

Enlighted, Inc.

ADDENDUM TO TEST REPORT 95673-6

Sensor
Model: RS-2b/SU-2b

Tested To The Following Standards:

FCC Part 15 Subpart C Section(s): 15.207 and 15.247

Report No.: 95673-6A

Date of issue: June 26, 2014



This test report bears the accreditation symbol indicating that the testing performed herein meets the test and reporting requirements of ISO/IEC 17025 under the applicable scope of EMC testing for CKC Laboratories, Inc.

We strive to create long-term, trust based relationships by providing sound, adaptive, customer first testing services. We embrace each of our customers' unique EMC challenges, not as an interruption to set processes, but rather as the reason we are in business.

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ADMINISTRATIVE INFORMATION

Test Report Information

REPORT PREPARED FOR:

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REPORT PREPARED BY:

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REPRESENTATIVE: Heber Alfaro

Customer Reference Number: PO0001006

Project Number: 95673

DATE OF EQUIPMENT RECEIPT:

May 9, 2014

DATE(S) OF TESTING:

May 9-12, 2014

Revision History

Original: Testing of Sensor, RS-2b/SU-2b to FCC Part 15.207 and 15.247.

Addendum A: Section 15.31e statements were revised.

Report Authorization

The test data contained in this report documents the observed testing parameters pertaining to and are relevant for only the sample equipment tested in the agreed upon operational mode(s) and configuration(s) as identified herein. Compliance assessment remains the client's responsibility. This report may not be used to claim product endorsement by A2LA or any government agencies. This test report has been authorized for release under quality control from CKC Laboratories, Inc.

A handwritten signature in black ink that reads "Steve Behm".

Steve Behm
Director of Quality Assurance & Engineering Services
CKC Laboratories, Inc.

Test Facility Information



Our laboratories are configured to effectively test a wide variety of product types. CKC utilizes first class test equipment, anechoic chambers, data acquisition and information services to create accurate, repeatable and affordable test results.

TEST LOCATION(S):
CKC Laboratories, Inc.
1120 Fulton Place
Fremont, CA 94539

Software Versions

CKC Laboratories Proprietary Software	Version
EMITest Emissions	5.00.14
Immunity	5.00.07

Site Registration & Accreditation Information

Location	CB #	TAIWAN	CANADA	FCC	JAPAN
Fremont	US0082	SL2-IN-E-1148R	3082B-1	958979	A-0149

SUMMARY OF RESULTS

Standard / Specification: FCC Part 15 Subpart C

Test Procedure/Method	Description	Results
15.207 / ANSI C63.4	Conducted Emissions	Pass
15.31(e)	Voltage Variation	Pass
15.247(a)(2) / DA 00-705	Occupied Bandwidth	Pass
15.247(b)(3)/ DA 00-705	RF Power Output	Pass
15.247(d) / DA 00-705	Field Strength of Spurious Emissions and Band Edge	Pass
15.247(e) / DA 00-705	Power Spectral Density	Pass

Conditions During Testing

This list is a summary of the conditions noted for or modifications made to the equipment during testing.

Summary of Conditions
None

EQUIPMENT UNDER TEST (EUT)

EQUIPMENT UNDER TEST

Sensor

Manuf: Enlighted, Inc.

Model: RS-2b/SU-2b

Serial: ENG 1

PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

Power Adapter of Laptop

Manuf: DELL

Model: DA65NM111-00

Serial: CN-01XRN1-48661-39B-CMUG-A01

Laptop

Manuf: DELL

Model: Latitude E5530

Serial: 18734426425

DC Power Supply

Manuf: Protek

Model: 3006B

Serial: AG4070

FCC PART 15 SUBPART C

This report contains EMC emissions test results under United States Federal Communications Commission (FCC) CFR 47 Section 15 Subpart C requirements for Intentional Radiators.

15.207 AC Conducted Emissions

Test Data

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**
 Specification: **15.207 AC Mains - Average**
 Work Order #: **95673**
 Test Type: **Conducted Emissions**
 Equipment: **Sensor**
 Manufacturer: **Enlighted, Inc.**
 Model: **RS-2b/SU-2b**
 S/N: **ENG 1**

Date: 5/9/2014
 Time: 10:42:53 AM
 Sequence#: 1
 Tested By: Hieu Song Nguyenpham
 120V 60Hz

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANP01211	Attenuator	PE7002-10	4/2/2013	4/2/2015
T2	ANP00880	Cable	RG214U	7/30/2012	7/30/2014
T3	ANP05300	Cable	RG214/U	3/25/2013	3/25/2015
T4	AN00493	50uH LISN-L1 (L) Loss W/O European Adapter	3816/NM	3/4/2013	3/4/2015
	AN00493	50uH LISN-L(2) N Loss W/O European Adapter	3816/NM	3/4/2013	3/4/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
T5	ANP05258	High Pass Filter	HE9615-150K-50-720B	12/6/2012	12/6/2014

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Conducted Emission
Frequency Range: 150kHz to 30MHz
Firmware Used: Version 2.6.2
Application: PuTTY

Temperature: 21.3°C
Humidity: 43 %
Atmospheric Pressure: 101.0 kPa
High Clock: 16MHz

Transmitting operating frequency= 2.4GHz Band
RF Output= 0dBm
Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits next to it. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "Putty", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmit.

Ext Attn: 0 dB

Measurement Data:		Reading listed by margin.						Test Lead: Black			
#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV	dBμV	dB	Ant
1	4.573M	32.5	+9.7 +0.2	+0.2	+0.1	+0.1	+0.0	42.8	46.0	-3.2	Black
2	10.779M	36.5	+9.7 +0.0	+0.3	+0.1	+0.2	+0.0	46.8	50.0	-3.2	Black
3	4.105M	32.5	+9.6 +0.1	+0.2	+0.1	+0.1	+0.0	42.6	46.0	-3.4	Black
4	24.203M	35.5	+9.6 +0.2	+0.4	+0.1	+0.6	+0.0	46.4	50.0	-3.6	Black
5	11.373M	35.9	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	46.2	50.0	-3.8	Black
6	10.896M	35.6	+9.7 +0.0	+0.3	+0.1	+0.2	+0.0	45.9	50.0	-4.1	Black
7	3.348M	31.7	+9.6 +0.1	+0.2	+0.1	+0.1	+0.0	41.8	46.0	-4.2	Black
8	4.785M	31.4	+9.6 +0.2	+0.2	+0.1	+0.1	+0.0	41.6	46.0	-4.4	Black
9	4.241M	31.4	+9.6 +0.1	+0.2	+0.1	+0.1	+0.0	41.5	46.0	-4.5	Black
10	4.692M	31.1	+9.6 +0.2	+0.2	+0.1	+0.1	+0.0	41.3	46.0	-4.7	Black
11	4.815M	31.1	+9.5 +0.2	+0.2	+0.1	+0.1	+0.0	41.2	46.0	-4.8	Black
12	3.986M	31.1	+9.6 +0.1	+0.2	+0.1	+0.1	+0.0	41.2	46.0	-4.8	Black
13	9.607M	34.9	+9.6 +0.0	+0.3	+0.1	+0.3	+0.0	45.2	50.0	-4.8	Black
14	4.905M	31.1	+9.5 +0.2	+0.2	+0.1	+0.1	+0.0	41.2	46.0	-4.8	Black

15	10.202M	34.6	+9.7 +0.0	+0.3	+0.1	+0.3	+0.0	45.0	50.0	-5.0	Black
16	11.256M	34.6	+9.7 +0.1	+0.3	+0.1	+0.2	+0.0	45.0	50.0	-5.0	Black
17	9.725M	34.6	+9.6 +0.0	+0.3	+0.1	+0.3	+0.0	44.9	50.0	-5.1	Black
18	12.103M	34.5	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	44.8	50.0	-5.2	Black
19	8.553M	34.3	+9.7 +0.1	+0.3	+0.1	+0.2	+0.0	44.7	50.0	-5.3	Black
20	4.224M	30.6	+9.6 +0.1	+0.2	+0.1	+0.1	+0.0	40.7	46.0	-5.3	Black
21	10.661M	34.4	+9.7 +0.0	+0.3	+0.1	+0.2	+0.0	44.7	50.0	-5.3	Black
22	9.139M	34.3	+9.6 +0.1	+0.3	+0.1	+0.3	+0.0	44.7	50.0	-5.3	Black
23	4.998M	30.2	+9.5 +0.2	+0.2	+0.1	+0.1	+0.0	40.3	46.0	-5.7	Black
24	10.310M	33.9	+9.7 +0.0	+0.3	+0.1	+0.3	+0.0	44.3	50.0	-5.7	Black
25	3.629M	30.0	+9.6 +0.1	+0.2	+0.1	+0.1	+0.0	40.1	46.0	-5.9	Black
26	4.326M	29.7	+9.6 +0.1	+0.2	+0.1	+0.1	+0.0	39.8	46.0	-6.2	Black
27	310.712k	33.4	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	43.4	50.0	-6.6	Black
28	384.887k	31.8	+9.6 +0.0	+0.1	+0.0	+0.1	+0.0	41.6	48.2	-6.6	Black
29	7.391M	33.2	+9.6 +0.1	+0.2	+0.1	+0.2	+0.0	43.4	50.0	-6.6	Black
30	3.607M	29.2	+9.6 +0.1	+0.2	+0.1	+0.1	+0.0	39.3	46.0	-6.7	Black
31	7.968M	32.7	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	43.0	50.0	-7.0	Black
32	349.253k	32.1	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	42.0	49.0	-7.0	Black
33	8.679M	32.6	+9.7 +0.1	+0.3	+0.1	+0.2	+0.0	43.0	50.0	-7.0	Black
34	8.436M	32.7	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	43.0	50.0	-7.0	Black
35	10.085M	32.5	+9.7 +0.0	+0.3	+0.1	+0.3	+0.0	42.9	50.0	-7.1	Black
36	5.418M	32.5	+9.7 +0.2	+0.2	+0.1	+0.1	+0.0	42.8	50.0	-7.2	Black
37	8.085M	32.5	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	42.8	50.0	-7.2	Black
38	424.883k	30.3	+9.6 +0.0	+0.1	+0.0	+0.1	+0.0	40.1	47.4	-7.3	Black
39	9.256M	32.3	+9.6 +0.1	+0.3	+0.1	+0.3	+0.0	42.7	50.0	-7.3	Black
40	11.472M	32.4	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	42.7	50.0	-7.3	Black

41	2.774M	28.6	+9.6 +0.1	+0.2	+0.0	+0.1	+0.0	38.6	46.0	-7.4	Black
42	3.752M	28.4	+9.6 +0.1	+0.2	+0.1	+0.1	+0.0	38.5	46.0	-7.5	Black
43	13.004M	32.2	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	42.5	50.0	-7.5	Black
44	3.854M	27.9	+9.6 +0.1	+0.2	+0.1	+0.1	+0.0	38.0	46.0	-8.0	Black
45	5.157M	31.8	+9.6 +0.2	+0.2	+0.1	+0.1	+0.0	42.0	50.0	-8.0	Black
46	3.773M	27.8	+9.6 +0.1	+0.2	+0.1	+0.1	+0.0	37.9	46.0	-8.1	Black
47	9.031M	31.5	+9.6 +0.1	+0.3	+0.1	+0.3	+0.0	41.9	50.0	-8.1	Black
48	11.580M	31.6	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	41.9	50.0	-8.1	Black
49	12.427M	31.5	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	41.8	50.0	-8.2	Black
50	7.499M	31.6	+9.6 +0.1	+0.2	+0.1	+0.2	+0.0	41.8	50.0	-8.2	Black
51	12.896M	31.5	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	41.8	50.0	-8.2	Black
52	12.535M	31.5	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	41.8	50.0	-8.2	Black
53	9.193M	31.2	+9.6 +0.1	+0.3	+0.1	+0.3	+0.0	41.6	50.0	-8.4	Black
54	9.688M	30.9	+9.6 +0.0	+0.3	+0.1	+0.3	+0.0	41.2	50.0	-8.8	Black
55	7.851M	30.7	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	41.0	50.0	-9.0	Black
56	9.842M	30.7	+9.6 +0.0	+0.3	+0.1	+0.3	+0.0	41.0	50.0	-9.0	Black
57	9.490M	30.0	+9.6 +0.0	+0.3	+0.1	+0.3	+0.0	40.3	50.0	-9.7	Black
58	166.725k	34.9	+9.6 +0.4	+0.1	+0.0	+0.1	+0.0	45.1	55.1	-10.0	Black
59	13.130M	29.7	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	40.0	50.0	-10.0	Black
60	463.425k	26.6	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	36.5	46.6	-10.1	Black
61	6.445M	29.7	+9.6 +0.1	+0.2	+0.1	+0.1	+0.0	39.8	50.0	-10.2	Black
62	10.427M	29.5	+9.7 +0.0	+0.3	+0.1	+0.2	+0.0	39.8	50.0	-10.2	Black
63	12.364M	29.4	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	39.7	50.0	-10.3	Black
64	13.481M	29.4	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	39.7	50.0	-10.3	Black
65	358.707k	28.4	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	38.3	48.8	-10.5	Black
66	2.463M	25.5	+9.7 +0.1	+0.1	+0.0	+0.1	+0.0	35.5	46.0	-10.5	Black

67	10.391M	29.2	+9.7 +0.0	+0.3	+0.1	+0.2	+0.0	39.5	50.0	-10.5	Black
68	154.362k	34.5	+9.7 +0.9	+0.0	+0.0	+0.1	+0.0	45.2	55.8	-10.6	Black
69	24.148M	28.0	+9.6 +0.2	+0.4	+0.1	+0.6	+0.0	38.9	50.0	-11.1	Black
70	24.258M	28.0	+9.6 +0.2	+0.4	+0.1	+0.6	+0.0	38.9	50.0	-11.1	Black
71	13.589M	28.4	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	38.7	50.0	-11.3	Black
72	10.508M	28.3	+9.7 +0.0	+0.3	+0.1	+0.2	+0.0	38.6	50.0	-11.4	Black
73	173.270k	33.0	+9.6 +0.3	+0.1	+0.0	+0.1	+0.0	43.1	54.8	-11.7	Black
74	195.086k	31.9	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	41.9	53.8	-11.9	Black
75	273.624k	29.1	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	39.1	51.0	-11.9	Black
76	27.540M	26.8	+9.6 +0.2	+0.5	+0.1	+0.6	+0.0	37.8	50.0	-12.2	Black
77	187.814k	31.8	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	41.8	54.1	-12.3	Black
78	159.453k	33.0	+9.6 +0.4	+0.0	+0.0	+0.1	+0.0	43.1	55.5	-12.4	Black
79	28.602M	26.4	+9.6 +0.2	+0.5	+0.1	+0.7	+0.0	37.5	50.0	-12.5	Black
80	28.719M	26.1	+9.6 +0.2	+0.5	+0.1	+0.7	+0.0	37.2	50.0	-12.8	Black
81	180.542k	31.5	+9.6 +0.3	+0.1	+0.0	+0.1	+0.0	41.6	54.5	-12.9	Black
82	404.521k	25.1	+9.6 +0.0	+0.1	+0.0	+0.1	+0.0	34.9	47.8	-12.9	Black
83	504.148k	23.1	+9.7 +0.1	+0.1	+0.0	+0.1	+0.0	33.1	46.0	-12.9	Black
84	28.006M	25.9	+9.6 +0.2	+0.5	+0.1	+0.7	+0.0	37.0	50.0	-13.0	Black
85	420.520k	24.5	+9.6 +0.0	+0.1	+0.0	+0.1	+0.0	34.3	47.4	-13.1	Black
86	6.634M	26.8	+9.6 +0.1	+0.2	+0.1	+0.1	+0.0	36.9	50.0	-13.1	Black
87	26.485M	25.7	+9.7 +0.2	+0.5	+0.1	+0.6	+0.0	36.8	50.0	-13.2	Black
88	398.703k	24.8	+9.6 +0.0	+0.1	+0.0	+0.1	+0.0	34.6	47.9	-13.3	Black
89	26.951M	25.7	+9.6 +0.2	+0.5	+0.1	+0.6	+0.0	36.7	50.0	-13.3	Black
90	13.364M	26.3	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	36.6	50.0	-13.4	Black
91	443.063k	23.5	+9.6 +0.0	+0.1	+0.0	+0.1	+0.0	33.3	47.0	-13.7	Black
92	27.430M	25.3	+9.6 +0.2	+0.5	+0.1	+0.6	+0.0	36.3	50.0	-13.7	Black

93	28.129M	25.2	+9.6 +0.2	+0.5	+0.1	+0.7	+0.0	36.3	50.0	-13.7	Black
94	27.067M	25.0	+9.6 +0.2	+0.5	+0.1	+0.6	+0.0	36.0	50.0	-14.0	Black
95	14.067M	25.6	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	35.9	50.0	-14.1	Black
96	446.699k	22.8	+9.6 +0.0	+0.1	+0.0	+0.1	+0.0	32.6	46.9	-14.3	Black
97	27.307M	24.7	+9.6 +0.2	+0.5	+0.1	+0.6	+0.0	35.7	50.0	-14.3	Black
98	27.657M	24.7	+9.6 +0.2	+0.5	+0.1	+0.6	+0.0	35.7	50.0	-14.3	Black
99	23.915M	24.6	+9.7 +0.2	+0.4	+0.1	+0.6	+0.0	35.6	50.0	-14.4	Black
100	24.498M	24.7	+9.6 +0.2	+0.4	+0.1	+0.6	+0.0	35.6	50.0	-14.4	Black
101	453.244k	22.4	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	32.3	46.8	-14.5	Black
102	27.198M	24.5	+9.6 +0.2	+0.5	+0.1	+0.6	+0.0	35.5	50.0	-14.5	Black
103	392.159k	23.6	+9.6 +0.0	+0.1	+0.0	+0.1	+0.0	33.4	48.0	-14.6	Black
104	297.622k	25.5	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	35.5	50.3	-14.8	Black
105	448.153k	22.0	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	31.9	46.9	-15.0	Black
106	13.716M	24.7	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	35.0	50.0	-15.0	Black
107	26.019M	23.9	+9.7 +0.2	+0.4	+0.1	+0.6	+0.0	34.9	50.0	-15.1	Black
108	29.061M	23.7	+9.6 +0.2	+0.5	+0.1	+0.8	+0.0	34.9	50.0	-15.1	Black
109	14.184M	24.5	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	34.8	50.0	-15.2	Black
110	21.211M	23.5	+9.7 +0.2	+0.4	+0.1	+0.8	+0.0	34.7	50.0	-15.3	Black
111	26.841M	23.6	+9.7 +0.2	+0.5	+0.1	+0.6	+0.0	34.7	50.0	-15.3	Black
112	435.791k	21.9	+9.6 +0.0	+0.1	+0.0	+0.1	+0.0	31.7	47.1	-15.4	Black
113	13.950M	24.3	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	34.6	50.0	-15.4	Black
114	20.625M	23.5	+9.7 +0.2	+0.4	+0.1	+0.7	+0.0	34.6	50.0	-15.4	Black
115	20.517M	23.2	+9.7 +0.2	+0.4	+0.1	+0.7	+0.0	34.3	50.0	-15.7	Black
116	28.828M	23.1	+9.6 +0.2	+0.5	+0.1	+0.7	+0.0	34.2	50.0	-15.8	Black
117	29.191M	23.0	+9.6 +0.2	+0.5	+0.1	+0.8	+0.0	34.2	50.0	-15.8	Black
118	27.506M	23.1	+9.6 +0.2	+0.5	+0.1	+0.6	+0.0	34.1	50.0	-15.9	Black

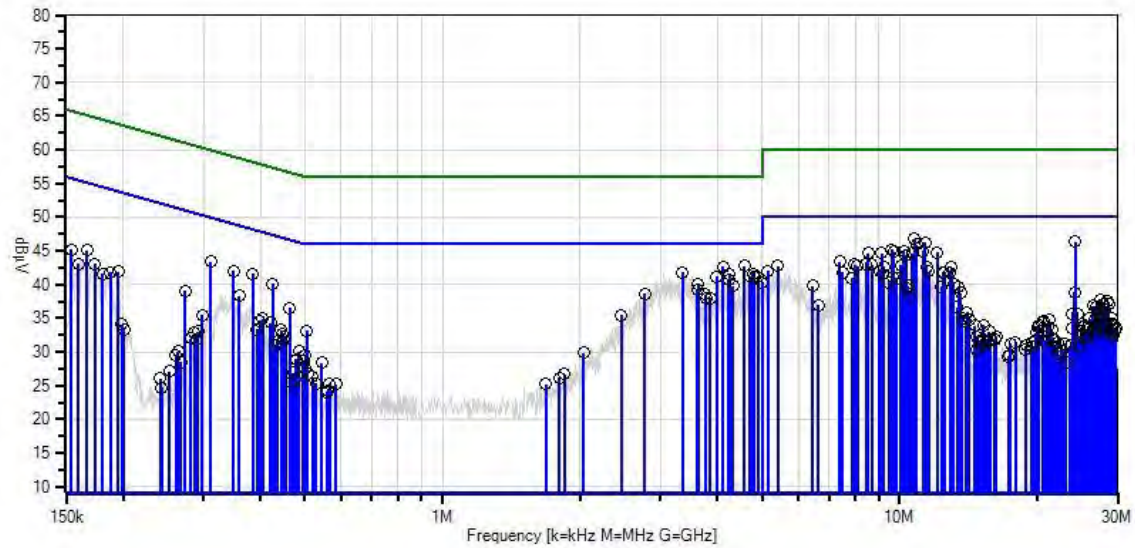
119	27.896M	23.1	+9.6 +0.2	+0.5	+0.1	+0.6	+0.0	34.1	50.0	-15.9	Black
120	29.294M	22.9	+9.6 +0.2	+0.5	+0.1	+0.8	+0.0	34.1	50.0	-15.9	Black
121	15.238M	23.6	+9.7 +0.1	+0.3	+0.1	+0.2	+0.0	34.0	50.0	-16.0	Black
122	20.157M	22.9	+9.7 +0.2	+0.4	+0.1	+0.7	+0.0	34.0	50.0	-16.0	Black
123	28.239M	22.9	+9.6 +0.2	+0.5	+0.1	+0.7	+0.0	34.0	50.0	-16.0	Black
124	2.038M	20.0	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	29.9	46.0	-16.1	Black
125	14.643M	23.6	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	33.9	50.0	-16.1	Black
126	25.430M	22.9	+9.7 +0.2	+0.4	+0.1	+0.6	+0.0	33.9	50.0	-16.1	Black
127	484.514k	20.2	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	30.1	46.3	-16.2	Black
128	431.428k	21.2	+9.6 +0.0	+0.1	+0.0	+0.1	+0.0	31.0	47.2	-16.2	Black
129	21.094M	22.7	+9.7 +0.2	+0.4	+0.1	+0.7	+0.0	33.8	50.0	-16.2	Black
130	20.049M	22.8	+9.6 +0.2	+0.4	+0.1	+0.7	+0.0	33.8	50.0	-16.2	Black
131	25.320M	22.8	+9.6 +0.2	+0.4	+0.1	+0.6	+0.0	33.7	50.0	-16.3	Black
132	25.896M	22.7	+9.7 +0.2	+0.4	+0.1	+0.6	+0.0	33.7	50.0	-16.3	Black
133	23.854M	22.5	+9.7 +0.2	+0.4	+0.1	+0.6	+0.0	33.5	50.0	-16.5	Black
134	501.239k	19.5	+9.7 +0.1	+0.1	+0.0	+0.1	+0.0	29.5	46.0	-16.5	Black
135	29.774M	22.2	+9.6 +0.2	+0.5	+0.1	+0.9	+0.0	33.5	50.0	-16.5	Black
136	26.601M	22.4	+9.7 +0.2	+0.5	+0.1	+0.6	+0.0	33.5	50.0	-16.5	Black
137	25.793M	22.4	+9.7 +0.2	+0.4	+0.1	+0.6	+0.0	33.4	50.0	-16.6	Black
138	21.562M	22.2	+9.7 +0.2	+0.4	+0.1	+0.8	+0.0	33.4	50.0	-16.6	Black
139	29.644M	22.2	+9.6 +0.2	+0.5	+0.1	+0.8	+0.0	33.4	50.0	-16.6	Black
140	26.540M	22.3	+9.7 +0.2	+0.5	+0.1	+0.6	+0.0	33.4	50.0	-16.6	Black
141	28.362M	22.1	+9.6 +0.2	+0.5	+0.1	+0.7	+0.0	33.2	50.0	-16.8	Black
142	20.977M	22.0	+9.7 +0.2	+0.4	+0.1	+0.7	+0.0	33.1	50.0	-16.9	Black
143	24.964M	22.2	+9.6 +0.2	+0.4	+0.1	+0.6	+0.0	33.1	50.0	-16.9	Black
144	15.706M	22.6	+9.7 +0.1	+0.3	+0.1	+0.2	+0.0	33.0	50.0	-17.0	Black

145	19.932M	21.9	+9.6 +0.2	+0.4	+0.1	+0.6	+0.0	32.8	50.0	-17.2	Black
146	28.945M	21.6	+9.6 +0.2	+0.5	+0.1	+0.7	+0.0	32.7	50.0	-17.3	Black
147	29.342M	21.4	+9.6 +0.2	+0.5	+0.1	+0.8	+0.0	32.6	50.0	-17.4	Black
148	291.804k	23.0	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	33.0	50.5	-17.5	Black
149	478.696k	19.0	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	28.9	46.4	-17.5	Black
150	495.422k	18.7	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	28.6	46.1	-17.5	Black
151	25.560M	21.4	+9.7 +0.2	+0.4	+0.1	+0.6	+0.0	32.4	50.0	-17.6	Black
152	543.417k	18.6	+9.5 +0.1	+0.1	+0.0	+0.1	+0.0	28.4	46.0	-17.6	Black
153	29.404M	21.2	+9.6 +0.2	+0.5	+0.1	+0.8	+0.0	32.4	50.0	-17.6	Black
154	26.725M	21.3	+9.7 +0.2	+0.5	+0.1	+0.6	+0.0	32.4	50.0	-17.6	Black
155	14.770M	22.0	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	32.3	50.0	-17.7	Black
156	16.310M	21.9	+9.7 +0.1	+0.3	+0.1	+0.2	+0.0	32.3	50.0	-17.7	Black
157	285.987k	22.8	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	32.8	50.6	-17.8	Black
158	24.840M	21.3	+9.6 +0.2	+0.4	+0.1	+0.6	+0.0	32.2	50.0	-17.8	Black
159	21.625M	20.9	+9.7 +0.2	+0.4	+0.1	+0.8	+0.0	32.1	50.0	-17.9	Black
160	25.676M	21.1	+9.7 +0.2	+0.4	+0.1	+0.6	+0.0	32.1	50.0	-17.9	Black
161	15.824M	21.5	+9.7 +0.1	+0.3	+0.1	+0.2	+0.0	31.9	50.0	-18.1	Black
162	16.175M	21.4	+9.7 +0.1	+0.3	+0.1	+0.2	+0.0	31.8	50.0	-18.2	Black
163	21.679M	20.6	+9.7 +0.2	+0.4	+0.1	+0.8	+0.0	31.8	50.0	-18.2	Black
164	15.589M	21.3	+9.7 +0.1	+0.3	+0.1	+0.2	+0.0	31.7	50.0	-18.3	Black
165	20.743M	20.6	+9.7 +0.2	+0.4	+0.1	+0.7	+0.0	31.7	50.0	-18.3	Black
166	15.004M	21.3	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	31.6	50.0	-18.4	Black
167	19.806M	20.7	+9.6 +0.2	+0.4	+0.1	+0.6	+0.0	31.6	50.0	-18.4	Black
168	15.121M	21.1	+9.7 +0.1	+0.3	+0.1	+0.2	+0.0	31.5	50.0	-18.5	Black
169	499.785k	17.5	+9.7 +0.1	+0.1	+0.0	+0.1	+0.0	27.5	46.0	-18.5	Black
170	19.445M	20.6	+9.6 +0.2	+0.4	+0.1	+0.6	+0.0	31.5	50.0	-18.5	Black

171	17.905M	20.9	+9.7 +0.1	+0.4	+0.1	+0.3	+0.0	31.5	50.0	-18.5	Black
172	289.623k	21.9	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	31.9	50.5	-18.6	Black
173	22.157M	20.2	+9.7 +0.2	+0.4	+0.1	+0.7	+0.0	31.3	50.0	-18.7	Black
174	281.623k	22.0	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	32.0	50.8	-18.8	Black
175	17.472M	20.7	+9.7 +0.1	+0.4	+0.1	+0.2	+0.0	31.2	50.0	-18.8	Black
176	23.085M	20.2	+9.7 +0.2	+0.4	+0.1	+0.6	+0.0	31.2	50.0	-18.8	Black
177	15.355M	20.5	+9.7 +0.1	+0.3	+0.1	+0.2	+0.0	30.9	50.0	-19.1	Black
178	18.959M	20.2	+9.6 +0.1	+0.4	+0.1	+0.5	+0.0	30.9	50.0	-19.1	Black
179	23.676M	19.9	+9.7 +0.2	+0.4	+0.1	+0.6	+0.0	30.9	50.0	-19.1	Black
180	506.330k	16.8	+9.7 +0.1	+0.1	+0.0	+0.1	+0.0	26.8	46.0	-19.2	Black
181	22.040M	19.7	+9.7 +0.2	+0.4	+0.1	+0.7	+0.0	30.8	50.0	-19.2	Black
182	24.731M	19.9	+9.6 +0.2	+0.4	+0.1	+0.6	+0.0	30.8	50.0	-19.2	Black
183	1.851M	16.8	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	26.7	46.0	-19.3	Black
184	15.049M	20.4	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	30.7	50.0	-19.3	Black
185	19.553M	19.8	+9.6 +0.2	+0.4	+0.1	+0.6	+0.0	30.7	50.0	-19.3	Black
186	471.424k	17.0	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	26.9	46.5	-19.6	Black
187	198.722k	24.1	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	34.1	53.7	-19.6	Black
188	18.878M	19.8	+9.6 +0.1	+0.4	+0.1	+0.4	+0.0	30.4	50.0	-19.6	Black
189	14.734M	20.1	+9.6 +0.1	+0.3	+0.1	+0.2	+0.0	30.4	50.0	-19.6	Black
190	519.420k	16.4	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	26.3	46.0	-19.7	Black
191	1.800M	16.3	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	26.2	46.0	-19.8	Black
192	22.743M	19.1	+9.7 +0.2	+0.4	+0.1	+0.7	+0.0	30.2	50.0	-19.8	Black
193	22.625M	19.0	+9.7 +0.2	+0.4	+0.1	+0.7	+0.0	30.1	50.0	-19.9	Black
194	200.903k	23.4	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	33.4	53.6	-20.2	Black
195	22.229M	18.6	+9.7 +0.2	+0.4	+0.1	+0.7	+0.0	29.7	50.0	-20.3	Black
196	475.060k	16.1	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	26.0	46.4	-20.4	Black

197	17.355M	18.9	+9.7 +0.1	+0.4	+0.1	+0.2	+0.0	29.4	50.0	-20.6	Black
198	528.873k	15.4	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	25.3	46.0	-20.7	Black
199	565.234k	15.4	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	25.3	46.0	-20.7	Black
200	584.141k	15.3	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	25.2	46.0	-20.8	Black
201	1.685M	15.3	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	25.2	46.0	-20.8	Black
202	17.292M	18.7	+9.7 +0.1	+0.4	+0.1	+0.2	+0.0	29.2	50.0	-20.8	Black
203	467.061k	15.6	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	25.5	46.6	-21.1	Black
204	263.443k	20.1	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	30.1	51.3	-21.2	Black
205	23.130M	17.4	+9.7 +0.2	+0.4	+0.1	+0.6	+0.0	28.4	50.0	-21.6	Black
206	563.052k	14.4	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	24.3	46.0	-21.7	Black
207	558.689k	14.2	+9.6 +0.1	+0.1	+0.0	+0.1	+0.0	24.1	46.0	-21.9	Black
208	260.534k	19.4	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	29.4	51.4	-22.0	Black
209	267.806k	18.5	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	28.5	51.2	-22.7	Black
210	252.535k	17.1	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	27.1	51.7	-24.6	Black
211	241.627k	16.1	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	26.1	52.0	-25.9	Black
212	243.081k	14.7	+9.6 +0.2	+0.1	+0.0	+0.1	+0.0	24.7	52.0	-27.3	Black

CKC Laboratories, Inc Date: 5/9/2014 Time: 10:42:53 AM Enlighted, Inc WO#: 95673
Test Lead: Black 120V 60Hz Sequence#: 1



— Sweep Data
○ Peak Readings
* Average Readings
— Readings
× QP Readings
▼ Ambient
— 1 - 15.207 AC Mains - Average
— 2 - 15.207 AC Mains - Quasi-peak

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**
 Specification: **15.207 AC Mains - Average**
 Work Order #: **95673**
 Test Type: **Conducted Emissions**
 Equipment: **Sensor**
 Manufacturer: **Enlighted, Inc.**
 Model: **RS-2b/SU-2b**
 S/N: **ENG 1**

Date: 5/9/2014
 Time: 10:47:30 AM
 Sequence#: 2
 Tested By: Hieu Song Nguyenpham
 120V 60Hz

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANP01211	Attenuator	PE7002-10	4/2/2013	4/2/2015
T2	ANP00880	Cable	RG214U	7/30/2012	7/30/2014
T3	ANP05300	Cable	RG214/U	3/25/2013	3/25/2015
	AN00493	50uH LISN-L1 (L) Loss W/O European Adapter	3816/NM	3/4/2013	3/4/2015
T4	AN00493	50uH LISN-L(2) N Loss W/O European Adapter	3816/NM	3/4/2013	3/4/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
T5	ANP05258	High Pass Filter	HE9615-150K- 50-720B	12/6/2012	12/6/2014

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM1111-00	CN-01XRN1-48661-39B- CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Conducted Emission
Frequency Range: 150kHz to 30MHz
Firmware Used: Version 2.6.2
Application: PuTTY

Temperature: 21.3°C
Humidity: 43 %
Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz
Transmitting operating frequency= 2.4GHz Band
RF Output= 0dBm
Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits next to it. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by RS 232 cable. The EUT is set continuously transmit.

Ext Attn: 0 dB

Measurement Data:		Reading listed by margin.						Test Lead: White			
#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV	dBμV	dB	Ant
1	10.779M	36.3	+9.7 +0.0	+0.3	+0.1	+0.7	+0.0	47.1	50.0	-2.9	White
2	4.479M	32.2	+9.7 +0.2	+0.2	+0.1	+0.6	+0.0	43.0	46.0	-3.0	White
3	24.210M	34.9	+9.6 +0.2	+0.4	+0.1	+1.0	+0.0	46.2	50.0	-3.8	White
4	4.101M	31.4	+9.6 +0.1	+0.2	+0.1	+0.6	+0.0	42.0	46.0	-4.0	White
5	4.573M	31.0	+9.7 +0.2	+0.2	+0.1	+0.7	+0.0	41.9	46.0	-4.1	White
6	11.256M	34.8	+9.7 +0.1	+0.3	+0.1	+0.7	+0.0	45.7	50.0	-4.3	White
7	11.364M	34.9	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	45.7	50.0	-4.3	White
8	12.103M	34.9	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	45.7	50.0	-4.3	White
9	3.021M	30.9	+9.6 +0.1	+0.2	+0.0	+0.6	+0.0	41.4	46.0	-4.6	White
10	3.046M	30.8	+9.6 +0.1	+0.2	+0.0	+0.6	+0.0	41.3	46.0	-4.7	White
11	4.909M	30.5	+9.5 +0.2	+0.2	+0.1	+0.7	+0.0	41.2	46.0	-4.8	White
12	9.734M	34.3	+9.6 +0.0	+0.3	+0.1	+0.8	+0.0	45.1	50.0	-4.9	White
13	10.661M	34.3	+9.7 +0.0	+0.3	+0.1	+0.7	+0.0	45.1	50.0	-4.9	White
14	10.193M	34.1	+9.7 +0.0	+0.3	+0.1	+0.8	+0.0	45.0	50.0	-5.0	White

15	4.888M	29.9	+9.5 +0.2	+0.2	+0.1	+0.7	+0.0	40.6	46.0	-5.4	White
16	10.310M	33.6	+9.7 +0.0	+0.3	+0.1	+0.8	+0.0	44.5	50.0	-5.5	White
17	387.069k	31.9	+9.6 +0.0	+0.1	+0.0	+0.6	+0.0	42.2	48.1	-5.9	White
18	4.224M	29.5	+9.6 +0.1	+0.2	+0.1	+0.6	+0.0	40.1	46.0	-5.9	White
19	426.338k	31.0	+9.6 +0.0	+0.1	+0.0	+0.6	+0.0	41.3	47.3	-6.0	White
20	9.607M	33.1	+9.6 +0.0	+0.3	+0.1	+0.8	+0.0	43.9	50.0	-6.1	White
21	9.139M	32.5	+9.6 +0.1	+0.3	+0.1	+0.8	+0.0	43.4	50.0	-6.6	White
22	307.804k	32.7	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	43.2	50.0	-6.8	White
23	8.562M	32.2	+9.7 +0.1	+0.3	+0.1	+0.7	+0.0	43.1	50.0	-6.9	White
24	347.800k	31.4	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	41.8	49.0	-7.2	White
25	5.274M	32.0	+9.6 +0.2	+0.2	+0.1	+0.7	+0.0	42.8	50.0	-7.2	White
26	10.887M	32.0	+9.7 +0.0	+0.3	+0.1	+0.7	+0.0	42.8	50.0	-7.2	White
27	10.076M	31.8	+9.7 +0.0	+0.3	+0.1	+0.8	+0.0	42.7	50.0	-7.3	White
28	8.679M	31.7	+9.7 +0.1	+0.3	+0.1	+0.7	+0.0	42.6	50.0	-7.4	White
29	4.152M	27.9	+9.6 +0.1	+0.2	+0.1	+0.6	+0.0	38.5	46.0	-7.5	White
30	9.256M	31.6	+9.6 +0.1	+0.3	+0.1	+0.8	+0.0	42.5	50.0	-7.5	White
31	4.016M	27.8	+9.6 +0.1	+0.2	+0.1	+0.6	+0.0	38.4	46.0	-7.6	White
32	8.085M	31.6	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	42.4	50.0	-7.6	White
33	9.031M	31.4	+9.6 +0.1	+0.3	+0.1	+0.8	+0.0	42.3	50.0	-7.7	White
34	10.436M	31.4	+9.7 +0.0	+0.3	+0.1	+0.7	+0.0	42.2	50.0	-7.8	White
35	11.022M	31.3	+9.7 +0.1	+0.3	+0.1	+0.7	+0.0	42.2	50.0	-7.8	White
36	7.968M	31.3	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	42.1	50.0	-7.9	White
37	8.445M	31.3	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	42.1	50.0	-7.9	White
38	13.013M	31.3	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	42.1	50.0	-7.9	White
39	11.716M	31.2	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	42.0	50.0	-8.0	White
40	11.139M	31.0	+9.7 +0.1	+0.3	+0.1	+0.7	+0.0	41.9	50.0	-8.1	White

41	11.490M	31.1	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	41.9	50.0	-8.1	White
42	463.426k	28.0	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	38.4	46.6	-8.2	White
43	5.157M	31.0	+9.6 +0.2	+0.2	+0.1	+0.7	+0.0	41.8	50.0	-8.2	White
44	8.112M	31.0	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	41.8	50.0	-8.2	White
45	9.851M	30.9	+9.6 +0.0	+0.3	+0.1	+0.8	+0.0	41.7	50.0	-8.3	White
46	12.418M	30.8	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	41.6	50.0	-8.4	White
47	12.896M	30.7	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	41.5	50.0	-8.5	White
48	7.391M	30.7	+9.6 +0.1	+0.2	+0.1	+0.7	+0.0	41.4	50.0	-8.6	White
49	175.452k	35.2	+9.6 +0.3	+0.1	+0.0	+0.6	+0.0	45.8	54.7	-8.9	White
50	5.053M	30.2	+9.6 +0.2	+0.2	+0.1	+0.7	+0.0	41.0	50.0	-9.0	White
51	7.499M	30.1	+9.6 +0.1	+0.2	+0.1	+0.7	+0.0	40.8	50.0	-9.2	White
52	166.726k	35.1	+9.6 +0.4	+0.1	+0.0	+0.6	+0.0	45.8	55.1	-9.3	White
53	9.679M	29.7	+9.6 +0.0	+0.3	+0.1	+0.8	+0.0	40.5	50.0	-9.5	White
54	10.382M	29.7	+9.7 +0.0	+0.3	+0.1	+0.7	+0.0	40.5	50.0	-9.5	White
55	12.544M	29.7	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	40.5	50.0	-9.5	White
56	9.499M	29.6	+9.6 +0.0	+0.3	+0.1	+0.8	+0.0	40.4	50.0	-9.6	White
57	12.184M	29.6	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	40.4	50.0	-9.6	White
58	12.292M	29.4	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	40.2	50.0	-9.8	White
59	12.454M	29.4	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	40.2	50.0	-9.8	White
60	12.968M	29.4	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	40.2	50.0	-9.8	White
61	12.247M	29.1	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	39.9	50.0	-10.1	White
62	189.996k	33.2	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	43.7	54.0	-10.3	White
63	5.968M	28.3	+9.7 +0.1	+0.2	+0.1	+0.7	+0.0	39.1	50.0	-10.9	White
64	6.571M	28.1	+9.6 +0.1	+0.2	+0.1	+0.7	+0.0	38.8	50.0	-11.2	White
65	13.481M	28.0	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	38.8	50.0	-11.2	White
66	13.598M	27.9	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	38.7	50.0	-11.3	White

67	24.258M	27.4	+9.6 +0.2	+0.4	+0.1	+1.0	+0.0	38.7	50.0	-11.3	White
68	416.157k	25.7	+9.6 +0.0	+0.1	+0.0	+0.6	+0.0	36.0	47.5	-11.5	White
69	449.609k	24.6	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	35.0	46.9	-11.9	White
70	152.909k	31.8	+9.7 +1.6	+0.0	+0.0	+0.6	+0.0	43.7	55.8	-12.1	White
71	405.977k	24.9	+9.6 +0.0	+0.1	+0.0	+0.6	+0.0	35.2	47.7	-12.5	White
72	28.588M	26.0	+9.6 +0.2	+0.5	+0.1	+1.1	+0.0	37.5	50.0	-12.5	White
73	501.968k	22.8	+9.7 +0.1	+0.1	+0.0	+0.6	+0.0	33.3	46.0	-12.7	White
74	361.617k	25.5	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	35.9	48.7	-12.8	White
75	9.391M	26.3	+9.6 +0.1	+0.3	+0.1	+0.8	+0.0	37.2	50.0	-12.8	White
76	13.364M	26.4	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	37.2	50.0	-12.8	White
77	28.006M	25.7	+9.6 +0.2	+0.5	+0.1	+1.0	+0.0	37.1	50.0	-12.9	White
78	2.366M	22.6	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	33.0	46.0	-13.0	White
79	13.247M	26.0	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	36.8	50.0	-13.2	White
80	14.067M	25.8	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	36.6	50.0	-13.4	White
81	15.706M	25.7	+9.7 +0.1	+0.3	+0.1	+0.7	+0.0	36.6	50.0	-13.4	White
82	24.498M	25.3	+9.6 +0.2	+0.4	+0.1	+1.0	+0.0	36.6	50.0	-13.4	White
83	321.621k	25.7	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	36.2	49.7	-13.5	White
84	15.238M	25.6	+9.7 +0.1	+0.3	+0.1	+0.7	+0.0	36.5	50.0	-13.5	White
85	303.440k	25.9	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	36.4	50.1	-13.7	White
86	26.485M	24.6	+9.7 +0.2	+0.5	+0.1	+1.0	+0.0	36.1	50.0	-13.9	White
87	457.608k	22.3	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	32.7	46.7	-14.0	White
88	28.123M	24.6	+9.6 +0.2	+0.5	+0.1	+1.0	+0.0	36.0	50.0	-14.0	White
89	269.262k	26.5	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	37.0	51.1	-14.1	White
90	16.292M	24.9	+9.7 +0.1	+0.3	+0.1	+0.7	+0.0	35.8	50.0	-14.2	White
91	14.184M	25.0	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	35.8	50.0	-14.2	White
92	28.493M	24.4	+9.6 +0.2	+0.5	+0.1	+1.0	+0.0	35.8	50.0	-14.2	White

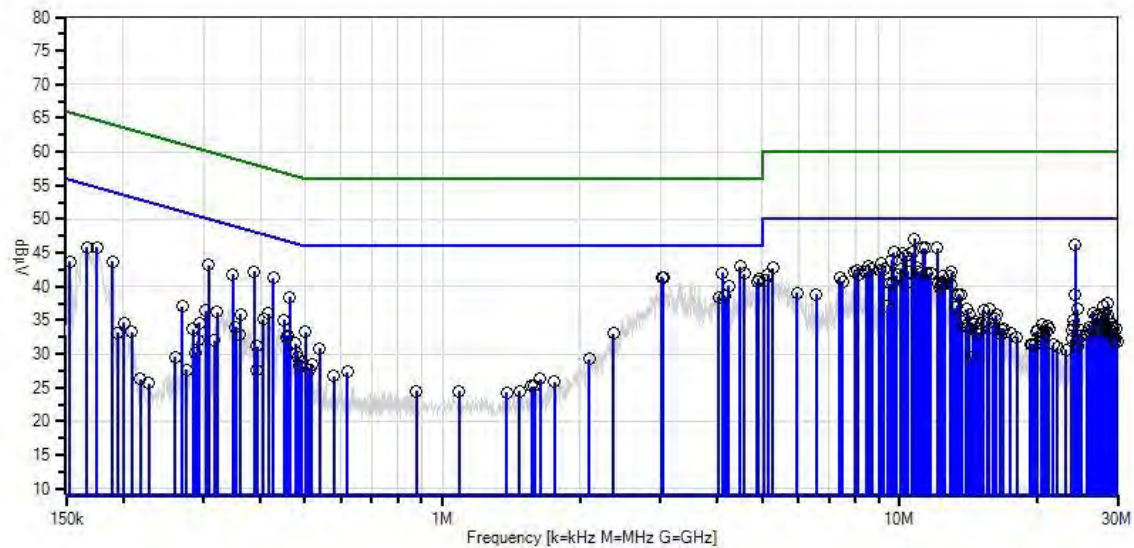
93	27.540M	24.4	+9.6 +0.2	+0.5	+0.1	+1.0	+0.0	35.8	50.0	-14.2	White
94	455.427k	22.0	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	32.4	46.8	-14.4	White
95	26.951M	24.2	+9.6 +0.2	+0.5	+0.1	+1.0	+0.0	35.6	50.0	-14.4	White
96	27.417M	23.9	+9.6 +0.2	+0.5	+0.1	+1.0	+0.0	35.3	50.0	-14.7	White
97	27.657M	23.8	+9.6 +0.2	+0.5	+0.1	+1.0	+0.0	35.2	50.0	-14.8	White
98	476.515k	21.2	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	31.6	46.4	-14.8	White
99	352.890k	23.6	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	34.0	48.9	-14.9	White
100	16.175M	24.2	+9.7 +0.1	+0.3	+0.1	+0.7	+0.0	35.1	50.0	-14.9	White
101	24.107M	23.6	+9.6 +0.2	+0.4	+0.1	+1.1	+0.0	35.0	50.0	-15.0	White
102	28.712M	23.4	+9.6 +0.2	+0.5	+0.1	+1.1	+0.0	34.9	50.0	-15.1	White
103	538.328k	20.5	+9.5 +0.1	+0.1	+0.0	+0.6	+0.0	30.8	46.0	-15.2	White
104	13.716M	24.0	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	34.8	50.0	-15.2	White
105	14.652M	24.0	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	34.8	50.0	-15.2	White
106	15.112M	23.7	+9.7 +0.1	+0.3	+0.1	+0.7	+0.0	34.6	50.0	-15.4	White
107	15.589M	23.7	+9.7 +0.1	+0.3	+0.1	+0.7	+0.0	34.6	50.0	-15.4	White
108	29.061M	22.9	+9.6 +0.2	+0.5	+0.1	+1.1	+0.0	34.4	50.0	-15.6	White
109	14.535M	23.5	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	34.3	50.0	-15.7	White
110	20.517M	22.8	+9.7 +0.2	+0.4	+0.1	+1.1	+0.0	34.3	50.0	-15.7	White
111	21.094M	22.7	+9.7 +0.2	+0.4	+0.1	+1.1	+0.0	34.2	50.0	-15.8	White
112	293.987k	24.1	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	34.6	50.4	-15.8	White
113	26.834M	22.7	+9.7 +0.2	+0.5	+0.1	+1.0	+0.0	34.2	50.0	-15.8	White
114	24.032M	22.8	+9.6 +0.2	+0.4	+0.1	+1.1	+0.0	34.2	50.0	-15.8	White
115	360.163k	22.4	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	32.8	48.7	-15.9	White
116	13.950M	23.3	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	34.1	50.0	-15.9	White
117	26.026M	22.6	+9.7 +0.2	+0.4	+0.1	+1.0	+0.0	34.0	50.0	-16.0	White
118	14.139M	23.1	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	33.9	50.0	-16.1	White

119	480.152k	19.8	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	30.2	46.3	-16.1	White
120	28.410M	22.5	+9.6 +0.2	+0.5	+0.1	+1.0	+0.0	33.9	50.0	-16.1	White
121	29.178M	22.4	+9.6 +0.2	+0.5	+0.1	+1.1	+0.0	33.9	50.0	-16.1	White
122	28.828M	22.4	+9.6 +0.2	+0.5	+0.1	+1.1	+0.0	33.9	50.0	-16.1	White
123	16.878M	22.8	+9.7 +0.1	+0.3	+0.1	+0.8	+0.0	33.8	50.0	-16.2	White
124	16.049M	22.9	+9.7 +0.1	+0.3	+0.1	+0.7	+0.0	33.8	50.0	-16.2	White
125	21.220M	22.3	+9.7 +0.2	+0.4	+0.1	+1.1	+0.0	33.8	50.0	-16.2	White
126	27.574M	22.4	+9.6 +0.2	+0.5	+0.1	+1.0	+0.0	33.8	50.0	-16.2	White
127	26.375M	22.3	+9.7 +0.2	+0.5	+0.1	+1.0	+0.0	33.8	50.0	-16.2	White
128	14.706M	22.9	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	33.7	50.0	-16.3	White
129	29.418M	22.2	+9.6 +0.2	+0.5	+0.1	+1.1	+0.0	33.7	50.0	-16.3	White
130	29.767M	22.1	+9.6 +0.2	+0.5	+0.1	+1.2	+0.0	33.7	50.0	-16.3	White
131	23.902M	22.1	+9.7 +0.2	+0.4	+0.1	+1.1	+0.0	33.6	50.0	-16.4	White
132	16.752M	22.6	+9.7 +0.1	+0.3	+0.1	+0.8	+0.0	33.6	50.0	-16.4	White
133	27.314M	22.2	+9.6 +0.2	+0.5	+0.1	+1.0	+0.0	33.6	50.0	-16.4	White
134	28.952M	22.1	+9.6 +0.2	+0.5	+0.1	+1.1	+0.0	33.6	50.0	-16.4	White
135	28.328M	22.2	+9.6 +0.2	+0.5	+0.1	+1.0	+0.0	33.6	50.0	-16.4	White
136	20.040M	22.1	+9.6 +0.2	+0.4	+0.1	+1.1	+0.0	33.5	50.0	-16.5	White
137	24.977M	22.2	+9.6 +0.2	+0.4	+0.1	+1.0	+0.0	33.5	50.0	-16.5	White
138	26.601M	22.0	+9.7 +0.2	+0.5	+0.1	+1.0	+0.0	33.5	50.0	-16.5	White
139	20.959M	21.9	+9.7 +0.2	+0.4	+0.1	+1.1	+0.0	33.4	50.0	-16.6	White
140	19.923M	21.9	+9.6 +0.2	+0.4	+0.1	+1.1	+0.0	33.3	50.0	-16.7	White
141	28.239M	21.9	+9.6 +0.2	+0.5	+0.1	+1.0	+0.0	33.3	50.0	-16.7	White
142	2.093M	18.8	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	29.2	46.0	-16.8	White
143	15.004M	22.4	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	33.2	50.0	-16.8	White
144	483.060k	19.0	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	29.4	46.3	-16.9	White

145	392.887k	20.8	+9.6 +0.0	+0.1	+0.0	+0.6	+0.0	31.1	48.0	-16.9	White
146	20.625M	21.6	+9.7 +0.2	+0.4	+0.1	+1.1	+0.0	33.1	50.0	-16.9	White
147	14.770M	22.3	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	33.1	50.0	-16.9	White
148	284.533k	23.2	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	33.7	50.7	-17.0	White
149	17.463M	21.9	+9.7 +0.1	+0.4	+0.1	+0.8	+0.0	33.0	50.0	-17.0	White
150	16.625M	21.8	+9.7 +0.1	+0.3	+0.1	+0.8	+0.0	32.8	50.0	-17.2	White
151	25.786M	21.4	+9.7 +0.2	+0.4	+0.1	+1.0	+0.0	32.8	50.0	-17.2	White
152	25.896M	21.4	+9.7 +0.2	+0.4	+0.1	+1.0	+0.0	32.8	50.0	-17.2	White
153	491.787k	18.4	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	28.8	46.1	-17.3	White
154	24.834M	21.4	+9.6 +0.2	+0.4	+0.1	+1.0	+0.0	32.7	50.0	-17.3	White
155	517.239k	18.0	+9.7 +0.1	+0.1	+0.0	+0.6	+0.0	28.5	46.0	-17.5	White
156	18.049M	21.4	+9.6 +0.1	+0.4	+0.1	+0.9	+0.0	32.5	50.0	-17.5	White
157	29.664M	21.0	+9.6 +0.2	+0.5	+0.1	+1.1	+0.0	32.5	50.0	-17.5	White
158	20.400M	20.8	+9.7 +0.2	+0.4	+0.1	+1.1	+0.0	32.3	50.0	-17.7	White
159	316.530k	21.5	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	32.0	49.8	-17.8	White
160	23.792M	20.7	+9.7 +0.2	+0.4	+0.1	+1.1	+0.0	32.2	50.0	-17.8	White
161	24.614M	20.8	+9.6 +0.2	+0.4	+0.1	+1.0	+0.0	32.1	50.0	-17.9	White
162	487.424k	17.8	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	28.2	46.2	-18.0	White
163	29.527M	20.4	+9.6 +0.2	+0.5	+0.1	+1.1	+0.0	31.9	50.0	-18.1	White
164	29.897M	20.2	+9.6 +0.2	+0.5	+0.1	+1.2	+0.0	31.8	50.0	-18.2	White
165	510.694k	17.1	+9.7 +0.1	+0.1	+0.0	+0.6	+0.0	27.6	46.0	-18.4	White
166	291.805k	21.5	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	32.0	50.5	-18.5	White
167	19.337M	20.1	+9.6 +0.2	+0.4	+0.1	+1.1	+0.0	31.5	50.0	-18.5	White
168	19.571M	20.0	+9.6 +0.2	+0.4	+0.1	+1.1	+0.0	31.4	50.0	-18.6	White
169	618.321k	16.8	+9.7 +0.1	+0.1	+0.0	+0.6	+0.0	27.3	46.0	-18.7	White
170	19.806M	19.9	+9.6 +0.2	+0.4	+0.1	+1.1	+0.0	31.3	50.0	-18.7	White

171	21.679M	19.8	+9.7 +0.2	+0.4	+0.1	+1.1	+0.0	31.3	50.0	-18.7	White
172	24.559M	19.9	+9.6 +0.2	+0.4	+0.1	+1.0	+0.0	31.2	50.0	-18.8	White
173	200.904k	24.1	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	34.6	53.6	-19.0	White
174	22.148M	19.4	+9.7 +0.2	+0.4	+0.1	+1.1	+0.0	30.9	50.0	-19.1	White
175	579.052k	16.3	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	26.7	46.0	-19.3	White
176	23.094M	19.0	+9.7 +0.2	+0.4	+0.1	+1.2	+0.0	30.6	50.0	-19.4	White
177	1.634M	15.8	+9.7 +0.1	+0.1	+0.0	+0.6	+0.0	26.3	46.0	-19.7	White
178	208.904k	22.7	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	33.2	53.2	-20.0	White
179	1.758M	15.4	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	25.8	46.0	-20.2	White
180	391.432k	17.4	+9.6 +0.0	+0.1	+0.0	+0.6	+0.0	27.7	48.0	-20.3	White
181	288.896k	19.7	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	30.2	50.6	-20.4	White
182	14.418M	18.8	+9.6 +0.1	+0.3	+0.1	+0.7	+0.0	29.6	50.0	-20.4	White
183	194.360k	22.6	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	33.1	53.8	-20.7	White
184	1.566M	14.8	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	25.2	46.0	-20.8	White
185	1.587M	14.7	+9.7 +0.1	+0.1	+0.0	+0.6	+0.0	25.2	46.0	-20.8	White
186	877.205k	14.0	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	24.5	46.0	-21.5	White
187	1.086M	14.1	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	24.5	46.0	-21.5	White
188	1.477M	14.1	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	24.5	46.0	-21.5	White
189	1.383M	13.9	+9.6 +0.1	+0.1	+0.0	+0.6	+0.0	24.3	46.0	-21.7	White
190	259.808k	19.0	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	29.5	51.4	-21.9	White
191	275.807k	17.2	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	27.7	50.9	-23.2	White
192	218.357k	15.8	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	26.3	52.9	-26.6	White
193	227.811k	15.1	+9.6 +0.2	+0.1	+0.0	+0.6	+0.0	25.6	52.5	-26.9	White

CKC Laboratories, Inc Date: 5/9/2014 Time: 10:47:30 AM Enlighted, Inc WO#: 95673
Test Lead: White 120V 60Hz Sequence#: 2



— Sweep Data	— Readings
○ Peak Readings	× QP Readings
* Average Readings	▼ Ambient
— 1 - 15.207 AC Mains - Average	— 2 - 15.207 AC Mains - Quasi-peak

Test Setup Photos



15.31(e) Voltage Variations

Test Conditions / Setup

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**

Specification: **15.31e**

Work Order #: **95673**

Test Type: **Radiated Scan**

Equipment: **Sensor**

Manufacturer: Enlighted, Inc.

Model: RS-2b/SU-2b

S/N: ENG 1

Date: 5/9/2014

Time: 14:32:57

Sequence#: 5

Tested By: Hieu Song Nguyenpham

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02157	Horn Antenna-ANSI C63.5	3115	1/23/2013	1/23/2015
T2	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
T3	ANP01210	Cable	FSJ1P-50A-4A	2/19/2013	2/19/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Firmware Used: Version 2.6.2

Application: PuTTY

Temperature: 21.3°C

Humidity: 43 %

Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz

Transmitting operating frequency = 2.4GHz Band

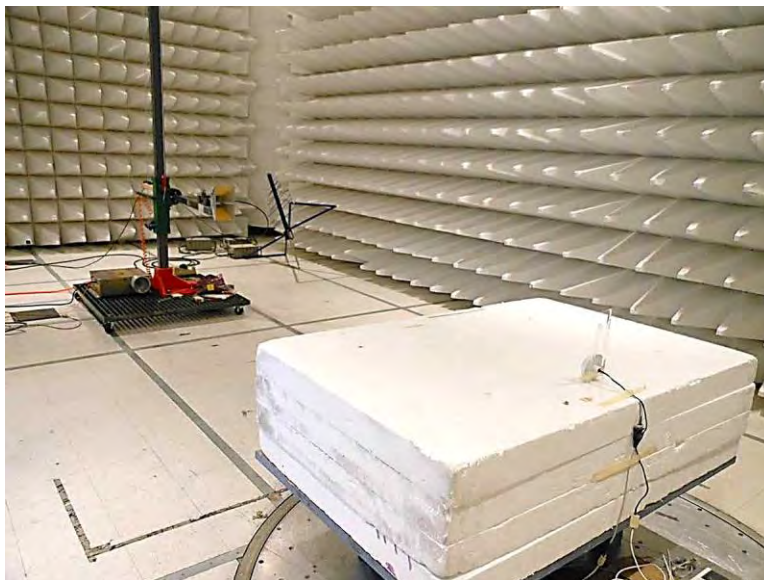
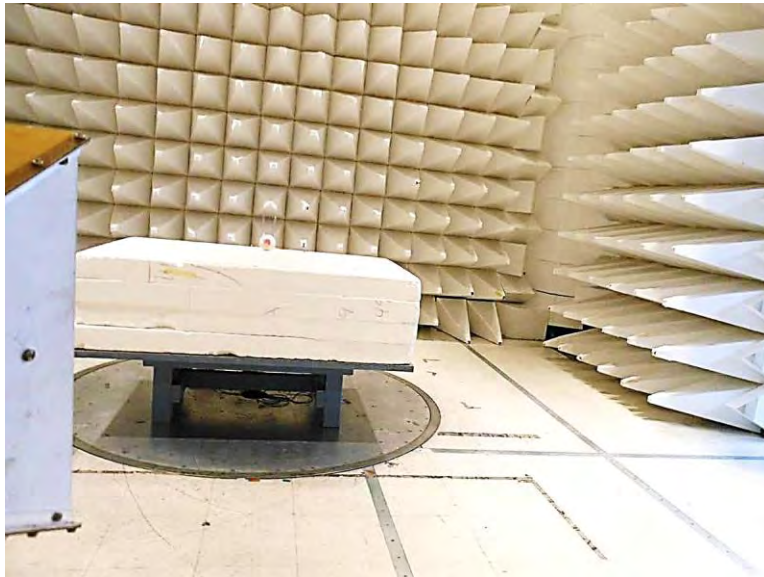
RF Output \approx 0dBm

Gain of the antenna = 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits next to it. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by RS 232 cable. The EUT is set continuously transmitting

15.31(e). Adjusted the DC voltage : +/- 15% of the manufacturer declared nominal rated supply voltage of 12VDC to 24VDC (i.e., 10.2VDC and 27.6VDC), the Fundamental power level remains unchanged

Test Setup Photos



15.247(a)(2) Occupied Bandwidth

Test Conditions / Setup

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**

Specification: **OBW Set up**

Work Order #: **95673**

Test Type: **Radiated Scan**

Equipment: **Sensor**

Manufacturer: Enlighted, Inc.

Model: RS-2b/SU-2b

S/N: ENG 1

Date: 5/9/2014

Time: 14:32:57

Sequence#: 5

Tested By: Hieu Song Nguyenpham

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02157	Horn Antenna-ANSI C63.5	3115	1/23/2013	1/23/2015
T2	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
T3	ANP01210	Cable	FSJ1P-50A-4A	2/19/2013	2/19/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

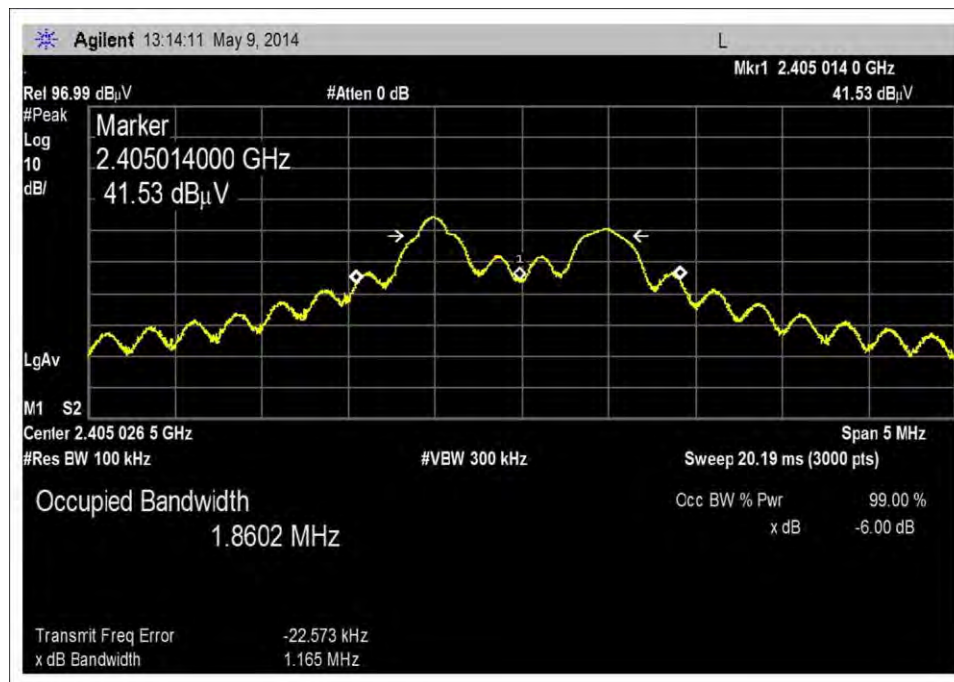
OBW Set up
Firmware Used: Version 2.6.2
Application: PuTTY

Temperature: 21.3°C
Humidity: 43 %
Atmospheric Pressure: 101.0 kPa

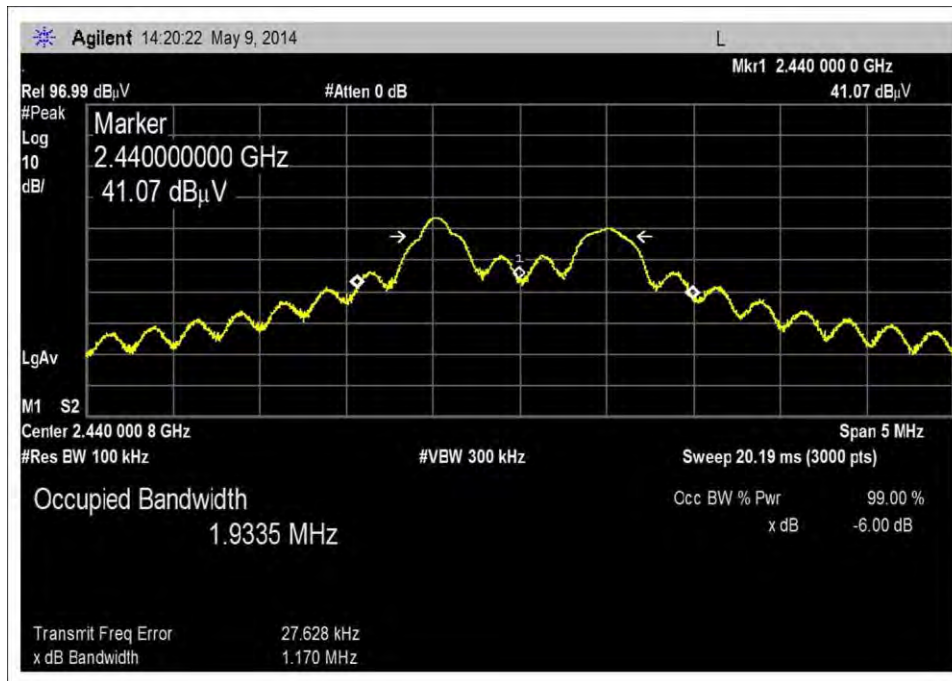
High Clock: 16MHz
Transmitting operating frequency= 2.4GHz Band
RF Output= 0dBm
Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits next to it. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.

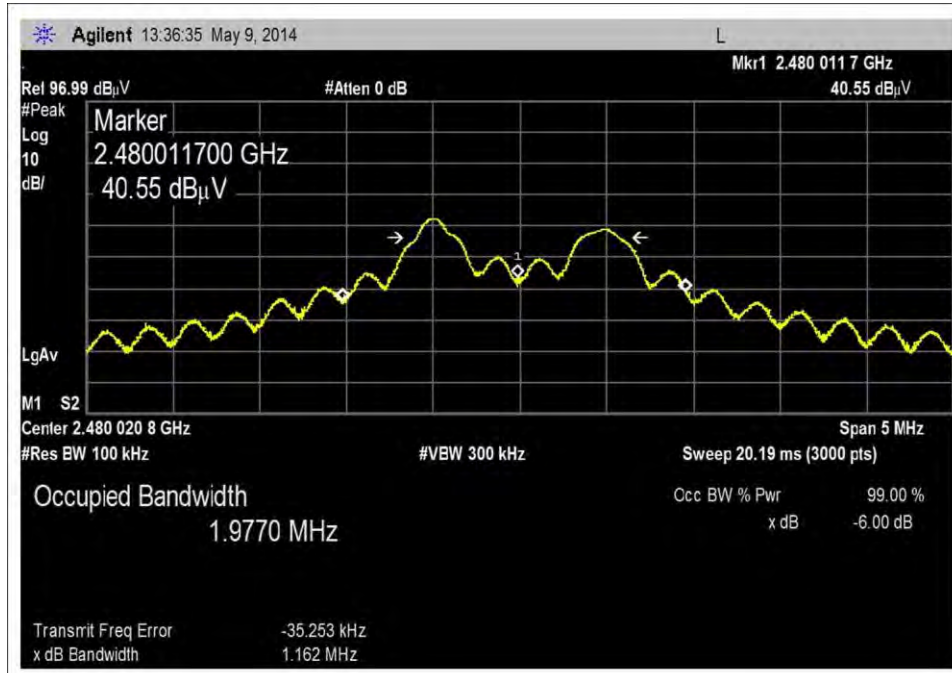
Test Data



Low Channel

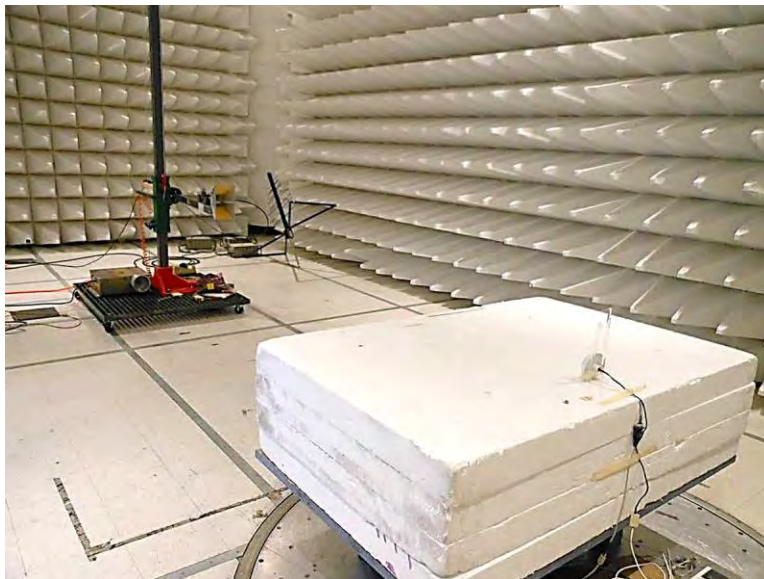
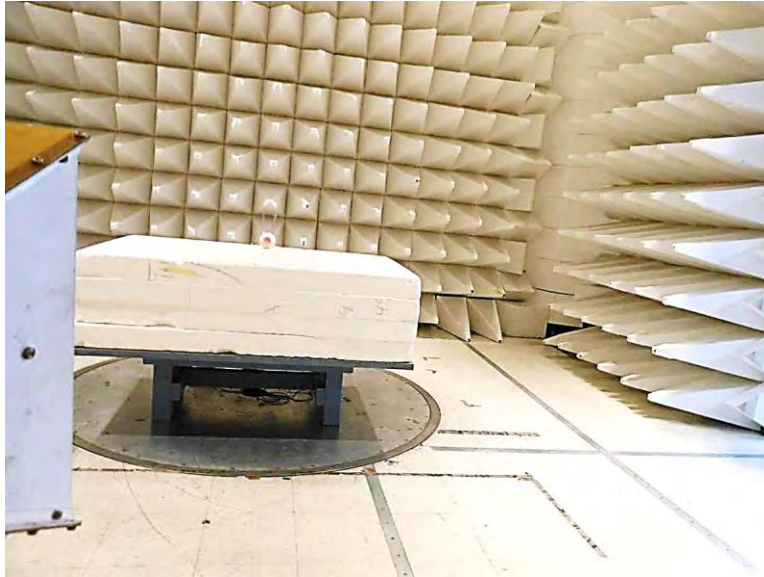


Middle Channel



High Channel

Test Setup Photos



15.247(b)(3) RF Power Output

Test Conditions / Setup

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**

Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**

Work Order #: **95673**

Date: 5/9/2014

Test Type: **Radiated Scan**

Time: 14:32:57

Equipment: **Sensor**

Sequence#: 5

Manufacturer: Enlighted, Inc.

Tested By: Hieu Song Nguyenpham

Model: RS-2b/SU-2b

S/N: ENG 1

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02157	Horn Antenna-ANSI C63.5	3115	1/23/2013	1/23/2015
T2	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
T3	ANP01210	Cable	FSJ1P-50A-4A	2/19/2013	2/19/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Fundamental of the EUT
RBW=3MHz
VBW=8MHz
Firmware Used: Version 2.6.2
Application: PuTTY
Temperature: 21.3°C
Humidity: 43 %
Atmospheric Pressure: 101.0 kPa
High Clock: 16MHz
Transmitting operating frequency= 2.4GHz Band
RF Output= 0dBm
Gain of the antenna= 0dBi
The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits next to it. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.

Ext Attn: 0 dB

Measurement Data:		Reading listed by margin.				Test Distance: 3 Meters					
#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB		Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	2404.534M	63.0	+28.6	+1.2	+2.7		+0.0	95.5	125.2	-29.7	Horiz
									Low Channel		
2	2439.542M	62.5	+28.7	+1.2	+2.7		+0.0	95.1	125.2	-30.1	Horiz
									Middle Channel		
3	2479.345M	61.1	+28.9	+1.2	+2.7		+0.0	93.9	125.2	-31.3	Horiz
									High Channel		
4	2404.534M	60.1	+28.6	+1.2	+2.7		+0.0	92.6	125.2	-32.6	Vert
									Low Channel		
5	2439.542M	58.7	+28.7	+1.2	+2.7		+0.0	91.3	125.2	-33.9	Vert
									Middle Channel		
6	2479.345M	58.0	+28.9	+1.2	+2.7		+0.0	90.8	125.2	-34.4	Vert
									High Channel		

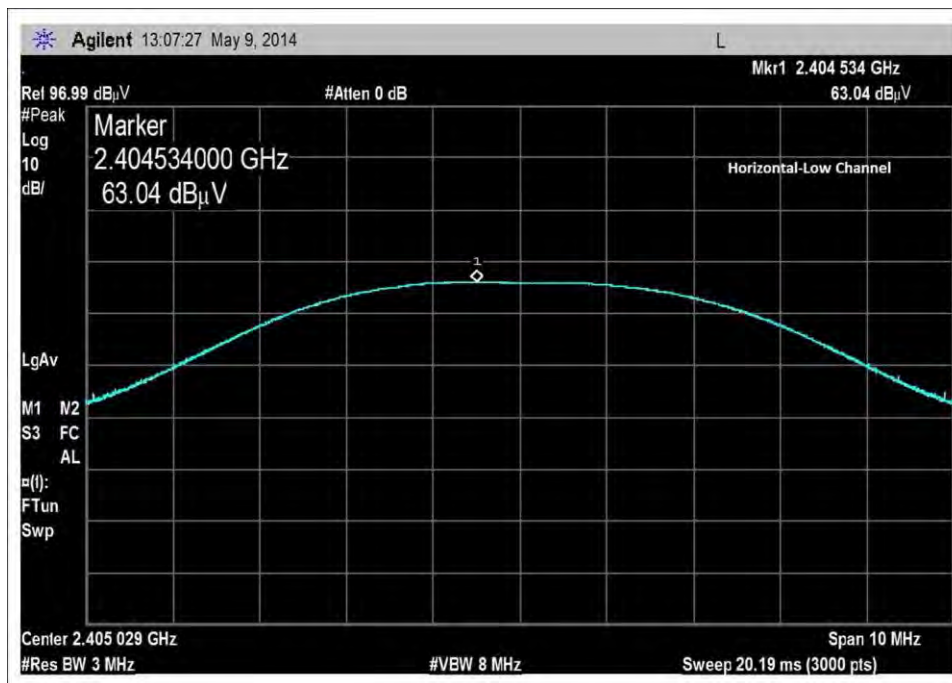
Convert equivalent electric field strength to the resultant power level

Frequency (MHz)	Measured Power in Watts	Power Limit in Watts	Pass/Fail
2404.534 Low Channel (Horizontal)	1.0644E-03	1.00	Pass
2404.534 Low Channel (Vertical)	5.4591E-04	1.00	Pass
2439.542 Middle Channel (Horizontal)	9.7078E-04	1.00	Pass
2439.542 Middle Channel (Vertical)	4.0469E-04	1.00	Pass
2479.345 High Channel (Horizontal)	7.1965E-04	1.00	Pass
2479.345 High Channel (Vertical)	3.6068E-04	1.00	Pass

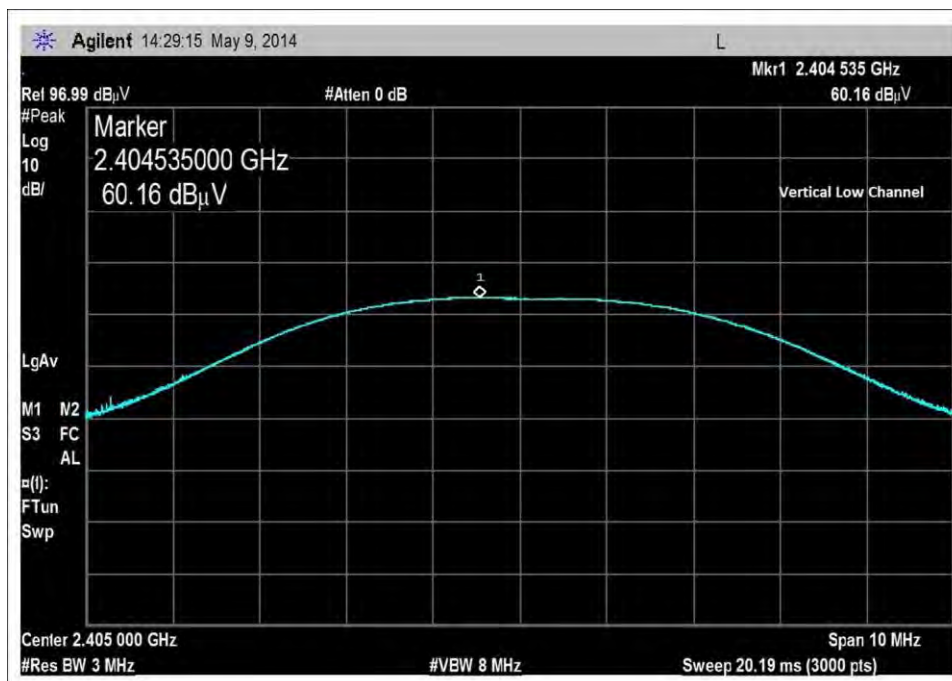
A formula converts Radiated Method to Conducted Method

$\text{dBm (conducted power)} = \text{dBuV/m} + 20 * \text{LOG D} - 104.77 - \text{Gain (dBi)}$

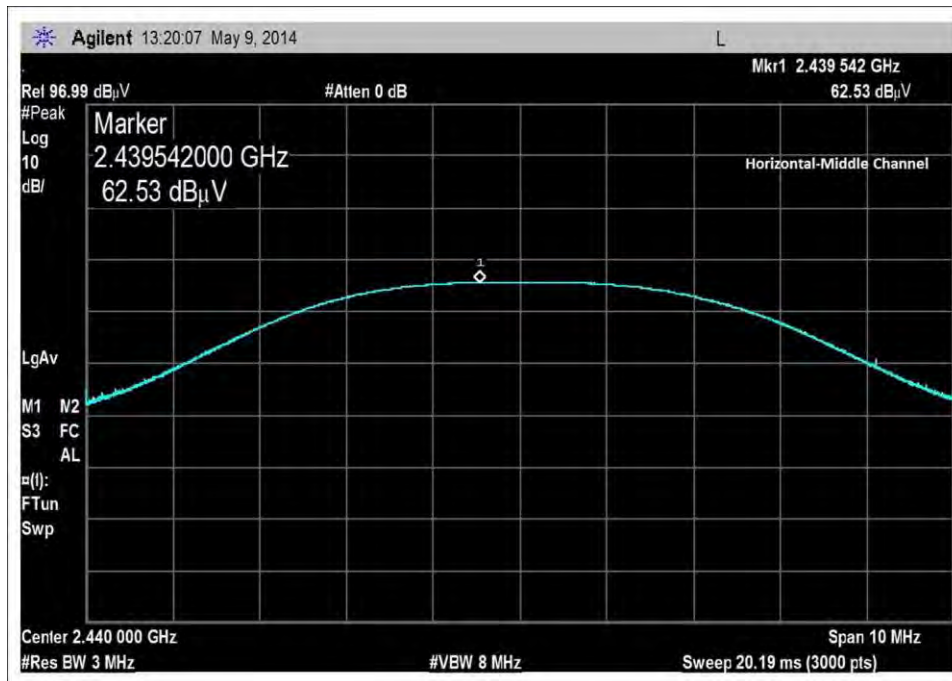
Test Data



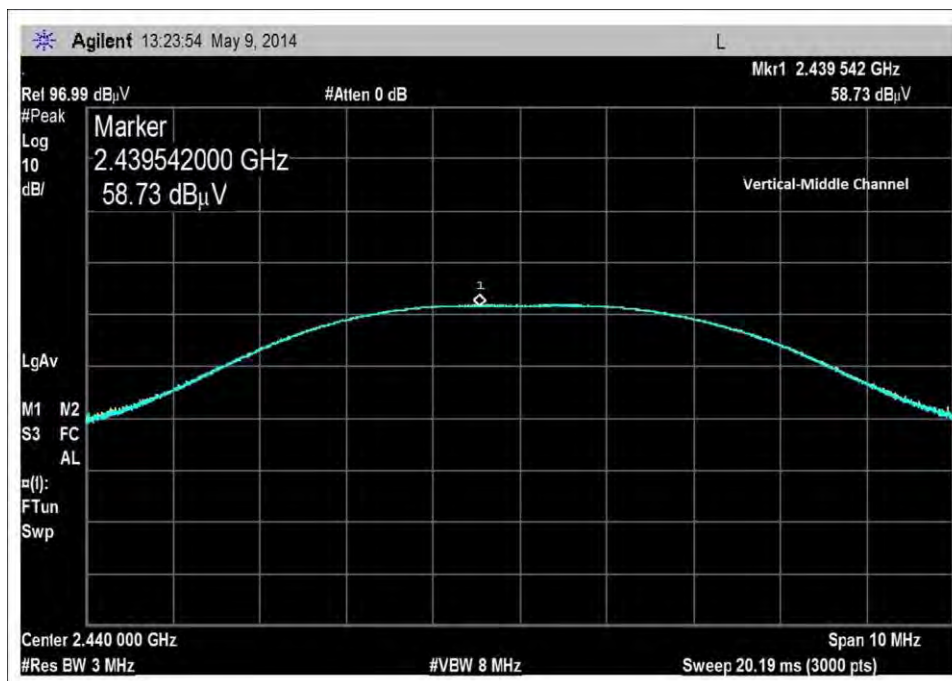
Low Channel, Horizontal



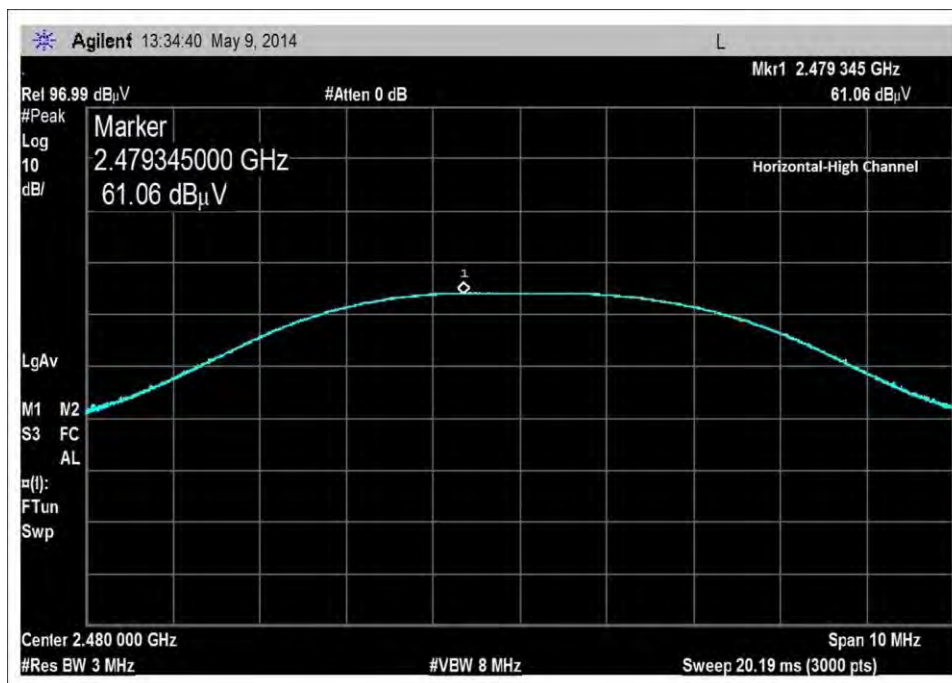
Low Channel, Vertical



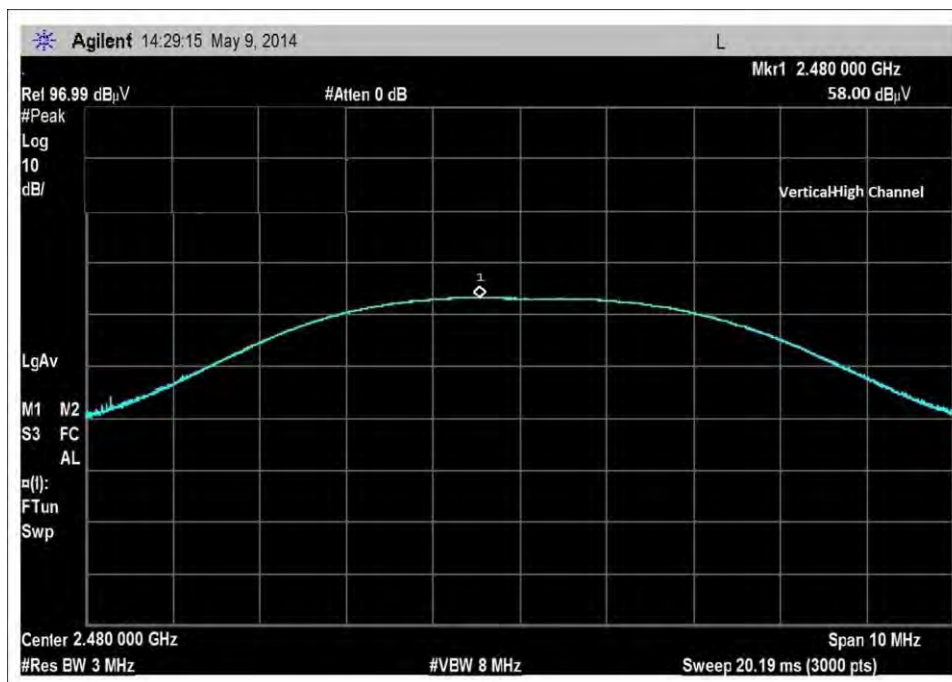
Middle Channel, Horizontal



Middle Channel, Vertical

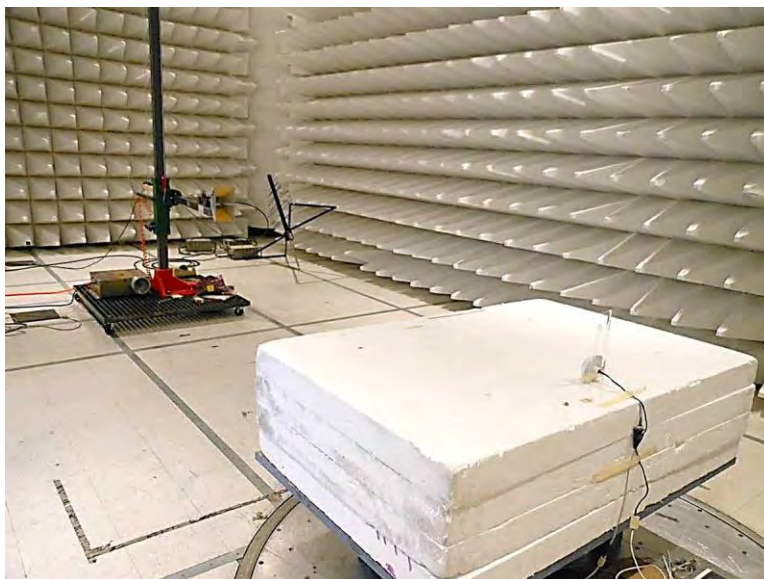
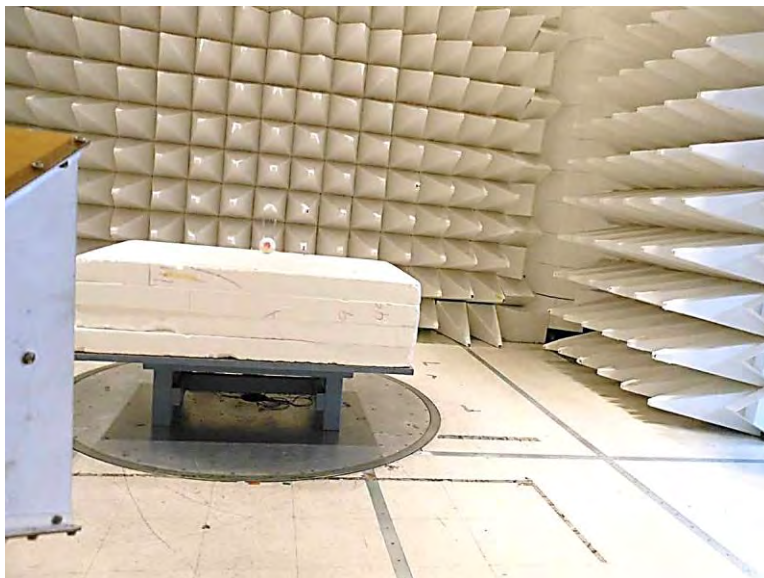


High Channel, Horizontal



High Channel, Vertical

Test Setup Photos



15.247(d) Field Strength of Spurious Emissions and Band Edge

Test Conditions / Setup

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**

Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**

Work Order #: **95673**

Date: 5/12/2014

Test Type: **Radiated Scan**

Time: 16:51:10

Equipment: **Sensor**

Sequence#: 51

Manufacturer: Enlighted, Inc.

Tested By: Hieu Song Nguyenpham

Model: RS-2b/SU-2b

S/N: ENG 1

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	ANP00880	Cable	RG214U	7/30/2012	7/30/2014
	ANP05300	Cable	RG214/U	3/25/2013	3/25/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
	AN00432	Loop Antenna	6502	4/2/2013	4/2/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM1111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 9kHz to 30MHz
RBW= VBW=200Hz from 9kHz to 150kHz
RBW=VBW=9kHz from 150kHz to 30MHz
Firmware Used: Version 2.6.2
Application: PuTTY

Temperature: 21.3°C
Humidity: 43 %
Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz
Transmitting operating frequency= 2.4GHz Band
RF Output= 0dBm
Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously receiving.

Note: Low Channel

NO EMISSION HAS BEEN FOUND

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **95673** Date: 5/12/2014
 Test Type: **Radiated Scan** Time: 14:12:17
 Equipment: **Sensor** Sequence#: 39
 Manufacturer: **Enlighted, Inc.** Tested By: Hieu Song Nguyenpham
 Model: **RS-2b/SU-2b**
 S/N: **ENG 1**

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN00730	Preamp	8447D	1/17/2013	1/17/2015
T2	AN00852	Biconilog Antenna	CBL 6111C	11/28/2012	11/28/2014
T3	ANP00880	Cable	RG214U	7/30/2012	7/30/2014
T4	ANP01183	Cable	CNT-195	9/3/2013	9/3/2015
T5	ANP05300	Cable	RG214/U	3/25/2013	3/25/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

<p>Radiated Spurious Emission Frequency Range: 30MHz to 1000MHz RBW= VBW=120kHz Firmware Used: Version 2.6.2</p> <p>Application: PuTTY Temperature: 21.3°C Humidity: 43 % Atmospheric Pressure: 101.0 kPa</p> <p>High Clock: 16MHz Transmitting operating frequency= 2.4GHz Band RF Output= 0dBm Gain of the antenna= 0dBi</p> <p>The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.</p> <p>Note: Low Channel</p>
--

Ext Attn: 0 dB

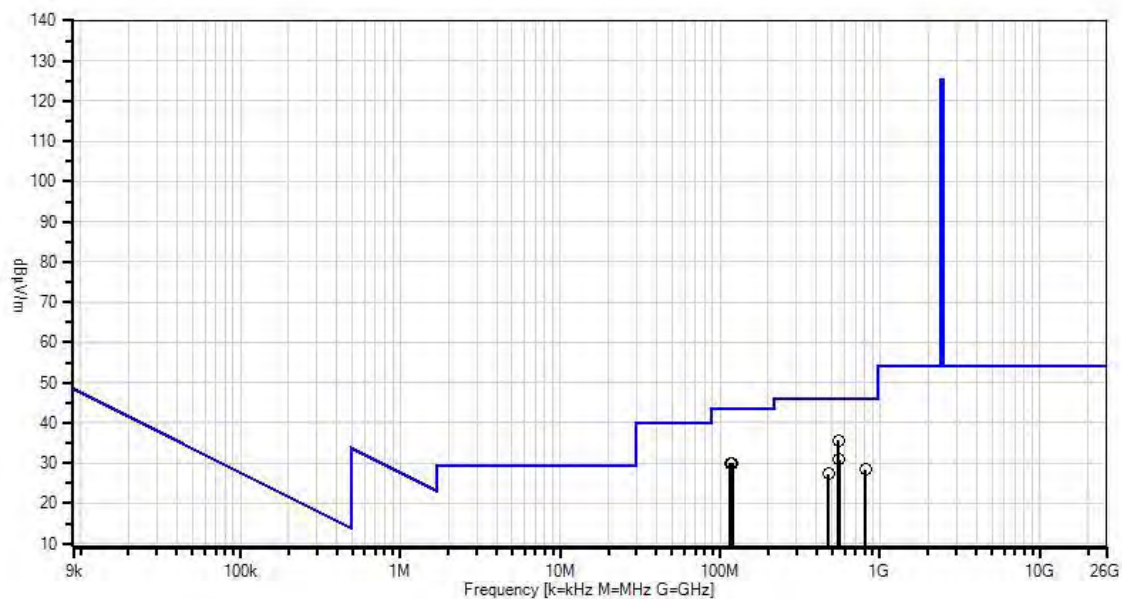
Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB μ V	T1 T5 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	549.401M	39.3	-26.9 +0.7	+19.2	+2.5	+0.8	+0.0	35.6	46.0	-10.4	Vert
2	119.852M	44.0	-27.0 +0.3	+11.3	+1.0	+0.3	+0.0	29.9	43.5	-13.6	Vert
3	115.168M	43.9	-26.9 +0.3	+11.3	+1.0	+0.3	+0.0	29.9	43.5	-13.6	Vert
4	552.885M	34.6	-26.9 +0.7	+19.2	+2.5	+0.8	+0.0	30.9	46.0	-15.1	Horiz
5	814.386M	28.2	-26.8 +0.9	+21.7	+3.2	+1.1	+0.0	28.3	46.0	-17.7	Horiz
6	475.287M	33.2	-26.9 +0.6	+17.4	+2.3	+0.8	+0.0	27.4	46.0	-18.6	Horiz

CKC Laboratories, Inc Date: 5/12/2014 Time: 14:12:17 Enlighted, Inc WO#: 95673
Test Distance: 3 Meters Sequence#: 39



— Readings
* QP Readings
▼ Ambient

○ Peak Readings
* Average Readings
— 1 - 15.247(d) / 15.209 Radiated Spurious Emissions

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**

Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**

Work Order #: **95673**

Date: 5/9/2014

Test Type: **Radiated Scan**

Time: 15:48:47

Equipment: **Sensor**

Sequence#: 9

Manufacturer: **Enlighted, Inc.**

Tested By: Hieu Song Nguyenpham

Model: **RS-2b/SU-2b**

S/N: **ENG 1**

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02157	Horn Antenna-ANSI C63.5	3115	1/23/2013	1/23/2015
T2	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
T3	ANP01210	Cable	FSJ1P-50A-4A	2/19/2013	2/19/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
T4	AN03114	Preamp	AMF-7D-00101800-30-10P	4/11/2013	4/11/2015
T5	ANP06125	Cable	32022-29094K-29094K-72TC	5/6/2013	5/6/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 1000MHz to 12000MHz
RBW= VBW=1MHz
Firmware Used: Version 2.6.2
Application: PuTTY

Temperature: 21.3°C
Humidity: 43 %
Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz
Transmitting operating frequency= 2.4GHz Band
RF Output= 0dBm
Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.

Note: Low Channel

Ext Attn: 0 dB

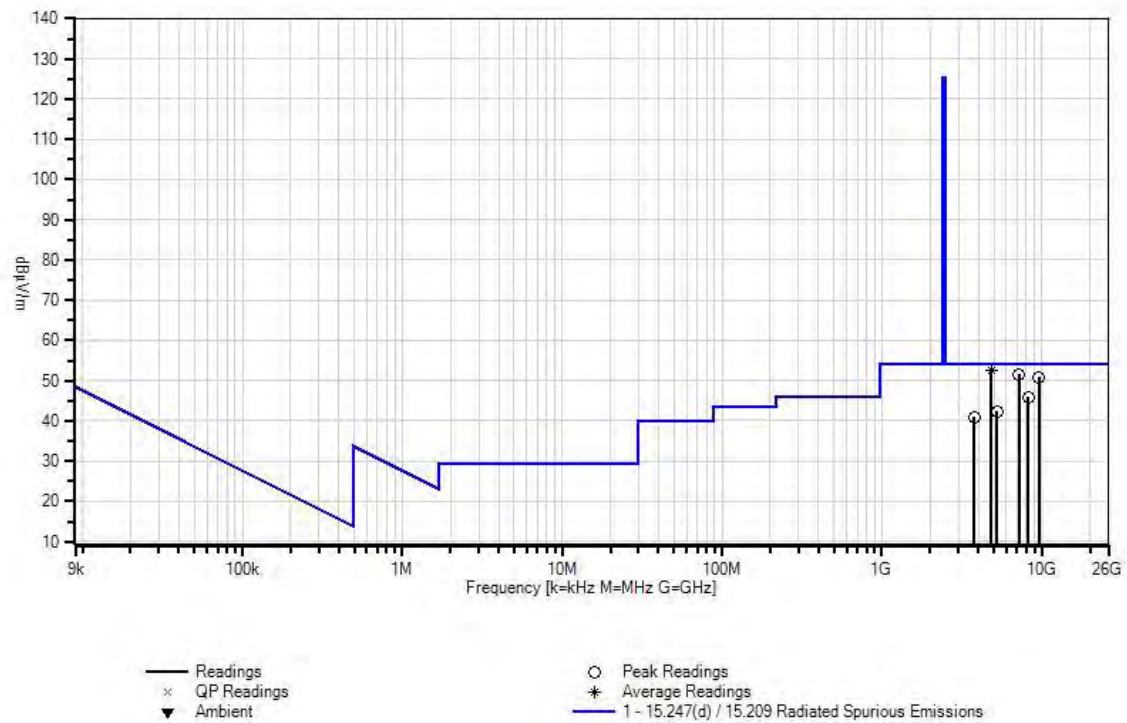
Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	dB	dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	4810.809M	70.3	+33.3	+1.7	+3.8	-58.3	+0.0	52.6	54.0	-1.4	Vert
	Ave		+1.6	+0.2							
^	4810.809M	76.5	+33.3	+1.7	+3.8	-58.3	+0.0	58.8	54.0	+4.8	Vert
			+1.6	+0.2							
3	7216.212M	65.3	+36.1	+2.0	+5.3	-59.3	+0.0	51.5	54.0	-2.5	Horiz
			+1.9	+0.2							
4	9621.615M	58.6	+38.7	+2.4	+6.2	-57.4	+0.0	50.9	54.0	-3.1	Vert
			+2.2	+0.2							
5	8210.205M	55.5	+37.0	+2.2	+5.6	-57.2	+0.0	45.9	54.0	-8.1	Vert
			+2.5	+0.3							
6	5231.229M	57.8	+34.3	+1.7	+3.9	-57.2	+0.0	42.3	54.0	-11.7	Horiz
			+1.6	+0.2							
7	3776.776M	61.4	+32.4	+1.5	+3.2	-59.3	+0.0	40.9	54.0	-13.1	Horiz
			+1.4	+0.3							

CKC Laboratories, Inc Date: 5/9/2014 Time: 15:48:47 Enlighted, Inc WO#: 95673
 Test Distance: 3 Meters Sequence#: 9



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **95673** Date: 5/12/2014
 Test Type: **Radiated Scan** Time: 10:01:12
 Equipment: **Sensor** Sequence#: 21
 Manufacturer: **Enlighted, Inc.** Tested By: **Hieu Song Nguyenpham**
 Model: **RS-2b/SU-2b**
 S/N: **ENG 1**

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN03143	Cable	32022-29094K-144TC	8/2/2013	8/2/2015
T2	ANP00928	Cable	various	1/23/2014	1/23/2016
T3	ANP06125	Cable	32022-29094K-29094K-72TC	5/6/2013	5/6/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
T4	ANANT-AN02693-20130221	Active Horn Antenna	AMFW-5F-18002650-20-10P	2/21/2013	2/21/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Radiated Spurious Emission
 Frequency Range: 12000MHz to 18000MHz
 RBW= VBW=1MHz
 Firmware Used: Version 2.6.2
 Application: PuTTY

Temperature: 21.3°C
 Humidity: 43 %
 Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz
 Transmitting operating frequency= 2.4GHz Band
 RF Output= 0dBm
 Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature.

In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.

Note: Low Channel

Ext Attn: 0 dB

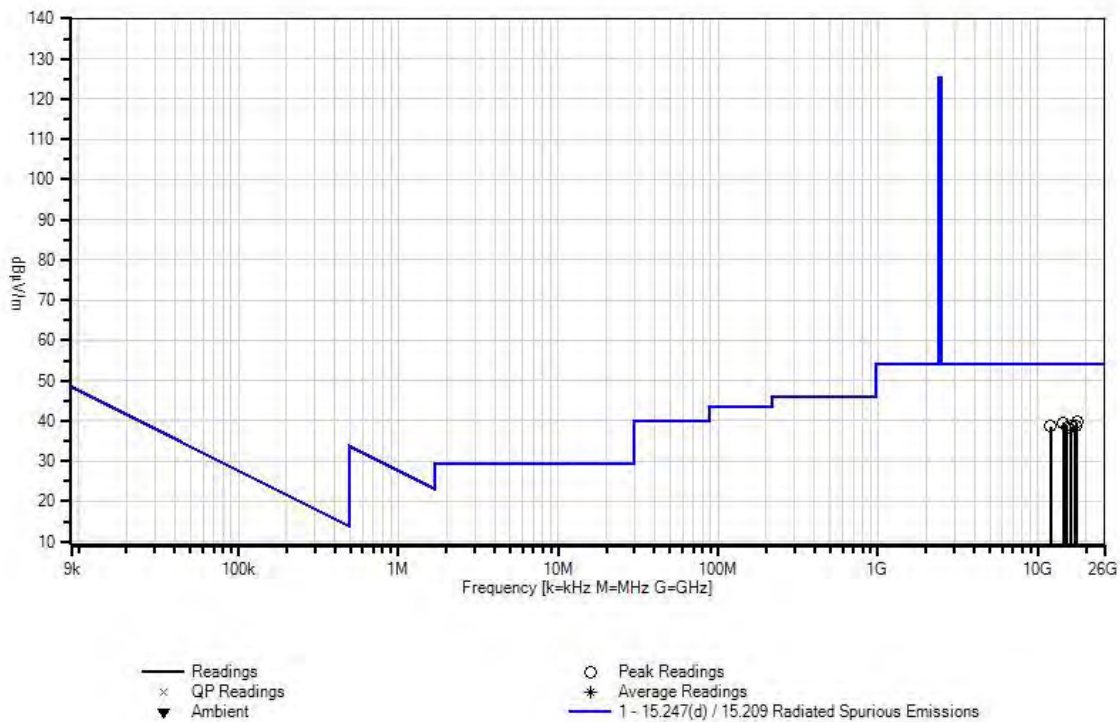
Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	17602.000 M	43.1	+6.5	+0.7	+3.2	-13.8	+0.0	39.7	54.0	-14.3	Vert
2	14483.481 M	45.0	+6.0	+0.8	+2.9	-15.4	+0.0	39.3	54.0	-14.7	Vert
3	12023.023 M	44.9	+5.3	+0.9	+2.4	-14.8	+0.0	38.7	54.0	-15.3	Vert
4	16186.182 M	45.0	+6.5	+0.7	+3.1	-16.6	+0.0	38.7	54.0	-15.3	Horiz
5	17091.565 M	44.0	+6.3	+0.7	+3.0	-15.4	+0.0	38.6	54.0	-15.4	Horiz
6	15213.210 M	44.0	+6.0	+0.8	+3.1	-15.5	+0.0	38.4	54.0	-15.6	Horiz

CKC Laboratories, Inc Date: 5/12/2014 Time: 10:01:12 Enlighted, Inc WO#: 95673
Test Distance: 3 Meters Sequence#: 21



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **95673** Date: 5/12/2014
 Test Type: **Radiated Scan** Time: 13:23:06
 Equipment: **Sensor** Sequence#: 36
 Manufacturer: **Enlighted, Inc.** Tested By: Hieu Song Nguyenpham
 Model: **RS-2b/SU-2b**
 S/N: **ENG 1**

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN03143	Cable	32022-29094K-144TC	8/2/2013	8/2/2015
T2	ANP06125	Cable	32022-29094K-29094K-72TC	5/6/2013	5/6/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
T3	AN02694	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-18002650-20-10P	2/4/2013	2/4/2015
T4	ANP00929	Cable	various	1/23/2014	1/23/2016

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Radiated Spurious Emission
 Frequency Range: 18000MHz to 25000MHz
 RBW= VBW=1MHz
 Firmware Used: Version 2.6.2
 Application: PuTTY

Temperature: 21.3°C
 Humidity: 43 %
 Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz
 Transmitting operating frequency= 2.4GHz Band
 RF Output= 0dBm
 Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature.

In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.

Note: Low Channel

Ext Attn: 0 dB

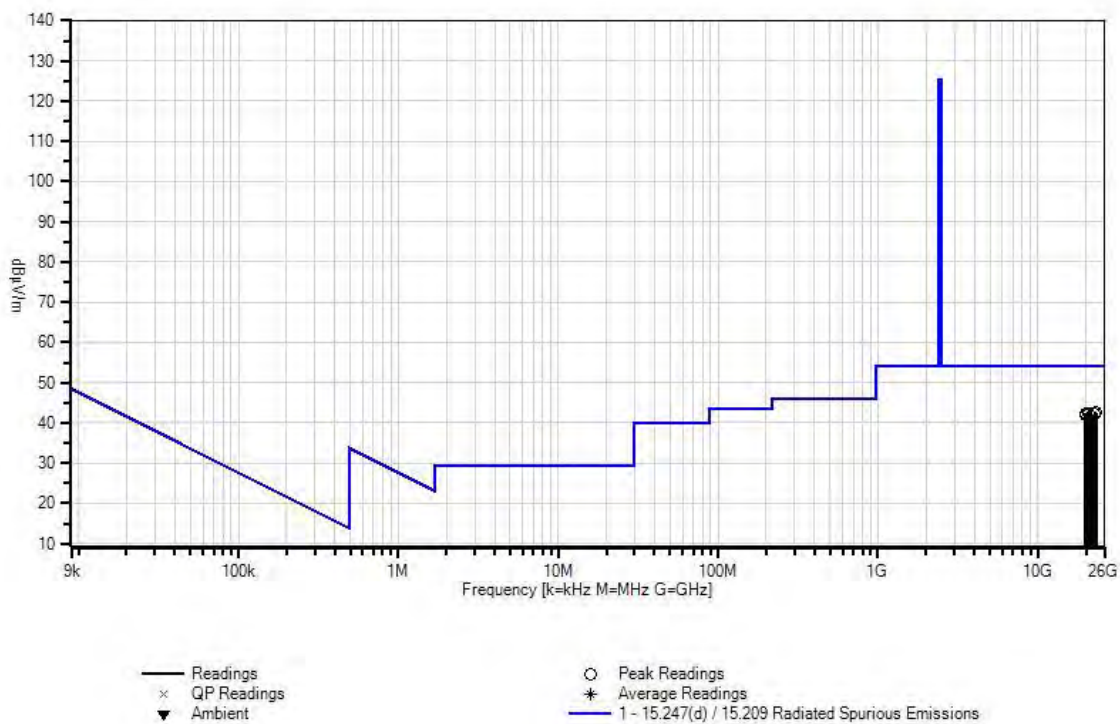
Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	23168.163 M	45.5	+7.6	+4.3	-17.8	+2.9	+0.0	42.5	54.0	-11.5	Vert
2	20836.834 M	44.8	+7.2	+4.2	-17.0	+3.2	+0.0	42.4	54.0	-11.6	Vert
3	19795.794 M	45.1	+7.0	+3.7	-16.7	+3.3	+0.0	42.4	54.0	-11.6	Vert
4	22458.454 M	44.7	+7.7	+4.3	-17.5	+3.0	+0.0	42.2	54.0	-11.8	Horiz
5	20019.017 M	44.6	+7.1	+3.9	-16.8	+3.3	+0.0	42.1	54.0	-11.9	Horiz
6	21633.630 M	44.1	+7.5	+4.2	-17.2	+3.1	+0.0	41.7	54.0	-12.3	Horiz

CKC Laboratories, Inc Date: 5/12/2014 Time: 13:23:06 Enlighted, Inc WO#: 95673
Test Distance: 3 Meters Sequence#: 36



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **95673** Date: 5/12/2014
 Test Type: **Radiated Scan** Time: 17:07:42
 Equipment: **Sensor** Sequence#: 54
 Manufacturer: Enlighted, Inc. Tested By: Hieu Song Nguyenpham
 Model: RS-2b/SU-2b
 S/N: ENG 1

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	ANP00880	Cable	RG214U	7/30/2012	7/30/2014
	ANP05300	Cable	RG214/U	3/25/2013	3/25/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
	AN00432	Loop Antenna	6502	4/2/2013	4/2/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

<p>Radiated Spurious Emission Frequency Range: 9kHz to 30MHz RBW= VBW=200Hz from 9kHz to 150kHz RBW=VBW=9kHz from 150kHz to 30MHz</p> <p>Firmware Used: Version 2.6.2 Application: PuTTY</p> <p>Temperature: 21.3°C Humidity: 43 % Atmospheric Pressure: 101.0 kPa High Clock: 16MHz</p> <p>Transmitting operating frequency= 2.4GHz Band RF Output= 0dBm Gain of the antenna= 0dBi</p> <p>The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously receiving.</p> <p>Note: Middle Channel NO EMISSION HAS BEEN FOUND</p>
--

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**

Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**

Work Order #: **95673**

Date: 5/12/2014

Test Type: **Radiated Scan**

Time: 14:42:42

Equipment: **Sensor**

Sequence#: 42

Manufacturer: Enlighted, Inc.

Tested By: Hieu Song Nguyenpham

Model: RS-2b/SU-2b

S/N: ENG 1

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN00730	Preamp	8447D	1/17/2013	1/17/2015
T2	AN00852	Biconilog Antenna	CBL 6111C	11/28/2012	11/28/2014
T3	ANP00880	Cable	RG214U	7/30/2012	7/30/2014
T4	ANP01183	Cable	CNT-195	9/3/2013	9/3/2015
T5	ANP05300	Cable	RG214/U	3/25/2013	3/25/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 30MHz to 1000MHz
RBW= VBW=120kHz
Firmware Used: Version 2.6.2
Application: PuTTY

Temperature: 21.3°C
Humidity: 43 %
Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz
Transmitting operating frequency= 2.4GHz Band
RF Output= 0dBm
Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.

Note: Middle Channel

Ext Attn: 0 dB

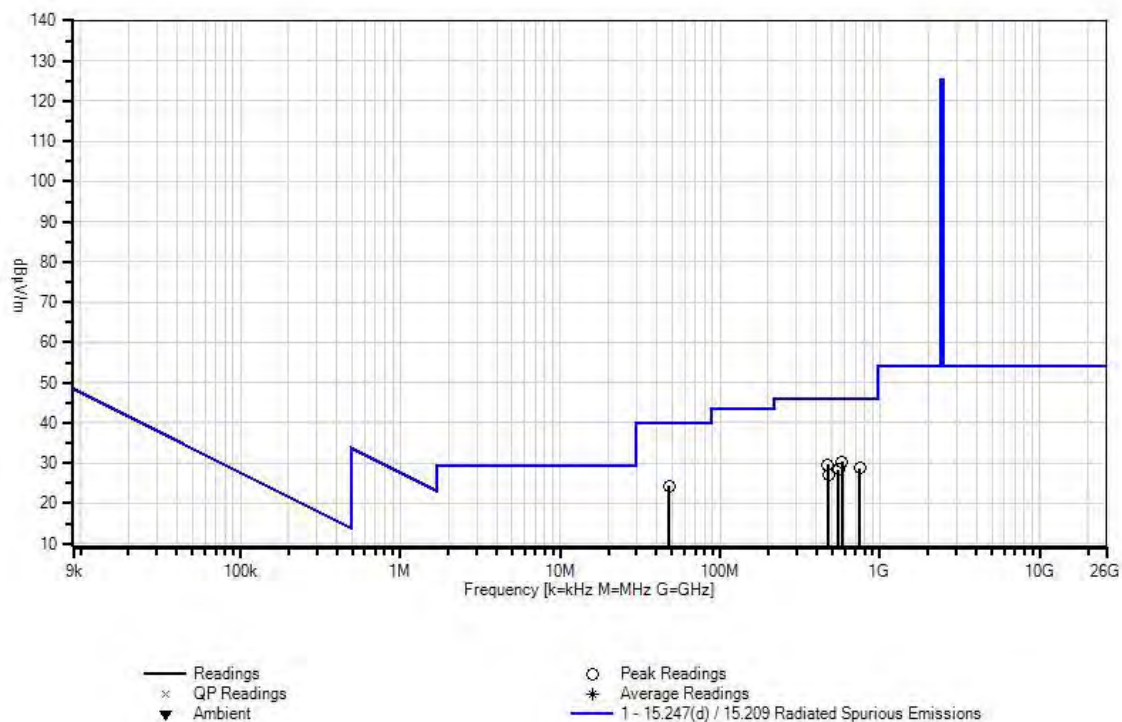
Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB μ V	T1 T5 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	578.230M	33.3	-27.0 +0.7	+19.8	+2.6	+0.9	+0.0	30.3	46.0	-15.7	Vert
2	48.035M	40.7	-27.0 +0.2	+9.6	+0.6	+0.2	+0.0	24.3	40.0	-15.7	Vert
3	471.443M	35.7	-26.9 +0.6	+17.1	+2.3	+0.8	+0.0	29.6	46.0	-16.4	Vert
4	749.761M	28.5	-26.9 +0.8	+22.1	+3.0	+1.2	+0.0	28.7	46.0	-17.3	Horiz
5	547.119M	32.2	-26.9 +0.7	+19.1	+2.5	+0.8	+0.0	28.4	46.0	-17.6	Horiz
6	476.609M	32.6	-26.9 +0.6	+17.5	+2.3	+0.8	+0.0	26.9	46.0	-19.1	Horiz

CKC Laboratories, Inc Date: 5/12/2014 Time: 14:42:42 Enlighted, Inc WO#: 95673
Test Distance: 3 Meters Sequence#: 42



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**

Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**

Work Order #: **95673**

Date: 5/9/2014

Test Type: **Radiated Scan**

Time: 16:22:25

Equipment: **Sensor**

Sequence#: 12

Manufacturer: **Enlighted, Inc.**

Tested By: Hieu Song Nguyenpham

Model: **RS-2b/SU-2b**

S/N: **ENG 1**

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02157	Horn Antenna-ANSI C63.5	3115	1/23/2013	1/23/2015
T2	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
T3	ANP01210	Cable	FSJ1P-50A-4A	2/19/2013	2/19/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
T4	AN03114	Preamp	AMF-7D-00101800-30-10P	4/11/2013	4/11/2015
T5	ANP06125	Cable	32022-29094K-29094K-72TC	5/6/2013	5/6/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM1111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Radiated Spurious Emission
 Frequency Range: 1000MHz to 12000MHz
 RBW= VBW=1MHz
 Firmware Used: Version 2.6.2
 Application: PuTTY

Temperature: 21.3°C
 Humidity: 43 %
 Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz
 Transmitting operating frequency= 2.4GHz Band
 RF Output= 0dBm
 Gain of the antenna= 0dBi

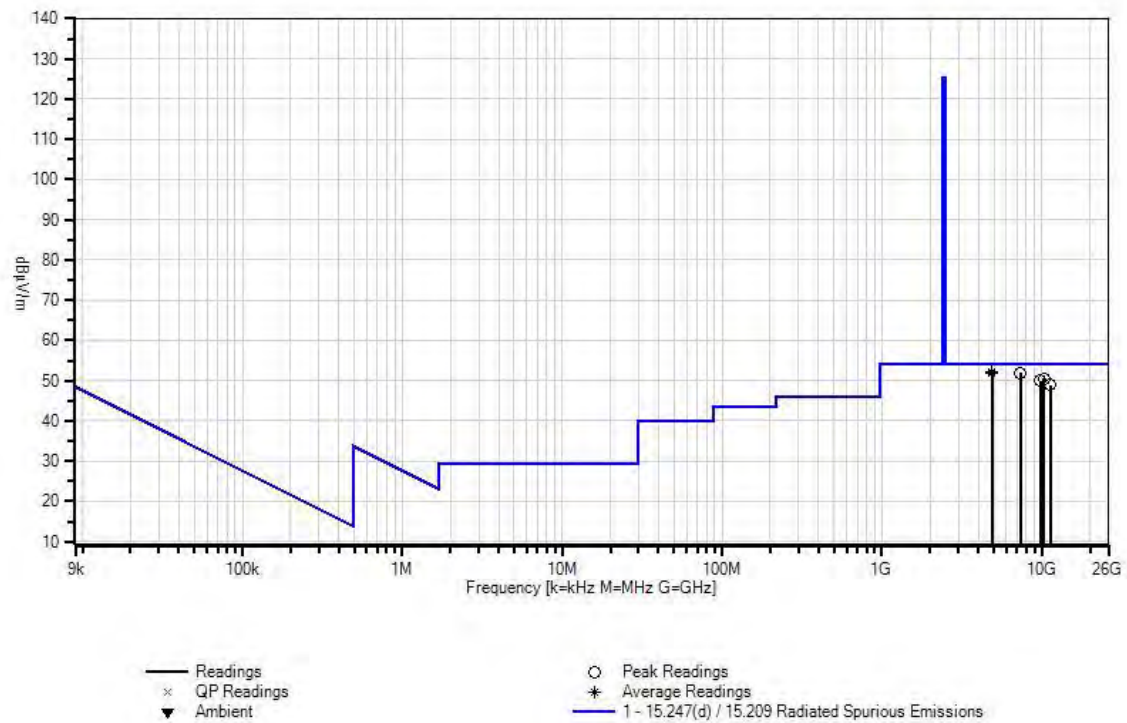
The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.

Note: Middle Channel

Ext Attn: 0 dB

Measurement Data:			Reading listed by margin.				Test Distance: 3 Meters				
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5 dB	T6 dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	4878.877M	69.7	+33.4	+1.7	+3.8	-58.2	+0.0	52.2	54.0	-1.8	Vert
	Ave		+1.6	+0.2							
^	4878.877M	76.0	+33.4	+1.7	+3.8	-58.2	+0.0	58.5	54.0	+4.5	Vert
			+1.6	+0.2							
^	4878.877M	75.3	+33.4	+1.7	+3.8	-58.2	+0.0	57.8	54.0	+3.8	Vert
			+1.6	+0.2							
4	4881.097M	69.5	+33.4	+1.7	+3.8	-58.2	+0.0	52.0	54.0	-2.0	Vert
	Ave		+1.6	+0.2					Input		
^	4881.097M	76.3	+33.4	+1.7	+3.8	-58.2	+0.0	58.8	54.0	+4.8	Vert
			+1.6	+0.2					Input		
^	4881.097M	75.2	+33.4	+1.7	+3.8	-58.2	+0.0	57.7	54.0	+3.7	Vert
			+1.6	+0.2							
7	7318.314M	64.9	+36.6	+2.1	+5.4	-59.3	+0.0	51.9	54.0	-2.1	Horiz
			+2.0	+0.2							
8	10250.243	58.0	+39.6	+2.5	+6.2	-58.3	+0.0	50.5	54.0	-3.5	Horiz
	M		+2.3	+0.2							
9	9761.755M	57.3	+39.1	+2.4	+6.3	-57.6	+0.0	49.9	54.0	-4.1	Vert
			+2.2	+0.2							
10	11261.952	55.6	+39.0	+2.6	+6.2	-56.9	+0.0	48.9	54.0	-5.1	Horiz
	M		+2.2	+0.2							

CKC Laboratories, Inc Date: 5/9/2014 Time: 16:22:25 Enlighted, Inc WO#: 95673
 Test Distance: 3 Meters Sequence#: 12



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **95673** Date: 5/12/2014
 Test Type: **Radiated Scan** Time: 10:35:06
 Equipment: **Sensor** Sequence#: 24
 Manufacturer: **Enlighted, Inc.** Tested By: **Hieu Song Nguyenpham**
 Model: **RS-2b/SU-2b**
 S/N: **ENG 1**

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN03143	Cable	32022-29094K-144TC	8/2/2013	8/2/2015
T2	ANP00928	Cable	various	1/23/2014	1/23/2016
T3	ANP06125	Cable	32022-29094K-29094K-72TC	5/6/2013	5/6/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
T4	ANANT-AN02693-20130221	Active Horn Antenna	AMFW-5F-18002650-20-10P	2/21/2013	2/21/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Radiated Spurious Emission
 Frequency Range: 12000MHz to 18000MHz
 RBW= VBW=1MHz
 Firmware Used: Version 2.6.2
 Application: PuTTY

Temperature: 21.3°C
 Humidity: 43 %
 Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz
 Transmitting operating frequency= 2.4GHz Band
 RF Output= 0dBm
 Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature.

In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting

Note: Middle Channel

Ext Attn: 0 dB

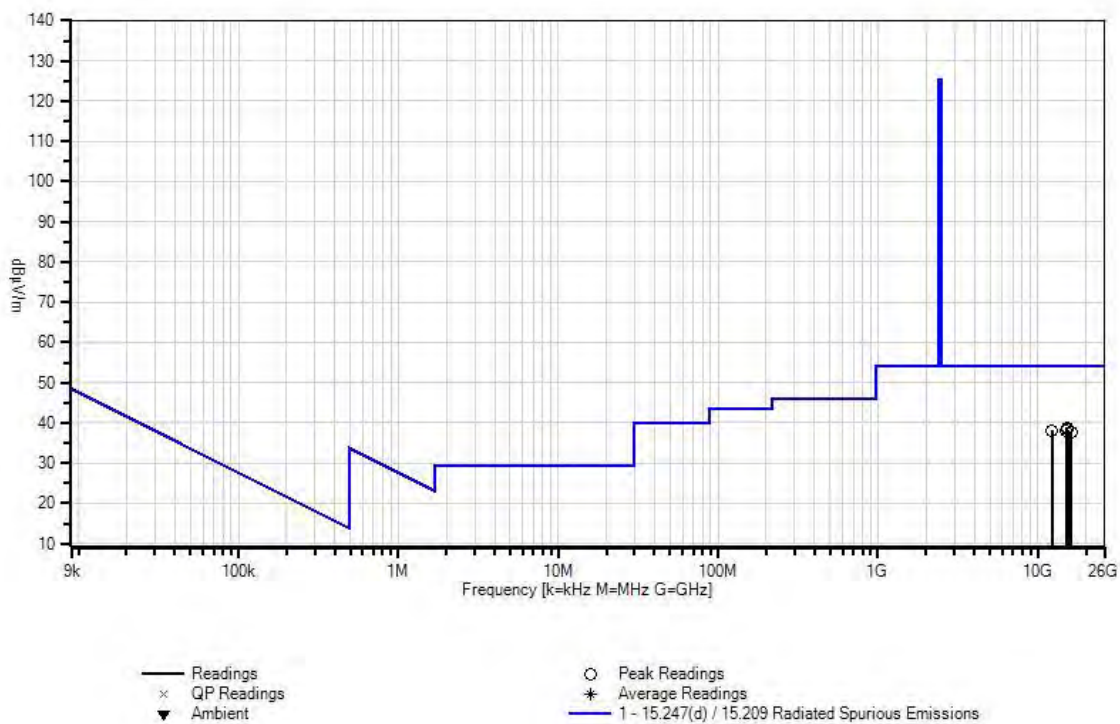
Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	15177.174 M	44.3	+6.1	+0.8	+3.1	-15.5	+0.0	38.8	54.0	-15.2	Horiz
2	15360.357 M	44.1	+6.0	+0.8	+3.1	-15.7	+0.0	38.3	54.0	-15.7	Vert
3	12197.197 M	44.6	+5.5	+0.9	+2.4	-15.3	+0.0	38.1	54.0	-15.9	Vert
4	14996.994 M	43.5	+6.1	+0.8	+3.0	-15.4	+0.0	38.0	54.0	-16.0	Horiz
5	12202.202 M	44.5	+5.5	+0.9	+2.4	-15.3	+0.0	38.0	54.0	-16.0	Vert
6	16146.142 M	44.1	+6.4	+0.7	+3.1	-16.6	+0.0	37.7	54.0	-16.3	Horiz

CKC Laboratories, Inc Date: 5/12/2014 Time: 10:35:06 Enlighted, Inc WO#: 95673
Test Distance: 3 Meters Sequence#: 24



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**

Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**

Work Order #: **95673**

Date: 5/12/2014

Test Type: **Radiated Scan**

Time: 12:01:48

Equipment: **Sensor**

Sequence#: 33

Manufacturer: **Enlighted, Inc.**

Tested By: Hieu Song Nguyenpham

Model: **RS-2b/SU-2b**

S/N: **ENG 1**

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN03143	Cable	32022-29094K-144TC	8/2/2013	8/2/2015
T2	ANP06125	Cable	32022-29094K-29094K-72TC	5/6/2013	5/6/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
T3	AN02694	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-18002650-20-10P	2/4/2013	2/4/2015
T4	ANP00929	Cable	various	1/23/2014	1/23/2016

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 18000MHz to 25000MHz
RBW= VBW=1MHz
Firmware Used: Version 2.6.2
Application: PuTTY

Temperature: 21.3°C
Humidity: 43 %
Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz
Transmitting operating frequency= 2.4GHz Band
RF Output= 0dBm
Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature.

In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.

Note: Middle Channel

Ext Attn: 0 dB

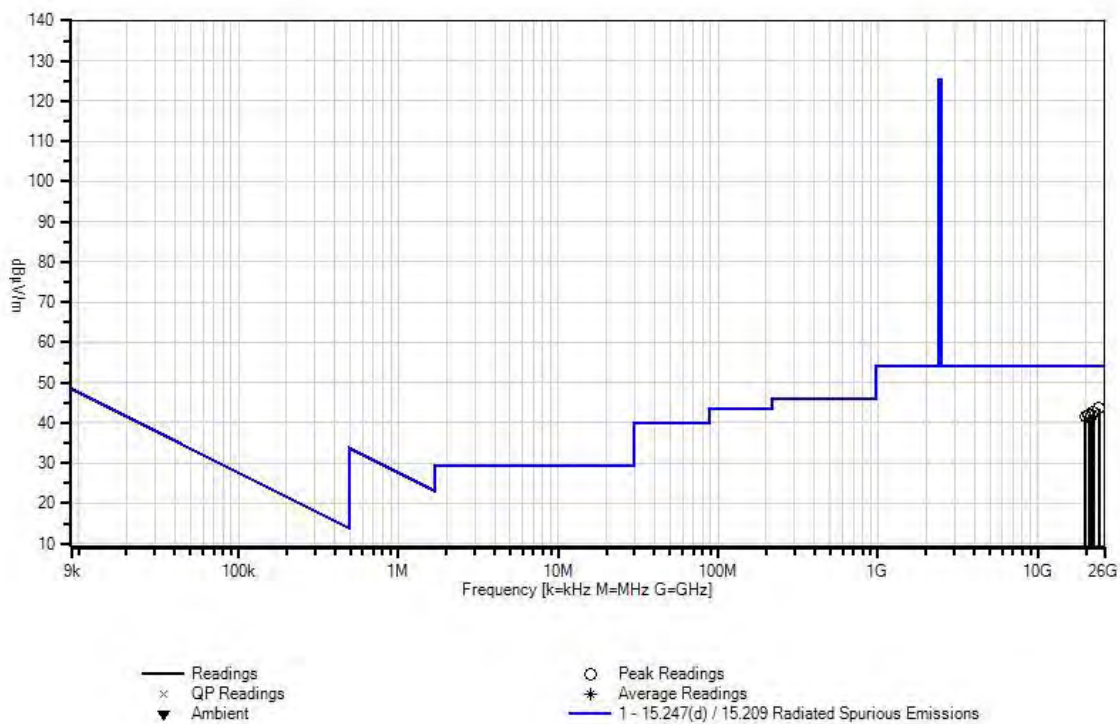
Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	23987.982 M	46.0	+7.7	+4.4	-17.5	+3.0	+0.0	43.6	54.0	-10.4	Vert
2	22083.079 M	45.4	+7.3	+4.4	-17.4	+3.0	+0.0	42.7	54.0	-11.3	Vert
3	20851.849 M	44.4	+7.2	+4.2	-17.0	+3.2	+0.0	42.0	54.0	-12.0	Horiz
4	21832.829 M	44.6	+7.5	+4.2	-17.3	+3.0	+0.0	42.0	54.0	-12.0	Vert
5	21582.579 M	44.3	+7.4	+4.2	-17.2	+3.1	+0.0	41.8	54.0	-12.2	Horiz
6	19869.868 M	44.3	+7.0	+3.8	-16.7	+3.3	+0.0	41.7	54.0	-12.3	Horiz

CKC Laboratories, Inc Date: 5/12/2014 Time: 12:01:48 Enlighted, Inc WO#: 95673
Test Distance: 3 Meters Sequence#: 33



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **95673** Date: 5/12/2014
 Test Type: **Radiated Scan** Time: 17:16:58
 Equipment: **Sensor** Sequence#: 57
 Manufacturer: **Enlighted, Inc.** Tested By: **Hieu Song Nguyenpham**
 Model: **RS-2b/SU-2b**
 S/N: **ENG 1**

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	ANP00880	Cable	RG214U	7/30/2012	7/30/2014
	ANP05300	Cable	RG214/U	3/25/2013	3/25/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
	AN00432	Loop Antenna	6502	4/2/2013	4/2/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Radiated Spurious Emission
 Frequency Range: 9kHz to 30MHz
 RBW= VBW=200Hz from 9kHz to 150kHz
 RBW=VBW=9kHz from 150kHz to 30MHz
 Firmware Used: Version 2.6.2
 Application: PuTTY

Temperature: 21.3°C
 Humidity: 43 %
 Atmospheric Pressure: 101.0 kPa
 High Clock: 16MHz

Transmitting operating frequency= 2.4GHz Band
 RF Output= 0dBm
 Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously receiving.

Note: High Channel
NO EMISSION HAS BEEN FOUND

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**

Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**

Work Order #: **95673**

Date: 5/12/2014

Test Type: **Radiated Scan**

Time: 15:21:15

Equipment: **Sensor**

Sequence#: 45

Manufacturer: Enlighted, Inc.

Tested By: Hieu Song Nguyenpham

Model: RS-2b/SU-2b

S/N: ENG 1

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN00730	Preamp	8447D	1/17/2013	1/17/2015
T2	AN00852	Biconilog Antenna	CBL 6111C	11/28/2012	11/28/2014
T3	ANP00880	Cable	RG214U	7/30/2012	7/30/2014
T4	ANP01183	Cable	CNT-195	9/3/2013	9/3/2015
T5	ANP05300	Cable	RG214/U	3/25/2013	3/25/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Radiated Spurious Emission
Frequency Range: 30MHz to 1000MHz
RBW= VBW=120kHz
Firmware Used: Version 2.6.2
Application: PuTTY

Temperature: 21.3°C
Humidity: 43 %
Atmospheric Pressure: 101.0 kPa
High Clock: 16MHz

Transmitting operating frequency= 2.4GHz Band
RF Output= 0dBm
Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.

Note: High Channel

Ext Attn: 0 dB

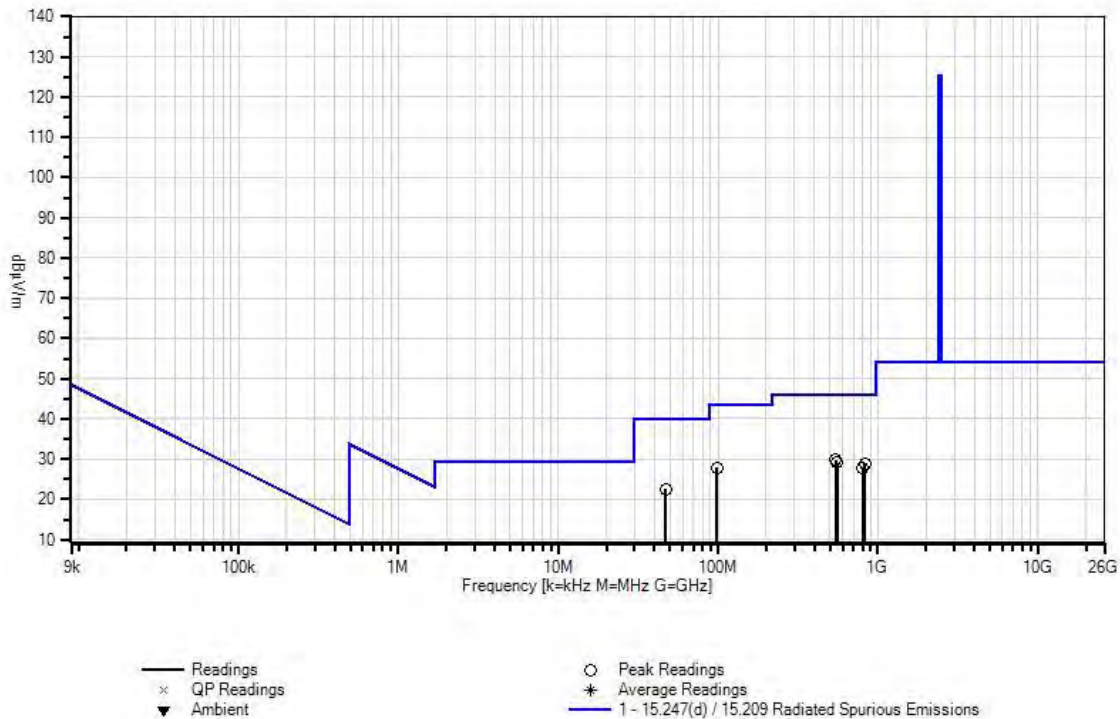
Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB μ V	T1 T5 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	97.750M	43.7	-27.1 +0.3	+9.7	+1.0	+0.2	+0.0	27.8	43.5	-15.7	Vert
2	545.437M	33.7	-26.9 +0.7	+19.0	+2.5	+0.8	+0.0	29.8	46.0	-16.2	Horiz
3	552.765M	32.8	-26.9 +0.7	+19.2	+2.5	+0.8	+0.0	29.1	46.0	-16.9	Horiz
4	824.957M	28.4	-26.8 +0.9	+22.1	+3.3	+1.1	+0.0	29.0	46.0	-17.0	Horiz
5	47.037M	38.5	-27.0 +0.2	+10.0	+0.6	+0.2	+0.0	22.5	40.0	-17.5	Vert
6	805.858M	27.7	-26.8 +0.9	+21.6	+3.2	+1.1	+0.0	27.7	46.0	-18.3	Vert

CKC Laboratories, Inc Date: 5/12/2014 Time: 15:21:15 Enlighted, Inc WO#: 95673
Test Distance: 3 Meters Sequence#: 45



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**

Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**

Work Order #: **95673**

Date: 5/9/2014

Test Type: **Radiated Scan**

Time: 16:55:17

Equipment: **Sensor**

Sequence#: 15

Manufacturer: **Enlighted, Inc.**

Tested By: Hieu Song Nguyenpham

Model: **RS-2b/SU-2b**

S/N: **ENG 1**

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02157	Horn Antenna-ANSI C63.5	3115	1/23/2013	1/23/2015
T2	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
T3	ANP01210	Cable	FSJ1P-50A-4A	2/19/2013	2/19/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
T4	AN03114	Preamp	AMF-7D-00101800-30-10P	4/11/2013	4/11/2015
T5	ANP06125	Cable	32022-29094K-29094K-72TC	5/6/2013	5/6/2015
T6	AN03309	High Pass Filter	11SH10-3000/T10000-O/O	4/2/2014	4/2/2016

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM1111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Radiated Spurious Emission
 Frequency Range: 1000MHz to 12000MHz
 RBW= VBW=1MHz
 Firmware Used: Version 2.6.2
 Application: PuTTY

Temperature: 21.3°C
 Humidity: 43 %
 Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz
 Transmitting operating frequency= 2.4GHz Band
 RF Output= 0dBm
 Gain of the antenna= 0dBi

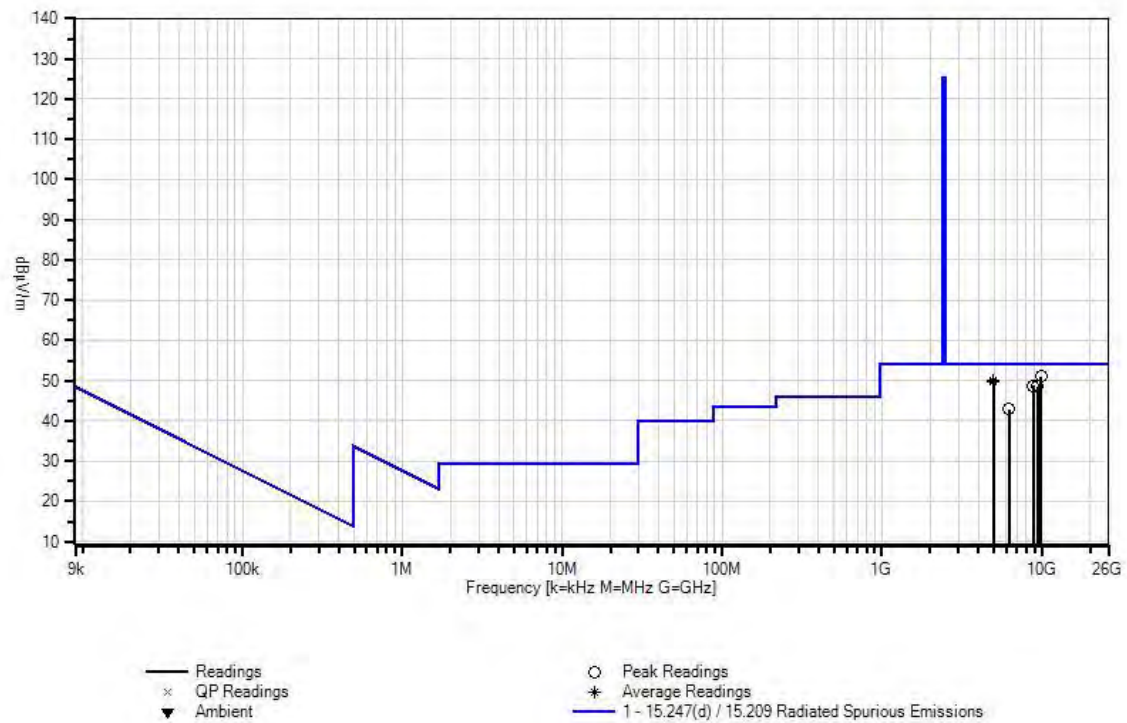
The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by RS 232 cable. The EUT is set continuously transmitting.

Note: High Channel

Ext Attn: 0 dB

Measurement Data:			Reading listed by margin.				Test Distance: 3 Meters				
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBμV	T5 dB	T6 dB	dB	dB	Table	dBμV/m	dBμV/m	dB	Ant
1	9921.915M	58.4	+39.6 +2.3	+2.4 +0.2	+6.3	-58.2	+0.0	51.0	54.0	-3.0	Vert
2	4958.957M	66.9	+33.6 +1.6	+1.7 +0.2	+3.9	-57.9	+0.0	50.0	54.0	-4.0	Vert
^	4958.957M	73.7	+33.6 +1.6	+1.7 +0.2	+3.9	-57.9	+0.0	56.8	54.0	+2.8	Vert
^	4958.957M	72.7	+33.6 +1.6	+1.7 +0.2	+3.9	-57.9	+0.0	55.8	54.0	+1.8	Vert
5	4961.067M	66.7	+33.6 +1.6	+1.7 +0.2	+3.9	-57.9	+0.0	49.8	54.0	-4.2	Vert
^	4961.067M	73.5	+33.6 +1.6	+1.7 +0.2	+3.9	-57.9	+0.0	56.6	54.0	+2.6	Vert
^	4961.067M	72.4	+33.6 +1.6	+1.7 +0.2	+3.9	-57.9	+0.0	55.5	54.0	+1.5	Vert
8	8823.818M	56.1	+38.1 +2.4	+2.3 +0.3	+5.9	-56.3	+0.0	48.8	54.0	-5.2	Horiz
9	9346.340M	56.5	+38.4 +2.2	+2.3 +0.2	+6.2	-57.2	+0.0	48.6	54.0	-5.4	Horiz
10	6231.228M	57.5	+34.8 +1.6	+1.9 +0.2	+4.3	-57.4	+0.0	42.9	54.0	-11.1	Horiz

CKC Laboratories, Inc Date: 5/9/2014 Time: 16:55:17 Enlighted, Inc WO#: 95673
Test Distance: 3 Meters Sequence#: 15



Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **95673** Date: 5/12/2014
 Test Type: **Radiated Scan** Time: 10:55:18
 Equipment: **Sensor** Sequence#: 27
 Manufacturer: **Enlighted, Inc.** Tested By: **Hieu Song Nguyenpham**
 Model: **RS-2b/SU-2b**
 S/N: **ENG 1**

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN03143	Cable	32022-29094K-144TC	8/2/2013	8/2/2015
T2	ANP00928	Cable	various	1/23/2014	1/23/2016
T3	ANP06125	Cable	32022-29094K-29094K-72TC	5/6/2013	5/6/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
T4	ANANT-AN02693-20130221	Active Horn Antenna	AMFW-5F-18002650-20-10P	2/21/2013	2/21/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Radiated Spurious Emission
 Frequency Range: 12000MHz to 18000MHz
 RBW= VBW=1MHz
 Firmware Used: Version 2.6.2
 Application: PuTTY

Temperature: 21.3°C
 Humidity: 43 %
 Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz
 Transmitting operating frequency= 2.4GHz Band
 RF Output= 0dBm
 Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.
 Note: High Channel

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	15643.640 M	45.1	+6.2	+0.7	+3.2	-16.1	+0.0	39.1	54.0	-14.9	Horiz
2	15530.527 M	44.7	+6.1	+0.8	+3.2	-15.8	+0.0	39.0	54.0	-15.0	Vert
3	12402.402 M	45.4	+5.4	+0.9	+2.5	-15.3	+0.0	38.9	54.0	-15.1	Vert
4	14308.306 M	44.6	+5.9	+0.8	+2.8	-15.6	+0.0	38.5	54.0	-15.5	Vert
5	16610.606 M	44.9	+6.2	+0.7	+2.9	-16.4	+0.0	38.3	54.0	-15.7	Horiz
6	14481.479 M	44.0	+6.0	+0.8	+2.9	-15.4	+0.0	38.3	54.0	-15.7	Horiz

CKC Laboratories, Inc Date: 5/12/2014 Time: 10:55:18 Enlighted, Inc WO#: 95673
Test Distance: 3 Meters Sequence#: 27



— Readings
 x QP Readings
 ▼ Ambient
 ○ Peak Readings
 * Average Readings
 — 1 - 15.247(d) / 15.209 Radiated Spurious Emissions

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **95673** Date: 5/12/2014
 Test Type: **Radiated Scan** Time: 11:33:04
 Equipment: **Sensor** Sequence#: 30
 Manufacturer: **Enlighted, Inc.** Tested By: Hieu Song Nguyenpham
 Model: **RS-2b/SU-2b**
 S/N: **ENG 1**

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN03143	Cable	32022-29094K-144TC	8/2/2013	8/2/2015
T2	ANP06125	Cable	32022-29094K-29094K-72TC	5/6/2013	5/6/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015
T3	AN02694	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	AMFW-5F-18002650-20-10P	2/4/2013	2/4/2015
T4	ANP00929	Cable	various	1/23/2014	1/23/2016

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Radiated Spurious Emission
 Frequency Range: 18000MHz to 25000MHz
 RBW= VBW=1MHz
 Firmware Used: Version 2.6.2
 Application: PuTTY

Temperature: 21.3°C
 Humidity: 43 %
 Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz
 Transmitting operating frequency= 2.4GHz Band
 RF Output= 0dBm
 Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits on the floor. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature.

In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.

Note: High Channel

Ext Attn: 0 dB

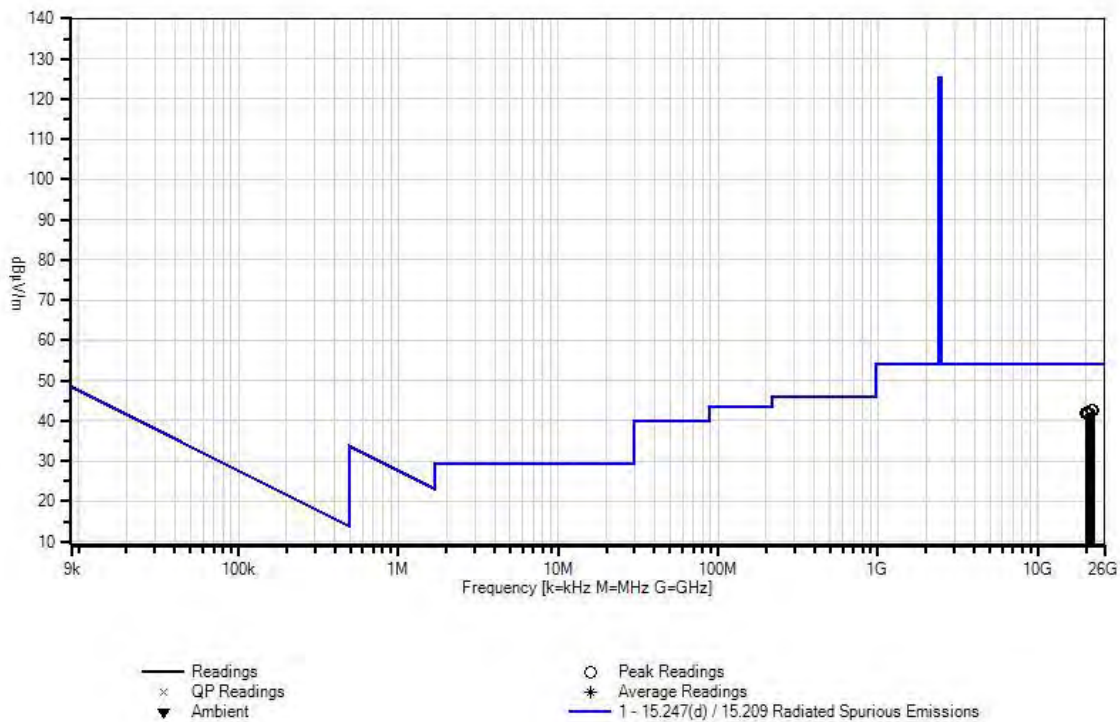
Measurement Data:

Reading listed by margin.

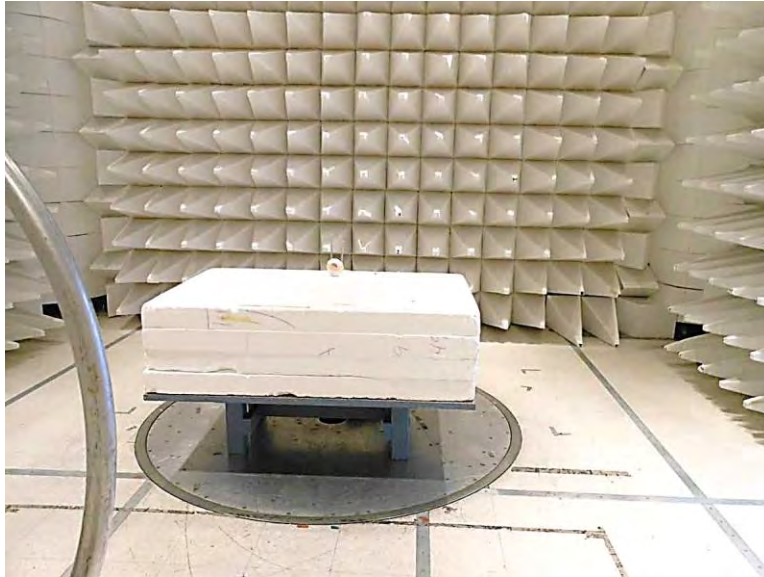
Test Distance: 3 Meters

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	22105.101 M	45.4	+7.3	+4.4	-17.4	+3.0	+0.0	42.7	54.0	-11.3	Vert
2	21724.721 M	45.2	+7.5	+4.2	-17.3	+3.0	+0.0	42.6	54.0	-11.4	Horiz
3	21624.621 M	44.9	+7.5	+4.2	-17.2	+3.1	+0.0	42.5	54.0	-11.5	Vert
4	20755.753 M	44.5	+7.2	+4.2	-17.0	+3.2	+0.0	42.1	54.0	-11.9	Vert
5	20225.223 M	44.3	+7.2	+4.0	-16.8	+3.2	+0.0	41.9	54.0	-12.1	Horiz
6	19971.970 M	44.7	+7.0	+3.8	-16.8	+3.2	+0.0	41.9	54.0	-12.1	Horiz

CKC Laboratories, Inc Date: 5/12/2014 Time: 11:33:04 Enlighted, Inc WO#: 95673
Test Distance: 3 Meters Sequence#: 30



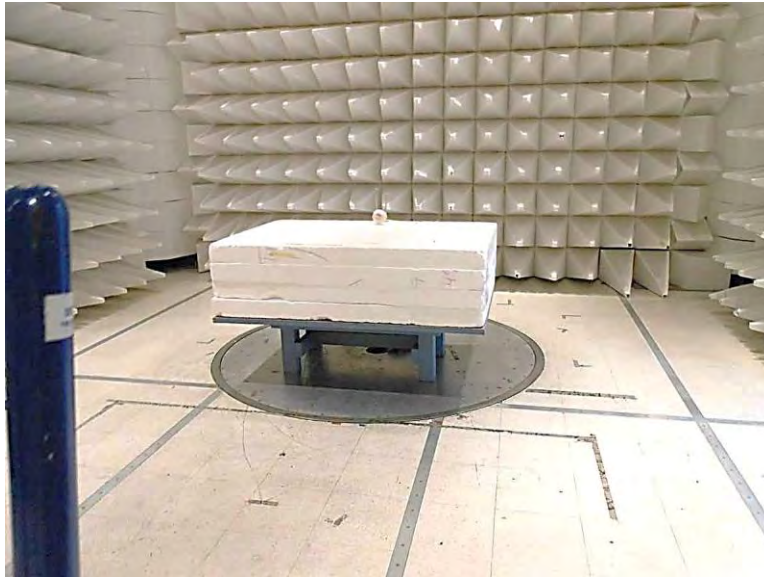
Test Setup Photos



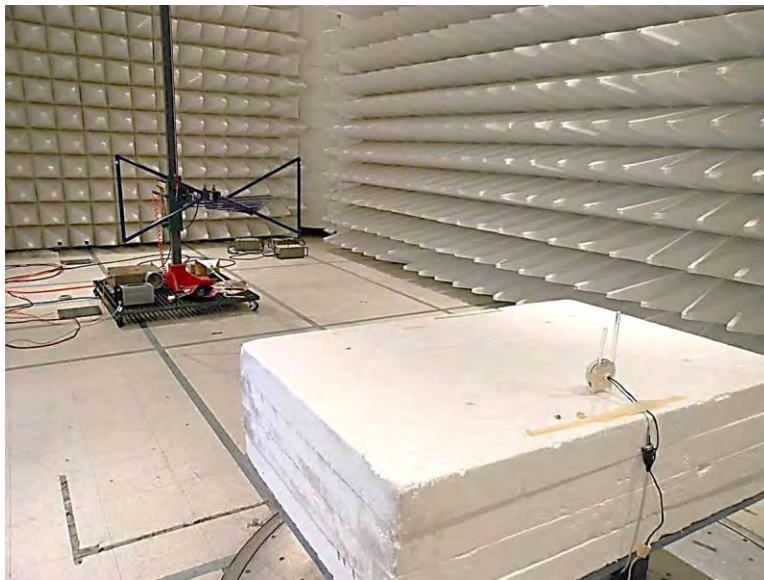
9kHz – 30MHz



9kHz – 30MHz



30MHz – 1GHz



30MHz – 1GHz



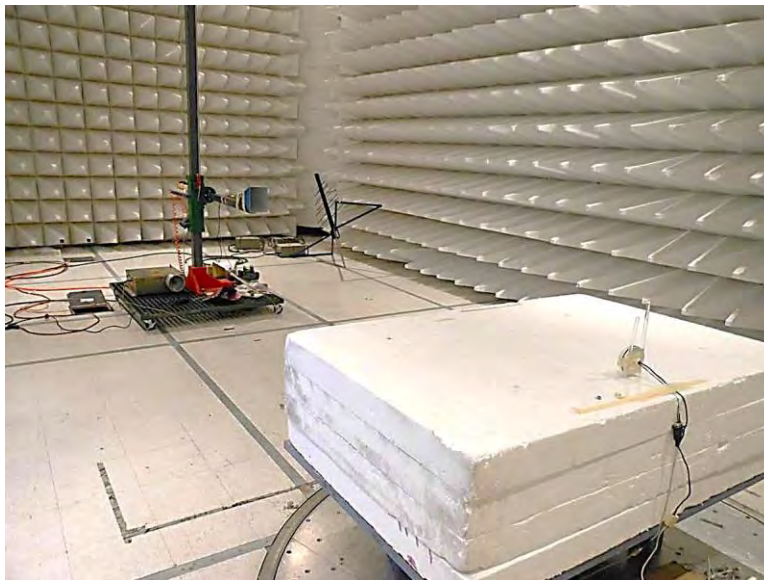
1GHz – 12GHz



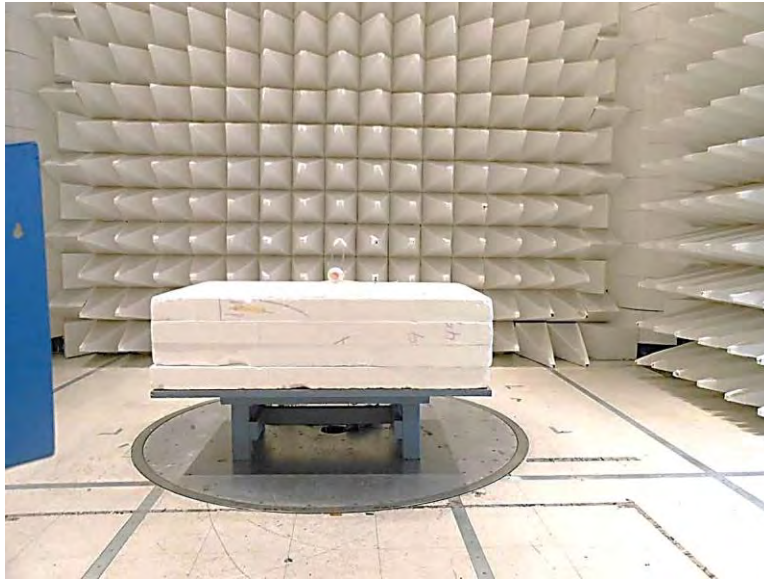
1GHz – 12GHz



12GHz – 18GHz



12GHz – 18GHz



18GHz – 25GHz



18GHz – 25GHz

Band Edge

Test Conditions / Setup

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**
 Specification: **Band Edge Set up**
 Work Order #: **95673**
 Test Type: **Radiated Scan**
 Equipment: **Sensor**
 Manufacturer: Enlighted, Inc.
 Model: RS-2b/SU-2b
 S/N: ENG 1

Date: 5/9/2014
 Time: 14:32:57
 Sequence#: 5
 Tested By: Hieu Song Nguyenpham

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02157	Horn Antenna-ANSI C63.5	3115	1/23/2013	1/23/2015
T2	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
T3	ANP01210	Cable	FSJ1P-50A-4A	2/19/2013	2/19/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

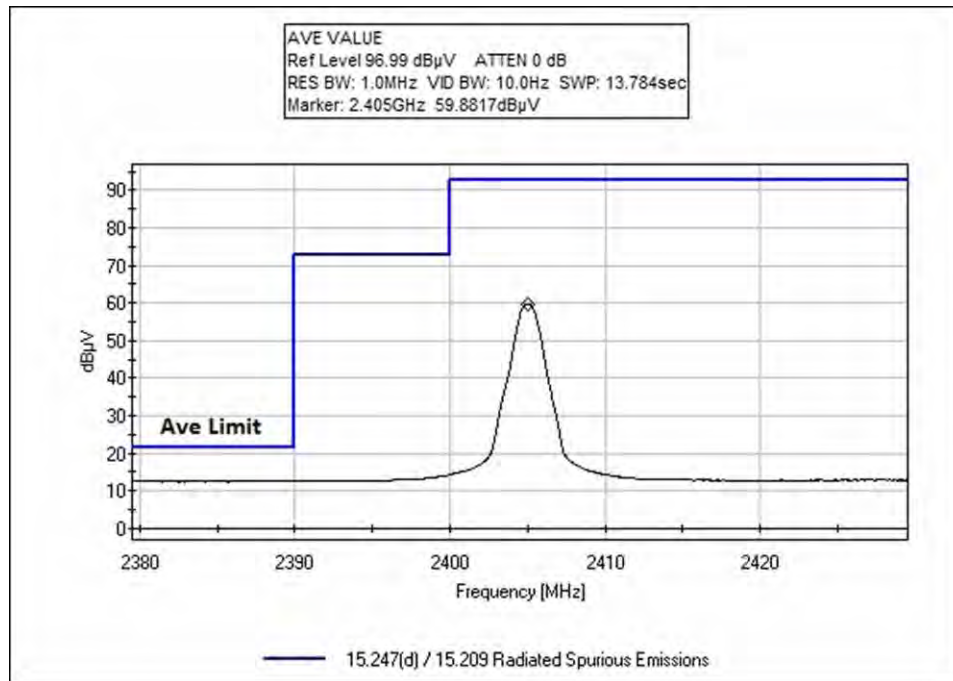
Band Edge Set up
 Firmware Used: Version 2.6.2
 Application: PuTTY

Temperature: 21.3°C
 Humidity: 43 %
 Atmospheric Pressure: 101.0 kPa

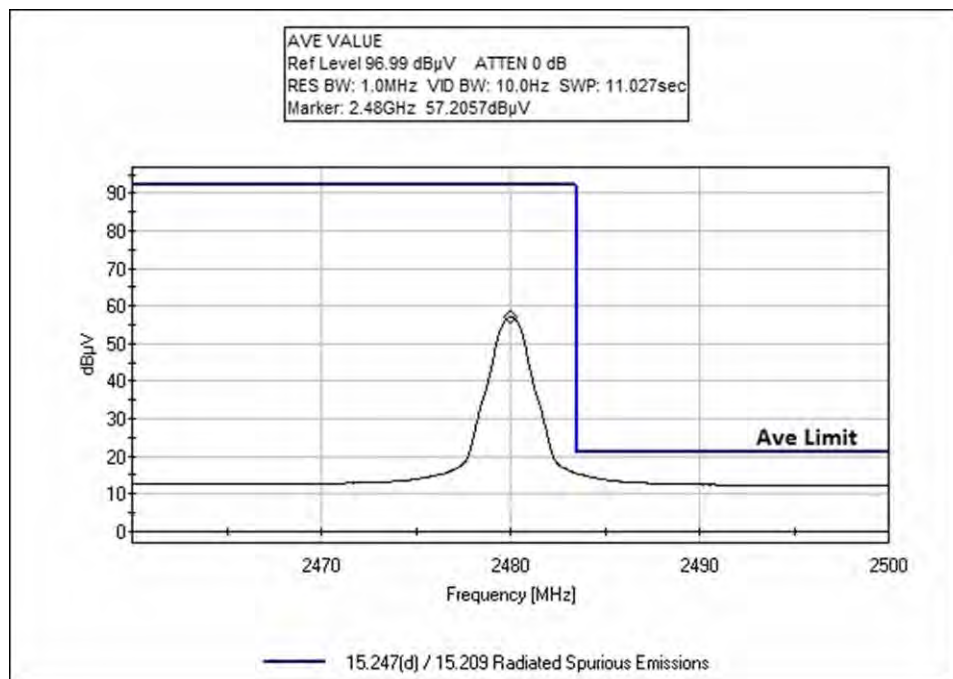
High Clock: 16MHz
 Transmitting operating frequency= 2.4GHz Band
 RF Output= 0dBm
 Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits next to it. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.

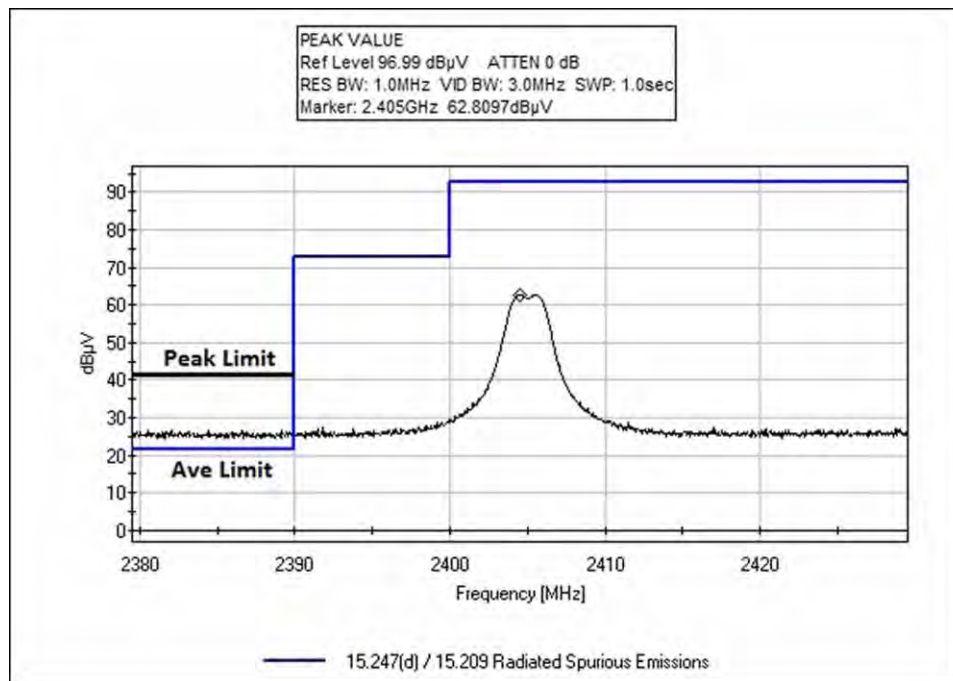
Test Data



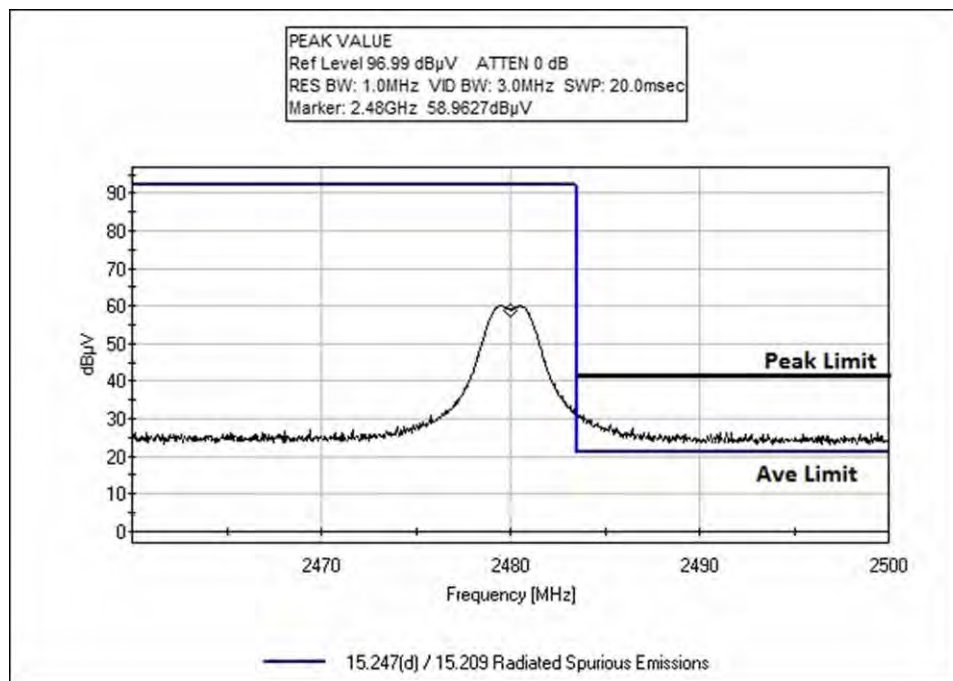
Low Channel



High Channel

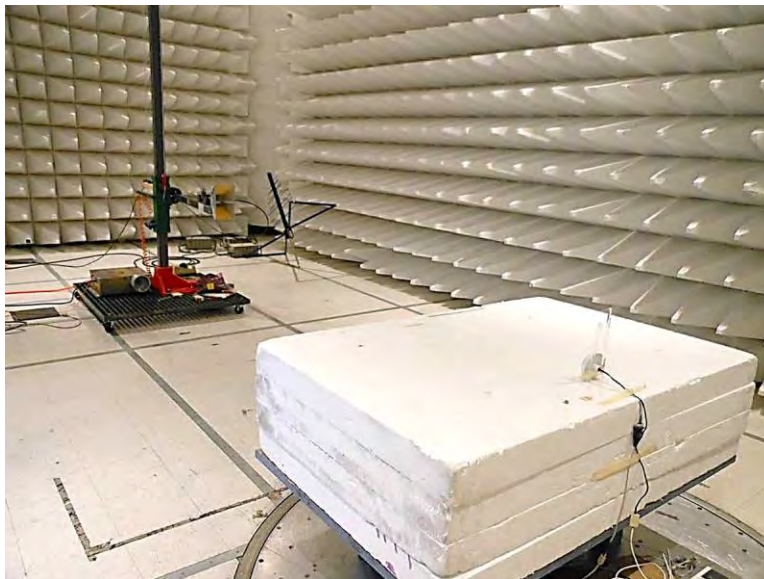


Low Channel



High Channel

Test Setup Photos



15. 247(e) Power Spectral Density

Test Conditions / Setup

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170

Customer: **Enlighted, Inc.**

Specification: **15.247(e) Peak Power Spectral Density (2400-2483.5 MHz DTS)**

Work Order #: **95673**

Date: 5/9/2014

Test Type: **Radiated Scan**

Time: 14:31:14

Equipment: **Sensor**

Sequence#: 6

Manufacturer: Enlighted, Inc.

Tested By: Hieu Song Nguyenpham

Model: RS-2b/SU-2b

S/N: ENG 1

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02157	Horn Antenna-ANSI C63.5	3115	1/23/2013	1/23/2015
T2	AN03302	Cable	32026-29094K-29094K-72TC	3/24/2014	3/24/2016
T3	ANP01210	Cable	FSJ1P-50A-4A	2/19/2013	2/19/2015
	AN02668	Spectrum Analyzer	E4446A	2/22/2013	2/22/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Sensor*	Enlighted, Inc.	RS-2b/SU-2b	ENG 1

Support Devices:

Function	Manufacturer	Model #	S/N
Power Adapter of Laptop	DELL	DA65NM111-00	CN-01XRN1-48661-39B-CMUG-A01
Laptop	DELL	Latitude E5530	18734426425
DC Power Supply	Protek	3006B	AG4070

Test Conditions / Notes:

Power Spectral Density of the EUT

RBW=100kHz

VBW=300kHz

Firmware Used: Version 2.6.2

Application: PuTTY

Temperature: 21.3°C

Humidity: 43 %

Atmospheric Pressure: 101.0 kPa

High Clock: 16MHz

Transmitting operating frequency= 2.4GHz Band

RF Output= 0dBm

Gain of the antenna= 0dBi

The EUT is a Sensor. It is powered at 14VDC by DC Power Supply which sits next to it. The EUT is considered a component of the Enlighted system, and it acts as sensors for occupancy, ambient light, and temperature. In order to monitor the EUT and control the EUT by an application "PuTTY", the EUT is connected to the laptop which is outside the chamber by a RS 232 cable. The EUT is set continuously transmitting.

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	2404.514M	61.5	+28.6	+1.2	+2.7		+0.0	94.0	103.2	-9.2	Horiz
Low Channel											
2	2439.514M	60.6	+28.7	+1.2	+2.7		+0.0	93.2	103.2	-10.0	Horiz
Middle Channel											
3	2479.518M	59.4	+28.9	+1.2	+2.7		+0.0	92.2	103.2	-11.0	Horiz
High Channel											
4	2404.512M	58.8	+28.6	+1.2	+2.7		+0.0	91.3	103.2	-11.9	Vert
Low Channel											
5	2439.514M	57.4	+28.7	+1.2	+2.7		+0.0	90.0	103.2	-13.2	Vert
Middle Channel											
6	2479.520M	55.8	+28.9	+1.2	+2.7		+0.0	88.6	103.2	-14.6	Vert
High Channel											

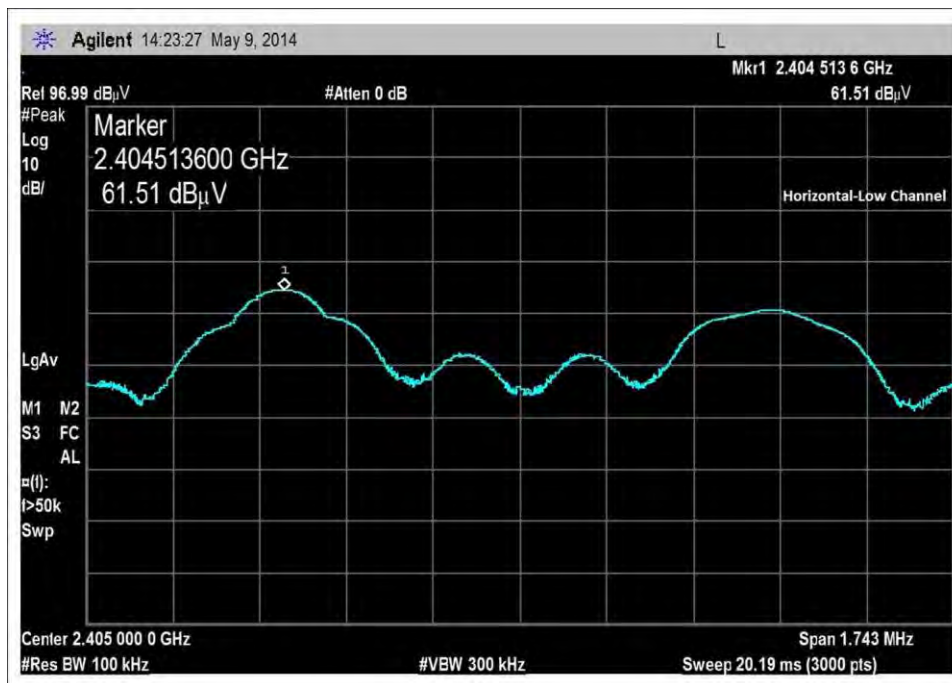
Convert equivalent electric field strength to the resultant power level

Frequency (MHz)	Measured Power in dBm	Power Limit in dBm	Pass/Fail
2404.534 Low Channel (Horizontal)	-1.229	8.00	Pass
2404.534 Low Channel (Vertical)	-3.929	8.00	Pass
2439.542 Middle Channel (Horizontal)	-2.029	8.00	Pass
2439.542 Middle Channel (Vertical)	-5.229	8.00	Pass
2479.345 High Channel (Horizontal)	-3.029	8.00	Pass
2479.345 High Channel (Vertical)	-6.629	8.00	Pass

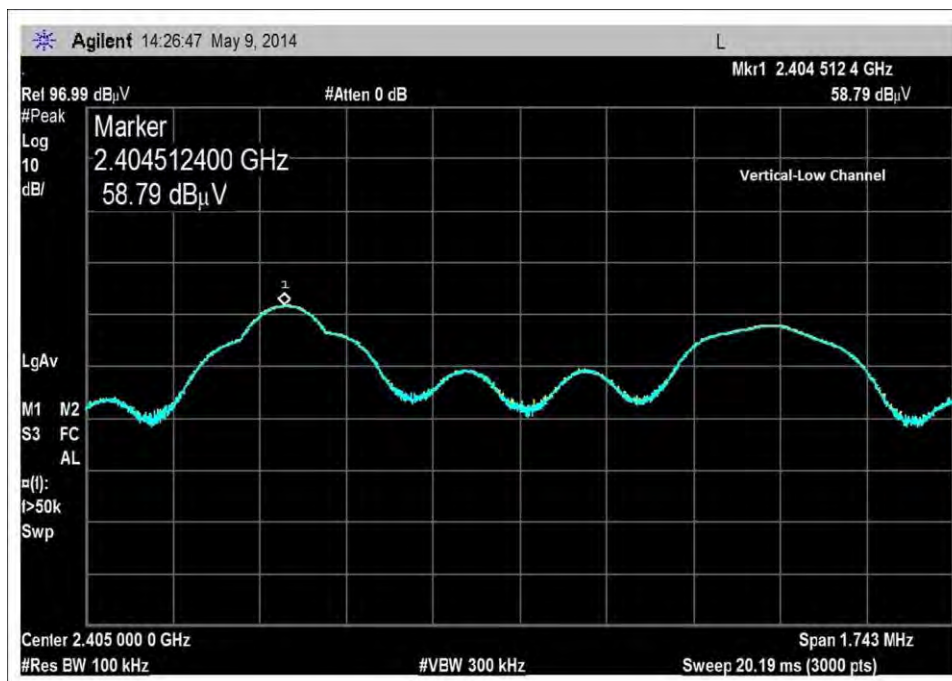
A formula converts Radiated Method to Conducted Method

$\text{dBm (conducted power)} = \text{dBuV/m} + 20 * \text{LOG D} - 104.77 - \text{Gain (dBi)}$

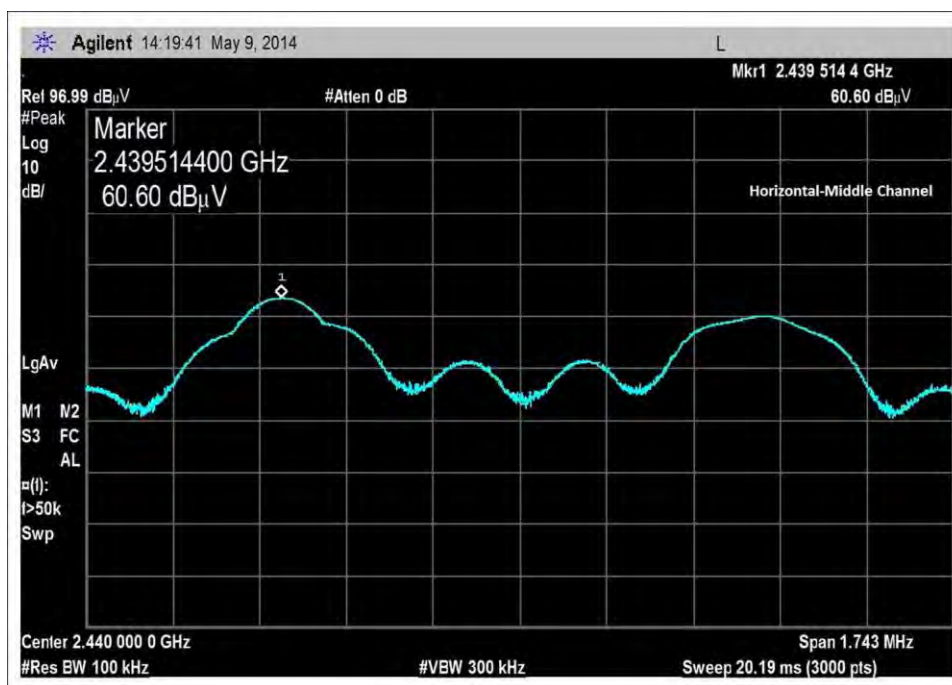
Test Data



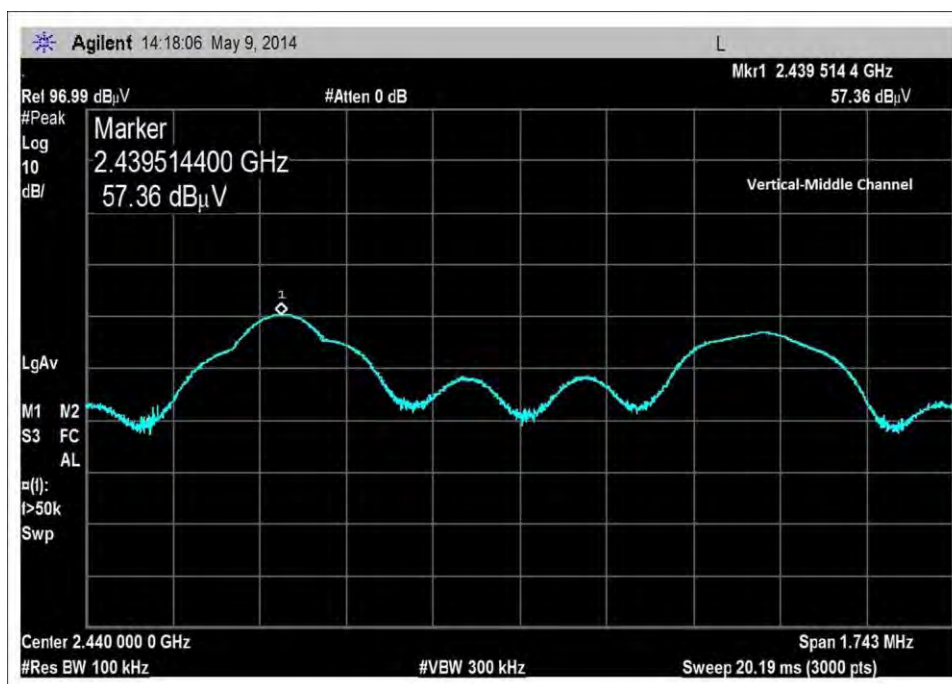
Low Channel, Horizontal



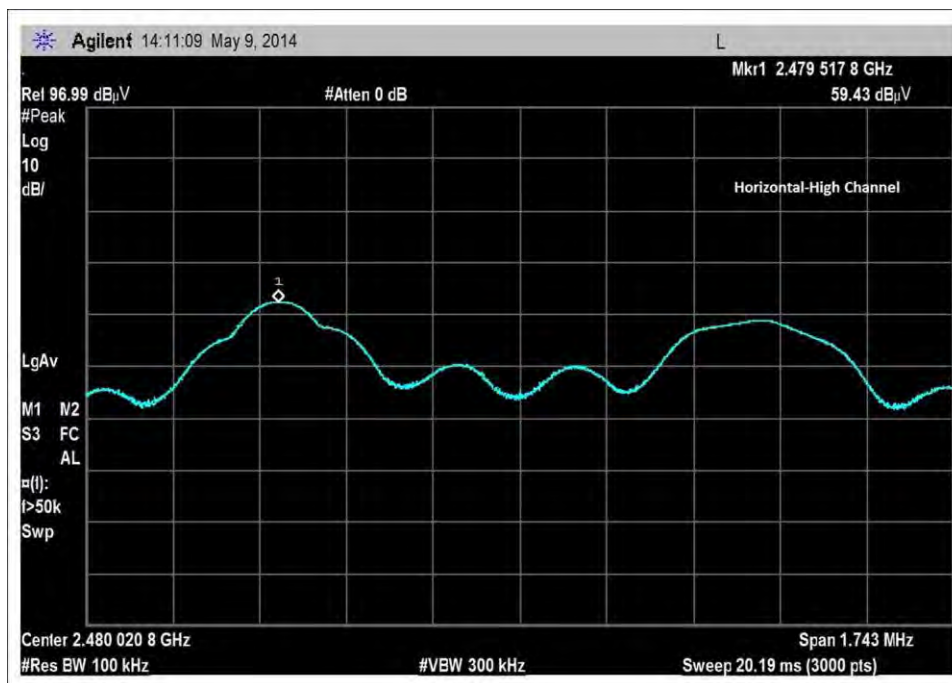
Low Channel, Vertical



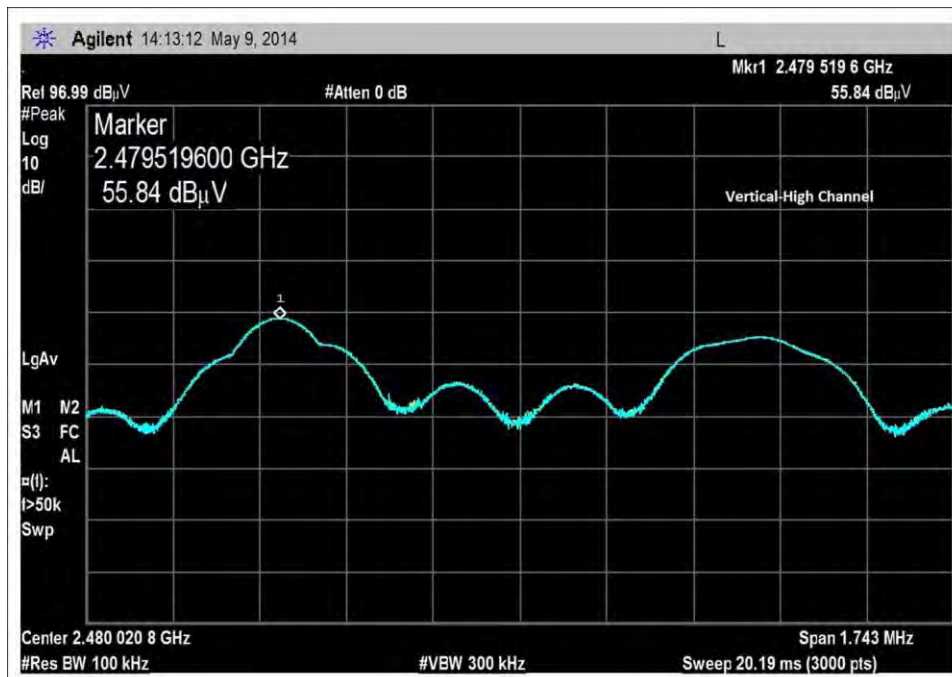
Middle Channel, Horizontal



Middle Channel, Vertical

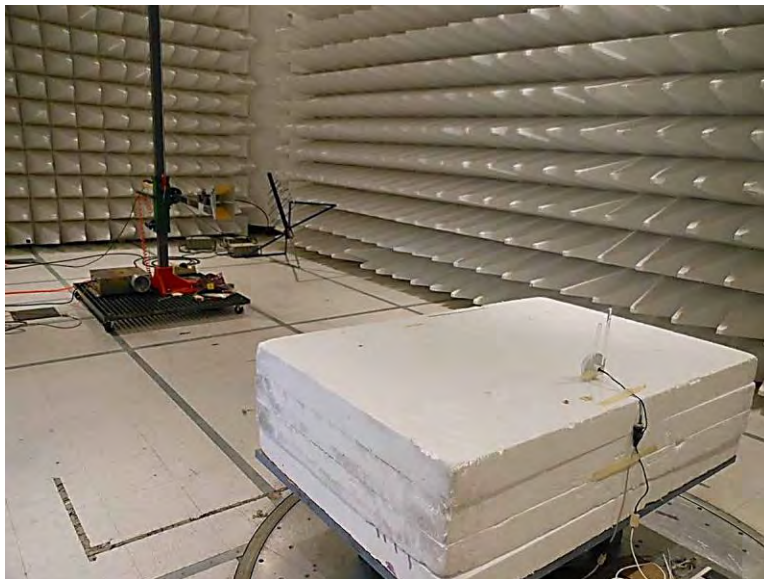


High Channel, Horizontal



High Channel, Vertical

Test Setup Photo(s)



SUPPLEMENTAL INFORMATION

Measurement Uncertainty

Uncertainty Value	Parameter
4.73 dB	Radiated Emissions
3.34 dB	Mains Conducted Emissions
3.30 dB	Disturbance Power

The reported measurement uncertainties are calculated based on the worst case of all laboratory environments from CKC Laboratories, Inc. test sites. Only those parameters which require estimation of measurement uncertainty are reported. The reported worst case measurement uncertainty is less than the maximum values derived in CISPR 16-4-2. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k=2$. Compliance is deemed to occur provided measurements are below the specified limits.

Emissions Test Details

TESTING PARAMETERS

Unless otherwise indicated, the following configuration parameters are used for equipment setup: The cables were routed consistent with the typical application by varying the configuration of the test sample. Interface cables were connected to the available ports of the test unit. The effect of varying the position of the cables was investigated to find the configuration that produced maximum emissions. Cables were of the type and length specified in the individual requirements. The length of cable that produced maximum emissions was selected.

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the setup photographs. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables.

The emissions data was taken with a spectrum analyzer or receiver. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in the table below. The corrected data was then compared to the applicable emission limits. Preliminary and final measurements were taken in order to ensure that all emissions from the EUT were found and maximized.

CORRECTION FACTORS

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in the tables. For radiated emissions in dB μ V/m, the spectrum analyzer reading in dB μ V was corrected by using the following formula. This reading was then compared to the applicable specification limit.

SAMPLE CALCULATIONS		
	Meter reading	(dBμV)
+	Antenna Factor	(dB)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	(dBμV/m)

TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed were used to collect the emissions data. A spectrum analyzer or receiver was used for all measurements. Unless otherwise specified, the following table shows the measuring equipment bandwidth settings that were used in designated frequency bands. For testing emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used.

MEASURING EQUIPMENT BANDWIDTH SETTINGS PER FREQUENCY RANGE			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	9 kHz	150 kHz	200 Hz
RADIATED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	>1 GHz	1 MHz

SPECTRUM ANALYZER/RECEIVER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the emissions tables indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "positive peak" detector mode. Whenever a "quasi-peak" or "average" reading was recorded, the measurement was annotated with a "QP" or an "Ave" on the appropriate rows of the data sheets. In cases where quasi-peak or average limits were employed and data exists for multiple measurement types for the same frequency then the peak measurement was retained in the report for reference, however the numbering for the affected row was removed and an arrow or carrot ("^") was placed in the far left-hand column indicating that the row above takes precedence for comparison to the limit. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data.

Peak

In this mode, the spectrum analyzer or receiver recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature called "peak hold," the measurement device had the ability to measure intermittent or low duty cycle transient emission peak levels. In this mode the measuring device made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

Quasi-Peak

Quasi-peak measurements were taken using the quasi-peak detector when the true peak values exceeded or were within 2 dB of a quasi-peak specification limit. Additional QP measurements may have been taken at the discretion of the operator.

Average

Average measurements were taken using the average detector when the true peak values exceeded or were within 2 dB of an average specification limit. Additional average measurements may have been taken at the discretion of the operator. If the specification or test procedure requires trace averaging, then the averaging was performed using 100 samples or as required by the specification. All other average measurements are performed using video bandwidth averaging. To make these measurements, the test engineer reduces the video bandwidth on the measuring device until the modulation of the signal is filtered out. At this point the measuring device is set into the linear mode and the scan time is reduced.