

EMC TEST REPORT

FCC ID: 2AUHG-12FM-EMC

Report No. : SSP24050164-1E

Applicant : ARTIKA FOR LIVING INC

Product Name : Empress flushmount

Model Name : 12FM-EMC

Test Standard : FCC Part 15 Subpart B

Date of Issue : 2024-06-20



Shenzhen CCUT Quality Technology Co., Ltd.

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This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen CCUT Quality Technology Co., Ltd.

Test Report Basic Information

Applicant:	ARTIKA FOR LIVING INC	
Address of Applicant:	1756 50th avenue, Lachine, Qc, Canada H8T 2V5	
Manufacturer:	ZHONGSHAN C5 LIGHTING CO LTD	
Address of Manufacturer:	1# Henglong Road, Tongyi Industrial Area, Cao San, Guzhen, Zhongshan, Guangdong, China. Z.P 528421	
Product Name:	Empress flushmount	
Brand Name:	-	
Main Model:	12FM-EMC	
Series Models:	12FM-EMC-XXXXXX	
Test Standard:	FCC Part 15 Subpart B ANSI C63.4-2014	
Date of Test	2024-05-22 to 2024-05-24	
Test Result:	PASS	
Tested By	 _____ (Choco Qiu)	
Reviewed By:	 _____ (Lieber Ouyang)	
Authorized Signatory:	 _____ (Lahm Peng)	
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Revision History

Revision	Issue Date	Description	Revised By
V1.0	2024-06-20	Initial Release	Lahm Peng

1. General Information

1.1 Product Information

Product Name:	Empress flushmount
Trade Name:	-
Main Model:	12FM-EMC
Series Models:	12FM-EMC-XXXXXX
Class of Equipment:	☐ Class A ☒ Class B
Highest Internal Frequency:	<108MHz
Rated Voltage:	AC 120V/60Hz 20W
Note 1: The test data is gathered from a production sample, provided by the manufacturer.	
Note 2: The color of appearance and model name of series models listed are different from the main model, but the circuit and the electronic construction are the same, declared by the manufacturer. "XXXXXX" can be A to Z and/or 0 to 9 and/or blank (commercial code).	

1.2 Test Setup Information

List of Test Modes			
Test Mode	Description	Remark	
TM1	Working	AC 120V/60Hz	
TM2	-	-	
TM3	-	-	
TM4	-	-	
List and Details of Auxiliary Cable			
Description	Length (cm)	Shielded/Unshielded	With/Without Ferrite
-	-	-	-
-	-	-	-
-	-	-	-
List and Details of Auxiliary Equipment			
Description	Manufacturer	Model	Serial Number
-	-	-	-
-	-	-	-
-	-	-	-
The equipment under test (EUT) was configured to measure its highest possible emission and immunity level. The test modes were adapted according to the operation manual for use.			

1.3 Compliance Standards

Compliance Standards	
FCC Part 15 Subpart B	FEDERAL COMMUNICATIONS COMMISSION, RADIO FREQUENCY DEVICES, Unintentional Radiators
All measurements contained in this report were conducted with all above standards	
According to standards for test methodology	
FCC Part 15 Subpart B	FEDERAL COMMUNICATIONS COMMISSION, RADIO FREQUENCY DEVICES, Unintentional Radiators
ANSI C63.4-2014	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.
Maintenance of compliance is the responsibility of the manufacturer or applicant. Any modification of the product, which result is lowering the emission, should be checked to ensure compliance has been maintained.	

1.4 Test Facilities

Laboratory Name:	Shenzhen CCUT Quality Technology Co., Ltd. 1F, Building 35, Changxing Technology Industrial Park, Yutang Street, Guangming District, Shenzhen, Guangdong, China
CNAS Laboratory No.:	L18863
A2LA Certificate No.:	6893.01
FCC Registration No.:	583813
ISED Registration No.:	CN0164
All measurement facilities used to collect the measurement data are located at 1F, Building 35, Changxing Technology Industrial Park, Yutang Street, Guangming District, Shenzhen, Guangdong, China.	

1.5 Measurement Uncertainty

Test Item	Conditions	Uncertainty
Conducted Disturbance	9kHz ~30MHz	±1.64 dB
Radiated Disturbance	30MHz ~ 1GHz	±3.32 dB
Radiated Disturbance	1GHz ~ 18GHz	±3.50 dB

1.6 List of Test and Measurement Instruments

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Conducted Emissions					
AMN	ROHDE&SCHWARZ	ENV216	101097	2023-10-21	2024-10-20
EMI Test Receiver	ROHDE&SCHWARZ	ESPI	100242	2023-07-31	2024-07-30
EMI Test Software	FARA	EZ-EMC	EMEC-3A1+	N/A	N/A
Radiated Emissions					
EMI Test Receiver	ROHDE&SCHWARZ	ESPI	100154	2023-07-31	2024-07-30
Spectrum Analyzer	KEYSIGHT	N9020A	MY48030972	2023-07-31	2024-07-30
Amplifier	SCHWARZBECK	BBV 9743B	00251	2023-07-31	2024-07-30
Amplifier	HUABO	YXL0518-2.5-45	--	2023-07-31	2024-07-30
Loop Antenna	DAZE	ZN30900C	21104	2023-08-07	2024-08-06
Broadband Antenna	SCHWARZBECK	VULB 9168	01320	2023-08-07	2024-08-06
Horn Antenna	SCHWARZBECK	BBHA 9120D	02553	2023-08-07	2024-08-06
EMI Test Software	FARA	EZ-EMC	FA-03A2 RE+	N/A	N/A

2. Summary of Test Results

FCC Rule	Description of Test Item	Result
FCC Part 15.107	Conducted Emissions	Passed
FCC Part 15.109	Radiated Emissions	Passed
Passed: The EUT complies with the essential requirements in the standard Failed: The EUT does not comply with the essential requirements in the standard N/A: Not applicable		

3. Conducted Emissions

3.1 Standard and Limit

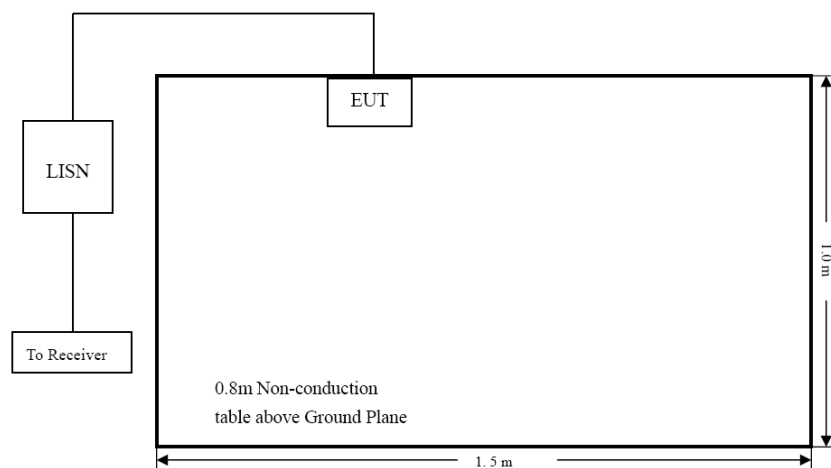
According to the rule FCC Part 15.107, Conducted limit, the limit for a class A and class B device as below:

Frequency of Emission (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15-0.5	79	66	66 to 56	56 to 46
0.5-5	73	60	56	46
5-30	73	60	60	50

Note 1: Decreases with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz
 Note 2: The lower limit applies at the band edges

3.2 Test Procedure

Test is conducting under the description of ANSI C63.4-2014 American National Standard for Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.



Test Setup Block Diagram

3.3 Test Data and Results

Based on all tested data, the EUT complied with the FCC Part 15.107 standard limit for a Class B device, and with the worst case as below:

Remark: Level = Reading + Factor, Margin = Level - Limit

Test Plots and Data of Conducted Emissions

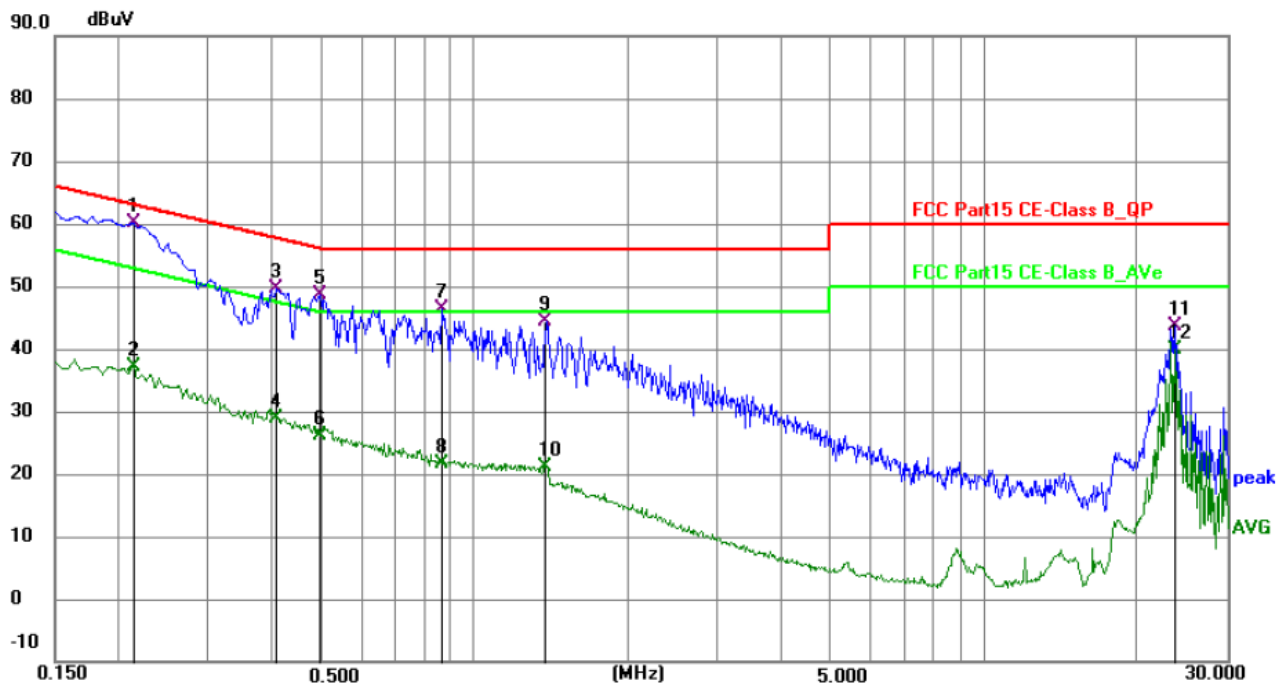
Tested Model: 12FM-EMC

Tested Mode: TM1

Test Voltage: AC 120V/60Hz

Test Power Line: Neutral

Remark:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1 *	0.2130	50.42	9.62	60.04	63.09	-3.05	QP	P	
2	0.2130	27.55	9.62	37.17	53.09	-15.92	AVG	P	
3	0.4065	39.65	9.94	49.59	57.72	-8.13	QP	P	
4	0.4065	18.92	9.94	28.86	47.72	-18.86	AVG	P	
5	0.4965	38.63	9.95	48.58	56.06	-7.48	QP	P	
6	0.4965	16.24	9.95	26.19	46.06	-19.87	AVG	P	
7	0.8655	36.80	9.60	46.40	56.00	-9.60	QP	P	
8	0.8655	12.09	9.60	21.69	46.00	-24.31	AVG	P	
9	1.3829	34.30	10.02	44.32	56.00	-11.68	QP	P	
10	1.3829	11.11	10.02	21.13	46.00	-24.87	AVG	P	
11	23.7210	33.14	10.43	43.57	60.00	-16.43	QP	P	
12	23.7210	29.49	10.43	39.92	50.00	-10.08	AVG	P	

Test Plots and Data of Conducted Emissions

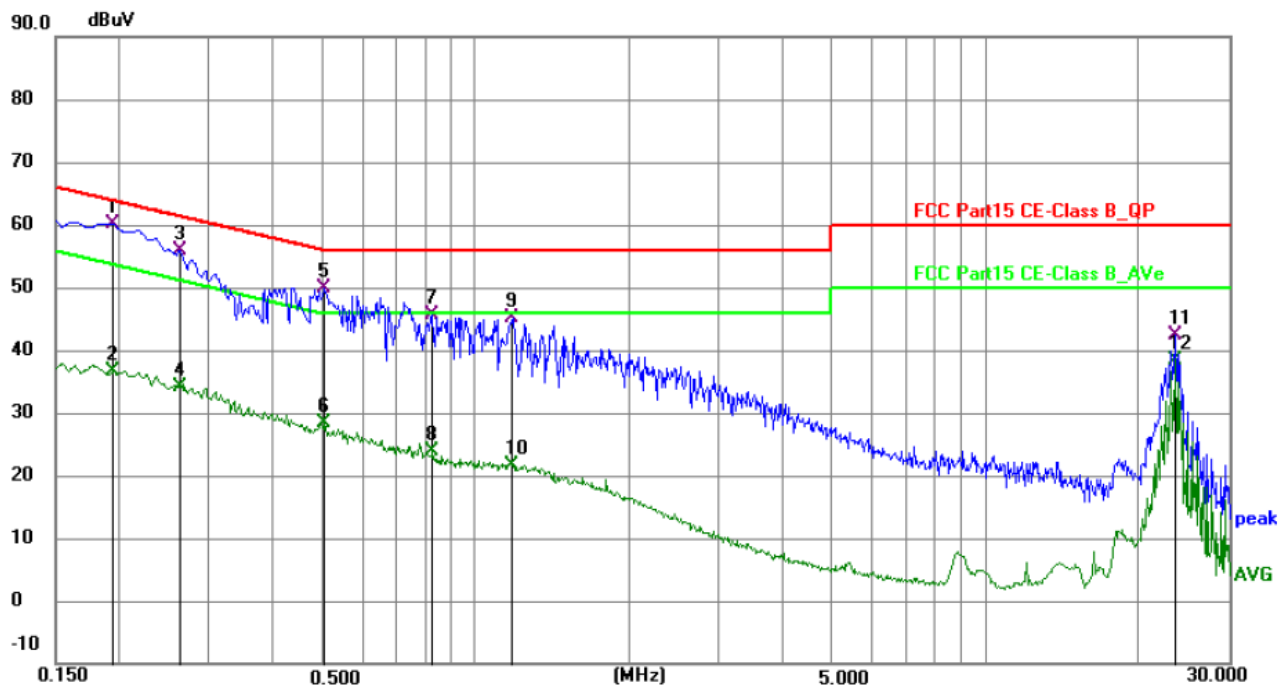
Tested Model: 12FM-EMC

Tested Mode: TM1

Test Voltage: AC 120V/60Hz

Test Power Line: Live

Remark:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1 *	0.1949	51.04	8.97	60.01	63.83	-3.82	QP	P	
2	0.1949	27.68	8.97	36.65	53.83	-17.18	AVG	P	
3	0.2625	46.29	9.60	55.89	61.35	-5.46	QP	P	
4	0.2625	24.52	9.60	34.12	51.35	-17.23	AVG	P	
5	0.5055	40.02	9.93	49.95	56.00	-6.05	QP	P	
6	0.5055	18.52	9.93	28.45	46.00	-17.55	AVG	P	
7	0.8250	35.81	9.87	45.68	56.00	-10.32	QP	P	
8	0.8250	13.93	9.87	23.80	46.00	-22.20	AVG	P	
9	1.1849	35.13	10.02	45.15	56.00	-10.85	QP	P	
10	1.1849	11.60	10.02	21.62	46.00	-24.38	AVG	P	
11	23.6175	32.13	10.36	42.49	60.00	-17.51	QP	P	
12	23.6175	28.08	10.36	38.44	50.00	-11.56	AVG	P	

4. Radiated Disturbance

4.1 Standard and Limit

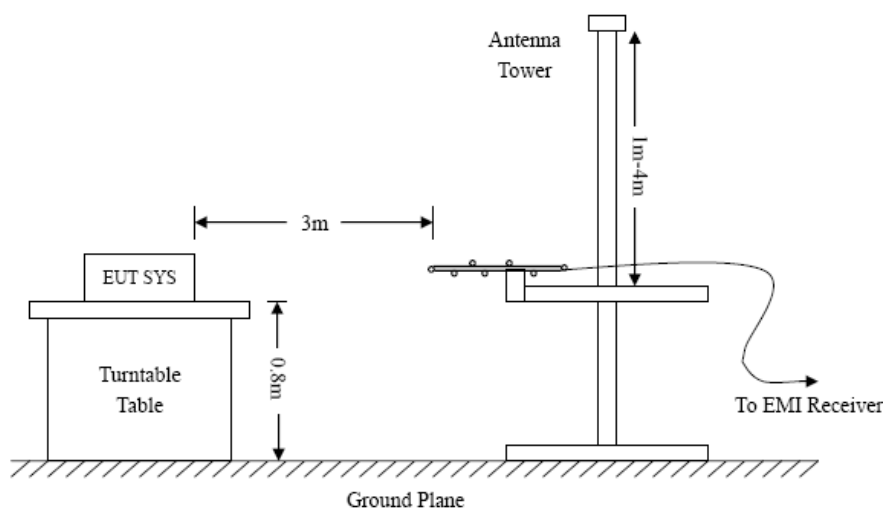
According to the rule FCC Part 15.109, Radiated emission limit for a class A and class B device as below:

Frequency of Emission (MHz)	Class A (3m)	Class B (3m)
	Quasi-peak (dBuV/m)	Quasi-peak (dBuV/m)
30-88	50	40
88-216	54.0	43.5
216-960	57.0	46
Above 960	60	54

Note: The more stringent limit applies at transition frequencies.

4.2 Test Procedure

Test is conducting under the description of ANSI C63.4-2014 American National Standard for Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.



Test Setup Block Diagram

4.3 Test Data and Results

Based on all tested data, the EUT complied with the FCC Part 15.109 standard limit for a Class B device, and with the worst case as below:

Remark: Level = Reading + Factor, Margin = Level - Limit

