

FCC 47 CFR PART 15 SUBPART C

BLUETOOTH LOW ENERGY CERTIFICATION TEST REPORT

FOR

TempuRing

MODEL NUMBER: PT-001

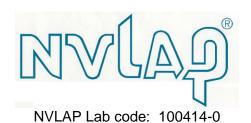
FCC ID: 2AE3ZPT-DS-5000

REPORT NUMBER: 10719529A

ISSUE DATE: July 15, 2015

Prepared for PRIMA-TEMP 2820 WILDERNESS PLACE, SUITE C BOULDER, CO 80301 USA

Prepared by
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REPORT NO: 10719521A DATE: July 15, 2015 FCC ID: 2AE3ZPT-DS-5000

Revision History

Rev.	Issue Date	Revisions	Revised By
	July 15, 2015	Initial Issue	b.mucha

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: PRIMA-TEMP

2820 WILDERNESS PLACE, SUITE C

BOULDER, CO 80301, USA

EUT DESCRIPTION: TempuRing

MODEL: PT-001

SERIAL NUMBER: Non-serialized

DATE TESTED: April 2015 – June 2015

APPLICABLE STANDARDS

STANDARD TEST RESULTS

CFR 47 Part 15 Subpart C Pass

UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL LLC based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested 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 herein. 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 LLC By:

Tested By:

Michael Ferrer EMC Engineer

UL LLC

UL LLC

Bart Mucha EMC Engineer

UL LLC

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2009, FCC CFR 47 Part 2, FCC CFR 47 Part 15,

DATE: July 15, 2015

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 333 Pfingsten Road, Northbrook, IL 60062 USA.

UL NBK is accredited by NVLAP, Laboratory Code 100414-0. The full scope of accreditation can be viewed at http://ts.nist.gov/Standards/scopes/1004140.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

Sample Calculations

Radiated Field Strength and Conducted Emissions data contained within this report is calculated on the following basis:

Field Strength (dBuV/m) = Meter Reading (dBuV) + AF (dB/m) - Gain (dB) + Cable Loss (dB) Conducted Voltage (dBuV) = Meter Reading (dBuV) + Cable Loss (dB) + LISN IL (dB) Conducted Current (dBuA) = Meter Reading (dBuV) + Cable Loss (dB) - Transducer Factor (dBohms)

4.3. MEASUREMENT UNCERTAINTY

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

Test	Range	Equipment	Uncertainty k=2
Radiated Emissions	30-200MHz	Bicon 10m Horz	4.27dB
Radiated Emissions	30-200MHz	Bicon 10m Vert	4.28dB
Radiated Emissions	200-1000MHz	LogP 10m Horz	3.33dB
Radiated Emissions	200-1000MHz	LogP 10m Vert	3.39dB
Radiated Emissions	1-6GHz	Horn	5.02dB
Radiated Emissions	6-18GHz	Horn	5.34dB
Radiated Emissions	18-26GHz	Horn	6.60dB
Conducted Ant Port	30MHz-26GHz	Spectrum Analyzer	2.94

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

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5. EQUIPMENT UNDER TEST

5.1. **DESCRIPTION OF EUT**

The EUT (Equipment Under Test) is a Personal Fertility Temperature Sensor with BlueTooth LE transceiver.

5.2. **MAXIMUM OUTPUT POWER**

The transmitter has a maximum peak conducted output power as follows:

Frequency	Mode	Output Power	Output Power
Range		(dBm)	(mW)
(MHz)			
2402 - 2480	BLE	4.26	2.67

5.3. **DESCRIPTION OF AVAILABLE ANTENNAS**

The radio utilizes an integral folded dipole antenna, with a maximum gain of -6dBi.

5.4. SOFTWARE AND FIRMWARE

The EUT software installed during testing was STM8 ver. 1.3.

5.5. **WORST-CASE CONFIGURATION AND MODE**

The fundamental of the EUT was investigated in three orthogonal orientations X,Y,Z, it was determined that Y orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in Y orientation.

The EUT operates only in single mode (BT LE).

DESCRIPTION OF TEST SETUP 5.6.

SUPPORT EQUIPMENT

Description	Manufacturer	Model	Serial Number	FCC ID
EUT	PrimaTemp	PT-DS-5000	non-serialized	
Magnet	-	-	-	
Battery - used for	-	-	-	
testing only				

I/O CABLES

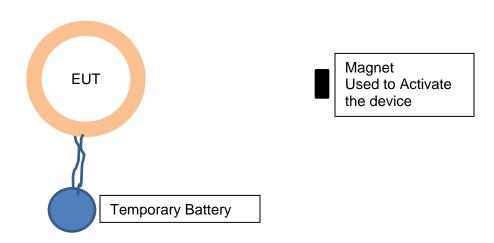
	I/O Cable List					
Cable Port # of identical Connector Cable Type Cable Remarks						Remarks
No		ports	Туре		Length (m)	
0	Enclosure	-	-	-	-	-
1	Power	0	0	2-wire	0.2	used as temprary to
						connect battery

TEST SETUP

The EUT is setup as stand-alone programmed to transmit continuously on specific channel.

For testing only an external battery and additional wires were connected to EUT.

SETUP DIAGRAM FOR TESTS



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6. TEST AND MEASUREMENT EQUIPMENT

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

Test Software						
Description Manufacturer Model T No. Cal Date Cal Due						
Radiated Software	iated Software UL UL EMC Ver 9.5, July 22, 2014				, 2014	
Conducted Software	UL	UL EMC	Ver 9.5, May 17 2012		7 2012	

Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC4328	20141830	20151231
Bicon Antenna	Electro-Metrics	EM6912A	EMC4070	20141014	20151031
Log-P Antenna	Chase	UPA6109	EMC4313	20141119	20151130
EMI Test Receiver	Rohde & Schwarz	ESU	EMC4323	20141216	20151231
Antenna Array	UL	BOMS	EMC4276	20141201	20151231
Spectrum Analyzer	Agilent	N9030A (PXA)	EMC4360	20141219	20151219

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7. ANTENNA PORT TEST RESULTS

7.1. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

PROCEDURE

7.2. ON TIME AND DUTY CYCLE RESULTS

Please refer to operational description. Operational description states -6.7dB

7.3. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

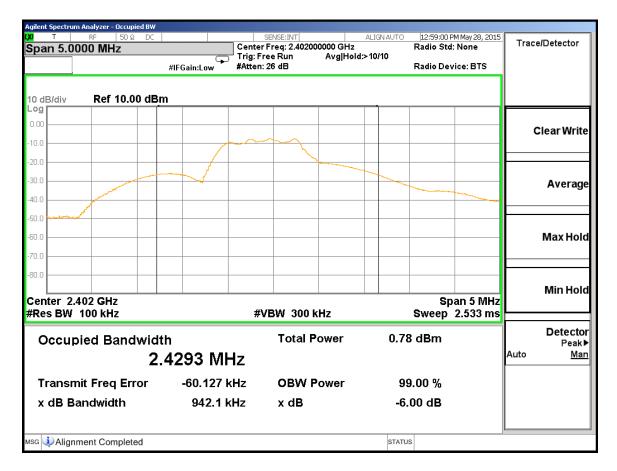
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.9421	0.5
Middle	2440	0.9329	0.5
High	2480	0.9307	0.5

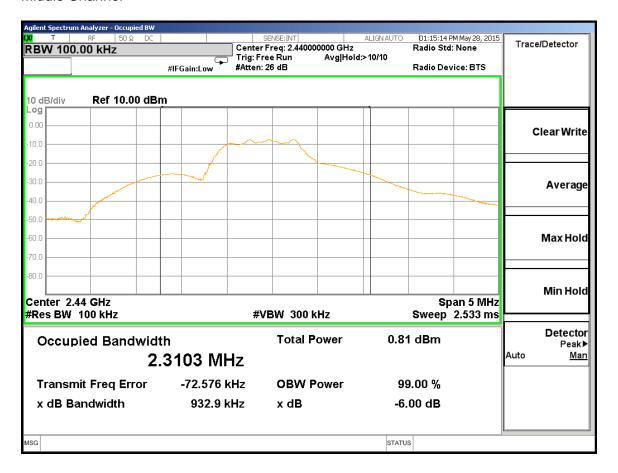
6 dB BANDWIDTH

Low Channel



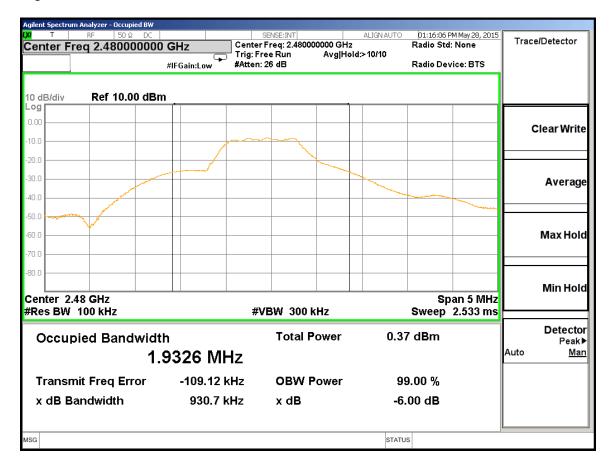
6 dB BANDWIDTH

Middle Channel



6 dB BANDWIDTH

High Channel



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7.4. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth and to 1% of the span. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

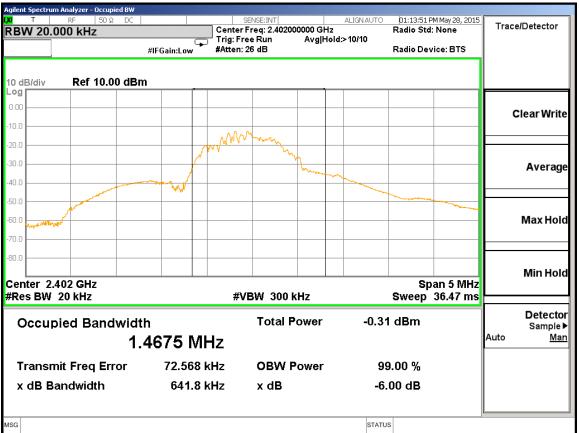
DATE: July 15, 2015

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.4675
Middle	2440	1.4176
High	2480	1.2354

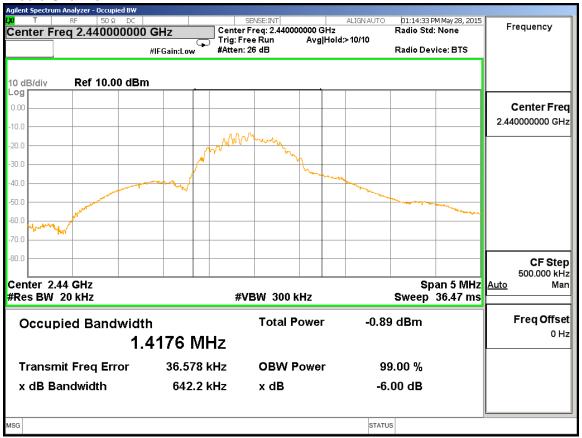
99% BANDWIDTH

Low Channel



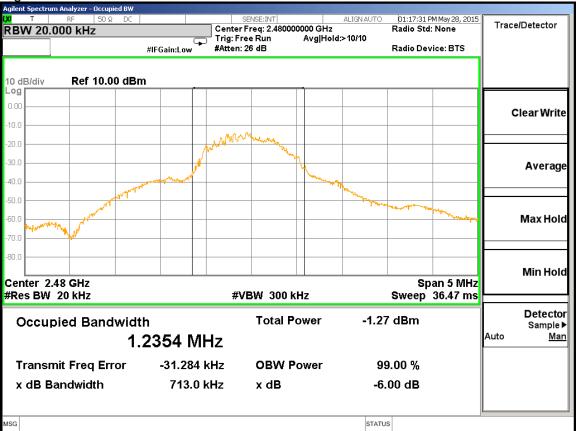
99% BANDWIDTH

Middle Channel



99% BANDWIDTH

High Channel



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7.5. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

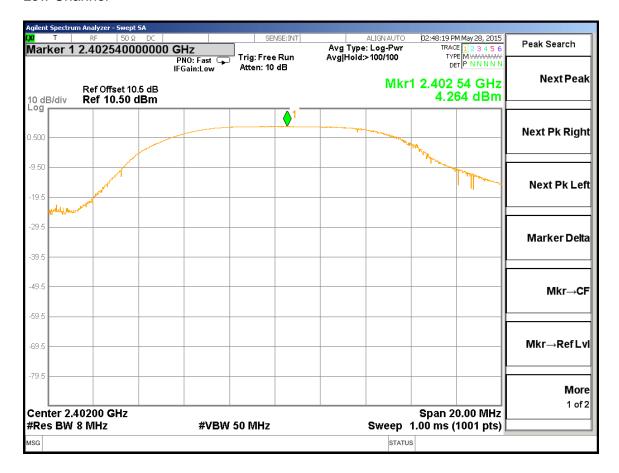
DATE: July 15, 2015

RESULTS

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	4.260	30	-25.740
Middle	2440	4.166	30	-25.834
High	2480	4.076	30	-25.924

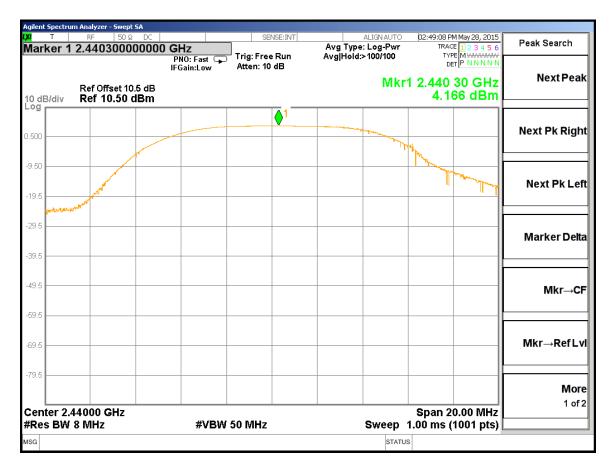
OUTPUT POWER

Low Channel



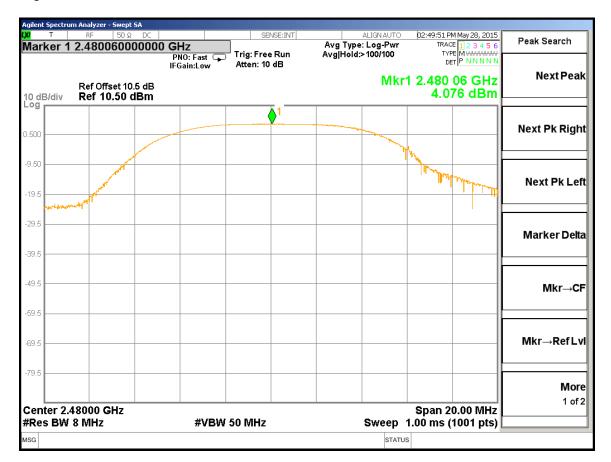
OUTPUT POWER

Middle Channel



OUTPUT POWER

High Channel



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7.6. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

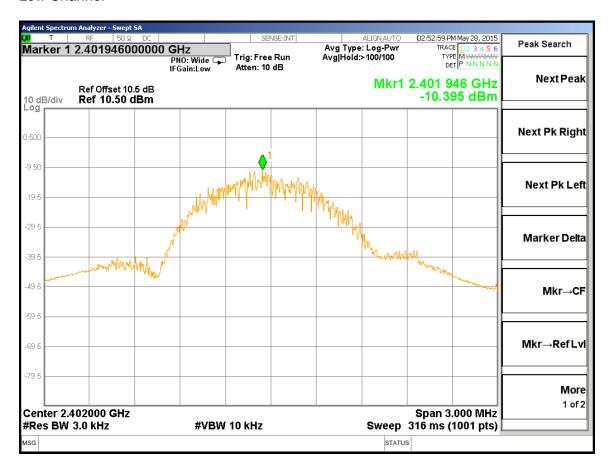
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

Channel	Frequency	PSD	Limit	Margin
	(MHz)	(dBm)	(dBm)	(dB)
Low	2402	-10.40	8	-18.40
Middle	2440	-10.67	8	-18.67
High	2480	-9.90	8	-17.90

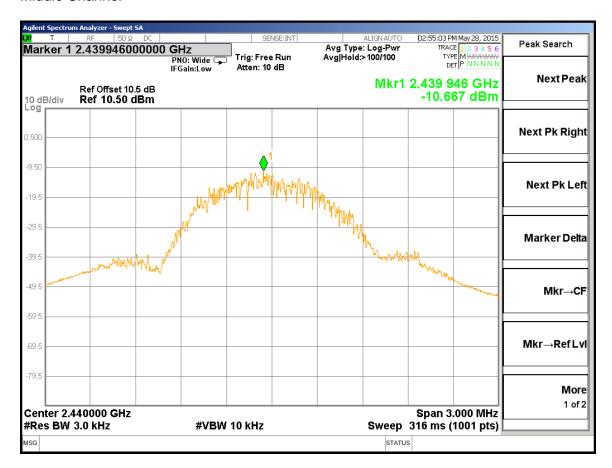
POWER SPECTRAL DENSITY

Low Channel



POWER SPECTRAL DENSITY

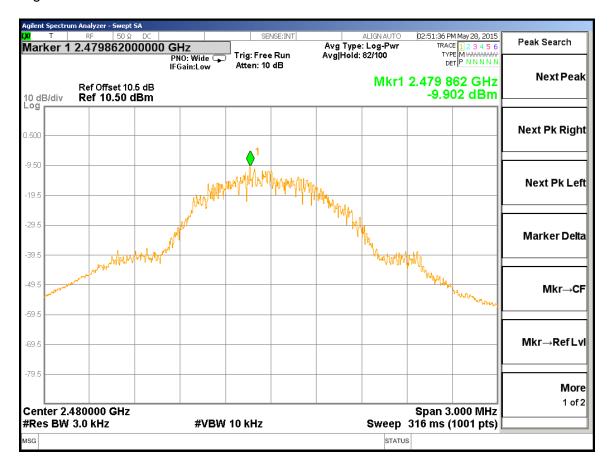
Middle Channel



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POWER SPECTRAL DENSITY

High Channel



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7.7. CONDUCTED SPURIOUS EMISSIONS

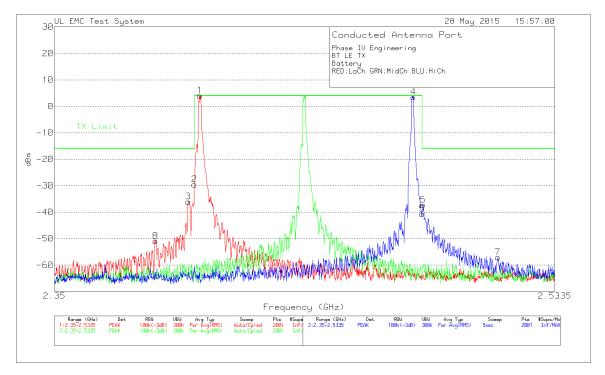
LIMITS

FCC §15.247 (d)

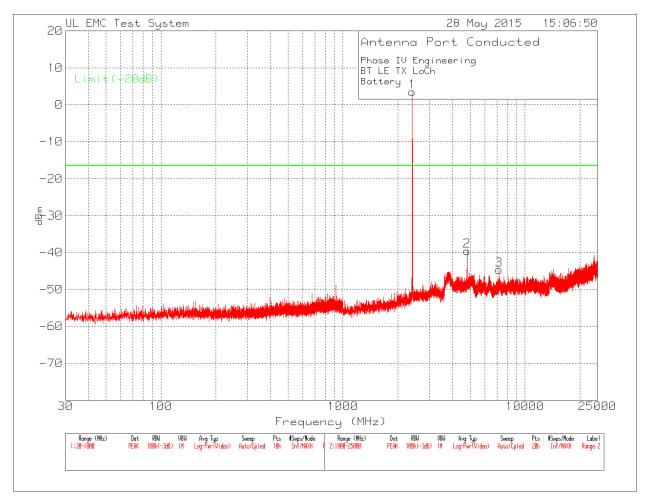
IC RSS-210 A8.5

Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

RESULTSBandedges – Low and High Channels



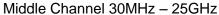
Phase IV	' Engineering									
BT LE T	X									
Battery										
RED:LoC	Ch GRN:Mid	Ch BLU:H	iCh							
Trace M	arkers									
Marker	Test Frequency	Meter Reading		dBuV to	Cable Factor	Attenuator	Corrected Reading	Limit -	Margin	
No.	(GHz)	(dBuV)	Detector	dBm	dB	Factor dB	dBm	20dBc	(dB)	
Low Cha	, ,	(4241)	20100101		~~	. 4010. 42			(42)	
1	2.4019	100.05	PK	-107	1.1	9.9	4.05	-	-	
2	2.4	66.4	PK	-107	1.1	9.9	-29.6	-15.95	-13.65	
3	2.3978	59.9	PK	-107	1.1	9.9	-36.1	-15.95	-20.15	
8	2.386	45.03	PK	-107	1.1	9.9	-50.97	-15.95	-35.02	
High Cha	annel									
4	2.4803	99.47	PK	-107	1.1	9.9	3.47	-	-	
5	2.4835	55.31	PK	-107	1.1	9.9	-40.69	-16.53	-24.16	
6	2.4838	58.78	PK	-107	1.1	9.9	-37.22	-16.53	-20.69	
7	2.5119	38.93	PK	-107	1.1	9.9	-57.07	-16.53	-40.54	
PK - Pea	k Detector									

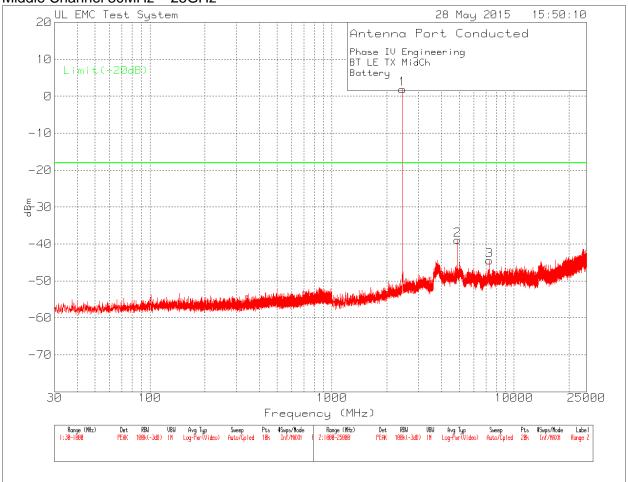


Phase I\	/ Engineering]					
BT LE T	X LoCh						
Battery							
	Test	Meter		Path	Peak		
Marker	Frequency	Reading		Factor	Lev el		Margin
No.	(MHz)	(dBm)	Detector	dB	dBm	Limit	(dB)
1	2402.8	-6.98	PK	10.5	3.52	-	-
2	4804	-50.35	PK	10.8	-39.55	-16.48	-23.07
3	3 7206.4		PK	11	-44.67	-16.48	-28.19
PK - Pea	ak detector						

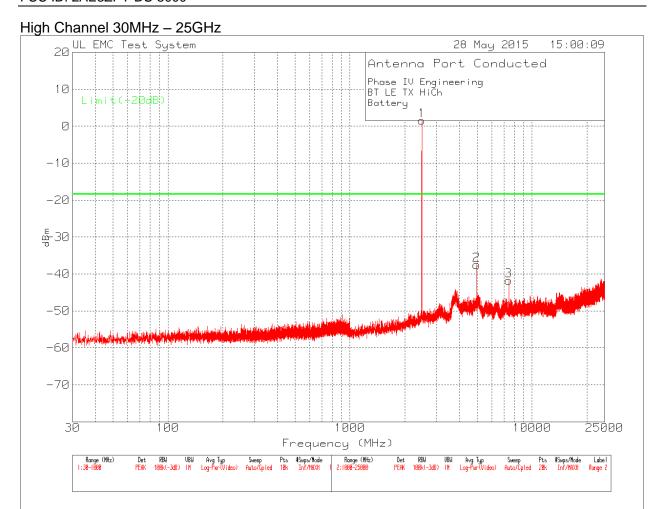
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	Phase IV	/ Engineering						
	BT LE T	X MidCh						
	Battery							
		Test	Meter		Path	Peak		
	Marker	Frequency	Reading		Factor	Lev el		Margin
L	No.	(MHz)	(dBm)	Detector	dB	dBm	Limit	(dB)
	No. 1	(MHz) 2440	(dBm) -8.57		dB 10.5	dBm 1.93	Limit -	(dB) -
	No. 1	` '	` ′				Limit - -18.1	(dB) - -20.84
	1	2440	-8.57 -49.81	PK PK	10.5	1.93	-	-



Phase IV	Engineering						
BT LE T	X HiCh						
Battery							
	Test	Meter		Path	Peak		
Marker	Frequency	Reading		Factor	Lev el		Margin
No.	(MHz)	(dBm)	Detector	dB	dBm	Limit	(dB)
1	2479.6	-8.94	PK	10.5	1.56		-
2	4960	-48.3	PK	10.8	-37.5	-18	-19.06
3	7440.4	-52.75	PK	11	-41.8	-18	-23.31
PK - Pea	k detector						

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8. RADIATED TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-GEN Clause 8.9 (Transmitter)

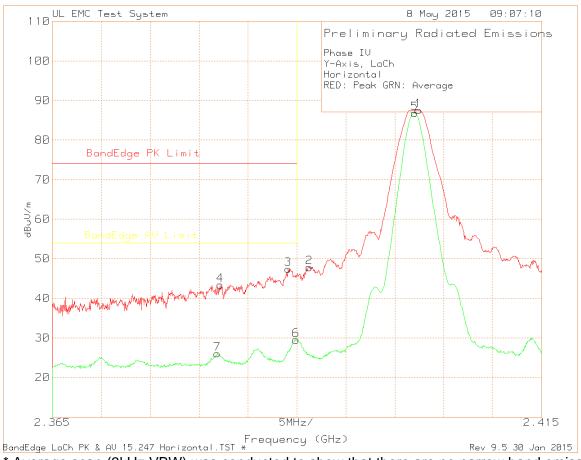
IC RSS-GEN Clause 7.1.2 (Receiver)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

^{*} For all spurious emissions related to the trasmitt frequency average level was declared based on the use of peak level of the measurements and duty cycle correction. This was allowed per FCC KDB Inqury # 409196

8.2. TRANSMITTER ABOVE 1 GHz

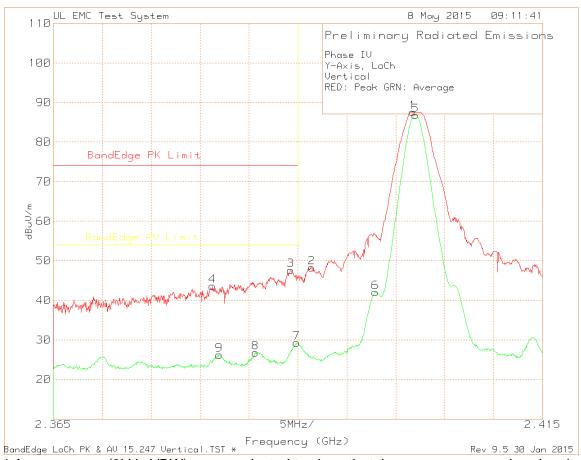
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



^{*} Average scan (3kHz VBW) was conducted to show that there are no narrow band emissions hidden in the bandedge.

^{**} All peak levels are under the average limits

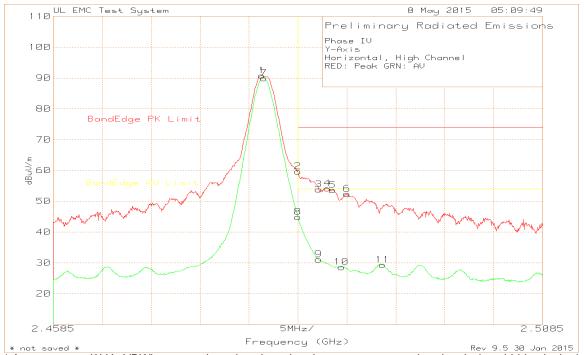
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



^{*} Average scan (3kHz VBW) was conducted to show that there are no narrow band emissions hidden in the bandedge.

^{**} All peak levels are under the average limits

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



^{*} Average scan (3kHz VBW) was conducted to show that there are no narrow band emissions hidden in the band edge.

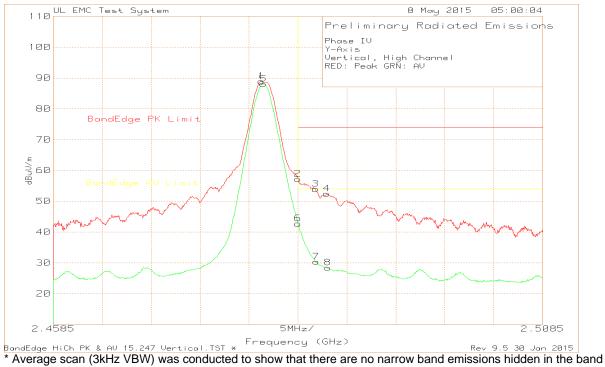
^{**} Compliance with Average Limits is shows in table below by applying the duty cycle to average measurement.

Phase I	V														
Y-Ax is															
Horizont	tal, High Cha														
RED: Pe	eak GRN: A														
Trace M	1arkers														
							Band				Band				
	Test	Meter		Antenna	Path	Peak	Edge PK		DC	Av erage	Edge AV				
Marker	Frequency	Reading		Factor	Factor	Lev el	Limit	Margin	Factor	Lev el	Limit	Margin	Azimuth	Height	
No.	(GHz)	(dBuV)	Detector	dB/m	dB	dBuV/m	dBuV/m	(dB)	dB	dB	dBuV/m	(dB)	[Degs]	[cm]	Polarity
1	2.4798	120.44	Pk	22	-51.67	90.77	-	-	-	-	-	-	345	99	Н
2	2.4835	89.27	Pk	22.1	-51.74	59.63	74	-14.37	-6.7	52.93	54	-1.07	345	99	Н
3	2.4856	83.49	Pk	22.1	-51.77	53.82	74	-20.18	-6.7	47.12	54	-6.88	345	99	Н
4	2.4865	83.84	Pk	22.1	-51.79	54.15	74	-19.85	-6.7	47.45	54	-6.55	345	99	Н
5	2.4871	83.32	Pk	22.1	-51.8	53.62	74	-20.38	-6.7	46.92	54	-7.08	345	99	Н
6	2.4885	82.09	Pk	22.1	-51.82	52.37	74	-21.63	-6.7	45.67	54	-8.33	345	99	Н
7	2.48	119.62	Avg	22	-51.67	89.95	-	-	-	-	-	-	345	99	Н
8	2.4835	74.49	Avg	22.1	-51.74	44.85	74	-29.15	-	-	54	-9.15	345	99	Н
9	2.4856	60.75	Avg	22.1	-51.77	31.08	74	-42.92	-	-	54	-22.92	345	99	Н
10	2.488	58.32	Avg	22.1	-51.81	28.61	74	-45.39	-	-	54	-25.39	345	99	Н
11	2.4922	59.13	Avg	22.1	-51.88	29.35	74	-44.65	-	-	54	-24.65	345	99	Н
Pk - Pea	ak detector														
Avg - Vi	ideo Av eragi	ng with 3k	Hz VBW												

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RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



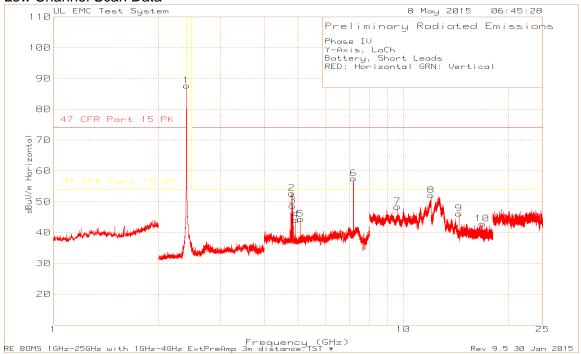
^{**} Compliance with Average Limits is shows in table below by applying the duty cycle to average measurement.

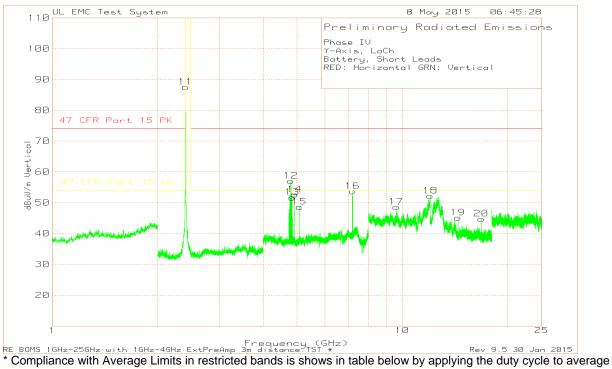
Phase IV															
Y-Ax is															
Vertical,	High Channe	·[
RED: Peak GRN: AV															
Trace Ma	arkers														
	Test	Meter		Antenna	Path	Peak	Band Edge PK		DC		Band Edge				
Marker	Frequency	Reading		Factor	Factor	Lev el	Limit	Margin	Factor	Av erage	AV Limit	Margin	Azimuth	Height	
No.	(GHz)	(dBuV)	Detector	dB/m	dB	dBuV/m	dBuV/m	(dB)	dB	Level dB	dBuV/m	(dB)	[Degs]	[cm]	Polarity
1	2.4798	118.55	Pk	22	-51.7	88.88	-	-	-	-	-	-	202	103	V
2	2.4835	86.85	Pk	22.1	-51.7	57.21	74	-16.79	-6.7	50.51	54	-3.49	202	103	V
3	2.4853	83.66	Pk	22.1	-51.8	53.99	74	-20.01	-6.7	47.29	54	-6.71	202	103	V
4	2.4865	82.13	Pk	22.1	-51.8	52.44	74	-21.56	-6.7	45.74	54	-8.26	202	103	V
5	2.48	117.71	Avg	22	-51.7	88.04	-	-			-	-	202	103	V
6	2.4835	72.38	Avg	22.1	-51.7	42.74	74	-31.26	-	-	54	-11.26	202	103	V
7	2.4854	60.05	Avg	22.1	-51.8	30.38	74	-43.62	-	-	54	-23.62	202	103	V
8	2.4866	58.11	Avg	22.1	-51.8	28.42	74	-45.58	-	-	54	-25.58	202	103	V
Pk - Pea	k detector														
Avg - Vic	deo Av eragin	g with 3kl	Hz VBW												

FORM NO: CCSUP4701I

HARMONICS AND SPURIOUS EMISSIONS







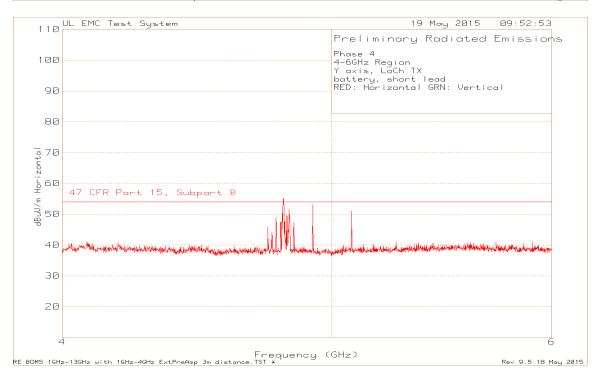
measurement.

Low Channel Tabular Data

ow C	hanne	Tabu	ılar D	ata											
Phase IV															
Y-Axis, L	_oCh														
Battery, S	Short Leads														
RED: Ho	rizontal GRN	N: Vertical													
Trace Ma	arkers														
							Limit 47			Av erage	Limit 47				
	Test	Meter		Antenna		Corrected	CFR Part		DC	Lev el	CFR Part				
Marker	Frequency	Reading		Factor	Gain/Loss	Reading	15 PK	Margin	Factor	with DC	15 AV	Margin	Azimuth	Height	
No.	(GHz)	(dBuV)	Detector	dB/m	(dB)	dBuV/m	dBuV/m	(dB)	dB	dBuV/m	dBuV/m	(dB)	[Degs]	[cm]	Polarit
1	2.402	117.8	Pk	21.8	-51.91	87.69	-	-	-	-	-	-	0-360	100	Н
2	* 4.804	75.7	Pk	27.7	-50.65	52.75	74	-21.25	-6.7	46.05	54	-7.95	0-360	149	Н
3	* 4.827	71.44	Pk	27.7	-50.42	48.72	74	-25.28	-6.7	42.02	54	-11.98	0-360	100	Н
4	* 4.922	66.87		27.8	-50.64	44.03	74	-29.97	-6.7	37.33	54	-16.67		100	Н
5	* 5.084	65.97		28	-49.58	44.39	74	-29.61	-6.7	37.69	54	-16.31		149	
6	7.207	74.39		29.8	-46.65	57.54	74	-16.46	-6.7	50.84	54		0-360	149	
7	9.609	60.4		36.4	-48.43	48.37	74	-25.63	-6.7	41.67	54	-12.33		150	
8	* 12.008	53.37		39.4	-40.68	52.09	74	-21.91	-6.7	45.39	54		0-360	150	
9	14.41	47.68		39.8	-41.32	46.16	74	-27.84	-6.7	39.46	54	-14.54		150	
10	16.812	43.14		40.1	-40.38	42.86	74	-31.14	-6.7	36.16	54	-17.84		100	
11	2.401	117.7		21.8	-51.92	87.58		- 01.14	- 0.7	- 00.10	_	- 17.04	0-360	99	
12	* 4.804	80.02		27.7	-50.65	57.07	74	-16.93	-6.7	50.37	54	-3 63	0-360	150	
13	* 4.846	74.38		27.7	-50.35	51.73	74	-22.27	-6.7	45.03	54		0-360	150	
14	* 4.922	75.52		27.8	-50.64	52.68	74	-21.32	-6.7	45.98	54		0-360	150	
15	* 5.083	70.23		28	-49.58	48.65	74	-25.35	-6.7	41.95	54	-12.05		99	
16	7.207	70.23		29.8	-46.65	53.75	74	-20.25	-6.7	47.05	54		0-360	99	
17	9.607	60.62		36.4	-48.42	48.6	74	-25.4	-6.7	41.9	54		0-360	150	_
18	* 12.011	53.47		39.4	-40.42	52.2	74	-21.8	-6.7	45.5	54		0-360	150	
19	14.413			39.8	-40.07	45.16	74	-28.84	-6.7	38.46	54	-15.54		150	<u> </u>
20	16.813	45.08		40.1			74		-6.7	-	54		-	150	
- 1			l		-40.39	44.79	14	-29.21	-0.7	38.09	34	-15.91	0-300	150	V
		y III CFR	15.205/10	7.2.2 Res	stricted Band										
	k detector	Fasianian	D-4-												
iviax imize	ed Radiated	Emission	Data												
							1110.47				1.111.47				
	- .	l		. .			Limit 47		50	Av erage	Limit 47				
	Test	Meter		Antenna		Corrected		l	DC -	Level	CFR Part		.		
	Frequency			Factor	Gain/Loss			"			15 AV		Azimuth		
	(GHz)	, ,	Detector		(dB)	dBuV/m	dBuV/m	(dB)	dB	dBuV/m	dBuV/m	(dB)	[Degs]	[cm]	Polarit
	* 4.8034	76.42		27.7	-50.66	53.46		-20.54	-6.7	46.76	54	-7.24		100	
	* 4.8034	81.09		27.7	-50.66	58.13	74	-15.87	-6.7	51.43	54		315		
	* 12.0089	56.13		39.4	-40.68	54.85	74	-19.15	-6.7	48.15	54			149	
	* 12.0087	52.6	Pk	39.4	-40.68	51.32	74	-22.68	-6.7	44.62	54	-9.38	99	159	V
	k detector														
Av - Ave	erage detecti	on													







Low Channel Tabular Data around 5GHz

Antenna Factor Gain/Loss Reading Factor Gain/L															
## Araben Factor Araben Factor Corrected CFR Part Factor GBUV GBS GBV GBS GBV GBV GBS GBV GBV GBS GBV GBV GBV GBS GBV G	Phase 4														
RED: Horizontal GRN: Vertical Redided Emission Data Meter Frequency Gebuy Gebuy	4-6GHz Reg	jion													
RECI Horizontal GRN: Vertical Radiabed Emission Data Meter Antenna Corrected CFR Part Corrected Gell CFR Part Corrected Gell CFR Part CFR Part	Y axis, LoC	h TX													
Rediated Emission Data Meter Reading GHz) Antenna Corrected Correct	battery, sho	rt lead													
Fest requency Reading Calmit Antenna Factor Gain/Loss Reading Climit 47 CFR Part Factor Gain/Loss Reading Climit 47 CFR Part GB/W	RED: Horizo	ntal GRN:	Vertical												
Feet Reading Reading Gellul Percent Reading Gellul Reading Gellul Reading Gellul Reading Gellul Reading Gellul Gell	Radiated En	nission Da	ta												
Feet Reading Reading Gellul Percent Reading Gellul Reading Gellul Reading Gellul Reading Gellul Reading Gellul Gell															
Reading Reading Reading GHz GHz Reading GHz GHz Reading GHz GHz Reading GHz GH							Limit 47			Av erage	Limit 47				
GBUZ GBUV Detector GB/m GB GBUV GB	Test	Meter		Antenna		Corrected	CFR Part		DC	Level with	CFR Part				
4.8044 81.17 Pk 27.7 -50.64 58.23 74 -15.77 -6.7 51.53 54 -2.47 294 187 V 4.7425 73.59 Pk 27.7 -51.23 50.06 74 -23.94 -6.7 43.36 54 -10.64 294 187 V 4.7593 74.77 Pk 27.7 -51.26 51.21 74 -22.79 -6.7 44.51 54 -9.49 294 187 V 4.7593 77.77 Pk 27.7 -51.16 53.91 74 -20.09 -6.7 47.21 54 -6.79 294 187 V 4.7938 77.77 Pk 27.7 -50.87 54.6 74 -19.4 -6.7 47.9 54 -6.1 294 187 V 4.7938 77.75 Pk 27.7 -50.55 54.5 74 -19.5 -6.7 47.8 54 -6.2 294 187 V 4.8098 77.08 Pk 27.7 -50.55 54.23 74 -19.77 -6.7 47.53 54 -6.47 294 187 V 4.8187 77.16 Pk 27.7 -50.55 54.31 74 -19.69 -6.7 47.61 54 -6.39 294 187 V 4.863 77.3 Pk 27.7 -50.55 54.31 74 -19.44 -6.7 47.61 54 -6.39 294 187 V 4.8461 77.52 Pk 27.7 -50.55 54.87 74 -19.13 -6.7 47.86 54 -6.14 294 187 V 4.8461 77.52 Pk 27.7 -50.35 54.87 74 -19.13 -6.7 48.17 54 -5.83 294 187 V 4.8086 77.08 Pk 27.7 -50.64 54.56 74 -19.44 -6.7 47.86 54 -6.14 294 187 V 4.8461 77.52 Pk 27.7 -50.64 55.56 74 -19.43 -6.7 48.17 54 -5.83 294 187 V 4.8086 78.9 Pk 27.7 -50.63 55.73 74 -18.27 -6.7 49.03 54 -4.97 294 187 V 4.8086 78.9 Pk 27.7 -50.64 55.96 74 -18.04 -6.7 49.26 54 -4.74 313 100 H 4.7425 72.55 Pk 27.7 -51.23 49.02 74 -24.98 -6.7 42.32 54 -11.68 313 100 H 4.7753 76.39 Pk 27.7 -50.66 52.66 74 -20.75 -6.7 46.23 54 -7.77 313 100 H 4.7938 76.42 Pk 27.7 -50.65 52.25 74 -20.75 -6.7 46.25 54 -7.75 313 100 H 4.8097 75.51 Pk 27.7 -50.56 52.25 74 -20.75 -6.7 46.25 54 -7.75 313 100 H 4.8087 75.51 Pk 27.7 -50.56 52.25 74 -20.75 -6.7 46.25 54 -7.88 313 100 H 4.8088 75.57 Pk 27.7 -50.56 52.25 74 -20.75 -6.7 46.25 54 -7.89 313 100 H 4.8080 75.57 Pk 27.7 -50.56 52.25 74 -20.75 -6.7 46.25 54 -7.98 313 100 H 4.8080 75.57 Pk 27.7 -50.56 52.25 74 -20.75 -6.7 46.25 54 -7.32 313 100 H 4.8081 75.57 Pk 27.7 -50.56 52.25 74 -20.75 -6.7 46.25 54 -7.32 313 100 H 4.8081 76.58 Pk 27.7 -50.56 52.65 74 -20.75 -6.7 46.25 54 -7.33 313 100 H 4.8083 76.52 Pk 27.7 -50.55 52.95 74 -20.05 -6.7 46.25 54 -7.33 313 100 H 4.8083 76.52 Pk 27.7 -50.55 52.95 74 -20.05 -6.7 46.25 54 -7.33 313 100 H 4.8081 76.58 Pk 27.7 -50.55 52.95 74 -20.05 -6.7 46.25 54	Frequency	Reading		Factor	Gain/Loss	Reading	15 PK	Margin	Factor	DC	15 AV	Margin	Azimuth	Height	
4.7425 73.59 Pk 27.7 -51.23 50.06 74 -23.94 -6.7 43.36 54 -10.64 294 187 V 4.7593 74.77 Pk 27.7 -51.26 51.21 74 -22.79 -6.7 44.51 54 -9.49 294 187 V 4.7593 77.77 Pk 27.7 -51.16 53.91 74 -20.09 -6.7 47.21 54 -6.79 294 187 V 4.7938 77.75 Pk 27.7 -50.87 54.6 74 -19.4 -6.7 47.9 54 -6.1 294 187 V 4.7983 77.55 Pk 27.7 -50.87 54.5 74 -19.5 -6.7 47.8 54 -6.2 294 187 V 4.8098 77.08 Pk 27.7 -50.55 54.23 74 -19.77 -6.7 47.53 54 -6.47 294 187 V 4.8187 77.16 Pk 27.7 -50.55 54.31 74 -19.69 -6.7 47.61 54 -6.39 294 187 V 4.8263 77.3 Pk 27.7 -50.55 54.31 74 -19.69 -6.7 47.61 54 -6.39 294 187 V 4.8461 77.52 Pk 27.7 -50.55 54.87 74 -19.13 -6.7 47.86 54 -6.14 294 187 V 4.9217 78.56 Pk 27.7 -50.64 55.86 74 -19.13 -6.7 48.17 54 -5.83 294 187 V 4.8046 78.9 Pk 27.7 -50.64 55.96 74 -18.27 -6.7 49.03 54 -4.97 294 187 V 4.8046 78.9 Pk 27.7 -50.64 55.96 74 -18.04 -6.7 49.26 54 -4.74 313 100 H 4.7425 72.55 Pk 27.7 -51.23 49.02 74 -24.98 -6.7 42.44 54 -11.68 313 100 H 4.7593 72.7 Pk 27.7 -50.87 53.25 74 -21.07 -6.7 46.23 54 -7.77 313 100 H 4.7938 76.42 Pk 27.7 -50.65 52.95 74 -21.05 -6.7 46.25 54 -7.45 313 100 H 4.7938 76.42 Pk 27.7 -50.56 52.95 74 -21.05 -6.7 46.85 54 -7.75 313 100 H 4.8863 76.12 Pk 27.7 -50.56 52.85 74 -21.05 -6.7 46.25 54 -7.75 313 100 H 4.8866 75.57 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.87 54 -7.98 313 100 H 4.8866 75.57 Pk 27.7 -50.56 52.85 74 -21.05 -6.7 46.25 54 -7.75 313 100 H 4.8866 75.57 Pk 27.7 -50.56 52.65 74 -21.05 -6.7 46.87 54 -7.98 313 100 H 4.8866 75.57 Pk 27.7 -50.56 52.65 74 -21.05 -6.7 46.87 54 -7.98 313 100 H 4.8866 75.57 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.88 54 -7.75 313 100 H 4.8866 75.57 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.87 54 -7.98 313 100 H 4.8866 75.57 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.87 54 -7.75 313 100 H 4.8866 75.57 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.87 54 -7.98 313 100 H 4.8866 75.57 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.88 54 -7.75 313 100 H 4.8866 75.57 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.88 54 -7.75 313 100 H	(GHz)	(dBuV)	Detector	dB/m	(dB)	dBuV/m	dBuV/m	(dB)	dB	dBuV/m	dBuV/m	(dB)	[Degs]	[cm]	Polarity
4.7593 74.77 Pk 27.7 -51.26 51.21 74 -22.79 -6.7 44.51 54 -9.49 294 187 V 4.7755 77.37 Pk 27.7 -51.16 53.91 74 -20.09 -6.7 47.21 54 -6.79 294 187 V 4.7938 77.77 Pk 27.7 -50.87 54.6 74 -19.4 -6.7 47.9 54 -6.1 294 187 V 4.8098 77.08 Pk 27.7 -50.55 54.5 74 -19.57 -6.7 47.83 54 -6.47 294 187 V 4.8187 77.16 Pk 27.7 -50.55 54.23 74 -19.77 -6.7 47.61 54 -6.47 294 187 V 4.8187 77.16 Pk 27.7 -50.55 54.31 74 -19.69 -6.7 47.61 54 -6.39 294 <td< td=""><td>4.8044</td><td>81.17</td><td>Pk</td><td>27.7</td><td>-50.64</td><td>58.23</td><td>74</td><td>-15.77</td><td>-6.7</td><td>51.53</td><td>54</td><td>-2.47</td><td>294</td><td>187</td><td>V</td></td<>	4.8044	81.17	Pk	27.7	-50.64	58.23	74	-15.77	-6.7	51.53	54	-2.47	294	187	V
4.775 77.37 Pk 27.7 -51.16 53.91 74 20.09 -6.7 47.21 54 -6.79 294 187 V 4.7938 77.77 Pk 27.7 -50.87 54.6 74 -19.4 -6.7 47.9 54 -6.1 294 187 V 4.8098 77.08 Pk 27.7 -50.55 54.23 74 -19.77 -6.7 47.83 54 -6.47 294 187 V 4.8098 77.08 Pk 27.7 -50.55 54.23 74 -19.77 -6.7 47.61 54 -6.39 294 187 V 4.8187 77.16 Pk 27.7 -50.55 54.23 74 -19.67 -6.7 47.61 54 -6.39 294 187 V 4.8263 77.3 Pk 27.7 -50.55 54.31 74 -19.69 -6.7 47.61 54 -6.33 294 1	4.7425	73.59	Pk	27.7	-51.23	50.06	74	-23.94	-6.7	43.36	54	-10.64	294	187	V
4.7938 77.77 Pk 27.7 -50.87 54.6 74 -19.4 -6.7 47.9 54 -6.1 294 187 V 4.7983 77.55 Pk 27.7 -50.75 54.5 74 -19.77 -6.7 47.83 54 -6.47 294 187 V 4.8098 77.08 Pk 27.7 -50.55 54.23 74 -19.77 -6.7 47.61 54 -6.47 294 187 V 4.8187 77.16 Pk 27.7 -50.55 54.31 74 -19.69 -6.7 47.61 54 -6.39 294 187 V 4.8263 77.3 Pk 27.7 -50.44 54.56 74 -19.44 -6.7 47.86 54 -6.14 294 187 V 4.8261 77.59 Pk 27.7 -50.55 54.87 74 -19.19.3 -6.7 48.17 54 -5.83 294 <t< td=""><td>4.7593</td><td>74.77</td><td>Pk</td><td>27.7</td><td>-51.26</td><td>51.21</td><td>74</td><td>-22.79</td><td>-6.7</td><td>44.51</td><td>54</td><td>-9.49</td><td>294</td><td>187</td><td>V</td></t<>	4.7593	74.77	Pk	27.7	-51.26	51.21	74	-22.79	-6.7	44.51	54	-9.49	294	187	V
4.7883 77.55 Pk 27.7 -50.75 54.5 74 -19.5 -6.7 47.8 54 -6.2 294 187 V 4.8098 77.08 Pk 27.7 -50.55 54.23 74 -19.77 -6.7 47.53 54 -6.47 294 187 V 4.8187 77.16 Pk 27.7 -50.55 54.31 74 -19.69 -6.7 47.61 54 -6.39 294 187 V 4.8263 77.3 Pk 27.7 -50.44 54.56 74 -19.44 -6.7 47.86 54 -6.14 294 187 V 4.8461 77.52 Pk 27.7 -50.35 54.87 74 -19.13 -6.7 48.17 54 -5.83 294 187 V 4.9217 78.56 Pk 27.8 -50.63 55.73 74 -18.27 -6.7 49.03 54 -4.97 294 187 V 5.0835 76.82 Pk 28 -49.58 55.24 74 -18.04 -6.7 49.26 54 -4.74 313 100 H 4.7425 72.55 Pk 27.7 -51.23 49.02 74 -24.98 -6.7 42.32 54 -11.68 313 100 H 4.7593 72.7 Pk 27.7 -51.66 49.14 74 -24.86 -6.7 42.44 54 -11.56 313 100 H 4.7938 76.42 Pk 27.7 -50.87 53.25 74 -21.07 -6.7 46.23 54 -7.77 313 100 H 4.8097 75.51 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.25 54 -7.8 313 100 H 4.8097 75.51 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.25 54 -7.8 313 100 H 4.8097 75.51 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.25 54 -7.8 313 100 H 4.8097 75.51 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.25 54 -7.8 313 100 H 4.8097 75.51 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.25 54 -7.8 313 100 H 4.8097 75.51 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.25 54 -7.8 313 100 H 4.8097 75.51 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.25 54 -7.8 313 100 H 4.8097 75.51 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.25 54 -7.8 313 100 H 4.8097 75.51 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.25 54 -7.8 313 100 H 4.8097 75.51 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.25 54 -7.8 313 100 H 4.8097 75.51 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.85 54 -7.8 313 100 H 4.8097 75.51 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.85 54 -7.8 313 100 H 4.8098 76.88 Pk 27.8 -50.63 54.05 74 -20.43 -6.7 46.87 54 -7.32 313 100 H 4.8098 76.88 Pk 27.8 -50.63 54.05 74 -20.43 -6.7 46.87 54 -7.33 313 100 H 4.8098 75.57 Pk 27.7 -50.55 52.95 74 -20.05 -6.7 46.87 54 -7.32 313 100 H	4.775	77.37	Pk	27.7	-51.16	53.91	74	-20.09	-6.7	47.21	54	-6.79	294	187	V
4.8098 77.08 Pk 27.7 -50.55 54.23 74 -19.77 -6.7 47.53 54 -6.47 294 187 V 4.8187 77.16 Pk 27.7 -50.55 54.31 74 -19.69 -6.7 47.61 54 -6.39 294 187 V 4.8263 77.3 Pk 27.7 -50.44 54.56 74 -19.44 -6.7 47.86 54 -6.14 294 187 V 4.8461 77.52 Pk 27.7 -50.35 54.87 74 -19.13 -6.7 48.17 54 -5.83 294 187 V 4.9217 78.56 Pk 27.8 -50.63 55.73 74 -18.27 -6.7 49.03 54 -4.97 294 187 V 5.0835 76.82 Pk 28 -49.58 55.24 74 -18.76 -6.7 48.54 54 -5.46 294 187 V 4.8046 78.9 Pk 27.7 -50.64 55.96 74 -18.04 -6.7 49.26 54 -4.74 313 100 H 4.7425 72.55 Pk 27.7 -51.23 49.02 74 -24.98 -6.7 42.32 54 -11.68 313 100 H 4.7593 72.7 Pk 27.7 -51.26 49.14 74 -24.86 -6.7 42.44 54 -11.56 313 100 H 4.7938 76.42 Pk 27.7 -50.87 53.25 74 -21.07 -6.7 46.23 54 -7.77 313 100 H 4.7938 76.42 Pk 27.7 -50.65 52.95 74 -21.05 -6.7 46.25 54 -7.45 313 100 H 4.8097 75.51 Pk 27.7 -50.56 52.65 74 -21.05 -6.7 46.25 54 -7.75 313 100 H 4.8186 75.57 Pk 27.7 -50.55 52.72 74 -21.28 -6.7 46.02 54 -7.98 313 100 H 4.8263 76.12 Pk 27.7 -50.55 52.72 74 -21.28 -6.7 46.87 54 -7.32 313 100 H 4.8263 76.12 Pk 27.7 -50.55 52.72 74 -21.05 -6.7 46.88 54 -7.32 313 100 H 4.8263 76.12 Pk 27.7 -50.55 52.72 74 -21.05 -6.7 46.87 54 -7.98 313 100 H 4.8263 76.12 Pk 27.7 -50.55 52.72 74 -21.28 -6.7 46.87 54 -7.98 313 100 H 4.8263 76.12 Pk 27.7 -50.55 53.87 74 -20.43 -6.7 46.87 54 -7.98 313 100 H 4.8263 76.12 Pk 27.7 -50.55 52.72 74 -21.28 -6.7 46.88 54 -7.32 313 100 H 4.8268 76.12 Pk 27.7 -50.55 52.72 74 -21.05 -6.7 46.87 54 -7.98 313 100 H 4.8268 76.12 Pk 27.7 -50.55 52.72 74 -21.28 -6.7 46.88 54 -7.32 313 100 H 4.8268 76.12 Pk 27.7 -50.35 53.57 74 -20.43 -6.7 46.87 54 -7.13 313 100 H 4.8268 76.12 Pk 27.7 -50.35 53.57 74 -20.43 -6.7 46.87 54 -7.13 313 100 H 4.8268 76.12 Pk 27.7 -50.35 53.57 74 -20.43 -6.7 46.87 54 -7.13 313 100 H	4.7938	77.77	Pk	27.7	-50.87	54.6	74	-19.4	-6.7	47.9	54	-6.1	294	187	V
4.8187 77.16 Pk 27.7 -50.55 54.31 74 -19.69 -6.7 47.61 54 -6.39 294 187 V 4.8263 77.3 Pk 27.7 -50.44 54.56 74 -19.44 -6.7 47.86 54 -6.14 294 187 V 4.8461 77.52 Pk 27.7 -50.35 54.87 74 -19.13 -6.7 48.17 54 -5.83 294 187 V 4.9217 78.56 Pk 27.8 -50.63 55.73 74 -18.27 -6.7 49.03 54 -4.97 294 187 V 5.0835 76.82 Pk 28 -49.58 55.24 74 -18.06 -6.7 48.54 54 -5.46 294 187 V 4.8046 78.9 Pk 27.7 -51.23 49.02 74 -24.98 -6.7 42.32 54 -11.68 313 <	4.7983	77.55	Pk	27.7	-50.75	54.5	74	-19.5	-6.7	47.8	54	-6.2	294	187	V
4.8263 77.3 Pk 27.7 -50.44 54.56 74 -19.44 -6.7 47.86 54 -6.14 294 187 V 4.8461 77.52 Pk 27.7 -50.35 54.87 74 -19.13 -6.7 48.17 54 -5.83 294 187 V 4.9217 78.56 Pk 27.8 -50.63 55.73 74 -18.27 -6.7 49.03 54 -4.97 294 187 V 5.0835 76.82 Pk 28 -49.58 55.24 74 -18.76 -6.7 48.54 54 -5.46 294 187 V 4.8046 78.9 Pk 27.7 -50.64 55.96 74 -18.04 -6.7 49.26 54 -4.74 313 100 H 4.7425 72.55 Pk 27.7 -51.23 49.02 74 -24.98 -6.7 42.32 54 -11.68 313 100 H 4.7593 72.7 Pk 27.7 -51.26 49.14 74 -24.86 -6.7 42.44 54 -11.56 313 100 H 4.7793 76.39 Pk 27.7 -51.16 52.93 74 -21.07 -6.7 46.23 54 -7.77 313 100 H 4.7938 76.42 Pk 27.7 -50.87 53.25 74 -20.75 -6.7 46.55 54 -7.45 313 100 H 4.8097 75.51 Pk 27.7 -50.56 52.65 74 -21.05 -6.7 46.25 54 -7.75 313 100 H 4.8097 75.51 Pk 27.7 -50.55 52.95 74 -21.05 -6.7 46.02 54 -7.98 313 100 H 4.8186 75.57 Pk 27.7 -50.44 53.38 74 -20.62 -6.7 46.85 54 -7.98 313 100 H 4.8263 76.12 Pk 27.7 -50.45 53.38 74 -20.62 -6.7 46.87 54 -7.98 313 100 H 4.8263 76.12 Pk 27.7 -50.45 53.38 74 -20.62 -6.7 46.87 54 -7.98 313 100 H 4.8461 76.22 Pk 27.7 -50.35 53.57 74 -20.43 -6.7 46.87 54 -7.13 313 100 H 4.8461 76.22 Pk 27.7 -50.35 53.95 74 -20.43 -6.7 46.87 54 -7.13 313 100 H 4.8461 76.22 Pk 27.7 -50.35 53.95 74 -20.43 -6.7 46.87 54 -7.13 313 100 H 4.8461 76.22 Pk 27.7 -50.35 53.95 74 -20.43 -6.7 46.87 54 -7.13 313 100 H 4.8461 76.88 Pk 27.8 -50.63 54.05 74 -19.95 -6.7 47.25 54 -6.65 313 100 H	4.8098	77.08	Pk	27.7	-50.55	54.23	74	-19.77	-6.7	47.53	54	-6.47	294	187	V
4.8461 77.52 Pk 27.7 -50.35 54.87 74 -19.13 -6.7 48.17 54 -5.83 294 187 V 4.9217 78.56 Pk 27.8 -50.63 55.73 74 -18.27 -6.7 49.03 54 -4.97 294 187 V 5.0835 76.82 Pk 28 -49.58 55.24 74 -18.76 -6.7 48.54 54 -5.46 294 187 V 4.8046 78.9 Pk 27.7 -50.64 55.96 74 -18.04 -6.7 49.26 54 -4.74 313 100 H 4.7425 72.55 Pk 27.7 -51.23 49.02 74 -24.98 -6.7 42.32 54 -11.68 313 100 H 4.7593 72.7 Pk 27.7 -51.26 49.14 74 -24.86 -6.7 42.44 54 -11.56 313 100 H 4.7938 76.39 Pk 27.7 -50.16 52.93<	4.8187	77.16	Pk	27.7	-50.55	54.31	74	-19.69	-6.7	47.61	54	-6.39	294	187	V
4.9217 78.56 Pk 27.8 -50.63 55.73 74 -18.27 -6.7 49.03 54 -4.97 294 187 V 5.0835 76.82 Pk 28 -49.58 55.24 74 -18.76 -6.7 48.54 54 -5.46 294 187 V 4.8046 78.9 Pk 27.7 -50.64 55.96 74 -18.04 -6.7 49.26 54 -4.74 313 100 H 4.7425 72.55 Pk 27.7 -51.23 49.02 74 -24.98 -6.7 42.32 54 -11.68 313 100 H 4.7593 72.7 Pk 27.7 -51.26 49.14 74 -24.86 -6.7 42.44 54 -11.56 313 100 H 4.775 76.39 Pk 27.7 -51.16 52.93 74 -21.07 -6.7 46.23 54 -7.75 313 100 H 4.7983 76 Pk 27.7 -50.87 53.25	4.8263	77.3	Pk	27.7	-50.44	54.56	74	-19.44	-6.7	47.86	54	-6.14	294	187	V
5.0835 76.82 Pk 28 -49.58 55.24 74 -18.76 -6.7 48.54 54 -5.46 294 187 V 4.8046 78.9 Pk 27.7 -50.64 55.96 74 -18.04 -6.7 49.26 54 -4.74 313 100 H 4.7425 72.55 Pk 27.7 -51.23 49.02 74 -24.98 -6.7 42.32 54 -11.68 313 100 H 4.7593 72.7 Pk 27.7 -51.26 49.14 74 -24.86 -6.7 42.44 54 -11.68 313 100 H 4.7593 72.7 Pk 27.7 -51.16 52.93 74 -21.07 -6.7 46.23 54 -7.77 313 100 H 4.7938 76.42 Pk 27.7 -50.87 53.25 74 -20.75 -6.7 46.25 54 -7.45 313 <	4.8461	77.52	Pk	27.7	-50.35	54.87	74	-19.13	-6.7	48.17	54	-5.83	294	187	V
4.8046 78.9 Pk 27.7 -50.64 55.96 74 -18.04 -6.7 49.26 54 -4.74 313 100 H 4.7425 72.55 Pk 27.7 -51.23 49.02 74 -24.98 -6.7 42.32 54 -11.68 313 100 H 4.7593 72.7 Pk 27.7 -51.26 49.14 74 -24.86 -6.7 42.44 54 -11.56 313 100 H 4.775 76.39 Pk 27.7 -51.16 52.93 74 -21.07 -6.7 46.23 54 -7.77 313 100 H 4.7938 76.42 Pk 27.7 -50.87 53.25 74 -20.75 -6.7 46.23 54 -7.45 313 100 H 4.7983 76 Pk 27.7 -50.87 53.25 74 -20.75 -6.7 46.25 54 -7.45 313 100 H 4.8097 75.51 Pk 27.7 -50.56 52.65 74 -21.35 -6.7 45.95 54 -8.05 313 100 H 4.8	4.9217	78.56	Pk	27.8	-50.63	55.73	74	-18.27	-6.7	49.03	54	-4.97	294	187	٧
4.7425 72.55 Pk 27.7 -51.23 49.02 74 -24.98 -6.7 42.32 54 -11.68 313 100 H 4.7593 72.7 Pk 27.7 -51.26 49.14 74 -24.86 -6.7 42.44 54 -11.56 313 100 H 4.775 76.39 Pk 27.7 -51.16 52.93 74 -21.07 -6.7 46.23 54 -7.77 313 100 H 4.7938 76.42 Pk 27.7 -50.87 53.25 74 -20.75 -6.7 46.55 54 -7.45 313 100 H 4.7983 76 Pk 27.7 -50.87 53.25 74 -20.55 -6.7 46.55 54 -7.45 313 100 H 4.8097 75.51 Pk 27.7 -50.56 52.65 74 -21.35 -6.7 45.95 54 -8.05 313 100 H 4.8186 75.57 Pk 27.7 -50.55 52.72 </td <td>5.0835</td> <td>76.82</td> <td>Pk</td> <td>28</td> <td>-49.58</td> <td>55.24</td> <td>74</td> <td>-18.76</td> <td>-6.7</td> <td>48.54</td> <td>54</td> <td>-5.46</td> <td>294</td> <td>187</td> <td>V</td>	5.0835	76.82	Pk	28	-49.58	55.24	74	-18.76	-6.7	48.54	54	-5.46	294	187	V
4.7593 72.7 Pk 27.7 -51.26 49.14 74 -24.86 -6.7 42.44 54 -11.56 313 100 H 4.775 76.39 Pk 27.7 -51.16 52.93 74 -21.07 -6.7 46.23 54 -7.77 313 100 H 4.7938 76.42 Pk 27.7 -50.87 53.25 74 -20.75 -6.7 46.55 54 -7.45 313 100 H 4.7983 76 Pk 27.7 -50.75 52.95 74 -21.05 -6.7 46.25 54 -7.45 313 100 H 4.8097 75.51 Pk 27.7 -50.56 52.65 74 -21.35 -6.7 45.95 54 -8.05 313 100 H 4.8186 75.57 Pk 27.7 -50.55 52.72 74 -21.28 -6.7 46.02 54 -7.98 313 <t< td=""><td>4.8046</td><td>78.9</td><td>Pk</td><td>27.7</td><td>-50.64</td><td>55.96</td><td>74</td><td>-18.04</td><td>-6.7</td><td>49.26</td><td>54</td><td>-4.74</td><td>313</td><td>100</td><td>Н</td></t<>	4.8046	78.9	Pk	27.7	-50.64	55.96	74	-18.04	-6.7	49.26	54	-4.74	313	100	Н
4.775 76.39 Pk 27.7 -51.16 52.93 74 -21.07 -6.7 46.23 54 -7.77 313 100 H 4.7938 76.42 Pk 27.7 -50.87 53.25 74 -20.75 -6.7 46.55 54 -7.45 313 100 H 4.7983 76 Pk 27.7 -50.75 52.95 74 -21.05 -6.7 46.25 54 -7.75 313 100 H 4.8097 75.51 Pk 27.7 -50.56 52.65 74 -21.35 -6.7 45.95 54 -8.05 313 100 H 4.8186 75.57 Pk 27.7 -50.55 52.72 74 -21.28 -6.7 46.02 54 -7.98 313 100 H 4.8263 76.12 Pk 27.7 -50.44 53.38 74 -20.62 -6.7 46.68 54 -7.32 313 100 H 4.8461 76.22 Pk 27.7 -50.35 53.57 74 -20.43 -6.7 46.68 54 -7.13 313 100 H 4.9	4.7425	72.55	Pk	27.7	-51.23	49.02	74	-24.98	-6.7	42.32	54	-11.68	313	100	Н
4.7938 76.42 Pk 27.7 -50.87 53.25 74 -20.75 -6.7 46.55 54 -7.45 313 100 H 4.7983 76 Pk 27.7 -50.75 52.95 74 -21.05 -6.7 46.25 54 -7.75 313 100 H 4.8097 75.51 Pk 27.7 -50.56 52.65 74 -21.35 -6.7 45.95 54 -8.05 313 100 H 4.8186 75.57 Pk 27.7 -50.55 52.72 74 -21.28 -6.7 46.02 54 -7.98 313 100 H 4.8263 76.12 Pk 27.7 -50.44 53.38 74 -20.62 -6.7 46.68 54 -7.32 313 100 H 4.8263 76.12 Pk 27.7 -50.35 53.57 74 -20.43 -6.7 46.68 54 -7.32 313 100 H 4.8261 76.22 Pk 27.7 -50.35 53.57 </td <td>4.7593</td> <td>72.7</td> <td>Pk</td> <td>27.7</td> <td>-51.26</td> <td>49.14</td> <td>74</td> <td>-24.86</td> <td>-6.7</td> <td>42.44</td> <td>54</td> <td>-11.56</td> <td>313</td> <td>100</td> <td>Н</td>	4.7593	72.7	Pk	27.7	-51.26	49.14	74	-24.86	-6.7	42.44	54	-11.56	313	100	Н
4.7983 76 Pk 27.7 -50.75 52.95 74 -21.05 -6.7 46.25 54 -7.75 313 100 H 4.8097 75.51 Pk 27.7 -50.56 52.65 74 -21.35 -6.7 45.95 54 -8.05 313 100 H 4.8186 75.57 Pk 27.7 -50.55 52.72 74 -21.28 -6.7 46.02 54 -7.98 313 100 H 4.8263 76.12 Pk 27.7 -50.44 53.38 74 -20.62 -6.7 46.68 54 -7.32 313 100 H 4.8461 76.22 Pk 27.7 -50.35 53.57 74 -20.43 -6.7 46.87 54 -7.13 313 100 H 4.9218 76.88 Pk 27.8 -50.63 54.05 74 -19.95 -6.7 47.25 54 -6.75 313 100 H 5.0837 75.53 Pk 28 -49.58 53.95 74 -20.05 -6.7 47.25 54 -6.75 313 100 H	4.775	76.39	Pk	27.7	-51.16	52.93	74	-21.07	-6.7	46.23	54	-7.77	313	100	Н
4.8097 75.51 Pk 27.7 -50.56 52.65 74 -21.35 -6.7 45.95 54 -8.05 313 100 H 4.8186 75.57 Pk 27.7 -50.55 52.72 74 -21.28 -6.7 46.02 54 -7.98 313 100 H 4.8263 76.12 Pk 27.7 -50.44 53.38 74 -20.62 -6.7 46.68 54 -7.32 313 100 H 4.8461 76.22 Pk 27.7 -50.35 53.57 74 -20.43 -6.7 46.87 54 -7.13 313 100 H 4.9218 76.88 Pk 27.8 -50.63 54.05 74 -19.95 -6.7 47.35 54 -6.65 313 100 H 5.0837 75.53 Pk 28 -49.58 53.95 74 -20.05 -6.7 47.25 54 -6.75 313 100 H	4.7938	76.42	Pk	27.7	-50.87	53.25	74	-20.75	-6.7	46.55	54	-7.45	313	100	Н
4.8186 75.57 Pk 27.7 -50.55 52.72 74 -21.28 -6.7 46.02 54 -7.98 313 100 H 4.8263 76.12 Pk 27.7 -50.44 53.38 74 -20.62 -6.7 46.68 54 -7.32 313 100 H 4.8461 76.22 Pk 27.7 -50.35 53.57 74 -20.43 -6.7 46.87 54 -7.13 313 100 H 4.9218 76.88 Pk 27.8 -50.63 54.05 74 -19.95 -6.7 47.35 54 -6.65 313 100 H 5.0837 75.53 Pk 28 -49.58 53.95 74 -20.05 -6.7 47.25 54 -6.75 313 100 H	4.7983	76	Pk	27.7	-50.75	52.95	74	-21.05	-6.7	46.25	54	-7.75	313	100	Н
4.8263 76.12 Pk 27.7 -50.44 53.38 74 -20.62 -6.7 46.68 54 -7.32 313 100 H 4.8461 76.22 Pk 27.7 -50.35 53.57 74 -20.43 -6.7 46.87 54 -7.13 313 100 H 4.9218 76.88 Pk 27.8 -50.63 54.05 74 -19.95 -6.7 47.35 54 -6.65 313 100 H 5.0837 75.53 Pk 28 -49.58 53.95 74 -20.05 -6.7 47.25 54 -6.75 313 100 H	4.8097	75.51	Pk	27.7	-50.56	52.65	74	-21.35	-6.7	45.95	54	-8.05	313	100	Н
4.8461 76.22 Pk 27.7 -50.35 53.57 74 -20.43 -6.7 46.87 54 -7.13 313 100 H 4.9218 76.88 Pk 27.8 -50.63 54.05 74 -19.95 -6.7 47.35 54 -6.65 313 100 H 5.0837 75.53 Pk 28 -49.58 53.95 74 -20.05 -6.7 47.25 54 -6.75 313 100 H	4.8186	75.57	Pk	27.7	-50.55	52.72	74	-21.28	-6.7	46.02	54	-7.98	313	100	Н
4.9218 76.88 Pk 27.8 -50.63 54.05 74 -19.95 -6.7 47.35 54 -6.65 313 100 H 5.0837 75.53 Pk 28 -49.58 53.95 74 -20.05 -6.7 47.25 54 -6.75 313 100 H	4.8263	76.12	Pk	27.7	-50.44	53.38	74	-20.62	-6.7	46.68	54	-7.32	313	100	Н
5.0837 75.53 Pk 28 -49.58 53.95 74 -20.05 -6.7 47.25 54 -6.75 313 100 H	4.8461	76.22	Pk	27.7	-50.35	53.57	74	-20.43	-6.7	46.87	54	-7.13	313	100	Н
	4.9218	76.88	Pk	27.8	-50.63	54.05	74	-19.95	-6.7	47.35	54	-6.65	313	100	Н
Pk - Peak detector	5.0837	75.53	Pk	28	-49.58	53.95	74	-20.05	-6.7	47.25	54	-6.75	313	100	Н
·· ·····	Pk - Peak d	etector													

^{*} All the spurious emissions recorded are associated with the transmit frequency. While the period of those emissions is the same as for the fundamental frequency the burst durations are different. The shortest burst duration observed was at under 1uS and the longest burst duration was about 10uS. In all cases this this is significantly less then the duty cycle of the fundamental frequency. As worst case scenario the duty cycle correction for the fundamental was used.

FORM NO: CCSUP4701I TEL: (847) 272-8800

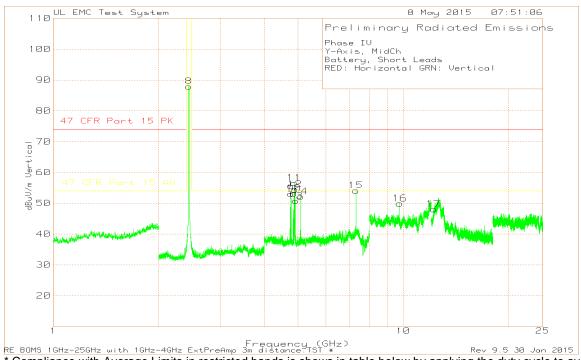
333 Pfingsten Rd., Northbrook, IL 60062, USA

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RE BOMS 1GHz-25GHz with 1GHz-4GHz ExtPreAmp

Rev 9.5 30 Jan 2015



* Compliance with Average Limits in restricted bands is shows in table below by applying the duty cycle to average measurement.

TEL: (847) 272-8800

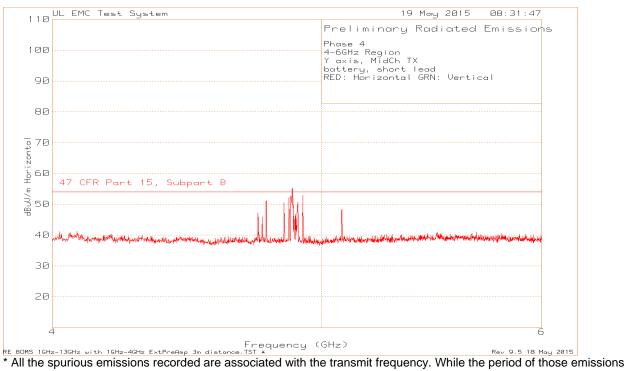
FORM NO: CCSUP4701I

Middle Channel Tabular Data

Phase IV	,														
Y-Axis, I															
	Short Leads														
	rizontal GRN	J. Vertical													
Trace Ma		vertical													
Trace IVI	aikeis						1 1 1- 47				1 5 24 47				
							Limit 47			١.	Limit 47				
		.		. .			CFR			Av erage	CFR				
	Test	Meter		Antenna	0 : "		Part 15	l	DC	Level	Part 15	l., .			
Marker	Frequency	Reading		Factor	Gain/Loss	Reading	PK	Margin	Factor	with DC	AV		Azimuth	Height	
No.	(GHz)	(dBuV)	Detector	dB/m	(dB)	dBuV/m	dBuV/m	(dB)	dB	dBuV/m	dBuV/m	(dB)	[Degs]	[cm]	Polarity
1	2.44	118.87		21.9	-51.29	89.48	-	-	-	-	-	-	0-360	100	
2	* 4.775	71.25		27.7	-51.16	47.79	74	-26.21	-6.7	41.09	54				Н
3	* 4.88	73.93		27.7	-50.35	51.28	74	-22.72	-6.7	44.58	54		0-360	101	
4	* 4.899	72.16		27.7	-50.47	49.39	74	-24.61	-6.7	42.69	54	-11.31		101	
5	* 7.322	72.48		30.6	-45.93	57.15	74	-16.85	-6.7	50.45	54		0-360	149	
6	9.761	61.89		36.4	-48.76	49.53	74	-24.47	-6.7	42.83	54	-11.17	0-360	100	
7	* 12.198	52.37	Pk	39.4	-40.18	51.59	74	-22.41	-6.7	44.89	54	-9.11	0-360	150	Н
8	2.439	117.3	Pk	21.9	-51.29	87.91	-	-	-	-	-	-	0-360	100	٧
9	* 4.775	76.48	Pk	27.7	-51.16	53.02	74	-20.98	-6.7	46.32	54	-7.68	0-360	150	٧
10	* 4.866	75.93	Pk	27.7	-50.46	53.17	74	-20.83	-6.7	46.47	54	-7.53	0-360	150	٧
11	* 4.879	79.22	Pk	27.7	-50.34	56.58	74	-17.42	-6.7	49.88	54	-4.12	0-360	150	٧
12	* 4.9	77.13	Pk	27.8	-50.48	54.45	74	-19.55	-6.7	47.75	54	-6.25	0-360	150	٧
13	* 4.922	73.56	Pk	27.8	-50.64	50.72	74	-23.28	-6.7	44.02	54	-9.98	0-360	100	٧
14	* 5.084	73.73	Pk	28	-49.58	52.15	74	-21.85	-6.7	45.45	54	-8.55	0-360	150	٧
15	* 7.32	69.39	Pk	30.6	-45.89	54.1	74	-19.9	-6.7	47.4	54	-6.6	0-360	100	٧
16	9.761	62.21	Pk	36.4	-48.76	49.85	74	-24.15	-6.7	43.15	54	-10.85	0-360	150	٧
17	* 12.201	48.66	Pk	39.4	-40.03	48.03	74	-25.97	-6.7	41.33	54	-12.67	0-360	150	٧
* - indica	tes frequenc	y in CFR	15.205/IC7	7.2.2 Rest	ricted Band										
Pk - Pea	k detector														
Max imiz	ed Radiated	Emission	Data												
							1 5 5- 47				Limit 47				
							Limit 47 CFR								
	- .	l		.			-		D0	Av erage	CFR				
	Test	Meter		Antenna	0 : "		Part 15	l	DC	Level	Part 15	l., .			
	' '	Reading		Factor	Gain/Loss	Reading	PK	Margin	Factor	with DC	AV			Height	.
	(GHz)	(dBuV)	Detector	dB/m	(dB)	dBuV/m	dBuV/m	(dB)	dB	dBuV/m	dBuV/m	(dB)	[Degs]		Polarity
	* 7.3192	70.29		30.6	-45.88	55.01	74	-18.99	-6.7	48.31	54	-5.69	103	100	٧
	* 7.3191	72.92		30.6	-45.88	57.64	74	-16.36	-6.7	50.94	54	-3.06	201	146	
	* 4.8805	80.02		27.7	-50.36	57.36	74	-16.64	-6.7	50.66	54	-3.34	302	163	_
	* 4.8794	74.97	Pk	27.7	-50.35	52.32	74	-21.68	-6.7	45.62	54	-8.38	25	100	Н
	k detector														
Av - Ave	erage detecti	on													

Middle Channel Scan Data around 5GHz





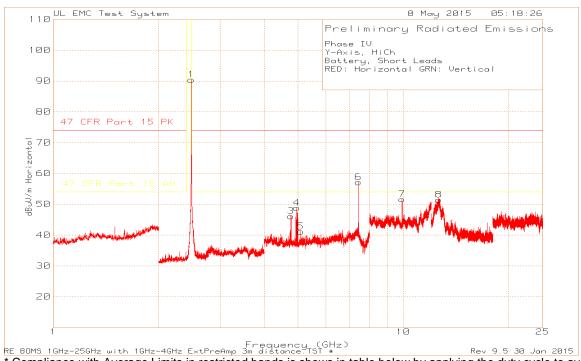
* All the spurious emissions recorded are associated with the transmit frequency. While the period of those emissions is the same as for the fundamental frequency the burst durations are different. The shortest burst duration observed was at under 1uS and the longest burst duration was about 10uS. In all cases this this is significantly less then the duty cycle of the fundamental frequency. As worst case scenario the duty cycle correction for the fundamental was used.

FORM NO: CCSUP4701I

Middle Channel Tabular Data around 5GHz

Phase 4																						
4-6GHz Red	ion																					
Y axis, Mid	•																					
battery, sho																						
RED: Horizo		· Vertical																				
Trace Mark																						
Radiated En		nta																				
						Limit 47			Av erage	Limit 47												
Test	Meter		Antenna		Corrected	-		DC	Level with	-												
	Reading		Factor	Gain/Loss	Reading			Factor	DC			Azimuth	Height									
(GHz)	•	Detector	dB/m	(dB)	dBuV/m	dBuV/m	(dB)	dB	dBuV/m	dBuV/m	(dB)			Polarity								
4.8794	78.48		27.7	-50.35	55.83	74	-18.17	-6.7	49.13		` '											
4.8459	76.3		27.7	-50.35	53.65	74	-20.35	-6.7	46.95	54	-7.05	316										
4.8661	76.5	Pk	27.7	-50.45	53.75	74	-20.25	-6.7	47.05	54	-6.95	316	100	Н								
4.8993	77.35		27.7	-50.47	54.58	74	-19.42	-6.7	47.88	54	-6.12	316	100	Н								
4.9217	77.1		27.8	-50.63	54.27	74	-19.73	-6.7	47.57	54	-6.43	316	100	Н								
4.8793	80.63	Pk	27.7	-50.35	57.98	74	-16.02	-6.7	51.28	54	-2.72	293	175									
4.9218	78.26		27.8	-50.63	55.43	74	-18.57	-6.7	48.73	54	-5.27	293	175	V								
4.9026	78.47	Pk	27.8	-50.51	55.76	74	-18.24	-6.7	49.06	54	-4.94	293	175	V								
4.8915	78.39	Pk	27.7	-50.42	55.67	74	-18.33	-6.7	48.97	54	-5.03	293	175	V								
4.8824	78.04	Pk	27.7	-50.38	55.36	74	-18.64	-6.7	48.66	54	-5.34	293	175	V								
4.8744	78.3	Pk	27.7	-50.29	55.71	74	-18.29	-6.7	49.01	54	-4.99	293	175	V								
4.8657	78.04	Pk	27.7	-50.46	55.28	74	-18.72	-6.7	48.58	54	-5.42	293	175	V								
4.846	77.25	Pk	27.7	-50.35	54.6	74	-19.4	-6.7	47.9	54	-6.1	293	175	V								
Pk - Peak d	etector												Pk - Peak detector									

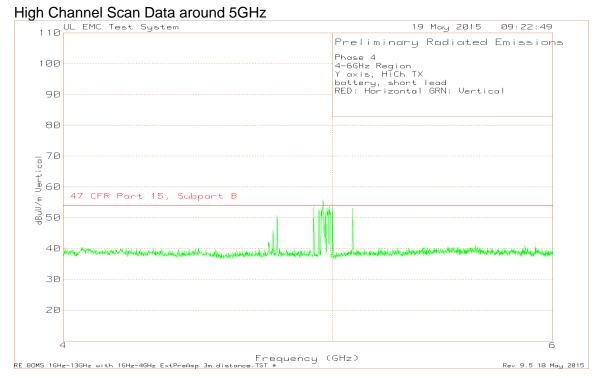




* Compliance with Average Limits in restricted bands is shows in table below by applying the duty cycle to average measurement.

High Channel Tabular Data

Y-Ax is, HiCh Battery, Short Leads RED: Horizontal GRN: Vertical Trace Markers Test Meter Antenna Corrected Part 15 DC Limit 47 Average CFR Level Part 15	Phase IV															
Reduction Redu																
Trace Markers Net	,															
Trace Marker Fequency Reading Fequency Reading Gellin Corrected Fart 15 Fequency Reading Gellin	,															
Test Meter Frequency Reading Rachin			n: vertical													
Test Meter Frequency Reading Packer Factor Gain/Loss Reading Packer Packe	Trace M	arkers														
1 2.479 120.05 PR 22 -51.66 90.39 0.360 99 H 3 3 *4.775 89.61 Pk 27.7 *51.16 46.15 74 *27.85 6.67 39.45 54 *14.55 0.360 149 H 4 4 *4.959 71.75 Pk 27.8 *50.74 48.81 74 *25.19 *6.7 32.11 54 *11.89 0.360 149 H 5 *5.084 62.67 Pk 28 *49.58 41.09 74 *32.91 *6.7 32.91 *54 *19.61 0.360 149 H 6 *7.44 73.35 Pk 30.6 *46.81 57.14 74 *16.86 6.67 50.44 54 3.56 0.360 149 H 7 9.919 64.49 Pk 36.4 *49.25 51.64 74 *22.236 *6.7 44.94 54 9.06 0.360 149 H 8 *12.622 46.17 Pk 39.5 *34.26 51.41 74 *22.59 6.7 44.94 54 9.06 0.360 150 H 8 *12.622 46.17 Pk 39.5 *34.26 51.41 74 *22.59 6.7 44.71 54 9.99 0.360 100 H 2 2 2.479 117.74 Pk 22 5.166 88.08 * * * * * * * * * * * * * * * * * * *	Marker	Frequency	Reading		Factor		Reading	CFR Part 15 PK		Factor	Level with DC	CFR Part 15 AV				
3		, ,	, ,		-	` '		dBuV/m	(dB)	dВ	dBuV/m	dBuV/m	(dB)			
## 1.4.959								-	-	-	-	-	-			
S	3	* 4.775	69.61	Pk	27.7	-51.16	46.15	74	-27.85	-6.7	39.45	54	-14.55	0-360	149	Н
6	4	* 4.959	71.75	Pk	27.8	-50.74	48.81	74	-25.19	-6.7	42.11	54	-11.89	0-360	101	Н
No. 19.919 64.49 Pk 36.4 -49.25 51.64 74 -22.36 -6.7 44.94 54 -9.06 0.360 150 H	5	* 5.084	62.67	Pk	28	-49.58	41.09	74	-32.91	-6.7	34.39	54	-19.61	0-360	149	Н
8 * 12.622	6	* 7.44	73.35	Pk	30.6	-46.81	57.14	74	-16.86	-6.7	50.44	54	-3.56	0-360	149	Н
2 2.479 117.74 Pk 22 -51.66 88.08 0.360 100 V 9 *4.776 74.39 Pk 27.7 -51.17 50.92 74 -23.08 -6.7 44.22 54 -9.78 0.360 150 V 10 *4.961 78.68 Pk 27.8 -50.74 55.74 74 -18.26 -6.7 49.04 54 -4.96 0.360 150 V 11 *5.084 73.08 Pk 28 49.58 51.5 74 -22.5 -6.7 44.8 54 -9.2 0.360 99 V 12 *7.441 70.21 Pk 30.5 -46.84 53.87 74 -20.13 -6.7 47.17 54 -6.83 0.360 150 V 13 9.919 65.45 Pk 36.4 -49.25 52.6 74 -21.4 -6.7 45.99 54 -8.1 0.360 151 V 14 *12.625 47.44 Pk 39.5 -34.25 52.69 74 -21.31 -6.7 45.99 54 -8.01 0.360 150 V 15 12.777 49.11 Pk 39.6 -37.83 50.88 74 -23.12 -6.7 44.18 54 -9.82 0.360 150 V 1-1-indicates frequency in CFR15.205/IC7.2.2 Restricted Band Pk - Peak detector Radiated Emission Data Radiated Emission Data Radiated Emission Data Radiated Firequency (GHz) Detector dB/m (dB)	7	9.919	64.49	Pk	36.4	-49.25	51.64	74	-22.36	-6.7	44.94	54	-9.06	0-360	150	Н
9 * 4.776	8	* 12.622	46.17	Pk	39.5	-34.26	51.41	74	-22.59	-6.7	44.71	54	-9.29	0-360	100	Н
10	2	2.479	117.74	Pk	22	-51.66	88.08	-	-	-	-	-	-	0-360	100	V
11 *5.084	9	* 4.776	74.39	Pk	27.7	-51.17	50.92	74	-23.08	-6.7	44.22	54	-9.78	0-360	150	V
12 *7.441 70.21 Pk 30.5 -46.84 53.87 74 -20.13 -6.7 47.17 54 -6.83 0.360 150 V 13 9.919 65.45 Pk 36.4 -49.25 52.6 74 -21.4 -6.7 45.99 54 -8.1 0.360 151 V 14 *12.625 47.44 Pk 39.5 -34.25 52.69 74 -21.31 -6.7 45.99 54 -8.01 0.360 150 V 15 12.777 49.11 Pk 39.6 -37.83 50.88 74 -23.12 -6.7 44.18 54 -9.82 0.360 150 V *- indicates frequency in CFR15.205/IC7.2.2 Restricted Band Pk - Peak detector Radiated Emission Data	10	* 4.961	78.68	Pk	27.8	-50.74	55.74	74	-18.26	-6.7	49.04	54	-4.96	0-360	150	V
13 9.919 65.45 Pk 36.4 -49.25 52.6 74 -21.4 -6.7 45.9 54 -8.1 0.360 151 V 14 * 12.625 47.44 Pk 39.5 -34.25 52.69 74 -21.31 -6.7 45.99 54 -8.01 0.360 150 V 15 12.777 49.11 Pk 39.6 -37.83 50.88 74 -23.12 -6.7 44.18 54 -9.82 0.360 150 V *- indicates frequency in CFR 15.205/IC7.2.2 Restricted Band Pk - Peak detector Radiated Emission Data	11	* 5.084	73.08	Pk	28	-49.58	51.5	74	-22.5	-6.7	44.8	54	-9.2	0-360	99	V
14 * 12.625	12	* 7.441	70.21	Pk	30.5	-46.84	53.87	74	-20.13	-6.7	47.17	54	-6.83	0-360	150	V
15	13	9.919	65.45	Pk	36.4	-49.25	52.6	74	-21.4	-6.7	45.9	54	-8.1	0-360	151	V
*- indicates frequency in CFR15.205/IC7.2.2 Restricted Band Pk - Peak detector Radiated Emission Data Test Meter Frequency (GHz) (dBuV) Detector dB/m (dB) dBuV/m dBuV/m (dB) (dB) (dB) (Degs] Height [cm] Polarity	14	* 12.625	47.44	Pk	39.5	-34.25	52.69	74	-21.31	-6.7	45.99	54	-8.01	0-360	150	V
Pk - Peak detector Radiated Emission Data	15	12.777	49.11	Pk	39.6	-37.83	50.88	74	-23.12	-6.7	44.18	54	-9.82	0-360	150	V
Radiated Emission Data Note Corrected Part 15 PK Margin GBUV/m GBUV/m	* - indica	ates frequenc	cy in CFR	15.205/IC7	7.2.2 Res	tricted Band										
Test Meter Reading (GHz) (dBuV) Detector dB/m (dB) Reading (dBuV/m dBuV/m dBuV/m (dB) Reading (GHz) (7.4391 Pk 30.6 -46.79 57.04 74 -16.96 -6.7 50.34 54 -3.66 189 100 V 44.9525 78.05 Pk 27.8 -50.76 55.09 74 -18.91 -6.7 48.39 54 -5.61 297 160 V 44.9604 72.94 Pk 27.8 -50.76 55.09 74 -18.91 -6.7 43.3 54 -4 3.25 100 H	Pk - Pea	ak detector														
Test Meter Frequency (GHz) (BuV) Detector (Bm (GHz) (BHz) (B	Radiated	d Emission D	Data													
(GHz) (dBuV) Detector dB/m (dB) dBuV/m dBuV/m (dB) dB dBuV/m (dB) (Degs] Height [cm] Polarity * 7.4391 73.23 Pk 30.6 -46.79 57.04 74 -16.96 -6.7 50.34 54 -3.66 189 100 H * 7.4392 70.91 Pk 30.6 -46.79 54.72 74 -19.28 -6.7 48.02 54 -5.98 99 100 V * 4.9594 79.4 Pk 27.8 -50.74 56.46 74 -17.54 -6.7 49.76 54 -4.24 297 160 V * 4.9594 79.26 Pk 27.8 -50.74 56.32 74 -17.68 -6.7 49.62 54 -4.38 297 160 V * 4.9428 78.28 Pk 27.8 -50.73 55.35 74 -18.65 -6.7 48.65 54 -5.35 297 160 V * 4.9525 78.05 Pk 27.8 -50.76 55.09 74 -18.91 -6.7 48.39 54 -5.61 297 160 V * 4.9604 72.94 Pk 27.8 -50.74 50.74 50.74 50.74 -18.91 -6.7 48.39 54 -5.61 297 160 V						Gain/Loss		CFR Part 15	Margin	_	Level	CFR Part 15	Margin	Azimuth		
* 7.4391				Detector			•								Height [cm]	Polarity
* 7.4392		, ,	` ′			` '			, ,				` ′		<u> </u>	
* 4.9594																
* 4.9594																-
* 4.9428																-
* 4.9525 78.05 Pk 27.8 -50.76 55.09 74 -18.91 -6.7 48.39 54 -5.61 297 160 V * 4.9604 72.94 Pk 27.8 -50.74 50 74 -24 -6.7 43.3 54 -4 325 100 H																-
* 4.9604 72.94 Pk 27.8 -50.74 50 74 -24 -6.7 43.3 54 -4 325 100 H																-
	Pk - Pos		72.04		21.0	30.74	30	, , ,		0.7	70.0		- 4	020	100	





^{*} All the spurious emissions recorded are associated with the transmit frequency. While the period of those emissions is the same as for the fundamental frequency the burst durations are different. The shortest burst duration observed was at under 1uS and the longest burst duration was about 10uS. In all cases this this is significantly less then the duty cycle of the fundamental frequency. As worst case scenario the duty cycle correction for the fundamental was used.

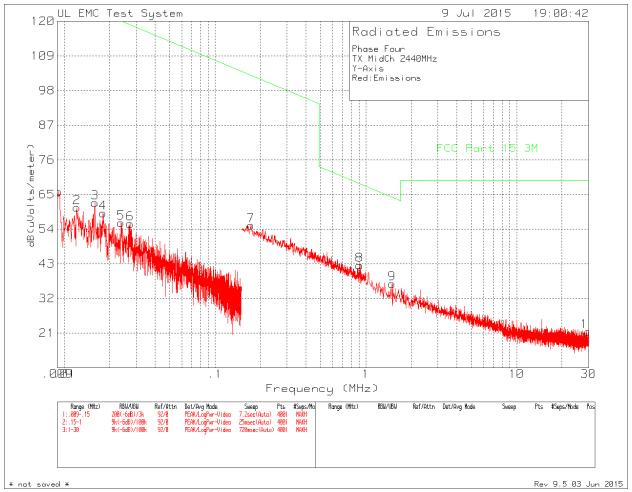
TEL: (847) 272-8800

High Channel Tabular Data around 5GHz

Phase 4														
4-6GHz Reg	nion													
Y axis, HiC														
battery, sho														
	ontal GRN: \	/ortical												
Radiated Emission Data														
						Limit 47				Limit 47				
Test	Meter		Antenna		Corrected	CFR Part 15.209		DC	Av erage Lev el	CFR Part 15.209				
Frequency	Reading		Factor	Gain/Loss		15.209 PK	Margin	Factor	with DC	15.209 AV	Margin	Azimuth	Height	
(GHz)	(dBuV)	Detector	dB/m	(dB)	dBuV/m	dBuV/m	(dB)	dB	dBuV/m	dBuV/m	(dB)	[Degs]	[cm]	Polarity
4.9594	78.93		27.8	-50.74	55.99	74	-18.01	-6.7	49.29	54	-4.71	283	146	,
4.9218	57.21		27.8	-50.63	34.38	74	-39.62	-6.7	27.68	54	-26.32	283	146	
4.9219	78.12	Pk	27.8	-50.64	55.28	74	-18.72	-6.7	48.58	54	-5.42	283	146	
4.9427	78.49		27.8	-50.73	55.56	74	-18.44	-6.7	48.86	54	-5.14	283	146	
4.9523	78.22	Pk	27.8	-50.76	55.26	74	-18.74	-6.7	48.56	54	-5.44	283	146	٧
4.9695	78.23	Pk	27.8	-50.77	55.26	74	-18.74	-6.7	48.56	54	-5.44	283	146	٧
4.9766	77.9	Pk	27.8	-50.76	54.94	74	-19.06	-6.7	48.24	54	-5.76	283	146	٧
4.9809	77.94	Pk	27.8	-50.76	54.98	74	-19.02	-6.7	48.28	54	-5.72	283	146	٧
4.9871	77.9	Pk	27.8	-50.8	54.9	74	-19.1	-6.7	48.2	54	-5.8	283	146	٧
4.9901	77.73	Pk	27.8	-50.82	54.71	74	-19.29	-6.7	48.01	54	-5.99	283	146	٧
4.9993	77.53	Pk	27.8	-50.81	54.52	74	-19.48	-6.7	47.82	54	-6.18	283	146	٧
5.0837	76.44	Pk	28	-49.58	54.86	74	-19.14	-6.7	48.16	54	-5.84	283	146	٧
4.9595	77.64	Pk	27.8	-50.74	54.7	74	-19.3	-6.7	48	54	-6	313	100	Н
4.9216	77.02	Pk	27.8	-50.63	54.19	74	-19.81	-6.7	47.49	54	-6.51	313	100	Н
4.9434	77.23	Pk	27.8	-50.73	54.3	74	-19.7	-6.7	47.6	54	-6.4	313	100	Н
4.9528	77	Pk	27.8	-50.76	54.04	74	-19.96	-6.7	47.34	54	-6.66	313	100	Н
4.9695	77.06	Pk	27.8	-50.77	54.09	74	-19.91	-6.7	47.39	54	-6.61	313	100	Н
4.9767	77.17	Pk	27.8	-50.76	54.21	74	-19.79	-6.7	47.51	54	-6.49	313	100	Н
4.9806	77.24	Pk	27.8	-50.76	54.28	74	-19.72	-6.7	47.58	54	-6.42	313	100	Н
4.9868	77.1	Pk	27.8	-50.79	54.11	74	-19.89	-6.7	47.41	54	-6.59	313	100	Н
4.9904	76.84	Pk	27.8	-50.82	53.82	74	-20.18	-6.7	47.12	54	-6.88	313	100	Н
4.9994	76.87	Pk	27.8	-50.81	53.86	74	-20.14	-6.7	47.16	54	-6.84	313	100	Н
5.0836	75.42	Pk	28	-49.58	53.84	74	-20.16	-6.7	47.14	54	-6.86	313	100	Н
Pk - Peak d	letector													

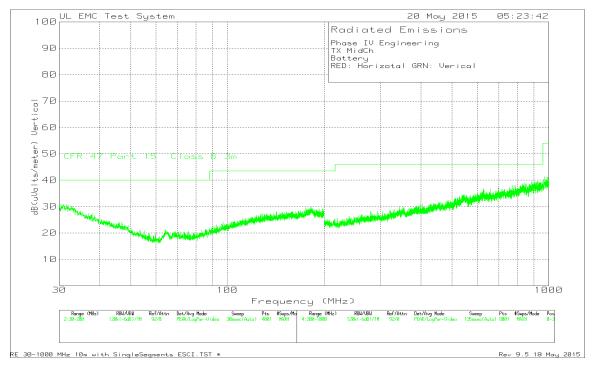
8.3. WORST-CASE BELOW 1 GHz

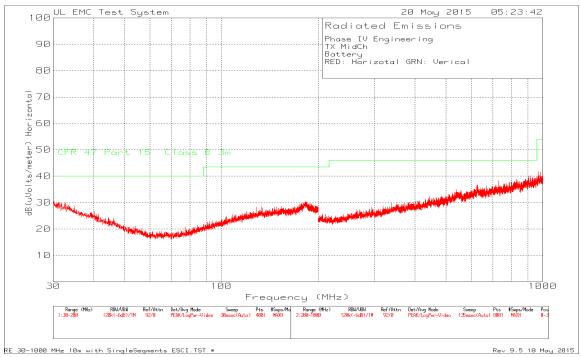
SPURIOUS EMISSIONS 150kHz TO 30 MHz



^{*}No emissions were recorded between 150kHz to 30MHz.

SPURIOUS EMISSIONS 30 TO 1000 MHz





^{*} No emissions recorded between 30MHz – 1GHz

FORM NO: CCSUP4701I

333 Pfingsten Rd., Northbrook, IL 60062, USA TEL: (847) 272-8800 REPORT NO: 10719521A FCC ID: 2AE3ZPT-DS-5000

END OF REPORT

DATE: July 15, 2015