

TEST REPORT

Applicant: ARTIKA FOR LIVING INC

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

Product Name: LED Panel light

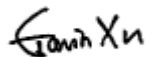
FCC ID: 2AUHG-FLP14-SRCT2

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

Report Number: DG3240126-06261E-EM-00

Report Date: 2024/3/19

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).



Reviewed By: Gavin Xu
Title: RF Engineer



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Title: EMC Manager

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	DG3240126-06261E-EM-00	Original Report	2024/3/19

1. GENERAL INFORMATION

1.1 General Description Of Equipment under Test

EUT Name:	LED Panel light
EUT Model:	FLP14-SRC-C2-T
Multiple Models:	PLU02-1450T-930/40/50-N1-3, PLU02-1450T-830/40/50-N1-3, FLP14-SRC-XXX-XXX(XXX-XXX in the model designation could be any numbers ,letters or blanks, which indicates customer code)
Highest Operation Frequency:	120MHz
Rated Input Voltage:	AC 120V/60Hz
Serial Number:	2H8N-1
EUT Received Date:	2024/01/26
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.	

1.2 Accessory Information

Accessory Description	Manufacturer	Model	Parameters
/	/	/	/

1.3 Equipment Modifications

No modifications are made to the EUT during all test items.

2. DESCRIPTION OF TEST CONFIGURATION

2.1 Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user). The following summary table is showing all test modes to demonstrate in compliance with the standard:

Test Items	Test Modes
Radiated Spurious Emission :	Lighting
AC Line Conducted Emission	Lighting

2.2 EUT Exercise Software

No exercise software was used to test.

2.3 Support Equipment List and Details

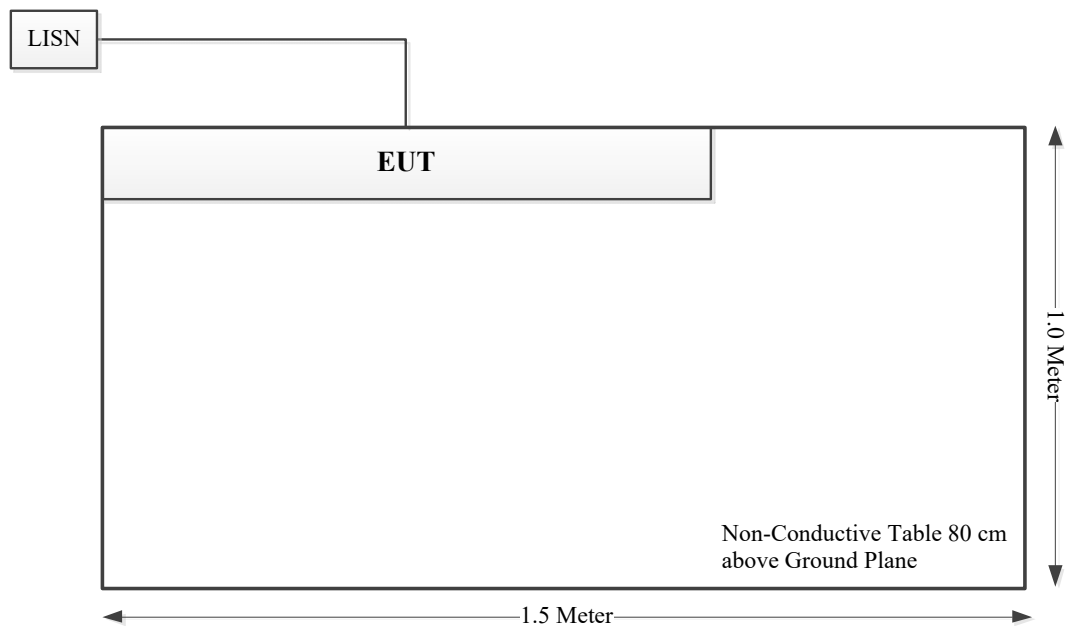
Manufacturer	Description	Model	Serial Number
/	/	/	/

2.4 Support Cable List and Details

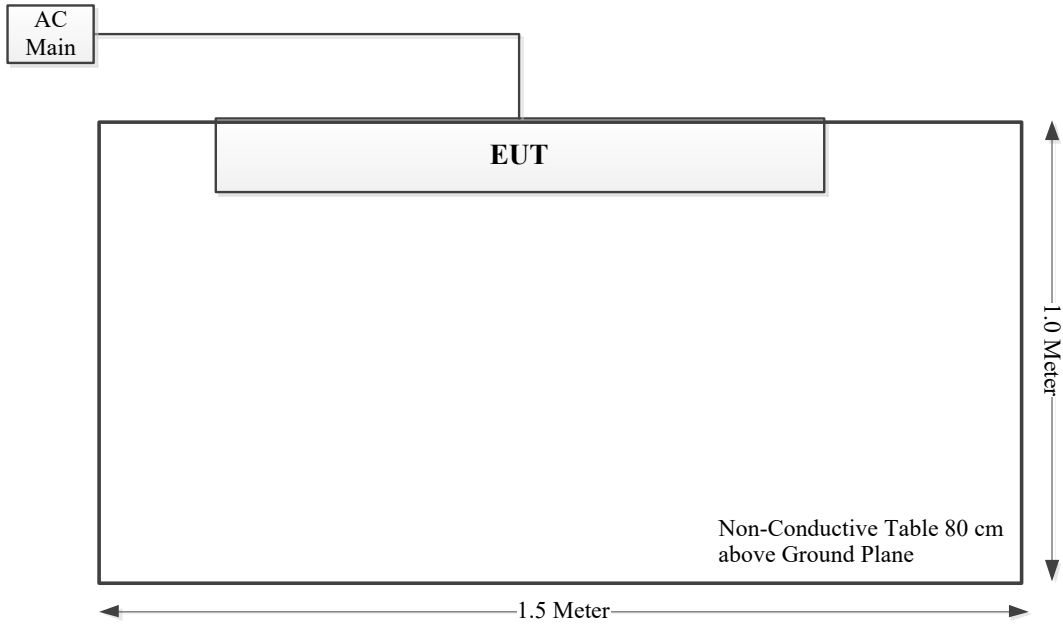
Cable Description	Shielding Cable	Ferrite Core	Length (m)	From Port	To
AC Cable	No	No	1	EUT	LISN/AC Main

2.5 Block Diagram of Test Setup

AC Line conducted test:



Radiation Emission:



2.6 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia 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. : 829273, the FCC Designation No. : CN5044.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

2.7 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	9kHz~30MHz: 3.3dB, 30MHz~200MHz: 4.55 dB, 200MHz~1GHz: 5.92 dB, 1GHz~6GHz: 4.98 dB, 6GHz~18GHz: 5.89 dB, 18GHz~26.5GHz:5.47 dB, 26.5GHz~40GHz:5.63 dB
Temperature	±1℃
Humidity	±5%
AC Power Lines Conducted Emission	3.11 dB (150 kHz to 30 MHz)

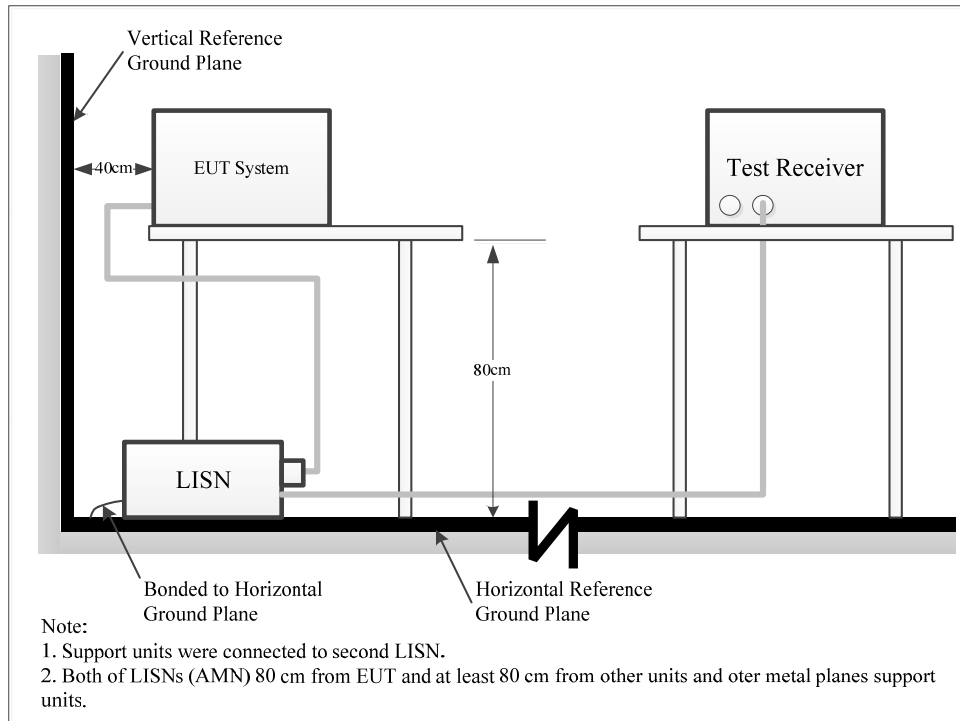
3. SUMMARY OF TEST RESULTS

Standard Clause	Description of Test	Test Result
FCC§15.107	Conducted emissions	Compliant
FCC§15.109	Radiated emissions	Compliant

4. REQUIREMENTS AND TEST PROCEDURES

4.1 AC Line Conducted Emissions

4.1.1 EUT Setup



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.

4.1.2 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

4.1.3 Test Procedure

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.

4.1.4 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result (QuasiPeak or Average) = Meter Reading + Corr.

Note:

Corr. = Cable loss + Factor of coupling device

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of 7dB means the emission is 7dB below the maximum limit. The equation for margin calculation is as follows:

Margin = Limit – Result

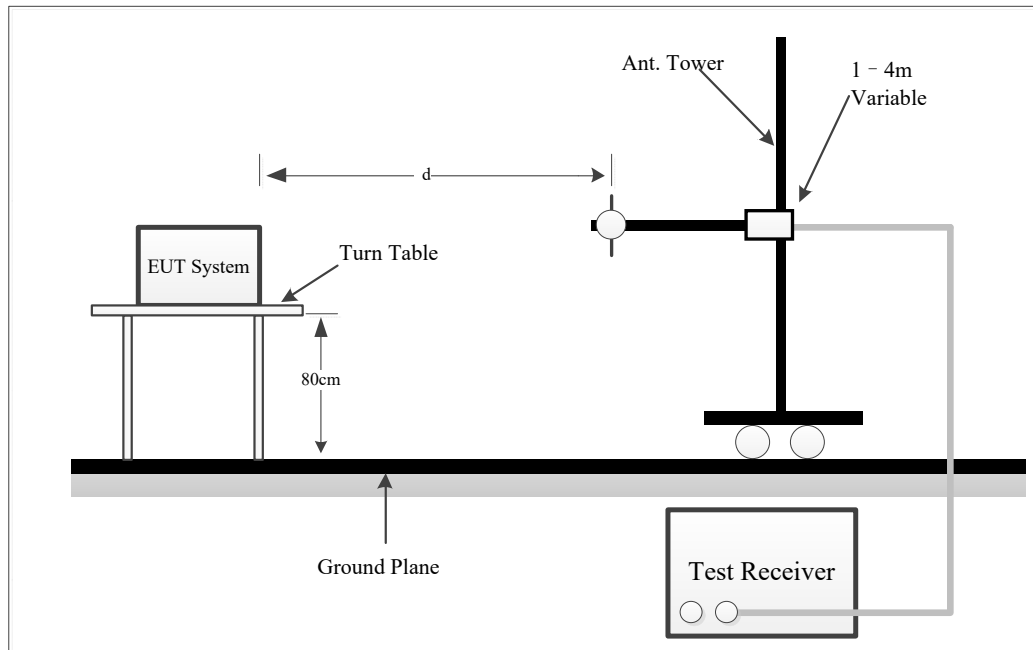
4.1.5 Test Result

Please refer to section 5.1.

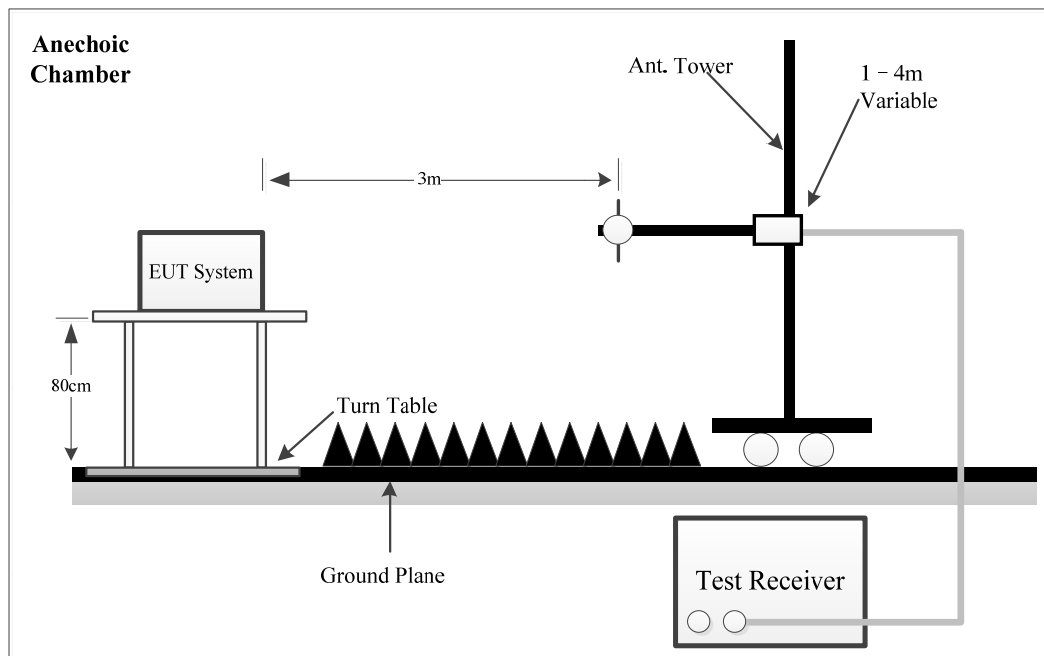
4.2 Radiation Spurious Emissions

4.2.1 EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests below 1GHz were performed at the 3 meters distance, above 1GHz were performed at the 3 meters Chamber A, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15B Class B limits.

4.2.2 EMI Test Receiver Setup

The system was investigated from 30 MHz to 2 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30MHz – 1000 MHz	100 kHz	300 kHz	/	Peak
	/	/	120kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	Peak
	1 MHz	Reduced video bandwidth	/	AVG

4.2.3 Test Procedure

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.

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

4.2.4 Corrected Result & Margin Calculation

The basic equation is as follows:

Result = Meter Reading+ Corrected

Note:

Corrected = Antenna Factor + Cable Loss - Amplifier Gain

or

Corrected = Antenna Factor + Cable Loss + Insertion loss of attenuator - Amplifier Gain

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Result}$$

5. TEST DATA AND RESULTS

5.1 AC Line Conducted Emissions

Serial Number:	2H8N-1	Test Date:	2024/3/12
Test Site:	CE	Test Mode:	Lighting
Tester:	Wright Lai	Test Result:	Pass

Environmental Conditions:

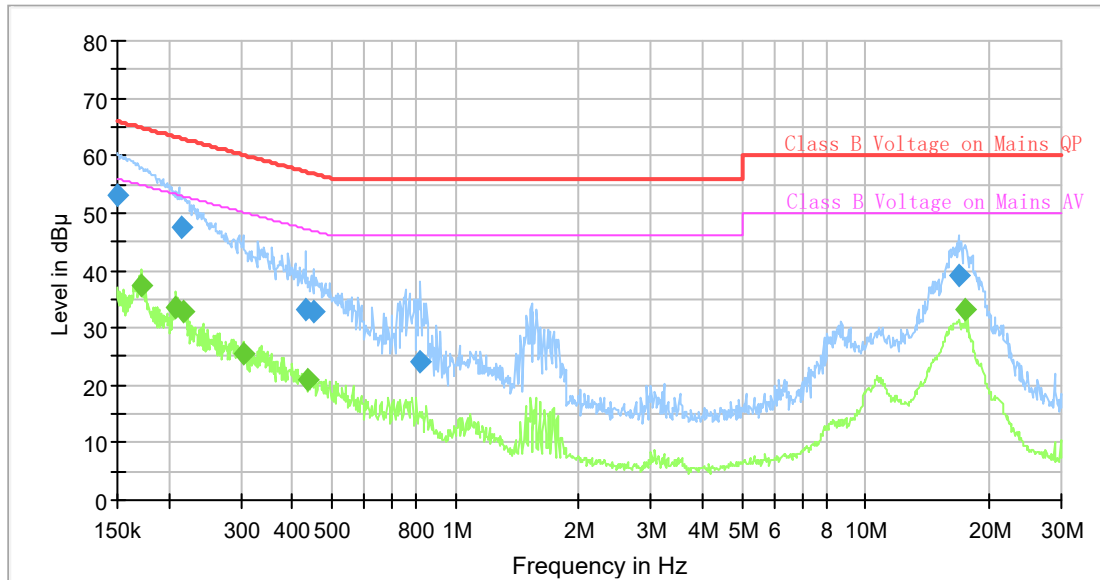
Temperature: (°C)	19.4	Relative Humidity: (%)	65	ATM Pressure: (kPa)	101.3
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101614	2023/10/18	2024/10/17
MICRO-COAX	Coaxial Cable	C-NJNJ-50	C-0200-01	2023/9/5	2024/9/4
R&S	EMI Test Receiver	ESCI	100035	2023/8/18	2024/8/17
R&S	Test Software	EMC32	V9.10.00	N/A	N/A

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

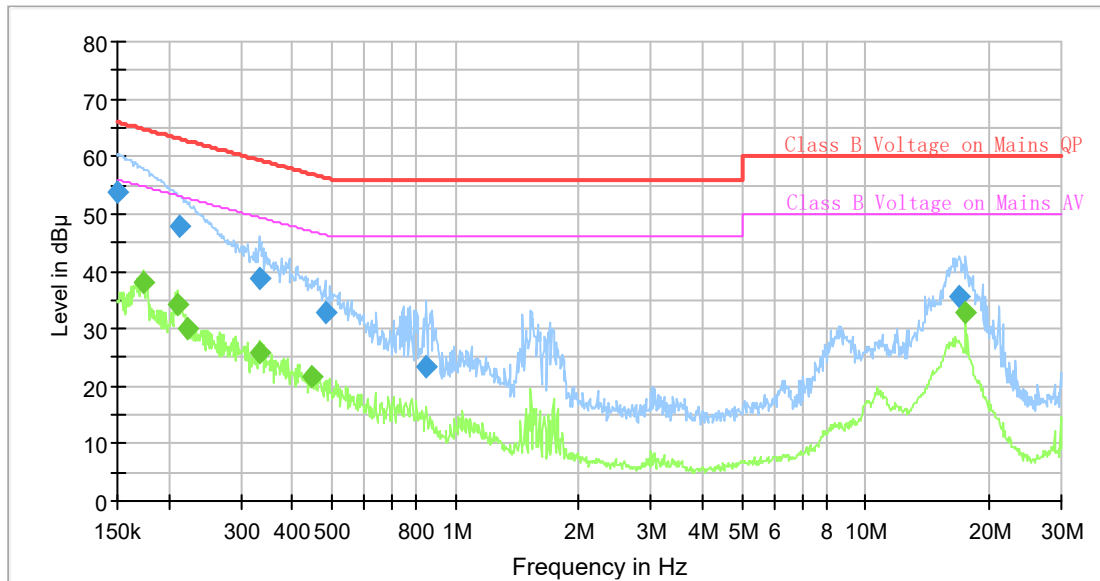
Project number: DG3240126-06261E-EM
 Test Date: 2024-3-12
 Test Engineer: Wright Lai
 Port: L
 Test Mode: Lighting
 Power Source: AC 120V/60Hz
 Note: 2H8N-1



Final Result

Frequency (MHz)	QuasiPeak (dB μ V)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.150750	53.20	---	65.96	12.76	9.000	L1	10.8
0.172481	---	37.35	54.84	17.49	9.000	L1	10.8
0.208474	---	33.62	53.27	19.65	9.000	L1	10.8
0.214807	47.66	---	63.02	15.36	9.000	L1	10.8
0.218045	---	32.97	52.89	19.92	9.000	L1	10.8
0.306082	---	25.66	50.08	24.42	9.000	L1	10.8
0.431814	33.04	---	57.22	24.18	9.000	L1	10.8
0.436143	---	21.00	47.13	26.13	9.000	L1	10.8
0.451638	32.67	---	56.84	24.17	9.000	L1	10.8
0.821710	24.13	---	56.00	31.87	9.000	L1	10.9
16.879195	38.96	---	60.00	21.04	9.000	L1	10.9
17.566298	---	33.31	50.00	16.69	9.000	L1	10.9

Project number: DG3240126-06261E-EM
Test Date: 2024-3-12
Test Engineer: Wright Lai
Port: N
Test Mode: Lighting
Power Source: AC 120V/60Hz
Note: 2H8N-1



Final Result

Frequency (MHz)	QuasiPeak (dB μV)	Average (dB μV)	Limit (dB μV)	Margin (dB)	Bandwidth (kHz)	Line	Corr. (dB)
0.150750	53.75	---	65.96	12.21	9.000	N	10.9
0.174210	---	38.14	54.76	16.62	9.000	N	10.9
0.210564	---	34.25	53.18	18.93	9.000	N	10.8
0.213738	47.83	---	63.06	15.23	9.000	N	10.8
0.222439	---	30.07	52.73	22.66	9.000	N	10.8
0.333166	38.73	---	59.37	20.64	9.000	N	10.8
0.333166	---	25.82	49.37	23.55	9.000	N	10.8
0.444931	---	21.58	46.97	25.39	9.000	N	10.8
0.481892	32.95	---	56.31	23.36	9.000	N	10.7
0.850904	23.56	---	56.00	32.44	9.000	N	10.8
16.963591	35.65	---	60.00	24.35	9.000	N	10.9
17.566298	---	32.71	50.00	17.29	9.000	N	10.9

5.2 Radiation Spurious Emissions

Serial Number:	2H8N-1	Test Date:	2024/1/31~2024/3/10
Test Site:	Chamber 10m, Chamber A	Test Mode:	Lighting
Tester:	Joe Li, Leo Xiao	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	19.8~20.1	Relative Humidity: (%)	52~57	ATM Pressure: (kPa)	101.3~101.5

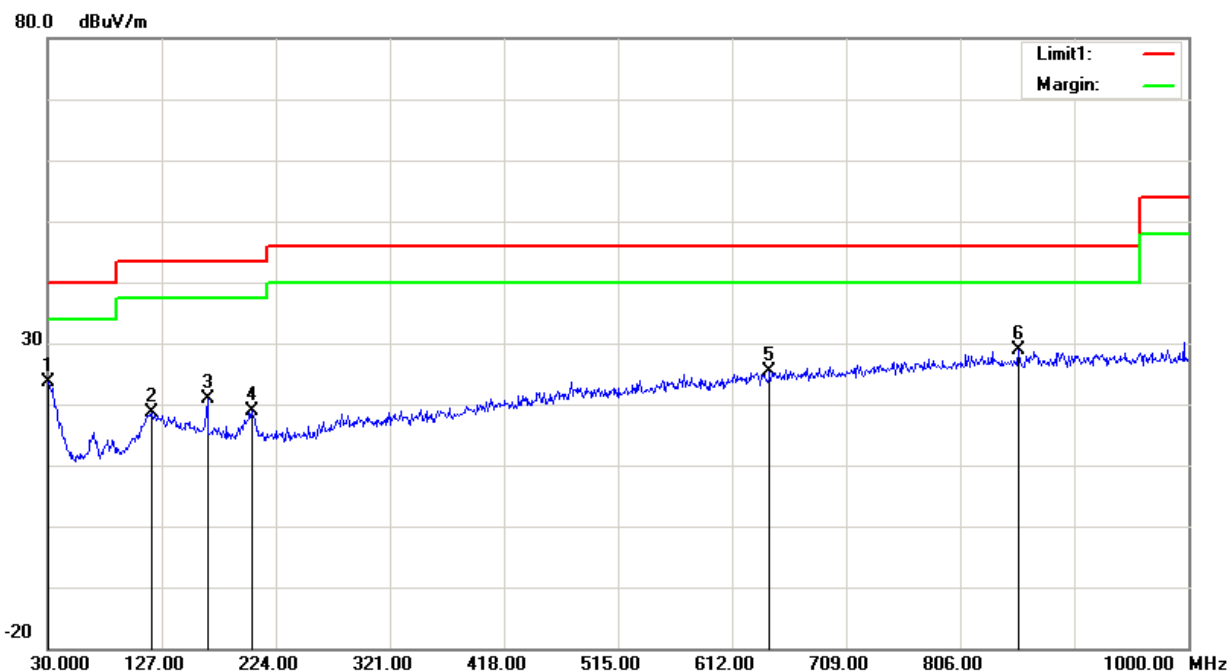
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Hybrid Antenna	JB3	A060611-1	2023/9/6	2024/9/5
Narda	Attenuator	779-6dB	04269	2023/9/6	2024/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2023/8/1	2024/7/31
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2023/8/1	2024/7/31
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2023/8/1	2024/7/31
Sonoma	Amplifier	310N	185914	2023/8/1	2024/7/31
R&S	EMI Test Receiver	ESCI	100224	2023/8/18	2024/8/17
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
AH	Horn Antenna	SAS-571	1394	2023/2/22	2026/2/22
HUBER+SUHNER	Coaxial Cable	SUCOFLEX 126EA	MY369/26/26EA	2023/9/6	2024/9/5
AH	Preamplifier	PAM-0118P	530	2023/9/1	2024/8/31
R&S	Spectrum Analyzer	FSP 38	100478	2023/10/18	2024/10/17
Audix	Test Software	E3	191218 (V9)	N/A	N/A

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

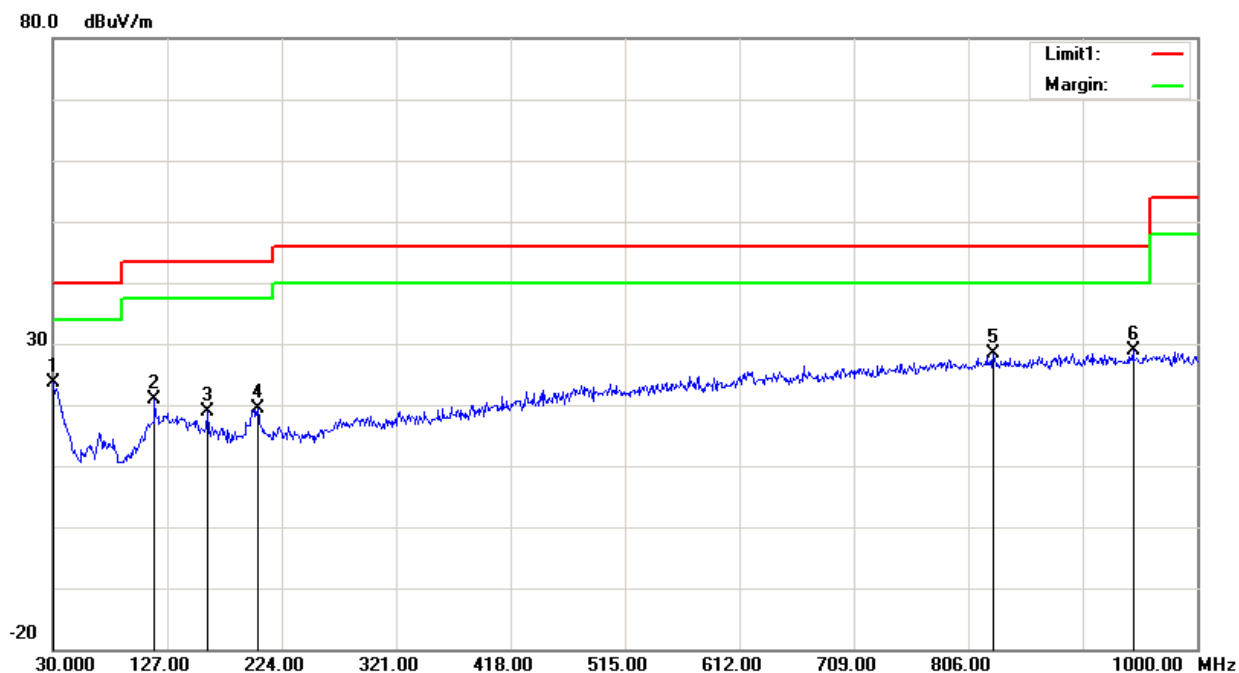
1) 30MHz-1GHz:

Project No: DG3240126-06261E-EM
Test Engineer: Joe Li
Test Date: 2024-3-10
Polarization: Horizontal
Test Mode: Lighting
Power Source: AC 120V/60Hz
Note: 2H8N-1



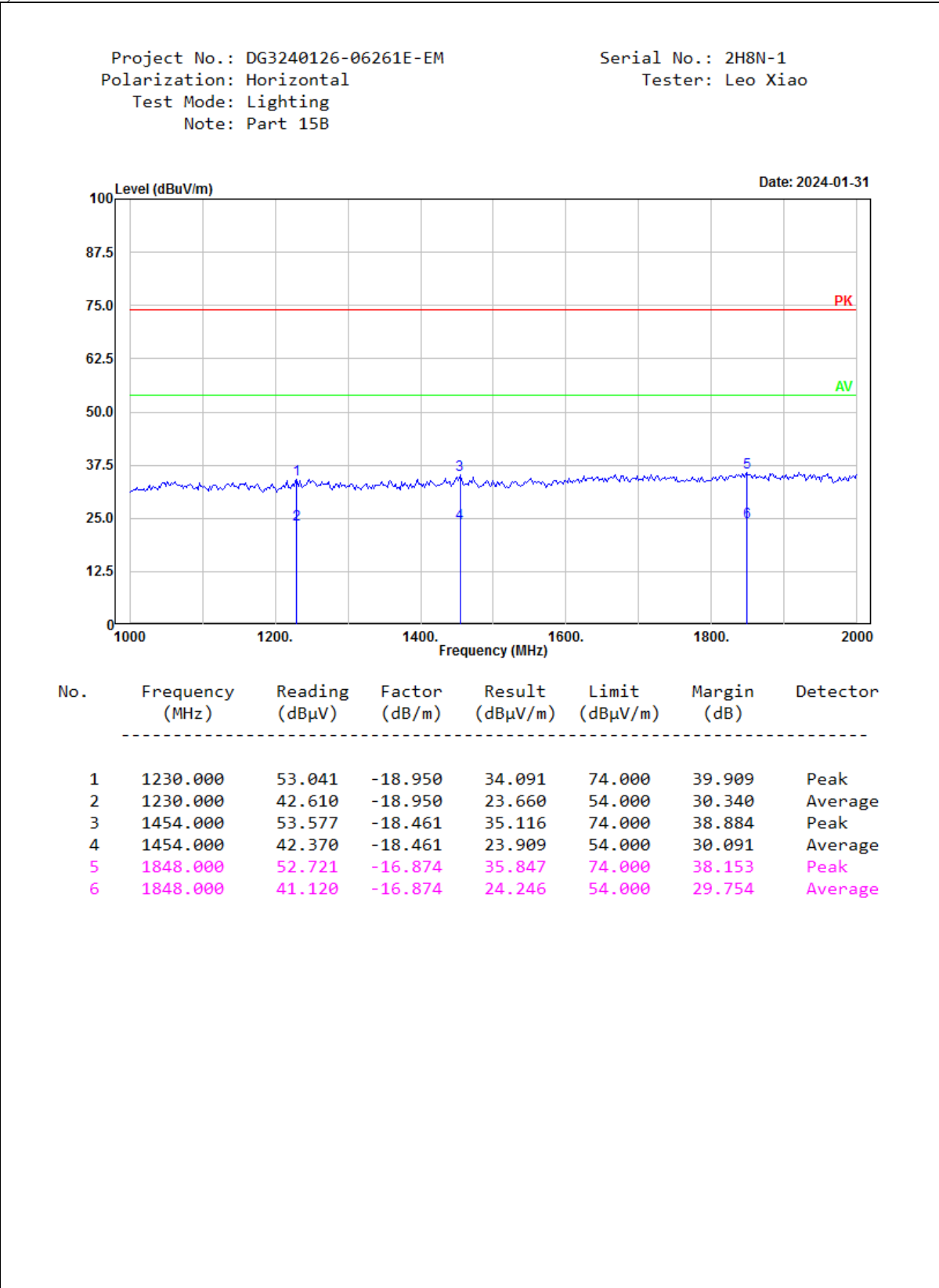
No.	Frequency (MHz)	Reading (dB μ V)	Detector	Corrected dB/m	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
1	30.0000	27.49	peak	-3.80	23.69	40.00	16.31
2	118.2700	28.72	peak	-10.03	18.69	43.50	24.81
3	165.8000	32.33	peak	-11.45	20.88	43.50	22.62
4	203.6300	30.73	peak	-11.87	18.86	43.50	24.64
5	644.0100	27.35	peak	-2.04	25.31	46.00	20.69
6	855.4700	27.90	peak	1.02	28.92	46.00	17.08

Project No: DG3240126-06261E-EM
Test Engineer: Joe Li
Test Date: 2024-3-10
Polarization: Vertical
Test Mode: Lighting
Power Source: AC 120V/60Hz
Note: 2H8N-1



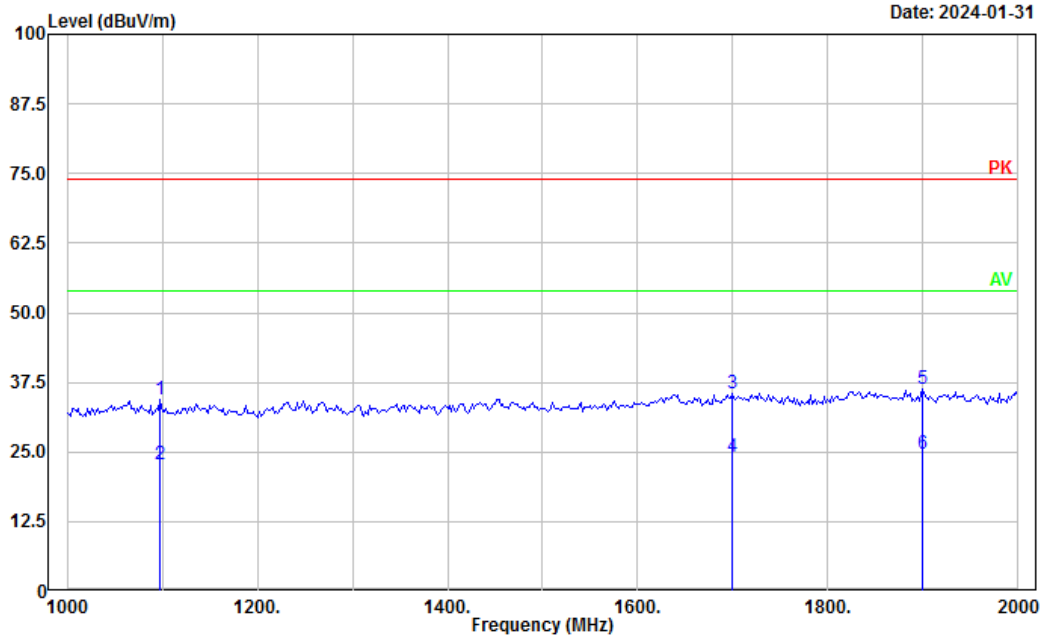
No.	Frequency (MHz)	Reading (dBμV)	Detector	Corrected dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	30.0000	27.49	peak	-3.80	23.69	40.00	16.31
2	116.3300	31.09	peak	-10.30	20.79	43.50	22.71
3	160.9500	30.10	peak	-11.15	18.95	43.50	24.55
4	203.6300	31.31	peak	-11.87	19.44	43.50	24.06
5	827.3400	27.53	peak	0.83	28.36	46.00	17.64
6	945.6800	26.71	peak	2.10	28.81	46.00	17.19

2) 1GHz-2GHz:



Project No.: DG3240126-06261E-EM
Polarization: Vertical
Test Mode: Lighting
Note: Part 15B

Serial No.: 2H8N-1
Tester: Leo Xiao



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	1098.000	53.765	-19.262	34.503	74.000	39.497	Peak
2	1098.000	42.160	-19.262	22.898	54.000	31.102	Average
3	1700.000	52.951	-17.570	35.381	74.000	38.619	Peak
4	1700.000	41.810	-17.570	24.240	54.000	29.760	Average
5	1900.000	52.791	-16.520	36.271	74.000	37.729	Peak
6	1900.000	41.220	-16.520	24.700	54.000	29.300	Average

APPENDIX A - EUT PHOTOGRAPHS

Please refer to the attachment DG3240126-06261E-EM-EXP EUT external photographs and DG3240126-06261E-EM-INP EUT internal photographs.

APPENDIX B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment DG3240126-06261E-EM-TSP test setup photographs.

*****END OF REPORT*****