



Underwriters Laboratories Inc.
1285 Walt Whitman Rd.
Melville, NY 11747

www.ul.com/emc
(631) 271-6200

Job Number:	1001149942
Project Number:	09CA43209
File Number:	MC15896
Date:	October 5, 2009
Revision Date:	October 15, 2009
Model:	RRD-W3BRL
FCC ID:	JPZ0063
IC Number:	2851A-JPZ0063

Electromagnetic Compatibility Test Report

For

LUTRON ELECTRONICS INC

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Job Number: 1001149942 File Number: MC15896 Page 2 of 116
Model Number: RRD-W3BRL
Client Name: LUTRON ELECTRONICS INC
FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Report Details

Tests Performed By: **Underwriters Laboratories Inc.
1285 Walt Whitman Rd.
Melville, NY 11747**

Tests Performed For: **LUTRON ELECTRONICS INC
7200 SUTTER ROAD
COOPERBURG, PA 18036**

Applicant Contact: **BOB SPEHALSKI**
Phone: **(610) 282-7424**
E-mail: **RSPEHALSKI@LUTRON.COM**

Test Report Date: **October 5, 2009**
Test Report Revision Date: **October 15, 2009**

Product Type: **Wall Mounted Keypad**

Product standards: **FCC Part 15, Subpart C, 15.231**

Model Number: **RRD-W3BRL**

Sample Serial Number: **Non-serialized production unit**

EUT Category: **Periodic Low Power Transmitter**

Testing Start Date: **28 September 2009**

Date Testing Complete: **30 September 2009**

Overall Results: Compliant

Underwriters Laboratories Inc. reports apply only to the specific samples tested under stated test conditions. All samples tested were in good operating condition throughout the entire test program. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. Underwriters Laboratories Inc. shall have no liability for any deductions, inferences or generalizations drawn by the client or others from Underwriters Laboratories Inc. issued reports. This report shall not be used to claim, constitute or imply product certification, approval, or endorsement by NVLAP, NIST, A2LA, or any agency of the US government.

This report may contain test results that are not covered by the NVLAP or A2LA accreditation. The scope of accreditation is limited to the specific tests that are listed on the NVLAP and/or A2LA websites referenced at the end of this report.

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 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Report Revision History

Revision Date	Description	Revised By	Revision Reviewed By
None	Original	-	-
15 October 2009	Added additional internal frequencies, changed FCC Part 15 standard year date from 2008 to 2009	B. DeLisi	J. Danisi

1.0 GENERAL - Product Description

1.1 Equipment Description

Provides control of multiple lights and/or shades in the home. Can be controlled with infrared remote controls via the front-mounted IR receiver and rear IR window.

Testing of the RRD-W3BRL represents the following models: RRD-W5BRLIR, RRD-W6BRL, RRD-W7B, RRD-W3BD, RRD-W1RLD, RRD-W2RLD, QSWK4-7B, QSWK4-6BR, QSWK4-3BD, QSWK4-2RD, QSWK4-1RD, QSWK4-3BR, QSWK4-5RI.

All of the models provided in this are built from an identical base unit. The electronics and mounting structure for all models is exactly the same. Only difference is the button kit that is placed on the unit during packaging.

Per FCC Part 2.1093 (C) this device is not required to undergo testing for radio-frequency radiation exposure.

Antenna description: It is permanently attached to the RF circuit board and the transmit antenna type is a PCB trace antenna.

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1.2 Equipment Marking Plate

Not available at time of test.

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1.3 Device Configuration During Test

1.3.1 Equipment Used During Test:

Use	Product Type	Manufacturer	Model	Comments
EUT	Wall Mounted Keypad	LUTRON ELECTRONICS INC	RRD-W3BRL	None
Note: EUT - Equipment Under Test, AE - Auxiliary/Associated Equipment, or SIM - Simulator (Not Subjected to Test)				

1.3.2 Input/Output Ports:

Port #	Name	Type*	Cable Max. >3m (Y/N)	Cable Shielded (Y/N)	Comments
0	Enclosure	N/E	—	—	None
1	Mains	AC	Y	N	None
Note: AC = AC Power Port DC = DC Power Port N/E = Non-Electrical I/O = Signal Input or Output Port (Not Involved in Process Control) TP = Telecommunication Ports					

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1.3.3 EUT Internal Operating Frequencies:

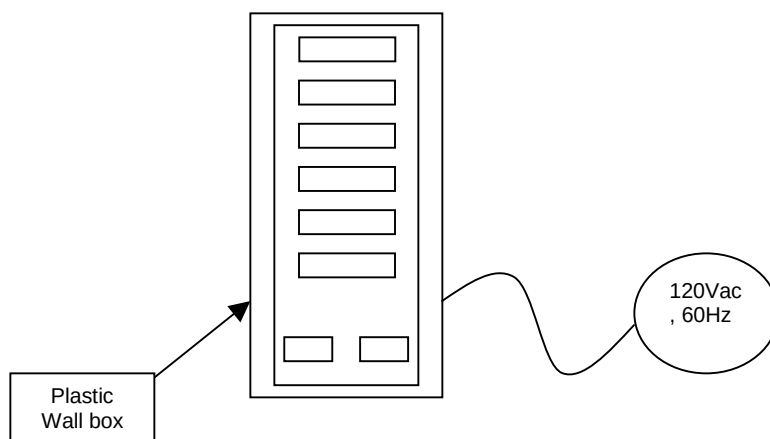
Frequency (MHz)	Description
0.00111	PWM
0.0625	Data
0.132	Switching Power Supply
0.203	IF
1	SPI
3	SPI
13	Bus
26	Crystal
26	Clock
431 – 437	Fundamental Frequency rage

1.3.4 Power Interface:

Mode # /Rated	Voltage (V)	Current (A)	Power (W)	Frequency (DC/AC-Hz)	Phases (#)	Comments
Rated	120	-	-	AC – 60Hz	1	None
1	120	-	-	AC – 60Hz	1	None

1.4 Block Diagram:

The diagram below illustrates the configuration of the equipment above.



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1.5 EUT Configurations

Mode #	Description
1	Stand Alone mounted in a standard plastic electrical wall box

1.6 EUT Operation Modes

Mode #	Description
1	Continuous Transmission with modulation tuned to 431MHz
2	Continuous Transmission with modulation tuned to 437MHz
3	Normal transmission with modulation tuned to 433MHz
4	Receive mode tuned to 431MHz
5	Receive mode tuned to 437MHz

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Client Name: LUTRON ELECTRONICS INC
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2.0 Summary

The tests listed in the Summary of Testing section of this report have been performed and the results recorded by Underwriters Laboratories Inc. in accordance with the procedures stated in each test requirement and specification. The applicant determined the list of tests performed were applicable to the Equipment Under Test. As a result, the subject product has been verified to comply or not comply as noted in the Summary of Testing with each test specification. The test results relate only to the items tested.

2.1 Deviations from standard test methods

None

2.2 Device Modifications Necessary for Compliance

None

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 Client Name: LUTRON ELECTRONICS INC
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2.3 Reference Standards

Standard Number	Standard Name	Standard Date
FCC Part 15, Subpart C, 15.231	Code of Federal Regulations, Part 15, Radio Frequency Devices	2009
FCC Part 15, Subpart B	Code of Federal Regulations, Part 15, Radio Frequency Devices	2009
RSS-GEN, Issue 2	General Requirements and Information for the Certification of Radiocommunication Equipment	2007
RSS-210, Issue 7	Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment	2007
ICES-003, Issue 4	Digital Apparatus	2004

2.4 Results Summary

This product is considered periodic transmitter with a Class B receiver.

Requirement – Test	Result (Compliant / Non-Compliant)*
Conducted Emissions - Mains	Compliant
Fundamental Radiated Emissions	Compliant
Spurious Radiated Emissions	Compliant
Occupied Bandwidth	Compliant
Pulse Train - Averaging Factor	Compliant
Cease Operation	Compliant
Radiated Emissions - Unintentional	Compliant

Test Engineer:

Reviewer:




Bob DeLisi (Ext.22452)
 Senior Staff Engineer
 International EMC Services
 Conformity Assessment Services-

Joe Danisi(Ext.23055)
 Lead Engineering Associate
 International EMC Services
 Conformity Assessment Services

Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.

3.0 Calibration of Equipment Used for Measurement

All test equipment and test accessories are calibrated on a regular basis. The maximum time between calibrations is one year or the manufacturers' recommendation, whichever is less.

All test equipment calibrations are traceable to the National Institute of Standards and Technology (NIST); therefore, all test data recorded in this report is traceable to NIST.

4.0 EMISSIONS TEST RESULTS

The emissions tests were performed according to following regulations:

----- North America -----

Code of Federal Regulations Title 47	Part 15, Subpart B and Subpart C, Radio Frequency Devices
Industry Canada	RSS-GEN, RSS-210, ICES-003

Unless specified otherwise in the individual Methods, the tests shall be conducted under the following ambient conditions. Confirmation of these conditions shall be verified at the time the test is conducted.

Ambient Temperature, °C	22.5 ± 2.5	Relative Humidity, %	45 ± 15	Barometric Pressure, mBar	950 ± 150
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Client Name: LUTRON ELECTRONICS INC
FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

4.1 Test Conditions and Results – MAINS TERMINAL – CONDUCTED EMISSIONS

Test Description	Measurements were made on a ground plane. All power was connected to the system through Artificial Mains Network (AMN). Conducted voltage measurements on mains lines were made at the output of the AMN.	
Basic Standard	FCC Part 15, Subpart C, 15.207	
UL LPG	80-EM-S0026	
	Frequency range on each side of line	Measurement Point
Fully configured sample scanned over the following frequency range	150kHz to 30MHz	Mains
Limits		
Frequency (MHz)	Limit (dB μ V)	
	Quasi-Peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50
Supplementary information: None		

Table 1 Conducted Emissions EUT Configuration Settings

Power Interface Mode #	EUT Configurations Mode #	EUT Operation Mode #
1	1	1
1	1	2
1	1	4
1	1	5
Supplementary information: None		

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Table 2 Conducted Emissions Test Equipment

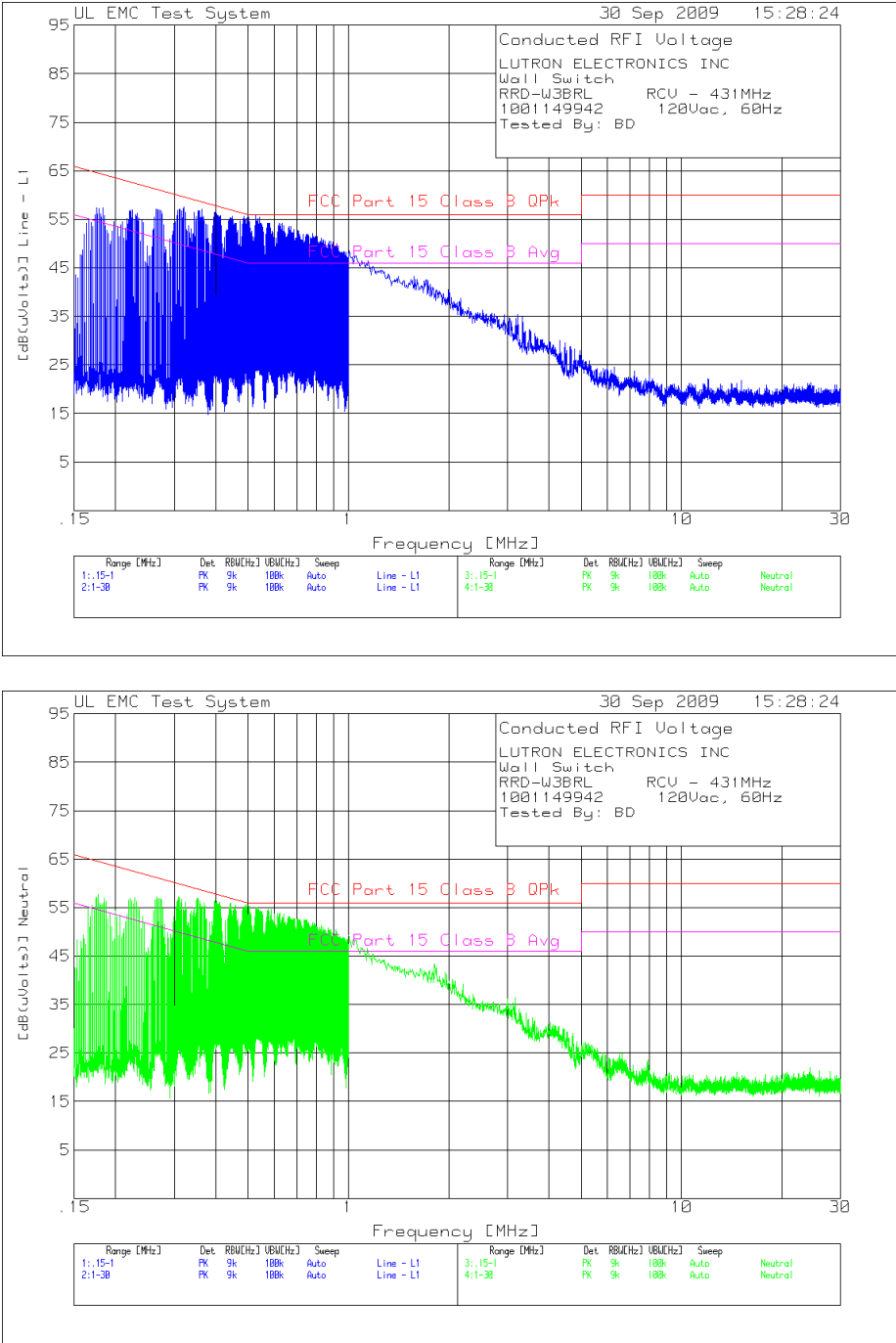
Test Equipment Used			
Description	Manufacturer	Model	Identifier
Conducted Emissions – GP 1			
EMI Receiver	Rohde & Schwarz	ESIB26	ME5B-081
LISN	EMCO	3825/2R	ME5-790
Switch Driver	HP	11713A	44397
RF Switch Box	UL	4	44404
Measurement Software	UL	Version 9.3	44736
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	43734
Multimeter	Fluke	83III	ME5B-306

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Figure 1 Test Setup for Conducted Emissions



Figure 2 Conducted Emissions Graph



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Table 3 Conducted Emissions Data Points

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL RCV - 431MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
=====										
Line - L1 .15 - 1MHz										
.17604	43.9 qp	11.8	0	55.7	64.7	54.7	-	-	-	-
			Margin [dB]:	-9	1	-	-	-	-	-
.22221	43.63 qp	11.3	0	54.93	62.7	52.7	-	-	-	-
			Margin [dB]:	-7.77	2.23	-	-	-	-	-
.26854	44.43 qp	11	0	55.43	61.2	51.2	-	-	-	-
			Margin [dB]:	-5.77	4.23	-	-	-	-	-
.31221	43.34 qp	10.9	0	54.24	59.9	49.9	-	-	-	-
			Margin [dB]:	-5.66	4.34	-	-	-	-	-
.35689	42.76 qp	10.7	0	53.46	58.8	48.8	-	-	-	-
			Margin [dB]:	-5.34	4.66	-	-	-	-	-
.39972	43.79 qp	10.7	0	54.49	57.9	47.9	-	-	-	-
			Margin [dB]:	-3.41	6.59	-	-	-	-	-
.44304	42.93 qp	10.6	0	53.53	57	47	-	-	-	-
			Margin [dB]:	-3.47	6.53	-	-	-	-	-
.49477	40.39 qp	10.6	0	50.99	56.1	46.1	-	-	-	-
			Margin [dB]:	-5.11	4.89	-	-	-	-	-
.54026	41.19 qp	10.5	0	51.69	56	46	-	-	-	-
			Margin [dB]:	-4.31	5.69	-	-	-	-	-
.57499	41.14 qp	10.5	0	51.64	56	46	-	-	-	-
			Margin [dB]:	-4.36	5.64	-	-	-	-	-
.62016	40.11 qp	10.5	0	50.61	56	46	-	-	-	-
			Margin [dB]:	-5.39	4.61	-	-	-	-	-
.66436	39.62 qp	10.5	0	50.12	56	46	-	-	-	-
			Margin [dB]:	-5.88	4.12	-	-	-	-	-
.68601	39.53 qp	10.5	0	50.03	56	46	-	-	-	-
			Margin [dB]:	-5.97	4.03	-	-	-	-	-
.70713	38.9 qp	10.5	0	49.4	56	46	-	-	-	-
			Margin [dB]:	-6.6	3.4	-	-	-	-	-
.74409	36.87 qp	10.5	0	47.37	56	46	-	-	-	-
			Margin [dB]:	-8.63	1.37	-	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

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 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line - L1 .15 - 1MHz									
.76592	36.53 qp	10.5	0	47.03	56	46	-	-	-
			Margin [dB]:	-8.97	1.03	-	-	-	-
.79326	38 qp	10.5	0	48.5	56	46	-	-	-
			Margin [dB]:	-7.5	2.5	-	-	-	-
.81767	36.5 qp	10.4	0	46.9	56	46	-	-	-
			Margin [dB]:	-9.1	.9	-	-	-	-
.84081	36.37 qp	10.4	0	46.77	56	46	-	-	-
			Margin [dB]:	-9.23	.77	-	-	-	-
.86116	35.01 qp	10.4	0	45.41	56	46	-	-	-
			Margin [dB]:	-10.59	-.59	-	-	-	-
.89655	34.62 qp	10.4	0	45.02	56	46	-	-	-
			Margin [dB]:	-10.98	-.98	-	-	-	-
.92009	36.26 qp	10.4	0	46.66	56	46	-	-	-
			Margin [dB]:	-9.34	.66	-	-	-	-
.93567	34.12 qp	10.4	0	44.52	56	46	-	-	-
			Margin [dB]:	-11.48	-1.48	-	-	-	-
.95941	35.25 qp	10.4	0	45.65	56	46	-	-	-
			Margin [dB]:	-10.35	-.35	-	-	-	-
.98778	32.85 qp	10.4	0	43.25	56	46	-	-	-
			Margin [dB]:	-12.75	-2.75	-	-	-	-
.99345	32.73 qp	10.4	0	43.13	56	46	-	-	-
			Margin [dB]:	-12.87	-2.87	-	-	-	-
Line - L1 1 - 30MHz									
1.05584	34.17 qp	10.4	0	44.57	56	46	-	-	-
			Margin [dB]:	-11.43	-1.43	-	-	-	-
1.09836	33.32 qp	10.4	0	43.72	56	46	-	-	-
			Margin [dB]:	-12.28	-2.28	-	-	-	-
1.14416	32.25 qp	10.4	0	42.65	56	46	-	-	-
			Margin [dB]:	-13.35	-3.35	-	-	-	-
1.18122	21.28 qp	10.4	0	31.68	56	46	-	-	-
			Margin [dB]:	-24.32	-14.32	-	-	-	-
1.28328	22 qp	10.4	0	32.4	56	46	-	-	-
			Margin [dB]:	-23.6	-13.6	-	-	-	-
1.27999	22.16 qp	10.4	0	32.56	56	46	-	-	-
			Margin [dB]:	-23.44	-13.44	-	-	-	-
1.3046	21 qp	10.4	0	31.4	56	46	-	-	-
			Margin [dB]:	-24.6	-14.6	-	-	-	-
1.41572	22.05 qp	10.4	0	32.45	56	46	-	-	-
			Margin [dB]:	-23.55	-13.55	-	-	-	-
1.45412	21.7 qp	10.4	0	32.1	56	46	-	-	-
			Margin [dB]:	-23.9	-13.9	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

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 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line - L1 1 - 30MHz									
1.54361	21.97 qp	10.3	0	32.27	56	46	-	-	-
			Margin [dB]:		-23.73	-13.73	-	-	-
1.59481	21.7 qp	10.3	0	32	56	46	-	-	-
			Margin [dB]:		-24	-14	-	-	-
1.70044	22.32 qp	10.3	0	32.62	56	46	-	-	-
			Margin [dB]:		-23.38	-13.38	-	-	-
1.71927	21.2 qp	10.3	0	31.5	56	46	-	-	-
			Margin [dB]:		-24.5	-14.5	-	-	-
1.79236	22.77 qp	10.3	0	33.07	56	46	-	-	-
			Margin [dB]:		-22.93	-12.93	-	-	-
1.83342	21.97 qp	10.3	0	32.27	56	46	-	-	-
			Margin [dB]:		-23.73	-13.73	-	-	-
1.93101	21.78 qp	10.3	0	32.08	56	46	-	-	-
			Margin [dB]:		-23.92	-13.92	-	-	-
1.98979	19.3 qp	10.3	0	29.6	56	46	-	-	-
			Margin [dB]:		-26.4	-16.4	-	-	-
2.0432	19.04 qp	10.3	0	29.34	56	46	-	-	-
			Margin [dB]:		-26.66	-16.66	-	-	-
2.11216	19.82 qp	10.3	0	30.12	56	46	-	-	-
			Margin [dB]:		-25.88	-15.88	-	-	-
2.18989	18.46 qp	10.3	0	28.76	56	46	-	-	-
			Margin [dB]:		-27.24	-17.24	-	-	-
2.21143	18.24 qp	10.3	0	28.54	56	46	-	-	-
			Margin [dB]:		-27.46	-17.46	-	-	-

NOTE: "+" - Indicates an emission level in excess of the
 applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

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 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL RCV - 431MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line - L1 .15 - 1MHz									
.17604	24.21 ave	11.8	0	36.01	64.7	54.7	-	-	-
			Margin [dB]:		-28.69	-18.69	-	-	-
.22221	22.48 ave	11.3	0	33.78	62.7	52.7	-	-	-
			Margin [dB]:		-28.92	-18.92	-	-	-
.26854	24.39 ave	11	0	35.39	61.2	51.2	-	-	-
			Margin [dB]:		-25.81	-15.81	-	-	-
.31221	23.62 ave	10.9	0	34.52	59.9	49.9	-	-	-
			Margin [dB]:		-25.38	-15.38	-	-	-
.35689	22.18 ave	10.7	0	32.88	58.8	48.8	-	-	-
			Margin [dB]:		-25.92	-15.92	-	-	-
.39972	21.77 ave	10.7	0	32.47	57.9	47.9	-	-	-
			Margin [dB]:		-25.43	-15.43	-	-	-
.44304	21.84 ave	10.6	0	32.44	57	47	-	-	-
			Margin [dB]:		-24.56	-14.56	-	-	-
.49477	19.93 ave	10.6	0	30.53	56.1	46.1	-	-	-
			Margin [dB]:		-25.57	-15.57	-	-	-
.54026	19.09 ave	10.5	0	29.59	56	46	-	-	-
			Margin [dB]:		-26.41	-16.41	-	-	-
.57499	19.7 ave	10.5	0	30.2	56	46	-	-	-
			Margin [dB]:		-25.8	-15.8	-	-	-
.62016	19.64 ave	10.5	0	30.14	56	46	-	-	-
			Margin [dB]:		-25.86	-15.86	-	-	-
.66436	17.58 ave	10.5	0	28.08	56	46	-	-	-
			Margin [dB]:		-27.92	-17.92	-	-	-
.68601	17.46 ave	10.5	0	27.96	56	46	-	-	-
			Margin [dB]:		-28.04	-18.04	-	-	-
.70713	17.33 ave	10.5	0	27.83	56	46	-	-	-
			Margin [dB]:		-28.17	-18.17	-	-	-
.74409	16.56 ave	10.5	0	27.06	56	46	-	-	-
			Margin [dB]:		-28.94	-18.94	-	-	-
.76592	16.07 ave	10.5	0	26.57	56	46	-	-	-
			Margin [dB]:		-29.43	-19.43	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 21 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line - L1 .15 - 1MHz									
.79326	16.55 ave	10.5	0	27.05	56	46	-	-	-
			Margin [dB]:		-28.95	-18.95	-	-	-
.81767	14.66 ave	10.4	0	25.06	56	46	-	-	-
			Margin [dB]:		-30.94	-20.94	-	-	-
.84081	15.57 ave	10.4	0	25.97	56	46	-	-	-
			Margin [dB]:		-30.03	-20.03	-	-	-
.86116	14.84 ave	10.4	0	25.24	56	46	-	-	-
			Margin [dB]:		-30.76	-20.76	-	-	-
.89655	14.44 ave	10.4	0	24.84	56	46	-	-	-
			Margin [dB]:		-31.16	-21.16	-	-	-
.92009	15.29 ave	10.4	0	25.69	56	46	-	-	-
			Margin [dB]:		-30.31	-20.31	-	-	-
.93567	13.16 ave	10.4	0	23.56	56	46	-	-	-
			Margin [dB]:		-32.44	-22.44	-	-	-
.95941	14.78 ave	10.4	0	25.18	56	46	-	-	-
			Margin [dB]:		-30.82	-20.82	-	-	-
.98778	12.73 ave	10.4	0	23.13	56	46	-	-	-
			Margin [dB]:		-32.87	-22.87	-	-	-
.99345	13.15 ave	10.4	0	23.55	56	46	-	-	-
			Margin [dB]:		-32.45	-22.45	-	-	-
Line - L1 1 - 30MHz									
1.05584	14.36 ave	10.4	0	24.76	56	46	-	-	-
			Margin [dB]:		-31.24	-21.24	-	-	-
1.09836	13.71 ave	10.4	0	24.11	56	46	-	-	-
			Margin [dB]:		-31.89	-21.89	-	-	-
1.14416	12.75 ave	10.4	0	23.15	56	46	-	-	-
			Margin [dB]:		-32.85	-22.85	-	-	-
1.18122	6.81 ave	10.4	0	17.21	56	46	-	-	-
			Margin [dB]:		-38.79	-28.79	-	-	-
1.28328	3.82 ave	10.4	0	14.22	56	46	-	-	-
			Margin [dB]:		-41.78	-31.78	-	-	-
1.27999	7.63 ave	10.4	0	18.03	56	46	-	-	-
			Margin [dB]:		-37.97	-27.97	-	-	-
1.3046	6.4 ave	10.4	0	16.8	56	46	-	-	-
			Margin [dB]:		-39.2	-29.2	-	-	-
1.41572	7.6 ave	10.4	0	18	56	46	-	-	-
			Margin [dB]:		-38	-28	-	-	-
1.45412	7.42 ave	10.4	0	17.82	56	46	-	-	-
			Margin [dB]:		-38.18	-28.18	-	-	-
1.54361	3.8 ave	10.3	0	14.1	56	46	-	-	-
			Margin [dB]:		-41.9	-31.9	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 22 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
=====										
Line - L1 1 - 30MHz										
1.59481	7.5 ave	10.3	0	17.8	56	46	-	-	-	-
			Margin [dB]:		-38.2	-28.2	-	-	-	-
1.70044	4.06 ave	10.3	0	14.36	56	46	-	-	-	-
			Margin [dB]:		-41.64	-31.64	-	-	-	-
1.71927	7.71 ave	10.3	0	18.01	56	46	-	-	-	-
			Margin [dB]:		-37.99	-27.99	-	-	-	-
1.79236	4.13 ave	10.3	0	14.43	56	46	-	-	-	-
			Margin [dB]:		-41.57	-31.57	-	-	-	-
1.83342	4.44 ave	10.3	0	14.74	56	46	-	-	-	-
			Margin [dB]:		-41.26	-31.26	-	-	-	-
1.93101	4.27 ave	10.3	0	14.57	56	46	-	-	-	-
			Margin [dB]:		-41.43	-31.43	-	-	-	-
1.98979	2.81 ave	10.3	0	13.11	56	46	-	-	-	-
			Margin [dB]:		-42.89	-32.89	-	-	-	-
2.0432	2.86 ave	10.3	0	13.16	56	46	-	-	-	-
			Margin [dB]:		-42.84	-32.84	-	-	-	-
2.11216	2.95 ave	10.3	0	13.25	56	46	-	-	-	-
			Margin [dB]:		-42.75	-32.75	-	-	-	-
2.18989	2.69 ave	10.3	0	12.99	56	46	-	-	-	-
			Margin [dB]:		-43.01	-33.01	-	-	-	-
2.21143	2.26 ave	10.3	0	12.56	56	46	-	-	-	-
			Margin [dB]:		-43.44	-33.44	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 23 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL RCV - 431MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
=====										
Neutral .15 - 1MHz										
.17685	43.41 qp	11.8	0	55.21	64.6	54.6	-	-	-	-
			Margin [dB]:		-9.39	.61	-	-	-	-
.1993	37.86 qp	11.5	0	49.36	63.6	53.6	-	-	-	-
			Margin [dB]:		-14.24	-4.24	-	-	-	-
.22781	42.75 qp	11.3	0	54.05	62.5	52.5	-	-	-	-
			Margin [dB]:		-8.45	1.55	-	-	-	-
.26637	45.31 qp	11	0	56.31	61.2	51.2	-	-	-	-
			Margin [dB]:		-4.89	5.11	-	-	-	-
.30926	44.36 qp	10.9	0	55.26	60	50	-	-	-	-
			Margin [dB]:		-4.74	5.26	-	-	-	-
.3527	43.63 qp	10.8	0	54.43	58.9	48.9	-	-	-	-
			Margin [dB]:		-4.47	5.53	-	-	-	-
.40249	43.49 qp	10.7	0	54.19	57.8	47.8	-	-	-	-
			Margin [dB]:		-3.61	6.39	-	-	-	-
.44909	41.24 qp	10.6	0	51.84	56.9	46.9	-	-	-	-
			Margin [dB]:		-5.06	4.94	-	-	-	-
.48741	41.75 qp	10.6	0	52.35	56.2	46.2	-	-	-	-
			Margin [dB]:		-3.85	6.15	-	-	-	-
.53984	41.35 qp	10.6	0	51.95	56	46	-	-	-	-
			Margin [dB]:		-4.05	5.95	-	-	-	-
.58744	39.53 qp	10.5	0	50.03	56	46	-	-	-	-
			Margin [dB]:		-5.97	4.03	-	-	-	-
.61999	40.42 qp	10.5	0	50.92	56	46	-	-	-	-
			Margin [dB]:		-5.08	4.92	-	-	-	-
.66798	39.78 qp	10.5	0	50.28	56	46	-	-	-	-
			Margin [dB]:		-5.72	4.28	-	-	-	-
.71311	38.84 qp	10.5	0	49.34	56	46	-	-	-	-
			Margin [dB]:		-6.66	3.34	-	-	-	-
.76092	36.91 qp	10.5	0	47.41	56	46	-	-	-	-
			Margin [dB]:		-8.59	1.41	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 24 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral .15 - 1MHz									
.80457	37.12 qp	10.5	0	47.62	56	46	-	-	-
			Margin [dB]:	-8.38	1.62	-	-	-	-
.84903	36.21 qp	10.5	0	46.71	56	46	-	-	-
			Margin [dB]:	-9.29	.71	-	-	-	-
.88234	36.26 qp	10.5	0	46.76	56	46	-	-	-
			Margin [dB]:	-9.24	.76	-	-	-	-
.92793	34.9 qp	10.5	0	45.4	56	46	-	-	-
			Margin [dB]:	-10.6	-.6	-	-	-	-
.97294	34.19 qp	10.4	0	44.59	56	46	-	-	-
			Margin [dB]:	-11.41	-1.41	-	-	-	-
.99564	33.58 qp	10.4	0	43.98	56	46	-	-	-
			Margin [dB]:	-12.02	-2.02	-	-	-	-
Neutral 1 - 30MHz									
1.01067	34.74 qp	10.4	0	45.14	56	46	-	-	-
			Margin [dB]:	-10.86	-.86	-	-	-	-
1.05539	34.73 qp	10.4	0	45.13	56	46	-	-	-
			Margin [dB]:	-10.87	-.87	-	-	-	-
1.05775	34.05 qp	10.4	0	44.45	56	46	-	-	-
			Margin [dB]:	-11.55	-1.55	-	-	-	-
1.14654	32.19 qp	10.4	0	42.59	56	46	-	-	-
			Margin [dB]:	-13.41	-3.41	-	-	-	-
1.15243	30.88 qp	10.4	0	41.28	56	46	-	-	-
			Margin [dB]:	-14.72	-4.72	-	-	-	-
1.23813	30.23 qp	10.4	0	40.63	56	46	-	-	-
			Margin [dB]:	-15.37	-5.37	-	-	-	-
1.27994	29.76 qp	10.4	0	40.16	56	46	-	-	-
			Margin [dB]:	-15.84	-5.84	-	-	-	-
1.30367	27.63 qp	10.4	0	38.03	56	46	-	-	-
			Margin [dB]:	-17.97	-7.97	-	-	-	-
1.38406	27.56 qp	10.4	0	37.96	56	46	-	-	-
			Margin [dB]:	-18.04	-8.04	-	-	-	-
1.40881	28.01 qp	10.4	0	38.41	56	46	-	-	-
			Margin [dB]:	-17.59	-7.59	-	-	-	-
1.46848	26.69 qp	10.4	0	37.09	56	46	-	-	-
			Margin [dB]:	-18.91	-8.91	-	-	-	-
1.55994	26.5 qp	10.4	0	36.9	56	46	-	-	-
			Margin [dB]:	-19.1	-9.1	-	-	-	-
1.65791	26.8 qp	10.4	0	37.2	56	46	-	-	-
			Margin [dB]:	-18.8	-8.8	-	-	-	-
1.70805	26.63 qp	10.4	0	37.03	56	46	-	-	-
			Margin [dB]:	-18.97	-8.97	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 25 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
=====										
Neutral 1 - 30MHz										
1.75431	26.23 qp	10.4	0	36.63	56	46	-	-	-	-
			Margin [dB]:	-19.37	-9.37	-	-	-	-	-
1.81723	25.87 qp	10.4	0	36.27	56	46	-	-	-	-
			Margin [dB]:	-19.73	-9.73	-	-	-	-	-
1.83593	26.5 qp	10.4	0	36.9	56	46	-	-	-	-
			Margin [dB]:	-19.1	-9.1	-	-	-	-	-
1.95074	24.26 qp	10.4	0	34.66	56	46	-	-	-	-
			Margin [dB]:	-21.34	-11.34	-	-	-	-	-
2.04318	22.77 qp	10.4	0	33.17	56	46	-	-	-	-
			Margin [dB]:	-22.83	-12.83	-	-	-	-	-
2.10859	25.34 qp	10.4	0	35.74	56	46	-	-	-	-
			Margin [dB]:	-20.26	-10.26	-	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 26 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL RCV - 431MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
Neutral .15 - 1MHz									
.17685	24.5 ave	11.8	0	36.3	64.6	54.6	-	-	-
			Margin [dB]:		-28.3	-18.3	-	-	-
.1993	18.79 ave	11.5	0	30.29	63.6	53.6	-	-	-
			Margin [dB]:		-33.31	-23.31	-	-	-
.22781	22.58 ave	11.3	0	33.88	62.5	52.5	-	-	-
			Margin [dB]:		-28.62	-18.62	-	-	-
.26637	25.21 ave	11	0	36.21	61.2	51.2	-	-	-
			Margin [dB]:		-24.99	-14.99	-	-	-
.30926	25.08 ave	10.9	0	35.98	60	50	-	-	-
			Margin [dB]:		-24.02	-14.02	-	-	-
.3527	23.51 ave	10.8	0	34.31	58.9	48.9	-	-	-
			Margin [dB]:		-24.59	-14.59	-	-	-
.40249	23.01 ave	10.7	0	33.71	57.8	47.8	-	-	-
			Margin [dB]:		-24.09	-14.09	-	-	-
.44909	21.86 ave	10.6	0	32.46	56.9	46.9	-	-	-
			Margin [dB]:		-24.44	-14.44	-	-	-
.48741	22.23 ave	10.6	0	32.83	56.2	46.2	-	-	-
			Margin [dB]:		-23.37	-13.37	-	-	-
.53984	20.49 ave	10.6	0	31.09	56	46	-	-	-
			Margin [dB]:		-24.91	-14.91	-	-	-
.58744	20.05 ave	10.5	0	30.55	56	46	-	-	-
			Margin [dB]:		-25.45	-15.45	-	-	-
.61999	20.83 ave	10.5	0	31.33	56	46	-	-	-
			Margin [dB]:		-24.67	-14.67	-	-	-
.66798	18.66 ave	10.5	0	29.16	56	46	-	-	-
			Margin [dB]:		-26.84	-16.84	-	-	-
.71311	18.69 ave	10.5	0	29.19	56	46	-	-	-
			Margin [dB]:		-26.81	-16.81	-	-	-
.76092	17.59 ave	10.5	0	28.09	56	46	-	-	-
			Margin [dB]:		-27.91	-17.91	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 27 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral .15 - 1MHz									
.80457	16.32 ave	10.5	0	26.82	56	46	-	-	-
			Margin [dB]:	-29.18	-19.18	-	-	-	-
.84903	16.98 ave	10.5	0	27.48	56	46	-	-	-
			Margin [dB]:	-28.52	-18.52	-	-	-	-
.88234	17.42 ave	10.5	0	27.92	56	46	-	-	-
			Margin [dB]:	-28.08	-18.08	-	-	-	-
.92793	15.36 ave	10.5	0	25.86	56	46	-	-	-
			Margin [dB]:	-30.14	-20.14	-	-	-	-
.97294	14.23 ave	10.4	0	24.63	56	46	-	-	-
			Margin [dB]:	-31.37	-21.37	-	-	-	-
.99564	14.95 ave	10.4	0	25.35	56	46	-	-	-
			Margin [dB]:	-30.65	-20.65	-	-	-	-
Neutral 1 - 30MHz									
1.01067	16.25 ave	10.4	0	26.65	56	46	-	-	-
			Margin [dB]:	-29.35	-19.35	-	-	-	-
1.05539	16.2 ave	10.4	0	26.6	56	46	-	-	-
			Margin [dB]:	-29.4	-19.4	-	-	-	-
1.05775	16.08 ave	10.4	0	26.48	56	46	-	-	-
			Margin [dB]:	-29.52	-19.52	-	-	-	-
1.14654	14.01 ave	10.4	0	24.41	56	46	-	-	-
			Margin [dB]:	-31.59	-21.59	-	-	-	-
1.15243	12.84 ave	10.4	0	23.24	56	46	-	-	-
			Margin [dB]:	-32.76	-22.76	-	-	-	-
1.23813	11.04 ave	10.4	0	21.44	56	46	-	-	-
			Margin [dB]:	-34.56	-24.56	-	-	-	-
1.27994	10.34 ave	10.4	0	20.74	56	46	-	-	-
			Margin [dB]:	-35.26	-25.26	-	-	-	-
1.30367	7.39 ave	10.4	0	17.79	56	46	-	-	-
			Margin [dB]:	-38.21	-28.21	-	-	-	-
1.38406	9.01 ave	10.4	0	19.41	56	46	-	-	-
			Margin [dB]:	-36.59	-26.59	-	-	-	-
1.40881	10.09 ave	10.4	0	20.49	56	46	-	-	-
			Margin [dB]:	-35.51	-25.51	-	-	-	-
1.46848	9.83 ave	10.4	0	20.23	56	46	-	-	-
			Margin [dB]:	-35.77	-25.77	-	-	-	-
1.55994	11.14 ave	10.4	0	21.54	56	46	-	-	-
			Margin [dB]:	-34.46	-24.46	-	-	-	-
1.65791	12.07 ave	10.4	0	22.47	56	46	-	-	-
			Margin [dB]:	-33.53	-23.53	-	-	-	-
1.70805	12.4 ave	10.4	0	22.8	56	46	-	-	-
			Margin [dB]:	-33.2	-23.2	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 28 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

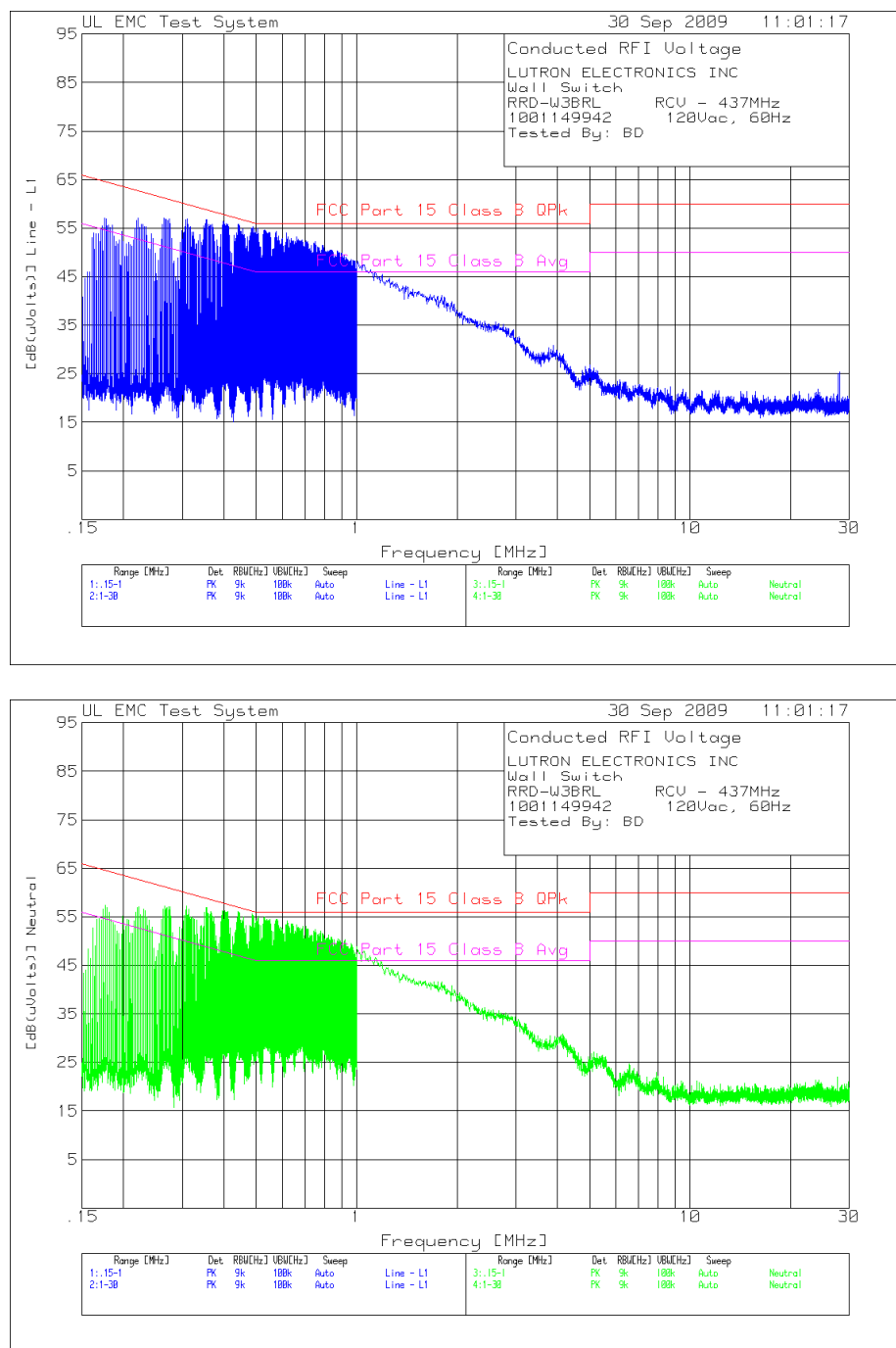
Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
=====										
Neutral 1 - 30MHz										
1.75431	12.49 ave	10.4	0	22.89	56	46	-	-	-	-
			Margin [dB]:		-33.11	-23.11	-	-	-	-
1.81723	11.91 ave	10.4	0	22.31	56	46	-	-	-	-
			Margin [dB]:		-33.69	-23.69	-	-	-	-
1.83593	12.87 ave	10.4	0	23.27	56	46	-	-	-	-
			Margin [dB]:		-32.73	-22.73	-	-	-	-
1.95074	10.95 ave	10.4	0	21.35	56	46	-	-	-	-
			Margin [dB]:		-34.65	-24.65	-	-	-	-
2.04318	10.69 ave	10.4	0	21.09	56	46	-	-	-	-
			Margin [dB]:		-34.91	-24.91	-	-	-	-
2.10859	11.34 ave	10.4	0	21.74	56	46	-	-	-	-
			Margin [dB]:		-34.26	-24.26	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Figure 3 Conducted Emissions Graph



Job Number: 1001149942 File Number: MC15896 Page 30 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 4 Conducted Emissions Data Points

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL RCV - 437MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Line - L1 .15 - 1MHz										
.17599	43.57 qp	11.8	0	55.37	64.7	54.7	-	-	-	-
			Margin [dB]:		-9.33	.67	-	-	-	-
.22157	42.87 qp	11.3	0	54.17	62.8	52.8	-	-	-	-
			Margin [dB]:		-8.63	1.37	-	-	-	-
.22883	42.88 qp	11.2	0	54.08	62.5	52.5	-	-	-	-
			Margin [dB]:		-8.42	1.58	-	-	-	-
.26573	44.98 qp	11	0	55.98	61.3	51.3	-	-	-	-
			Margin [dB]:		-5.32	4.68	-	-	-	-
.31056	43.79 qp	10.9	0	54.69	60	50	-	-	-	-
			Margin [dB]:		-5.31	4.69	-	-	-	-
.35516	42.82 qp	10.7	0	53.52	58.8	48.8	-	-	-	-
			Margin [dB]:		-5.28	4.72	-	-	-	-
.40074	43.29 qp	10.7	0	53.99	57.8	47.8	-	-	-	-
			Margin [dB]:		-3.81	6.19	-	-	-	-
.44049	42.92 qp	10.6	0	53.52	57.1	47.1	-	-	-	-
			Margin [dB]:		-3.58	6.42	-	-	-	-
.48678	41.71 qp	10.6	0	52.31	56.2	46.2	-	-	-	-
			Margin [dB]:		-3.89	6.11	-	-	-	-
.50434	41.16 qp	10.6	0	51.76	56	46	-	-	-	-
			Margin [dB]:		-4.24	5.76	-	-	-	-
.53232	41.4 qp	10.5	0	51.9	56	46	-	-	-	-
			Margin [dB]:		-4.1	5.9	-	-	-	-
.57435	41.19 qp	10.5	0	51.69	56	46	-	-	-	-
			Margin [dB]:		-4.31	5.69	-	-	-	-
.59986	36.81 qp	10.5	0	47.31	56	46	-	-	-	-
			Margin [dB]:		-8.69	1.31	-	-	-	-
.62752	38.08 qp	10.5	0	48.58	56	46	-	-	-	-
			Margin [dB]:		-7.42	2.58	-	-	-	-
.6616	40.21 qp	10.5	0	50.71	56	46	-	-	-	-
			Margin [dB]:		-5.29	4.71	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 31 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line - L1 .15 - 1MHz									
.68941	38.16 qp	10.5	0	48.66	56	46	-	-	-
			Margin [dB]:	-7.34	2.66	-	-	-	-
.72511	37.13 qp	10.5	0	47.63	56	46	-	-	-
			Margin [dB]:	-8.37	1.63	-	-	-	-
.74995	38.28 qp	10.5	0	48.78	56	46	-	-	-
			Margin [dB]:	-7.22	2.78	-	-	-	-
.7772	36.92 qp	10.5	0	47.42	56	46	-	-	-
			Margin [dB]:	-8.58	1.42	-	-	-	-
.79988	36.71 qp	10.4	0	47.11	56	46	-	-	-
			Margin [dB]:	-8.89	1.11	-	-	-	-
.83009	35.87 qp	10.4	0	46.27	56	46	-	-	-
			Margin [dB]:	-9.73	.27	-	-	-	-
.85092	35.41 qp	10.4	0	45.81	56	46	-	-	-
			Margin [dB]:	-10.19	-.19	-	-	-	-
.87731	35.74 qp	10.4	0	46.14	56	46	-	-	-
			Margin [dB]:	-9.86	.14	-	-	-	-
.89609	33.97 qp	10.4	0	44.37	56	46	-	-	-
			Margin [dB]:	-11.63	-1.63	-	-	-	-
.93606	20.8 qp	10.4	0	31.2	56	46	-	-	-
			Margin [dB]:	-24.8	-14.8	-	-	-	-
.96964	20.88 qp	10.4	0	31.28	56	46	-	-	-
			Margin [dB]:	-24.72	-14.72	-	-	-	-
.99759	19.25 qp	10.4	0	29.65	56	46	-	-	-
			Margin [dB]:	-26.35	-16.35	-	-	-	-
Line - L1 1 - 30MHz									
1.05575	21.82 qp	10.4	0	32.22	56	46	-	-	-
			Margin [dB]:	-23.78	-13.78	-	-	-	-
1.10083	22.07 qp	10.4	0	32.47	56	46	-	-	-
			Margin [dB]:	-23.53	-13.53	-	-	-	-
1.14497	22.25 qp	10.4	0	32.65	56	46	-	-	-
			Margin [dB]:	-23.35	-13.35	-	-	-	-
1.18895	21.67 qp	10.4	0	32.07	56	46	-	-	-
			Margin [dB]:	-23.93	-13.93	-	-	-	-
1.27946	22.39 qp	10.4	0	32.79	56	46	-	-	-
			Margin [dB]:	-23.21	-13.21	-	-	-	-
1.27906	22.36 qp	10.4	0	32.76	56	46	-	-	-
			Margin [dB]:	-23.24	-13.24	-	-	-	-
1.31978	22.15 qp	10.4	0	32.55	56	46	-	-	-
			Margin [dB]:	-23.45	-13.45	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 32 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line - L1 1 - 30MHz									
1.4157	22.11 qp	10.4	0	32.51	56	46	-	-	-
			Margin [dB]:	-23.49	-13.49	-	-	-	-
1.40846	22.11 qp	10.4	0	32.51	56	46	-	-	-
			Margin [dB]:	-23.49	-13.49	-	-	-	-
1.45114	21.94 qp	10.4	0	32.34	56	46	-	-	-
			Margin [dB]:	-23.66	-13.66	-	-	-	-
1.52881	21.08 qp	10.3	0	31.38	56	46	-	-	-
			Margin [dB]:	-24.62	-14.62	-	-	-	-
1.5793	22.05 qp	10.3	0	32.35	56	46	-	-	-
			Margin [dB]:	-23.65	-13.65	-	-	-	-
1.65895	21.59 qp	10.3	0	31.89	56	46	-	-	-
			Margin [dB]:	-24.11	-14.11	-	-	-	-
1.71334	21.63 qp	10.3	0	31.93	56	46	-	-	-
			Margin [dB]:	-24.07	-14.07	-	-	-	-
1.80213	21.74 qp	10.3	0	32.04	56	46	-	-	-
			Margin [dB]:	-23.96	-13.96	-	-	-	-
1.83787	21.86 qp	10.3	0	32.16	56	46	-	-	-
			Margin [dB]:	-23.84	-13.84	-	-	-	-
1.92969	21.86 qp	10.3	0	32.16	56	46	-	-	-
			Margin [dB]:	-23.84	-13.84	-	-	-	-
1.97161	21.46 qp	10.3	0	31.76	56	46	-	-	-
			Margin [dB]:	-24.24	-14.24	-	-	-	-
2.06816	20.19 qp	10.3	0	30.49	56	46	-	-	-
			Margin [dB]:	-25.51	-15.51	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the
 applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 33 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL RCV - 437MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line - L1 .15 - 1MHz									
.17599	23.79 ave	11.8	0	35.59	64.7	54.7	-	-	-
			Margin [dB]:		-29.11	-19.11	-	-	-
.22157	21.38 ave	11.3	0	32.68	62.8	52.8	-	-	-
			Margin [dB]:		-30.12	-20.12	-	-	-
.22883	22.26 ave	11.2	0	33.46	62.5	52.5	-	-	-
			Margin [dB]:		-29.04	-19.04	-	-	-
.26573	23.37 ave	11	0	34.37	61.3	51.3	-	-	-
			Margin [dB]:		-26.93	-16.93	-	-	-
.31056	23.34 ave	10.9	0	34.24	60	50	-	-	-
			Margin [dB]:		-25.76	-15.76	-	-	-
.35516	21.93 ave	10.7	0	32.63	58.8	48.8	-	-	-
			Margin [dB]:		-26.17	-16.17	-	-	-
.40074	21.63 ave	10.7	0	32.33	57.8	47.8	-	-	-
			Margin [dB]:		-25.47	-15.47	-	-	-
.44049	21.24 ave	10.6	0	31.84	57.1	47.1	-	-	-
			Margin [dB]:		-25.26	-15.26	-	-	-
.48678	20.8 ave	10.6	0	31.4	56.2	46.2	-	-	-
			Margin [dB]:		-24.8	-14.8	-	-	-
.50434	19.1 ave	10.6	0	29.7	56	46	-	-	-
			Margin [dB]:		-26.3	-16.3	-	-	-
.53232	19.43 ave	10.5	0	29.93	56	46	-	-	-
			Margin [dB]:		-26.07	-16.07	-	-	-
.57435	19.44 ave	10.5	0	29.94	56	46	-	-	-
			Margin [dB]:		-26.06	-16.06	-	-	-
.59986	16.14 ave	10.5	0	26.64	56	46	-	-	-
			Margin [dB]:		-29.36	-19.36	-	-	-
.62752	18.47 ave	10.5	0	28.97	56	46	-	-	-
			Margin [dB]:		-27.03	-17.03	-	-	-
.6616	17.87 ave	10.5	0	28.37	56	46	-	-	-
			Margin [dB]:		-27.63	-17.63	-	-	-
.68941	15.92 ave	10.5	0	26.42	56	46	-	-	-
			Margin [dB]:		-29.58	-19.58	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 34 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line - L1 .15 - 1MHz									
.72511	16.94 ave	10.5	0	27.44	56	46	-	-	-
			Margin [dB]:	-28.56	-18.56	-	-	-	-
.74995	18.1 ave	10.5	0	28.6	56	46	-	-	-
			Margin [dB]:	-27.4	-17.4	-	-	-	-
.7772	15.15 ave	10.5	0	25.65	56	46	-	-	-
			Margin [dB]:	-30.35	-20.35	-	-	-	-
.79988	15.27 ave	10.4	0	25.67	56	46	-	-	-
			Margin [dB]:	-30.33	-20.33	-	-	-	-
.83009	14.57 ave	10.4	0	24.97	56	46	-	-	-
			Margin [dB]:	-31.03	-21.03	-	-	-	-
.85092	15.19 ave	10.4	0	25.59	56	46	-	-	-
			Margin [dB]:	-30.41	-20.41	-	-	-	-
.87731	15.62 ave	10.4	0	26.02	56	46	-	-	-
			Margin [dB]:	-29.98	-19.98	-	-	-	-
.89609	14.49 ave	10.4	0	24.89	56	46	-	-	-
			Margin [dB]:	-31.11	-21.11	-	-	-	-
.93606	3.71 ave	10.4	0	14.11	56	46	-	-	-
			Margin [dB]:	-41.89	-31.89	-	-	-	-
.96964	3.23 ave	10.4	0	13.63	56	46	-	-	-
			Margin [dB]:	-42.37	-32.37	-	-	-	-
.99759	3.07 ave	10.4	0	13.47	56	46	-	-	-
			Margin [dB]:	-42.53	-32.53	-	-	-	-
Line - L1 1 - 30MHz									
1.05575	4.24 ave	10.4	0	14.64	56	46	-	-	-
			Margin [dB]:	-41.36	-31.36	-	-	-	-
1.10083	3.49 ave	10.4	0	13.89	56	46	-	-	-
			Margin [dB]:	-42.11	-32.11	-	-	-	-
1.14497	7.07 ave	10.4	0	17.47	56	46	-	-	-
			Margin [dB]:	-38.53	-28.53	-	-	-	-
1.18895	3.15 ave	10.4	0	13.55	56	46	-	-	-
			Margin [dB]:	-42.45	-32.45	-	-	-	-
1.27946	3.85 ave	10.4	0	14.25	56	46	-	-	-
			Margin [dB]:	-41.75	-31.75	-	-	-	-
1.27906	3.57 ave	10.4	0	13.97	56	46	-	-	-
			Margin [dB]:	-42.03	-32.03	-	-	-	-
1.31978	3.83 ave	10.4	0	14.23	56	46	-	-	-
			Margin [dB]:	-41.77	-31.77	-	-	-	-
1.4157	3.96 ave	10.4	0	14.36	56	46	-	-	-
			Margin [dB]:	-41.64	-31.64	-	-	-	-
1.40846	3.98 ave	10.4	0	14.38	56	46	-	-	-
			Margin [dB]:	-41.62	-31.62	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 35 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line - L1 1 - 30MHz									
1.45114	7.31 ave	10.4	0	17.71	56	46	-	-	-
			Margin [dB]:		-38.29	-28.29	-	-	-
1.52881	2.93 ave	10.3	0	13.23	56	46	-	-	-
			Margin [dB]:		-42.77	-32.77	-	-	-
1.5793	7.37 ave	10.3	0	17.67	56	46	-	-	-
			Margin [dB]:		-38.33	-28.33	-	-	-
1.65895	3.48 ave	10.3	0	13.78	56	46	-	-	-
			Margin [dB]:		-42.22	-32.22	-	-	-
1.71334	3.92 ave	10.3	0	14.22	56	46	-	-	-
			Margin [dB]:		-41.78	-31.78	-	-	-
1.80213	3.77 ave	10.3	0	14.07	56	46	-	-	-
			Margin [dB]:		-41.93	-31.93	-	-	-
1.83787	3.84 ave	10.3	0	14.14	56	46	-	-	-
			Margin [dB]:		-41.86	-31.86	-	-	-
1.92969	3.92 ave	10.3	0	14.22	56	46	-	-	-
			Margin [dB]:		-41.78	-31.78	-	-	-
1.97161	7.55 ave	10.3	0	17.85	56	46	-	-	-
			Margin [dB]:		-38.15	-28.15	-	-	-
2.06816	3.26 ave	10.3	0	13.56	56	46	-	-	-
			Margin [dB]:		-42.44	-32.44	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 36 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL RCV - 437MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
Neutral .15 - 1MHz									
.17654	43.91 qp	11.8	0	55.71	64.6	54.6	-	-	-
			Margin [dB]:	-8.89	1.11	-	-	-	-
.22211	43.3 qp	11.3	0	54.6	62.7	52.7	-	-	-
			Margin [dB]:	-8.1	1.9	-	-	-	-
.2668	44.84 qp	11	0	55.84	61.2	51.2	-	-	-
			Margin [dB]:	-5.36	4.64	-	-	-	-
.30992	44.43 qp	10.9	0	55.33	60	50	-	-	-
			Margin [dB]:	-4.67	5.33	-	-	-	-
.35509	43.37 qp	10.8	0	54.17	58.8	48.8	-	-	-
			Margin [dB]:	-4.63	5.37	-	-	-	-
.40712	43.11 qp	10.7	0	53.81	57.7	47.7	-	-	-
			Margin [dB]:	-3.89	6.11	-	-	-	-
.44192	43.33 qp	10.6	0	53.93	57	47	-	-	-
			Margin [dB]:	-3.07	6.93	-	-	-	-
.50167	40.61 qp	10.6	0	51.21	56	46	-	-	-
			Margin [dB]:	-4.79	5.21	-	-	-	-
.54497	41.32 qp	10.5	0	51.82	56	46	-	-	-
			Margin [dB]:	-4.18	5.82	-	-	-	-
.57768	41.22 qp	10.5	0	51.72	56	46	-	-	-
			Margin [dB]:	-4.28	5.72	-	-	-	-
.62649	38.69 qp	10.5	0	49.19	56	46	-	-	-
			Margin [dB]:	-6.81	3.19	-	-	-	-
.65078	36.47 qp	10.5	0	46.97	56	46	-	-	-
			Margin [dB]:	-9.03	.97	-	-	-	-
.68701	39.69 qp	10.5	0	50.19	56	46	-	-	-
			Margin [dB]:	-5.81	4.19	-	-	-	-
.72855	37.39 qp	10.5	0	47.89	56	46	-	-	-
			Margin [dB]:	-8.11	1.89	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 37 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral .15 - 1MHz									
.76569	36.3 qp	10.5	0	46.8	56	46	-	-	-
			Margin [dB]:	-9.2	.8	-	-	-	-
.79823	36.89 qp	10.5	0	47.39	56	46	-	-	-
			Margin [dB]:	-8.61	1.39	-	-	-	-
.84042	36.75 qp	10.5	0	47.25	56	46	-	-	-
			Margin [dB]:	-8.75	1.25	-	-	-	-
.88274	36.27 qp	10.5	0	46.77	56	46	-	-	-
			Margin [dB]:	-9.23	.77	-	-	-	-
.93473	34.81 qp	10.5	0	45.31	56	46	-	-	-
			Margin [dB]:	-10.69	-.69	-	-	-	-
.97102	34.32 qp	10.4	0	44.72	56	46	-	-	-
			Margin [dB]:	-11.28	-1.28	-	-	-	-
.9989	32.81 qp	10.4	0	43.21	56	46	-	-	-
			Margin [dB]:	-12.79	-2.79	-	-	-	-
=====									
Neutral 1 - 30MHz									
1.03347	31.57 qp	10.4	0	41.97	56	46	-	-	-
			Margin [dB]:	-14.03	-4.03	-	-	-	-
1.05479	34.18 qp	10.4	0	44.58	56	46	-	-	-
			Margin [dB]:	-11.42	-1.42	-	-	-	-
1.09078	31.36 qp	10.4	0	41.76	56	46	-	-	-
			Margin [dB]:	-14.24	-4.24	-	-	-	-
1.14612	31.94 qp	10.4	0	42.34	56	46	-	-	-
			Margin [dB]:	-13.66	-3.66	-	-	-	-
1.14562	32.07 qp	10.4	0	42.47	56	46	-	-	-
			Margin [dB]:	-13.53	-3.53	-	-	-	-
1.19321	30.48 qp	10.4	0	40.88	56	46	-	-	-
			Margin [dB]:	-15.12	-5.12	-	-	-	-
1.23533	29.97 qp	10.4	0	40.37	56	46	-	-	-
			Margin [dB]:	-15.63	-5.63	-	-	-	-
1.2812	29.18 qp	10.4	0	39.58	56	46	-	-	-
			Margin [dB]:	-16.42	-6.42	-	-	-	-
1.31875	28.75 qp	10.4	0	39.15	56	46	-	-	-
			Margin [dB]:	-16.85	-6.85	-	-	-	-
1.37274	27.73 qp	10.4	0	38.13	56	46	-	-	-
			Margin [dB]:	-17.87	-7.87	-	-	-	-
1.4132	27.34 qp	10.4	0	37.74	56	46	-	-	-
			Margin [dB]:	-18.26	-8.26	-	-	-	-
1.41692	27.71 qp	10.4	0	38.11	56	46	-	-	-
			Margin [dB]:	-17.89	-7.89	-	-	-	-
1.56435	26.52 qp	10.4	0	36.92	56	46	-	-	-
			Margin [dB]:	-19.08	-9.08	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 38 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral 1 - 30MHz									
1.58759	25.95 qp	10.4	0	36.35	56	46	-	-	-
			Margin [dB]:		-19.65	-9.65	-	-	-
1.70855	26.43 qp	10.4	0	36.83	56	46	-	-	-
			Margin [dB]:		-19.17	-9.17	-	-	-
1.73403	25.09 qp	10.4	0	35.49	56	46	-	-	-
			Margin [dB]:		-20.51	-10.51	-	-	-
1.79542	26.61 qp	10.4	0	37.01	56	46	-	-	-
			Margin [dB]:		-18.99	-8.99	-	-	-
1.83832	26.01 qp	10.4	0	36.41	56	46	-	-	-
			Margin [dB]:		-19.59	-9.59	-	-	-
1.93143	25.66 qp	10.4	0	36.06	56	46	-	-	-
			Margin [dB]:		-19.94	-9.94	-	-	-
1.97358	25.24 qp	10.4	0	35.64	56	46	-	-	-
			Margin [dB]:		-20.36	-10.36	-	-	-
2.01802	23.59 qp	10.4	0	33.99	56	46	-	-	-
			Margin [dB]:		-22.01	-12.01	-	-	-
2.10312	23.5 qp	10.4	0	33.9	56	46	-	-	-
			Margin [dB]:		-22.1	-12.1	-	-	-
2.20202	22 qp	10.4	0	32.4	56	46	-	-	-
			Margin [dB]:		-23.6	-13.6	-	-	-
2.224	21.59 qp	10.4	0	31.99	56	46	-	-	-
			Margin [dB]:		-24.01	-14.01	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 39 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL RCV - 437MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
Neutral .15 - 1MHz									
.17654	25.43 ave	11.8	0	37.23	64.6	54.6	-	-	-
			Margin [dB]:		-27.37	-17.37	-	-	-
.22211	23.38 ave	11.3	0	34.68	62.7	52.7	-	-	-
			Margin [dB]:		-28.02	-18.02	-	-	-
.2668	25.02 ave	11	0	36.02	61.2	51.2	-	-	-
			Margin [dB]:		-25.18	-15.18	-	-	-
.30992	25.11 ave	10.9	0	36.01	60	50	-	-	-
			Margin [dB]:		-23.99	-13.99	-	-	-
.35509	23.55 ave	10.8	0	34.35	58.8	48.8	-	-	-
			Margin [dB]:		-24.45	-14.45	-	-	-
.40712	22.78 ave	10.7	0	33.48	57.7	47.7	-	-	-
			Margin [dB]:		-24.22	-14.22	-	-	-
.44192	22.9 ave	10.6	0	33.5	57	47	-	-	-
			Margin [dB]:		-23.5	-13.5	-	-	-
.50167	20.38 ave	10.6	0	30.98	56	46	-	-	-
			Margin [dB]:		-25.02	-15.02	-	-	-
.54497	20.46 ave	10.5	0	30.96	56	46	-	-	-
			Margin [dB]:		-25.04	-15.04	-	-	-
.57768	21.48 ave	10.5	0	31.98	56	46	-	-	-
			Margin [dB]:		-24.02	-14.02	-	-	-
.62649	19.49 ave	10.5	0	29.99	56	46	-	-	-
			Margin [dB]:		-26.01	-16.01	-	-	-
.65078	15.75 ave	10.5	0	26.25	56	46	-	-	-
			Margin [dB]:		-29.75	-19.75	-	-	-
.68701	18.33 ave	10.5	0	28.83	56	46	-	-	-
			Margin [dB]:		-27.17	-17.17	-	-	-
.72855	18.2 ave	10.5	0	28.7	56	46	-	-	-
			Margin [dB]:		-27.3	-17.3	-	-	-
.76569	16.76 ave	10.5	0	27.26	56	46	-	-	-
			Margin [dB]:		-28.74	-18.74	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 40 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral .15 - 1MHz									
.79823	16.77 ave	10.5	0	27.27	56	46	-	-	-
			Margin [dB]:	-28.73	-18.73	-	-	-	-
.84042	16.39 ave	10.5	0	26.89	56	46	-	-	-
			Margin [dB]:	-29.11	-19.11	-	-	-	-
.88274	16.97 ave	10.5	0	27.47	56	46	-	-	-
			Margin [dB]:	-28.53	-18.53	-	-	-	-
.93473	14.45 ave	10.5	0	24.95	56	46	-	-	-
			Margin [dB]:	-31.05	-21.05	-	-	-	-
.97102	14.13 ave	10.4	0	24.53	56	46	-	-	-
			Margin [dB]:	-31.47	-21.47	-	-	-	-
.9989	14.74 ave	10.4	0	25.14	56	46	-	-	-
			Margin [dB]:	-30.86	-20.86	-	-	-	-
Neutral 1 - 30MHz									
1.03347	12.11 ave	10.4	0	22.51	56	46	-	-	-
			Margin [dB]:	-33.49	-23.49	-	-	-	-
1.05479	16.03 ave	10.4	0	26.43	56	46	-	-	-
			Margin [dB]:	-29.57	-19.57	-	-	-	-
1.09078	13.19 ave	10.4	0	23.59	56	46	-	-	-
			Margin [dB]:	-32.41	-22.41	-	-	-	-
1.14612	13.34 ave	10.4	0	23.74	56	46	-	-	-
			Margin [dB]:	-32.26	-22.26	-	-	-	-
1.14562	14.22 ave	10.4	0	24.62	56	46	-	-	-
			Margin [dB]:	-31.38	-21.38	-	-	-	-
1.19321	11.73 ave	10.4	0	22.13	56	46	-	-	-
			Margin [dB]:	-33.87	-23.87	-	-	-	-
1.23533	10.35 ave	10.4	0	20.75	56	46	-	-	-
			Margin [dB]:	-35.25	-25.25	-	-	-	-
1.2812	9.59 ave	10.4	0	19.99	56	46	-	-	-
			Margin [dB]:	-36.01	-26.01	-	-	-	-
1.31875	9.4 ave	10.4	0	19.8	56	46	-	-	-
			Margin [dB]:	-36.2	-26.2	-	-	-	-
1.37274	9.3 ave	10.4	0	19.7	56	46	-	-	-
			Margin [dB]:	-36.3	-26.3	-	-	-	-
1.4132	9.97 ave	10.4	0	20.37	56	46	-	-	-
			Margin [dB]:	-35.63	-25.63	-	-	-	-
1.41692	10.05 ave	10.4	0	20.45	56	46	-	-	-
			Margin [dB]:	-35.55	-25.55	-	-	-	-
1.56435	10.68 ave	10.4	0	21.08	56	46	-	-	-
			Margin [dB]:	-34.92	-24.92	-	-	-	-
1.58759	11.04 ave	10.4	0	21.44	56	46	-	-	-
			Margin [dB]:	-34.56	-24.56	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 41 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

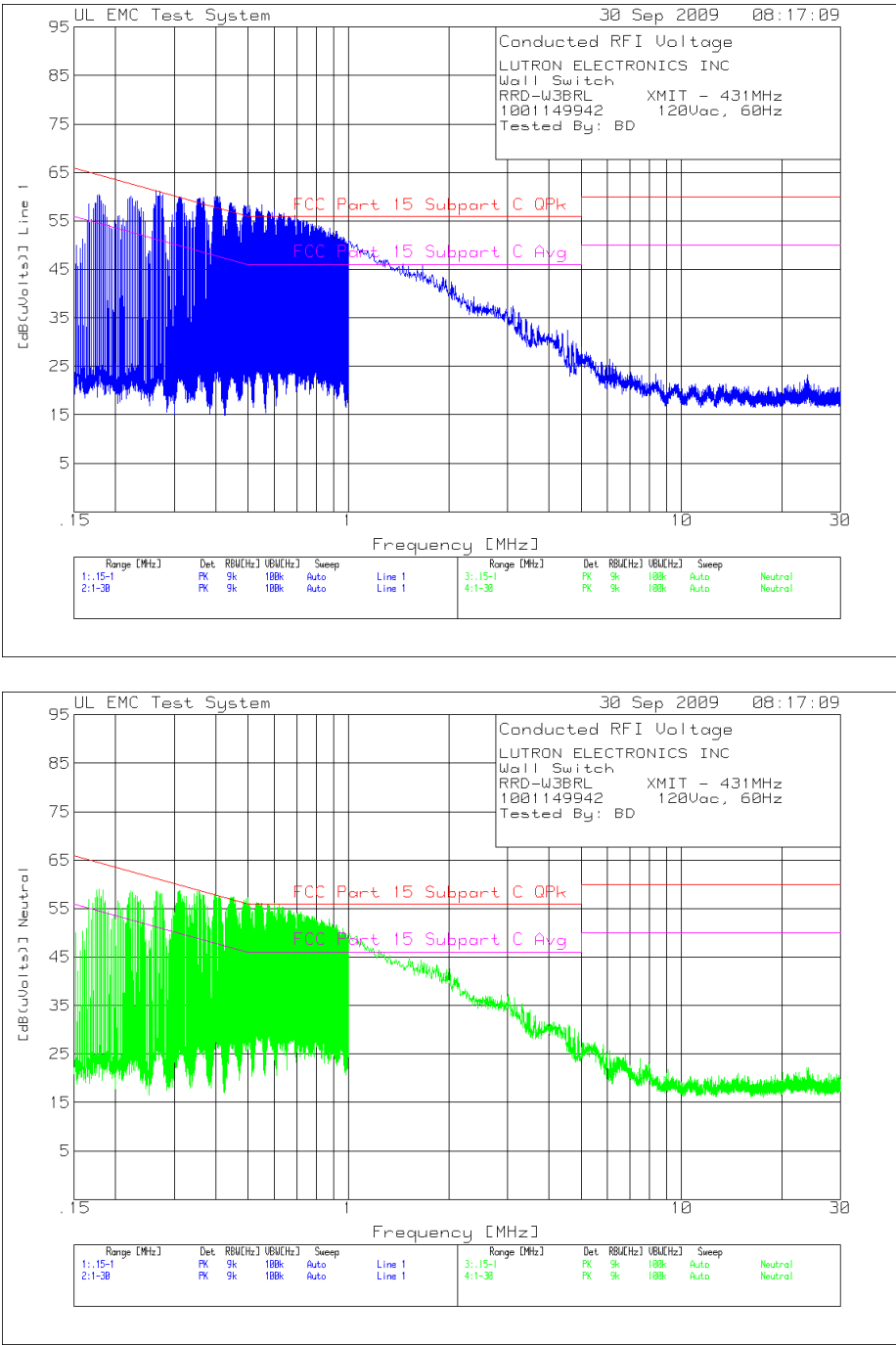
Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral 1 - 30MHz									
1.70855	12.42 ave	10.4	0	22.82	56	46	-	-	-
			Margin [dB]:		-33.18	-23.18	-	-	-
1.73403	11.27 ave	10.4	0	21.67	56	46	-	-	-
			Margin [dB]:		-34.33	-24.33	-	-	-
1.79542	12.42 ave	10.4	0	22.82	56	46	-	-	-
			Margin [dB]:		-33.18	-23.18	-	-	-
1.83832	12.97 ave	10.4	0	23.37	56	46	-	-	-
			Margin [dB]:		-32.63	-22.63	-	-	-
1.93143	13.09 ave	10.4	0	23.49	56	46	-	-	-
			Margin [dB]:		-32.51	-22.51	-	-	-
1.97358	12.96 ave	10.4	0	23.36	56	46	-	-	-
			Margin [dB]:		-32.64	-22.64	-	-	-
2.01802	11.72 ave	10.4	0	22.12	56	46	-	-	-
			Margin [dB]:		-33.88	-23.88	-	-	-
2.10312	11.03 ave	10.4	0	21.43	56	46	-	-	-
			Margin [dB]:		-34.57	-24.57	-	-	-
2.20202	9.66 ave	10.4	0	20.06	56	46	-	-	-
			Margin [dB]:		-35.94	-25.94	-	-	-
2.224	8.07 ave	10.4	0	18.47	56	46	-	-	-
			Margin [dB]:		-37.53	-27.53	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Class B QPk
 LIMIT 2: FCC Part 15 Class B Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Figure 4 Conducted Emissions Graph



UL EMC Test System

30 Sep 2009 08:17:09

Conducted RFI Voltage

LUTRON ELECTRONICS INC

Wall Switch

RRD-W3BRL XMIT - 431MHz

1001149942 120Vac, 60Hz

Tested By: BD

Range [MHz]	Det	RBW [Hz]	VBW [Hz]	Sweep	Line 1
1: 15-1	PK	9k	100k	Auto	Line 1
2: 1-30	PK	9k	100k	Auto	Line 1

Range [MHz]	Det	RBW [Hz]	VBW [Hz]	Sweep	Neutral
3: 15-1	PK	9k	100k	Auto	Neutral
4: 1-30	PK	9k	100k	Auto	Neutral

Job Number: 1001149942 File Number: MC15896 Page 43 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 5 Conducted Emissions Data Points

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL XMIT - 431MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Line 1 .15 - 1MHz										
.17731	44.54 qp	11.8	0	56.34	64.6	54.6	-	-	-	-
			Margin [dB]:		-8.26	1.74	-	-	-	-
.22265	44.17 qp	11.3	0	55.47	62.7	52.7	-	-	-	-
			Margin [dB]:		-7.23	2.77	-	-	-	-
.27048	45.34 qp	11	0	56.34	61.1	51.1	-	-	-	-
			Margin [dB]:		-4.76	5.24	-	-	-	-
.30993	45.22 qp	10.9	0	56.12	60	50	-	-	-	-
			Margin [dB]:		-3.88	6.12	-	-	-	-
.35898	42.73 qp	10.7	0	53.43	58.8	48.8	-	-	-	-
			Margin [dB]:		-5.37	4.63	-	-	-	-
.40305	44.1 qp	10.7	0	54.8	57.8	47.8	-	-	-	-
			Margin [dB]:		-3	7	-	-	-	-
.44651	42.5 qp	10.6	0	53.1	56.9	46.9	-	-	-	-
			Margin [dB]:		-3.8	6.2	-	-	-	-
.50377	41.77 qp	10.6	0	52.37	56	46	-	-	-	-
			Margin [dB]:		-3.63	6.37	-	-	-	-
.53992	41.82 qp	10.5	0	52.32	56	46	-	-	-	-
			Margin [dB]:		-3.68	6.32	-	-	-	-
.5905	40.27 qp	10.5	0	50.77	56	46	-	-	-	-
			Margin [dB]:		-5.23	4.77	-	-	-	-
.6378	39.87 qp	10.5	0	50.37	56	46	-	-	-	-
			Margin [dB]:		-5.63	4.37	-	-	-	-
.6872	39.97 qp	10.5	0	50.47	56	46	-	-	-	-
			Margin [dB]:		-5.53	4.47	-	-	-	-
.74743	38.6 qp	10.5	0	49.1	56	46	-	-	-	-
			Margin [dB]:		-6.9	3.1	-	-	-	-
.79385	38.34 qp	10.5	0	48.84	56	46	-	-	-	-
			Margin [dB]:		-7.16	2.84	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 44 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
.85677	35.68 qp	10.4	0	46.08	56	46	-	-	-
			Margin [dB]:	-9.92	.08	-	-	-	-
.92794	35.26 qp	10.4	0	45.66	56	46	-	-	-
			Margin [dB]:	-10.34	-.34	-	-	-	-
.9994	33.48 qp	10.4	0	43.88	56	46	-	-	-
			Margin [dB]:	-12.12	-2.12	-	-	-	-
Line 1 1 - 30MHz									
1.00812	34.79 qp	10.4	0	45.19	56	46	-	-	-
			Margin [dB]:	-10.81	-.81	-	-	-	-
1.10057	33.68 qp	10.4	0	44.08	56	46	-	-	-
			Margin [dB]:	-11.92	-1.92	-	-	-	-
1.14425	33.13 qp	10.4	0	43.53	56	46	-	-	-
			Margin [dB]:	-12.47	-2.47	-	-	-	-
1.28053	30.11 qp	10.4	0	40.51	56	46	-	-	-
			Margin [dB]:	-15.49	-5.49	-	-	-	-
1.45026	27.97 qp	10.4	0	38.37	56	46	-	-	-
			Margin [dB]:	-17.63	-7.63	-	-	-	-
1.66018	26.94 qp	10.4	0	37.34	56	46	-	-	-
			Margin [dB]:	-18.66	-8.66	-	-	-	-
1.79175	26.63 qp	10.4	0	37.03	56	46	-	-	-
			Margin [dB]:	-18.97	-8.97	-	-	-	-
1.93083	25.66 qp	10.4	0	36.06	56	46	-	-	-
			Margin [dB]:	-19.94	-9.94	-	-	-	-
2.02896	23.65 qp	10.4	0	34.05	56	46	-	-	-
			Margin [dB]:	-21.95	-11.95	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 45 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL XMIT - 431MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line 1 .15 - 1MHz									
.17731	24.97 ave	11.8	0	36.77	64.6	54.6	-	-	-
			Margin [dB]:		-27.83	-17.83	-	-	-
.22265	23.29 ave	11.3	0	34.59	62.7	52.7	-	-	-
			Margin [dB]:		-28.11	-18.11	-	-	-
.27048	25.14 ave	11	0	36.14	61.1	51.1	-	-	-
			Margin [dB]:		-24.96	-14.96	-	-	-
.30993	24.34 ave	10.9	0	35.24	60	50	-	-	-
			Margin [dB]:		-24.76	-14.76	-	-	-
.35898	22.13 ave	10.7	0	32.83	58.8	48.8	-	-	-
			Margin [dB]:		-25.97	-15.97	-	-	-
.40305	22.42 ave	10.7	0	33.12	57.8	47.8	-	-	-
			Margin [dB]:		-24.68	-14.68	-	-	-
.44651	22.06 ave	10.6	0	32.66	56.9	46.9	-	-	-
			Margin [dB]:		-24.24	-14.24	-	-	-
.50377	19.72 ave	10.6	0	30.32	56	46	-	-	-
			Margin [dB]:		-25.68	-15.68	-	-	-
.53992	19.71 ave	10.5	0	30.21	56	46	-	-	-
			Margin [dB]:		-25.79	-15.79	-	-	-
.5905	19.33 ave	10.5	0	29.83	56	46	-	-	-
			Margin [dB]:		-26.17	-16.17	-	-	-
.6378	18.13 ave	10.5	0	28.63	56	46	-	-	-
			Margin [dB]:		-27.37	-17.37	-	-	-
.6872	17.96 ave	10.5	0	28.46	56	46	-	-	-
			Margin [dB]:		-27.54	-17.54	-	-	-
.74743	17.97 ave	10.5	0	28.47	56	46	-	-	-
			Margin [dB]:		-27.53	-17.53	-	-	-
.79385	17.04 ave	10.5	0	27.54	56	46	-	-	-
			Margin [dB]:		-28.46	-18.46	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 46 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line 1 .15 - 1MHz									
.85677	15.69 ave	10.4	0	26.09	56	46	-	-	-
			Margin [dB]:	-29.91	-19.91	-	-	-	-
.92794	14.98 ave	10.4	0	25.38	56	46	-	-	-
			Margin [dB]:	-30.62	-20.62	-	-	-	-
.9994	13.79 ave	10.4	0	24.19	56	46	-	-	-
			Margin [dB]:	-31.81	-21.81	-	-	-	-
Line 1 1 - 30MHz									
1.00812	14.98 ave	10.4	0	25.38	56	46	-	-	-
			Margin [dB]:	-30.62	-20.62	-	-	-	-
1.10057	14.25 ave	10.4	0	24.65	56	46	-	-	-
			Margin [dB]:	-31.35	-21.35	-	-	-	-
1.14425	14.06 ave	10.4	0	24.46	56	46	-	-	-
			Margin [dB]:	-31.54	-21.54	-	-	-	-
1.28053	10.45 ave	10.4	0	20.85	56	46	-	-	-
			Margin [dB]:	-35.15	-25.15	-	-	-	-
1.45026	9.96 ave	10.4	0	20.36	56	46	-	-	-
			Margin [dB]:	-35.64	-25.64	-	-	-	-
1.66018	10.2 ave	10.4	0	20.6	56	46	-	-	-
			Margin [dB]:	-35.4	-25.4	-	-	-	-
1.79175	10.8 ave	10.4	0	21.2	56	46	-	-	-
			Margin [dB]:	-34.8	-24.8	-	-	-	-
1.93083	11.71 ave	10.4	0	22.11	56	46	-	-	-
			Margin [dB]:	-33.89	-23.89	-	-	-	-
2.02896	10.05 ave	10.4	0	20.45	56	46	-	-	-
			Margin [dB]:	-35.55	-25.55	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 47 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL XMIT - 431MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
Neutral .15 - 1MHz									
.17705	43.9 qp	11.8	0	55.7	64.6	54.6	-	-	-
			Margin [dB]:	-8.9	1.1	-	-	-	-
.20121	37.85 qp	11.5	0	49.35	63.6	53.6	-	-	-
			Margin [dB]:	-14.25	-4.25	-	-	-	-
.2236	43.59 qp	11.3	0	54.89	62.7	52.7	-	-	-
			Margin [dB]:	-7.81	2.19	-	-	-	-
.26738	45.16 qp	11	0	56.16	61.2	51.2	-	-	-
			Margin [dB]:	-5.04	4.96	-	-	-	-
.30841	44.73 qp	10.9	0	55.63	60	50	-	-	-
			Margin [dB]:	-4.37	5.63	-	-	-	-
.35504	43.89 qp	10.8	0	54.69	58.8	48.8	-	-	-
			Margin [dB]:	-4.11	5.89	-	-	-	-
.40723	43.9 qp	10.7	0	54.6	57.7	47.7	-	-	-
			Margin [dB]:	-3.1	6.9	-	-	-	-
.44856	41.91 qp	10.6	0	52.51	56.9	46.9	-	-	-
			Margin [dB]:	-4.39	5.61	-	-	-	-
.48611	42.54 qp	10.6	0	53.14	56.2	46.2	-	-	-
			Margin [dB]:	-3.06	6.94	-	-	-	-
.53781	41.96 qp	10.6	0	52.56	56	46	-	-	-
			Margin [dB]:	-3.44	6.56	-	-	-	-
.59207	40.16 qp	10.5	0	50.66	56	46	-	-	-
			Margin [dB]:	-5.34	4.66	-	-	-	-
.62014	40.83 qp	10.5	0	51.33	56	46	-	-	-
			Margin [dB]:	-4.67	5.33	-	-	-	-
.67034	39.92 qp	10.5	0	50.42	56	46	-	-	-
			Margin [dB]:	-5.58	4.42	-	-	-	-
.71781	38.11 qp	10.5	0	48.61	56	46	-	-	-
			Margin [dB]:	-7.39	2.61	-	-	-	-
.76022	37.22 qp	10.5	0	47.72	56	46	-	-	-
			Margin [dB]:	-8.28	1.72	-	-	-	-
.81684	37.16 qp	10.5	0	47.66	56	46	-	-	-
			Margin [dB]:	-8.34	1.66	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 48 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral .15 - 1MHz									
.86557	36.2 qp	10.5	0	46.7	56	46	-	-	-
			Margin [dB]:	-9.3	.7	-	-	-	-
.92467	36.46 qp	10.5	0	46.96	56	46	-	-	-
			Margin [dB]:	-9.04	.96	-	-	-	-
.97551	34.51 qp	10.4	0	44.91	56	46	-	-	-
			Margin [dB]:	-11.09	-1.09	-	-	-	-
.99622	33.6 qp	10.4	0	44	56	46	-	-	-
			Margin [dB]:	-12	-2	-	-	-	-
Neutral 1 - 30MHz									
1.02145	33.2 qp	10.4	0	43.6	56	46	-	-	-
			Margin [dB]:	-12.4	-2.4	-	-	-	-
1.10046	33.74 qp	10.4	0	44.14	56	46	-	-	-
			Margin [dB]:	-11.86	-1.86	-	-	-	-
1.14627	32.42 qp	10.4	0	42.82	56	46	-	-	-
			Margin [dB]:	-13.18	-3.18	-	-	-	-
1.23667	30.63 qp	10.4	0	41.03	56	46	-	-	-
			Margin [dB]:	-14.97	-4.97	-	-	-	-
1.28198	30.1 qp	10.4	0	40.5	56	46	-	-	-
			Margin [dB]:	-15.5	-5.5	-	-	-	-
1.32357	28.67 qp	10.4	0	39.07	56	46	-	-	-
			Margin [dB]:	-16.93	-6.93	-	-	-	-
1.41406	27.99 qp	10.4	0	38.39	56	46	-	-	-
			Margin [dB]:	-17.61	-7.61	-	-	-	-
1.4484	27.88 qp	10.4	0	38.28	56	46	-	-	-
			Margin [dB]:	-17.72	-7.72	-	-	-	-
1.54208	27.16 qp	10.4	0	37.56	56	46	-	-	-
			Margin [dB]:	-18.44	-8.44	-	-	-	-
1.59733	26.58 qp	10.4	0	36.98	56	46	-	-	-
			Margin [dB]:	-19.02	-9.02	-	-	-	-
1.69405	26.19 qp	10.4	0	36.59	56	46	-	-	-
			Margin [dB]:	-19.41	-9.41	-	-	-	-
1.74167	26.01 qp	10.4	0	36.41	56	46	-	-	-
			Margin [dB]:	-19.59	-9.59	-	-	-	-
1.83033	25.8 qp	10.4	0	36.2	56	46	-	-	-
			Margin [dB]:	-19.8	-9.8	-	-	-	-
1.97098	25.87 qp	10.4	0	36.27	56	46	-	-	-
			Margin [dB]:	-19.73	-9.73	-	-	-	-
2.06392	24.51 qp	10.4	0	34.91	56	46	-	-	-
			Margin [dB]:	-21.09	-11.09	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 49 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral 1 - 30MHz									
2.11858	23.32 qp	10.4	0	33.72	56	46	-	-	-
			Margin [dB]:	-22.28	-12.28	-	-	-	-
2.24337	21.97 qp	10.4	0	32.37	56	46	-	-	-
			Margin [dB]:	-23.63	-13.63	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 50 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL XMIT - 431MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
=====										
Neutral .15 - 1MHz										
.17705	25.1 ave	11.8	0	36.9	64.6	54.6	-	-	-	-
			Margin [dB]:		-27.7	-17.7	-	-	-	-
.20121	17.33 ave	11.5	0	28.83	63.6	53.6	-	-	-	-
			Margin [dB]:		-34.77	-24.77	-	-	-	-
.2236	24.27 ave	11.3	0	35.57	62.7	52.7	-	-	-	-
			Margin [dB]:		-27.13	-17.13	-	-	-	-
.26738	25.89 ave	11	0	36.89	61.2	51.2	-	-	-	-
			Margin [dB]:		-24.31	-14.31	-	-	-	-
.30841	24.96 ave	10.9	0	35.86	60	50	-	-	-	-
			Margin [dB]:		-24.14	-14.14	-	-	-	-
.35504	23.98 ave	10.8	0	34.78	58.8	48.8	-	-	-	-
			Margin [dB]:		-24.02	-14.02	-	-	-	-
.40723	23.55 ave	10.7	0	34.25	57.7	47.7	-	-	-	-
			Margin [dB]:		-23.45	-13.45	-	-	-	-
.44856	22.7 ave	10.6	0	33.3	56.9	46.9	-	-	-	-
			Margin [dB]:		-23.6	-13.6	-	-	-	-
.48611	22.65 ave	10.6	0	33.25	56.2	46.2	-	-	-	-
			Margin [dB]:		-22.95	-12.95	-	-	-	-
.53781	21.01 ave	10.6	0	31.61	56	46	-	-	-	-
			Margin [dB]:		-24.39	-14.39	-	-	-	-
.59207	20.41 ave	10.5	0	30.91	56	46	-	-	-	-
			Margin [dB]:		-25.09	-15.09	-	-	-	-
.62014	21.47 ave	10.5	0	31.97	56	46	-	-	-	-
			Margin [dB]:		-24.03	-14.03	-	-	-	-
.67034	18.63 ave	10.5	0	29.13	56	46	-	-	-	-
			Margin [dB]:		-26.87	-16.87	-	-	-	-
.71781	18.71 ave	10.5	0	29.21	56	46	-	-	-	-
			Margin [dB]:		-26.79	-16.79	-	-	-	-
.76022	18.47 ave	10.5	0	28.97	56	46	-	-	-	-
			Margin [dB]:		-27.03	-17.03	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 51 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral .15 - 1MHz									
.81684	16.38 ave	10.5	0	26.88	56	46	-	-	-
			Margin [dB]:	-29.12	-19.12	-	-	-	-
.86557	16.68 ave	10.5	0	27.18	56	46	-	-	-
			Margin [dB]:	-28.82	-18.82	-	-	-	-
.92467	16.48 ave	10.5	0	26.98	56	46	-	-	-
			Margin [dB]:	-29.02	-19.02	-	-	-	-
.97551	14.23 ave	10.4	0	24.63	56	46	-	-	-
			Margin [dB]:	-31.37	-21.37	-	-	-	-
.99622	15.29 ave	10.4	0	25.69	56	46	-	-	-
			Margin [dB]:	-30.31	-20.31	-	-	-	-
Neutral 1 - 30MHz									
1.02145	14.43 ave	10.4	0	24.83	56	46	-	-	-
			Margin [dB]:	-31.17	-21.17	-	-	-	-
1.10046	15.31 ave	10.4	0	25.71	56	46	-	-	-
			Margin [dB]:	-30.29	-20.29	-	-	-	-
1.14627	14.3 ave	10.4	0	24.7	56	46	-	-	-
			Margin [dB]:	-31.3	-21.3	-	-	-	-
1.23667	11.44 ave	10.4	0	21.84	56	46	-	-	-
			Margin [dB]:	-34.16	-24.16	-	-	-	-
1.28198	11.49 ave	10.4	0	21.89	56	46	-	-	-
			Margin [dB]:	-34.11	-24.11	-	-	-	-
1.32357	9.77 ave	10.4	0	20.17	56	46	-	-	-
			Margin [dB]:	-35.83	-25.83	-	-	-	-
1.41406	10.07 ave	10.4	0	20.47	56	46	-	-	-
			Margin [dB]:	-35.53	-25.53	-	-	-	-
1.4484	10.5 ave	10.4	0	20.9	56	46	-	-	-
			Margin [dB]:	-35.1	-25.1	-	-	-	-
1.54208	11.28 ave	10.4	0	21.68	56	46	-	-	-
			Margin [dB]:	-34.32	-24.32	-	-	-	-
1.59733	11.38 ave	10.4	0	21.78	56	46	-	-	-
			Margin [dB]:	-34.22	-24.22	-	-	-	-
1.69405	11.94 ave	10.4	0	22.34	56	46	-	-	-
			Margin [dB]:	-33.66	-23.66	-	-	-	-
1.74167	12.17 ave	10.4	0	22.57	56	46	-	-	-
			Margin [dB]:	-33.43	-23.43	-	-	-	-
1.83033	12.42 ave	10.4	0	22.82	56	46	-	-	-
			Margin [dB]:	-33.18	-23.18	-	-	-	-
1.97098	13.38 ave	10.4	0	23.78	56	46	-	-	-
			Margin [dB]:	-32.22	-22.22	-	-	-	-
2.06392	12.3 ave	10.4	0	22.7	56	46	-	-	-
			Margin [dB]:	-33.3	-23.3	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 52 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

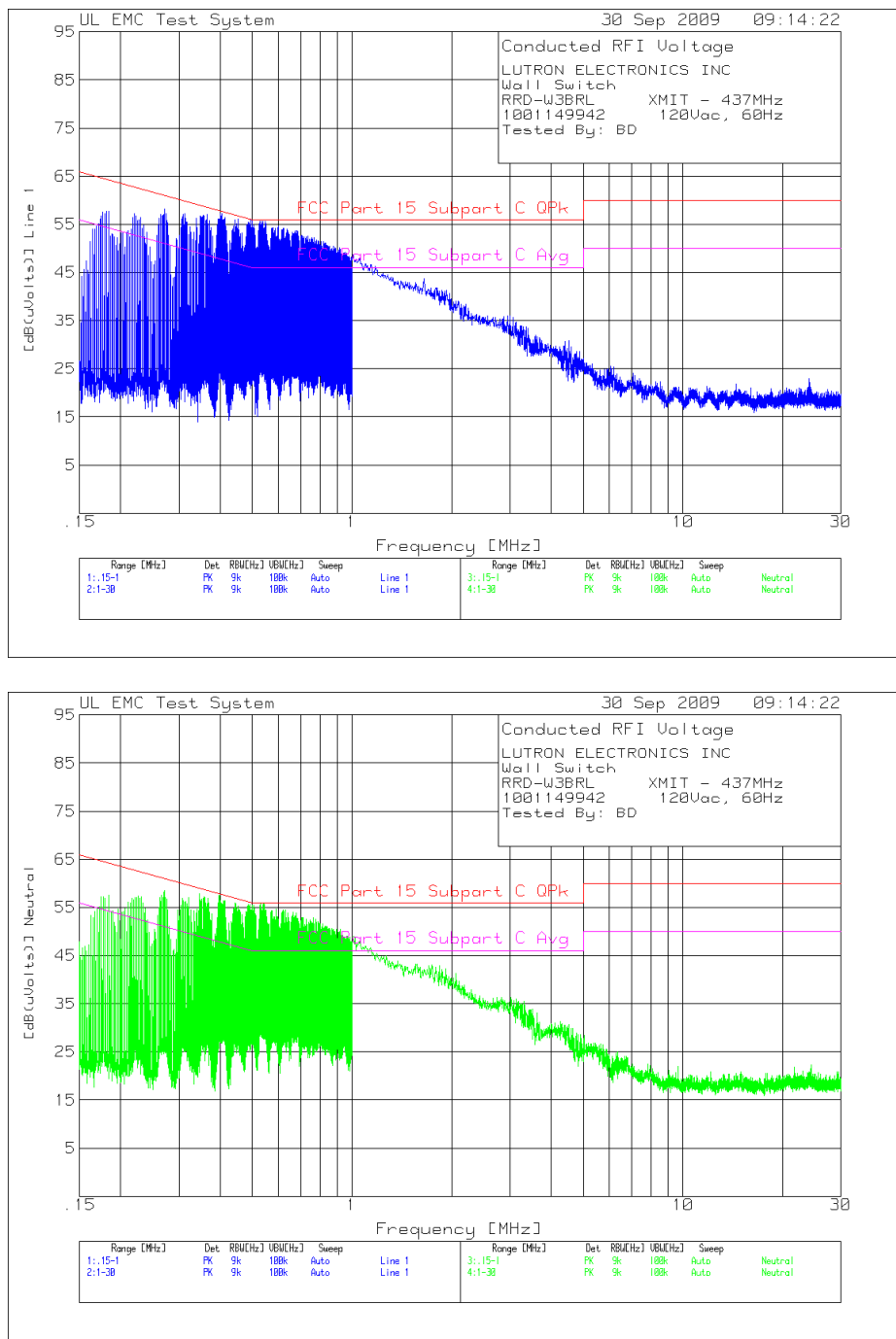
Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral 1 - 30MHz									
2.11858	11.48 ave	10.4	0	21.88	56	46	-	-	-
			Margin [dB]:		-34.12	-24.12	-	-	-
2.24337	9.37 ave	10.4	0	19.77	56	46	-	-	-
			Margin [dB]:		-36.23	-26.23	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Figure 5 Conducted Emissions Graph



Job Number: 1001149942 File Number: MC15896 Page 54 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 6 Conducted Emissions Data Points

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL XMIT - 437MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line 1 .15 - 1MHz									
.18095	42.53 qp	11.7	0	54.23	64.4	54.4	-	-	-
			Margin [dB]:		-10.17	-.17	-	-	-
.22316	43.21 qp	11.3	0	54.51	62.7	52.7	-	-	-
			Margin [dB]:		-8.19	1.81	-	-	-
.27037	44.79 qp	11	0	55.79	61.1	51.1	-	-	-
			Margin [dB]:		-5.31	4.69	-	-	-
.31207	43.34 qp	10.9	0	54.24	59.9	49.9	-	-	-
			Margin [dB]:		-5.66	4.34	-	-	-
.35579	42.99 qp	10.7	0	53.69	58.8	48.8	-	-	-
			Margin [dB]:		-5.11	4.89	-	-	-
.40019	43.72 qp	10.7	0	54.42	57.8	47.8	-	-	-
			Margin [dB]:		-3.38	6.62	-	-	-
.44429	42.35 qp	10.6	0	52.95	57	47	-	-	-
			Margin [dB]:		-4.05	5.95	-	-	-
.49382	40.65 qp	10.6	0	51.25	56.1	46.1	-	-	-
			Margin [dB]:		-4.85	5.15	-	-	-
.53379	41.51 qp	10.5	0	52.01	56	46	-	-	-
			Margin [dB]:		-3.99	6.01	-	-	-
.57745	40.75 qp	10.5	0	51.25	56	46	-	-	-
			Margin [dB]:		-4.75	5.25	-	-	-
.61872	40.37 qp	10.5	0	50.87	56	46	-	-	-
			Margin [dB]:		-5.13	4.87	-	-	-
.64191	39.55 qp	10.5	0	50.05	56	46	-	-	-
			Margin [dB]:		-5.95	4.05	-	-	-
.6807	39.14 qp	10.5	0	49.64	56	46	-	-	-
			Margin [dB]:		-6.36	3.64	-	-	-
.70519	38.94 qp	10.5	0	49.44	56	46	-	-	-
			Margin [dB]:		-6.56	3.44	-	-	-
.72049	37.47 qp	10.5	0	47.97	56	46	-	-	-
			Margin [dB]:		-8.03	1.97	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 55 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line 1 .15 - 1MHz									
.74308	37.02 qp	10.5	0	47.52	56	46	-	-	-
			Margin [dB]:	-8.48	1.52	-	-	-	-
.75724	37.22 qp	10.5	0	47.72	56	46	-	-	-
			Margin [dB]:	-8.28	1.72	-	-	-	-
.78216	37.04 qp	10.5	0	47.54	56	46	-	-	-
			Margin [dB]:	-8.46	1.54	-	-	-	-
.80994	36.54 qp	10.4	0	46.94	56	46	-	-	-
			Margin [dB]:	-9.06	.94	-	-	-	-
.83684	36.69 qp	10.4	0	47.09	56	46	-	-	-
			Margin [dB]:	-8.91	1.09	-	-	-	-
.85867	35.56 qp	10.4	0	45.96	56	46	-	-	-
			Margin [dB]:	-10.04	-.04	-	-	-	-
.88512	35.5 qp	10.4	0	45.9	56	46	-	-	-
			Margin [dB]:	-10.1	-.1	-	-	-	-
.9189	36.92 qp	10.4	0	47.32	56	46	-	-	-
			Margin [dB]:	-8.68	1.32	-	-	-	-
.95265	34.16 qp	10.4	0	44.56	56	46	-	-	-
			Margin [dB]:	-11.44	-1.44	-	-	-	-
.99374	32.9 qp	10.4	0	43.3	56	46	-	-	-
			Margin [dB]:	-12.7	-2.7	-	-	-	-
Line 1 1 - 30MHz									
1.00803	34.26 qp	10.4	0	44.66	56	46	-	-	-
			Margin [dB]:	-11.34	-1.34	-	-	-	-
1.05479	34.39 qp	10.4	0	44.79	56	46	-	-	-
			Margin [dB]:	-11.21	-1.21	-	-	-	-
1.09742	33.56 qp	10.4	0	43.96	56	46	-	-	-
			Margin [dB]:	-12.04	-2.04	-	-	-	-
1.14399	32.38 qp	10.4	0	42.78	56	46	-	-	-
			Margin [dB]:	-13.22	-3.22	-	-	-	-
1.15198	30.65 qp	10.4	0	41.05	56	46	-	-	-
			Margin [dB]:	-14.95	-4.95	-	-	-	-
1.23545	30.56 qp	10.4	0	40.96	56	46	-	-	-
			Margin [dB]:	-15.04	-5.04	-	-	-	-
1.27656	29.82 qp	10.4	0	40.22	56	46	-	-	-
			Margin [dB]:	-15.78	-5.78	-	-	-	-
1.31909	28.97 qp	10.4	0	39.37	56	46	-	-	-
			Margin [dB]:	-16.63	-6.63	-	-	-	-
1.41038	27.91 qp	10.4	0	38.31	56	46	-	-	-
			Margin [dB]:	-17.69	-7.69	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 56 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line 1 1 - 30MHz									
1.45343	27.1 qp	10.4	0	37.5	56	46	-	-	-
			Margin [dB]:	-18.5	-8.5	-	-	-	-
1.54686	22.18 qp	10.4	0	32.58	56	46	-	-	-
			Margin [dB]:	-23.42	-13.42	-	-	-	-
1.65243	27.08 qp	10.4	0	37.48	56	46	-	-	-
			Margin [dB]:	-18.52	-8.52	-	-	-	-
1.72297	21.78 qp	10.4	0	32.18	56	46	-	-	-
			Margin [dB]:	-23.82	-13.82	-	-	-	-
1.78899	22.83 qp	10.4	0	33.23	56	46	-	-	-
			Margin [dB]:	-22.77	-12.77	-	-	-	-
1.87207	21.24 qp	10.4	0	31.64	56	46	-	-	-
			Margin [dB]:	-24.36	-14.36	-	-	-	-
1.92824	22.18 qp	10.4	0	32.58	56	46	-	-	-
			Margin [dB]:	-23.42	-13.42	-	-	-	-
1.97635	21 qp	10.4	0	31.4	56	46	-	-	-
			Margin [dB]:	-24.6	-14.6	-	-	-	-
2.0688	21 qp	10.4	0	31.4	56	46	-	-	-
			Margin [dB]:	-24.6	-14.6	-	-	-	-
2.20625	19.73 qp	10.4	0	30.13	56	46	-	-	-
			Margin [dB]:	-25.87	-15.87	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the
 applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 57 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL XMIT - 437MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
=====										
Line 1 .15 - 1MHz										
.18095	22.66 ave	11.7	0	34.36	64.4	54.4	-	-	-	-
			Margin [dB]:		-30.04	-20.04	-	-	-	-
.22316	22.51 ave	11.3	0	33.81	62.7	52.7	-	-	-	-
			Margin [dB]:		-28.89	-18.89	-	-	-	-
.27037	24.47 ave	11	0	35.47	61.1	51.1	-	-	-	-
			Margin [dB]:		-25.63	-15.63	-	-	-	-
.31207	23.24 ave	10.9	0	34.14	59.9	49.9	-	-	-	-
			Margin [dB]:		-25.76	-15.76	-	-	-	-
.35579	22.27 ave	10.7	0	32.97	58.8	48.8	-	-	-	-
			Margin [dB]:		-25.83	-15.83	-	-	-	-
.40019	22.22 ave	10.7	0	32.92	57.8	47.8	-	-	-	-
			Margin [dB]:		-24.88	-14.88	-	-	-	-
.44429	21.83 ave	10.6	0	32.43	57	47	-	-	-	-
			Margin [dB]:		-24.57	-14.57	-	-	-	-
.49382	20.02 ave	10.6	0	30.62	56.1	46.1	-	-	-	-
			Margin [dB]:		-25.48	-15.48	-	-	-	-
.53379	19.51 ave	10.5	0	30.01	56	46	-	-	-	-
			Margin [dB]:		-25.99	-15.99	-	-	-	-
.57745	20.38 ave	10.5	0	30.88	56	46	-	-	-	-
			Margin [dB]:		-25.12	-15.12	-	-	-	-
.61872	19.68 ave	10.5	0	30.18	56	46	-	-	-	-
			Margin [dB]:		-25.82	-15.82	-	-	-	-
.64191	17.52 ave	10.5	0	28.02	56	46	-	-	-	-
			Margin [dB]:		-27.98	-17.98	-	-	-	-
.6807	17.39 ave	10.5	0	27.89	56	46	-	-	-	-
			Margin [dB]:		-28.11	-18.11	-	-	-	-
.70519	17.19 ave	10.5	0	27.69	56	46	-	-	-	-
			Margin [dB]:		-28.31	-18.31	-	-	-	-
.72049	17.1 ave	10.5	0	27.6	56	46	-	-	-	-
			Margin [dB]:		-28.4	-18.4	-	-	-	-
.74308	16.66 ave	10.5	0	27.16	56	46	-	-	-	-
			Margin [dB]:		-28.84	-18.84	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 58 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line 1 .15 - 1MHz									
.75724	17.01 ave	10.5	0	27.51	56	46	-	-	-
			Margin [dB]:	-28.49	-18.49	-	-	-	-
.78216	15.76 ave	10.5	0	26.26	56	46	-	-	-
			Margin [dB]:	-29.74	-19.74	-	-	-	-
.80994	15.05 ave	10.4	0	25.45	56	46	-	-	-
			Margin [dB]:	-30.55	-20.55	-	-	-	-
.83684	15.53 ave	10.4	0	25.93	56	46	-	-	-
			Margin [dB]:	-30.07	-20.07	-	-	-	-
.85867	16.13 ave	10.4	0	26.53	56	46	-	-	-
			Margin [dB]:	-29.47	-19.47	-	-	-	-
.88512	15.72 ave	10.4	0	26.12	56	46	-	-	-
			Margin [dB]:	-29.88	-19.88	-	-	-	-
.9189	15.72 ave	10.4	0	26.12	56	46	-	-	-
			Margin [dB]:	-29.88	-19.88	-	-	-	-
.95265	13.94 ave	10.4	0	24.34	56	46	-	-	-
			Margin [dB]:	-31.66	-21.66	-	-	-	-
.99374	13.67 ave	10.4	0	24.07	56	46	-	-	-
			Margin [dB]:	-31.93	-21.93	-	-	-	-
Line 1 1 - 30MHz									
1.00803	14.78 ave	10.4	0	25.18	56	46	-	-	-
			Margin [dB]:	-30.82	-20.82	-	-	-	-
1.05479	14.64 ave	10.4	0	25.04	56	46	-	-	-
			Margin [dB]:	-30.96	-20.96	-	-	-	-
1.09742	14.38 ave	10.4	0	24.78	56	46	-	-	-
			Margin [dB]:	-31.22	-21.22	-	-	-	-
1.14399	12.85 ave	10.4	0	23.25	56	46	-	-	-
			Margin [dB]:	-32.75	-22.75	-	-	-	-
1.15198	11.87 ave	10.4	0	22.27	56	46	-	-	-
			Margin [dB]:	-33.73	-23.73	-	-	-	-
1.23545	10.99 ave	10.4	0	21.39	56	46	-	-	-
			Margin [dB]:	-34.61	-24.61	-	-	-	-
1.27656	9.93 ave	10.4	0	20.33	56	46	-	-	-
			Margin [dB]:	-35.67	-25.67	-	-	-	-
1.31909	9.48 ave	10.4	0	19.88	56	46	-	-	-
			Margin [dB]:	-36.12	-26.12	-	-	-	-
1.41038	9.14 ave	10.4	0	19.54	56	46	-	-	-
			Margin [dB]:	-36.46	-26.46	-	-	-	-
1.45343	9.14 ave	10.4	0	19.54	56	46	-	-	-
			Margin [dB]:	-36.46	-26.46	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 59 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Line 1 1 - 30MHz									
1.54686	4.01 ave	10.4	0	14.41	56	46	-	-	-
			Margin [dB]:		-41.59	-31.59	-	-	-
1.65243	10.7 ave	10.4	0	21.1	56	46	-	-	-
			Margin [dB]:		-34.9	-24.9	-	-	-
1.72297	4.04 ave	10.4	0	14.44	56	46	-	-	-
			Margin [dB]:		-41.56	-31.56	-	-	-
1.78899	4.75 ave	10.4	0	15.15	56	46	-	-	-
			Margin [dB]:		-40.85	-30.85	-	-	-
1.87207	3.74 ave	10.4	0	14.14	56	46	-	-	-
			Margin [dB]:		-41.86	-31.86	-	-	-
1.92824	7.34 ave	10.4	0	17.74	56	46	-	-	-
			Margin [dB]:		-38.26	-28.26	-	-	-
1.97635	3.47 ave	10.4	0	13.87	56	46	-	-	-
			Margin [dB]:		-42.13	-32.13	-	-	-
2.0688	3.74 ave	10.4	0	14.14	56	46	-	-	-
			Margin [dB]:		-41.86	-31.86	-	-	-
2.20625	3.32 ave	10.4	0	13.72	56	46	-	-	-
			Margin [dB]:		-42.28	-32.28	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 60 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL XMIT - 437MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Neutral .15 - 1MHz										
.17554	42.91 qp	11.8	0	54.71	64.7	54.7	-	-	-	-
			Margin [dB]:		-9.99	.01	-	-	-	-
.21179	37.09 qp	11.4	0	48.49	63.1	53.1	-	-	-	-
			Margin [dB]:		-14.61	-4.61	-	-	-	-
.22443	42.98 qp	11.3	0	54.28	62.7	52.7	-	-	-	-
			Margin [dB]:		-8.42	1.58	-	-	-	-
.26948	44.78 qp	11	0	55.78	61.1	51.1	-	-	-	-
			Margin [dB]:		-5.32	4.68	-	-	-	-
.31036	43.72 qp	10.9	0	54.62	60	50	-	-	-	-
			Margin [dB]:		-5.38	4.62	-	-	-	-
.35252	43.37 qp	10.8	0	54.17	58.9	48.9	-	-	-	-
			Margin [dB]:		-4.73	5.27	-	-	-	-
.40728	43.74 qp	10.7	0	54.44	57.7	47.7	-	-	-	-
			Margin [dB]:		-3.26	6.74	-	-	-	-
.4426	42.93 qp	10.6	0	53.53	57	47	-	-	-	-
			Margin [dB]:		-3.47	6.53	-	-	-	-
.4987	40.93 qp	10.6	0	51.53	56	46	-	-	-	-
			Margin [dB]:		-4.47	5.53	-	-	-	-
.54299	41.58 qp	10.6	0	52.18	56	46	-	-	-	-
			Margin [dB]:		-3.82	6.18	-	-	-	-
.59	39.98 qp	10.5	0	50.48	56	46	-	-	-	-
			Margin [dB]:		-5.52	4.48	-	-	-	-
.61924	40.1 qp	10.5	0	50.6	56	46	-	-	-	-
			Margin [dB]:		-5.4	4.6	-	-	-	-
.63741	39.5 qp	10.5	0	50	56	46	-	-	-	-
			Margin [dB]:		-6	4	-	-	-	-
.66446	39.94 qp	10.5	0	50.44	56	46	-	-	-	-
			Margin [dB]:		-5.56	4.44	-	-	-	-
.68797	39.29 qp	10.5	0	49.79	56	46	-	-	-	-
			Margin [dB]:		-6.21	3.79	-	-	-	-
.70886	39.11 qp	10.5	0	49.61	56	46	-	-	-	-
			Margin [dB]:		-6.39	3.61	-	-	-	-
.72776	37.89 qp	10.5	0	48.39	56	46	-	-	-	-
			Margin [dB]:		-7.61	2.39	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE

Job Number: 1001149942 File Number: MC15896 Page 61 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral .15 - 1MHz									
.7488	38.26 qp	10.5	0	48.76	56	46	-	-	-
			Margin [dB]:	-7.24	2.76	-	-	-	-
.76425	36.44 qp	10.5	0	46.94	56	46	-	-	-
			Margin [dB]:	-9.06	.94	-	-	-	-
.77421	37.16 qp	10.5	0	47.66	56	46	-	-	-
			Margin [dB]:	-8.34	1.66	-	-	-	-
.80156	37.13 qp	10.5	0	47.63	56	46	-	-	-
			Margin [dB]:	-8.37	1.63	-	-	-	-
.81415	36.63 qp	10.5	0	47.13	56	46	-	-	-
			Margin [dB]:	-8.87	1.13	-	-	-	-
.83487	37.17 qp	10.5	0	47.67	56	46	-	-	-
			Margin [dB]:	-8.33	1.67	-	-	-	-
.85779	35.43 qp	10.5	0	45.93	56	46	-	-	-
			Margin [dB]:	-10.07	-.07	-	-	-	-
.87947	36.3 qp	10.5	0	46.8	56	46	-	-	-
			Margin [dB]:	-9.2	.8	-	-	-	-
.90652	34.56 qp	10.5	0	45.06	56	46	-	-	-
			Margin [dB]:	-10.94	-.94	-	-	-	-
.92736	35.22 qp	10.5	0	45.72	56	46	-	-	-
			Margin [dB]:	-10.28	-.28	-	-	-	-
.95373	34.27 qp	10.4	0	44.67	56	46	-	-	-
			Margin [dB]:	-11.33	-1.33	-	-	-	-
.98197	33.42 qp	10.4	0	43.82	56	46	-	-	-
			Margin [dB]:	-12.18	-2.18	-	-	-	-
.9965	33.01 qp	10.4	0	43.41	56	46	-	-	-
			Margin [dB]:	-12.59	-2.59	-	-	-	-
Neutral 1 - 30MHz									
1.01085	34.59 qp	10.4	0	44.99	56	46	-	-	-
			Margin [dB]:	-11.01	-1.01	-	-	-	-
1.05512	34.38 qp	10.4	0	44.78	56	46	-	-	-
			Margin [dB]:	-11.22	-1.22	-	-	-	-
1.09914	33.73 qp	10.4	0	44.13	56	46	-	-	-
			Margin [dB]:	-11.87	-1.87	-	-	-	-
1.14247	32.5 qp	10.4	0	42.9	56	46	-	-	-
			Margin [dB]:	-13.1	-3.1	-	-	-	-
1.18813	31.25 qp	10.4	0	41.65	56	46	-	-	-
			Margin [dB]:	-14.35	-4.35	-	-	-	-
1.25774	28.24 qp	10.4	0	38.64	56	46	-	-	-
			Margin [dB]:	-17.36	-7.36	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 62 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral 1 - 30MHz									
1.28124	29.98 qp	10.4	0	40.38	56	46	-	-	-
			Margin [dB]:	-15.62	-5.62	-	-	-	-
1.36804	27.95 qp	10.4	0	38.35	56	46	-	-	-
			Margin [dB]:	-17.65	-7.65	-	-	-	-
1.41155	28.07 qp	10.4	0	38.47	56	46	-	-	-
			Margin [dB]:	-17.53	-7.53	-	-	-	-
1.47372	26.63 qp	10.4	0	37.03	56	46	-	-	-
			Margin [dB]:	-18.97	-8.97	-	-	-	-
1.55394	26.69 qp	10.4	0	37.09	56	46	-	-	-
			Margin [dB]:	-18.91	-8.91	-	-	-	-
1.67591	26.05 qp	10.4	0	36.45	56	46	-	-	-
			Margin [dB]:	-19.55	-9.55	-	-	-	-
1.71913	25.7 qp	10.4	0	36.1	56	46	-	-	-
			Margin [dB]:	-19.9	-9.9	-	-	-	-
1.83558	26.52 qp	10.4	0	36.92	56	46	-	-	-
			Margin [dB]:	-19.08	-9.08	-	-	-	-
1.92266	25.5 qp	10.4	0	35.9	56	46	-	-	-
			Margin [dB]:	-20.1	-10.1	-	-	-	-
1.96089	24.51 qp	10.4	0	34.91	56	46	-	-	-
			Margin [dB]:	-21.09	-11.09	-	-	-	-
2.06478	25.04 qp	10.4	0	35.44	56	46	-	-	-
			Margin [dB]:	-20.56	-10.56	-	-	-	-
2.09135	23.22 qp	10.4	0	33.62	56	46	-	-	-
			Margin [dB]:	-22.38	-12.38	-	-	-	-
2.19455	21.97 qp	10.4	0	32.37	56	46	-	-	-
			Margin [dB]:	-23.63	-13.63	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 63 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

LUTRON ELECTRONICS INC
 Wall Switch
 RRD-W3BRL XMIT - 437MHz
 1001149942 120Vac, 60Hz
 Tested By: BD

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Neutral .15 - 1MHz										
.17554	24.07 ave	11.8	0	35.87	64.7	54.7	-	-	-	-
			Margin [dB]:		-28.83	-18.83	-	-	-	-
.21179	17.72 ave	11.4	0	29.12	63.1	53.1	-	-	-	-
			Margin [dB]:		-33.98	-23.98	-	-	-	-
.22443	24.05 ave	11.3	0	35.35	62.7	52.7	-	-	-	-
			Margin [dB]:		-27.35	-17.35	-	-	-	-
.26948	25.62 ave	11	0	36.62	61.1	51.1	-	-	-	-
			Margin [dB]:		-24.48	-14.48	-	-	-	-
.31036	24.48 ave	10.9	0	35.38	60	50	-	-	-	-
			Margin [dB]:		-24.62	-14.62	-	-	-	-
.35252	23.46 ave	10.8	0	34.26	58.9	48.9	-	-	-	-
			Margin [dB]:		-24.64	-14.64	-	-	-	-
.40728	23.36 ave	10.7	0	34.06	57.7	47.7	-	-	-	-
			Margin [dB]:		-23.64	-13.64	-	-	-	-
.4426	22.95 ave	10.6	0	33.55	57	47	-	-	-	-
			Margin [dB]:		-23.45	-13.45	-	-	-	-
.4987	21.25 ave	10.6	0	31.85	56	46	-	-	-	-
			Margin [dB]:		-24.15	-14.15	-	-	-	-
.54299	20.89 ave	10.6	0	31.49	56	46	-	-	-	-
			Margin [dB]:		-24.51	-14.51	-	-	-	-
.59	20.69 ave	10.5	0	31.19	56	46	-	-	-	-
			Margin [dB]:		-24.81	-14.81	-	-	-	-
.61924	20.89 ave	10.5	0	31.39	56	46	-	-	-	-
			Margin [dB]:		-24.61	-14.61	-	-	-	-
.63741	19.03 ave	10.5	0	29.53	56	46	-	-	-	-
			Margin [dB]:		-26.47	-16.47	-	-	-	-
.66446	18.88 ave	10.5	0	29.38	56	46	-	-	-	-
			Margin [dB]:		-26.62	-16.62	-	-	-	-
.68797	18.5 ave	10.5	0	29	56	46	-	-	-	-
			Margin [dB]:		-27	-17	-	-	-	-
.70886	18.96 ave	10.5	0	29.46	56	46	-	-	-	-
			Margin [dB]:		-26.54	-16.54	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 64 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral .15 - 1MHz									
.72776	18.81 ave	10.5	0	29.31	56	46	-	-	-
			Margin [dB]:	-26.69	-16.69	-	-	-	-
.7488	19.04 ave	10.5	0	29.54	56	46	-	-	-
			Margin [dB]:	-26.46	-16.46	-	-	-	-
.76425	17.22 ave	10.5	0	27.72	56	46	-	-	-
			Margin [dB]:	-28.28	-18.28	-	-	-	-
.77421	16.52 ave	10.5	0	27.02	56	46	-	-	-
			Margin [dB]:	-28.98	-18.98	-	-	-	-
.80156	16.75 ave	10.5	0	27.25	56	46	-	-	-
			Margin [dB]:	-28.75	-18.75	-	-	-	-
.81415	16.47 ave	10.5	0	26.97	56	46	-	-	-
			Margin [dB]:	-29.03	-19.03	-	-	-	-
.83487	16.8 ave	10.5	0	27.3	56	46	-	-	-
			Margin [dB]:	-28.7	-18.7	-	-	-	-
.85779	16.75 ave	10.5	0	27.25	56	46	-	-	-
			Margin [dB]:	-28.75	-18.75	-	-	-	-
.87947	17.48 ave	10.5	0	27.98	56	46	-	-	-
			Margin [dB]:	-28.02	-18.02	-	-	-	-
.90652	14.93 ave	10.5	0	25.43	56	46	-	-	-
			Margin [dB]:	-30.57	-20.57	-	-	-	-
.92736	15.67 ave	10.5	0	26.17	56	46	-	-	-
			Margin [dB]:	-29.83	-19.83	-	-	-	-
.95373	15.56 ave	10.4	0	25.96	56	46	-	-	-
			Margin [dB]:	-30.04	-20.04	-	-	-	-
.98197	14.11 ave	10.4	0	24.51	56	46	-	-	-
			Margin [dB]:	-31.49	-21.49	-	-	-	-
.9965	14.96 ave	10.4	0	25.36	56	46	-	-	-
			Margin [dB]:	-30.64	-20.64	-	-	-	-
Neutral 1 - 30MHz									
1.01085	16.15 ave	10.4	0	26.55	56	46	-	-	-
			Margin [dB]:	-29.45	-19.45	-	-	-	-
1.05512	16.02 ave	10.4	0	26.42	56	46	-	-	-
			Margin [dB]:	-29.58	-19.58	-	-	-	-
1.09914	15.39 ave	10.4	0	25.79	56	46	-	-	-
			Margin [dB]:	-30.21	-20.21	-	-	-	-
1.14247	14.4 ave	10.4	0	24.8	56	46	-	-	-
			Margin [dB]:	-31.2	-21.2	-	-	-	-
1.18813	12.48 ave	10.4	0	22.88	56	46	-	-	-
			Margin [dB]:	-33.12	-23.12	-	-	-	-
1.25774	8.32 ave	10.4	0	18.72	56	46	-	-	-
			Margin [dB]:	-37.28	-27.28	-	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

Job Number: 1001149942 File Number: MC15896 Page 65 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 [dB(uVolts)]	2	3	4	5	6
=====									
Neutral 1 - 30MHz									
1.28124	10.27 ave	10.4	0	20.67	56	46	-	-	-
			Margin [dB]:		-35.33	-25.33	-	-	-
1.36804	9.52 ave	10.4	0	19.92	56	46	-	-	-
			Margin [dB]:		-36.08	-26.08	-	-	-
1.41155	11.31 ave	10.4	0	21.71	56	46	-	-	-
			Margin [dB]:		-34.29	-24.29	-	-	-
1.47372	9.61 ave	10.4	0	20.01	56	46	-	-	-
			Margin [dB]:		-35.99	-25.99	-	-	-
1.55394	11.24 ave	10.4	0	21.64	56	46	-	-	-
			Margin [dB]:		-34.36	-24.36	-	-	-
1.67591	11.5 ave	10.4	0	21.9	56	46	-	-	-
			Margin [dB]:		-34.1	-24.1	-	-	-
1.71913	11.85 ave	10.4	0	22.25	56	46	-	-	-
			Margin [dB]:		-33.75	-23.75	-	-	-
1.83558	12.93 ave	10.4	0	23.33	56	46	-	-	-
			Margin [dB]:		-32.67	-22.67	-	-	-
1.92266	12.58 ave	10.4	0	22.98	56	46	-	-	-
			Margin [dB]:		-33.02	-23.02	-	-	-
1.96089	11.74 ave	10.4	0	22.14	56	46	-	-	-
			Margin [dB]:		-33.86	-23.86	-	-	-
2.06478	12.57 ave	10.4	0	22.97	56	46	-	-	-
			Margin [dB]:		-33.03	-23.03	-	-	-
2.09135	9.99 ave	10.4	0	20.39	56	46	-	-	-
			Margin [dB]:		-35.61	-25.61	-	-	-
2.19455	9.81 ave	10.4	0	20.21	56	46	-	-	-
			Margin [dB]:		-35.79	-25.79	-	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection
 ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
 LIMIT 2: FCC Part 15 Subpart C Avg
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

4.2 Test Conditions and Results – OCCUPIED BANDWIDTH

Test Description	Measurements were made in the laboratory environment. A Dipole (or equivalent) antenna tuned to the transmit frequency was attached to the input of a spectrum analyzer. The device was operated and the spectrum analyzer resolution bandwidth set per the appropriate standard.	
Basic Standard		FCC Part 15, Subpart C, 15.231
Occupied Bandwidth Limits		
0.25% of Fo		

Table 7 Occupied Bandwidth Configuration Settings

Power Interface Mode #	EUT Configurations Mode #	EUT Operation Mode #
1	1	1
1	1	2
Supplementary information: None		

Table 8 Occupied Bandwidth Spectrum Analyzer Settings

Resolution Bandwidth (MHz)	Occupied Bandwidth Requirements	
	dBc	%
0.01	-20	99
Supplementary information: None		

Table 9 Occupied Bandwidth Test Equipment

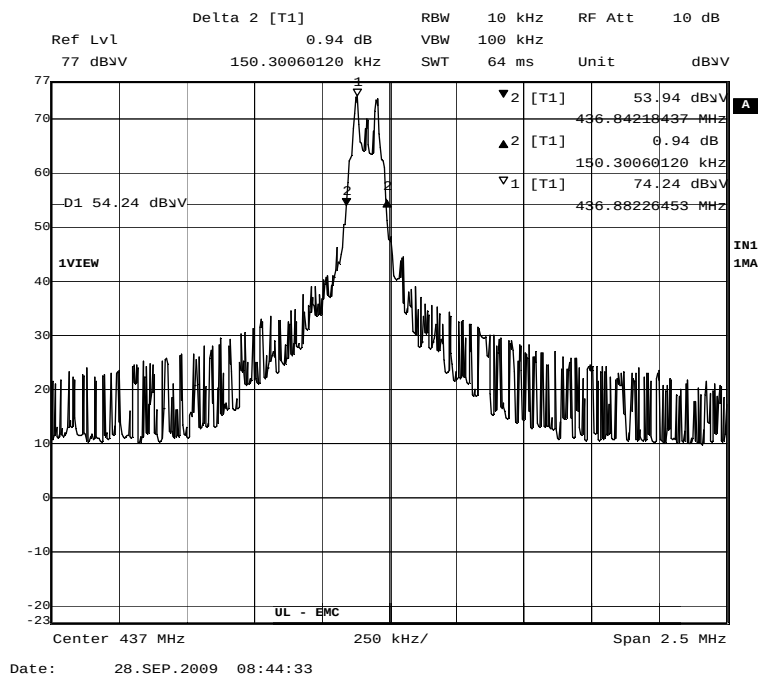
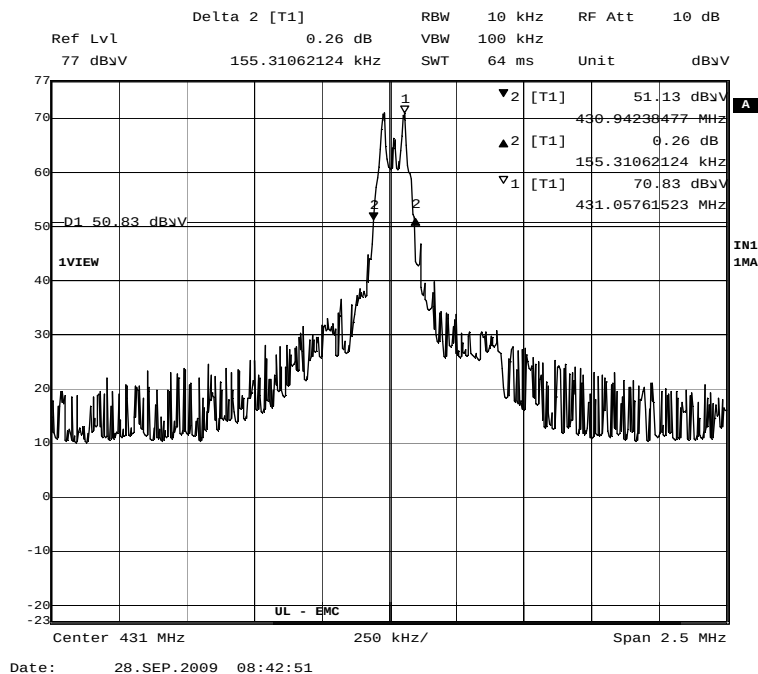
Test Equipment Used			
Description	Manufacturer	Model	Identifier
EMI Receiver	Rohde & Schwarz	ESIB26	ME5B-081
Dipole Antenna	EMCO	3121C	3359
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268
Measurement Software	UL	Version 9.3	44740
Multimeter	Fluke	83V	44459

Job Number: 1001149942 File Number: MC15896 Page 67 of 116
Model Number: RRD-W3BRL
Client Name: LUTRON ELECTRONICS INC
FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Figure 6 Test Setup for Occupied Bandwidth



Figure 7 Occupied Bandwidth Graph



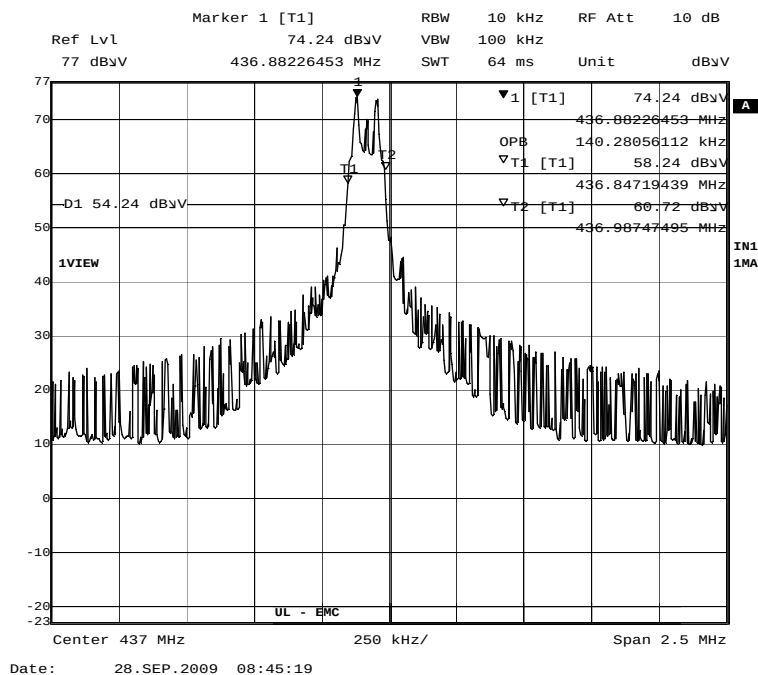
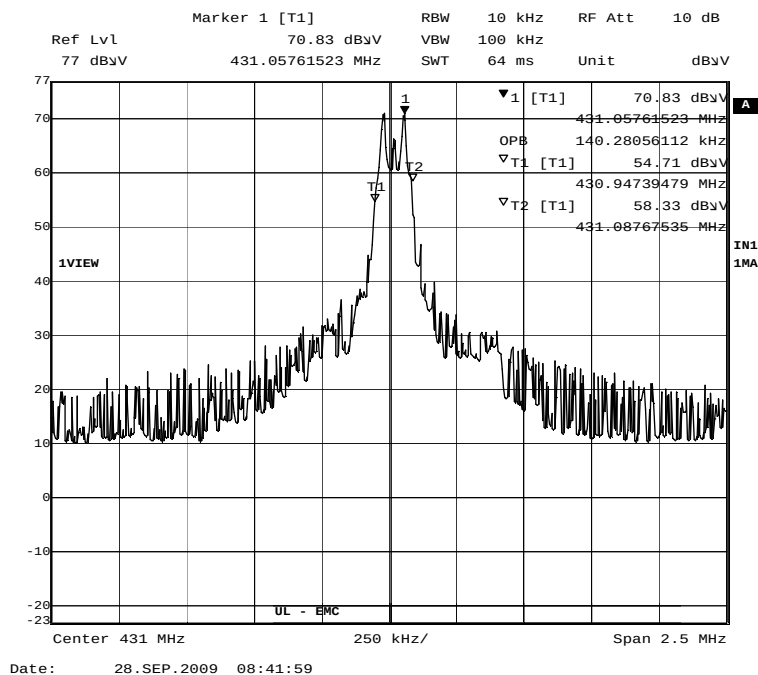


Table 10 Occupied Bandwidth Test Equipment

Frequency (MHz)	20dB OBW	99% OBW	Limit (MHz)	Result
431	155.3	140.3	1.08	Pass
437	150.3	140.3	1.09	Pass

Job Number: 1001149942 File Number: MC15896 Page 70 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

4.3 Test Conditions and Results – CEASE OPERATION

Test Description	Measurements were made in the laboratory environment. A Dipole (or equivalent) antenna tuned to the transmit frequency was attached to the input of a spectrum analyzer. The device was operated and the transmission time measured with the spectrum analyzer set to zero span at the fundamental frequency.		
Basic Standard		FCC Part 15, Subpart C 15.231	
Cease Operation Limits			
The transmissions shall stop within 5 seconds of either a button being released or if automatically controlled transmissions shall be stopped 5 seconds after transmissions begin.			

Table 11 Cease Operation Configuration Settings

Power Interface Mode #	EUT Configurations Mode #	EUT Operation Mode #
1	1	3
Supplementary information: None		

Table 12 Cease Operation Test Equipment

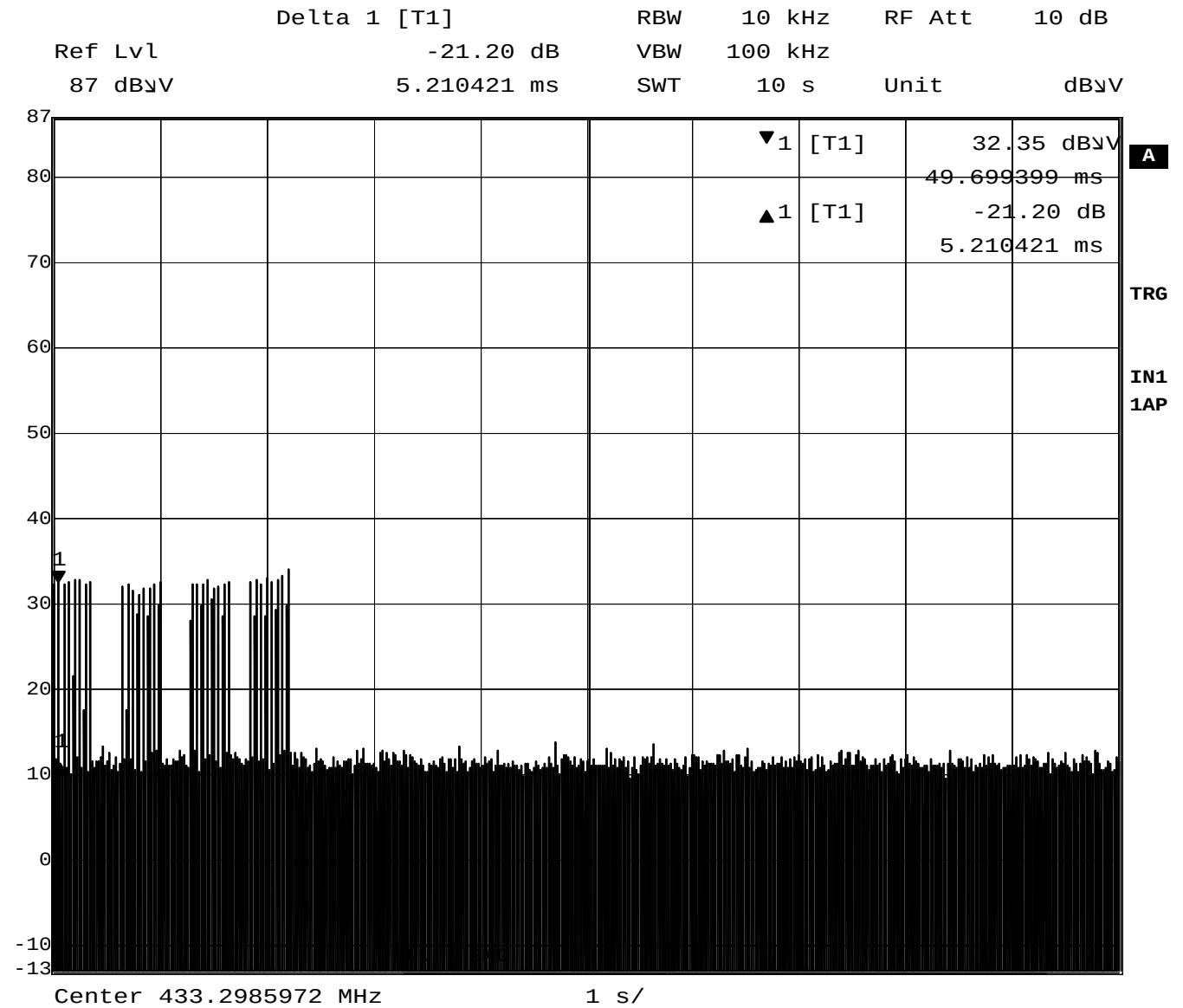
Test Equipment Used			
Description	Manufacturer	Model	Identifier
EMI Receiver	Rohde & Schwarz	ESIB26	ME5B-081
Dipole Antenna	EMCO	3121C	3359
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268
Measurement Software	UL	Version 9.3	44740
Multimeter	Fluke	83V	44459

Job Number: 1001149942 File Number: MC15896 Page 71 of 116
Model Number: RRD-W3BRL
Client Name: LUTRON ELECTRONICS INC
FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Figure 8 Test Setup for Cease Operation



Figure 9 Cease Operation Graph



Date: 28.SEP.2009 08:29:13

4.4 Test Conditions and Results – PULSE TRAIN

Test Description	Measurements were made in the laboratory environment. A Dipole (or equivalent) antenna tuned to the transmit frequency was attached to the input of a spectrum analyzer. The pulse train was measured with the spectrum analyzer set to zero span at the fundamental frequency.		
Basic Standard		FCC Part 15 Subpart A, 15.35	
Pulse Train Limits			
There are no limits for this test. This data is used to calculate the averaging correction factor that is applied to the measured peak radiated emissions results.			

Table 13 Pulse Train Configuration Settings

Power Interface Mode #	EUT Configurations Mode #	EUT Operation Mode #
1	1	3
Supplementary information: None		

Table 14 Pulse Train Calculation

Pulse Width (mS)	Total Transmission time or 100ms which ever is lesser	Average Correction Factor (dB) $20 \log \left(\frac{PulseWidth}{TotalTransmissionTime} \right)$
10	100	-20

Table 15 Pulse Train Test Equipment

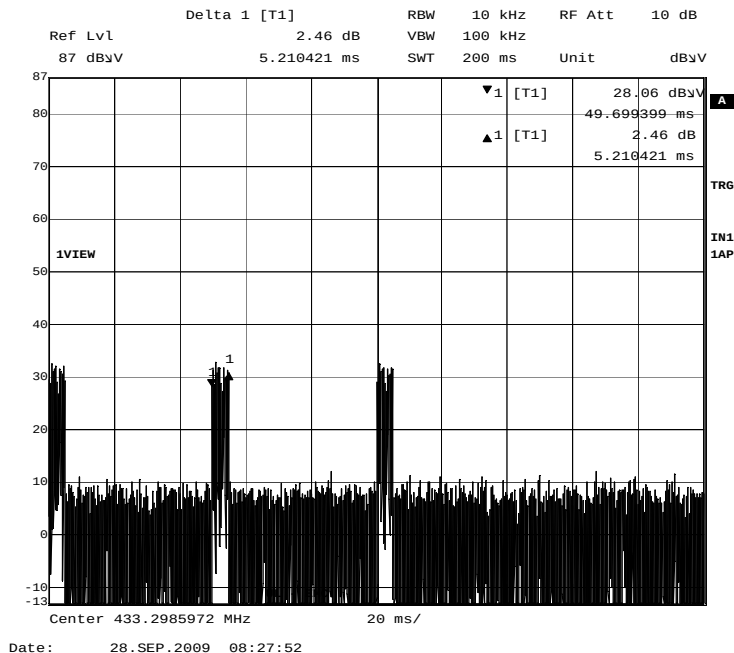
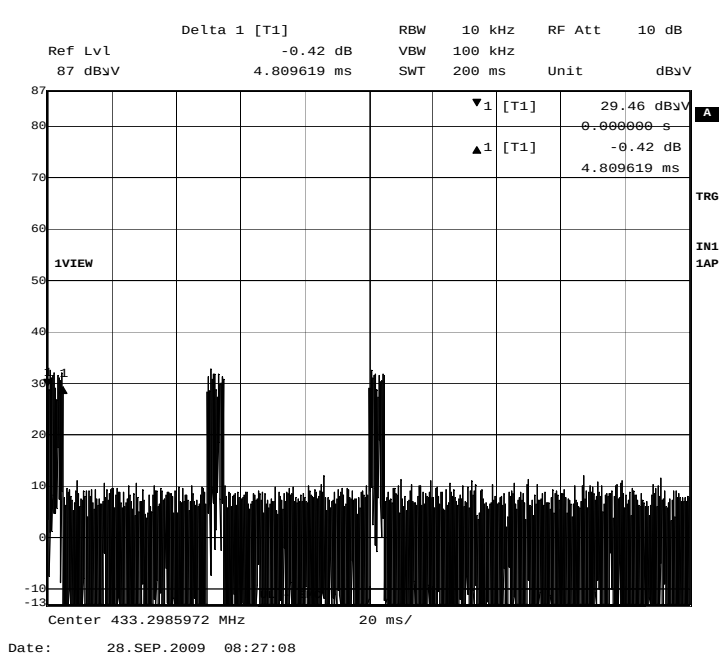
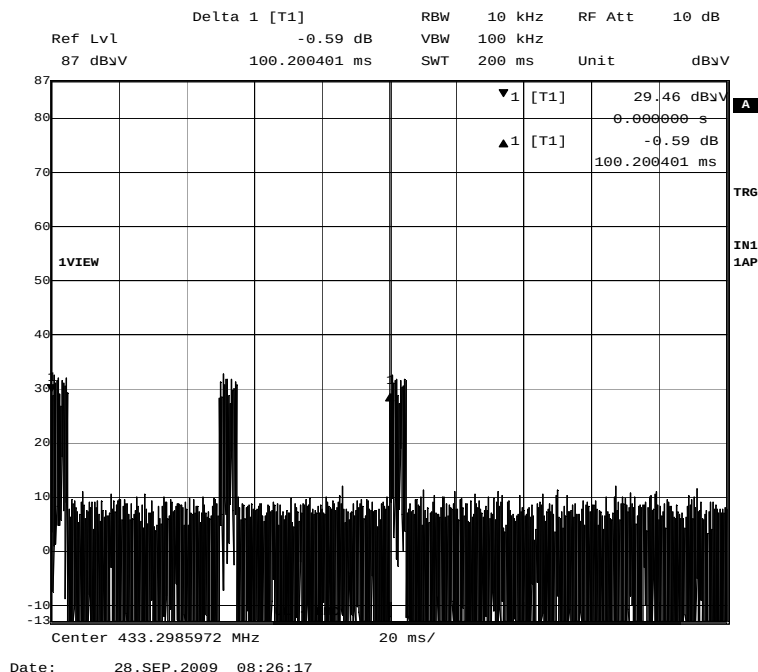
Test Equipment Used			
Description	Manufacturer	Model	Identifier
EMI Receiver	Rohde & Schwarz	ESIB26	ME5B-081
Dipole Antenna	EMCO	3121C	3359
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268
Measurement Software	UL	Version 9.3	44740
Multimeter	Fluke	83V	44459

Job Number: 1001149942 File Number: MC15896 Page 74 of 116
Model Number: RRD-W3BRL
Client Name: LUTRON ELECTRONICS INC
FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Figure 10 Test Setup for Pulse Train



Figure 11 Pulse Train Graphs



4.5 Test Conditions and Results – INTENTIONAL RADIATED EMISSIONS

Test Description	Measurements were made in a 10-meter semi-anechoic chamber that complies to CISPR 16/ANSI C63.4. Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 3-meter. The EUT was rotated 360° about its azimuth with the receive antenna located at various heights in both horizontal and vertical polarities. Final measurements (quasi-peak or average as noted) were then performed by rotating the EUT 360° and adjusting the receive antenna height from 1 to 4-meters. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable.		
Basic Standard		FCC Part 15, Subpart C, 15.209 and 15.231	
UL LPG		80-EM-S0029	
	Frequency range		Measurement Point
Fully configured sample scanned over the following frequency range		0.009MHz – 5GHz	(3 meter measurement distance)
Limits			
Frequency (MHz)	Limit (dBµV/m)		
	Quasi-Peak		Average
	General Emissions	Fundamental	Spurious
0.009 – 0.490	128.5 – 93.8	-	-
0.490 – 1.705	73.8 – 63	-	-
1.705 – 30	69.5	-	-
30 – 88	40	-	-
88 – 216	43.5	-	-
216-960	46	-	-
1000-10000	54	-	-
Fundamental - 431	-	80.7	-
Fundamental - 437	-	80.9	-
Spurious of 431	-	-	60.7
Spurious of 437	-	-	60.9
Supplementary information: Spurious limits are only applied against products of the transmitter. All other emissions must meet the general limits.			
For the range 9kHz to 30MHz, only one channel is tested since the transmitter does not operate in that range.			

Job Number: 1001149942 File Number: MC15896 Page 77 of 116
Model Number: RRD-W3BRL
Client Name: LUTRON ELECTRONICS INC
FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

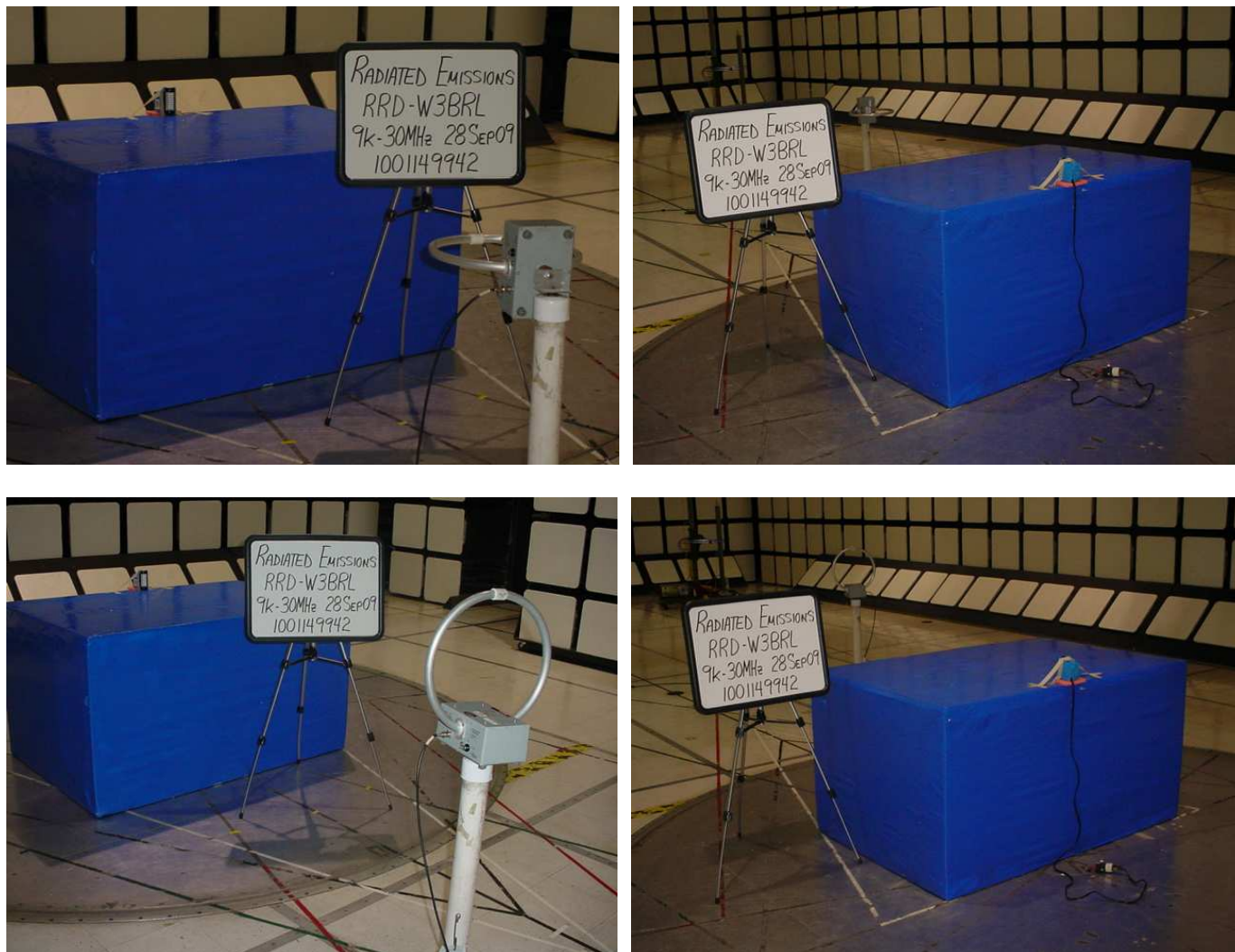
Table 16 Radiated Emissions EUT Configuration Settings

Power Interface Mode #	EUT Configurations Mode #	EUT Operation Mode #
1	1	1
1	1	2
Supplementary information: None		

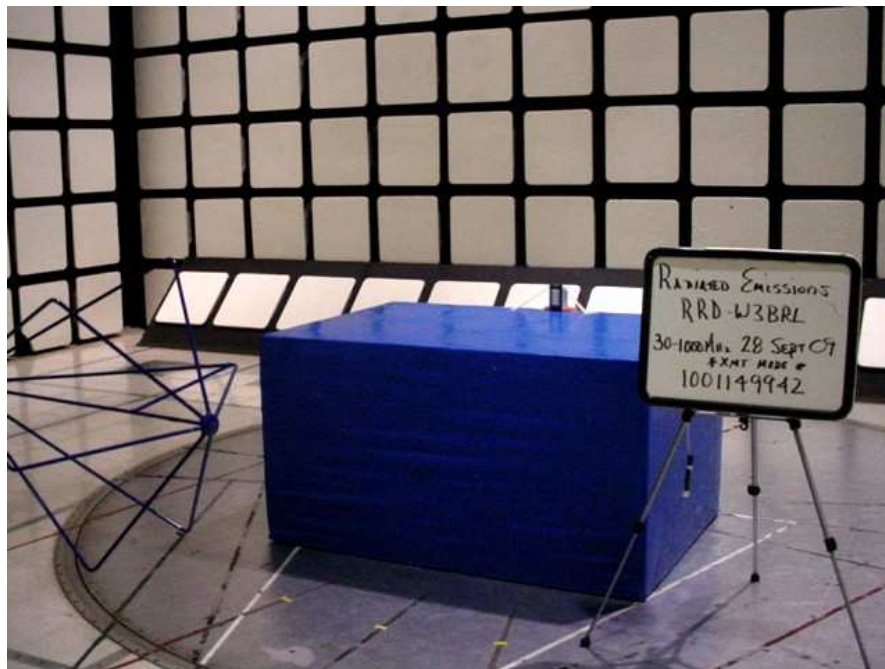
Table 17 Radiated Emissions Test Equipment

Test Equipment Used			
Description	Manufacturer	Model	Identifier
30-1000MHz			
EMI Receiver	Rohde & Schwarz	ESIB40	34968
Bicon Antenna	Schaffner	VBA6106A	43441
Log-P Antenna	Schaffner	UPA6109	44067
Switch Driver	HP	11713A	ME7A-627
System Controller	Sunol Sciences	SC99V	44396
Camera Controller	Panasonic	WV-CU254	44395
RF Switch Box	UL	1	44398
Measurement Software	UL	Version 9.3	44740
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268
Multimeter	Fluke	83V	43443
Above 1GHz (Band Optimized System)			
Spectrum Analyzer	Agilent	E7405A	19695
Horn Antenna (1-2 GHz)	ETS	3161-01	51442
Horn Antenna (2-4 GHz)	ETS	3161-02	48107
Horn Antenna (4-8 GHz)	ETS	3161-03	48106
Signal Path Controller	HP	11713A	50250
Gain Controller	HP	11713A	50251
RF Switch / Preamp Fixture	UL	BOMS1	50249
System Controller	UL	BOMS2	50252
Measurement Software	UL	Version 9.3	44740
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268
Multimeter	Fluke	83V	43443

Figure 12 Test setup for Radiated Emissions



Job Number: 1001149942 File Number: MC15896 Page 79 of 116
Model Number: RRD-W3BRL
Client Name: LUTRON ELECTRONICS INC
FCC ID: JPZ0063 IC Number: 2851A-JPZ0063



Job Number: 1001149942 File Number: MC15896 Page 80 of 116
Model Number: RRD-W3BRL
Client Name: LUTRON ELECTRONICS INC
FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

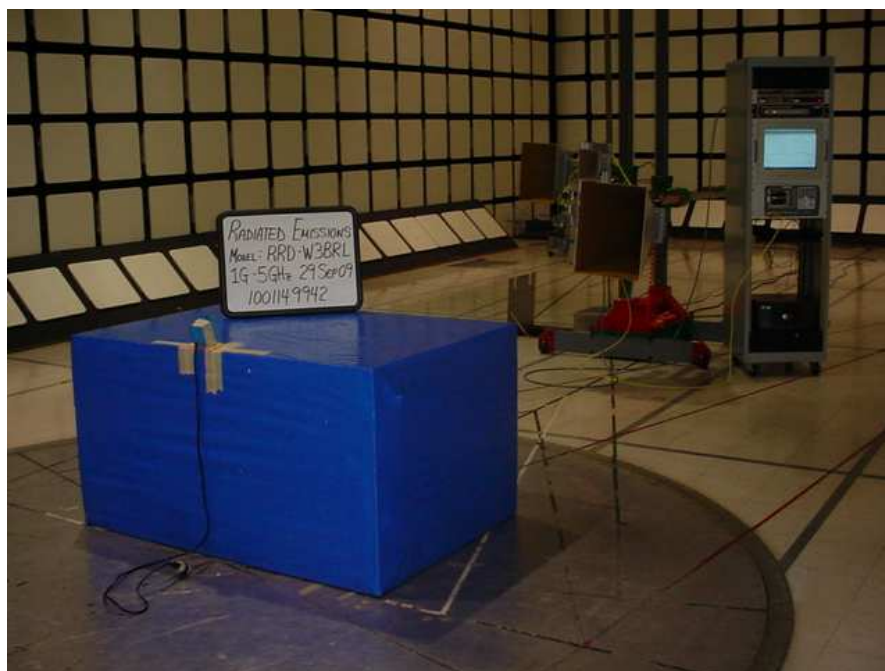
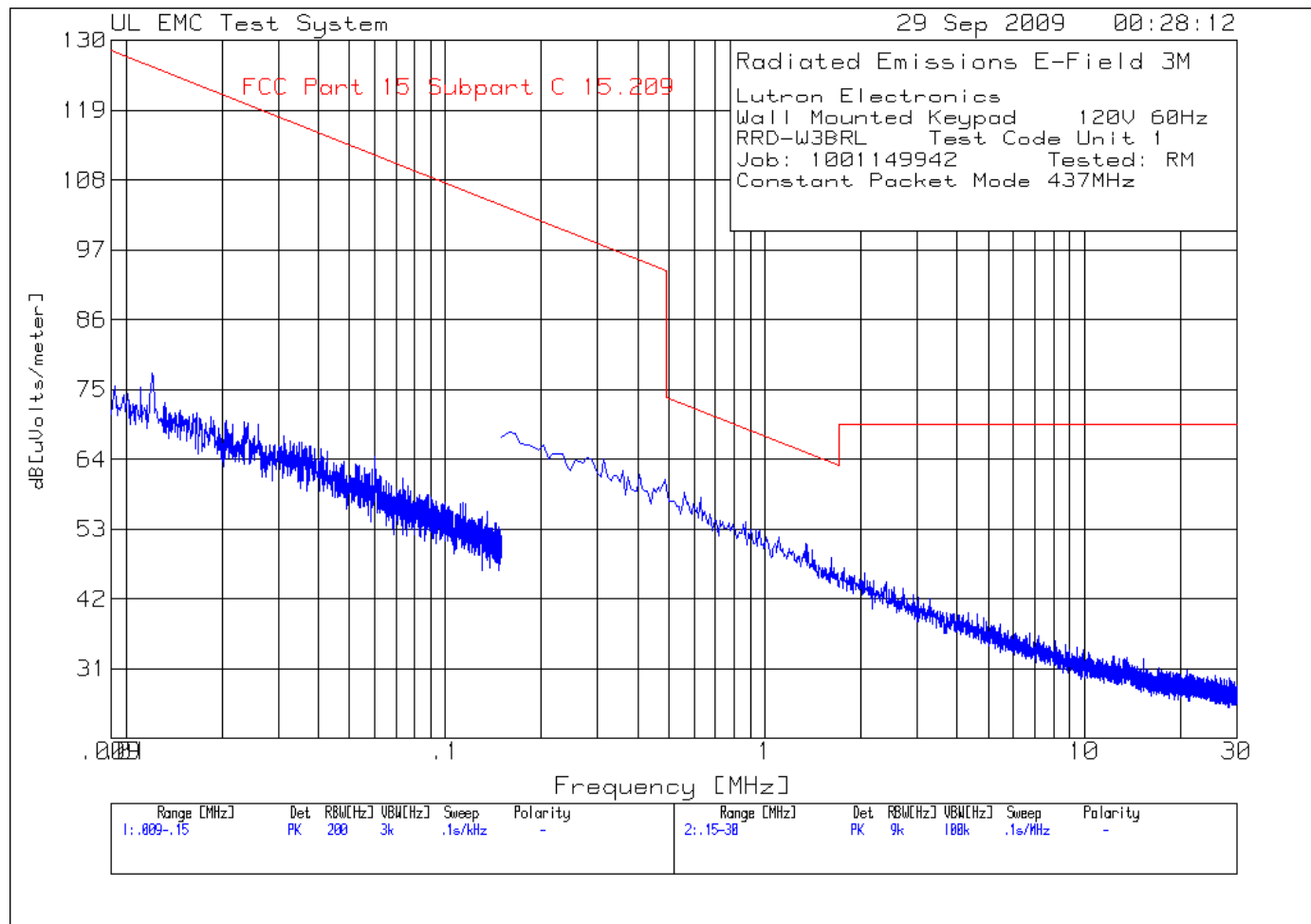


Figure 13 Radiated Emissions Graph (Horizontal)



Job Number: 1001149942 File Number: MC15896 Page 82 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 18 Radiated Emissions Data Points

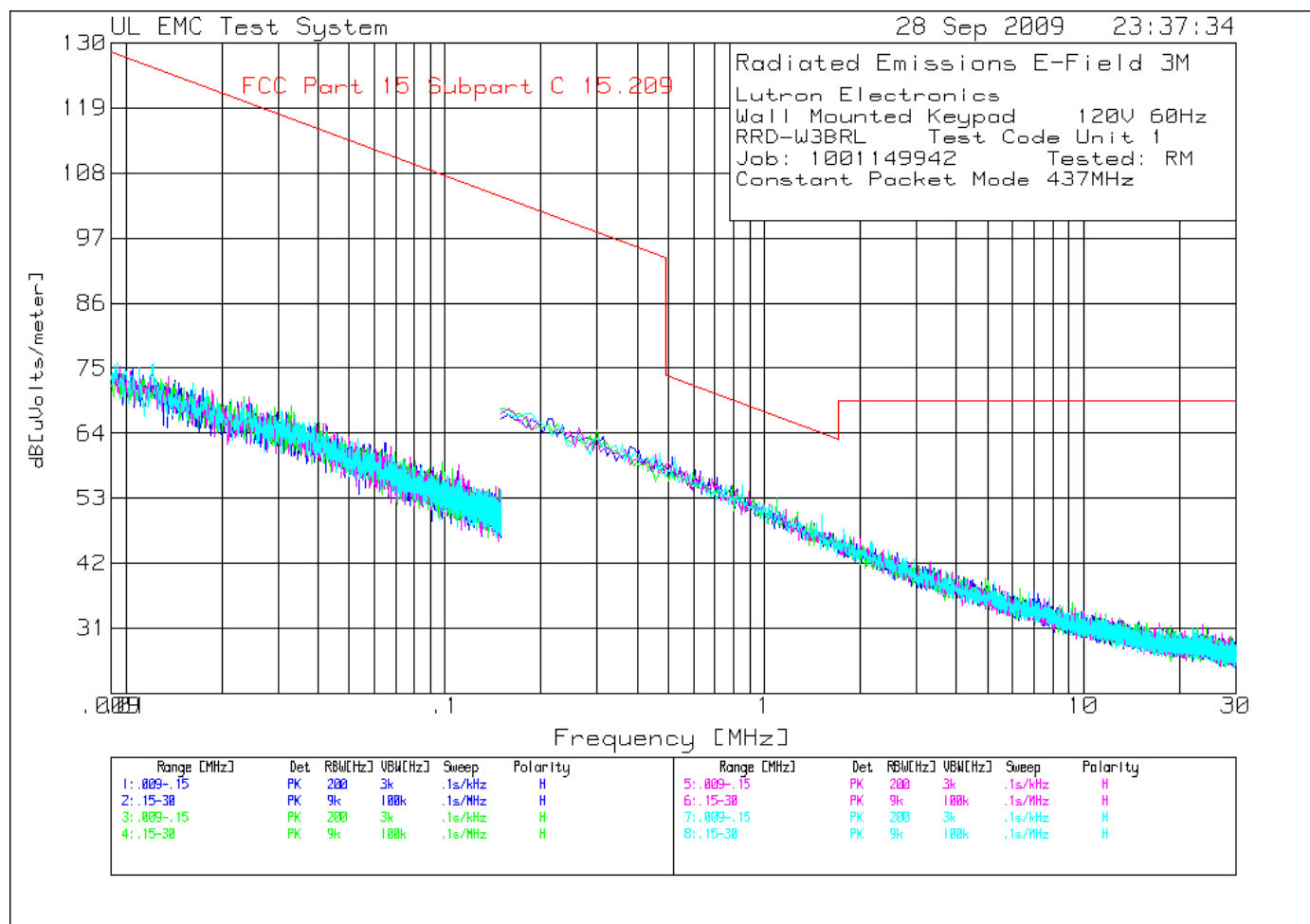
Lutron Electronics
 Wall Mounted Keypad 120V 60Hz
 RRD-W3BRL Test Code Unit 1
 Job: 1001149942 Tested: RM
 Constant Packet Mode 437MHz

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====											
Range 1 .009 - .15MHz -----											
1	.01205	47.45 pk	.2	30	77.65	126	-	-	-	-	-
	Azimuth:2			Margin [dB]		-48.35	-	-	-	-	-
2	.0235	44.75 pk	0	25.1	69.85	120.2	-	-	-	-	-
	Azimuth:152			Margin [dB]		-50.35	-	-	-	-	-
3	.07338	42.17 pk	0	18.9	61.07	110.3	-	-	-	-	-
	Azimuth:301			Margin [dB]		-49.23	-	-	-	-	-
Range 2 .15 - 30MHz -----											
4	.62772	41.06 pk	0	17	58.06	71.6	-	-	-	-	-
	Azimuth:32			Margin [dB]		-13.54	-	-	-	-	-
5	1.33683	33.98 pk	.1	16.7	50.78	65.1	-	-	-	-	-
	Azimuth:32			Margin [dB]		-14.32	-	-	-	-	-
6	15.25788	14.87 pk	.2	17.6	32.67	69.5	-	-	-	-	-
	Azimuth:328			Margin [dB]		-36.83	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209
 LIMIT 2: NONE
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection

Figure 14 Radiated Emissions Graph (Vertical)



Job Number: 1001149942 File Number: MC15896 Page 84 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 19 Radiated Emissions Data Points

Lutron Electronics
 Wall Mounted Keypad 120V 60Hz
 RRD-W3BRL Test Code Unit 1
 Job: 1001149942 Tested: RM
 Constant Packet Mode 437MHz

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====											
0°	.009 - .15MHz										
1	.01741	44.59 pk	0	27.1	71.69	122.8	-	-	-	-	-
	Azimuth:6			Margin [dB]		-51.11	-	-	-	-	-
2	.06497	42.76 pk	0	19.5	62.26	111.3	-	-	-	-	-
	Azimuth:6			Margin [dB]		-49.04	-	-	-	-	-

0°	.15 - 30MHz										
3	.60533	40.65 pk	0	17.1	57.75	72	-	-	-	-	-
	Azimuth:31			Margin [dB]		-14.25	-	-	-	-	-
4	24.46891	12.68 pk	.3	17.8	30.78	69.5	-	-	-	-	-
	Azimuth:207			Margin [dB]		-38.72	-	-	-	-	-

45°	.009 - .15MHz										
5	.03304	45.03 pk	0	23.5	68.53	117.2	-	-	-	-	-
	Azimuth:359			Margin [dB]		-48.67	-	-	-	-	-
6	.0999	39.11 pk	0	18.2	57.31	107.6	-	-	-	-	-
	Azimuth:354			Margin [dB]		-50.29	-	-	-	-	-

45°	.15 - 30MHz										
7	1.09797	36.34 pk	0	16.7	53.04	66.8	-	-	-	-	-
	Azimuth:329			Margin [dB]		-13.76	-	-	-	-	-
8	6.33796	20.28 pk	.2	17.2	37.68	69.5	-	-	-	-	-
	Azimuth:189			Margin [dB]		-31.82	-	-	-	-	-

90°	.009 - .15MHz										
9	.02423	45.06 pk	0	25	70.06	119.9	-	-	-	-	-
	Azimuth:152			Margin [dB]		-49.84	-	-	-	-	-
10	.11014	40.5 pk	0	18.1	58.6	106.8	-	-	-	-	-
	Azimuth:132			Margin [dB]		-48.2	-	-	-	-	-

90°	.15 - 30MHz										
11	.89644	37.25 pk	0	16.9	54.15	68.6	-	-	-	-	-
	Azimuth:245			Margin [dB]		-14.45	-	-	-	-	-
12	17.2434	14.03 pk	.2	17.6	31.83	69.5	-	-	-	-	-
	Azimuth:329			Margin [dB]		-37.67	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209

LIMIT 2: NONE

LIMIT 3: NONE

LIMIT 4: NONE

LIMIT 5: NONE

LIMIT 6: NONE

pk - Peak detector

qp - Quasi-Peak detector

av - Average detector

avlg - denotes average log detection

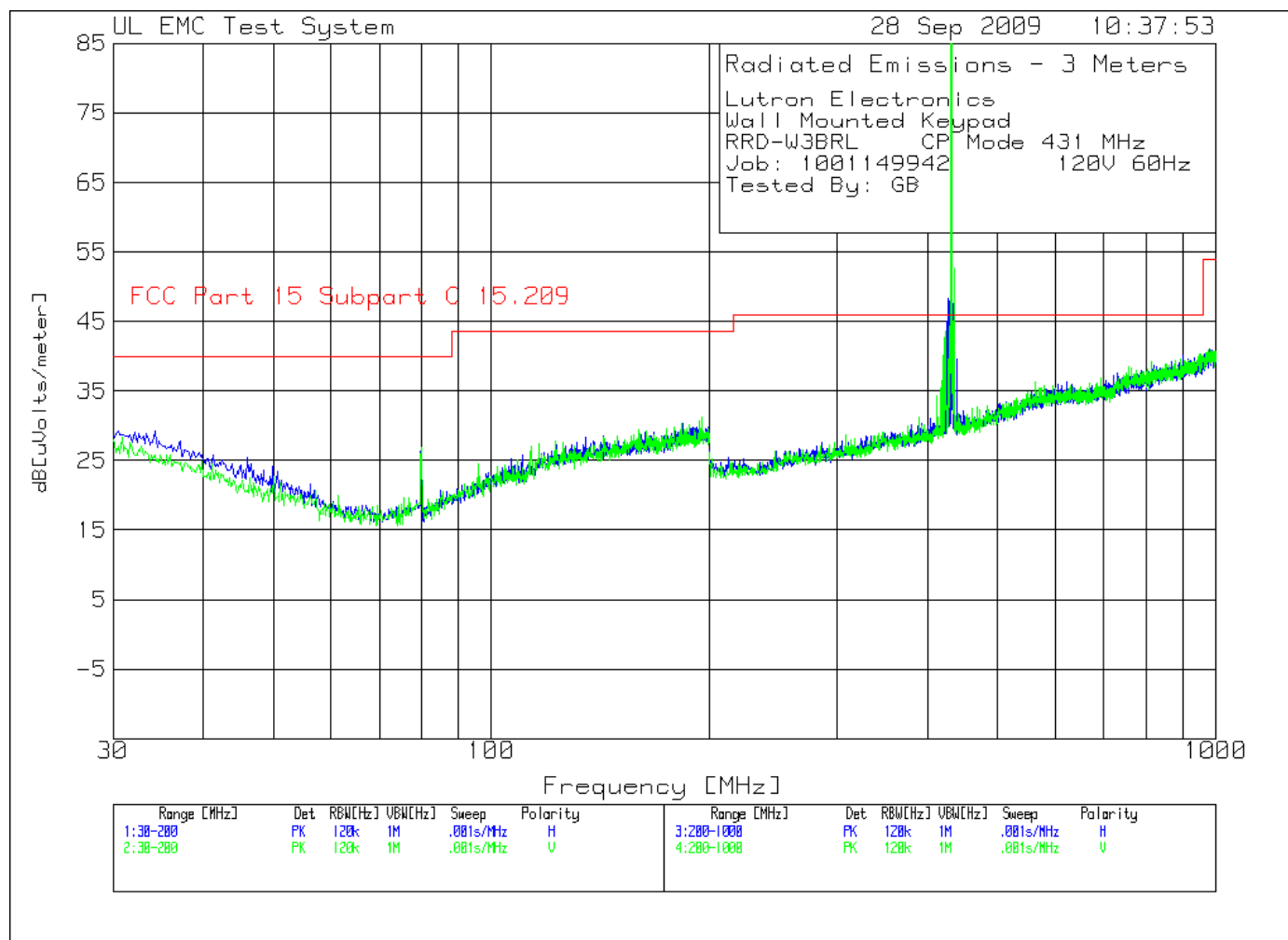
Job Number: 1001149942 File Number: MC15896 Page 85 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 dB[uVolts/meter]	2	3	4	5	6
=====										
135° .009 - .15MHz -----										
13	.01216	45.68 pk	.1	29.9	75.68	125.9	-	-	-	-
	Azimuth:358			Margin [dB]		-50.22	-	-	-	-
14	.05341	42.71 pk	0	20.3	63.01	113	-	-	-	-
	Azimuth:302			Margin [dB]		-49.99	-	-	-	-
135° .15 - 30MHz -----										
15	1.50852	33.51 pk	.1	16.7	50.31	64	-	-	-	-
	Azimuth:328			Margin [dB]		-13.69	-	-	-	-
16	9.16695	16.94 pk	.2	17.2	34.34	69.5	-	-	-	-
	Azimuth:235			Margin [dB]		-35.16	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209
 LIMIT 2: NONE
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection

Figure 15 Radiated Emissions Graph



Job Number: 1001149942 File Number: MC15896 Page 87 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 20 Radiated Emissions Data Points

Lutron Electronics
 Wall Mounted Keypad
 RRD-W3BRL CP Mode 431 MHz
 Job: 1001149942 120V 60Hz
 Tested By: GB

Test No.	Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====											
Horizontal 200 - 1000MHz -----											
1	425.7129	27.16 pk	1.3	16.6	45.06	46	-	-	-	-	-
	Azimuth:206	Height:200	Horz	Margin [dB]		- .94	-	-	-	-	-
2	427.3137	30.41 pk	1.3	16.6	48.31	46	-	-	-	-	-
	Azimuth:9	Height:200	Horz	Margin [dB]		2.31	-	-	-	-	-
3	428.1141	29.9 pk	1.3	16.7	47.9	46	-	-	-	-	-
	Azimuth:343	Height:300	Horz	Margin [dB]		1.9	-	-	-	-	-
4	430.9155	76.13 pk	1.3	16.7	94.13	46	-	-	-	-	-
	Azimuth:16	Height:200	Horz	Margin [dB]		48.13	-	-	-	-	-
5	433.3167	29.47 pk	1.3	16.8	47.57	46	-	-	-	-	-
	Azimuth:2	Height:300	Horz	Margin [dB]		1.57	-	-	-	-	-
6	435.3177	30.58 pk	1.3	16.9	48.78	46	-	-	-	-	-
	Azimuth:16	Height:200	Horz	Margin [dB]		2.78	-	-	-	-	-
Vertical 200 - 1000MHz -----											
7	422.9115	25.89 pk	1.3	16.4	43.59	46	-	-	-	-	-
	Azimuth:12	Height:100	Vert	Margin [dB]		-2.41	-	-	-	-	-
8	427.7139	26.56 pk	1.3	16.4	44.26	46	-	-	-	-	-
	Azimuth:147	Height:300	Vert	Margin [dB]		-1.74	-	-	-	-	-
9	430.9155	79.6 pk	1.3	16.4	97.3	46	-	-	-	-	-
	Azimuth:271	Height:100	Vert	Margin [dB]		51.3	-	-	-	-	-
10	432.9165	27.28 pk	1.3	16.5	45.08	46	-	-	-	-	-
	Azimuth:230	Height:400	Vert	Margin [dB]		- .92	-	-	-	-	-
11	434.9175	34.87 pk	1.3	16.5	52.67	46	-	-	-	-	-
	Azimuth:147	Height:100	Vert	Margin [dB]		6.67	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209
 LIMIT 2: NONE
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection

Job Number: 1001149942 File Number: MC15896 Page 88 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Lutron Electronics
 Wall Mounted Keypad
 RRD-W3BRL CP Mode 431 MHz
 Job: 1001149942 120V 60Hz
 Tested By: GB

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====										
Horizontal 200 - 1000MHz										
431	67.52 pk	1.3	16.7	65.52*	-	80.7	-	-	-	-
Azimuth: 261	Height:364	Horz	Margin [dB]:	-	-	-15.18	-	-	-	-
425.7	7.78 qp	1.3	16.6	25.68	46	-	-	-	-	-
Azimuth: 274	Height:293	Horz	Margin [dB]:	-20.32	-	-	-	-	-	-
427.3	9.39 qp	1.3	16.6	27.29	46	-	-	-	-	-
Azimuth: 232	Height:217	Horz	Margin [dB]:	-18.71	-	-	-	-	-	-
428.1	10.54 qp	1.3	16.7	28.54	46	-	-	-	-	-
Azimuth: 242	Height:241	Horz	Margin [dB]:	-17.46	-	-	-	-	-	-
433.3	17.46 qp	1.3	16.8	35.56	46	-	-	-	-	-
Azimuth: 237	Height:215	Horz	Margin [dB]:	-10.44	-	-	-	-	-	-
435.3	10.92 qp	1.3	16.9	29.12	46	-	-	-	-	-
Azimuth: 237	Height:210	Horz	Margin [dB]:	-16.88	-	-	-	-	-	-

*Duty Cycle correction factor of 20 applied (see section 4.4 of report for calculation)

LIMIT 1: FCC Part 15 Subpart C 15.209
 LIMIT 2: FCC Part 15 Subpart C 15.231
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

pk - Peak detector (Maximized)
 qp - Quasi-Peak detector
 av - Average detector
 avlg - Average log detector
 ave - Average detector

Job Number: 1001149942 File Number: MC15896 Page 89 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

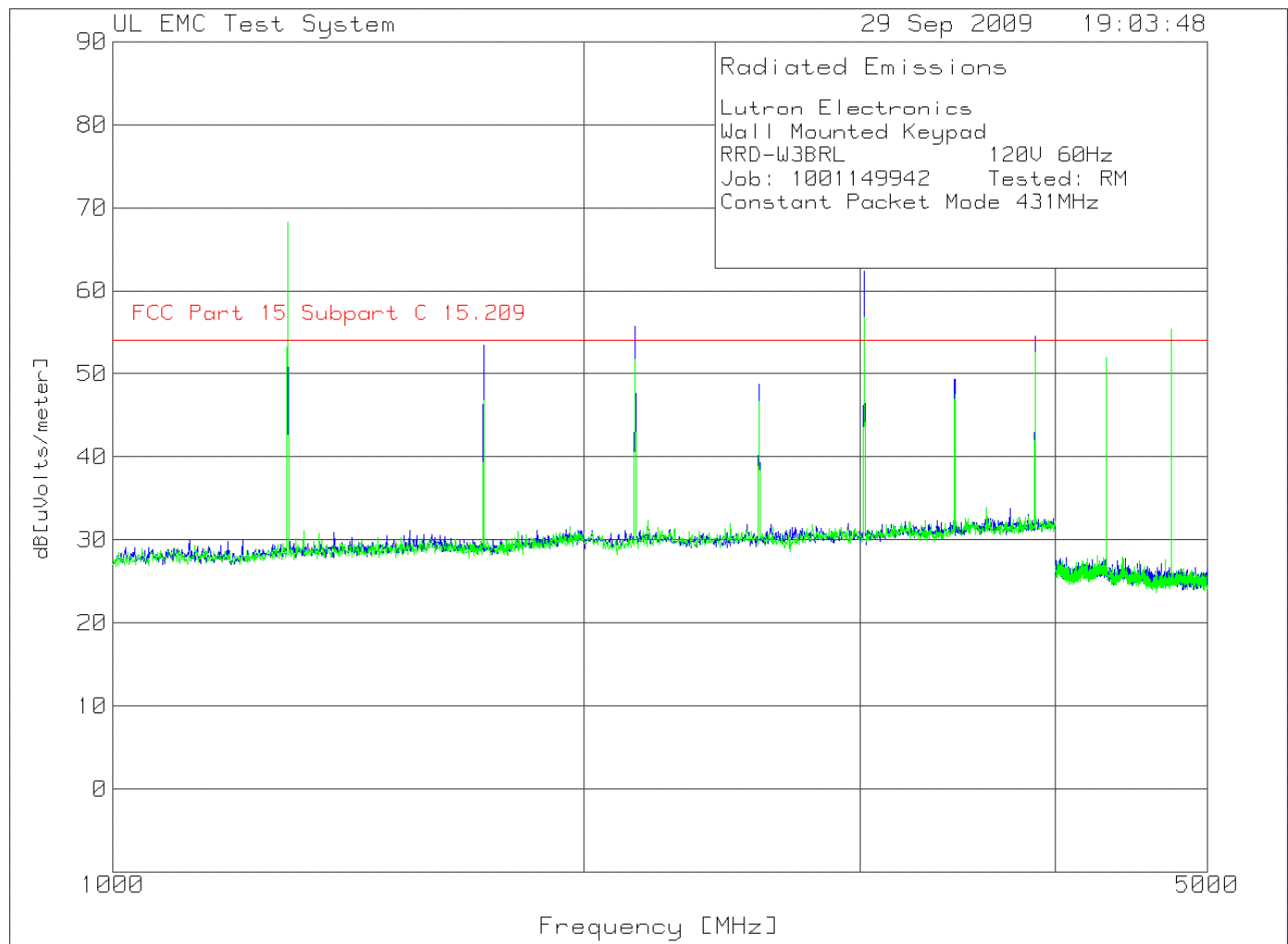
Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 dB[uVolts/meter]	2	3	4	5	6
=====									
Vertical 200 - 1000MHz									
431	79.24 pk	1.3	16.4	76.94*	-	80.7	-	-	-
Azimuth: 12	Height:121	Vert		Margin [dB]:	-	-3.76	-	-	-
422.9	9.15 qp	1.3	16.4	26.85	46	-	-	-	-
Azimuth: 115	Height:121	Vert		Margin [dB]:	-19.15	-	-	-	-
427.7	16.32 qp	1.3	16.4	34.02	46	-	-	-	-
Azimuth: 146	Height:133	Vert		Margin [dB]:	-11.98	-	-	-	-
432.9	25.61 qp	1.3	16.5	43.41	46	-	-	-	-
Azimuth: 206	Height:131	Vert		Margin [dB]:	-2.59	-	-	-	-
434.9	17.93 qp	1.3	16.5	35.73	46	-	-	-	-
Azimuth: 138	Height:127	Vert		Margin [dB]:	-10.27	-	-	-	-

***Duty Cycle correction factor of 20 applied (see section 4.4 of report for calculation)**

LIMIT 1: FCC Part 15 Subpart C 15.209
 LIMIT 2: FCC Part 15 Subpart C 15.231
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

pk - Peak detector (Maximized)
 qp - Quasi-Peak detector
 av - Average detector
 avlg - Average log detector
 ave - Average detector

Figure 16 Radiated Emissions Graph



Job Number: 1001149942 File Number: MC15896 Page 91 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 21 Radiated Emissions Data Points

Lutron Electronics
 Wall Mounted Keypad
 RRD-W3BRL 120V 60Hz
 Job: 1001149942 Tested: RM
 Constant Packet Mode 431MHz

Test No.	Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====											
Horizontal 1000 - 2000MHz -----											
1	1293.383	81.72 pk	-45.59	20.5	56.63	54	-	-	-	-	-
		Height:149	Horz	Margin [dB]		2.63	-	-	-	-	-
2	1725.343	77.7 pk	-45.07	20.8	53.43	54	-	-	-	-	-
		Height:100	Horz	Margin [dB]		-.57	-	-	-	-	-
Horizontal 2000 - 4000MHz -----											
3	2154.806	78.22 pk	-43.92	21.4	55.7	54	-	-	-	-	-
		Height:150	Horz	Margin [dB]		1.7	-	-	-	-	-
4	2586.767	71.03 pk	-43.55	21.3	48.78	54	-	-	-	-	-
		Height:150	Horz	Margin [dB]		-5.22	-	-	-	-	-
5	3018.727	83.78 pk	-42.88	21.5	62.4	54	-	-	-	-	-
		Height:150	Horz	Margin [dB]		8.4	-	-	-	-	-
6	3448.19	70.11 pk	-42.83	22.1	49.38	54	-	-	-	-	-
		Height:150	Horz	Margin [dB]		-4.62	-	-	-	-	-
7	3880.15	74.77 pk	-42.9	22.6	54.47	54	-	-	-	-	-
		Height:150	Horz	Margin [dB]		.47	-	-	-	-	-
Horizontal 4000 - 5000MHz -----											
8	4310.316	74.57 pk	-53.31	27.7	48.96	54	-	-	-	-	-
		Height:149	Horz	Margin [dB]		-5.04	-	-	-	-	-
9	4741.265	81.97 pk	-54.49	27.2	54.68	54	-	-	-	-	-
		Height:149	Horz	Margin [dB]		.68	-	-	-	-	-
Vertical 1000 - 2000MHz -----											
10	1293.383	93.32 pk	-45.59	20.5	68.23	54	-	-	-	-	-
		Height:100	Vert	Margin [dB]		14.23	-	-	-	-	-
11	1725.343	71.11 pk	-45.07	20.8	46.84	54	-	-	-	-	-
		Height:150	Vert	Margin [dB]		-7.16	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209
 LIMIT 2: NONE
 LIMIT 3: NONE

pk - Peak detector (Maximized)
 qp - Quasi-Peak detector
 av - Average detector
 avlg - Average log detector
 ave - Average detector

Job Number: 1001149942 File Number: MC15896 Page 92 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====											
Vertical 2000 - 4000MHz -----											
12	2154.806	74.7 pk	-43.92	21	51.78	54	-	-	-	-	-
		Height:199 Vert		Margin [dB]		-2.22	-	-	-	-	-
13	2586.767	68.73 pk	-43.55	21.5	46.68	54	-	-	-	-	-
		Height:150 Vert		Margin [dB]		-7.32	-	-	-	-	-
14	3018.727	78.05 pk	-42.88	21.7	56.87	54	-	-	-	-	-
		Height:199 Vert		Margin [dB]		2.87	-	-	-	-	-
15	3450.687	68.18 pk	-42.81	22.2	47.57	54	-	-	-	-	-
		Height:199 Vert		Margin [dB]		-6.43	-	-	-	-	-
16	3880.15	72.93 pk	-42.9	22.6	52.63	54	-	-	-	-	-
		Height:199 Vert		Margin [dB]		-1.37	-	-	-	-	-
Vertical 4000 - 5000MHz -----											
17	4309.484	77.45 pk	-53.3	27.8	51.95	54	-	-	-	-	-
		Height:200 Vert		Margin [dB]		-2.05	-	-	-	-	-
18	4741.265	82.77 pk	-54.49	27.1	55.38	54	-	-	-	-	-
		Height:100 Vert		Margin [dB]		1.38	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209

LIMIT 2: NONE

LIMIT 3: NONE

pk - Peak detector (Maximized)

qp - Quasi-Peak detector

av - Average detector

avlg - Average log detector

ave - Average detector

Job Number: 1001149942 File Number: MC15896 Page 93 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Lutron Electronics
 Wall Mounted Keypad
 RRD-W3BRL 120V 60Hz
 Job: 1001149942 Tested: RM
 Constant Packet Mode 431MHz

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====										
Horizontal 1000 - 2000MHz										
1293.1675	82.84 PK	-45.6	20.5	57.74	-	60.7	-	-	-	-
Azimuth: 38	Height:289	Horz	Margin [dB]:	-	-2.96	-	-	-	-	-
1724.21	77.64 PK	-45.12	20.8	53.32	-	60.7	-	-	-	-
Azimuth: 126	Height:246	Horz	Margin [dB]:	-	-7.38	-	-	-	-	-
Horizontal 2000 - 4000MHz										
2154.89	78.67 PK	-43.92	21.4	56.15	-	60.7	-	-	-	-
Azimuth: 121	Height:112	Horz	Margin [dB]:	-	-4.55	-	-	-	-	-
2585.87	72.34 PK	-43.55	21.3	50.09	-	60.7	-	-	-	-
Azimuth: 72	Height:249	Horz	Margin [dB]:	-	-10.61	-	-	-	-	-
3017.38	83.97 PK	-42.92	21.5	42.55*	-	60.7	-	-	-	-
Azimuth: 115	Height:385	Horz	Margin [dB]:	-	-18.15	-	-	-	-	-
3448.433	70.35 PK	-42.82	22.1	49.63	-	60.7	-	-	-	-
Azimuth: 225	Height:378	Horz	Margin [dB]:	-	-11.07	-	-	-	-	-
3878.805	76.55 PK	-42.92	22.6	36.23*	54	-	-	-	-	-
Azimuth: 152	Height:189	Horz	Margin [dB]:	-17.77	-	-	-	-	-	-
Horizontal 4000 - 5000MHz										
4310.54	74.94 PK	-53.31	27.7	49.33	54	-	-	-	-	-
Azimuth: 92	Height:153	Horz	Margin [dB]:	-4.67	-	-	-	-	-	-
4741.603	83.36 PK	-54.48	27.2	36.08*	54	-	-	-	-	-
Azimuth: 213	Height:128	Horz	Margin [dB]:	-17.92	-	-	-	-	-	-

*Duty Cycle correction factor of 20 applied (see section 4.4 of report for calculation)

LIMIT 1: FCC Part 15 Subpart C 15.209
 LIMIT 2: FCC Part 15 Subpart C 15.231
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

PK - Peak detector (Maximized)
 QP - Quasi-Peak detector
 av - Linear average detector
 avlg - Average log detector
 AV - Average detector
 CAV - CISPR Average detector
 RMS - RMS detection
 CRMS - CISPR RMS detection

Job Number: 1001149942 File Number: MC15896 Page 94 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 dB[uVolts/meter]	2	3	4	5	6
=====									
Vertical 1000 - 2000MHz									
1292.935	94.75 PK	-45.6	20.5	49.65* -	60.7	-	-	-	-
Azimuth: 147	Height:129	Vert	Margin [dB]:	-	-11.05	-	-	-	-
1724.225	71.89 PK	-45.12	20.8	47.57 -	60.7	-	-	-	-
Azimuth: 269	Height:145	Vert	Margin [dB]:	-	-13.13	-	-	-	-
Vertical 2000 - 4000MHz									
2155.2775	75.5 PK	-43.91	21	52.59 -	60.7	-	-	-	-
Azimuth: 251	Height:147	Vert	Margin [dB]:	-	-8.11	-	-	-	-
2585.868	70.48 PK	-43.55	21.5	48.43 -	60.7	-	-	-	-
Azimuth: 178	Height:128	Vert	Margin [dB]:	-	-12.27	-	-	-	-
3017.38	79.8 PK	-42.92	21.7	58.58 -	60.7	-	-	-	-
Azimuth: 221	Height:146	Vert	Margin [dB]:	-	-2.12	-	-	-	-
3448.44	73.45 PK	-42.82	22.2	52.83 -	60.7	-	-	-	-
Azimuth: 220	Height:185	Vert	Margin [dB]:	-	-7.87	-	-	-	-
3878.798	75.78 PK	-42.92	22.6	35.46* 54	-	-	-	-	-
Azimuth: 287	Height:376	Vert	Margin [dB]:	-18.54	-	-	-	-	-
Vertical 4000 - 5000MHz									
4310.535	78.43 PK	-53.31	27.8	52.92 54	-	-	-	-	-
Azimuth: 305	Height:285	Vert	Margin [dB]:	-1.08	-	-	-	-	-
4741.595	82.8 PK	-54.48	27.1	35.42* 54	-	-	-	-	-
Azimuth: 172	Height:104	Vert	Margin [dB]:	-18.58	-	-	-	-	-

***Duty Cycle correction factor of 20 applied (see section 4.4 of report for calculation)**

LIMIT 1: FCC Part 15 Subpart C 15.209
 LIMIT 2: FCC Part 15 Subpart C 15.231
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

PK - Peak detector (Maximized)
 QP - Quasi-Peak detector
 av - Linear average detector
 avlg - Average log detector
 AV - Average detector
 CAV - CISPR Average detector
 RMS - RMS detection
 CRMS - CISPR RMS detection

IC Number: 2851A-JPZ0063

Job Number: 1001149942 File Number: MC15896 Page 96 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 22 Radiated Emissions Data Points

Lutron Electronics
 Wall Mounted Keypad
 RRD-W3BRL CP Mode 437 MHz
 Job: 1001149942 120V 60Hz
 Tested By: GB

Test No.	Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====											
Horizontal 30 - 200MHz -----											
1	173.7938	24.97 pk	.8	15	40.77	43.5	-	-	-	-	-
	Azimuth:180	Height:99	Horz	Margin [dB]		-2.73	-	-	-	-	-
Horizontal 200 - 1000MHz -----											
2	434.9175	31.33 pk	1.3	16.9	49.53	46	-	-	-	-	-
	Azimuth:350	Height:200	Horz	Margin [dB]		3.53	-	-	-	-	-
3	436.9185	76.63 pk	1.3	17	94.93	46	-	-	-	-	-
	Azimuth:350	Height:200	Horz	Margin [dB]		48.93	-	-	-	-	-
4	438.5193	36.74 pk	1.3	17	55.04	46	-	-	-	-	-
	Azimuth:350	Height:200	Horz	Margin [dB]		9.04	-	-	-	-	-
5	439.3197	34.95 pk	1.3	17.1	53.35	46	-	-	-	-	-
	Azimuth:153	Height:200	Horz	Margin [dB]		7.35	-	-	-	-	-
6	440.1201	28.84 pk	1.3	17.1	47.24	46	-	-	-	-	-
	Azimuth:70	Height:200	Horz	Margin [dB]		1.24	-	-	-	-	-
7	442.9215	23.93 pk	1.3	17.2	42.43	46	-	-	-	-	-
	Azimuth:112	Height:200	Horz	Margin [dB]		-3.57	-	-	-	-	-
Vertical 200 - 1000MHz -----											
8	431.7159	28.15 pk	1.3	16.4	45.85	46	-	-	-	-	-
	Azimuth:157	Height:100	Vert	Margin [dB]		-.15	-	-	-	-	-
9	432.9165	32.52 pk	1.3	16.5	50.32	46	-	-	-	-	-
	Azimuth:157	Height:200	Vert	Margin [dB]		4.32	-	-	-	-	-
10	434.1171	24.76 pk	1.3	16.5	42.56	46	-	-	-	-	-
	Azimuth:359	Height:300	Vert	Margin [dB]		-3.44	-	-	-	-	-
11	435.3177	25.75 pk	1.3	16.5	43.55	46	-	-	-	-	-
	Azimuth:75	Height:300	Vert	Margin [dB]		-2.45	-	-	-	-	-
12	436.9185	70.64 pk	1.3	16.5	88.44	46	-	-	-	-	-
	Azimuth:116	Height:300	Vert	Margin [dB]		42.44	-	-	-	-	-
13	438.1191	34.48 pk	1.3	16.6	52.38	46	-	-	-	-	-
	Azimuth:116	Height:300	Vert	Margin [dB]		6.38	-	-	-	-	-
14	439.3197	32.04 pk	1.3	16.6	49.94	46	-	-	-	-	-
	Azimuth:281	Height:100	Vert	Margin [dB]		3.94	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209

LIMIT 2: NONE

LIMIT 3: NONE

LIMIT 4: NONE

LIMIT 5: NONE

LIMIT 6: NONE

pk - Peak detector

qp - Quasi-Peak detector

Job Number: 1001149942 File Number: MC15896 Page 97 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Lutron Electronics
 Wall Mounted Keypad
 RRD-W3BRL CP Mode 437 MHz
 Job: 1001149942 120V 60Hz
 Tested By: GB

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====										
Horizontal 200 - 1000MHz										
437	65.99 pk	1.3	17	64.29*	-	80.9	-	-	-	-
Azimuth: 230	Height:100	Horz		Margin [dB]:	-	-16.61	-	-	-	-
434.9	13.5 qp	1.3	16.9	31.7	46	-	-	-	-	-
Azimuth: 209	Height:235	Horz		Margin [dB]:	-14.3	-	-	-	-	-
438.5	20.75 qp	1.3	17	39.05	46	-	-	-	-	-
Azimuth: 234	Height:232	Horz		Margin [dB]:	-6.95	-	-	-	-	-
439.4	16.19 qp	1.3	17.1	34.59	46	-	-	-	-	-
Azimuth: 240	Height:214	Horz		Margin [dB]:	-11.41	-	-	-	-	-
440.1	13.06 qp	1.3	17.1	31.46	46	-	-	-	-	-
Azimuth: 67	Height:215	Horz		Margin [dB]:	-14.54	-	-	-	-	-
442.9	8.19 qp	1.3	17.2	26.69	46	-	-	-	-	-
Azimuth: 75	Height:215	Horz		Margin [dB]:	-19.31	-	-	-	-	-

*Duty Cycle correction factor of 20 applied (see section 4.4 of report for calculation)

LIMIT 1: FCC Part 15 Subpart C 15.209
 LIMIT 2: FCC Part 15 Subpart C 15.231
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - Average log detector
 ave - Average detector

Job Number: 1001149942 File Number: MC15896 Page 98 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

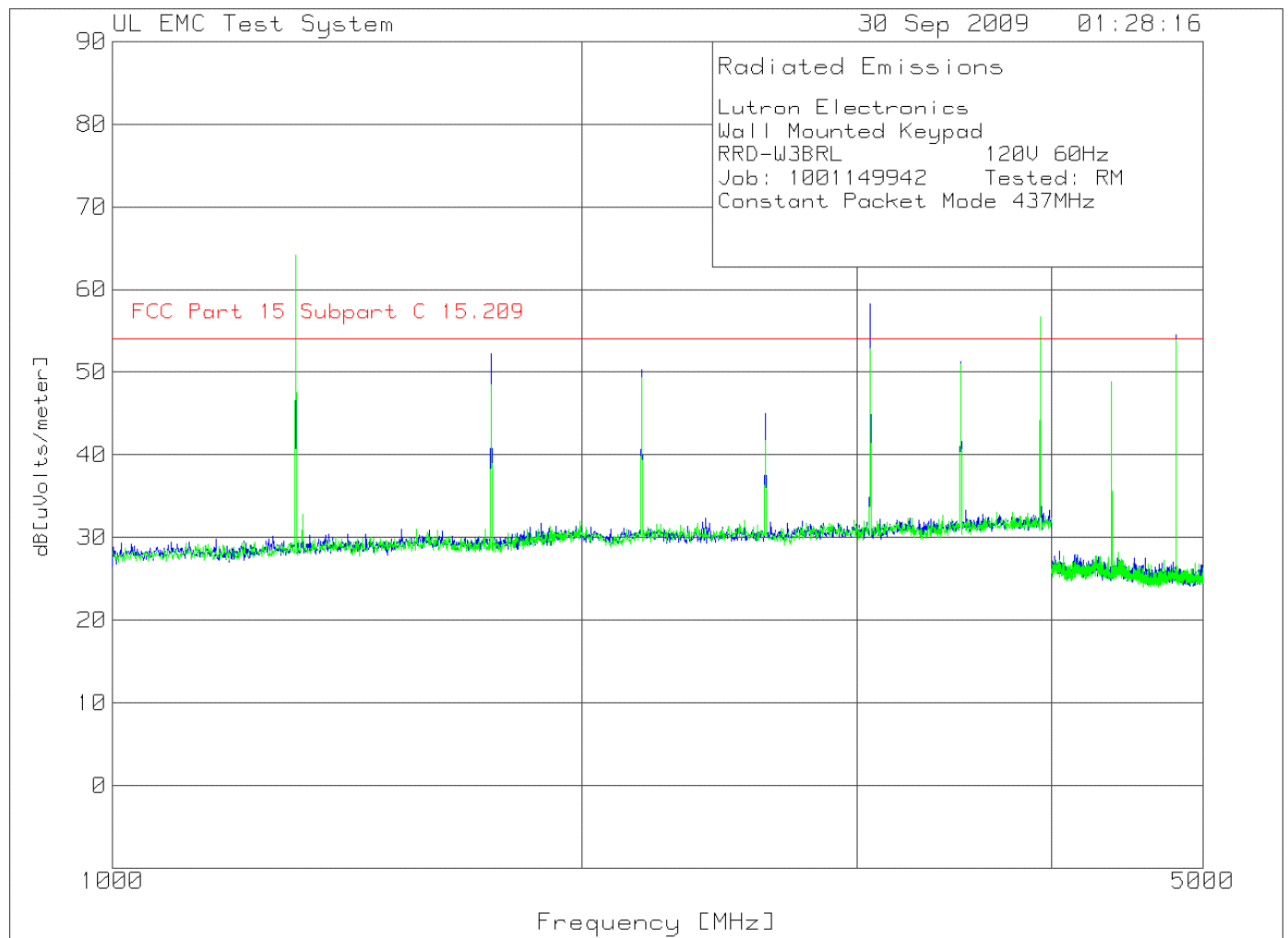
Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 dB[uVolts/meter]	2	3	4	5	6
=====									
Vertical 200 - 1000MHz									
437	78.9 pk	1.3	16.5	76.7*	-	80.9	-	-	-
Azimuth: 145	Height:127	Vert	Margin [dB]:	-	-4.2	-	-	-	-
431.7	12.6 qp	1.3	16.4	30.3	46	-	-	-	-
Azimuth: 199	Height:134	Vert	Margin [dB]:	-15.7	-	-	-	-	-
432.9	14.86 qp	1.3	16.5	32.66	46	-	-	-	-
Azimuth: 191	Height:126	Vert	Margin [dB]:	-13.34	-	-	-	-	-
434.1	17.44 qp	1.3	16.5	35.24	46	-	-	-	-
Azimuth: 191	Height:138	Vert	Margin [dB]:	-10.76	-	-	-	-	-
435.3	22.67 qp	1.3	16.5	40.47	46	-	-	-	-
Azimuth: 193	Height:125	Vert	Margin [dB]:	-5.53	-	-	-	-	-
438.1	30.07 qp	1.3	16.6	27.97*	46	-	-	-	-
Azimuth: 138	Height:123	Vert	Margin [dB]:	-18.03	-	-	-	-	-
439.3	22.83 qp	1.3	16.6	40.73	46	-	-	-	-
Azimuth: 148	Height:125	Vert	Margin [dB]:	-5.27	-	-	-	-	-

***Duty Cycle correction factor of 20 applied (see section 4.4 of report for calculation)**

LIMIT 1: FCC Part 15 Subpart C 15.209
 LIMIT 2: FCC Part 15 Subpart C 15.231
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - Average log detector
 ave - Average detector

Figure 18 Radiated Emissions Graph



Job Number: 1001149942 File Number: MC15896 Page 100 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 23 Radiated Emissions Data Points

Lutron Electronics
 Wall Mounted Keypad
 RRD-W3BRL 120V 60Hz
 Job: 1001149942 Tested: RM
 Constant Packet Mode 437MHz

Test No.	Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====											
Horizontal 1000 - 2000MHz -----											
1	1310.861	77.82 pk	-45.73	20.5	52.59	54	-	-	-	-	-
		Height:100	Horz	Margin [dB]		-1.41	-	-	-	-	-
2	1749.064	76.5 pk	-45.01	20.8	52.29	54	-	-	-	-	-
		Height:100	Horz	Margin [dB]		-1.71	-	-	-	-	-
Horizontal 2000 - 4000MHz -----											
3	2184.769	72.83 pk	-44.02	21.5	50.31	54	-	-	-	-	-
		Height:200	Horz	Margin [dB]		-3.69	-	-	-	-	-
4	2621.723	67.07 pk	-43.42	21.4	45.05	54	-	-	-	-	-
		Height:150	Horz	Margin [dB]		-8.95	-	-	-	-	-
5	3061.174	79.57 pk	-42.93	21.6	58.24	54	-	-	-	-	-
		Height:150	Horz	Margin [dB]		4.24	-	-	-	-	-
6	3498.127	71.97 pk	-42.85	22.2	51.32	54	-	-	-	-	-
		Height:150	Horz	Margin [dB]		-2.68	-	-	-	-	-
7	3932.584	75.3 pk	-42.76	22.7	55.24	54	-	-	-	-	-
		Height:150	Horz	Margin [dB]		1.24	-	-	-	-	-
Horizontal 4000 - 5000MHz -----											
8	4369.384	71.35 pk	-53.69	27.6	45.26	54	-	-	-	-	-
		Height:100	Horz	Margin [dB]		-8.74	-	-	-	-	-
9	4806.988	81.76 pk	-54.34	27.1	54.52	54	-	-	-	-	-
		Height:200	Horz	Margin [dB]		.52	-	-	-	-	-
Vertical 1000 - 2000MHz -----											
10	1310.861	89.35 pk	-45.73	20.5	64.12	54	-	-	-	-	-
		Height:100	Vert	Margin [dB]		10.12	-	-	-	-	-
11	1749.064	72.72 pk	-45.01	20.8	48.51	54	-	-	-	-	-
		Height:150	Vert	Margin [dB]		-5.49	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209
 LIMIT 2: NONE
 LIMIT 3: NONE

PK - Peak detector
 QP - Quasi-Peak detector
 av - Linear average detector
 avlg - Average log detector
 AV - Average detector
 CAV - CISPR Average detector
 RMS - RMS detection
 CRMS - CISPR RMS detection

Job Number: 1001149942 File Number: MC15896 Page 101 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level Limit:1 dB[uVolts/meter]	2	3	4	5	6
=====										
Vertical 2000 - 4000MHz -----										
12	2184.769	72.11 pk	-44.02	21.2	49.29	54	-	-	-	-
		Height:150 Vert		Margin [dB]		-4.71	-	-	-	-
13	2621.723	63.72 pk	-43.42	21.4	41.7	54	-	-	-	-
		Height:200 Vert		Margin [dB]		-12.3	-	-	-	-
14	3061.174	73.91 pk	-42.93	21.8	52.78	54	-	-	-	-
		Height:150 Vert		Margin [dB]		-1.22	-	-	-	-
15	3498.127	71.47 pk	-42.85	22.4	51.02	54	-	-	-	-
		Height:200 Vert		Margin [dB]		-2.98	-	-	-	-
16	3932.584	76.77 pk	-42.76	22.7	56.71	54	-	-	-	-
		Height:200 Vert		Margin [dB]		2.71	-	-	-	-
Vertical 4000 - 5000MHz -----										
17	4369.384	74.88 pk	-53.69	27.7	48.89	54	-	-	-	-
		Height:150 Vert		Margin [dB]		-5.11	-	-	-	-
18	4806.156	81.07 pk	-54.32	27.3	54.05	54	-	-	-	-
		Height:200 Vert		Margin [dB]		.05	-	-	-	-

LIMIT 1: FCC Part 15 Subpart C 15.209

LIMIT 2: NONE

LIMIT 3: NONE

PK - Peak detector

QP - Quasi-Peak detector

av - Linear average detector

avlg - Average log detector

AV - Average detector

CAV - CISPR Average detector

RMS - RMS detection

CRMS - CISPR RMS detection

Job Number: 1001149942 File Number: MC15896 Page 102 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Lutron Electronics
 Wall Mounted Keypad
 RRD-W3BRL 120V 60Hz
 Job: 1001149942 Tested: RM
 Constant Packet Mode 437MHz

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====										
Horizontal 1000 - 2000MHz										
1310.8575	80.28 PK	-45.73	20.5	35.05*	54	-	-	-	-	-
Azimuth: 144 Height:264 Horz Margin [dB]:						-18.95	-	-	-	-
1747.51	75.32 PK	-45.1	20.8	51.02	-	60.9	-	-	-	-
Azimuth: 136 Height:165 Horz Margin [dB]:						-9.88	-	-	-	-
Horizontal 2000 - 4000MHz										
2184.39	73.69 PK	-44.01	21.5	51.18	-	60.9	-	-	-	-
Azimuth: 60 Height:157 Horz Margin [dB]:						-9.72	-	-	-	-
2621.27	67.3 PK	-43.41	21.4	45.29	-	60.9	-	-	-	-
Azimuth: 115 Height:279 Horz Margin [dB]:						-15.61	-	-	-	-
3058.68	81.03 PK	-42.95	21.6	59.68	-	60.9	-	-	-	-
Azimuth: 114 Height:302 Horz Margin [dB]:						-1.22	-	-	-	-
3495.635	74.18 PK	-42.87	22.2	53.51	-	60.9	-	-	-	-
Azimuth: 237 Height:364 Horz Margin [dB]:						-7.39	-	-	-	-
3932.58	75.5 PK	-42.76	22.7	35.44*	54	-	-	-	-	-
Azimuth: 156 Height:266 Horz Margin [dB]:						-18.56	-	-	-	-
Horizontal 4000 - 5000MHz										
4369.538	75.76 PK	-53.69	27.6	49.67	54	-	-	-	-	-
Azimuth: 212 Height:370 Horz Margin [dB]:						-4.33	-	-	-	-
4806.5	82.33 PK	-54.33	27.1	35.1*	54	-	-	-	-	-
Azimuth: 87 Height:371 Horz Margin [dB]:						-18.9	-	-	-	-

*Duty Cycle correction factor of 20 applied (see section 4.4 of report for calculation)

LIMIT 1: FCC Part 15 Subpart C 15.209
 LIMIT 2: FCC Part 15 Subpart C 15.231
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

PK - Peak detector (Maximized)
 QP - Quasi-Peak detector
 av - Linear average detector
 avlg - Average log detector
 AV - Average detector
 CAV - CISPR Average detector
 RMS - RMS detection
 CRMS - CISPR RMS detection

Job Number: 1001149942 File Number: MC15896 Page 103 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====										
Vertical 1000 - 2000MHz										
1310.8675	88.85 PK	-45.73	20.5	43.62*	54	-	-	-	-	-
Azimuth: 179 Height:120 Vert			Margin [dB]:		-10.38	-	-	-	-	-
1747.8175	73.42 PK	-45.07	20.8	49.15	-	60.9	-	-	-	-
Azimuth: 202 Height:149 Vert			Margin [dB]:		-	-11.75	-	-	-	-
Vertical 2000 - 4000MHz										
2184.3925	75.86 PK	-44.01	21.2	53.05	-	60.9	-	-	-	-
Azimuth: 144 Height:339 Vert			Margin [dB]:		-	-7.85	-	-	-	-
2621.2725	66.96 PK	-43.41	21.4	44.95	-	60.9	-	-	-	-
Azimuth: 221 Height:295 Vert			Margin [dB]:		-	-15.95	-	-	-	-
3058.675	75.23 PK	-42.95	21.8	54.08	-	60.9	-	-	-	-
Azimuth: 268 Height:364 Vert			Margin [dB]:		-	-6.82	-	-	-	-
3495.02	75.08 PK	-42.89	22.4	54.59	-	60.9	-	-	-	-
Azimuth: 64 Height:366 Vert			Margin [dB]:		-	-6.31	-	-	-	-
3932.59	76.25 PK	-42.76	22.7	36.19*	54	-	-	-	-	-
Azimuth: 329 Height:373 Vert			Margin [dB]:		-17.81	-	-	-	-	-
Vertical 4000 - 5000MHz										
4368.78	74.93 PK	-53.69	27.7	48.94	54	-	-	-	-	-
Azimuth: 192 Height:155 Vert			Margin [dB]:		-5.06	-	-	-	-	-
4806.505	83.65 PK	-54.33	27.3	36.62*	54	-	-	-	-	-
Azimuth: 174 Height:357 Vert			Margin [dB]:		-17.38	-	-	-	-	-

***Duty Cycle correction factor of 20 applied (see section 4.4 of report for calculation)**

LIMIT 1: FCC Part 15 Subpart C 15.209
 LIMIT 2: FCC Part 15 Subpart C 15.231
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

PK - Peak detector (Maximized)
 QP - Quasi-Peak detector
 av - Linear average detector
 avlg - Average log detector
 AV - Average detector
 CAV - CISPR Average detector
 RMS - RMS detection
 CRMS - CISPR RMS detection

Job Number: 1001149942 File Number: MC15896 Page 104 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

4.6 Test Conditions and Results – UNINTENTIONAL RADIATED EMISSIONS

Test Description	Measurements were made in a 10-meter semi-anechoic chamber that complies to CISPR 16/ANSI C63.4. Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 10-meter below 1GHz and 3-meter above 1GHz. The EUT was rotated 360° about its azimuth with the receive antenna located at various heights in both horizontal and vertical polarities. Final measurements (quasi-peak or average as noted) were then performed by rotating the EUT 360° and adjusting the receive antenna height from 1 to 4-meters. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable.	
Basic Standard	FCC Part 15, Subpart C, 15.109	
UL LPG	80-EM-S0029	
	Frequency range	Measurement Point
Fully configured sample scanned over the following frequency range	30MHz – 1GHz	(10 meter measurement distance)
Fully configured sample scanned over the following frequency range	1GHz – 2GHz	(3 meter measurement distance)
Limits - Class B		
Frequency (MHz)	Limit (dB μ V/m)	
	Quasi-Peak	Average
30-230	30	NA
230-1000	37	NA
Above 1000	NA	54
Supplementary information: Below 1GHz, CISPR 22 limits applied.		

Job Number: 1001149942 File Number: MC15896 Page 105 of 116
Model Number: RRD-W3BRL
Client Name: LUTRON ELECTRONICS INC
FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 24 Radiated Emissions EUT Configuration Settings

Power Interface Mode #	EUT Configurations Mode #	EUT Operation Mode #
1	1	3
1	1	4
Supplementary information: None		

Table 25 Radiated Emissions Test Equipment

Test Equipment Used			
Description	Manufacturer	Model	Identifier
30-1000MHz			
EMI Receiver	Rohde & Schwarz	ESIB40	34968
Log-P Antenna	Schaffner	UPA6109	44068
Bicon Antenna	Schaffner	VBA6106A	54
Bias Tee	Miteq	AM-1523-7687	44392
Bias Tee	Miteq	AM-1523-7687	44393
Preamp	Miteq	AM-3A-000110-7687	44391
Preamp	Miteq	AM-3A-000110-7687	44394
Switch Driver	HP	11713A	ME7A-627
System Controller	Sunol Sciences	SC99V	44396
Camera Controller	Panasonic	WV-CU254	44395
RF Switch Box	UL	1	44398
Measurement Software	UL	Version 9.3	44740
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268
Multimeter	Fluke	83V	44459
Above 1GHz (Band Optimized System)			
Spectrum Analyzer	Agilent	E7405A	19695
Horn Antenna (1-2 GHz)	ETS	3161-01	51442
Signal Path Controller	HP	11713A	50250
Gain Controller	HP	11713A	50251
RF Switch / Preamp Fixture	UL	BOMS1	50249
System Controller	UL	BOMS2	50252
Measurement Software	UL	Version 9.3	44740
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268
Multimeter	Fluke	83V	44459

Job Number: 1001149942 File Number: MC15896 Page 106 of 116
Model Number: RRD-W3BRL
Client Name: LUTRON ELECTRONICS INC
FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Figure 19 Test setup for Radiated Emissions



Job Number: 1001149942 File Number: MC15896 Page 108 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 26 Radiated Emissions Data Points

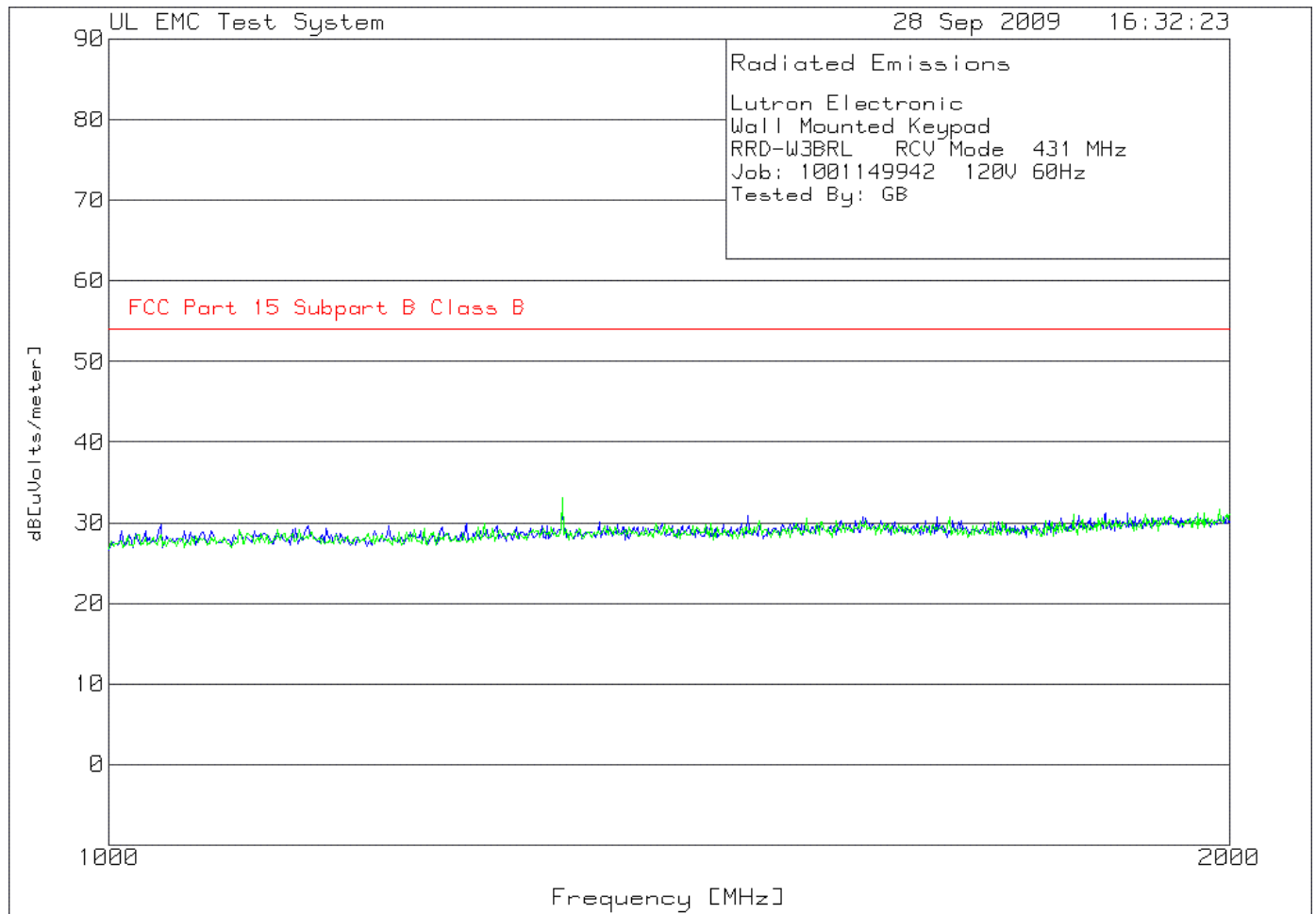
Lutron Electronics
 Wall Mounted Keypad
 RRD-W3BRL RCV Mode 431 MHz
 Job: 1001149942 120V 60Hz
 Tested By: GB

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====											
Horizontal 30 - 200MHz -----											
1	31.8719	33.71 pk	-36	17	14.71	30	-	-	-	-	-
	Azimuth:319	Height:249	Horz	Margin [dB]	-15.29	-	-	-	-	-	-
5	164.7748	34.04 pk	-35.1	14.9	13.84	30	-	-	-	-	-
	Azimuth:199	Height:101	Horz	Margin [dB]	-16.16	-	-	-	-	-	-
Vertical 30 - 200MHz -----											
2	50.5906	35.31 pk	-35.9	9.5	8.91	30	-	-	-	-	-
	Azimuth:320	Height:100	Vert	Margin [dB]	-21.09	-	-	-	-	-	-
3	54.3343	35.59 pk	-35.9	8.5	8.19	30	-	-	-	-	-
	Azimuth:279	Height:100	Vert	Margin [dB]	-21.81	-	-	-	-	-	-
4	77.988	36.38 pk	-35.8	6.8	7.38	30	-	-	-	-	-
	Azimuth:358	Height:100	Vert	Margin [dB]	-22.62	-	-	-	-	-	-
6	194.5546	33.77 pk	-35.2	16.2	14.77	30	-	-	-	-	-
	Azimuth:159	Height:100	Vert	Margin [dB]	-15.23	-	-	-	-	-	-

LIMIT 1: CISPR22 Class B
 LIMIT 2: NONE
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

pk - Peak detector
 qp - Quasi-Peak detector
 av - Average detector
 avlg - denotes average log detection

Figure 21 Radiated Emissions Graph



Job Number: 1001149942 File Number: MC15896 Page 110 of 116
Model Number: RRD-W3BRL
Client Name: LUTRON ELECTRONICS INC
FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 27 Radiated Emissions Data Points

Lutron Electronic
Wall Mounted Keypad
RRD-W3BRL RCV Mode 431 MHz
Job: 1001149942 120V 60Hz
Tested By: GB

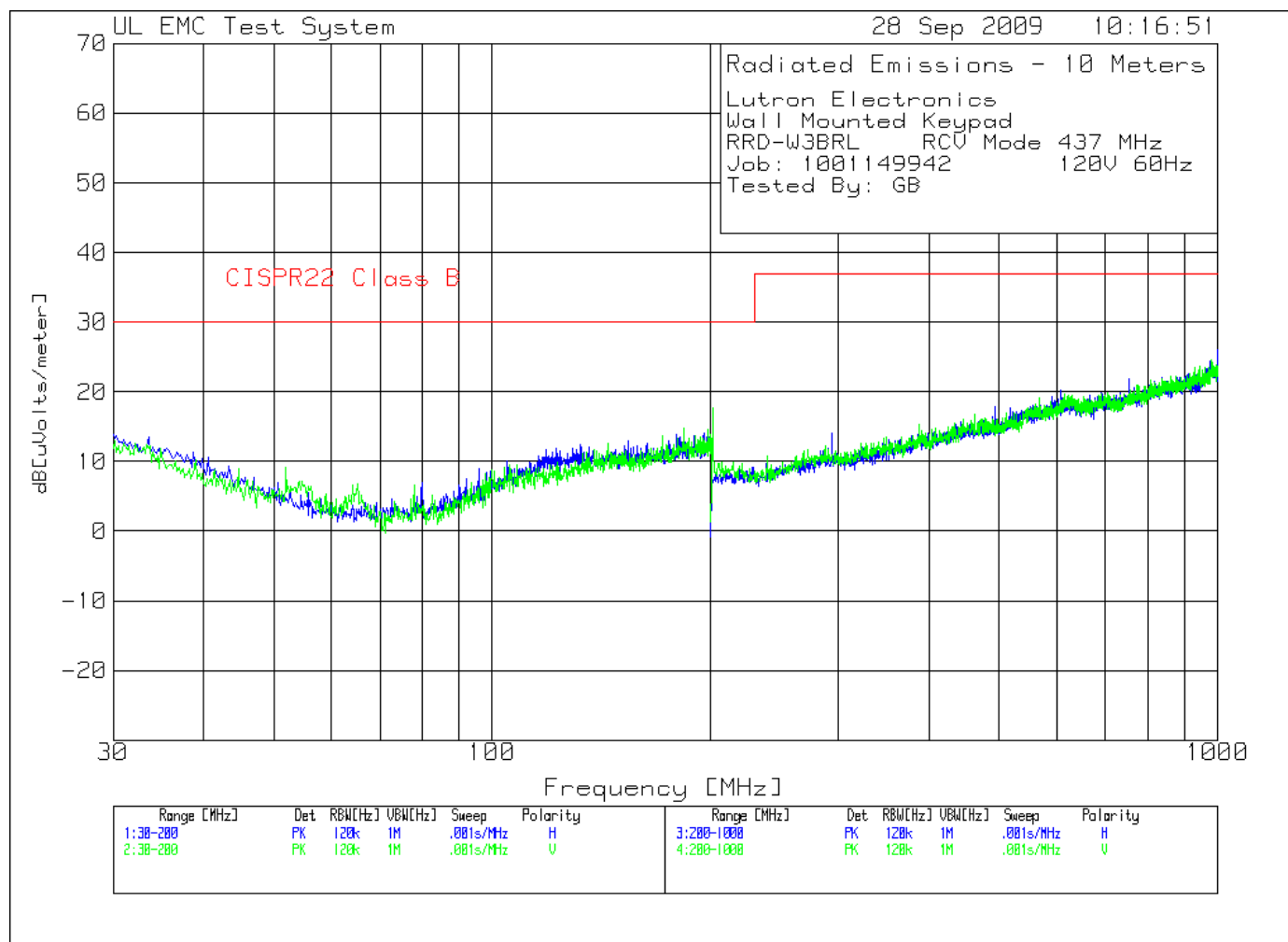
No.	Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====											
Horizontal 1000 - 2000MHz -----											
1	1032.459	55.93 pk	-45.67	19.5	29.76	54	-	-	-	-	-
		Height:150	Horz	Margin [dB]		-24.24	-	-	-	-	-
2	1323.346	56.46 pk	-45.61	20.5	31.35	54	-	-	-	-	-
		Height:100	Horz	Margin [dB]		-22.65	-	-	-	-	-
3	1484.395	55.47 pk	-45.45	20.8	30.82	54	-	-	-	-	-
		Height:150	Horz	Margin [dB]		-23.18	-	-	-	-	-
Vertical 1000 - 2000MHz -----											
4	1260.924	55.35 pk	-45.58	20.2	29.97	54	-	-	-	-	-
		Height:100	Vert	Margin [dB]		-24.03	-	-	-	-	-
5	1323.346	58.17 pk	-45.61	20.5	33.06	54	-	-	-	-	-
		Height:100	Vert	Margin [dB]		-20.94	-	-	-	-	-
6	1539.326	54.97 pk	-45.34	21	30.63	54	-	-	-	-	-
		Height:200	Vert	Margin [dB]		-23.37	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart B Class B
LIMIT 2: NONE
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

PK - Peak detector
QP - Quasi-Peak detector
av - Linear average detector
avlg - Log average detection.

Job Number: 1001149942 File Number: MC15896 Page 111 of 116
Model Number: RRD-W3BRL
Client Name: LUTRON ELECTRONICS INC
FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Figure 22 Radiated Emissions Graph



Job Number: 1001149942 File Number: MC15896 Page 112 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 28 Radiated Emissions Data Points

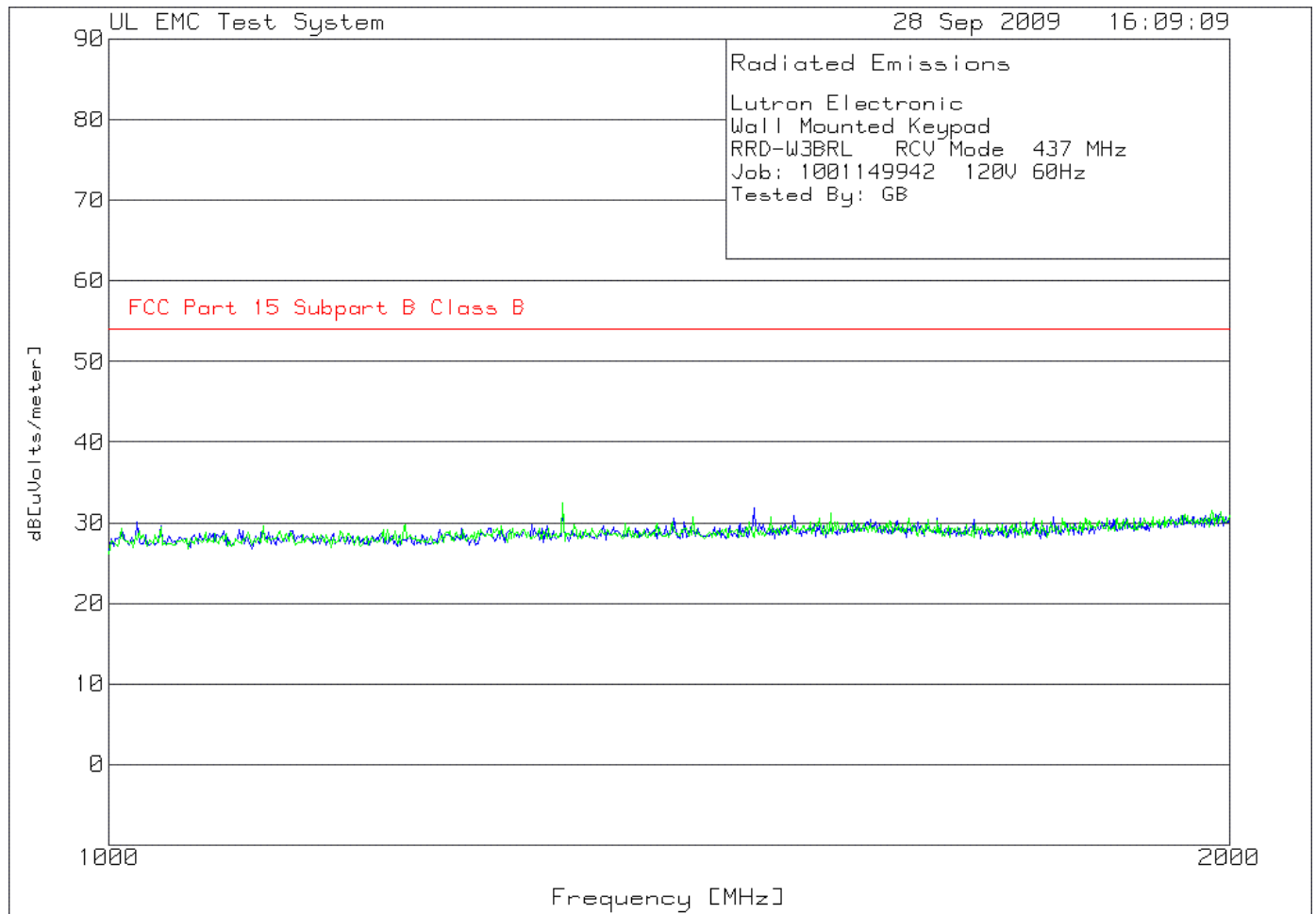
Lutron Electronics
 Wall Mounted Keypad
 RRD-W3BRL RCV Mode 437 MHz
 Job: 1001149942 120V 60Hz
 Tested By: GB

Test No.	Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====											
Horizontal 30 - 200MHz -----											
1	30.3403	32.37 pk	-36	17.4	13.77	30	-	-	-	-	-
	Azimuth:344	Height:400	Horz	Margin [dB]	-16.23	-	-	-	-	-	-
4	131.9319	33.85 pk	-35.6	14.1	12.35	30	-	-	-	-	-
	Azimuth:242	Height:100	Horz	Margin [dB]	-17.65	-	-	-	-	-	-
Vertical 30 - 200MHz -----											
2	51.952	35.81 pk	-35.9	9.2	9.11	30	-	-	-	-	-
	Azimuth:16	Height:100	Vert	Margin [dB]	-20.89	-	-	-	-	-	-
3	65.2252	36.71 pk	-35.9	5.9	6.71	30	-	-	-	-	-
	Azimuth:2	Height:100	Vert	Margin [dB]	-23.29	-	-	-	-	-	-
5	183.8338	33.46 pk	-35.2	16.5	14.76	30	-	-	-	-	-
	Azimuth:283	Height:100	Vert	Margin [dB]	-15.24	-	-	-	-	-	-
Vertical 200 - 1000MHz -----											
6	201.2006	40.33 pk	-34.8	12.1	17.63	30	-	-	-	-	-
	Azimuth:136	Height:101	Vert	Margin [dB]	-12.37	-	-	-	-	-	-

LIMIT 1: CISPR22 Class B
 LIMIT 2: NONE
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

pk - Peak detector
 qp - Quasi-Peak detector

Figure 23 Radiated Emissions Graph



Job Number: 1001149942 File Number: MC15896 Page 114 of 116
 Model Number: RRD-W3BRL
 Client Name: LUTRON ELECTRONICS INC
 FCC ID: JPZ0063 IC Number: 2851A-JPZ0063

Table 29 Radiated Emissions Data Points

Lutron Electronic
 Wall Mounted Keypad
 RRD-W3BRL RCV Mode 437 MHz
 Job: 1001149942 120V 60Hz
 Tested By: GB

Test No.	Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts/meter]	Limit:1	2	3	4	5	6
=====											
Horizontal 1000 - 2000MHz -----											
1	1017.478	56.38 pk	-45.68	19.4	30.1	54	-	-	-	-	-
		Height:100	Horz	Margin [dB]		-23.9	-	-	-	-	-
2	1323.346	57.17 pk	-45.61	20.5	32.06	54	-	-	-	-	-
		Height:100	Horz	Margin [dB]		-21.94	-	-	-	-	-
3	1490.637	56.46 pk	-45.5	20.8	31.76	54	-	-	-	-	-
		Height:100	Horz	Margin [dB]		-22.24	-	-	-	-	-
Vertical 1000 - 2000MHz -----											
4	1099.875	55.36 pk	-45.71	20	29.65	54	-	-	-	-	-
		Height:150	Vert	Margin [dB]		-24.35	-	-	-	-	-
5	1323.346	57.62 pk	-45.61	20.5	32.51	54	-	-	-	-	-
		Height:100	Vert	Margin [dB]		-21.49	-	-	-	-	-
6	1563.046	55.49 pk	-45.44	21.1	31.15	54	-	-	-	-	-
		Height:100	Vert	Margin [dB]		-22.85	-	-	-	-	-

LIMIT 1: FCC Part 15 Subpart B Class B
 LIMIT 2: NONE
 LIMIT 3: NONE
 LIMIT 4: NONE
 LIMIT 5: NONE
 LIMIT 6: NONE

PK - Peak detector
 QP - Quasi-Peak detector
 av - Linear average detector
 avlg - Log average detection.

Appendix A

Accreditations and Authorizations



NVLAP Lab code: 100255-0

NVLAP: The National Institute of Standards and Technology (NIST) administers the National Voluntary Laboratory Accreditation Program (NVLAP). NVLAP is comprised of laboratory accreditation programs (LAPs) which are established on the basis of requests and demonstrated need. Each LAP includes specific calibration and/or test standards and related methods and protocols assembled to satisfy the unique needs for accreditation in a field of testing or calibration. NVLAP accredits public and private laboratories based on evaluation of their technical qualifications and competence to carry out specific calibrations or tests. Accreditation criteria are established in accordance with the U.S. Code of Federal Regulations (CFR, Title 15, Part 285), NVLAP Procedures and General Requirements, and encompass the requirements of ISO/IEC 17025. For a full scope listing see <http://ts.nist.gov/ts/htdocs/210/214/scopes/1002550.htm>



FCC: Details of the measurement facilities used for these tests have been filed with the Federal Communications Commission's Laboratory in Columbia, Maryland (Ref. No. 91040).



Industry Canada Industrie Canada

Industry of Canada: Accredited by Industry Canada for performance of radiated measurements. Our test site complies with RSP 100, Issue 7, Section 3.3. File #: IC 2181



VCCI: Accepted as an Associate Member to the VCCI. The measurement facilities detailed in this test report have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. Registration Nos.: (Radiated Emissions) R-797, (Conducted Emissions) C-832, C-83400, and C-81879 and (Conducted Emissions - Telecommunications Ports) T-1582 and T-1583.

Job Number: 1001149942 File Number: MC15896 Page 116 of 116
Model Number: RRD-W3BRL
Client Name: LUTRON ELECTRONICS INC
FCC ID: JPZ0063 IC Number: 2851A-JPZ0063



ICASA: ICASA (Independent Communications Authority of South Africa) has appointed UL as a Designated Test Laboratory to test Telecommunications equipment for type approval in compliance with CISPR 22 to assist in fulfilling its mandate under section 54(1) of the Telecommunications Act, 1996 (Act 103 of 1996).



NIST/CAB: Validated by the European Commission as a U.S. Conformity Assessment Body (CAB) of the U.S.-EU Mutual Recognition Agreement (MRA) for the Electromagnetic Compatibility - Council Directive 89/336/EEC, Article 10 (2). Also validated for the Telecommunication Equipment-Council Directive 99/5/EC, Annex III and IV, Identification Number: 0983.

NIST/CAB: Provisioned to act as a U.S. Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the Asia Pacific Economic Cooperation (APEC) MRA between the American Institute in Taiwan (AIT) and the United States. Our laboratory is considered qualified to test equipment subject to the applicable EMC regulations of the Chinese Taipei Bureau of Standards, Metrology and Inspection (BSMI) which require testing to CNS 13438 (CISPR 22).

NIST/CAB: Recognized by the Infocomm Development Authority of Singapore (IDA) under the Asia Pacific Economic Cooperation Mutual Recognition Agreement (APEC MRA). Our laboratory is provisionally designated to act as a Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the APEC MRA. Our scope of designation includes IDA TS EMC (CISPR 22), IEC 61000-4-2, -4-3, -4-4, -4-5,