

November 18, 2022

Lutron Electronics Co., Inc.
Steve O'Donnell
7200 Suter Road
Coopersburg, PA 18036

Dear Steve O'Donnell,

Enclosed is the Electromagnetic Compatibility for the Lutron Electronics Co., Inc., RMJS-8T-DV-B, tested to the requirements of:

- FCC Part 15 Subpart B
- Innovation, Science, and Economic Development (ISED) Canada ICES-003 Issue 7

Thank you for using the services of Eurofins Electrical and Electronic Testing NA, Inc. Please contact me if you have any questions regarding these results or if Eurofins E&E can be of further service to you.

Sincerely,

Michelle Tsungging

Documentation Department
Eurofins Electrical and Electronic Testing NA, Inc.

Reference: EMC121099- FCC_IC Rev. 1



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Report Status Sheet

Revision	Report Date	Reason for Revision
Ø	November 2, 2022	Initial Issue.
1	November 18, 2022	Updated EUT name throughout.

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1.0 Testing Summary

The Lutron Electronics Co., Inc., RMJS-8T-DV-B was found to be compliant to the following specification(s).

- FCC Part 15 Subpart B
- Innovation, Science, and Economic Development (ISED) Canada ICES-003 Issue 7



Donald Salguero
EMC Laboratory Engineer

Engineering Statement: The measurements shown in this report were made in accordance with the procedures indicated. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements.



Michael Griffiths
Manager, Electromagnetic Compatibility Lab

2.0 Overview

Eurofins Electrical and Electronic Testing NA, Inc. was contracted by Lutron Electronics Co., Inc. to perform testing on the RMJS-8T-DV-B, under purchase order number 5275179.

This document describes the test setups, test methods, required test equipment, and the test limit criteria used to perform compliance testing of Lutron Electronics Co., Inc., RMJS-8T-DV-B.

The results obtained relate only to the item(s) tested.

Model(s) Tested:	RMJS-8T-DV-B
Equipment Emissions Class:	B

Test Standard	Test Description	Compliance
FCC Part 15 Subpart B (per ANSI C63.4: 2014)	CE (Mains), Class B	Compliant
Innovation, Science, and Economic Development (ISED) Canada ICES-003 Issue 7	RE, Class B	Compliant

2.1 Test Site

All testing was performed at Eurofins Electrical and Electronic Testing NA, Inc., 914 West Patapsco Avenue, Baltimore, MD 21230. All equipment used in making physical determinations is accurate and bears recent traceability to the National Institute of Standards and Technology. Eurofins Electrical and Electronic Testing NA, Inc. has been accredited by the American Association for Laboratory Accreditation (A2LA) (Certificate #: 0591.01) in accordance with ISO/IEC 17025:2017.

2.2 Measurement Uncertainty

Measurement uncertainty calculated as per NIST Technical Note (TN) 1297 and ANSI / NCSL Z540-2, as equivalent to EN 55016-4-2 / IEC CISPR 16-4-2.

Test Method	Typical Expanded Uncertainty (dB)	K	Confidence Level
Radiated Emissions, (30 MHz – 1 GHz)	±3.20	2	95%
Radiated Emissions, (1 GHz – 6 GHz)	±2.52	2	95%
Conducted Emission Voltage	±2.03	2	95%
Conducted Emission Telecom	±1.58	2	95%

Table 1. Measurement Uncertainty

2.3 Equipment Overview and Test Configuration

Name of EUT/Model:	RMJS-8T-DV-B
Description of EUT and Intended Use:	Junction box mounted lighting control
Selected Operation Mode(s):	The device is loaded with test firmware. The test firmware contains modes to provide agency test modes and simulate normal operation.
Rational for the selection of the Operation Mode(s):	Typical use mode is determined by the ultimate test results with the agency code portion to ensure all emissions will be within FCC limits.
Susceptibility Criteria:	N/A
Monitoring Method(s):	N/A device does not have a communication monitoring method
Emissions Class Declaration:	Class B
Configurations:	Powered with 120VAC, no load applied, tested in both agency and normal use modes of operation.
Rated Power Input	
Input Voltage Range:	120-277V
AC or DC:	AC
Voltage Frequency:	60
Number of Phases:	1
Current:	8
Uses an external AC/DC Adapter:	False
The EUT can be battery powered:	False
Power Input Under Test	
Input Voltage:	120V
Frequency:	60Hz
Physical Description	
EUT Arrangement:	Table Top
System with Multiple Chassis?	False
Size (HxWxD):	8 x 9 x 4 cm
Weight (lbs.):	<1
Highest Internal Frequency (MHz):	436.6
Other Info	
EUT Software (Internal to EUT):	N/A
Support Software (used by support PC to exercise EUT):	N/A
Firmware:	FCC Test Image

Table 2. Equipment Details

Name/Description	Model Number	Part Number	Serial Number	Rev. #
EUT	Atten 7	N/A	N/A	N/A

Table 3. EUT List

Port Name on EUT	Cable Desc. or reason for none	3 Meters or Longer	Length as tested (m)	Max Length (m)	Shielded?	Termination Box ID & Port Name
Junction Power	Hot/Line	No			No	
Junction Power	Neutral	No			No	
Junction Power	Switch Hot	No			No	

Table 4. Ports and Cabling Information

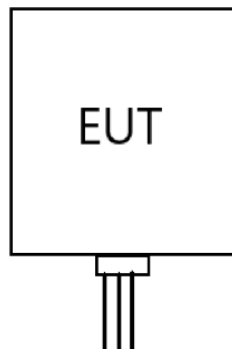


Figure 1. Block Diagram of Test Configuration

2.4 Modifications to the EUT

No modifications were made to the EUT.

2.5 Modifications to the Standard

No modifications were made to the Test Standard.

2.6 Disposition of EUT

The test sample including all support equipment (if any), submitted to the Electromagnetic Compatibility Lab for testing was returned to Lutron Electronics Co., Inc. upon completion of testing.

3.0 Electromagnetic Compatibility Emission Criteria

3.1 Limits for Conducted Disturbance at Mains Terminals

Test Method: ANSI 63.4: 2014

Sample Calculation:

$$R_T - S = M$$

where:

R_T = Receiver Reading in dBuV

S = Specification Limit in dBuV

M = Margin to Specification in +/- dB

Sample formula for calculating the Corrected Data for the Conducted Emissions Measurements:

Line	Freq (MHz)	Uncorrected QP** Amplitude (dBμV)	LISN IL (dB)	CBL (dB)	Corrected QP** Amplitude (dBμV)	QP** Limit (dBμV)	Delta (dB)	Results
XYZ	0.18	42.65	10	0.58	53.23	79	-25.77	Pass

*Corrected QP** Amplitude (dBμV) = Uncorrected Amplitude (dBμV) + LISN IL (dB) + CBL (dB) = 42.65 + 10 + 0.58 = 53.23*

*** Same Calculation applies to Corrected Avg. amplitude as well.*

Test Requirement(s): The following standards specified below are covered in the scope of this section of the test report:

- FCC Part 15 Subpart B
- Innovation, Science, and Economic Development (ISED) Canada ICES-003 Issue 7

The EUT shall meet the Class B limits shown in the table below.

Frequency Range (MHz)	Class A Limits (dBμV)		Class B Limits (dBμV)	
	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 – The lower limit shall apply at the transition frequencies.
 Note 2 – The limit decreases linearly with the logarithm if the frequency in the range 0.15 MHz to 0.5 MHz.

Table 5, Conducted Emissions - Limits

Test Procedure: The EUT was placed on a non-metallic table, 80 cm above the ground plane and 40 cm away from the vertical reference ground plane. The method of testing, test conditions, and test procedures of ANSI 63.4: 2014 were used. The EUT was powered through a 50Ω/50μH LISN. An EMI receiver, connected to the measurement port of the LISN, scanned the frequency range from 150 kHz to 30 MHz in order to find the peak conducted emissions. All peak emissions within 6 dB of the limit were re-measured using a quasi-peak and/or average detector as appropriate. Any measured frequency that exhibits a margin of compliance that is less than 3 dB below the specification limit is marked. Eurofins E&E recommends that every emission measured, has at least a 3 dB margin to allow for deviations in the emission characteristics that may occur during the production process. Photographs of test setup are presented below.

Test Software Used: Trace Data Grabber version 11/24/08 was used to perform this test.

Test Results:

Test Standard:	FCC Part 15 Subpart B Innovation, Science, and Economic Development (ISED) Canada ICES-003 Issue 7
	Class B
Test Name	Conducted Emissions
Test Dates:	November 1, 2022
Laboratory	Eurofins Electrical and Electronic Testing NA, Inc.
Test Engineer:	Donald Salguero
Test Results:	Compliant

Test Data

Conducted Emissions Datasheet						
METrak Number	121099		Test Specification	FCC Part 15, Subpart B, Section 15.107		
Customer	Lutron Electronics		Equipment Class	Class B		
EUT Name	E42071		Engineer	Donald Salguero		
Model/Part Number	Atten 7		Test Date(s)	11/1/2022		
Serial Number	NA		Temperature	22°C		
Mode of Operation	EMC Test Mode		Relative Humidity	57%		
Notes:120V 60Hz						
Start Frequency		150 kHz		Stop Frequency		30 MHz
Line Under Test		Line				
Frequency	Quasi-Peak Measurement	Correction Factor	Corrected Measurement	Quasi-Peak Limit	Margin	Result
MHz	dBµV	dB	dBµV	dBµV	dB	Pass/Fail
0.157	36.28	10.48	46.75	65.81	-19.05	PASS
0.237	23.87	10.23	34.1	63.51	-29.41	PASS
0.551	22.13	10.06	32.19	56	-23.81	PASS
0.683	23.18	10.04	33.22	56	-22.78	PASS
0.958	19.17	10.03	29.2	56	-26.8	PASS
2.33	17.95	10.05	27.99	56	-28.01	PASS
Frequency	Average Measurement	Correction Factor	Corrected Measurement	Average Limit	Margin	Result
MHz	dBµV	dB	dBµV	dBµV	dB	Pass/Fail
0.157	6.71	10.48	17.19	55.81	-38.62	PASS
0.237	5.12	10.23	15.35	53.51	-38.15	PASS
0.551	4.81	10.06	14.87	46	-31.13	PASS
0.683	5.46	10.04	15.51	46	-30.49	PASS
0.958	3.51	10.03	13.54	46	-32.46	PASS
2.33	2.94	10.05	12.99	46	-33.01	PASS

Table 6. CEV FCC Line - Test Results

Conducted Emissions Datasheet						
METrak Number	121099		Test Specification	FCC Part 15, Subpart B, Section 15.107		
Customer	Lutron Electronics		Equipment Class	Class B		
EUT Name	E42071		Engineer	Donald Salguero		
Model/Part Number	Atten 7		Test Date(s)	11/1/2022		
Serial Number	NA		Temperature	22°C		
Mode of Operation	EMC Test Mode		Relative Humidity	57%		
Notes: 120V 60Hz						
Start Frequency		150 kHz		Stop Frequency		30 MHz
Line Under Test		Neutral				
Frequency	Quasi-Peak Measurement	Correction Factor	Corrected Measurement	Quasi-Peak Limit	Margin	Result
MHz	dBµV	dB	dBµV	dBµV	dB	Pass/Fail
0.153	35.71	10.53	46.23	65.93	-19.69	PASS
0.281	25.44	10.18	35.63	62.27	-26.64	PASS
0.401	20.43	10.09	30.53	58.83	-28.3	PASS
0.677	18.74	10.05	28.79	56	-27.21	PASS
0.817	18.75	10.05	28.79	56	-27.21	PASS
1.2	12.52	10.04	22.56	56	-33.44	PASS
Frequency	Average Measurement	Correction Factor	Corrected Measurement	Average Limit	Margin	Result
MHz	dBµV	dB	dBµV	dBµV	dB	Pass/Fail
0.153	6.01	10.53	16.54	55.93	-39.39	PASS
0.281	4.98	10.18	15.16	52.27	-37.11	PASS
0.401	5.15	10.09	15.24	48.83	-33.59	PASS
0.677	6.53	10.05	16.58	46	-29.42	PASS
0.817	3.63	10.05	13.68	46	-32.32	PASS
1.2	3.14	10.04	13.18	46	-32.82	PASS

Table 7. CEV FCC Neutral - Test Results

Conducted Emissions Datasheet						
METrak Number	121099		Test Specification	ICES-003, Section 3.2.1		
Customer	Lutron Electronics		Equipment Class	Class B		
EUT Name	E42071		Engineer	Donald Salguero		
Model/Part Number	Atten 7		Test Date(s)	11/1/2022		
Serial Number	NA		Temperature	22°C		
Mode of Operation	EMC Test Mode		Relative Humidity	57%		
Notes: 120V 60Hz						
Start Frequency		150 kHz		Stop Frequency		30 MHz
Line Under Test		Line				
Frequency	Quasi-Peak Measurement	Correction Factor	Corrected Measurement	Quasi-Peak Limit	Margin	Result
MHz	dBµV	dB	dBµV	dBµV	dB	Pass/Fail
0.157	36.28	10.48	46.75	65.81	-19.05	PASS
0.237	23.87	10.23	34.1	63.51	-29.41	PASS
0.551	22.13	10.06	32.19	56	-23.81	PASS
0.683	23.18	10.04	33.22	56	-22.78	PASS
0.958	19.17	10.03	29.2	56	-26.8	PASS
2.33	17.95	10.05	27.99	56	-28.01	PASS
Frequency	Average Measurement	Correction Factor	Corrected Measurement	Average Limit	Margin	Result
MHz	dBµV	dB	dBµV	dBµV	dB	Pass/Fail
0.157	6.71	10.48	17.19	55.81	-38.62	PASS
0.237	5.12	10.23	15.35	53.51	-38.15	PASS
0.551	4.81	10.06	14.87	46	-31.13	PASS
0.683	5.46	10.04	15.51	46	-30.49	PASS
0.958	3.51	10.03	13.54	46	-32.46	PASS
2.33	2.94	10.05	12.99	46	-33.01	PASS

Table 8. CEV IC Line - Test Results

Conducted Emissions Datasheet						
METrak Number	121099		Test Specification	ICES-003, Section 3.2.1		
Customer	Lutron Electronics		Equipment Class	Class B		
EUT Name	E42071		Engineer	Donald Salguero		
Model/Part Number	Atten 7		Test Date(s)	11/1/2022		
Serial Number	NA		Temperature	22°C		
Mode of Operation	EMC Test Mode		Relative Humidity	57%		
Notes: 120V 60Hz						
Start Frequency		150 kHz		Stop Frequency		30 MHz
Line Under Test		Neutral				
Frequency	Quasi-Peak Measurement	Correction Factor	Corrected Measurement	Quasi-Peak Limit	Margin	Result
MHz	dBµV	dB	dBµV	dBµV	dB	Pass/Fail
0.153	35.71	10.53	46.23	65.93	-19.69	PASS
0.281	25.44	10.18	35.63	62.27	-26.64	PASS
0.401	20.43	10.09	30.53	58.83	-28.3	PASS
0.677	18.74	10.05	28.79	56	-27.21	PASS
0.817	18.75	10.05	28.79	56	-27.21	PASS
1.2	12.52	10.04	22.56	56	-33.44	PASS
Frequency	Average Measurement	Correction Factor	Corrected Measurement	Average Limit	Margin	Result
MHz	dBµV	dB	dBµV	dBµV	dB	Pass/Fail
0.153	6.01	10.53	16.54	55.93	-39.39	PASS
0.281	4.98	10.18	15.16	52.27	-37.11	PASS
0.401	5.15	10.09	15.24	48.83	-33.59	PASS
0.677	6.53	10.05	16.58	46	-29.42	PASS
0.817	3.63	10.05	13.68	46	-32.32	PASS
1.2	3.14	10.04	13.18	46	-32.82	PASS

Table 9. CEV IC Neutral - Test Results

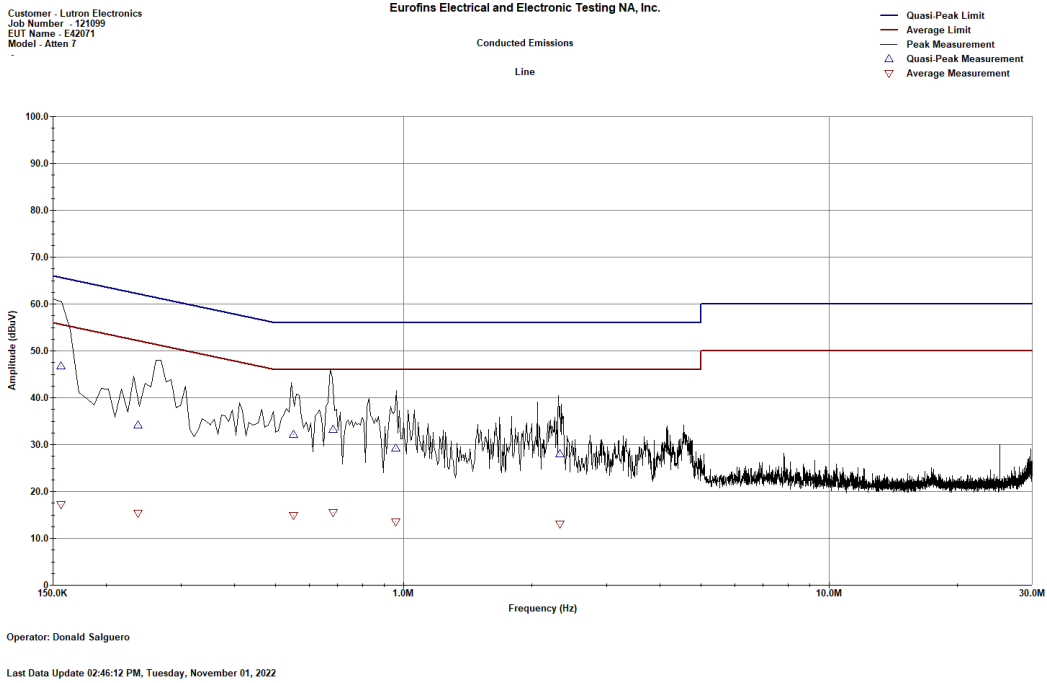


Figure 2. CEV Line

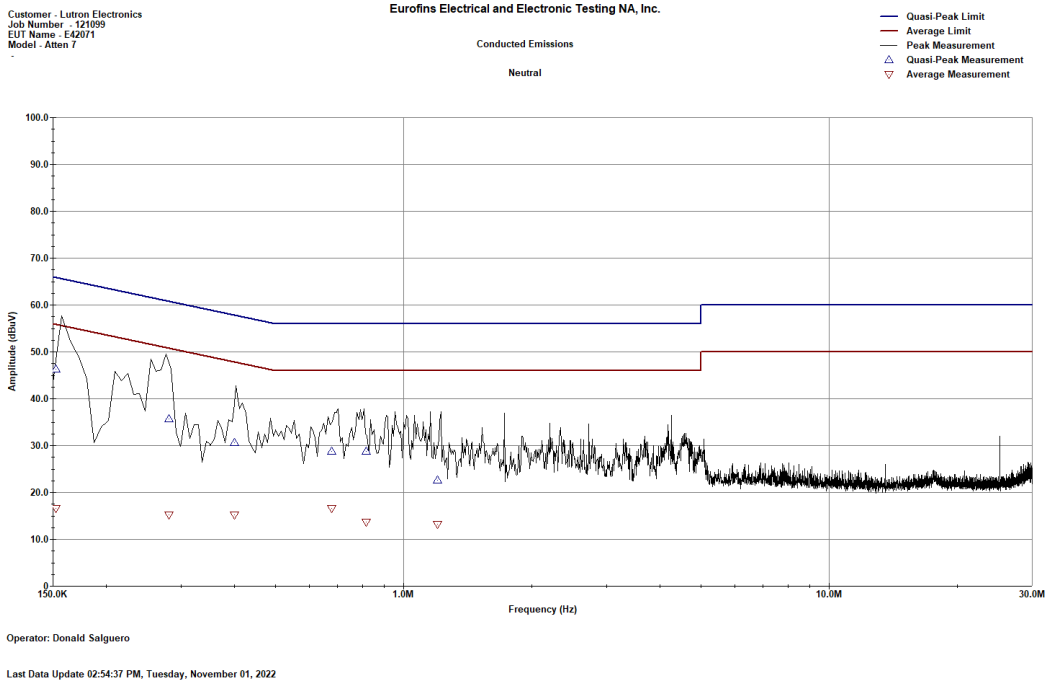


Figure 3. CEV Neutral

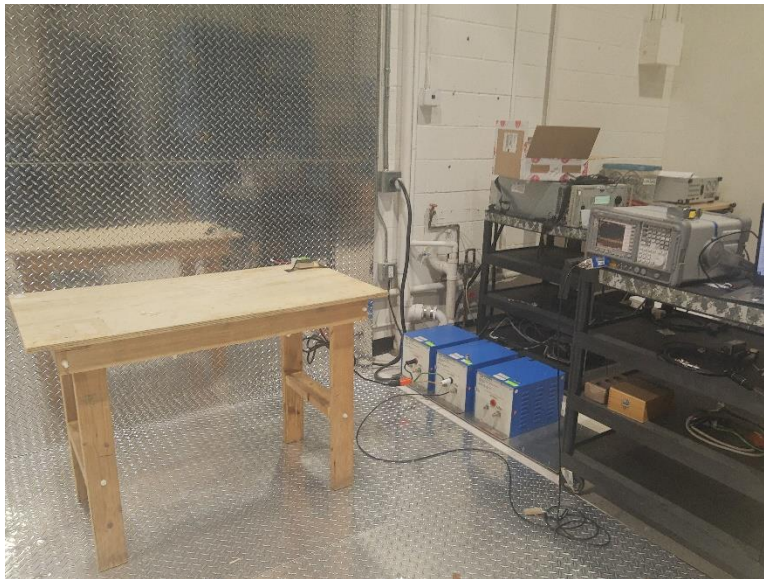
Calibrated test equipment utilized during testing was maintained in a current state of calibration per the requirements of ISO/IEC 17025:2017.

Conducted Emissions Equipment List						
Asset Number	Description	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due Date
1T4794	LISN	Com-Power	LI-150A	201064	10/17/2022	4/30/2024
1T4795	LISN	Com-Power	LI-150A	201065	10/17/2022	4/30/2024
1T7450	Transient Limiter	Com-Power	LIT-155A	22010020	Func Verify	Func Verify
1T6658	Spectrum Analyzer	Agilent Technologies	E4407B	US41443517	9/7/2021	3/7/2023
1T9990	Thermometer/Hygrometer	Fisher Scientific	06-662-4, 11725843	210843372	10/1/2021	10/1/2023

Table 10. CEV Equipment List

Note: Functionally tested equipment is verified using calibrated instrumentation at the time of testing.

3.1.1 Limits for Conducted Disturbance at Mains Terminals Photographs



Photograph 1. CEV Test Setup

3.2 Radiated Emissions: Limits of Electromagnetic Radiation Disturbance

Test Method: ANSI 63.4: 2014

Test Requirement(s): The following standards specified below are covered in the scope of this section of the test report:

- FCC Part 15 Subpart B
- Innovation, Science, and Economic Development (ISED) Canada ICES-003 Issue 7

§15.109 (a) Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Field Strength (dBµV/m)
30 - 88	40.00
88 - 216	43.50
216 - 960	46.00
Above 960	54.00

ICES-003 Issue 7, §3.2.2 The quasi-peak limits for the electric component of the radiated field strength emitted from ITE or digital apparatus, within 30 MHz to 1 GHz, for a measurement distance of 3 m, are presented in the table below:

Frequency (MHz)	Field Strength (dBµV/m)
30 - 88	40.00
88 - 216	43.50
216 - 230	46.00
230 - 960	47.00
960 - 1000	54.00

Sample Calculation for Distance Correction factor (DCF) measurement:

$$F_d = 20 \cdot \log_{10} (D_m/D_s)$$

where:

F_d = Distance Factor in dB

D_m = Measurement Distance in meters

D_s = Specification Distance in meters

Sample formula for calculating the Corrected Data for the Radiated Emissions Measurements:

Frequency (MHz)	Antenna Polarity	EUT Azimuth (Degrees)	Antenna Height (cm)	Uncorrected Amplitude (dBµV)	ACF (dB/m) (+)	Pre Amp Gain (dB)(-)	CBL (dB) (+)	DCF (dB) (+)	Corrected Amplitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)
249.99	V	359.9	240.7	55.46	11.4	28.335	0	0	38.505	47	-8.495

$$\begin{aligned} \text{Corrected Amplitude (dBµV/m)} &= \text{Uncorrected Amplitude (dBµV)} + \text{ACF (dB/m)} - \text{Preamp Gain (dB)} + \text{CBL (dB)} + \text{DCF (dB)} \\ &= 55.46 + 11.4 - 28.355 + 0 + 0 = \mathbf{38.505} \end{aligned}$$

Test Procedure: The EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber. The method of testing, test conditions, and test procedures of ANSI 63.4: 2014 were used. Any measured frequency that exhibits a margin of compliance that is less than 3 dB below the specification limit is marked. Eurofins E&E recommends that every emission measured, has at least a 3 dB margin to allow for deviations in the emission characteristics that may occur during the production process.

For emissions between 30 MHz and 1000 MHz, a biconilog antenna was located 3m from the EUT on an adjustable mast. A pre-scan was first performed in order to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied between 1 m and 4 m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. Unless otherwise specified, measurements were made using a quasi-peak detector with a 120 kHz resolution bandwidth.

For emission between 1 GHz and 18 GHz, a double ridged guide horn was located 3 m from the EUT on an adjustable mast. A pre-scan was performed and used to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied depending on the geometry of the EUT. In order to ensure maximized emissions, the horn antenna was positioned both vertically and laterally. Measurements in both horizontal and vertical polarities were made and the data was recorded. Unless otherwise specified, measurements were made using a peak and average detector with a 1 MHz resolution bandwidth.

Test Software Used: EMC-REG-TDS-11, Radiated Emissions Prescan.xls version 06/29/11 were used to perform this test.

Test Results:

Test Standard:	FCC Part 15 Subpart B Innovation, Science, and Economic Development (ISED) Canada ICES-003 Issue 7 Class B
Test Name	Radiated Emissions
Test Dates:	November 1, 2022
Laboratory	Eurofins Electrical and Electronic Testing NA, Inc.
Test Engineer:	Donald Salguero
Test Results:	Compliant

Test Data

Radiated Emissions Datasheet									
METrak Number	121099				Test Specification	FCC Part 15, Subpart B, Section 15.109			
Customer	Lutron Electronics				Equipment Class	Class B			
EUT Name	E42071				Engineer	Donald Salguero			
Model/Part Number	Atten 7				Test Date(s)	11/1/2022			
Serial Number	NA				Temperature	22°C			
Mode of Operation	EMC Test Mode				Relative Humidity	57%			
Notes:									
Start Frequency			30 MHz			Stop Frequency			1 GHz
Measurement Distance			3 Meters			Detector			Quasi-Peak
Frequency	Polarity	Antenna Height	Turttable Position	Measured	Correction Factor	Corrected Reading	Limit	Margin	Results
MHz	Horizontal/ Vertical	cm	Degrees	dBµV	dB	dBµV/m	dBµV/m	dB	Pass/Fail
30.844	H	232.21	87.6	-1.42	26.38	24.96	40	-15.04	PASS
45.193	H	259.73	-1.6	5.6	16.03	21.62	40	-18.38	PASS
80.448	H	130.3	184.8	9.56	13.14	22.7	40	-17.3	PASS
842.401	H	369.95	275.2	-3.69	30.81	27.12	46	-18.88	PASS
940.568	H	350.3	25.8	-1.49	31.88	30.38	46	-15.62	PASS
962.383	H	260.73	156.5	-2.81	31.91	29.1	54	-24.9	PASS
32.099	V	103.21	288.8	5.66	24.1	29.76	40	-10.24	PASS
44.268	V	104.08	202.7	5.66	15.51	21.17	40	-18.83	PASS
51.842	V	105.56	243.1	6.44	12.57	19.02	40	-20.98	PASS
61.833	V	106.6	116.8	6.83	12.72	19.55	40	-20.45	PASS
805.46	V	107.73	-0.7	7.77	29.69	37.46	46	-8.54	PASS
915.719	V	105.95	-2.3	7.77	30.93	38.7	46	-7.3	PASS

Table 11. FCC RE Below 1GHz - Test Results

Radiated Emissions Datasheet										
METrak Number	121099				Test Specification	FCC Part 15, Subpart B, Section 15.109				
Customer	Lutron Electronics				Equipment Class	Class B				
EUT Name	E42071				Engineer	Donald Salguero				
Model/Part Number	Atten 7				Test Date(s)	11/1/2022				
Serial Number	NA				Temperature	22°C				
Mode of Operation	EMC Test Mode				Relative Humidity	57%				
Notes:										
Start Frequency			1 GHz			Stop Frequency			2GHz	
Measurement Distance			3 Meters			Detector			Average	
Frequency	Polarity	Antenna Height	Turtable Position	Measured	Correction Factor	Corrected Reading	Limit	Margin	Results	
GHz	Horizontal/Vertical	cm	Degrees	dBµV	dB	dBµV/m	dBµV/m	dB	Pass/Fail	
1.906	H	272.91	201.5	35.75	0.663	36.42	54	-17.58	PASS	
1.893	V	180	202.9	35.7	0.628	36.33	54	-17.67	PASS	

Table 12. FCC AVG RE Above 1GHz - Test Results

Radiated Emissions Datasheet										
METrak Number	121099				Test Specification	FCC Part 15, Subpart B, Section 15.109				
Customer	Lutron Electronics				Equipment Class	Class B				
EUT Name	E42071				Engineer	Donald Salguero				
Model/Part Number	Atten 7				Test Date(s)	11/1/2022				
Serial Number	NA				Temperature	22°C				
Mode of Operation	EMC Test Mode				Relative Humidity	57%				
Notes:										
Start Frequency			1 GHz			Stop Frequency			2GHz	
Measurement Distance			3 Meters			Detector			Peak	
Frequency	Polarity	Antenna Height	Turtable Position	Measured	Correction Factor	Corrected Reading	Limit	Margin	Results	
GHz	Horizontal/Vertical	cm	Degrees	dBµV	dB	dBµV/m	dBµV/m	dB	Pass/Fail	
1.906	H	272.91	201.5	45.953	0.66	46.616	74	-27.384	PASS	
1.893	V	180	202.9	46.032	0.63	46.66	74	-27.34	PASS	

Table 13. FCC PK RE Above 1GHz - Test Results

Radiated Emissions Datasheet									
METrak Number	121099				Test Specification	ICES-003, Section 3.2.2			
Customer	Lutron Electronics				Equipment Class	Class B			
EUT Name	E42071				Engineer	Donald Salguero			
Model/Part Number	Atten 7				Test Date(s)	11/1/2022			
Serial Number	NA				Temperature	22°C			
Mode of Operation	EMC Test Mode				Relative Humidity	57%			
Notes:									
Start Frequency			30 MHz			Stop Frequency			1 GHz
Measurement Distance			3 Meters			Detector			Quasi-Peak
Frequency	Polarity	Antenna Height	Turtable Position	Measured	Correction Factor	Corrected Reading	Limit	Margin	Results
MHz	Horizontal/ Vertical	cm	Degrees	dBµV	dB	dBµV/m	dBµV/m	dB	Pass/Fail
30.844	H	232.21	87.6	-1.42	26.38	24.96	40	-15.04	PASS
45.193	H	259.73	-1.6	5.6	16.03	21.62	40	-18.38	PASS
80.448	H	130.3	184.8	9.56	13.14	22.7	40	-17.3	PASS
842.401	H	369.95	275.2	-3.69	30.81	27.12	46	-18.88	PASS
940.568	H	350.3	25.8	-1.49	31.88	30.38	46	-15.62	PASS
962.383	H	260.73	156.5	-2.81	31.91	29.1	54	-24.9	PASS
32.099	V	103.21	288.8	5.66	24.1	29.76	40	-10.24	PASS
44.268	V	104.08	202.7	5.66	15.51	21.17	40	-18.83	PASS
51.842	V	105.56	243.1	6.44	12.57	19.02	40	-20.98	PASS
61.833	V	106.6	116.8	6.83	12.72	19.55	40	-20.45	PASS
805.46	V	107.73	-0.7	7.77	29.69	37.46	46	-8.54	PASS
915.719	V	105.95	-2.3	7.77	30.93	38.7	46	-7.3	PASS

Table 14. ICES RE Below 1GHz - Test Results

Radiated Emissions Datasheet										
METrak Number	121099				Test Specification	ICES-003, Section 3.2.2				
Customer	Lutron Electronics				Equipment Class	Class B				
EUT Name	E42071				Engineer	Donald Salguero				
Model/Part Number	Atten 7				Test Date(s)	11/1/2022				
Serial Number	NA				Temperature	22°C				
Mode of Operation	EMC Test Mode				Relative Humidity	57%				
Notes:										
Start Frequency			1 GHz			Stop Frequency			2GHz	
Measurement Distance			3 Meters			Detector			Average	
Frequency	Polarity	Antenna Height	Turtable Position	Measured	Correction Factor	Corrected Reading	Limit	Margin	Results	
GHz	Horizontal/Vertical	cm	Degrees	dBµV	dB	dBµV/m	dBµV/m	dB	Pass/Fail	
1.906	H	272.91	201.5	35.75	0.663	36.42	54	-17.58	PASS	
1.893	V	180	202.9	35.7	0.628	36.33	54	-17.67	PASS	

Table 15. ICES AVG RE Above 1GHz - Test Results

Radiated Emissions Datasheet										
METrak Number	121099				Test Specification	ICES-003, Section 3.2.2				
Customer	Lutron Electronics				Equipment Class	Class B				
EUT Name	E42071				Engineer	Donald Salguero				
Model/Part Number	Atten 7				Test Date(s)	11/1/2022				
Serial Number	NA				Temperature	22°C				
Mode of Operation	EMC Test Mode				Relative Humidity	57%				
Notes:										
Start Frequency			1 GHz			Stop Frequency			2GHz	
Measurement Distance			3 Meters			Detector			Peak	
Frequency	Polarity	Antenna Height	Turtable Position	Measured	Correction Factor	Corrected Reading	Limit	Margin	Results	
GHz	Horizontal/Vertical	cm	Degrees	dBµV	dB	dBµV/m	dBµV/m	dB	Pass/Fail	
1.906	H	272.91	201.5	45.953	0.66	46.616	74	-27.384	PASS	
1.893	V	180	202.9	46.032	0.63	46.66	74	-27.34	PASS	

Table 16. ICES PK RE Above 1GHz - Test Results

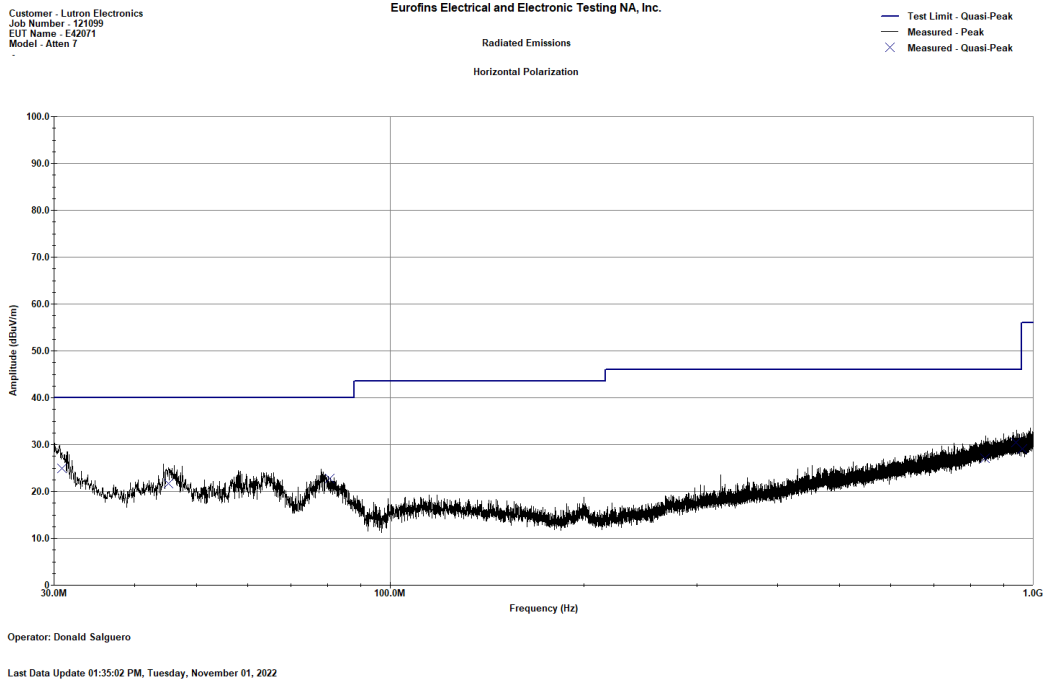


Figure 4. FCC RE 30-1000 MHz Horizontal Polarization

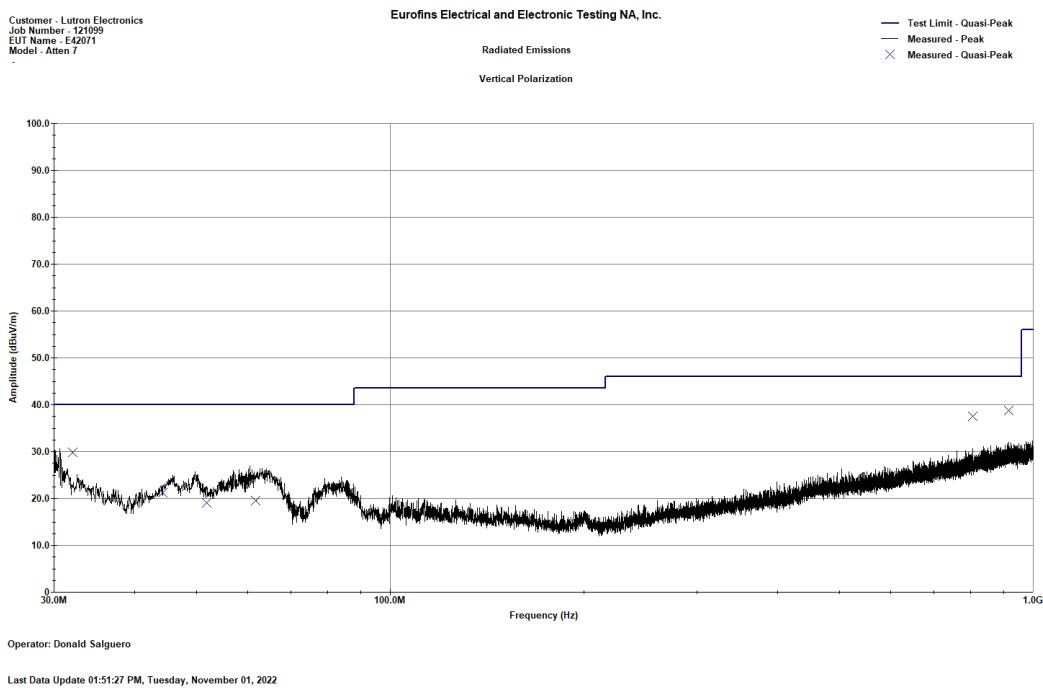


Figure 5. FCC RE 30-1000 MHz Vertical Polarization

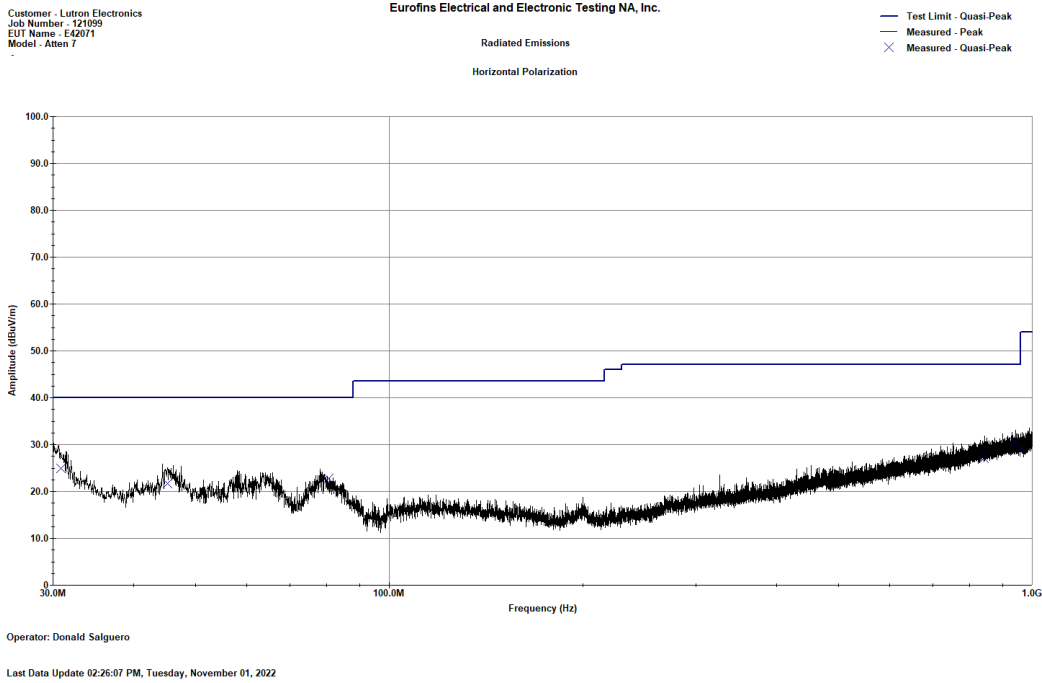


Figure 6. ICES RE 30-1000 MHz Horizontal Polarization

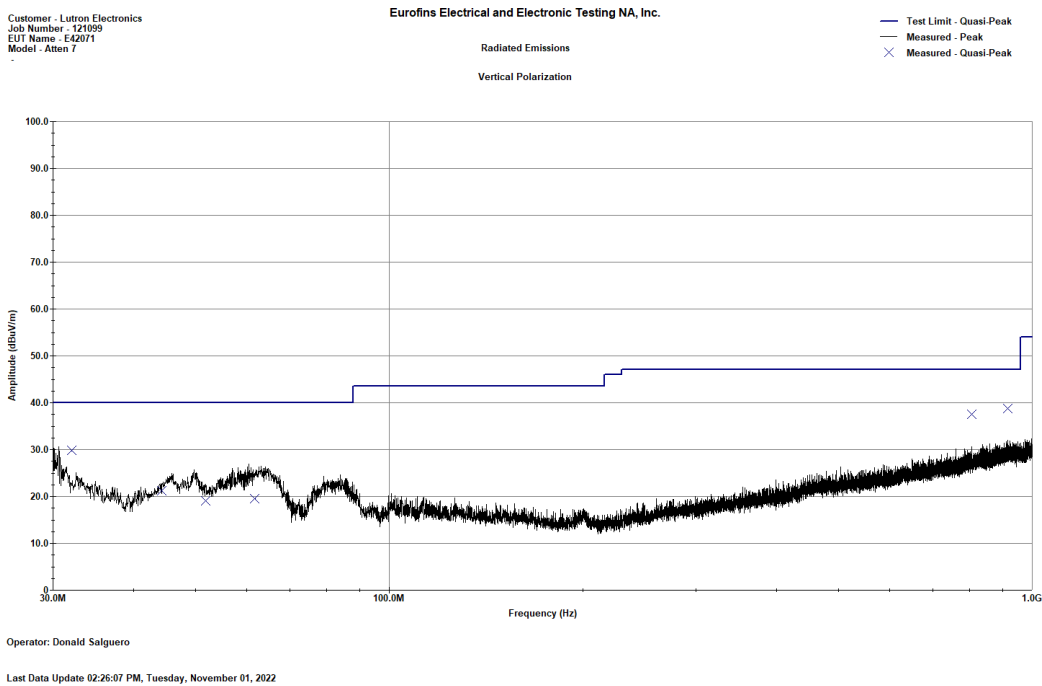


Figure 7. ICES RE 30-1000 MHz Vertical Polarization

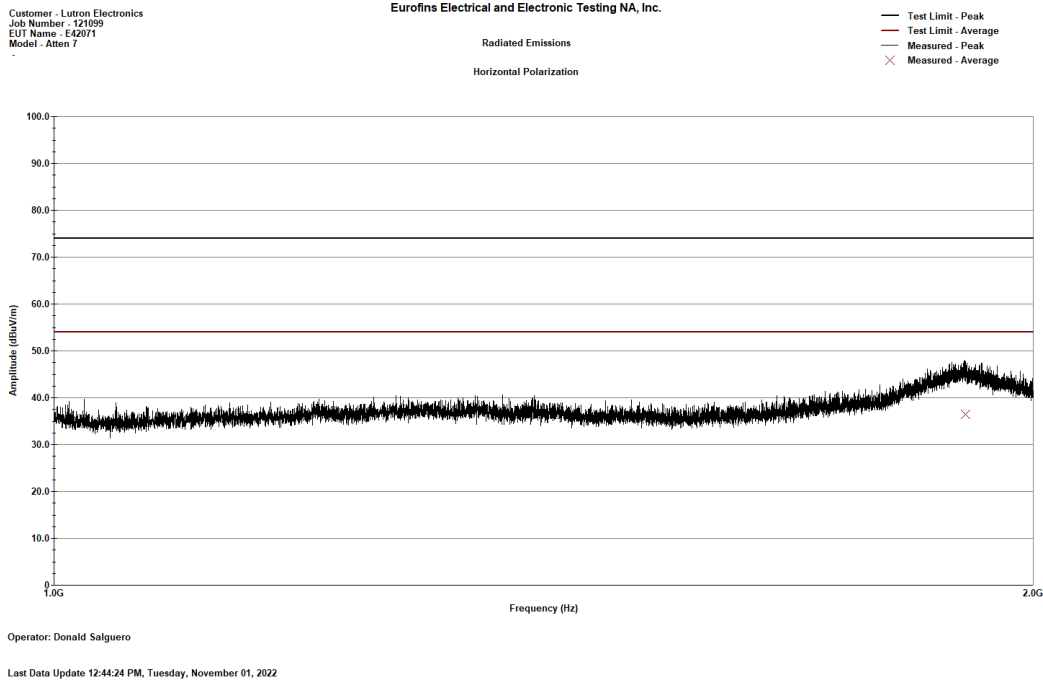


Figure 8. FCC-ICES RE 1-2 GHz Horizontal Polarization

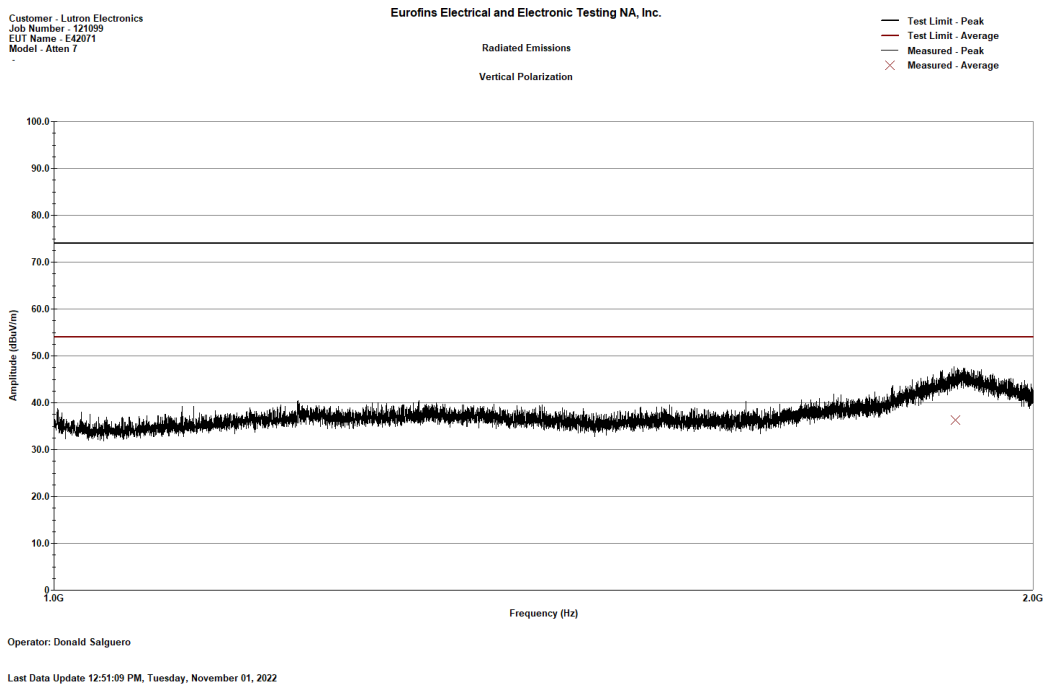


Figure 9. FCC-ICES RE 1-2 GHz Vertical Polarization

Calibrated test equipment utilized during testing was maintained in a current state of calibration per the requirements of ISO/IEC 17025:2017.

Radiated Emissions Equipment List						
Asset Number	Description	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due Date
1T4751	Antenna - Bilog	Sunol Sciences	JB6	A101910	6/1/2022	12/1/2023
1T4483	Antenna; Horn	ETS-Lindgren	3117	56658	1/31/2022	7/31/2023
1T8743	Preamplifier	A.H. Systems, Inc.	PAM-0118P	419	Func Verify	Func Verify
1T4300	SEMI-ANECHOIC CHAMBER (NSA)	EMC TEST SYSTEMS	NONE	NONE	8/19/2021	8/31/2023
1T4300B	Semi-Anechoic 3m Chamber s/SWR	EMC TEST SYSTEMS	NONE	NONE	9/30/2021	9/30/2023
1T4681	Spectrum Analyzer (PSA)	Agilent Technologies	E4448A	MY46180897	10/15/2021	4/15/2023
1T9990	Thermometer/Hygrometer	Fisher Scientific	06-662-4, 11725843	210843372	10/1/2021	10/1/2023

Table 17. RE Equipment List

Note: Functionally tested equipment is verified using calibrated instrumentation at the time of testing.

3.2.1 Radiated Emissions: Limits of Electromagnetic Radiation Disturbance Photographs



Photograph 2. REE Below 1GHz Test Setup



Photograph 3. RE Above 1GHz Test Setup

END OF REPORT