FCC CFR47 PART 15 SUBPART C
INDUSTRY CANADA RSS-210 ISSUE 8

CERTIFICATION TEST REPORT

FOR

PICO PLUG-IN

MODEL NUMBER: 3PCL

FCC ID: JPZ0099
IC: 2851A-JPZ0099

REPORT NUMBER: 10027095

ISSUE DATE: 2013-08-06

Prepared for
LUTRON ELECTRONICS CO INC.
7200 SUTER RD
COOPERSBURG
PA, 18036, USA

Prepared by
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NVLAP LAB CODE 100255-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	2013-08-06	Initial Issue	B. DeLisi

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Lutron Electronics Inc
7200 Suter Road
Coopersburg, PA, 18036, USA

EUT DESCRIPTION: Pico Plug-in

MODEL: 3PCL

SERIAL NUMBER: Non-serialized Production Unit

DATE TESTED: 2013-07-24 through 2013-08-01

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 15 SUBPART C	Pass
INDUSTRY CANADA RSS-210 Issue 8, Annex 1	Pass
INDUSTRY CANADA RSS-GEN Issue 3	Pass

UL LLC tested the above equipment in accordance with the requirements set forth in the above standards, using test results reported in the test report documents referenced below and/or documentation furnished by the applicant. All indications of Pass/Fail in this report are opinions expressed by UL LLC based on interpretations of these calculations. The results show that the equipment is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation, as described by the referenced documents. This document may not be altered or revised in any way unless done so by UL LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL By:

Michael Antola
WiSE Project Lead
UL LLC

Tested By:

Bob DeLisi
WiSE Principal Engineer
UL LLC

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 3, and RSS-210 Issue 8.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 1285 Walt Whitman Rd. Melville, NY 11747, USA.

UL Melville is accredited by NVLAP, Laboratory Code 100255-0. The full scope of accreditation can be viewed at http://ts.nist.gov/standards/scopes/1002550.htm.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	± 3.3 dB
Radiated Disturbance, 30 to 1000 MHz	± 4.00 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a direct plug-in wall dimmer with a wireless transceiver operating on channels between 431MHz and 437MHz.

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an internal intertgral antenna..

5.3. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was PID_MMW_2013.06.19_0.17_ALL_FCC_IMAGE.SAP.

5.4. WORST-CASE CONFIGURATION AND MODE

For radiated tests, the device was tested at the lowest and highest channels. It was configured in the worst case orientation found during preliminary testing. The worst case orientation was determined to be the X-orientation. All other tests were conducted at the mid channel.

5.5. MODIFICATIONS

In order to comply with conducted emissions, the following modifications were made:

1) C17 was placed with a value of 2000pF
2) The power supply inductor (Ref Des: L2 on the schematic and BOM) was changed to a shielded inductor.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Lamp	GE	120W	N/A	N/A

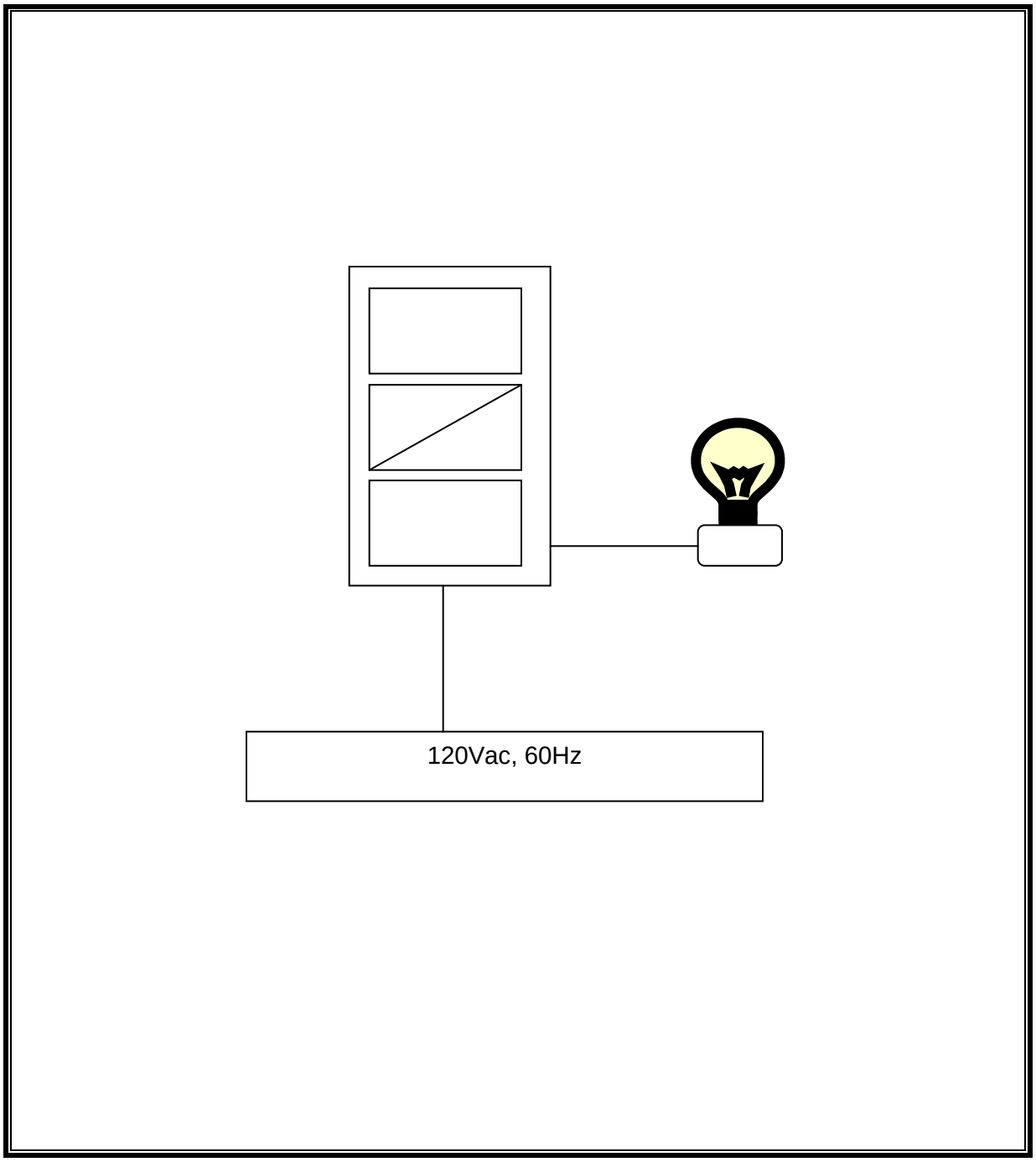
I/O CABLES

I/O CABLE LIST						
Cable No.	**Port**	**# of Identica Ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	AC	1	IEC	Unshielded	>3m	Connection between EUT and lamp

TEST SETUP

The EUT is a stand-alone device connected to a lamp load which directly plugs into the side of the unit.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment Used					
Description	Manufacturer	Model	Identifier	Cal Date	Cal Due Date
30-1000MHz					
EMI Receiver	Rohde & Schwarz	ESCI 7	75141	2013-01-30	2014-01-31
Log-P Antenna	Schaffner	UPA6109	44068	2013-04-03	2014-04-03
Bicon Antenna	Schaffner	VBA6106A	54	2013-04-03	2014-04-03
Switch Driver	HP	11713A	ME7A-627	N/A	N/A
System Controller	Sunol Sciences	SC99V	44396	N/A	N/A
Camera Controller	Panasonic	WV-CU254	44395	N/A	N/A
RF Switch Box	UL	1	44398	N/A	N/A
Measurement Software	UL	Version 9.5	44740	N/A	N/A
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268	2012-12-22	2014-12-22
Multimeter	Fluke	83III	ME5B-305	2013-01-28	2014-01-31
Above 1GHz (Band Optimized System)					
Spectrum Analyzer	Agilent	E4446A	72823	2013-01-29	2014-01-31
Horn Antenna (1-2 GHz)	ETS	3161-01 (26°)**	51442	2008-03-28	See * below
Horn Antenna (2-4 GHz)	ETS	3161-02 (22°)**	48107	2007-09-27	See * below
Horn Antenna (4-8 GHz)	ETS	3161-03 (22°)**	48106	2007-09-27	See * below
Horn Antenna	EMCO	3115	ME5A-766	2012-11-28	2013-11-28
Signal Path Controller	HP	11713A	50250	N/A	N/A
Gain Controller	HP	11713A	50251	N/A	N/A
RF Switch / Preamp Fixture	UL	BOMS1	50249	N/A	N/A
System Controller	UL	BOMS2	50252	N/A	N/A
Measurement Software	UL	Version 9.5	44740	N/A	N/A
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268	2012-12-22	2014-12-22
Multimeter	Fluke	83III	ME5B-305	2013-01-28	2014-01-31

* - Note: As allowed by the standard ANSI C63.4 Section 4.7.2, standard gain horns need only a one-time calibration. Only if physical damage occurs will the horn antenna require re-calibration.

Gain standard horn antennas (sometimes called standard gain horn antennas) need not be calibrated beyond that which is provided by the manufacturer unless they are damaged or deterioration is suspected, or they are used at a distance closer than $2D^2/\lambda$. Gain standard horn antennas have gains that are fixed by their dimensions and dimensional tolerances.

** - Number in parentheses denotes antenna beam width.

Conducted Emissions					
Description	Manufacturer	Model	Identifier	Cal Date	Cal Due Date
Conducted Emissions – GP 1					
EMI Receiver	Rohde & Schwarz	ESIB26	ME5B-081	2013-01-29	2014-01-31
LISN	Solar	9252-50-R-24-BNC	ME5A-636	2013-01-29	2014-01-31
Switch Driver	HP	11713A	44397	N/A	N/A
RF Switch Box	UL	4	44404	N/A	N/A
Measurement Software	UL	Version 9.5	44736	N/A	N/A
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	43734	2013-01-29	2014-01-31

Bench Tests					
Description	Manufacturer	Model	Identifier	Cal Date	Cal Due Date
Shield Room					
Spectrum Analyzer	Rohde & Schwarz	ESI 26	5B-081	2013-01-29	2014-01-31
Dipole Antenna	EMCO	3121C	3359	2012-12-27	2013-12-27
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	43736	2012-12-21	2014-12-21
Multimeter	Fluke	87V	44547	2013-01-28	2014-01-31

7. ANTENNA PORT TEST RESULTS

7.1. 20 dB AND 99% BW

LIMITS

FCC §15.231 (c)
The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

IC A1.1.3
For the purpose of Section A1.1, the 99% Bandwidth shall be no wider than 0.25% of the center frequency for devices operating between 70-900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency.

TEST PROCEDURE

ANSI C63.4

The transmitter output is connected to the spectrum analyzer.

20dB Bandwidth: The RBW is set to 10 KHz. The VBW is set to 30 KHz. The sweep time is coupled. Bandwidth is determined at the points 20 dB down from the modulated carrier.

99% Bandwidth: The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

No non-compliance noted:

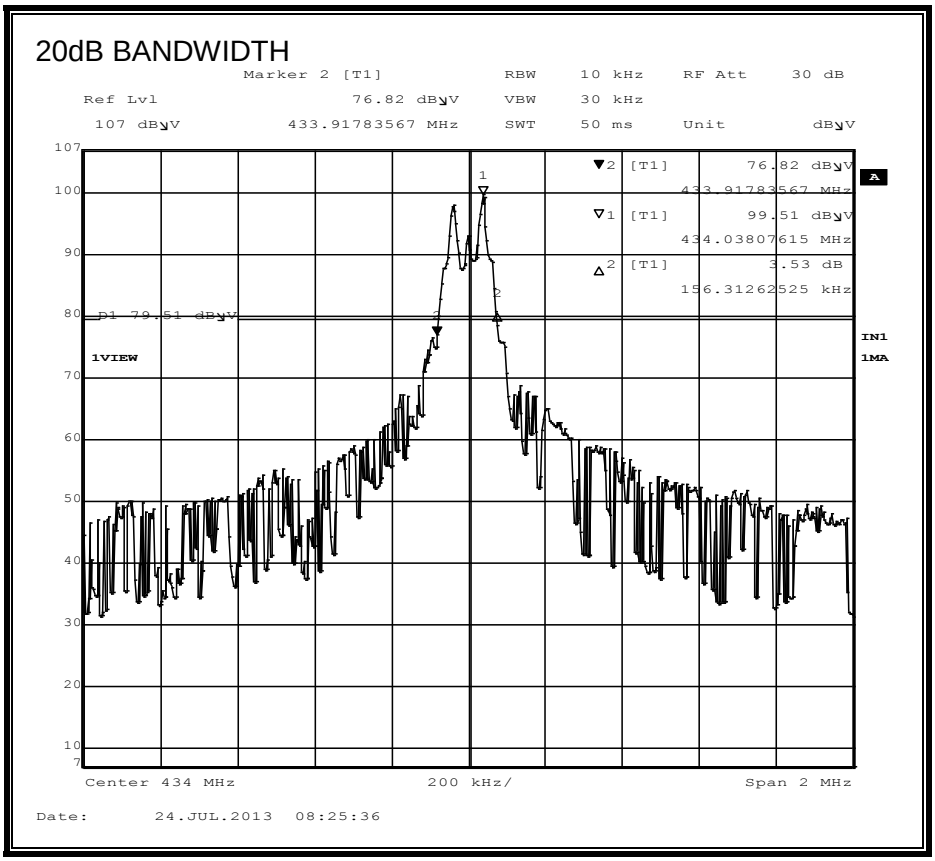
20dB Bandwidth

Frequency (MHz)	20dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)
434	156.3	1085	-928.7

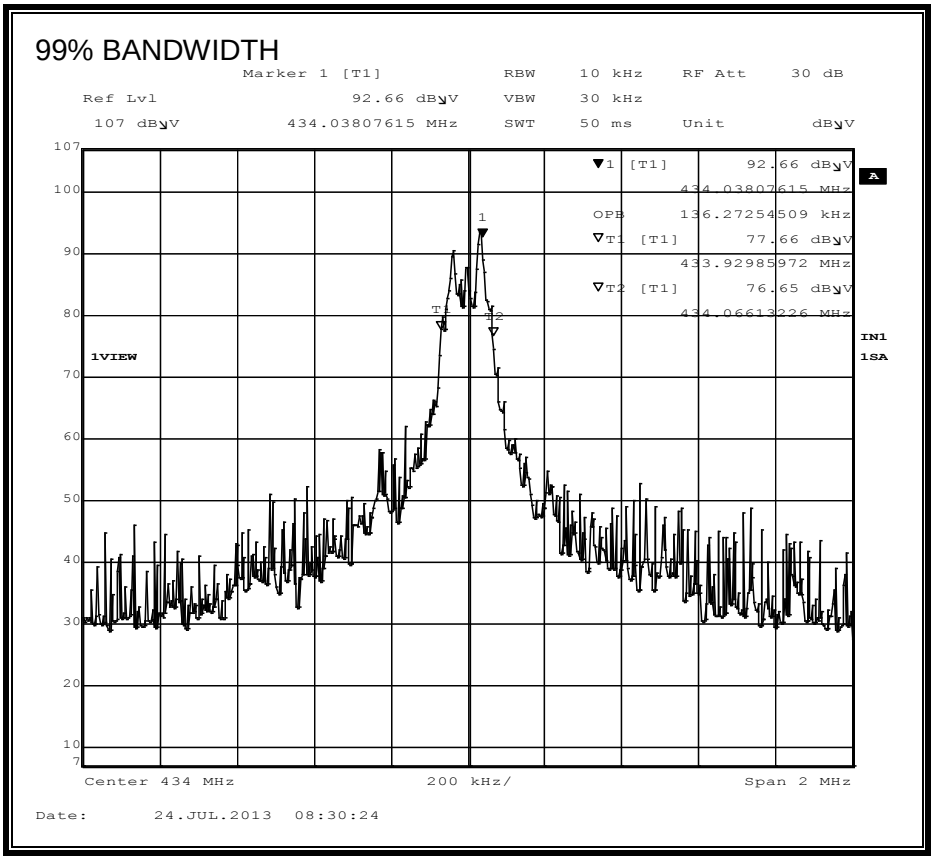
99% Bandwidth

Frequency (MHz)	99% Bandwidth (kHz)	Limit (kHz)	Margin (kHz)
434	136.3	1085	-948.7

20dB BANDWIDTH



99% BANDWIDTH



7.2. DUTY CYCLE

LIMITS

FCC §15.35 (c)
The measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value. The exact method of calculating the average field strength shall be submitted with any application for certification or shall be retained in the measurement data file for equipment subject to notification or verification.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer or radiated field strength. The RBW is set to 1 MHz and the VBW is set to 1 MHz. The sweep time is coupled and the span is set to 0 Hz. The number of pulses is measured and calculated in a 100 ms scan.

CALCULATION

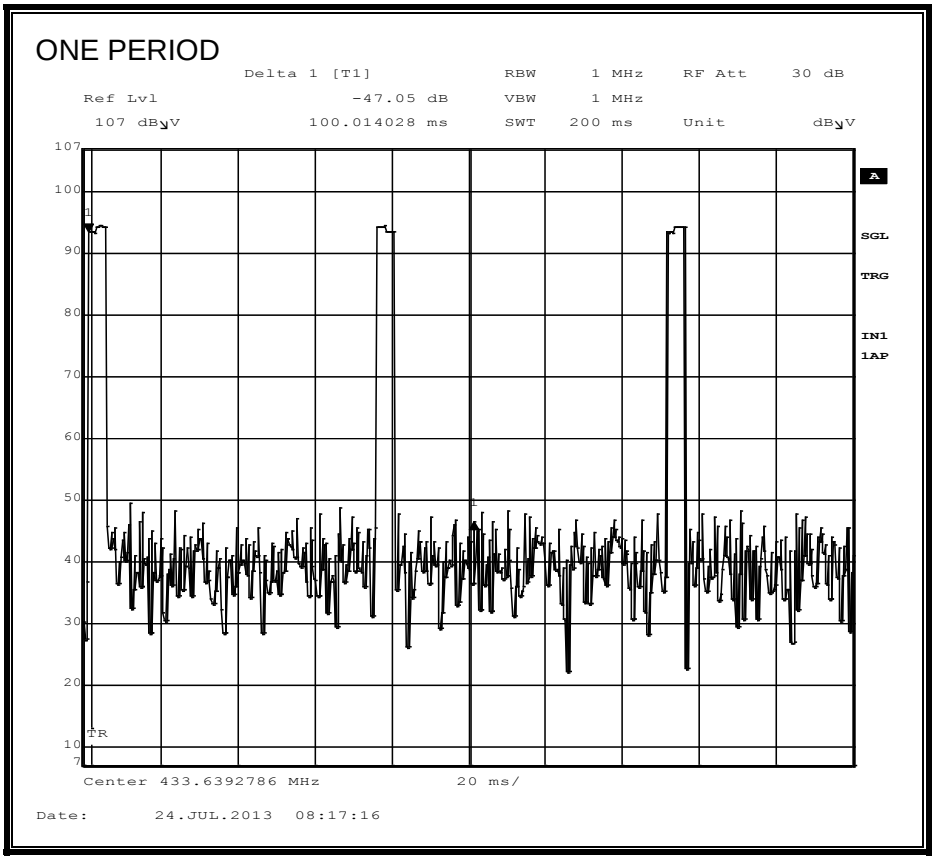
Average Reading = Peak Reading (dBuV/m) + 20log (Duty Cycle), Where Duty Cycle is
(# of long pulses * long pulse width) + (# of short pulses * short pulse width) / 100 or T

RESULTS

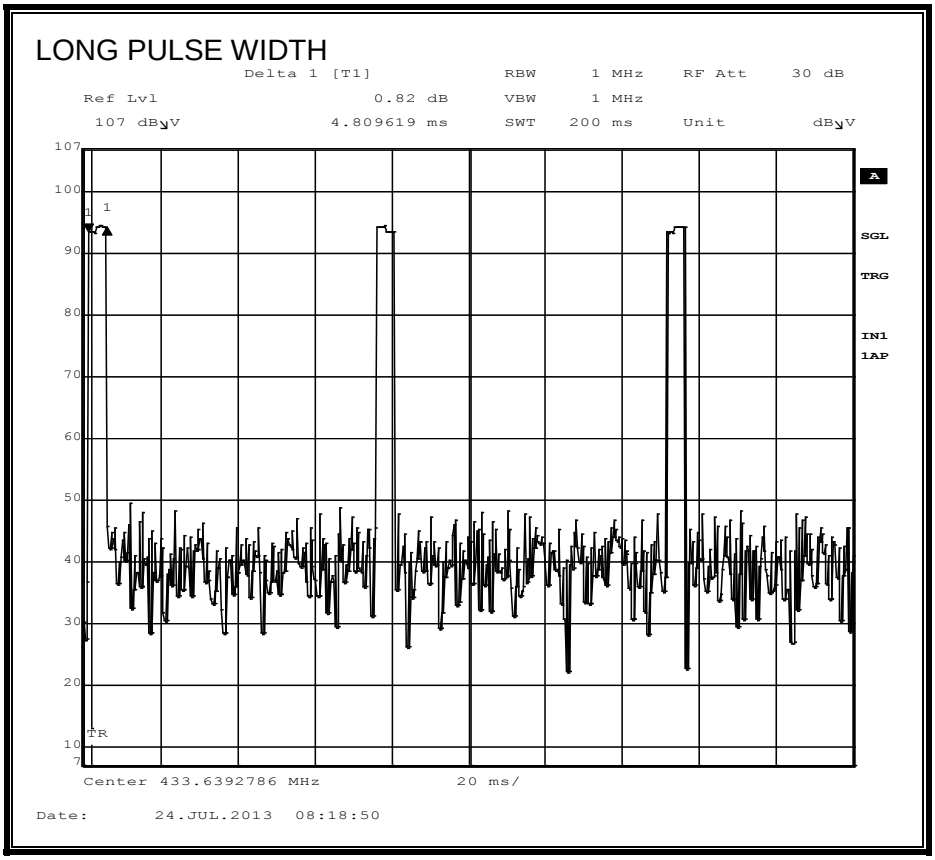
No non-compliance noted:

One Period (ms)	Long Pulse Width (ms)	# of Long Pulses	Short Width (ms)	# of Short Pulses	Duty Cycle	20*Log Duty Cycle (dB)
100	4.8	1	4.80	1	0.096	-20.35

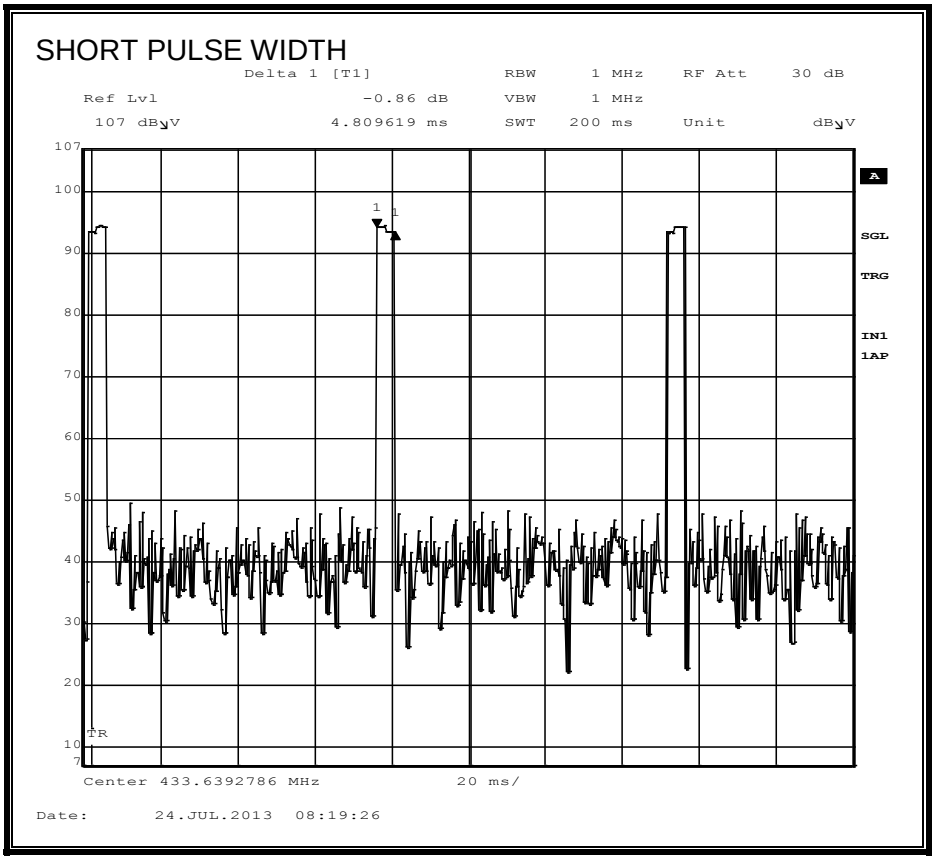
ONE PERIOD



LONG PULSE WIDTH



SHORT PULSE WIDTH



7.3. TRANSMISSION TIME

LIMITS

FCC §15.231 (a) (2)

IC A1.1.1 (b)

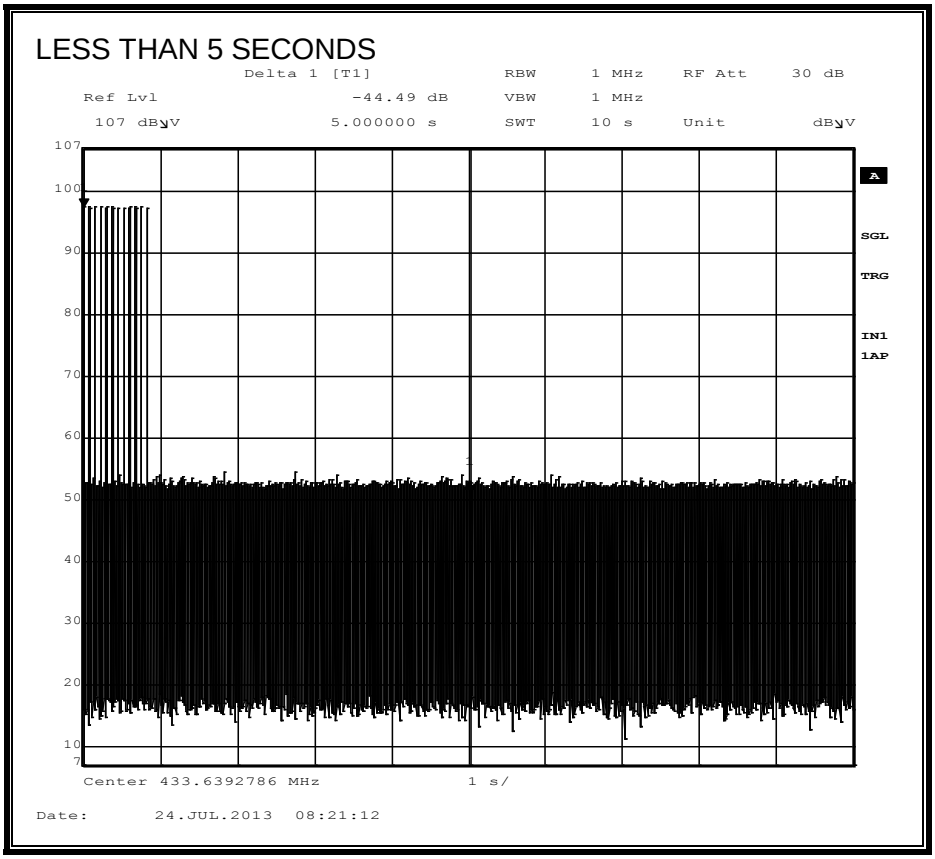
A transmitter activated automatically shall cease transmission within 5 seconds after activation.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer or radiated field strength. The RBW is set to 1 MHz and the VBW is set to 1 MHz. The sweep time is set to 10 seconds and the span is set to 0 Hz.

RESULTS

No non-compliance noted:



8. RADIATED EMISSION TEST RESULTS

8.1. TX RADIATED SPURIOUS EMISSION

LIMITS

FCC §15.231 (b)
IC A1.1.2
In addition to the provisions of § 15.205, the field strength of emissions from Intentional radiators operated under this section shall not exceed the following:

Fundamental Frequency (MHz)	Field Strength of Fundamental Frequency (microvolts/meter)	Field Strength of Spurious Emissions (microvolts/meter)
40.66 - 40.70	2,250	225
70 - 130	1,250	125
130 - 174	1,250 to 3,7501	125 to 3751
174 - 260	3,750	375
260 - 470	3,750 to 12,5001	375 to 1,2501
Above 470	12,500	1,250

1 Linear interpolation

§15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	([2])
13.36 – 13.41	322 - 335.4		

1 Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
2 Above 38.6

§15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

§15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
30 88	100 **	3
88 216	150 **	3
216 960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54 72 MHz, 76 88 MHz, 174 216 MHz or 470 806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

§15.209 (b) In the emission table above, the tighter limit applies at the band edges.

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

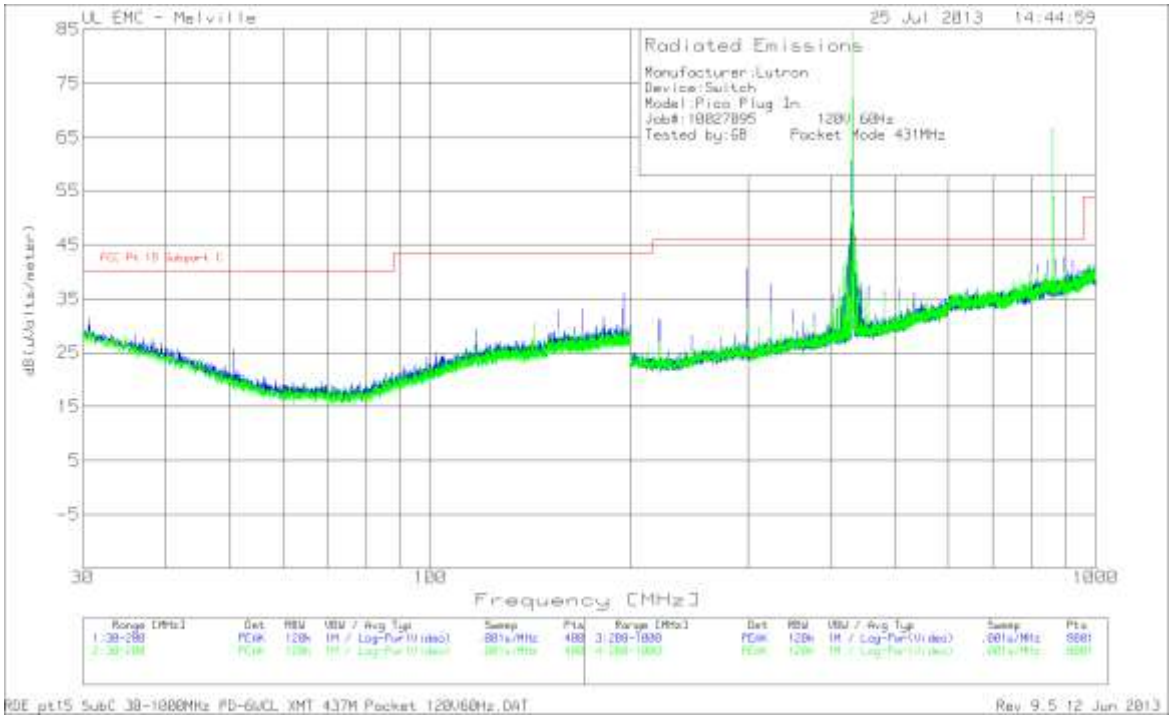
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz and the video bandwidth is set to 1 MHz for peak measurements.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

RESULTS

No non-compliance noted:

FUNDAMENTAL, HARMONICS AND TX SPURIOUS EMISSION (30 – 1000 MHz) – Low Channel

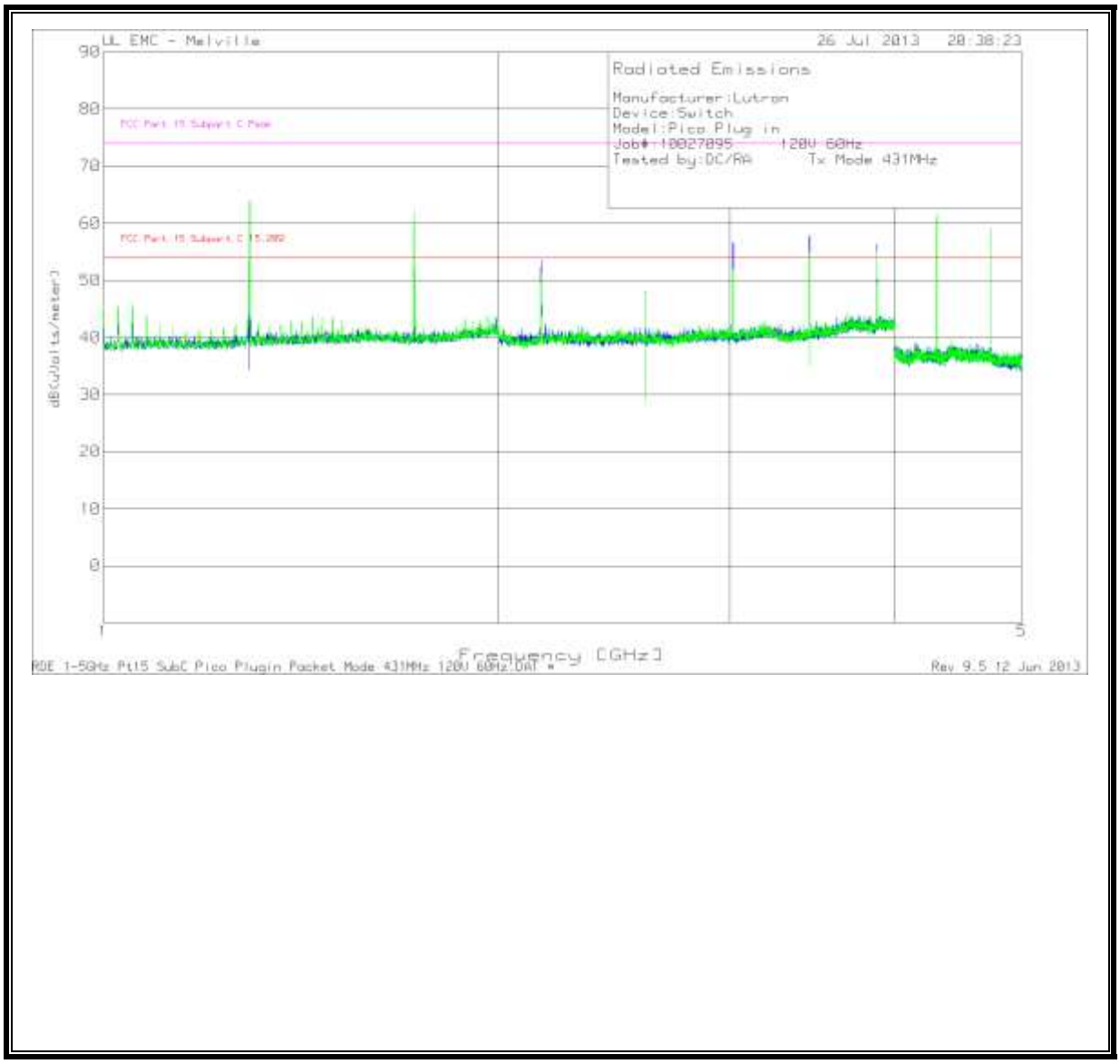


Manufacturer:Lutron
Device:Switch
Model:Pico Plug In
Job#:10027095 120V 60Hz
Tested by:GB Packet Mode 431MHz

Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF-44068 [dB/m]	GL-3M [dB]	Corrected Reading dB(uVolts/ meter)	DCF (dB)	Corrected Average Reading (dBuV/m)	FCC Pt 15 Subpart C	Margin (dB)	FCC Pt 15.231 Limit (dBuV/m)	Margin (dB)	FCC Part 15 Subpart C Peak	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
430.9606	74.94	PK	16.2	1.4	92.54	-20.35	72.19	-	-	80.7	-8.51	100.7	-8.16	214	126	H
430.9606	80.55	PK	16.2	1.4	98.18	-20.35	77.83	-	-	80.7	-2.87	100.7	-2.52	96	142	V
431.7	41.48	PK	16.2	1.4	59.08	-20.35	38.73	46	-7.27	-	-	-		252	166	V
432	27.85	QP	16.2	1.5	45.55	-	-	46	-0.45	-	-	-		102	136	V
429.9	17.65	QP	16.1	1.4	35.15	-	-	46	-10.85	-	-	-		131	133	H
428.2419	10.08	QP	16	1.5	27.58	-	-	46	-18.42	-	-	-		115	169	H
429.4393	16.78	QP	16.1	1.4	34.28	-	-	46	-11.72	-	-	-		54	241	H
433.4417	16.23	QP	16.3	1.4	33.93	-	-	46	-12.07	-	-	-		199	222	V
862.0628	50.54	PK	22	2.2	74.74	-20.35	54.39	-	-	60.7	-6.31	80.7	-5.96	8	141	V
862	41.25	PK	22	2.2	65.45	-20.35	45.1	-	-	60.7	-15.6	80.7	-15.25	83	176	H
432.5	19.24	QP	16.3	1.5	37.04	-	-	46	-8.96	-	-	-		3	187	H
429.4	22.75	QP	16.1	1.4	40.25	-	-	46	-5.75	-	-	-		78	152	V
434.3	17.15	QP	16.4	1.4	34.95	-	-	46	-11.05	-	-	-		75	140	V
431.8	26.24	QP	16.2	1.4	43.84	-	-	46	-2.16	-	-	-		118	101	H
435.2	6.91	QP	16.4	1.4	24.71	-	-	46	-21.29	-	-	-		44	336	H
427.3	11.69	QP	15.9	1.5	29.09	-	-	46	-16.91	-	-	-		230	100	H
299.013	25	QP	13.1	1.2	39.3	-	-	46	-6.7	-	-	-		136	106	H
434.3	9.35	QP	16.4	1.4	27.15	-	-	46	-18.85	-	-	-		0	181	H
819.1	8.37	QP	22.2	2	32.57	-	-	46	-13.43	-	-	-		47	155	H
845	14.7	QP	22.8	2	39.5	-	-	46	-6.5	-	-	-		325	100	H
871	19.26	QP	22.7	2.1	44.06	-	-	46	-1.94	-	-	-		136	104	H
436.6	8.25	QP	16.5	1.5	26.25	-	-	46	-19.75	-	-	-		48	103	H
298.9998	18.83	QP	13.1	1.2	33.13	-	-	46	-12.87	-	-	-		289	128	V
421.1	8.25	QP	16	1.4	25.65	-	-	46	-20.35	-	-	-		76	153	V
423.4	9.38	QP	16.1	1.4	26.88	-	-	46	-19.12	-	-	-		68	153	V
426.8	14.03	QP	16.2	1.5	31.73	-	-	46	-14.27	-	-	-		73	152	V
434.9001	6.83	QP	16.5	1.4	24.73	-	-	46	-21.27	-	-	-		337	250	V
436.8999	6.84	QP	16.5	1.5	24.84	-	-	46	-21.16	-	-	-		354	248	V

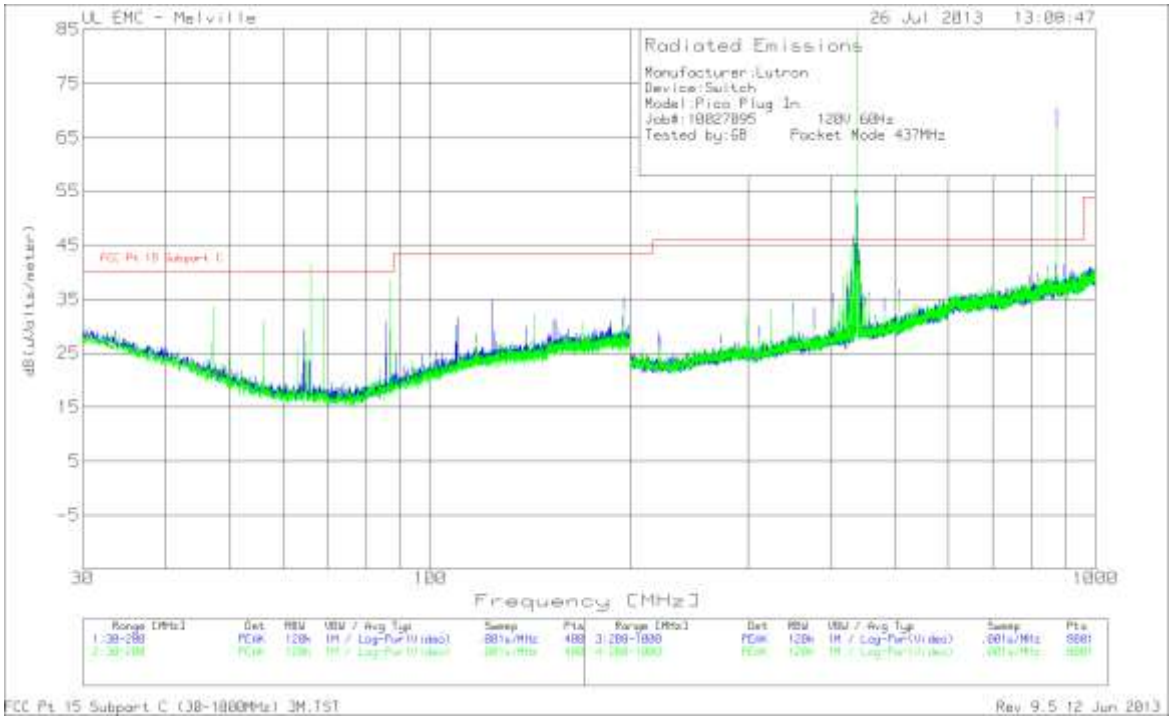
PK - Peak detector
QP - Quasi-Peak detector

HARMONICS AND TX SPURIOUS EMISSIONS ABOVE 1GHz



Manufacturer:Lutron														
Device:Switch														
Model:Pico Plug in														
Job#:10027095 120V 60Hz														
Tested by:DC/RA Tx Mode 431MHz														
Test Frequency (GHz)	Meter Reading (dBuV)	Detector	AF-51442	BOMS Factor [dB]	Corrected Reading (dBuV/m)	DCF (dB)	Corrected Average Reading (dBuV/m)	FCC Part 15 Subpart C 15.209	Margin (dB)	FCC Part 15 Subpart C Peak	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
Horizontal 1 - 2GHz														
1.2929	78.85	PK	20.5	-44.17	55.18	-20.35	34.83	54	-19.17	74	-18.82	107	131	H
1.7242	82.58	PK	20.8	-43.62	59.76	-20.35	39.41	54	-14.59	74	-14.24	139	158	H
Horizontal 2 - 4GHz														
2.1552	78.92	PK	21.4	-43.14	57.18	-20.35	36.83	54	-17.17	74	-16.82	161	317	H
2.5858	72.96	PK	21.3	-42.48	51.78	-20.35	31.43	54	-22.57	74	-22.22	147	280	H
3.0172	76.84	PK	21.5	-41.61	56.73	-20.35	36.38	54	-17.62	74	-17.27	186	334	H
3.4483	80.69	PK	22.1	-41.29	61.5	-20.35	41.15	54	-12.85	74	-12.5	176	246	H
3.8793	75.92	PK	22.6	-41.56	56.96	-20.35	36.61	54	-17.39	74	-17.04	142	221	H
Horizontal 4 - 5GHz														
4.3097	85.09	PK	27.7	-51.26	61.53	-20.35	41.18	54	-12.82	74	-12.47	126	265	H
Vertical 1 - 2GHz														
1.2929	88.95	PK	20.4	-44.17	65.18	-20.35	44.83	54	-9.17	74	-8.82	87	118	V
1.7242	84.5	PK	20.8	-43.62	61.68	-20.35	41.33	54	-12.67	74	-12.32	339	101	V
Vertical 2 - 4GHz														
2.1549	75.08	PK	21	-43.12	52.96	-20.35	32.61	54	-21.39	74	-21.04	48	248	V
2.5857	72.09	PK	21.5	-42.48	51.11	-20.35	30.76	54	-23.24	74	-22.89	12	284	V
3.0172	76.62	PK	21.7	-41.61	56.71	-20.35	36.36	54	-17.64	74	-17.29	224	377	V
3.4484	77.71	PK	22.2	-41.29	58.62	-20.35	38.27	54	-15.73	74	-15.38	213	350	V
3.8788	76.4	PK	22.6	-41.53	57.47	-20.35	37.12	54	-16.88	74	-16.53	19	318	V
Vertical 4 - 5GHz														
4.3103	86.86	PK	27.8	-51.26	63.4	-20.35	43.05	54	-10.95	74	-10.6	193	224	V
PK - Peak detector														

FUNDAMENTAL, HARMONICS AND TX SPURIOUS EMISSION (30 – 1000 MHz) – High Channel

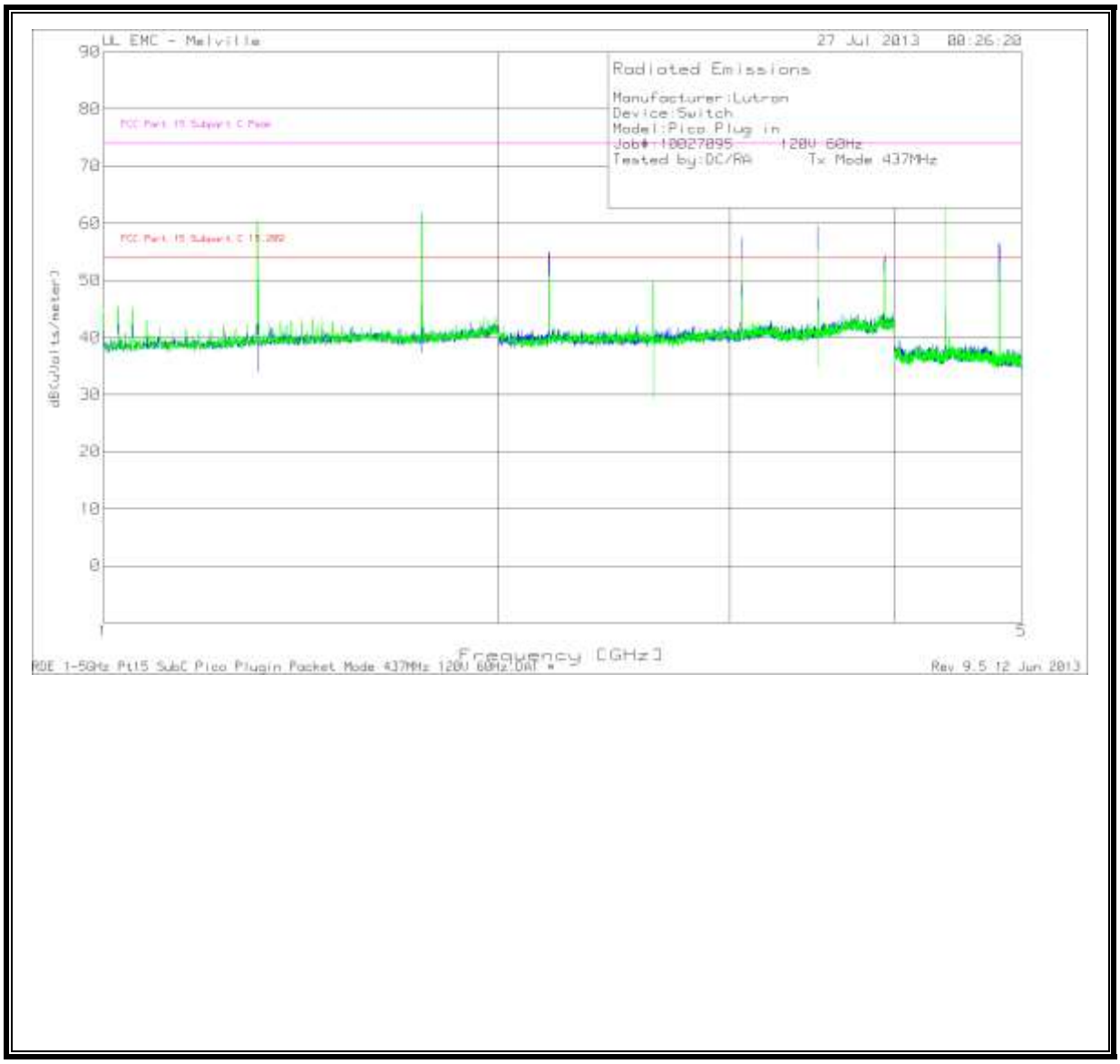


Manufacturer:Lutron
Device:Switch
Model:Pico Plug In
Job#:10027095 120V 60Hz
Tested by:GB Packet Mode 437MHz

Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF-44068 [dB/m]	GL-3M [dB]	Corrected Reading dB(uVolts/ meter)	DCF (dB	Corrected Average Reading (dBuV/m)	FCC Pt 15 Subpart C	Margin (dB)	FCC Pt 15.231 Limit (dBuV/m)	Margin (dB)	FCC Part 15 Subpart C Peak	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
436.9579	72.32	PK	16.5	1.5	90.32	-20.35	69.97	-	-	80.9	-10.93	100.9	-10.58	193	115	H
436.9579	79.36	PK	16.5	1.5	97.36	-20.35	77.01	-	-	80.9	-3.89	100.9	-3.54	74	141	V
435.8	2.15	QP	16.4	1.5	20.05	-	-	46	-25.95	-	-	-	-	75	275	H
873.923	45.89	PK	22.8	2.1	70.79	-20.35	50.44	-	-	60.9	-10.46	80.9	-10.11	65	110	H
873.923	45.85	PK	22.8	2.1	70.75	-20.35	50.4	-	-	60.9	-10.5	80.9	-10.15	103	167	V
436.4	19.65	QP	16.5	1.5	37.65	-	-	46	-8.35	-	-	-	-	277	107	V
437.8	23.98	QP	16.6	1.5	42.08	-	-	46	-3.92	-	-	-	-	309	106	H
438.1	13.98	QP	16.6	1.5	32.08	-	-	46	-13.92	-	-	-	-	90	169	H
431.6	4.2	QP	16.2	1.4	21.8	-	-	46	-24.2	-	-	-	-	5	182	H
433.2	8.48	QP	16.3	1.5	26.28	-	-	46	-19.72	-	-	-	-	8	191	H
434.7	9.76	QP	16.4	1.4	27.56	-	-	46	-18.44	-	-	-	-	0	190	H
439.4	11.58	QP	16.7	1.4	29.68	-	-	46	-16.32	-	-	-	-	170	208	H
442.1	7.63	QP	16.8	1.6	26.03	-	-	46	-19.97	-	-	-	-	156	211	H
441.54	7.83	QP	16.8	1.6	26.23	-	-	46	-19.77	-	-	-	-	164	216	H
845.1	8.14	QP	22.8	2.1	33.04	-	-	46	-12.96	-	-	-	-	9	112	H
871.1	8.33	QP	22.7	2.1	33.13	-	-	46	-12.87	-	-	-	-	136	103	H
897.1	8.36	QP	22.9	2.1	33.36	-	-	46	-12.64	-	-	-	-	137	109	H
923	14.31	QP	23.1	2.1	39.51	-	-	46	-6.49	-	-	-	-	129	102	H
428.4	7.65	QP	16	1.5	25.15	-	-	46	-20.85	-	-	-	-	286	103	H
428.4	8.19	QP	16	1.5	25.69	-	-	46	-20.31	-	-	-	-	109	150	V
431.8	11.35	QP	16.2	1.4	28.95	-	-	46	-17.05	-	-	-	-	85	171	V
434.4	16.13	QP	16.4	1.4	33.93	-	-	46	-12.07	-	-	-	-	84	166	V
435.6	20.99	QP	16.4	1.5	38.89	-	-	46	-7.11	-	-	-	-	85	173	V
438.4	24	QP	16.6	1.5	42.1	-	-	46	-3.9	-	-	-	-	84	162	V
439.7	17.42	QP	16.7	1.5	35.62	-	-	46	-10.38	-	-	-	-	84	157	V
441.8	11.38	QP	16.8	1.6	29.78	-	-	46	-16.22	-	-	-	-	77	145	V
845	16.49	QP	22.8	2	41.29	-	-	46	-4.71	-	-	-	-	82	130	V
871	17.5	QP	22.7	2.1	42.3	-	-	46	-3.7	-	-	-	-	139	148	V
897.1	8.28	QP	22.9	2.1	33.28	-	-	46	-12.72	-	-	-	-	121	275	V
923	11.22	QP	23.1	2.1	36.42	-	-	46	-9.58	-	-	-	-	343	137	V

PK - Peak detector
QP - Quasi-Peak detector

HARMONICS AND TX SPURIOUS EMISSIONS ABOVE 1GHz



Manufacturer:Lutron
Device:Switch
Model:Pico Plug in
Job#:10027095 120V 60Hz
Tested by:DC/RA Tx Mode 437MHz

Test Frequency (GHz)	Meter Reading (dBuV)	Detector	AF-51442	BOMS Factor [dB]	Corrected Reading (dBuV/m)	DCF (dB)	Corrected Average Reading (dBuV/m)	FCC Part 15 Subpart C 15.209	Margin (dB)	FCC Part 15 Subpart C Peak	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
1.3111	86.99	PK	20.5	-44.28	63.21	-20.35	42.86	54	-11.14	74	-10.79	101	116	V
1.3111	78.48	PK	20.5	-44.28	54.7	-20.35	34.35	54	-19.65	74	-19.3	273	228	H
1.7481	82.17	PK	20.8	-43.77	59.2	-20.35	38.85	54	-15.15	74	-14.8	68	353	H
1.7481	80.22	PK	20.8	-43.77	57.25	-20.35	36.9	54	-17.1	74	-16.75	68	353	V
2.1848	76.03	PK	21.5	-43.11	54.42	-20.35	34.07	54	-19.93	74	-19.58	218	299	V
2.1848	78	PK	21.5	-43.11	56.39	-20.35	36.04	54	-17.96	74	-17.61	162	245	H
2.6221	73.03	PK	21.4	-42.21	52.22	-20.35	31.87	54	-22.13	74	-21.78	357	351	H
2.6221	71.31	PK	21.4	-42.21	50.5	-20.35	30.15	54	-23.85	74	-23.5	25	284	V
3.0592	76.62	PK	21.6	-41.66	56.56	-20.35	36.21	54	-17.79	74	-17.44	210	284	V
3.0592	78.63	PK	21.6	-41.66	58.57	-20.35	38.22	54	-15.78	74	-15.43	179	390	H
3.496	79.49	PK	22.2	-41.47	60.22	-20.35	39.87	54	-14.13	74	-13.78	99	340	H
3.496	77.21	PK	22.2	-41.47	57.94	-20.35	37.59	54	-16.41	74	-16.06	198	342	V
3.9331	76.98	PK	22.7	-41.39	58.29	-20.35	37.94	54	-16.06	74	-15.71	8	311	V
3.9331	72.75	PK	22.7	-41.39	54.06	-20.35	33.71	54	-20.29	74	-19.94	55	165	H
4.3702	85.88	PK	27.6	-51.53	61.95	-20.35	41.6	54	-12.4	74	-12.05	127	221	H
4.3702	84.88	PK	27.6	-51.53	60.95	-20.35	40.6	54	-13.4	74	-13.05	182	304	V
4.807	84.06	PK	27.1	-52.21	58.95	-20.35	38.6	54	-15.4	74	-35.45	41	330	V
4.807	81.44	PK	27.1	-52.21	56.33	-20.35	35.98	54	-18.02	74	-38.07	121	139	H

PK - Peak detector

8.2. RX RADIATED SPURIOUS EMISSION

LIMITS

IC RSS-Gen Issue 3 section 7.2.3.2

All spurious emissions shall comply with the limits shown below:

Limits for radiated disturbance of Class B ITE at measuring distance of 3 m	
Frequency range (MHz)	Quasi-peak limits (dBµV/m)
30 to 88	40
88 to 216	43.5
216 to 960	46
Above 960 MHz	54
Note: The lower limit shall apply at the transition frequency.	

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to receive in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

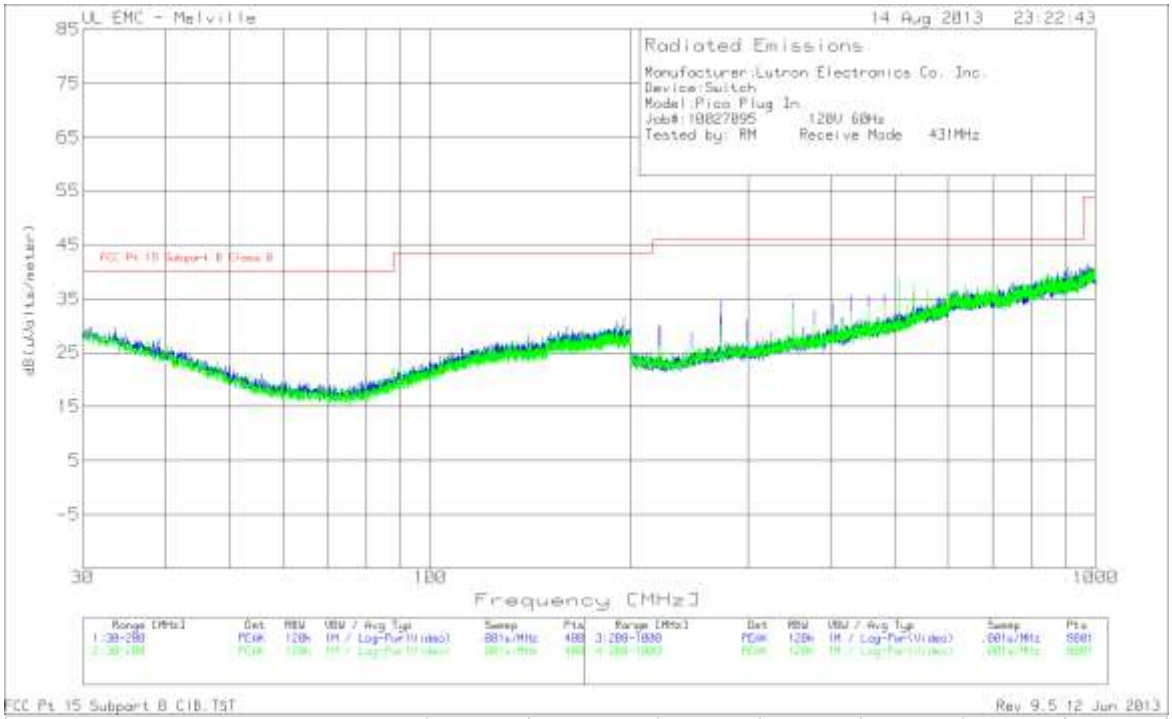
The spectrum from 30 MHz to 5th harmonic is investigated with the transmitter set to the middle channel.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

RESULTS

No non-compliance noted:

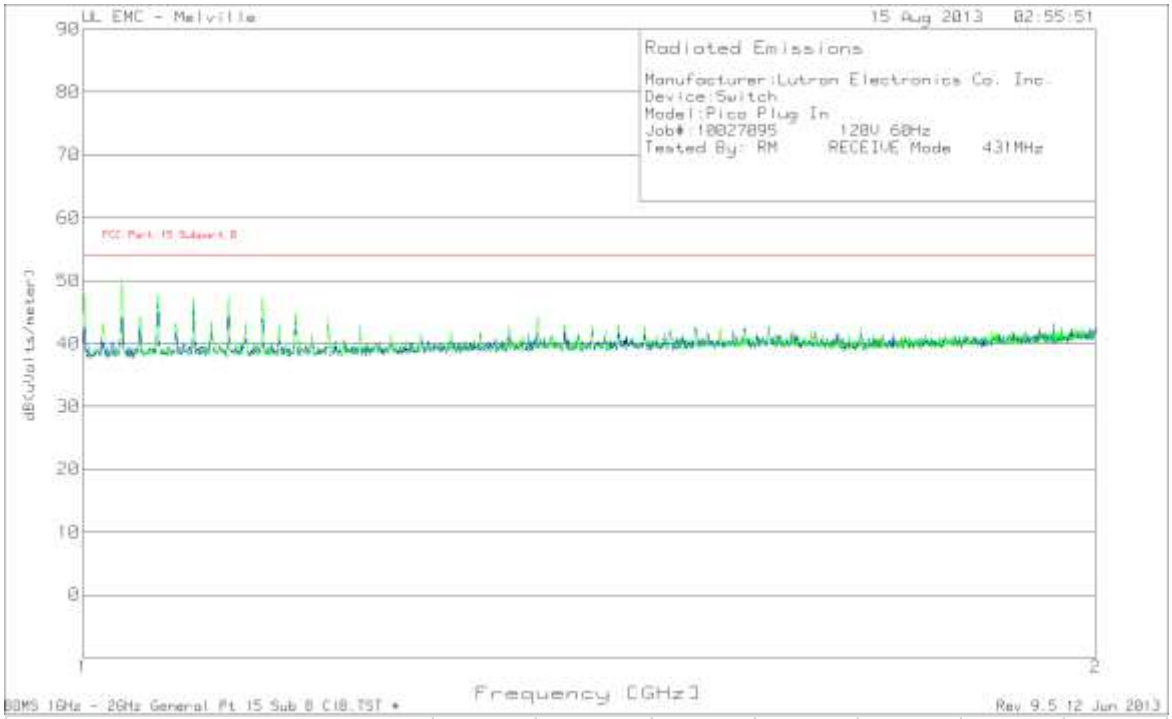
RECEIVER SPURIOUS EMISSION (30MHz - 1GHz) – Low Channel



Manufacturer:Lutron Electronics Co. Inc.
Device:Switch
Model:Pico Plug In
Job#:10027095 120V 60Hz
Tested by: RM Receive Mode 431MHz

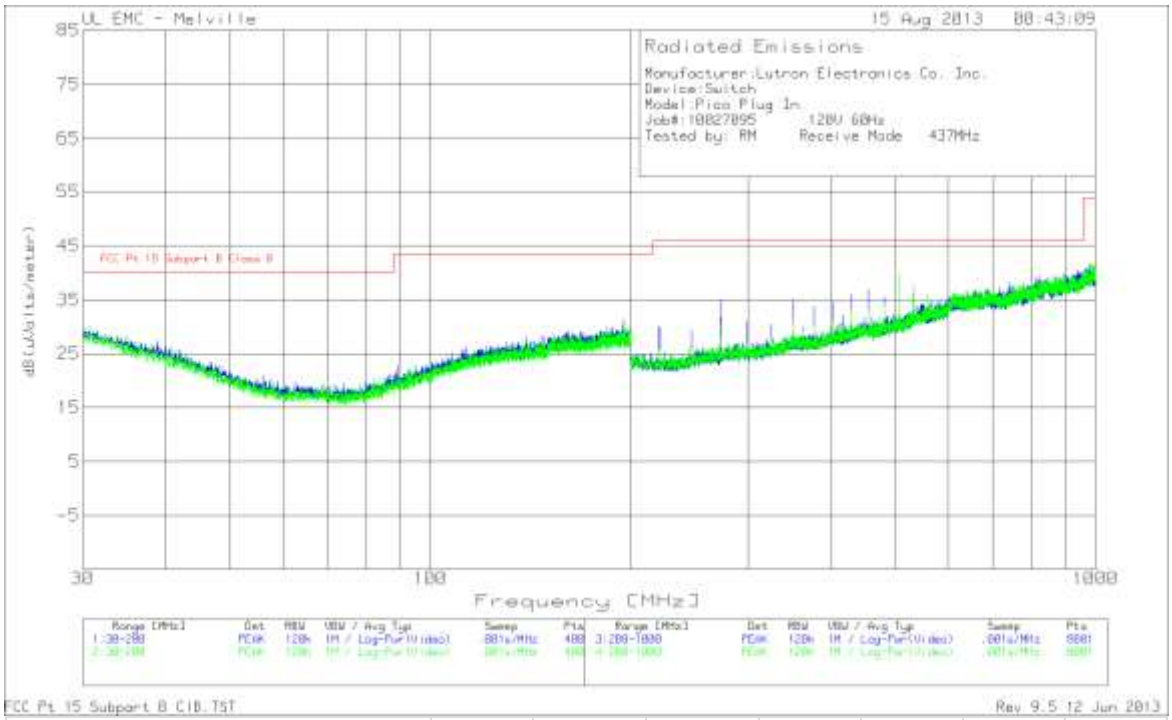
Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF-44068 [dB/m]	GL-3M [dB]	Corrected Reading dB(uVolts/ meter)	FCC Pt 15 Subpart B Class B	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
Horizontal 200 - 1000MHz										
273	21.1	PK	12.5	1.1	34.7	46	-11.3	0-360	100	H
351	18.2	PK	14.8	1.3	34.3	46	-11.7	0-360	100	H
429	18.18	PK	16	1.5	35.68	46	-10.32	0-360	100	H
Vertical 200 - 1000MHz										
351	16.8	PK	14.9	1.3	33	46	-13	0-360	200	V
507	19.51	PK	17.5	1.5	38.51	46	-7.49	0-360	100	V
533	17.58	PK	18.8	1.6	37.98	46	-8.02	0-360	100	V
PK - Peak detector										

RECEIVER SPURIOUS EMISSION ABOVE 1GHz – Low Channel



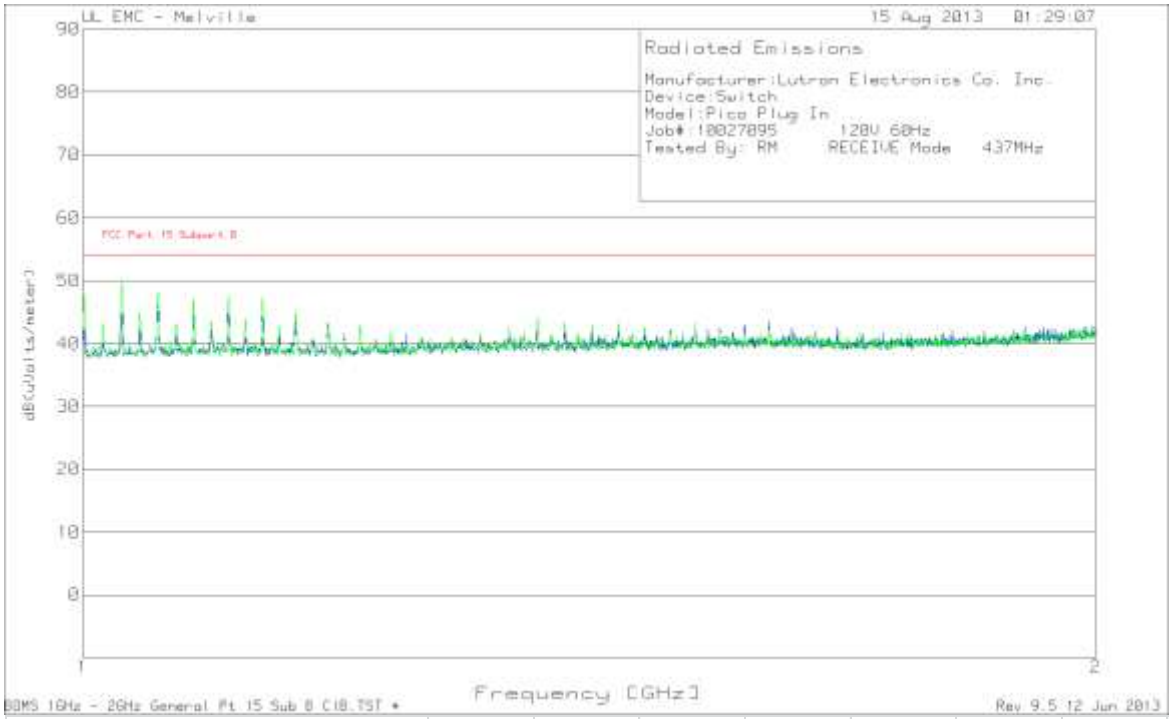
Manufacturer:Lutron Electronics Co. Inc.										
Device:Switch										
Model:Pico Plug In										
Job#:10027095 120V 60Hz										
Tested By: RM RECEIVE Mode 431MHz										
Test Frequency (GHz)	Meter Reading (dBuV)	Detector	AF-51442	BOMS Factor (dB)	Corrected Reading dB(uVolts/ meter)	FCC Part 15 Subpart B	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
Horizontal 1 - 2MHz										
1.053	70.81	PK	19.7	-44.28	46.23	54	-7.77	0-360	200	H
1.079	69.69	PK	19.9	-44.34	45.25	54	-8.75	0-360	100	H
1.105	69.53	PK	20	-44.31	45.22	54	-8.78	0-360	200	H
Vertical 1 - 2MHz										
1.001	72.94	PK	19.3	-44.3	47.94	54	-6.06	0-360	199	V
1.027	70.37	Av	19.5	-44.29	45.58	54	-8.42	266	185	V
1.053	72.36	PK	19.7	-44.28	47.78	54	-6.22	0-360	199	V
1.079	71.84	PK	19.9	-44.34	47.4	54	-6.6	0-360	199	V
1.105	71.79	PK	20	-44.31	47.48	54	-6.52	0-360	199	V
1.131	71.96	PK	19.9	-44.31	47.55	54	-6.45	0-360	199	V
PK - Peak detector										
Av - Average detector										

RECEIVER SPURIOUS EMISSION (30MHz - 1GHz) – High Channel



Manufacturer:Lutron Electronics Co. Inc.										
Device:Switch										
Model:Pico Plug In										
Job#:10027095 120V 60Hz										
Tested by: RM Receive Mode 437MHz										
Test Frequency (MHz)	Meter Reading (dBuV)	Detector	AF-54 [dB/m]	GL-3M [dB]	Corrected Reading dB(uVolts /meter)	FCC Pt 15 Subpart B Class B	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
Horizontal 30 - 200MHz										
195.0275	14.9	PK	15.6	0.9	31.4	43.5	-12.1	0-360	250	H
Horizontal 200 - 1000MHz										
273	21.38	PK	12.5	1.1	34.98	46	-11.02	0-360	98	H
429	18.42	PK	16	1.5	35.92	46	-10.08	0-360	98	H
455	18.74	PK	16.8	1.4	36.94	46	-9.06	0-360	200	H
Vertical 200 - 1000MHz										
507	20.75	PK	17.5	1.5	39.75	46	-6.25	0-360	100	V
533	17.57	PK	18.8	1.6	37.97	46	-8.03	0-360	100	V
PK - Peak detector										

RECEIVER SPURIOUS EMISSION ABOVE 1GHz – High Channel



Manufacturer:Lutron Electronics Co. Inc.										
Device:Switch										
Model:Pico Plug In										
Job#:10027095 120V 60Hz										
Tested By: RM RECEIVE Mode 437MHz										
Test Frequency (GHz)	Meter Reading(dBuV)	Detector	AF-51442	BOMS Factor (dB)	Corrected Reading dB(uVolts/meter)	FCC Part 15 Subpart B	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
Horizontal 1 - 2MHz										
1.053	70.63	PK	19.7	-44.28	46.05	54	-7.95	0-360	200	H
1.105	69.84	PK	20	-44.31	45.53	54	-8.47	0-360	200	H
Vertical 1 - 2MHz										
1.001	72.85	PK	19.3	-44.3	47.85	54	-6.15	0-360	200	V
1.027	70.55	Av	19.5	-44.29	45.76	54	-8.24	261	179	V
1.0533	72.69	PK	19.7	-44.26	48.13	54	-5.87	0-360	200	V
1.079	71.56	PK	19.9	-44.34	47.12	54	-6.88	0-360	200	V
1.105	71.79	PK	20	-44.31	47.48	54	-6.52	0-360	200	V
1.131	71.67	PK	19.9	-44.31	47.26	54	-6.74	0-360	200	V
1.157	69.82	PK	19.9	-44.38	45.34	54	-8.66	0-360	200	V
1.365	67.79	PK	20.6	-43.98	44.41	54	-9.59	0-360	99	V
PK - Peak detector										
Av - Average detector										

9. AC MAINS LINE CONDUCTED EMISSIONS

LIMITS

§15.207 (a)
IC RSS-GEN, Section 7.2.2

Frequency of emission (MHz)	Conducted Limit (dBµV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50
* Decreases with the logarithm of the frequency.		

TEST PROCEDURE

ANSI C63.4

RESULTS

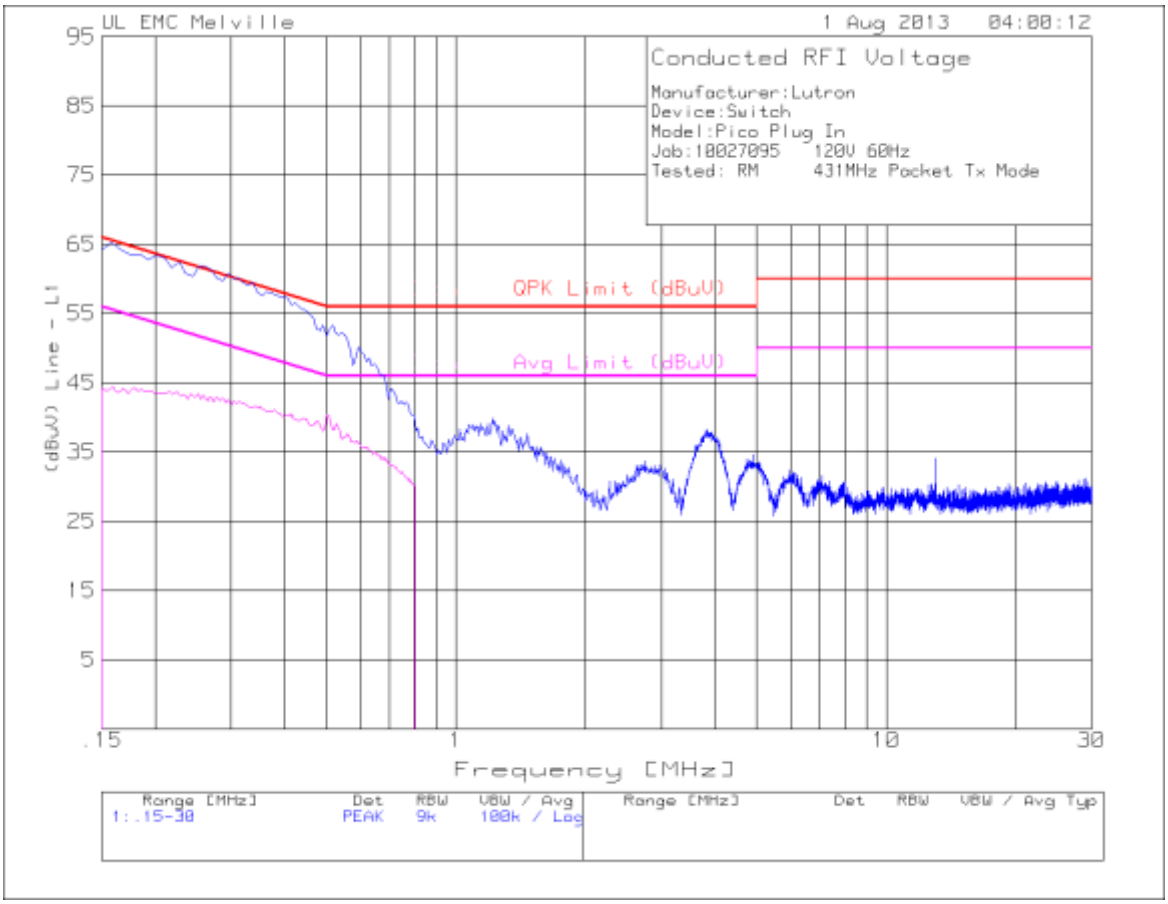
No non-compliance noted.

CONDUCTED EMISSIONS – TX Mode

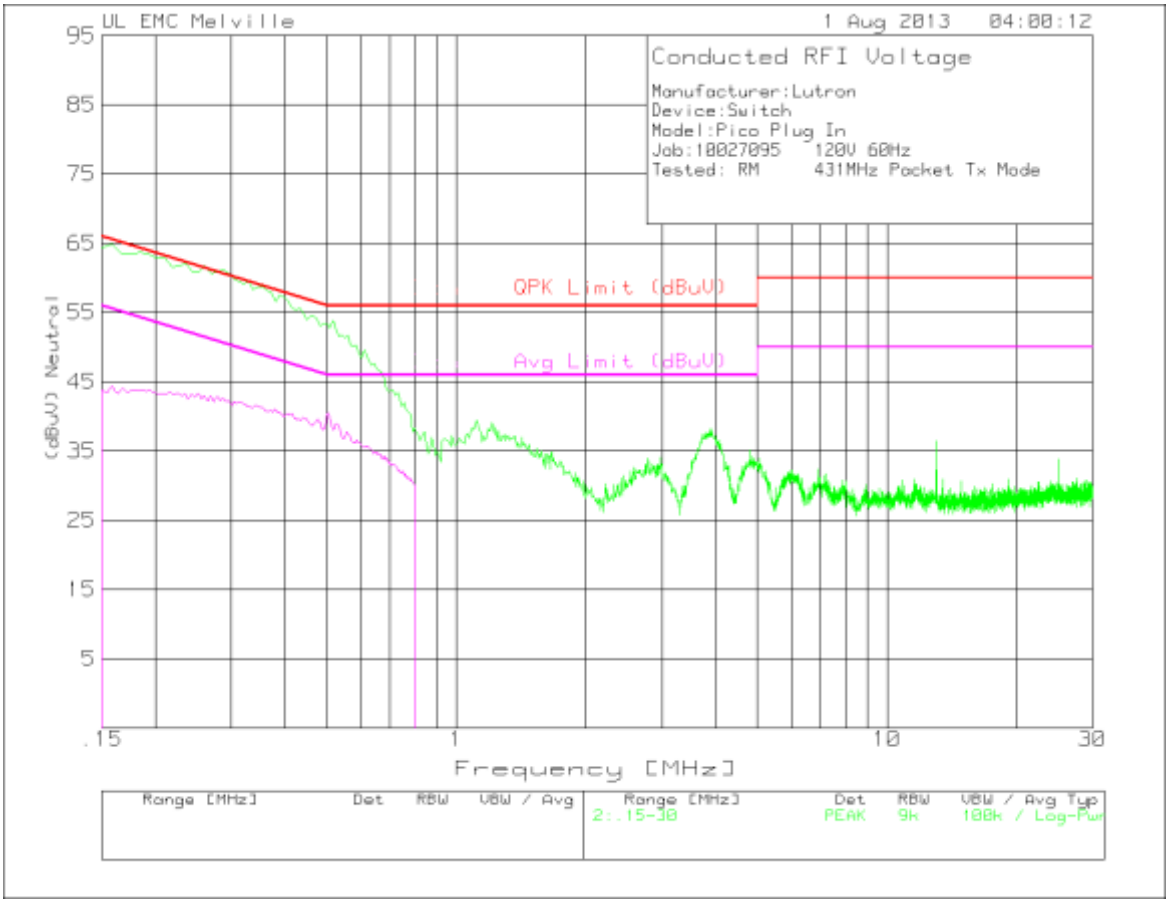
Manufacturer:Lutron									
Device:Switch									
Model:Pico Plug In									
Job:10027095 120V 60Hz									
Tested: RM 431MHz Packet Tx Mode									
Test Frequency (MHz)	Meter Reading (dBuV)	Detector	20 dB (dB)	5A636 L1 NO SwTL (dB)	Corrected Reading (dBuV)	QPK Limit (dBuV)	Margin (dB)	Avg Limit (dBuV)	Margin (dB)
Line - L1 .15 - 30MHz									
0.159165	41.36	QP	20	0.1	61.46	65.51	-4.05	-	-
0.17188	40.04	QP	20	0.1	60.14	64.87	-4.73	-	-
0.190188	39.74	QP	20	0.1	59.84	64.03	-4.19	-	-
0.192438	39.56	QP	20	0.1	59.66	63.93	-4.27	-	-
0.211653	39.19	QP	20	0.1	59.29	63.14	-3.85	-	-
0.23932	38.26	QP	20	0.1	58.36	62.12	-3.76	-	-
0.250395	38.32	QP	20	0.1	58.42	61.74	-3.32	-	-
0.28198	38.15	QP	20	0.1	58.25	60.76	-2.51	-	-
0.303953	36.5	QP	20	0.1	56.6	60.13	-3.53	-	-
0.3214	36.65	QP	20	0.1	56.75	59.67	-2.92	-	-
0.352113	35.03	QP	20	0.1	55.13	58.91	-3.78	-	-
0.387793	33.84	QP	20	0.1	53.94	58.11	-4.17	-	-
0.41426	32.97	QP	20	0.1	53.07	57.56	-4.49	-	-
0.446768	31.71	QP	20	0.1	51.81	56.93	-5.12	-	-
0.489853	30.64	QP	20	0.1	50.74	56.17	-5.43	-	-
0.50446	29.98	QP	20	0.1	50.08	56	-5.92	-	-
0.527158	29.51	QP	20	0.1	49.61	56	-6.39	-	-
0.530688	28.84	QP	20	0.1	48.94	56	-7.06	-	-
0.586263	26.37	QP	20	0.1	46.47	56	-9.53	-	-
Neutral .15 - 30MHz									
0.163823	40.76	QP	20	0.1	60.86	65.27	-4.41	-	-
0.172455	40.03	QP	20	0.1	60.13	64.84	-4.71	-	-
0.17698	40.54	QP	20	0.1	60.64	64.63	-3.99	-	-
0.206475	39.58	QP	20	0.1	59.68	63.35	-3.67	-	-
0.22155	39.88	QP	20	0.1	59.98	62.76	-2.78	-	-
0.246545	39.18	QP	20	0.1	59.28	61.87	-2.59	-	-
0.278085	37.57	QP	20	0.1	57.67	60.87	-3.2	-	-
0.290745	37.66	QP	20	0.1	57.76	60.5	-2.74	-	-
0.31255	37.25	QP	20	0.1	57.35	59.9	-2.55	-	-
0.345108	35.22	QP	20	0.1	55.32	59.08	-3.76	-	-
0.378103	34.21	QP	20	0.1	54.31	58.32	-4.01	-	-
0.388498	34.8	QP	20	0.1	54.9	58.1	-3.2	-	-
0.42894	32.44	QP	20	0.1	52.54	57.27	-4.73	-	-
0.440948	32.66	QP	20	0.1	52.76	57.04	-4.28	-	-
0.472363	31.46	QP	20	0.1	51.56	56.47	-4.91	-	-
0.504825	30.46	QP	20	0.1	50.56	56	-5.44	-	-
0.528695	29.44	QP	20	0.1	49.54	56	-6.46	-	-
0.56402	27.36	QP	20	0.1	47.46	56	-8.54	-	-
QP - Quasi-Peak detector									
Av - Average detector									

Manufacturer:Lutron									
Device:Switch									
Model:Pico Plug In									
Job:10027095 120V 60Hz									
Tested: RM 431MHz Packet Tx Mode									
Test Frequency (MHz)	Meter Reading (dBuV)	Detector	20 dB (dB)	5A636 L1 NO SwTL (dB)	Corrected Reading (dBuV)	QPK Limit (dBuV)	Margin (dB)	Avg Limit (dBuV)	Margin (dB)
Line - L1 .15 - 30MHz									
0.159165	24.48	Av	20	0.1	44.58	-	-	55.51	-10.93
0.17188	23.35	Av	20	0.1	43.45	-	-	54.87	-11.42
0.190188	23.58	Av	20	0.1	43.68	-	-	54.03	-10.35
0.192438	23.59	Av	20	0.1	43.69	-	-	53.93	-10.24
0.211653	23.27	Av	20	0.1	43.37	-	-	53.14	-9.77
0.23932	22.64	Av	20	0.1	42.74	-	-	52.12	-9.38
0.250395	23.22	Av	20	0.1	43.32	-	-	51.74	-8.42
0.28198	22.35	Av	20	0.1	42.45	-	-	50.76	-8.31
0.303953	21.95	Av	20	0.1	42.05	-	-	50.13	-8.08
0.3214	21.93	Av	20	0.1	42.03	-	-	49.67	-7.64
0.352113	21.27	Av	20	0.1	41.37	-	-	48.91	-7.54
0.387793	20.41	Av	20	0.1	40.51	-	-	48.11	-7.6
0.41426	20.19	Av	20	0.1	40.29	-	-	47.56	-7.27
0.446768	19.54	Av	20	0.1	39.64	-	-	46.93	-7.29
0.489853	17.89	Av	20	0.1	37.99	-	-	46.17	-8.18
0.50446	20.14	Av	20	0.1	40.24	-	-	46	-5.76
0.527158	18.99	Av	20	0.1	39.09	-	-	46	-6.91
0.530688	18.49	Av	20	0.1	38.59	-	-	46	-7.41
0.586263	16.36	Av	20	0.1	36.46	-	-	46	-9.54
Neutral .15 - 30MHz									
0.163823	23.63	Av	20	0.1	43.73	-	-	55.27	-11.54
0.172455	23.42	Av	20	0.1	43.52	-	-	54.84	-11.32
0.17698	24.04	Av	20	0.1	44.14	-	-	54.63	-10.49
0.206475	23.48	Av	20	0.1	43.58	-	-	53.35	-9.77
0.22155	23.65	Av	20	0.1	43.75	-	-	52.76	-9.01
0.246545	23.1	Av	20	0.1	43.2	-	-	51.87	-8.67
0.278085	22.92	Av	20	0.1	43.02	-	-	50.87	-7.85
0.290745	22.23	Av	20	0.1	42.33	-	-	50.5	-8.17
0.31255	22.51	Av	20	0.1	42.61	-	-	49.9	-7.29
0.345108	21.6	Av	20	0.1	41.7	-	-	49.08	-7.38
0.378103	21.13	Av	20	0.1	41.23	-	-	48.32	-7.09
0.388498	20.78	Av	20	0.1	40.88	-	-	48.1	-7.22
0.42894	19.52	Av	20	0.1	39.62	-	-	47.27	-7.65
0.440948	19.65	Av	20	0.1	39.75	-	-	47.04	-7.29
0.472363	19.15	Av	20	0.1	39.25	-	-	46.47	-7.22
0.504825	20.05	Av	20	0.1	40.15	-	-	46	-5.85
0.528695	18.78	Av	20	0.1	38.88	-	-	46	-7.12
0.56402	17	Av	20	0.1	37.1	-	-	46	-8.9
QP - Quasi-Peak detector									
Av - Average detector									

LINE 1 RESULTS



LINE 2 RESULTS

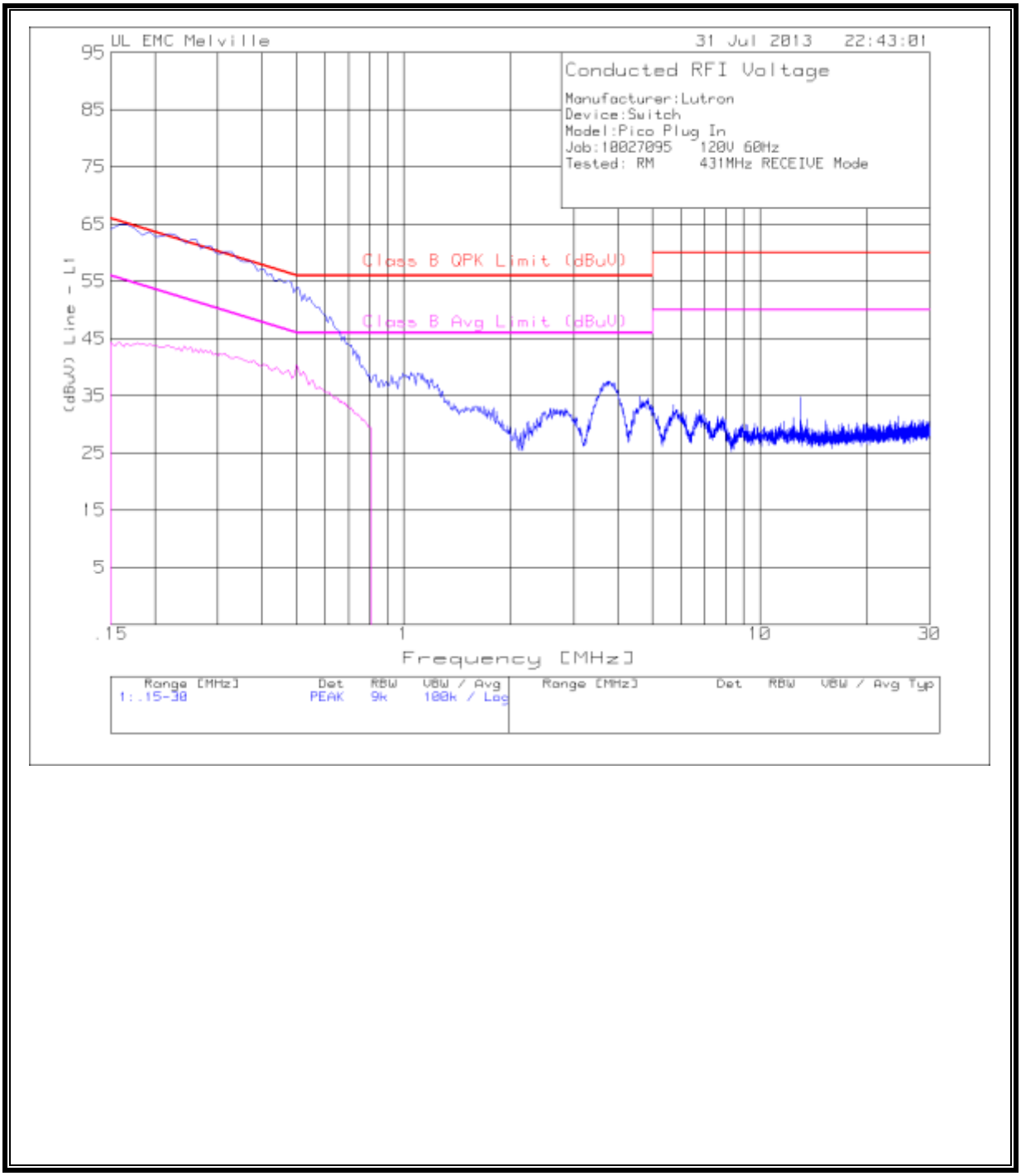


CONDUCTED EMISSIONS – RX Mode

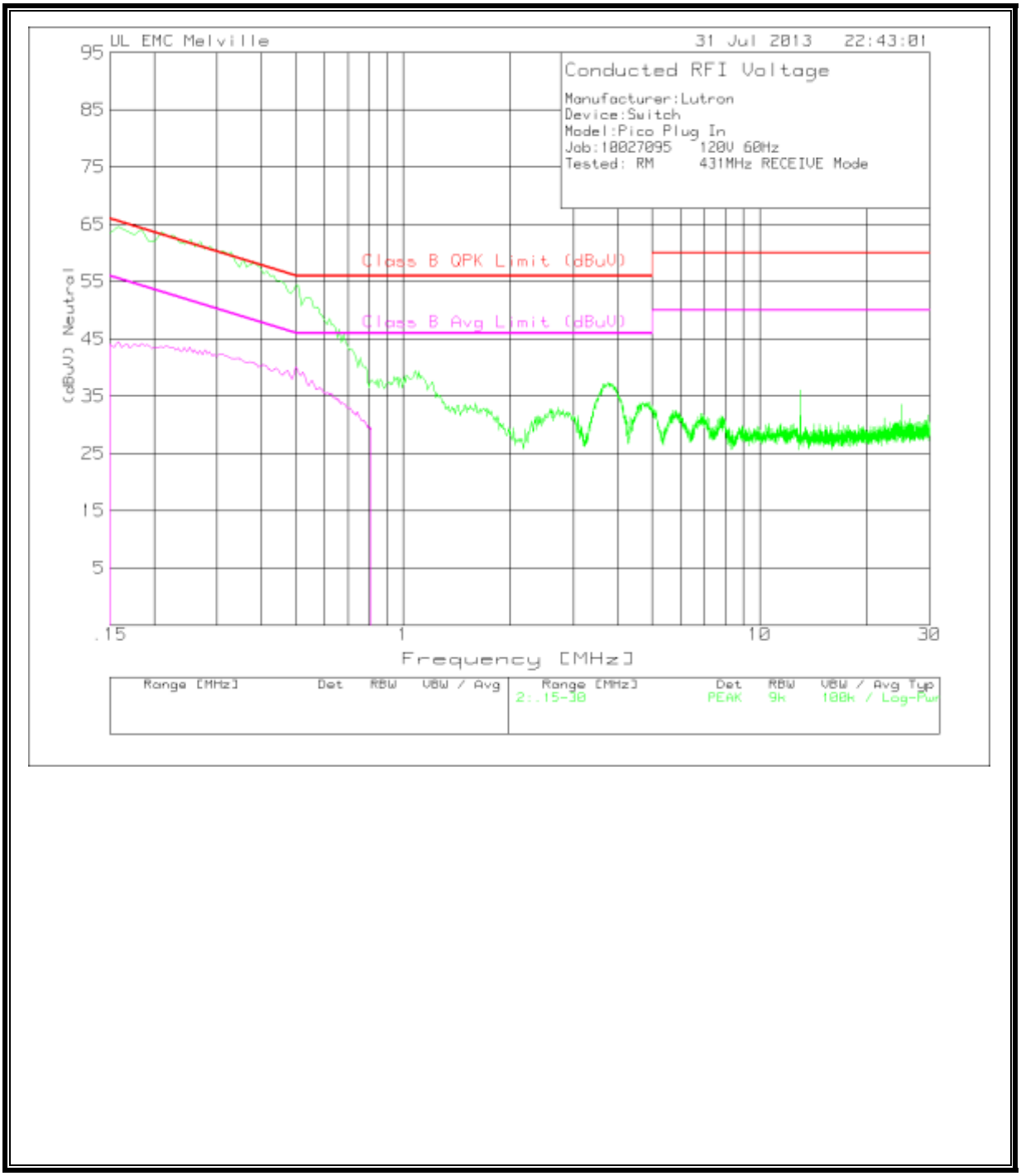
Manufacturer:Lutron									
Device:Switch									
Model:Pico Plug In									
Job:10027095 120V 60Hz									
Tested: RM 431MHz RECEIVE Mode									
Test Frequency (MHz)	Meter Reading (dBuV)	Detector	20 dB (dB)	5A636 L1 NO SwTL (dB)	Corrected Reading (dBuV)	Class B QPK Limit (dBuV)	Margin (dB)	Class B Avg Limit (dBuV)	Margin (dB)
Line - L1 .15 - 30MHz									
0.165703	41.06	QP	20	0.1	61.16	65.17	-4.01	-	-
0.16688	41.31	QP	20	0.1	61.41	65.11	-3.7	-	-
0.184178	40.59	QP	20	0.1	60.69	64.3	-3.61	-	-
0.216285	39.66	QP	20	0.1	59.76	62.96	-3.2	-	-
0.217448	39.47	QP	20	0.1	59.57	62.92	-3.35	-	-
0.221148	39.3	QP	20	0.1	59.4	62.78	-3.38	-	-
0.25068	38.89	QP	20	0.1	58.99	61.73	-2.74	-	-
0.270435	38.08	QP	20	0.1	58.18	61.1	-2.92	-	-
0.31158	36.82	QP	20	0.1	56.92	59.93	-3.01	-	-
0.346403	35.57	QP	20	0.1	55.67	59.05	-3.38	-	-
0.370598	34.81	QP	20	0.1	54.91	58.49	-3.58	-	-
0.387065	34.3	QP	20	0.1	54.4	58.13	-3.73	-	-
0.408058	33.31	QP	20	0.1	53.41	57.69	-4.28	-	-
0.470228	30.94	QP	20	0.1	51.04	56.51	-5.47	-	-
0.502805	29.78	QP	20	0.1	49.88	56	-6.12	-	-
0.52801	28.92	QP	20	0.1	49.02	56	-6.98	-	-
0.555745	27.5	QP	20	0.1	47.6	56	-8.4	-	-
Neutral .15 - 30MHz									
0.161108	41.08	QP	20	0.1	61.18	65.41	-4.23	-	-
0.1873	40.29	QP	20	0.1	60.39	64.16	-3.77	-	-
0.20293	39.91	QP	20	0.1	60.01	63.49	-3.48	-	-
0.21375	39.62	QP	20	0.1	59.72	63.06	-3.34	-	-
0.244168	38.74	QP	20	0.1	58.84	61.95	-3.11	-	-
0.250483	38.84	QP	20	0.1	58.94	61.74	-2.8	-	-
0.277805	37.86	QP	20	0.1	57.96	60.88	-2.92	-	-
0.286898	37.67	QP	20	0.1	57.77	60.61	-2.84	-	-
0.314303	36.69	QP	20	0.1	56.79	59.86	-3.07	-	-
0.341453	35.6	QP	20	0.1	55.7	59.17	-3.47	-	-
0.369723	34.67	QP	20	0.1	54.77	58.51	-3.74	-	-
0.378408	34.52	QP	20	0.1	54.62	58.31	-3.69	-	-
0.40989	33.16	QP	20	0.1	53.26	57.65	-4.39	-	-
0.428705	32.4	QP	20	0.1	52.5	57.28	-4.78	-	-
0.44127	32.12	QP	20	0.1	52.22	57.04	-4.82	-	-
0.501035	29.82	QP	20	0.1	49.92	56	-6.08	-	-
0.52799	28.85	QP	20	0.1	48.95	56	-7.05	-	-
0.55755	27.32	QP	20	0.1	47.42	56	-8.58	-	-
QP - Quasi-Peak detector									
Av - Average detector									

Manufacturer:Lutron									
Device:Switch									
Model:Pico Plug In									
Job:10027095 120V 60Hz									
Tested: RM 431MHz RECEIVE Mode									
Test Frequency (MHz)	Meter Reading (dBuV)	Detector	20 dB (dB)	5A636 L1 NO SwTL (dB)	Corrected Reading (dBuV)	Class B QPK Limit (dBuV)	Margin (dB)	Class B Avg Limit (dBuV)	Margin (dB)
Line - L1 .15 - 30MHz									
0.165703	24.08	Av	20	0.1	44.18	-	-	55.17	-10.99
0.16688	24.38	Av	20	0.1	44.48	-	-	55.11	-10.63
0.184178	24.31	Av	20	0.1	44.41	-	-	54.3	-9.89
0.216285	23.82	Av	20	0.1	43.92	-	-	52.96	-9.04
0.217448	23.89	Av	20	0.1	43.99	-	-	52.92	-8.93
0.221148	23.73	Av	20	0.1	43.83	-	-	52.78	-8.95
0.25068	23.66	Av	20	0.1	43.76	-	-	51.73	-7.97
0.270435	22.95	Av	20	0.1	43.05	-	-	51.1	-8.05
0.31158	22.46	Av	20	0.1	42.56	-	-	49.93	-7.37
0.346403	21.65	Av	20	0.1	41.75	-	-	49.05	-7.3
0.370598	21.12	Av	20	0.1	41.22	-	-	48.49	-7.27
0.387065	20.73	Av	20	0.1	40.83	-	-	48.13	-7.3
0.408058	20.4	Av	20	0.1	40.5	-	-	47.69	-7.19
0.470228	19.47	Av	20	0.1	39.57	-	-	46.51	-6.94
0.502805	20.42	Av	20	0.1	40.52	-	-	46	-5.48
0.52801	18.99	Av	20	0.1	39.09	-	-	46	-6.91
0.555745	17.77	Av	20	0.1	37.87	-	-	46	-8.13
Neutral .15 - 30MHz									
0.161108	24.03	Av	20	0.1	44.13	-	-	55.41	-11.28
0.1873	24.01	Av	20	0.1	44.11	-	-	54.16	-10.05
0.20293	23.71	Av	20	0.1	43.81	-	-	53.49	-9.68
0.21375	23.82	Av	20	0.1	43.92	-	-	53.06	-9.14
0.244168	23.43	Av	20	0.1	43.53	-	-	51.95	-8.42
0.250483	23.58	Av	20	0.1	43.68	-	-	51.74	-8.06
0.277805	23.15	Av	20	0.1	43.25	-	-	50.88	-7.63
0.286898	22.94	Av	20	0.1	43.04	-	-	50.61	-7.57
0.314303	22.27	Av	20	0.1	42.37	-	-	49.86	-7.49
0.341453	21.59	Av	20	0.1	41.69	-	-	49.17	-7.48
0.369723	21.03	Av	20	0.1	41.13	-	-	48.51	-7.38
0.378408	21.06	Av	20	0.1	41.16	-	-	48.31	-7.15
0.40989	20.26	Av	20	0.1	40.36	-	-	47.65	-7.29
0.428705	19.56	Av	20	0.1	39.66	-	-	47.28	-7.62
0.44127	20	Av	20	0.1	40.1	-	-	47.04	-6.94
0.501035	20.45	Av	20	0.1	40.55	-	-	46	-5.45
0.52799	19.01	Av	20	0.1	39.11	-	-	46	-6.89
0.55755	17.61	Av	20	0.1	37.71	-	-	46	-8.29
QP - Quasi-Peak detector									
Av - Average detector									

LINE 1 RESULTS



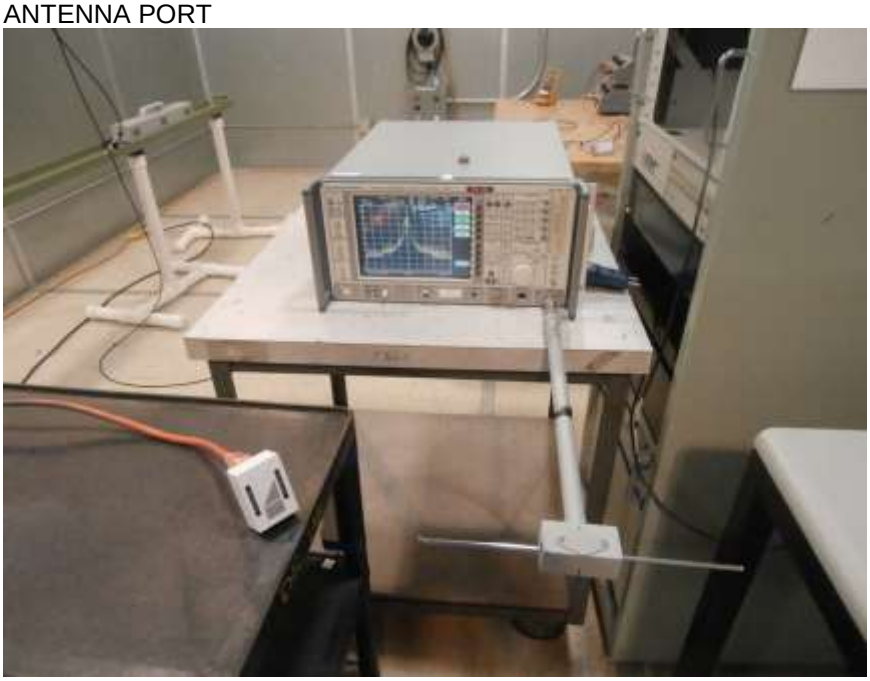
LINE 2 RESULTS



10. SETUP PHOTOS

ANTENNA PORT

ANTENNA PORT



RADIATED EMISSION FOR PORTABLE CONFIGURATION – X ORIENTATION

RADIATED EMISSION FOR PORTABLE CONFIGURATION – X ORIENTATION

RADIATED EMISSION FOR PORTABLE CONFIGURATION – Y ORIENTATION

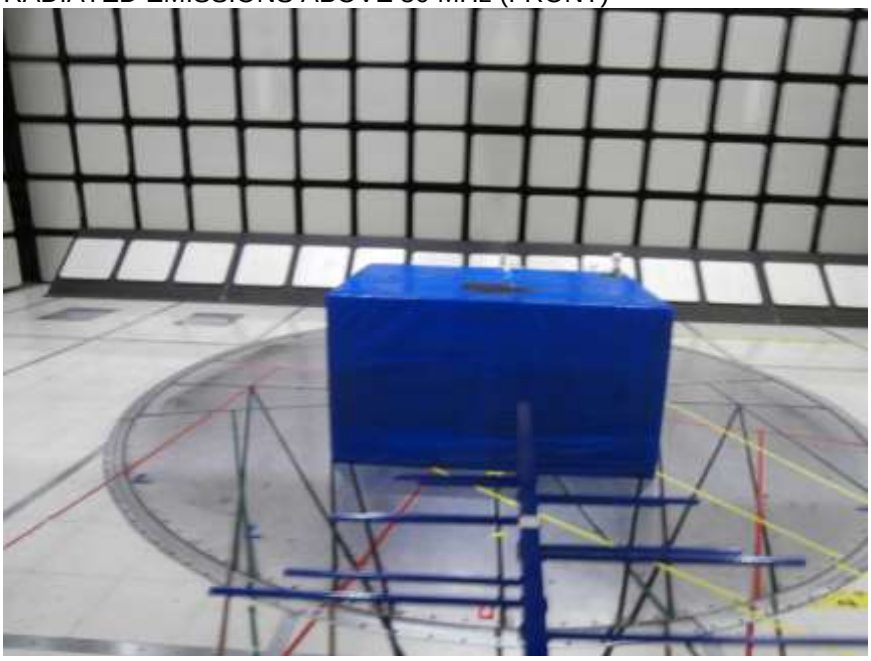
RADIATED EMISSION FOR PORTABLE CONFIGURATION – Y ORIENTATION

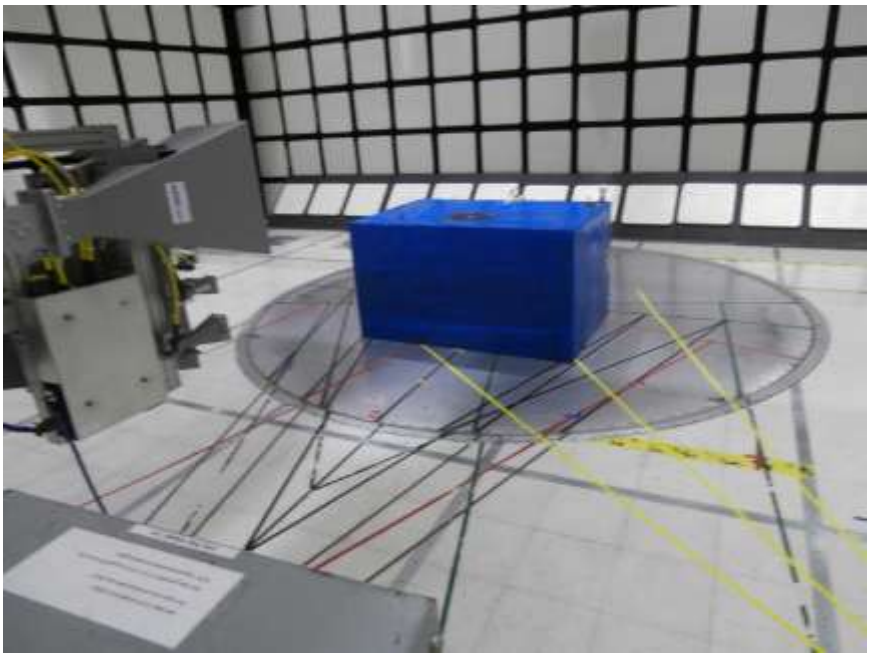
RADIATED EMISSION FOR PORTABLE CONFIGURATION – Z ORIENTATION

RADIATED EMISSION FOR PORTABLE CONFIGURATION – Z ORIENTATION

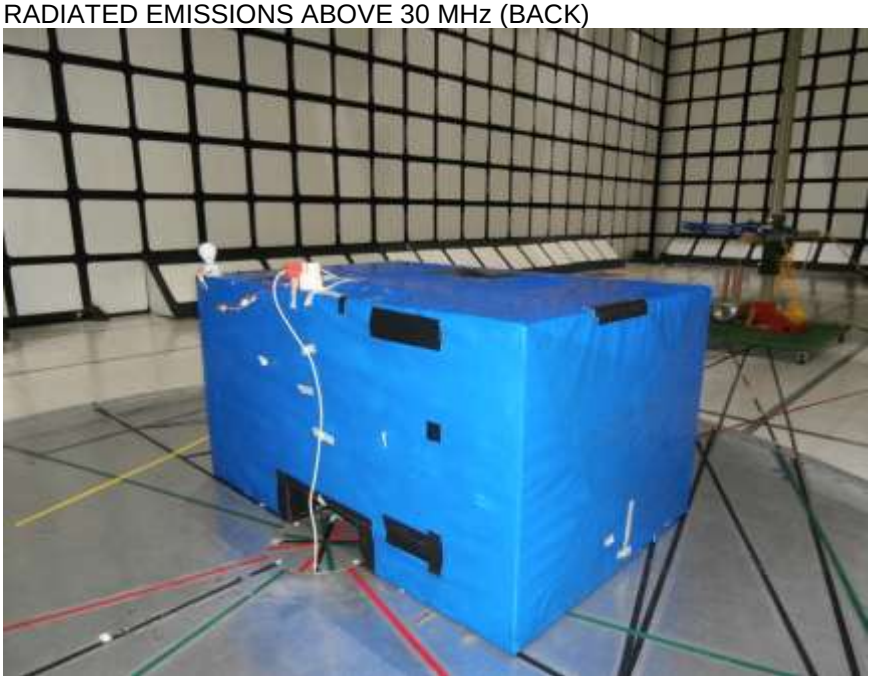
RADIATED EMISSION ABOVE 30 MHz

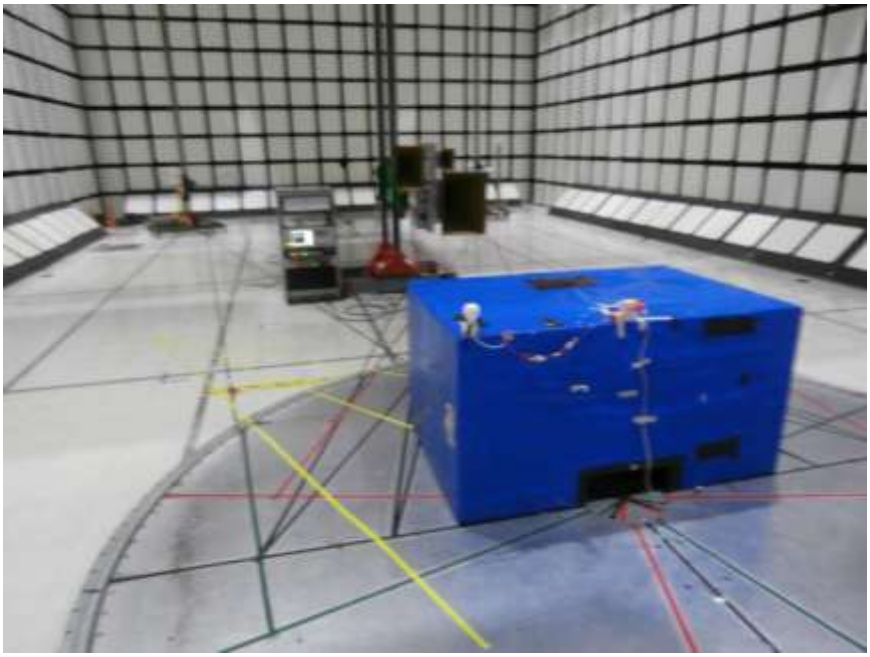
RADIATED EMISSIONS ABOVE 30 MHz (FRONT)





RADIATED EMISSIONS ABOVE 30 MHz (BACK)





AC MAINS LINE CONDUCTED EMISSION

LINE CONDUCTED EMISSION (FRONT)

LINE CONDUCTED EMISSION (BACK)

END OF REPORT

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