

# FCC Part15 Subpart B

**TEST REPORT** 

For

**LED Pendant Lamp** 

**MODEL NUMBER: PDT-1CC** 

FCC ID: 2AUHG-PDT-1CC

REPORT NUMBER: 4790025665-F01-00

ISSUE DATE: August 06, 2021

Prepared for

Artika For Living Inc. 1756, 50th Avenue Montreal (Lachine), Quebec Canada, H8T 2V5

Prepared by

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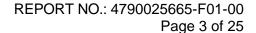
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## **Revision History**

Rev.	Issue Date	Revisions	Revised By
	08/06/2021	Initial Issue	

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Summary of Test Results							
Standard	Test Item	Limit Result		Remark			
	Conducted Disturbance	Class B	PASS				
FCC PART 15, Subpart B	Radiated Disturbance below 1 GHz	Class B	PASS				
	Radiated Disturbance above 1 GHz	Class B	N/A	NOTE (1) NOTE (2)			

#### Note:

- (1) "N/A" denotes test is not applicable in this Test Report
- (2) If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 40 GHz, whichever is less.
- (2) The highest frequency of the internal sources of the EUT is less than 108 MHz.

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#### 1. ATTESTATION OF TEST RESULTS

Applicant Info	rmation
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Company Name: Artika For Living Inc.

Address: 1756, 50th Avenue Montreal (Lachine), Quebec Canada, H8T 2V5

**Manufacturer Information** 

Company Name: DongGuan City Rising Stars Lighting Co., LTD Address: BaoXi Road No., 8, BaoTang Village HouJie Town

Dongguan, Guangdong, 523191, CN

**EUT Information** 

Product Name: LED Pendant Lamp

Model name: PDT-1CC Brand name: N/A

Sample Status: Normal

Sample ID: 210714004-2 Sample Received Date: July 15, 2021

Date of Tested: July 15, 2021~ July 26, 2021

APPLICABLE STANDARDS				
STANDARDS TEST RESULTS				
FCC PART 15, Subpart B	PASS*			

<sup>&#</sup>x27;\*'=Decision rule for statement(s) of conformity is based on IEC Guide 115:2007 Clause 4.4.3 Procedure 2" Accuracy Method"

Prepared By:	Approved By:		
Ryan Pay	Een Shan		
Ryan Pang Project Engineer	Yam Shan Project Engineer		

UL-CCIC Company Ltd. Suzhou Branch



#### 2. TEST METHODOLOGY

All tests were performed in accordance with the standard FCC Part15 Subpart B and ANSI C63.4-2014.

#### 3. FACILITIES AND ACCREDITATION

	A2LA (Certificate No.: 4338.01)
	Shenzhen STS Test Services Co., Ltd.
Accreditation	has been assessed and proved to be in compliance with A2LA.
Certificate	CNAS (Registration No.: L7649)
	Shenzhen STS Test Services Co., Ltd.
	has been assessed and proved to be in compliance with CNAS.

Note: All tests measurement facilities use to collect the measurement data are located at A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China

#### 4. CALIBRATION AND UNCERTAINTY

## 4.1. Measuring Instrument Calibration

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

## 4.2. Measurement Uncertainty

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

Test Item	Measurement Frequency Range	К	U(dB)
Conducted disturbance at mains terminals ports	0.15MHz ~ 30MHz	2	2.80 dB
Radiated disturbance Test	30MHz ~ 1000MHz	2	4.39 dB
Radiated disturbance Test	1GHz ~ 6 GHz	2	5.10 dB
Radiated disturbance Test	6GHz ~ 18GHz	2	5.48 dB

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

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## 5. EQUIPMENT UNDER TEST

## 5.1. Description of EUT

EUT Name	LED Pendant Lamp
EUT Description	N/A
Model	PDT-1CC
Model Difference	N/A
Rated Input	AC 120V 60Hz
Test Model	PDT-1CC
Test Power Supply	AC 120V 60Hz

### 5.2. Test Mode

Test Mode	Description
Mode 1	Lighting mode

## 5.3. EUT Accessory

Item	Accessory	Brand Name	Model Name	Description
1	N/A	N/A	N/A	N/A



## 5.4. Block Diagram Showing the Configuration of System Tested



The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

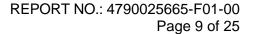
#### Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
N/A	N/A	N/A	N/A	N/A	N/A

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
N/A	N/A	N/A	N/A	N/A	N/A

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## 6. MEASURING EQUIPMENT AND SOFTWARE USED

	Conducted Disturbance								
Used	Equipment	Manufacturer	Model	No.	Serial No.	Last Cal.	Next Cal.		
V	EMI Test Receiver	R&S	ESC	CI	101427	2020.10.12	2021.10.11		
<b>V</b>	LISN	R&S	ENV2	216	101242	2020.10.12	2021.10.11		
	Software								
Used	Used Description Manufacturer Name Version								
V	Test Software for Conducted Emissions Farad					EZ-EMC	Ver. UL-3A1		
	Radiated Disturbance								
Used	Equipment	Manufacturer	Model	No.	Serial No.	Last Cal.	Next Cal.		
V	EMI Test Receiver	R&S	ESC	CI	101427	2020.10.12	2021.10.11		
V	Bi-log Antenna	TESEQ	CBL61	11D	34678	2020.10.12	2021.10.11		
V	Pre-amplifier(0.1M- 3GHz)	EM	EM3	30	060665	2020.10.12	2021.10.11		
V	Spectrum Analyzer	Agilent	ilent N9020A MY491000			2020.10.12	2021.10.11		
	Software								
Used	Description				ufacturer	Name	Version		
<b>V</b>	Test Software for Radiated Emissions				Farad	EZ-EMC	Ver. UL-3A1		



#### 7. EMISSION TEST

#### 7.1. Conducted Disturbance Measurement

#### 7.1.1. Limits of conducted disturbance voltage

FREQUENCY	□Class <i>i</i>	A (dBµV)	⊠Class B (dBµV)		
(MHz)	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	
0.50 -5.0	73.00	60.00	56.00	46.00	
5.0 -30.0	73.00	60.00	60.00	50.00	

#### Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- (3) The test result calculated as following: Measurement Value = Reading Level + Correct Factor Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor Margin Level = Measurement Value - Limit Value

The following table is the setting of the receiver

Receiver Parameters	Setting			
Attenuation	10 dB			
Start Frequency	0.15 MHz			
Stop Frequency	30 MHz			
IF Bandwidth	9 kHz			

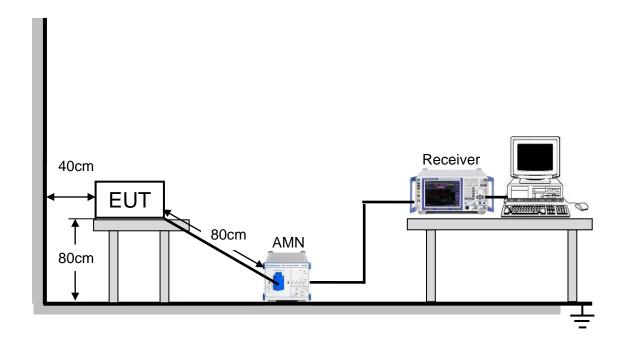
#### 7.1.2. Test Procedure

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item:EUT Test Photos.

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### 7.1.3. Test Setup



For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

#### 7.1.4. Test Environment

Temperature:	26.5°C
Humidity:	54%
ATM pressure:	101kPa

#### 7.1.5. Test Mode

Pre-test Mode:	Mode 1
Final Test Mode:	Mode 1

Note: According to pre-test results, the final test mode is each independent function's worst case and only shown in the report.

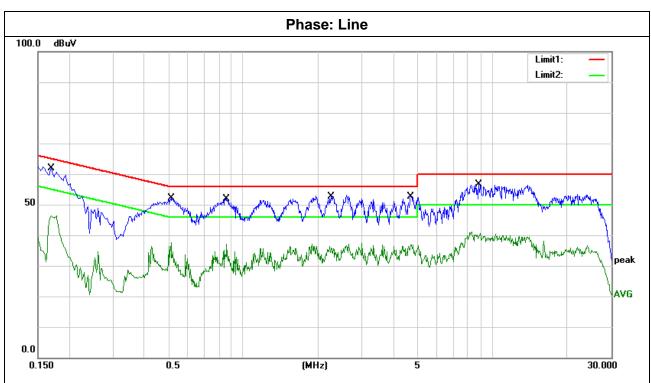
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#### 7.1.6. Test Results

Model Name: PDT-1CC

Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	dB	(dBuV)	(dBuV)	(dB)	
1	0.1700	41.50	20.34	61.84	64.96	-3.12	QP
2	0.1700	25.95	20.34	46.29	54.96	-8.67	AVG
3	0.5140	31.61	20.48	52.09	56.00	-3.91	QP
4	0.5140	17.14	20.48	37.62	46.00	-8.38	AVG
5	0.8580	31.56	20.33	51.89	56.00	-4.11	QP
6	0.8580	16.78	20.33	37.11	46.00	-8.89	AVG
7	2.2540	32.13	20.41	52.54	56.00	-3.46	QP
8	2.2540	16.37	20.41	36.78	46.00	-9.22	AVG
9	4.7020	32.09	20.53	52.62	56.00	-3.38	QP
10	4.7020	16.37	20.53	36.90	46.00	-9.10	AVG
11	8.8540	35.83	20.79	56.62	60.00	-3.38	QP
12	8.8540	20.33	20.79	41.12	50.00	-8.88	AVG

Remark

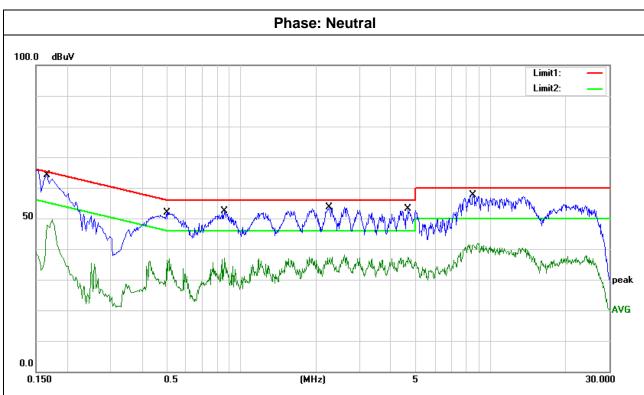
Result = Reading +Correct Margin = Result - Limit

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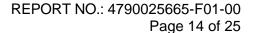
Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	dB	(dBuV)	(dBuV)	(dB)	
1	0.1660	42.45	20.33	62.78	65.16	-2.38	QP
2	0.1660	26.07	20.33	46.40	55.16	-8.76	AVG
3	0.5020	31.49	20.49	51.98	56.00	-4.02	QP
4	0.5020	16.46	20.49	36.95	46.00	-9.05	AVG
5	0.8580	31.99	20.33	52.32	56.00	-3.68	QP
6	0.8580	16.87	20.33	37.20	46.00	-8.80	AVG
7	2.2540	32.15	20.41	52.56	56.00	-3.44	QP
8	2.2540	16.69	20.41	37.10	46.00	-8.90	AVG
9	4.6940	30.25	20.52	50.77	56.00	-5.23	QP
10	4.6940	16.51	20.52	37.03	46.00	-8.97	AVG
11	8.5220	34.40	20.76	55.16	60.00	-4.84	QP
12	8.5220	19.55	20.76	40.31	50.00	-9.69	AVG

Remark Result = Reading +Correct Margin = Result – Limit

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#### 7.2. Radiated Disturbance Measurement

#### 7.2.1. Limits of radiated disturbance measurement

#### Below 1 GHz

#### **Measurement Method and Applied Limits:**

#### ANSI C63.4:

		⊠Class B	
Frequency (MHz)	Field strength (dBuV/m) ( at 10m)	Field strength (dBuV/m) (at 3m)	Field strength (dBuV/m) (at 3m)
30 - 88	39	49.5	40
88 - 216	43.5	54	43.5
216 - 960	46.4	56.9	46
Above 960	49.5	60	54

## Above 1 GHz

#### **Measurement Method and Applied Limits:**

#### ANSI C63.4:

Frequency (MHz)	□Class A				□Class B	
	(dBuV/m) (at 3m)		(dBuV/m) (at 10m)		(dBuV/m) (at 3m)	
	Peak	Average	Peak	Average	Peak	Average
Above 1000	80	60	69.5	49.5	74	54

Frequency Range of Radiated Disturbance Measurement

requestoy Range of Radiated Distarbation incasarement					
Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)				
Below 1.705	30				
1.705 - 108	1000				
108 - 500	2000				
500 - 1000	5000				
Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower				

#### NOTE:

- (1) The limit for radiated test was performed according to FCC Part 15, Subpart B;
- (2) The tighter limit applies at the band edges;
- (3) Emission level (dBuV/m) = 20log Emission level (uV/m), 3m Emission level = 10m Emission level + 20log(10m/3m);
- (4) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor,

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use),

Margin Level = Measurement Value - Limit Value.

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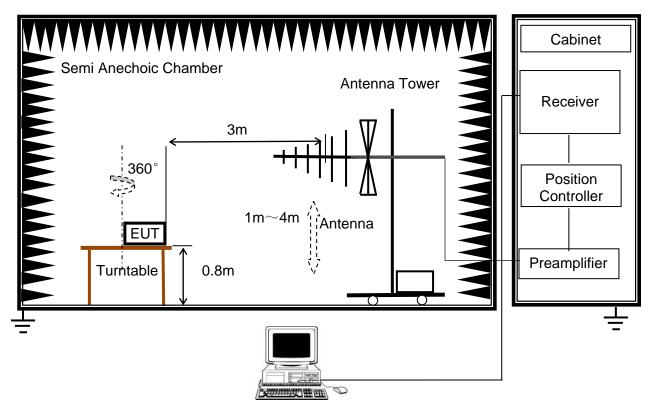


#### 7.2.2. Test Procedure

- a. The measuring distance of at 3m shall be used for measurements at frequency up to 1GHz.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For the actual test configuration, please refer to the related Item:EUT Test Photos.

#### 7.2.3. Test Setup

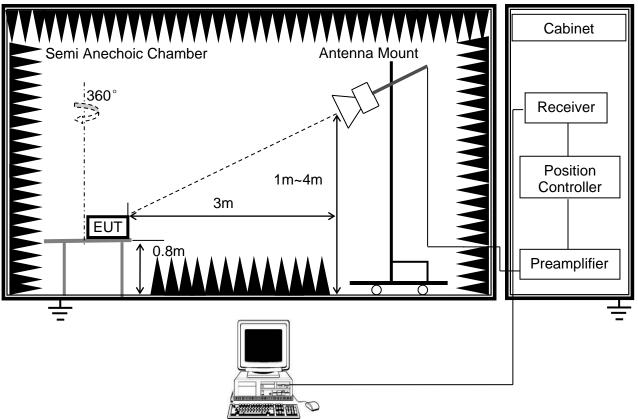
(a) Radiated Disturbance Test Set-Up Frequency 30MHz - 1GHz



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(b) Radiated Disturbance Test Set-Up Frequency above 1GHz



For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

#### 7.2.4. Test Environment

Radiated Dist	urbance - below 1 GHz	Radiated Disturbance - above 1 GHz		
Temperature:	23.3°C	Temperature:	N/A	
Humidity:	52%	Humidity:	N/A	
ATM pressure:	101kPa	ATM pressure:	N/A	

#### 7.2.5. Test Mode

Radiated Dist	urbance - below 1 GHz	Radiated Disturbance - above 1 GHz		
Pre-test Mode: Mode 1		Pre-test Mode:	N/A	
Final Test Mode:	Mode 1	Final Test Mode:	N/A	

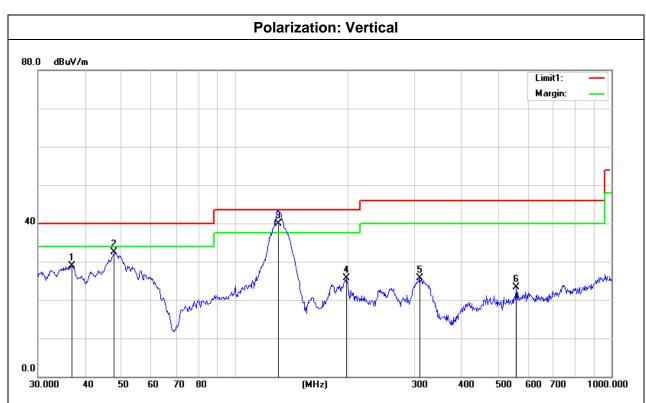
Note: According to pre-test results, the final test mode is each independent function's worst case and only shown in the report.



### 7.2.6. Test Results - below 1GHz

Model Name: PDT-1CC

Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	36.8953	43.85	-14.87	28.98	40.00	-11.02	QP
2	47.8260	52.97	-20.55	32.42	40.00	-7.58	QP
3	129.9590	58.00	-18.18	39.82	43.50	-3.68	QP
4	197.8928	46.57	-20.89	25.68	43.50	-17.82	QP
5	309.9977	41.23	-15.49	25.74	46.00	-20.26	QP
6	558.7302	31.08	-7.85	23.23	46.00	-22.77	QP

Remark

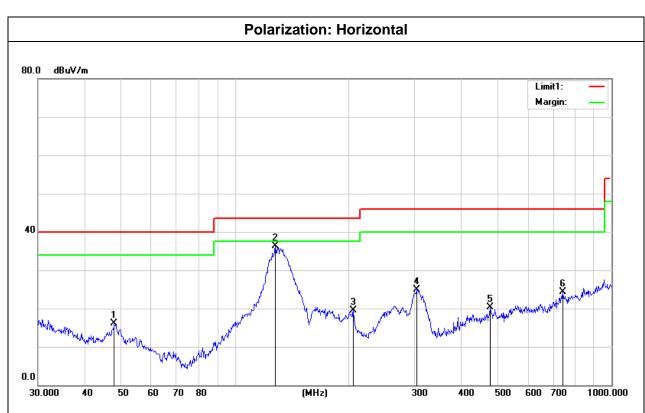
Result = Reading +Correct Margin = Result – Limit

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Test Mode: Mode 1

Test Voltage: AC 120V/60Hz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	47.8260	36.71	-20.55	16.16	40.00	-23.84	QP
2	128.1130	54.41	-18.20	36.21	43.50	-7.29	QP
3	206.3976	40.72	-21.22	19.50	43.50	-24.00	QP
4	304.6100	40.88	-15.89	24.99	46.00	-21.01	QP
5	477.1694	31.34	-11.11	20.23	46.00	-25.77	QP
6	742.2587	28.72	-4.47	24.25	46.00	-21.75	QP

Remark

Result = Reading +Correct Margin = Result – Limit

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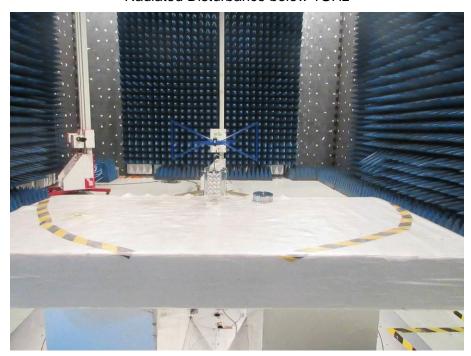


# **Appendix I: Photographs of Test Configuration**

Conducted Disturbance

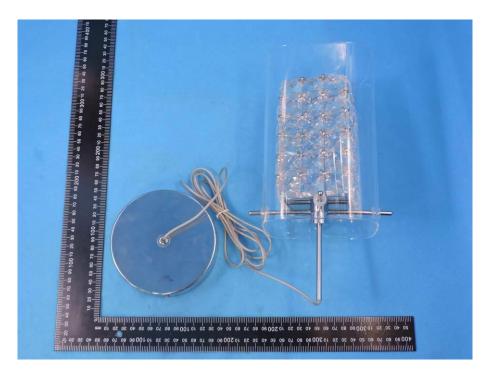


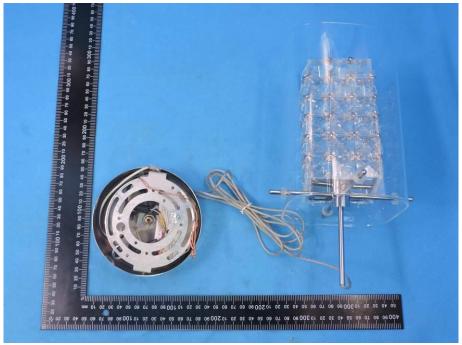
Radiated Disturbance below 1GHz

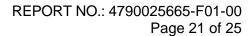




# Appendix II: Photographs of the EUT





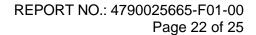








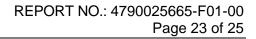
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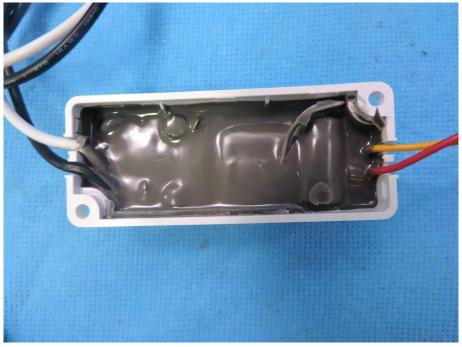


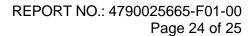








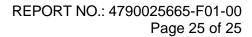
















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