Leviton Manufacturing Company

Provolt Line Voltage Dimming Room Controllers

FCC 15.207:2016

FCC 15.247:2016

Bluetooth LE Radio

Report # LEVT0119.2

NVLAP Lab Code: 200630-0

CERTIFICATE OF TEST

2017-1-25

Last Date of Test: January 5, 2016
Issue Date: January 28, 2020
Leviton Manufacturing Company
Model: Provolt Line Voltage Dimming Room Controllers

Radio Equipment Testing

Standards

Specification	Method
FCC 15.207:2016	ANSI C63.10:2013, KDB 558074 D01 v03r03
FCC 15.247:2016	

Testing was performed to the version of the standard(s) in force at the date of testing. Since then, a newer version of the standard has been released. A comparison of the two versions of the standards has been made and the test results continue to show compliance to the latest version of the standards.

Results

Method Clause	Test Description	Applied	Results	Comments
6.2	AC Powerline Conducted Emissions	Yes	Pass	
6.5, 6.6, 11.12.1, 11.13.2	Spurious Radiated Emissions	Yes	Pass	
11.6	Duty Cycle	Yes	N/A	Characterization of radio operation.
11.8.2	Occupied Bandwidth	Yes	Pass	
11.9.2.2.4	Output Power	Yes	Pass	
11.10.2	Power Spectral Density	Yes	Pass	
11.11	Band Edge Compliance	Yes	Pass	
11.11	Spurious Conducted Emissions	Yes	Pass	

Deviations From Test Standards

None

Approved By:

Kyle Holgate, Operations Manager

Product compliance is the responsibility of the client; therefore, the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information.

REVISION HISTORY

NORTHWEST EMC
REV 2014.10.14

Revision Number	Description	Date	Page Number
00	None		

ACCREDITATIONS AND AUTHORIZATIONS

REV 2016.3.22

United States

FCC - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

A2LA - Accredited by A2LA to ISO / IEC 17065 as a product certifier. This allows Northwest EMC to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

IC - Recognized by Industry Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with IC.

European Union

European Commission – Validated by the European Commission as a Notified Body under the R&TTE Directive.

Australia/New Zealand

ACMA - Recognized by ACMA as a CAB for the acceptance of test data.

Korea

MSIP / RRA - Recognized by KCC's RRA as a CAB for the acceptance of test data.

Japan

VCCI - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

Taiwan

BSMI – Recognized by BSMI as a CAB for the acceptance of test data.

NCC - Recognized by NCC as a CAB for the acceptance of test data.

Singapore

IDA – Recognized by IDA as a CAB for the acceptance of test data.

Israel

MOC – Recognized by MOC as a CAB for the acceptance of test data.

Hong Kong

OFCA – Recognized by OFCA as a CAB for the acceptance of test data.

Vietnam

MIC – Recognized by MIC as a CAB for the acceptance of test data.

SCOPE

For details on the Scopes of our Accreditations, please visit:
http://www.nwemc.com/accreditations/
http://gsi.nist.gov/global/docs/cabs/designations.html

MEASUREMENT UNCERTAINTY

TMU.2015.07.10

Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

A measurement uncertainty estimation has been performed for each test per our internal quality document QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) can be found included as part of the applicable test description page. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-2 as applicable), and are available upon request.

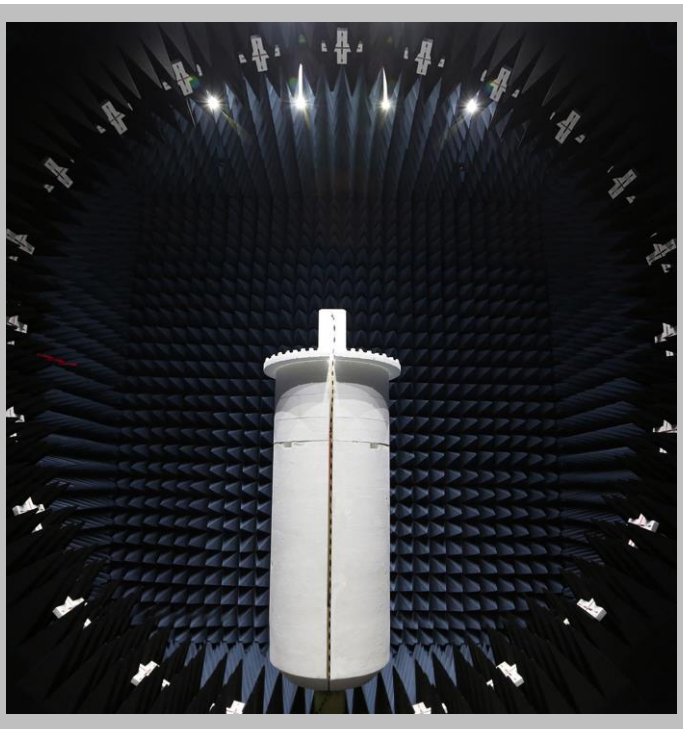
The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

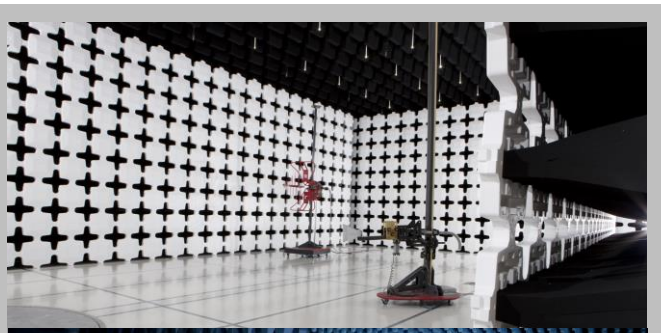
Test	+ MU	- MU
Frequency Accuracy (Hz)	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	0.3 dB	-0.3 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	5.2 dB	-5.2 dB
AC Powerline Conducted Emissions (dB)	2.4 dB	-2.4 dB

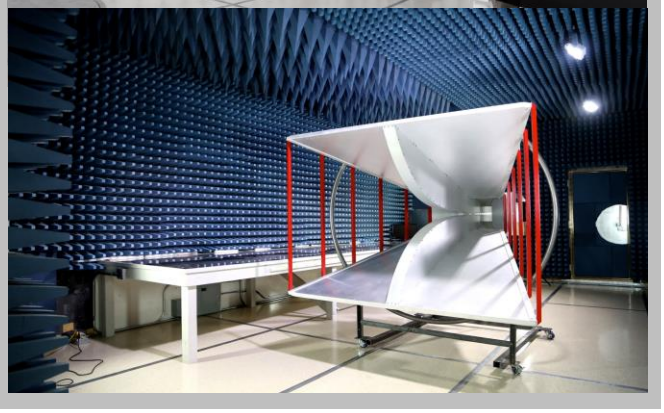
FACILITIES

NORTHWEST EMC
REV 2015.2.19

California	Minnesota	New York	Oregon	Texas	Washington
Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	Labs MN01-08, MN10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 554-8214	Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Labs NC01-05 19201 120th Ave NE Bothell, WA 98011 (425)984-6600
NVLAP					
NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200630-0	NVLAP Lab Code:201049-0	NVLAP Lab Code: 200629-0
Industry Canada					
2834B-1, 2834B-3	2834E-1	N/A	2834D-1, 2834D-*2*	2834G-1	2834F-1
BSMI					
SL2-IN-E-1154R	SL2-IN-E-1152R	N/A	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R
VCCI					
A-0029	A-0109	N/A	A-0108	A-0201	A-0110
Recognized Phase I CAB for ACMA, BSMI, IDA, KCC/RRA, MIC, MOC, NCC, OFCA					
US0158	US0175	N/A	US0017	US0191	US0157







PRODUCT DESCRIPTION

Client and Equipment Under Test (EUT) Information

Company Name:	Leviton Manufacturing Company
Address:	20497 SW Teton Avenue
City, State, Zip:	Tualatin, OR 97062
Test Requested By:	Mark Darula
Model:	Provolt Line Voltage Dimming Room Controllers
First Date of Test:	December 22, 2015
Last Date of Test:	January 05, 2016
Receipt Date of Samples:	December 16, 2015
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT:
Provolt Line Voltage Dimming Room Controllers, Bluetooth radio module with one antenna type

Testing Objective:
To demonstrate compliance of the Bluetooth radio to FCC 15.247 requirements.

CONFIGURATIONS

NORTHWEST EMC 2014-12-10

Configuration LEVT0117- 3

Software/Firmware Running during test	
Description	**Version**
RF Software (Smart RF Studio)	7.2.

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Provolt Line Voltage Dimming Room Controllers	Leviton Manufacturing Company	06C20-MDW	M1

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Laptop Computer	Toshiba	Satellite C55-B5242X	8F023077P
CC Debugger #1	Texas Instruments	None Provided	None Provided
RF Transmitter (BLE)	Texas Instruments	Smart RF 05ER	0x5A85

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC Power	No	2.9m	No	Provolt Line Voltage Dimming Room Controllers	AC Mains
USB	Yes	3m	No	Laptop Computer	RF Transmitter (BLE)
USB	Yes	1.6m	No	Laptop Computer	CC Debugger #1

CONFIGURATIONS

NORTHWEST EMC 2014-12-10

Configuration LEVT0117- 7

Software/Firmware Running during test	
Description	**Version**
RF Software (Smart RF Studio)	7.2.

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
LV - 1 button switch (Multi-Tech)	Leviton Manufacturing Company	PLVSW-1L	None
Provolt Line Voltage Dimming Room Controllers	Leviton Manufacturing Company	06C20-MDW	M1

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Laptop Computer	Toshiba	Satellite C55-B5242X	8F023077P
CC Debugger #1	Texas Instruments	None Provided	None Provided
RF Transmitter (BLE)	Texas Instruments	Smart RF 05ER	0x5A85

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC Power	No	2.9m	No	Provolt Line Voltage Dimming Room Controllers	AC Mains
Low Voltage (Switch #1)	No	1.2m	No	Provolt Line Voltage Dimming Room Controllers	LV Switch #1
Emergency Override Cable	No	1m	No	Provolt Line Voltage Dimming Room Controllers	Unterminated
USB	Yes	3m	No	Laptop Computer	RF Transmitter (BLE)
USB	Yes	1.6m	No	Laptop Computer	CC Debugger #1
Low Voltage Control Cable (0-10) x 2	No	3.5m	No	Provolt Line Voltage Dimming Room Controllers	Unterminated
Load Cable (AC) x2	No	3.5m	No	Provolt Line Voltage Dimming Room Controllers	Unterminated

CONFIGURATIONS

NORTHWEST EMC 2014-12-10

Configuration LEVT0117- 8

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Provolt Line Voltage Dimming Room Controllers	Leviton Manufacturing Company	06C20-MDW	M1

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
LV - 1 button switch (Multi-Tech)	Leviton Manufacturing Company	PLVSW-1L	None
Tungsten incandescent bulbs x2	NA	NA	NA

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC Power	No	2.9m	No	Provolt Line Voltage Dimming Room Controllers	AC Mains
Low Voltage (Switch #1)	No	1.2m	No	Provolt Line Voltage Dimming Room Controllers	LV Switch #1
Emergency Override Cable	No	1m	No	Provolt Line Voltage Dimming Room Controllers	Unterminated
Low Voltage Control Cable (0-10) x 2	No	3.5m	No	Provolt Line Voltage Dimming Room Controllers	Unterminated
Load Cable (AC) x2	No	3.5m	No	Provolt Line Voltage Dimming Room Controllers	Tungsten incandescent bulbs x2

MODIFICATIONS

NORTHWEST EMC
2014-12-10

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	12/22/2015	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.
2	12/22/2015	Output Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	12/22/2015	Power Spectral Density	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
4	12/22/2015	Band Edge Compliance	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
5	12/22/2015	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
6	12/28/2015	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
7	1/5/2016	AC Powerline Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

AC POWERLINE CONDUCTED EMISSIONS

TEST DESCRIPTION

The EUT will be powered either directly or indirectly from the AC power line. Therefore, conducted emissions measurements were made on the AC input of the EUT, or on the AC input of the device used to power the EUT. The AC power line conducted emissions were measured with the EUT operating at the lowest, the highest, and a middle channel in the operational band. The EUT was transmitting at its maximum data rate. For each mode, the spectrum was scanned from 150 kHz to 30 MHz. The test setup and procedures were in accordance with ANSI C63.10.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Receiver	Rohde & Schwarz	ESCI	ARH	3/11/2015	3/11/2016
LISN	Solar Electronics	9252-50-R-24-BNC	LIN	1/27/2015	1/27/2016
Cable - Conducted Cable Assembly	Northwest EMC	EVG, HHD, RKA	EVGA	5/12/2015	5/12/2016
LISN	Fischer Custom Communications	FCC-LISN-50-50-4-01-600V	LJD	10/22/2015	10/22/2016

MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	2.4 dB	-2.4 dB

CONFIGURATIONS INVESTIGATED

LEVT0117-8

MODES INVESTIGATED

Bluetooth set to Tx - High, 2480 MHz
Bluetooth set to Tx - Low, 2402 MHz
Bluetooth set to Tx - Mid, 2440 MHz

AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Provolt Line Voltage Dimming Room Controllers	Work Order:	LEVT0117
Serial Number:	M1	Date:	12/30/2015
Customer:	Leviton Manufacturing Company	Temperature:	22.5°C
Attendees:	Mark Darula	Relative Humidity:	29.8%
Customer Project:	None	Bar. Pressure:	1031 mb
Tested By:	Jeff Alcoke	Job Site:	EV07
Power:	277VAC/60Hz	Configuration:	LEVT0117-8

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2015	ANSI C63.10:2013

TEST PARAMETERS

Run #:	5	Line:	Neutral	Add. Ext. Attenuation (dB):	0

COMMENTS

None

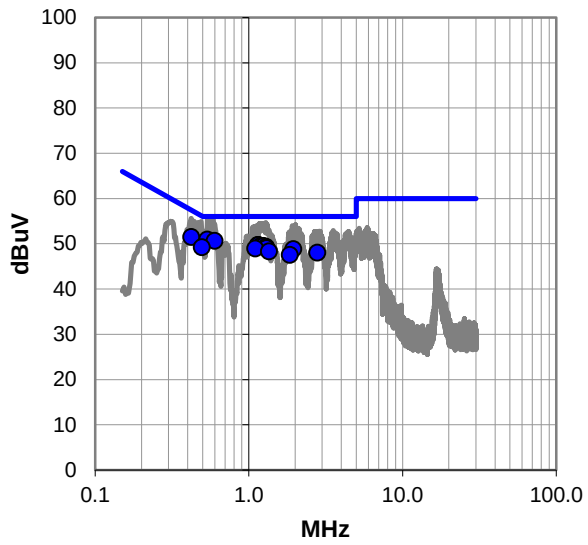
EUT OPERATING MODES

Bluetooth set to Tx - Low, 2402 MHz

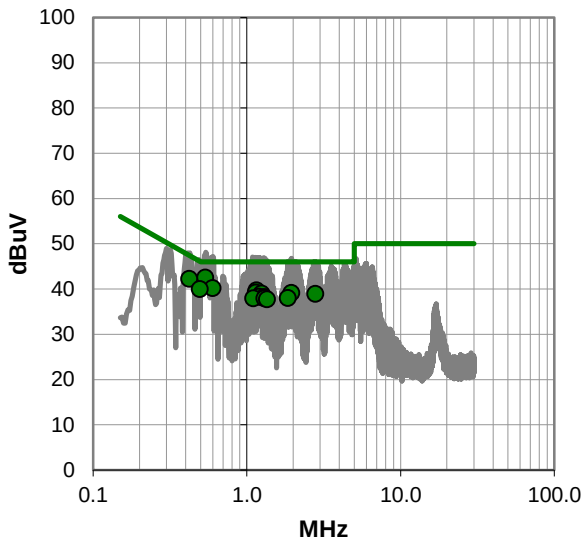
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #5

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.538	31.0	19.9	50.9	56.0	-5.1
0.598	30.7	19.9	50.6	56.0	-5.4
0.423	31.6	19.9	51.5	57.4	-5.9
1.146	29.7	20.0	49.7	56.0	-6.3
1.158	29.7	20.0	49.7	56.0	-6.3
1.199	29.5	20.0	49.5	56.0	-6.5
1.251	29.5	20.0	49.5	56.0	-6.5
1.294	29.3	20.0	49.3	56.0	-6.7
0.495	29.3	19.9	49.2	56.1	-6.9
1.305	29.0	20.0	49.0	56.0	-7.0
1.100	28.9	20.0	48.9	56.0	-7.1
1.946	28.8	20.0	48.8	56.0	-7.2
1.354	28.3	20.0	48.3	56.0	-7.7
2.789	27.9	20.1	48.0	56.0	-8.0
1.846	27.5	20.0	47.5	56.0	-8.5

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.538	22.6	19.9	42.5	46.0	-3.5
0.423	22.3	19.9	42.2	47.4	-5.2
0.598	20.3	19.9	40.2	46.0	-5.8
0.495	20.1	19.9	40.0	46.1	-6.1
1.158	19.7	20.0	39.7	46.0	-6.3
1.146	19.2	20.0	39.2	46.0	-6.8
1.946	19.1	20.0	39.1	46.0	-6.9
1.251	19.0	20.0	39.0	46.0	-7.0
2.789	18.8	20.1	38.9	46.0	-7.1
1.199	18.3	20.0	38.3	46.0	-7.7
1.294	18.2	20.0	38.2	46.0	-7.8
1.846	18.0	20.0	38.0	46.0	-8.0
1.100	17.9	20.0	37.9	46.0	-8.1
1.305	17.9	20.0	37.9	46.0	-8.1
1.354	17.7	20.0	37.7	46.0	-8.3

CONCLUSION

Pass

Tested By

AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Provolt Line Voltage Dimming Room Controllers	Work Order:	LEVT0117
Serial Number:	M1	Date:	12/30/2015
Customer:	Leviton Manufacturing Company	Temperature:	22.5°C
Attendees:	Mark Darula	Relative Humidity:	29.8%
Customer Project:	None	Bar. Pressure:	1031 mb
Tested By:	Jeff Alcoke	Job Site:	EV07
Power:	277VAC/60Hz	Configuration:	LEVT0117-8

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2015	ANSI C63.10:2013

TEST PARAMETERS

Run #:	6	Line:	High Line	Add. Ext. Attenuation (dB):	0

COMMENTS

None

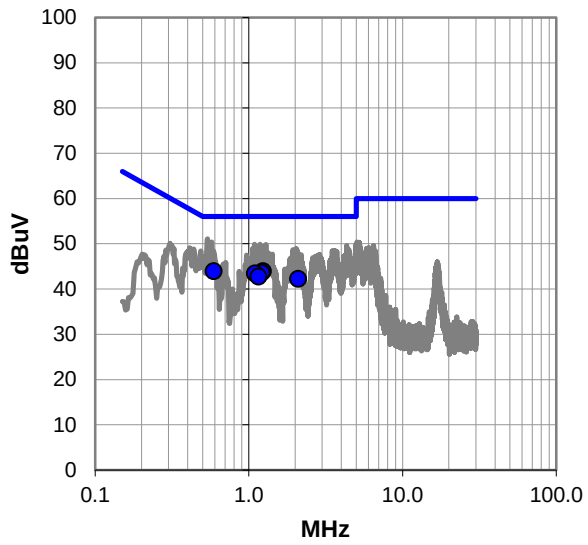
EUT OPERATING MODES

Bluetooth set to Tx - Low, 2402 MHz

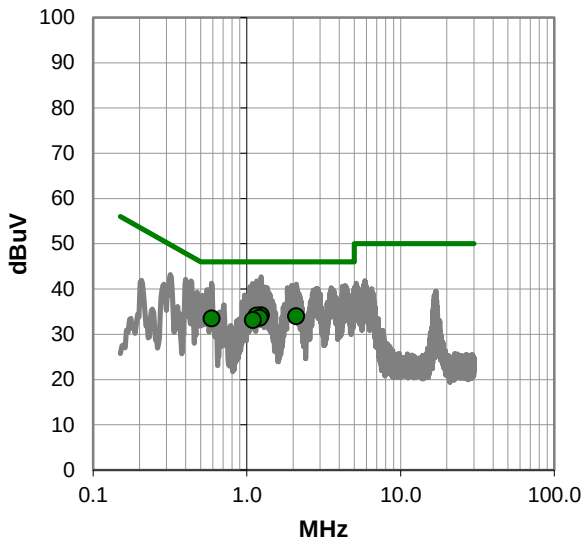
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #6

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.238	23.9	20.0	43.9	56.0	-12.1
0.591	24.0	19.9	43.9	56.0	-12.1
1.211	23.6	20.0	43.6	56.0	-12.4
1.094	23.4	20.0	43.4	56.0	-12.6
1.158	22.7	20.0	42.7	56.0	-13.3
2.090	22.2	20.0	42.2	56.0	-13.8

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.238	14.2	20.0	34.2	46.0	-11.8
1.158	14.1	20.0	34.1	46.0	-11.9
2.090	14.0	20.0	34.0	46.0	-12.0
1.211	13.6	20.0	33.6	46.0	-12.4
0.591	13.6	19.9	33.5	46.0	-12.5
1.094	13.1	20.0	33.1	46.0	-12.9

CONCLUSION

Pass

Tested By

AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Provolt Line Voltage Dimming Room Controllers	Work Order:	LEVT0117
Serial Number:	M1	Date:	12/30/2015
Customer:	Leviton Manufacturing Company	Temperature:	22.5°C
Attendees:	Mark Darula	Relative Humidity:	29.8%
Customer Project:	None	Bar. Pressure:	1031 mb
Tested By:	Jeff Alcoke	Job Site:	EV07
Power:	277VAC/60Hz	Configuration:	LEVT0117-8

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2015	ANSI C63.10:2013

TEST PARAMETERS

Run #:	7	Line:	High Line	Add. Ext. Attenuation (dB):	0

COMMENTS

None

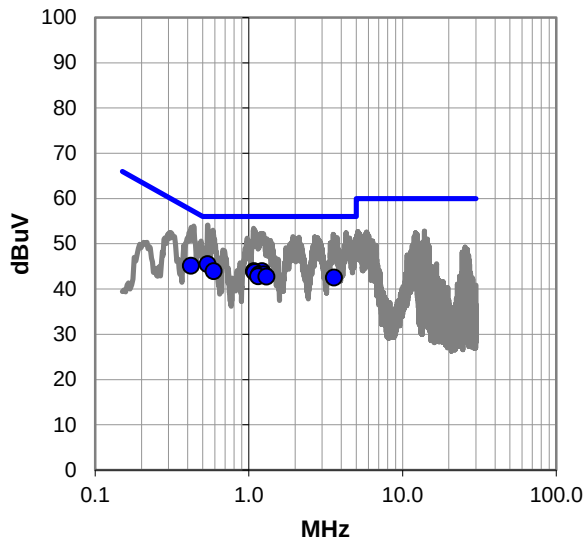
EUT OPERATING MODES

Bluetooth set to Tx - Mid, 2440 MHz

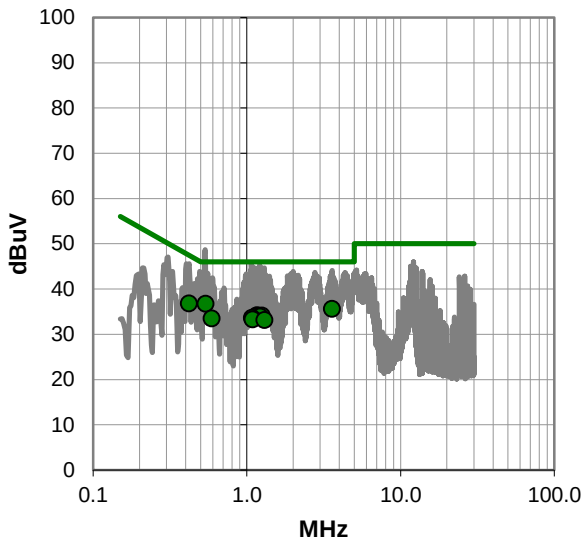
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #7

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.540	25.6	19.9	45.5	56.0	-10.5
1.083	23.9	20.0	43.9	56.0	-12.1
0.590	24.0	19.9	43.9	56.0	-12.1
1.219	23.9	20.0	43.9	56.0	-12.1
1.090	23.7	20.0	43.7	56.0	-12.3
0.420	25.2	19.9	45.1	57.4	-12.3
1.166	23.2	20.0	43.2	56.0	-12.8
1.255	23.2	20.0	43.2	56.0	-12.8
1.152	22.8	20.0	42.8	56.0	-13.2
1.301	22.7	20.0	42.7	56.0	-13.3
3.586	22.4	20.1	42.5	56.0	-13.5

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.540	16.8	19.9	36.7	46.0	-9.3
3.586	15.5	20.1	35.6	46.0	-10.4
0.420	16.9	19.9	36.8	47.4	-10.6
1.166	14.2	20.0	34.2	46.0	-11.8
1.255	14.1	20.0	34.1	46.0	-11.9
1.152	14.0	20.0	34.0	46.0	-12.0
1.219	13.9	20.0	33.9	46.0	-12.1
1.083	13.6	20.0	33.6	46.0	-12.4
0.590	13.6	19.9	33.5	46.0	-12.5
1.090	13.3	20.0	33.3	46.0	-12.7
1.301	13.1	20.0	33.1	46.0	-12.9

CONCLUSION

Pass

Tested By

AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Provolt Line Voltage Dimming Room Controllers	Work Order:	LEVT0117
Serial Number:	M1	Date:	12/30/2015
Customer:	Leviton Manufacturing Company	Temperature:	22.5°C
Attendees:	Mark Darula	Relative Humidity:	29.8%
Customer Project:	None	Bar. Pressure:	1031 mb
Tested By:	Jeff Alcoke	Job Site:	EV07
Power:	277VAC/60Hz	Configuration:	LEVT0117-8

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2015	ANSI C63.10:2013

TEST PARAMETERS

Run #:	8	Line:	Neutral	Add. Ext. Attenuation (dB):	0

COMMENTS

None

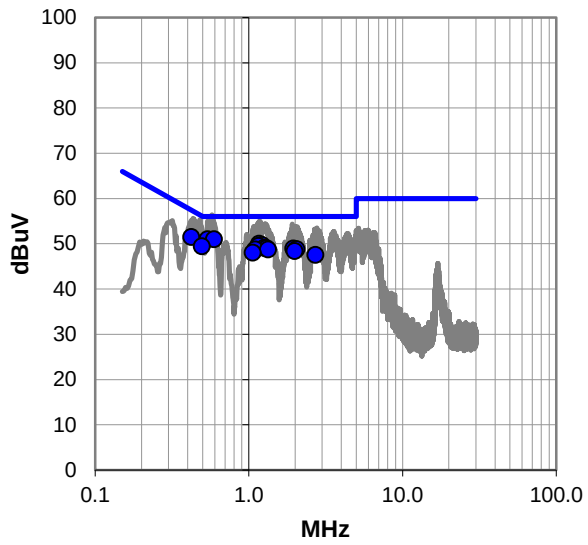
EUT OPERATING MODES

Bluetooth set to Tx - Mid, 2440 MHz

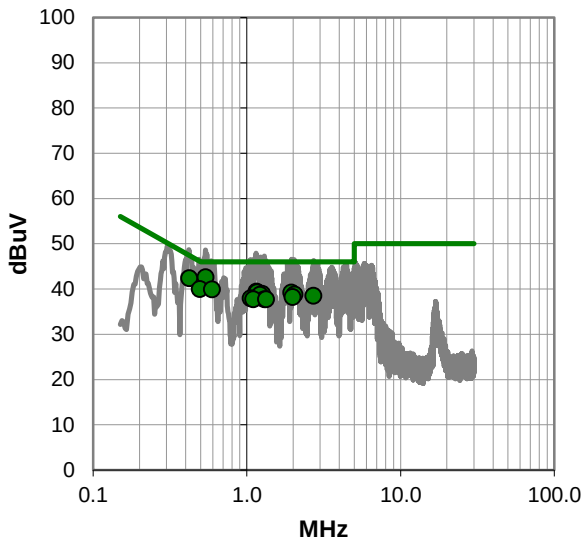
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #8

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.538	31.1	19.9	51.0	56.0	-5.0
0.594	31.1	19.9	51.0	56.0	-5.0
0.422	31.6	19.9	51.5	57.4	-5.9
1.169	30.0	20.0	50.0	56.0	-6.0
1.216	29.7	20.0	49.7	56.0	-6.3
1.158	29.5	20.0	49.5	56.0	-6.5
0.494	29.5	19.9	49.4	56.1	-6.7
1.259	29.1	20.0	49.1	56.0	-6.9
1.306	29.0	20.0	49.0	56.0	-7.0
1.949	28.9	20.0	48.9	56.0	-7.1
2.042	28.8	20.0	48.8	56.0	-7.2
1.101	28.7	20.0	48.7	56.0	-7.3
1.337	28.7	20.0	48.7	56.0	-7.3
1.991	28.4	20.0	48.4	56.0	-7.6
1.058	28.0	20.0	48.0	56.0	-8.0
2.714	27.4	20.1	47.5	56.0	-8.5

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.538	22.7	19.9	42.6	46.0	-3.4
0.422	22.5	19.9	42.4	47.4	-5.0
0.494	20.1	19.9	40.0	46.1	-6.1
0.594	20.0	19.9	39.9	46.0	-6.1
1.158	19.4	20.0	39.4	46.0	-6.6
1.169	19.3	20.0	39.3	46.0	-6.7
1.949	19.2	20.0	39.2	46.0	-6.8
1.259	18.9	20.0	38.9	46.0	-7.1
2.042	18.8	20.0	38.8	46.0	-7.2
1.216	18.7	20.0	38.7	46.0	-7.3
2.714	18.4	20.1	38.5	46.0	-7.5
1.991	18.2	20.0	38.2	46.0	-7.8
1.058	17.9	20.0	37.9	46.0	-8.1
1.306	17.7	20.0	37.7	46.0	-8.3
1.101	17.7	20.0	37.7	46.0	-8.3
1.337	17.7	20.0	37.7	46.0	-8.3

CONCLUSION

Pass

Tested By

AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Provolt Line Voltage Dimming Room Controllers	Work Order:	LEVT0117
Serial Number:	M1	Date:	12/30/2015
Customer:	Leviton Manufacturing Company	Temperature:	22.5°C
Attendees:	Mark Darula	Relative Humidity:	29.8%
Customer Project:	None	Bar. Pressure:	1031 mb
Tested By:	Jeff Alcoke	Job Site:	EV07
Power:	277VAC/60Hz	Configuration:	LEVT0117-8

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2015	ANSI C63.10:2013

TEST PARAMETERS

Run #:	9	Line:	Neutral	Add. Ext. Attenuation (dB):	0

COMMENTS

None

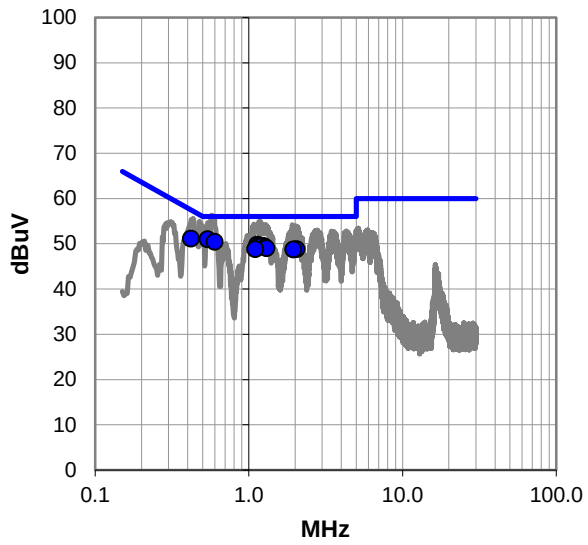
EUT OPERATING MODES

Bluetooth set to Tx - High, 2480 MHz

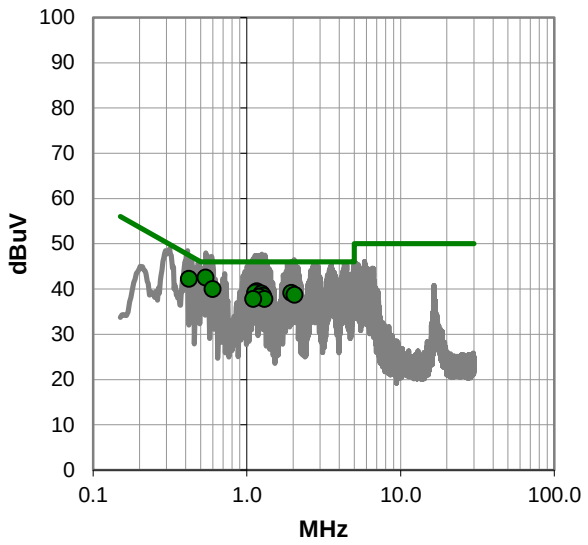
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #9

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.539	31.1	19.9	51.0	56.0	-5.0
0.599	30.5	19.9	50.4	56.0	-5.6
1.134	29.8	20.0	49.8	56.0	-6.2
0.419	31.2	19.9	51.1	57.5	-6.4
1.159	29.6	20.0	49.6	56.0	-6.4
1.248	29.5	20.0	49.5	56.0	-6.5
1.203	29.4	20.0	49.4	56.0	-6.6
1.277	29.2	20.0	49.2	56.0	-6.8
1.301	29.0	20.0	49.0	56.0	-7.0
1.104	28.8	20.0	48.8	56.0	-7.2
2.040	28.8	20.0	48.8	56.0	-7.2
1.950	28.7	20.0	48.7	56.0	-7.3

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.539	22.6	19.9	42.5	46.0	-3.5
0.419	22.3	19.9	42.2	47.5	-5.3
0.599	20.1	19.9	40.0	46.0	-6.0
1.159	19.5	20.0	39.5	46.0	-6.5
1.134	19.2	20.0	39.2	46.0	-6.8
1.950	19.1	20.0	39.1	46.0	-6.9
1.248	19.0	20.0	39.0	46.0	-7.0
2.040	18.7	20.0	38.7	46.0	-7.3
1.277	18.5	20.0	38.5	46.0	-7.5
1.203	18.3	20.0	38.3	46.0	-7.7
1.301	17.8	20.0	37.8	46.0	-8.2
1.104	17.8	20.0	37.8	46.0	-8.2

CONCLUSION

Pass

Tested By

AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Provolt Line Voltage Dimming Room Controllers	Work Order:	LEVT0117
Serial Number:	M1	Date:	12/30/2015
Customer:	Leviton Manufacturing Company	Temperature:	22.5°C
Attendees:	Mark Darula	Relative Humidity:	29.8%
Customer Project:	None	Bar. Pressure:	1031 mb
Tested By:	Jeff Alcoke	Job Site:	EV07
Power:	277VAC/60Hz	Configuration:	LEVT0117-8

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2015	ANSI C63.10:2013

TEST PARAMETERS

Run #:	10	Line:	High Line	Add. Ext. Attenuation (dB):	0

COMMENTS

None

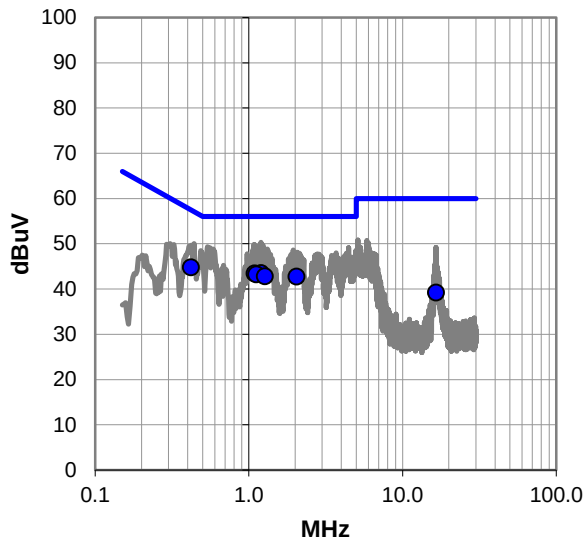
EUT OPERATING MODES

Bluetooth set to Tx - High, 2480 MHz

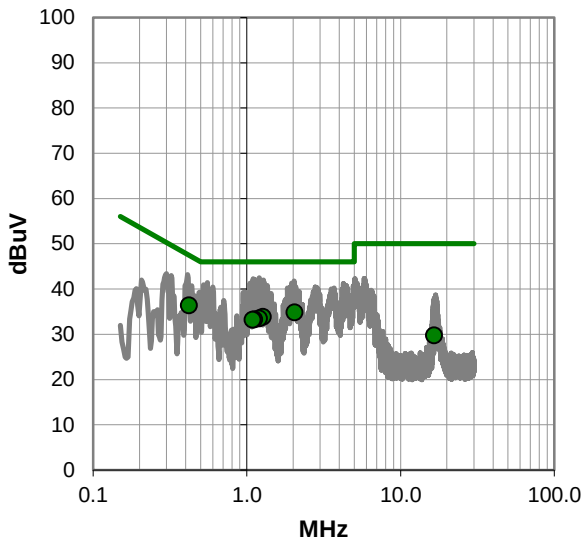
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #10

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
1.200	23.5	20.0	43.5	56.0	-12.5
1.093	23.4	20.0	43.4	56.0	-12.6
0.421	24.9	19.9	44.8	57.4	-12.6
1.118	23.2	20.0	43.2	56.0	-12.8
1.271	22.8	20.0	42.8	56.0	-13.2
2.042	22.7	20.0	42.7	56.0	-13.3
16.500	18.6	20.6	39.2	60.0	-20.8

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.421	16.5	19.9	36.4	47.4	-11.0
2.042	14.8	20.0	34.8	46.0	-11.2
1.271	13.8	20.0	33.8	46.0	-12.2
1.200	13.5	20.0	33.5	46.0	-12.5
1.118	13.3	20.0	33.3	46.0	-12.7
1.093	13.2	20.0	33.2	46.0	-12.8
16.500	9.2	20.6	29.8	50.0	-20.2

CONCLUSION

Pass

Tested By

AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Provolt Line Voltage Dimming Room Controllers	Work Order:	LEVT0117
Serial Number:	M1	Date:	01/05/2016
Customer:	Leviton Manufacturing Company	Temperature:	22.5°C
Attendees:	None	Relative Humidity:	29.6%
Customer Project:	None	Bar. Pressure:	1000 mb
Tested By:	Jeff Alcoke	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	LEVT0117-8

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	22	Line:	High Line	Add. Ext. Attenuation (dB):	0

COMMENTS

None

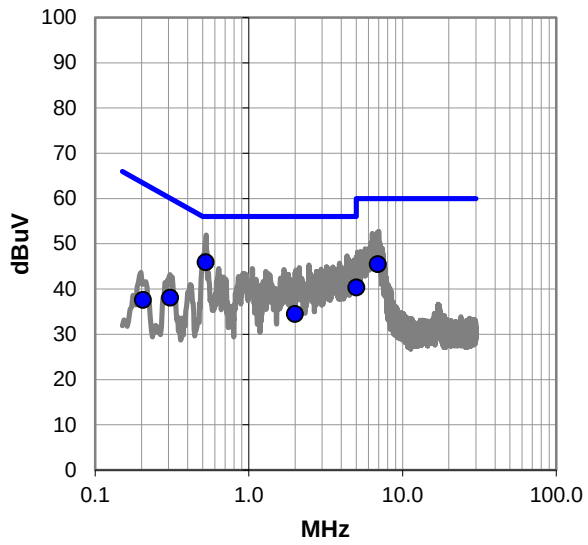
EUT OPERATING MODES

Bluetooth set to Tx - Low, 2402 MHz

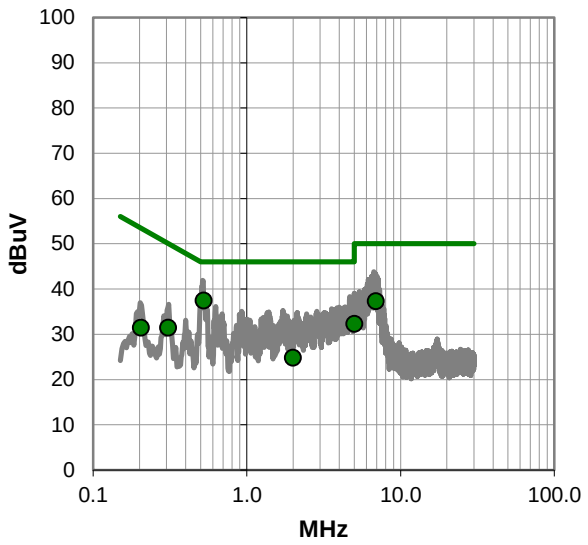
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #22

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.524	25.9	20.0	45.9	56.0	-10.1
6.904	24.9	20.6	45.5	60.0	-14.5
5.006	19.9	20.4	40.3	60.0	-19.7
1.993	14.3	20.2	34.5	56.0	-21.5
0.307	18.1	20.0	38.1	60.0	-21.9
0.205	17.5	20.1	37.6	63.4	-25.8

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.524	17.4	20.0	37.4	46.0	-8.6
6.904	16.7	20.6	37.3	50.0	-12.7
5.006	11.9	20.4	32.3	50.0	-17.7
0.307	11.4	20.0	31.4	50.0	-18.6
1.993	4.6	20.2	24.8	46.0	-21.2
0.205	11.3	20.1	31.4	53.4	-22.0

CONCLUSION

Pass

Tested By

AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Provolt Line Voltage Dimming Room Controllers	Work Order:	LEVT0117
Serial Number:	M1	Date:	01/05/2016
Customer:	Leviton Manufacturing Company	Temperature:	22.5°C
Attendees:	None	Relative Humidity:	29.6%
Customer Project:	None	Bar. Pressure:	1000 mb
Tested By:	Jeff Alcoke	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	LEVT0117-8

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	23	Line:	Neutral	Add. Ext. Attenuation (dB):	0

COMMENTS

None

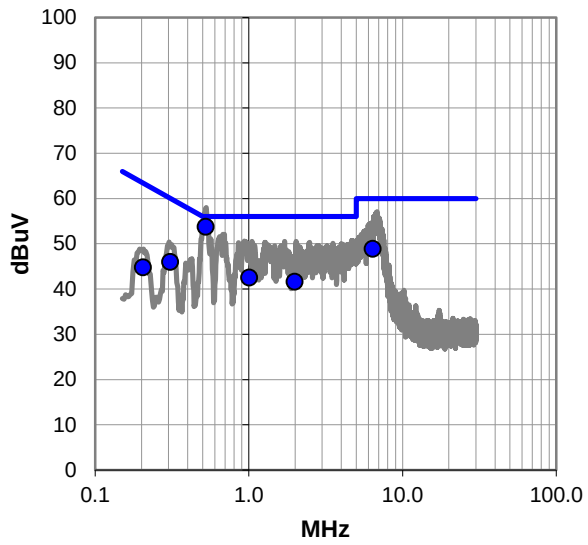
EUT OPERATING MODES

Bluetooth set to Tx - Low, 2402 MHz

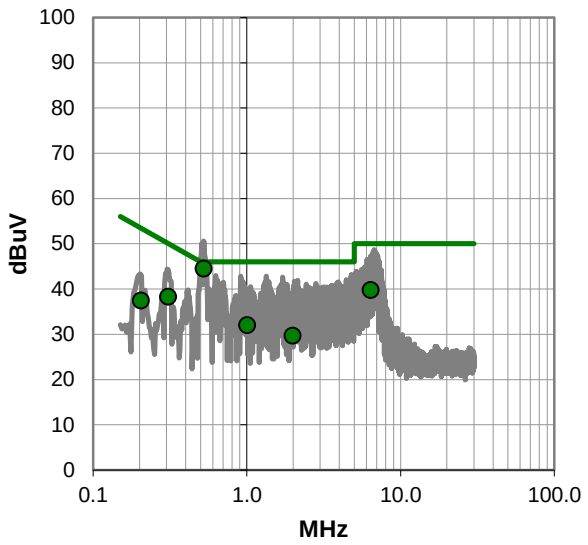
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #23

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.524	33.7	20.0	53.7	56.0	-2.3
6.409	28.3	20.6	48.9	60.0	-11.1
1.006	22.4	20.1	42.5	56.0	-13.5
0.308	26.0	20.0	46.0	60.0	-14.0
1.991	21.4	20.2	41.6	56.0	-14.4
0.205	24.7	20.1	44.8	63.4	-18.6

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.524	24.5	20.0	44.5	46.0	-1.5
6.409	19.2	20.6	39.8	50.0	-10.2
0.308	18.3	20.0	38.3	50.0	-11.7
1.006	11.9	20.1	32.0	46.0	-14.0
0.205	17.3	20.1	37.4	53.4	-16.0
1.991	9.5	20.2	29.7	46.0	-16.3

CONCLUSION

Pass

Tested By

AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Provolt Line Voltage Dimming Room Controllers	Work Order:	LEVT0117
Serial Number:	M1	Date:	01/05/2016
Customer:	Leviton Manufacturing Company	Temperature:	22.5°C
Attendees:	None	Relative Humidity:	29.6%
Customer Project:	None	Bar. Pressure:	1000 mb
Tested By:	Jeff Alcoke	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	LEVT0117-8

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	25	Line:	Neutral	Add. Ext. Attenuation (dB):	0

COMMENTS

None

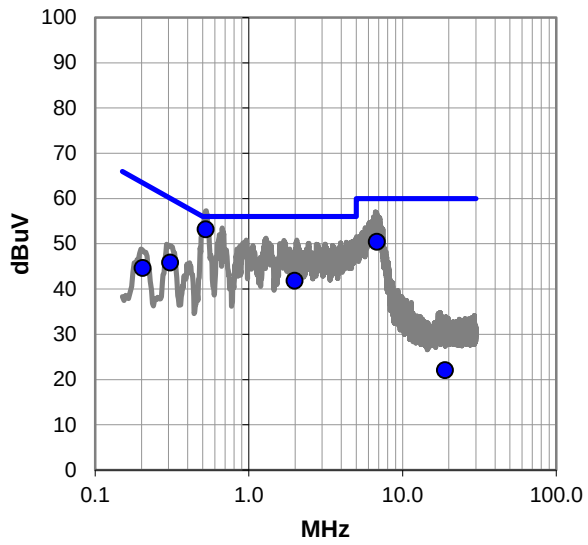
EUT OPERATING MODES

Bluetooth set to Tx - Mid, 2440 MHz

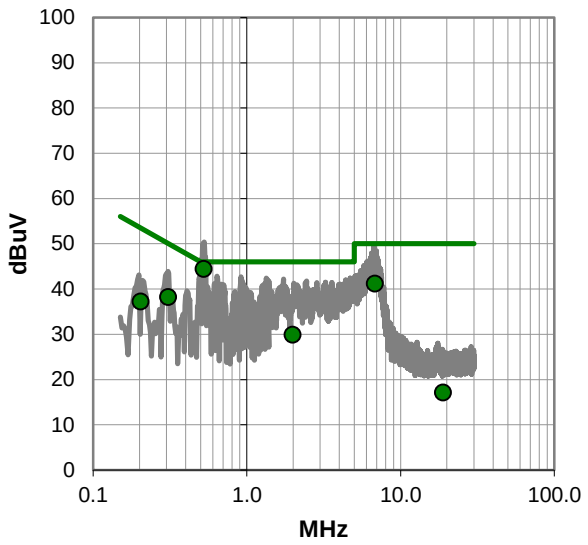
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #25

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.523	33.2	20.0	53.2	56.0	-2.8
6.801	29.8	20.6	50.4	60.0	-9.6
1.990	21.6	20.2	41.8	56.0	-14.2
0.308	25.8	20.0	45.8	60.0	-14.2
0.204	24.5	20.1	44.6	63.4	-18.8
18.904	0.8	21.3	22.1	60.0	-37.9

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.523	24.4	20.0	44.4	46.0	-1.6
6.801	20.6	20.6	41.2	50.0	-8.8
0.308	18.2	20.0	38.2	50.0	-11.8
1.990	9.7	20.2	29.9	46.0	-16.1
0.204	17.1	20.1	37.2	53.4	-16.2
18.904	-4.2	21.3	17.1	50.0	-32.9

CONCLUSION

Pass

Tested By

AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Provolt Line Voltage Dimming Room Controllers	Work Order:	LEVT0117
Serial Number:	M1	Date:	01/05/2016
Customer:	Leviton Manufacturing Company	Temperature:	22.5°C
Attendees:	None	Relative Humidity:	29.6%
Customer Project:	None	Bar. Pressure:	1000 mb
Tested By:	Jeff Alcoke	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	LEVT0117-8

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	26	Line:	High Line	Add. Ext. Attenuation (dB):	0

COMMENTS

None

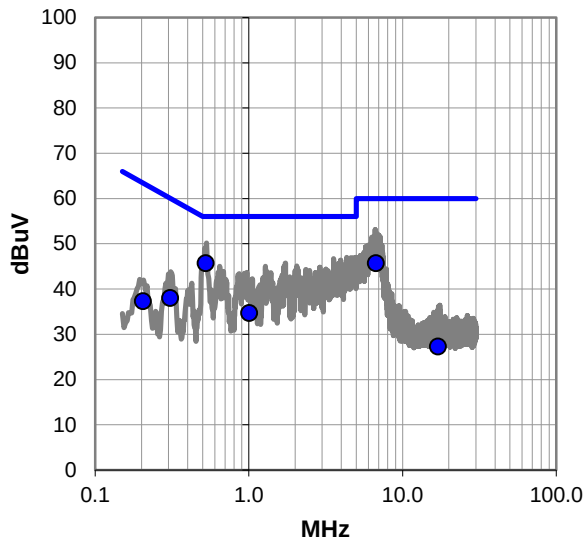
EUT OPERATING MODES

Bluetooth set to Tx - Mid, 2440 MHz

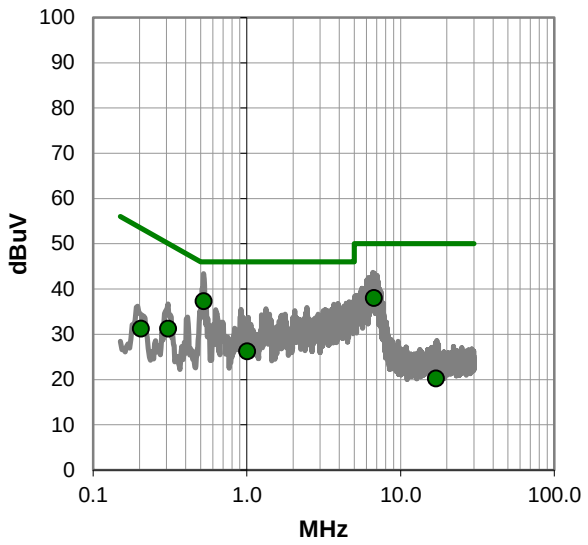
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #26

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.524	25.7	20.0	45.7	56.0	-10.3
6.701	25.1	20.6	45.7	60.0	-14.3
1.006	14.6	20.1	34.7	56.0	-21.3
0.307	18.0	20.0	38.0	60.0	-22.0
0.204	17.2	20.1	37.3	63.4	-26.1
16.991	6.1	21.2	27.3	60.0	-32.7

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.524	17.3	20.0	37.3	46.0	-8.7
6.701	17.4	20.6	38.0	50.0	-12.0
0.307	11.2	20.0	31.2	50.0	-18.8
1.006	6.1	20.1	26.2	46.0	-19.8
0.204	11.1	20.1	31.2	53.4	-22.2
16.991	-1.0	21.2	20.2	50.0	-29.8

CONCLUSION

Pass

Tested By

AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Provolt Line Voltage Dimming Room Controllers	Work Order:	LEVT0117
Serial Number:	M1	Date:	01/05/2016
Customer:	Leviton Manufacturing Company	Temperature:	22.5°C
Attendees:	None	Relative Humidity:	29.6%
Customer Project:	None	Bar. Pressure:	1000 mb
Tested By:	Jeff Alcoke	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	LEVT0117-8

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	27	Line:	High Line	Add. Ext. Attenuation (dB):	0

COMMENTS

None

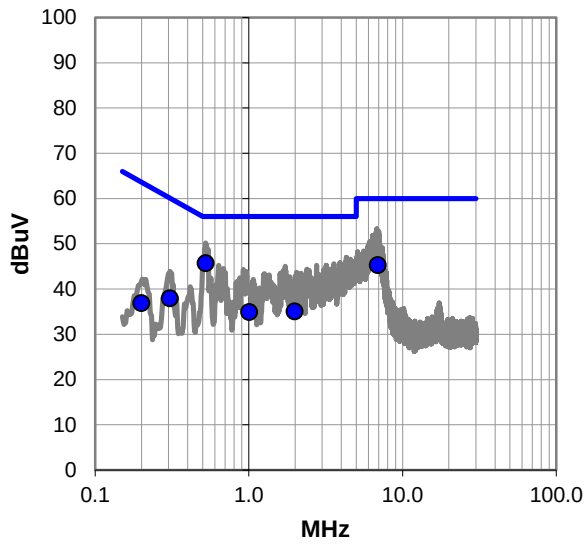
EUT OPERATING MODES

Bluetooth set to Tx - High, 2480 MHz

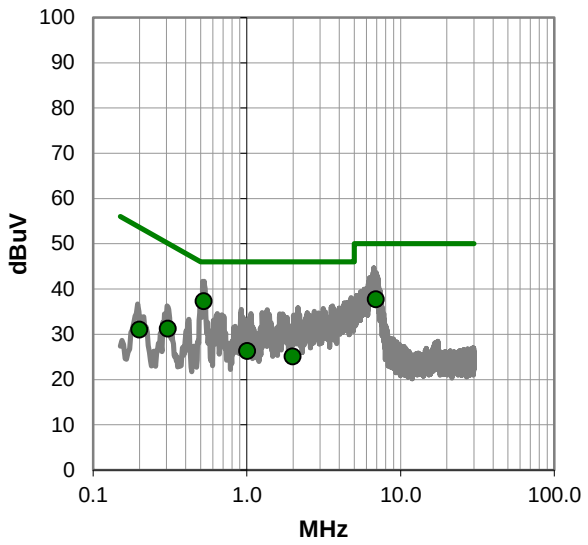
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #27

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.524	25.7	20.0	45.7	56.0	-10.3
6.901	24.7	20.6	45.3	60.0	-14.7
1.991	14.8	20.2	35.0	56.0	-21.0
1.008	14.8	20.1	34.9	56.0	-21.1
0.306	17.9	20.0	37.9	60.1	-22.2
0.200	16.8	20.1	36.9	63.6	-26.7

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.524	17.3	20.0	37.3	46.0	-8.7
6.901	17.1	20.6	37.7	50.0	-12.3
0.306	11.2	20.0	31.2	50.1	-18.9
1.008	6.2	20.1	26.3	46.0	-19.7
1.991	4.9	20.2	25.1	46.0	-20.9
0.200	10.9	20.1	31.0	53.6	-22.6

CONCLUSION

Pass

Tested By

AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC
WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

EUT:	Provolt Line Voltage Dimming Room Controllers	Work Order:	LEVT0117
Serial Number:	M1	Date:	01/05/2016
Customer:	Leviton Manufacturing Company	Temperature:	22.5°C
Attendees:	None	Relative Humidity:	29.6%
Customer Project:	None	Bar. Pressure:	1000 mb
Tested By:	Jeff Alcoke	Job Site:	EV07
Power:	110VAC/60Hz	Configuration:	LEVT0117-8

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2016	ANSI C63.10:2013

TEST PARAMETERS

Run #:	28	Line:	Neutral	Add. Ext. Attenuation (dB):	0

COMMENTS

None

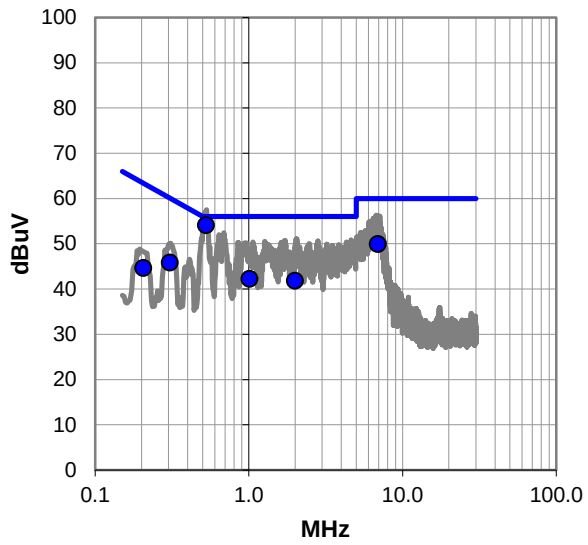
EUT OPERATING MODES

Bluetooth set to Tx - High, 2480 MHz

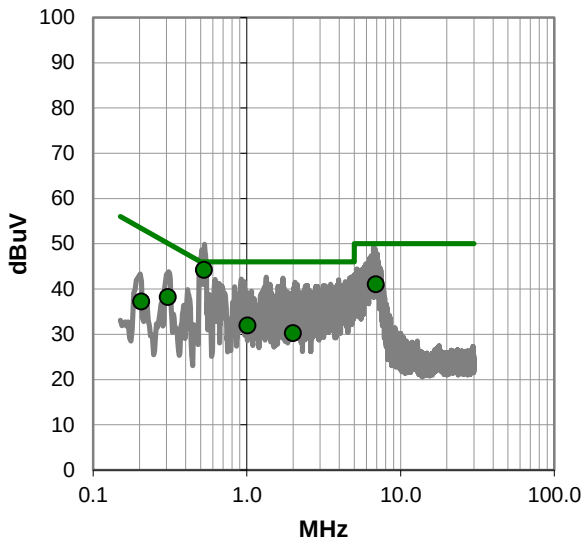
DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



AC POWERLINE CONDUCTED EMISSIONS

NORTHWEST EMC

WTD.2015.12.01
PSA-ESCI 2015.07.01, EmiR5 2015.11.06

RESULTS - Run #28

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.527	34.1	20.0	54.1	56.0	-1.9
6.904	29.3	20.6	49.9	60.0	-10.1
1.009	22.1	20.1	42.2	56.0	-13.8
1.992	21.6	20.2	41.8	56.0	-14.2
0.307	25.8	20.0	45.8	60.1	-14.3
0.206	24.5	20.1	44.6	63.4	-18.8

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.527	24.2	20.0	44.2	46.0	-1.8
6.904	20.4	20.6	41.0	50.0	-9.0
0.307	18.2	20.0	38.2	50.1	-11.9
1.009	11.8	20.1	31.9	46.0	-14.1
1.992	10.0	20.2	30.2	46.0	-15.8
0.206	17.1	20.1	37.2	53.4	-16.2

CONCLUSION

Pass

Tested By

SPURIOUS RADIATED EMISSIONS

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

MODES OF OPERATION

Continuos BLE Tx, Low Channel 2402 MHz
Continuos BLE Tx, Mid Channel 2442 MHz
Continuos BLE Tx, High Channel 2480 MHz

POWER SETTINGS INVESTIGATED

277VAC/60Hz

CONFIGURATIONS INVESTIGATED

LEVT0117 - 7

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	26.500 GHz

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFN	2/10/2015	12 mo
Attenuator	Coaxicom	3910-20	AXZ	5/24/2015	12 mo
Cable	ESM Cable Corp.	KMKM-72	EVY	11/4/2015	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	11/4/2015	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-09	AIV	NCR	0 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	4/16/2015	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-08	AHV	NCR	0 mo
Cable	None	Standard Gain Horns Cable	EVF	4/20/2015	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVC	4/20/2015	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-07	AHU	NCR	0 mo
Cable	N/A	Double Ridge Horn Cables	EVB	4/16/2015	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	PAG	4/16/2015	12 mo
Antenna - Double Ridge	ETS Lindgren	3115	AIZ	1/27/2014	24 mo
Cable	N/A	Bilog Cables	EVA	2/10/2015	12 mo
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	AOL	2/10/2015	12 mo
Antenna - Biconilog	EMCO	3141	AXE	8/29/2014	24 mo

TEST DESCRIPTION

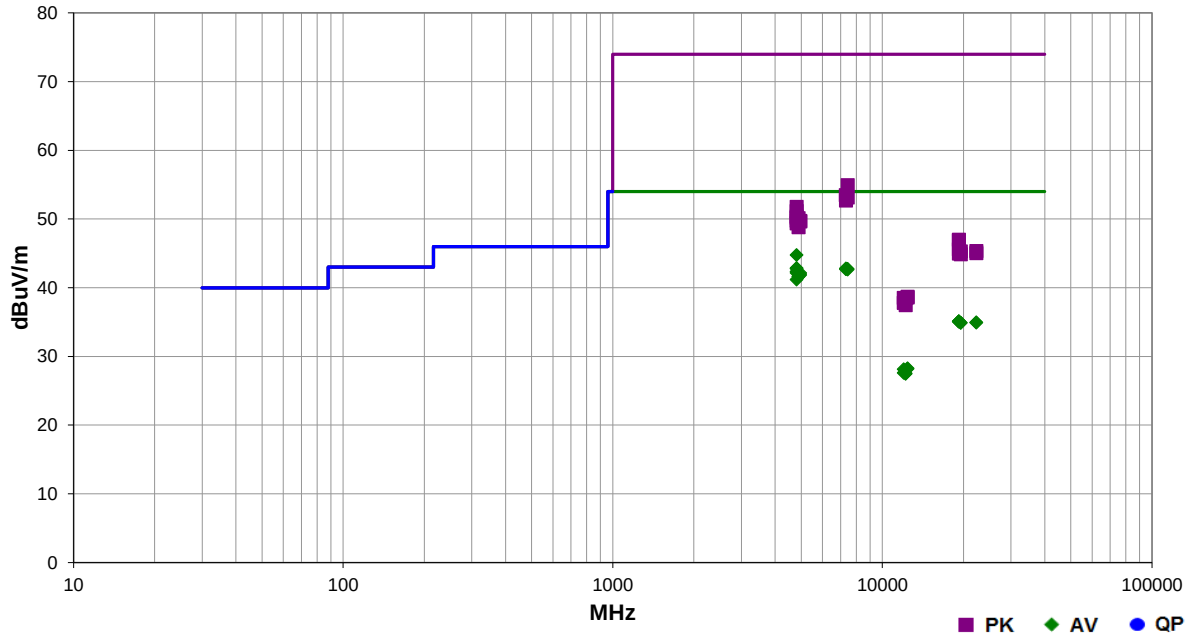
The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization. A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

SPURIOUS RADIATED EMISSIONS

Work Order:	LEVT0117	**Date:**	12/28/15		
Project:	None	**Temperature:**	21.2 °C		
Job Site:	EV01	**Humidity:**	34.7% RH		
Serial Number:	M1	**Barometric Pres.:**	1003.7 mbar	**Tested by:**	Luke Richardson, Rod Peloquin
EUT:	Provolt Line Voltage Dimming Room Controllers				
Configuration:	7				
Customer:	Leviton Manufacturing Company				
Attendees:	Mark Darula				
EUT Power:	277VAC/60Hz				
Operating Mode:	Continuos BLE Tx				
Deviations:	None				
Comments:	None				

Test Specifications	**Test Method**
FCC 15.247:2015	ANSI C63.10:2013

Run #	34	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
4804.208	37.4	7.4	1.0	336.0	3.0	0.0	Horz	AV	0.0	44.8	54.0	-9.2	Low EUT on side
4806.083	35.5	7.4	3.9	260.0	3.0	0.0	Horz	AV	0.0	42.9	54.0	-11.1	Low Horizontal EUT
7327.383	27.6	15.2	4.0	1.0	3.0	0.0	Horz	AV	0.0	42.8	54.0	-11.2	Mid EUT on side
4804.092	35.4	7.4	1.0	356.0	3.0	0.0	Vert	AV	0.0	42.8	54.0	-11.2	Low EUT cables Vertical
7440.717	27.3	15.4	1.0	147.0	3.0	0.0	Vert	AV	0.0	42.7	54.0	-11.3	High EUT Cables Vertical
7327.217	27.5	15.2	1.0	207.0	3.0	0.0	Vert	AV	0.0	42.7	54.0	-11.3	Mid EUT cables Vertical
7439.383	27.2	15.4	2.5	114.0	3.0	0.0	Horz	AV	0.0	42.6	54.0	-11.4	High EUT on side
4806.033	35.0	7.4	1.0	10.0	3.0	0.0	Horz	AV	0.0	42.4	54.0	-11.6	Low EUT cables Vertical
4806.042	34.8	7.4	4.0	321.0	3.0	0.0	Vert	AV	0.0	42.2	54.0	-11.8	Low Horizontal EUT
4959.833	34.6	7.5	1.0	329.0	3.0	0.0	Horz	AV	0.0	42.1	54.0	-11.9	High EUT on side
4959.933	34.3	7.5	1.0	9.0	3.0	0.0	Vert	AV	0.0	41.8	54.0	-12.2	High EUT Cables Vertical
4883.933	34.2	7.4	1.0	8.0	3.0	0.0	Vert	AV	0.0	41.6	54.0	-12.4	Mid EUT cables Vertical
4883.892	34.2	7.4	1.0	305.0	3.0	0.0	Horz	AV	0.0	41.6	54.0	-12.4	Mid EUT on side
4806.092	33.8	7.4	1.0	290.0	3.0	0.0	Vert	AV	0.0	41.2	54.0	-12.8	Low EUT on side
19219.430	34.4	0.7	0.0	360.0	3.0	0.0	Horz	AV	0.0	35.1	54.0	-18.9	Low EUT on side
19218.900	34.4	0.7	0.0	344.0	3.0	0.0	Vert	AV	0.0	35.1	54.0	-18.9	Low cables vertical
19215.540	34.4	0.7	0.0	195.0	3.0	0.0	Vert	AV	0.0	35.1	54.0	-18.9	High Cables Vertical
19213.550	34.4	0.7	0.0	23.0	3.0	0.0	Horz	AV	0.0	35.1	54.0	-18.9	High EUT on side
22323.980	33.9	1.0	0.0	37.0	3.0	0.0	Horz	AV	0.0	34.9	54.0	-19.1	High EUT on Side
7439.933	39.5	15.4	1.0	147.0	3.0	0.0	Vert	PK	0.0	54.9	74.0	-19.1	High EUT Cables Vertical
22319.100	33.9	1.0	0.0	14.0	3.0	0.0	Vert	AV	0.0	34.9	54.0	-19.1	High Cables Vertical
19537.550	34.5	0.4	0.0	199.0	3.0	0.0	Horz	AV	0.0	34.9	54.0	-19.1	Mid EUT on side

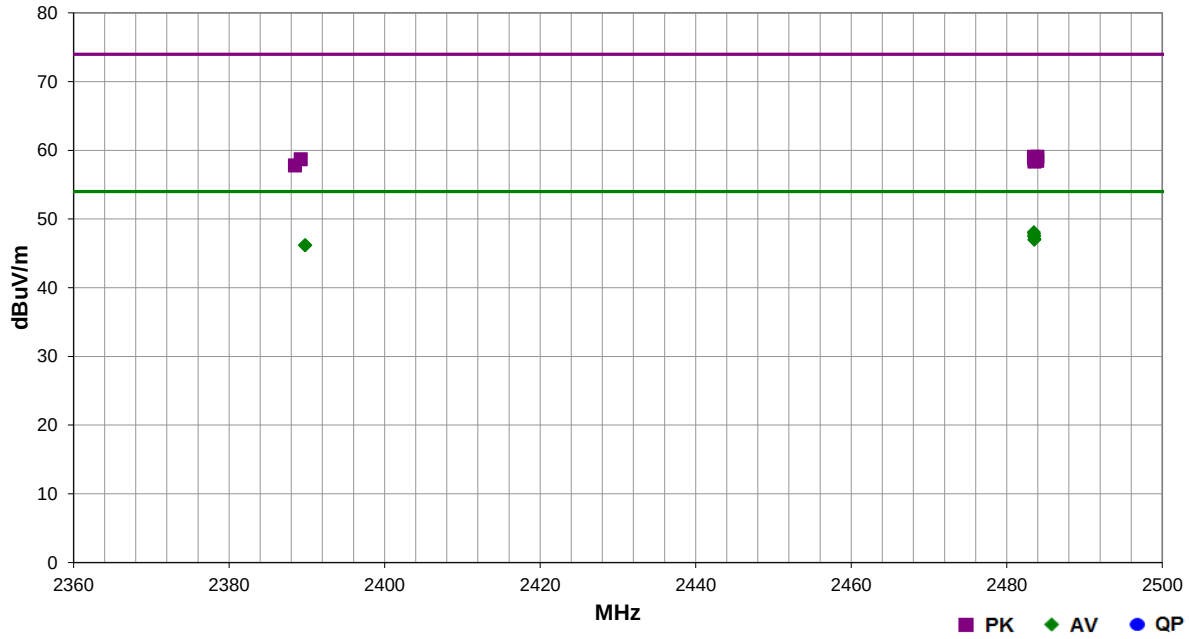
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
19535.250	34.5	0.4	0.0	352.0	3.0	0.0	Vert	AV	0.0	34.9	54.0	-19.1	Mid Cables Vertical
7319.567	38.3	15.2	1.0	207.0	3.0	0.0	Vert	PK	0.0	53.5	74.0	-20.5	Mid EUT cables Vertical
7440.200	37.7	15.4	2.5	114.0	3.0	0.0	Horz	PK	0.0	53.1	74.0	-20.9	High EUT on side
7325.617	37.5	15.2	4.0	1.0	3.0	0.0	Horz	PK	0.0	52.7	74.0	-21.3	Mid EUT on side
4803.808	44.4	7.4	1.0	336.0	3.0	0.0	Horz	PK	0.0	51.8	74.0	-22.2	Low EUT on side
4803.683	43.8	7.4	1.0	356.0	3.0	0.0	Vert	PK	0.0	51.2	74.0	-22.8	Low EUT cables Vertical
4806.192	43.0	7.4	3.9	260.0	3.0	0.0	Horz	PK	0.0	50.4	74.0	-23.6	Low Horizontal EUT
4806.033	42.8	7.4	1.0	10.0	3.0	0.0	Horz	PK	0.0	50.2	74.0	-23.8	Low EUT cables Vertical
4883.833	42.7	7.4	1.0	305.0	3.0	0.0	Horz	PK	0.0	50.1	74.0	-23.9	Mid EUT on side
4806.117	42.4	7.4	4.0	321.0	3.0	0.0	Vert	PK	0.0	49.8	74.0	-24.2	Low Horizontal EUT
4960.450	42.2	7.5	1.0	329.0	3.0	0.0	Horz	PK	0.0	49.7	74.0	-24.3	High EUT on side
4959.417	42.1	7.5	1.0	9.0	3.0	0.0	Vert	PK	0.0	49.6	74.0	-24.4	High EUT Cables Vertical
4806.092	42.0	7.4	1.0	290.0	3.0	0.0	Vert	PK	0.0	49.4	74.0	-24.6	Low EUT on side
4883.417	41.4	7.4	1.0	8.0	3.0	0.0	Vert	PK	0.0	48.8	74.0	-25.2	Mid EUT cables Vertical
12398.910	26.4	1.9	1.0	340.0	3.0	0.0	Horz	AV	0.0	28.3	54.0	-25.7	High EUT on side
12396.720	26.3	1.9	1.0	57.0	3.0	0.0	Vert	AV	0.0	28.2	54.0	-25.8	High Cables Vertical
12011.280	28.0	0.1	1.0	73.0	3.0	0.0	Vert	AV	0.0	28.1	54.0	-25.9	Low cables vertical
12005.670	27.5	0.1	1.0	217.0	3.0	0.0	Horz	AV	0.0	27.6	54.0	-26.4	Low EUT on side
12203.480	26.4	1.1	1.0	223.0	3.0	0.0	Horz	AV	0.0	27.5	54.0	-26.5	Mid EUT On side
12205.400	26.3	1.2	1.0	111.0	3.0	0.0	Vert	AV	0.0	27.5	54.0	-26.5	Mid Cables Vertical
19216.130	46.3	0.7	0.0	195.0	3.0	0.0	Vert	PK	0.0	47.0	74.0	-27.0	High Cables Vertical
19215.770	46.2	0.7	0.0	23.0	3.0	0.0	Horz	PK	0.0	46.9	74.0	-27.1	High EUT on side
19220.200	44.9	0.7	0.0	344.0	3.0	0.0	Vert	PK	0.0	45.6	74.0	-28.4	Low Cables vertical
22322.950	44.3	1.0	0.0	14.0	3.0	0.0	Vert	PK	0.0	45.3	74.0	-28.7	High Cables Vertical
19540.180	44.9	0.4	0.0	352.0	3.0	0.0	Vert	PK	0.0	45.3	74.0	-28.7	Mid cables vertical
22319.300	44.0	1.0	0.0	37.0	3.0	0.0	Horz	PK	0.0	45.0	74.0	-29.0	High EUT on side
19216.180	44.3	0.7	0.0	360.0	3.0	0.0	Horz	PK	0.0	45.0	74.0	-29.0	Low EUT on side
19531.950	44.5	0.4	0.0	199.0	3.0	0.0	Horz	PK	0.0	44.9	74.0	-29.1	Mid Eut on side
12399.070	36.8	1.9	1.0	340.0	3.0	0.0	Horz	PK	0.0	38.7	74.0	-35.3	High EUT on side
12398.670	36.7	1.9	1.0	57.0	3.0	0.0	Vert	PK	0.0	38.6	74.0	-35.4	High Cables vertical
12010.550	38.4	0.1	1.0	217.0	3.0	0.0	Horz	PK	0.0	38.5	74.0	-35.5	Low EUT on side
12206.300	37.3	1.2	1.0	111.0	3.0	0.0	Vert	PK	0.0	38.5	74.0	-35.5	Mid Cables Vertical
12007.150	37.7	0.1	1.0	73.0	3.0	0.0	Vert	PK	0.0	37.8	74.0	-36.2	Low cables vertical
12208.470	36.3	1.2	1.0	223.0	3.0	0.0	Horz	PK	0.0	37.5	74.0	-36.5	Mid EUT on side

SPURIOUS RADIATED EMISSIONS

Work Order:	LEVT0117	**Date:**	12/28/15		
Project:	None	**Temperature:**	21.2 °C		
Job Site:	EV01	**Humidity:**	34.7% RH		
Serial Number:	M1	**Barometric Pres.:**	1003.7 mbar	**Tested by:**	Luke Richardson, and Rod Peloquin
EUT:	Provolt Line Voltage Dimming Room Controllers				
Configuration:	7				
Customer:	Leviton Manufacturing Company				
Attendees:	Mark Darula				
EUT Power:	277VAC/60Hz				
Operating Mode:	Continuos BLE Tx				
Deviations:	None				
Comments:	None				

Test Specifications	**Test Method**
FCC 15.247:2015	ANSI C63.10:2013

Run #	36	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2483.513	31.1	-3.0	1.0	360.0	3.0	20.0	Horz	AV	0.0	48.1	54.0	-5.9	High EUT on side
2483.533	30.9	-3.0	1.0	314.0	3.0	20.0	Vert	AV	0.0	47.9	54.0	-6.1	High Cables vertical
2483.557	30.6	-3.0	1.0	2.0	3.0	20.0	Horz	AV	0.0	47.6	54.0	-6.4	High Horiizontal
2483.523	30.5	-3.0	1.0	107.0	3.0	20.0	Vert	AV	0.0	47.5	54.0	-6.5	High Horizontal
2483.610	30.1	-3.0	1.0	244.0	3.0	20.0	Vert	AV	0.0	47.1	54.0	-6.9	High EUT on side
2483.540	30.0	-3.0	2.3	290.0	3.0	20.0	Horz	AV	0.0	47.0	54.0	-7.0	High Cables vertical
2389.757	29.5	-3.3	1.0	199.0	3.0	20.0	Vert	AV	0.0	46.2	54.0	-7.8	High Cables Vertical
2389.827	29.5	-3.3	1.0	317.0	3.0	20.0	Horz	AV	0.0	46.2	54.0	-7.8	High EUT On side
2483.937	42.1	-3.0	1.0	2.0	3.0	20.0	Horz	PK	0.0	59.1	74.0	-14.9	High Horiizontal
2483.510	42.1	-3.0	1.0	360.0	3.0	20.0	Horz	PK	0.0	59.1	74.0	-14.9	High EUT on side
2483.613	41.8	-3.0	1.0	314.0	3.0	20.0	Vert	PK	0.0	58.8	74.0	-15.2	High Cables vertical
2389.213	42.0	-3.3	1.0	317.0	3.0	20.0	Horz	PK	0.0	58.7	74.0	-15.3	High EUT on side
2483.543	41.7	-3.0	1.0	244.0	3.0	20.0	Vert	PK	0.0	58.7	74.0	-15.3	High EUT on side
2483.913	41.5	-3.0	2.3	290.0	3.0	20.0	Horz	PK	0.0	58.5	74.0	-15.5	High Cables vertical
2483.583	41.4	-3.0	1.0	107.0	3.0	20.0	Vert	PK	0.0	58.4	74.0	-15.6	High Horizontal
2388.483	41.1	-3.3	1.0	199.0	3.0	20.0	Vert	PK	0.0	57.8	74.0	-16.2	High cables Vertical

DUTY CYCLE

XMit 2015.01.14

TEST DESCRIPTION

The Duty Cycle (x) of the single channel operation of the radio as controlled by the provided test software was measured for each of the EUT operating modes.

There is no compliance requirement to be met by this test, so therefore no Pass / Fail criteria.

The measurements were made using a zero span on the spectrum analyzer to see the pulses in the time domain. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used

The test software provided for operation in a fixed, single channel mode allows the EUT to operate continuously at 100% Duty Cycle.

OCCUPIED BANDWIDTH

XMit 2015.01.14

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo)
Block - DC	Fairview Microwave	SD3379	AMP	6/18/2015	12
Cable	ESM Cable Corp.	TT	EV1	NCR	0
Attenuator	S.M. Electronics	SA26B-20	AUY	7/14/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAQ	3/10/2015	12

TEST DESCRIPTION

The 6dB occupied bandwidth was measured using 100 kHz resolution bandwidth and 300 kHz video bandwidth. The 99.9% (approximate 26 dB) emission bandwidth (EBW) was also measured at the same time.

The EUT was set to the channels and modes listed in the datasheet. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer.

OCCUPIED BANDWIDTH

NORTHWEST EMC

XMit 2015.01.14

EUT:	**Provolt Line Voltage Dimming Room Controllers**			**Work Order:**	**LEVT0117**
Serial Number:	**M1**			**Date:**	**12/22/15**
Customer:	**Leviton Manufacturing Company**			**Temperature:**	**21.3°C**
Attendees:	**Mark Darula**			**Humidity:**	**36%**
Project:	**None**			**Barometric Pres.:**	**994.9**
Tested by:	**Cole Ghizzone, Rod Peloquin**	**Power:**	**110VAC/60Hz**	**Job Site:**	**EV06**

TEST SPECIFICATIONS	**Test Method**
FCC 15.247:2015	ANSI C63.10:2013

COMMENTS

None

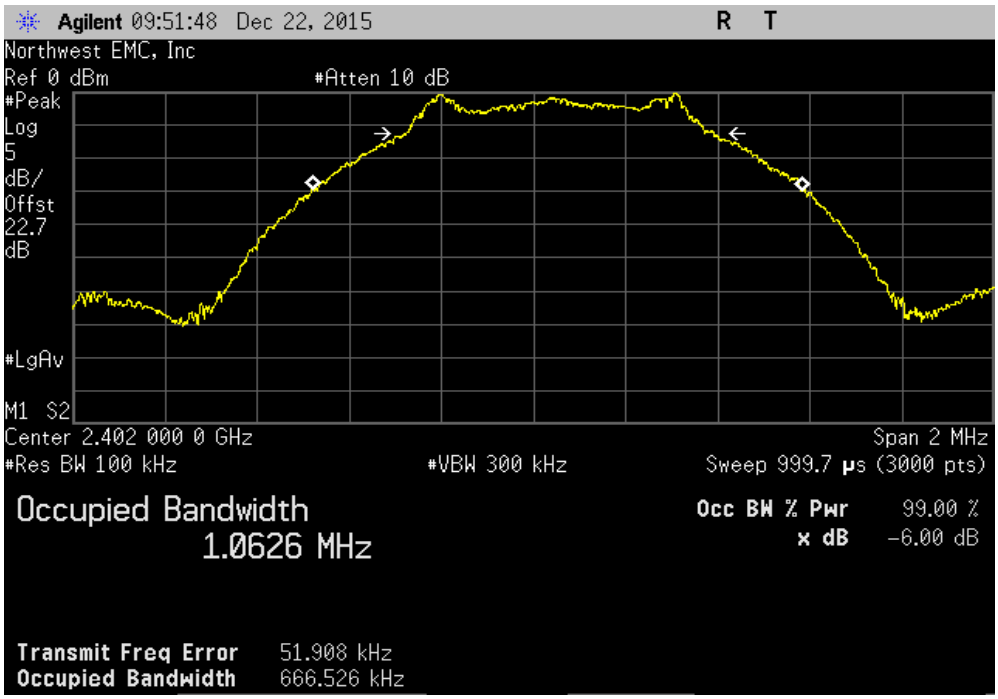
DEVIATIONS FROM TEST STANDARD

None

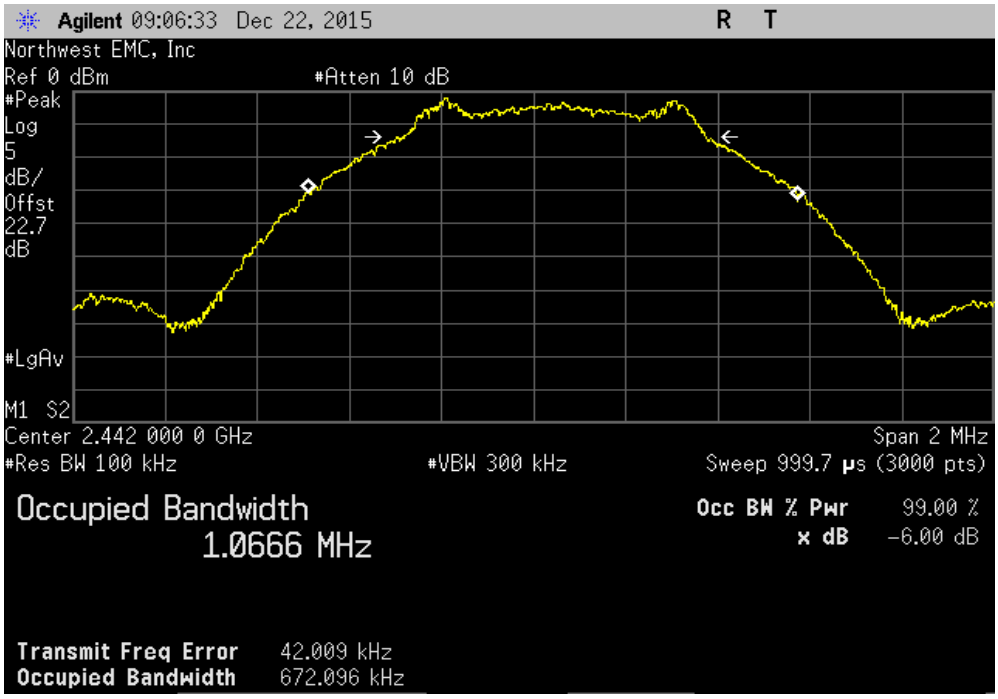
Configuration #	**3**	*Signature*

	Value	**Limit (≥)**	**Result**
Low Channel, 2402 MHz	666.526 kHz	500 kHz	Pass
Mid Channel, 2442 MHz	672.096 kHz	500 kHz	Pass
High Channel, 2480 MHz	658.004 kHz	500 kHz	Pass

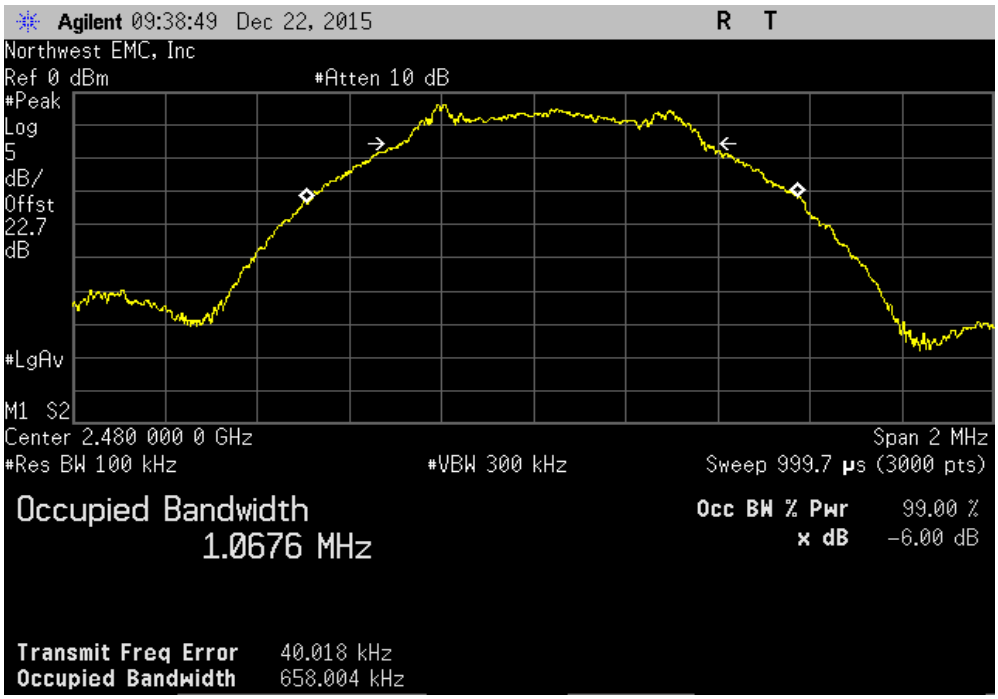
Low Channel, 2402 MHz						
				Value	Limit (≥)	Result
				666.526 kHz	500 kHz	Pass



Mid Channel, 2442 MHz						
				Value	Limit (≥)	Result
				672.096 kHz	500 kHz	Pass



High Channel, 2480 MHz						
				Value	Limit (≥)	Result
				658.004 kHz	500 kHz	Pass



OUTPUT POWER

XMit 2015.01.14

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo)
Cable	ESM Cable Corp.	TT	EV1	NCR	0
Block - DC	Fairview Microwave	SD3379	AMP	6/18/2015	12
Attenuator	S.M. Electronics	SA26B-20	AUY	7/14/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAQ	3/10/2015	12

TEST DESCRIPTION

The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Prior to measuring peak transmit power the DTS bandwidth (B) and the transmission pulse duration (T) were measured. Both are required to determine the method of measuring Maximum Conducted Output Power. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

The method found in ANSI C63.10:2013 Section 11.10.2 was used because the RBW on the analyzer was greater than the DTS Bandwidth of the radio..

De Facto EIRP Limit: Per 47 CFR 15.247 (b)(1-3), the EUT meets the de facto EIRP limit of +36 dBm.

OUTPUT POWER

NORTHWEST EMC

XMit 2015.01.14

EUT:	**Provolt Line Voltage Dimming Room Controllers**			**Work Order:**	**LEVT0117**
Serial Number:	**M1**			**Date:**	**12/22/15**
Customer:	**Leviton Manufacturing Company**			**Temperature:**	**21.3°C**
Attendees:	**Mark Darula**			**Humidity:**	**36%**
Project:	**None**			**Barometric Pres.:**	**994.9**
Tested by:	**Cole Ghizzone, Rod Peloquin**	**Power:**	**110VAC/60Hz**	**Job Site:**	**EV06**

TEST SPECIFICATIONS	**Test Method**
FCC 15.247:2015	ANSI C63.10:2013

COMMENTS

None

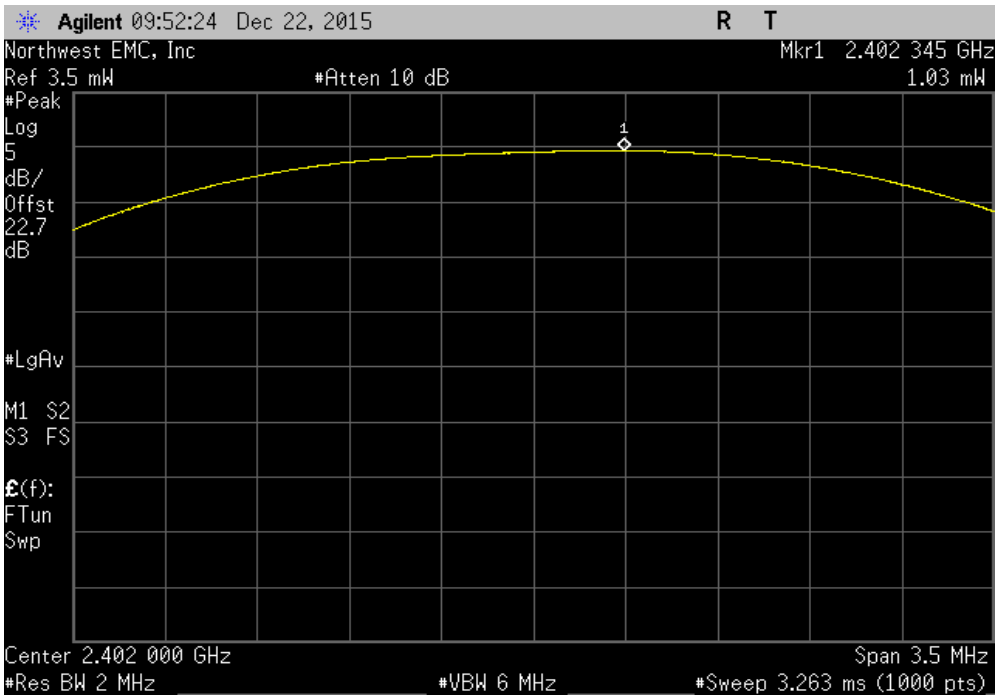
DEVIATIONS FROM TEST STANDARD

None

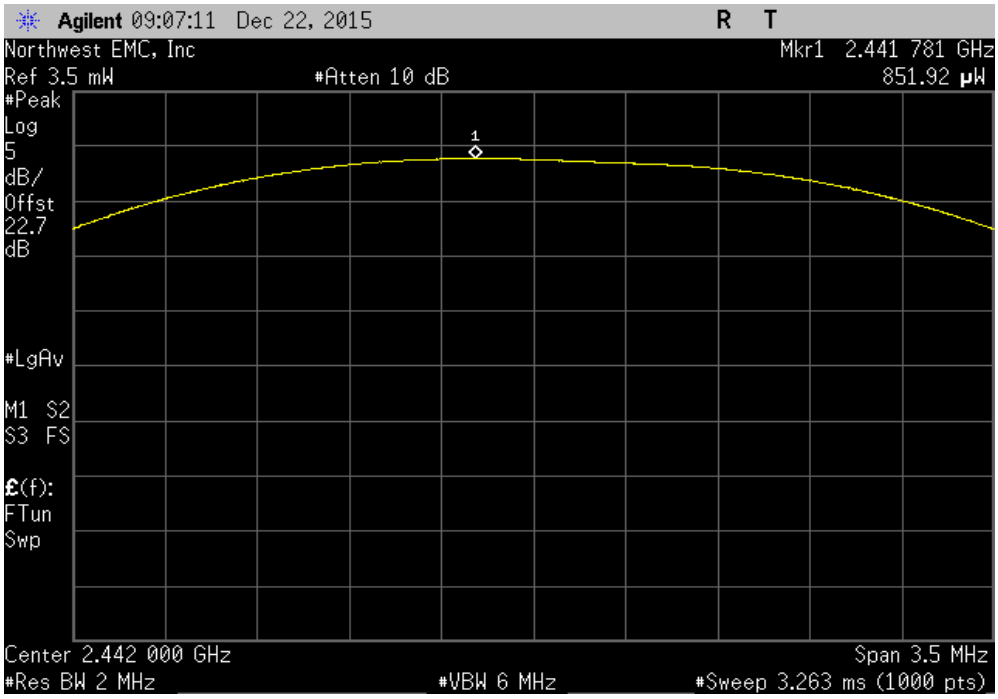
Configuration #	**3**	*Signature*

	Value	**Limit (<)**	**Result**
Low Channel, 2402 MHz	1.03 mW	1 W	Pass
Mid Channel, 2442 MHz	851.922 uW	1 W	Pass
High Channel, 2480 MHz	700.971 uW	1 W	Pass

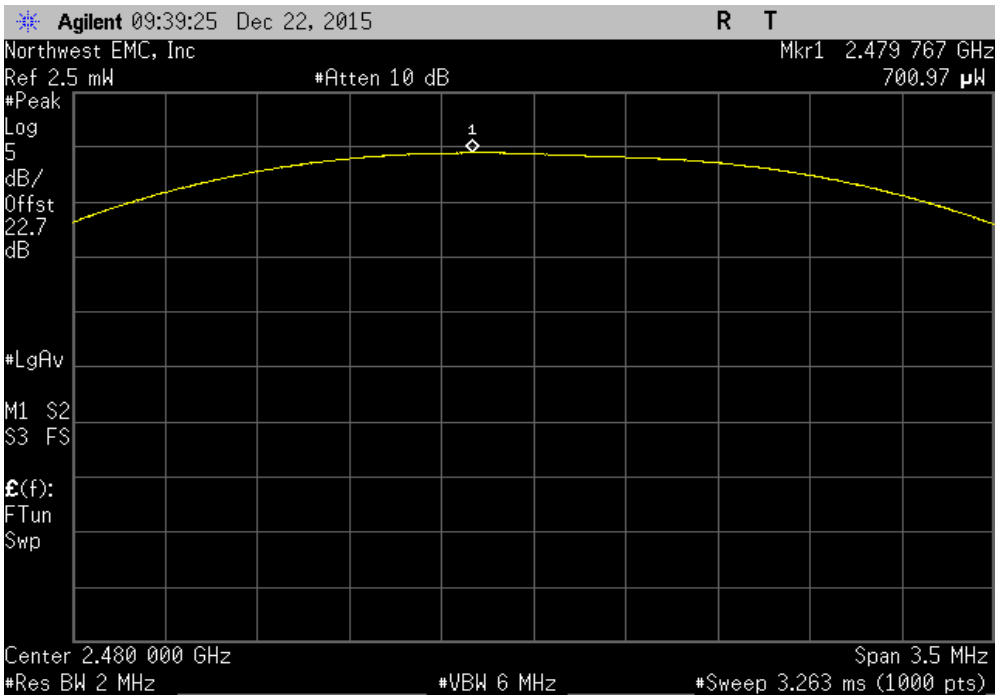
Low Channel, 2402 MHz						
				Value	Limit (<)	Result
				1.03 mW	1 W	Pass



Mid Channel, 2442 MHz						
				Value	Limit (<)	Result
				851.922 uW	1 W	Pass



High Channel, 2480 MHz						
				Value	Limit (<)	Result
				700.971 uW	1 W	Pass



POWER SPECTRAL DENSITY

XMit 2015.01.14

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo)
Block - DC	Fairview Microwave	SD3379	AMP	6/18/2015	12
Cable	ESM Cable Corp.	TT	EV1	NCR	0
Attenuator	S.M. Electronics	SA26B-20	AUY	7/14/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAQ	3/10/2015	12

TEST DESCRIPTION

The maximum power spectral density measurements was measured using the channels and modes as called out on the following data sheets.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. External attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

Per the procedure outlined in ANSI C63.10 the peak power spectral density was measured in a 3 kHz RBW.

POWER SPECTRAL DENSITY

NORTHWEST EMC

XMit 2015.01.14

EUT:	**Provolt Line Voltage Dimming Room Controllers**			**Work Order:**	**LEVT0117**
Serial Number:	**M1**			**Date:**	**12/22/15**
Customer:	**Leviton Manufacturing Company**			**Temperature:**	**21.3°C**
Attendees:	**Mark Darula**			**Humidity:**	**36%**
Project:	**None**			**Barometric Pres.:**	**994.9**
Tested by:	**Cole Ghizzone, Rod Peloquin**	**Power:**	**110VAC/60Hz**	**Job Site:**	**EV06**

TEST SPECIFICATIONS	**Test Method**
FCC 15.247:2015	ANSI C63.10:2013

COMMENTS

None

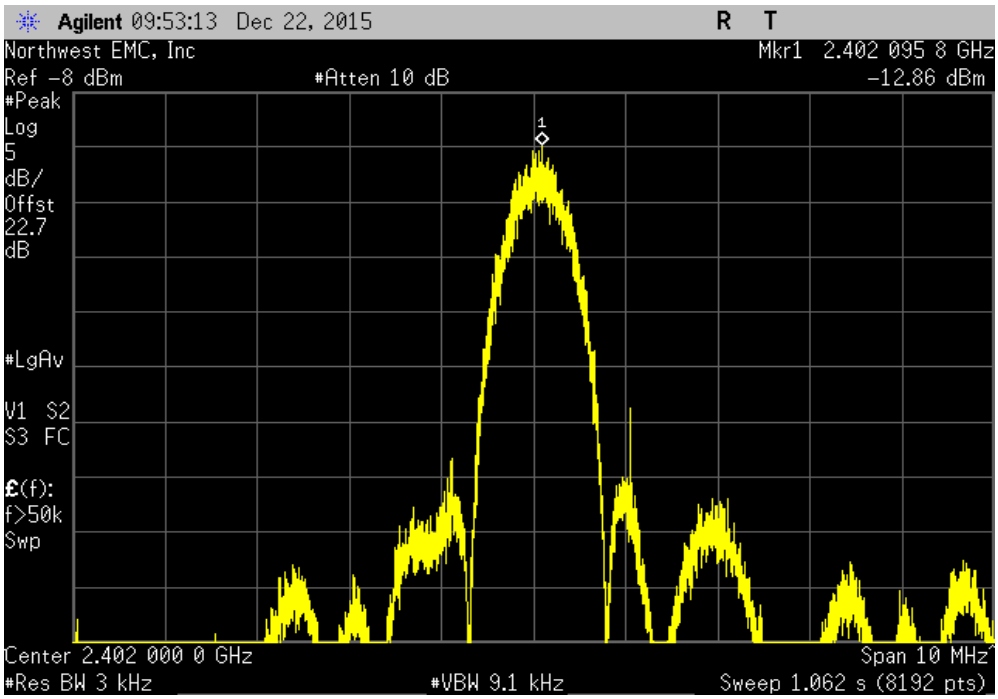
DEVIATIONS FROM TEST STANDARD

None

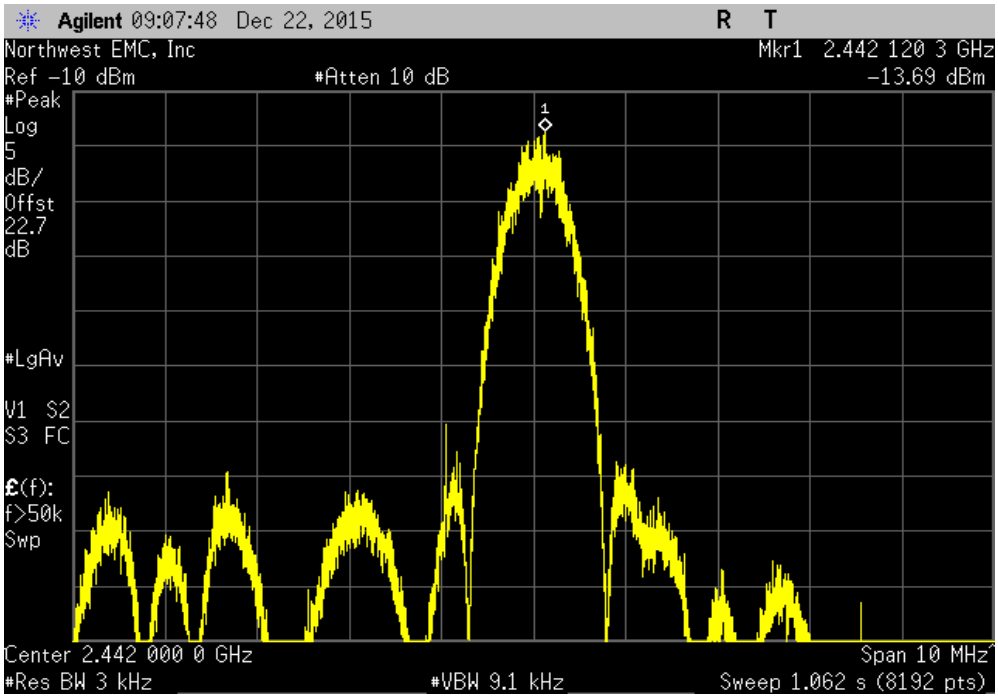
Configuration #	**3**	*Signature*

	Value dBm/3kHz	**Limit < dBm/3kHz**	**Results**
Low Channel, 2402 MHz	-12.858	8	Pass
Mid Channel, 2442 MHz	-13.687	8	Pass
High Channel, 2480 MHz	-14.817	8	Pass

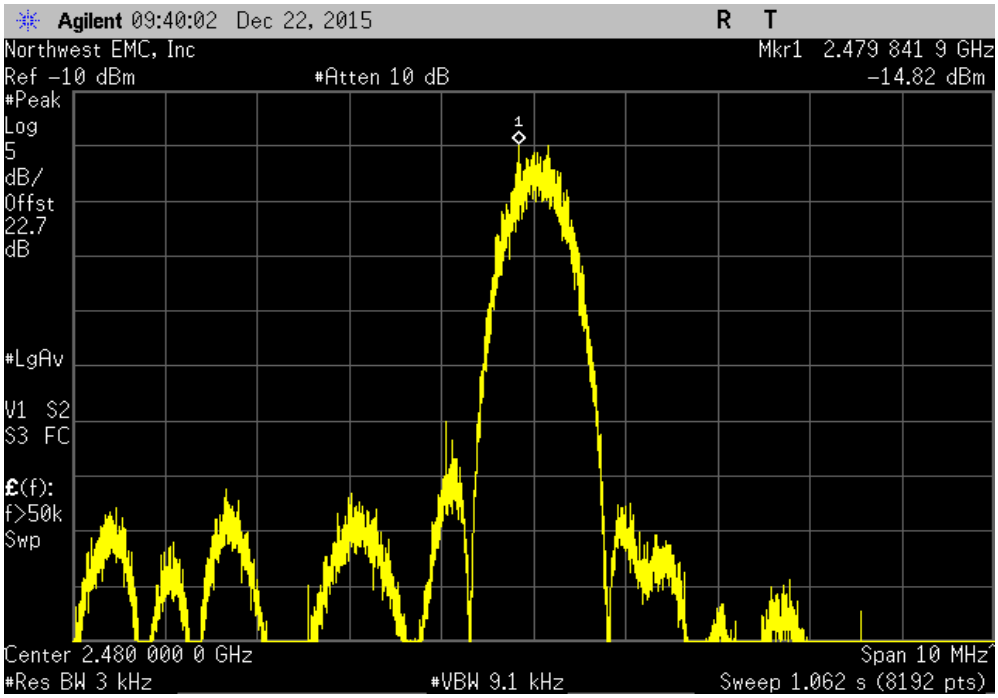
Low Channel, 2402 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-12.858	8	Pass



Mid Channel, 2442 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-13.687	8	Pass



High Channel, 2480 MHz						
				Value dBm/3kHz	Limit < dBm/3kHz	Results
				-14.817	8	Pass



BAND EDGE COMPLIANCE

XMit 2015.01.14

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo)
Attenuator	S.M. Electronics	SA26B-20	AUY	7/14/2015	12
Block - DC	Fairview Microwave	SD3379	AMP	6/18/2015	12
Cable	ESM Cable Corp.	TT	EV1	NCR	0
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAQ	3/10/2015	12

TEST DESCRIPTION

The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in each available band. The channels closest to the band edges were selected. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.

BAND EDGE COMPLIANCE

NORTHWEST EMC

XMit 2015.01.14

EUT:	Provolt Line Voltage Dimming Room Controllers			**Work Order:**	LEVT0117
Serial Number:	M1			**Date:**	12/22/15
Customer:	Leviton Manufacturing Company			**Temperature:**	21.2°C
Attendees:	Mark Darula			**Humidity:**	35%
Project:	None			**Barometric Pres.:**	994.9
Tested by:	Cole Ghizzone, Rod Peloquin	**Power:**	110VAC/60Hz	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2015	ANSI C63.10:2013

COMMENTS

None

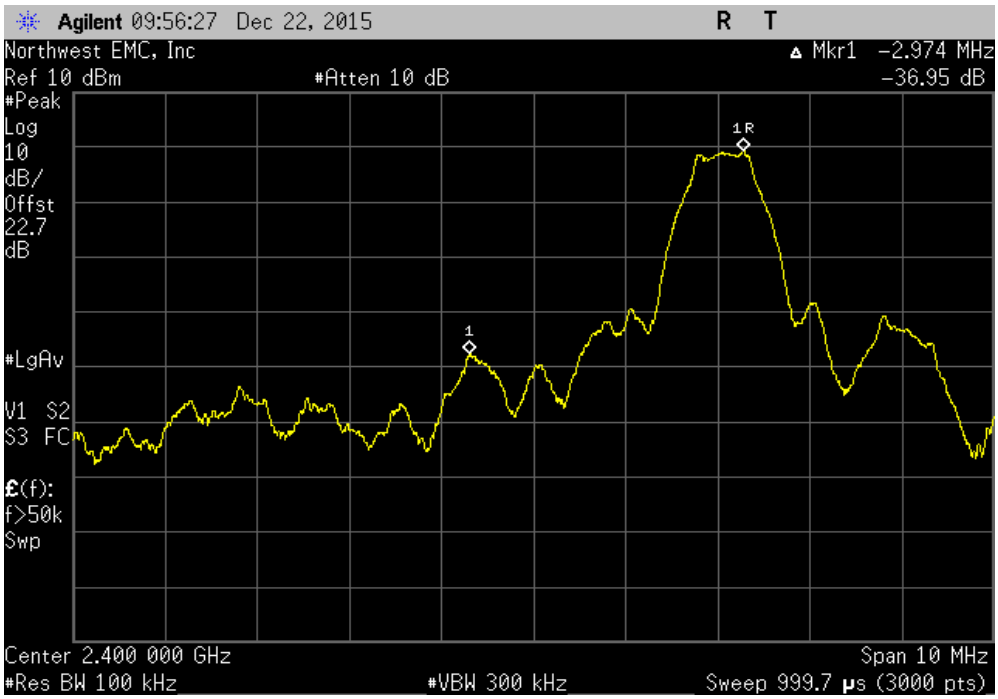
DEVIATIONS FROM TEST STANDARD

None

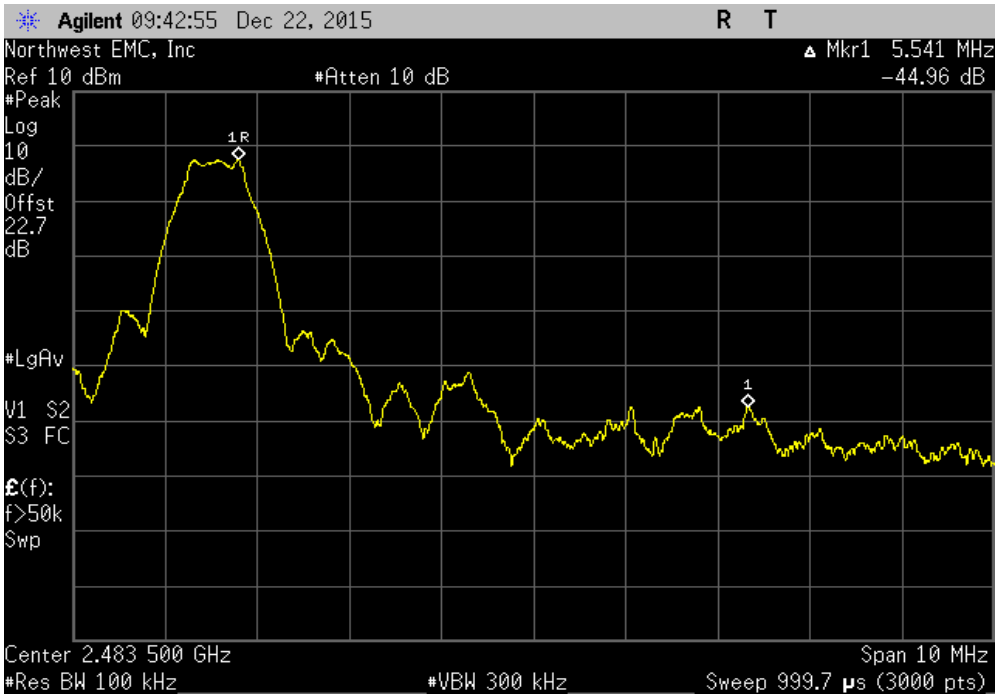
Configuration #	3	Signature

	Value (dBc)	Limit ≤ (dBc)	Result
Low Channel, 2402 MHz	-36.95	-20	Pass
High Channel, 2480 MHz	-44.96	-20	Pass

Low Channel, 2402 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-36.95	-20	Pass



High Channel, 2480 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-44.96	-20	Pass



SPURIOUS CONDUCTED EMISSIONS

XMit 2015.01.14

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval (mo)
Cable	ESM Cable Corp.	TT	EV1	NCR	0
Block - DC	Fairview Microwave	SD3379	AMP	6/18/2015	12
Attenuator	S.M. Electronics	SA26B-20	AUY	7/14/2015	12
Analyzer - Spectrum Analyzer	Agilent	E4446A	AAQ	3/10/2015	12

TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the data rate(s) listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

SPURIOUS CONDUCTED EMISSIONS

NORTHWEST EMC

XMit 2015.01.14

EUT:	Provolt Line Voltage Dimming Room Controllers			**Work Order:**	LEVT0117
Serial Number:	M1			**Date:**	12/22/15
Customer:	Leviton Manufacturing Company			**Temperature:**	21.3°C
Attendees:	Mark Darula			**Humidity:**	36%
Project:	None			**Barometric Pres.:**	994.9
Tested by:	Cole Ghizzone, Rod Peloquin	**Power:**	110VAC/60Hz	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2015	ANSI C63.10:2013

COMMENTS

None

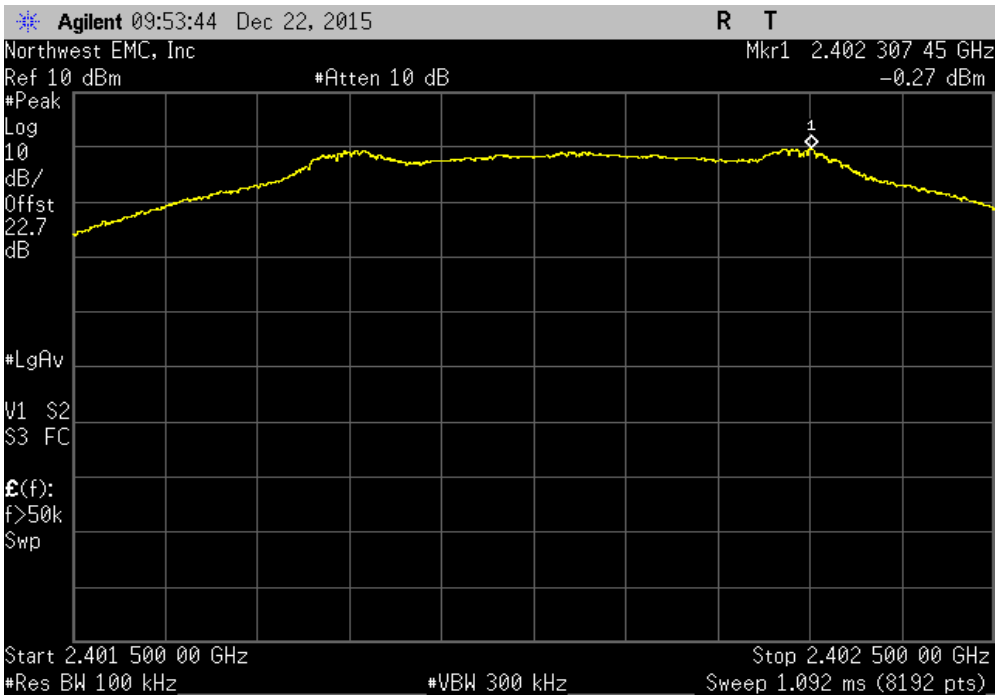
DEVIATIONS FROM TEST STANDARD

None

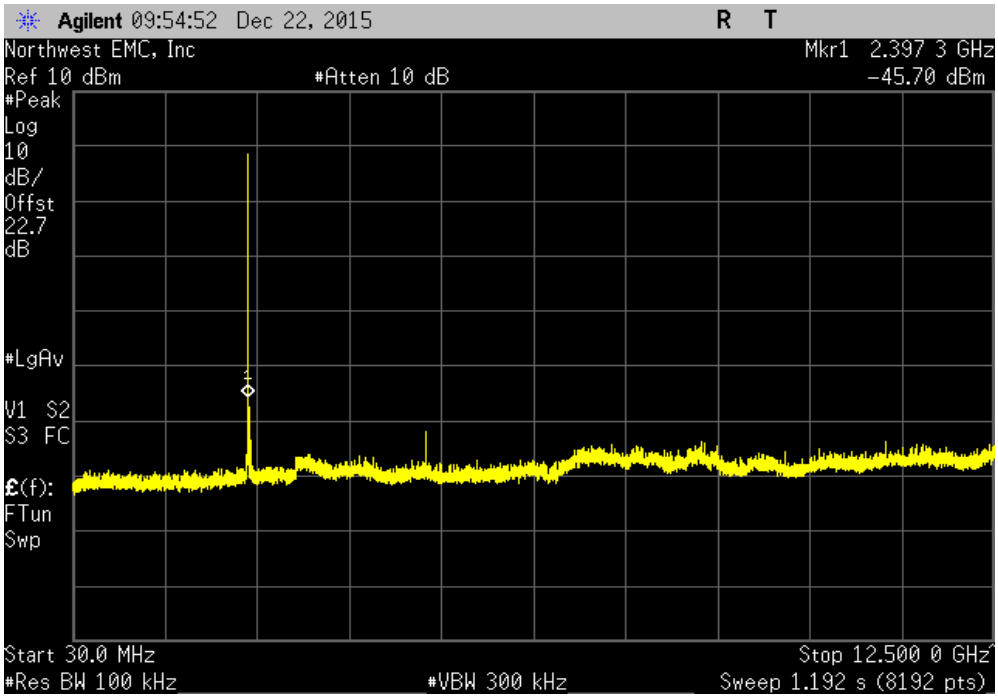
Configuration #	3	Signature

	Frequency Range	Max Value (dBc)	Limit ≤ (dBc)	Result
Low Channel, 2402 MHz	Fundamental	N/A	N/A	N/A
Low Channel, 2402 MHz	30 MHz - 12.5 GHz	-45.43	-20	Pass
Low Channel, 2402 MHz	12.5 GHz - 25 GHz	-46.6	-20	Pass
Mid Channel, 2442 MHz	Fundamental	N/A	N/A	N/A
Mid Channel, 2442 MHz	30 MHz - 12.5 GHz	-50.27	-20	Pass
Mid Channel, 2442 MHz	12.5 GHz - 25 GHz	-45.28	-20	Pass
High Channel, 2480 MHz	Fundamental	N/A	N/A	N/A
High Channel, 2480 MHz	30 MHz - 12.5 GHz	-50.73	-20	Pass
High Channel, 2480 MHz	12.5 GHz - 25 GHz	-45.27	-20	Pass

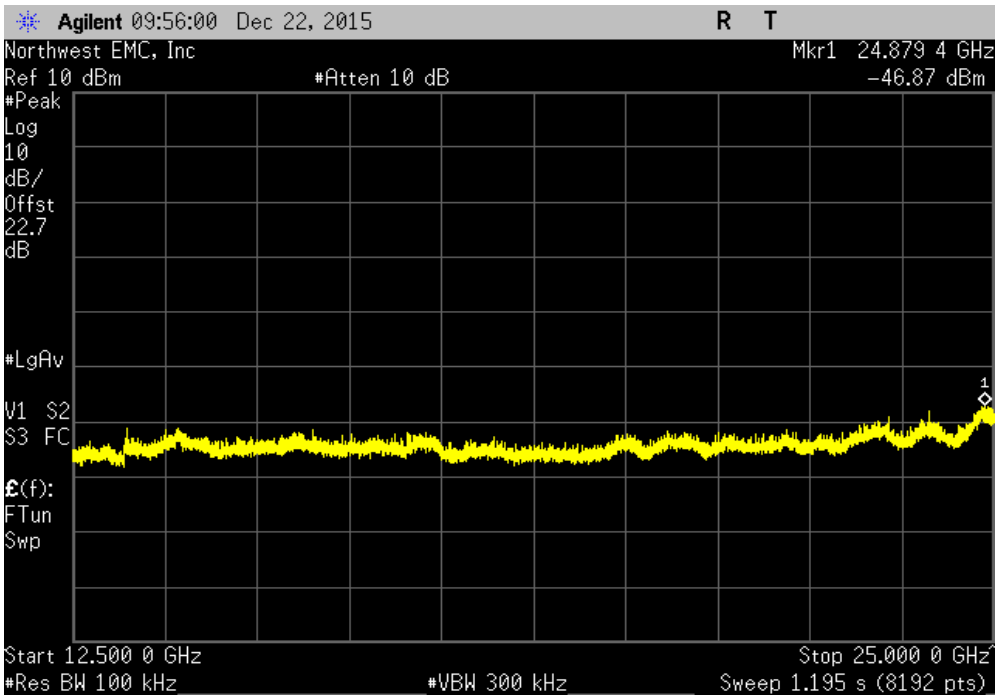
Low Channel, 2402 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



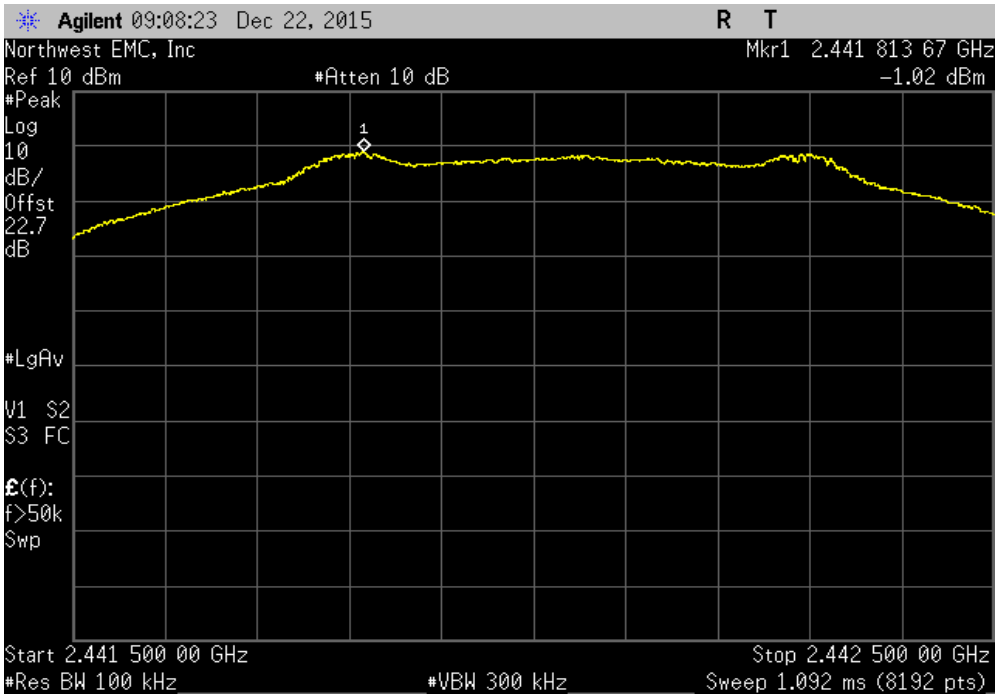
Low Channel, 2402 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-45.43	-20	Pass



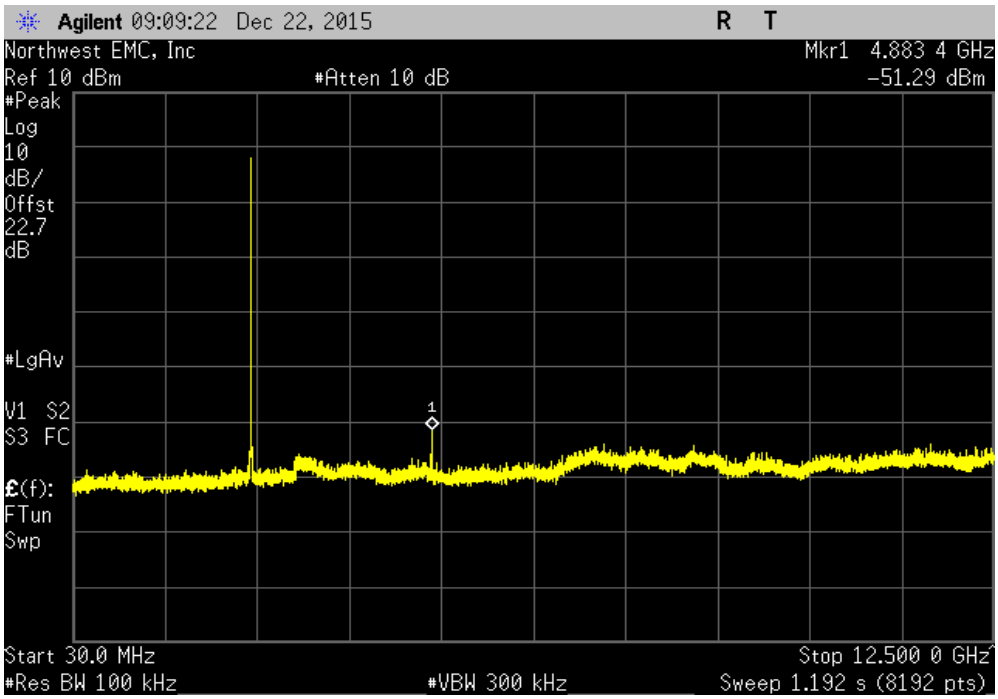
Low Channel, 2402 MHz				
Frequency Range		Max Value (dBc)	Limit ≤ (dBc)	Result
12.5 GHz - 25 GHz		-46.6	-20	Pass



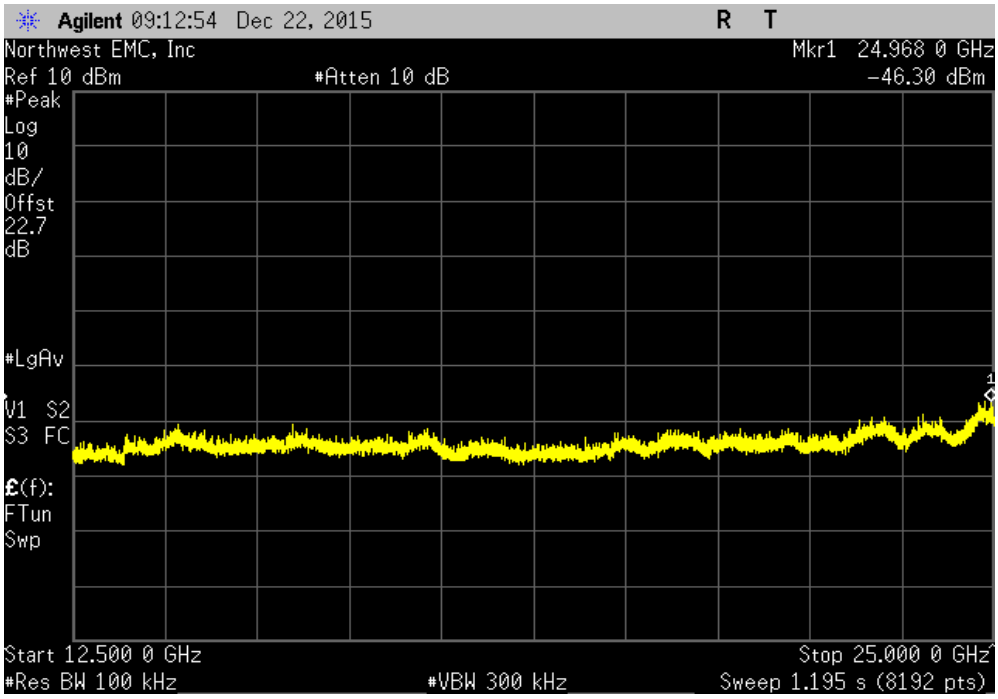
Mid Channel, 2442 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



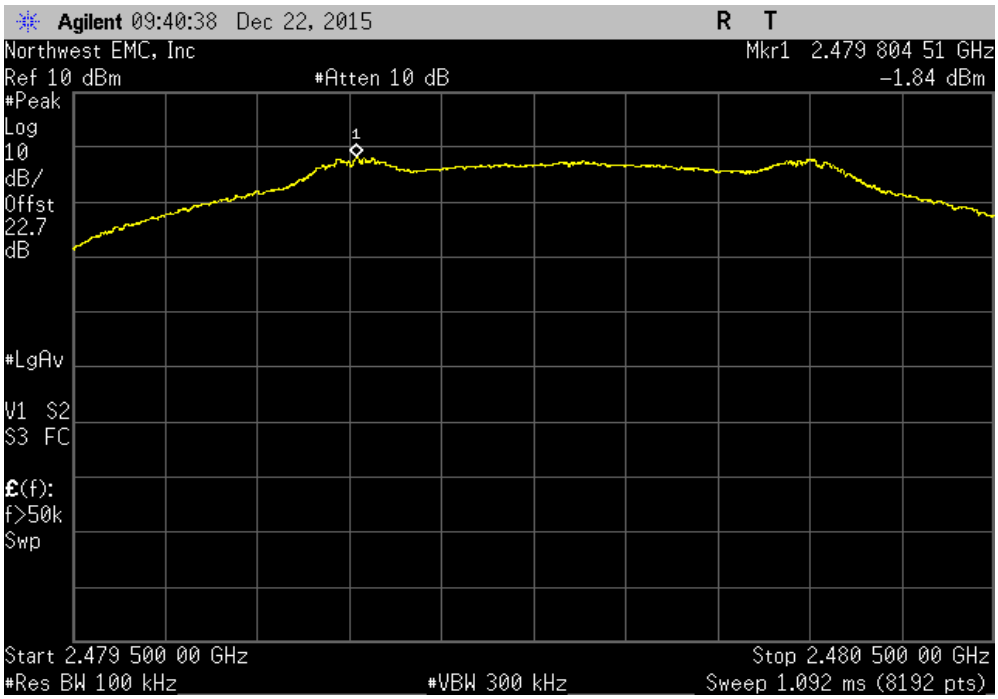
Mid Channel, 2442 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
30 MHz - 12.5 GHz		-50.27	-20	Pass



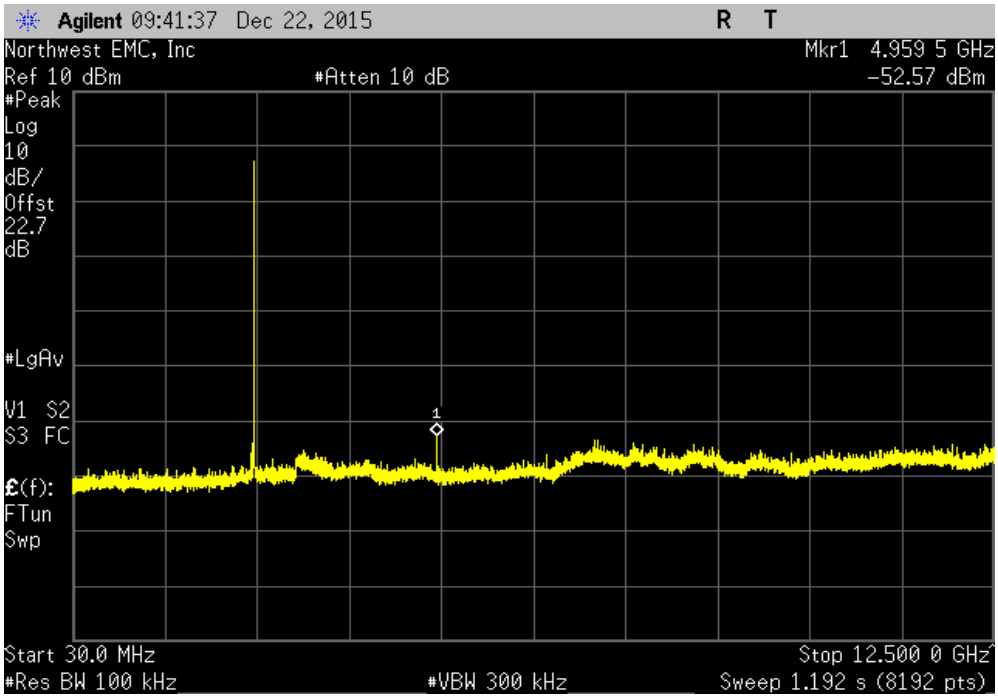
Mid Channel, 2442 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-45.28	-20	Pass



High Channel, 2480 MHz						
	Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
	Fundamental			N/A	N/A	N/A



High Channel, 2480 MHz					
Frequency Range			Max Value (dBc)	Limit ≤ (dBc)	Result
30 MHz - 12.5 GHz			-50.73	-20	Pass



High Channel, 2480 MHz				
Frequency Range		**Max Value (dBc)**	**Limit ≤ (dBc)**	**Result**
12.5 GHz - 25 GHz		-45.27	-20	Pass