	MK-020011015175-X	24W	Circuit 4	PCB4	330*330*65mm
1733	MK-020011015176-X	24W	Circuit 4	PCB4	330*330*65mm
1734	MK-020011015177-X	24W	Circuit 4	PCB4	330*330*75mm
1735	MK-020011015178-X	24W	Circuit 4	PCB4	330*330*75mm
1736	MK-020011015179-X	24W	Circuit 4	PCB4	330*330*65mm
1737	MK-020011015180-X	24W	Circuit 4	PCB4	330*330*65mm
('X' in model name means CCT, can be A, B, C, D, E, F. 'A'=2700K ; 'B'=3000K ; 'C'=3500K ; 'D'=4000K ; 'E'=5000K ; 'F'=6500K.)					

Remark:
LED lamp luminaires with ratings less than or equal to 600W, are deemed to comply with the dc, dmax and Tmax limits in this standard and are not required to be tested. (EN 61000-3-3:2013 /A1:2019/A2:2021, clause A.2).

1.4.2 EUT Port/Cable Identification

Port	Max Cable Length specified	Usage	Type	Screened
AC Powered Light on				
Electric power supply interface	NA	AC power for the EUT	3 cores	No

1.4.3 Test Configuration

Configuration	Description
AC Powered	220-240V~, 50Hz

1.4.4 Modes of Operation

Mode	Description
Light on	The EUT was lighted on.

1.4.5 Monitoring of Performance

The EUT works normally, the luminous density doesn't deviate by more than 15%.

1.4.6 Performance Criteria

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

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

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

Additional requirement for lighting equipment incorporating a starting device: After the test, the lighting equipment is switched off. After half an hour, it is switched on again. The lighting equipment shall start and operate as intended.

China

1.5 Deviations from the Standard

No deviations from the applicable test standard were made during testing.

1.6 Test Location

1. For model: MK-020011012731-E, MK-020011012862-E, MK-020011013378-E, MK-020011015010-A were test in Ningbo LAB.
The following tests were performed at TÜV SÜD Certification and Testing (China) Co., Ltd. Ningbo branch.

Address:

Building 2, No. 350,
Jinghua Road, Jinghua Dream Space II,
Gaoxin District Ningbo 315000 P.R. China

Test Name	Name of Engineer(s)
Conducted Disturbance at the electric power supply interface	Qiliang CHEN
Radiated Disturbance (9kHz to 30MHz)	Qiliang CHEN
Radiated Disturbance (30MHz to 1000MHz)	Qiliang CHEN
Harmonic Current Emissions	Qiliang CHEN
Electrostatic discharge immunity test	Qiliang CHEN
Radiated, radio-frequency, electromagnetic field immunity test	Qiliang CHEN
Electrical fast transient /burst immunity test	Qiliang CHEN
Immunity to conducted disturbances, induced by radio-frequency fields	Qiliang CHEN
Surge immunity test	Qiliang CHEN
Voltage dips, short interruptions and voltage variations immunity test	Qiliang CHEN

2. For model: MK-020011015010-A, MK-020011012849-E, MK-020011014622-A, MK-020011014799-E were test in Shanghai LAB.

TÜV SÜD Product Service conducted the following tests at TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai branch.

Address:

No.16, Lane 1951,
Du Hui Road
Shanghai 201108,
P.R.China

Test Name	Name of Engineer(s)
Conducted Disturbance at the electric power supply interface	Yuwei ZHONG
Radiated Disturbance (9kHz to 30MHz)	Yuwei ZHONG
Radiated Disturbance (30MHz to 1000MHz)	Yuwei ZHONG
Harmonic Current Emissions	Huali CHENG
Electrostatic discharge immunity test	Yuwei ZHONG
Radiated, radio-frequency, electromagnetic field immunity test	Yuwei ZHONG
Electrical fast transient /burst immunity test	Yuwei ZHONG
Immunity to conducted disturbances, induced by radio-frequency fields	Yuwei ZHONG
Surge immunity test	Yuwei ZHONG
Voltage dips, short interruptions and voltage variations immunity test	Yuwei ZHONG

China

2 Test Details

2.1 Conducted disturbance at the electric power supply interface

2.1.1 Specification Reference

EN IEC 55015:2019/A11:2020, Clause 4.3.1

2.1.2 Equipment Under Test

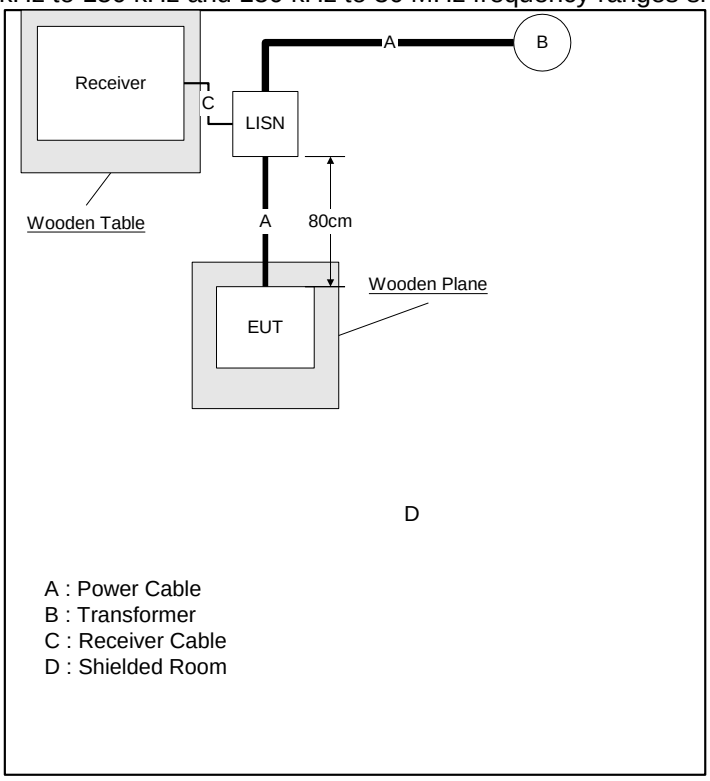
No.	Test model	Rated power	PCB	Sample Number(s)	Test mode
1	MK-020011012731-E	18W	PCB1	NIB-645570-1	AC Powered/Light on
2	MK-020011012862-E	24W	PCB2	NIB-645570-2	AC Powered/Light on
3	MK-020011013378-E	40W	PCB3	NIB-645570-3	AC Powered/Light on
4	MK-020011015010-A	24W	PCB4	NIB-645570-4	AC Powered/Light on
5	MK-020011012849-E	12W	PCB5	20220529.04.01	AC Powered/Light on
6	MK-020011014622-A	60W	PCB6	20220529.04.02	AC Powered/Light on
7	MK-020011014799-E	12W	PCB7	20220529.04.03	AC Powered/Light on

2.1.3 Date of Test

04/18/2022, 05/30/2022

2.1.4 Test Method

The disturbance voltage measurement shall be performed as per the method of CISPR 16-2-1 at the electrical power supply interface of the EUT by means of the circuits and arrangement described in Annex B of EN IEC 55015:2019/A11:2020 for the relevant type of equipment. An artificial mains V-network 50 Ω / 50 µH + 5 Ω that satisfies the requirements of CISPR 16-1-2 in both the 9 kHz to 150 kHz and 150 kHz to 30 MHz frequency ranges shall be used.



2.1.5 Environmental Conditions

Ambient Temperature	20-25 °C
Relative Humidity	40-60 %
Atmospheric Pressure	1010-1040 mbar

2.1.6 Specification Limits

Disturbance voltage limits at the electric power supply interface		
Frequency range	Limits dB(μV)	
	Quasi-peak	Average
9 kHz to 50 kHz	110	--
50 kHz to 150 kHz	90 to 80	--
150 kHz to 0.5 MHz	66 to 56	56 to 46
0.5 MHz to 5.0 MHz	56	46
5.0 MHz to 30 MHz	60	50

2.1.7 Test Results

Results for Configuration and Mode: Test model as see the table in the chapter 2.1.2.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

China

9K-30MHz Conducted Emission Test

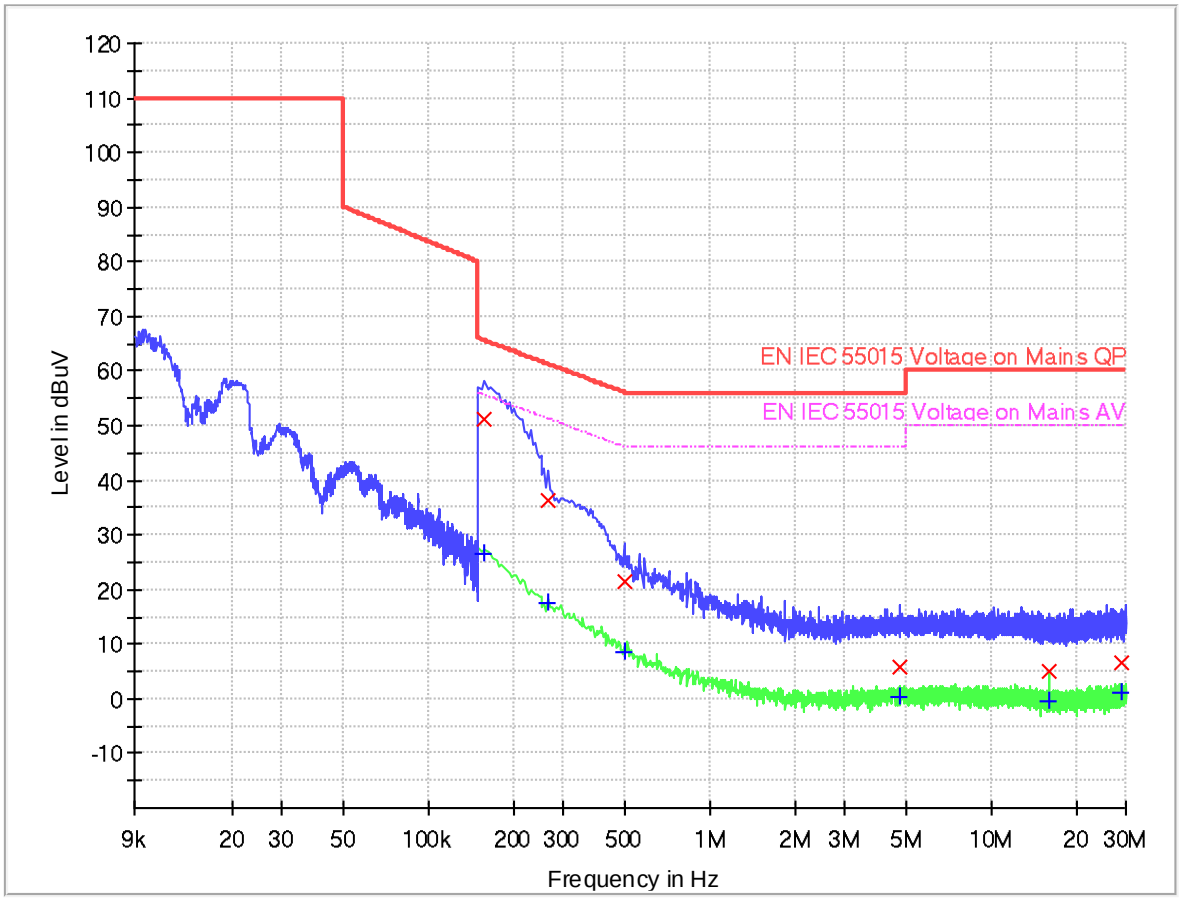
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012731-E(PCB1),18W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T23.4C,H50.3%,P102.2kPa
Operator:	Qiliang Chen
Standard	EN IEC 55015
Comment:	Phase L
Sample No.:	NIB-645570-1

Scan Setup: ENV216_9kHz-30MHz_Preview [EMI conducted]

Hardware Setup:	ENV216(Filter OFF)
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+ ; AVG	9 kHz	0.01 s	0 dB



China

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV)	Margin - CAV (dB)	Limit - CAV (dBuV)
0.158000	51.3	26.5	1000.0	9.000	L1	9.6	14.3	65.6	29.1	55.6
0.266000	36.5	17.4	1000.0	9.000	L1	9.6	24.8	61.2	33.8	51.2
0.494000	21.3	8.7	1000.0	9.000	L1	9.6	34.8	56.1	37.4	46.1
4.698000	5.9	0.4	1000.0	9.000	L1	9.6	50.1	56.0	45.6	46.0
16.102000	5.1	-0.5	1000.0	9.000	L1	9.7	55.0	60.0	50.5	50.0
28.814000	6.7	1.2	1000.0	9.000	L1	9.6	53.3	60.0	48.8	50.0

China

9K-30MHz Conducted Emission Test

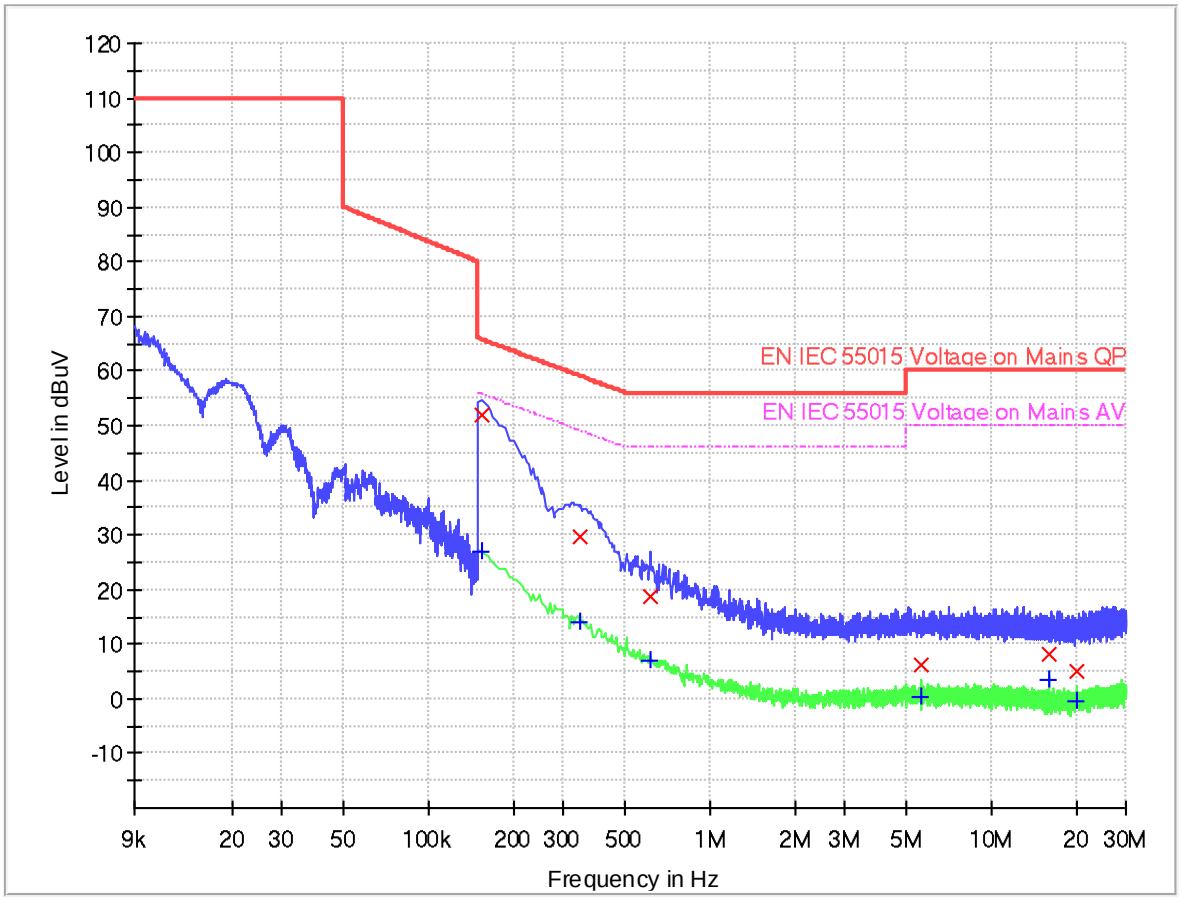
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012731-E(PCB1),18W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T23.4C,H50.3%,P102.2kPa
Operator:	Qiliang Chen
Standard	EN IEC 55015
Comment:	Phase N
Sample No.:	NIB-645570-1

Scan Setup: ENV216_9kHz-30MHz_Preview [EMI conducted]

Hardware Setup:	ENV216(Filter OFF)
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+ ; AVG	9 kHz	0.01 s	0 dB



China

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV)	Margin - CAV (dB)	Limit - CAV (dBuV)
0.154000	51.8	27.1	1000.0	9.000	N	9.6	14.0	65.8	28.7	55.8
0.346000	29.6	14.0	1000.0	9.000	N	9.6	29.5	59.1	35.0	49.1
0.614000	18.8	6.8	1000.0	9.000	N	9.6	37.3	56.0	39.2	46.0
5.578000	6.1	0.5	1000.0	9.000	N	9.6	53.9	60.0	49.5	50.0
16.118000	8.3	3.5	1000.0	9.000	N	9.7	51.7	60.0	46.5	50.0
20.054000	5.1	-0.5	1000.0	9.000	N	9.8	54.9	60.0	50.5	50.0

China

9K-30MHz Conducted Emission Test

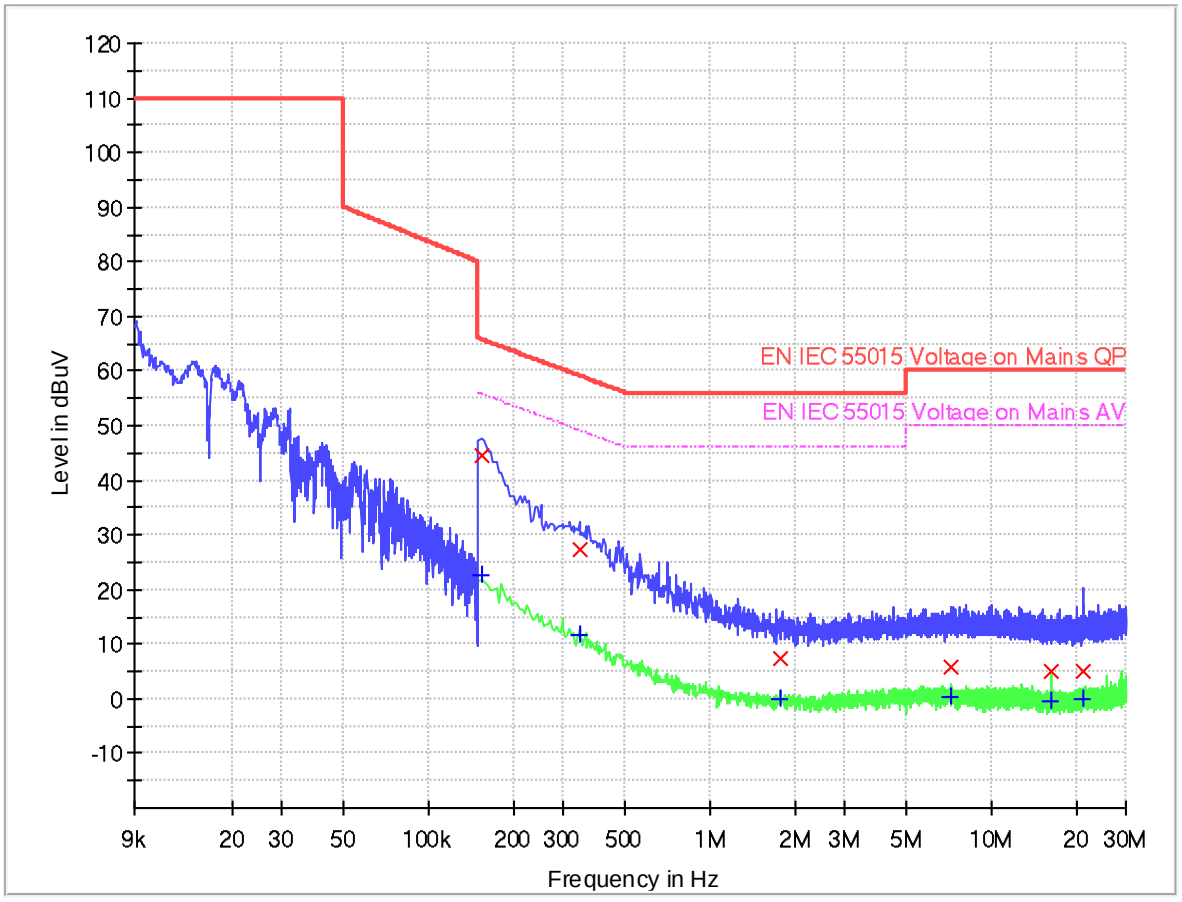
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012862-E(PCB2),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T23.4C,H50.3%,P102.2kPa
Operator:	Qiliang Chen
Standard	EN IEC 55015
Comment:	Phase L
Sample No.:	NIB-645570-2

Scan Setup: ENV216_9kHz-30MHz_Preview [EMI conducted]

Hardware Setup:	ENV216(Filter OFF)
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+ ; AVG	9 kHz	0.01 s	0 dB



China

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV)	Margin - CAV (dB)	Limit - CAV (dBuV)
0.154000	44.6	22.5	1000.0	9.000	L1	9.6	21.2	65.8	33.2	55.8
0.342000	27.3	11.6	1000.0	9.000	L1	9.6	31.9	59.2	37.6	49.2
1.770000	7.3	-0.2	1000.0	9.000	L1	9.6	48.7	56.0	46.2	46.0
7.126000	6.0	0.5	1000.0	9.000	L1	9.6	54.0	60.0	49.6	50.0
16.358000	5.0	-0.5	1000.0	9.000	L1	9.7	55.0	60.0	50.5	50.0
21.102000	5.1	-0.3	1000.0	9.000	L1	9.7	54.9	60.0	50.3	50.0

China

9K-30MHz Conducted Emission Test

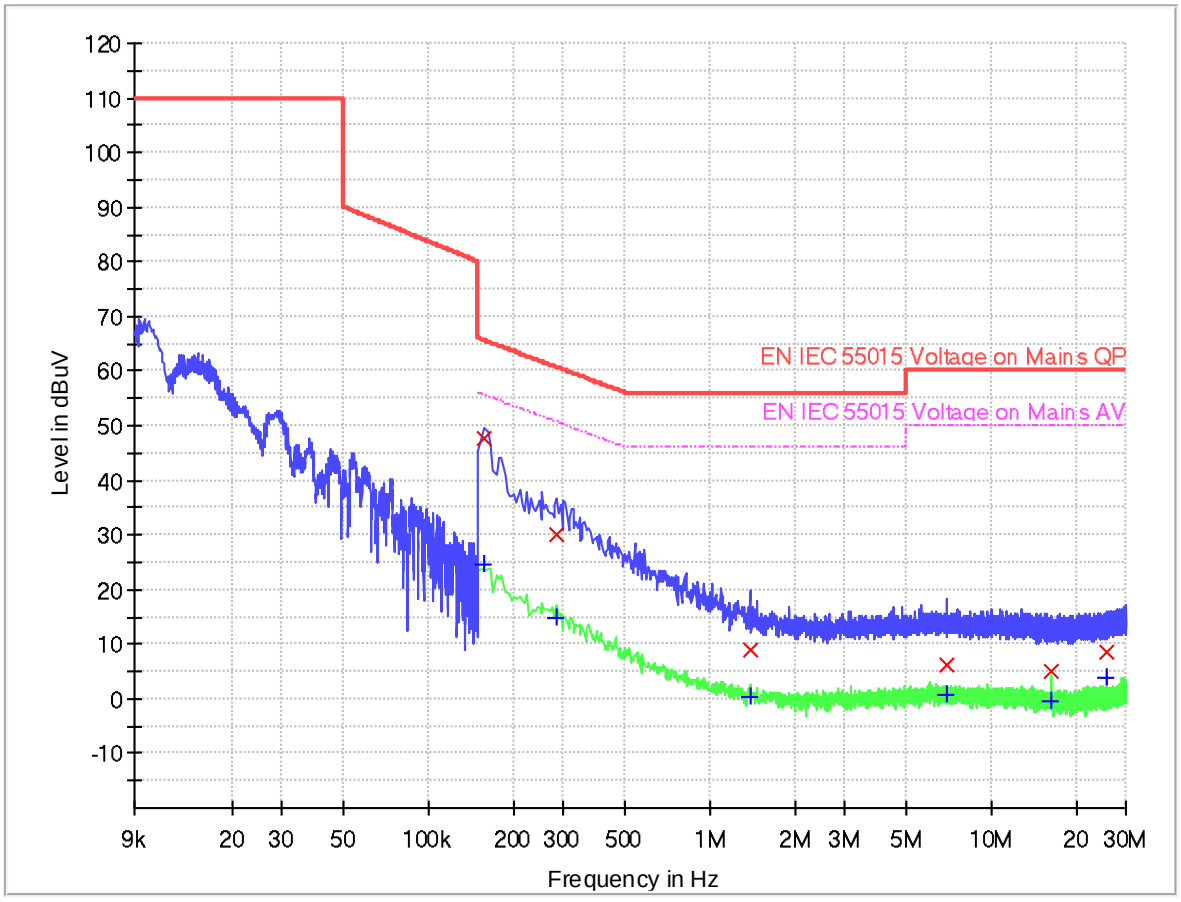
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012862-E(PCB2),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T23.4C,H50.3%,P102.2kPa
Operator:	Qiliang Chen
Standard	EN IEC 55015
Comment:	Phase N
Sample No.:	NIB-645570-2

Scan Setup: ENV216_9kHz-30MHz_Preview [EMI conducted]

Hardware Setup:	ENV216(Filter OFF)
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+ ; AVG	9 kHz	0.01 s	0 dB



China

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV)	Margin - CAV (dB)	Limit - CAV (dBuV)
0.158000	47.5	24.4	1000.0	9.000	N	9.6	18.1	65.6	31.2	55.6
0.286000	30.1	14.7	1000.0	9.000	N	9.6	30.6	60.6	35.9	50.6
1.382000	8.9	0.4	1000.0	9.000	N	9.6	47.1	56.0	45.6	46.0
6.946000	6.0	0.6	1000.0	9.000	N	9.6	54.0	60.0	49.4	50.0
16.214000	5.2	-0.5	1000.0	9.000	N	9.7	54.8	60.0	50.5	50.0
25.602000	8.7	3.8	1000.0	9.000	N	9.7	51.3	60.0	46.2	50.0

China

9K-30MHz Conducted Emission Test

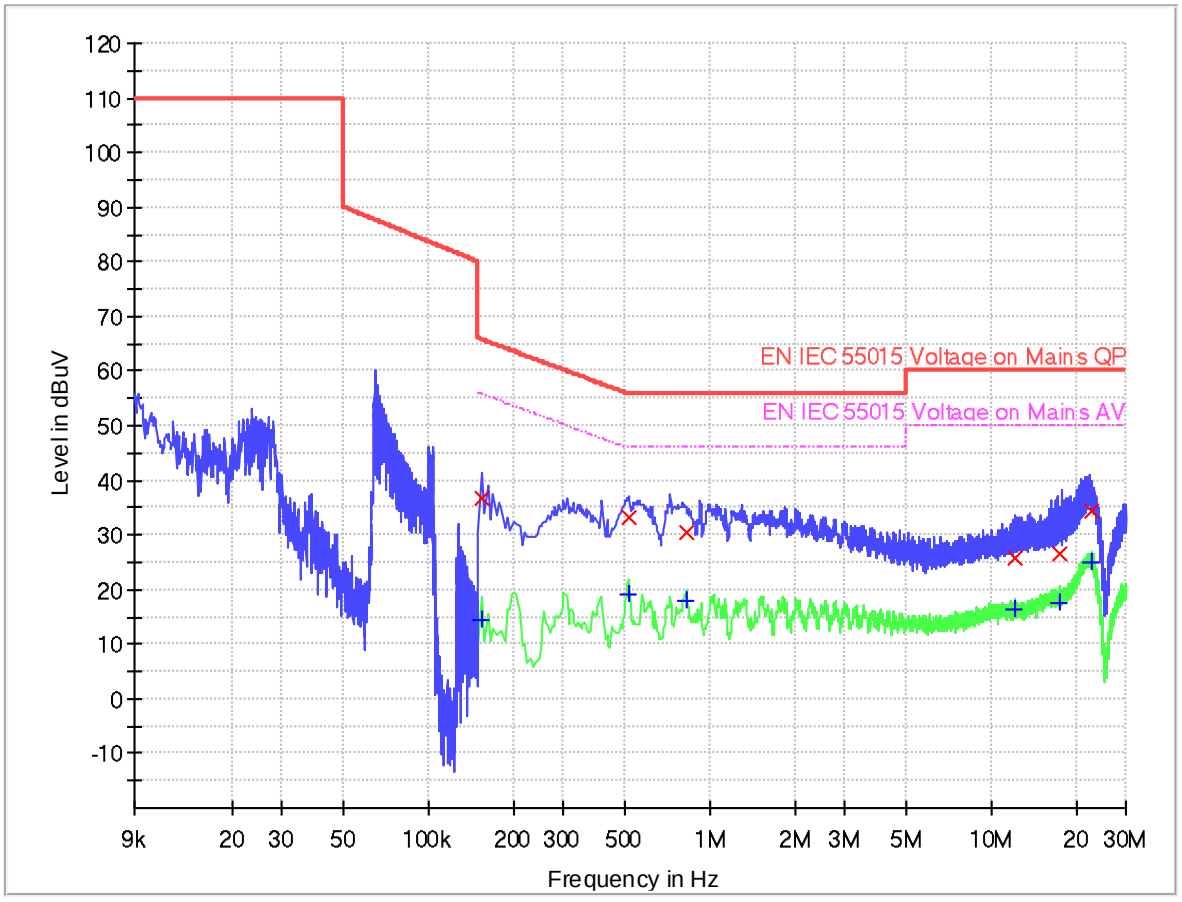
EUT Information

EUT Name:	LED lamp
Model:	MK-020011013378-E(PCB3)40W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T23.4C,H50.3%,P102.2kPa
Operator:	Qiliang Chen
Standard	EN IEC 55015
Comment:	Phase L
Sample No.:	NIB-645570-3

Scan Setup: ENV216_9kHz-30MHz_Preview [EMI conducted]

Hardware Setup:	ENV216(Filter OFF)
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+ ; AVG	9 kHz	0.01 s	0 dB



China

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV)	Margin - CAV (dB)	Limit - CAV (dBuV)
0.154000	36.7	14.4	1000.0	9.000	L1	9.6	29.1	65.8	41.4	55.8
0.514000	33.2	19.1	1000.0	9.000	L1	9.6	22.8	56.0	26.9	46.0
0.826000	30.4	17.8	1000.0	9.000	L1	9.6	25.6	56.0	28.2	46.0
12.138000	25.9	16.5	1000.0	9.000	L1	9.7	34.2	60.0	33.5	50.0
17.610000	26.4	17.6	1000.0	9.000	L1	9.7	33.6	60.0	32.4	50.0
22.642000	34.2	24.9	1000.0	9.000	L1	9.7	25.8	60.0	25.1	50.0

China

9K-30MHz Conducted Emission Test

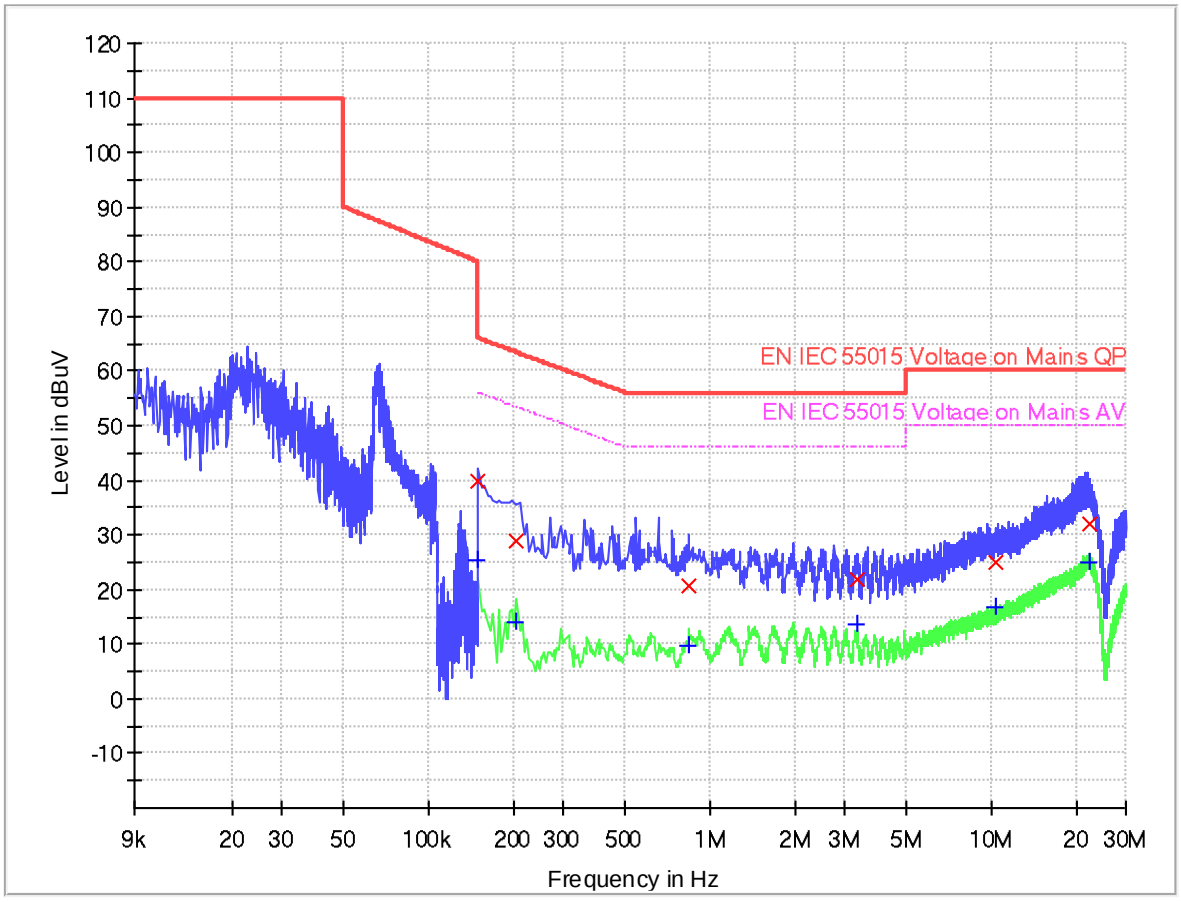
EUT Information

EUT Name:	LED lamp
Model:	MK-020011013378-E(PCB3)40W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T23.4C,H50.3%,P102.2kPa
Operator:	Qiliang Chen
Standard	EN IEC 55015
Comment:	Phase N
Sample No.:	NIB-645570-3

Scan Setup: ENV216_9kHz-30MHz_Preview [EMI conducted]

Hardware Setup:	ENV216(Filter OFF)
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+ ; AVG	9 kHz	0.01 s	0 dB



Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV)	Margin - CAV (dB)	Limit - CAV (dBuV)
0.150000	39.9	25.4	1000.0	9.000	N	9.6	26.1	66.0	30.6	56.0
0.206000	29.0	14.1	1000.0	9.000	N	9.6	34.3	63.4	39.3	53.4
0.842000	20.8	9.6	1000.0	9.000	N	9.6	35.2	56.0	36.4	46.0
3.306000	21.8	13.5	1000.0	9.000	N	9.6	34.2	56.0	32.5	46.0
10.262000	24.8	16.9	1000.0	9.000	N	9.7	35.2	60.0	33.1	50.0
22.326000	31.9	25.0	1000.0	9.000	N	9.7	28.1	60.0	25.0	50.0

China

9K-30MHz Conducted Emission Test

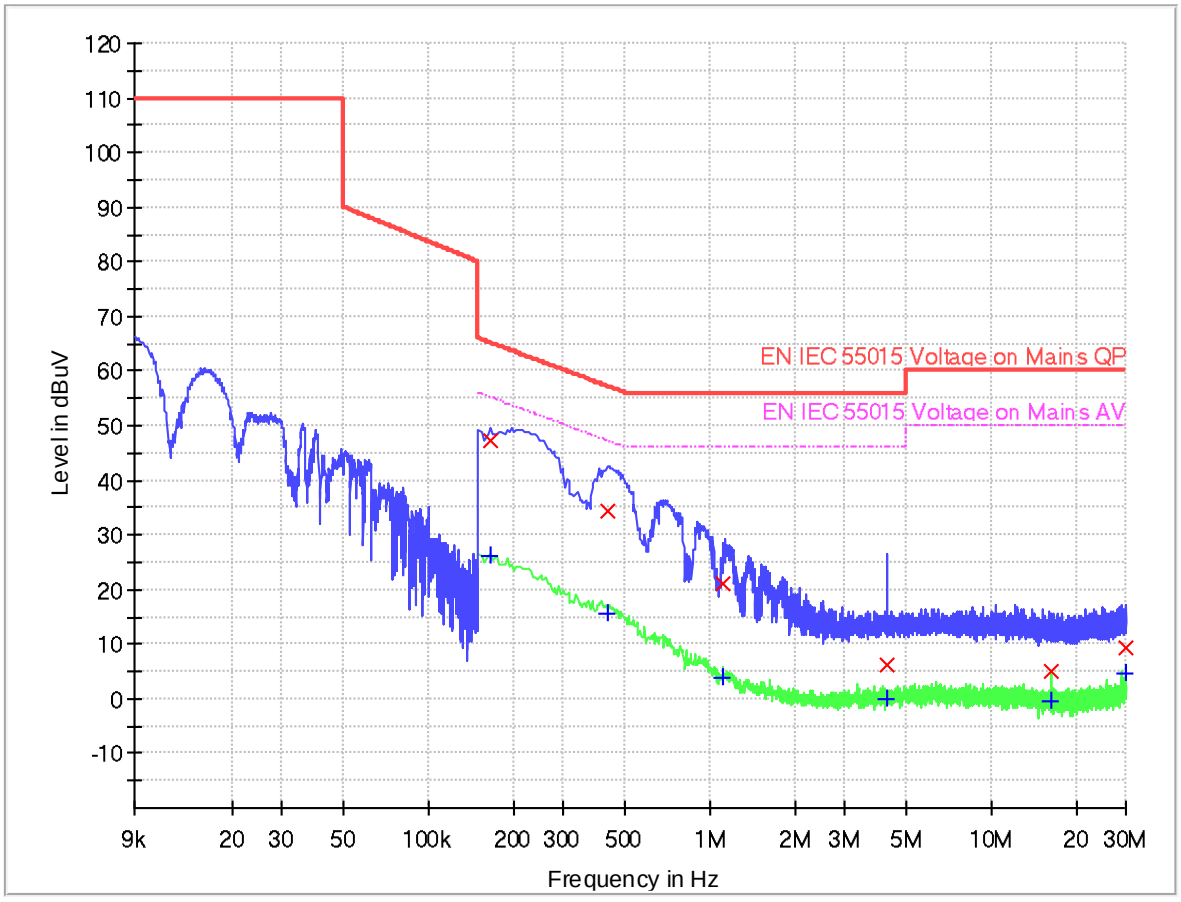
EUT Information

EUT Name:	LED lamp
Model:	MK-020011015010-A(PCB4),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T23.4C,H50.3%,P102.2kPa
Operator:	Qiliang Chen
Standard	EN IEC 55015
Comment:	Phase L
Sample No.:	NIB-645570-4

Scan Setup: ENV216_9kHz-30MHz_Preview [EMI conducted]

Hardware Setup:	ENV216(Filter OFF)
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+ ; AVG	9 kHz	0.01 s	0 dB



China

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV)	Margin - CAV (dB)	Limit - CAV (dBuV)
0.166000	47.3	26.0	1000.0	9.000	L1	9.6	17.8	65.2	29.2	55.2
0.430000	34.5	15.6	1000.0	9.000	L1	9.6	22.8	57.3	31.7	47.3
1.106000	21.0	3.8	1000.0	9.000	L1	9.6	35.0	56.0	42.2	46.0
4.238000	6.1	0.1	1000.0	9.000	L1	9.6	49.9	56.0	45.9	46.0
16.190000	5.2	-0.5	1000.0	9.000	L1	9.7	54.8	60.0	50.5	50.0
29.926000	9.5	4.5	1000.0	9.000	L1	9.6	50.5	60.0	45.6	50.0

China

9K-30MHz Conducted Emission Test

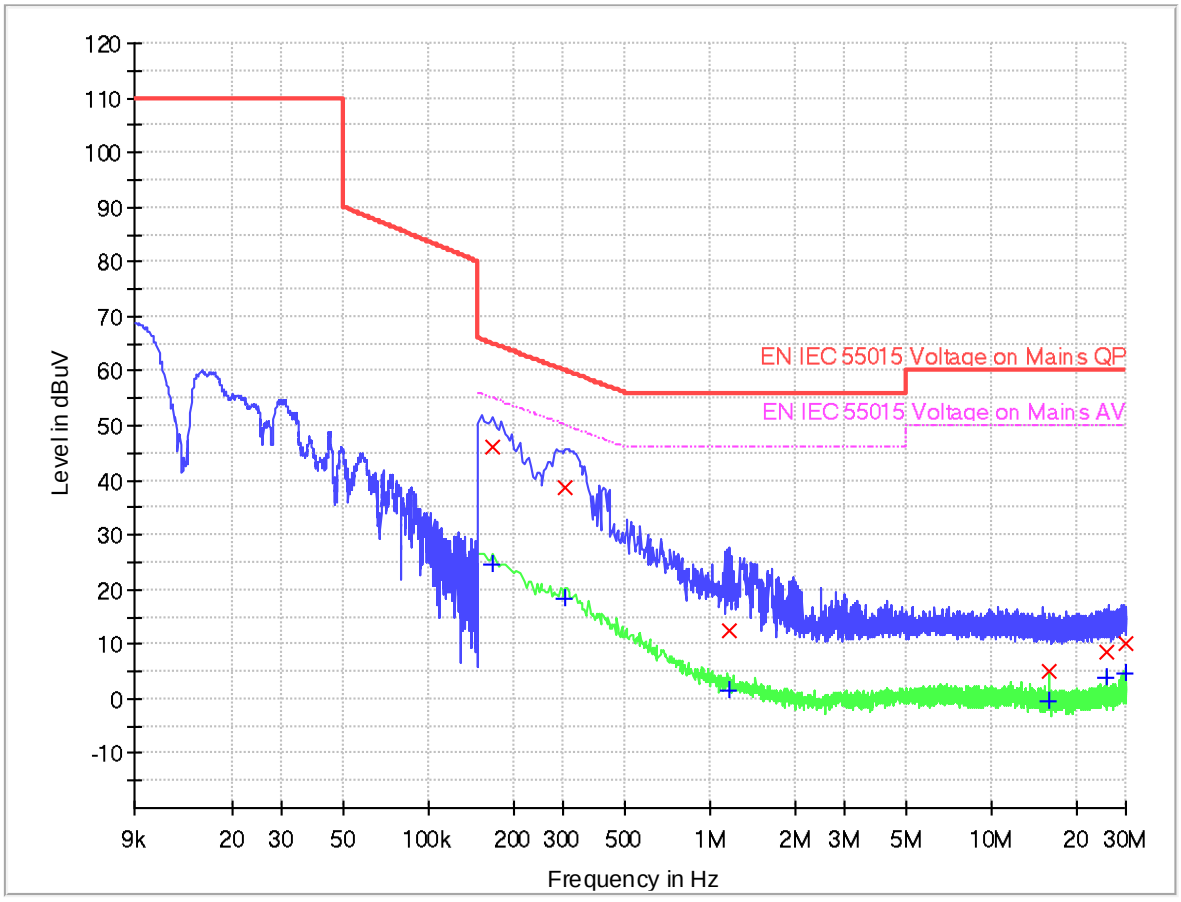
EUT Information

EUT Name:	LED lamp
Model:	MK-020011015010-A(PCB4),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T23.4C,H50.3%,P102.2kPa
Operator:	Qiliang Chen
Standard	EN IEC 55015
Comment:	Phase N
Sample No.:	NIB-645570-4

Scan Setup: ENV216_9kHz-30MHz_Preview [EMI conducted]

Hardware Setup:	ENV216(Filter OFF)
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+ ; AVG	9 kHz	0.01 s	0 dB



China

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBuV)	Margin - CAV (dB)	Limit - CAV (dBuV)
0.170000	46.2	24.4	1000.0	9.000	N	9.6	18.8	65.0	30.5	55.0
0.306000	38.8	18.1	1000.0	9.000	N	9.6	21.3	60.1	31.9	50.1
1.178000	12.4	1.6	1000.0	9.000	N	9.6	43.6	56.0	44.4	46.0
16.134000	5.1	-0.5	1000.0	9.000	N	9.7	54.9	60.0	50.5	50.0
25.602000	8.6	3.9	1000.0	9.000	N	9.7	51.4	60.0	46.1	50.0
29.926000	10.0	4.6	1000.0	9.000	N	9.7	50.1	60.0	45.4	50.0

China

9K-30MHz Conducted Disturbance Test

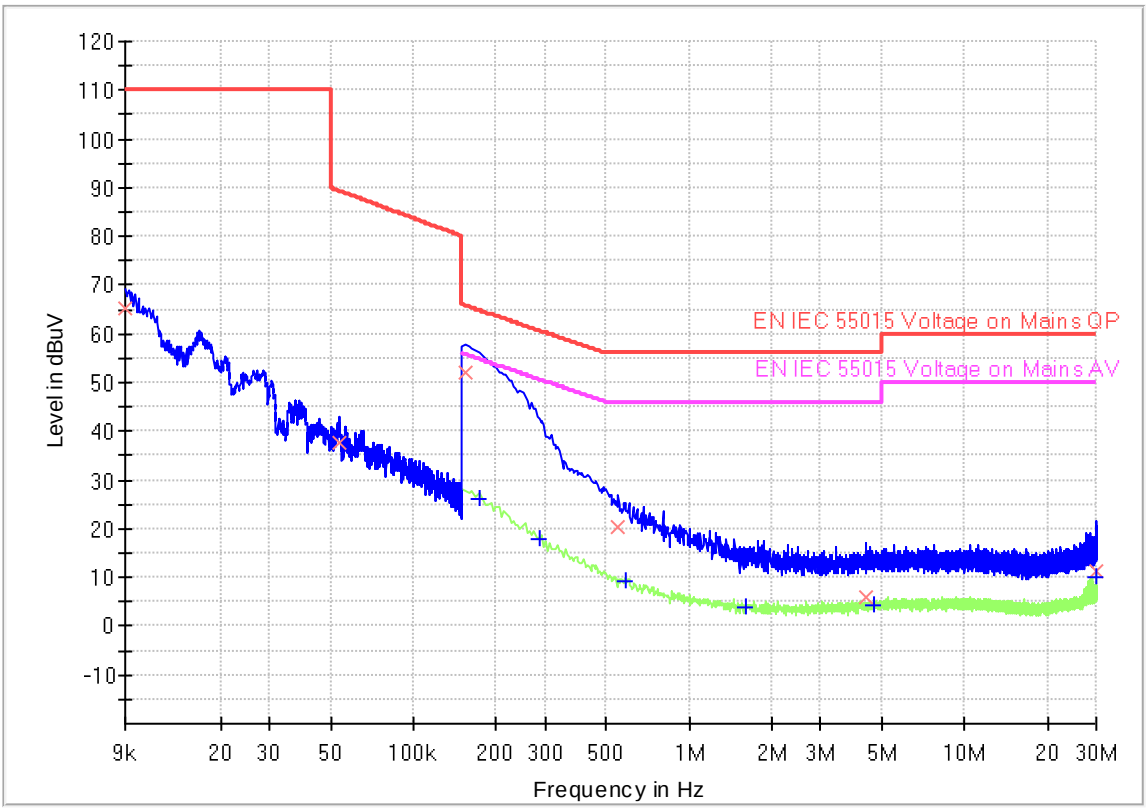
EUT Information

EUT Name:	LED lamp
Model	MK-020011012849-E
Client:	Zhejiang MEKA Electric Co., Ltd
Op Cond	Light on, AC 230V/50Hz, T21, H56%, P101.1kPa
Operator:	Zhong Yuwei
Standard	EN IEC 55015
Comment:	Phase L
Sample No.:	20220529.04.01

Scan Setup: Voltage with 2-Line-LISN pre [EMI conducted]

Hardware Setup:	Voltage with 2-Line-LISN
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.02 s	0 dB
150 kHz - 30 MHz	4.5 kHz	PK+; AVG	9 kHz	0.01 s	0 dB



China

Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.009000	65.26	---	110.00	44.74	1000.0	0.200	L1	20.3
0.054000	37.67	---	89.30	51.63	1000.0	0.200	L1	19.6
0.154500	51.88	---	65.75	13.87	1000.0	9.000	L1	19.5
0.172500	---	26.12	54.84	28.72	1000.0	9.000	L1	19.5
0.285000	---	17.96	50.67	32.71	1000.0	9.000	L1	19.5
0.555000	20.52	---	56.00	35.48	1000.0	9.000	L1	19.5
0.586500	---	9.06	46.00	36.94	1000.0	9.000	L1	19.5
1.594500	---	3.93	46.00	42.07	1000.0	9.000	L1	19.5
4.393500	6.11	---	56.00	49.89	1000.0	9.000	L1	19.6
4.722000	---	4.27	46.00	41.73	1000.0	9.000	L1	19.6
29.818500	11.27	---	60.00	48.73	1000.0	9.000	L1	20.0
30.000000	---	10.25	50.00	39.75	1000.0	9.000	L1	20.0

China

9K-30MHz Conducted Disturbance Test

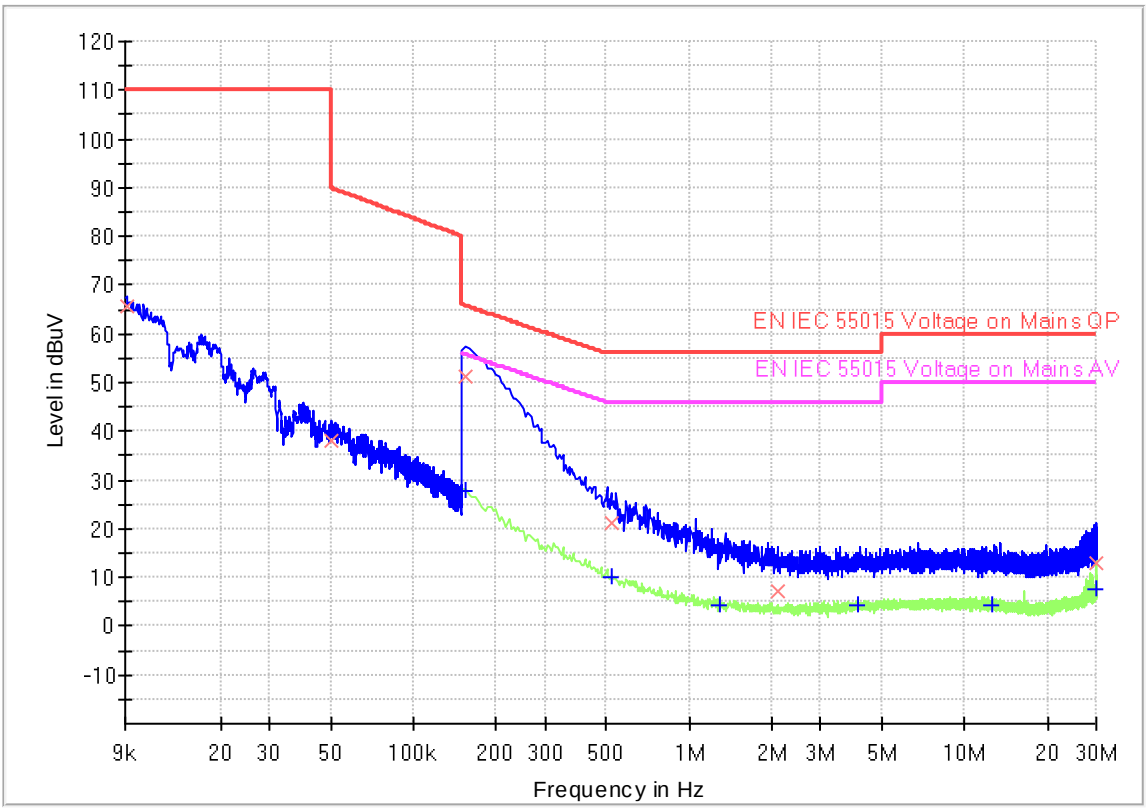
EUT Information

EUT Name:	LED lamp
Model	MK-020011012849-E
Client:	Zhejiang MEKA Electric Co., Ltd
Op Cond	Light on, AC 230V/50Hz, T21, H56%, P101.1kPa
Operator:	Zhong Yuwei
Standard	EN IEC 55015
Comment:	Phase N
Sample No.:	20220529.04.01

Scan Setup: Voltage with 2-Line-LISN pre [EMI conducted]

Hardware Setup:	Voltage with 2-Line-LISN
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.02 s	0 dB
150 kHz - 30 MHz	4.5 kHz	PK+; AVG	9 kHz	0.01 s	0 dB



China

Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.009100	65.57	---	110.00	44.43	1000.0	0.200	N	20.0
0.050500	38.23	---	89.91	51.68	1000.0	0.200	N	19.5
0.154500	---	27.62	55.75	28.13	1000.0	9.000	N	19.5
0.154500	51.39	---	65.75	14.36	1000.0	9.000	N	19.5
0.523500	21.10	---	56.00	34.90	1000.0	9.000	N	19.5
0.528000	---	10.04	46.00	35.96	1000.0	9.000	N	19.5
1.302000	---	4.35	46.00	41.65	1000.0	9.000	N	19.5
2.112000	7.06	---	56.00	48.94	1000.0	9.000	N	19.5
4.083000	---	4.15	46.00	41.85	1000.0	9.000	N	19.5
12.628500	---	4.36	50.00	45.64	1000.0	9.000	N	19.7
29.953500	---	7.54	50.00	42.46	1000.0	9.000	N	20.1
29.953500	13.00	---	60.00	47.00	1000.0	9.000	N	20.1

China

9K-30MHz Conducted Disturbance Test

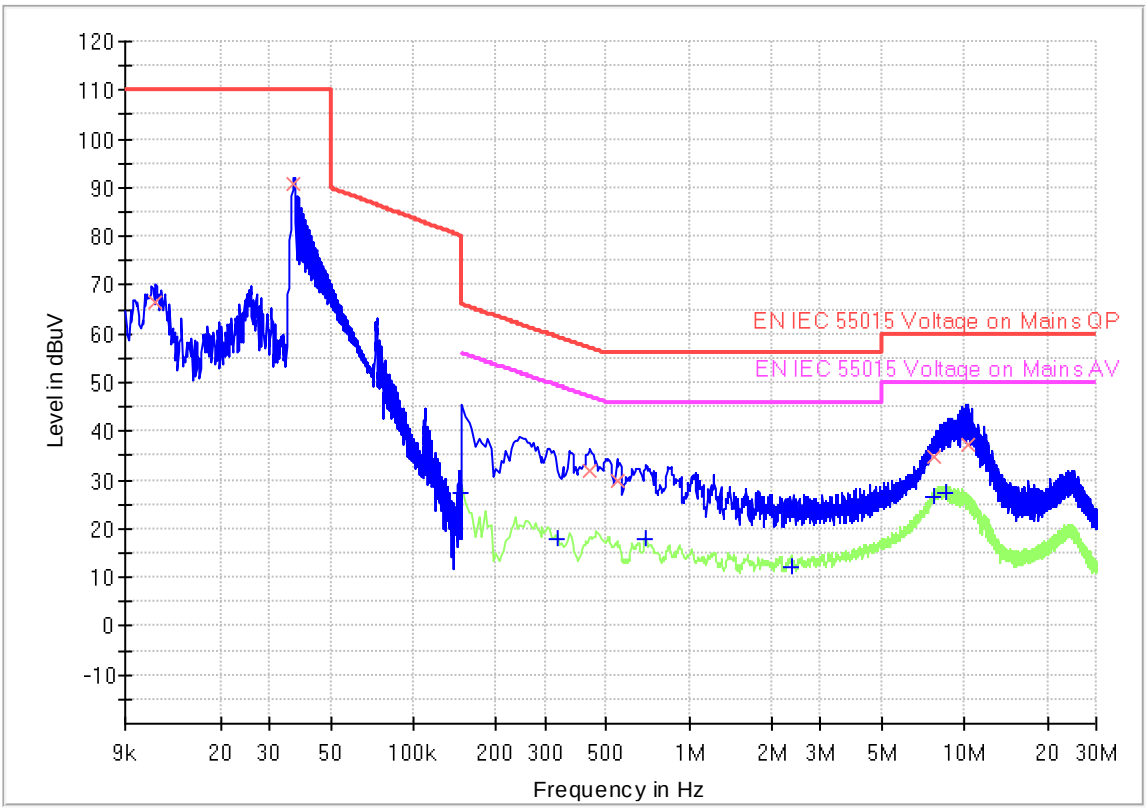
EUT Information

EUT Name:	LED lamp
Model	MK-020011014622-A
Client:	Zhejiang MEKA Electric Co., Ltd
Op Cond	Light on, AC 230V/50Hz, T21, H56%, P101.1kPa
Operator:	Zhong Yuwei
Standard	EN IEC 55015
Comment:	Phase L
Sample No.:	20220529.04.02

Scan Setup: Voltage with 2-Line-LISN pre [EMI conducted]

Hardware Setup:	Voltage with 2-Line-LISN
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.02 s	0 dB
150 kHz - 30 MHz	4.5 kHz	PK+; AVG	9 kHz	0.01 s	0 dB



China

Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.011600	66.29	---	110.00	43.71	1000.0	0.200	L1	20.2
0.036900	90.64	---	110.00	19.36	1000.0	0.200	L1	19.7
0.150000	---	27.27	56.00	28.73	1000.0	9.000	L1	19.5
0.334500	---	17.81	49.34	31.53	1000.0	9.000	L1	19.5
0.438000	31.85	---	57.10	25.25	1000.0	9.000	L1	19.5
0.550500	29.63	---	56.00	26.37	1000.0	9.000	L1	19.5
0.694500	---	18.05	46.00	27.95	1000.0	9.000	L1	19.5
2.377500	---	12.22	46.00	33.78	1000.0	9.000	L1	19.5
7.723500	---	26.71	50.00	23.29	1000.0	9.000	L1	19.6
7.741500	34.70	---	60.00	25.30	1000.0	9.000	L1	19.6
8.488500	---	27.44	50.00	22.56	1000.0	9.000	L1	19.7
10.270500	37.21	---	60.00	22.79	1000.0	9.000	L1	19.7

China

9K-30MHz Conducted Disturbance Test

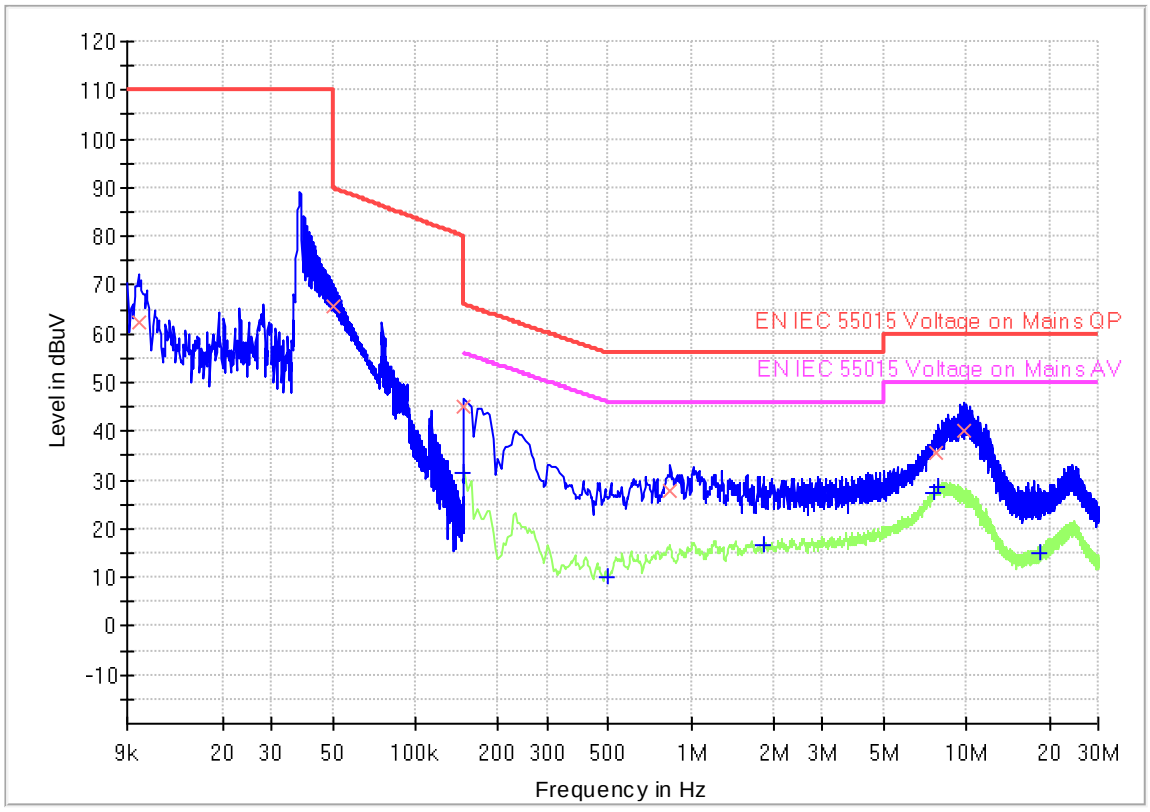
EUT Information

EUT Name:	LED lamp
Model	MK-020011014622-A
Client:	Zhejiang MEKA Electric Co., Ltd
Op Cond	Light on, AC 230V/50Hz, T21, H56%, P101.1kPa
Operator:	Zhong Yuwei
Standard	EN IEC 55015
Comment:	Phase N
Sample No.:	20220529.04.02

Scan Setup: Voltage with 2-Line-LISN pre [EMI conducted]

Hardware Setup:	Voltage with 2-Line-LISN
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.02 s	0 dB
150 kHz - 30 MHz	4.5 kHz	PK+; AVG	9 kHz	0.01 s	0 dB



China

Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.009900	62.21	---	110.00	47.79	1000.0	0.200	N	20.0
0.050300	65.53	---	89.95	24.42	1000.0	0.200	N	19.5
0.150000	---	31.63	56.00	24.37	1000.0	9.000	N	19.5
0.150000	45.15	---	66.00	20.85	1000.0	9.000	N	19.5
0.496500	---	9.99	46.06	36.07	1000.0	9.000	N	19.5
0.843000	27.95	---	56.00	28.05	1000.0	9.000	N	19.5
1.833000	---	16.59	46.00	29.41	1000.0	9.000	N	19.5
7.593000	---	27.38	50.00	22.62	1000.0	9.000	N	19.6
7.755000	35.64	---	60.00	24.36	1000.0	9.000	N	19.6
7.935000	---	28.57	50.00	21.43	1000.0	9.000	N	19.6
9.789000	39.96	---	60.00	20.04	1000.0	9.000	N	19.7
18.384000	---	14.82	50.00	35.18	1000.0	9.000	N	19.8

China

9K-30MHz Conducted Disturbance Test

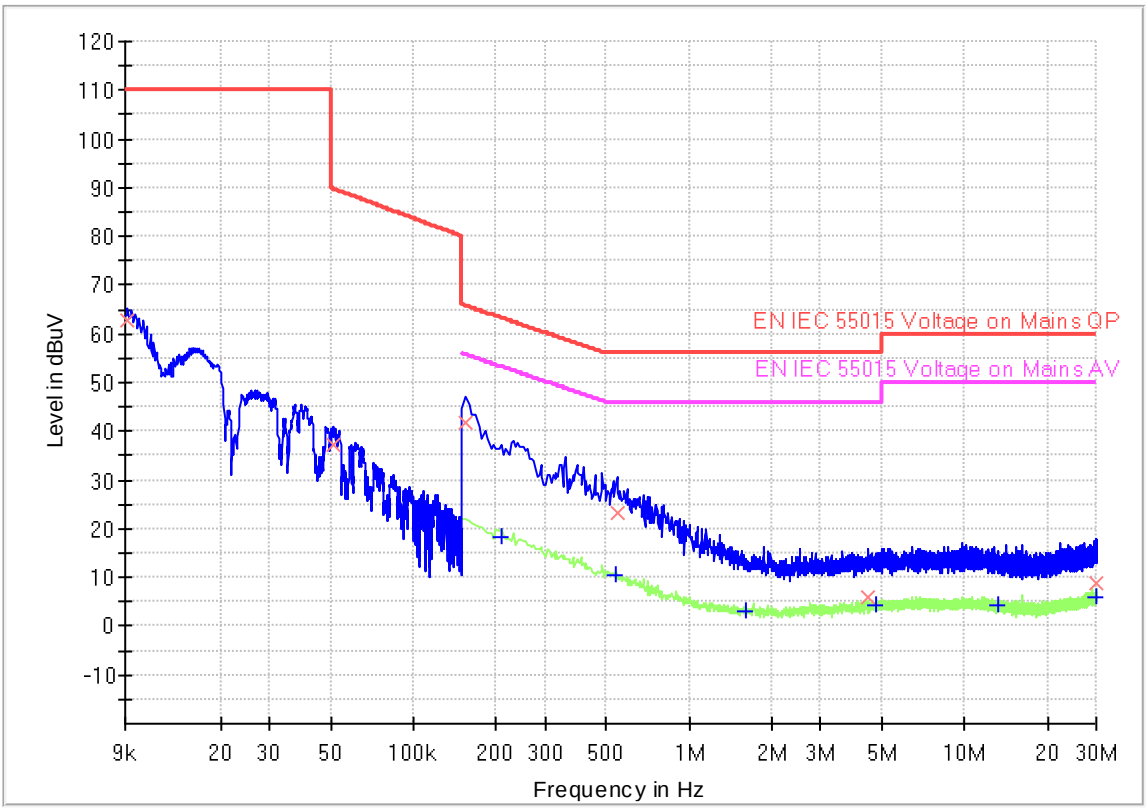
EUT Information

EUT Name:	LED lamp
Model	MK-020011014799-E
Client:	Zhejiang MEKA Electric Co., Ltd
Op Cond	Light on, AC 230V/50Hz, T21, H56%, P101.1kPa
Operator:	Zhong Yuwei
Standard	EN IEC 55015
Comment:	Phase L
Sample No.:	20220529.04.03

Scan Setup: Voltage with 2-Line-LISN pre [EMI conducted]

Hardware Setup:	Voltage with 2-Line-LISN
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.02 s	0 dB
150 kHz - 30 MHz	4.5 kHz	PK+; AVG	9 kHz	0.01 s	0 dB



China

Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.009200	62.70	---	110.00	47.30	1000.0	0.200	L1	20.3
0.051100	37.35	---	89.80	52.45	1000.0	0.200	L1	19.6
0.154500	41.63	---	65.75	24.12	1000.0	9.000	L1	19.5
0.208500	---	18.47	53.26	34.79	1000.0	9.000	L1	19.5
0.546000	---	10.31	46.00	35.69	1000.0	9.000	L1	19.5
0.550500	23.14	---	56.00	32.86	1000.0	9.000	L1	19.5
1.608000	---	3.15	46.00	42.85	1000.0	9.000	L1	19.5
4.443000	5.82	---	56.00	50.18	1000.0	9.000	L1	19.6
4.771500	---	4.14	46.00	41.86	1000.0	9.000	L1	19.6
13.299000	---	4.24	50.00	45.76	1000.0	9.000	L1	19.7
29.881500	8.78	---	60.00	51.22	1000.0	9.000	L1	20.0
29.980500	---	6.04	50.00	43.96	1000.0	9.000	L1	20.0

China

9K-30MHz Conducted Disturbance Test

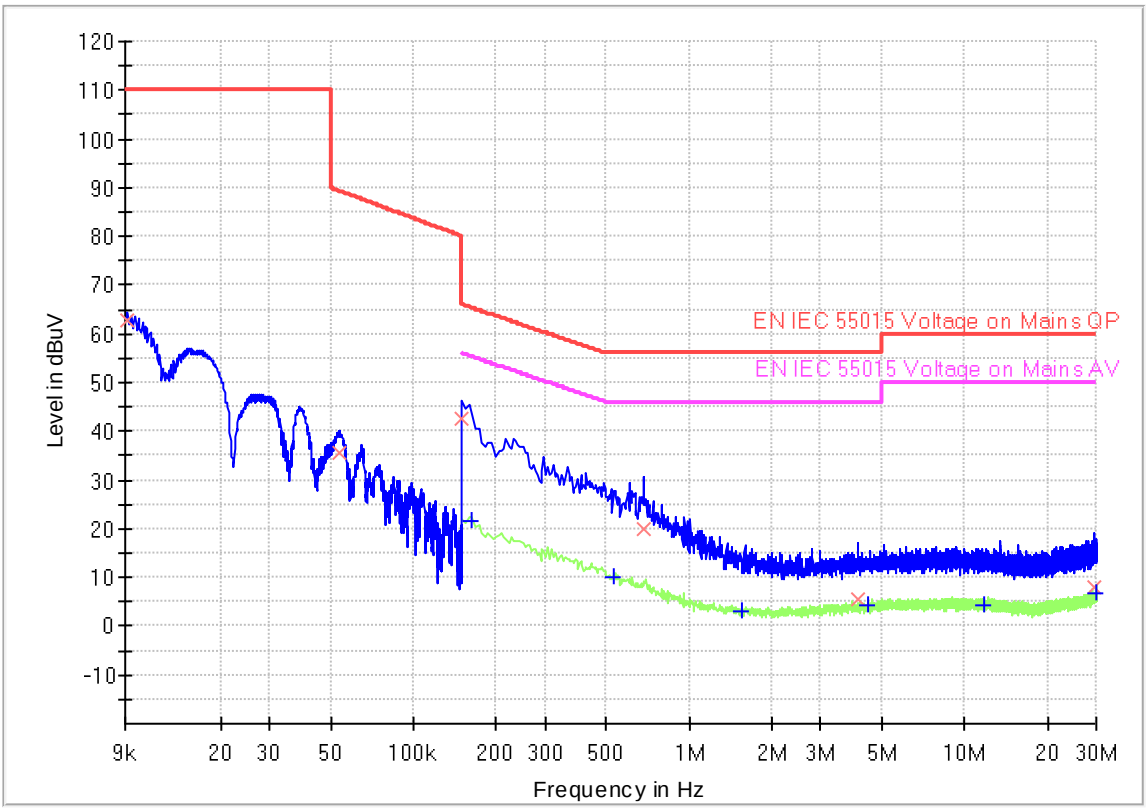
EUT Information

EUT Name:	LED lamp
Model	MK-020011014799-E
Client:	Zhejiang MEKA Electric Co., Ltd
Op Cond	Light on, AC 230V/50Hz, T21, H56%, P101.1kPa
Operator:	Zhong Yuwei
Standard	EN IEC 55015
Comment:	Phase N
Sample No.:	20220529.04.03

Scan Setup: Voltage with 2-Line-LISN pre [EMI conducted]

Hardware Setup:	Voltage with 2-Line-LISN
Receiver:	[ESR 3]
Level Unit:	dBuV

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.02 s	0 dB
150 kHz - 30 MHz	4.5 kHz	PK+; AVG	9 kHz	0.01 s	0 dB



China

Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.009200	62.70	---	110.00	47.30	1000.0	0.200	N	20.0
0.054200	35.77	---	89.27	53.50	1000.0	0.200	N	19.5
0.150000	42.50	---	66.00	23.50	1000.0	9.000	N	19.5
0.163500	---	21.71	55.28	33.57	1000.0	9.000	N	19.5
0.537000	---	10.25	46.00	35.75	1000.0	9.000	N	19.5
0.685500	19.85	---	56.00	36.15	1000.0	9.000	N	19.5
1.549500	---	3.18	46.00	42.82	1000.0	9.000	N	19.5
4.119000	5.45	---	56.00	50.55	1000.0	9.000	N	19.5
4.452000	---	4.12	46.00	41.88	1000.0	9.000	N	19.5
11.670000	---	4.47	50.00	45.53	1000.0	9.000	N	19.7
29.485500	7.83	---	60.00	52.17	1000.0	9.000	N	20.1
29.962500	---	6.60	50.00	43.40	1000.0	9.000	N	20.1



Test Setup

2.1.8 Test Location

This test was carried out in shielded room Z119.

2.2 Radiated disturbance (9 kHz to 30 MHz)

2.2.1 Specification Reference

EN IEC 55015:2019/A11:2020, Clause 4.5.2

2.2.2 Equipment Under Test

No.	Test model	Rated power	PCB	Sample Number(s)	Test mode
1	MK-020011012731-E	18W	PCB1	NIB-645570-1	AC Powered/Light on
2	MK-020011012862-E	24W	PCB2	NIB-645570-2	AC Powered/Light on
3	MK-020011013378-E	40W	PCB3	NIB-645570-3	AC Powered/Light on
4	MK-020011015010-A	24W	PCB4	NIB-645570-4	AC Powered/Light on
5	MK-020011012849-E	12W	PCB5	20220529.04.01	AC Powered/Light on
6	MK-020011014622-A	60W	PCB6	20220529.04.02	AC Powered/Light on
7	MK-020011014799-E	12W	PCB7	20220529.04.03	AC Powered/Light on

2.2.3 Date of Test

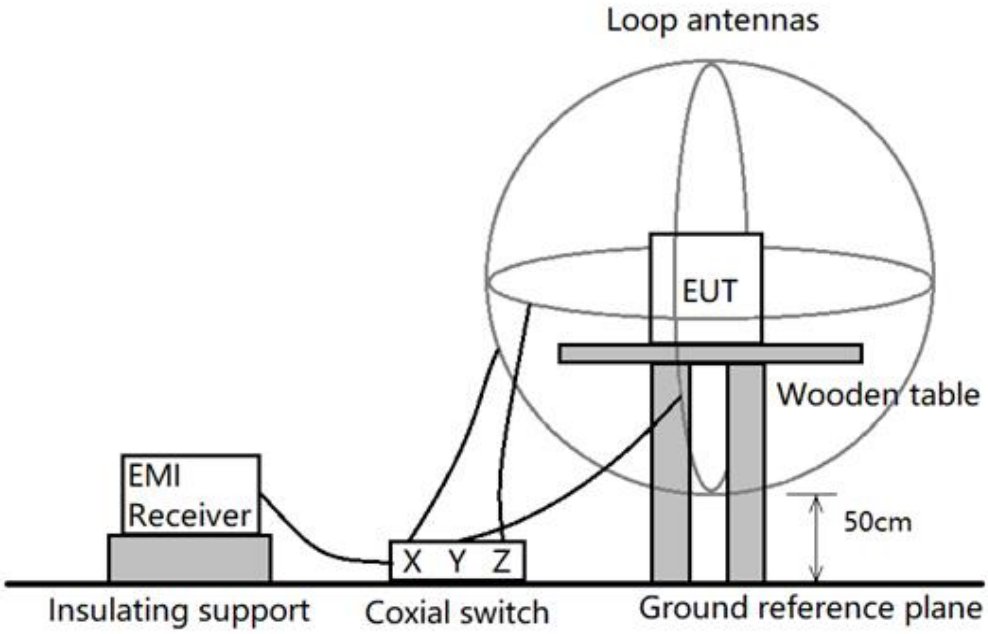
04/19/2022, 05/31/2022

2.2.4 Test Method

The magnetic component shall be measured by means of a large loop antenna system (LLAS) as described in CISPR 16-1-4. The EUT shall be placed in the centre of the LLAS as shown in Annex C of CISPR 16-1-4:2010. The requirements for routing the cables from the EUT and for the positioning of the EUT inside the LLAS given in CISPR 16-1-4 shall be applied.

The current induced in the LLAS is measured in accordance with 7.2 of CISPR 16-2-3:2016. By means of a coaxial switch, the three field directions of the EUT can be measured in sequence. The measurement results for each direction shall comply with the limits.

For EUT dimensions larger than 1.6m, The measurements are performed at 3 m distance with a 60 cm loop antenna as specified in 4.3.2 of CISPR 16-1-4:2010.



China

2.2.5 Environmental Conditions

Ambient Temperature	20-25 °C
Relative Humidity	40-60 %
Atmospheric Pressure	1010-1040 mbar

2.2.6 Specification Limits

LLAS radiated disturbance limits in the frequency range 9 kHz to 30 MHz			
Frequency range	Quasi-peak limits for three loop diameters dB(μA)		
	2 m	3 m	4 m
9 kHz to 70 kHz	88	81	75
70 kHz to 150 kHz	88 to 58	81 to 51	75 to 45
150 kHz to 3.0 MHz	58 to 22	51 to 15	45 to 9
3.0 MHz to 30 MHz	22	15 to 16	9 to 12

2.2.7 Test Results

Results for Configuration and Mode: Test model as see the table in the chapter 2.2.2.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

China

9K-30MHz Radiated Disturbance Test

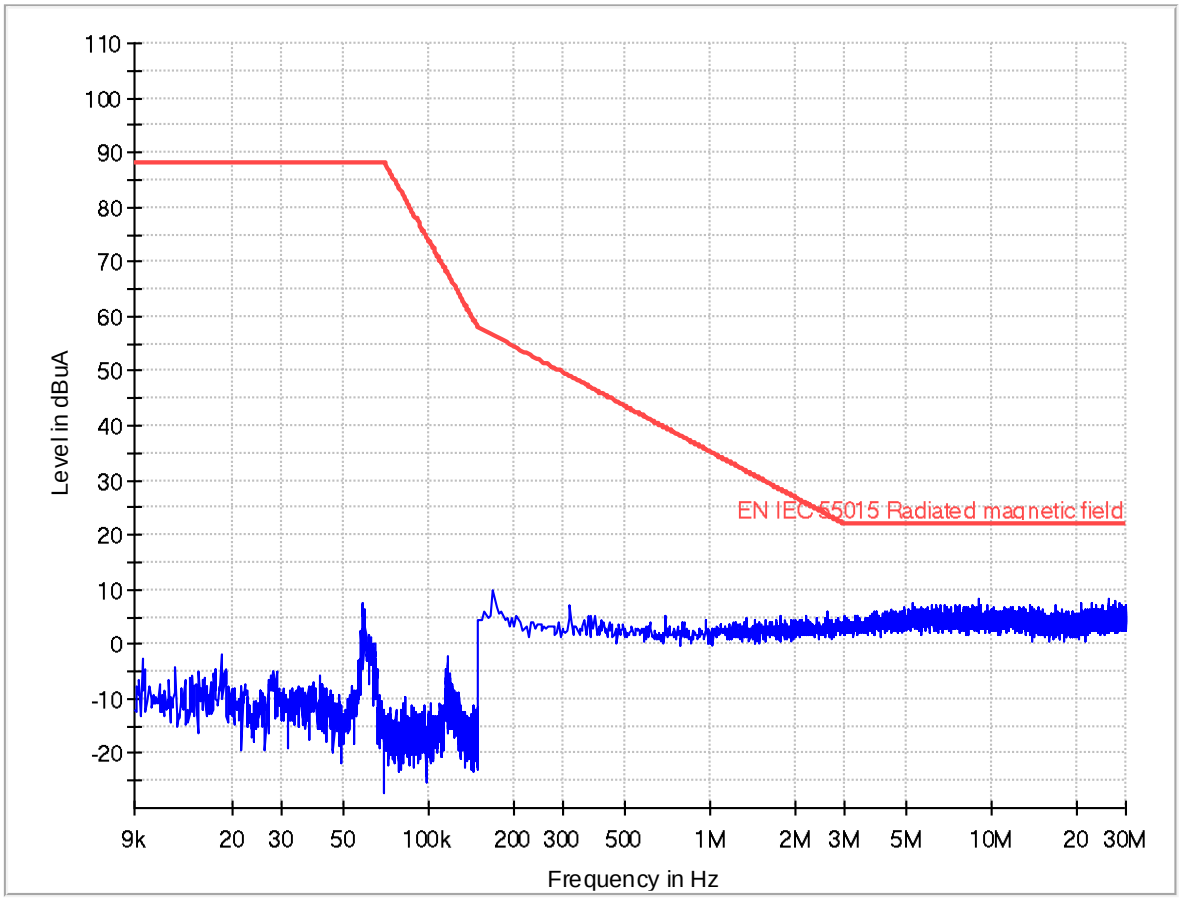
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012731-E(PCB1),18W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op cond:	Power on,AC 230V/50Hz,T21.9C,H54.0%,P101.7kPa
Operator:	Qiliang Chen
Test Spec:	EN IEC 55015
Comment:	X
Sample No.:	NIB-645570-1

Scan Setup: HM020_9kHz-30MHz_Max [EMI radiated]

Hardware Setup:	HM020
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

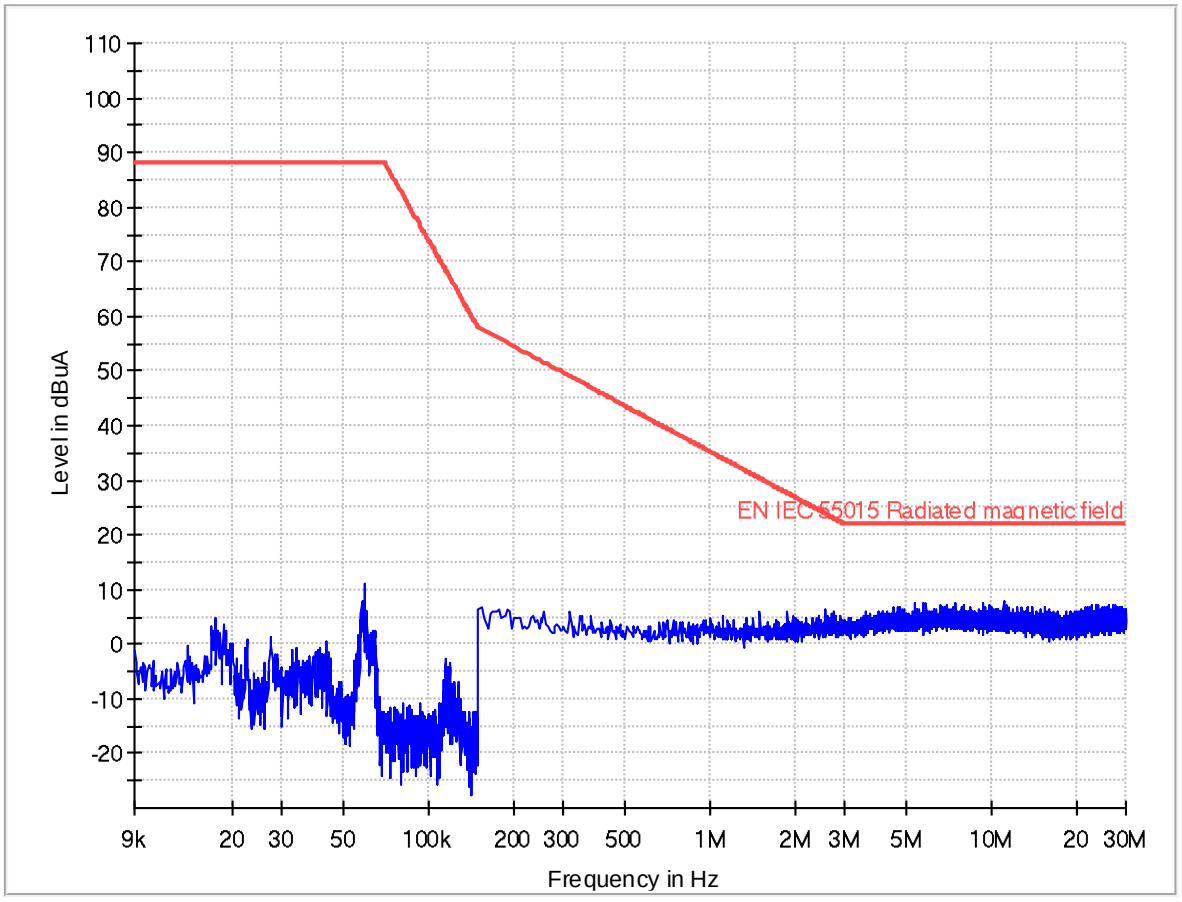
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012731-E(PCB1),18W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op cond:	Power on,AC 230V/50Hz,T21.9C,H54.0%,P101.7kPa
Operator:	Qiliang Chen
Test Spec:	EN IEC 55015
Comment:	Y
Sample No.:	NIB-645570-1

Scan Setup: HM020_9kHz-30MHz_Max [EMI radiated]

Hardware Setup:	HM020
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

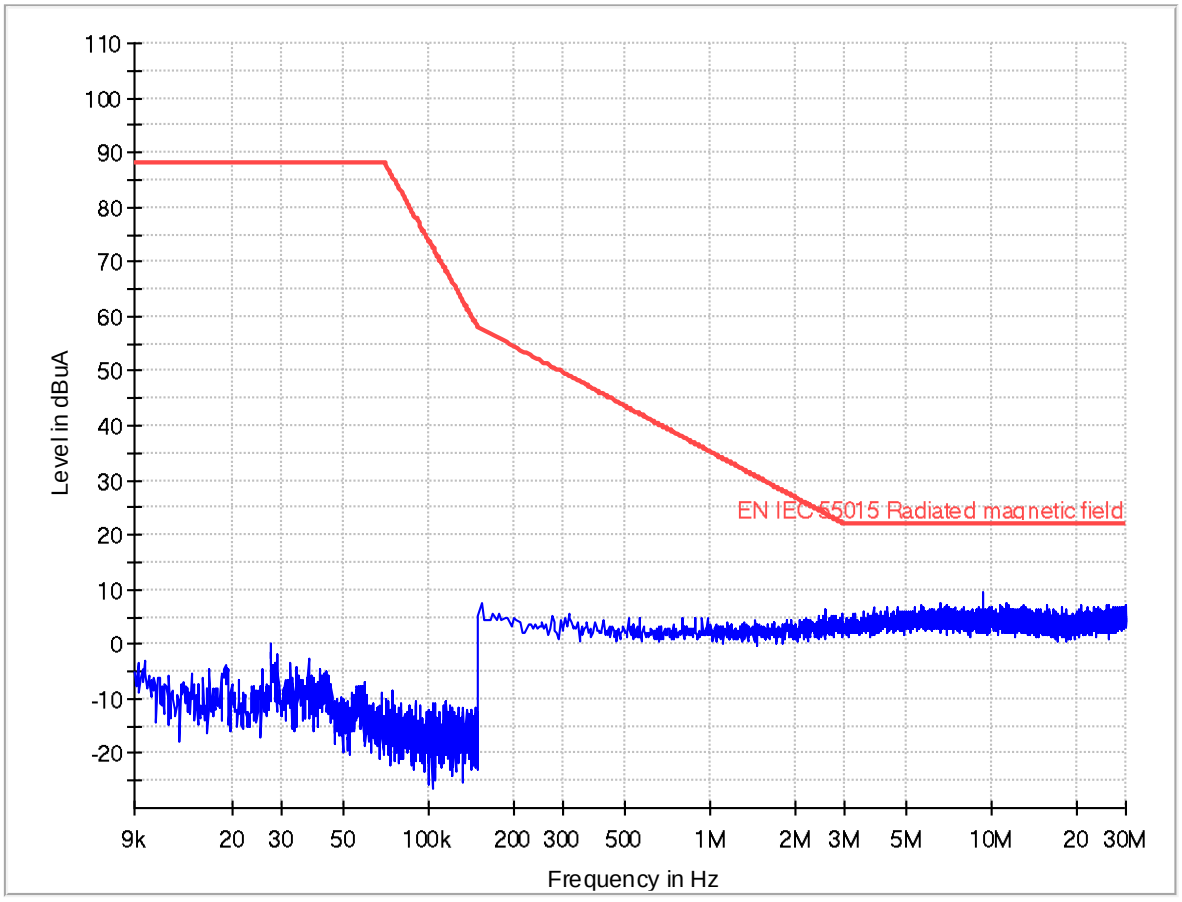
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012731-E(PCB1),18W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op cond:	Power on,AC 230V/50Hz,T21.9C,H54.0%,P101.7kPa
Operator:	Qiliang Chen
Test Spec:	EN IEC 55015
Comment:	Z
Sample No.:	NIB-645570-1

Scan Setup: HM020_9kHz-30MHz_Max [EMI radiated]

Hardware Setup:	HM020
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

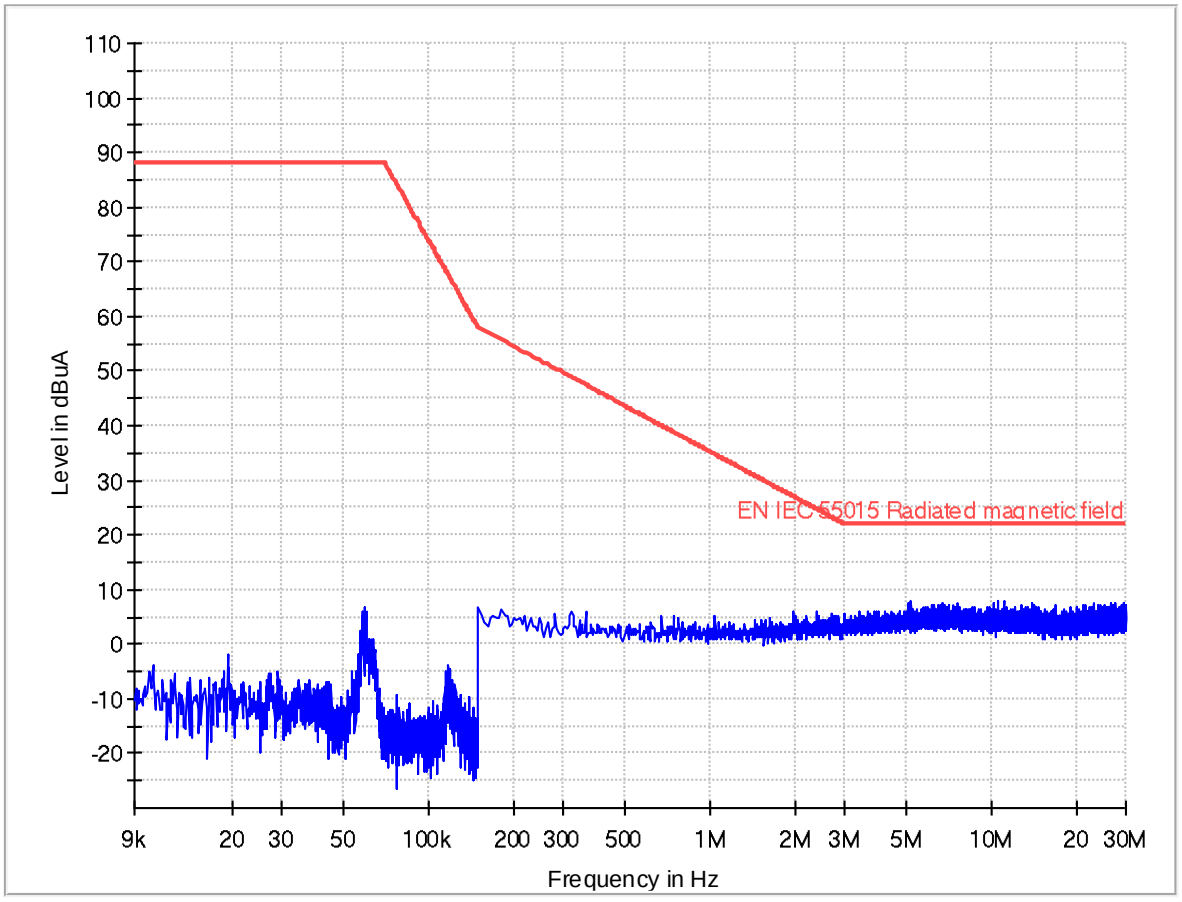
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012862-E(PCB2),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op cond:	Power on,AC 230V/50Hz,T21.9C,H54.0%,P101.7kPa
Operator:	Qiliang Chen
Test Spec:	EN IEC 55015
Comment:	X
Sample No.:	NIB-645570-2

Scan Setup: HM020_9kHz-30MHz_Max [EMI radiated]

Hardware Setup:	HM020
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

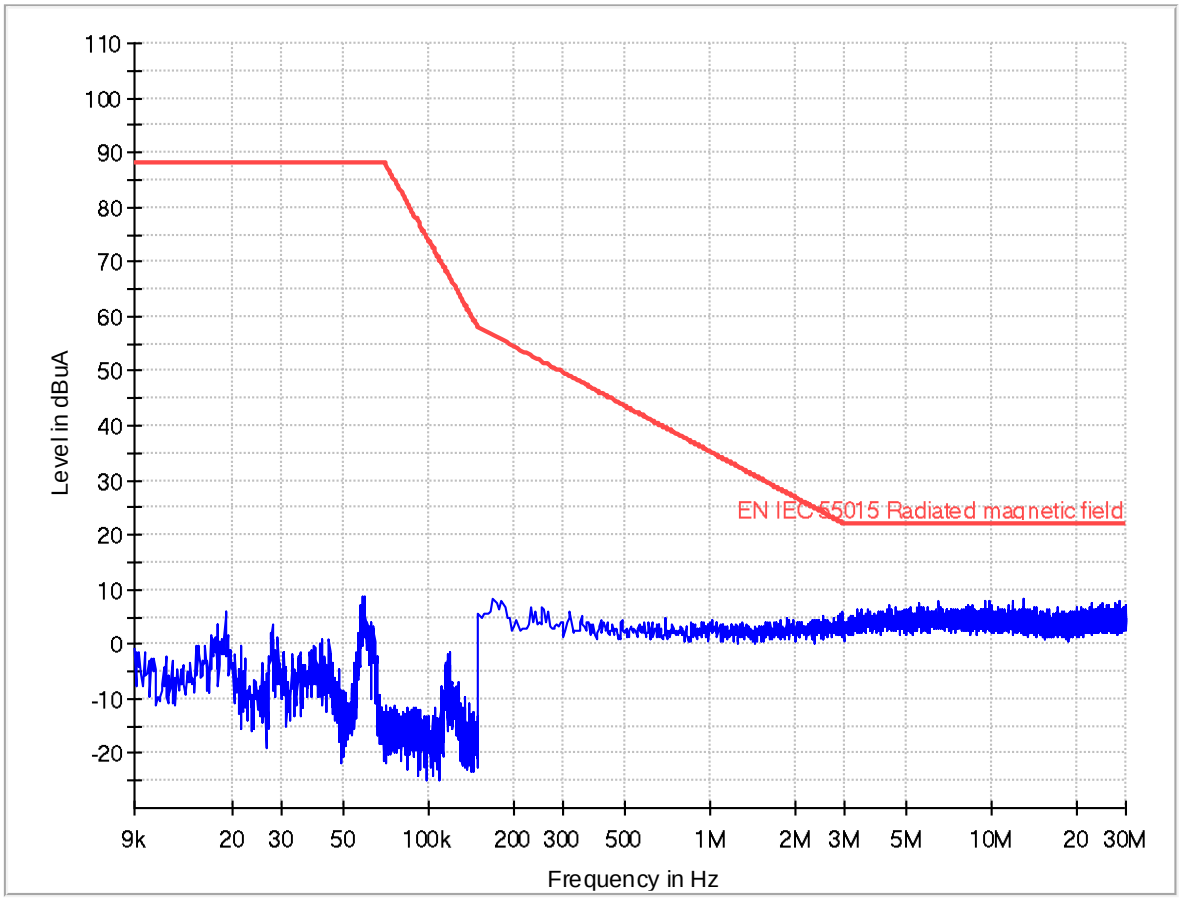
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012862-E(PCB2),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op cond:	Power on,AC 230V/50Hz,T21.9C,H54.0%,P101.7kPa
Operator:	Qiliang Chen
Test Spec:	EN IEC 55015
Comment:	Y
Sample No.:	NIB-645570-2

Scan Setup: HM020_9kHz-30MHz_Max [EMI radiated]

Hardware Setup:	HM020
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

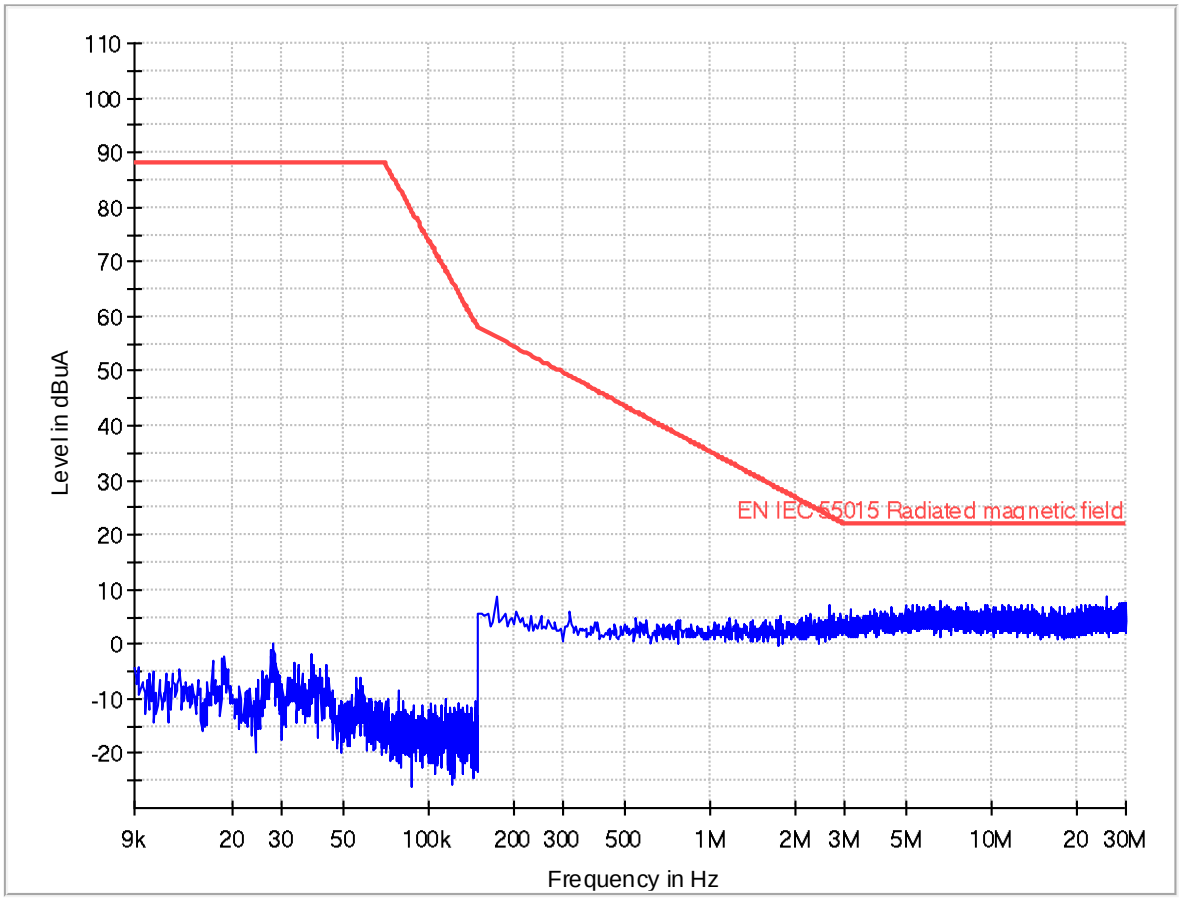
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012862-E(PCB2),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op cond:	Power on,AC 230V/50Hz,T21.9C,H54.0%,P101.7kPa
Operator:	Qiliang Chen
Test Spec:	EN IEC 55015
Comment:	Z
Sample No.:	NIB-645570-2

Scan Setup: HM020_9kHz-30MHz_Max [EMI radiated]

Hardware Setup:	HM020
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

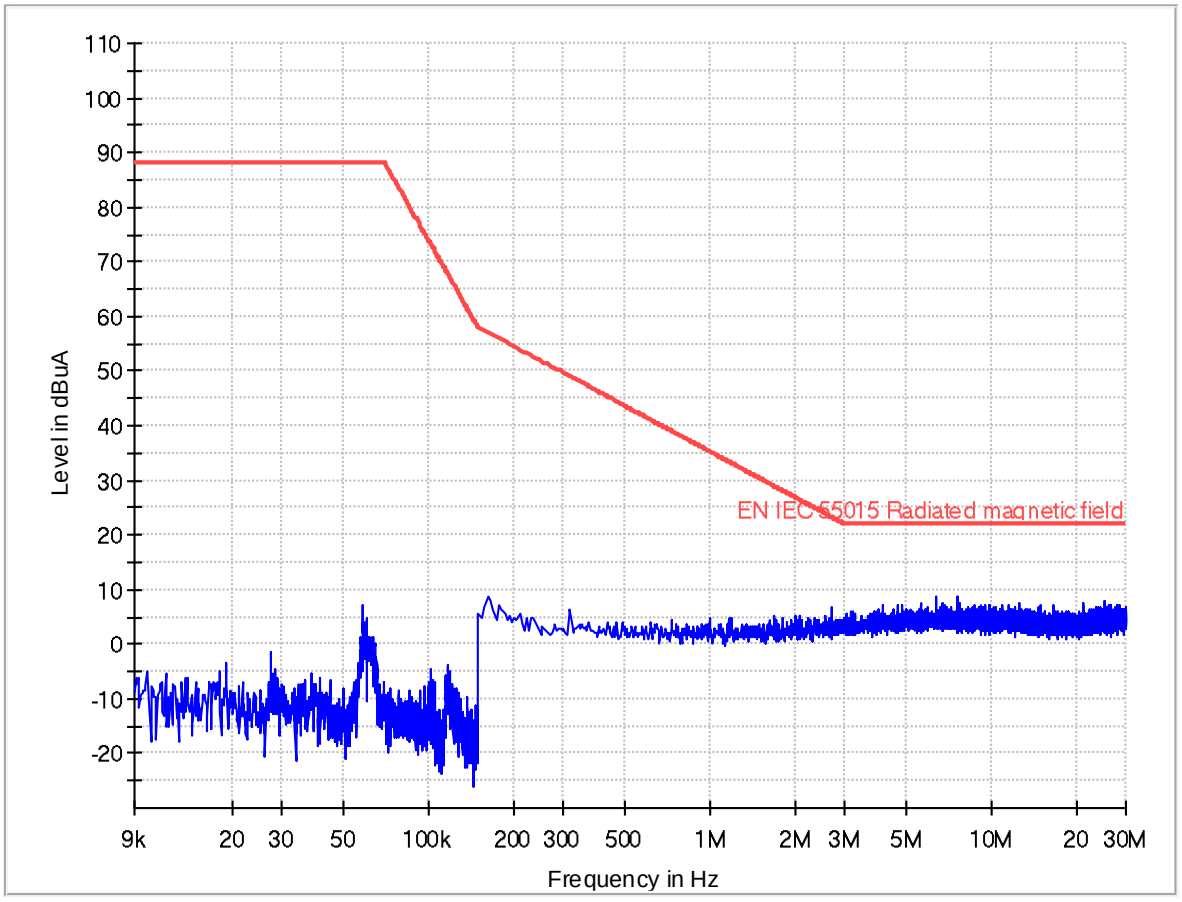
EUT Information

EUT Name:	LED lamp
Model:	MK-020011013378-E(PCB3)40W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op cond:	Power on,AC 230V/50Hz,T21.9C,H54.0%,P101.7kPa
Operator:	Qiliang Chen
Test Spec:	EN IEC 55015
Comment:	X
Sample No.:	NIB-645570-3

Scan Setup: HM020_9kHz-30MHz_Max [EMI radiated]

Hardware Setup:	HM020
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

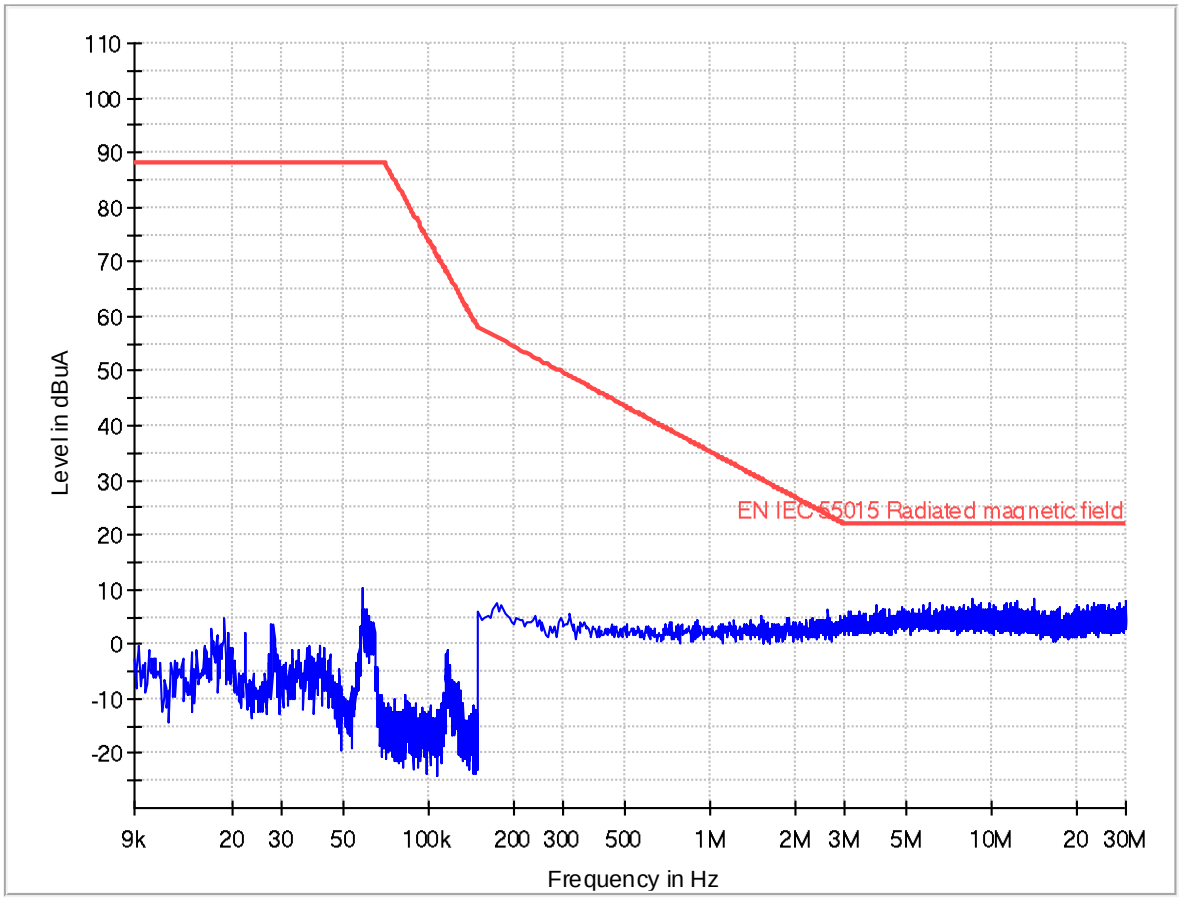
EUT Information

EUT Name:	LED lamp
Model:	MK-020011013378-E(PCB3)40W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op cond:	Power on,AC 230V/50Hz,T21.9C,H54.0%,P101.7kPa
Operator:	Qiliang Chen
Test Spec:	EN IEC 55015
Comment:	Y
Sample No.:	NIB-645570-3

Scan Setup: HM020_9kHz-30MHz_Max [EMI radiated]

Hardware Setup:	HM020
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

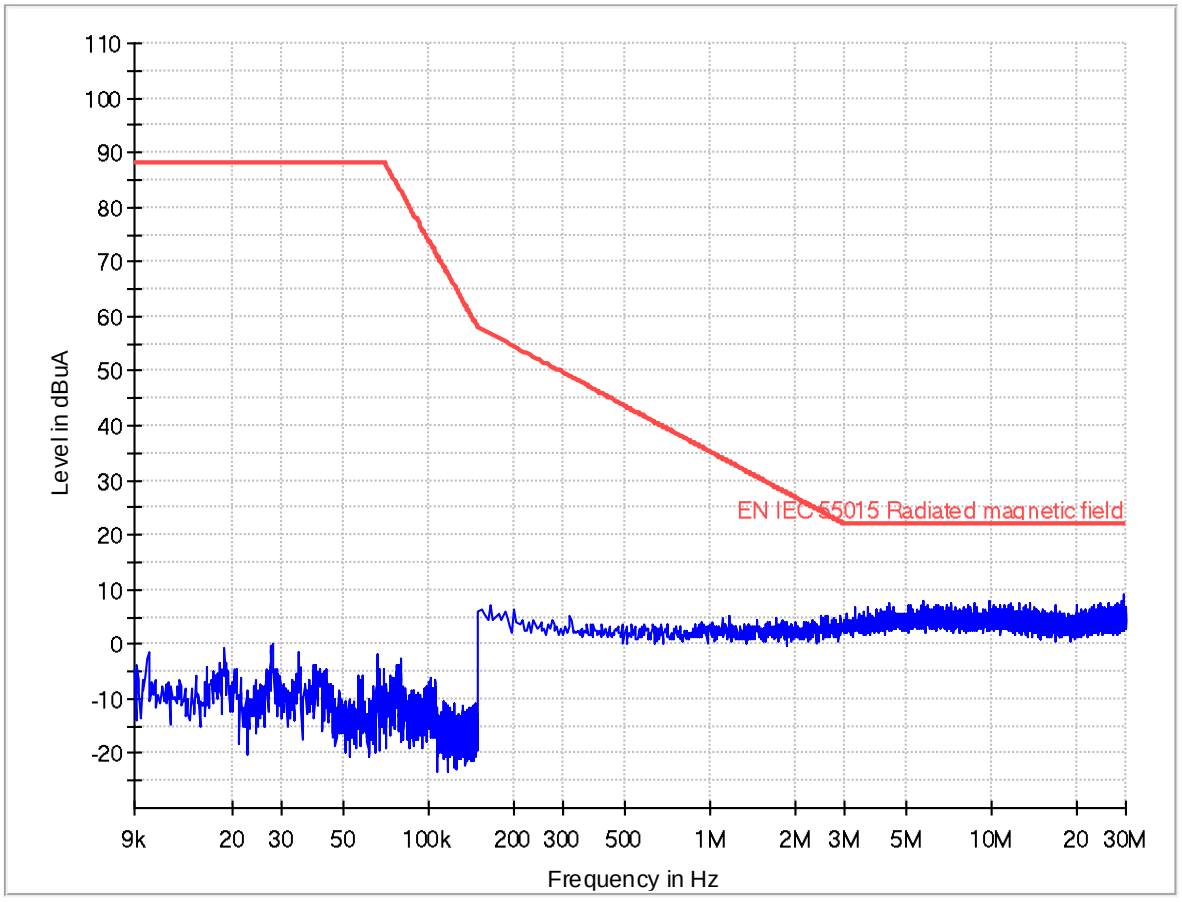
EUT Information

EUT Name:	LED lamp
Model:	MK-020011013378-E(PCB3)40W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op cond:	Power on,AC 230V/50Hz,T21.9C,H54.0%,P101.7kPa
Operator:	Qiliang Chen
Test Spec:	EN IEC 55015
Comment:	Z
Sample No.:	NIB-645570-3

Scan Setup: HM020_9kHz-30MHz_Max [EMI radiated]

Hardware Setup:	HM020
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

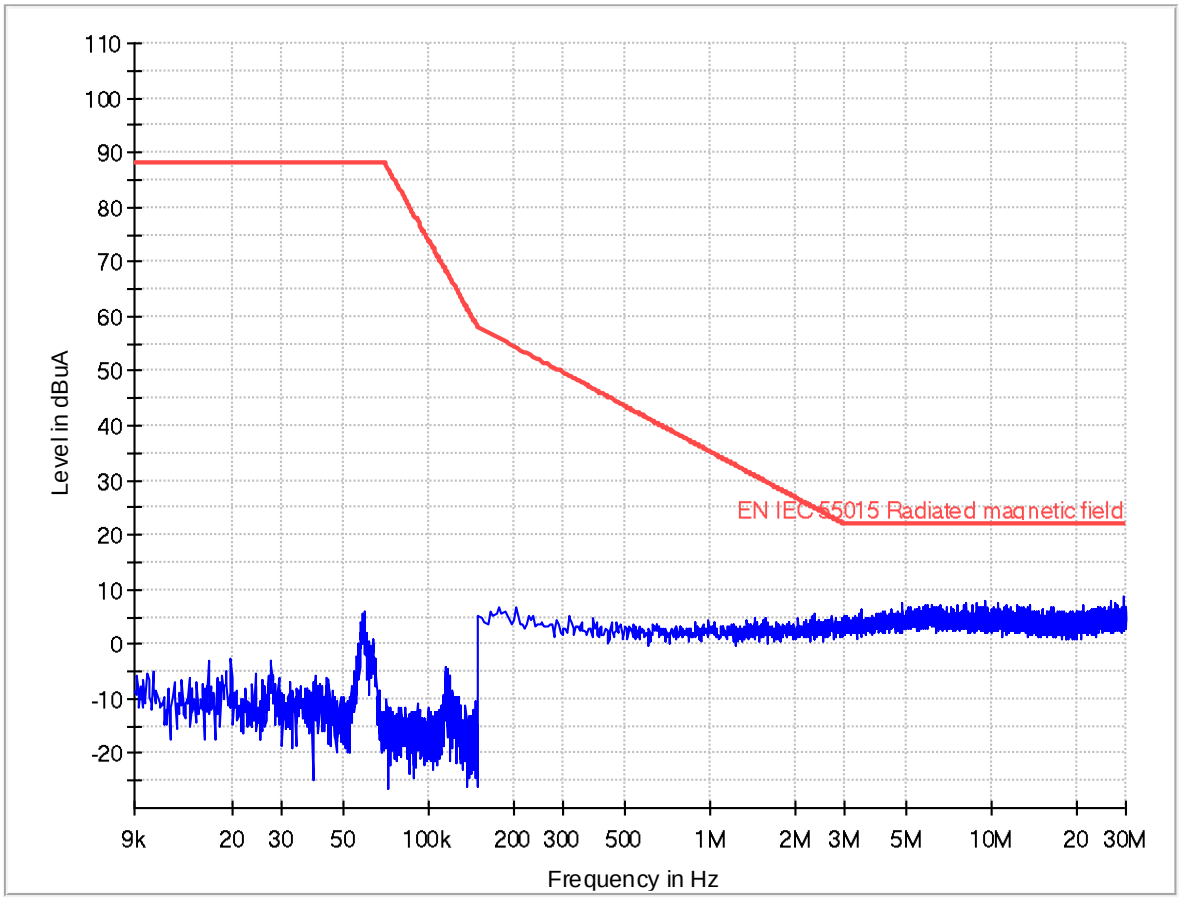
EUT Information

EUT Name:	LED lamp
Model:	MK-020011015010-A(PCB4),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op cond:	Power on,AC 230V/50Hz,T21.9C,H54.0%,P101.7kPa
Operator:	Qiliang Chen
Test Spec:	EN IEC 55015
Comment:	X
Sample No.:	NIB-645570-4

Scan Setup: HM020_9kHz-30MHz_Max [EMI radiated]

Hardware Setup:	HM020
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

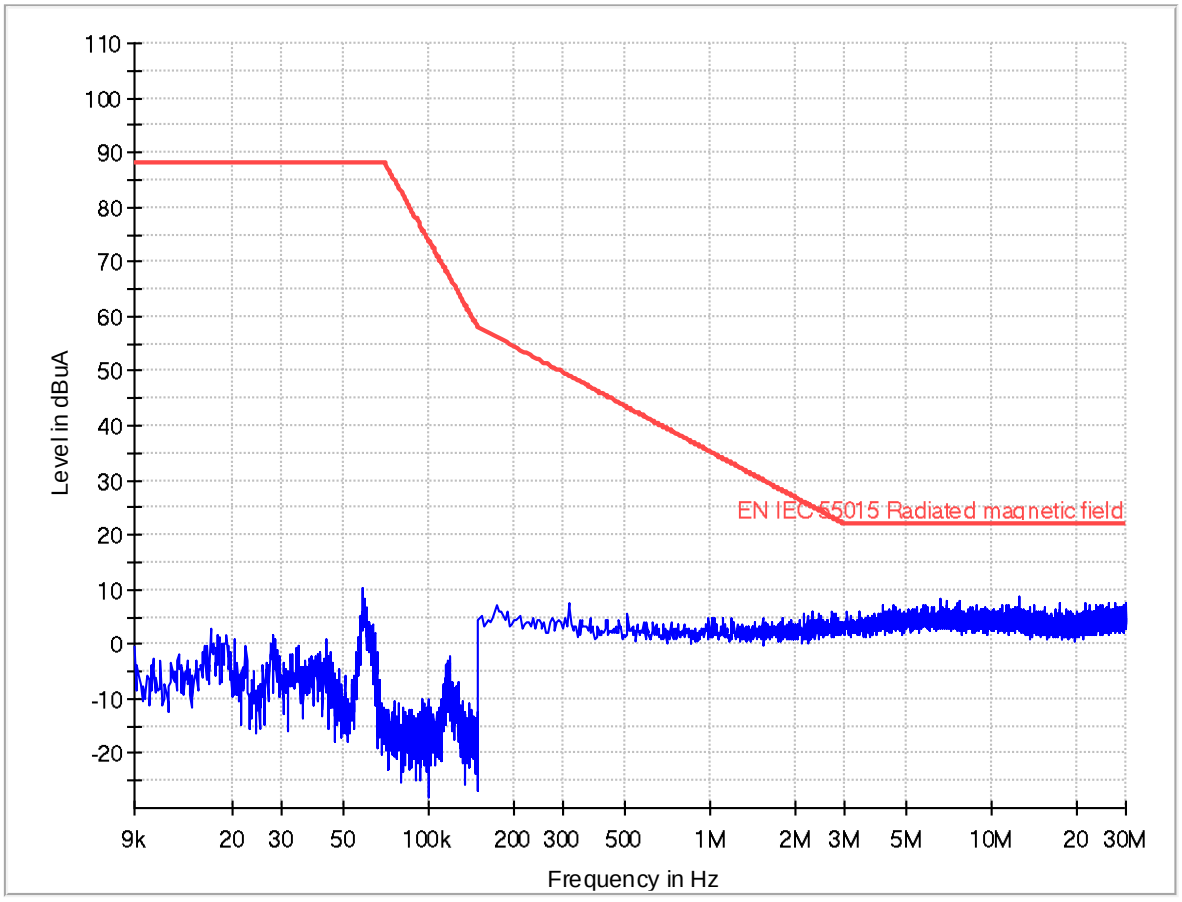
EUT Information

EUT Name:	LED lamp
Model:	MK-020011015010-A(PCB4),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op cond:	Power on,AC 230V/50Hz,T21.9C,H54.0%,P101.7kPa
Operator:	Qiliang Chen
Test Spec:	EN IEC 55015
Comment:	Y
Sample No.:	NIB-645570-4

Scan Setup: HM020_9kHz-30MHz_Max [EMI radiated]

Hardware Setup:	HM020
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

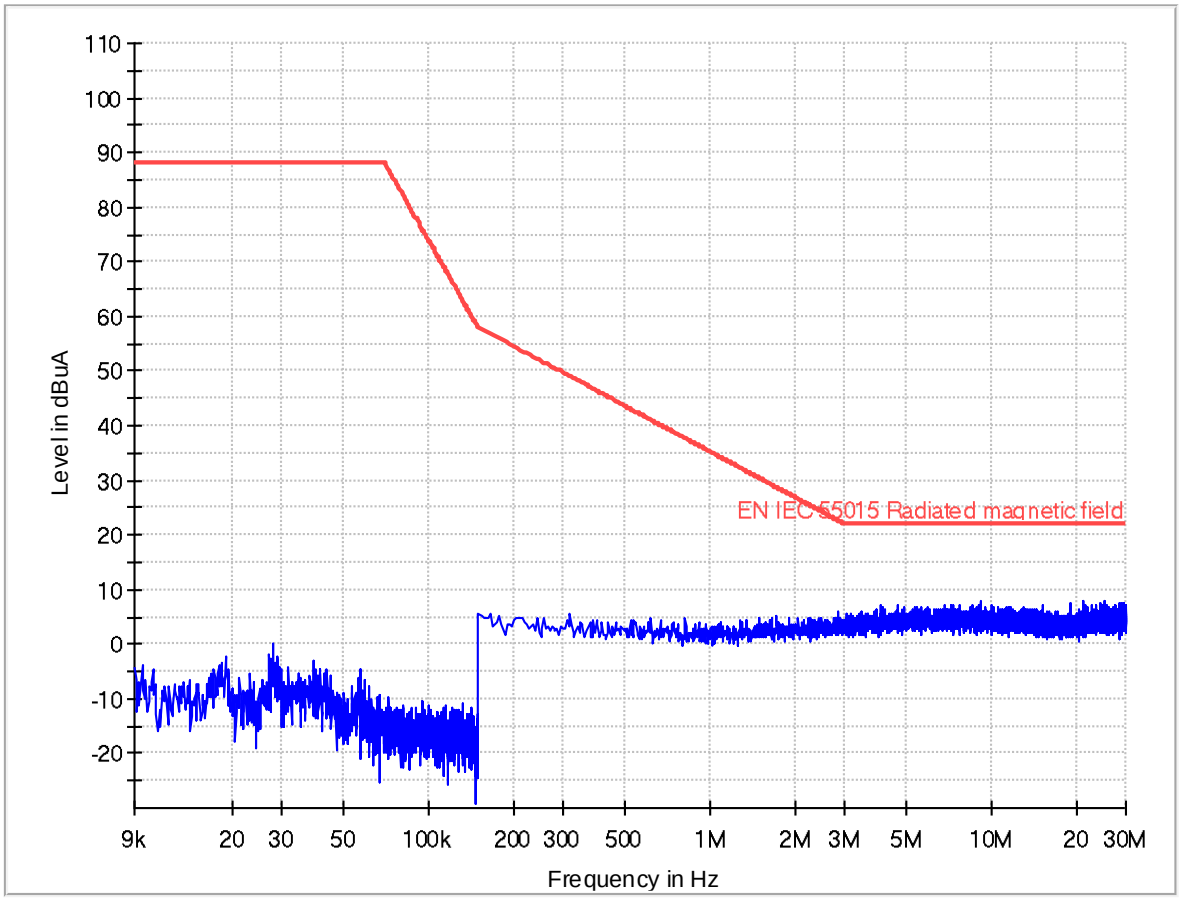
EUT Information

EUT Name:	LED lamp
Model:	MK-020011015010-A(PCB4),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op cond:	Power on,AC 230V/50Hz,T21.9C,H54.0%,P101.7kPa
Operator:	Qiliang Chen
Test Spec:	EN IEC 55015
Comment:	Z
Sample No.:	NIB-645570-4

Scan Setup: HM020_9kHz-30MHz_Max [EMI radiated]

Hardware Setup:	HM020
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	100 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

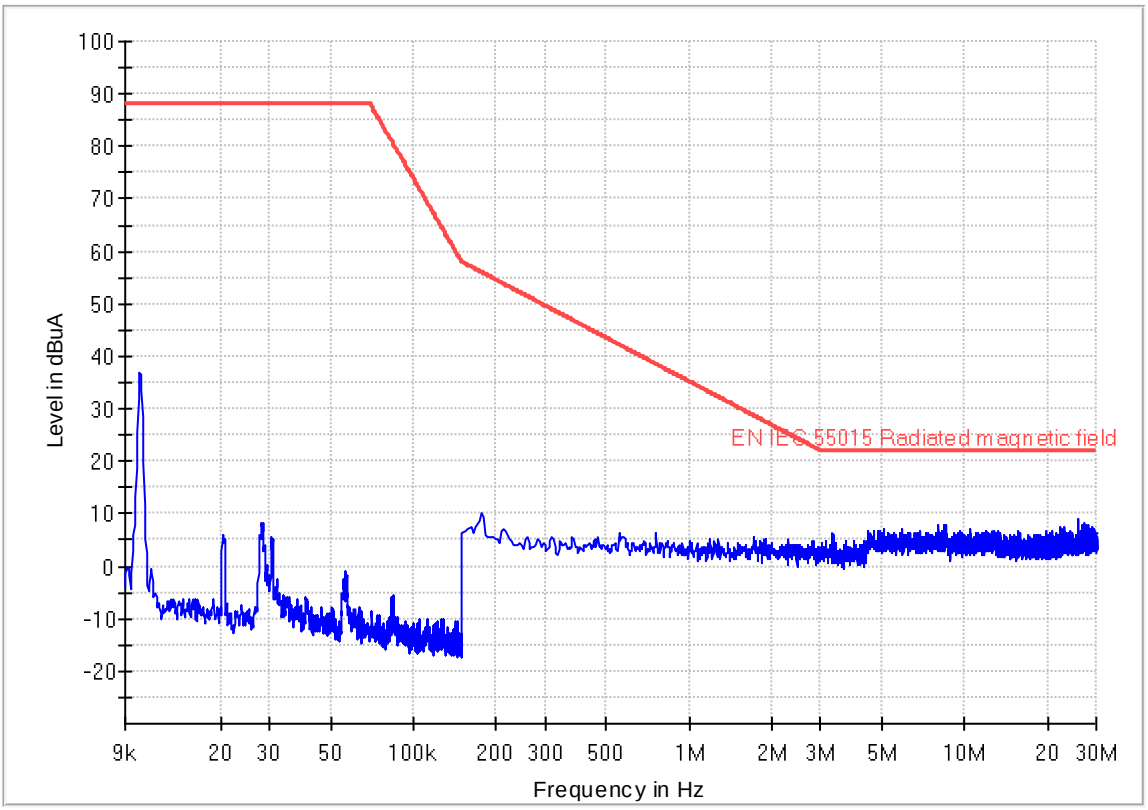
EUT Information

EUT Name:	LED Lamp
Model:	MK-020011012849-E
Client:	Zhejiang MEKA Electric Co., Ltd.
Op cond:	Light on, AC 230V 60Hz, T22.6, 41.3%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	X
Sample No.:	20220529.04.01

Scan Setup: TripleLoop max [EMI radiated]

Hardware Setup:	TripleLoop
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

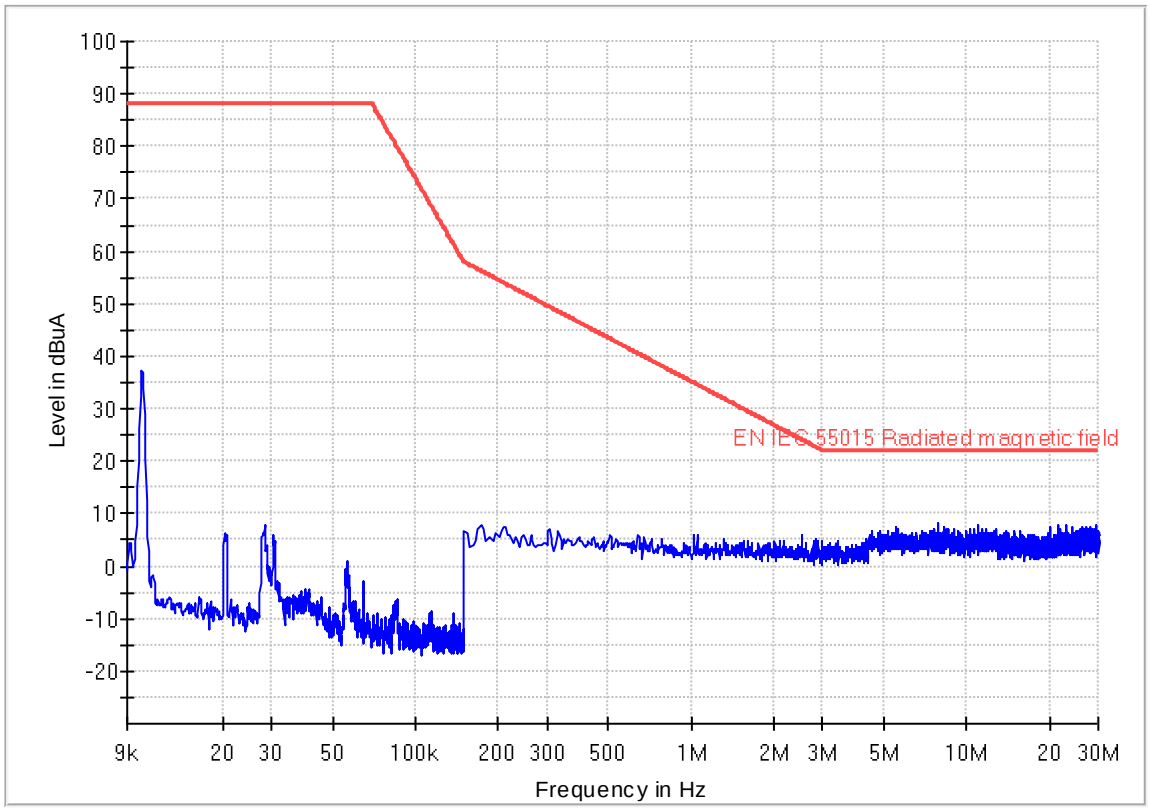
EUT Information

EUT Name:	LED Lamp
Model:	MK-020011012849-E
Client:	Zhejiang MEKA Electric Co., Ltd.
Op cond:	Light on, AC 230V 60Hz, T22.6, 41.3%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	Y
Sample No.:	20220529.04.01

Scan Setup: TripleLoop max [EMI radiated]

Hardware Setup:	TripleLoop
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

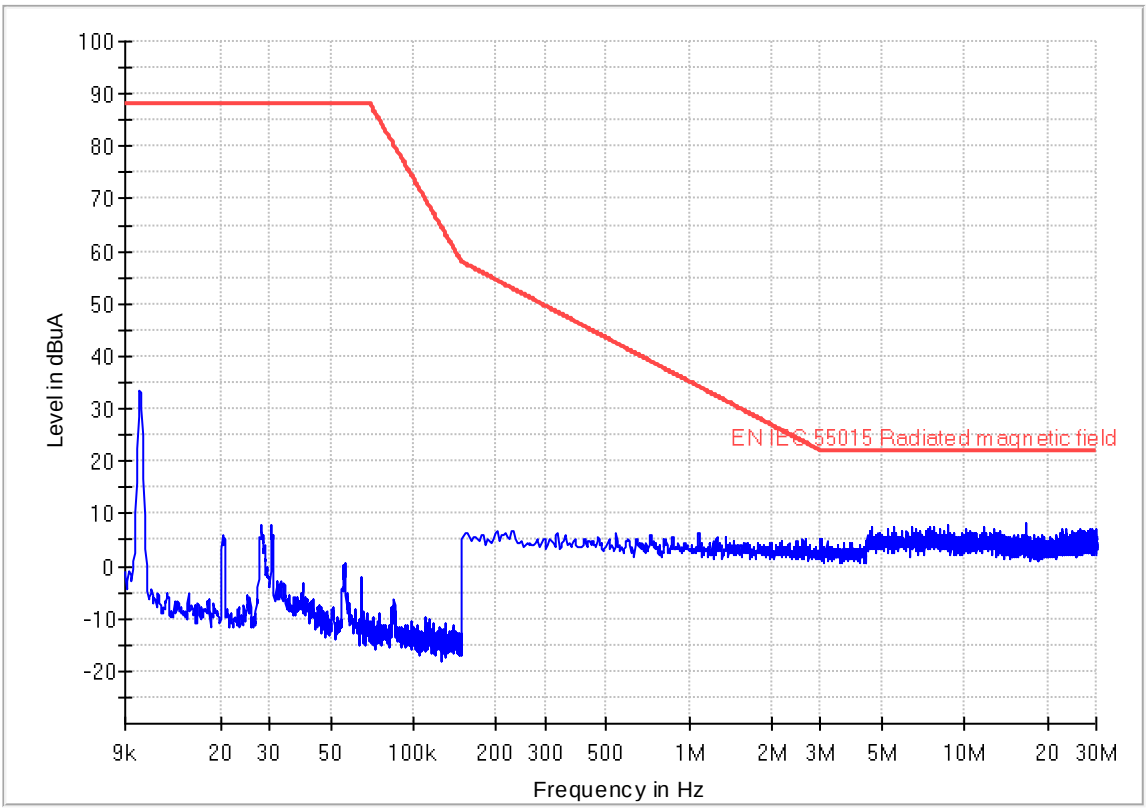
EUT Information

EUT Name:	LED Lamp
Model:	MK-020011012849-E
Client:	Zhejiang MEKA Electric Co., Ltd.
Op cond:	Light on, AC 230V 60Hz, T22.6, 41.3%, P103.0kPa
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Test Spec:	EN IEC 55015
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Sample No.:	20220529.04.01

Scan Setup: TripleLoop max [EMI radiated]

Hardware Setup:	TripleLoop
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

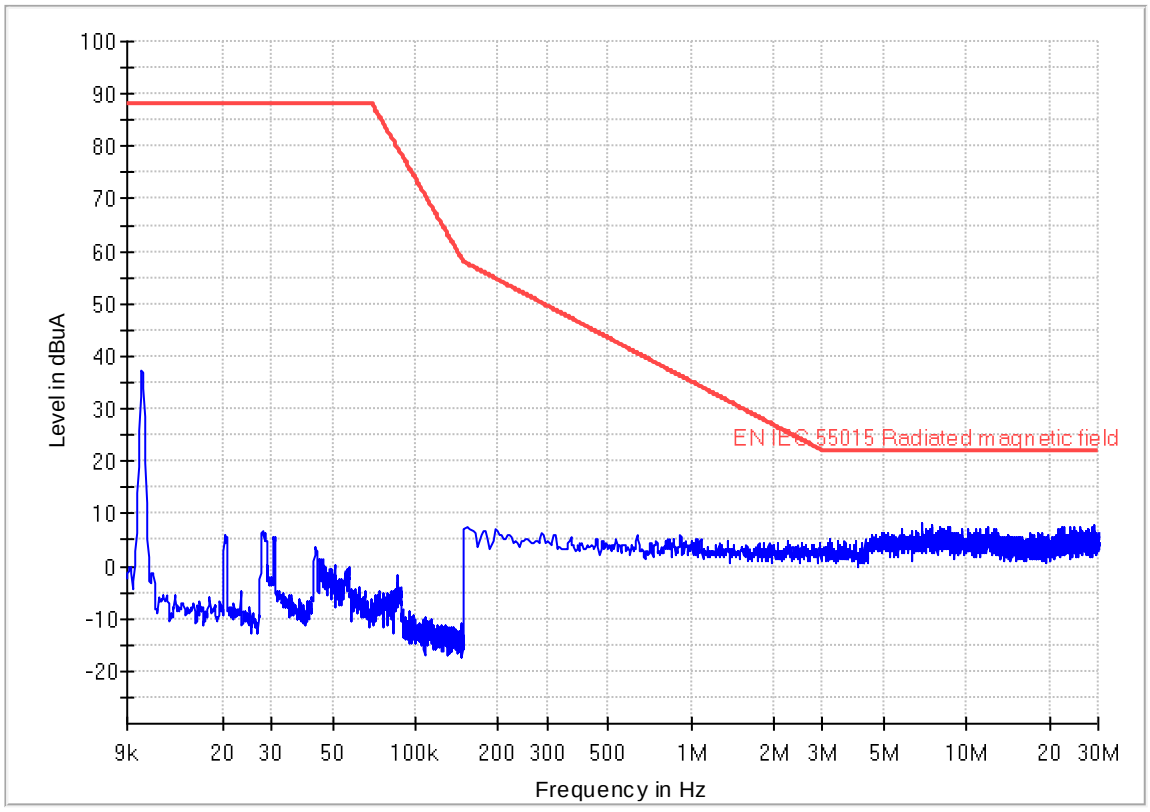
EUT Information

EUT Name:	LED Lamp
Model:	MK-020011014622-A
Client:	Zhejiang MEKA Electric Co., Ltd.
Op cond:	Light on, AC 230V 60Hz, T22.6, 41.3%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	X
Sample No.:	20220529.04.02

Scan Setup: TripleLoop max [EMI radiated]

Hardware Setup:	TripleLoop
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

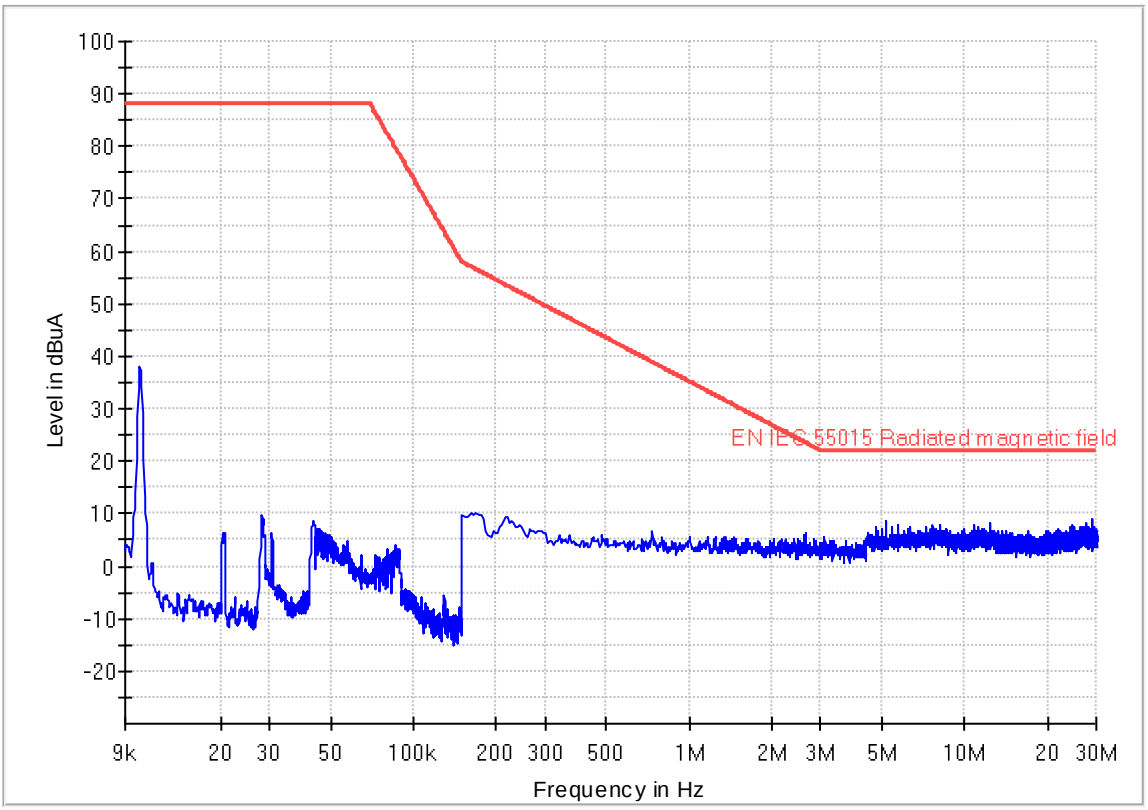
EUT Information

EUT Name:	LED Lamp
Model:	MK-020011014622-A
Client:	Zhejiang MEKA Electric Co., Ltd.
Op cond:	Light on, AC 230V 60Hz, T22.6, 41.3%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	Y
Sample No.:	20220529.04.02

Scan Setup: TripleLoop max [EMI radiated]

Hardware Setup:	TripleLoop
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

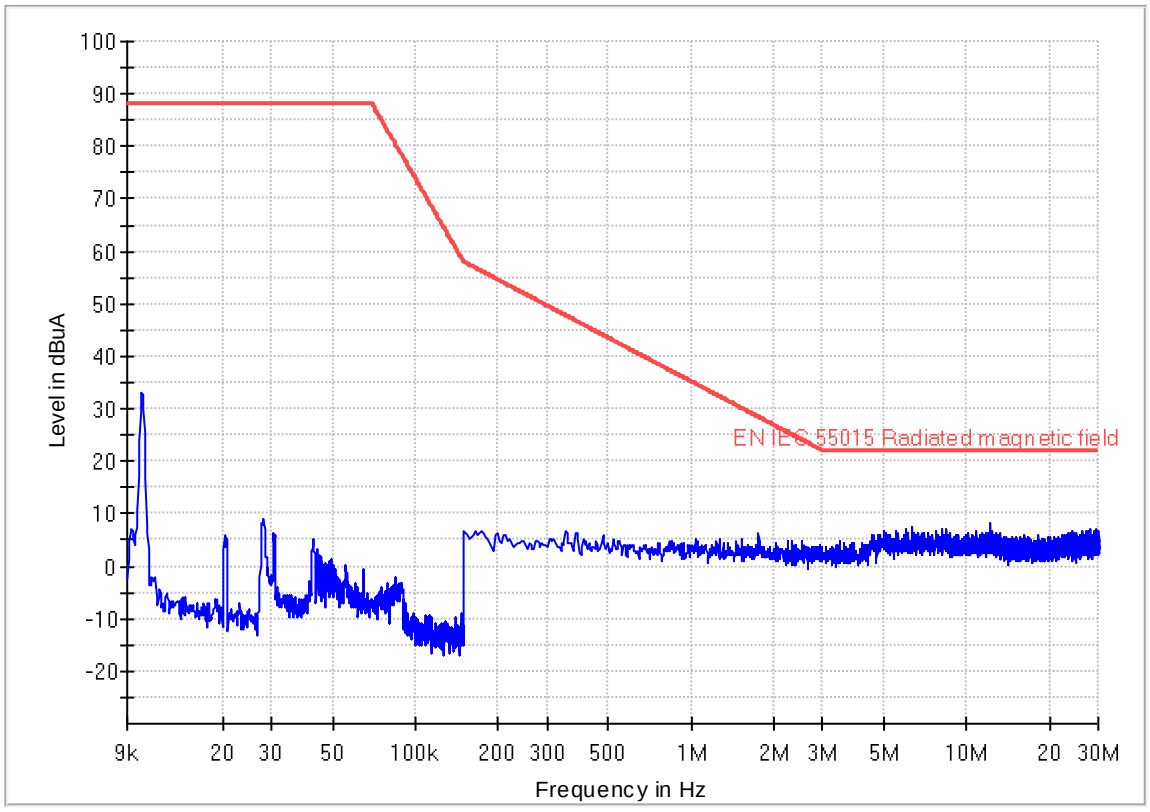
EUT Information

EUT Name:	LED Lamp
Model:	MK-020011014622-A
Client:	Zhejiang MEKA Electric Co., Ltd.
Op cond:	Light on, AC 230V 60Hz, T22.6, 41.3%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	Z
Sample No.:	20220529.04.02

Scan Setup: TripleLoop max [EMI radiated]

Hardware Setup:	TripleLoop
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

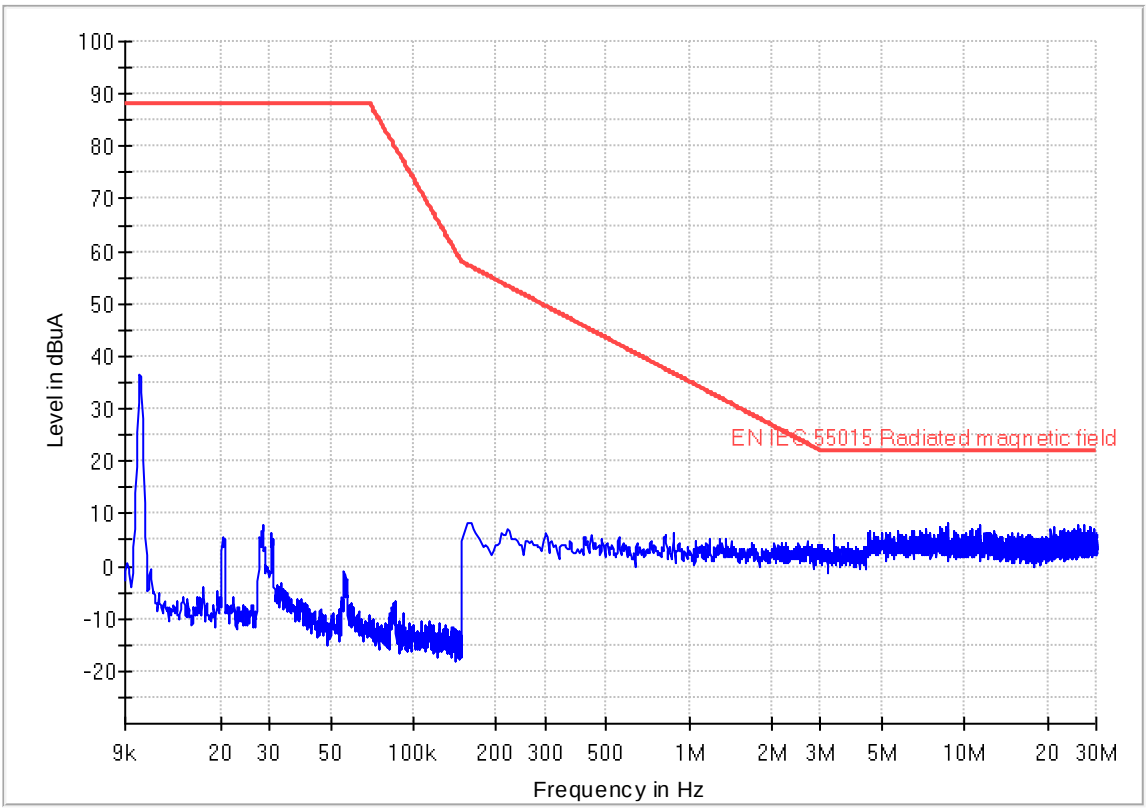
EUT Information

EUT Name:	LED Lamp
Model:	MK-020011014799-E
Client:	Zhejiang MEKA Electric Co., Ltd.
Op cond:	Light on, AC 230V 60Hz, T22.6, 41.3%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	X
Sample No.:	20220529.04.03

Scan Setup: TripleLoop max [EMI radiated]

Hardware Setup:	TripleLoop
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

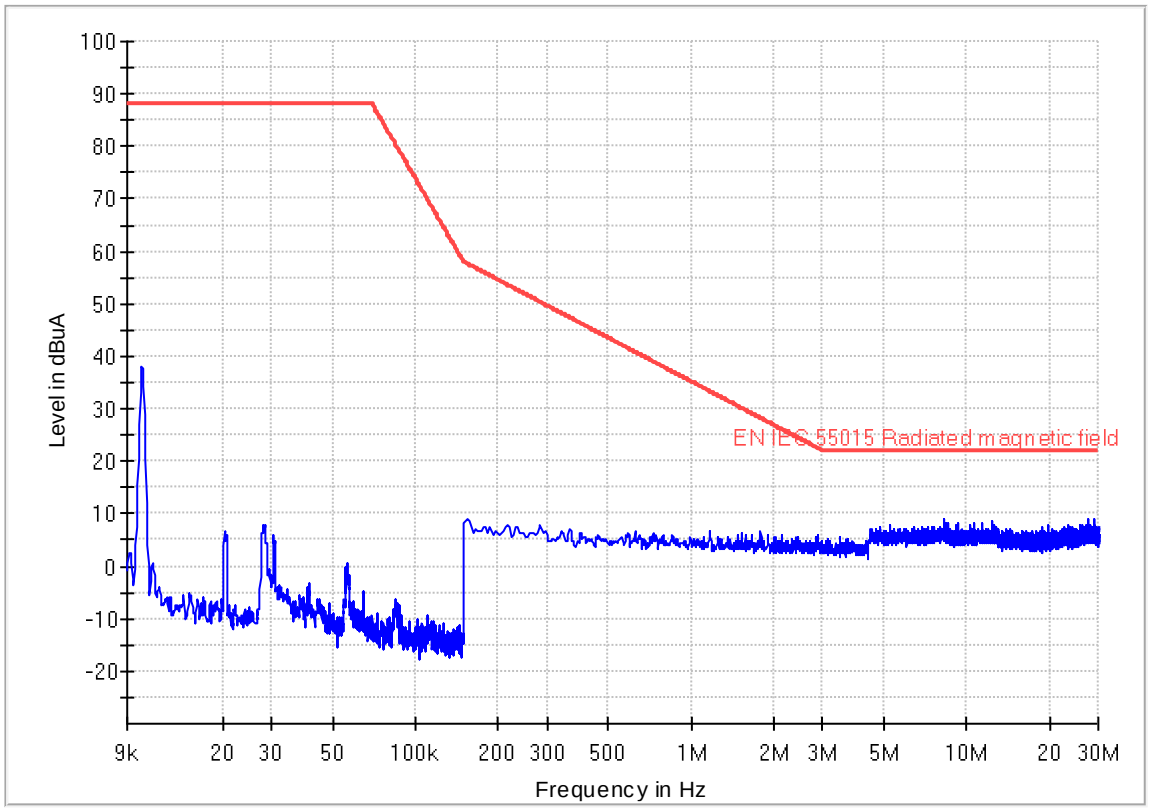
EUT Information

EUT Name:	LED Lamp
Model:	MK-020011014799-E
Client:	Zhejiang MEKA Electric Co., Ltd.
Op cond:	Light on, AC 230V 60Hz, T22.6, 41.3%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	Y
Sample No.:	20220529.04.03

Scan Setup: TripleLoop max [EMI radiated]

Hardware Setup:	TripleLoop
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB



China

9K-30MHz Radiated Disturbance Test

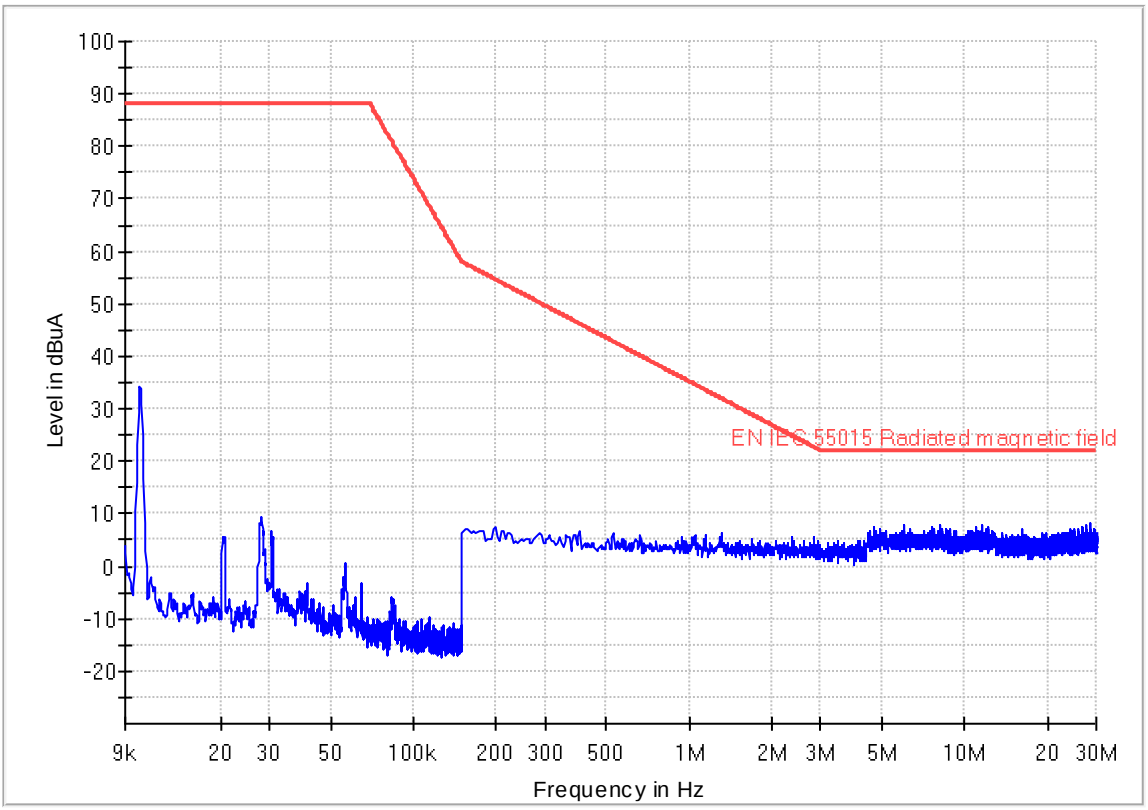
EUT Information

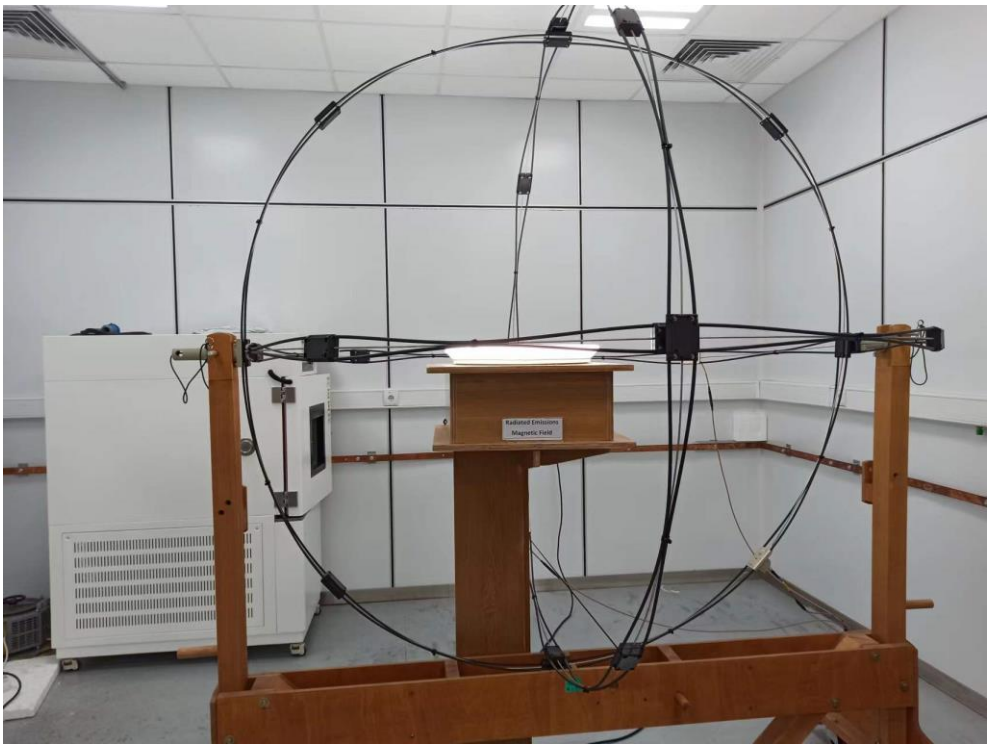
EUT Name:	LED Lamp
Model:	MK-020011014799-E
Client:	Zhejiang MEKA Electric Co., Ltd.
Op cond:	Light on, AC 230V 60Hz, T22.6, 41.3%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	Z
Sample No.:	20220529.04.03

Scan Setup: TripleLoop max [EMI radiated]

Hardware Setup:	TripleLoop
Receiver:	[ESR 3]
Level Unit:	dBuA

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4 kHz	PK+	9 kHz	0.01 s	0 dB





Test Setup

2.2.8 Test Location

This test was carried out in shielded room Z120.

China

2.3 Radiated disturbance (30 MHz to 1 GHz)

2.3.1 Specification Reference

EN IEC 55015:2019/A11:2020, Clause 4.5.3

2.3.2 Equipment Under Test

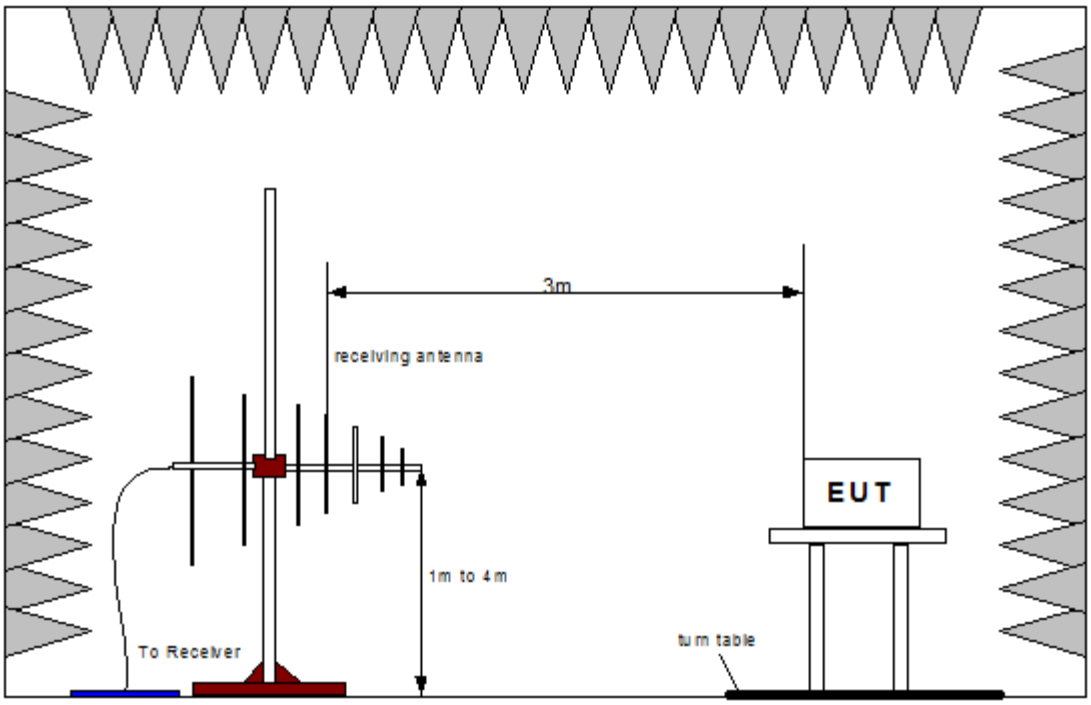
No.	Test model	Rated power	PCB	Sample Number(s)	Test mode
1	MK-020011012731-E	18W	PCB1	NIB-645570-1	AC Powered/Light on
2	MK-020011012862-E	24W	PCB2	NIB-645570-2	AC Powered/Light on
3	MK-020011013378-E	40W	PCB3	NIB-645570-3	AC Powered/Light on
4	MK-020011015010-A	24W	PCB4	NIB-645570-4	AC Powered/Light on
5	MK-020011012849-E	12W	PCB5	20220529.04.01	AC Powered/Light on
6	MK-020011014622-A	60W	PCB6	20220529.04.02	AC Powered/Light on
7	MK-020011014799-E	12W	PCB7	20220529.04.03	AC Powered/Light on

2.3.3 Date of Test

04/20/2022, 05/31/2022

2.3.4 Test Method

The setup requirements and test method of CISPR 16-2-3 apply when tests are made using the radiated method on a SAC. Specifics on EUT-arrangements can be found in Annex C of EN IEC 55015:2019/A11:2020.
To improve the reproducibility, the mains supply cable of the EUT shall be terminated with a CDNE (as defined in CISPR 16-1-2) positioned on the reference-ground plane (if applicable) and the receiver port of the CDNE terminated with a 50 Ω impedance.



China

2.3.5 Environmental Conditions

Ambient Temperature	20-25 °C
Relative Humidity	40-60 %
Atmospheric Pressure	1010-1040 mbar

2.3.6 Specification Limits

Radiated disturbance limits in the frequency range 30 MHz to 1 GHz at a measuring distance of 3 m	
Frequency range (MHz)	Quasi-peak limits dB(μV/m)
30 to 230	40
230 to 1000	47

2.3.7 Test Results

Results for Configuration and Mode: Test model as see the table in the chapter 2.3.2.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

Frequency Range of Test: 30 MHz to 1 GHz.

China

30-1000MHz Radiated Emission

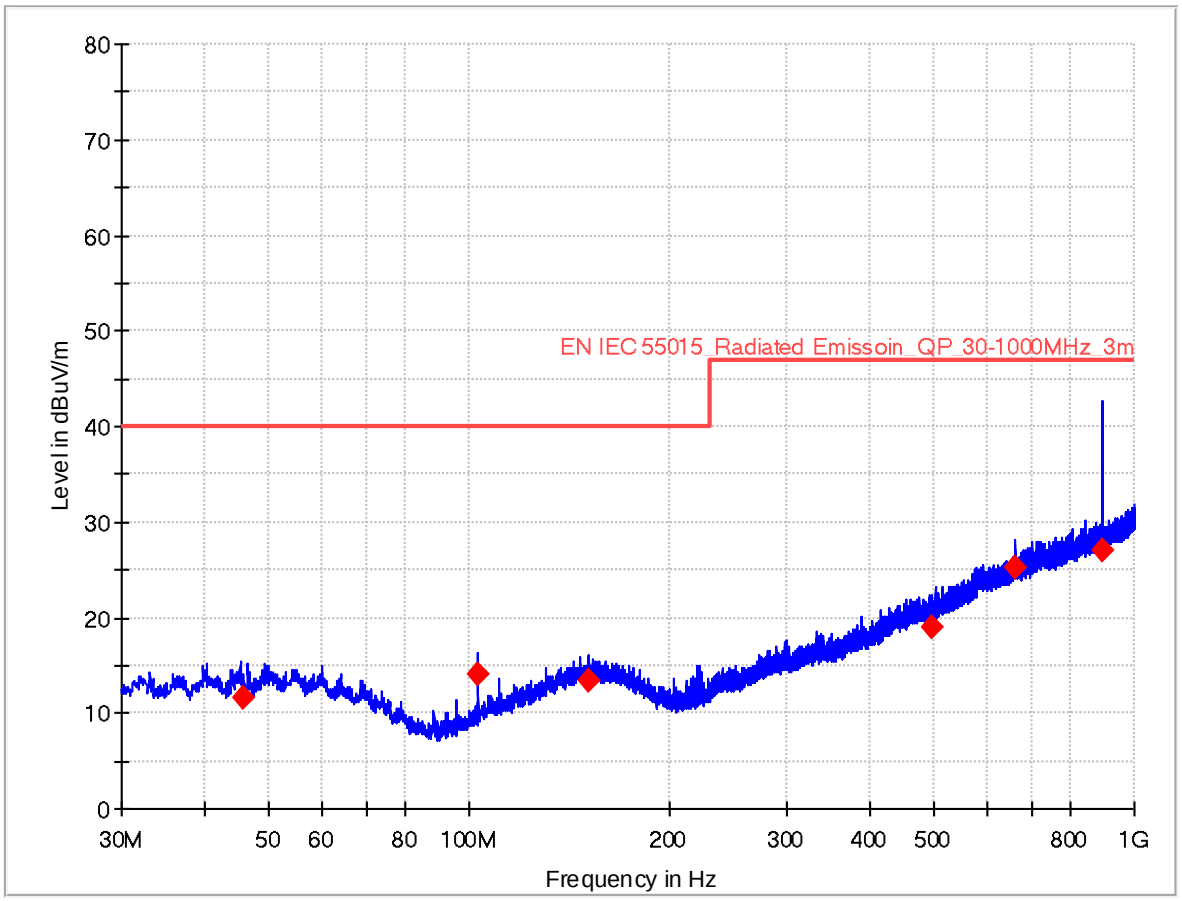
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012731-E(PCB1),18W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T20.7C,H55.3%,P102.1kPa
Operator:	Qiliang Chen
Standard:	EN IEC 55015
Comment:	Horizontal
Sample No:	NIB-645570-1

Sweep Setup: RE_30MHz-1GHz_Pre [EMI radiated]

Hardware Setup:	RE_30MHz-1GHz
Receiver:	[ESR 7]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	53.889 kHz	PK+	120 kHz	0.1 s	20 dB



China

Final_Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.734584	11.63	40.00	28.37	1000.0	120.000	200.0	H	282.0	15.1
103.198138	14.08	40.00	25.92	1000.0	120.000	200.0	H	146.0	11.5
150.681468	13.30	40.00	26.70	1000.0	120.000	200.0	H	335.0	15.6
494.622778	19.08	47.00	27.92	1000.0	120.000	100.0	H	24.0	21.5
662.177778	25.25	47.00	21.75	1000.0	120.000	200.0	H	199.0	26.8
896.775323	26.95	47.00	20.05	1000.0	120.000	200.0	H	42.0	28.3

China

30-1000MHz Radiated Emission

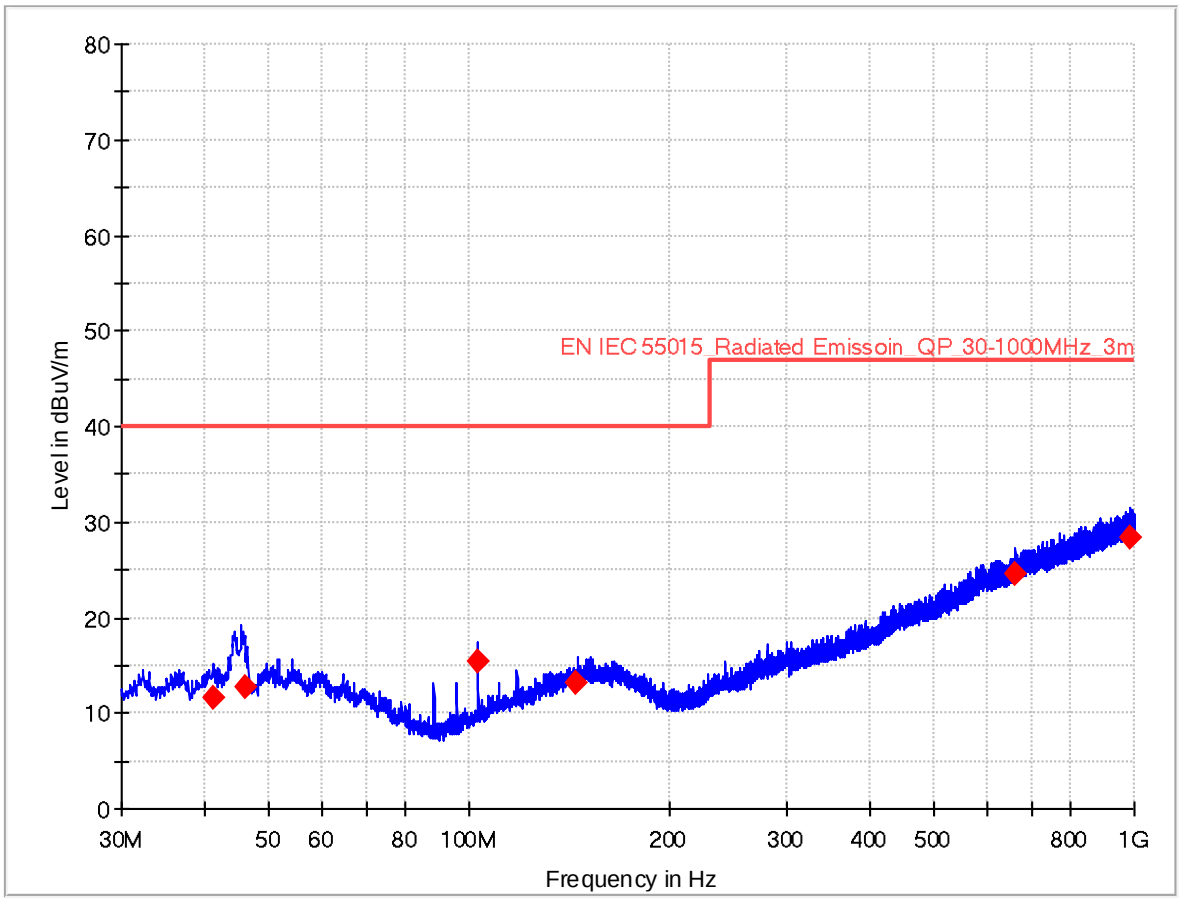
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012731-E(PCB1),18W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T20.7C,H55.3%,P102.1kPa
Operator:	Qiliang Chen
Standard:	EN IEC 55015
Comment:	Vertical
Sample No:	NIB-645570-1

Sweep Setup: RE_30MHz-1GHz_Pre [EMI radiated]

Hardware Setup:	RE_30MHz-1GHz
Receiver:	[ESR 7]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	53.889 kHz	PK+	120 kHz	0.1 s	20 dB



China

Final_Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
41.153424	11.72	40.00	28.28	1000.0	120.000	200.0	V	0.0	14.9
45.909463	12.84	40.00	27.16	1000.0	120.000	100.0	V	0.0	15.0
103.198138	15.36	40.00	24.64	1000.0	120.000	100.0	V	345.0	11.5
144.883889	13.10	40.00	26.90	1000.0	120.000	200.0	V	45.0	15.4
661.369041	24.67	47.00	22.33	1000.0	120.000	200.0	V	0.0	26.4
983.179444	28.29	47.00	18.71	1000.0	120.000	200.0	V	56.0	29.6

China

30-1000MHz Radiated Emission

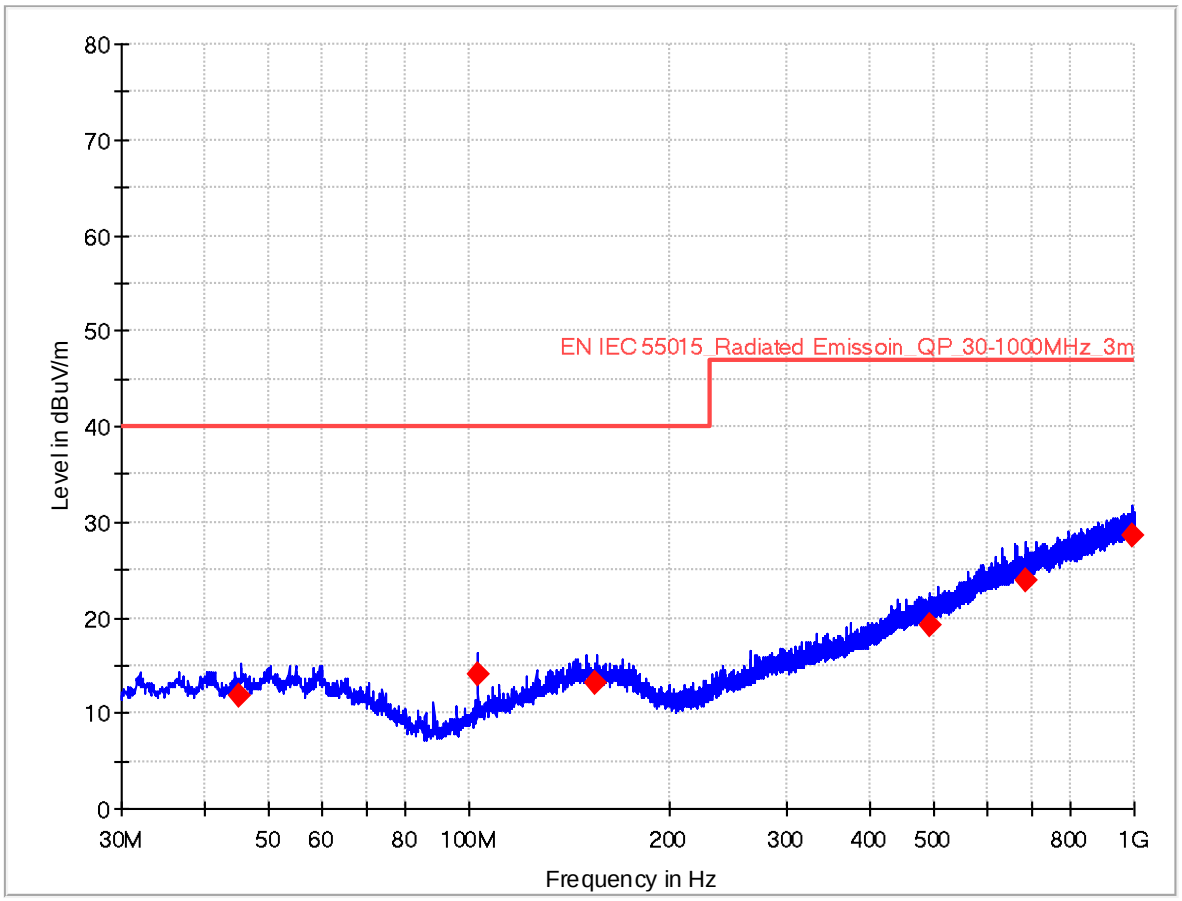
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012862-E(PCB2),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T20.7C,H55.3%,P102.1kPa
Operator:	Qiliang Chen
Standard:	EN IEC 55015
Comment:	Horizontal
Sample No:	NIB-645570-2

Sweep Setup: RE_30MHz-1GHz_Pre [EMI radiated]

Hardware Setup:	RE_30MHz-1GHz
Receiver:	[ESR 7]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	53.889 kHz	PK+	120 kHz	0.1 s	20 dB



Final_Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
44.946793	11.81	40.00	28.19	1000.0	120.000	200.0	H	272.0	15.1
103.198138	14.12	40.00	25.88	1000.0	120.000	200.0	H	22.0	11.5
154.907222	13.22	40.00	26.78	1000.0	120.000	200.0	H	272.0	15.6
492.420261	19.11	47.00	27.89	1000.0	120.000	200.0	H	209.0	21.5
688.098333	23.90	47.00	23.10	1000.0	120.000	100.0	H	213.0	25.3
990.292778	28.70	47.00	18.30	1000.0	120.000	200.0	H	251.0	29.9

China

30-1000MHz Radiated Emission

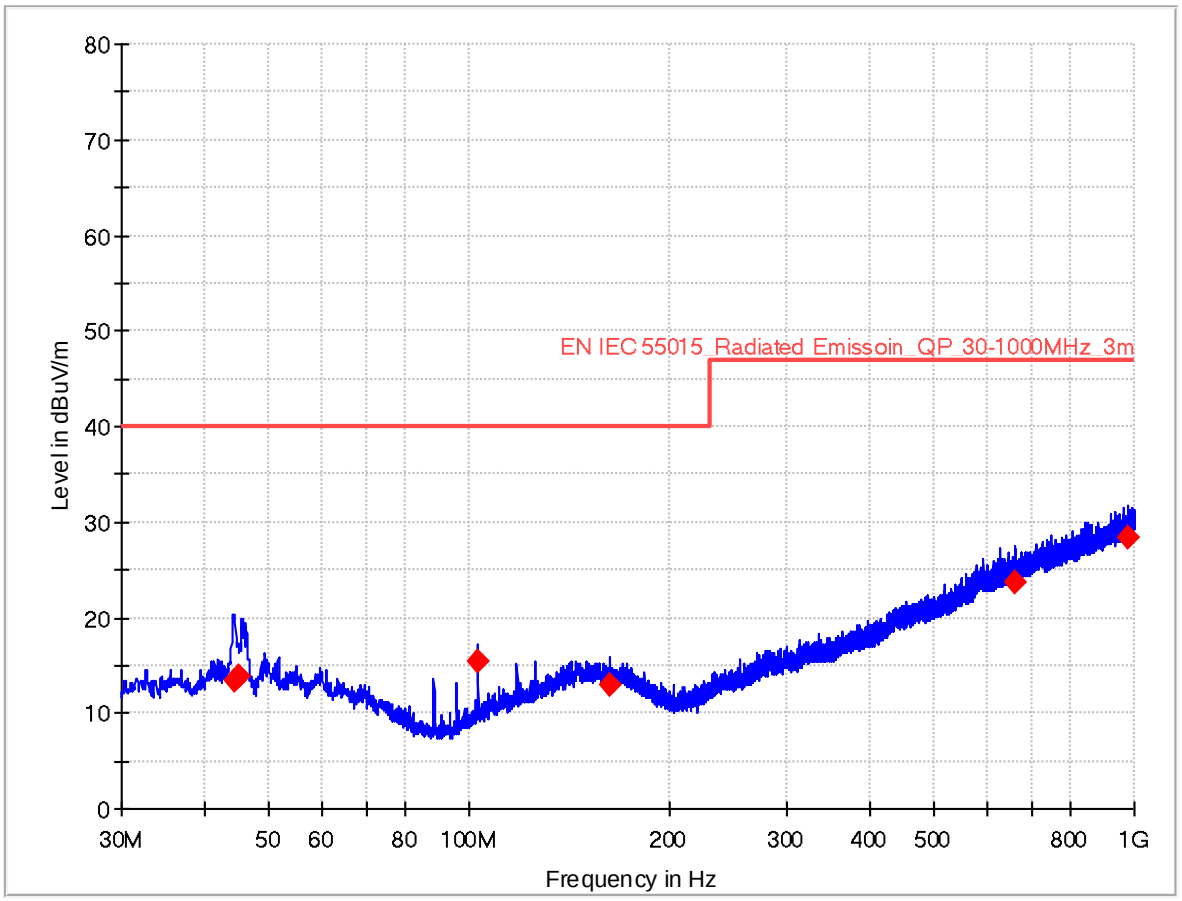
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012862-E(PCB2),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T20.7C,H55.3%,P102.1kPa
Operator:	Qiliang Chen
Standard:	EN IEC 55015
Comment:	Vertical
Sample No:	NIB-645570-2

Sweep Setup: RE_30MHz-1GHz_Pre [EMI radiated]

Hardware Setup:	RE_30MHz-1GHz
Receiver:	[ESR 7]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	53.889 kHz	PK+	120 kHz	0.1 s	20 dB



China

Final_Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
44.285668	13.43	40.00	26.57	1000.0	120.000	100.0	V	2.0	15.1
45.108946	13.96	40.00	26.04	1000.0	120.000	100.0	V	2.0	15.1
103.198138	15.44	40.00	24.56	1000.0	120.000	100.0	V	202.0	11.5
162.941039	13.05	40.00	26.95	1000.0	120.000	100.0	V	275.0	15.5
663.742523	23.64	47.00	23.36	1000.0	120.000	200.0	V	260.0	25.3
981.523333	28.34	47.00	18.66	1000.0	120.000	100.0	V	150.0	29.6

China

30-1000MHz Radiated Emission

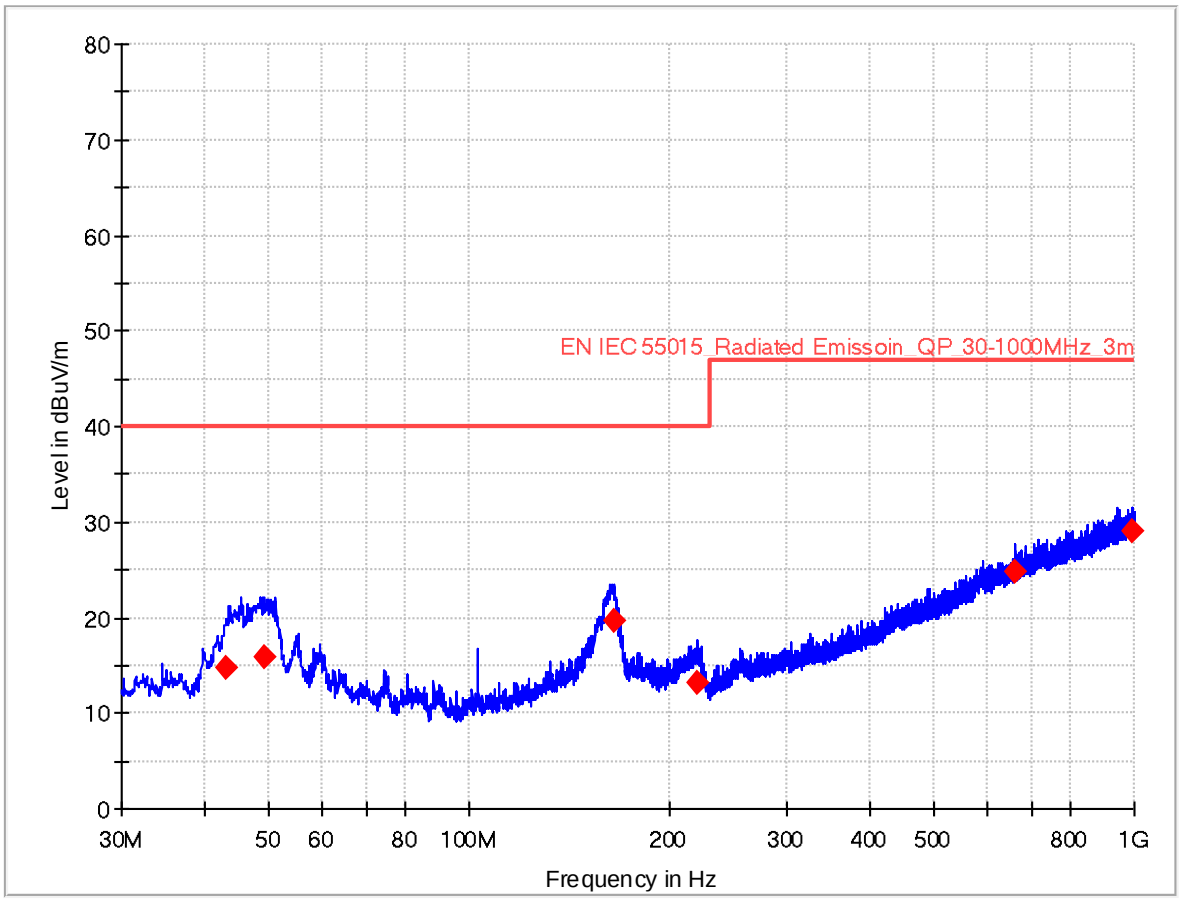
EUT Information

EUT Name:	LED lamp
Model:	MK-020011013378-E(PCB3)40W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T20.7C,H55.3%,P102.1kPa
Operator:	Qiliang Chen
Standard:	EN IEC 55015
Comment:	Horizontal
Sample No:	NIB-645570-3

Sweep Setup: RE_30MHz-1GHz_Pre [EMI radiated]

Hardware Setup:	RE_30MHz-1GHz
Receiver:	[ESR 7]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	53.889 kHz	PK+	120 kHz	0.1 s	20 dB



China

Final_Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
43.156111	14.69	40.00	25.31	1000.0	120.000	200.0	H	307.0	15.0
49.056065	15.79	40.00	24.21	1000.0	120.000	200.0	H	212.0	15.2
164.671487	19.77	40.00	20.23	1000.0	120.000	200.0	H	265.0	15.5
220.557574	13.19	40.00	26.81	1000.0	120.000	200.0	H	265.0	12.5
661.355000	24.72	47.00	22.28	1000.0	120.000	200.0	H	254.0	26.4
992.408889	28.96	47.00	18.04	1000.0	120.000	200.0	H	265.0	30.2

China

30-1000MHz Radiated Emission

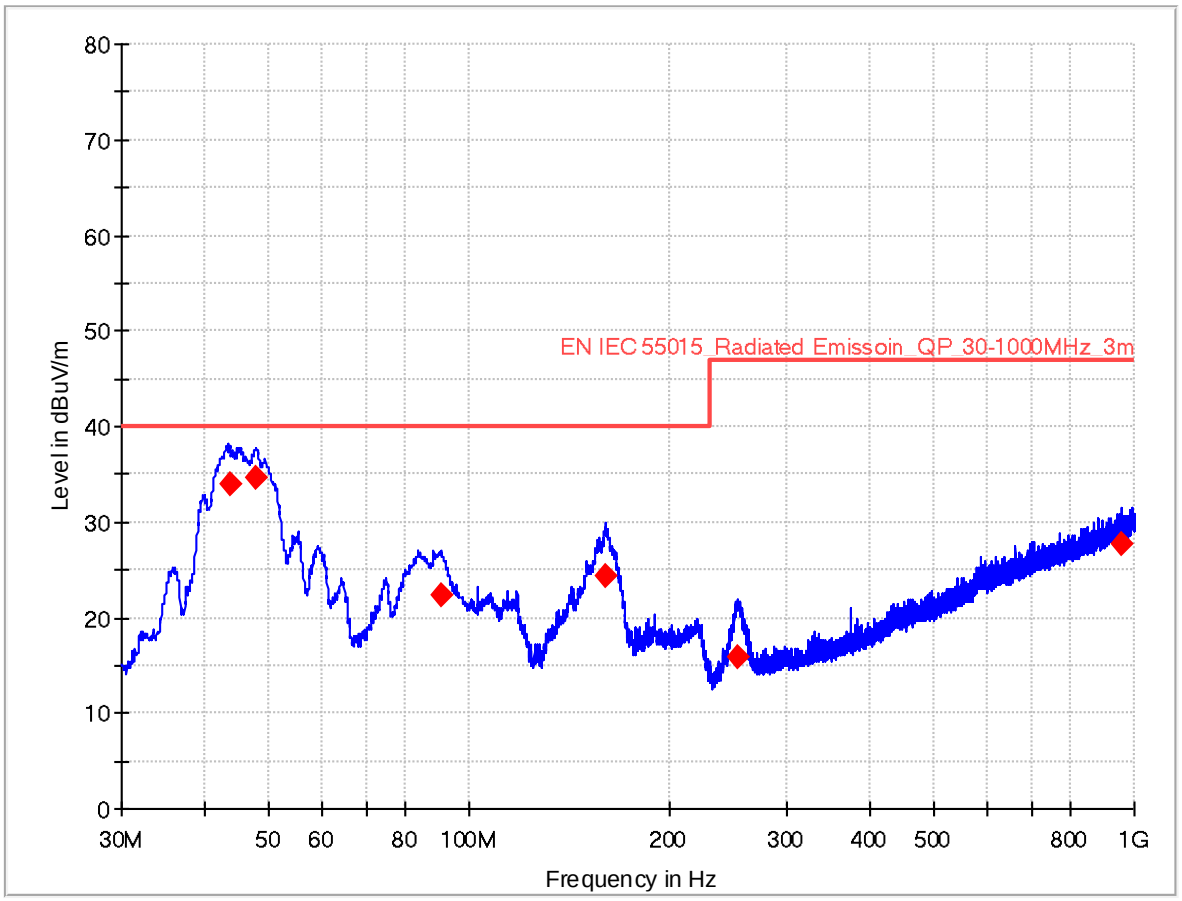
EUT Information

EUT Name:	LED lamp
Model:	MK-020011013378-E(PCB3)40W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T20.7C,H55.3%,P102.1kPa
Operator:	Qiliang Chen
Standard:	EN IEC 55015
Comment:	Vertical
Sample No:	NIB-645570-3

Sweep Setup: RE_30MHz-1GHz_Pre [EMI radiated]

Hardware Setup:	RE_30MHz-1GHz
Receiver:	[ESR 7]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	53.889 kHz	PK+	120 kHz	0.1 s	20 dB



China

Final_Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
43.726567	33.86	40.00	6.14	1000.0	120.000	100.0	V	349.0	15.0
47.807197	34.61	40.00	5.39	1000.0	120.000	100.0	V	349.0	15.2
90.584761	22.41	40.00	17.59	1000.0	120.000	100.0	V	40.0	9.7
160.132751	24.39	40.00	15.61	1000.0	120.000	100.0	V	0.0	15.6
253.237985	15.82	47.00	31.18	1000.0	120.000	100.0	V	0.0	14.6
956.357222	27.66	47.00	19.34	1000.0	120.000	200.0	V	275.0	29.1

China

30-1000MHz Radiated Emission

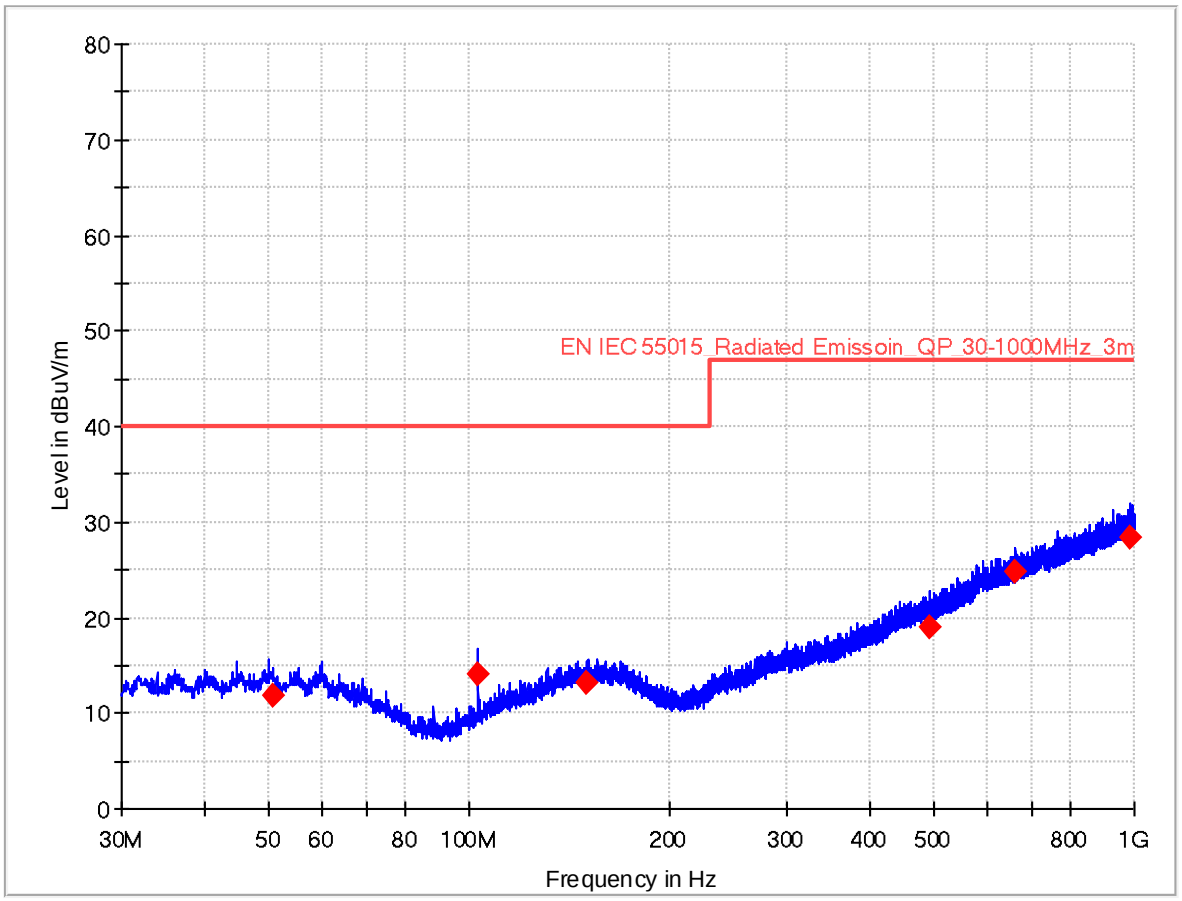
EUT Information

EUT Name:	LED lamp
Model:	MK-020011015010-A(PCB4),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T20.7C,H55.3%,P102.1kPa
Operator:	Qiliang Chen
Standard:	EN IEC 55015
Comment:	Horizontal
Sample No:	NIB-645570-4

Sweep Setup: RE_30MHz-1GHz_Pre [EMI radiated]

Hardware Setup:	RE_30MHz-1GHz
Receiver:	[ESR 7]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	53.889 kHz	PK+	120 kHz	0.1 s	20 dB



China

Final_Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
50.538889	11.92	40.00	28.08	1000.0	120.000	200.0	H	186.0	15.4
103.198138	14.17	40.00	25.83	1000.0	120.000	200.0	H	134.0	11.5
150.249493	13.23	40.00	26.77	1000.0	120.000	200.0	H	176.0	15.5
491.457778	19.10	47.00	27.90	1000.0	120.000	200.0	H	165.0	21.5
662.555783	24.73	47.00	22.27	1000.0	120.000	100.0	H	1.0	26.5
984.365000	28.42	47.00	18.58	1000.0	120.000	100.0	H	254.0	29.6

China

30-1000MHz Radiated Emission

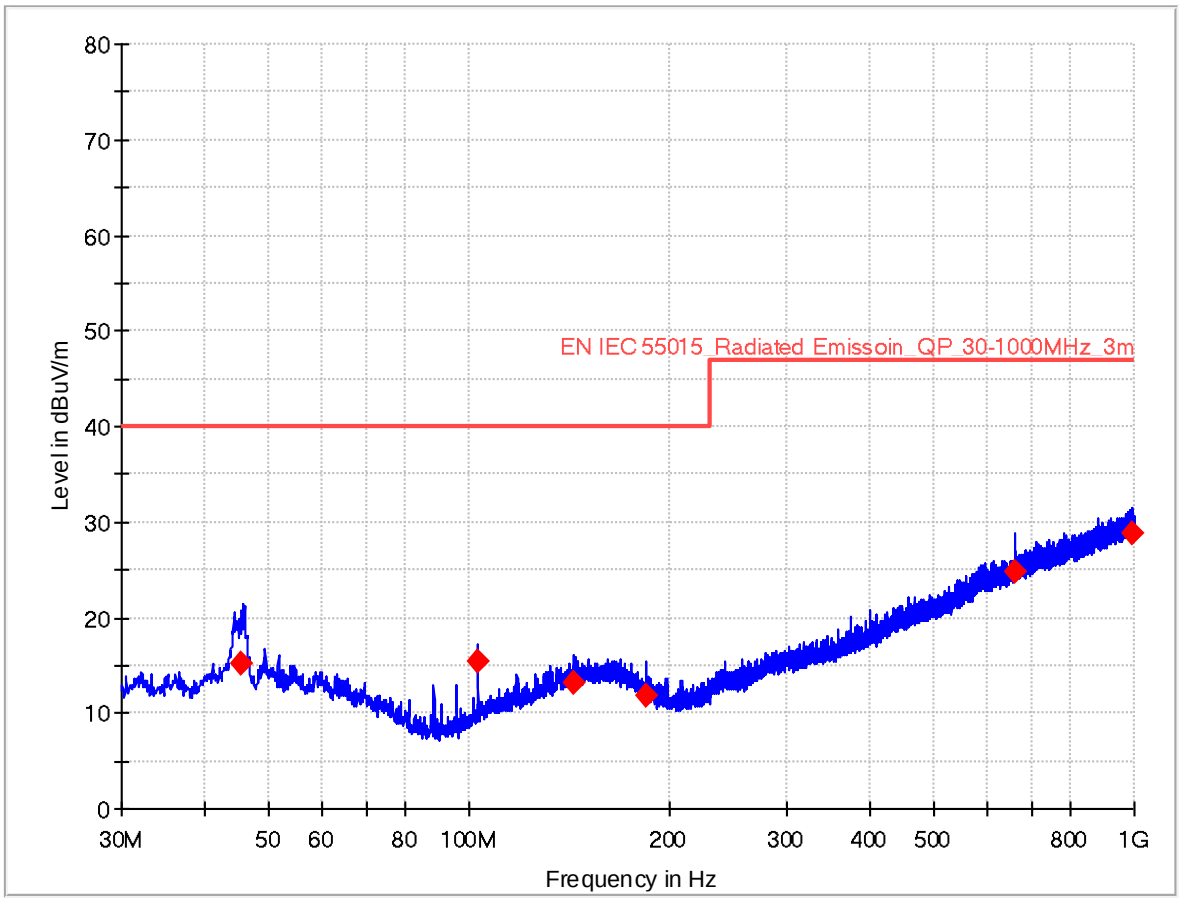
EUT Information

EUT Name:	LED lamp
Model:	MK-020011015010-A(PCB4),24W
Client:	Zhejiang MEKA Electric Co.,Ltd.
Op Cond:	Power on,AC 230V/50Hz,T20.7C,H55.3%,P102.1kPa
Operator:	Qiliang Chen
Standard:	EN IEC 55015
Comment:	Vertical
Sample No:	NIB-645570-4

Sweep Setup: RE_30MHz-1GHz_Pre [EMI radiated]

Hardware Setup:	RE_30MHz-1GHz
Receiver:	[ESR 7]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	53.889 kHz	PK+	120 kHz	0.1 s	20 dB



China

Final_Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.307527	15.19	40.00	24.81	1000.0	120.000	100.0	V	1.0	15.1
103.198138	15.40	40.00	24.60	1000.0	120.000	100.0	V	72.0	11.5
143.226768	13.10	40.00	26.90	1000.0	120.000	200.0	V	178.0	15.3
184.353058	11.74	40.00	28.26	1000.0	120.000	100.0	V	31.0	13.7
662.662778	24.76	47.00	22.24	1000.0	120.000	200.0	V	136.0	26.4
993.055556	28.91	47.00	18.09	1000.0	120.000	100.0	V	326.0	30.2

China

30-1000MHz Radiated Disturbance Test

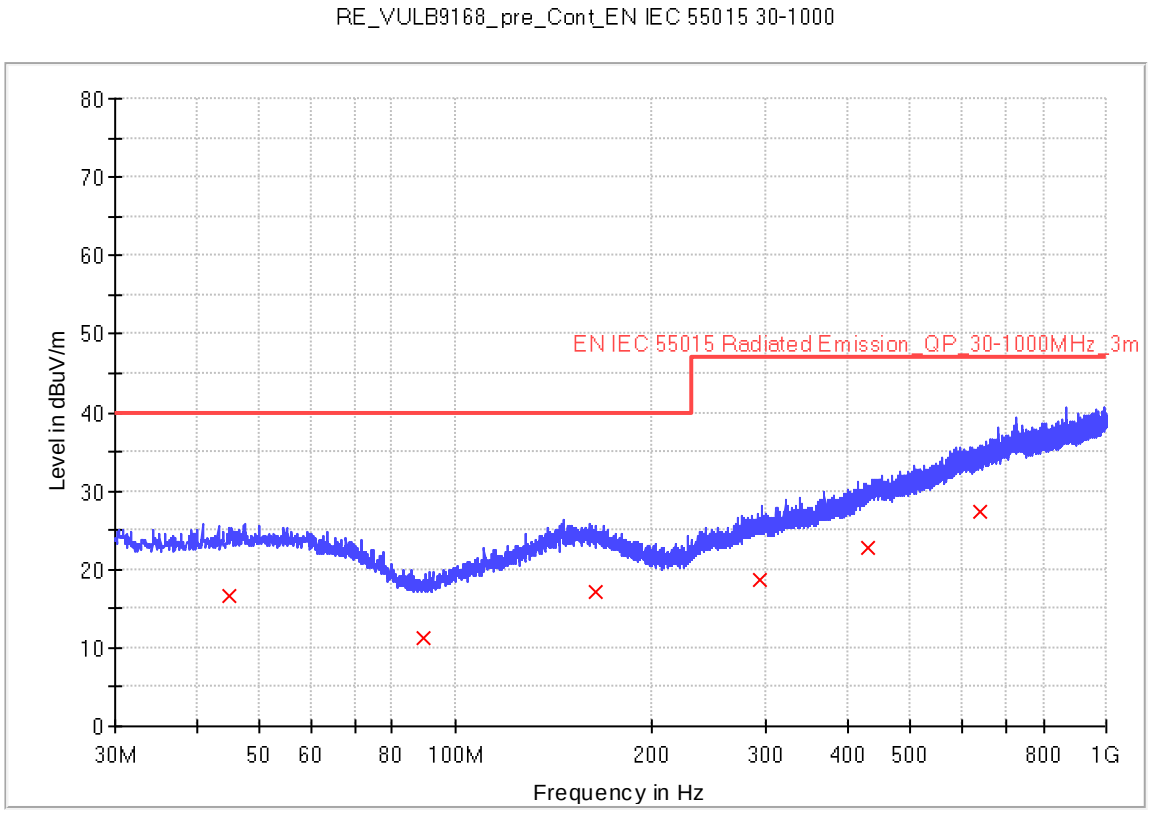
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012849-E
Client:	Zhejiang MEKA Electric Co., Ltd.
Op Cond:	Light on, AC 230V/50Hz, T20, H52%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	Horizontal
Sample No:	20220529.04.01

Sweep Setup: RE_VULB9168_pre_Cont_EN IEC 55015 30-1000 [EMI radiated]

Hardware Setup:	RE_VULB9168
Receiver:	[ESR 3]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.005 s	20 dB



China

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)
44.800000	16.5	1000.0	120.000	102.0	H	0.0	20.3	23.5
89.040000	11.3	1000.0	120.000	102.0	H	0.0	14.7	28.7
164.360000	17.1	1000.0	120.000	102.0	H	0.0	20.6	22.9
294.040000	18.6	1000.0	120.000	102.0	H	0.0	21.3	28.4
428.960000	22.8	1000.0	120.000	102.0	H	0.0	25.2	24.2
638.840000	27.4	1000.0	120.000	102.0	H	0.0	29.5	19.6

(continuation of the "Limit and Margin" table from column 16 ...)

Frequency (MHz)	Limit - QPK (dBuV/m)	Comment
44.800000	40.0	
89.040000	40.0	
164.360000	40.0	
294.040000	47.0	
428.960000	47.0	
638.840000	47.0	

China

30-1000MHz Radiated Disturbance Test

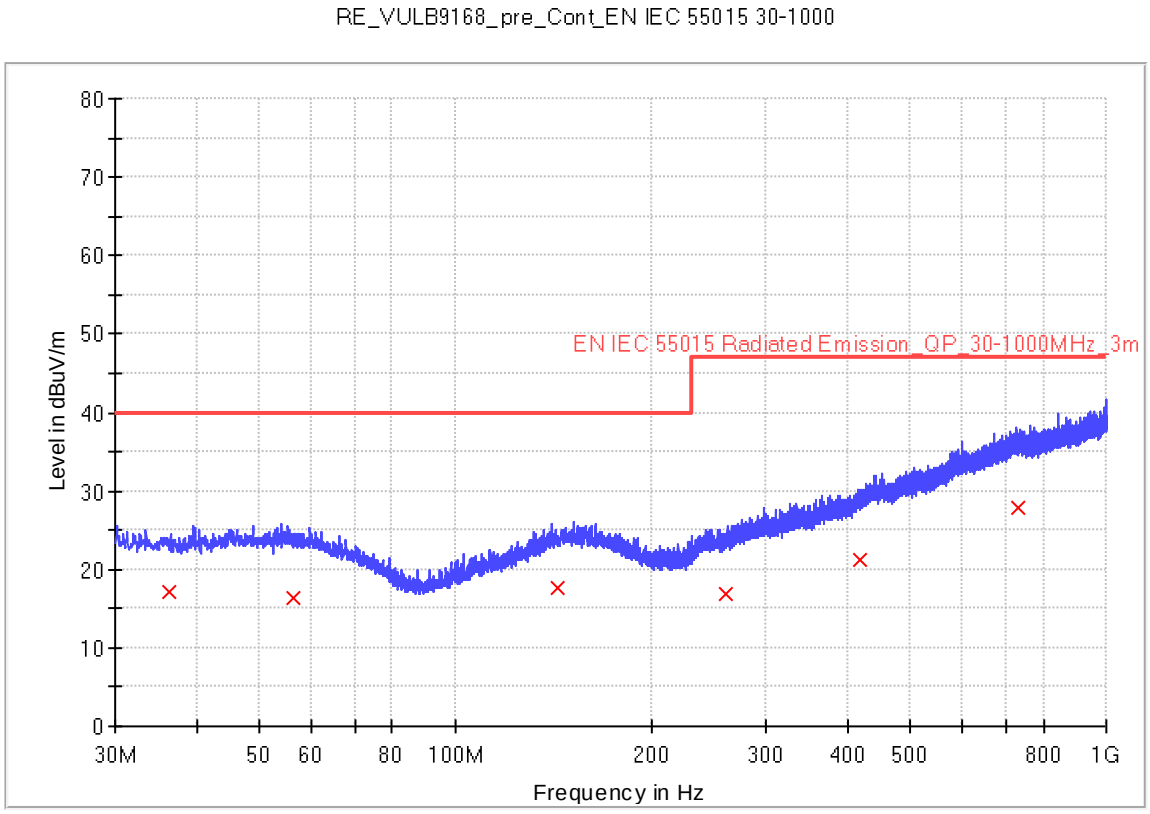
EUT Information

EUT Name:	LED lamp
Model:	MK-020011012849-E
Client:	Zhejiang MEKA Electric Co., Ltd.
Op Cond:	Light on, AC 230V/50Hz, T20, H52%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	Vertical
Sample No:	20220529.04.01

Sweep Setup: RE_VULB9168_pre_Cont_EN IEC 55015 30-1000 [EMI radiated]

Hardware Setup:	RE_VULB9168
Receiver:	[ESR 3]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.005 s	20 dB



China

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)
36.240000	17.2	1000.0	120.000	102.0	V	359.0	19.7	22.8
56.440000	16.4	1000.0	120.000	102.0	V	203.0	20.4	23.6
143.840000	17.7	1000.0	120.000	102.0	V	268.0	20.5	22.3
259.680000	16.9	1000.0	120.000	102.0	V	45.0	19.9	30.2
418.520000	21.1	1000.0	120.000	102.0	V	352.0	24.7	25.9
731.960000	27.9	1000.0	120.000	102.0	V	145.0	31.5	19.1

(continuation of the "Limit and Margin" table from column 16 ...)

Frequency (MHz)	Limit - QPK (dBuV/m)	Comment
36.240000	40.0	
56.440000	40.0	
143.840000	40.0	
259.680000	47.0	
418.520000	47.0	
731.960000	47.0	

China

30-1000MHz Radiated Disturbance Test

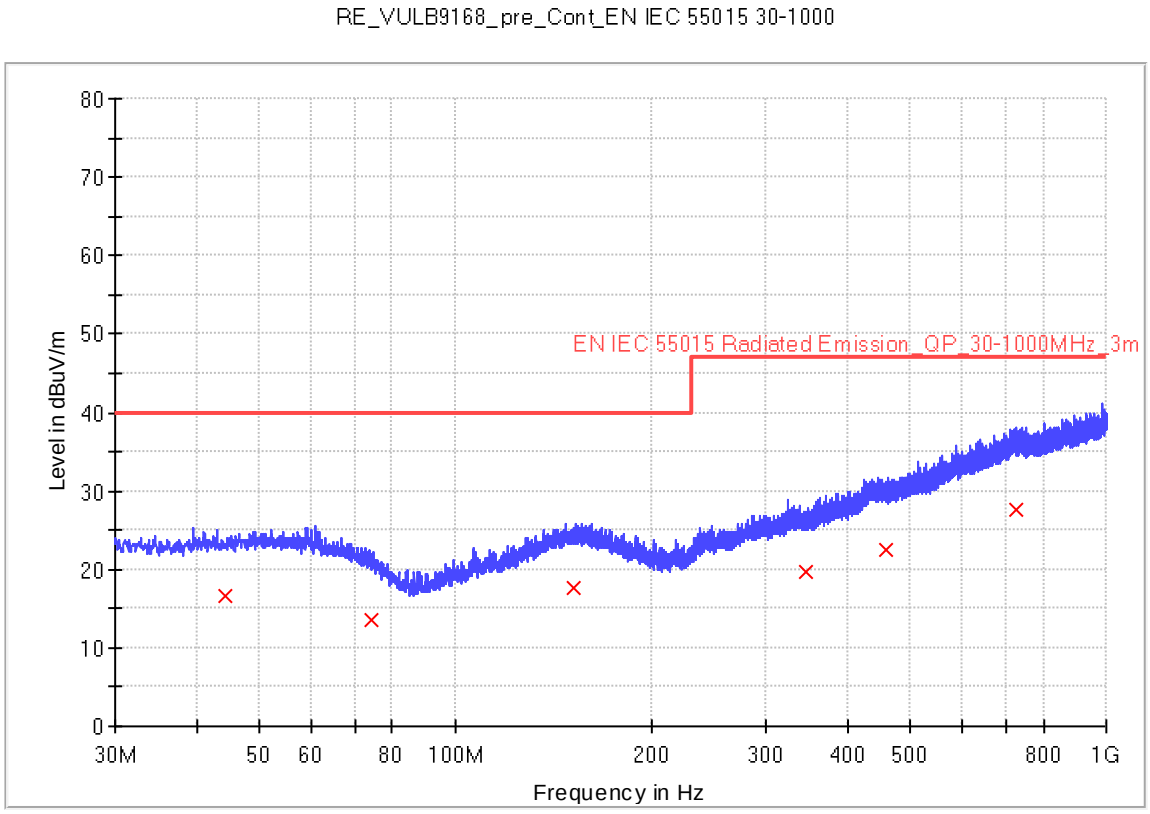
EUT Information

EUT Name:	LED lamp
Model:	MK-020011014622-A
Client:	Zhejiang MEKA Electric Co., Ltd.
Op Cond:	Light on, AC 230V/50Hz, T20, H52%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	Horizontal
Sample No:	20220529.04.02

Sweep Setup: RE_VULB9168_pre_Cont_EN IEC 55015 30-1000 [EMI radiated]

Hardware Setup:	RE_VULB9168
Receiver:	[ESR 3]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.005 s	20 dB



China

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)
44.240000	16.6	1000.0	120.000	100.0	H	189.0	20.3	23.4
74.440000	13.5	1000.0	120.000	100.0	H	55.2	17.7	26.5
152.320000	17.7	1000.0	120.000	100.0	H	310.0	21.0	22.3
345.840000	19.7	1000.0	120.000	100.0	H	102.0	22.6	27.3
458.120000	22.4	1000.0	120.000	100.0	H	0.0	25.9	24.6
725.400000	27.5	1000.0	120.000	100.0	H	251.0	31.3	19.5

(continuation of the "Limit and Margin" table from column 16 ...)

Frequency (MHz)	Limit - QPK (dBuV/m)	Comment
44.240000	40.0	
74.440000	40.0	
152.320000	40.0	
345.840000	47.0	
458.120000	47.0	
725.400000	47.0	

China

30-1000MHz Radiated Disturbance Test

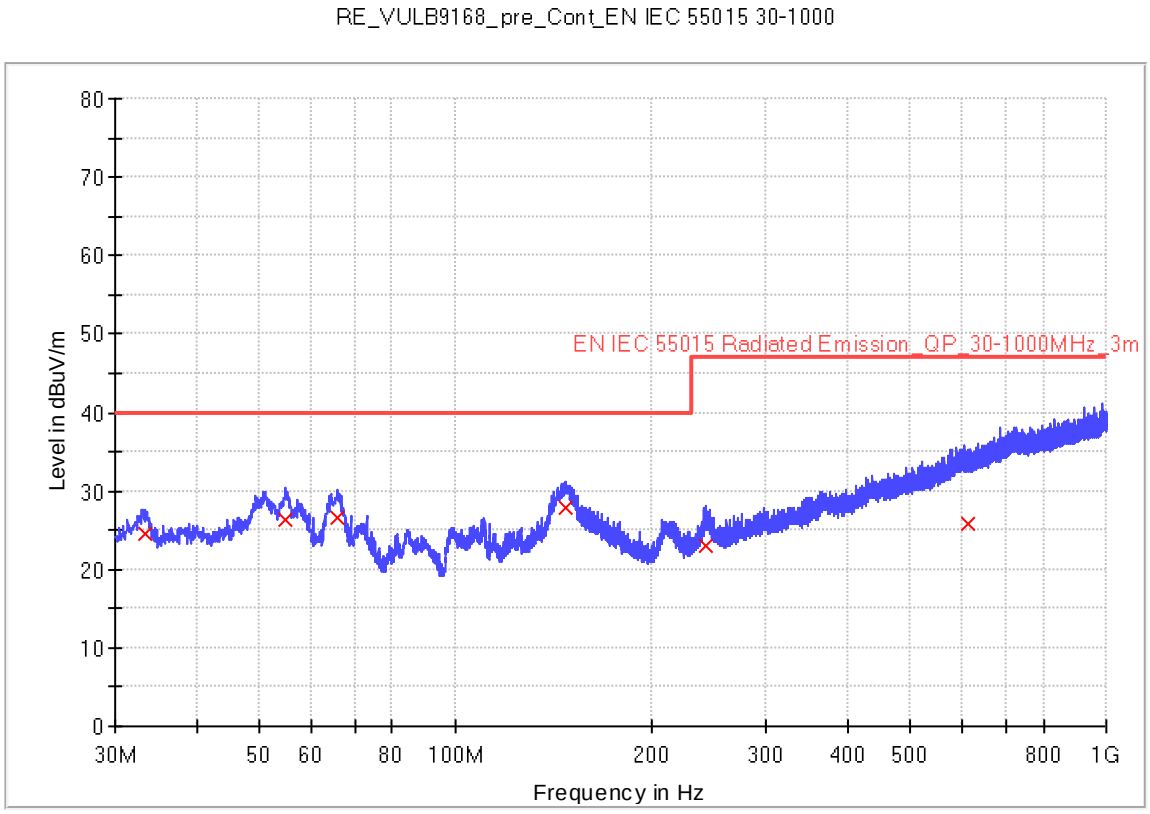
EUT Information

EUT Name:	LED lamp
Model:	MK-020011014622-A
Client:	Zhejiang MEKA Electric Co., Ltd.
Op Cond:	Light on, AC 230V/50Hz, T20, H52%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	Vertical
Sample No:	20220529.04.02

Sweep Setup: RE_VULB9168_pre_Cont_EN IEC 55015 30-1000 [EMI radiated]

Hardware Setup:	RE_VULB9168
Receiver:	[ESR 3]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.005 s	20 dB



China

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)
33.340000	24.5	1000.0	120.000	100.0	V	61.0	32.6	15.5
54.730000	26.3	1000.0	120.000	100.0	V	301.1	20.1	13.7
65.760000	26.7	1000.0	120.000	100.0	V	186.0	19.3	13.3
147.840000	27.8	1000.0	120.000	100.0	V	144.0	20.9	12.2
243.150000	23.1	1000.0	120.000	100.0	V	52.0	21.5	23.9
614.960000	25.8	1000.0	120.000	100.0	V	104.0	29.3	21.3

(continuation of the "Limit and Margin" table from column 16 ...)

Frequency (MHz)	Limit - QPK (dBuV/m)	Comment
33.340000	40.0	
54.730000	40.0	
65.760000	40.0	
147.840000	40.0	
243.150000	47.0	
614.960000	47.0	

China

30-1000MHz Radiated Disturbance Test

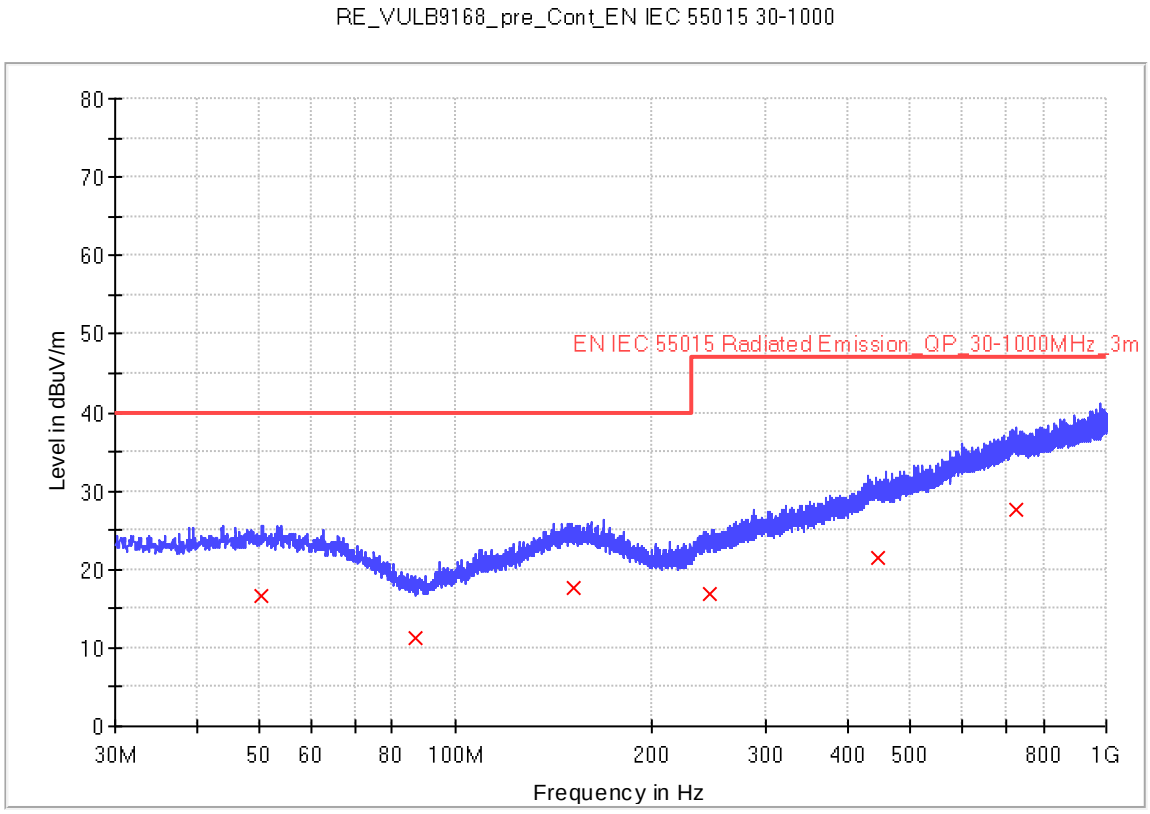
EUT Information

EUT Name:	LED lamp
Model:	MK-020011014799-E
Client:	Zhejiang MEKA Electric Co., Ltd.
Op Cond:	Light on, AC 230V/50Hz, T20, H52%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	Horizontal
Sample No:	20220529.04.03

Sweep Setup: RE_VULB9168_pre_Cont_EN IEC 55015 30-1000 [EMI radiated]

Hardware Setup:	RE_VULB9168
Receiver:	[ESR 3]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.005 s	20 dB



China

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)
50.400000	16.5	1000.0	120.000	100.0	H	274.0	20.5	23.5
87.120000	11.1	1000.0	120.000	100.0	H	136.0	14.7	28.9
151.920000	17.6	1000.0	120.000	100.0	H	325.0	20.9	22.4
246.440000	16.9	1000.0	120.000	100.0	H	80.0	19.9	30.1
445.760000	21.4	1000.0	120.000	100.0	H	229.0	25.8	25.6
726.040000	27.5	1000.0	120.000	100.0	H	184.0	31.3	19.5

(continuation of the "Limit and Margin" table from column 16 ...)

Frequency (MHz)	Limit - QPK (dBuV/m)	Comment
50.400000	40.0	
87.120000	40.0	
151.920000	40.0	
246.440000	47.0	
445.760000	47.0	
726.040000	47.0	

China

30-1000MHz Radiated Disturbance Test

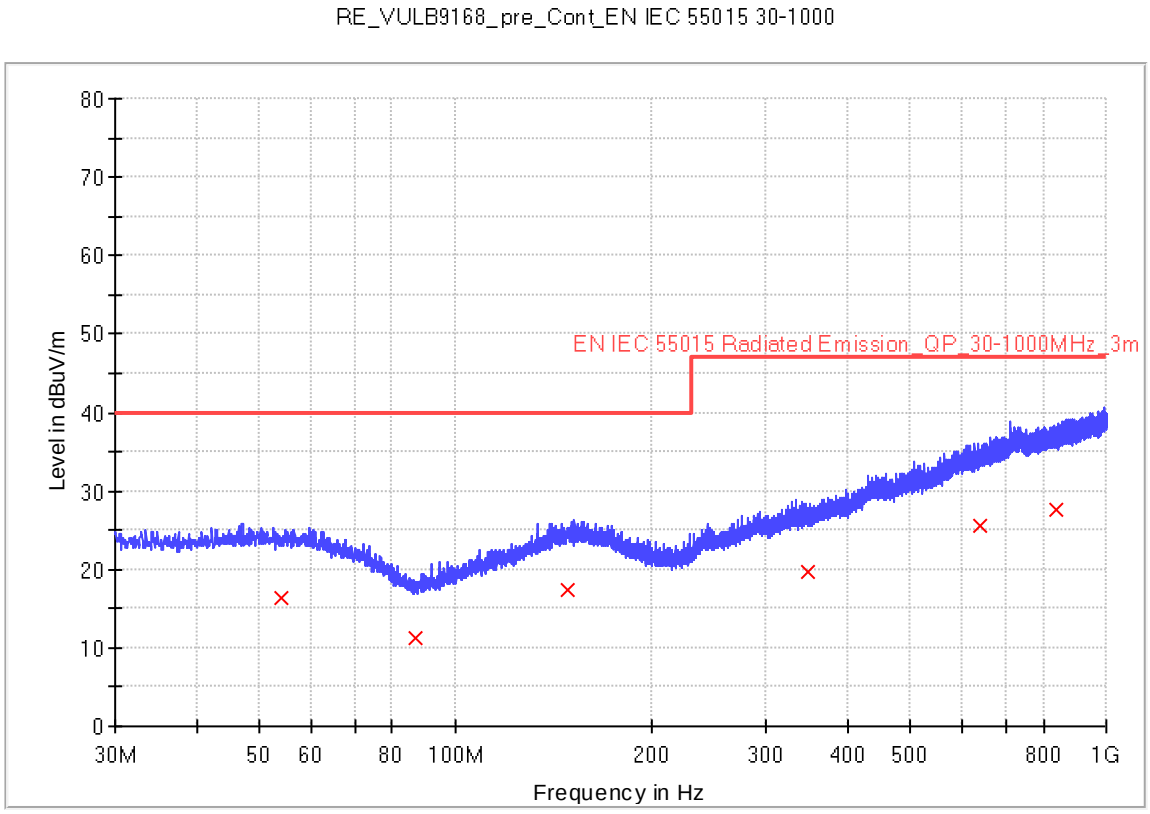
EUT Information

EUT Name:	LED lamp
Model:	MK-020011014799-E
Client:	Zhejiang MEKA Electric Co., Ltd.
Op Cond:	Light on, AC 230V/50Hz, T20, H52%, P103.0kPa
Operator:	Zhong Yuwei
Test Spec:	EN IEC 55015
Comment:	Vertical
Sample No:	20220529.04.03

Sweep Setup: RE_VULB9168_pre_Cont_EN IEC 55015 30-1000 [EMI radiated]

Hardware Setup:	RE_VULB9168
Receiver:	[ESR 3]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.005 s	20 dB



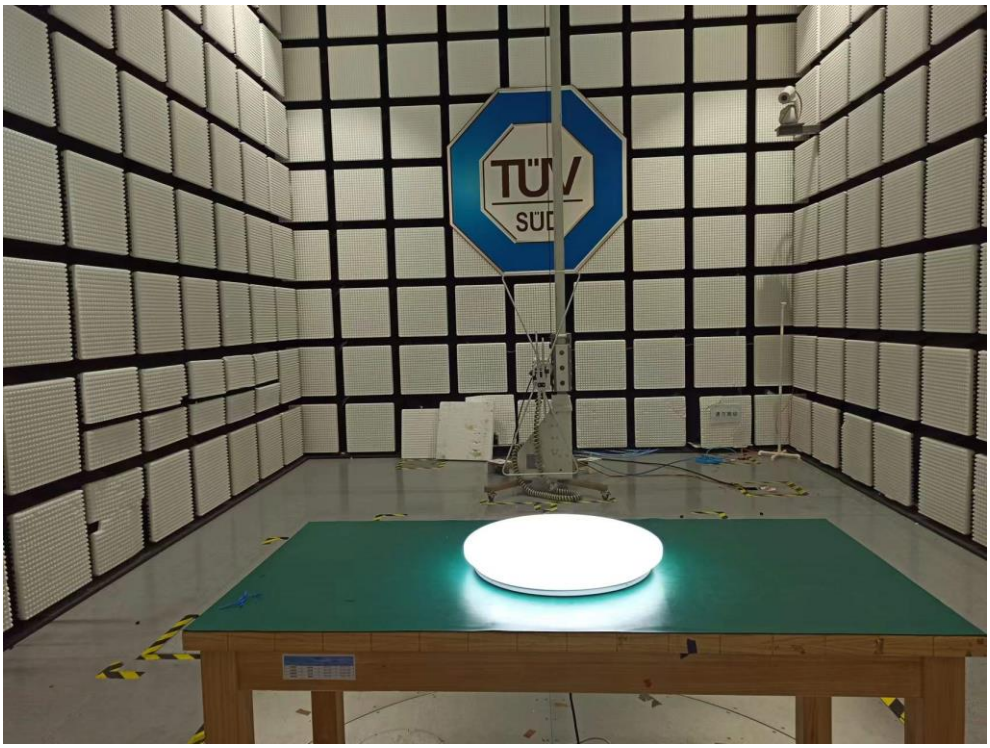
China

Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)
54.040000	16.4	1000.0	120.000	100.0	V	222.0	20.4	23.6
86.800000	11.3	1000.0	120.000	100.0	V	79.0	14.7	28.7
149.000000	17.4	1000.0	120.000	100.0	V	320.0	21.0	22.6
347.440000	19.7	1000.0	120.000	100.0	V	144.0	22.6	27.3
640.840000	25.5	1000.0	120.000	100.0	V	282.0	29.5	21.5
840.040000	27.7	1000.0	120.000	100.0	V	11.0	32.5	19.3

(continuation of the "Limit and Margin" table from column 16 ...)

Frequency (MHz)	Limit - QPK (dBuV/m)	Comment
54.040000	40.0	
86.800000	40.0	
149.000000	40.0	
347.440000	47.0	
640.840000	47.0	
840.040000	47.0	



Test Setup

2.3.8 Test Location

This test was carried out in 3-meter semi-anechoic chamber.

China

2.4 Harmonic current emissions

2.4.1 Specification Reference

EN IEC 61000-3-2:2019/A1:2021, Clause 7

2.4.2 Equipment Under Test

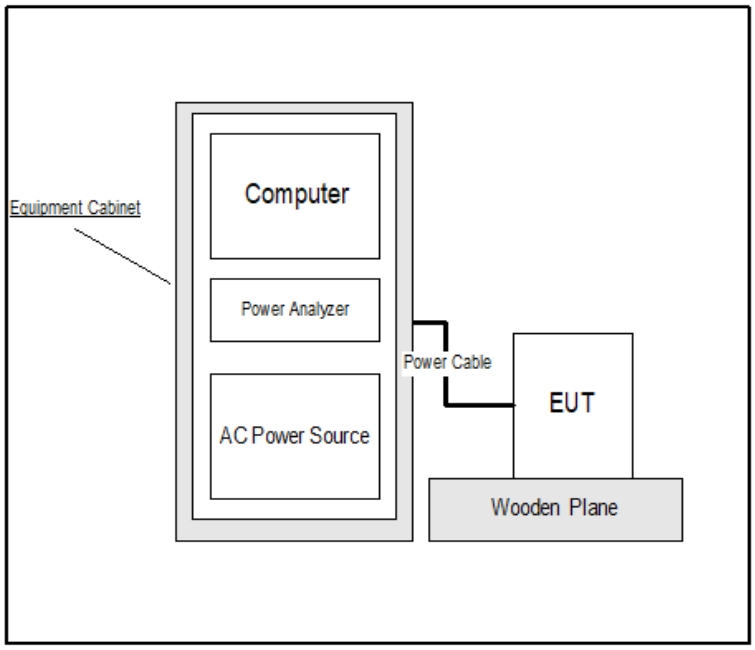
No.	Test model	Rated power	PCB	Sample Number(s)	Test mode
1	MK-020011012731-E	18W	PCB1	NIB-645570-1	AC Powered/Light on
2	MK-020011012862-E	24W	PCB2	NIB-645570-2	AC Powered/Light on
3	MK-020011013378-E	40W	PCB3	NIB-645570-3	AC Powered/Light on
4	MK-020011015010-A	24W	PCB4	NIB-645570-4	AC Powered/Light on
5	MK-020011012849-E	12W	PCB5	20220529.04.01	AC Powered/Light on
6	MK-020011014622-A	60W	PCB6	20220529.04.02	AC Powered/Light on
7	MK-020011014799-E	12W	PCB7	20220529.04.03	AC Powered/Light on

2.4.3 Date of Test

04/20/2022, 05/30/2022

2.4.4 Test Method

Harmonic components shall be measured in accordance with the requirements given in Annex A of EN IEC 61000-3-2 for the test circuit and the supply source.



China

2.4.5 Environmental Conditions

Ambient Temperature	20-25 °C
Relative Humidity	40-60 %
Atmospheric Pressure	1010-1040 mbar

2.4.6 Specification Limits

Limits for class C Equipment rated power ≥5W and ≤ 25W Comply with one of the following three sets of requirements	
Harmonic order h	Maximum permissible harmonic current per watt mA/W
3	3,4
5	1,9
7	1,0
9	0,5
11	0,35
13≤h≤ 39 (odd harmonic only)	3.85/h
– the third harmonic current, expressed as a percentage of the fundamental current, shall not exceed 86% and the fifth harmonic current shall not exceed 61%.In addition, the waveform of the input current shall be such that it reaches the 5 % current threshold before or at 60°, has its peak value before or at 65° and does not fall below the 5 % current threshold before 90°, referenced to any zero crossing of the fundamental supply voltage.	
– the *THD* shall not exceed 70 %. The third order harmonic current, expressed as a percentage of the fundamental current, shall not exceed 35 %, the fifth order current shall not exceed 25 %, the seventh order current shall not exceed 30 %, the ninth and eleventh order currents shall not exceed 20 % and the second order current shall not exceed 5 %.	

Limits for class C Equipment rated power > 25W [a]	
Harmonic order h	Maximum permissible harmonic current expressed as a percentage of the input current at the fundamental frequency %
2	2
3	27
5	10
7	7
9	5
11≤ h≤ 39 (odd harmonic only)	3
a For some class C products, other emission limits apply	

2.4.7 Test Results

Results for Configuration and Mode: Test model as see the table in the chapter 2.4.2.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

Line Under Test: power line.

China

Test Report

Report Number :	708882218630-00
Test Object :	LED lamp MK-020011012731-E(PCB1),18W Power on
Test Standard :	IEC 61000-3-2 (Edition 5.1) Limits for harmonic current emissions (equipment input current < 16 A per phase)
Tester :	Qiliang Chen
Test Date :	4/20/2022 9:38:51 AM

Test Object / Product

Name :	LED lamp MK-020011012731-E(PCB1),18W Power on	Operation Mode :	
Serial Number :		Connection :	
Description :			

Climatic Conditions

Temperature :	22 °C	Pressure :	103 kPa	Humidity :	52 %

Measures & Analysis

Measure Window :	10 periods	Voltage Range :	500 V
Refresh Interval :	2 s	Current Range :	50 A
Sampling Rate :	10.24 kS/s		
Scaled Window :	Rectangular	Current Probe :	Other (Ratio: 10 mV/A, Number of turns: 2, PhaseCompensation: 0)
According :	IEC 61000-3-2 (Edition 5.1) Limits for harmonic current emissions (equipment input current < 16 A per phase)		

China

Measure Results
Standard Specific Results for IEC 61000-3-2 (Edition 5.1)

Standard Group: Industry
Standard Name: IEC 61000-3-2 (Edition 5.1)
Limits for harmonic current emissions (equipment input current < 16 A per phase)
Device Under Test: PASS
Power Source: PASS
Connection Type: L - N
Classification: Class C (Rated power ≥ 5 W and ≤ 25 W, 3. and 5. harmonic)

Measured values			
Fundamental Current			
Line 1:	0.076 A		
Active input Power			
Line 1:	17.397 W *		
Circuit power factor			
Line 1:	0.766 *		

** Absolute value.*

China

Current Test Result

Average and Maximum harmonic current results									
Hn	Average				Maximum				Harmonic Result
	Ieff [%]	of Limit [%]	Limit [%]	Result	Ieff [%]	of Limit [%]	Limit [%]	Result	
1	98.580				100.000				
2	1.433				1.618				
3	54.238	63.068	86.000	PASS	54.555	63.436	86.000	PASS	PASS
4	1.412				1.571				
5	14.176	23.239	61.000	PASS	14.647	24.012	61.000	PASS	PASS
6	3.571				3.958				
7	34.126				34.406				
8	1.251				1.385				
9	26.391				26.985				
10	1.102				1.269				
11	10.982				11.393				
12	1.537				1.707				
13	21.901				22.571				
14	1.419				1.682				
15	15.843				16.266				
16	0.986				1.096				
17	5.545				6.014				
18	1.193				1.315				
19	14.304				14.606				
20	0.945				1.116				
21	9.048				9.358				
22	0.925				1.051				
23	4.983				5.386				
24	0.946				1.064				
25	11.004				11.155				
26	0.917				1.022				
27	6.001				6.421				
28	1.008				1.156				
29	4.711				5.087				
30	0.878				1.005				
31	8.487				8.689				
32	1.056				1.152				
33	4.003				4.385				
34	0.834				0.914				
35	4.071				4.444				
36	0.855				0.951				
37	6.189				6.386				
38	0.834				0.923				
39	2.525				2.812				
40	0.824				0.918				

Note: Harmonic currents less than 0.6 % of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.

Power and THD results			
Active Power (P)	Reactive Power (Q)	Apparent Power (S)	Power Factor
17.13 W	-14.65 var	22.55 VA	0.7599
Vrms	Crest Factor (U)	THD (U)	Displacement Factor
231.0 V	1.415	967.8e-6	0.9853
Irms	Crest Factor (I)	THD (I)	
98.06 mA	3.120	0.8101	

China

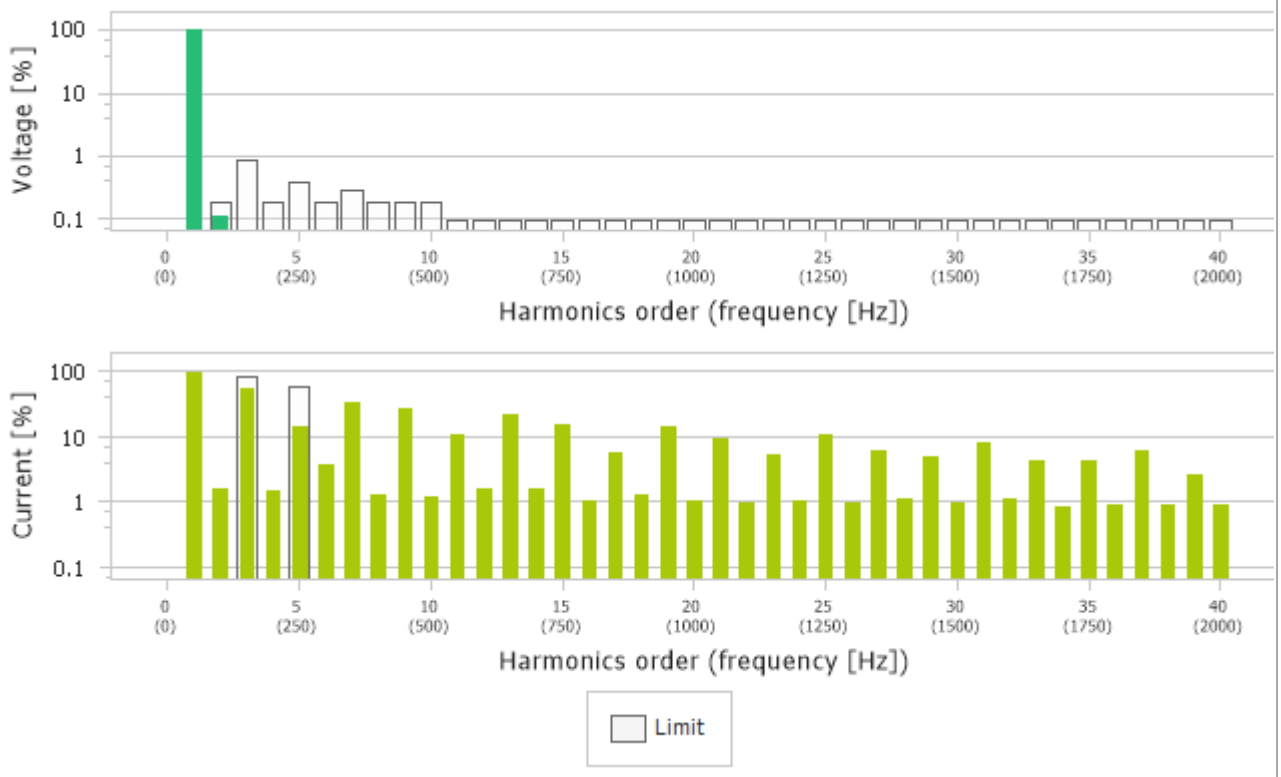
Voltage Source Verification

Harmonic voltage results				
Hn	Ueff [V]	Ueff [%]	Limit [%]	Result
1	231.088	100.473		
2	0.276	0.120	0.200	PASS
3	0.124	0.054	0.900	PASS
4	0.073	0.032	0.200	PASS
5	0.047	0.021	0.400	PASS
6	0.085	0.037	0.200	PASS
7	0.052	0.023	0.300	PASS
8	0.054	0.023	0.200	PASS
9	0.043	0.019	0.200	PASS
10	0.043	0.019	0.200	PASS
11	0.033	0.014	0.100	PASS
12	0.032	0.014	0.100	PASS
13	0.032	0.014	0.100	PASS
14	0.023	0.010	0.100	PASS
15	0.034	0.015	0.100	PASS
16	0.022	0.010	0.100	PASS
17	0.027	0.012	0.100	PASS
18	0.017	0.007	0.100	PASS
19	0.016	0.007	0.100	PASS
20	0.020	0.009	0.100	PASS
21	0.018	0.008	0.100	PASS
22	0.021	0.009	0.100	PASS
23	0.017	0.007	0.100	PASS
24	0.020	0.009	0.100	PASS
25	0.016	0.007	0.100	PASS
26	0.016	0.007	0.100	PASS
27	0.026	0.011	0.100	PASS
28	0.017	0.008	0.100	PASS
29	0.018	0.008	0.100	PASS
30	0.019	0.008	0.100	PASS
31	0.012	0.005	0.100	PASS
32	0.017	0.008	0.100	PASS
33	0.019	0.008	0.100	PASS
34	0.008	0.004	0.100	PASS
35	0.014	0.006	0.100	PASS
36	0.010	0.005	0.100	PASS
37	0.011	0.005	0.100	PASS
38	0.014	0.006	0.100	PASS
39	0.018	0.008	0.100	PASS
40	0.013	0.006	0.100	PASS

China

Maximum Harmonics

Maximum Harmonics (Line 1)



141/205

China

Test Report

Report Number :	708882218630-00
Test Object :	LED lamp MK-020011012862-E(PCB2),24W Power on
Test Standard :	IEC 61000-3-2 (Edition 5.1) Limits for harmonic current emissions (equipment input current < 16 A per phase)
Tester :	Qiliang Chen
Test Date :	4/20/2022 9:33:35 AM

Test Object / Product

Name :	LED lamp MK-020011012862-E(PCB2),24W Power on	Operation Mode :	
Serial Number :		Connection :	
Description :			

Climatic Conditions

Temperature :	22 °C	Pressure :	103 kPa	Humidity :	52 %

Measures & Analysis

Measure Window :	10 periods	Voltage Range :	500 V
Refresh Interval :	2 s	Current Range :	50 A
Sampling Rate :	10.24 kS/s		
Scaled Window :	Rectangular	Current Probe :	Other (Ratio: 10 mV/A, Number of turns: 2, PhaseCompensation: 0)
According :	IEC 61000-3-2 (Edition 5.1) Limits for harmonic current emissions (equipment input current < 16 A per phase)		

China

Measure Results
Standard Specific Results for IEC 61000-3-2 (Edition 5.1)

Standard Group: Industry
Standard Name: IEC 61000-3-2 (Edition 5.1)
Limits for harmonic current emissions (equipment input current < 16 A per phase)
Device Under Test: PASS
Power Source: PASS
Connection Type: L - N
Classification: Class C (Rated power ≥ 5 W and ≤ 25 W, 3. and 5. harmonic)

Measured values			
Fundamental Current			
Line 1:	0.116 A		
Active input Power			
Line 1:	26.593 W *		
Circuit power factor			
Line 1:	0.741 *		

** Absolute value.*

China

Current Test Result

Average and Maximum harmonic current results									
Hn	Average				Maximum				Harmonic Result
	Ieff [%]	of Limit [%]	Limit [%]	Result	Ieff [%]	of Limit [%]	Limit [%]	Result	
1	99.370				100.000				
2	0.950				1.053				
3	66.531	77.362	86.000	PASS	68.442	79.583	86.000	PASS	PASS
4	0.944				1.041				
5	23.373	38.317	61.000	PASS	26.503	43.448	61.000	PASS	PASS
6	2.306				2.662				
7	22.677				24.744				
8	1.012				1.113				
9	33.595				34.277				
10	0.736				0.889				
11	22.738				25.023				
12	1.375				1.576				
13	5.981				7.108				
14	1.066				1.346				
15	14.993				17.022				
16	0.722				0.842				
17	15.747				16.003				
18	0.790				0.880				
19	6.046				8.915				
20	0.609				0.688				
21	5.974				8.089				
22	0.623				0.692				
23	10.199				10.859				
24	0.641				0.726				
25	6.688				7.883				
26	0.609				0.690				
27	2.426				3.234				
28	0.671				0.758				
29	5.549				6.818				
30	0.599				0.681				
31	5.118				5.251				
32	0.695				0.783				
33	2.023				3.155				
34	0.564				0.634				
35	2.723				3.598				
36	0.567				0.650				
37	3.302				3.588				
38	0.570				0.641				
39	1.976				2.335				
40	0.560				0.650				

Note: Harmonic currents less than 0.6 % of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.

Power and THD results			
Active Power (P)	Reactive Power (Q)	Apparent Power (S)	Power Factor
26.43 W	-24.30 var	35.91 VA	0.7361
Vrms	Crest Factor (U)	THD (U)	Displacement Factor
231.0 V	1.415	970.9e-6	0.9903
Irms	Crest Factor (I)	THD (I)	
155.1 mA	2.860	0.8936	

China

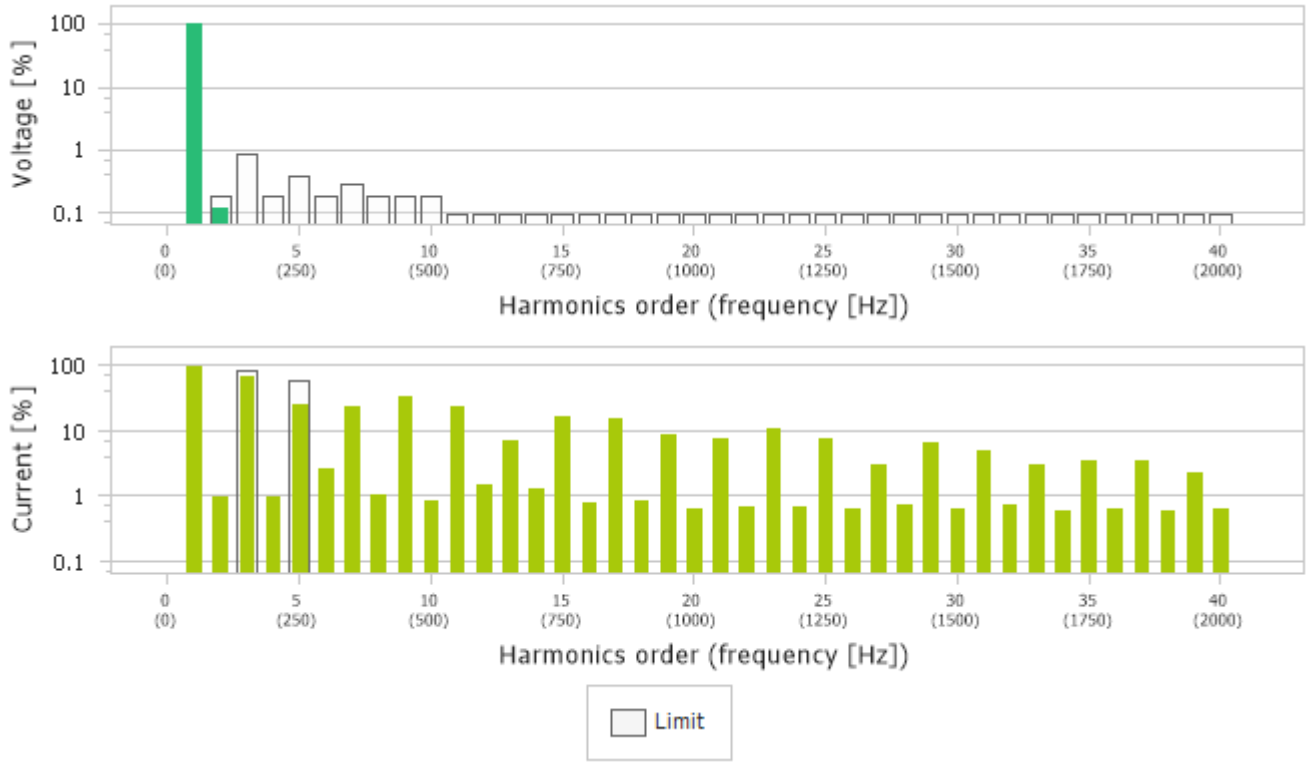
Voltage Source Verification

Harmonic voltage results				
Hn	Ueff [V]	Ueff [%]	Limit [%]	Result
1	231.098	100.477		
2	0.281	0.122	0.200	PASS
3	0.053	0.023	0.900	PASS
4	0.071	0.031	0.200	PASS
5	0.043	0.019	0.400	PASS
6	0.051	0.022	0.200	PASS
7	0.048	0.021	0.300	PASS
8	0.035	0.015	0.200	PASS
9	0.042	0.018	0.200	PASS
10	0.031	0.014	0.200	PASS
11	0.030	0.013	0.100	PASS
12	0.032	0.014	0.100	PASS
13	0.032	0.014	0.100	PASS
14	0.025	0.011	0.100	PASS
15	0.027	0.012	0.100	PASS
16	0.021	0.009	0.100	PASS
17	0.018	0.008	0.100	PASS
18	0.019	0.008	0.100	PASS
19	0.020	0.009	0.100	PASS
20	0.018	0.008	0.100	PASS
21	0.017	0.007	0.100	PASS
22	0.018	0.008	0.100	PASS
23	0.013	0.006	0.100	PASS
24	0.015	0.007	0.100	PASS
25	0.018	0.008	0.100	PASS
26	0.013	0.005	0.100	PASS
27	0.025	0.011	0.100	PASS
28	0.015	0.007	0.100	PASS
29	0.014	0.006	0.100	PASS
30	0.019	0.008	0.100	PASS
31	0.013	0.006	0.100	PASS
32	0.014	0.006	0.100	PASS
33	0.018	0.008	0.100	PASS
34	0.009	0.004	0.100	PASS
35	0.011	0.005	0.100	PASS
36	0.010	0.004	0.100	PASS
37	0.011	0.005	0.100	PASS
38	0.014	0.006	0.100	PASS
39	0.018	0.008	0.100	PASS
40	0.011	0.005	0.100	PASS

China

Maximum Harmonics

Maximum Harmonics (Line 1)



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China

Test Report

Report Number :	708882218630-00
Test Object :	LED lamp MK-020011013378-E(PCB3)40W Power on
Test Standard :	IEC 61000-3-2 (Edition 5.1) Limits for harmonic current emissions (equipment input current < 16 A per phase)
Tester :	Qiliang Chen
Test Date :	4/20/2022 9:25:17 AM

Test Object / Product

Name :	LED lamp MK-020011013378-E(PCB3)40W Power on	Operation Mode :	
Serial Number :		Connection :	
Description :			

Climatic Conditions

Temperature :	22 °C	Pressure :	103 kPa	Humidity :	52 %

Measures & Analysis

Measure Window :	10 periods	Voltage Range :	500 V
Refresh Interval :	2 s	Current Range :	50 A
Sampling Rate :	10.24 kS/s		
Scaled Window :	Rectangular	Current Probe :	Other (Ratio: 10 mV/A, Number of turns: 2, PhaseCompensation: 0)
According :	IEC 61000-3-2 (Edition 5.1) Limits for harmonic current emissions (equipment input current < 16 A per phase)		

China

Measure Results
Standard Specific Results for IEC 61000-3-2 (Edition 5.1)

Standard Group:	Industry
Standard Name:	IEC 61000-3-2 (Edition 5.1)
	Limits for harmonic current emissions (equipment input current < 16 A per phase)
Device Under Test:	PASS
Power Source:	PASS
Connection Type:	L - N
Classification:	Class C (Rated power > 25 W, Table 2)
Appli. of Limits:	less than or equal to 150 % (Without POHC Enhancement)

Check Harmonics 2..40			
First detected harmonic order > 150 %			
Line 1:	None		
Harmonics orders > 150 %			
Line 1:	None		
Harmonics orders with average > 100 %			
Line 1:	None		

Measured values			
Fundamental Current			
Line 1:	0.157 A		
Active input Power			
Line 1:	35.823 W *		
Circuit power factor			
Line 1:	0.985 *		

** Absolute value.*

China

Current Test Result

Average and Maximum harmonic current results									
Hn	Average				Maximum				Harmonic Result
	Ieff [%]	of Limit [%]	Limit [%]	Result	Ieff [%]	of Limit [%]	Limit [%]	Result	
1	99.503				100.000				
2	0.379	18.965	2.000	n/a	0.436	14.539	3.000	n/a	PASS
3	3.525	13.057	27.000	PASS	3.675	9.073	40.500	PASS	PASS
4	0.373				0.419				
5	1.494	14.935	10.000	n/a	1.622	10.812	15.000	n/a	PASS
6	0.469				0.603				
7	1.995	28.493	7.000	n/a	2.115	20.144	10.500	n/a	PASS
8	0.712				0.950				
9	2.059	41.177	5.000	n/a	2.162	28.823	7.500	n/a	PASS
10	0.384				0.438				
11	2.218	73.923	3.000	n/a	2.297	51.046	4.500	n/a	PASS
12	0.353				0.389				
13	1.719	57.285	3.000	n/a	1.783	39.615	4.500	n/a	PASS
14	0.628				0.749				
15	1.017	33.915	3.000	n/a	1.163	25.839	4.500	n/a	PASS
16	0.500				0.602				
17	0.719	23.970	3.000	n/a	0.789	17.537	4.500	n/a	PASS
18	0.402				0.471				
19	1.014	33.806	3.000	n/a	1.082	24.049	4.500	n/a	PASS
20	0.342				0.382				
21	0.671	22.367	3.000	n/a	0.746	16.576	4.500	n/a	PASS
22	0.337				0.384				
23	0.628	20.924	3.000	n/a	0.681	15.132	4.500	n/a	PASS
24	0.336				0.378				
25	0.398	13.256	3.000	n/a	0.455	10.111	4.500	n/a	PASS
26	0.336				0.377				
27	0.425	14.179	3.000	n/a	0.475	10.565	4.500	n/a	PASS
28	0.364				0.403				
29	0.433	14.419	3.000	n/a	0.480	10.673	4.500	n/a	PASS
30	0.344				0.380				
31	0.596	19.866	3.000	n/a	0.660	14.666	4.500	n/a	PASS
32	0.382				0.427				
33	0.551	18.382	3.000	n/a	0.601	13.346	4.500	n/a	PASS
34	0.346				0.386				
35	0.497	16.579	3.000	n/a	0.562	12.487	4.500	n/a	PASS
36	0.343				0.377				
37	0.416	13.878	3.000	n/a	0.467	10.379	4.500	n/a	PASS
38	0.343				0.377				
39	0.425	14.163	3.000	n/a	0.471	10.462	4.500	n/a	PASS
40	0.333				0.373				

Note: Harmonic currents less than 0.6 % of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.

Power and THD results			
Active Power (P)	Reactive Power (Q)	Apparent Power (S)	Power Factor
35.64 W	-6.399 var	36.21 VA	0.9843
Vrms	Crest Factor (U)	THD (U)	Displacement Factor
231.1 V	1.415	972.8e-6	0.9863
Irms	Crest Factor (I)	THD (I)	
156.6 mA	1.469	0.06278	

China

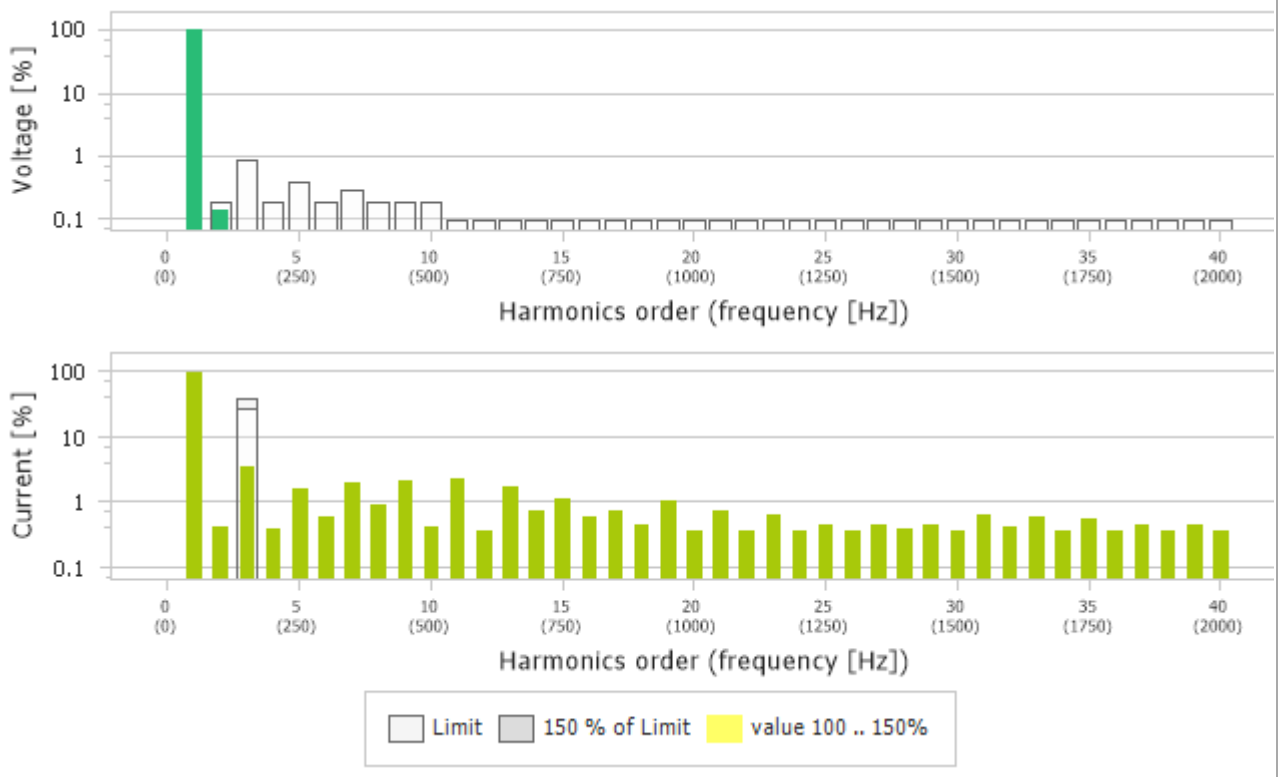
Voltage Source Verification

Harmonic voltage results				
Hn	Ueff [V]	Ueff [%]	Limit [%]	Result
1	231.109	100.482		
2	0.344	0.150	0.200	PASS
3	0.139	0.060	0.900	PASS
4	0.122	0.053	0.200	PASS
5	0.073	0.032	0.400	PASS
6	0.076	0.033	0.200	PASS
7	0.071	0.031	0.300	PASS
8	0.057	0.025	0.200	PASS
9	0.052	0.022	0.200	PASS
10	0.042	0.018	0.200	PASS
11	0.041	0.018	0.100	PASS
12	0.033	0.014	0.100	PASS
13	0.037	0.016	0.100	PASS
14	0.035	0.015	0.100	PASS
15	0.028	0.012	0.100	PASS
16	0.029	0.013	0.100	PASS
17	0.024	0.010	0.100	PASS
18	0.022	0.010	0.100	PASS
19	0.020	0.009	0.100	PASS
20	0.021	0.009	0.100	PASS
21	0.017	0.007	0.100	PASS
22	0.018	0.008	0.100	PASS
23	0.020	0.009	0.100	PASS
24	0.016	0.007	0.100	PASS
25	0.015	0.007	0.100	PASS
26	0.014	0.006	0.100	PASS
27	0.025	0.011	0.100	PASS
28	0.016	0.007	0.100	PASS
29	0.016	0.007	0.100	PASS
30	0.020	0.009	0.100	PASS
31	0.012	0.005	0.100	PASS
32	0.013	0.006	0.100	PASS
33	0.019	0.008	0.100	PASS
34	0.010	0.004	0.100	PASS
35	0.013	0.006	0.100	PASS
36	0.010	0.005	0.100	PASS
37	0.013	0.005	0.100	PASS
38	0.018	0.008	0.100	PASS
39	0.020	0.009	0.100	PASS
40	0.012	0.005	0.100	PASS

China

Maximum Harmonics

Maximum Harmonics (Line 1)



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China

Test Report

Report Number :	708882218630-00
Test Object :	LED lamp MK-020011015010-A(PCB4),24W Power on
Test Standard :	IEC 61000-3-2 (Edition 5.1) Limits for harmonic current emissions (equipment input current < 16 A per phase)
Tester :	Qiliang Chen
Test Date :	4/20/2022 9:28:10 AM

Test Object / Product

Name :	LED lamp MK-020011015010-A(PCB4),24W Power on	Operation Mode :	
Serial Number :		Connection :	
Description :			

Climatic Conditions

Temperature :	22 °C	Pressure :	103 kPa	Humidity :	52 %

Measures & Analysis

Measure Window :	10 periods	Voltage Range :	500 V
Refresh Interval :	2 s	Current Range :	50 A
Sampling Rate :	10.24 kS/s		
Scaled Window :	Rectangular	Current Probe :	Other (Ratio: 10 mV/A, Number of turns: 2, PhaseCompensation: 0)

China

According :	IEC 61000-3-2 (Edition 5.1) Limits for harmonic current emissions (equipment input current < 16 A per phase)

Standard Specific Results for IEC 61000-3-2 (Edition 5.1)

Standard Group:	Industry
Standard Name:	IEC 61000-3-2 (Edition 5.1)
	Limits for harmonic current emissions (equipment input current < 16 A per phase)
Device Under Test:	PASS
Power Source:	PASS
Connection Type:	L - N
Classification:	Class C (Rated power ≥ 5 W and ≤ 25 W, 3. and 5. harmonic)
Test Duration:	2 min 30 s

Current Waveform Shape is inside requirements for Line 1.

Measured values			
Fundamental Current			
Line 1:	0.111 A		
Active input Power			
Line 1:	25.075 W *		
Circuit power factor			
Line 1:	0.761 *		

** Absolute value.*

Prerequisite for simplified method **fulfilled**			
First time window with THD(I) > 15 %			
Line 1:	None		
Time window with max THD(I) > 15 %			
Line 1:	None		
Current emission below 60 % of the applicable limits			
Line 1:	No		
Active Input Power			
Line 1:	25 W *		

** Absolute value.*

China

Current Test Result

Average and Maximum harmonic current results									
Hn	Average				Maximum				Harmonic Result
	Ieff [%]	of Limit [%]	Limit [%]	Result	Ieff [%]	of Limit [%]	Limit [%]	Result	
1	99.212				100.000				
2	0.962				1.078				
3	67.855	78.901	86.000	PASS	68.128	79.219	86.000	PASS	PASS
4	0.817				0.909				
5	25.749	42.211	61.000	PASS	25.923	42.497	61.000	PASS	PASS
6	0.920				1.007				
7	11.088				11.315				
8	2.308				2.430				
9	23.385				23.843				
10	1.009				1.149				
11	16.187				16.364				
12	0.686				0.761				
13	3.273				3.392				
14	0.829				0.945				
15	10.840				11.097				
16	0.951				1.046				
17	10.557				10.724				
18	1.052				1.194				
19	3.743				3.960				
20	0.692				0.779				
21	5.323				5.451				
22	0.634				0.704				
23	6.987				7.088				
24	0.650				0.738				
25	3.925				4.095				
26	0.603				0.680				
27	2.679				2.790				
28	0.653				0.722				
29	3.973				4.062				
30	0.598				0.687				
31	3.065				3.188				
32	0.714				0.792				
33	1.933				2.033				
34	0.586				0.643				
35	2.188				2.282				
36	0.573				0.644				
37	2.302				2.384				
38	0.562				0.644				
39	1.933				2.067				
40	0.567				0.643				

Note: Harmonic currents less than 0.6 % of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.

Power and THD results			
Active Power (P)	Reactive Power (Q)	Apparent Power (S)	Power Factor
24.87 W	-21.52 var	32.88 VA	0.7562
Vrms	Crest Factor (U)	THD (U)	Displacement Factor
231.1 V	1.415	966.5e-6	0.9780
Irms	Crest Factor (I)	THD (I)	
141.8 mA	2.288	0.8131	

Voltage Source Verification

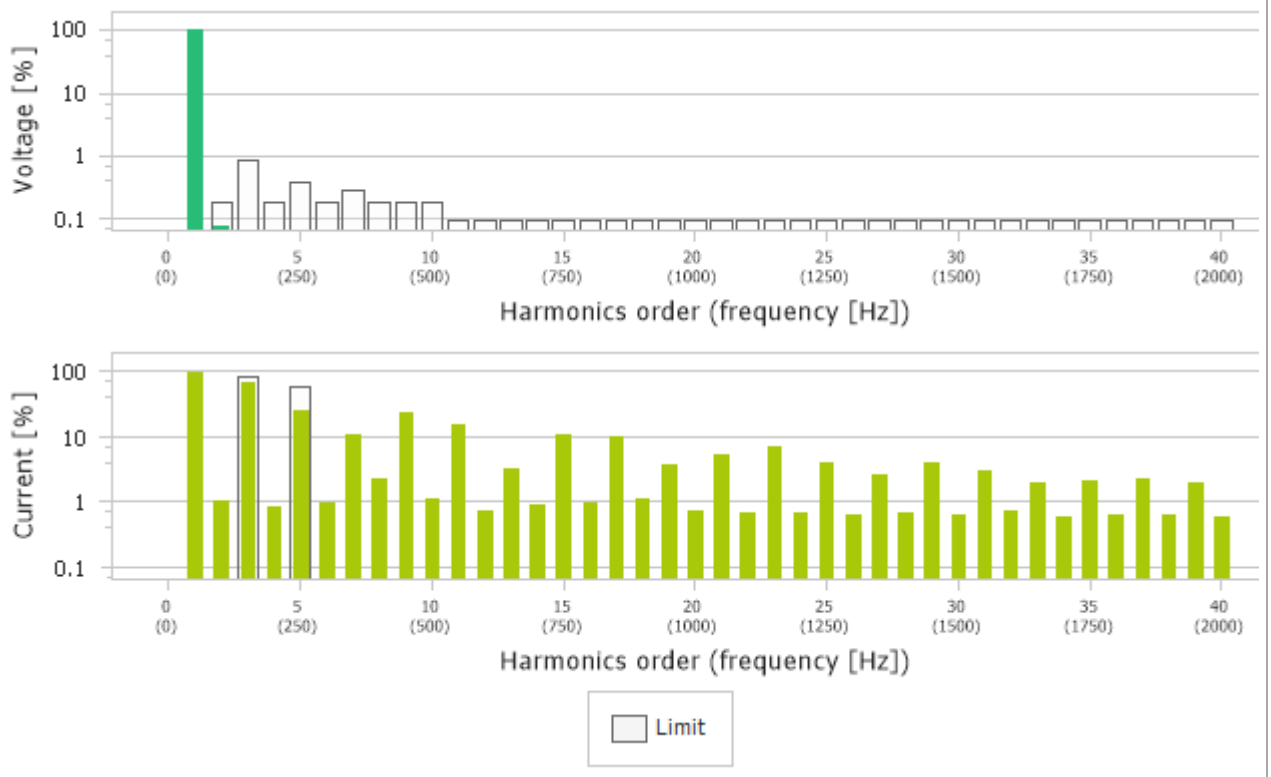
Harmonic voltage results				
Hn	Ueff [V]	Ueff [%]	Limit [%]	Result
1	231.140	100.496		
2	0.186	0.081	0.200	PASS
3	0.053	0.023	0.900	PASS
4	0.087	0.038	0.200	PASS
5	0.041	0.018	0.400	PASS
6	0.044	0.019	0.200	PASS
7	0.050	0.022	0.300	PASS
8	0.036	0.016	0.200	PASS
9	0.050	0.022	0.200	PASS
10	0.033	0.014	0.200	PASS
11	0.025	0.011	0.100	PASS
12	0.028	0.012	0.100	PASS
13	0.026	0.011	0.100	PASS
14	0.023	0.010	0.100	PASS
15	0.031	0.013	0.100	PASS
16	0.022	0.010	0.100	PASS
17	0.021	0.009	0.100	PASS
18	0.017	0.007	0.100	PASS
19	0.016	0.007	0.100	PASS
20	0.018	0.008	0.100	PASS
21	0.018	0.008	0.100	PASS
22	0.017	0.007	0.100	PASS
23	0.018	0.008	0.100	PASS
24	0.014	0.006	0.100	PASS
25	0.014	0.006	0.100	PASS
26	0.013	0.006	0.100	PASS
27	0.023	0.010	0.100	PASS
28	0.015	0.007	0.100	PASS
29	0.018	0.008	0.100	PASS
30	0.019	0.008	0.100	PASS
31	0.012	0.005	0.100	PASS
32	0.013	0.006	0.100	PASS
33	0.017	0.007	0.100	PASS

34	0.009	0.004	0.100	PASS
35	0.012	0.005	0.100	PASS
36	0.010	0.004	0.100	PASS
37	0.011	0.005	0.100	PASS
38	0.014	0.006	0.100	PASS
39	0.016	0.007	0.100	PASS
40	0.011	0.005	0.100	PASS

China

Maximum Harmonics

Maximum Harmonics (Line 1)



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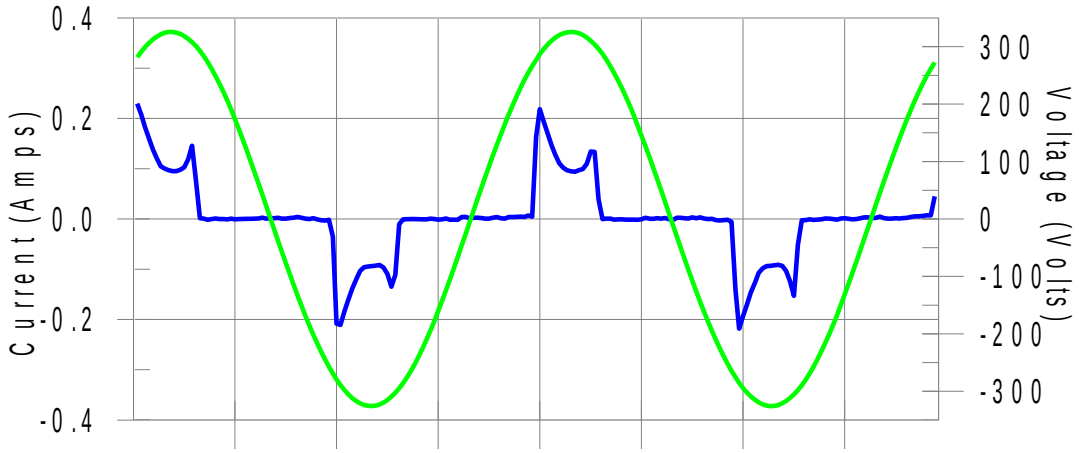
China

Harmonics – Class-C (>=5W and <= 25W) per Ed. 5.0 (2018)(Run time) incl. inter-harmonics

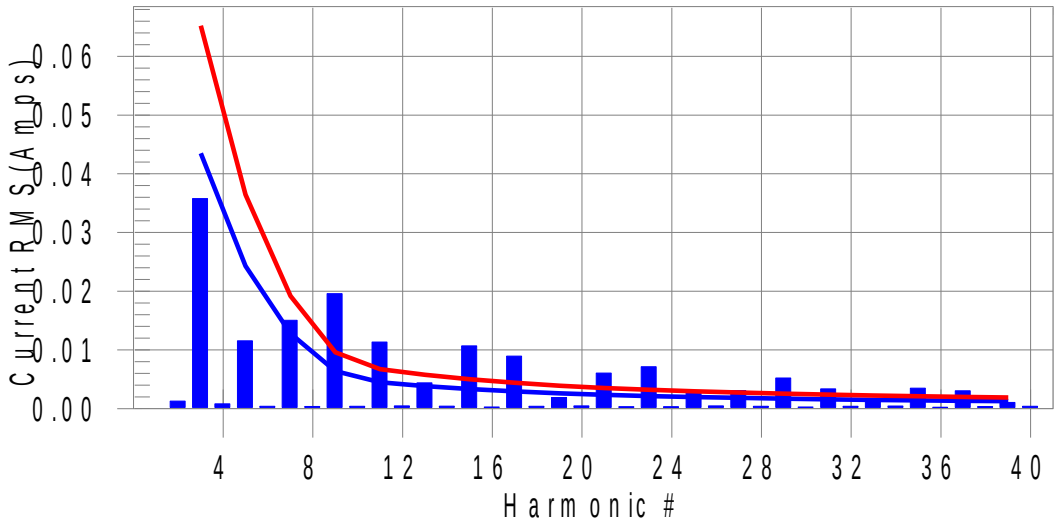
EUT: LED lamp, MK-020011012849-E, PCB 5, 12W **Tested by: Zhong Yuwei**
Test category: Class-C per Ed. 5.0 (2018) (European limits) **Test Margin: 100**
Test date: 5/30/2022 **Start time: 2:09:52 PM** **End time: 2:12:34 PM**
Test duration (min): 2.5 **Data file name: H-000025.cts_data**
Comment: Light on, T23, H52.3%, P101.1kPa
Customer: Zhejiang MEKA Electric Co., Ltd.

Test Result: Pass **Source qualification: Normal**

Current & voltage waveforms



Harmonics and Class C limit line (Table-2 Class-C) **European Limits**



Test result: Pass (H3 & H5 < limit) & waveform meets phase angle requirements per 7.4.3.
I_pk_max = -236.98 mA **Max_phase_angle = 61 degree (Pos)**
I_start_lowest = 209.83 mA (Pos) **I_stop_lowest = 85.35 mA (Pos)**

China

Current Test Result Summary (Run time)

EUT: LED lamp, MK-020011012849-E, PCB 5, 12W **Tested by: Zhong Yuwei**
Test category: Class-C per Ed. 5.0 (2018) (European limits) **Test Margin: 100**
Test date: 5/30/2022 **Start time: 2:09:52 PM** **End time: 2:12:34 PM**
Test duration (min): 2.5 **Data file name: H-000025.cts_data**
Comment: Light on, T23, H52.3%, P101.1kPa
Customer: Zhejiang MEKA Electric Co., Ltd.

Test Result: Pass **Source qualification: Normal**

I-h3(mA): 35.77 **I-h5(mA): 11.56** **POHC: N/A** **POHC Limit: N/A**

Highest parameter values during test:

V_RMS (Volts):	**230.40**	**Frequency (Hz):**	**50.00**
I_Peak (Amps):	**0.237**	**I_RMS (Amps):**	**0.076**
I_Fund (Amps):	**0.056**	**Crest Factor:**	**3.154**
Power (Watts):	**12.8**	**Power Factor:**	**0.741**

Harm#	Harms	100%Limit	%of Limit	
3	35.77	48.39	73.9	Pass
5	11.56	34.32	33.7	Pass

Peak current (Ipeak) = -236.98 mA (236.98 mA absolute)
Peak current max. phase angle = 61 degree (Pos) **Pass**

Min. Current at 60 deg (I_60) = 209.83 mA (Pos) **Limit = 11.85 mA** **Pass**
Min. Current at 90 deg (I_90) = 85.35 mA (Pos) **Limit = 11.85 mA** **Pass**

China

Voltage Source Verification Data (Run time)

EUT: LED lamp, MK-020011012849-E, PCB 5, 12W **Tested by: Zhong Yuwei**
Test category: Class-C per Ed. 5.0 (2018) (European limits) **Test Margin: 100**
Test date: 5/30/2022 **Start time: 2:09:52 PM** **End time: 2:12:34 PM**
Test duration (min): 2.5 **Data file name: H-000025.cts_data**
Comment: Light on, T23, H52.3%, P101.1kPa
Customer: Zhejiang MEKA Electric Co., Ltd.

Test Result: Pass **Source qualification: Normal**

Highest parameter values during test:

Voltage (Vrms):	**230.40**	**Frequency(Hz):**	**50.00**
I_Peak (Amps):	**0.237**	**I_RMS (Amps):**	**0.076**
I_Fund (Amps):	**0.056**	**Crest Factor:**	**3.154**
Power (Watts):	**12.8**	**Power Factor:**	**0.741**

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.074	0.461	16.17	OK
3	0.570	2.073	27.50	OK
4	0.065	0.461	14.02	OK
5	0.061	0.921	6.59	OK
6	0.024	0.461	5.22	OK
7	0.031	0.691	4.44	OK
8	0.020	0.461	4.44	OK
9	0.057	0.461	12.41	OK
10	0.018	0.461	3.93	OK
11	0.021	0.230	9.30	OK
12	0.017	0.230	7.54	OK
13	0.018	0.230	7.69	OK
14	0.010	0.230	4.39	OK
15	0.033	0.230	14.51	OK
16	0.008	0.230	3.48	OK
17	0.018	0.230	7.67	OK
18	0.006	0.230	2.47	OK
19	0.006	0.230	2.50	OK
20	0.013	0.230	5.77	OK
21	0.015	0.230	6.34	OK
22	0.006	0.230	2.67	OK
23	0.013	0.230	5.65	OK
24	0.003	0.230	1.37	OK
25	0.007	0.230	3.07	OK
26	0.006	0.230	2.47	OK
27	0.009	0.230	4.05	OK
28	0.006	0.230	2.75	OK
29	0.010	0.230	4.55	OK
30	0.007	0.230	3.19	OK
31	0.007	0.230	3.20	OK
32	0.004	0.230	1.82	OK
33	0.006	0.230	2.73	OK
34	0.003	0.230	1.45	OK
35	0.006	0.230	2.76	OK
36	0.003	0.230	1.47	OK
37	0.006	0.230	2.79	OK
38	0.004	0.230	1.60	OK
39	0.003	0.230	1.21	OK
40	0.007	0.230	2.98	OK

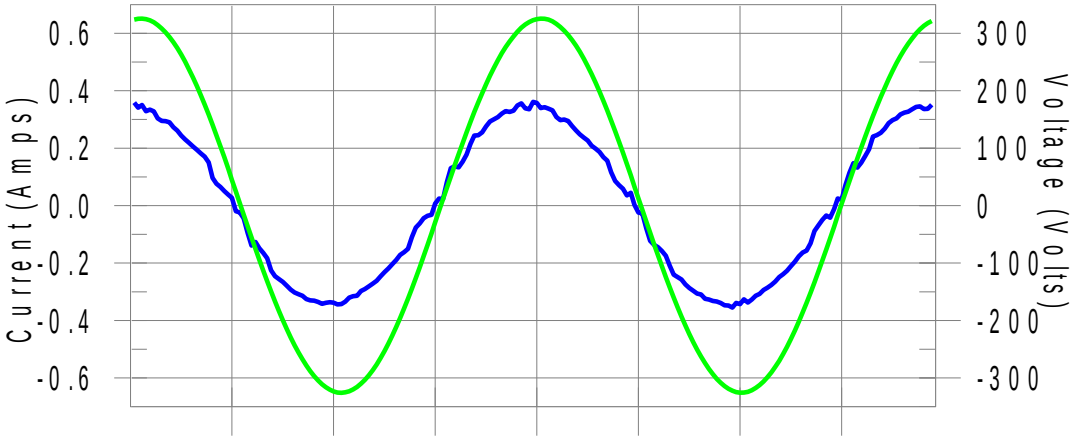
China

Harmonics – Class-C per Ed. 5.0 (2018)(Run time) incl. inter-harmonics

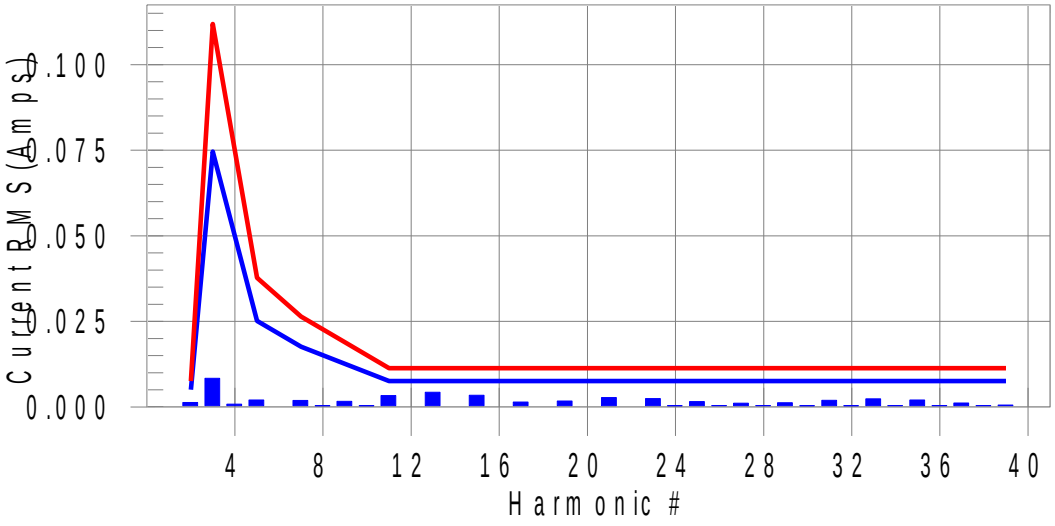
EUT: LED lamp, MK-020011014622-A, PCB 6, 60W **Tested by: Cheng Huali**
Test category: Class-C per Ed. 5.0 (2018) (European limits) **Test Margin: 100**
Test date: 5/30/2022 **Start time: 2:33:04 PM** **End time: 2:35:45 PM**
Test duration (min): 2.5 **Data file name: H-000027.cts_data**
Comment: Light on, T23, H52.3%, P101.1kPa
Customer: Zhejiang MEKA Electric Co., Ltd.

Test Result: Pass **Source qualification: Normal**

Current & voltage waveforms



Harmonics and Class C limit line **European Limits**



Test result: Pass Worst harmonics H3-8.8% of 150% limit, H3-11.2% of 100% limit

China

Current Test Result Summary (Run time)

EUT: LED lamp, MK-020011014622-A, PCB 6, 60W **Tested by: Cheng Huali**
Test category: Class-C per Ed. 5.0 (2018) (European limits) **Test Margin: 100**
Test date: 5/30/2022 **Start time: 2:33:04 PM** **End time: 2:35:45 PM**
Test duration (min): 2.5 **Data file name: H-000027.cts_data**
Comment: Light on, T23, H52.3%, P101.1kPa
Customer: Zhejiang MEKA Electric Co., Ltd.

Test Result: Pass **Source qualification: Normal**
THC(A): 0.013 **I-THD(%): 5.1** **POHC(A): 0.006** **POHC Limit(A): 0.024**

Highest parameter values during test:

V_RMS (Volts):	**230.41**	**Frequency(Hz):**	**50.00**
I_Peak (Amps):	**0.379**	**I_RMS (Amps):**	**0.252**
I_Fund (Amps):	**0.251**	**Crest Factor:**	**1.524**
Power (Watts):	**57.3**	**Power Factor:**	**0.989**

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	0.005	N/A	0.001	0.008	N/A	Pass
3	0.008	0.075	11.2	0.010	0.112	8.8	Pass
4	0.001	0.000	N/A	0.001	0.000	N/A	Pass
5	0.002	0.025	N/A	0.002	0.038	N/A	Pass
6	0.000	0.000	N/A	0.000	0.000	N/A	Pass
7	0.002	0.018	N/A	0.002	0.026	N/A	Pass
8	0.000	0.000	N/A	0.000	0.000	N/A	Pass
9	0.002	0.013	N/A	0.002	0.019	N/A	Pass
10	0.000	0.000	N/A	0.000	0.000	N/A	Pass
11	0.003	0.008	N/A	0.003	0.011	N/A	Pass
12	0.000	0.000	N/A	0.000	0.000	N/A	Pass
13	0.004	0.008	N/A	0.004	0.011	N/A	Pass
14	0.000	0.000	N/A	0.000	0.000	N/A	Pass
15	0.003	0.008	N/A	0.004	0.011	N/A	Pass
16	0.000	0.000	N/A	0.000	0.000	N/A	Pass
17	0.001	0.008	N/A	0.002	0.011	N/A	Pass
18	0.000	0.000	N/A	0.000	0.000	N/A	Pass
19	0.002	0.008	N/A	0.002	0.011	N/A	Pass
20	0.000	0.000	N/A	0.000	0.000	N/A	Pass
21	0.003	0.008	N/A	0.003	0.011	N/A	Pass
22	0.000	0.000	N/A	0.000	0.000	N/A	Pass
23	0.002	0.008	N/A	0.003	0.011	N/A	Pass
24	0.000	0.000	N/A	0.000	0.000	N/A	Pass
25	0.002	0.008	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	0.008	N/A	0.001	0.011	N/A	Pass
28	0.000	0.000	N/A	0.001	0.000	N/A	Pass
29	0.001	0.008	N/A	0.001	0.011	N/A	Pass
30	0.000	0.000	N/A	0.000	0.000	N/A	Pass
31	0.002	0.008	N/A	0.002	0.011	N/A	Pass
32	0.000	0.000	N/A	0.000	0.000	N/A	Pass
33	0.002	0.008	N/A	0.002	0.011	N/A	Pass
34	0.000	0.000	N/A	0.001	0.000	N/A	Pass
35	0.002	0.008	N/A	0.002	0.011	N/A	Pass
36	0.000	0.000	N/A	0.001	0.000	N/A	Pass
37	0.001	0.008	N/A	0.001	0.011	N/A	Pass
38	0.000	0.000	N/A	0.001	0.000	N/A	Pass
39	0.001	0.008	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.

China

Voltage Source Verification Data (Run time)

EUT: LED lamp, MK-020011014622-A, PCB 6, 60W **Tested by: Cheng Huali**
Test category: Class-C per Ed. 5.0 (2018) (European limits) **Test Margin: 100**
Test date: 5/30/2022 **Start time: 2:33:04 PM** **End time: 2:35:45 PM**
Test duration (min): 2.5 **Data file name: H-000027.cts_data**
Comment: Light on, T23, H52.3%, P101.1kPa
Customer: Zhejiang MEKA Electric Co., Ltd.

Test Result: Pass **Source qualification: Normal**

Highest parameter values during test:

Voltage (Vrms):	**230.41**	**Frequency(Hz):**	**50.00**
I_Peak (Amps):	**0.379**	**I_RMS (Amps):**	**0.252**
I_Fund (Amps):	**0.251**	**Crest Factor:**	**1.524**
Power (Watts):	**57.3**	**Power Factor:**	**0.989**

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.094	0.461	20.34	OK
3	0.589	2.074	28.38	OK
4	0.070	0.461	15.19	OK
5	0.082	0.922	8.85	OK
6	0.033	0.461	7.19	OK
7	0.045	0.691	6.47	OK
8	0.025	0.461	5.44	OK
9	0.038	0.461	8.30	OK
10	0.023	0.461	5.09	OK
11	0.022	0.230	9.76	OK
12	0.021	0.230	9.30	OK
13	0.023	0.230	10.05	OK
14	0.017	0.230	7.40	OK
15	0.015	0.230	6.68	OK
16	0.011	0.230	4.68	OK
17	0.013	0.230	5.53	OK
18	0.009	0.230	4.03	OK
19	0.007	0.230	2.90	OK
20	0.017	0.230	7.35	OK
21	0.010	0.230	4.40	OK
22	0.008	0.230	3.37	OK
23	0.007	0.230	2.88	OK
24	0.005	0.230	2.17	OK
25	0.009	0.230	3.70	OK
26	0.006	0.230	2.74	OK
27	0.009	0.230	3.79	OK
28	0.006	0.230	2.51	OK
29	0.007	0.230	3.10	OK
30	0.006	0.230	2.42	OK
31	0.006	0.230	2.42	OK
32	0.004	0.230	1.54	OK
33	0.006	0.230	2.77	OK
34	0.004	0.230	1.57	OK
35	0.004	0.230	1.90	OK
36	0.005	0.230	1.96	OK
37	0.005	0.230	2.26	OK
38	0.003	0.230	1.50	OK
39	0.004	0.230	1.67	OK
40	0.007	0.230	2.92	OK

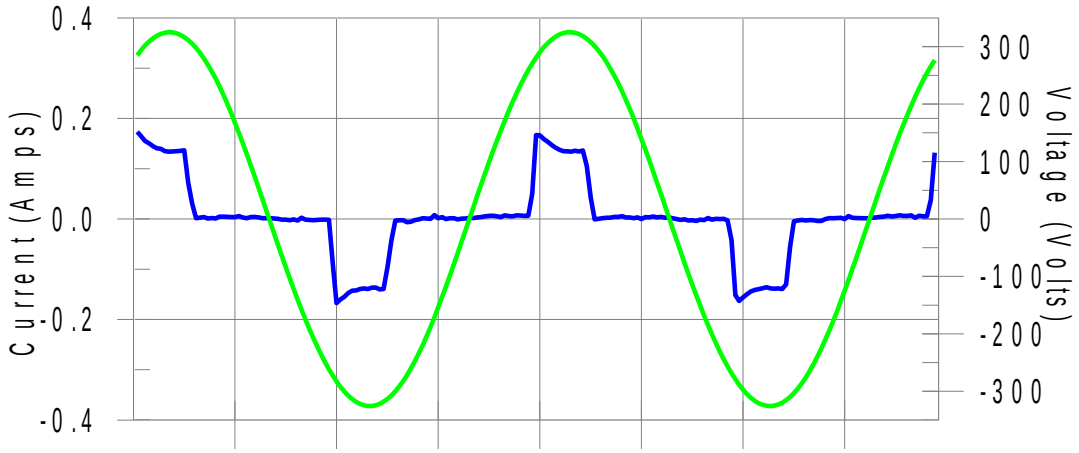
China

Harmonics – Class-C (>=5W and <= 25W) per Ed. 5.0 (2018)(Run time) incl. inter-harmonics

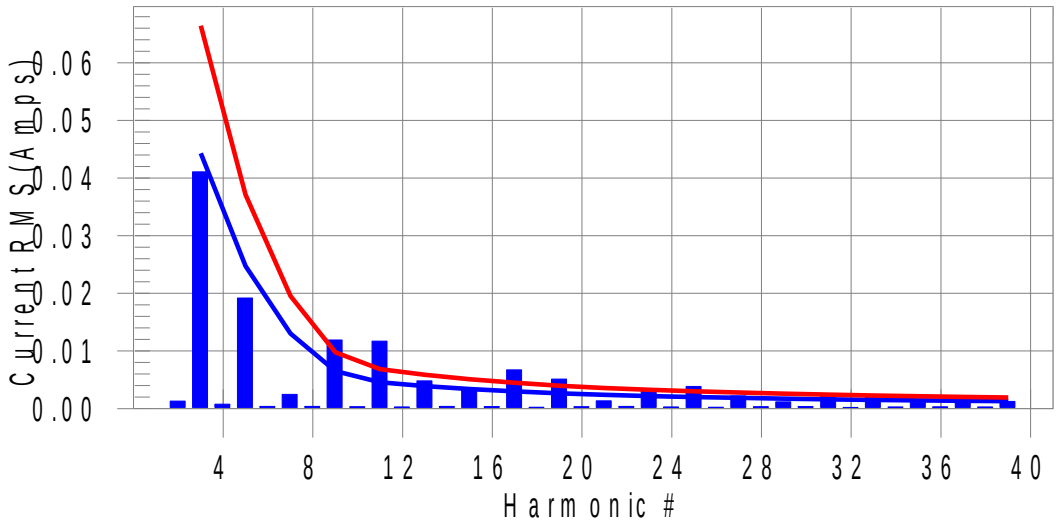
EUT: LED lamp, MK-020011014799-E, PCB 7, 12W **Tested by: Cheng Huali**
Test category: Class-C per Ed. 5.0 (2018) (European limits) **Test Margin: 100**
Test date: 5/30/2022 **Start time: 2:42:23 PM** **End time: 2:45:04 PM**
Test duration (min): 2.5 **Data file name: H-000028.cts_data**
Comment: Light on, T23, H52.3%, P101.1kPa
Customer: Zhejiang MEKA Electric Co., Ltd.

Test Result: Pass **Source qualification: Normal**

Current & voltage waveforms



Harmonics and Class C limit line (Table-2 Class-C) **European Limits**



Test result: Pass (H3 & H5 < limit) & waveform meets phase angle requirements per 7.4.3.
I_pk_max = -177.50 mA **Max_phase_angle = 64 degree (Pos)**
I_start_lowest = 156.80 mA (Pos) **I_stop_lowest = 126.09 mA (Pos)**

China

Current Test Result Summary (Run time)

EUT: LED lamp, MK-020011014799-E, PCB 7, 12W **Tested by: Cheng Huali**
Test category: Class-C per Ed. 5.0 (2018) (European limits) **Test Margin: 100**
Test date: 5/30/2022 **Start time: 2:42:23 PM** **End time: 2:45:04 PM**
Test duration (min): 2.5 **Data file name: H-000028.cts_data**
Comment: Light on, T23, H52.3%, P101.1kPa
Customer: Zhejiang MEKA Electric Co., Ltd.

Test Result: Pass **Source qualification: Normal**

I-h3(mA): 41.08 **I-h5(mA): 19.18** **POHC: N/A** **POHC Limit: N/A**

Highest parameter values during test:

V_RMS (Volts):	**230.41**	**Frequency (Hz):**	**50.00**
I_Peak (Amps):	**0.177**	**I_RMS (Amps):**	**0.076**
I_Fund (Amps):	**0.057**	**Crest Factor:**	**2.361**
Power (Watts):	**13.0**	**Power Factor:**	**0.752**

Harm#	Harms	100%Limit	%of Limit	
3	41.08	49.34	83.3	Pass
5	19.18	35.00	54.8	Pass

Peak current (Ipeak) = -177.50 mA (177.5 mA absolute)
Peak current max. phase angle = 64 degree (Pos) **Pass**

Min. Current at 60 deg (I_60) = 156.80 mA (Pos) **Limit = 8.87 mA** **Pass**
Min. Current at 90 deg (I_90) = 126.09 mA (Pos) **Limit = 8.87 mA** **Pass**

China

Voltage Source Verification Data (Run time)

EUT: LED lamp, MK-020011014799-E, PCB 7, 12W **Tested by: Cheng Huali**
Test category: Class-C per Ed. 5.0 (2018) (European limits) **Test Margin: 100**
Test date: 5/30/2022 **Start time: 2:42:23 PM** **End time: 2:45:04 PM**
Test duration (min): 2.5 **Data file name: H-000028.cts_data**
Comment: Light on, T23, H52.3%, P101.1kPa
Customer: Zhejiang MEKA Electric Co., Ltd.

Test Result: Pass **Source qualification: Normal**

Highest parameter values during test:

Voltage (Vrms):	**230.41**	**Frequency(Hz):**	**50.00**
I_Peak (Amps):	**0.177**	**I_RMS (Amps):**	**0.076**
I_Fund (Amps):	**0.057**	**Crest Factor:**	**2.361**
Power (Watts):	**13.0**	**Power Factor:**	**0.752**

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.084	0.461	18.15	OK
3	0.545	2.073	26.27	OK
4	0.063	0.461	13.73	OK
5	0.055	0.921	5.99	OK
6	0.021	0.461	4.50	OK
7	0.047	0.691	6.83	OK
8	0.020	0.461	4.33	OK
9	0.043	0.461	9.38	OK
10	0.021	0.461	4.60	OK
11	0.024	0.230	10.31	OK
12	0.019	0.230	8.31	OK
13	0.022	0.230	9.40	OK
14	0.013	0.230	5.62	OK
15	0.016	0.230	6.93	OK
16	0.010	0.230	4.14	OK
17	0.014	0.230	5.97	OK
18	0.008	0.230	3.28	OK
19	0.013	0.230	5.68	OK
20	0.017	0.230	7.24	OK
21	0.008	0.230	3.37	OK
22	0.005	0.230	1.96	OK
23	0.006	0.230	2.46	OK
24	0.004	0.230	1.63	OK
25	0.008	0.230	3.32	OK
26	0.005	0.230	2.30	OK
27	0.010	0.230	4.42	OK
28	0.004	0.230	1.54	OK
29	0.007	0.230	2.94	OK
30	0.004	0.230	1.77	OK
31	0.007	0.230	3.13	OK
32	0.003	0.230	1.43	OK
33	0.007	0.230	2.91	OK
34	0.003	0.230	1.24	OK
35	0.004	0.230	1.71	OK
36	0.003	0.230	1.19	OK
37	0.003	0.230	1.33	OK
38	0.003	0.230	1.21	OK
39	0.004	0.230	1.82	OK
40	0.007	0.230	2.98	OK



Test Setup

2.4.8 Test Location

This test was carried out in harmonic current emission and flicker test area.

China

2.5 Electrostatic discharge immunity test

2.5.1 Specification Reference

EN 61547:2009, Clause 5.2

2.5.2 Equipment Under Test

No.	Test model	Rated power	PCB	Sample Number(s)	Test mode
1	MK-020011012731-E	18W	PCB1	NIB-645570-1	AC Powered/Light on
2	MK-020011012862-E	24W	PCB2	NIB-645570-2	AC Powered/Light on
3	MK-020011013378-E	40W	PCB3	NIB-645570-3	AC Powered/Light on
4	MK-020011015010-A	24W	PCB4	NIB-645570-4	AC Powered/Light on
5	MK-020011012849-E	12W	PCB5	20220529.04.01	AC Powered/Light on
6	MK-020011014622-A	60W	PCB6	20220529.04.02	AC Powered/Light on
7	MK-020011014799-E	12W	PCB7	20220529.04.03	AC Powered/Light on

2.5.3 Date of Test

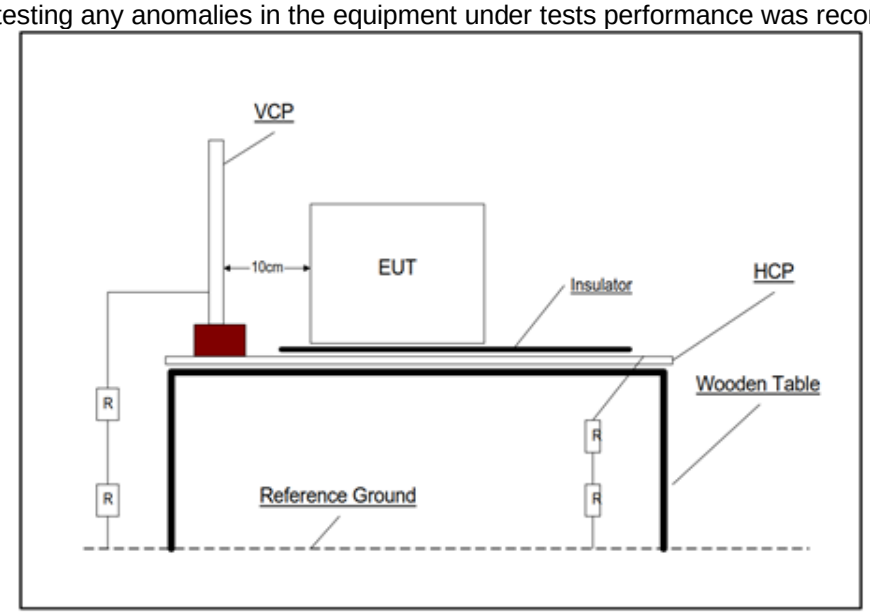
04/20/2022, 06/04/2022

2.5.4 Test Method

The equipment under test including associated cabling was configured on but insulted from, using a 0.5mm isolator, a horizontal coupling plane fitted to the top of a 0.8m non-conductive table for table-top equipment; and on a 0.1m insulated support for floor standing equipment; above a ground reference plane all within a test laboratory.

Using the air discharge method for non-metallic parts, contact discharge method for metallic parts with both vertical and horizontal couple plane discharge methods for the sides of the equipment under test, the required electrostatic discharge voltage levels in both voltage polarities were applied at the detailed pulse repartition rate.

During this testing any anomalies in the equipment under tests performance was recorded.



China

2.5.5 Environmental Conditions

Ambient Temperature	20-25 °C
Relative Humidity	40-60 %
Atmospheric Pressure	1010-1040 mbar

2.5.6 Specification Limits

Required Test Levels				Performance Criteria
Discharge type	Discharge Level (kV)		Number of discharges per location (each polarity)	
	Positive	Negative		
Air – Direct	2, 4 and 8	2, 4 and 8	<10>	B
Contact – Direct	2 and 4	2 and 4	<10>	B
Contact – Indirect	2 and 4	2 and 4	<10>	B

2.5.7 Test Results

Results for Configuration and Mode: Test model as see the table in the chapter 2.5.2.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

ID	Test Point	Discharge	Results									
			2kV		4kV		6kV		8kV		15kV	
			+	-	+	-	+	-	+	-	+	-
A	Vertical coupling plane	Contact	✓	✓	✓	✓						
B	Horizontal coupling plane	Contact	✓	✓	✓	✓						
C	Screw	Contact	✓	✓	✓	✓						
D	Metal enclosure	Contact	✓	✓	✓	✓						
E	Plastic enclosure	Air	✓	✓	✓	✓			✓	✓		
F	Gap	Air	✓	✓	✓	✓			✓	✓		

Note:

✓	The EUTs performance was not impacted when the ESD pulse was applied.
✓*	No discharge occurred at this point when the ESD pulse was applied.
Ox	Observation number A, B, …etc.



Test Setup

2.5.8 Test Location

This test was carried out in shielded room Z118.

China

2.6 Radiated, radio-frequency, electromagnetic field immunity test

2.6.1 Specification Reference

EN 61547:2009, Clause 5.3

2.6.2 Equipment Under Test

No.	Test model	Rated power	PCB	Sample Number(s)	Test mode
1	MK-020011012731-E	18W	PCB1	NIB-645570-1	AC Powered/Light on
2	MK-020011012862-E	24W	PCB2	NIB-645570-2	AC Powered/Light on
3	MK-020011013378-E	40W	PCB3	NIB-645570-3	AC Powered/Light on
4	MK-020011015010-A	24W	PCB4	NIB-645570-4	AC Powered/Light on
5	MK-020011012849-E	12W	PCB5	20220529.04.01	AC Powered/Light on
6	MK-020011014622-A	60W	PCB6	20220529.04.02	AC Powered/Light on
7	MK-020011014799-E	12W	PCB7	20220529.04.03	AC Powered/Light on

2.6.3 Date of Test

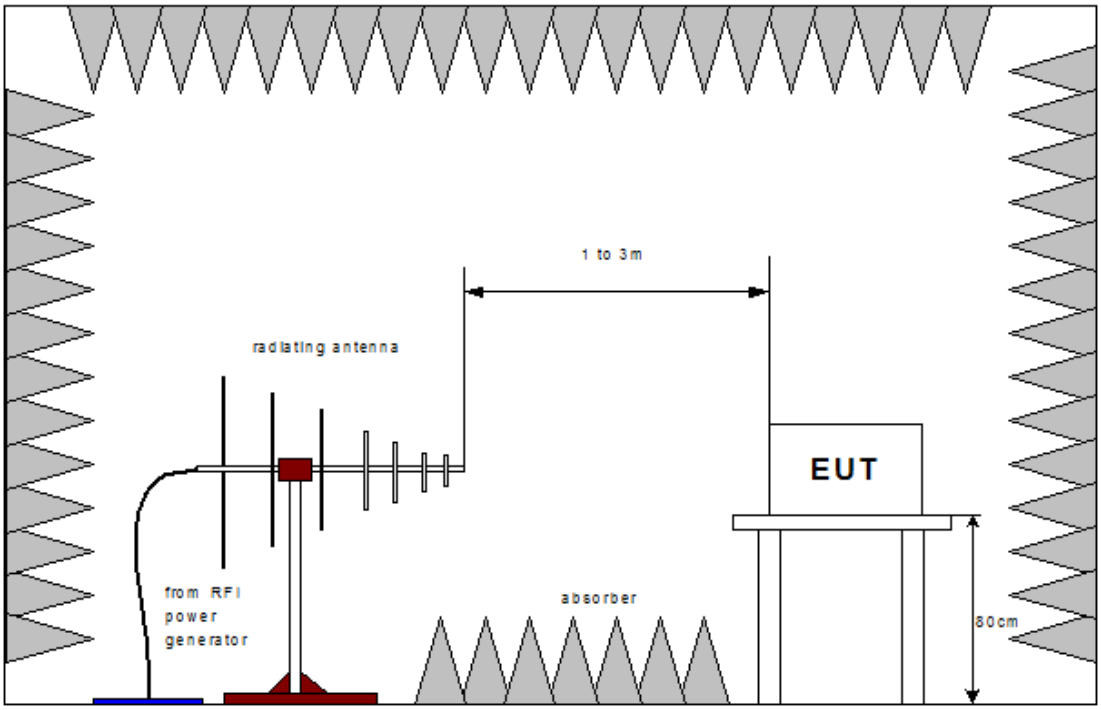
06/04/2022, 06/17/2022

2.6.4 Test Method

The equipment under test including associated cabling was configured, on a 0.8 m non-conductive table for table-top equipment and on a 0.1 m insulated support for floor standing equipment; with a pre-calibrated semi anechoic chamber.

All four side of the equipment under test were subjected to the required RF field strength, modulated as described, swept over the frequency range of test with the antenna positioned in both horizontal and vertical polarizations.

During this testing any anomalies in the equipment under tests performance was recorded.



2.6.5 Environmental Conditions

Ambient Temperature	20-25 °C
Relative Humidity	40-60 %
Atmospheric Pressure	1010-1040 mbar

2.6.6 Specification Limits

Required Test Levels					Performance Criteria
Frequency Range (MHz)	Level (V/m)	Modulation	Step Size (%)	Dwell (s)	
80 to 1000	3	AM (80 %,1 kHz, sine wave)	1	3	A
Note 1. EUT powered at one of the Nominal input voltages and frequencies.					

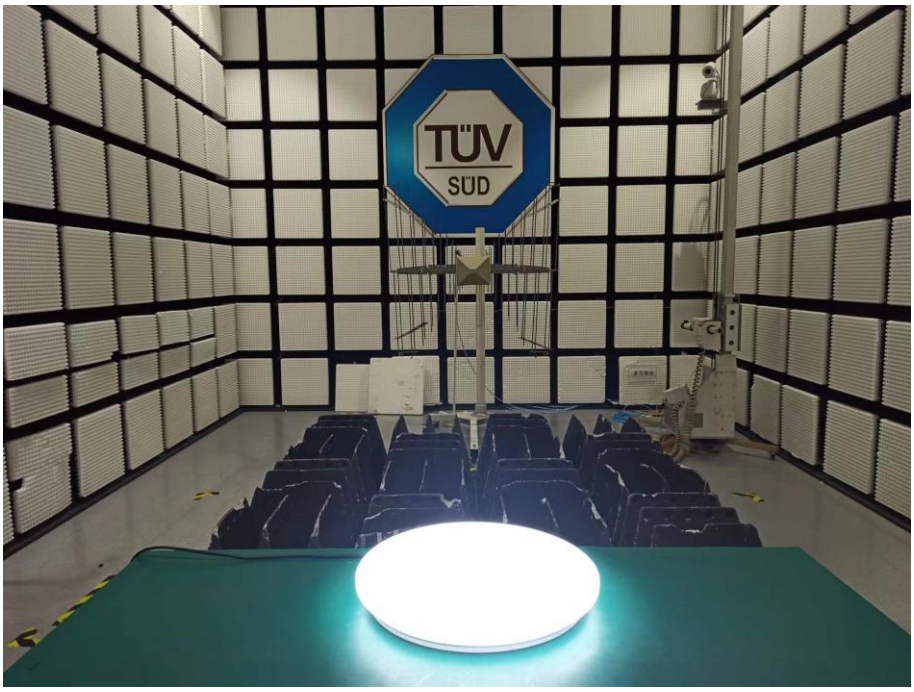
2.6.7 Test Results

Results for Configuration and Mode: Test model as see the table in the chapter 2.6.2.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

Test Results for RF Electromagnetic Field 80 - 1000 MHz				
Side of the equipment under test	Antenna polarization	Test Level	Dwell Time	Result
Front	Horizontal	3 V/m	3 s	Pass PC A
Front	Vertical	3 V/m	3 s	Pass PC A
Right	Horizontal	3 V/m	3 s	Pass PC A
Right	Vertical	3 V/m	3 s	Pass PC A
Rear	Horizontal	3 V/m	3 s	Pass PC A
Rear	Vertical	3 V/m	3 s	Pass PC A
Left	Horizontal	3 V/m	3 s	Pass PC A
Left	Vertical	3 V/m	3 s	Pass PC A
Remark: N/A.				



Test Setup

2.6.8 Test Location

This test was carried out in 3m anechoic chamber.

China

2.7 Electrical fast transient /burst immunity test

2.7.1 Specification Reference

EN 61547:2009, Clause 5.5

2.7.2 Equipment Under Test

No.	Test model	Rated power	PCB	Sample Number(s)	Test mode
1	MK-020011012731-E	18W	PCB1	NIB-645570-1	AC Powered/Light on
2	MK-020011012862-E	24W	PCB2	NIB-645570-2	AC Powered/Light on
3	MK-020011013378-E	40W	PCB3	NIB-645570-3	AC Powered/Light on
4	MK-020011015010-A	24W	PCB4	NIB-645570-4	AC Powered/Light on
5	MK-020011012849-E	12W	PCB5	20220529.04.01	AC Powered/Light on
6	MK-020011014622-A	60W	PCB6	20220529.04.02	AC Powered/Light on
7	MK-020011014799-E	12W	PCB7	20220529.04.03	AC Powered/Light on

2.7.3 Date of Test

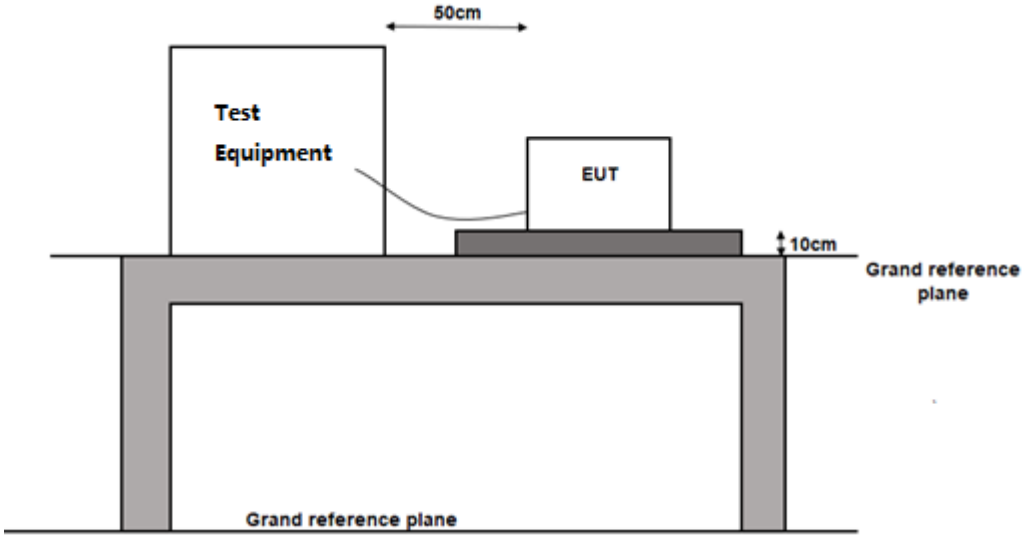
04/19/2022, 06/04/2022

2.7.4 Test Method

The equipment under test including associated cabling was configured on but insulted from, using a 0.1 m isolator, a horizontal coupling plane fitted to the top of a 0.8 m non-conductive table for table-top equipment; and on a 0.1 m insulated support for floor standing equipment; above a ground reference plane all within a test laboratory.

Using a CDN for power ports, capacitive coupling clamp for signal and control ports and a 33nF coupling capacitor for earth ports, the required fast transient burst voltage levels in both voltage polarities were applied at the detailed pulse repartition rate and duration of test.

During this testing any anomalies in the equipment under tests performance was recorded.



2.7.5 Environmental Conditions

Ambient Temperature	20-25 °C
Relative Humidity	40-60 %
Atmospheric Pressure	1010-1040 mbar

2.7.6 Specification Limits

Required Test Levels at input and output a.c. power port					
Line Under Test	Level (kV)	Repetition Rate (kHz)	Test Duration	Coupling Method	Performance Criteria
AC Power Port	± 1	5 kHz	2 min per polarity	CDN	B
Note 1. EUT powered at one of the Nominal input voltages and frequencies					

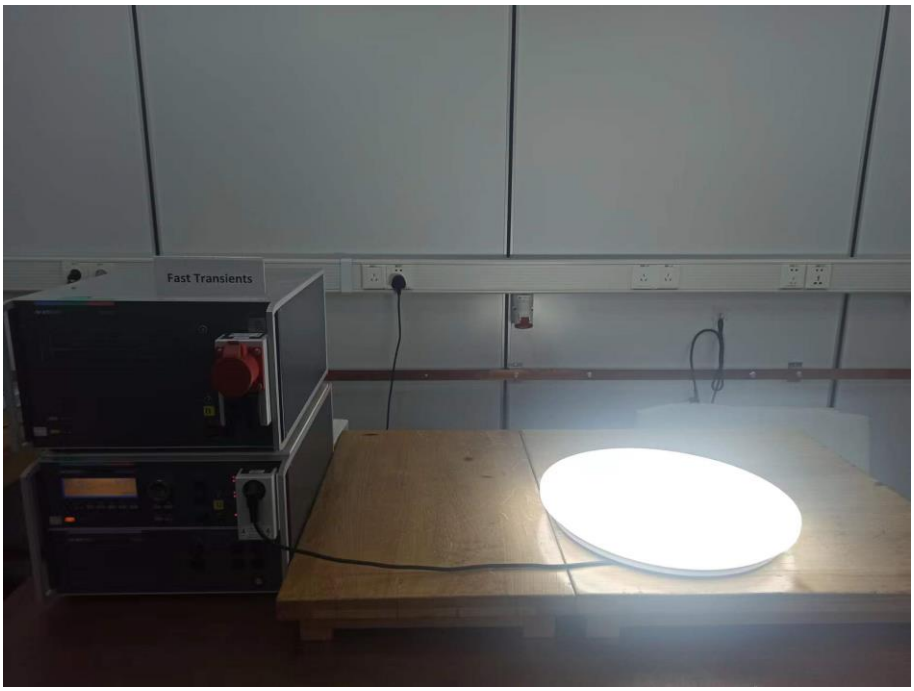
2.7.7 Test Results

Results for Configuration and Mode: Test model as see the table in the chapter 2.7.2.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

Test Results for Fast Transient Burst Immunity					
Line under test	Test Level (kV)	Repetition Rate	Test Duration	Coupling Method	Result
power line	± 1.0	5 kHz	2 min	CDN	Pass PC A
Remark: N/A.					



Test Setup

2.7.8 Test Location

This test was carried out in shielded room Z118.

China

2.8 Immunity to conducted disturbances, induced by radio-frequency fields

2.8.1 Specification Reference

EN 61547:2009, Clause 5.6

2.8.2 Equipment Under Test

No.	Test model	Rated power	PCB	Sample Number(s)	Test mode
1	MK-020011012731-E	18W	PCB1	NIB-645570-1	AC Powered/Light on
2	MK-020011012862-E	24W	PCB2	NIB-645570-2	AC Powered/Light on
3	MK-020011013378-E	40W	PCB3	NIB-645570-3	AC Powered/Light on
4	MK-020011015010-A	24W	PCB4	NIB-645570-4	AC Powered/Light on
5	MK-020011012849-E	12W	PCB5	20220529.04.01	AC Powered/Light on
6	MK-020011014622-A	60W	PCB6	20220529.04.02	AC Powered/Light on
7	MK-020011014799-E	12W	PCB7	20220529.04.03	AC Powered/Light on

2.8.3 Date of Test

04/19/2022, 06/04/2022

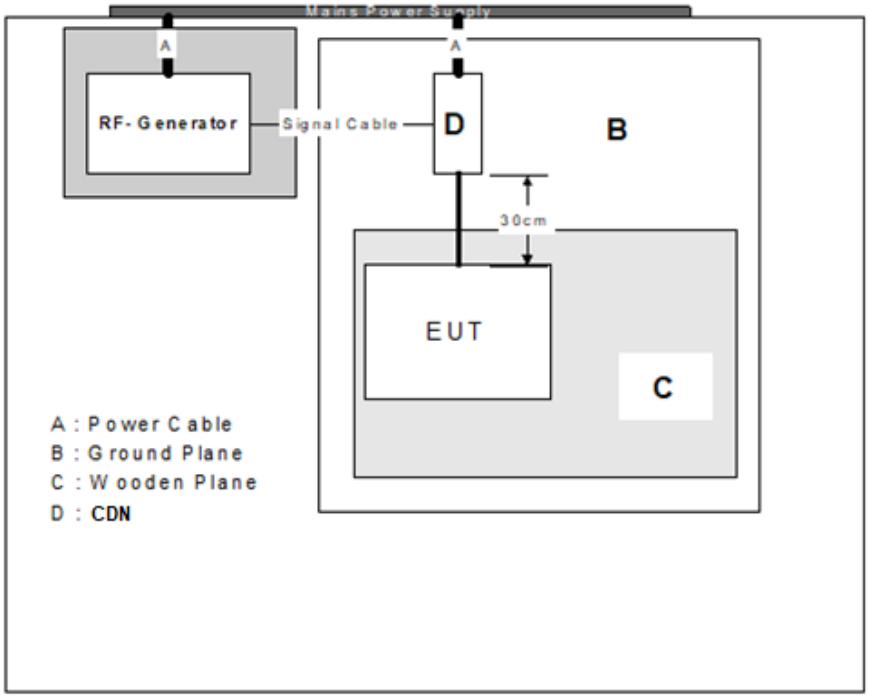
2.8.4 Test Method

The equipment under test was placed on an insulating support 0,1 m above the reference ground plane.

All associated cabling was configured, on but insulted from, using a 50 mm isolator, the same horizontal coupling plane as the equipment under test.

Using CDNs, EM Clamps or current clamps as appropriate, the power ports and applicable signal and control ports were subjected to the required, pre calibrated RF injected signal strength, modulated as described, swept over the frequency range of test.

During this testing any anomalies in the equipment under tests performance was recorded.



2.8.5 Environmental Conditions

Ambient Temperature	20-25 °C
Relative Humidity	40-60 %
Atmospheric Pressure	1010-1040 mbar

2.8.6 Specification Limits

Required Test Levels at input and output a.c. power ports						Performance Criteria
Line Under Test	Frequency Range (MHz)	Level (V)	Modulation	Step Size (%)	Dwell (s)	
AC power ports	0.15 to 80	3	AM (80 %,1 kHz, sine wave)	1	3	A
Note Only applicable to ports interfacing with cables whose total length, according to the manufacturer's specification, may exceed 3m.						

2.8.7 Test Results

Results for Configuration and Mode: Test model as see the table in the chapter 2.8.2.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

Test Results for Injected current						
Line under test	Test Level	Step	Dwell Time	Coupling Method	Modulation	Result
Power line	3V	1%	3S	CDN	1KHZ 80%	Pass PC A
Remark: N/A.						



Test Setup

2.8.8 Test Location

This test was carried out in shielded room Z118.

China

2.9 Surge immunity test

2.9.1 Specification Reference

EN 61547:2009, Clause 5.7

2.9.2 Equipment Under Test

No.	Test model	Rated power	PCB	Sample Number(s)	Test mode
1	MK-020011012731-E	18W	PCB1	NIB-645570-1	AC Powered/Light on
2	MK-020011012862-E	24W	PCB2	NIB-645570-2	AC Powered/Light on
3	MK-020011013378-E	40W	PCB3	NIB-645570-3	AC Powered/Light on
4	MK-020011015010-A	24W	PCB4	NIB-645570-4	AC Powered/Light on
5	MK-020011012849-E	12W	PCB5	20220529.04.01	AC Powered/Light on
6	MK-020011014622-A	60W	PCB6	20220529.04.02	AC Powered/Light on
7	MK-020011014799-E	12W	PCB7	20220529.04.03	AC Powered/Light on

2.9.3 Date of Test

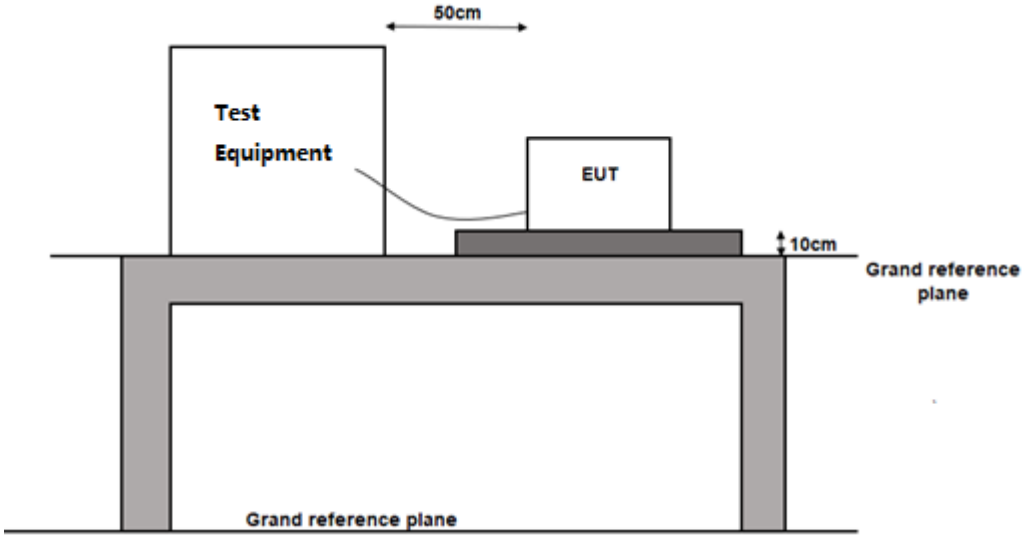
04/19/2022, 06/04/2022

2.9.4 Test Method

The equipment under test including associated cabling was configured, on a 0.8 m non-conductive table for table-top equipment and on a 0.1 m insulated support for floor standing equipment above a ground reference plane all within a test laboratory.

Using CDNs for power ports and appropriate coupling methods for applicable signal and control ports, the required number of surges was applied for each surge voltage level using both positive and negative surge voltage polarities. Surges were applied at the power line frequency phase angles and repartition rates detailed.

During this testing any anomalies in the equipment under tests performance was recorded.



2.9.5 Environmental Conditions

Ambient Temperature	20-25 °C
Relative Humidity	40-60 %
Atmospheric Pressure	1010-1040 mbar

China

2.9.6 Specification Limits

Characteristics	Test Levels			Performance Criteria
	Device			
	Self-ballasted lamps And semi-luminaires	Luminaires and independent auxiliaries		
		Input power		
		≤25W	>25W	
Wave- shape data Test levels line to line line to ground	1.2/50 µs ± 0.5 kV ±1.0 kV	1.2/50 µs ± 0.5 kV ±1.0 kV	1.2/50 µs ± 1.0 kV ±2.0 kV	C
Note In addition to the specified test level, all lower levels as detailed in IEC 61000-4-5 should also be satisfied.				

2.9.7 Test Results

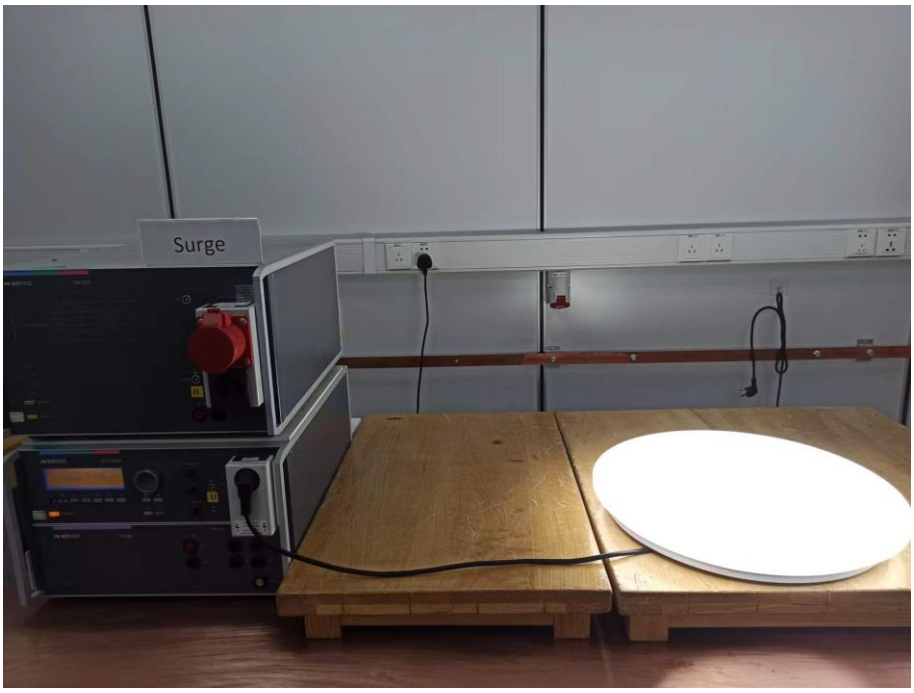
Results for Configuration and Mode: Test model as see the table in the chapter 2.9.2.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

For models：MK-020011012731-E, MK-020011012862-E, MK-020011015010-A, MK-020011012849-E and MK-020011014799-E.							
Test Results for Surge Immunity (Power Ports)							
Line Name	Coupling	Level	Polarity	Phase Angle	No of Pulses	Repetition Rate	Result
power line	L to N	-0.5kV	NEGATIVE	270 deg	5	60 sec	Pass PC B
power line	L to N	+0.5kV	POSITIVE	90 deg	5	60 sec	Pass PC B
power line	L to PE	-1.0kV	NEGATIVE	270 deg	5	60 sec	Pass PC B
power line	L to PE	+1.0kV	POSITIVE	90 deg	5	60 sec	Pass PC B
power line	N to PE	-1.0kV	NEGATIVE	270 deg	5	60 sec	Pass PC B
power line	N to PE	+1.0kV	POSITIVE	90 deg	5	60 sec	Pass PC B
Remark: During the test of surges, the EUT flashing, once removing the disturbance, the EUT restores to its normal status automatically immediately.							

For model：MK-020011013378-E, MK-020011014622-A							
Test Results for Surge Immunity (Power Ports)							
Line Name	Coupling	Level	Polarity	Phase Angle	No of Pulses	Repetition Rate	Result
power line	L to N	-1.0kV	NEGATIVE	270 deg	5	60 sec	Pass PC B
power line	L to N	+1.0kV	POSITIVE	90 deg	5	60 sec	Pass PC B
power line	L to PE	-2.0kV	NEGATIVE	270 deg	5	60 sec	Pass PC B
power line	L to PE	+2.0kV	POSITIVE	90 deg	5	60 sec	Pass PC B
power line	N to PE	-2.0kV	NEGATIVE	270 deg	5	60 sec	Pass PC B
power line	N to PE	+2.0kV	POSITIVE	90 deg	5	60 sec	Pass PC B
Remark: During the test of surges, the EUT flashing, once removing the disturbance, the EUT restores to its normal status automatically immediately.							



Test Setup

2.9.8 Test Location

This test was carried out in shielded room Z118.

China

2.10 Voltage dips, short interruptions and voltage variations immunity test

2.10.1 Specification Reference

EN 61547:2009, Clause 5.8

2.10.2 Equipment Under Test

No.	Test model	Rated power	PCB	Sample Number(s)	Test mode
1	MK-020011012731-E	18W	PCB1	NIB-645570-1	AC Powered/Light on
2	MK-020011012862-E	24W	PCB2	NIB-645570-2	AC Powered/Light on
3	MK-020011013378-E	40W	PCB3	NIB-645570-3	AC Powered/Light on
4	MK-020011015010-A	24W	PCB4	NIB-645570-4	AC Powered/Light on
5	MK-020011012849-E	12W	PCB5	20220529.04.01	AC Powered/Light on
6	MK-020011014622-A	60W	PCB6	20220529.04.02	AC Powered/Light on

2.10.3 Date of Test

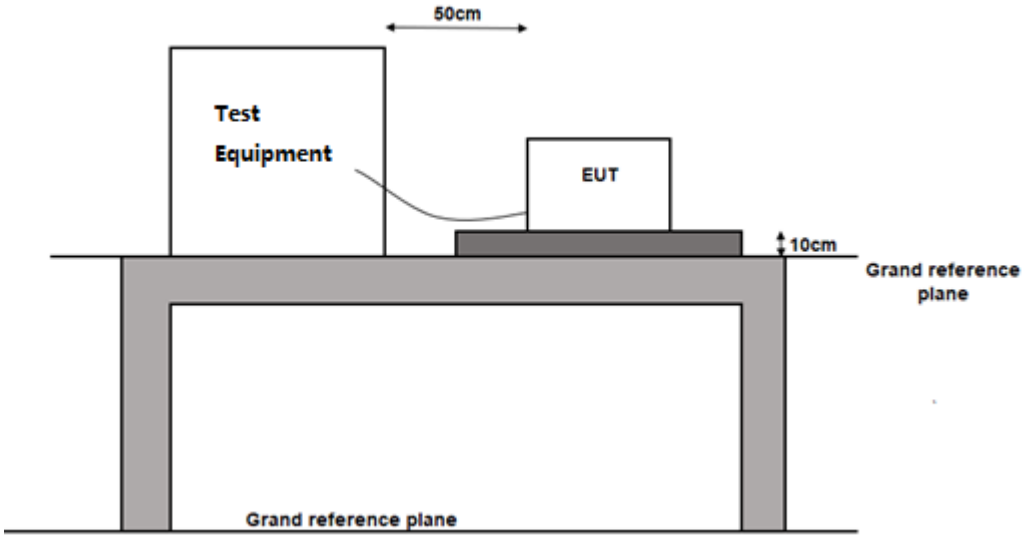
04/19/2022, 06/04/2022

2.10.4 Test Method

The equipment under test including associated cabling was configured, on a 0.8 m non-conductive table for table-top equipment and on a 0.1 m insulated support for floor standing equipment above a ground reference plane all within a test laboratory.

Using a programmable power supply the equipment under test was subjected to the detailed supply voltage dips and interruptions. The required supply phase synchronization and test repetition rate, detailed, was controlled by the programmable power supply.

During this testing any anomalies in the equipment under tests performance was recorded.



2.10.5 Environmental Conditions

Ambient Temperature	20-25 °C
Relative Humidity	40-60 %
Atmospheric Pressure	1010-1040 mbar

2.10.6 Specification Limits

Required Test Levels			Performance Criteria
Test	Test Level	Duration	
Voltage short interruptions	0 % of Vnom	½ cycle	B
Voltage dips	70 % of Vnom	10 cycles	C
Note EUT powered at one of the Nominal input voltages and frequencies			

2.10.7 Test Results

Results for Configuration and Mode: Test model as see the table in the chapter 2.10.2.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

Test Results for Voltage Dip and Short Interruption					
Line under test	Vnom	Operating Frequency	Test Level	Duration	Result
power line	230 Vac	50 Hz	0% of Vnom	½ cycle	Pass PC B
power line	230 Vac	50 Hz	70% of Vnom	10 cycles (50Hz)	Pass PC B
Remark: During the test of voltage dips to 70% of Vnom and inturruptions, the EUT flashing, once removing the disturbance, the EUT restores to its normal status automatically immediately.					



Test Setup

2.10.8 Test Location

This test was carried out in shielded room Z118.

China

3 Test Equipment Information

3.1 General Test Equipment Used

1. For Ningbo LAB:

Instrument	Manufacturer	Type No	TE No	Calibration Date	Calibration Due
Conducted Emission					
EMI test receiver	R & S	ESR3	NIB1910011-YQ-EMC	2022.4.25	2023.4.24
2-Line V-network	R & S	ENV216	NIB1910012-YQ-EMC	2022.4.25	2023.4.24
Radiated Disturbance (9kHz to 30MHz)					
EMI test receiver	R & S	ESR3	NIB1910015-YQ-EMC	2022.4.25	2023.4.24
Triple loop antenna	R & S	HM020E	NIB1910016-YQ-EMC	2022.4.25	2023.4.24
Radiated Disturbance (30MHz to 1000MHz)					
EMI Test Receiver	R&S	ESR7	NIB1910038-YQ-EMC	2022.1.26	2023.1.25
TRILOG Super Broadband Test Antenna	SCHWARZBECK	VULB 9168	NIB1910045-YQ-EMC	2021.3.15	2024.3.14
Coupling and decoupling network	SCHWARZBECK	CDNE M3	NIB2111069-YQ-EMC	2022.1.26	2023.1.25
3 meter semi-anechoic chamber	TDK	3m	NIB2101059-YQ-EMC	2021.1.16	2024.1.15
Electrostatic discharge immunity test					
ESD Simulator	HAEFELY	ONYX 16	NIB1911018-YQ-EMC	2022.4.25	2023.4.24
Temperature and Humidity Data Logger	Testo	175H1	NIB2005022-YQ-EMC	2022.4.24	2023.4.23
Barometer	VAREN	132B	NIB2005029-YQ-EMC	2022.4.24	2023.4.23
Horizontal Coupling Plane	TÜV Product Service	---	---	---	---
Vertical Coupling Plane	TÜV Product Service	---	---	---	---

Instrument	Manufacturer	Type No	TE No	Calibration Date	Calibration Due
Radiated, radio-frequency, electromagnetic field immunity test					
Signal Generator	R&S	SMB100B	NIB1910039-YQ-EMC	2022.1.26	2023.1.25
Power Meter	R&S	NRX	NIB1910040-YQ-EMC	2022.1.26	2023.1.25
Average Power Sensor	R&S	NRP6A	NIB1910043-YQ-EMC	2022.1.26	2023.1.25
Average Power Sensor	R&S	NRP6A	NIB1910044-YQ-EMC	2022.1.26	2023.1.25
Broadband Amplifier	R&S	BBA150-BC250	NIB1910037-YQ-EMC	2022.1.26	2023.1.25
Broadband Antennas	SCHWARZBECK	STLP9129	NIB1910047-SB-EMC	---	---
Open switch and control platform 2HU	R&S	OSP220	NIB1910042-SB-EMC	---	---
Electrical fast transient/burst immunity test					
Ultra compact simulator	HAEFELY	AXOS8	NIB1911019-YQ-EMC	2022.4.25	2023.4.24
Immunity to conducted disturbances, induced by radio-frequency field					
Signal generator	TESEQ	NSG4070C-80	NIB1911003-YQ-EMC	2022.4.25	2023.4.24
6dB attenuator	TESEQ	ATN 6060	NIB1911007-SB-EMC	---	---
Coupling Decoupling Network	TESEQ	CDN M016	NIB1911006-YQ-EMC	2022.4.25	2023.4.24
Surge immunity test					
Ultra compact simulator	HAEFELY	AXOS8	NIB1911019-YQ-EMC	2022.4.25	2023.4.24
Voltage dips, short interruptions and voltage variations immunity test					
Ultra compact simulator	HAEFELY	AXOS8	NIB1911019-YQ-EMC	2022.4.25	2023.4.24
Voltage Dips Simulator	HAEFELY	DIP116	NIB1911020-YQ-EMC	2022.4.25	2023.4.24

China

2. For Shanghai LAB:

Instrument	Manufacturer	Type No	TE No	Calibration Date	Calibration Due
Conducted Emission					
EMI test receiver	R & S	ESR3	S1503001-YQ-EMC	2022.8.1	2023.7.31
2-Line V-network	R & S	ENV216	S1503103-YQ-EMC	2022.8.1	2023.7.31
Radiated Disturbance (9kHz to 30MHz)					
EMI test receiver	R & S	ESR3	S1503101-YQ-EMC	2022.8.1	2023.7.31
Triple loop antenna	R & S	HM020	S1503115-YQ-EMC	2022.7.8	2023.7.7
Radiated Disturbance (30MHz to 1000MHz)					
EMI test receiver	R & S	ESR3	S1503109-YQ-EMC	2022.8.1	2023.7.31
Trilog super broadband test antenna	SCHWARZBECK	VULB 9168	S1808296-YQ-EMC	2021.9.23	2024.9.22
3 meter semi-anechoic chamber	TDK	3m	S1503231-YQ-EMC	2021.5.08	2024.5.07
Coupling and decoupling network	SCHWARZBECK	CDNE M3	S1804290-YQ-EMC	2022.8.1	2023.7.31
Electrostatic discharge immunity test					
ESD Simulator	HAEFELY	ONYX 16	S1905298-YQ-EMC	2022.7.8	2023.7.7
T/H record	Shanghai meteorological instrument	ZJ1-2A	S1503201-YQ-EMC	2022.6.11	2023.6.10
Horizontal Coupling Plane	TÜV Product Service	---	---	---	---
Vertical Coupling Plane	TÜV Product Service	---	---	---	---

Instrument	Manufacturer	Type No	TE No	Calibration Date	Calibration Due
Radiated, radio-frequency, electromagnetic field immunity test					
Signal generator	R & S	SMB 100A	S2111419b-YQ-EMC	2022.8.1	2023.7.31
Power meter	R&S	NRX	S2111424b-YQ-EMC	2022.2.10	2023.2.9
Average power sensor	R&S	NRP6A	S2111425b-YQ-EMC	2022.2.10	2023.2.9
Average power sensor	R&S	NRP6A	S2111426b-YQ-EMC	2022.2.10	2023.2.9
Amplifier	AR	200W1000M7A	S2111427b-YQ-EMC	2022.2.10	2023.2.9
Dual directional coupler	AR	DC6180AM1	S2111428b-YQ-EMC	2022.2.10	2023.2.9
High gain log-periodic antenna	R & S	HL046E	S1503083-SB-EMC	--	--
Electrical fast transient/burst immunity test					
Ultra compact simulator	EM test	UCS 500N5T	S1503171-YQ-EMC	2022.8.1	2023.7.31
Immunity to conducted disturbances, induced by radio-frequency field					
Continuous wave generator	CWS 500 N2.2	EM test	S1503159-YQ-EMC	2022.8.1	2023.7.31
6dB attenuator	EM test	ATT 6/80	S1503180-SB-EMC	--	--
Coupling and decoupling network	EM test	CDN M2/M3	S1503186-YQ-EMC	2022.8.1	2023.7.31
Surge immunity test					
Ultra compact simulator	EM test	UCS 500N5T	S1503171-YQ-EMC	2022.8.1	2023.7.31
Voltage dips, short interruptions and voltage variations immunity test					
Ultra compact simulator	EM test	UCS 500N5T	S1503171-YQ-EMC	2022.8.1	2023.7.31
Motor driven AC source	EM test	MV 2616	S1503175-YQ-EMC	2022.8.1	2023.7.31

4 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

1. For Ningbo LAB:

Test Name	Measurement Uncertainty
Conducted Disturbance	9 kHz to 150kHz, ±3.02dB (AMN) 150kHz to 30 MHz, ±2.45dB (AMN)
Radiated Disturbance	30MHz to 1GHz, ±4.68dB (Horizontal) ±5.05dB (Vertical)

2. For Shanghai LAB:

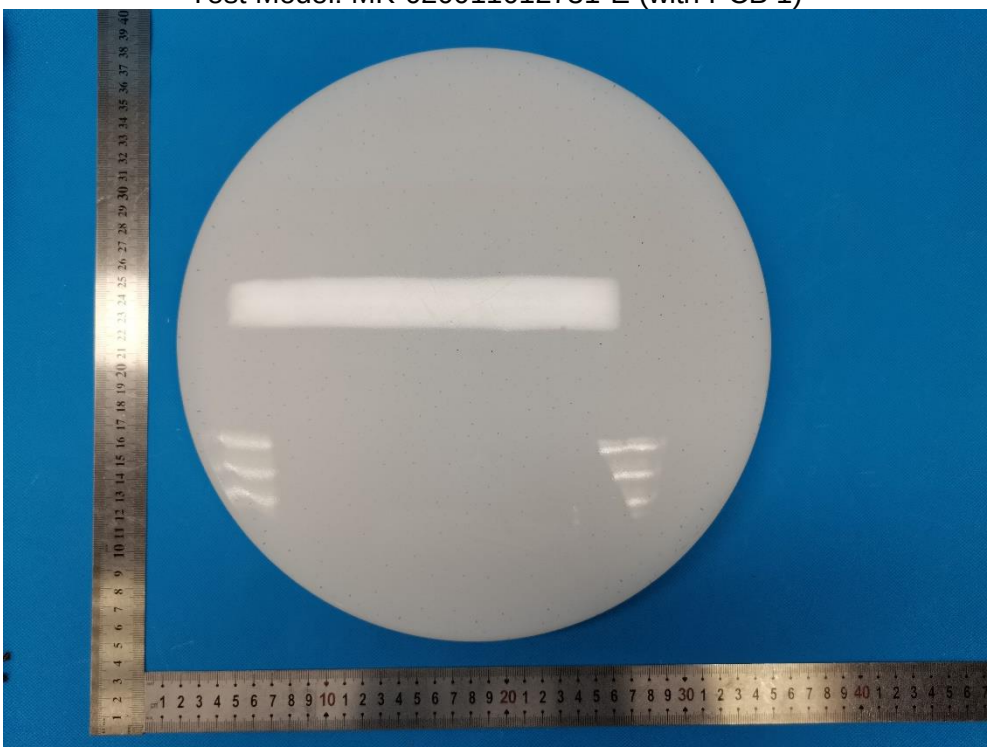
Test Name	Measurement Uncertainty
Conducted Disturbance	9 kHz to 30 MHz, ±3.16dB (AMN)
Radiated Disturbance	30 MHz to 1 GHz, ±5.03dB (Horizontal) ±5.12dB (Vertical)

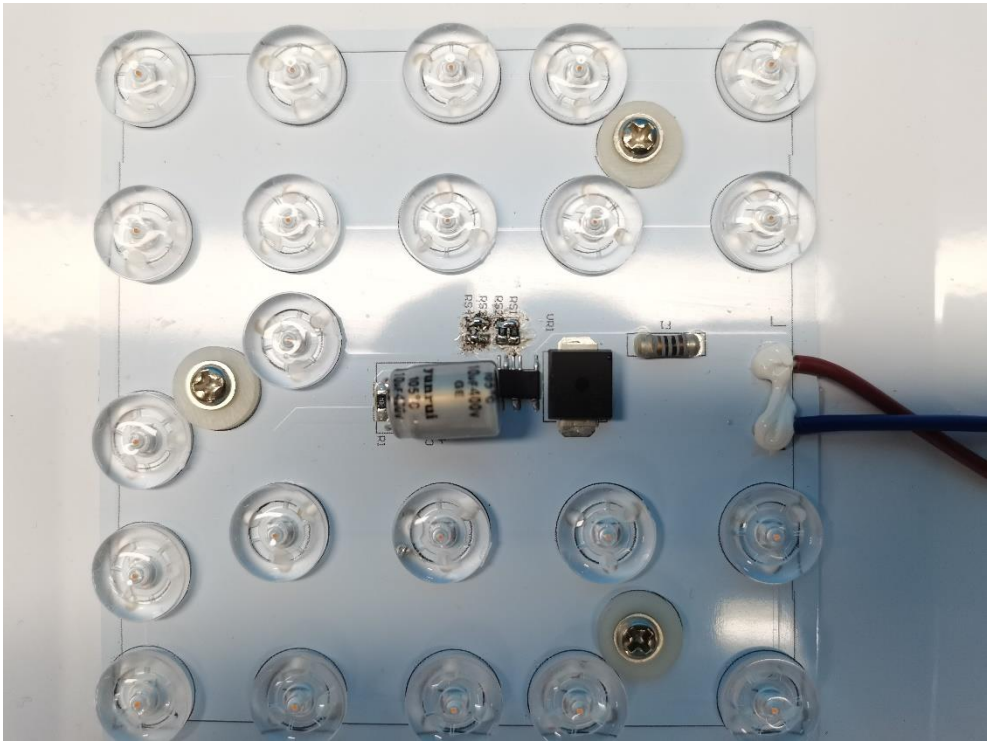
Measurement Uncertainty Decision Rule:

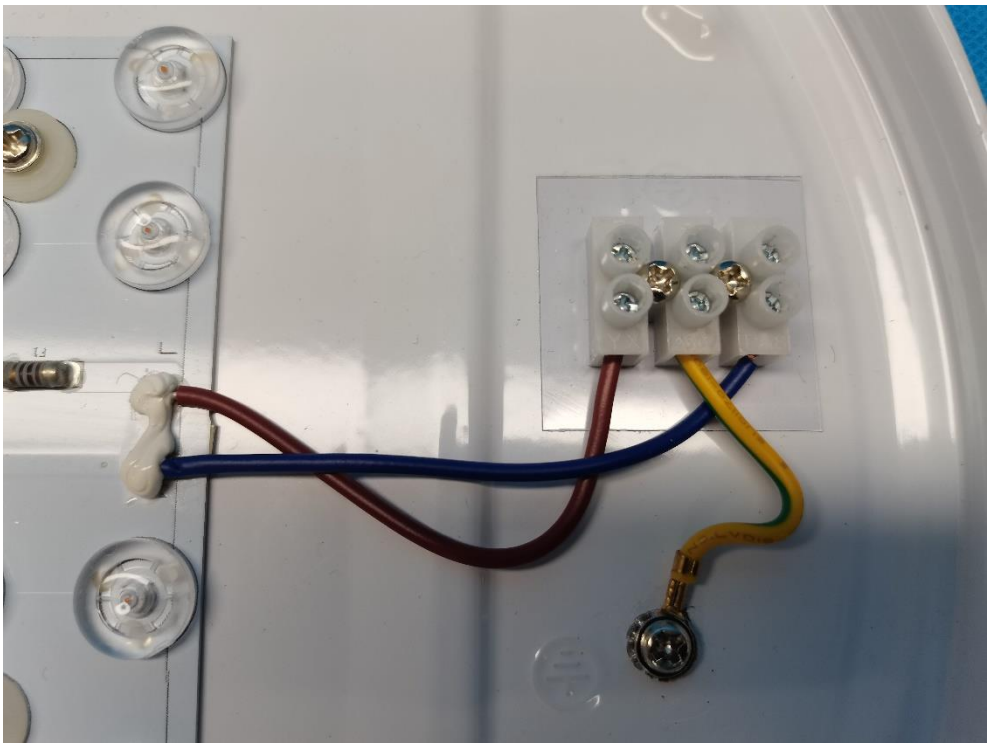
Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2007, clause 4.4.3 and 4.5.1.

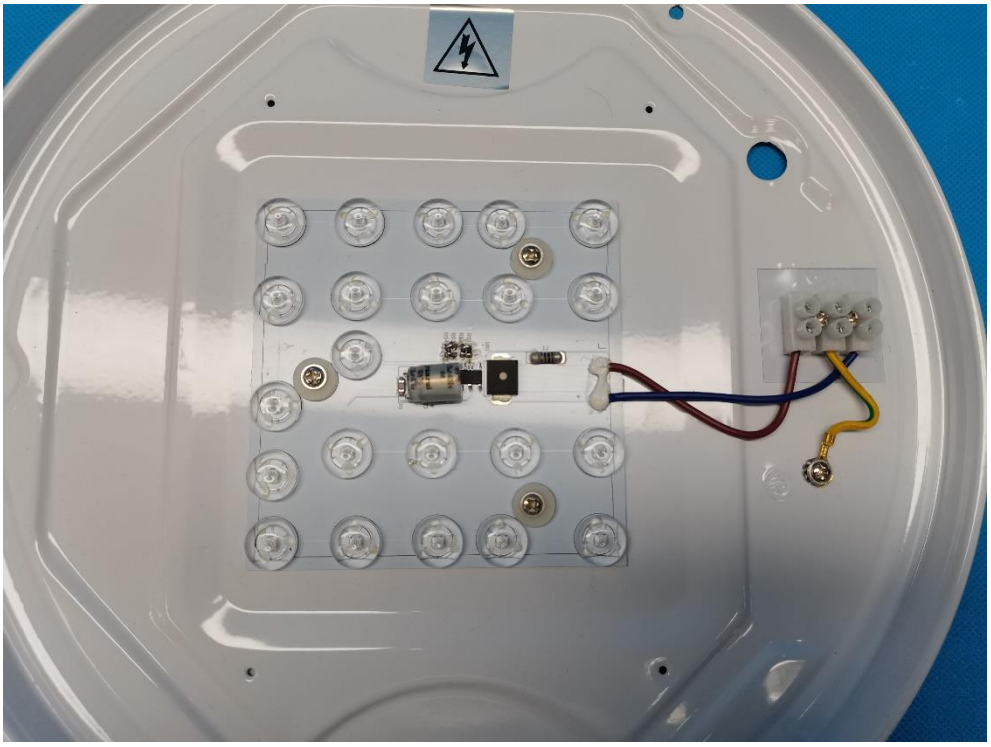
5 Photographs

Test Model: MK-020011012731-E (with PCB 1)

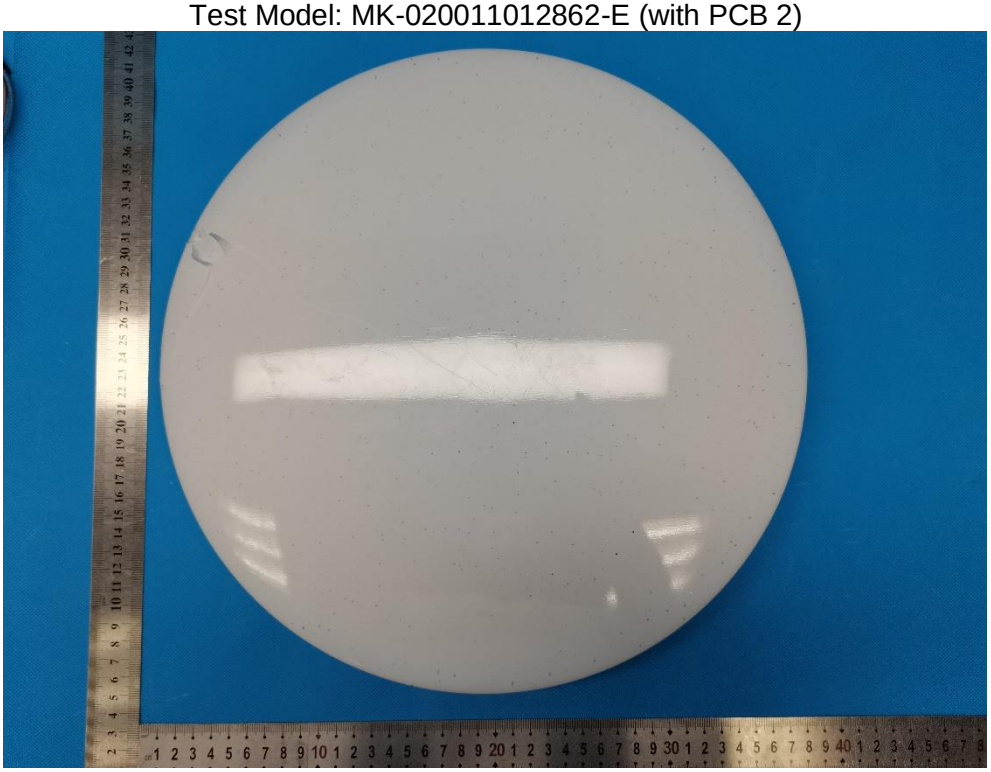


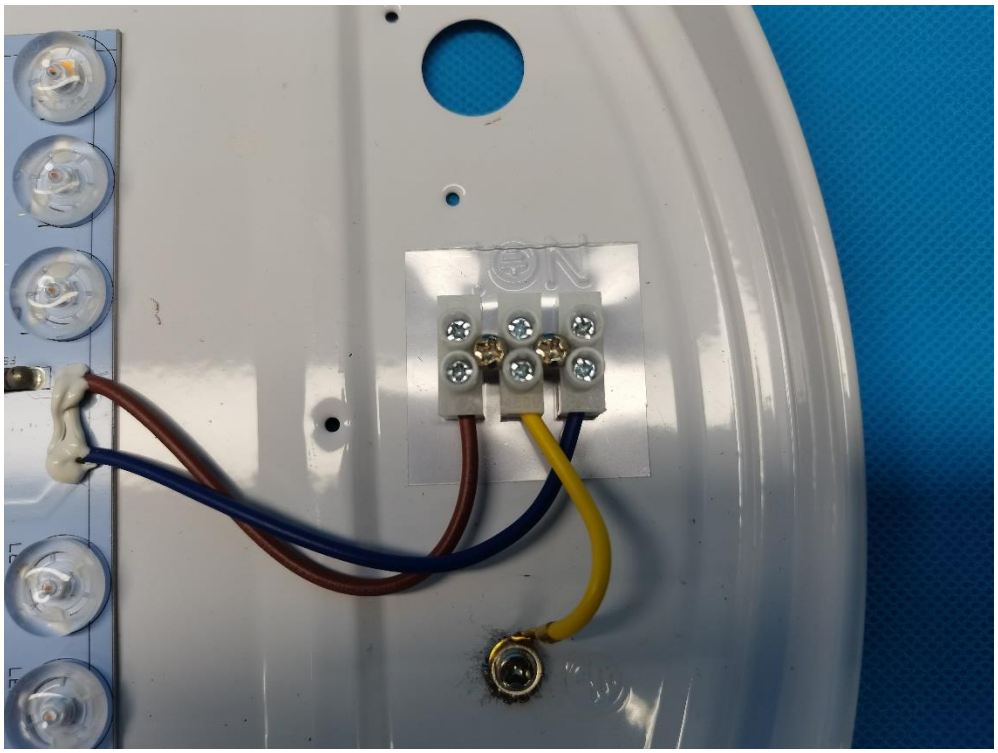


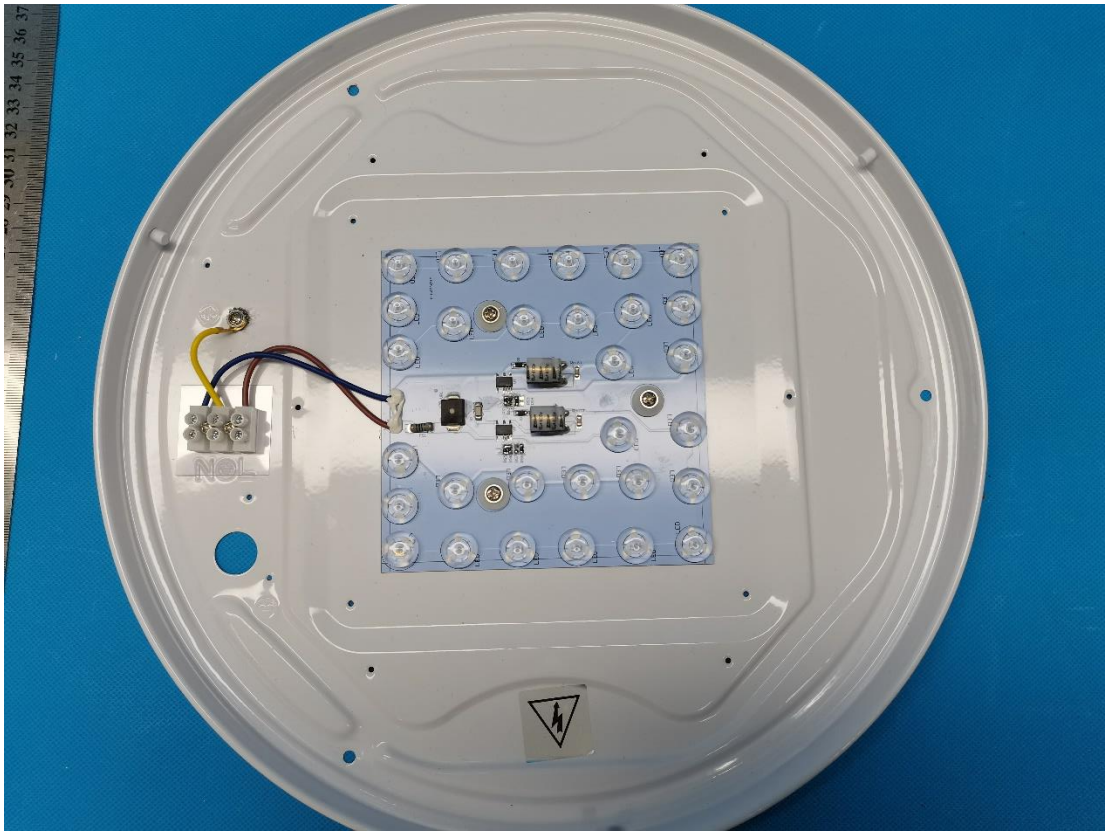


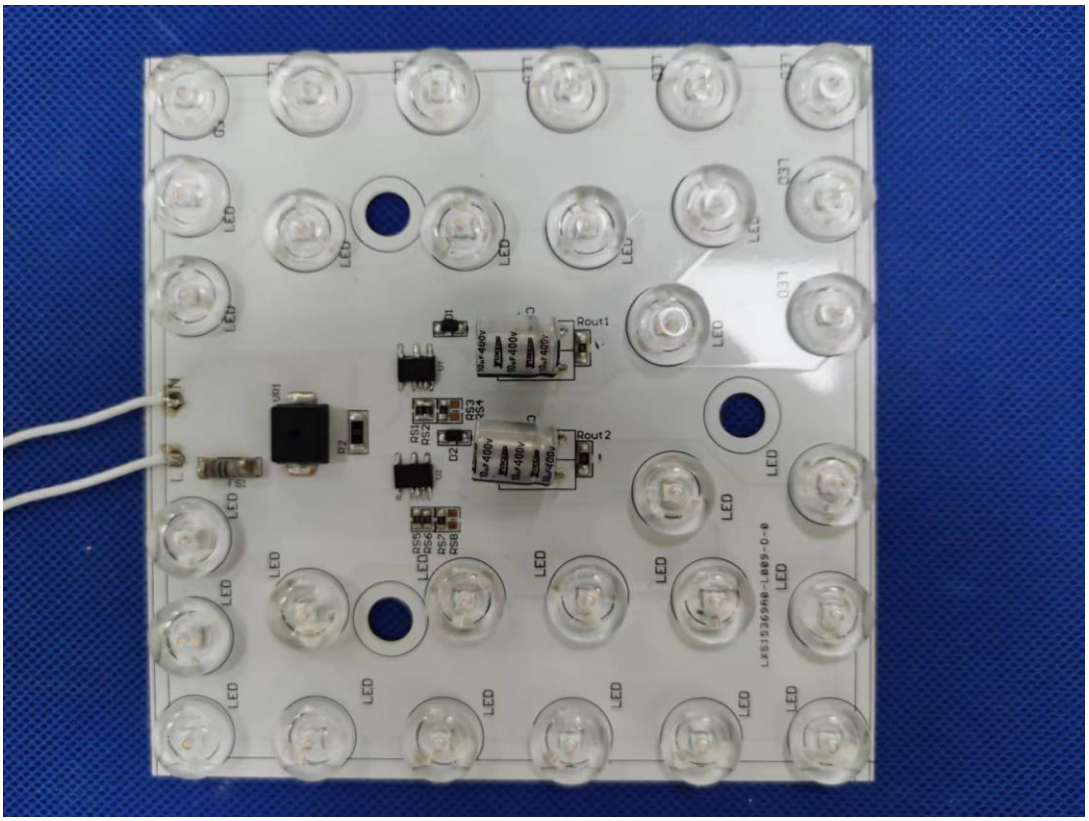


Test Model: MK-020011012862-E (with PCB 2)



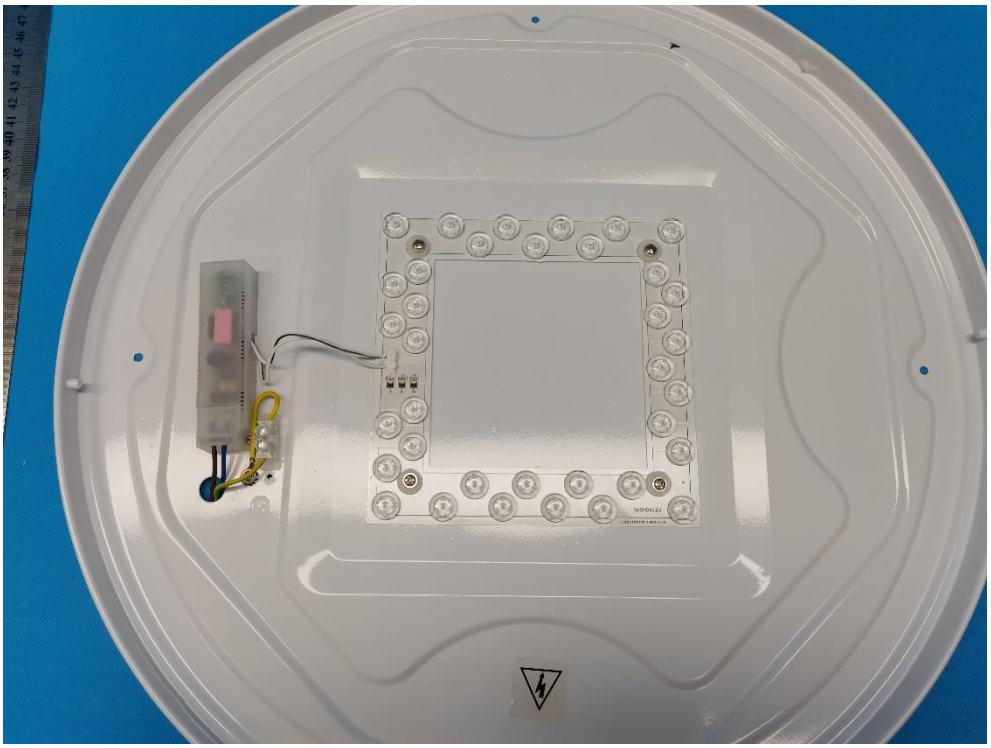


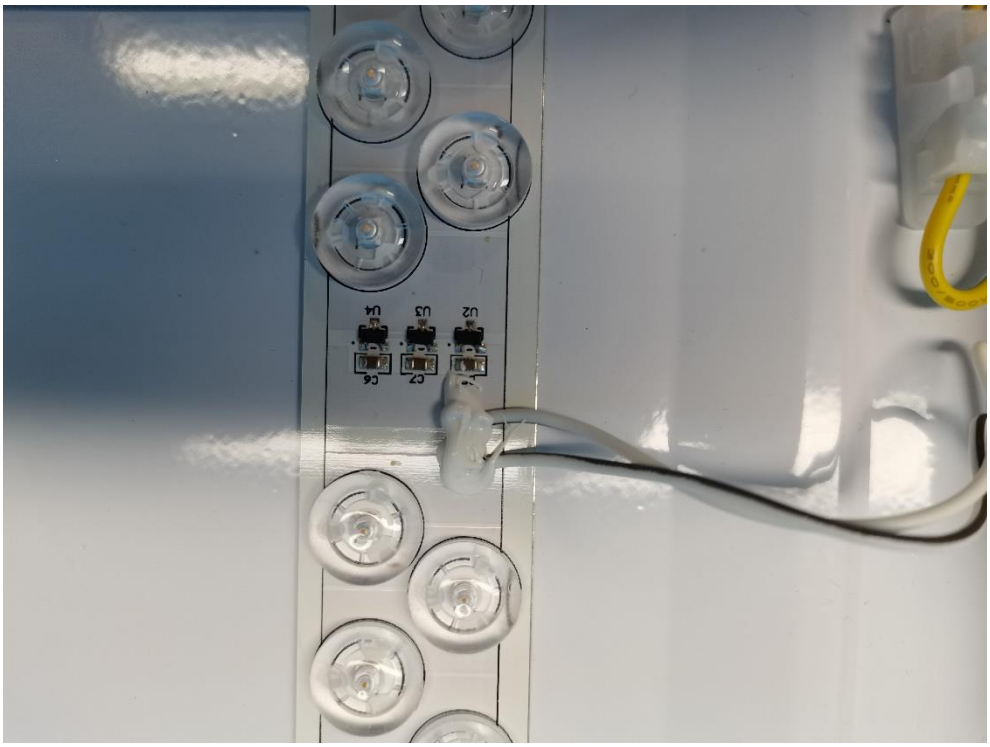



Rout1
Rout2

Test Model: MK-020011013378-E (with PCB 3)

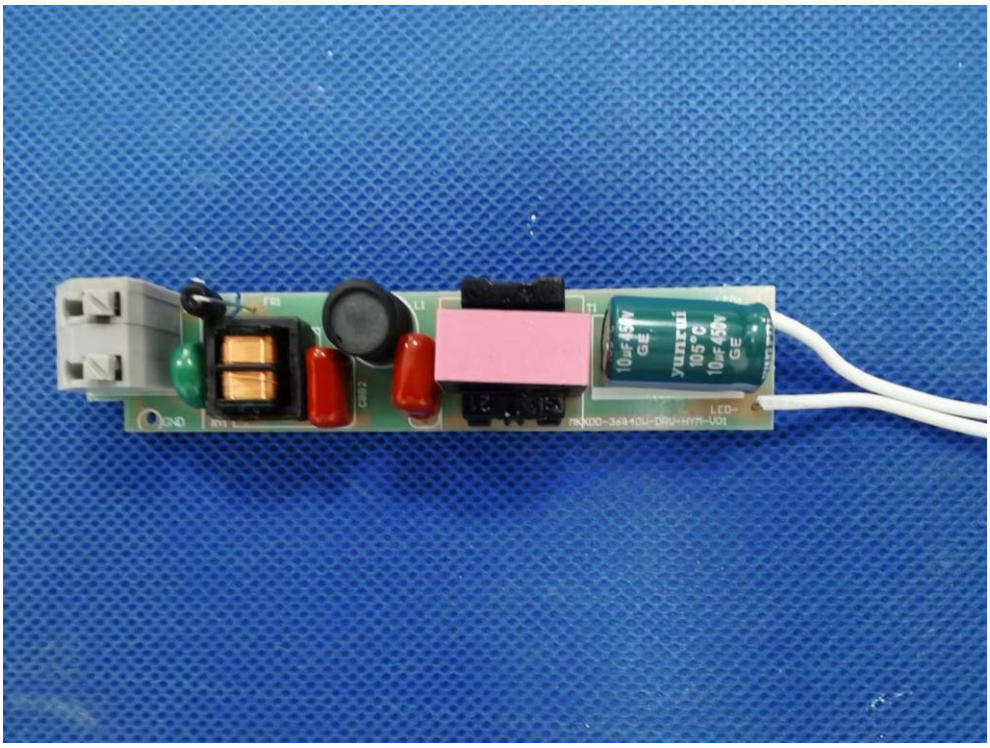


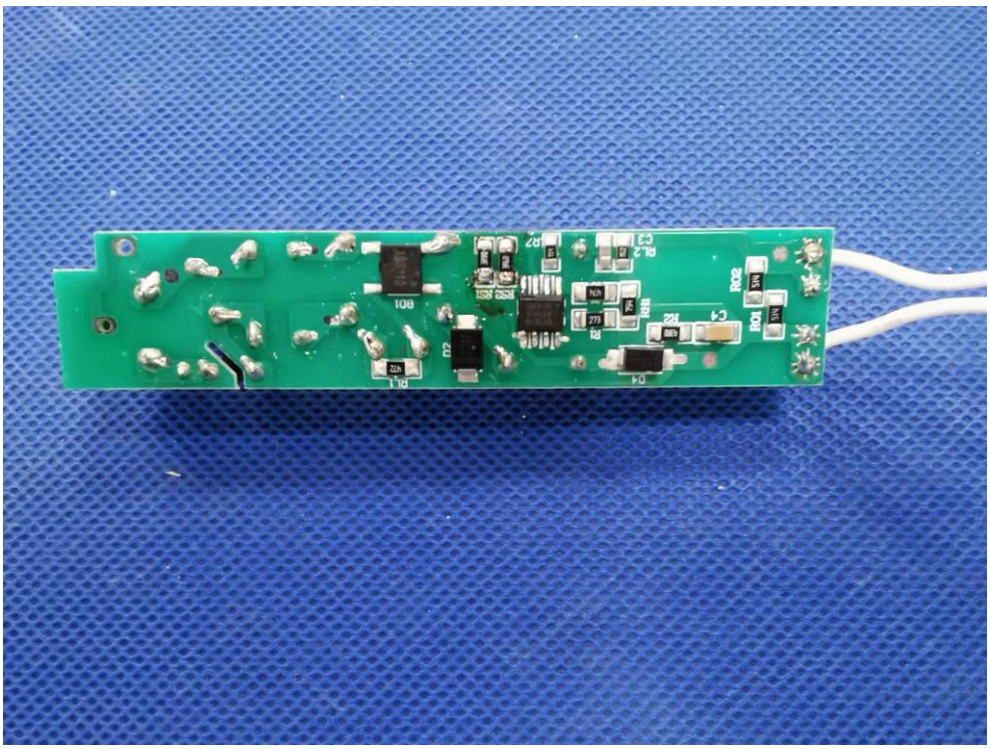



U2
U3
U4
C6
C7

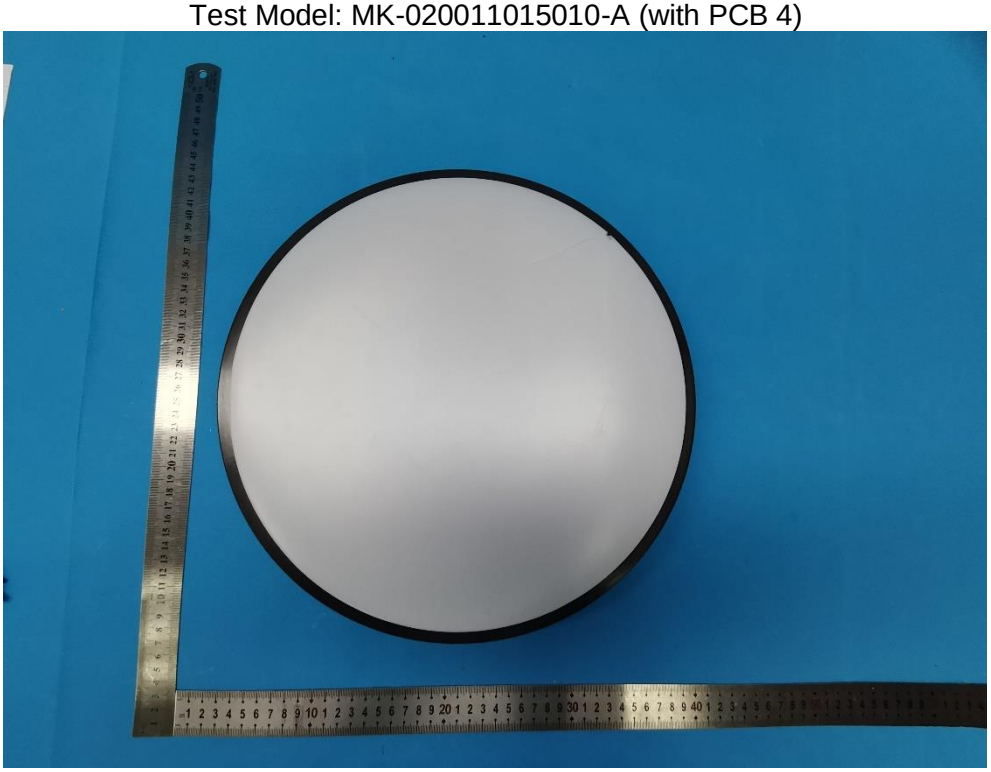


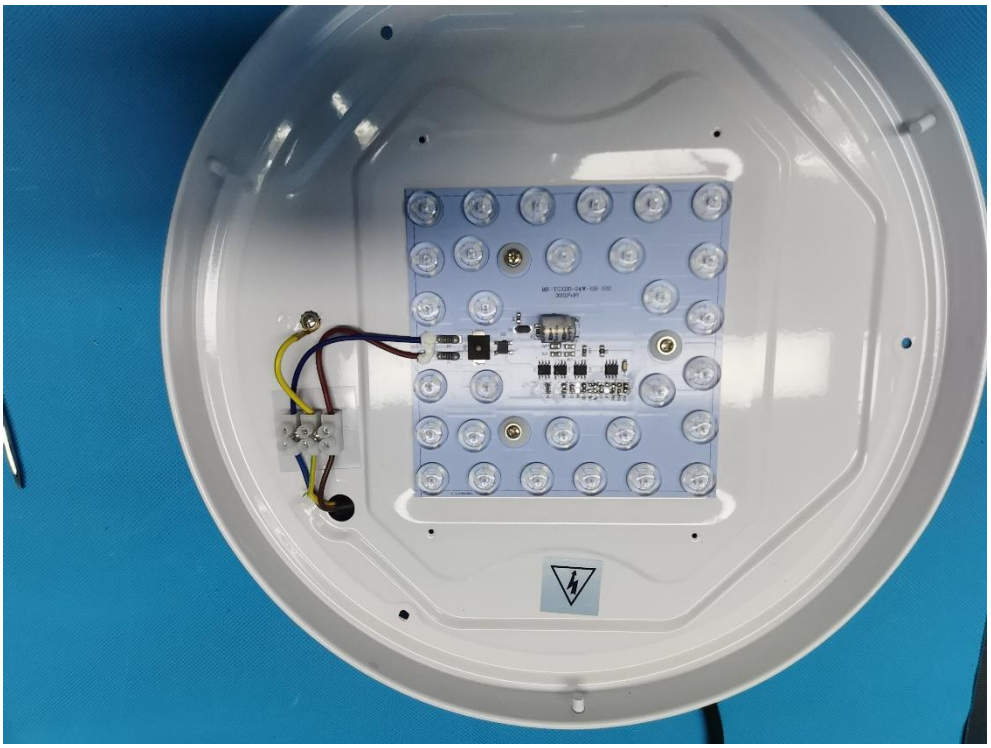
China

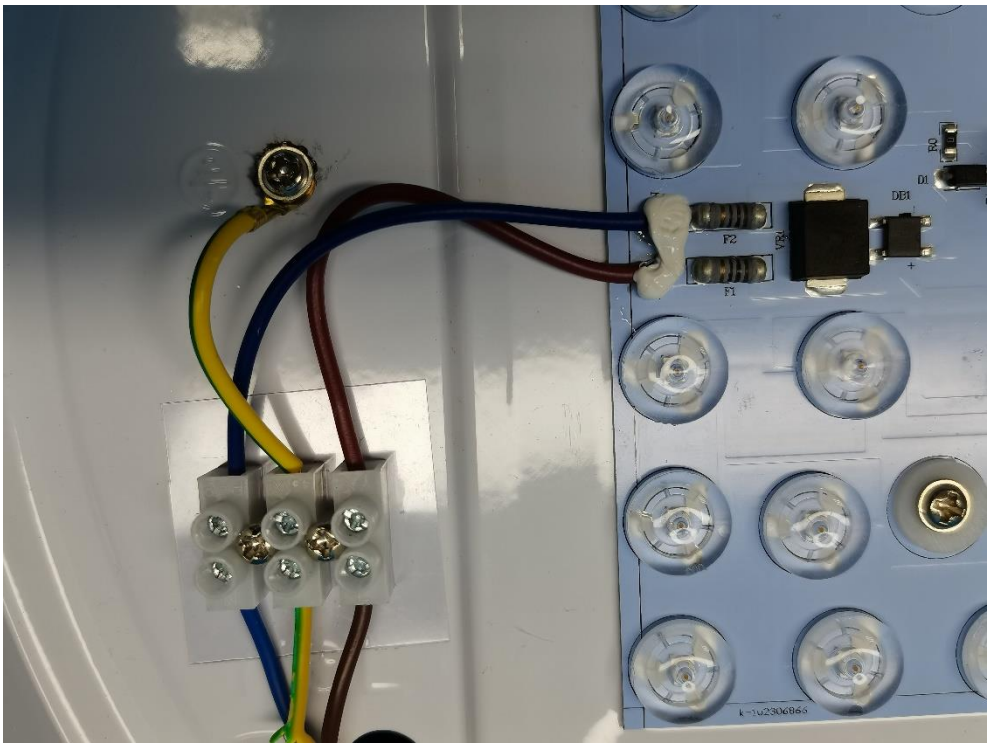


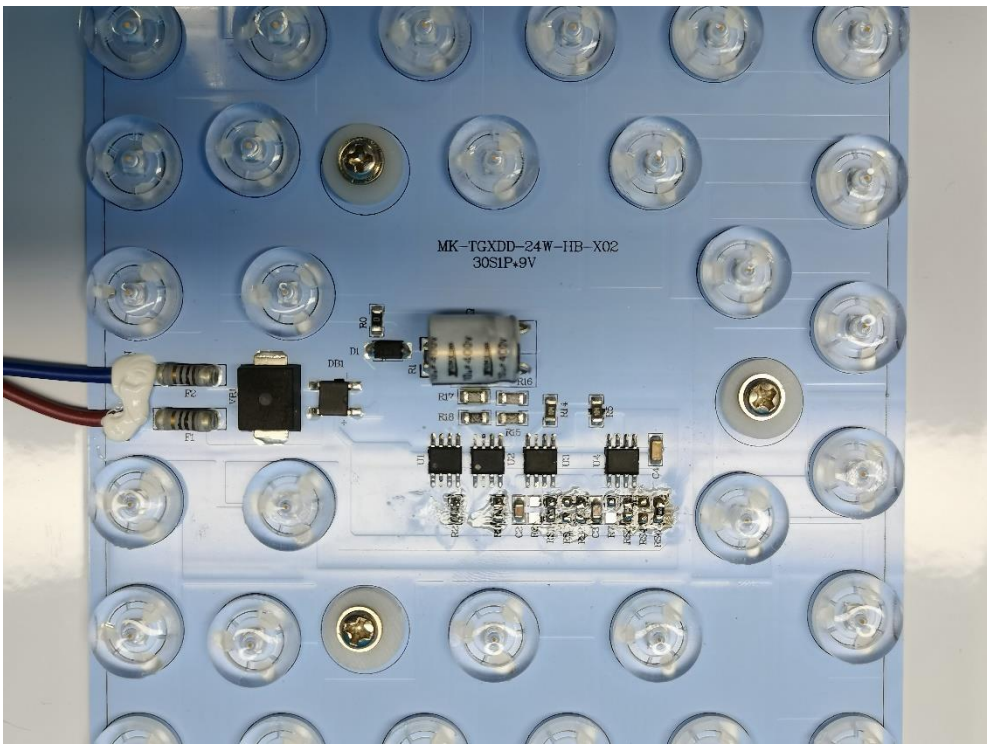


Test Model: MK-020011015010-A (with PCB 4)

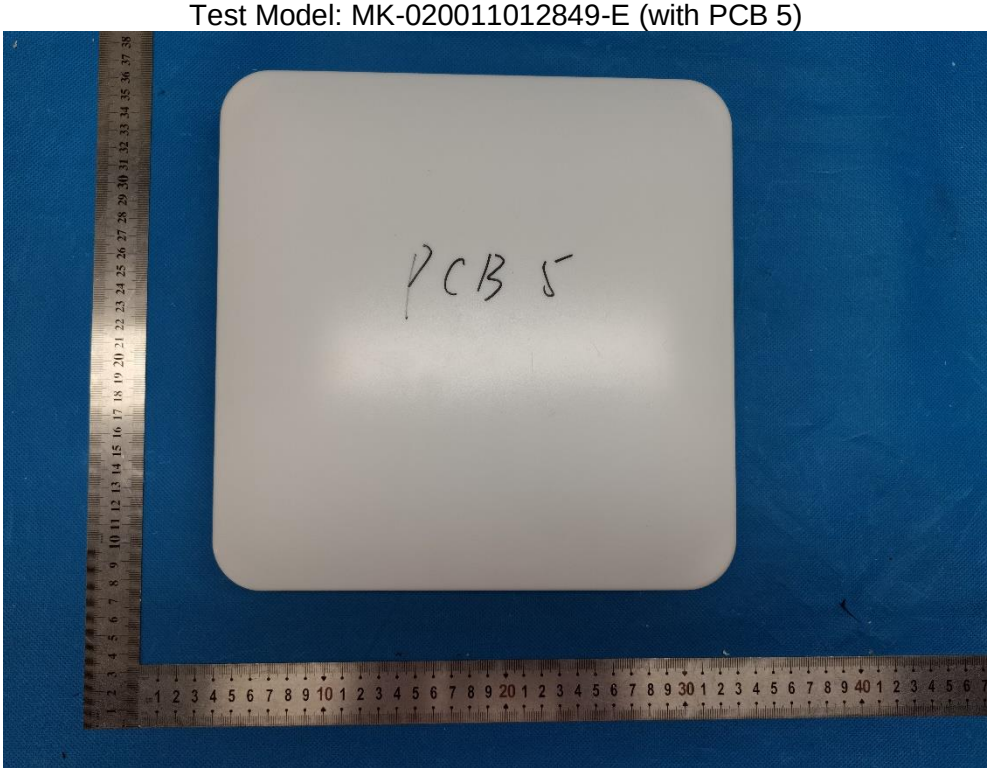


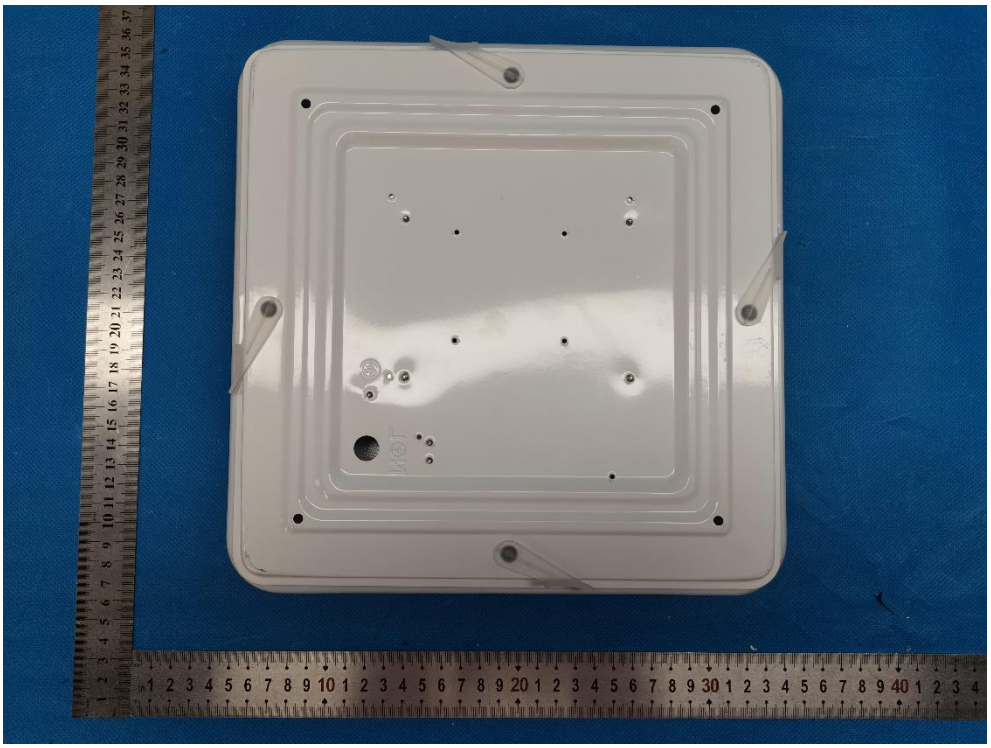




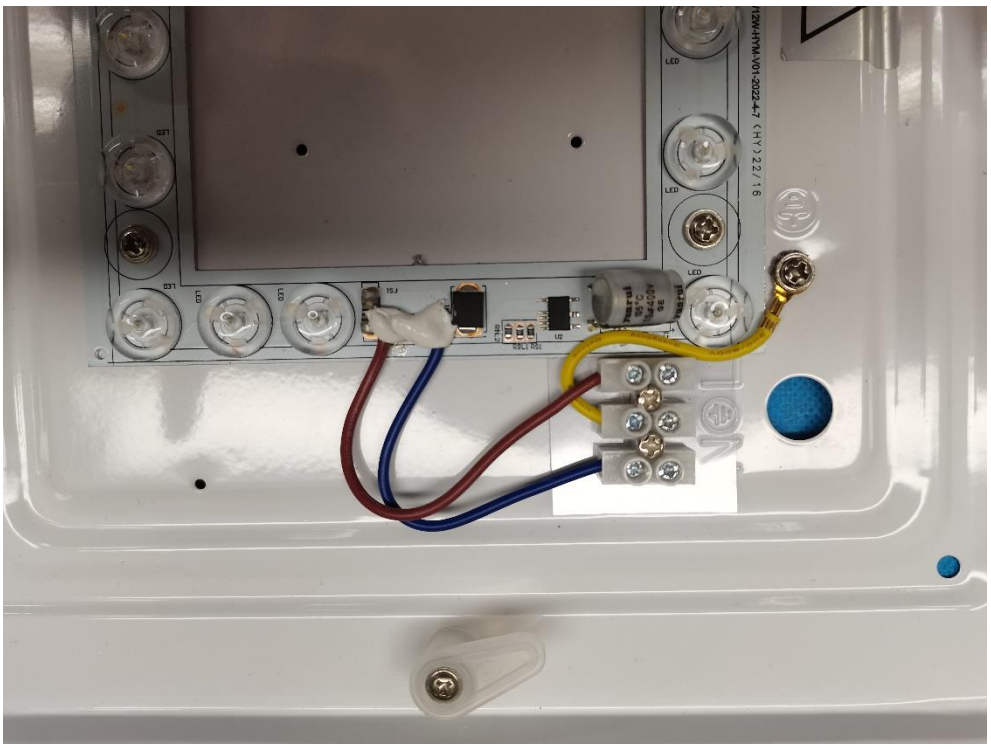

MK-TGXDD-24W-HB-X02
30S1P+9V

Test Model: MK-020011012849-E (with PCB 5)

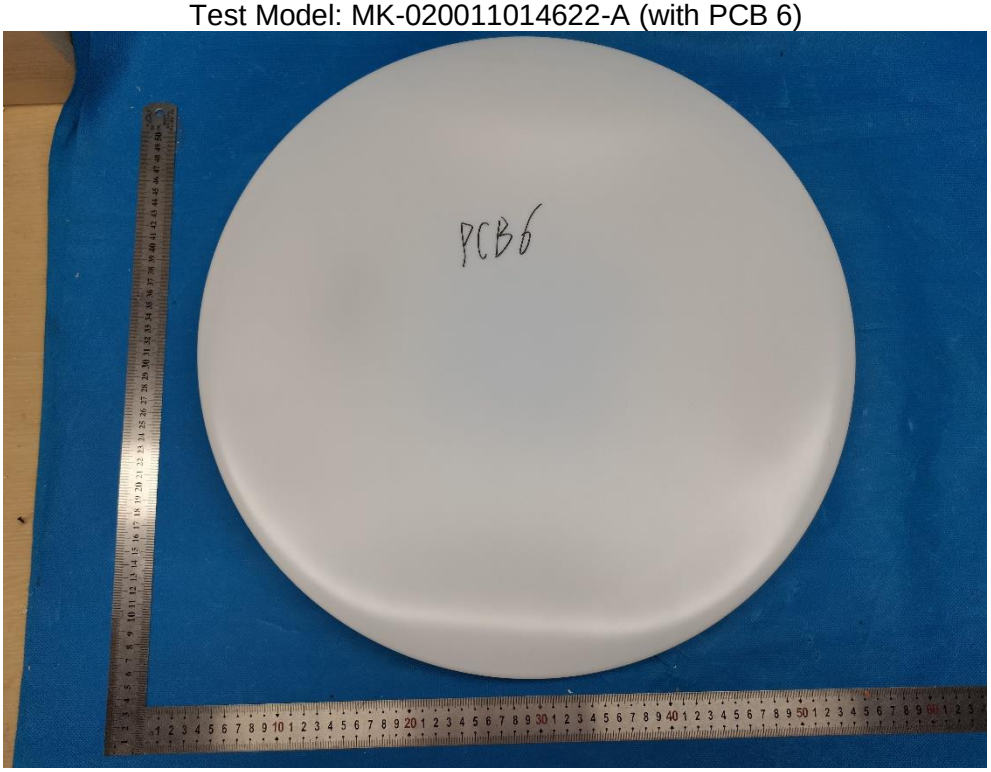


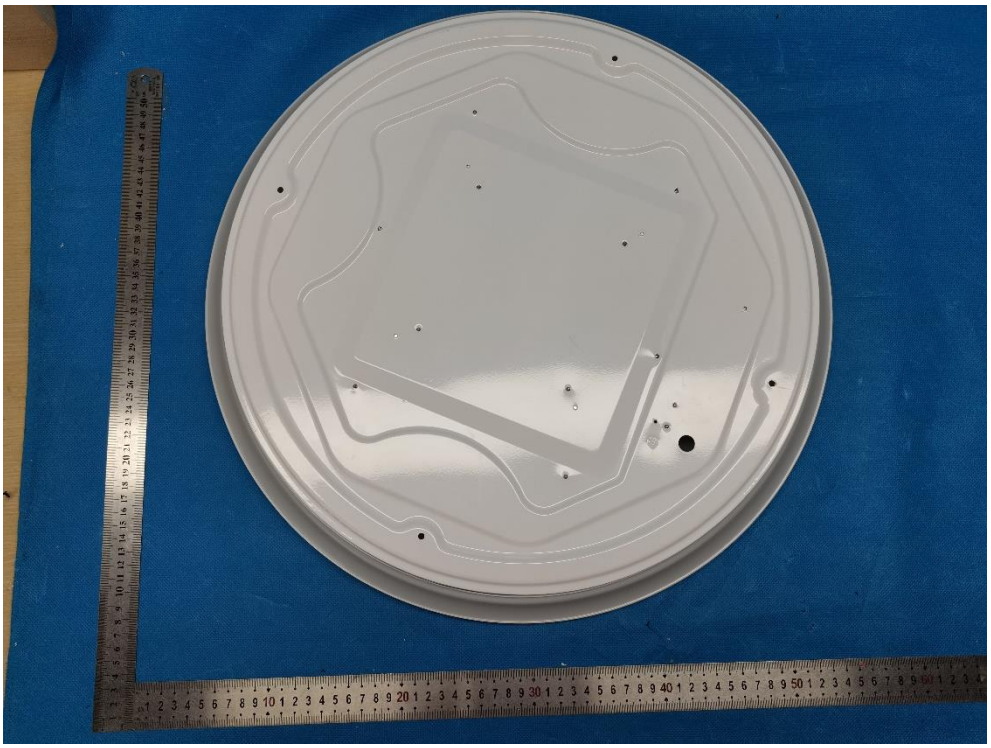


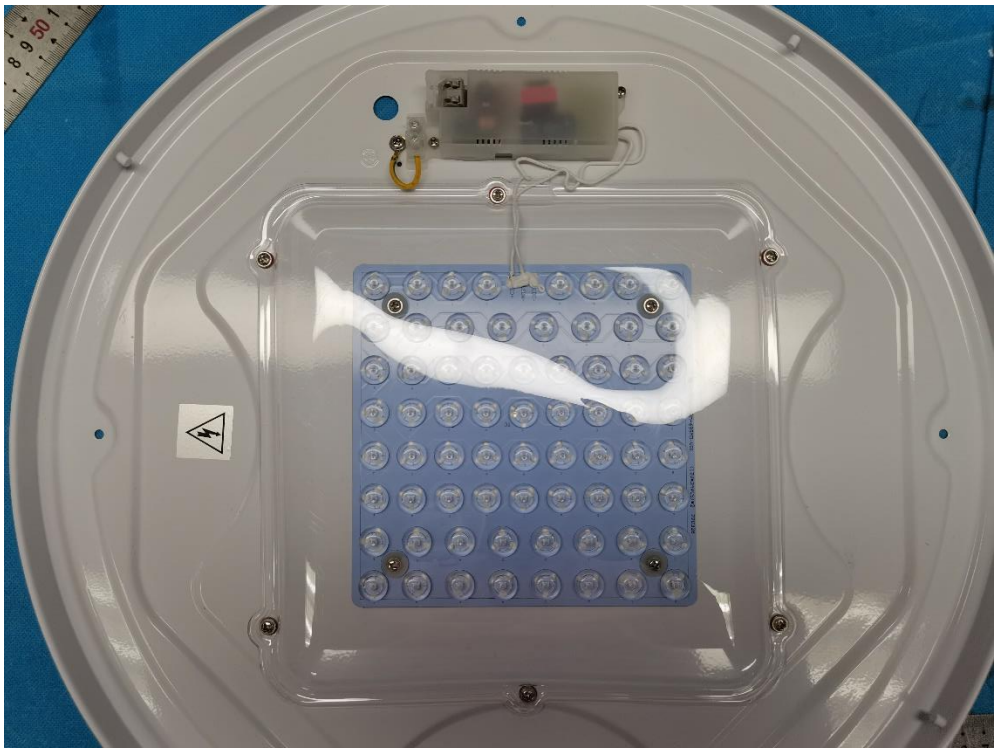




Test Model: MK-020011014622-A (with PCB 6)

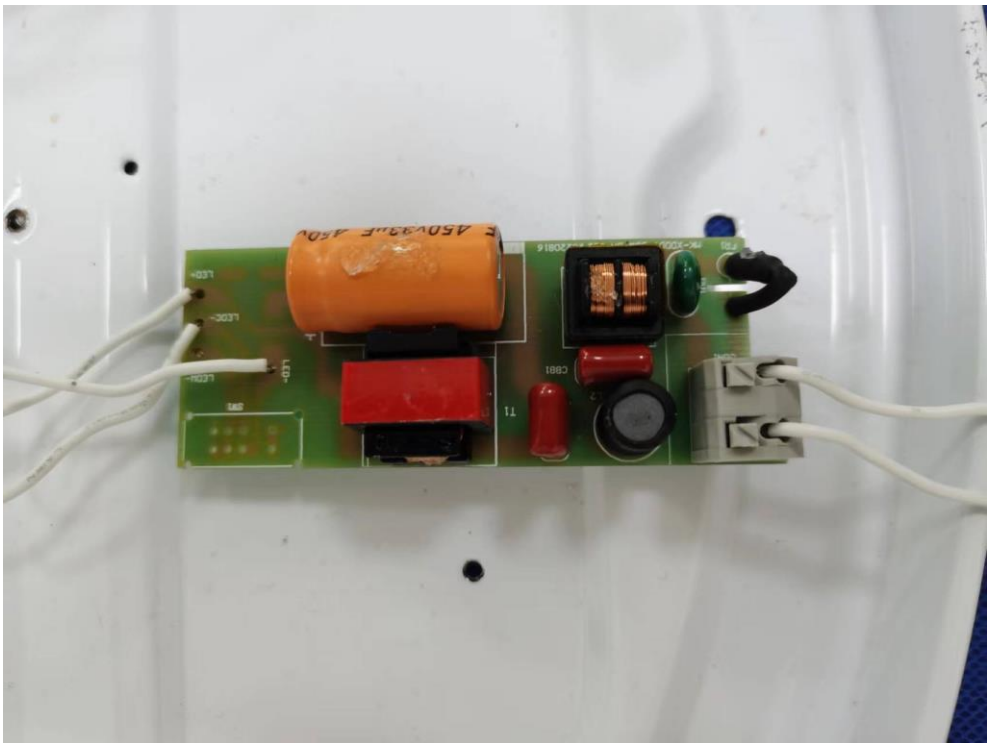


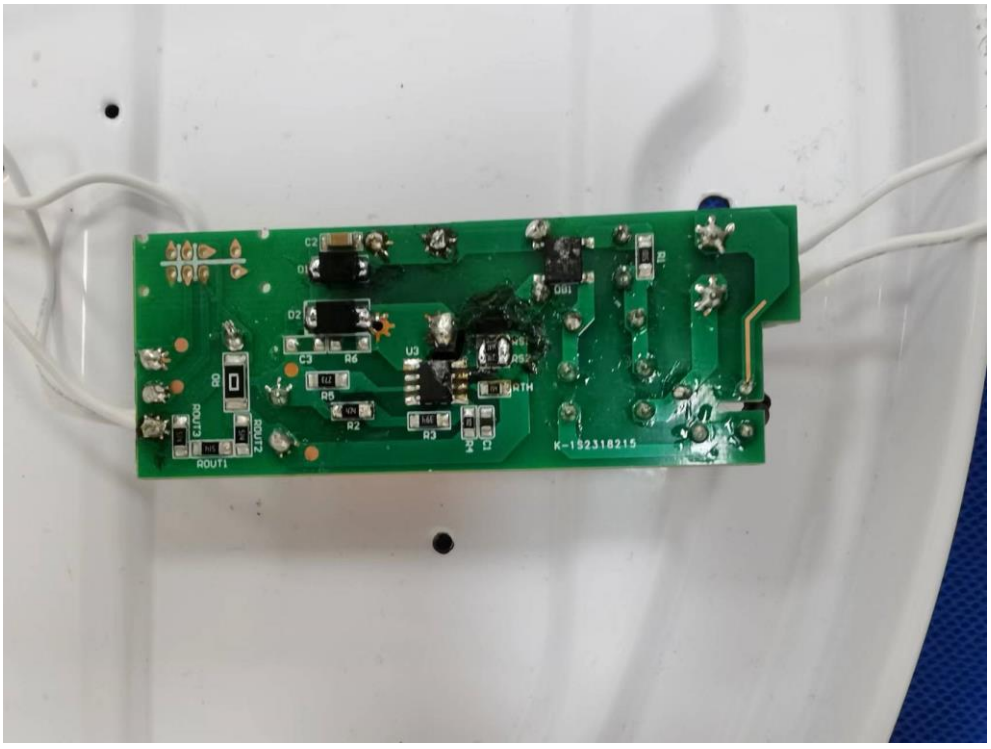




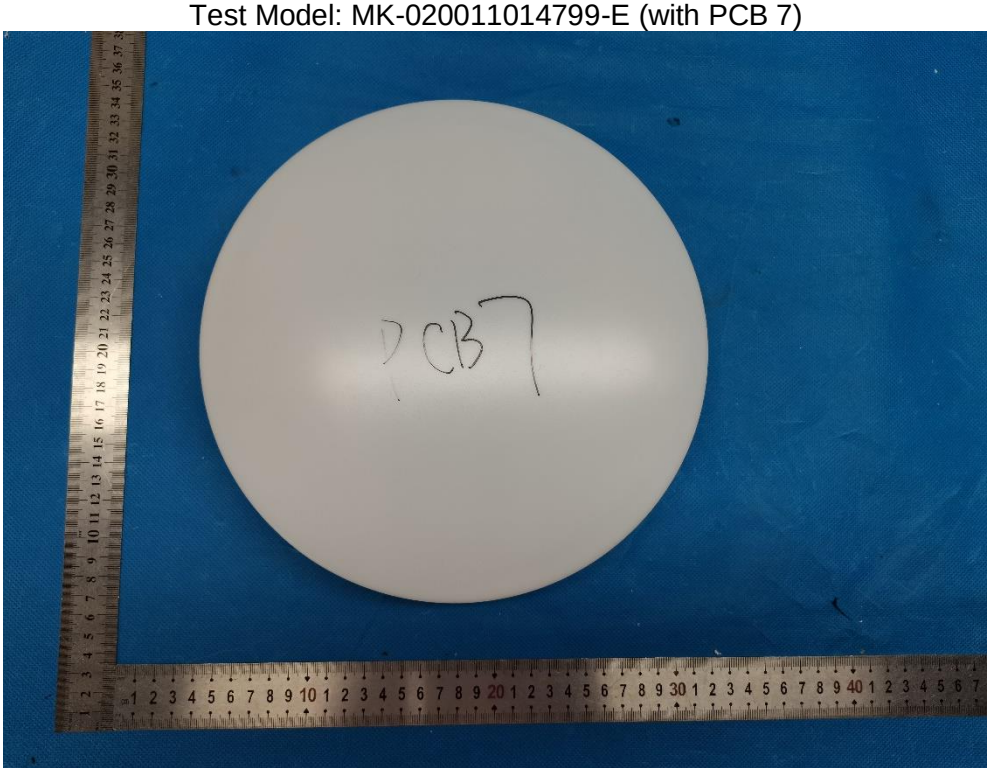


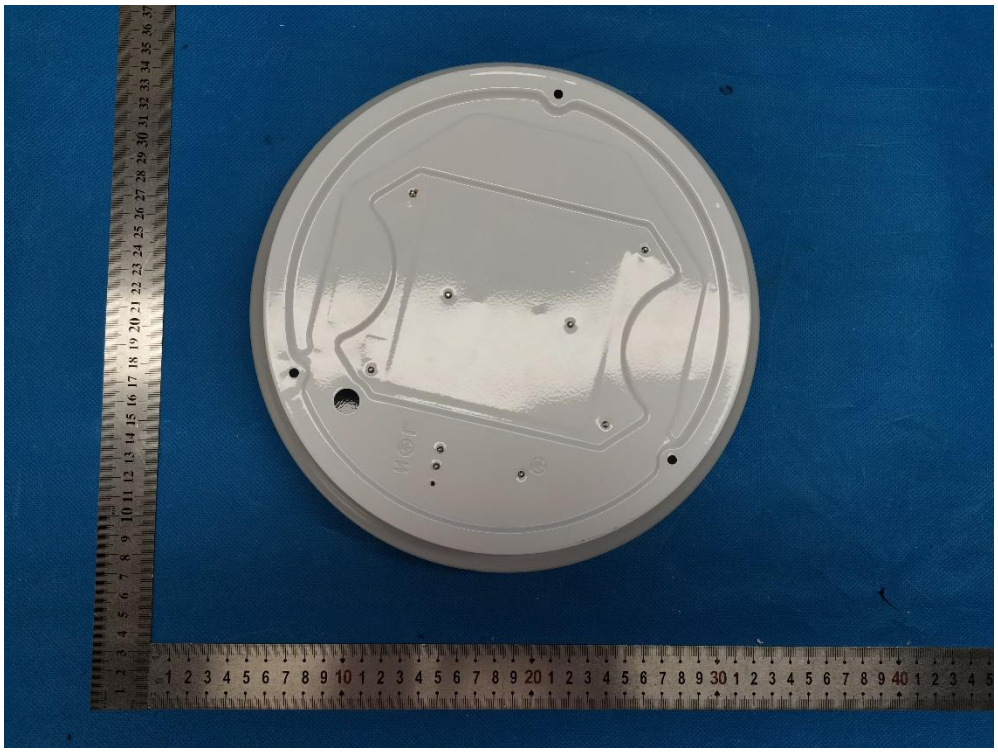
China





Test Model: MK-020011014799-E (with PCB 7)





China

