



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

**CERTIFICATION TEST REPORT**

**FOR**

**IN-WALL DIMMER**

**MODEL NUMBER: PD-6WCL**

**FCC ID: JPZ0098  
IC: 2851A-JPZ0098**

**REPORT NUMBER: 10019937**

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**NVLAP LAB CODE 100255-0**

Revision History

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# 1. ATTESTATION OF TEST RESULTS

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

**EUT DESCRIPTION:** In-Wall Dimmer

**MODEL:** PD-6WCL

**SERIAL NUMBER:** Non-serialized Production Unit

**DATE TESTED:** 2013-07-24 through 2013-07-31

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

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

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

Approved & Released For UL By:

Tested By:



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UL LLC

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WiSE Principal Engineer  
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## 2. TEST METHODOLOGY

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

## 3. FACILITIES AND ACCREDITATION

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

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

## 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

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

### 4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamplifier Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

### 4.3. MEASUREMENT UNCERTAINTY

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

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

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

## **5. EQUIPMENT UNDER TEST**

### **5.1. DESCRIPTION OF EUT**

The EUT is a In-wall dimmer with wireless capabilities. The wireless functions operate on channels between 431MHz and 437MHz.

For Canada the model number will be 6WCL. Data in this report covers this model as it is the same as the model tested and only the model designation is different for Canada.

### **5.2. DESCRIPTION OF AVAILABLE ANTENNAS**

The radio utilizes an integral internal antenna.

### **5.3. SOFTWARE AND FIRMWARE**

The test utility software used during testing was MmwDimmer\_C5\_8\_1.sap.

### **5.4. WORST-CASE CONFIGURATION AND MODE**

For Radiated Emissions the device was tested in normal packet mode at the low and high channels. Conducted Emissions was tested on the channel with the highest fundamental field strength (431MHz). Antenna port tests were conducted on the center (typical shipped channel, 434MHz).

The EUT is only designed to be installed in one orientation and was tested as such.

### **5.5. MODIFICATIONS**

The programmed chip power was set to a level of 8.1 (radio PA power register set to C5) in order to comply with the radiated emissions limits for spurious emissions.

## 5.6. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	AC	1	Hardwire	Unsheilded	>3m	None

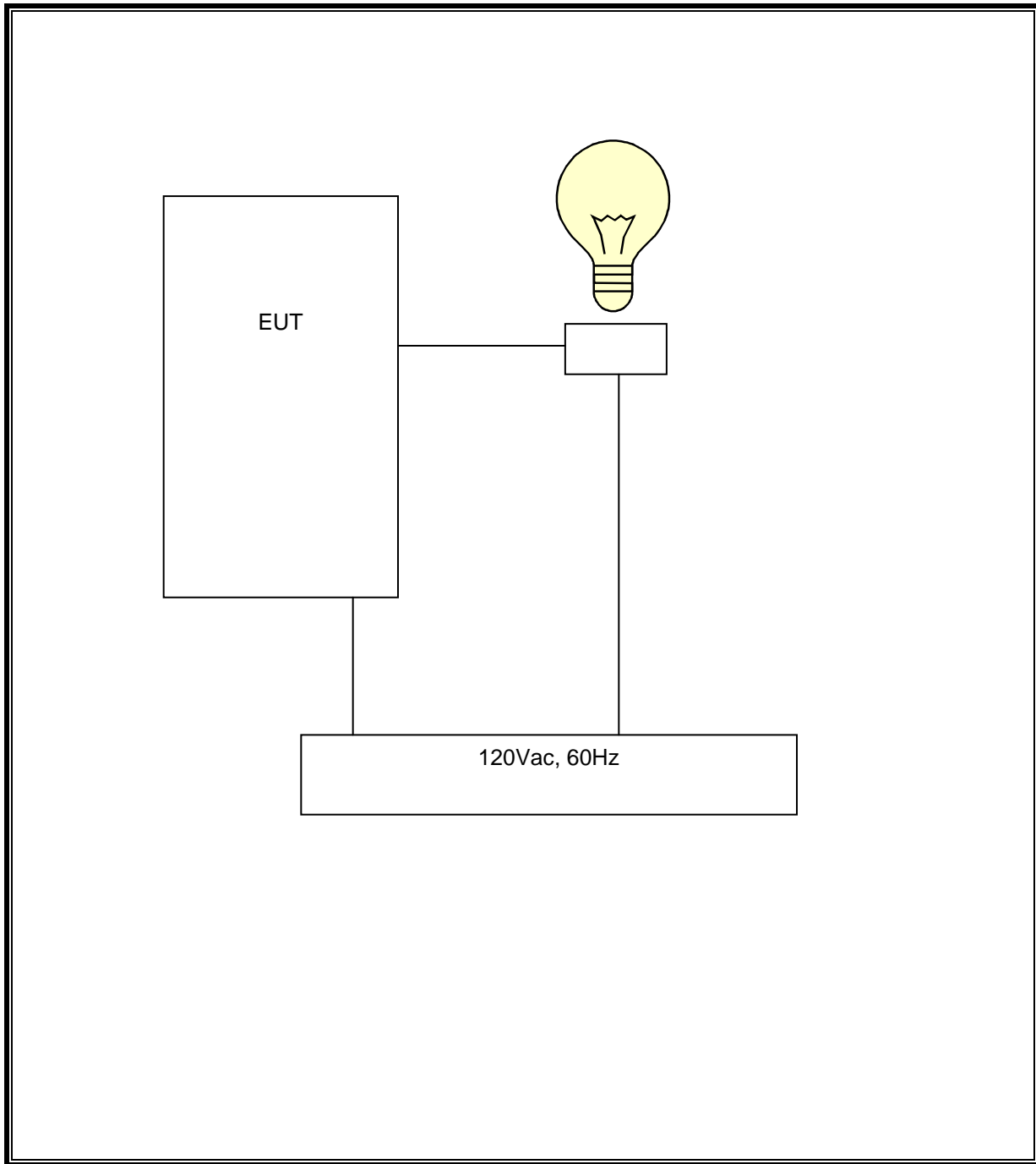
### I/O CABLES

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
120Vac Lamp	GE	-	-	-

### TEST SETUP

The EUT was tested with a lamp load. The EUT is only intended to be installed in one orientation.

**SETUP DIAGRAM FOR TESTS**





## 6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment Used					
Description	Manufacturer	Model	Identifier	Cal Date	Cal Due Date
30-1000MHz					
EMI Receiver	Rohde & Schwarz	ESCI 7	75141	2013-01-30	2014-01-31
Log-P Antenna	Schaffner	UPA6109	44068	2013-04-03	2014-04-03
Bicon Antenna	Schaffner	VBA6106A	54	2013-04-03	2014-04-03
Switch Driver	HP	11713A	ME7A-627	N/A	N/A
System Controller	Sunol Sciences	SC99V	44396	N/A	N/A
Camera Controller	Panasonic	WV-CU254	44395	N/A	N/A
RF Switch Box	UL	1	44398	N/A	N/A
Measurement Software	UL	Version 9.5	44740	N/A	N/A
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268	2012-12-22	2014-12-22
Multimeter	Fluke	83III	ME5B-305	2013-01-28	2014-01-31
Above 1GHz (Band Optimized System)					
Spectrum Analyzer	Agilent	E4446A	72823	2013-01-29	2014-01-31
Horn Antenna (1-2 GHz)	ETS	3161-01 (26°)**	51442	2008-03-28	See * below
Horn Antenna (2-4 GHz)	ETS	3161-02 (22°)**	48107	2007-09-27	See * below
Horn Antenna (4-8 GHz)	ETS	3161-03 (22°)**	48106	2007-09-27	See * below
Horn Antenna	EMCO	3115	ME5A-766	2012-11-28	2013-11-28
Signal Path Controller	HP	11713A	50250	N/A	N/A
Gain Controller	HP	11713A	50251	N/A	N/A
RF Switch / Preamp Fixture	UL	BOMS1	50249	N/A	N/A
System Controller	UL	BOMS2	50252	N/A	N/A
Measurement Software	UL	Version 9.5	44740	N/A	N/A
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268	2012-12-22	2014-12-22
Multimeter	Fluke	83III	ME5B-305	2013-01-28	2014-01-31
<p>* - Note: As allowed by the standard ANSI C63.4 Section 4.7.2, standard gain horns need only a one-time calibration. Only if physical damage occurs will the horn antenna require re-calibration.</p> <p>Gain standard horn antennas (sometimes called standard gain horn antennas) need not be calibrated beyond that which is provided by the manufacturer unless they are damaged or deterioration is suspected, or they are used at a distance closer than <math>2D^2/\lambda</math>. Gain standard horn antennas have gains that are fixed by their dimensions and dimensional tolerances.</p> <p>** - Number in parentheses denotes antenna beam width.</p>					

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

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

## 6.1. 20 dB AND 99% BW

### LIMITS

FCC §15.231 (c)

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

IC A1.1.3

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

### TEST PROCEDURE

ANSI C63.4

The transmitter output is connected to the spectrum analyzer.

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

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

**RESULTS**

No non-compliance noted:

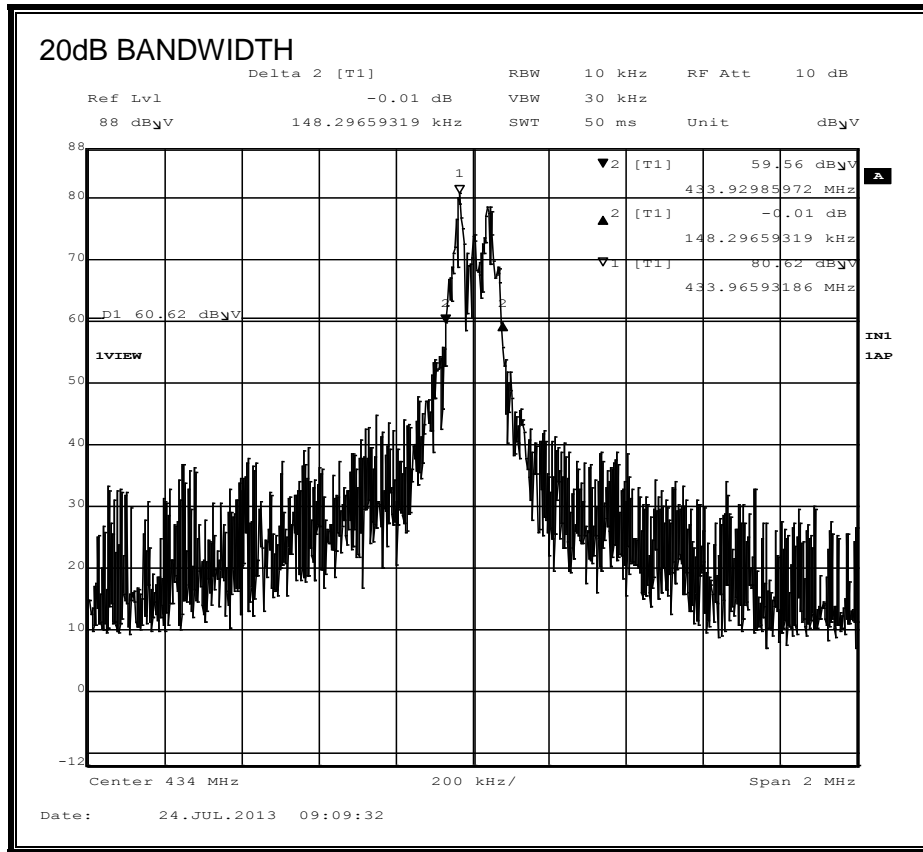
20dB Bandwidth

<b>Frequency (MHz)</b>	<b>20dB Bandwidth (kHz)</b>	<b>Limit (kHz)</b>	<b>Margin (kHz)</b>
434	148.3	1085	-936.7

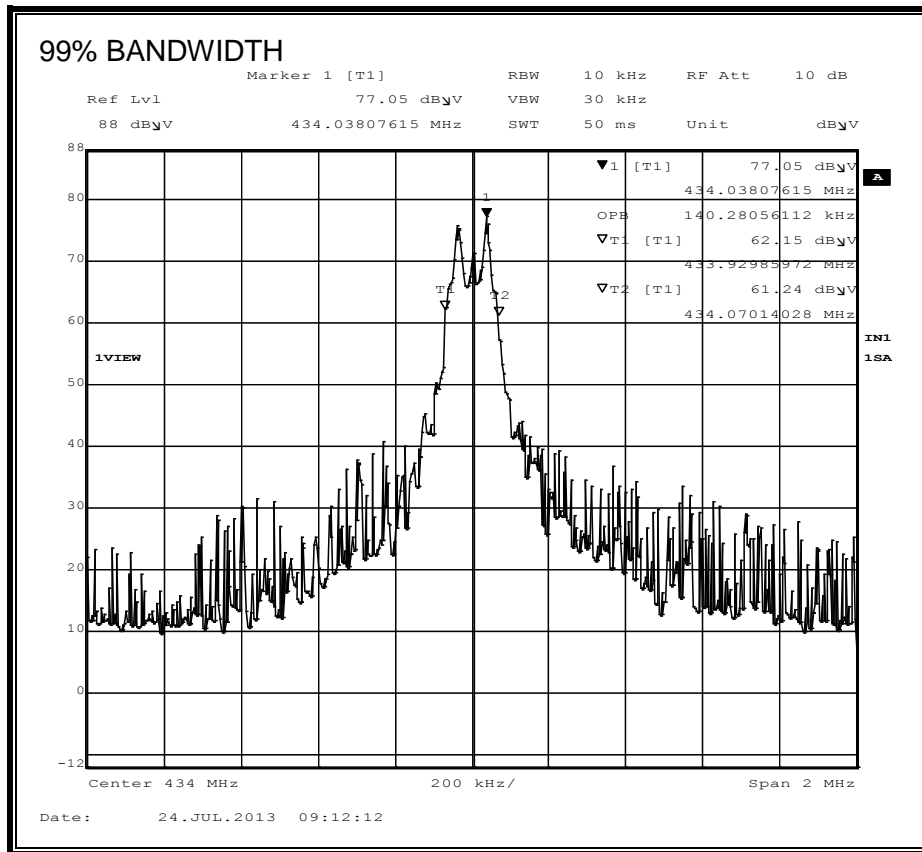
99% Bandwidth

<b>Frequency (MHz)</b>	<b>99% Bandwidth (kHz)</b>	<b>Limit (kHz)</b>	<b>Margin (kHz)</b>
434	140.3	1085	-944.7

20dB BANDWIDTH



99% BANDWIDTH



## 6.2. DUTY CYCLE

### LIMITS

FCC §15.35 (c)

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

### TEST PROCEDURE

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

### CALCULATION

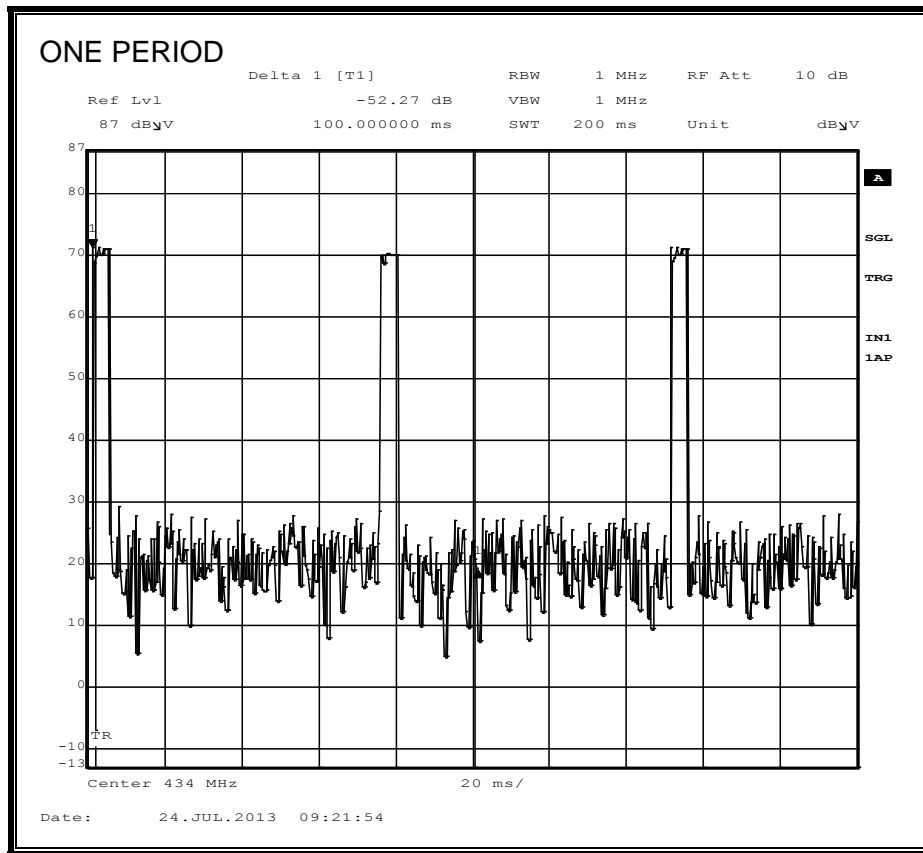
Average Reading = Peak Reading (dBuV/m) + 20log (Duty Cycle), Where Duty Cycle is (# of long pulses \* long pulse width) + (# of short pulses \* short pulse width) / 100 or T

### RESULTS

No non-compliance noted:

One Period (ms)	Long Pulse Width (ms)	# of Long Pulses	Short Width (ms)	# of Short Pulses	Duty Cycle	20*Log Duty Cycle (dB)
100	4.6	1	4.60	1	0.092	-20.72

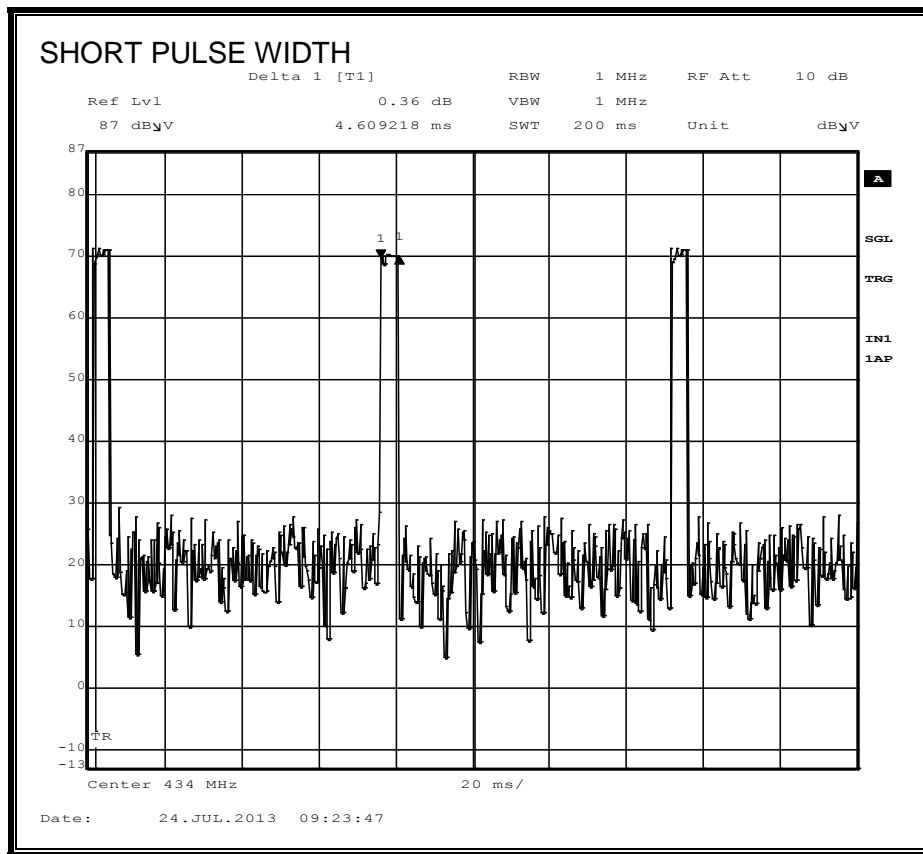
**ONE PERIOD**







**SHORT PULSE WIDTH**



### **6.3. TRANSMISSION TIME**

#### **LIMITS**

FCC §15.231 (a) (2)

IC A1.1.1 (b)

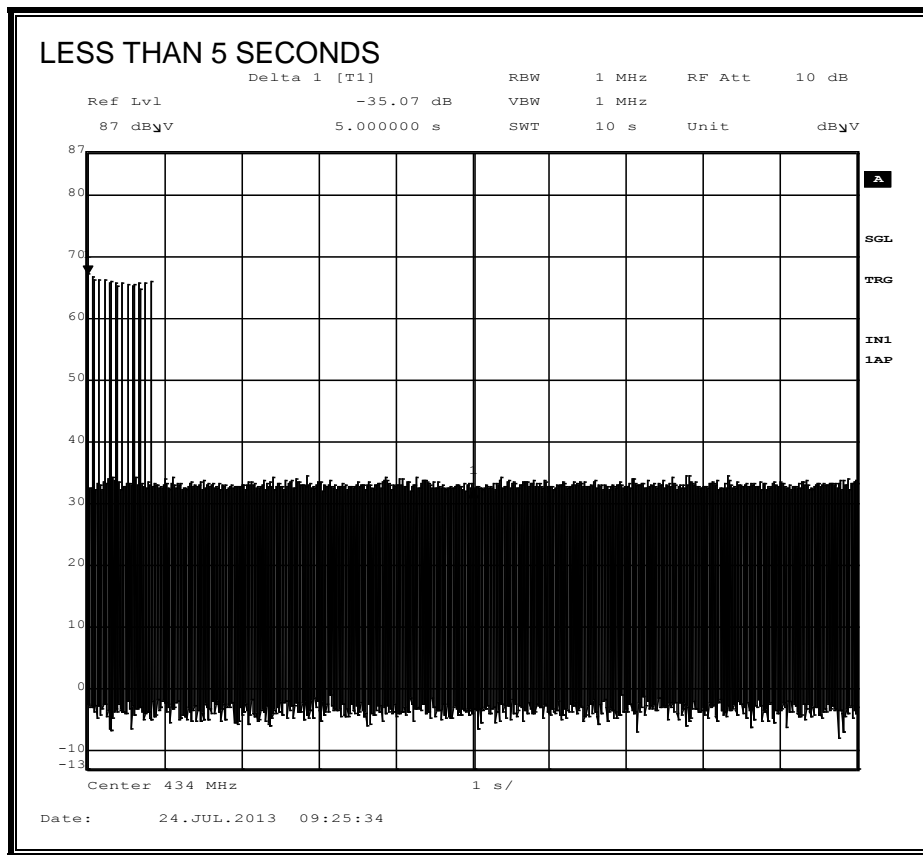
A transmitter activated automatically shall cease transmission within 5 seconds after activation.

#### **TEST PROCEDURE**

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

#### **RESULTS**

No non-compliance noted:



## 7. RADIATED EMISSION TEST RESULTS

### 7.1. TX RADIATED SPURIOUS EMISSION

#### LIMITS

FCC §15.231 (b)  
 IC A1.1.2

In addition to the provisions of § 15.205, the field strength of emissions from Intentional radiators operated under this section shall not exceed the following:

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

1 Linear interpolation

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

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

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

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

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

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

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

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

## **TEST PROCEDURE**

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

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

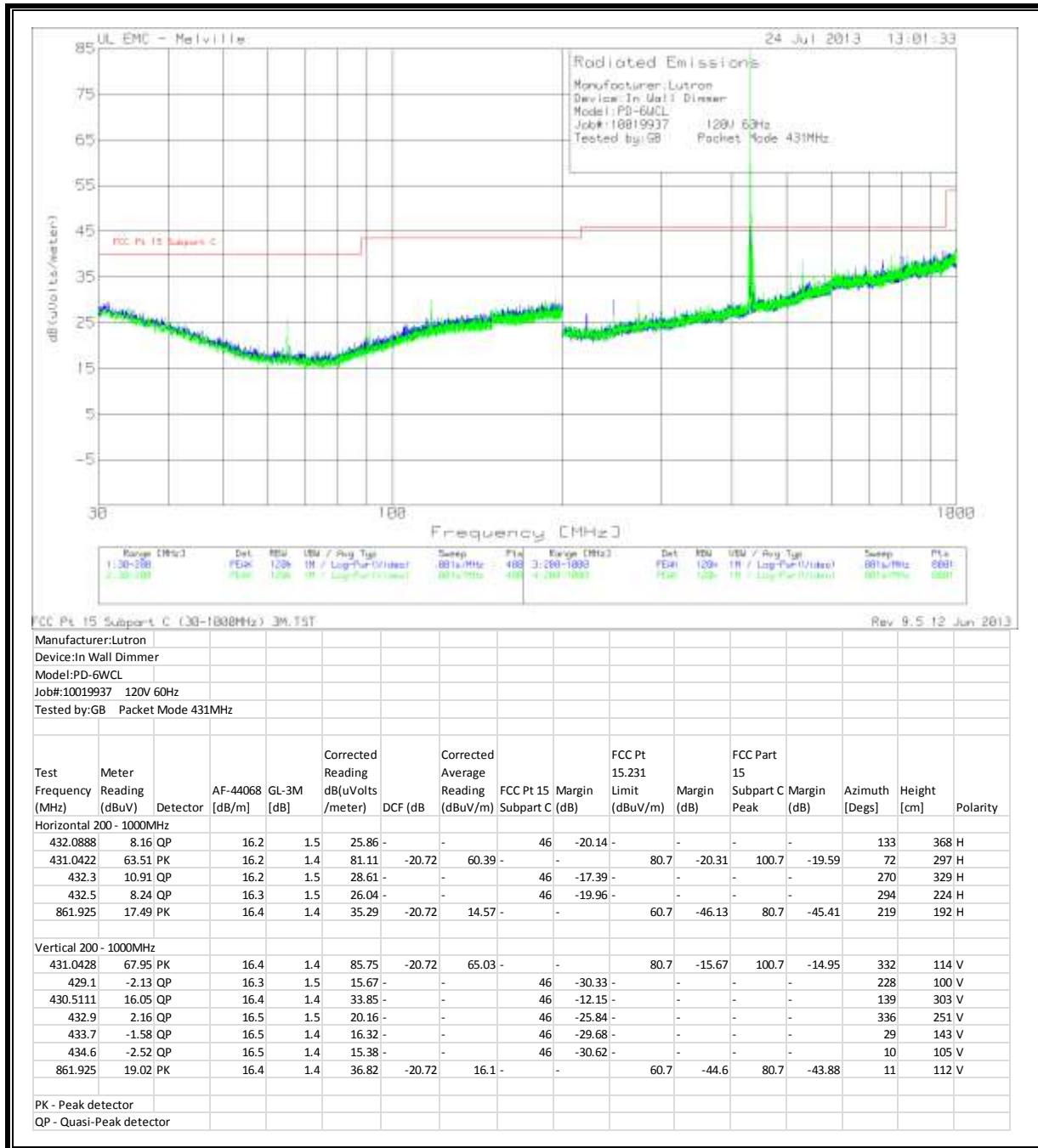
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

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

## **RESULTS**

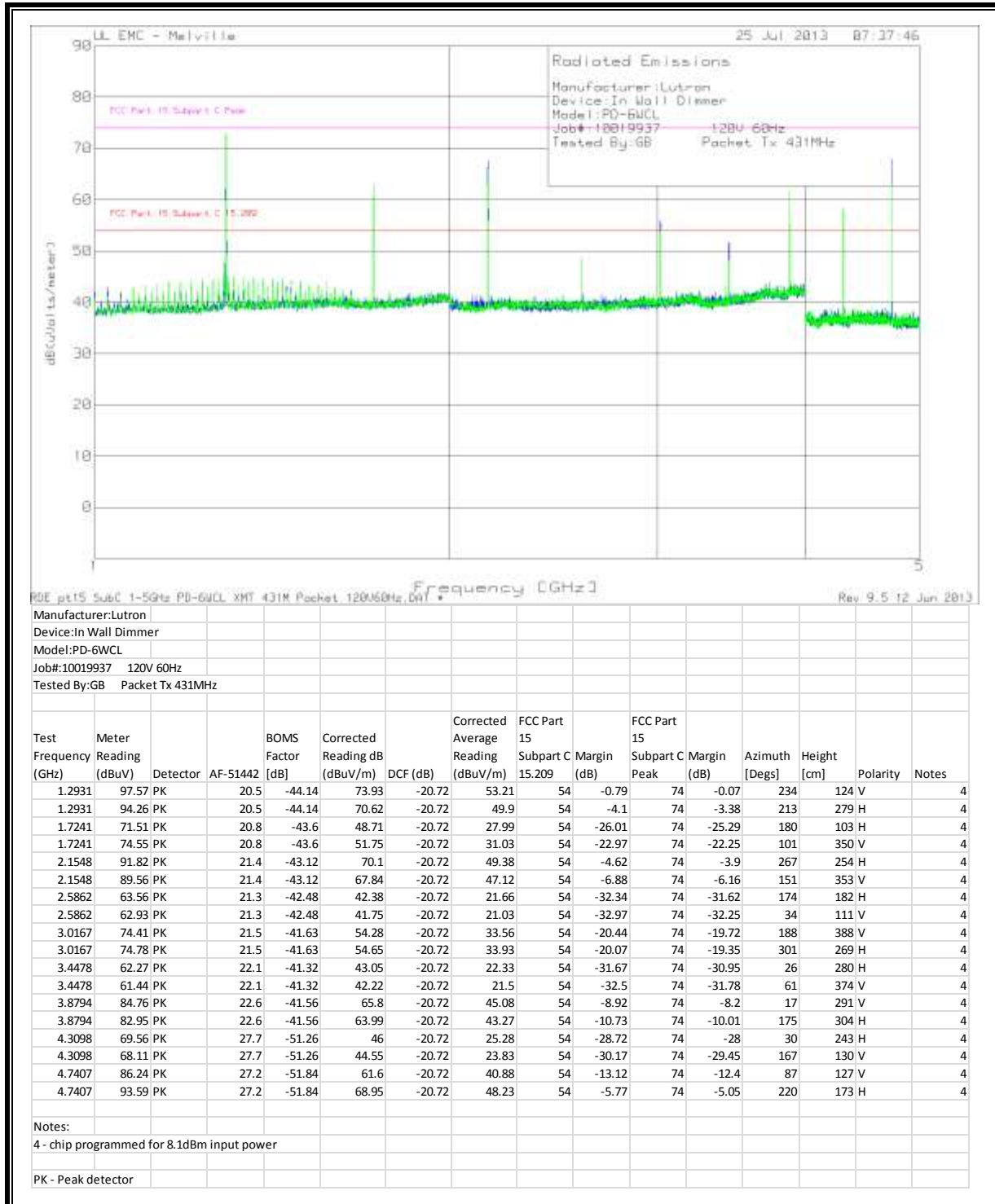
No non-compliance noted:

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

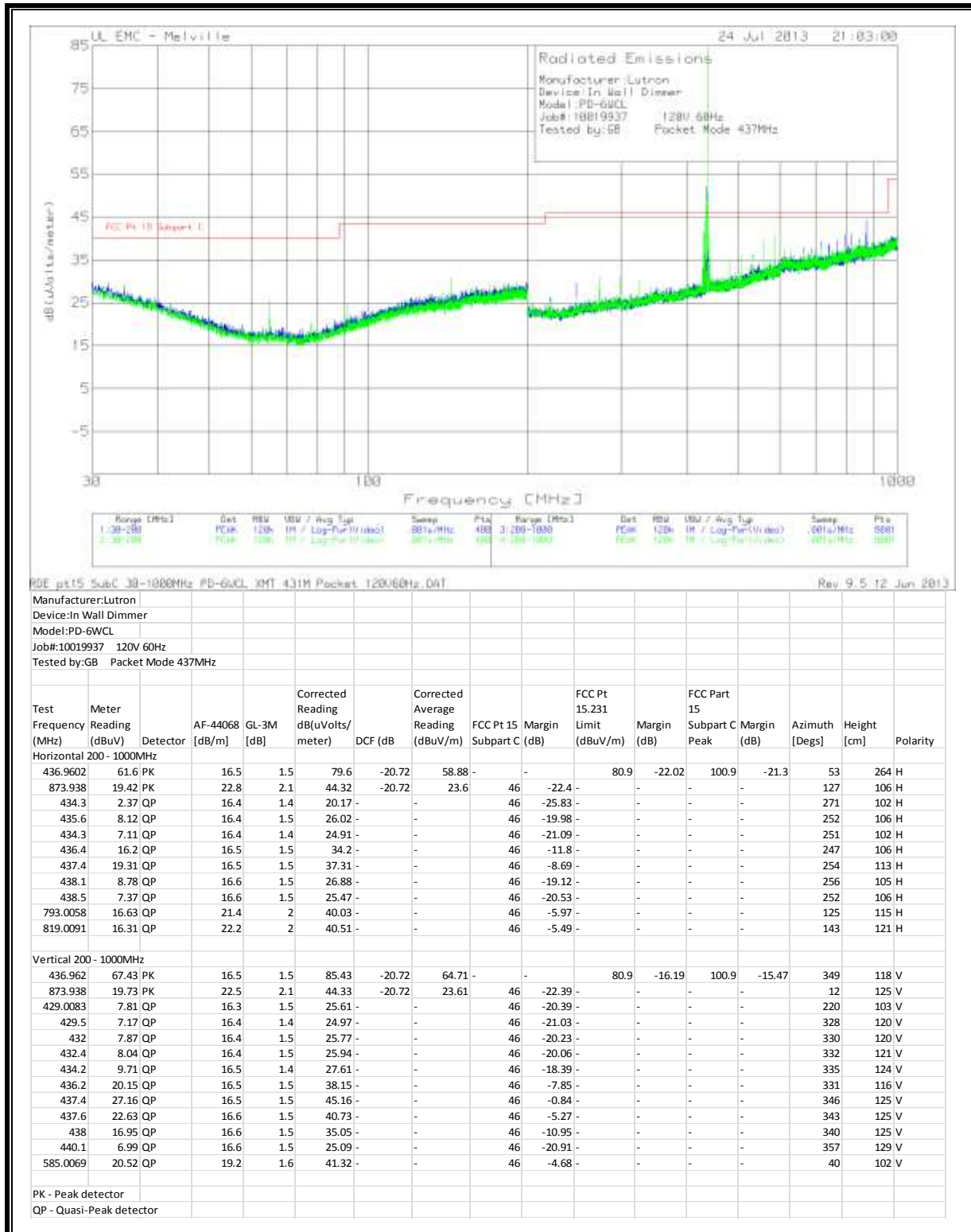




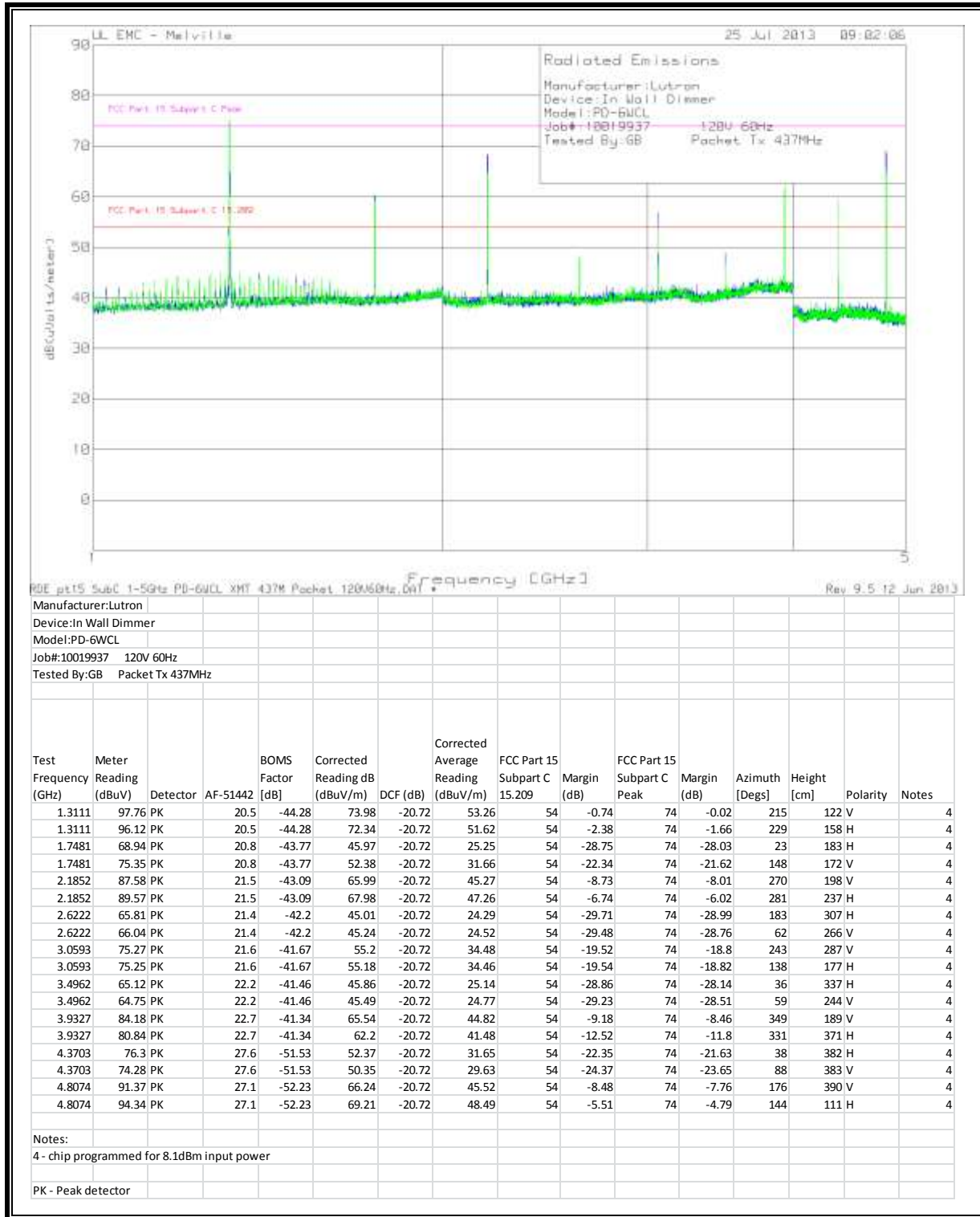
**HARMONICS AND TX SPURIOUS EMISSIONS ABOVE 1GHz – Low Channel**



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



**HARMONICS AND TX SPURIOUS EMISSIONS ABOVE 1GHz – High Channel**



## 7.2. RX RADIATED SPURIOUS EMISSION

### LIMITS

IC RSS-Gen Issue 2, section 7.2.3.2

All spurious emissions shall comply with the limits shown below:

Limits for radiated disturbance of Class B ITE at measuring distance of 3 m	
Frequency range (MHz)	Quasi-peak limits (dB $\mu$ V/m)
30 to 88	40
88 to 216	43.5
216 to 960	46
Above 960 MHz	54

Note: The lower limit shall apply at the transition frequency.

### TEST PROCEDURE

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

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

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

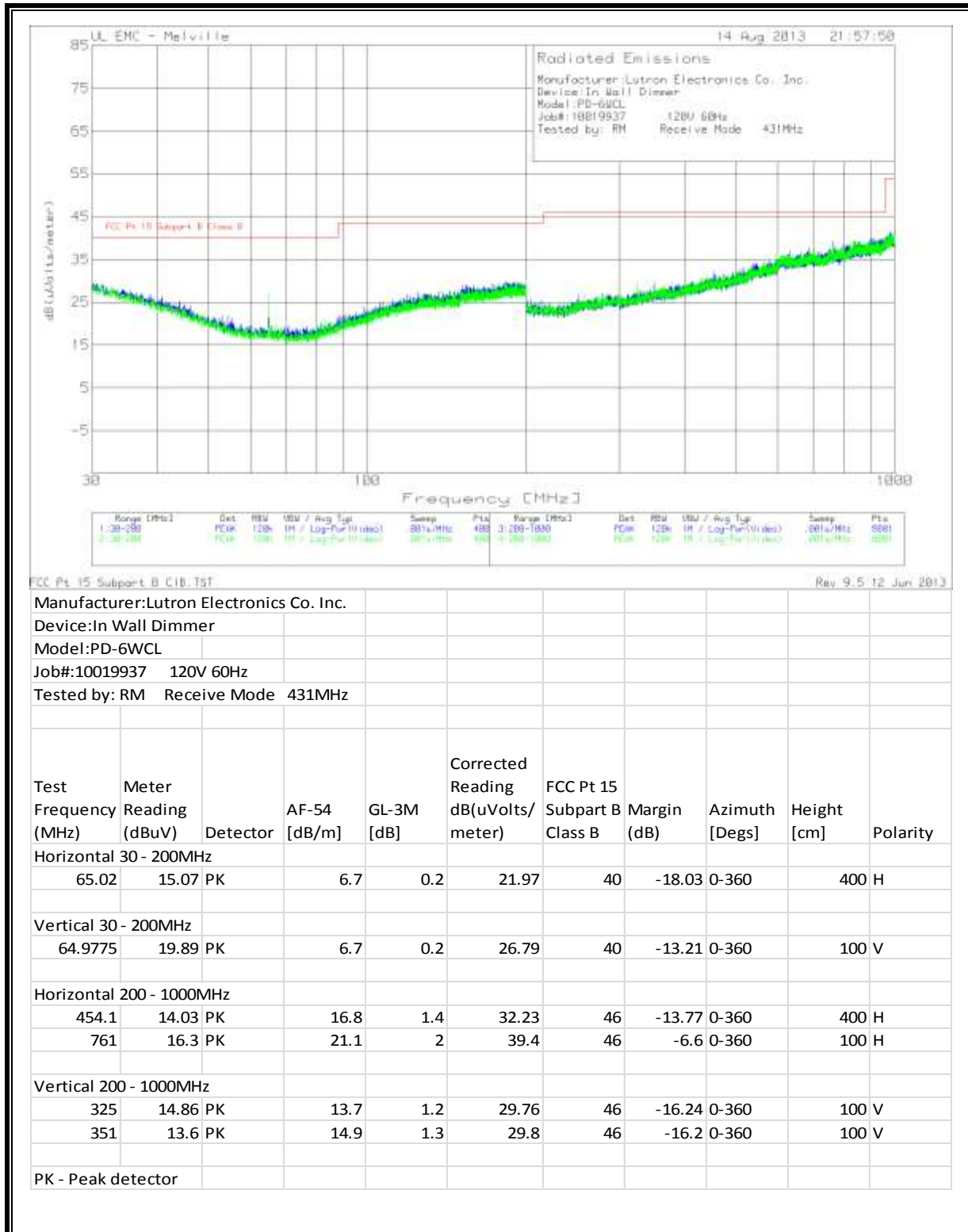
The spectrum from 30 MHz to 5th harmonic is investigated with the transmitter set to the middle channel.

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

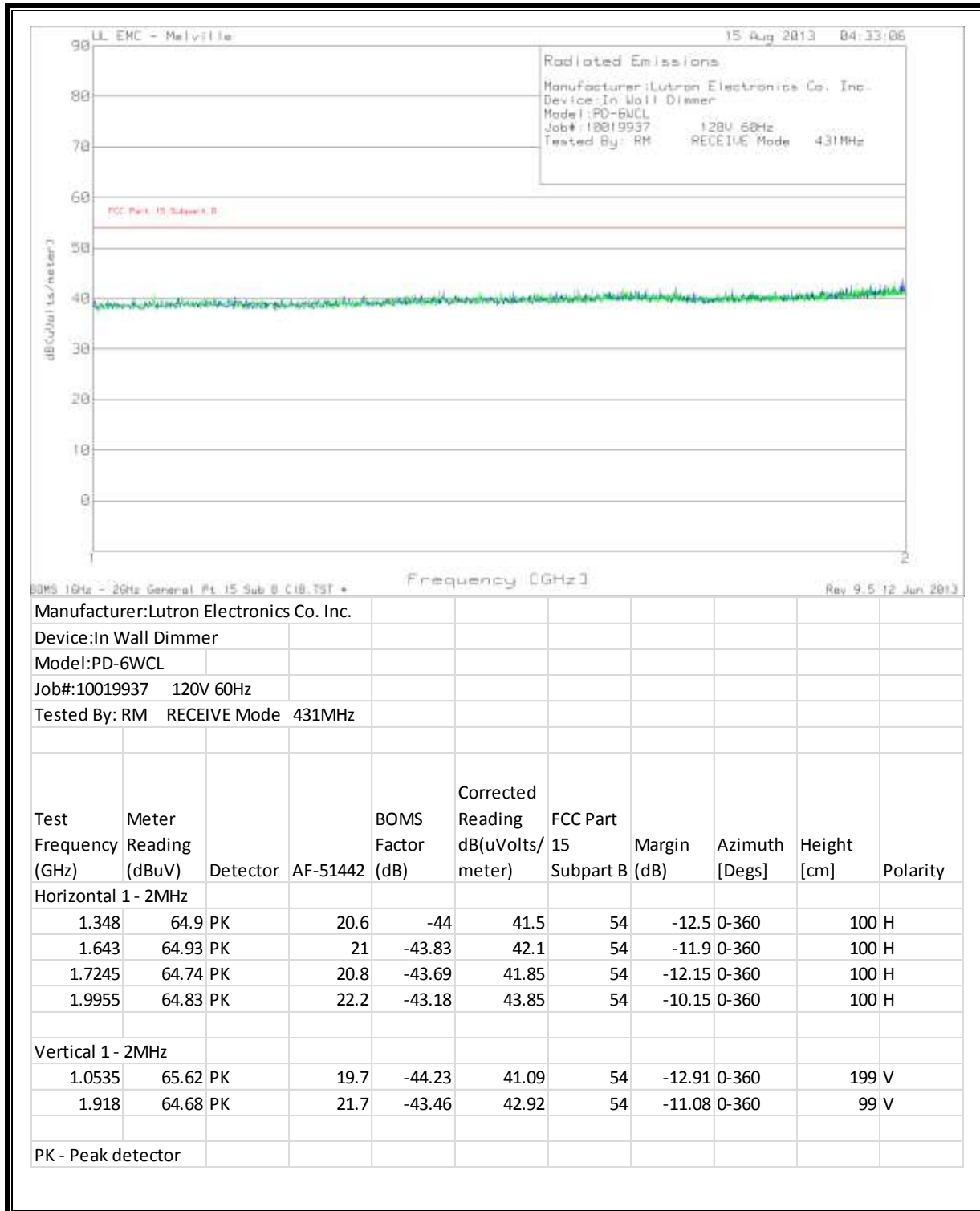
### RESULTS

No non-compliance noted:

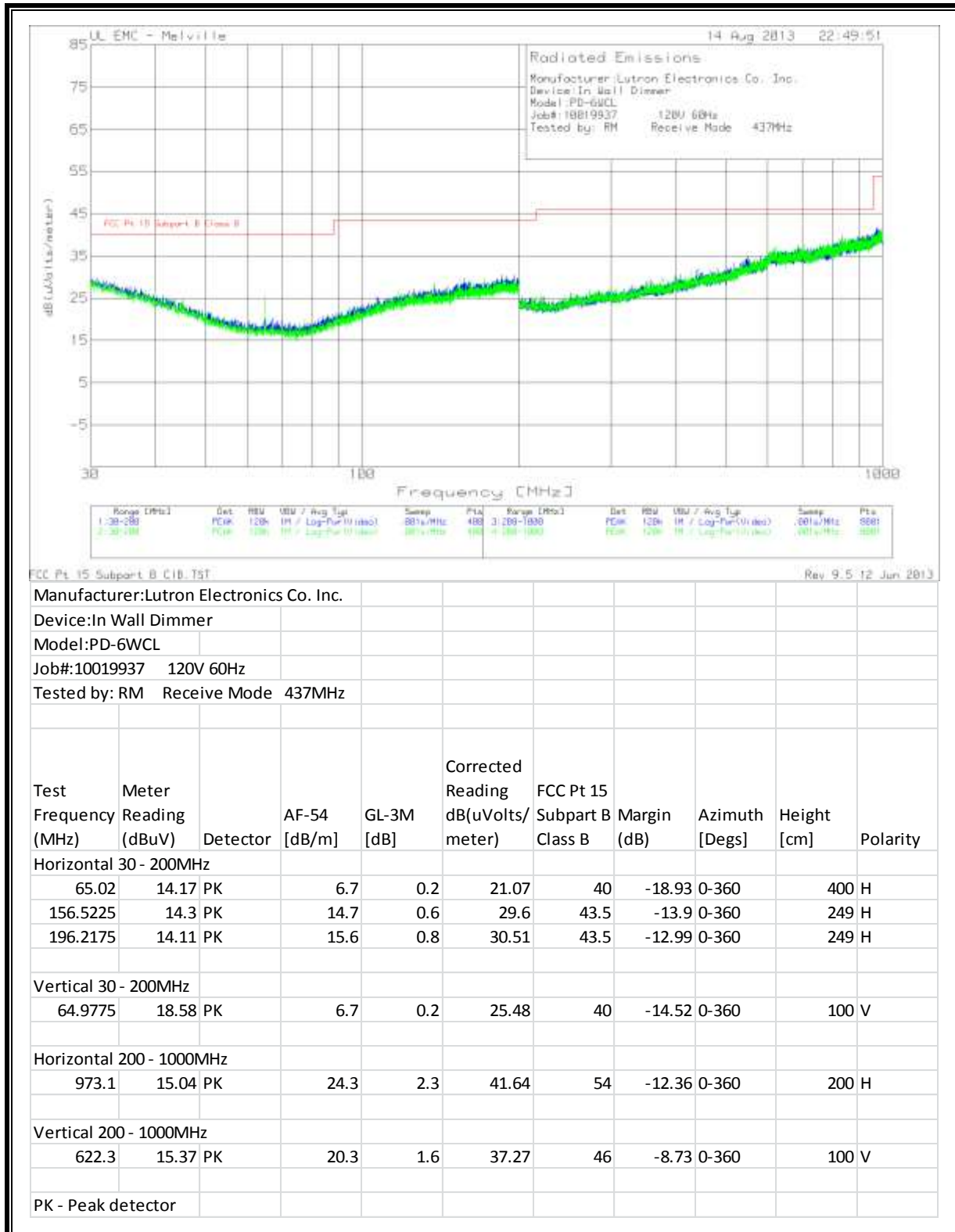
**RECEIVER SPURIOUS EMISSION (30MHz - 1GHz) – Low Channel**



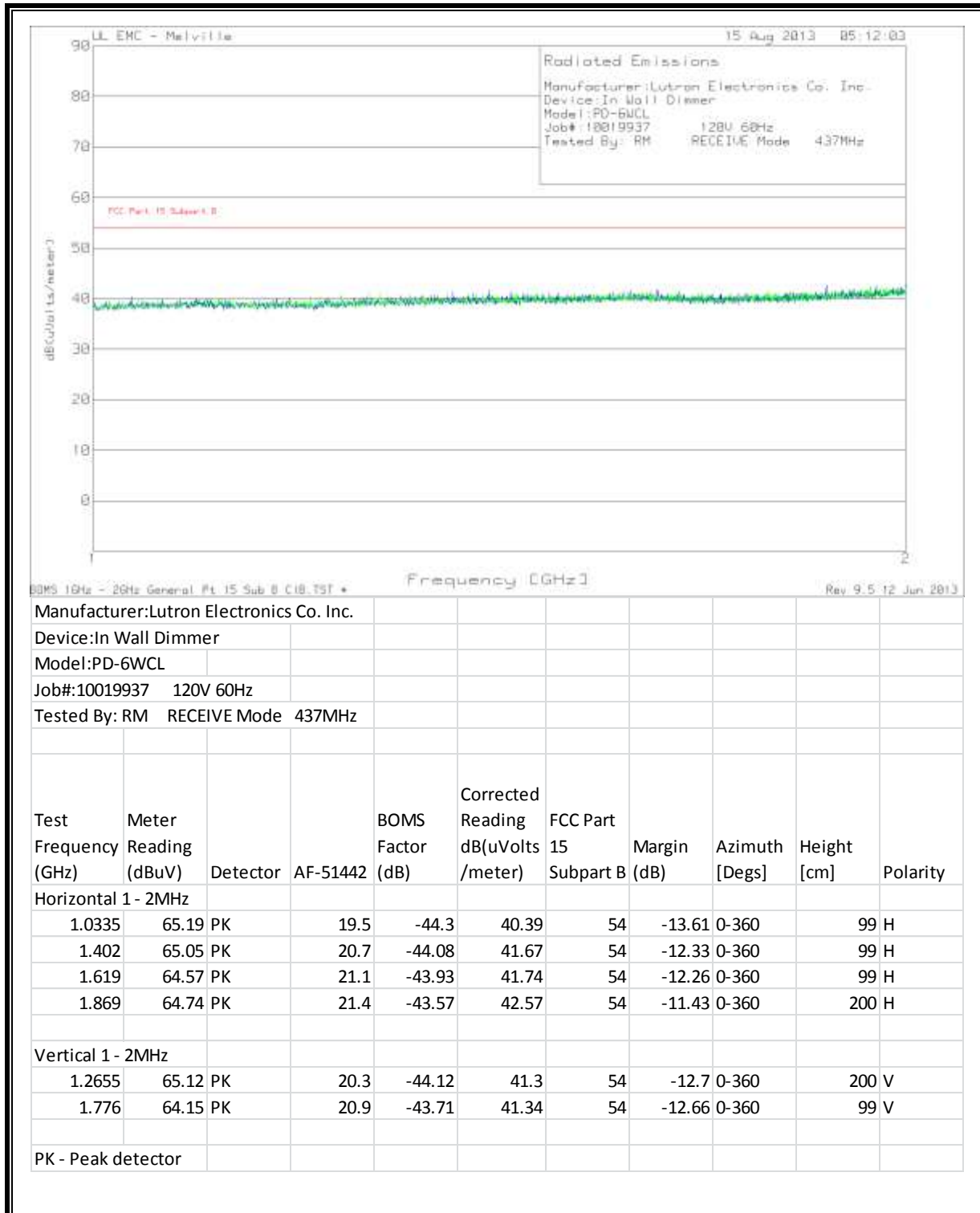
**RECEIVER SPURIOUS EMISSION ABOVE 1GHz – Low Channel**



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



**RECEIVER SPURIOUS EMISSION ABOVE 1GHz – High Channel**





## 8. AC MAINS LINE CONDUCTED EMISSIONS

### LIMITS

§15.207 (a)  
IC RSS-GEN, Section 7.2.2

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

\* Decreases with the logarithm of the frequency.

### TEST PROCEDURE

ANSI C63.4

### RESULTS

No non-compliance noted:

**6 WORST EMISSIONS – Transmit Mode**

Hot

Frequency (MHz)	Meter Reading (dBuV)	Det	5A636 L1 (dB)	Corrected Reading (dBuV)	Class B QPK Limit (dBuV)	Margin (dB)	Class B Avg Limit (dBuV)	Margin (dB)
.20119	48.65	PK	10	58.65	63.56	-4.91	-	-
.23531	49.8	PK	10	59.8	62.26	-2.46	-	-
.32915	45.63	PK	10	55.63	59.47	-3.84	-	-
.54243	41.54	PK	10	51.54	56	-4.46	-	-
.90073	32.66	PK	10	42.66	56	-13.34	-	-
13.00623	33.49	PK	10.8	44.29	60	-15.71	-	-
.16357	29.31	Av	10	39.31	-	-	55.28	-15.97
.20632	29.79	Av	10	39.79	-	-	53.35	-13.56
.28057	27.28	Av	10	37.28	-	-	50.8	-13.52
.40657	24.18	Av	10	34.18	-	-	47.72	-13.54
.60907	21.19	Av	10	31.19	-	-	46	-14.81
.76882	18.44	Av	10	28.44	-	-	46	-17.56

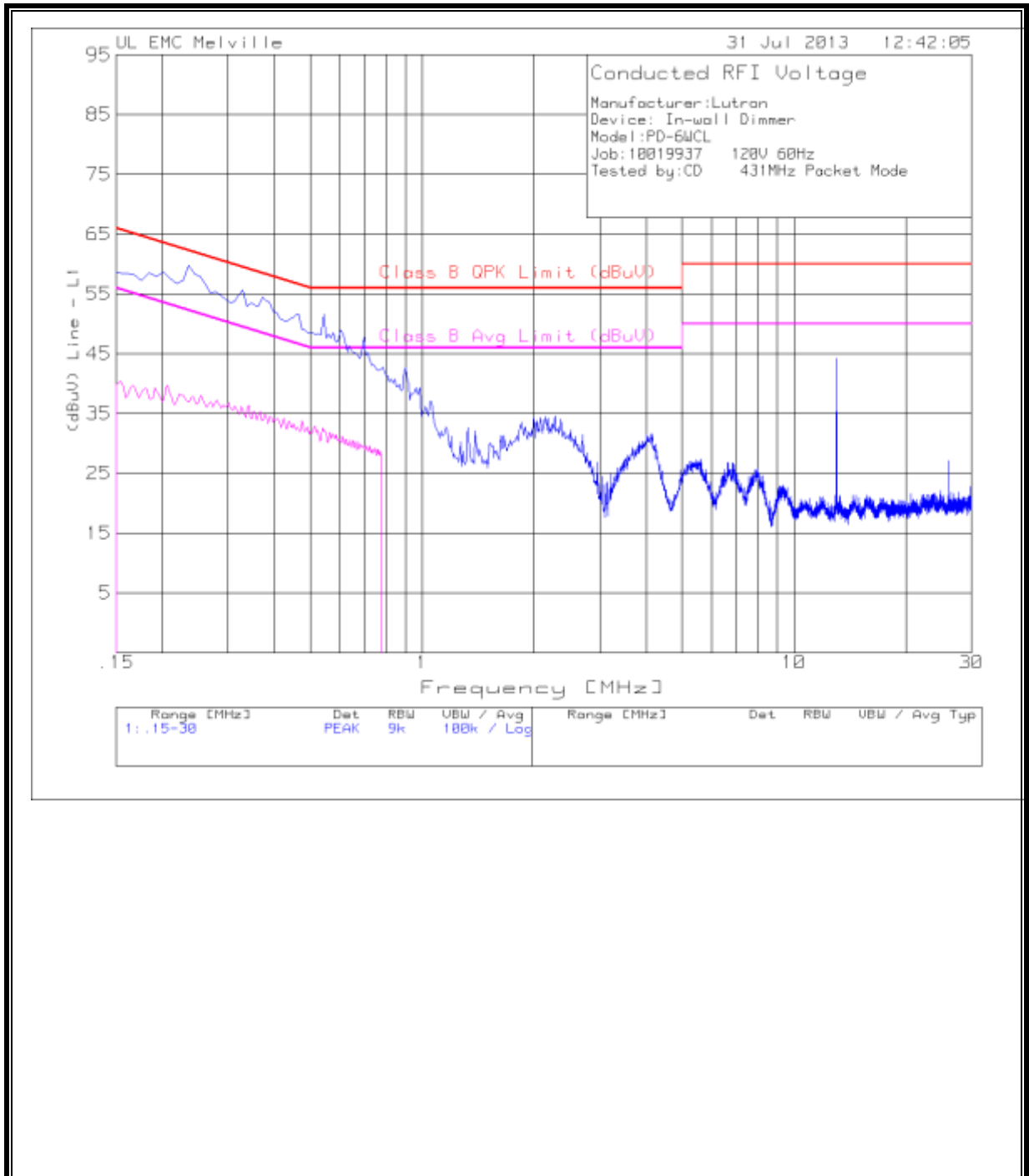
PK - Peak detector  
 Av - average detection

Neutral

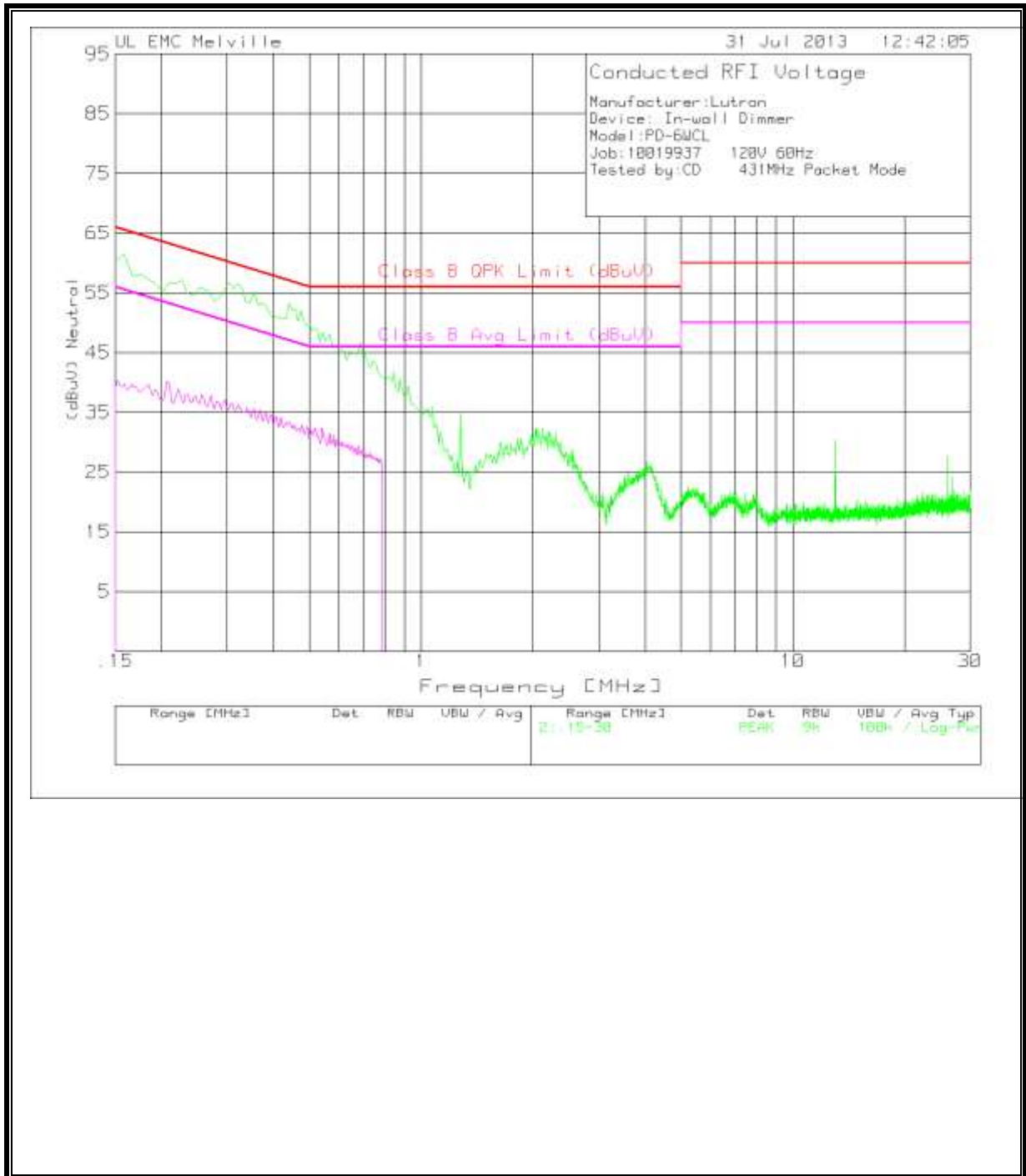
Frequency (MHz)	Meter Reading (dBuV)	Det	5A636 Neut (dB)	Corrected Reading (dBuV)	Class B QPK Limit (dBuV)	Margin (dB)	Class B Avg Limit (dBuV)	Margin (dB)
.15853	51.53	PK	10.1	61.63	65.54	-3.91	-	-
.22678	47.08	PK	10	57.08	62.57	-5.49	-	-
.30356	46.76	PK	10	56.76	60.14	-3.38	-	-
.32915	45.86	PK	10	55.86	59.47	-3.61	-	-
.44005	43.3	PK	10	53.3	57.06	-3.76	-	-
.58508	36.14	PK	10.1	46.24	56	-9.76	-	-
.71305	33.58	PK	10.1	43.68	56	-12.32	-	-
13.00623	19.65	PK	10.8	30.45	60	-29.55	-	-
.15907	29.74	Av	10	39.74	-	-	55.51	-15.77
.20632	30.12	Av	10	40.12	-	-	53.35	-13.23
.27382	26.69	Av	10	36.69	-	-	51	-14.31
.40432	24.25	Av	10	34.25	-	-	47.76	-13.51
.61357	20.01	Av	10.1	30.11	-	-	46	-15.89
.76657	16.88	Av	10.1	26.98	-	-	46	-19.02

PK - Peak detector  
 Av - average detection

**LINE 1 RESULTS- Transmit Mode**



**LINE 2 RESULTS- Transmit Mode**



**6 WORST EMISSIONS – Receive Mode**

Hot

Frequency (MHz)	Meter Reading (dBuV)	Det	5A636 L1 (dB)	Corrected Reading (dBuV)	Class B QPK Limit (dBuV)	Margin (dB)	Class B Avg Limit (dBuV)	Margin (dB)
.21825	49.66	PK	10	59.66	62.89	-3.23	-	-
.31209	46.83	PK	10	56.83	59.91	-3.08	-	-
.47418	44.46	PK	10	54.46	56.44	-1.98	-	-
.54243	41.05	PK	10	51.05	56	-4.95	-	-
.7557	35.44	PK	10	45.44	56	-10.56	-	-
13.00623	33.58	PK	10.8	44.38	60	-15.62	-	-
.1643	29.8	Av	10	39.8	-	-	55.24	-15.44
.20705	28.53	Av	10	38.53	-	-	53.32	-14.79
.2858	26.58	Av	10	36.58	-	-	50.65	-14.07
.36005	25.17	Av	10	35.17	-	-	48.73	-13.56
.47705	23.54	Av	10	33.54	-	-	46.39	-12.85
.7223	18.97	Av	10	28.97	-	-	46	-17.03

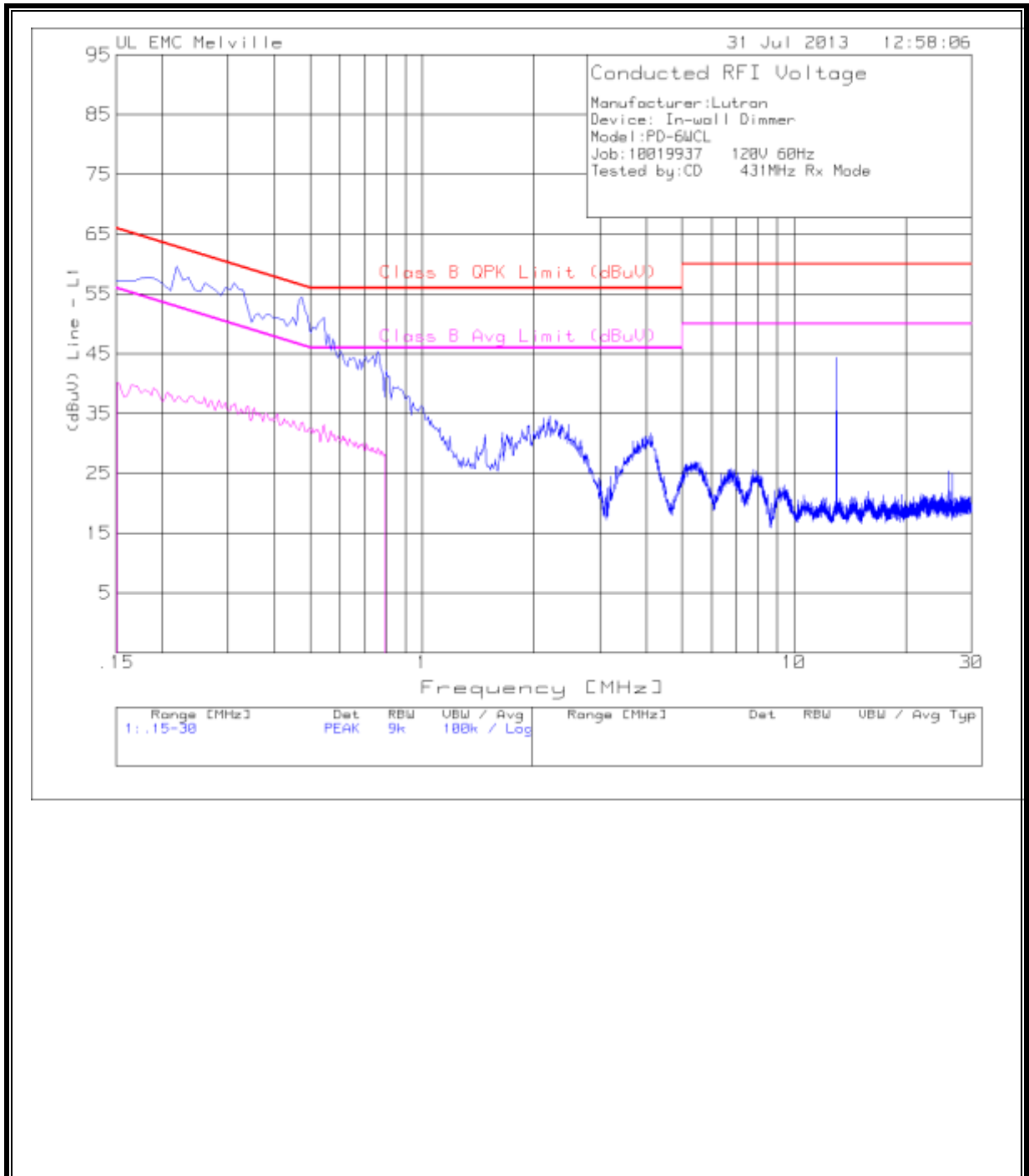
PK - Peak detector  
 Av - average detection

Neutral

Frequency (MHz)	Meter Reading (dBuV)	Det	5A636 Neut (dB)	Corrected Reading (dBuV)	Class B QPK Limit (dBuV)	Margin (dB)	Class B Avg Limit (dBuV)	Margin (dB)
.20972	48.38	PK	10	58.38	63.22	-4.84	-	-
.25237	47.38	PK	10	57.38	61.68	-4.3	-	-
.37181	45.53	PK	10	55.53	58.46	-2.93	-	-
.51683	40.27	PK	10.1	50.37	56	-5.63	-	-
.68745	36.11	PK	10.1	46.21	56	-9.79	-	-
13.00623	19.83	PK	10.8	30.63	60	-29.37	-	-
.168	29.94	Av	10	39.94	-	-	55.06	-15.12
.21075	29.65	Av	10	39.65	-	-	53.18	-13.53
.2805	27.08	Av	10	37.08	-	-	50.8	-13.72
.357	24.95	Av	10	34.95	-	-	48.8	-13.85
.47175	22.68	Av	10	32.68	-	-	46.48	-13.8
.735	17.69	Av	10.1	27.79	-	-	46	-18.21

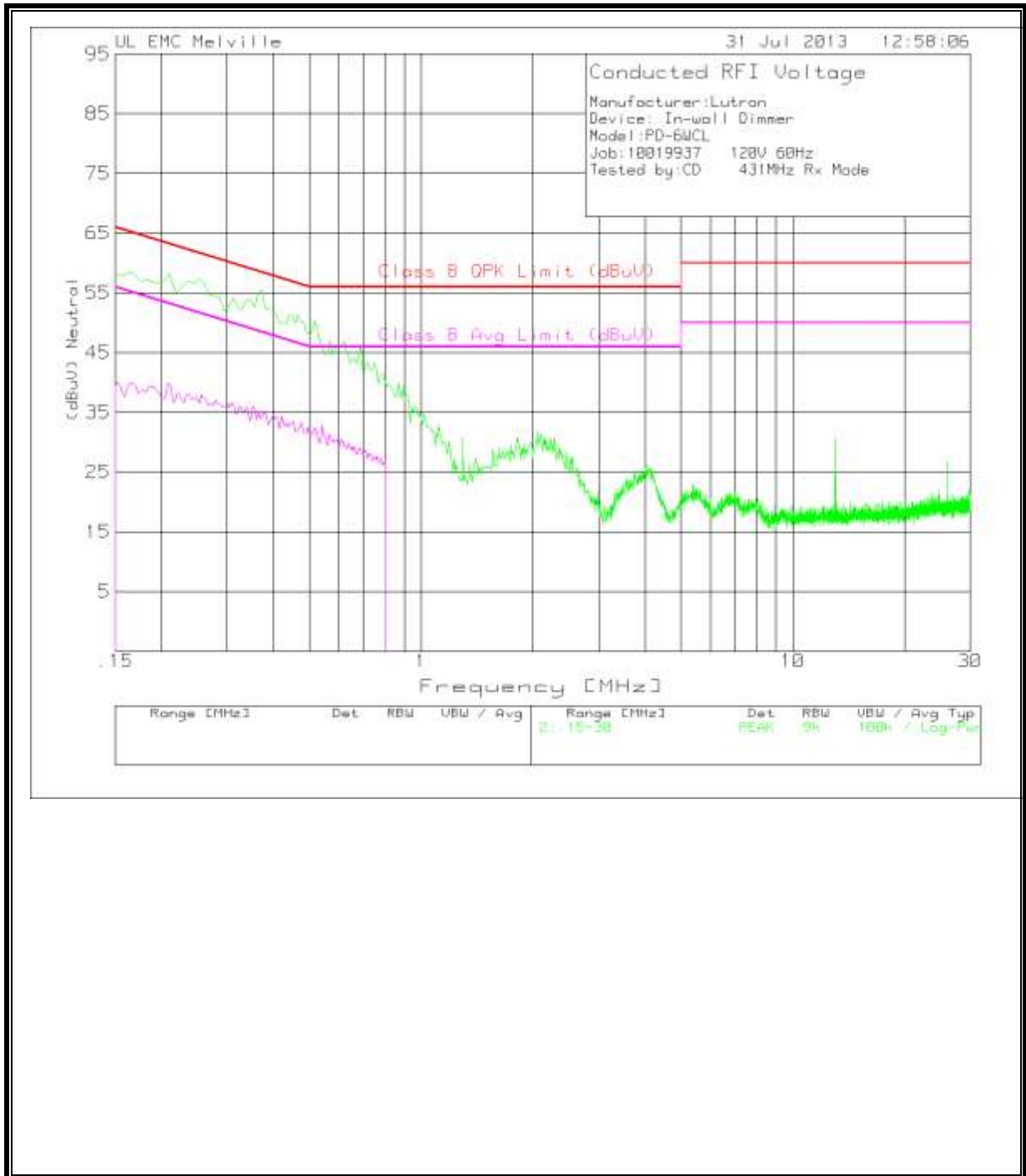
PK - Peak detector  
 Av - average detection

**LINE 1 RESULTS – Receive Mode**





**LINE 2 RESULTS – Receive Mode**

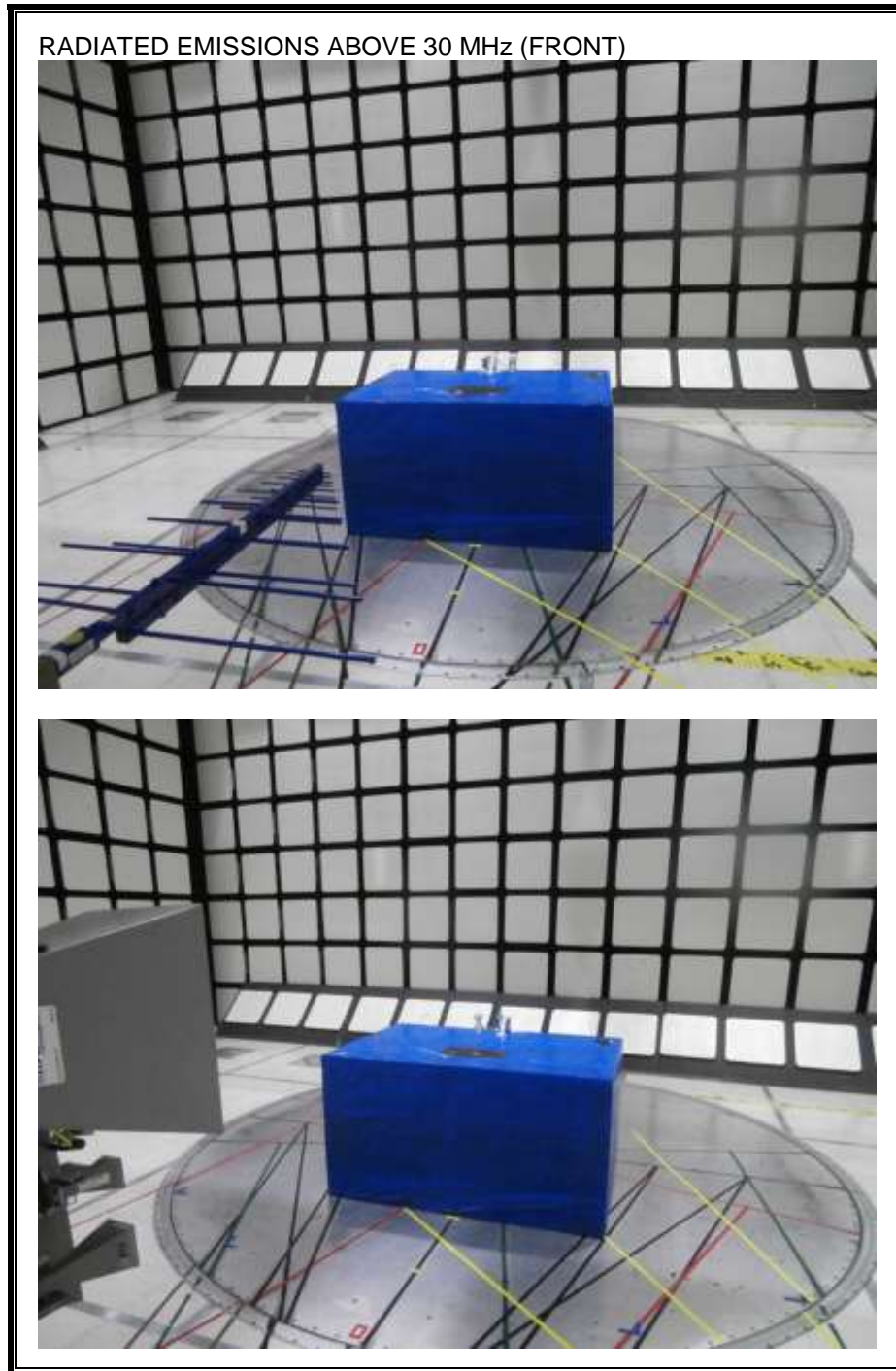


## 9. SETUP PHOTOS

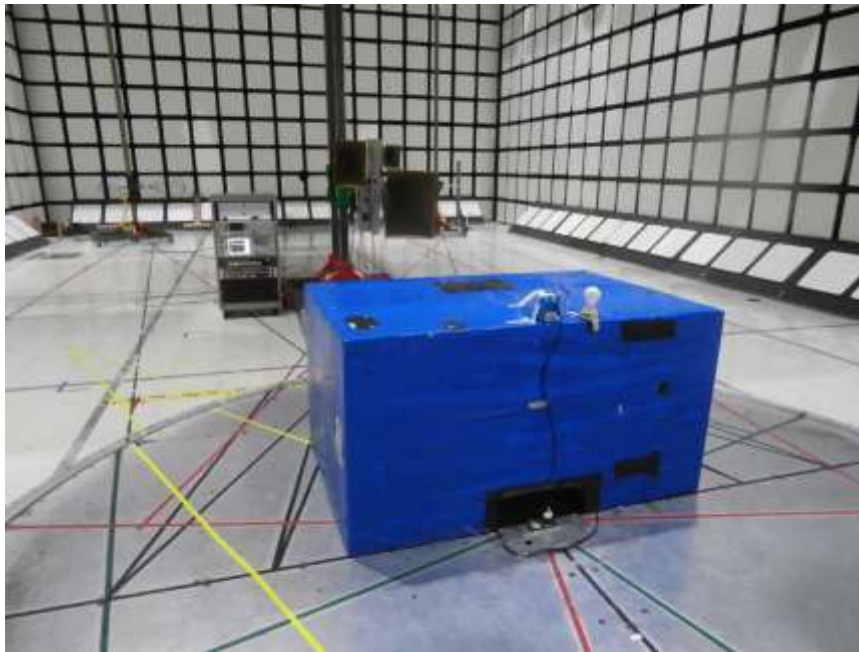
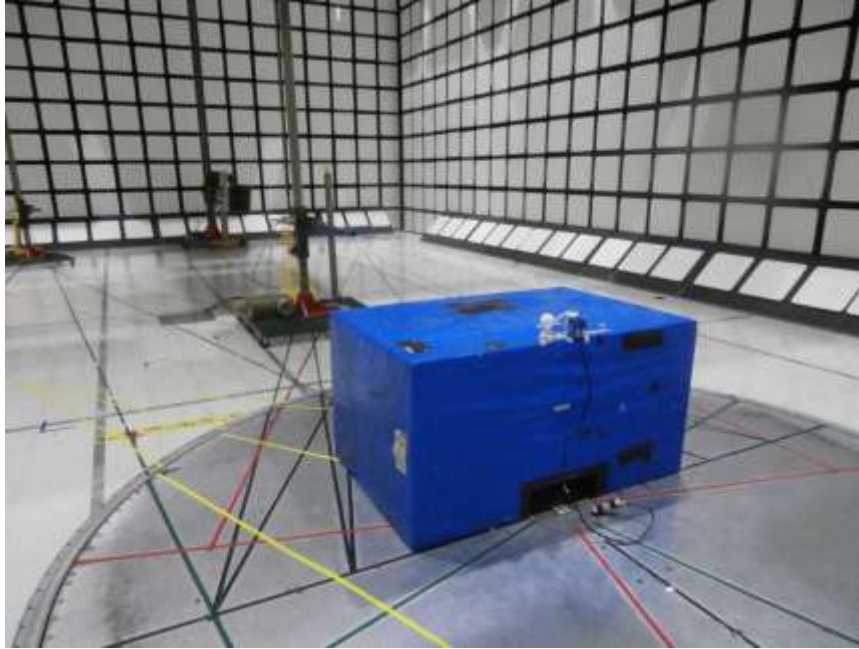
### ANTENNA PORT



**RADIATED EMISSION ABOVE 30 MHz**



RADIATED EMISSIONS ABOVE 30 MHz (BACK)



**AC MAINS LINE CONDUCTED EMISSION**







**END OF REPORT**