



中认信通

CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)



TEST REPORT

Applicant: ARTIKA FOR LIVING INC

Address: 1756 50th avenue, Lachine, Quebec, Canada, H8T 2V5

FCC ID: 2AUHG-PLU01R

Product Name: Surface Downlight

**Standard(s): FCC Part 15B
ANSI C63.4-2014**

The above equipment has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: CR230528359-00A

Date Of Issue: 2023/6/20

Reviewed By: Sun Zhong

Sun Zhong

Title: Manager

Test Laboratory: China Certification ICT Co., Ltd (Dongguan)

No. 113, Pingkang Road, Dalang Town, Dongguan,
Guangdong, China
Tel: +86-769-82016888

Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol “▲”. Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

This report cannot be reproduced except in full, without prior written approval of the Company.

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

This report may contain data that are not covered by the accreditation scope and shall be marked with an asterisk “★”.

CONTENTS

TEST FACILITY	2
DECLARATIONS.....	2
DOCUMENT REVISION HISTORY	4
1. GENERAL INFORMATION.....	5
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	5
1.2 DESCRIPTION OF TEST CONFIGURATION	6
1.2.1 EUT Operation Condition:.....	6
1.2.2 Support Equipment List and Details	6
1.2.3 Support Cable List and Details	6
1.2.4 Block Diagram of Test Setup.....	7
1.3 MEASUREMENT UNCERTAINTY	8
2. SUMMARY OF TEST RESULTS	9
3. REQUIREMENTS AND TEST PROCEDURES	10
3.1 AC LINE CONDUCTED EMISSIONS	10
3.1.1 EUT Setup.....	10
3.1.2 EMI Test Receiver Setup	10
3.1.3 Test Procedure	11
3.1.4 Corrected Amplitude & Margin Calculation.....	11
3.2 RADIATION SPURIOUS EMISSIONS	12
3.2.1 EUT Setup.....	12
3.2.2 EMI Test Receiver Setup	13
3.2.3 Test Procedure	13
3.2.4 Corrected Amplitude & Margin Calculation.....	13
4. TEST DATA AND RESULTS.....	14
4.1 AC LINE CONDUCTED EMISSIONS	14
4.2 RADIATION SPURIOUS EMISSIONS	19

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR230528359-00A	Original Report	2023/6/20

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	Surface Downlight
Trade Name:	Artika,TWINSEL,SHUANGYU,RISEN,SYL
EUT Model:	15FLPR-SP3-MB
Multiple Model(s):	PLU01R-1528T-YX,15FLPR-SPX-XXXXXX
Highest Operation Frequency:	65kHz
Rated Input Voltage:	AC 120V
Serial Number:	262V-1
EUT Received Date:	2023/5/23
EUT Received Status:	Good
Note: The Multiple models are electrically identical with the test model. Please refer to the declaration letter for more detail, which was provided by manufacturer.	

Accessory Information:

Accessory Description	Manufacturer	Model
/	/	/

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition:

EUT Operation Mode:	The system was configured for testing in Typical Use Mode, which was provided by the manufacturer. M1: Lighting for dimmest M2: Lighting for brightest
Equipment Modifications:	No
EUT Exercise Software:	No

1.2.2 Support Equipment List and Details

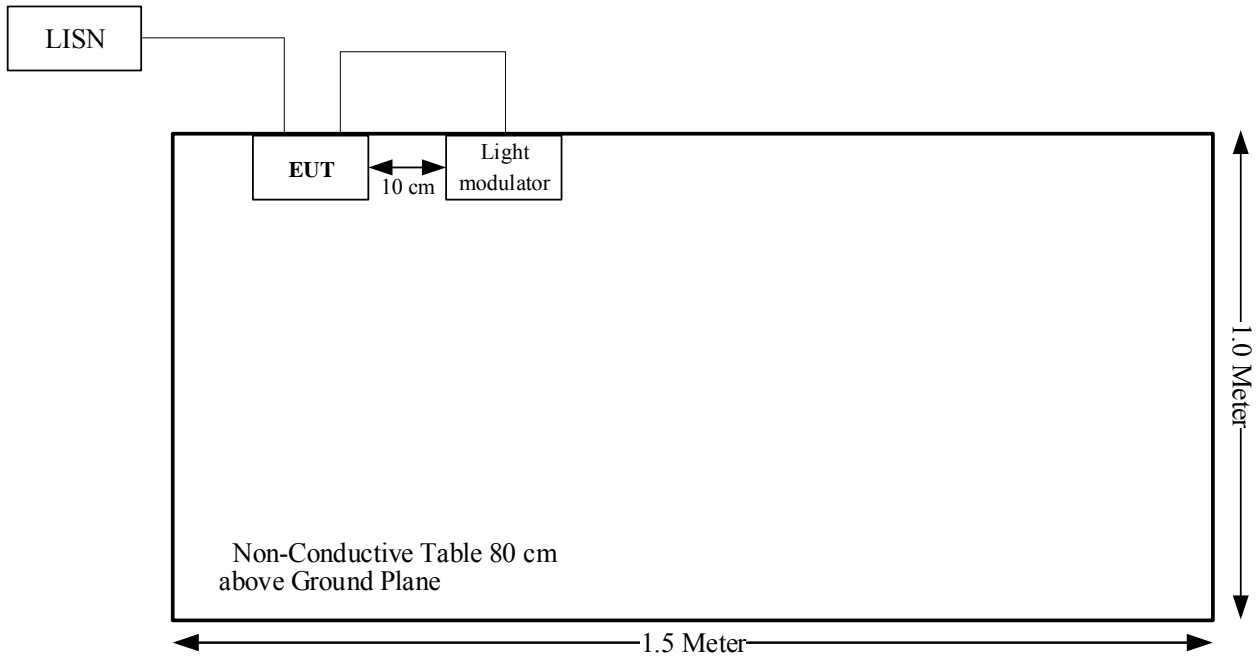
Manufacturer	Description	Model	Serial Number
LEVITON	Light Modulator	1J40	CR20230529

1.2.3 Support Cable List and Details

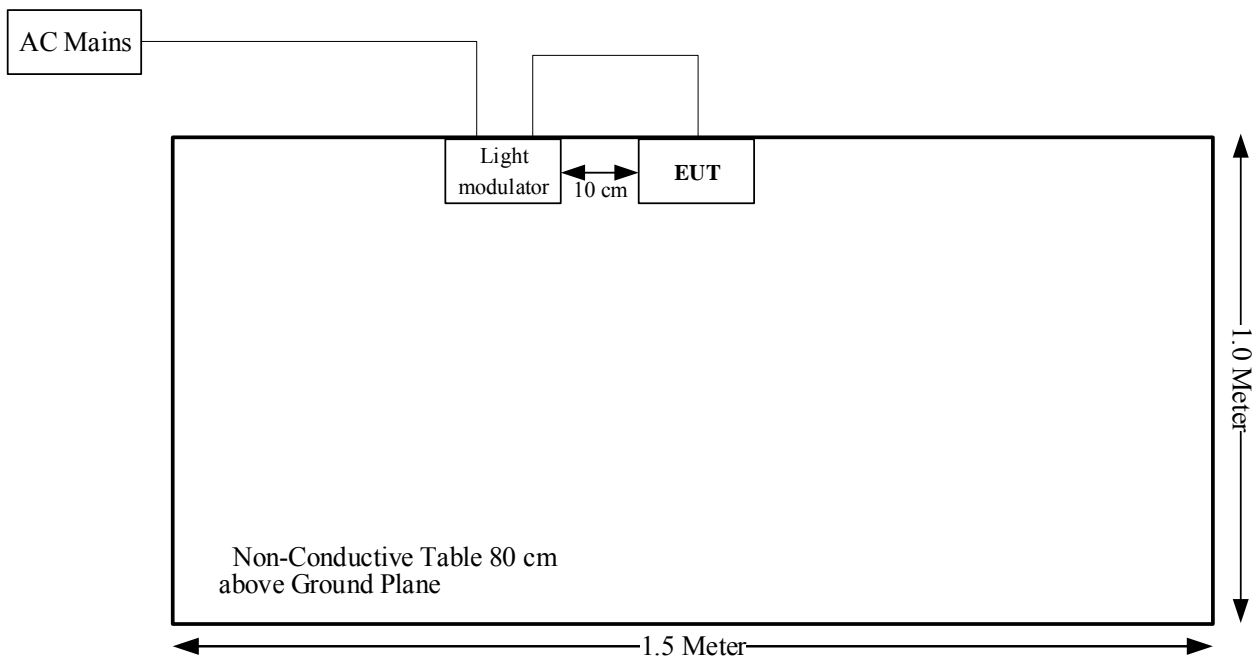
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Power Cable	NO	NO	0.8	LISN	Light Modulator
Power Cable	NO	NO	0.2	Light Modulator	EUT
Power Cable	NO	NO	1.2	AC Mains	Light Modulator

1.2.4 Block Diagram of Test Setup

Conducted Emissions:



Radiated emissions:



1.3 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Unwanted Emissions, radiated	30M~200MHz: 4.15 dB, 200M~1GHz: 5.61 dB, 1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB, 18G~26.5G: 5.47 dB, 26.5G~40G: 5.63 dB
Temperature	±1°C
Humidity	±5%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

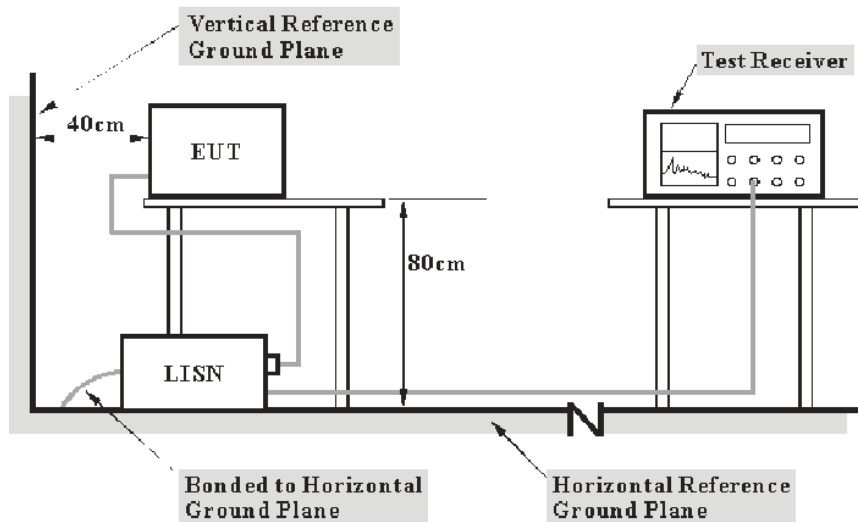
2. SUMMARY OF TEST RESULTS

Standard(s) Section	Description of Test	Result
§15.107	Conducted emissions	Compliant
§15.109	Radiated emissions	Compliant

3. REQUIREMENTS AND TEST PROCEDURES

3.1 AC Line Conducted Emissions

3.1.1 EUT Setup



- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 15 B Class B limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

3.1.2 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

3.1.3 Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the first LISN and the other support equipments were connected to the outlet of the second LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT, the report shall list the six emissions with the smallest margin relative to the limit, unless the margin is greater than 20 dB.

All data was recorded in the Quasi-peak and average detection mode.

The report shall list the six emissions with the smallest margin relative to the limit, unless the margin is greater than 20 dB.

3.1.4 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = attenuation caused by cable loss + voltage division factor of AMN

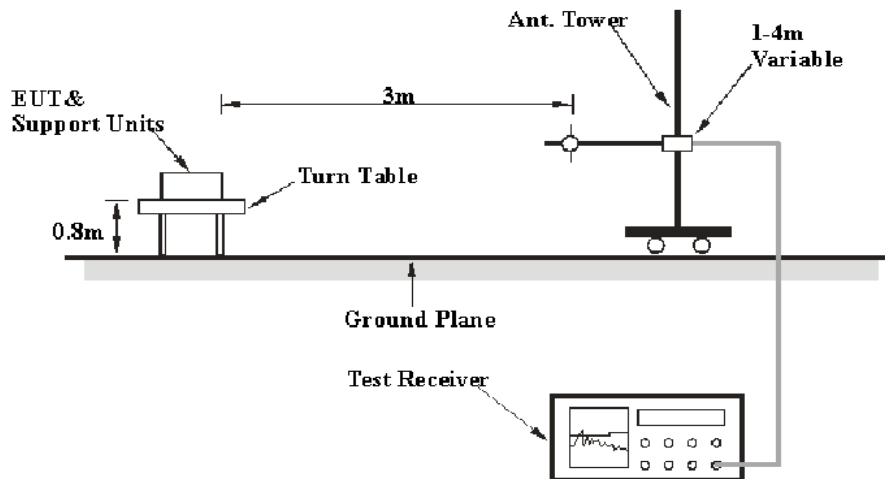
The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

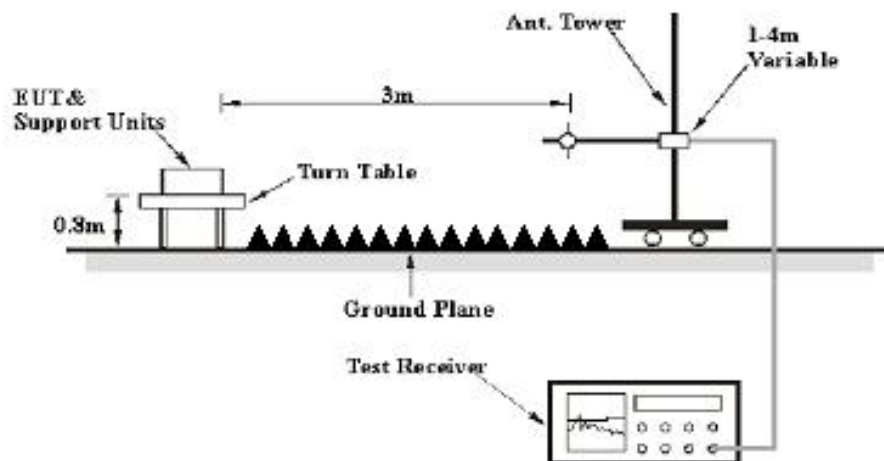
3.2 Radiation Spurious Emissions

3.2.1 EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters chamber, using the setup accordance with the ANSI C63.4-2014. The specification used was with the FCC Part 15 B Class B limits.

3.2.2 EMI Test Receiver Setup

The system was investigated from 30 MHz to 13.5 GHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	Peak
	1 MHz	Reduced video bandwidth	/	AVG

If the maximized peak measured value complies with under the limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

3.2.3 Test Procedure

During the radiated emissions, the adapter was connected to the first AC floor outlet and the other support equipments were connected to the second AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The data was recorded in the Quasi-peak detection mode for below 1 GHz, peak and average detection mode above 1 GHz.

All emissions under the average limit and under the noise floor have not recorded in the report.

3.2.4 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor

Factor = Antenna Factor + Cable Loss - Amplifier Gain

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

4. TEST DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	262V-1	Test Date:	2023/5/29
Test Site:	CE	Test Mode:	M1, M2
Tester:	David Huang	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	24.5	Relative Humidity: (%)	56	ATM Pressure: (kPa)	100.9

Test Equipment List and Details:

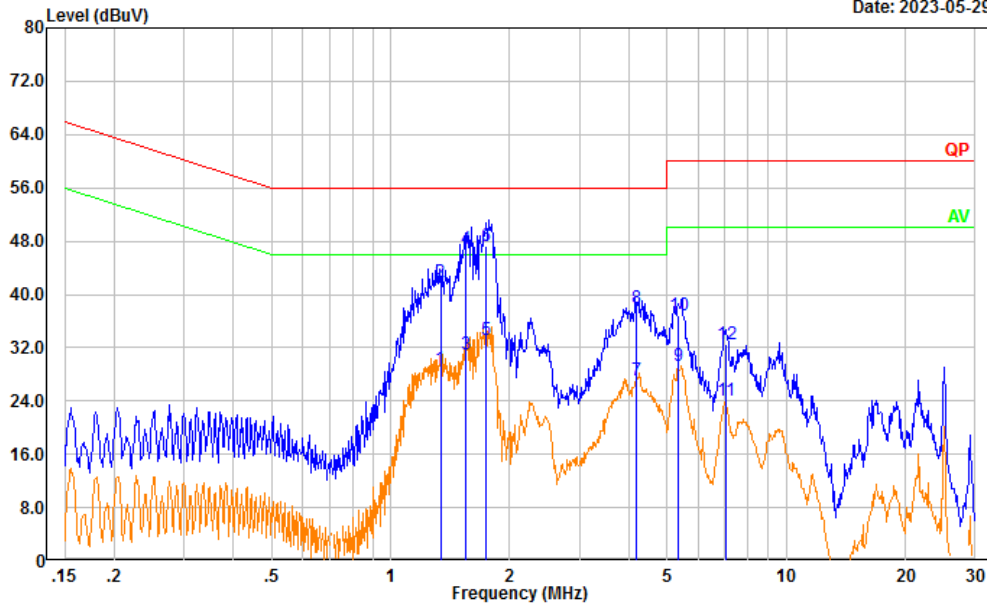
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2023/03/31	2024/03/30
R&S	EMI Test Receiver	ESR3	102726	2022/07/15	2023/07/14
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2022/08/07	2023/08/06
Audix	Test Software	E3	190306 (V9)	N/A	N/A

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

M1:

Test Mode: Lighting for dimmest
 Port: Line
 Note:

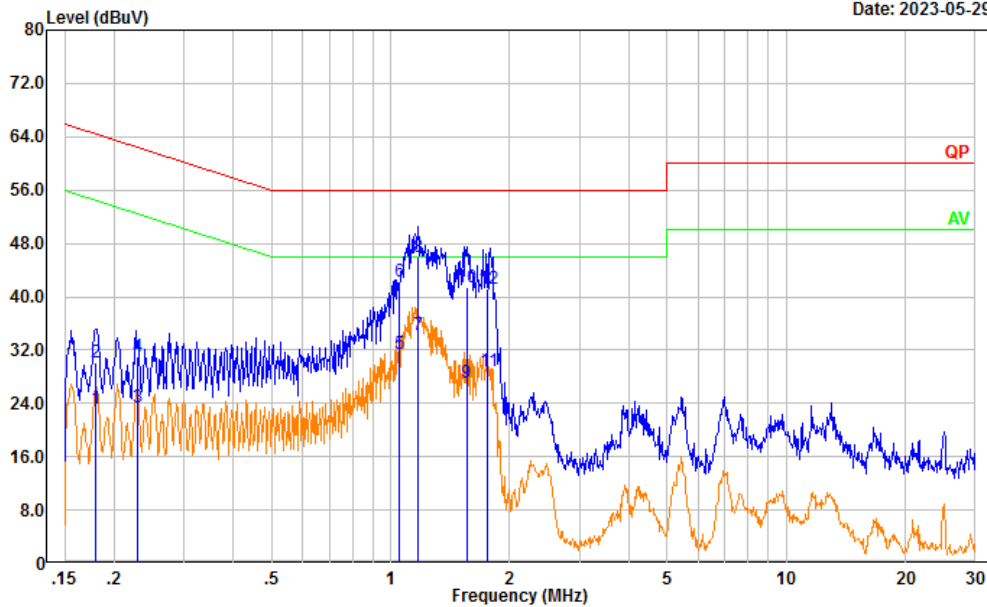
Date: 2023-05-29



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	1.336	19.14	9.62	28.76	46.00	17.24	Average
2	1.336	32.15	9.62	41.77	56.00	14.23	QP
3	1.553	21.29	9.63	30.92	46.00	15.08	Average
4	1.553	37.14	9.63	46.77	56.00	9.23	QP
5	1.746	23.49	9.63	33.12	46.00	12.88	Average
6	1.746	37.69	9.63	47.32	56.00	8.68	QP
7	4.193	17.37	9.65	27.02	46.00	18.98	Average
8	4.193	28.19	9.65	37.84	56.00	18.16	QP
9	5.347	19.68	9.66	29.34	50.00	20.66	Average
10	5.347	27.27	9.66	36.93	60.00	23.07	QP
11	7.019	14.33	9.66	23.99	50.00	26.01	Average
12	7.019	22.80	9.66	32.46	60.00	27.54	QP

Test Mode: Lighting for dimmest
 Port: neutral
 Note:

Date: 2023-05-29

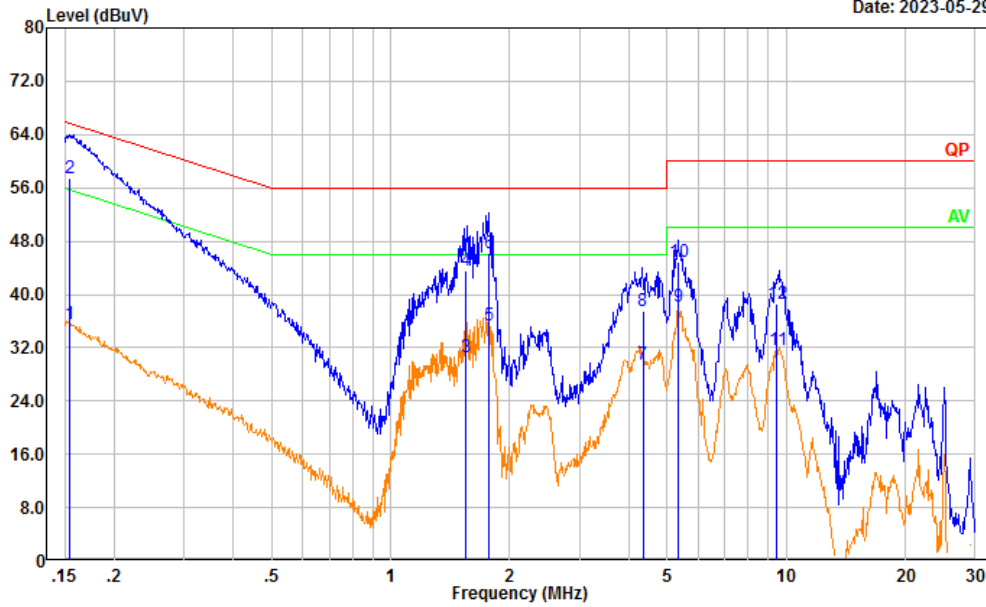


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.179	13.65	9.61	23.26	54.52	31.26	Average
2	0.179	20.51	9.61	30.12	64.52	34.40	QP
3	0.228	13.90	9.61	23.51	52.51	29.00	Average
4	0.228	21.50	9.61	31.11	62.51	31.40	QP
5	1.049	21.78	9.62	31.40	46.00	14.60	Average
6	1.049	32.67	9.62	42.29	56.00	13.71	QP
7	1.168	24.56	9.62	34.18	46.00	11.82	Average
8	1.168	36.27	9.62	45.89	56.00	10.11	QP
9	1.554	17.42	9.63	27.05	46.00	18.95	Average
10	1.554	31.80	9.63	41.43	56.00	14.57	QP
11	1.758	19.20	9.63	28.83	46.00	17.17	Average
12	1.758	31.46	9.63	41.09	56.00	14.91	QP

M2:

Test Mode: Lighting for brightest
 Port: Line
 Note:

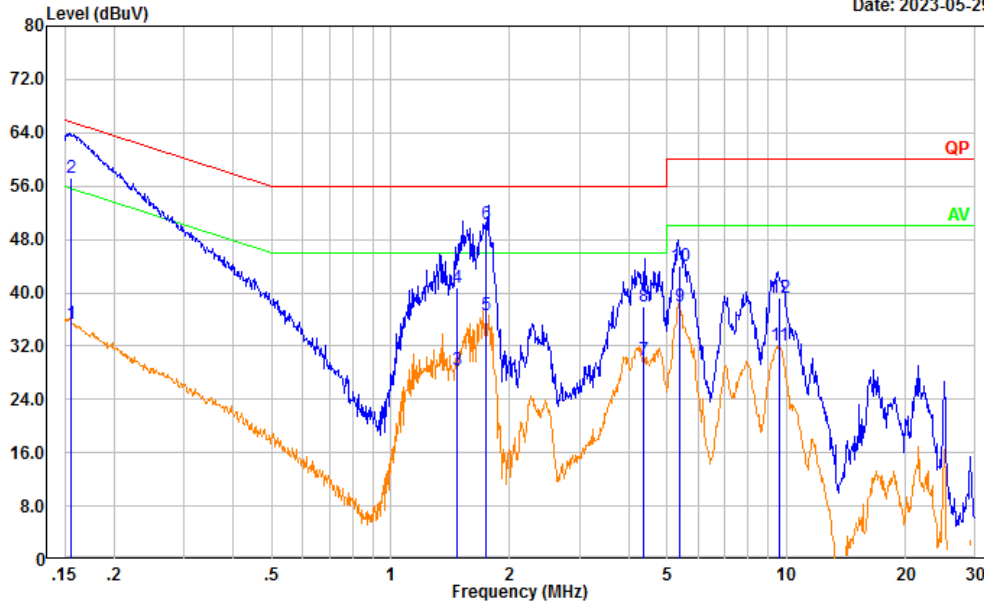
Date: 2023-05-29



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.155	25.85	9.61	35.46	55.75	20.29	Average
2	0.155	47.92	9.61	57.53	65.75	8.22	QP
3	1.546	20.89	9.63	30.52	46.00	15.48	Average
4	1.546	33.90	9.63	43.53	56.00	12.47	QP
5	1.770	25.64	9.63	35.27	46.00	10.73	Average
6	1.770	36.47	9.63	46.10	56.00	9.90	QP
7	4.338	19.75	9.65	29.40	46.00	16.60	Average
8	4.338	27.91	9.65	37.56	56.00	18.44	QP
9	5.346	28.40	9.66	38.06	50.00	11.94	Average
10	5.346	35.25	9.66	44.91	60.00	15.09	QP
11	9.465	21.90	9.67	31.57	50.00	18.43	Average
12	9.465	28.85	9.67	38.52	60.00	21.48	QP

Test Mode: Lighting for brightest
 Port: neutral
 Note:

Date: 2023-05-29



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector
1	0.156	25.63	9.61	35.24	55.66	20.42	Average
2	0.156	47.69	9.61	57.30	65.66	8.36	QP
3	1.471	18.88	9.62	28.50	46.00	17.50	Average
4	1.471	31.10	9.62	40.72	56.00	15.28	QP
5	1.746	26.96	9.63	36.59	46.00	9.41	Average
6	1.746	40.59	9.63	50.22	56.00	5.78	QP
7	4.351	20.33	9.65	29.98	46.00	16.02	Average
8	4.351	28.36	9.65	38.01	56.00	17.99	QP
9	5.358	28.24	9.66	37.90	50.00	12.10	Average
10	5.358	34.35	9.66	44.01	60.00	15.99	QP
11	9.587	22.42	9.67	32.09	50.00	17.91	Average
12	9.587	29.64	9.67	39.31	60.00	20.69	QP

4.2 Radiation Spurious Emissions

Serial Number:	262V-1	Test Date:	2023/5/27
Test Site:	966-2	Test Mode:	M1, M2
Tester:	Carl Xue	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	26.5	Relative Humidity: (%)	65	ATM Pressure: (kPa)	100.4
----------------------	------	------------------------------	----	------------------------	-------

Test Equipment List and Details:

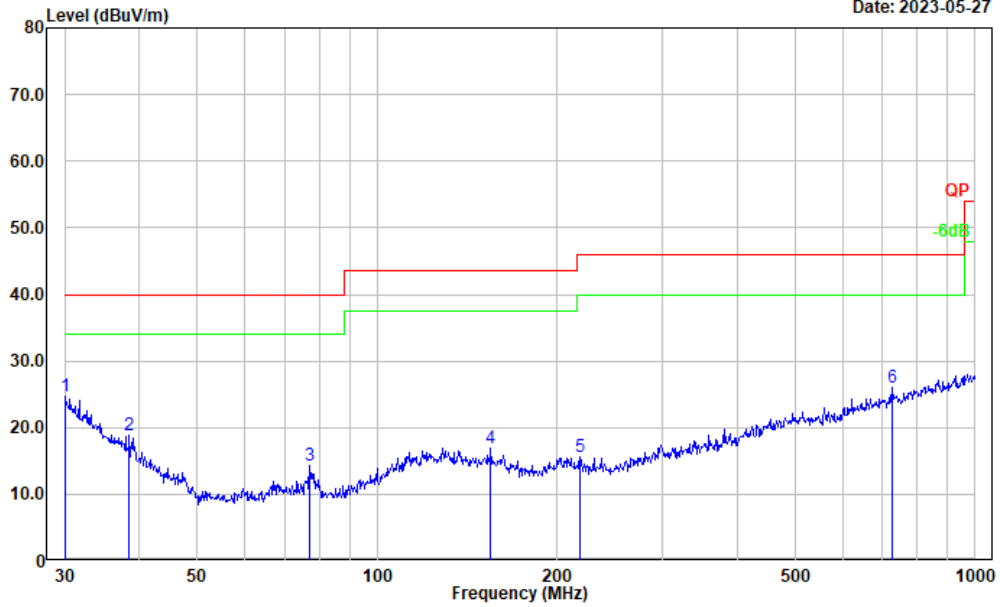
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2020/10/19	2023/10/18
R&S	EMI Test Receiver	ESR3	102724	2022/07/15	2023/07/14
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2022/07/17	2023/07/16
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2022/07/17	2023/07/16
Sonoma	Amplifier	310N	186165	2022/07/17	2023/07/16
Audix	Test Software	E3	201021 (V9)	N/A	N/A

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

M1:

Test Mode: Lighting for dimmest
 Polarization: horizontal
 Note:

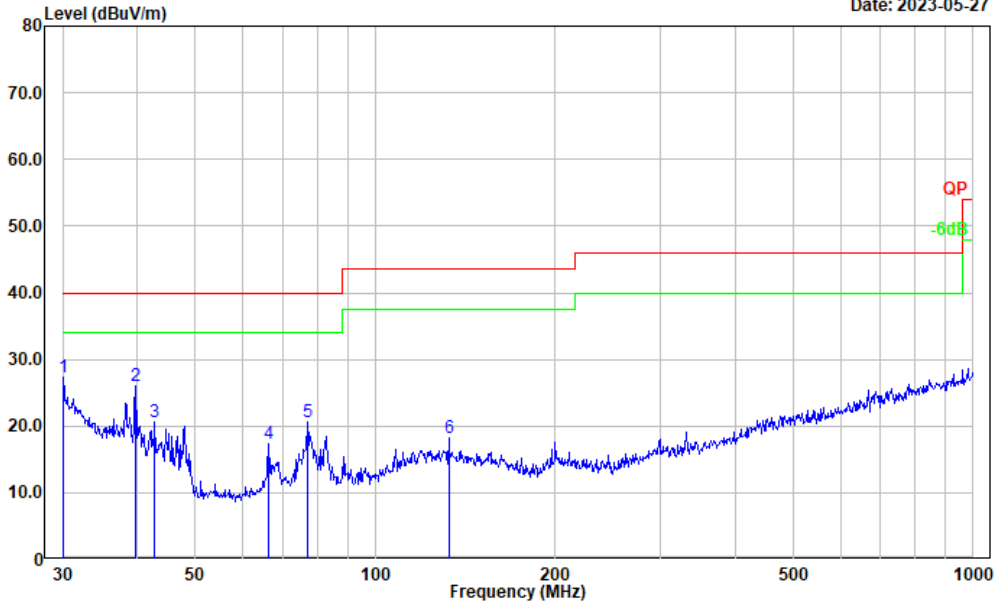
Date: 2023-05-27



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.105	28.34	-3.68	24.66	40.00	15.34	Peak
2	38.481	28.88	-10.11	18.77	40.00	21.23	Peak
3	77.051	31.48	-17.15	14.33	40.00	25.67	Peak
4	154.821	28.90	-12.05	16.85	43.50	26.65	Peak
5	218.309	28.39	-12.75	15.64	46.00	30.36	Peak
6	726.805	29.02	-3.03	25.99	46.00	20.01	Peak

Test Mode: Lighting for dimmest
 Polarization: vertical
 Note:

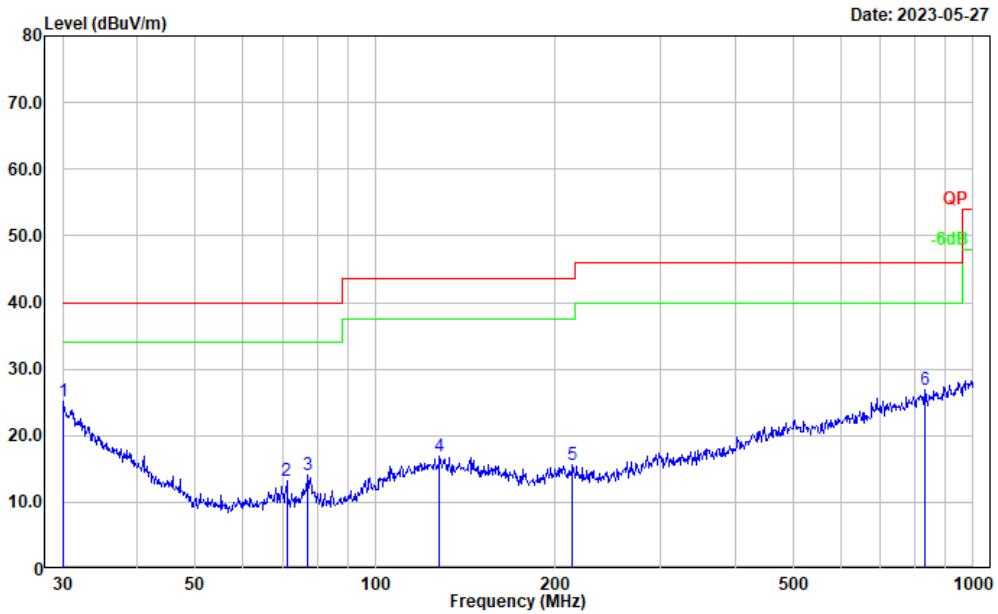
Date: 2023-05-27



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.000	30.83	-3.60	27.23	40.00	12.77	Peak
2	39.715	37.06	-11.09	25.97	40.00	14.03	Peak
3	42.750	33.55	-12.91	20.64	40.00	19.36	Peak
4	66.266	34.08	-16.84	17.24	40.00	22.76	Peak
5	77.051	37.73	-17.15	20.58	40.00	19.42	Peak
6	132.685	29.60	-11.48	18.12	43.50	25.38	Peak

M2:

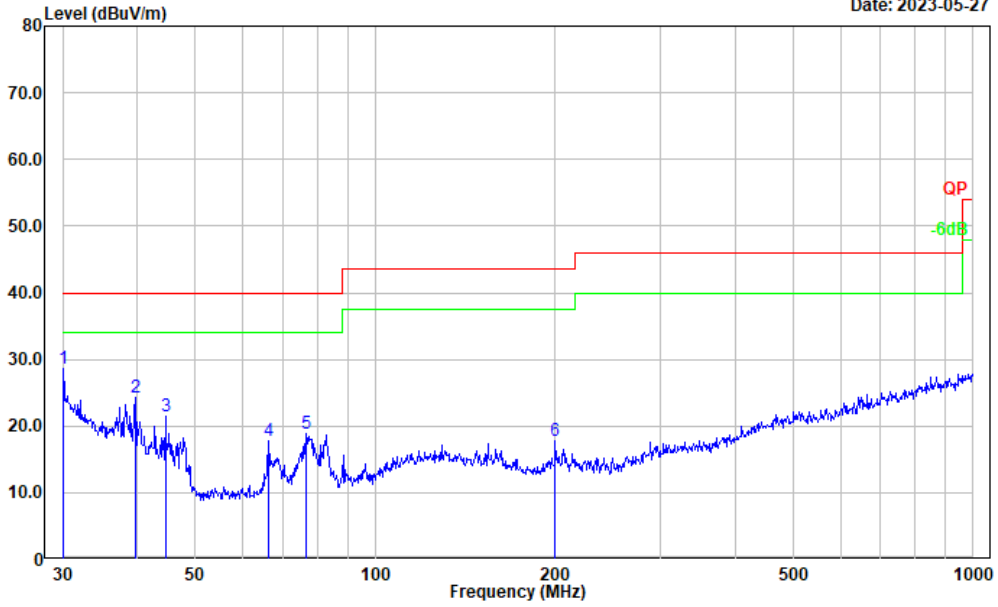
Test Mode: Lighting for brightest
 Polarization: horizontal
 Note:



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.000	28.76	-3.60	25.16	40.00	14.84	Peak
2	71.080	29.72	-16.59	13.13	40.00	26.87	Peak
3	77.051	31.19	-17.15	14.04	40.00	25.96	Peak
4	128.113	28.27	-11.26	17.01	43.50	26.49	Peak
5	213.763	28.17	-12.58	15.59	43.50	27.91	Peak
6	830.400	28.61	-1.64	26.97	46.00	19.03	Peak

Test Mode: Lighting for brightest
 Polarization: vertical
 Note:

Date: 2023-05-27



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	30.000	32.19	-3.60	28.59	40.00	11.41	Peak
2	39.715	35.30	-11.09	24.21	40.00	15.79	Peak
3	44.587	35.52	-14.00	21.52	40.00	18.48	Peak
4	66.266	34.64	-16.84	17.80	40.00	22.20	Peak
5	76.512	36.00	-17.09	18.91	40.00	21.09	Peak
6	199.986	30.05	-12.21	17.84	43.50	25.66	Peak

=====END OF REPORT=====