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Melville, NY 11747

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Job Number:	1001213753
Project Number:	10CA13143
File Number:	MC15896
Date:	24 March 2010
Model:	SZ-5B
FCC ID:	JPZ0063
IC Number:	2851A-JPZ0055

## Electromagnetic Compatibility Test Report

For

### LUTRON ELECTRONICS INC

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

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to public safety and committed to  
quality service for over 100 years

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Job Number: 1001213753 File Number: MC15896 Page 2 of 88  
Model Number: SZ-5B  
Client Name: LUTRON ELECTRONICS INC  
FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

## 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: **Dan Mitchell**  
Phone: **610-282-5370**  
E-mail: **dmitchell@lutron.com**

Test Report Date: **24 March 2010**

Product Type: **Wireless Dimmer**

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

Model Number: **SZ-5B**

Sample Serial Number: **Non-serialized Production Unit**

EUT Category: **Periodic Low Power Transmitter**

Testing Start Date: **18 March 2010**

Date Testing Complete: **24 March 2010**

**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.

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Report Revision History

Revision Date	Description	Revised By	Revision Reviewed By
None	Original	-	-

**1.0 GENERAL - Product Description**

**1.1 Equipment Description**

Stanza dimmers function much like standard dimmers and switches, and have an integral microprocessor, allowing them to be incorporated into a complete lighting control system. Stanza dimmers are useful in locations where single circuits of lighting need to be dimmed and switched. Stanza dimmers include a front accessible service switch (FASSTM) for safe bulb replacement.

Allows local dimming and switching (toggle On/Off) control of one zone of halogen, incandescent, or magnetic low-voltage loads.

- Light level can also be adjusted, if addressed as part of a Stanza lighting control system, via an RF command from a keypad or integration device.
- 3-way operation can be obtained using a dimmer and a keypad.
- Screw terminals and push-in connections simplify installation.
- Shallow back cover takes up less room in the wall box.
- Large controls designed with ADA and Universal Design considerations.
- Two-wire (plus ground) installation allows easy replacement of existing switches.

The SZ-5B is representative of the SZ-xB line. The transmitter functions of all xB products are identical according to the manufacturer. X represents the number of buttons available on the device.

The antenna is integral to the device and cannot be removed. The antenna is PCB mounted.

The device is categorically exempt from human exposure requirements

**1.2 Equipment Marking Plate**

Not Available.

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 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
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**1.3 Device Configuration During Test**

**1.3.1 Equipment Used During Test:**

Use	Product Type	Manufacturer	Model	Comments
EUT	Wireless Dimmer	LUTRON ELECTRONICS INC	SZ-5B	None
SIM	120Vac 75W light bulb	GE	75W	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

**1.3.3 EUT Internal Operating Frequencies:**

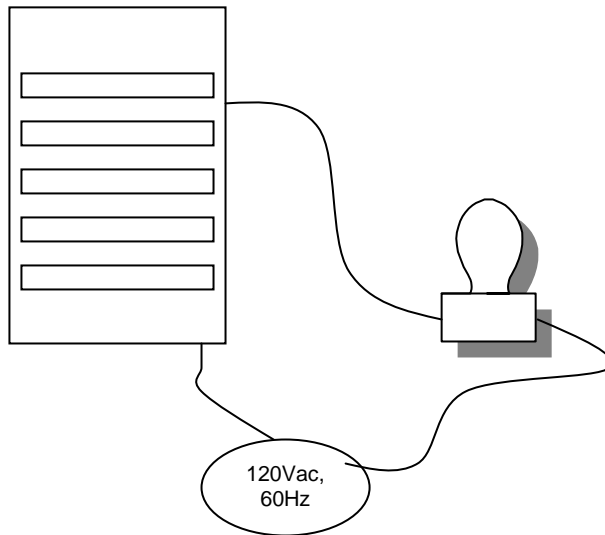
Frequency (MHz)	Description
0.031	Digital Modulation Data Shaping
0.031	Digital Demodulation
0.3072	IF Signal
16	Microcontroller
66	Switching Power Supply
431	Fundamental Frequency
437	Fundamental Frequency

**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.



### 1.5 EUT Configurations

Mode #	Description
1	Stand-alone connected to an incandescent lamp for a load.

### 1.6 EUT Operation Modes

Mode #	Description
1	Constantly transmitting with modulation at 431MHz
2	Constantly transmitting with modulation at 437MHz
3	Receive Mode at 431MHz
4	Receive Mode at 437MHz
5	Normal operation at 431MHz (sending packets when button is pressed)



## 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

**2.3 Reference Standards**

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

**2.4 Results Summary**

This product is considered Class B and a Periodic Transmitter

Requirement – Test	Result (Compliant / Non-Compliant)*
Conducted Emissions - Mains	Compliant
Radiated Emissions – Transmit Mode	Compliant
Radiated Emissions - Unintentional	Compliant
Cease Operation	Compliant
Occupied Bandwidth – 20dB	Compliant
Occupied Bandwidth – 99%	Compliant
Pulse Train Measurement	Compliant

Test Engineer:



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

Reviewer:



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

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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**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 B, 15.107, FCC Part 15, Subpart C, 15.207, RSS-GEN, RSS-210	
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
<b>Limits</b>		
Frequency (MHz)	Limit (dBµV)	
	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	3
1	1	4
Supplementary information: None		

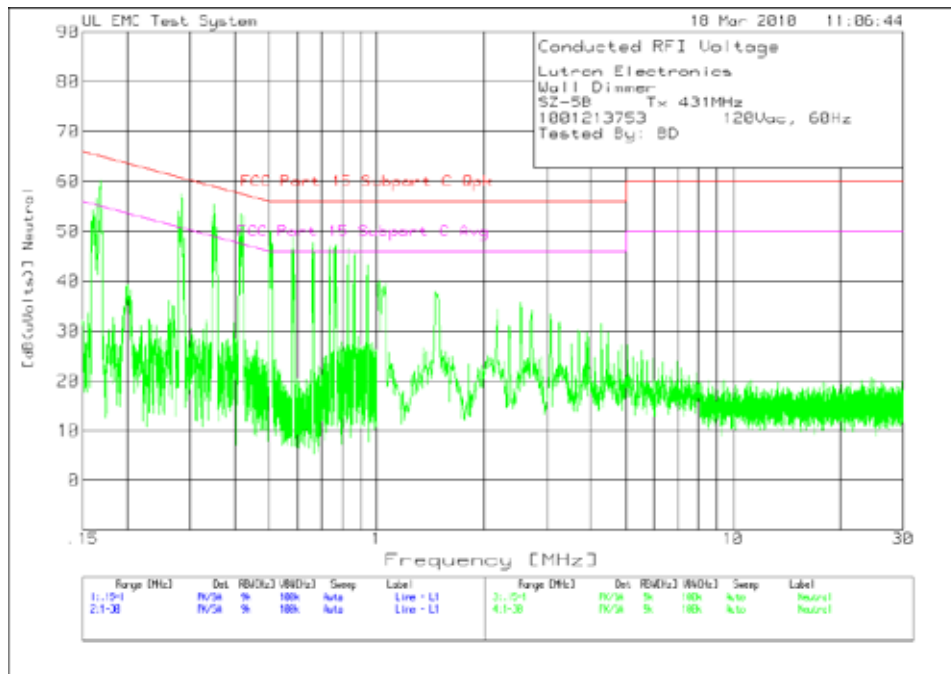
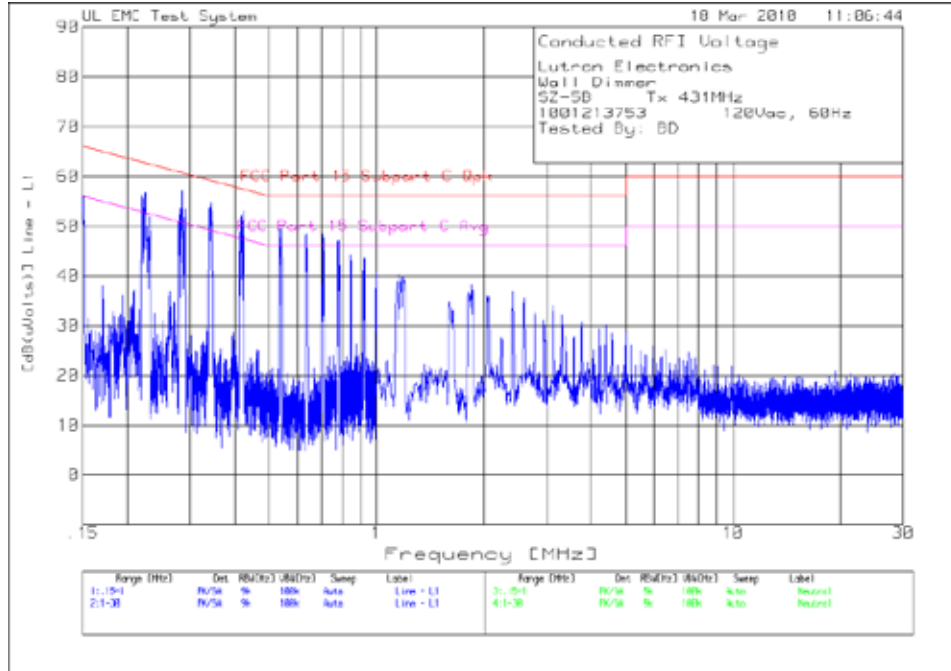
**Table 2 Conducted Emissions Test Equipment**

Test Equipment Used			
Description	Manufacturer	Model	Identifier
Conducted Emissions – GP 1			
EMI Receiver	Rohde & Schwarz	ESIB26	ME5B-081
LISN	Solar	9252-50-R-24-BNC	ME5A-636
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-305

**Figure 1 Test Setup for Conducted Emissions**



Figure 2 Conducted Emissions Graph



**Table 3 Conducted Emissions Data Points**

Lutron Electronics  
 Wall Dimmer  
 SZ-5B Tx 431MHz  
 1001213753 120Vac, 60Hz  
 Tested By: BD

No.	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								
1	.15068	44.49 pk	11.6	0	56.09	66	56	-	-	-	-
				Margin [dB]		-9.91	.09	-	-	-	-
2	.22499	45.82 pk	10.9	0	56.72	62.6	52.6	-	-	-	-
				Margin [dB]		-5.88	4.12	-	-	-	-
3	.28535	46.36 pk	10.7	0	57.06	60.7	50.7	-	-	-	-
				Margin [dB]		-3.64	6.36	-	-	-	-
4	.34333	44.2 pk	10.5	0	54.7	59.1	49.1	-	-	-	-
				Margin [dB]		-4.4	5.6	-	-	-	-
5	.41933	41.68 pk	10.5	0	52.18	57.5	47.5	-	-	-	-
				Margin [dB]		-5.32	4.68	-	-	-	-
6	.5336	38.87 pk	10.4	0	49.27	56	46	-	-	-	-
				Margin [dB]		-6.73	3.27	-	-	-	-
7	.63477	37.98 pk	10.4	0	48.38	56	46	-	-	-	-
				Margin [dB]		-7.62	2.38	-	-	-	-
8	.7044	38.06 pk	10.3	0	48.36	56	46	-	-	-	-
				Margin [dB]		-7.64	2.36	-	-	-	-
9	.78049	36.63 pk	10.3	0	46.93	56	46	-	-	-	-
				Margin [dB]		-9.07	.93	-	-	-	-
10	.84782	33.92 pk	10.3	0	44.22	56	46	-	-	-	-
				Margin [dB]		-11.78	-1.78	-	-	-	-
11	.924	33.25 pk	10.3	0	43.55	56	46	-	-	-	-
				Margin [dB]		-12.45	-2.45	-	-	-	-

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

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



Job Number: 1001213753 File Number: MC15896 Page 17 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

No.	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											
12	.16836	48.73 pk	11.4	0	60.13	65	55	-	-	-	-
				Margin [dB]		-4.87	5.13	-	-	-	-
13	.28433	46.74 pk	10.7	0	57.44	60.7	50.7	-	-	-	-
				Margin [dB]		-3.26	6.74	-	-	-	-
14	.35098	44.8 pk	10.6	0	55.4	58.9	48.9	-	-	-	-
				Margin [dB]		-3.5	6.5	-	-	-	-
15	.4161	43.01 pk	10.5	0	53.51	57.5	47.5	-	-	-	-
				Margin [dB]		-3.99	6.01	-	-	-	-
16	.50588	39.6 pk	10.4	0	50	56	46	-	-	-	-
				Margin [dB]		-6	4	-	-	-	-
17	.58512	38.37 pk	10.4	0	48.77	56	46	-	-	-	-
				Margin [dB]		-7.23	2.77	-	-	-	-
18	.66418	37.19 pk	10.4	0	47.59	56	46	-	-	-	-
				Margin [dB]		-8.41	1.59	-	-	-	-
19	.7407	36.7 pk	10.4	0	47.1	56	46	-	-	-	-
				Margin [dB]		-8.9	1.1	-	-	-	-
20	.76773	36.89 pk	10.4	0	47.29	56	46	-	-	-	-
				Margin [dB]		-8.71	1.29	-	-	-	-
21	.83065	36.04 pk	10.4	0	46.44	56	46	-	-	-	-
				Margin [dB]		-9.56	.44	-	-	-	-
22	.8672	35.54 pk	10.4	0	45.94	56	46	-	-	-	-
				Margin [dB]		-10.06	-.06	-	-	-	-
23	.94627	32.94 pk	10.3	0	43.24	56	46	-	-	-	-
				Margin [dB]		-12.76	-2.76	-	-	-	-

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

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

Job Number: 1001213753 File Number: MC15896 Page 18 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

Lutron Electronics  
 Wall Dimmer  
 SZ-5B Tx 431MHz  
 1001213753 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										
.15058	46.02 qp	11.6	0	57.62	66	56	-	-	-	-
			Margin [dB]:		-8.38	1.62	-	-	-	-
.22509	42.72 qp	10.9	0	53.62	62.6	52.6	-	-	-	-
			Margin [dB]:		-8.98	1.02	-	-	-	-
.28504	43.63 qp	10.7	0	54.33	60.7	50.7	-	-	-	-
			Margin [dB]:		-6.37	3.63	-	-	-	-
.3434	41.07 qp	10.5	0	51.57	59.1	49.1	-	-	-	-
			Margin [dB]:		-7.53	2.47	-	-	-	-
.4198	39.97 qp	10.5	0	50.47	57.5	47.5	-	-	-	-
			Margin [dB]:		-7.03	2.97	-	-	-	-
.53335	36.41 qp	10.4	0	46.81	56	46	-	-	-	-
			Margin [dB]:		-9.19	.81	-	-	-	-
.63455	35.54 qp	10.4	0	45.94	56	46	-	-	-	-
			Margin [dB]:		-10.06	-.06	-	-	-	-
.70419	34.86 qp	10.3	0	45.16	56	46	-	-	-	-
			Margin [dB]:		-10.84	-.84	-	-	-	-
.78043	34.37 qp	10.3	0	44.67	56	46	-	-	-	-
			Margin [dB]:		-11.33	-1.33	-	-	-	-
.84749	32.32 qp	10.3	0	42.62	56	46	-	-	-	-
			Margin [dB]:		-13.38	-3.38	-	-	-	-
.92385	29.61 qp	10.3	0	39.91	56	46	-	-	-	-
			Margin [dB]:		-16.09	-6.09	-	-	-	-

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

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

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										
.1689	45.37	qp	11.4	0	56.77	65	55	-	-	-
				Margin [dB]:	-8.23	1.77	-	-	-	-
.2842	43.75	qp	10.7	0	54.45	60.7	50.7	-	-	-
				Margin [dB]:	-6.25	3.75	-	-	-	-
.35129	41.94	qp	10.6	0	52.54	58.9	48.9	-	-	-
				Margin [dB]:	-6.36	3.64	-	-	-	-
.41625	39.58	qp	10.5	0	50.08	57.5	47.5	-	-	-
				Margin [dB]:	-7.42	2.58	-	-	-	-
.50593	37.38	qp	10.4	0	47.78	56	46	-	-	-
				Margin [dB]:	-8.22	1.78	-	-	-	-
.58515	35.22	qp	10.4	0	45.62	56	46	-	-	-
				Margin [dB]:	-10.38	-1.38	-	-	-	-
.66414	34.12	qp	10.4	0	44.52	56	46	-	-	-
				Margin [dB]:	-11.48	-1.48	-	-	-	-
.74087	33.33	qp	10.4	0	43.73	56	46	-	-	-
				Margin [dB]:	-12.27	-2.27	-	-	-	-
.7679	33.28	qp	10.4	0	43.68	56	46	-	-	-
				Margin [dB]:	-12.32	-2.32	-	-	-	-
.83037	32.34	qp	10.4	0	42.74	56	46	-	-	-
				Margin [dB]:	-13.26	-3.26	-	-	-	-
.86731	32.37	qp	10.4	0	42.77	56	46	-	-	-
				Margin [dB]:	-13.23	-3.23	-	-	-	-
.94629	29.34	qp	10.3	0	39.64	56	46	-	-	-
				Margin [dB]:	-16.36	-6.36	-	-	-	-

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

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- QP - Quasi-Peak detector
- av - Linear average detector
- avlg - average log detection
- AV - average detection
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- 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

Lutron Electronics  
 Wall Dimmer  
 SZ-5B Tx 431MHz  
 1001213753 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										
.15058	27.4 AV	11.6	0	39	66	56	-	-	-	-
			Margin [dB]:		-27	-17	-	-	-	-
.22509	23.36 AV	10.9	0	34.26	62.6	52.6	-	-	-	-
			Margin [dB]:		-28.34	-18.34	-	-	-	-
.28504	24.1 AV	10.7	0	34.8	60.7	50.7	-	-	-	-
			Margin [dB]:		-25.9	-15.9	-	-	-	-
.3434	21.81 AV	10.5	0	32.31	59.1	49.1	-	-	-	-
			Margin [dB]:		-26.79	-16.79	-	-	-	-
.4198	20.75 AV	10.5	0	31.25	57.5	47.5	-	-	-	-
			Margin [dB]:		-26.25	-16.25	-	-	-	-
.53335	16.86 AV	10.4	0	27.26	56	46	-	-	-	-
			Margin [dB]:		-28.74	-18.74	-	-	-	-
.63455	15.18 AV	10.4	0	25.58	56	46	-	-	-	-
			Margin [dB]:		-30.42	-20.42	-	-	-	-
.70419	14.8 AV	10.3	0	25.1	56	46	-	-	-	-
			Margin [dB]:		-30.9	-20.9	-	-	-	-
.78043	16.2 AV	10.3	0	26.5	56	46	-	-	-	-
			Margin [dB]:		-29.5	-19.5	-	-	-	-
.84749	15.09 AV	10.3	0	25.39	56	46	-	-	-	-
			Margin [dB]:		-30.61	-20.61	-	-	-	-
.92385	12.53 AV	10.3	0	22.83	56	46	-	-	-	-
			Margin [dB]:		-33.17	-23.17	-	-	-	-

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

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

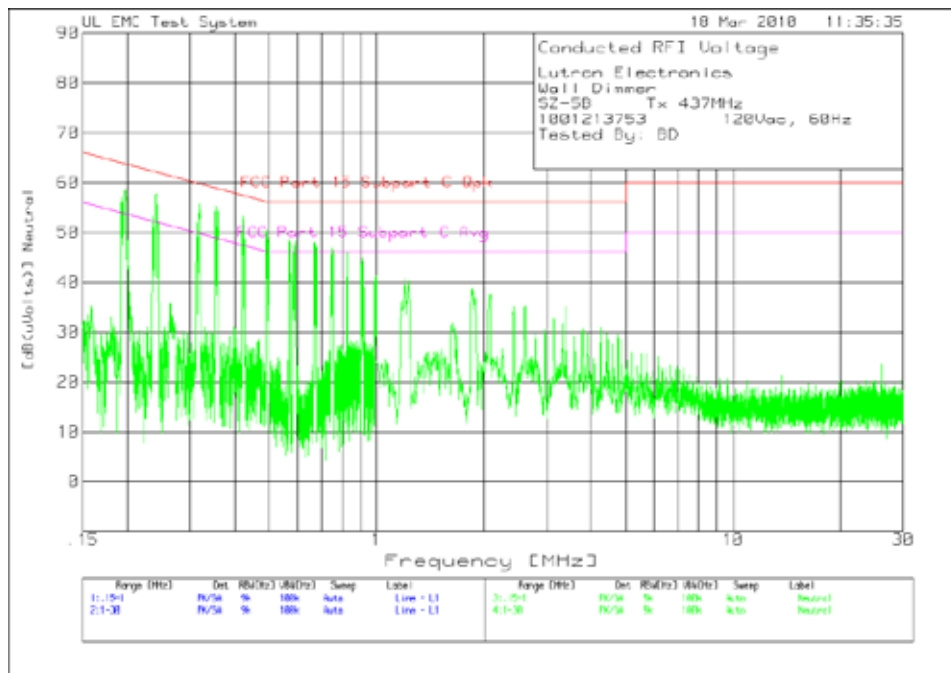
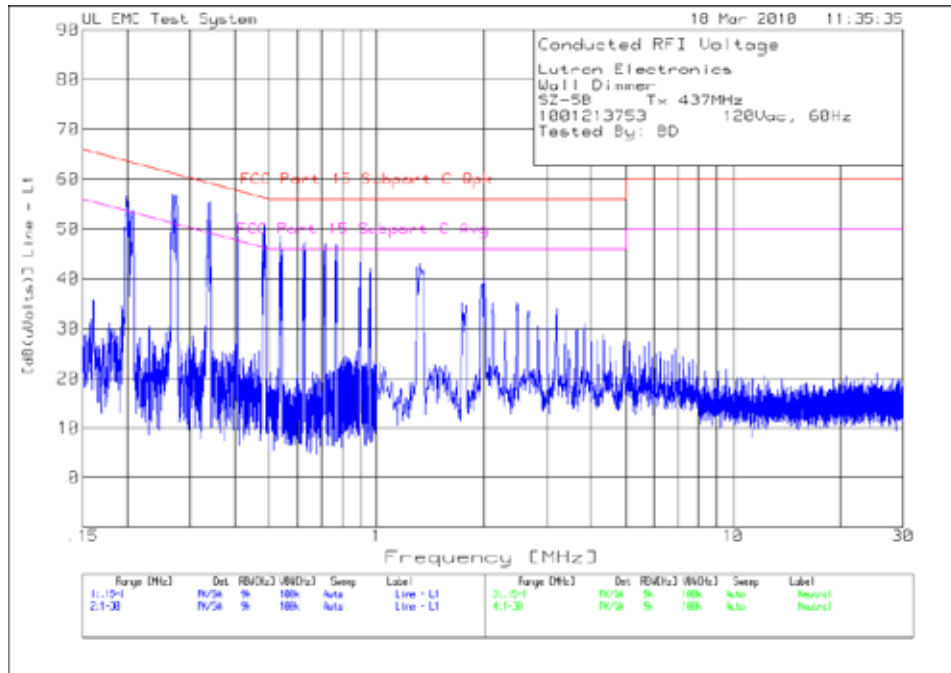
Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Neutral .15 - 1MHz										
.1689	26.39 AV	11.4	0	37.79	65	55	-	-	-	-
			Margin [dB]:		-27.21	-17.21	-	-	-	-
.2842	25.06 AV	10.7	0	35.76	60.7	50.7	-	-	-	-
			Margin [dB]:		-24.94	-14.94	-	-	-	-
.35129	23.18 AV	10.6	0	33.78	58.9	48.9	-	-	-	-
			Margin [dB]:		-25.12	-15.12	-	-	-	-
.41625	20.94 AV	10.5	0	31.44	57.5	47.5	-	-	-	-
			Margin [dB]:		-26.06	-16.06	-	-	-	-
.50593	18.42 AV	10.4	0	28.82	56	46	-	-	-	-
			Margin [dB]:		-27.18	-17.18	-	-	-	-
.58515	14.99 AV	10.4	0	25.39	56	46	-	-	-	-
			Margin [dB]:		-30.61	-20.61	-	-	-	-
.66414	15.57 AV	10.4	0	25.97	56	46	-	-	-	-
			Margin [dB]:		-30.03	-20.03	-	-	-	-
.74087	16.6 AV	10.4	0	27	56	46	-	-	-	-
			Margin [dB]:		-29	-19	-	-	-	-
.7679	15.95 AV	10.4	0	26.35	56	46	-	-	-	-
			Margin [dB]:		-29.65	-19.65	-	-	-	-
.83037	15.94 AV	10.4	0	26.34	56	46	-	-	-	-
			Margin [dB]:		-29.66	-19.66	-	-	-	-
.86731	16.58 AV	10.4	0	26.98	56	46	-	-	-	-
			Margin [dB]:		-29.02	-19.02	-	-	-	-
.94629	14.5 AV	10.3	0	24.8	56	46	-	-	-	-
			Margin [dB]:		-31.2	-21.2	-	-	-	-

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

- PK - Peak detector
- QP - Quasi-Peak detector
- av - Linear average detector
- avlg - average log detection
- AV - average detection
- CAV - CISPR average detection
- RMS - RMS detection
- CRMS - CISPR RMS 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 3 Conducted Emissions Graph**



**Table 4 Conducted Emissions Data Points**

Lutron Electronics  
 Wall Dimmer  
 SZ-5B Tx 437MHz  
 1001213753 120Vac, 60Hz  
 Tested By: BD

Test No.	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											
1	.19965	45.42 pk	11.1	0	56.52	63.6	53.6	-	-	-	-
				Margin [dB]		-7.08	2.92	-	-	-	-
2	.26851	46.26 pk	10.7	0	56.96	61.2	51.2	-	-	-	-
				Margin [dB]		-4.24	5.76	-	-	-	-
3	.34129	44.71 pk	10.6	0	55.31	59.2	49.2	-	-	-	-
				Margin [dB]		-3.89	6.11	-	-	-	-
4	.40726	42.62 pk	10.5	0	53.12	57.7	47.7	-	-	-	-
				Margin [dB]		-4.58	5.42	-	-	-	-
5	.48429	40.45 pk	10.4	0	50.85	56.3	46.3	-	-	-	-
				Margin [dB]		-5.45	4.55	-	-	-	-
6	.53819	38.21 pk	10.4	0	48.61	56	46	-	-	-	-
				Margin [dB]		-7.39	2.61	-	-	-	-
7	.63273	37.15 pk	10.4	0	47.55	56	46	-	-	-	-
				Margin [dB]		-8.45	1.55	-	-	-	-
8	.71689	36.5 pk	10.3	0	46.8	56	46	-	-	-	-
				Margin [dB]		-9.2	.8	-	-	-	-
9	.76705	36.5 pk	10.3	0	46.8	56	46	-	-	-	-
				Margin [dB]		-9.2	.8	-	-	-	-
10	.89713	33.04 pk	10.3	0	43.34	56	46	-	-	-	-
				Margin [dB]		-12.66	-2.66	-	-	-	-
11	.96191	31.89 pk	10.3	0	42.19	56	46	-	-	-	-
				Margin [dB]		-13.81	-3.81	-	-	-	-
-----											
Line - L1 1 - 30MHz											
12	1.31906	32.61 pk	10.3	0	42.91	56	46	-	-	-	-
				Margin [dB]		-13.09	-3.09	-	-	-	-

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

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

Job Number: 1001213753 File Number: MC15896 Page 24 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

No.	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											
13	.19863	47.42 pk	11.1	0	58.52	63.7	53.7	-	-	-	-
				Margin [dB]		-5.18	4.82	-	-	-	-
14	.24097	47.01 pk	10.9	0	57.91	62.1	52.1	-	-	-	-
				Margin [dB]		-4.19	5.81	-	-	-	-
15	.31833	44.92 pk	10.7	0	55.62	59.8	49.8	-	-	-	-
				Margin [dB]		-4.18	5.82	-	-	-	-
16	.3537	44.63 pk	10.6	0	55.23	58.9	48.9	-	-	-	-
				Margin [dB]		-3.67	6.33	-	-	-	-
17	.42052	42.71 pk	10.5	0	53.21	57.4	47.4	-	-	-	-
				Margin [dB]		-4.19	5.81	-	-	-	-
18	.49636	38.64 pk	10.5	0	49.14	56.1	46.1	-	-	-	-
				Margin [dB]		-6.96	3.04	-	-	-	-
19	.56964	38.05 pk	10.4	0	48.45	56	46	-	-	-	-
				Margin [dB]		-7.55	2.45	-	-	-	-
20	.58376	36.93 pk	10.4	0	47.33	56	46	-	-	-	-
				Margin [dB]		-8.67	1.33	-	-	-	-
21	.59226	37.69 pk	10.4	0	48.09	56	46	-	-	-	-
				Margin [dB]		-7.91	2.09	-	-	-	-
22	.67234	37.62 pk	10.4	0	48.02	56	46	-	-	-	-
				Margin [dB]		-7.98	2.02	-	-	-	-
23	.75039	36.4 pk	10.4	0	46.8	56	46	-	-	-	-
				Margin [dB]		-9.2	.8	-	-	-	-
24	.82623	35.25 pk	10.4	0	45.65	56	46	-	-	-	-
				Margin [dB]		-10.35	-.35	-	-	-	-
25	.91294	34.49 pk	10.3	0	44.79	56	46	-	-	-	-
				Margin [dB]		-11.21	-1.21	-	-	-	-
26	.99881	31.04 pk	10.3	0	41.34	56	46	-	-	-	-
				Margin [dB]		-14.66	-4.66	-	-	-	-

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

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



Lutron Electronics  
 Wall Dimmer  
 SZ-5B Tx 437MHz  
 1001213753 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										
.19954	45.05 qp	11.1	0	56.15	63.6	53.6	-	-	-	-
				Margin [dB]:	-7.45	2.55	-	-	-	-
.26798	42.45 qp	10.7	0	53.15	61.2	51.2	-	-	-	-
				Margin [dB]:	-8.05	1.95	-	-	-	-
.34088	41.25 qp	10.6	0	51.85	59.2	49.2	-	-	-	-
				Margin [dB]:	-7.35	2.65	-	-	-	-
.4069	39.67 qp	10.5	0	50.17	57.7	47.7	-	-	-	-
				Margin [dB]:	-7.53	2.47	-	-	-	-
.48445	38.19 qp	10.4	0	48.59	56.3	46.3	-	-	-	-
				Margin [dB]:	-7.71	2.29	-	-	-	-
.53786	35.49 qp	10.4	0	45.89	56	46	-	-	-	-
				Margin [dB]:	-10.11	-.11	-	-	-	-
.6328	35.12 qp	10.4	0	45.52	56	46	-	-	-	-
				Margin [dB]:	-10.48	-.48	-	-	-	-
.71714	34.75 qp	10.3	0	45.05	56	46	-	-	-	-
				Margin [dB]:	-10.95	-.95	-	-	-	-
.76694	34.06 qp	10.3	0	44.36	56	46	-	-	-	-
				Margin [dB]:	-11.64	-1.64	-	-	-	-
.89709	30.73 qp	10.3	0	41.03	56	46	-	-	-	-
				Margin [dB]:	-14.97	-4.97	-	-	-	-
.96182	28.19 qp	10.3	0	38.49	56	46	-	-	-	-
				Margin [dB]:	-17.51	-7.51	-	-	-	-
Line - L1 1 - 30MHz										
1.31921	28.78 qp	10.3	0	39.08	56	46	-	-	-	-
				Margin [dB]:	-16.92	-6.92	-	-	-	-

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

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

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										
.19816	45.67 qp	11.1	0	56.77	63.7	53.7	-	-	-	-
				Margin [dB]:	-6.93	3.07	-	-	-	-
.24038	44.77 qp	10.9	0	55.67	62.1	52.1	-	-	-	-
				Margin [dB]:	-6.43	3.57	-	-	-	-
.31864	43 qp	10.6	0	53.6	59.7	49.7	-	-	-	-
				Margin [dB]:	-6.1	3.9	-	-	-	-
.35368	41.6 qp	10.6	0	52.2	58.9	48.9	-	-	-	-
				Margin [dB]:	-6.7	3.3	-	-	-	-
.42016	39.95 qp	10.5	0	50.45	57.4	47.4	-	-	-	-
				Margin [dB]:	-6.95	3.05	-	-	-	-
.49635	36.62 qp	10.5	0	47.12	56.1	46.1	-	-	-	-
				Margin [dB]:	-8.98	1.02	-	-	-	-
.5697	36.04 qp	10.4	0	46.44	56	46	-	-	-	-
				Margin [dB]:	-9.56	.44	-	-	-	-
.58409	35.3 qp	10.4	0	45.7	56	46	-	-	-	-
				Margin [dB]:	-10.3	-.3	-	-	-	-
.59276	35.59 qp	10.4	0	45.99	56	46	-	-	-	-
				Margin [dB]:	-10.01	-.01	-	-	-	-
.67266	34.73 qp	10.4	0	45.13	56	46	-	-	-	-
				Margin [dB]:	-10.87	-.87	-	-	-	-
.75056	33.52 qp	10.4	0	43.92	56	46	-	-	-	-
				Margin [dB]:	-12.08	-2.08	-	-	-	-
.82575	32.93 qp	10.4	0	43.33	56	46	-	-	-	-
				Margin [dB]:	-12.67	-2.67	-	-	-	-
.91286	30.56 qp	10.3	0	40.86	56	46	-	-	-	-
				Margin [dB]:	-15.14	-5.14	-	-	-	-
.99923	27.69 qp	10.3	0	37.99	56	46	-	-	-	-
				Margin [dB]:	-18.01	-8.01	-	-	-	-

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

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

Lutron Electronics  
 Wall Dimmer  
 SZ-5B Tx 437MHz  
 1001213753 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										
.19954	29.3 AV	11.1	0	40.4	63.6	53.6	-	-	-	-
			Margin [dB]:		-23.2	-13.2	-	-	-	-
.26798	26.03 AV	10.7	0	36.73	61.2	51.2	-	-	-	-
			Margin [dB]:		-24.47	-14.47	-	-	-	-
.34088	21.53 AV	10.6	0	32.13	59.2	49.2	-	-	-	-
			Margin [dB]:		-27.07	-17.07	-	-	-	-
.4069	19.57 AV	10.5	0	30.07	57.7	47.7	-	-	-	-
			Margin [dB]:		-27.63	-17.63	-	-	-	-
.48445	18.43 AV	10.4	0	28.83	56.3	46.3	-	-	-	-
			Margin [dB]:		-27.47	-17.47	-	-	-	-
.53786	15.54 AV	10.4	0	25.94	56	46	-	-	-	-
			Margin [dB]:		-30.06	-20.06	-	-	-	-
.6328	15.05 AV	10.4	0	25.45	56	46	-	-	-	-
			Margin [dB]:		-30.55	-20.55	-	-	-	-
.71714	15.98 AV	10.3	0	26.28	56	46	-	-	-	-
			Margin [dB]:		-29.72	-19.72	-	-	-	-
.76694	14.69 AV	10.3	0	24.99	56	46	-	-	-	-
			Margin [dB]:		-31.01	-21.01	-	-	-	-
.89709	13 AV	10.3	0	23.3	56	46	-	-	-	-
			Margin [dB]:		-32.7	-22.7	-	-	-	-
.96182	11.46 AV	10.3	0	21.76	56	46	-	-	-	-
			Margin [dB]:		-34.24	-24.24	-	-	-	-
Line - L1 1 - 30MHz										
1.31921	11.72 AV	10.3	0	22.02	56	46	-	-	-	-
			Margin [dB]:		-33.98	-23.98	-	-	-	-

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

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

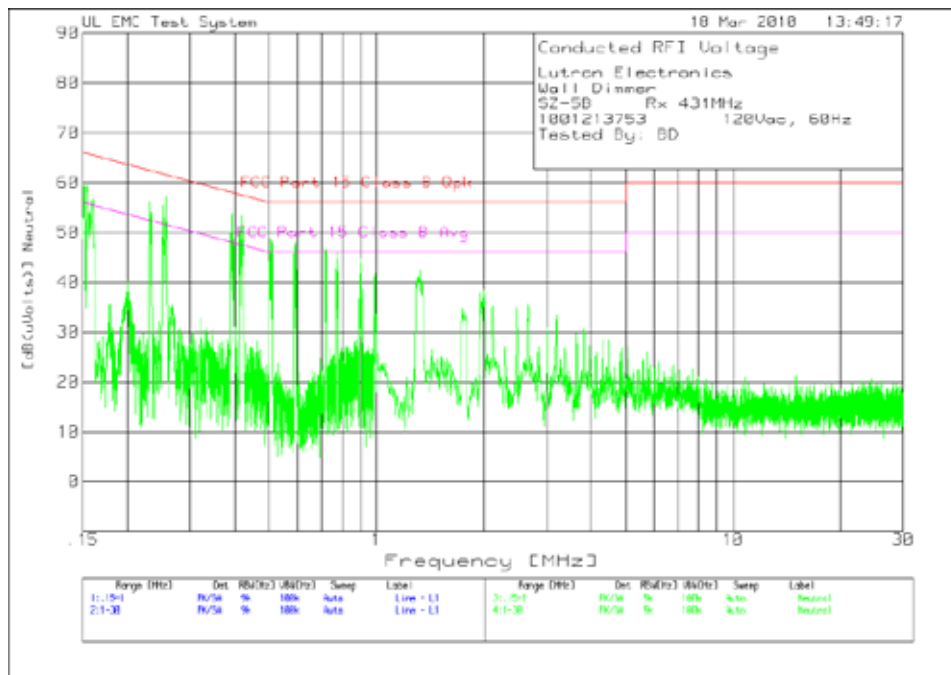
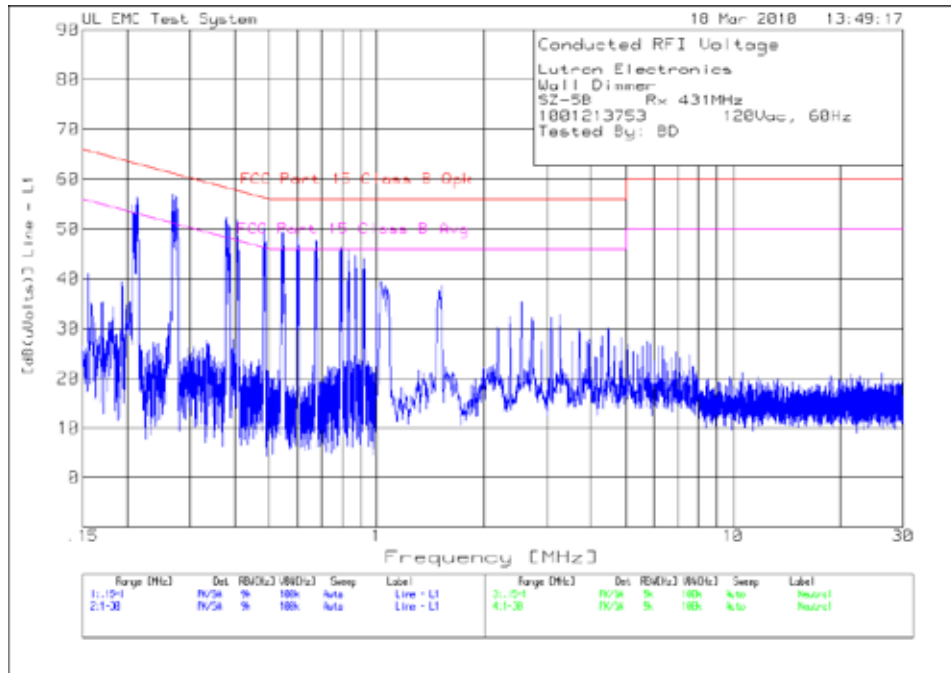
Neutral	.15 - 1MHz									
.19816	29.55 AV	11.1	0	40.65	63.7	53.7	-	-	-	-
			Margin [dB]:		-23.05	-13.05	-	-	-	-
.24038	26.11 AV	10.9	0	37.01	62.1	52.1	-	-	-	-
			Margin [dB]:		-25.09	-15.09	-	-	-	-
.31864	23.5 AV	10.6	0	34.1	59.7	49.7	-	-	-	-
			Margin [dB]:		-25.6	-15.6	-	-	-	-
.35368	23.15 AV	10.6	0	33.75	58.9	48.9	-	-	-	-
			Margin [dB]:		-25.15	-15.15	-	-	-	-
.42016	21.65 AV	10.5	0	32.15	57.4	47.4	-	-	-	-
			Margin [dB]:		-25.25	-15.25	-	-	-	-
.49635	17.3 AV	10.5	0	27.8	56.1	46.1	-	-	-	-
			Margin [dB]:		-28.3	-18.3	-	-	-	-
.5697	16.11 AV	10.4	0	26.51	56	46	-	-	-	-
			Margin [dB]:		-29.49	-19.49	-	-	-	-
.58409	14.88 AV	10.4	0	25.28	56	46	-	-	-	-
			Margin [dB]:		-30.72	-20.72	-	-	-	-
.59276	15.69 AV	10.4	0	26.09	56	46	-	-	-	-
			Margin [dB]:		-29.91	-19.91	-	-	-	-
.67266	15.41 AV	10.4	0	25.81	56	46	-	-	-	-
			Margin [dB]:		-30.19	-20.19	-	-	-	-
.75056	15.89 AV	10.4	0	26.29	56	46	-	-	-	-
			Margin [dB]:		-29.71	-19.71	-	-	-	-
.82575	16.46 AV	10.4	0	26.86	56	46	-	-	-	-
			Margin [dB]:		-29.14	-19.14	-	-	-	-
.91286	15.54 AV	10.3	0	25.84	56	46	-	-	-	-
			Margin [dB]:		-30.16	-20.16	-	-	-	-
.99923	13.27 AV	10.3	0	23.57	56	46	-	-	-	-
			Margin [dB]:		-32.43	-22.43	-	-	-	-

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

- PK - Peak detector
- QP - Quasi-Peak detector
- av - Linear average detector
- avlg - average log detection
- AV - average detection
- CAV - CISPR average detection
- RMS - RMS detection
- CRMS - CISPR RMS 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 4 Conducted Emissions Graph**



**Table 5 Conducted Emissions Data Points**

Lutron Electronics  
 Wall Dimmer  
 SZ-5B Rx 431MHz  
 1001213753 120Vac, 60Hz  
 Tested By: BD

Test No.	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								
1	.2124	45.4 pk	11	0	56.4	63.1	53.1	-	-	-	-
				Margin [dB]		-6.7	3.3	-	-	-	-
2	.26817	46.29 pk	10.7	0	56.99	61.2	51.2	-	-	-	-
				Margin [dB]		-4.21	5.79	-	-	-	-
3	.37989	41.81 pk	10.5	0	52.31	58.3	48.3	-	-	-	-
				Margin [dB]		-5.99	4.01	-	-	-	-
4	.40658	41.51 pk	10.5	0	52.01	57.7	47.7	-	-	-	-
				Margin [dB]		-5.69	4.31	-	-	-	-
5	.48412	39.79 pk	10.4	0	50.19	56.3	46.3	-	-	-	-
				Margin [dB]		-6.11	3.89	-	-	-	-
6	.54618	38.78 pk	10.4	0	49.18	56	46	-	-	-	-
				Margin [dB]		-6.82	3.18	-	-	-	-
7	.60059	37.89 pk	10.4	0	48.29	56	46	-	-	-	-
				Margin [dB]		-7.71	2.29	-	-	-	-
8	.68	37.13 pk	10.3	0	47.43	56	46	-	-	-	-
				Margin [dB]		-8.57	1.43	-	-	-	-
9	.79426	36.01 pk	10.3	0	46.31	56	46	-	-	-	-
				Margin [dB]		-9.69	.31	-	-	-	-
10	.83524	35.68 pk	10.3	0	45.98	56	46	-	-	-	-
				Margin [dB]		-10.02	-.02	-	-	-	-
11	.87367	34.46 pk	10.3	0	44.76	56	46	-	-	-	-
				Margin [dB]		-11.24	-1.24	-	-	-	-
12	.92417	33.61 pk	10.3	0	43.91	56	46	-	-	-	-
				Margin [dB]		-12.09	-2.09	-	-	-	-

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

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

Neutral .15 - 1MHz -----										
13	.15153	47.72 pk	11.7	0	59.42	65.9	55.9	-	-	-
				Margin [dB]		-6.48	3.52	-	-	-
14	.23043	45.31 pk	10.9	0	56.21	62.4	52.4	-	-	-
				Margin [dB]		-6.19	3.81	-	-	-
15	.25627	46.3 pk	10.8	0	57.1	61.6	51.6	-	-	-
				Margin [dB]		-4.5	5.5	-	-	-
16	.39366	43.41 pk	10.5	0	53.91	58	48	-	-	-
				Margin [dB]		-4.09	5.91	-	-	-
17	.41848	42.8 pk	10.5	0	53.3	57.5	47.5	-	-	-
				Margin [dB]		-4.2	5.8	-	-	-
18	.50775	37.9 pk	10.4	0	48.3	56	46	-	-	-
				Margin [dB]		-7.7	2.3	-	-	-
19	.59226	37.53 pk	10.4	0	47.93	56	46	-	-	-
				Margin [dB]		-8.07	1.93	-	-	-
20	.71672	36.49 pk	10.4	0	46.89	56	46	-	-	-
				Margin [dB]		-9.11	.89	-	-	-
21	.77096	35.78 pk	10.4	0	46.18	56	46	-	-	-
				Margin [dB]		-9.82	.18	-	-	-
22	.90376	34.27 pk	10.3	0	44.57	56	46	-	-	-
				Margin [dB]		-11.43	-1.43	-	-	-
23	.99439	31.45 pk	10.3	0	41.75	56	46	-	-	-
				Margin [dB]		-14.25	-4.25	-	-	-
Neutral 1 - 30MHz -----										
24	1.33067	31.93 pk	10.3	0	42.23	56	46	-	-	-
				Margin [dB]		-13.77	-3.77	-	-	-

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

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

Lutron Electronics  
 Wall Dimmer  
 SZ-5B Rx 431MHz  
 1001213753 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										
.21239	44.51 qp	11	0	55.51	63.1	53.1	-	-	-	-
				Margin [dB]:	-7.59	2.41	-	-	-	-
.26743	42.95 qp	10.7	0	53.65	61.2	51.2	-	-	-	-
				Margin [dB]:	-7.55	2.45	-	-	-	-
.38037	40.64 qp	10.5	0	51.14	58.3	48.3	-	-	-	-
				Margin [dB]:	-7.16	2.84	-	-	-	-
.40588	38.84 qp	10.5	0	49.34	57.7	47.7	-	-	-	-
				Margin [dB]:	-8.36	1.64	-	-	-	-
.48428	37.56 qp	10.4	0	47.96	56.3	46.3	-	-	-	-
				Margin [dB]:	-8.34	1.66	-	-	-	-
.5458	35.58 qp	10.4	0	45.98	56	46	-	-	-	-
				Margin [dB]:	-10.02	-.02	-	-	-	-
.60023	34.69 qp	10.4	0	45.09	56	46	-	-	-	-
				Margin [dB]:	-10.91	-.91	-	-	-	-
.67981	34.35 qp	10.3	0	44.65	56	46	-	-	-	-
				Margin [dB]:	-11.35	-1.35	-	-	-	-
.79477	32.73 qp	10.3	0	43.03	56	46	-	-	-	-
				Margin [dB]:	-12.97	-2.97	-	-	-	-
.83502	32.25 qp	10.3	0	42.55	56	46	-	-	-	-
				Margin [dB]:	-13.45	-3.45	-	-	-	-
.87382	30.75 qp	10.3	0	41.05	56	46	-	-	-	-
				Margin [dB]:	-14.95	-4.95	-	-	-	-
.92475	30.01 qp	10.3	0	40.31	56	46	-	-	-	-
				Margin [dB]:	-15.69	-5.69	-	-	-	-

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

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



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										
.15185	45.58 qp	11.7	0	57.28	65.9	55.9	-	-	-	-
				Margin [dB]:	-8.62	1.38	-	-	-	-
.23124	42.99 qp	10.9	0	53.89	62.4	52.4	-	-	-	-
				Margin [dB]:	-8.51	1.49	-	-	-	-
.25659	43.97 qp	10.8	0	54.77	61.5	51.5	-	-	-	-
				Margin [dB]:	-6.73	3.27	-	-	-	-
.39391	39.82 qp	10.5	0	50.32	58	48	-	-	-	-
				Margin [dB]:	-7.68	2.32	-	-	-	-
.41841	39.61 qp	10.5	0	50.11	57.5	47.5	-	-	-	-
				Margin [dB]:	-7.39	2.61	-	-	-	-
.50742	37.12 qp	10.4	0	47.52	56	46	-	-	-	-
				Margin [dB]:	-8.48	1.52	-	-	-	-
.59204	35.19 qp	10.4	0	45.59	56	46	-	-	-	-
				Margin [dB]:	-10.41	-.41	-	-	-	-
.71649	34.21 qp	10.4	0	44.61	56	46	-	-	-	-
				Margin [dB]:	-11.39	-1.39	-	-	-	-
.77087	33.39 qp	10.4	0	43.79	56	46	-	-	-	-
				Margin [dB]:	-12.21	-2.21	-	-	-	-
.90363	31.11 qp	10.3	0	41.41	56	46	-	-	-	-
				Margin [dB]:	-14.59	-4.59	-	-	-	-
.99388	27.61 qp	10.3	0	37.91	56	46	-	-	-	-
				Margin [dB]:	-18.09	-8.09	-	-	-	-
Neutral 1 - 30MHz										
1.33021	27.82 qp	10.3	0	38.12	56	46	-	-	-	-
				Margin [dB]:	-17.88	-7.88	-	-	-	-

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

- PK - Peak detector
- QP - Quasi-Peak detector
- av - Linear average detector
- avlg - average log detection
- AV - average detection
- CAV - CISPR average detection
- RMS - RMS detection
- CRMS - CISPR RMS 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: 1001213753    File Number: MC15896    Page 34 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063    Industry Canada Number 2851A-JPZ0055

Lutron Electronics  
 Wall Dimmer  
 SZ-5B    Rx 431MHz  
 1001213753    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									
.21239	25.18 AV	11	0	36.18	63.1	53.1	-	-	-	-
			Margin [dB]:		-26.92	-16.92	-	-	-	-
.26743	26.21 AV	10.7	0	36.91	61.2	51.2	-	-	-	-
			Margin [dB]:		-24.29	-14.29	-	-	-	-
.38037	20.54 AV	10.5	0	31.04	58.3	48.3	-	-	-	-
			Margin [dB]:		-27.26	-17.26	-	-	-	-
.40588	19.41 AV	10.5	0	29.91	57.7	47.7	-	-	-	-
			Margin [dB]:		-27.79	-17.79	-	-	-	-
.48428	17.85 AV	10.4	0	28.25	56.3	46.3	-	-	-	-
			Margin [dB]:		-28.05	-18.05	-	-	-	-
.5458	15.83 AV	10.4	0	26.23	56	46	-	-	-	-
			Margin [dB]:		-29.77	-19.77	-	-	-	-
.60023	15.21 AV	10.4	0	25.61	56	46	-	-	-	-
			Margin [dB]:		-30.39	-20.39	-	-	-	-
.67981	15.89 AV	10.3	0	26.19	56	46	-	-	-	-
			Margin [dB]:		-29.81	-19.81	-	-	-	-
.79477	15.39 AV	10.3	0	25.69	56	46	-	-	-	-
			Margin [dB]:		-30.31	-20.31	-	-	-	-
.83502	13.99 AV	10.3	0	24.29	56	46	-	-	-	-
			Margin [dB]:		-31.71	-21.71	-	-	-	-
.87382	13.62 AV	10.3	0	23.92	56	46	-	-	-	-
			Margin [dB]:		-32.08	-22.08	-	-	-	-
.92475	13.27 AV	10.3	0	23.57	56	46	-	-	-	-
			Margin [dB]:		-32.43	-22.43	-	-	-	-

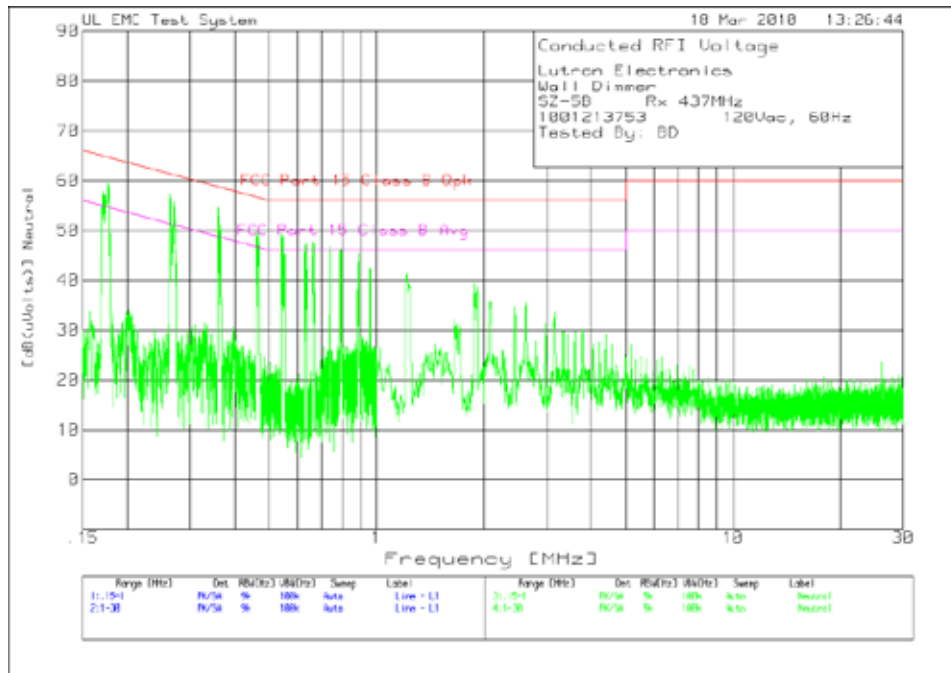
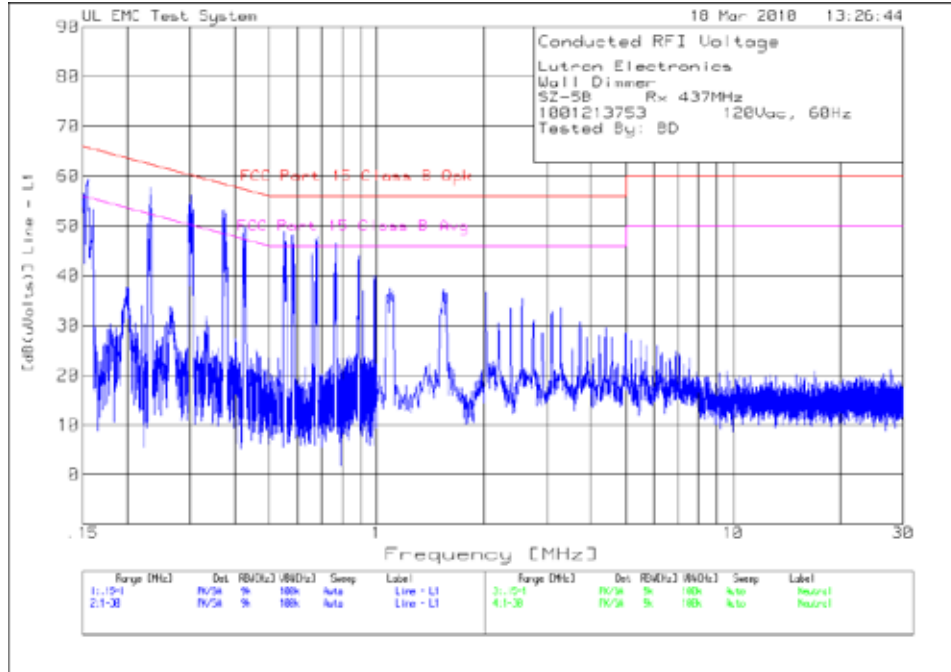
Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Neutral .15 - 1MHz										
.15185	27.14 AV	11.7	0	38.84	65.9	55.9	-	-	-	-
				Margin [dB]:	-27.06	-17.06	-	-	-	-
.23124	23.39 AV	10.9	0	34.29	62.4	52.4	-	-	-	-
				Margin [dB]:	-28.11	-18.11	-	-	-	-
.25659	25.23 AV	10.8	0	36.03	61.5	51.5	-	-	-	-
				Margin [dB]:	-25.47	-15.47	-	-	-	-
.39391	21.29 AV	10.5	0	31.79	58	48	-	-	-	-
				Margin [dB]:	-26.21	-16.21	-	-	-	-
.41841	20.8 AV	10.5	0	31.3	57.5	47.5	-	-	-	-
				Margin [dB]:	-26.2	-16.2	-	-	-	-
.50742	18.28 AV	10.4	0	28.68	56	46	-	-	-	-
				Margin [dB]:	-27.32	-17.32	-	-	-	-
.59204	15.41 AV	10.4	0	25.81	56	46	-	-	-	-
				Margin [dB]:	-30.19	-20.19	-	-	-	-
.71649	15.78 AV	10.4	0	26.18	56	46	-	-	-	-
				Margin [dB]:	-29.82	-19.82	-	-	-	-
.77087	15.82 AV	10.4	0	26.22	56	46	-	-	-	-
				Margin [dB]:	-29.78	-19.78	-	-	-	-
.90363	15.21 AV	10.3	0	25.51	56	46	-	-	-	-
				Margin [dB]:	-30.49	-20.49	-	-	-	-
.99388	13.34 AV	10.3	0	23.64	56	46	-	-	-	-
				Margin [dB]:	-32.36	-22.36	-	-	-	-
Neutral 1 - 30MHz										
1.33021	12.29 AV	10.3	0	22.59	56	46	-	-	-	-
				Margin [dB]:	-33.41	-23.41	-	-	-	-

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

- PK - Peak detector
- QP - Quasi-Peak detector
- av - Linear average detector
- avlg - average log detection
- AV - average detection
- CAV - CISPR average detection
- RMS - RMS detection
- CRMS - CISPR RMS 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 5 Conducted Emissions Graph**



**Table 6 Conducted Emissions Data Points**

Lutron Electronics  
 Wall Dimmer  
 SZ-5B Rx 437MHz  
 1001213753 120Vac, 60Hz  
 Tested By: BD

No.	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								
1	.15527	47.94 pk	11.5	0	59.44	65.7	55.7	-	-	-	-
				Margin [dB]		-6.26	3.74	-	-	-	-
2	.23196	46.83 pk	10.9	0	57.73	62.4	52.4	-	-	-	-
				Margin [dB]		-4.67	5.33	-	-	-	-
3	.30116	45.51 pk	10.6	0	56.11	60.2	50.2	-	-	-	-
				Margin [dB]		-4.09	5.91	-	-	-	-
4	.37666	42.83 pk	10.5	0	53.33	58.4	48.4	-	-	-	-
				Margin [dB]		-5.07	4.93	-	-	-	-
5	.42222	39.55 pk	10.5	0	50.05	57.4	47.4	-	-	-	-
				Margin [dB]		-7.35	2.65	-	-	-	-
6	.54992	38.45 pk	10.4	0	48.85	56	46	-	-	-	-
				Margin [dB]		-7.15	2.85	-	-	-	-
7	.58189	36.88 pk	10.4	0	47.28	56	46	-	-	-	-
				Margin [dB]		-8.72	1.28	-	-	-	-
8	.65891	34.3 pk	10.3	0	44.6	56	46	-	-	-	-
				Margin [dB]		-11.4	-1.4	-	-	-	-
9	.68136	37.51 pk	10.3	0	47.81	56	46	-	-	-	-
				Margin [dB]		-8.19	1.81	-	-	-	-
10	.76782	36.23 pk	10.3	0	46.53	56	46	-	-	-	-
				Margin [dB]		-9.47	.53	-	-	-	-
11	.89101	33.47 pk	10.3	0	43.77	56	46	-	-	-	-
				Margin [dB]		-12.23	-2.23	-	-	-	-

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

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

Job Number: 1001213753 File Number: MC15896 Page 38 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

No.	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 -----											
12	.17602	47.2 pk	11.4	0	58.6	64.7	54.7	-	-	-	-
				Margin [dB]		-6.1	3.9	-	-	-	-
13	.26426	46.08 pk	10.8	0	56.88	61.3	51.3	-	-	-	-
				Margin [dB]		-4.42	5.58	-	-	-	-
14	.35914	43.91 pk	10.6	0	54.51	58.7	48.7	-	-	-	-
				Margin [dB]		-4.19	5.81	-	-	-	-
15	.45997	39.3 pk	10.5	0	49.8	56.7	46.7	-	-	-	-
				Margin [dB]		-6.9	3.1	-	-	-	-
16	.54822	38.44 pk	10.4	0	48.84	56	46	-	-	-	-
				Margin [dB]		-7.16	2.84	-	-	-	-
17	.63324	37.16 pk	10.4	0	47.56	56	46	-	-	-	-
				Margin [dB]		-8.44	1.56	-	-	-	-
18	.66367	37.31 pk	10.4	0	47.71	56	46	-	-	-	-
				Margin [dB]		-8.29	1.71	-	-	-	-
19	.74274	36.34 pk	10.4	0	46.74	56	46	-	-	-	-
				Margin [dB]		-9.26	.74	-	-	-	-
20	.78916	35.64 pk	10.4	0	46.04	56	46	-	-	-	-
				Margin [dB]		-9.96	.04	-	-	-	-
21	.89254	34.92 pk	10.4	0	45.32	56	46	-	-	-	-
				Margin [dB]		-10.68	-.68	-	-	-	-
22	.96259	32.02 pk	10.3	0	42.32	56	46	-	-	-	-
				Margin [dB]		-13.68	-3.68	-	-	-	-
-----											
Neutral 1 - 30MHz -----											
23	1.22044	30.96 pk	10.3	0	41.26	56	46	-	-	-	-
				Margin [dB]		-14.74	-4.74	-	-	-	-

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

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

Lutron Electronics  
 Wall Dimmer  
 SZ-5B Rx 437MHz  
 1001213753 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										
.15488	45.72 qp	11.5	0	57.22	65.7	55.7	-	-	-	-
			Margin [dB]:		-8.48	1.52	-	-	-	-
.23216	44.6 qp	10.9	0	55.5	62.4	52.4	-	-	-	-
			Margin [dB]:		-6.9	3.1	-	-	-	-
.30141	43.04 qp	10.6	0	53.64	60.2	50.2	-	-	-	-
			Margin [dB]:		-6.56	3.44	-	-	-	-
.37641	40.73 qp	10.5	0	51.23	58.4	48.4	-	-	-	-
			Margin [dB]:		-7.17	2.83	-	-	-	-
.42226	40 qp	10.5	0	50.5	57.4	47.4	-	-	-	-
			Margin [dB]:		-6.9	3.1	-	-	-	-
.54976	36.41 qp	10.4	0	46.81	56	46	-	-	-	-
			Margin [dB]:		-9.19	.81	-	-	-	-
.58187	35.01 qp	10.4	0	45.41	56	46	-	-	-	-
			Margin [dB]:		-10.59	-.59	-	-	-	-
.65872	34.64 qp	10.3	0	44.94	56	46	-	-	-	-
			Margin [dB]:		-11.06	-1.06	-	-	-	-
.68102	34.56 qp	10.3	0	44.86	56	46	-	-	-	-
			Margin [dB]:		-11.14	-1.14	-	-	-	-
.76781	33.77 qp	10.3	0	44.07	56	46	-	-	-	-
			Margin [dB]:		-11.93	-1.93	-	-	-	-
.89131	31.04 qp	10.3	0	41.34	56	46	-	-	-	-
			Margin [dB]:		-14.66	-4.66	-	-	-	-

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

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

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										
.17525	45.71 qp	11.4	0	57.11	64.7	54.7	-	-	-	-
				Margin [dB]:	-7.59	2.41	-	-	-	-
.26439	44.17 qp	10.8	0	54.97	61.3	51.3	-	-	-	-
				Margin [dB]:	-6.33	3.67	-	-	-	-
.35914	41.17 qp	10.6	0	51.77	58.7	48.7	-	-	-	-
				Margin [dB]:	-6.93	3.07	-	-	-	-
.46052	38.16 qp	10.5	0	48.66	56.7	46.7	-	-	-	-
				Margin [dB]:	-8.04	1.96	-	-	-	-
.54839	35.97 qp	10.4	0	46.37	56	46	-	-	-	-
				Margin [dB]:	-9.63	.37	-	-	-	-
.63327	35.16 qp	10.4	0	45.56	56	46	-	-	-	-
				Margin [dB]:	-10.44	-1.44	-	-	-	-
.66415	34.11 qp	10.4	0	44.51	56	46	-	-	-	-
				Margin [dB]:	-11.49	-1.49	-	-	-	-
.74276	32.15 qp	10.4	0	42.55	56	46	-	-	-	-
				Margin [dB]:	-13.45	-3.45	-	-	-	-
.78883	33.23 qp	10.4	0	43.63	56	46	-	-	-	-
				Margin [dB]:	-12.37	-2.37	-	-	-	-
.89293	30.77 qp	10.4	0	41.17	56	46	-	-	-	-
				Margin [dB]:	-14.83	-4.83	-	-	-	-
.96241	28.45 qp	10.3	0	38.75	56	46	-	-	-	-
				Margin [dB]:	-17.25	-7.25	-	-	-	-
Neutral 1 - 30MHz										
1.22037	-3.98 qp	10.3	0	6.32	56	46	-	-	-	-
				Margin [dB]:	-49.68	-39.68	-	-	-	-

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

- PK - Peak detector
- QP - Quasi-Peak detector
- av - Linear average detector
- avlg - average log detection
- AV - average detection
- CAV - CISPR average detection
- RMS - RMS detection
- CRMS - CISPR RMS 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: 1001213753 File Number: MC15896 Page 41 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

Lutron Electronics  
 Wall Dimmer  
 SZ-5B Rx 437MHz  
 1001213753 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										
.15488	27.19 AV	11.5	0	38.69	65.7	55.7	-	-	-	-
			Margin [dB]:		-27.01	-17.01	-	-	-	-
.23216	23.84 AV	10.9	0	34.74	62.4	52.4	-	-	-	-
			Margin [dB]:		-27.66	-17.66	-	-	-	-
.30141	23.38 AV	10.6	0	33.98	60.2	50.2	-	-	-	-
			Margin [dB]:		-26.22	-16.22	-	-	-	-
.37641	20.83 AV	10.5	0	31.33	58.4	48.4	-	-	-	-
			Margin [dB]:		-27.07	-17.07	-	-	-	-
.42226	19.72 AV	10.5	0	30.22	57.4	47.4	-	-	-	-
			Margin [dB]:		-27.18	-17.18	-	-	-	-
.54976	16.51 AV	10.4	0	26.91	56	46	-	-	-	-
			Margin [dB]:		-29.09	-19.09	-	-	-	-
.58187	14.49 AV	10.4	0	24.89	56	46	-	-	-	-
			Margin [dB]:		-31.11	-21.11	-	-	-	-
.65872	15.01 AV	10.3	0	25.31	56	46	-	-	-	-
			Margin [dB]:		-30.69	-20.69	-	-	-	-
.68102	14.89 AV	10.3	0	25.19	56	46	-	-	-	-
			Margin [dB]:		-30.81	-20.81	-	-	-	-
.76781	15.66 AV	10.3	0	25.96	56	46	-	-	-	-
			Margin [dB]:		-30.04	-20.04	-	-	-	-
.89131	13.71 AV	10.3	0	24.01	56	46	-	-	-	-
			Margin [dB]:		-31.99	-21.99	-	-	-	-

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

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

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										
.17525	27.41 AV	11.4	0	38.81	64.7	54.7	-	-	-	-
				Margin [dB]:	-25.89	-15.89	-	-	-	-
.26439	27.38 AV	10.8	0	38.18	61.3	51.3	-	-	-	-
				Margin [dB]:	-23.12	-13.12	-	-	-	-
.35914	21.98 AV	10.6	0	32.58	58.7	48.7	-	-	-	-
				Margin [dB]:	-26.12	-16.12	-	-	-	-
.46052	19.6 AV	10.5	0	30.1	56.7	46.7	-	-	-	-
				Margin [dB]:	-26.6	-16.6	-	-	-	-
.54839	16.65 AV	10.4	0	27.05	56	46	-	-	-	-
				Margin [dB]:	-28.95	-18.95	-	-	-	-
.63327	15.36 AV	10.4	0	25.76	56	46	-	-	-	-
				Margin [dB]:	-30.24	-20.24	-	-	-	-
.66415	15.18 AV	10.4	0	25.58	56	46	-	-	-	-
				Margin [dB]:	-30.42	-20.42	-	-	-	-
.74276	15.21 AV	10.4	0	25.61	56	46	-	-	-	-
				Margin [dB]:	-30.39	-20.39	-	-	-	-
.78883	15.55 AV	10.4	0	25.95	56	46	-	-	-	-
				Margin [dB]:	-30.05	-20.05	-	-	-	-
.89293	15.53 AV	10.4	0	25.93	56	46	-	-	-	-
				Margin [dB]:	-30.07	-20.07	-	-	-	-
.96241	13.67 AV	10.3	0	23.97	56	46	-	-	-	-
				Margin [dB]:	-32.03	-22.03	-	-	-	-
Neutral 1 - 30MHz										
1.22037	-7.4 AV	10.3	0	2.9	56	46	-	-	-	-
				Margin [dB]:	-53.1	-43.1	-	-	-	-

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

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

**4.2 Test Conditions and Results – OCCUPIED BANDWIDTH**

Test Description	Measurements were made in the laboratory environment. A Dipole 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, RSS-GEN, RSS-210	
<b>Occupied Bandwidth Limits</b>		
0.25% of the Fundamental Frequency		

**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	%
10kHz	-20	99
Supplementary information: Span shall be wide enough to capture all products of the modulation process.		

**Table 9 Occupied Bandwidth Test Equipment**

<b>Test Equipment Used</b>			
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
Multimeter	Fluke	83III	ME5B-305

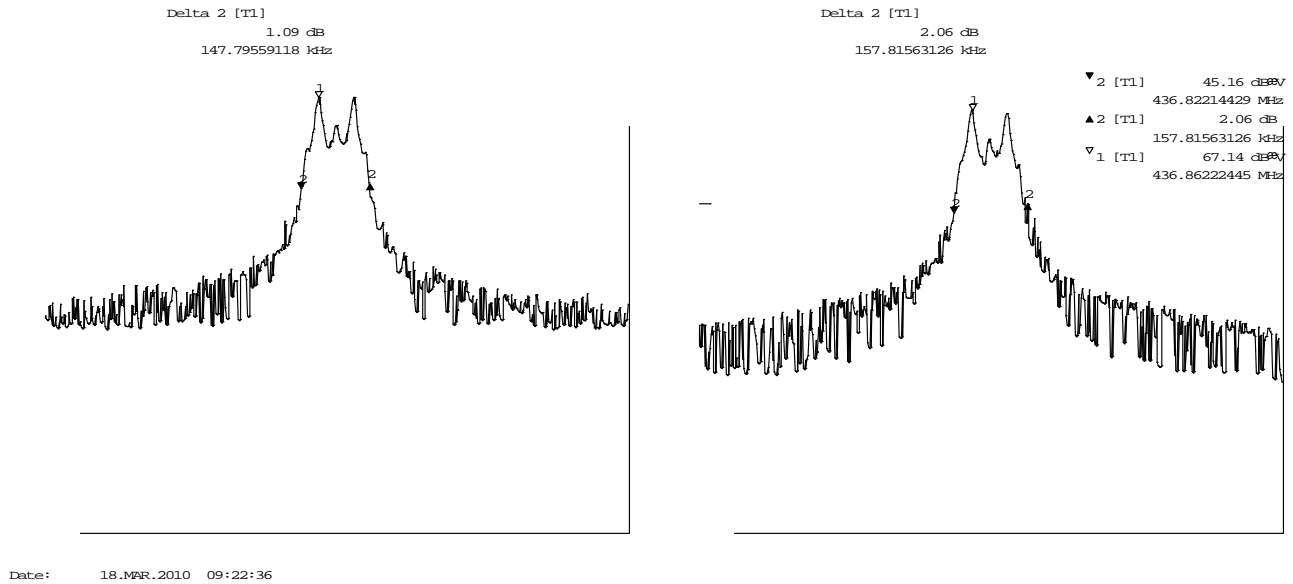
**Figure 6 Test Setup for Occupied Bandwidth**



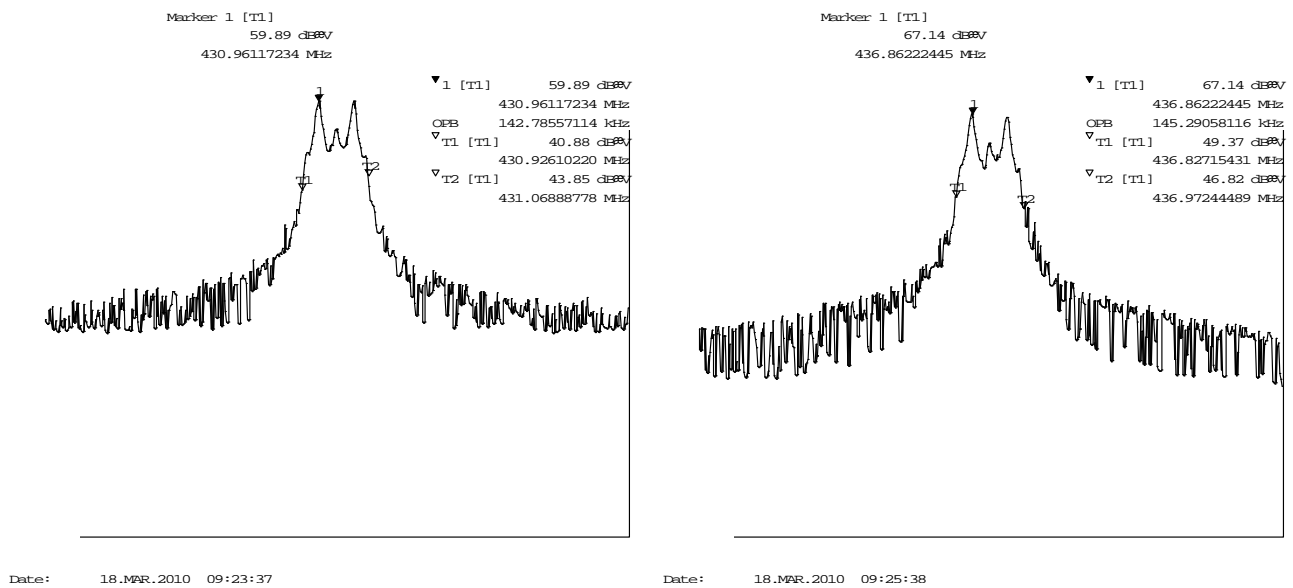
**Table 10 Occupied Bandwidth Test Results**

Frequency (MHz)	20dB OBW	99% OBW	Limit (MHz)	Result
431	147.8kHz	142.8kHz	1.08	Pass
437	157.8kHz	145.3kHz	1.09	Pass

**Figure 7 Occupied Bandwidth Graph – 20dB**



**Figure 8 Occupied Bandwidth Graph – 99% Power**



**4.3 Test Conditions and Results – CEASE OPERATION**

Test Description	Measurements were made in the laboratory environment. A Dipole 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, RSS-GEN, RSS-210
<b>Cease Operation Limits</b>	
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	5
Supplementary information: Same timing circuitry used for all channels. Only 431MHz used for compliance		

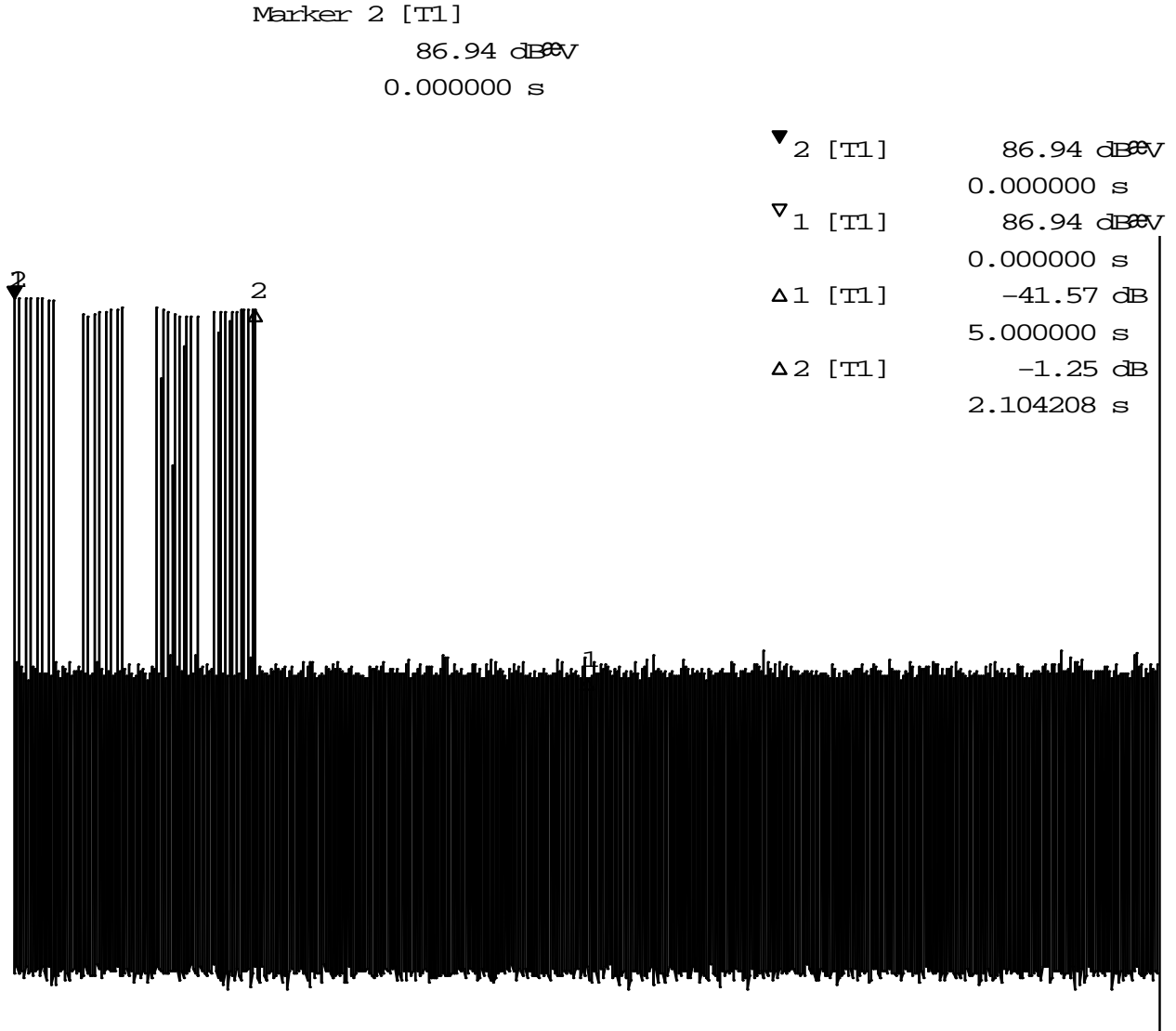
**Table 12 Cease Operation Test Equipment**

<b>Test Equipment Used</b>			
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
Multimeter	Fluke	83III	ME5B-305

**Figure 9 Test Setup for Cease Operation**



**Figure 10 Cease Operation Graph**



Date: 22.MAR.2010 15:45:41



**4.4 Test Conditions and Results – PULSE TRAIN**

Test Description	Measurements were made in the laboratory environment. A Dipole 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
<b>Pulse Train Limits</b>	
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	5
Supplementary information: Same timing circuitry used for all channels. Only 431MHz used for compliance		

**Table 14 Pulse Train Calculation**

Pulse Width (mS) (total on time)	Total Transmission time (mS) or 100ms which ever is lesser	Average Correction Factor (dB)
9.6	100	-20.3

$$20 \log_{10} \frac{\text{PulseWidth}}{\text{TotalTransmissionTime}}$$

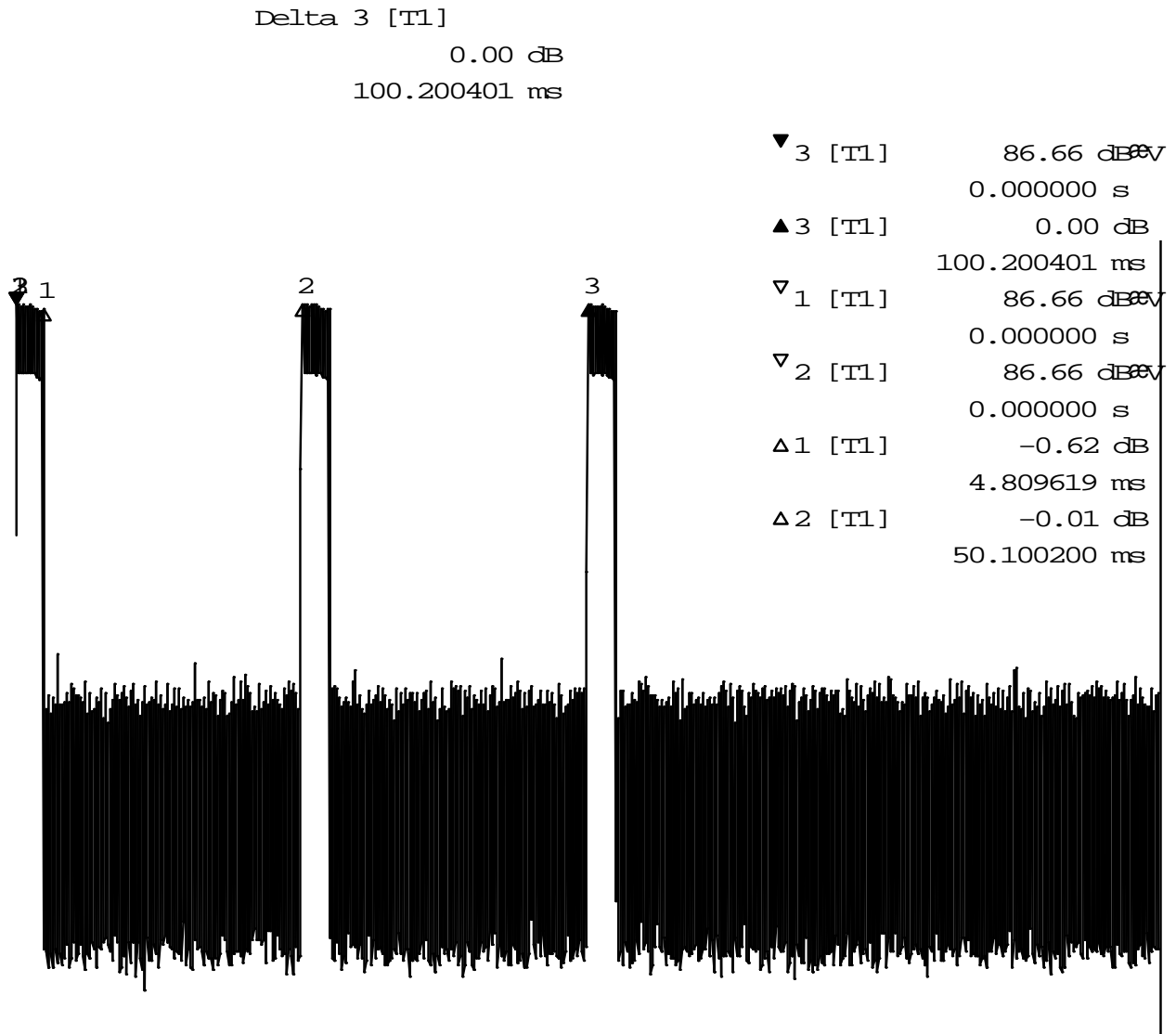
**Table 15 Pulse Train Test Equipment**

<b>Test Equipment Used</b>			
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
Multimeter	Fluke	83III	ME5B-305

Figure 11 Test Setup for Pulse Train



Figure 12 Pulse Train Graph



Date: 22.MAR.2010 15:50:03

**4.5 Test Conditions and Results – RADIATED EMISSIONS (Intentional)**

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 Part15, Subpart C 15.231, RSS-GEN, RSS-210		
UL LPG	80-EM-S0029		
	Frequency range	Measurement Point	
Fully configured sample scanned over the following frequency range	0.009 MHz – 5GHz	(3 meter measurement distance)	
<b>Limits</b>			
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	-	-
960-1000	54	-	-
1000-10000	-	-	54
431	-	80.7	-
437	-	80.9	-
Harmonics of the Fundamental 431	-	-	60.7
Harmonics of the Fundamental 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 (431MHz) since the transmitter does not operate in that range.			

**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
60Hz-30MHz			
EMI Receiver	Rohde & Schwarz	ESIB40	34968
Active Loop Antenna	EMCO	6507	ME5A-288
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	87V	44547
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	87V	44547
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

Job Number: 1001213753 File Number: MC15896 Page 54 of 88  
Model Number: SZ-5B  
Client Name: LUTRON ELECTRONICS INC  
FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

<b>Test Equipment Used</b>			
Description	Manufacturer	Model	Identifier
System Controller	UL	BOMS2	50252
Measurement Software	UL	Version 9.3	44740
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268
Multimeter	Fluke	87V	44547

Figure 13 Test setup for Radiated Emissions

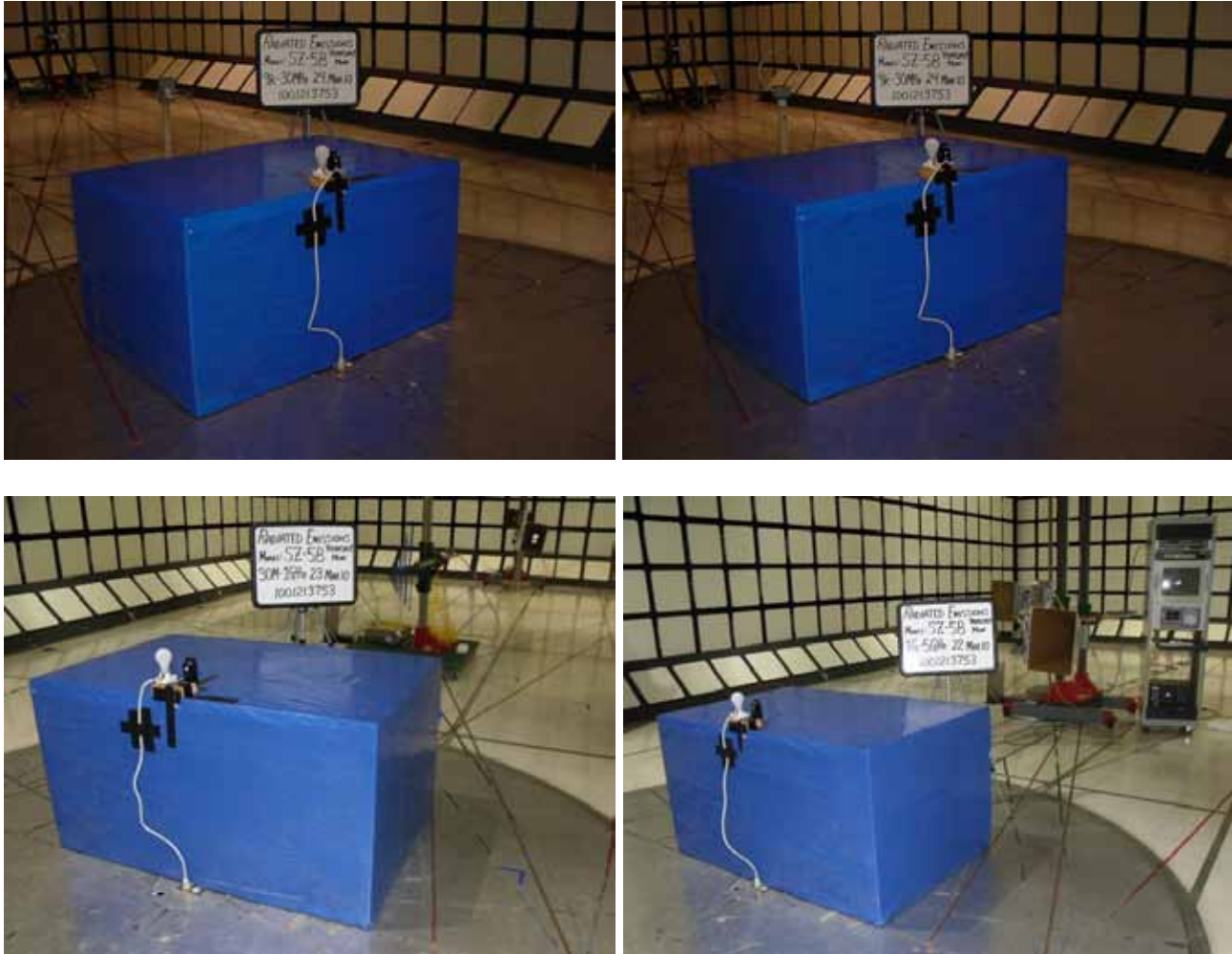
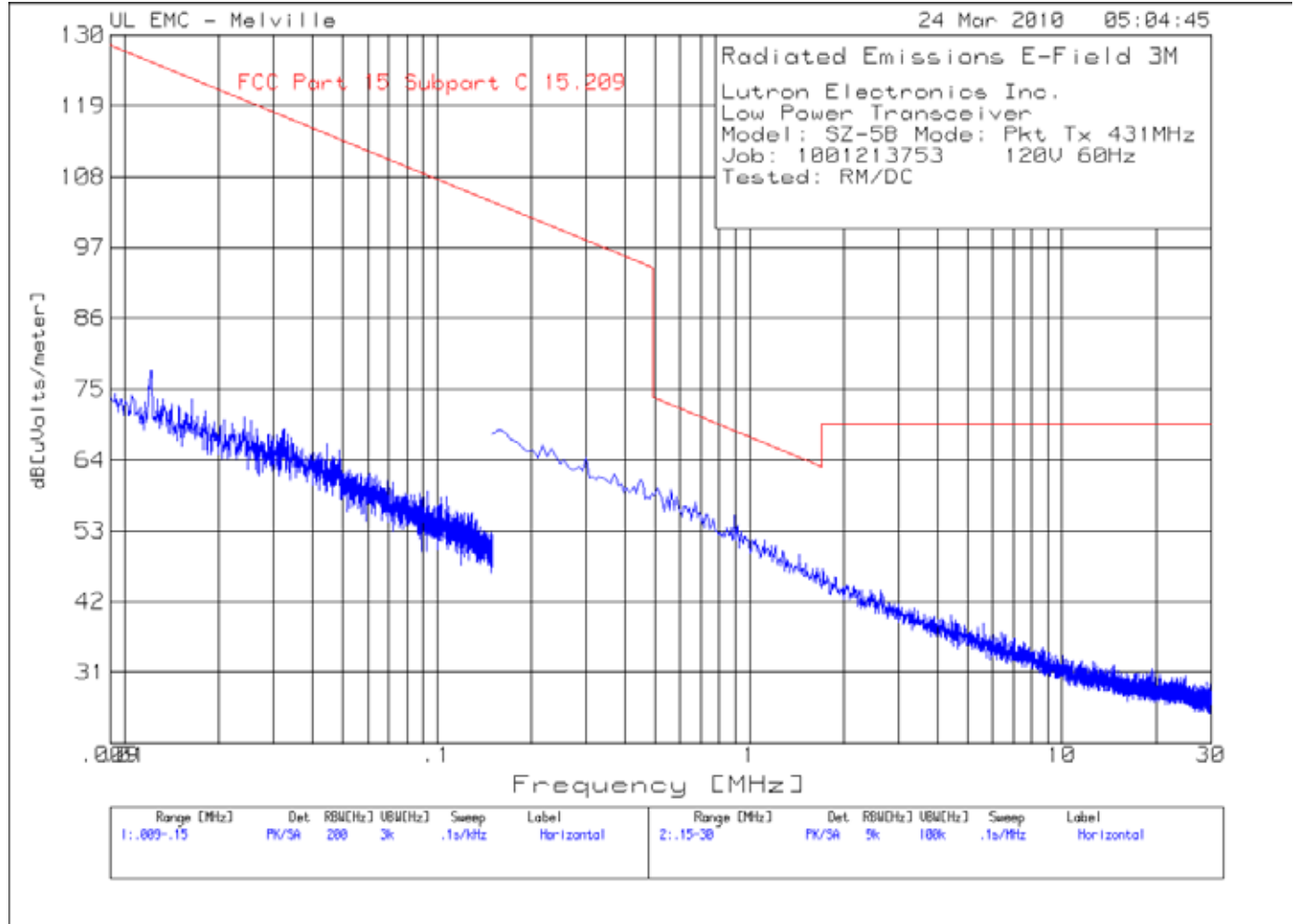


Figure 14 Radiated Emissions Graph





**Table 18 Radiated Emissions Data Points**

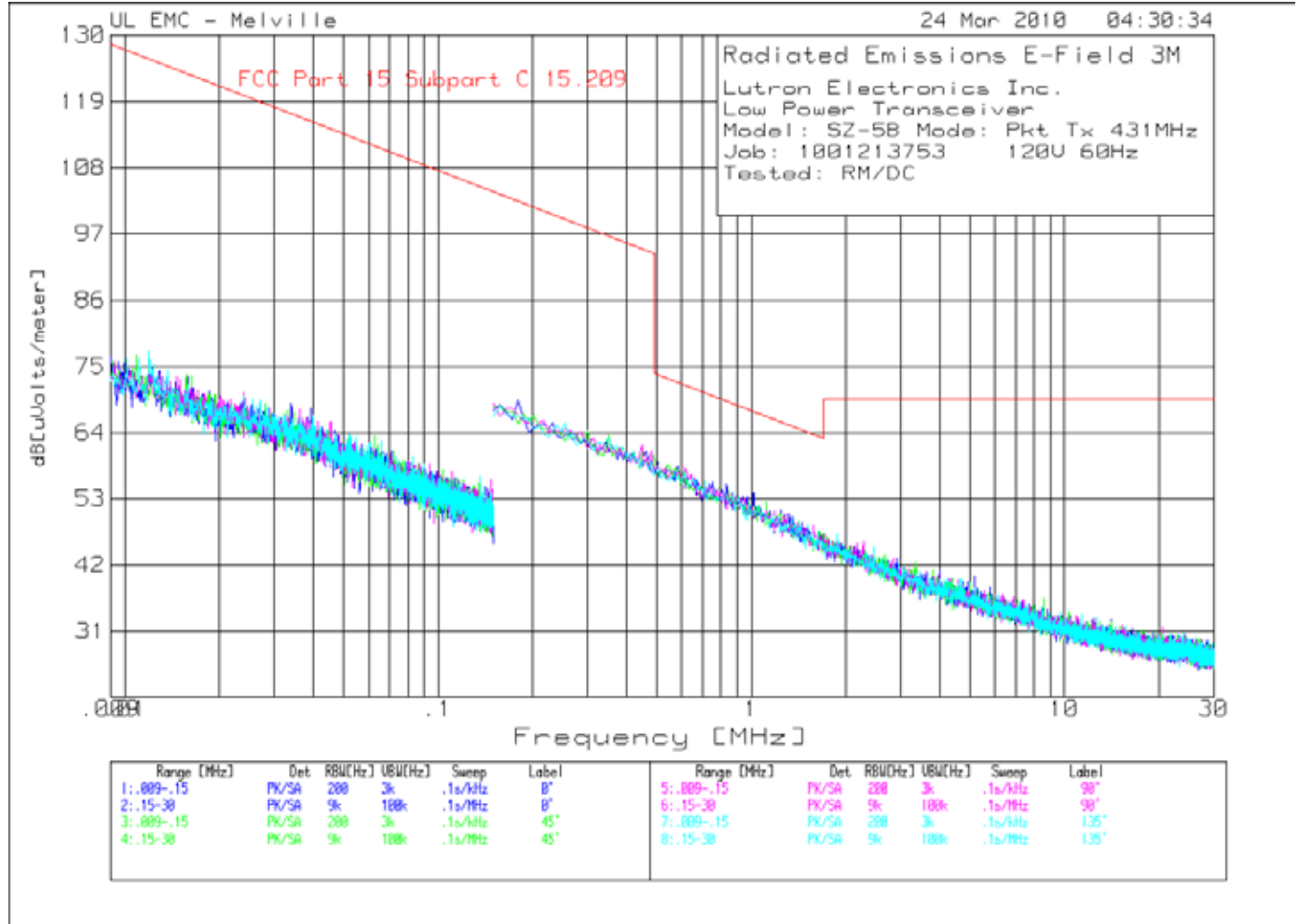
Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B Mode: Pkt Tx 431MHz  
 Job: 1001213753 120V 60Hz  
 Tested: RM/DC

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 .009 - .15MHz											
1	.01216	47.95 pk	.1	29.9	77.95	125.9	-	-	-	-	-
	Azimuth:353			Margin [dB]		-47.95	-	-	-	-	-
2	.03253	45.24 pk	0	23.6	68.84	117.3	-	-	-	-	-
	Azimuth:285			Margin [dB]		-48.46	-	-	-	-	-
-----											
Horizontal .15 - 30MHz											
3	.67251	40.59 pk	0	16.9	57.49	71.1	-	-	-	-	-
	Azimuth:1			Margin [dB]		-13.61	-	-	-	-	-
4	.89644	38.51 pk	0	16.9	55.41	68.6	-	-	-	-	-
	Azimuth:1			Margin [dB]		-13.19	-	-	-	-	-
5	1.44134	32.42 pk	.1	16.7	49.22	64.4	-	-	-	-	-
	Azimuth:353			Margin [dB]		-15.18	-	-	-	-	-
6	5.59899	21.41 pk	.1	17.1	38.61	69.5	-	-	-	-	-
	Azimuth:195			Margin [dB]		-30.89	-	-	-	-	-

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 - Linear average detector  
 avlg - Average log detector  
 AV - Average detector  
 CAV - CISPR Average detector  
 RMS - RMS detection  
 CRMS - CISPR RMS detection

Figure 15 Radiated Emissions Graph

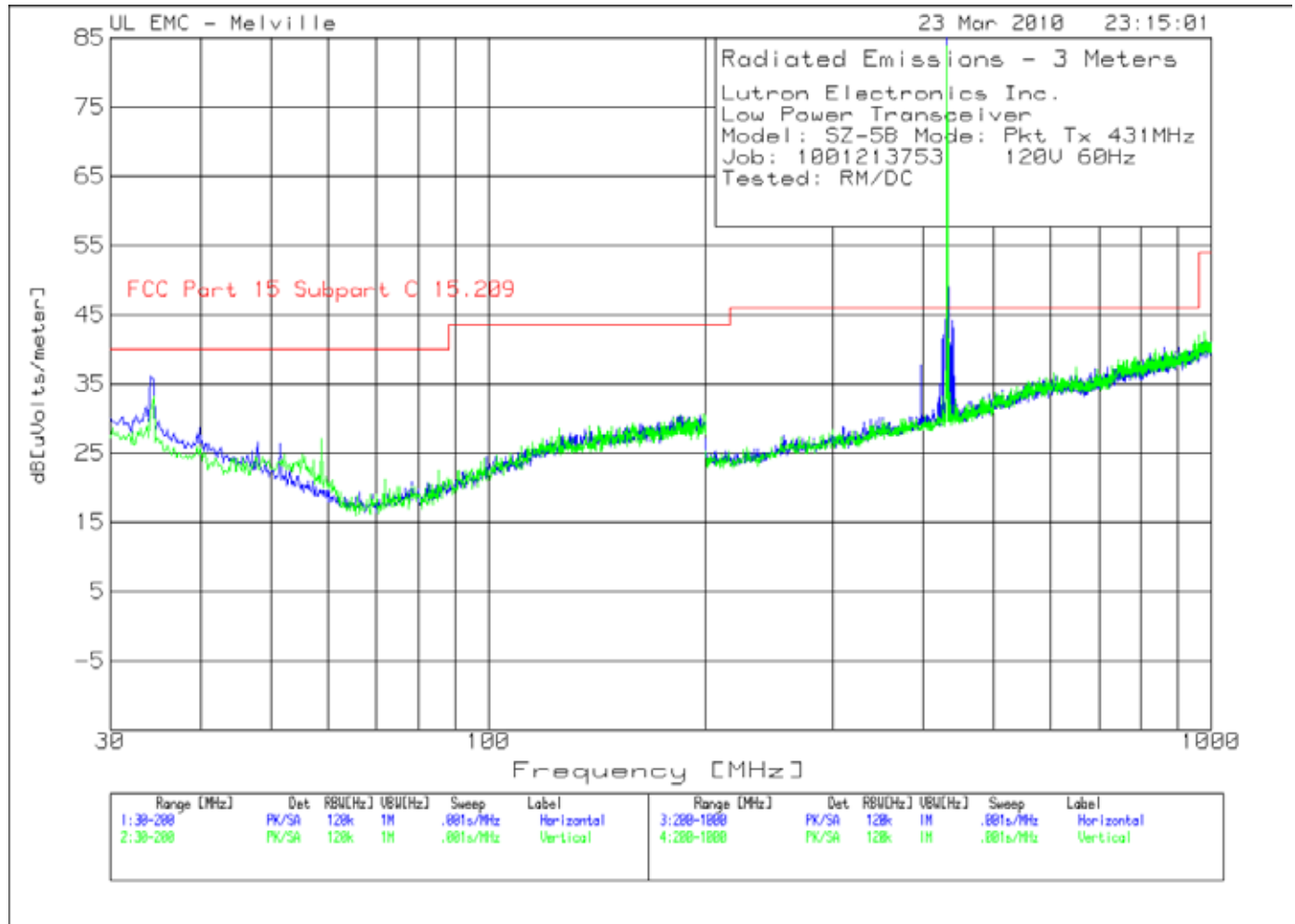


**Table 19 Radiated Emissions Data Points**

Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B Mode: Pkt Tx 431MHz  
 Job: 1001213753 120V 60Hz  
 Tested: RM/DC

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
-----											
0° .009 - .15MHz											
1	.03394	45.42 pk	0	23.4	68.82	117	-	-	-	-	-
	Azimuth:70	Height:100	Horz	Margin [dB]		-48.18	-	-	-	-	-
-----											
0° .15 - 30MHz											
2	1.02333	37.29 pk	0	16.7	53.99	67.4	-	-	-	-	-
	Azimuth:353	Height:100	Horz	Margin [dB]		-13.41	-	-	-	-	-
3	5.15113	22.93 pk	.1	17.1	40.13	69.5	-	-	-	-	-
	Azimuth:267	Height:100	Horz	Margin [dB]		-29.37	-	-	-	-	-
-----											
45° .009 - .15MHz											
4	.01086	46.45 pk	-.2	30.6	76.85	126.9	-	-	-	-	-
	Azimuth:222	Height:120	Horz	Margin [dB]		-50.05	-	-	-	-	-
5	.0626	43.68 pk	0	19.7	63.38	111.7	-	-	-	-	-
	Azimuth:344	Height:120	Horz	Margin [dB]		-48.32	-	-	-	-	-
-----											
45° .15 - 30MHz											
6	.79194	38.17 pk	0	16.7	54.87	69.6	-	-	-	-	-
	Azimuth:231	Height:120	Horz	Margin [dB]		-14.73	-	-	-	-	-
-----											
90° .009 - .15MHz											
7	.04534	44.35 pk	0	21.4	65.75	114.5	-	-	-	-	-
	Azimuth:85	Height:140	Horz	Margin [dB]		-48.75	-	-	-	-	-
-----											
90° .15 - 30MHz											
8	.61279	41.03 pk	0	17.1	58.13	71.9	-	-	-	-	-
	Azimuth:162	Height:140	Horz	Margin [dB]		-13.77	-	-	-	-	-
9	2.27734	29.14 pk	.1	16.7	45.94	69.5	-	-	-	-	-
	Azimuth:290	Height:140	Horz	Margin [dB]		-23.56	-	-	-	-	-
-----											
135° .009 - .15MHz											
10	.01193	47.16 pk	.2	30.1	77.46	126.1	-	-	-	-	-
	Azimuth:222	Height:160	Horz	Margin [dB]		-48.64	-	-	-	-	-
-----											
135° .15 - 30MHz											
11	.70983	39.15 pk	0	16.8	55.95	70.6	-	-	-	-	-
	Azimuth:6	Height:160	Horz	Margin [dB]		-14.65	-	-	-	-	-
12	2.46395	28.19 pk	.1	16.7	44.99	69.5	-	-	-	-	-
	Azimuth:231	Height:160	Horz	Margin [dB]		-24.51	-	-	-	-	-

**Figure 16 Radiated Emissions Graph**



**Table 20 Radiated Emissions Data Points**

Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B Mode: Pkt Tx 431MHz  
 Job: 1001213753 120V 60Hz  
 Tested: RM/DC

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	34.0841	18.72 pk	.4	17	36.12	40	-	-	-	-	-
	Azimuth:9	Height:400	Horz	Margin [dB]		-3.88	-	-	-	-	-
2	51.4414	15.81 pk	.5	10.1	26.41	40	-	-	-	-	-
	Azimuth:17	Height:300	Horz	Margin [dB]		-13.59	-	-	-	-	-
-----											
Vertical 30 - 200MHz -----											
3	34.4244	17.46 pk	.4	15.4	33.26	40	-	-	-	-	-
	Azimuth:300	Height:100	Vert	Margin [dB]		-6.74	-	-	-	-	-
4	58.7588	19.33 pk	.5	7.2	27.03	40	-	-	-	-	-
	Azimuth:184	Height:100	Vert	Margin [dB]		-12.97	-	-	-	-	-
-----											
Horizontal 200 - 1000MHz -----											
5	396.4982	20.29 pk	1.2	16.2	37.69	46	-	-	-	-	-
	Azimuth:256	Height:100	Horz	Margin [dB]		-8.31	-	-	-	-	-
6	430.9155	73.29 pk	1.3	16.7	91.29	46	-	-	-	-	-
	Azimuth:195	Height:200	Horz	Margin [dB]		45.29	-	-	-	-	-
7	425.3127	24.18 pk	1.3	16.6	42.08	46	-	-	-	-	-
	Azimuth:130	Height:200	Horz	Margin [dB]		-3.92	-	-	-	-	-
8	428.9145	24.72 pk	1.3	16.7	42.72	46	-	-	-	-	-
	Azimuth:325	Height:300	Horz	Margin [dB]		-3.28	-	-	-	-	-
9	433.3167	30.86 pk	1.3	16.8	48.96	46	-	-	-	-	-
	Azimuth:195	Height:200	Horz	Margin [dB]		2.96	-	-	-	-	-
10	438.1191	25.8 pk	1.3	17	44.1	46	-	-	-	-	-
	Azimuth:325	Height:200	Horz	Margin [dB]		-1.9	-	-	-	-	-
-----											
Vertical 200 - 1000MHz -----											
11	430.9155	66.18 pk	1.3	16.4	83.88	46	-	-	-	-	-
	Azimuth:326	Height:100	Vert	Margin [dB]		37.88	-	-	-	-	-
12	429.7149	19.24 pk	1.3	16.4	36.94	46	-	-	-	-	-
	Azimuth:326	Height:300	Vert	Margin [dB]		-9.06	-	-	-	-	-
13	433.7169	23.56 pk	1.3	16.5	41.36	46	-	-	-	-	-
	Azimuth:18	Height:100	Vert	Margin [dB]		-4.64	-	-	-	-	-
14	836.7184	15.12 pk	1.8	23	39.92	46	-	-	-	-	-
	Azimuth:18	Height:100	Vert	Margin [dB]		-6.08	-	-	-	-	-
15	980.3902	15.57 pk	1.9	25	42.47	54	-	-	-	-	-
	Azimuth:51	Height:400	Vert	Margin [dB]		-11.53	-	-	-	-	-

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

Job Number: 1001213753 File Number: MC15896 Page 62 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B Mode: Pkt Tx 431MHz  
 Job: 1001213753 120V 60Hz  
 Tested: RM/DC

Test	Meter	Gain/Loss	Transducer	Level	Limit:1	2	3	4	5	6
Frequency	Reading	Factor	Factor	dB[uVolts/meter]						
[MHz]	[dB(uV)]	[dB]	[dB]							
=====										
Horizontal 30 - 200MHz										
34.3366	10.32 QP	.4	16.9	27.62	40	-	-	-	-	-
Azimuth: 16	Height:100	Horz	Margin [dB]:		-12.38	-	-	-	-	-
Horizontal 200 - 1000MHz										
430.9574	75.98 PK	1.3	16.7	73.68*	-	80.7	-	-	-	-
Azimuth: 165	Height:217	Horz	Margin [dB]:		-	-7.02	-	-	-	-
862	9.34 QP	1.7	23.1	34.14	46	-	-	-	-	-
Azimuth: 312	Height:106	Horz	Margin [dB]:		-11.86	-	-	-	-	-
428.9145	12.83 QP	1.3	16.7	30.83	46	-	-	-	-	-
Azimuth: 151	Height:202	Horz	Margin [dB]:		-15.17	-	-	-	-	-
425.3127	8.3 QP	1.3	16.6	26.2	46	-	-	-	-	-
Azimuth: 1	Height:196	Horz	Margin [dB]:		-19.8	-	-	-	-	-
433.3167	16.65 QP	1.3	16.8	34.75	46	-	-	-	-	-
Azimuth: 171	Height:223	Horz	Margin [dB]:		-11.25	-	-	-	-	-
438.1191	8.57 QP	1.3	17	26.87	46	-	-	-	-	-
Azimuth: 133	Height:196	Horz	Margin [dB]:		-19.13	-	-	-	-	-

**\*Note: Duty cycle correction factor of -20.3dB applied. See section 4.4 for calculations.**

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 peak)  
 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: 1001213753 File Number: MC15896 Page 63 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

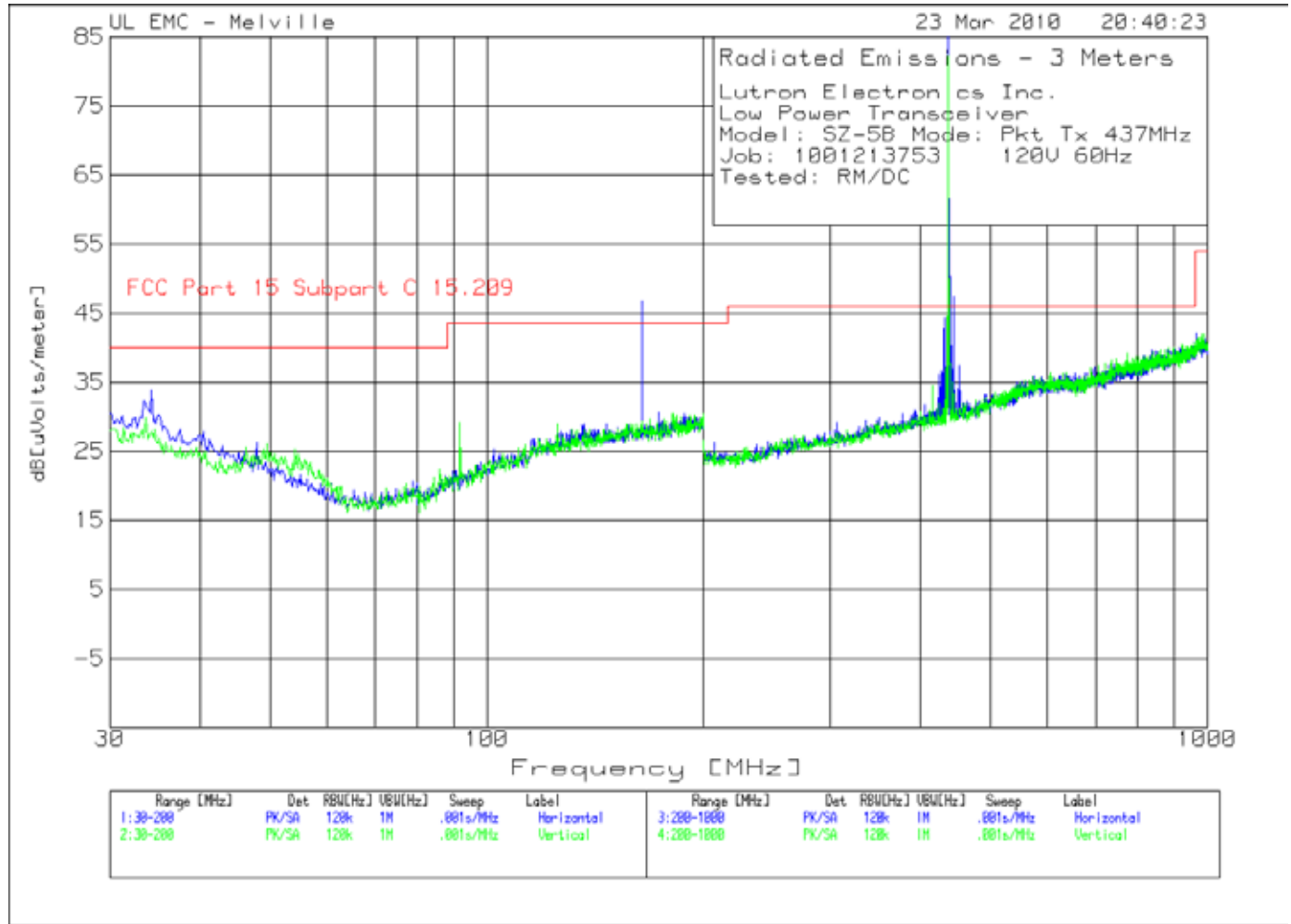
Test	Meter	Gain/Loss	Transducer	Level	Limit:1	2	3	4	5	6
Frequency	Reading	Factor	Factor	dB[uVolts/meter]						
[MHz]	[dB(uV)]	[dB]	[dB]							
-----										
Vertical	200 - 1000MHz									
430.9574	68.53 PK	1.3	16.4	66.12*	-	80.7	-	-	-	-
Azimuth: 94	Height:113	Vert	Margin [dB]:	-	-14.58	-	-	-	-	-
862	10.88 QP	1.7	23	35.58	46	-	-	-	-	-
Azimuth: 0	Height:109	Vert	Margin [dB]:	-10.42	-	-	-	-	-	-
836.7184	8.84 QP	1.8	23	33.64	46	-	-	-	-	-
Azimuth: 0	Height:100	Vert	Margin [dB]:	-12.36	-	-	-	-	-	-
433.7169	8.01 QP	1.3	16.5	25.81	46	-	-	-	-	-
Azimuth: 0	Height:100	Vert	Margin [dB]:	-20.19	-	-	-	-	-	-
429.7149	11.04 QP	1.3	16.4	28.74	46	-	-	-	-	-
Azimuth: 63	Height:100	Vert	Margin [dB]:	-17.26	-	-	-	-	-	-

**\*Note: Duty cycle correction factor of -20.3dB applied. See section 4.4 for calculations.**

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 peak)  
 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

**Figure 17 Radiated Emissions Graph**





**Table 21 Radiated Emissions Data Points**

Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B Mode: Pkt Tx 437MHz  
 Job: 1001213753 120V 60Hz  
 Tested: RM/DC

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	34.2543	16.55 pk	.4	16.9	33.85	40	-	-	-	-	-
	Azimuth:353	Height:400	Horz	Margin [dB]		-6.15	-	-	-	-	-
2	164.2643	31.07 pk	.8	14.8	46.67	43.5	-	-	-	-	-
	Azimuth:11	Height:200	Horz	Margin [dB]		3.17	-	-	-	-	-
-----											
Vertical 30 - 200MHz -----											
3	91.7718	18.39 pk	.6	10.2	29.19	43.5	-	-	-	-	-
	Azimuth:332	Height:100	Vert	Margin [dB]		-14.31	-	-	-	-	-
-----											
Horizontal 200 - 1000MHz -----											
4	430.1151	24.77 pk	1.3	16.7	42.77	46	-	-	-	-	-
	Azimuth:98	Height:200	Horz	Margin [dB]		-3.23	-	-	-	-	-
5	432.5163	26.28 pk	1.3	16.8	44.38	46	-	-	-	-	-
	Azimuth:260	Height:200	Horz	Margin [dB]		-1.62	-	-	-	-	-
6	439.7199	31.92 pk	1.3	17.1	50.32	46	-	-	-	-	-
	Azimuth:227	Height:200	Horz	Margin [dB]		4.32	-	-	-	-	-
7	444.1221	28.83 pk	1.3	17.2	47.33	46	-	-	-	-	-
	Azimuth:358	Height:200	Horz	Margin [dB]		1.33	-	-	-	-	-
8	436.9185	77.58 pk	1.3	17	95.88	46	-	-	-	-	-
	Azimuth:326	Height:200	Horz	Margin [dB]		49.88	-	-	-	-	-
9	966.3832	15.99 pk	1.9	24.2	42.09	54	-	-	-	-	-
	Azimuth:153	Height:400	Horz	Margin [dB]		-11.91	-	-	-	-	-
-----											
Vertical 200 - 1000MHz -----											
10	434.5173	26.63 pk	1.3	16.5	44.43	46	-	-	-	-	-
	Azimuth:95	Height:100	Vert	Margin [dB]		-1.57	-	-	-	-	-
11	436.9185	64.43 pk	1.3	16.5	82.23	46	-	-	-	-	-
	Azimuth:325	Height:200	Vert	Margin [dB]		36.23	-	-	-	-	-
12	438.1191	32.09 pk	1.3	16.6	49.99	46	-	-	-	-	-
	Azimuth:29	Height:100	Vert	Margin [dB]		3.99	-	-	-	-	-
13	438.9195	24.76 pk	1.3	16.6	42.66	46	-	-	-	-	-
	Azimuth:161	Height:200	Vert	Margin [dB]		-3.34	-	-	-	-	-
14	989.5948	15.22 pk	1.9	24.8	41.92	54	-	-	-	-	-
	Azimuth:324	Height:400	Vert	Margin [dB]		-12.08	-	-	-	-	-

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

Job Number: 1001213753 File Number: MC15896 Page 66 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B Mode: Pkt Tx 437MHz  
 Job: 1001213753 120V 60Hz  
 Tested: RM/DC

Test	Meter	Gain/Loss	Transducer	Level	Limit:1	2	3	4	5	6
Frequency	Reading	Factor	Factor	dB[uVolts/meter]						
[MHz]	[dB(uV)]	[dB]	[dB]							
-----										
Horizontal 30 - 200MHz										
34.2543	7.66 QP	.4	16.9	24.96	40	-	-	-	-	-
Azimuth: 60 Height:158 Horz					Margin [dB]:	-15.04	-	-	-	-
164.2643	8.01 QP	.8	14.8	23.61	43.5	-	-	-	-	-
Azimuth: 52 Height:204 Horz					Margin [dB]:	-19.89	-	-	-	-
Horizontal 200 - 1000MHz										
436.8527	77.44 PK	1.3	17	75.44*	-	80.9	-	-	-	-
Azimuth: 150 Height:214 Horz					Margin [dB]:	-5.46	-	-	-	-
874	8.89 QP	1.7	23	33.59	46	-	-	-	-	-
Azimuth: 214 Height:111 Horz					Margin [dB]:	-12.41	-	-	-	-
430.1151	7.78 QP	1.3	16.7	25.78	46	-	-	-	-	-
Azimuth: 295 Height:111 Horz					Margin [dB]:	-20.22	-	-	-	-
432.5163	16.48 QP	1.3	16.8	34.58	46	-	-	-	-	-
Azimuth: 110 Height:100 Horz					Margin [dB]:	-11.42	-	-	-	-
439.7199	11.08 QP	1.3	17.1	29.48	46	-	-	-	-	-
Azimuth: 210 Height:164 Horz					Margin [dB]:	-16.52	-	-	-	-
444.1221	8.46 QP	1.3	17.2	26.96	46	-	-	-	-	-
Azimuth: 3 Height:146 Horz					Margin [dB]:	-19.04	-	-	-	-

\*Note: Duty cycle correction factor of -20.3dB applied. See section 4.4 for calculations.

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 peak)  
 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: 1001213753 File Number: MC15896 Page 67 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

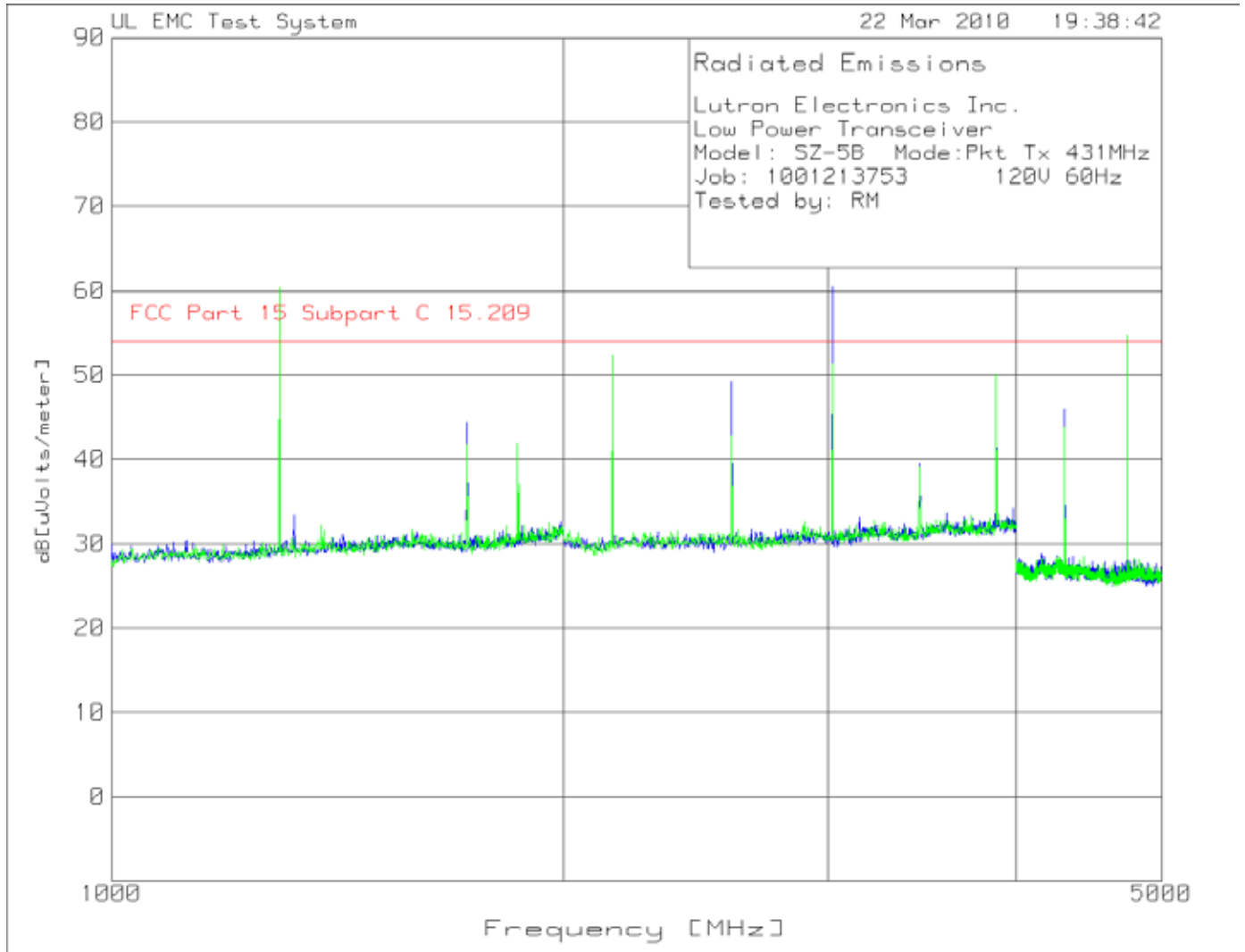
Test	Meter	Gain/Loss	Transducer	Level	Limit:1	2	3	4	5	6
Frequency	Reading	Factor	Factor	dB[uVolts/meter]						
[MHz]	[dB(uV)]	[dB]	[dB]							
-----										
Vertical	200 - 1000MHz									
436.9309	68.15 PK	1.3	16.5	65.65*	-	80.9	-	-	-	-
Azimuth: 3	Height:140	Vert	Margin [dB]:	-	-15.25	-	-	-	-	-
874	8.89 QP	1.7	23.2	33.79	46	-	-	-	-	-
Azimuth: 267	Height:335	Vert	Margin [dB]:	-12.21	-	-	-	-	-	-
434.5173	8.01 QP	1.3	16.5	25.81	46	-	-	-	-	-
Azimuth: 0	Height:100	Vert	Margin [dB]:	-20.19	-	-	-	-	-	-
438.1191	8.52 QP	1.3	16.6	26.42	46	-	-	-	-	-
Azimuth: 68	Height:397	Vert	Margin [dB]:	-19.58	-	-	-	-	-	-
438.9195	8.94 QP	1.3	16.6	26.84	46	-	-	-	-	-
Azimuth: 354	Height:163	Vert	Margin [dB]:	-19.16	-	-	-	-	-	-

**\*Note: Duty cycle correction factor of -20.3dB applied. See section 4.4 for calculations.**

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 peak)  
 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

Figure 18 Radiated Emissions Graph



**Table 22 Radiated Emissions Data Points**

Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B Mode:Pkt Tx 431MHz  
 Job: 1001213753 120V 60Hz  
 Tested by: RM

Test	Meter	Gain/Loss	Transducer	Level	Limit:1	2	3	4	5	6
Frequency	Reading	Factor	Factor	dB[uVolts/meter]						
[MHz]	[dB(uV)]	[dB]	[dB]							
-----										
Horizontal 1000 - 2000MHz										
1292.883	79.17 PK	-45.15	20.5	54.52	-	60.7	-	-	-	-
Azimuth: 355 Height:136 Horz					Margin [dB]:	-6.18	-	-	-	-
1723.8375	70.53 PK	-44.39	20.8	46.94	-	60.7	-	-	-	-
Azimuth: 224 Height:159 Horz					Margin [dB]:	-13.76	-	-	-	-
Horizontal 2000 - 4000MHz										
2155.1775	73.46 PK	-44.21	21.4	50.65	-	60.7	-	-	-	-
Azimuth: 246 Height:320 Horz					Margin [dB]:	-10.05	-	-	-	-
2586.22	71.33 PK	-43.49	21.3	49.14	-	60.7	-	-	-	-
Azimuth: 193 Height:157 Horz					Margin [dB]:	-11.56	-	-	-	-
3017.25	81.94 PK	-42.94	21.5	60.5	-	60.7	-	-	-	-
Azimuth: 109 Height:365 Horz					Margin [dB]:	-0.02	-	-	-	-
3447.68	61.99 PK	-42.96	22.1	41.13	54	-	-	-	-	-
Azimuth: 224 Height:199 Horz					Margin [dB]:	-12.87	-	-	-	-
3879.325	70.32 PK	-42.94	22.6	49.98	54	-	-	-	-	-
Azimuth: 185 Height:115 Horz					Margin [dB]:	-4.02	-	-	-	-
Horizontal 4000 - 5000MHz										
4310.355	72.32 PK	-52.63	27.7	47.39	54	-	-	-	-	-
Azimuth: 208 Height:223 Horz					Margin [dB]:	-6.61	-	-	-	-
4741.388	77.57 PK	-53.29	27.2	51.48	54	-	-	-	-	-
Azimuth: 125 Height:301 Horz					Margin [dB]:	-2.52	-	-	-	-

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 peak)  
 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

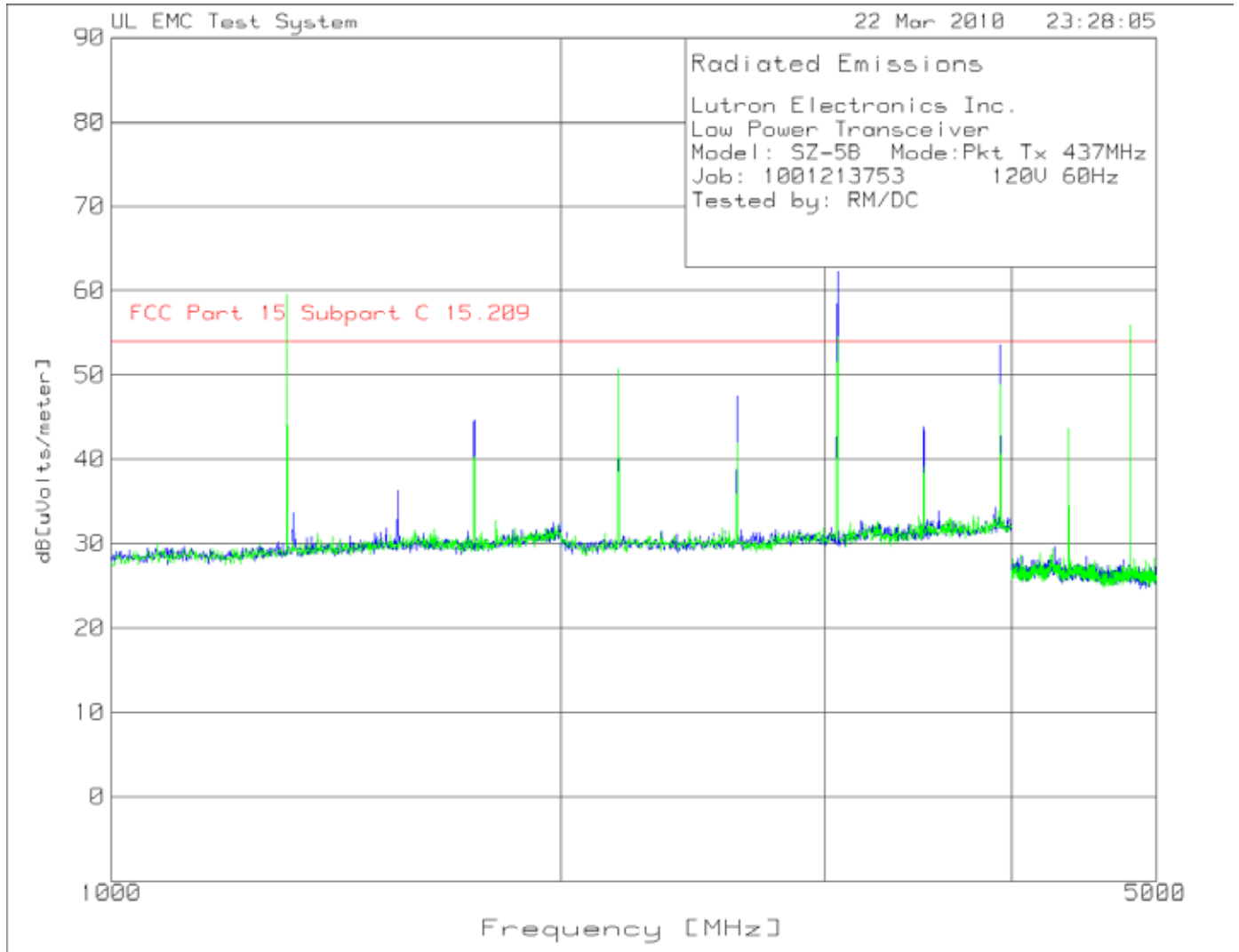
Job Number: 1001213753 File Number: MC15896 Page 70 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

Vertical 1000 - 2000MHz										
1293.108	84.62	PK	-45.16	20.5	59.96	-	60.7	-	-	-
Azimuth: 235 Height:339 Vert			Margin [dB]:		-	-0.74	-	-	-	-
Vertical 2000 - 4000MHz										
1724.153	67.63	PK	-44.38	20.8	44.05	-	60.7	-	-	-
Azimuth: 276 Height:367 Vert			Margin [dB]:		-	-16.65	-	-	-	-
Vertical 4000 - 5000MHz										
2155.18	76.58	PK	-44.21	21	53.37	-	60.7	-	-	-
Azimuth: 196 Height:131 Vert			Margin [dB]:		-	-7.33	-	-	-	-
2585.767	64.15	PK	-43.5	21.5	42.15	-	60.7	-	-	-
Azimuth: 168 Height:177 Vert			Margin [dB]:		-	-18.55	-	-	-	-
3017.2395	73.25	PK	-42.94	21.7	52.01	-	60.7	-	-	-
Azimuth: 18 Height:117 Vert			Margin [dB]:		-	-8.69	-	-	-	-
3448.29	64.15	PK	-42.96	22.2	43.39	54	-	-	-	-
Azimuth: 176 Height:167 Vert			Margin [dB]:		-10.61	-	-	-	-	-
3878.62	70.97	PK	-42.93	22.6	50.64	54	-	-	-	-
Azimuth: 224 Height:293 Vert			Margin [dB]:		-3.36	-	-	-	-	-
4310.3425	71.79	PK	-52.63	27.8	46.96	54	-	-	-	-
Azimuth: 201 Height:375 Vert			Margin [dB]:		-7.04	-	-	-	-	-
4741.4025	79.16	PK	-53.29	27.1	52.97	54	-	-	-	-
Azimuth: 360 Height:324 Vert			Margin [dB]:		-1.03	-	-	-	-	-

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 peak)  
 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

Figure 19 Radiated Emissions Graph



**Table 23 Radiated Emissions Data Points**

Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B Mode:Pkt Tx 437MHz  
 Job: 1001213753 120V 60Hz  
 Tested by: RM/DC

Test	Meter	Gain/Loss	Transducer	Level	Limit:1	2	3	4	5	6
Frequency	Reading	Factor	Factor	dB[uVolts/meter]						
[MHz]	[dB(uV)]	[dB]	[dB]							
=====										
Horizontal 1000 - 2000MHz										
1310.5825	78.15 PK	-45.08	20.5	53.57	54	-	-	-	-	-
Azimuth: 2	Height:130	Horz	Margin [dB]:	-0.43		-	-	-	-	-
1747.43	70.42 PK	-44.35	20.8	46.87	-	60.9	-	-	-	-
Azimuth: 198	Height:240	Horz	Margin [dB]:	-		-14.03	-	-	-	-
Horizontal 2000 - 4000MHz										
2184.675	72.18 PK	-44.01	21.5	49.67	-	60.9	-	-	-	-
Azimuth: 233	Height:328	Horz	Margin [dB]:	-		-11.23	-	-	-	-
2621.145	70.66 PK	-43.56	21.4	48.5	-	60.9	-	-	-	-
Azimuth: 164	Height:331	Horz	Margin [dB]:	-		-12.4	-	-	-	-
3058.015	83.94 PK	-42.91	21.6	42.33*	-	60.9	-	-	-	-
Azimuth: 119	Height:298	Horz	Margin [dB]:	-		-18.57	-	-	-	-
3495.483	66.69 PK	-42.87	22.2	46.02	-	60.9	-	-	-	-
Azimuth: 188	Height:395	Horz	Margin [dB]:	-		-14.88	-	-	-	-
3932.408	75.22 PK	-42.82	22.7	34.8*	54	-	-	-	-	-
Azimuth: 157	Height:350	Horz	Margin [dB]:	-19.2		-	-	-	-	-
Horizontal 4000 - 5000MHz										
4369.34	68.05 PK	-52.71	27.6	42.94	54	-	-	-	-	-
Azimuth: 202	Height:303	Horz	Margin [dB]:	-11.06		-	-	-	-	-
4806.293	76.98 PK	-53.55	27.1	50.53	54	-	-	-	-	-
Azimuth: 119	Height:375	Horz	Margin [dB]:	-3.47		-	-	-	-	-

**\*Note: Duty cycle correction factor of -20.3dB applied. See section 4.4 for calculations.**

- 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 peak)
- 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: 1001213753 File Number: MC15896 Page 73 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

Test	Meter	Gain/Loss	Transducer	Level	Limit:1	2	3	4	5	6
Frequency	Reading	Factor	Factor	dB[uVolts/meter]						
[MHz]	[dB(uV)]	[dB]	[dB]							
Vertical 1000 - 2000MHz										
1310.81	86.28 PK	-45.09	20.5	41.39*	54	-	-	-	-	-
Azimuth: 195		Height:330	Vert	Margin [dB]:	-12.61	-	-	-	-	-
1747.738	58.89 PK	-44.35	20.8	35.34	-	60.9	-	-	-	-
Azimuth: 360		Height:303	Vert	Margin [dB]:	-	-25.56	-	-	-	-
Vertical 2000 - 4000MHz										
2184.683	74.46 PK	-44.01	21.2	51.65	-	60.9	-	-	-	-
Azimuth: 347		Height:381	Vert	Margin [dB]:	-	-9.25	-	-	-	-
2621.17	66.82 PK	-43.56	21.4	44.66	-	60.9	-	-	-	-
Azimuth: 19		Height:183	Vert	Margin [dB]:	-	-16.24	-	-	-	-
3058.55	77.09 PK	-42.92	21.8	55.97	-	60.9	-	-	-	-
Azimuth: 91		Height:196	Vert	Margin [dB]:	-	-4.93	-	-	-	-
3495.502	65.81 PK	-42.87	22.4	45.34	-	60.9	-	-	-	-
Azimuth: 235		Height:265	Vert	Margin [dB]:	-	-15.56	-	-	-	-
3931.75	73.22 PK	-42.82	22.7	53.1	54	-	-	-	-	-
Azimuth: 35		Height:295	Vert	Margin [dB]:	-.9	-	-	-	-	-
Vertical 4000 - 5000MHz										
4368.5875	70.24 PK	-52.71	27.7	45.23	54	-	-	-	-	-
Azimuth: 158		Height:361	Vert	Margin [dB]:	-8.77	-	-	-	-	-
4805.455	75.79 PK	-53.55	27.3	49.54	54	-	-	-	-	-
Azimuth: 35		Height:396	Vert	Margin [dB]:	-4.46	-	-	-	-	-

**\*Note: Duty cycle correction factor of -20.3dB applied. See section 4.4 for calculations.**

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 peak)  
 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

**4.6 Test Conditions and Results – RADIATED EMISSIONS (Unintentional)**

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 B, RSS-GEN, RSS-21-	
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)
<b>Limits - Class B</b>		
Frequency (MHz)	Limit (dB $\mu$ V/m)	
	Quasi-Peak	Average
30-230	30	NA
230-1000	37	NA
1000 - 2000	NA	54 (at 3-meter)
Supplementary information: CISPR 22 limits satisfy FCC Part 15 requirements below 1GHz.		

**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
Bicon Antenna	Schaffner	VBA6106A	43441
Log-P Antenna	Schaffner	UPA6109	44067
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	87V	44547
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	87V	44547

**Figure 20 Test setup for Radiated Emissions**

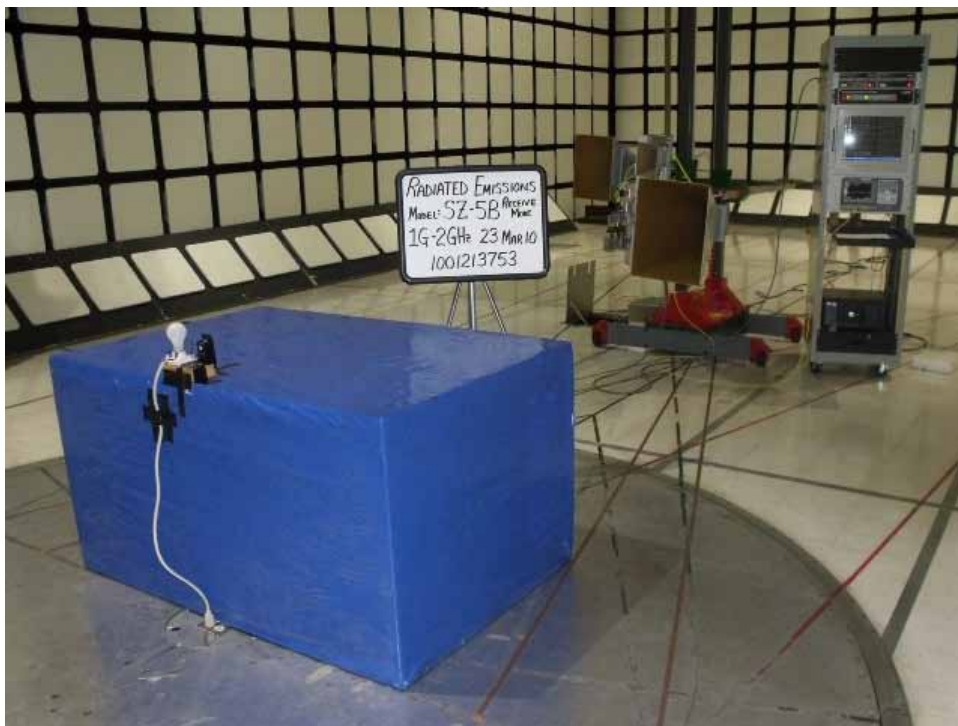
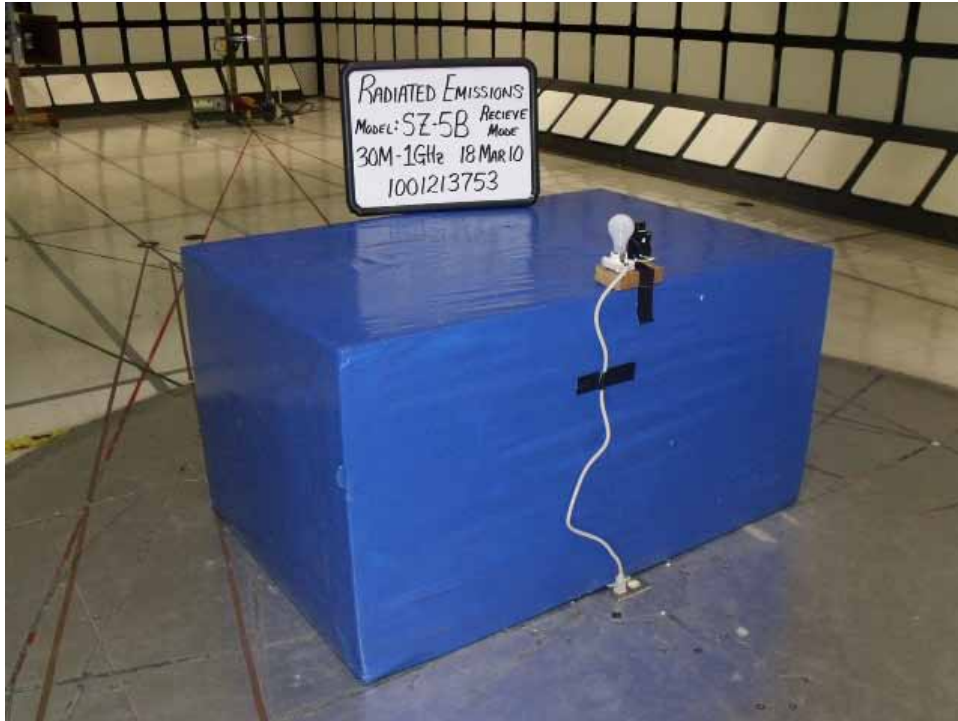
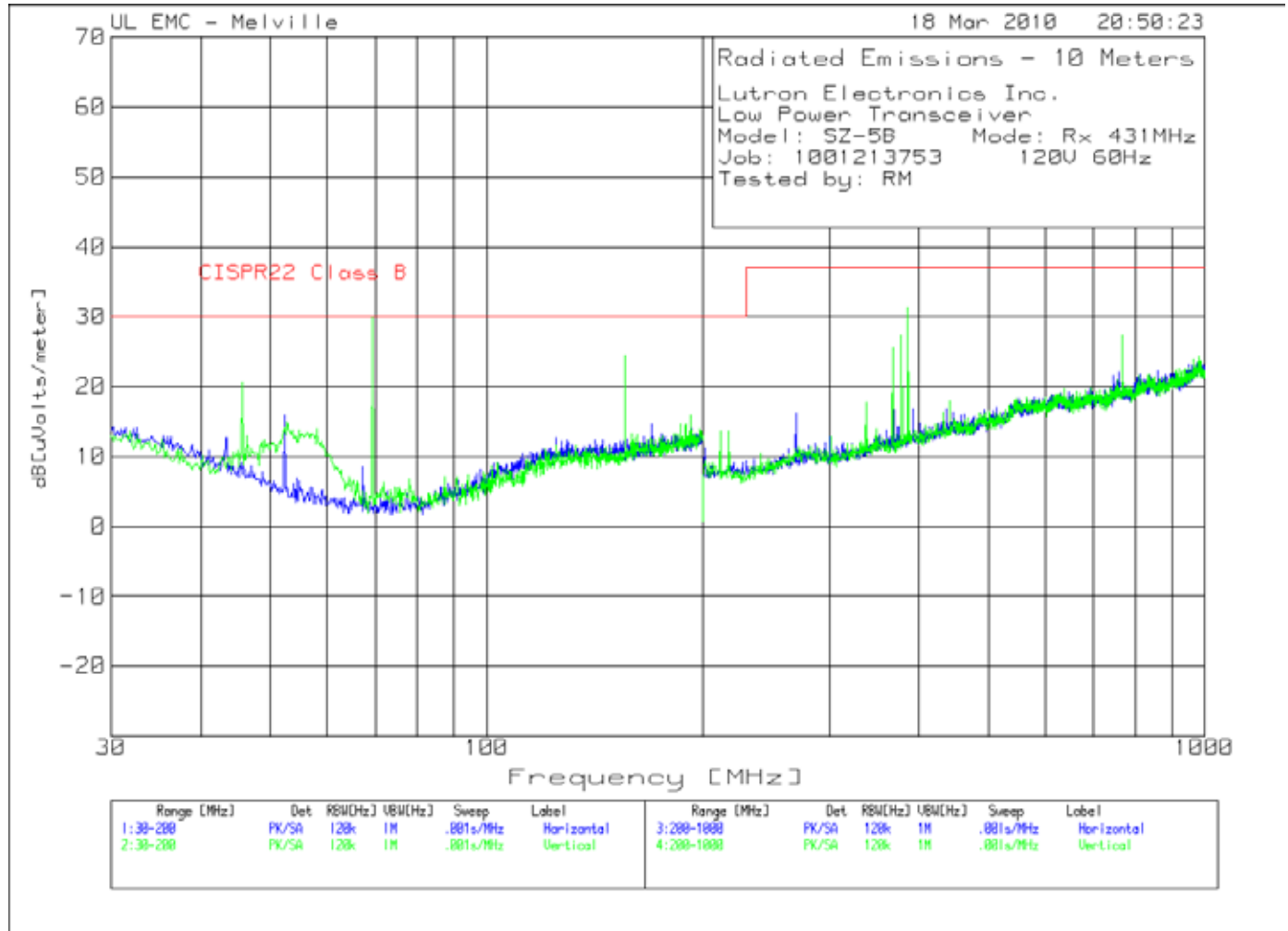


Figure 21 Radiated Emissions Graph



**Table 26 Radiated Emissions Data Points**

Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B Mode: Rx 431MHz  
 Job: 1001213753 120V 60Hz  
 Tested by: RM

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	43.2733	35.59 pk	-35.8	12.9	12.69	30	-	-	-	-	-
	Azimuth:133	Height:400	Horz	Margin [dB]		-17.31	-	-	-	-	-
2	52.2923	42.55 pk	-35.9	9.2	15.85	30	-	-	-	-	-
	Azimuth:164	Height:400	Horz	Margin [dB]		-14.15	-	-	-	-	-
-----											
Vertical 30 - 200MHz											
3	45.6557	45.49 pk	-35.9	11	20.59	30	-	-	-	-	-
	Azimuth:295	Height:100	Vert	Margin [dB]		-9.41	-	-	-	-	-
4	69.3093	59.53 pk	-35.8	6.3	30.03	30	-	-	-	-	-
	Azimuth:99	Height:100	Vert	Margin [dB]		.03	-	-	-	-	-
5	155.9259	44.92 pk	-35.3	14.9	24.52	30	-	-	-	-	-
	Azimuth:295	Height:100	Vert	Margin [dB]		-5.48	-	-	-	-	-
-----											
Horizontal 200 - 1000MHz											
6	269.6348	38.03 pk	-34.3	12.5	16.23	37	-	-	-	-	-
	Azimuth:153	Height:199	Horz	Margin [dB]		-20.77	-	-	-	-	-
-----											
Vertical 200 - 1000MHz											
7	367.6838	44.47 pk	-33.3	14.4	25.57	37	-	-	-	-	-
	Azimuth:221	Height:300	Vert	Margin [dB]		-11.43	-	-	-	-	-
8	377.2886	45.71 pk	-33.2	14.8	27.31	37	-	-	-	-	-
	Azimuth:221	Height:300	Vert	Margin [dB]		-9.69	-	-	-	-	-
9	386.093	49.36 pk	-33.2	15.1	31.26	37	-	-	-	-	-
	Azimuth:358	Height:200	Vert	Margin [dB]		-5.74	-	-	-	-	-
10	768.2841	38.3 pk	-32.2	21.3	27.4	37	-	-	-	-	-
	Azimuth:205	Height:400	Vert	Margin [dB]		-9.6	-	-	-	-	-

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 - Linear average detector  
 avlg - Average log detector  
 AV - Average detector  
 CAV - CISPR Average detector  
 RMS - RMS detection  
 CRMS - CISPR RMS detection

Job Number: 1001213753 File Number: MC15896 Page 79 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055

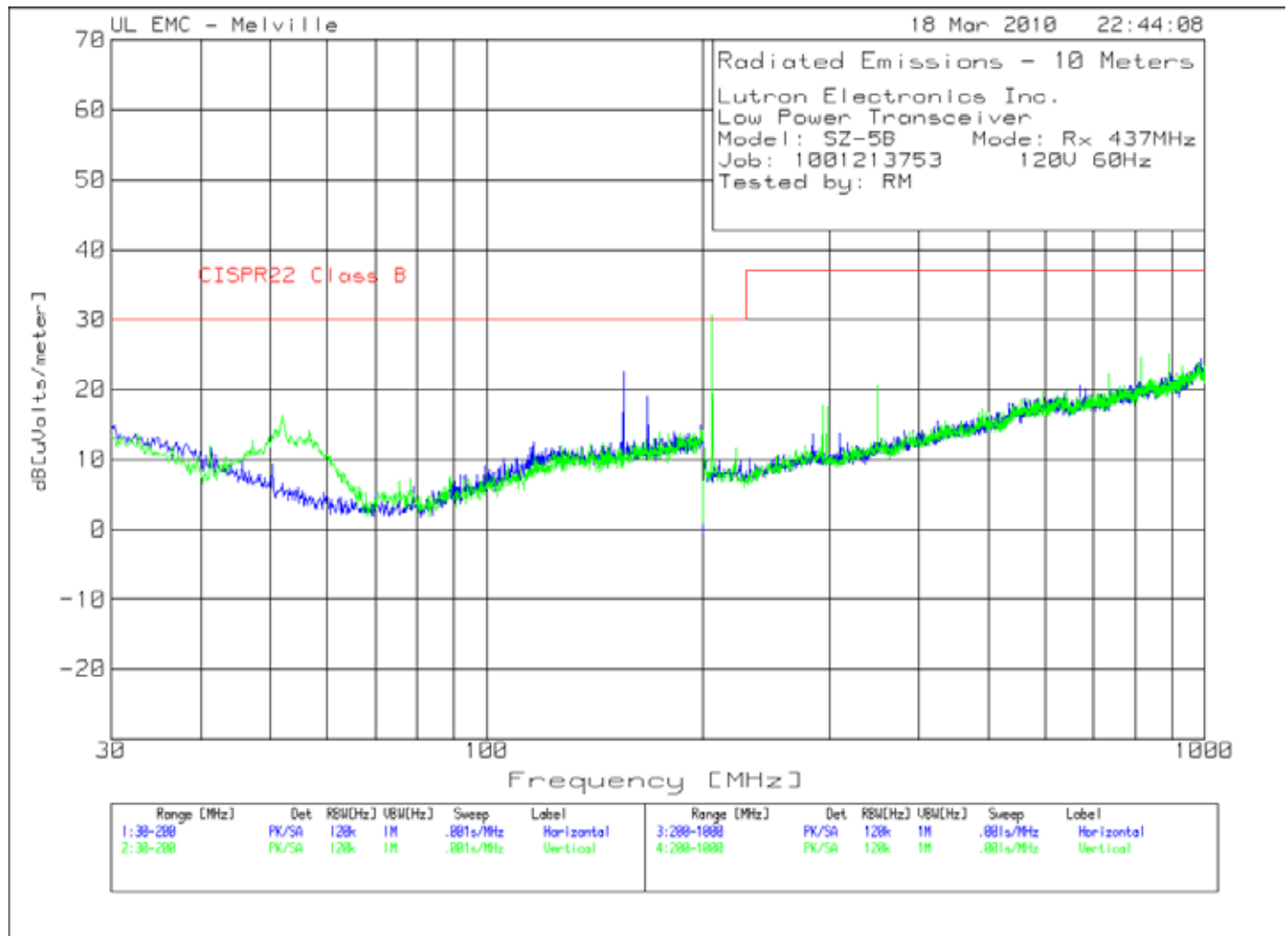
Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B Mode: Rx 431MHz  
 Job: 1001213753 120V 60Hz  
 Tested by: RM

Test	Meter	Gain/Loss	Transducer	Level	Limit:1	2	3	4	5	6
Frequency	Reading	Factor	Factor	dB[uVolts/meter]						
[MHz]	[dB(uV)]	[dB]	[dB]							
=====										
Vertical 30 - 200MHz										
69.9212	30.1 QP	-35.8	6.4	.7	30	-	-	-	-	-
Azimuth: 218	Height:311	Vert	Margin [dB]:		-29.3	-	-	-	-	-
69.3093	30.1 QP	-35.8	6.3	.6	30	-	-	-	-	-
Azimuth: 218	Height:311	Vert	Margin [dB]:		-29.4	-	-	-	-	-
155.931	27.23 QP	-35.3	14.9	6.83	30	-	-	-	-	-
Azimuth: 79	Height:289	Vert	Margin [dB]:		-23.17	-	-	-	-	-
Vertical 200 - 1000MHz										
386.2002	26.02 QP	-33.2	15.1	7.92	37	-	-	-	-	-
Azimuth: 261	Height:245	Vert	Margin [dB]:		-29.08	-	-	-	-	-
386.093	26.02 QP	-33.2	15.1	7.92	37	-	-	-	-	-
Azimuth: 261	Height:245	Vert	Margin [dB]:		-29.08	-	-	-	-	-

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 - Linear average detector  
 avlg - Average log detector  
 AV - Average detector  
 CAV - CISPR Average detector  
 RMS - RMS detection  
 CRMS - CISPR RMS detection

Figure 22 Radiated Emissions Graph





**Table 27 Radiated Emissions Data Points**

Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B Mode: Rx 437MHz  
 Job: 1001213753 120V 60Hz  
 Tested by: RM

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	155.0751	43.09 pk	-35.4	14.9	22.59	30	-	-	-	-	-
	Azimuth:8	Height:250	Horz	Margin [dB]		-7.41	-	-	-	-	-
2	167.6677	39.39 pk	-35.3	15	19.09	30	-	-	-	-	-
	Azimuth:358	Height:100	Horz	Margin [dB]		-10.91	-	-	-	-	-
-----											
Vertical 30 - 200MHz											
3	51.952	43.42 pk	-35.9	8.8	16.32	30	-	-	-	-	-
	Azimuth:1	Height:100	Vert	Margin [dB]		-13.68	-	-	-	-	-
-----											
Horizontal 200 - 1000MHz											
4	310.4552	34.35 pk	-33.7	13.1	13.75	37	-	-	-	-	-
	Azimuth:269	Height:199	Horz	Margin [dB]		-23.25	-	-	-	-	-
-----											
Vertical 200 - 1000MHz											
5	206.003	54.05 pk	-34.6	11.2	30.65	30	-	-	-	-	-
	Azimuth:237	Height:101	Vert	Margin [dB]		.65	-	-	-	-	-
6	891.1456	34.88 pk	-31.8	22.1	25.18	37	-	-	-	-	-
	Azimuth:64	Height:200	Vert	Margin [dB]		-11.82	-	-	-	-	-

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 - Linear average detector  
 avlg - Average log detector  
 AV - Average detector  
 CAV - CISPR Average detector  
 RMS - RMS detection  
 CRMS - CISPR RMS detection

Job Number: 1001213753    File Number: MC15896    Page 82 of 88  
 Model Number: SZ-5B  
 Client Name: LUTRON ELECTRONICS INC  
 FCC ID: JPZ0063    Industry Canada Number 2851A-JPZ0055

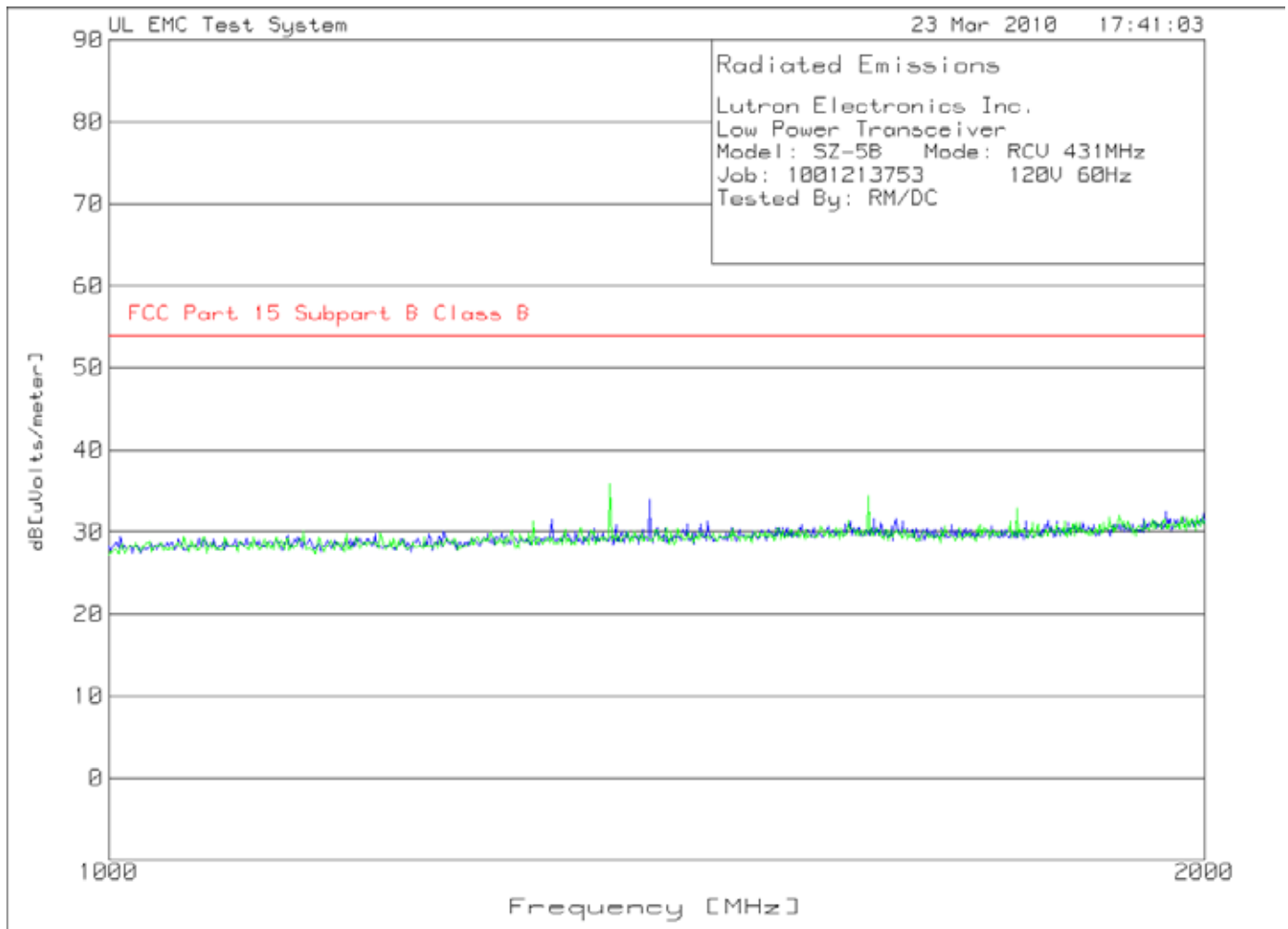
Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B    Mode: Rx 437MHz  
 Job: 1001213753    120V 60Hz  
 Tested by: RM

Test	Meter	Gain/Loss	Transducer	Level	Limit:1	2	3	4	5	6
Frequency	Reading	Factor	Factor	dB[uVolts/meter]						
[MHz]	[dB(uV)]	[dB]	[dB]							
=====										
Vertical 200 - 1000MHz										
203.5952	29.34 QP	-34.7	11.4	6.04	30	-	-	-	-	-
Azimuth: 42	Height:187	Vert		Margin [dB]:	-23.96	-	-	-	-	-
206.003	26.91 QP	-34.6	11.2	3.51	30	-	-	-	-	-
Azimuth: 208	Height:102	Vert		Margin [dB]:	-26.49	-	-	-	-	-

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 - Linear average detector  
 avlg - Average log detector  
 AV - Average detector  
 CAV - CISPR Average detector  
 RMS - RMS detection  
 CRMS - CISPR RMS detection

Figure 23 Radiated Emissions Graph



**Table 28 Radiated Emissions Data Points**

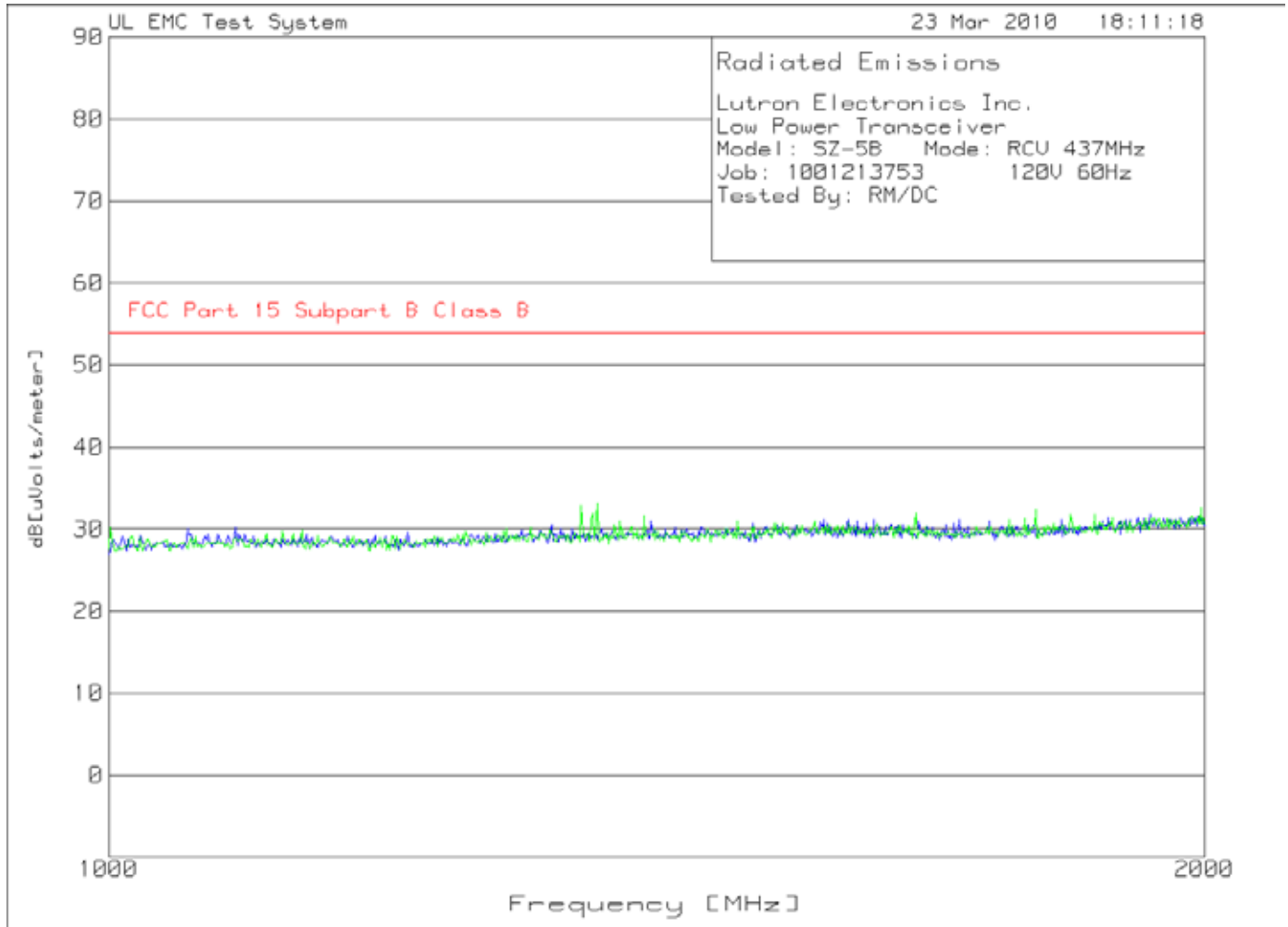
Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B Mode: RCV 431MHz  
 Job: 1001213753 120V 60Hz  
 Tested By: RM/DC

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	1323.346	56.09 pk	-45.1	20.5	31.49	54	-	-	-	-	-
		Height:100	Horz	Margin [dB]		-22.51	-	-	-	-	-
2	1408.24	58.32 pk	-45.05	20.7	33.97	54	-	-	-	-	-
		Height:199	Horz	Margin [dB]		-20.03	-	-	-	-	-
3	1951.311	54.48 pk	-43.92	21.9	32.46	54	-	-	-	-	-
		Height:299	Horz	Margin [dB]		-21.54	-	-	-	-	-
-----											
Vertical 1000 - 2000MHz -----											
4	1373.283	60.38 pk	-45.08	20.6	35.9	54	-	-	-	-	-
		Height:299	Vert	Margin [dB]		-18.1	-	-	-	-	-
5	1616.729	57.81 pk	-44.54	21.1	34.37	54	-	-	-	-	-
		Height:299	Vert	Margin [dB]		-19.63	-	-	-	-	-
6	1776.529	56.33 pk	-44.3	20.9	32.93	54	-	-	-	-	-
		Height:199	Vert	Margin [dB]		-21.07	-	-	-	-	-

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 - Average log detector  
 AV - Average detector  
 CAV - CISPR Average detector  
 RMS - RMS detection  
 CRMS - CISPR RMS detection

Figure 24 Radiated Emissions Graph



**Table 29 Radiated Emissions Data Points**

Lutron Electronics Inc.  
 Low Power Transceiver  
 Model: SZ-5B Mode: RCV 437MHz  
 Job: 1001213753 120V 60Hz  
 Tested By: RM/DC

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	1323.346	55.25 pk	-45.1	20.5	30.65	54	-	-	-	-	-
		Height:100	Horz	Margin [dB]		-23.35	-	-	-	-	-
2	1409.488	55.36 pk	-45.06	20.7	31	54	-	-	-	-	-
		Height:299	Horz	Margin [dB]		-23	-	-	-	-	-
3	1712.859	54.99 pk	-44.48	20.7	31.21	54	-	-	-	-	-
		Height:100	Horz	Margin [dB]		-22.79	-	-	-	-	-
-----											
Vertical 1000 - 2000MHz -----											
4	1348.315	57.34 pk	-45.01	20.6	32.93	54	-	-	-	-	-
		Height:300	Vert	Margin [dB]		-21.07	-	-	-	-	-
5	1666.667	55.61 pk	-44.56	20.9	31.95	54	-	-	-	-	-
		Height:200	Vert	Margin [dB]		-22.05	-	-	-	-	-
6	1797.753	55.76 pk	-44.34	21	32.42	54	-	-	-	-	-
		Height:300	Vert	Margin [dB]		-21.58	-	-	-	-	-

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 - Average log detector  
 AV - Average detector  
 CAV - CISPR Average detector  
 RMS - RMS detection  
 CRMS - CISPR RMS 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.

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Model Number: SZ-5B  
Client Name: LUTRON ELECTRONICS INC  
FCC ID: JPZ0063 Industry Canada Number 2851A-JPZ0055



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, and -4-6



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