FCC PART 15, SUBPART B and C
TEST REPORT

for

ECOSENSE PLUS

MODEL: SS6205

Prepared for

TELKONET, INC.
10200 INNOVATION DRIVE, SUITE 300
MILWAUKEE, WISCONSIN 53226

Prepared by:_____

KYLE FUJIMOTO

Approved by:_____

JAMES ROSS

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DATE: OCTOBER 5, 2016

	REPORT BODY	APPENDICES					TOTAL
		A	***B***	***C***	***D***	***E***	
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NVLAP® TESTING
NVLAP LAB CODE 200528-0

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GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced without the written permission of Compatible Electronics, unless done so in full.

This report must not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government.

Device Tested:	EcoSense Plus Model: SS6205
Serial Number:	N/A
Product Description:	The EUT is a wireless occupancy sensor.
Modifications:	The EUT was not modified in order to meet the specifications.
Customer:	Telkonet, Inc. 10200 Innovaton Drive, Suite 300 Milwaukee, Wisconsin 53226
Test Dates:	February 11 and 18, 2016

Test Specification covered by accreditation:

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Test Specifications:	Emissions requirements CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.
Test Procedure:	ANSI C63.4, ANSI C63.10
Test Deviations:	The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	**DESCRIPTION**	**RESULTS**
1	Spurious Radiated RF Emissions, 10 kHz – 25000 MHz (Transmitter, Receiver, and Digital portion)	Complies with the **Class B** limits of CFR Title 47, Part 15 Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, section 15.205, 15.209 and 15.249. Highest reading in relation to spec limit: 86.80 (Avg) dBuV/m @ 2405 MHz (*U = 3.70 dB)
2	Conducted RF Emissions, AC Lines, 150 kHz – 30 MHz	Complies with the **Class B** limits of **CFR** Title 47, Part 15, Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, Section 15.207. Highest reading in relation to spec limit: 39.24 dBuV @ 0.637 MHz (*U = 2.88 dB)

1. PURPOSE

This document is a qualification test report based on the emissions tests performed on the EcoSense Plus, Model: SS6205. The emissions measurements were performed according to the measurement procedure described in ANSI C63.4 and ANSI C63.10. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209, and 15.249.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The emissions tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California 92823.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Telkonet, Inc.

Jeff Sobieski	CTO

Compatible Electronics Inc.

Kyle Fujimoto	Test Engineer
James Ross	Test Engineer

2.4 Date Test Sample was Received

The test sample was received on February 20, 2016.

2.5 Disposition of the Test Sample

The test sample has not been returned to Telkonet, Inc. as of the date of this test report.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
LISN	Line Impedance Stabilization Network
N/A	Not Applicable
Tx	Transmit
Rx	Receive

3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this emissions Test Report.

SPEC	TITLE
FCC Title 47, Part 15 Subpart C	FCC Rules – Radio frequency devices (including digital devices) – Intentional Radiators
FCC Title 47, Part 15 Subpart B	FCC Rules – Radio frequency devices (including digital devices) – Unintentional Radiators
EN 50147-2: 1997	Anechoic chambers. Alternative test site suitability with respect to site attenuation
ANSI C63.4 2014	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
ANSI C63.10 2013	American National Standard for Testing Unlicensed Wireless Devices

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration – Emissions

Battery Mode: The EcoSense Plus, Model: SS6205 (EUT) was connected to an accessory EcoSense Plus. Four unterminated wires were also connected to the TERM1 and TERM2 ports on the EUT. The EUT operates on two "AAA" batteries. A set of fresh batteries were used prior to the testing.

AC Mode: The EcoSense Plus, Model: SS6205 (EUT) was connected to an accessory EcoSense Plus and an AC Adapter. Four unterminated wires were also connected to the TERM1 and TERM2 ports on the EUT.

For configurating the EUT for the intentional radiator portion of the test: The EUT was connected to a laptop that had a program that locked one channel at a time so that the low, middle, and high channels could be tested. The EUT was tested in three orthogonal axis. The carrier was modulated in the same way it would be when the EUT was in its normal operating mode.

For configurating the EUT for the unintentional radiator portion of the test: The EUT was connected to a laptop that allowed the EUT to function as per typical normal usage.

Note: The laptop was only connected to the EUT to program the correct configuration and then was removed during the testing.

The X orientation is when the EUT is parallel to the ground. The Y orientation is when the EUT is perpendicular to the ground mounted vertically. The Z orientation is when the EUT is perpendicular to the ground mounted horizontally.

4.1.1 Cable Construction and Termination

Cable 1 This is a 2-meter unshielded cable connecting the EUT to an accessory EcoSense Plus. The cable is hard wired at each end. The cable was bundled to a length of 1-meter.

Cables 2-5 These are 2-meter unshielded cables connecting the EUT's TERM1 and TERM2 ports. The cables are hard wired into the EUT. The cable were bundled to a length of 40-centimeters.

Cable 6* This is a 2-meter unshielded cable connecting the AC Adapter to the EUT. The cable is hard wired at each end.

*AC Mode only

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
ECOSENSE PLUS	TELKONET, INC.	SS6205	N/A	XV6SS6205
LAPTOP*	HEWLETT PACKARD	G60-441US	2CE927RF3Q	N/A
AC ADAPTER**	STEREN ELECTRONICS	900-100	N/A	N/A
TEST SOFTWARE	TELKONET, INC.	WOS	N/A	N/A

*Only used to program the EUT, the laptop was removed prior to testing.
**AC Mode Only

5.2 Emissions Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CAL. CYCLE
GENERAL TEST EQUIPMENT USED IN LAB D					
TDK TestLab	TDK RF Solutions, Inc.	9.22	700145	N/A	N/A
Computer	Hewlett Packard	p6716f	MXX1030PX0	N/A	N/A
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08784	May 27, 2015	1 Year
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	2648A14530	May 27, 2015	1 Year
Quasi-Peak Adapter	Hewlett Packard	85650A	2811A01363	May 27, 2015	1 Year
LCD Monitor	Hewlett Packard	52031a	3CQ046N3MG	N/A	N/A
EMI Receiver, 20 Hz – 26.5 GHz	Agilent Technologies	N9038A	MY51210150	December 29, 2015	1 Year
RF RADIATED EMISSIONS TEST EQUIPMENT					
CombiLog Antenna	Com-Power	AC-220	61060	September 3, 2015	1 Year
Preamplifier	Com-Power	PAM-118A	551024	March 6, 2015	1 Year
Loop Antenna	Com-Power	AL-130	17089	February 6, 2015	2 Year
Preamplifier	Com-Power	PA-840	711013	May 13, 2014	2 Year
Horn Antenna	Com-Power	AH-826	71957	N/A	N/A
Horn Antenna	Com-Power	AH-118	071175	February 26, 2014	2 Year
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A
System Controller	Sunol Sciences Corporation	SC110V	112213-1	N/A	N/A
Turntable	Sunol Sciences Corporation	2011VS	N/A	N/A	N/A
Antenna-Mast	Sunol Sciences Corporation	TWR95-4	112213-3	N/A	N/A
RF CONDUCTED EMISSIONS TEST EQUIPMENT					
LISN	Com-Power	LI-215A	191951	June 9, 2015	1 Year
Transient Limiter	Com-Power	252A910	N/A	October 14, 2015	1 Year

Emissions Test Equipment (Continued)

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CAL. CYCLE
VARIATION OF THE INPUT POWER TEST EQUIPMENT					
Variable Auto Transformer	Staco Energy Products	3PN1010	N/A	N/A	N/A
Multimeter	Fluke	87	58450372	March 17, 2016	1 Year

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1 of this report for emissions test location.

6.2 EUT Mounting, Bonding and Grounding

For frequencies 1 GHz and below: The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

For frequencies above 1 GHz: The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 1.5 meters above the ground plane.

The EUT was not grounded.

7. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

7.1 RF Emissions

7.1.1 Conducted Emissions Test

The EMI Receiver was used as a measuring meter. A quasi-peak and/or average reading was taken only where indicated in the data sheets. A transient limiter was used for the protection of the EMI Receiver input stage, and the offset was adjusted accordingly to read the actual data measured. The LISN output was measured using the EMI Receiver. The output of the second LISN was terminated by a 50-ohm termination. The effective measurement bandwidth used for this test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding, and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI 63:4. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The conducted emissions from the EUT were maximized for operating mode as well as cable placement. The final data was collected under program control by computer software. The final qualification data is located in Appendix E.

Test Results:

The EUT complies with the **Class B** limits of **CFR** Title 47, Part 15, Subpart B; and Subpart C section 15.207 for conducted emissions.

7.1.2 Radiated Emissions Test

The EMI Receiver was used as the measuring meter. A built-in, internal preamplifier was used to increase the sensitivity of the instrument. The EMI Receiver was initially used with the Analyzer mode feature activated. In this mode, the EMI receiver can then record the actual frequency to be measured. This final reading is then taken accurately in the EMI Receiver mode, which takes into account the cable loss, amplifier gain and antenna factors, so that a true reading is compared to the true limit. A quasi-peak reading was taken only for those readings, which are marked accordingly on the data sheets. The effective measurement bandwidth used for the radiated emissions test was according to the frequency measured (200 Hz for 10 kHz to 150 kHz, 9 kHz for 150 kHz to 30 MHz, 120 kHz for 30 MHz to 1 GHz and 1 MHz for 1 GHz to 25 GHz).

The fundamental and harmonic frequencies above 1 GHz were averaged by a "duty cycle correction factor", derived from 20 Log (dwell time / 100ms). This duty cycle correction factor was then subtracted from the peak reading. There were no non-transmitter related spurious emissions detected above 1 GHz.

The EMI test chamber of Compatible Electronics, Inc. was used for radiated emissions testing. This test site is in full compliance with ANSI C63.4, EN 50147-2 and CISPR 22. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results.

The EUT was tested at a 3-meter test distance. The six highest emissions are listed in Table 2.0.

The measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
10 kHz to 150 kHz	200 Hz	Loop Antenna
150 kHz to 30 MHz	9 kHz	Loop Antenna
30 MHz to 1 GHz	120 kHz	CombiLog Antenna
1 GHz to 25 GHz	1 MHz	Horn Antenna

Test Results:

The EUT complies with the **Class B** limits of **CFR** Title 47, Part 15, Subpart B; and Subpart C sections 15.205, 15.209 and 15.249 for radiated emissions.

7.1.3 RF Emissions Test Results

Table 1.0 RADIATED EMISSION RESULTS
EcoSense Plus
Model: SS6205

Frequency MHz	EMI Reading (dBuV/m)	Specification Limit (dBuV/m)	Delta (Cor. Reading – Spec. Limit) dB)
2405 (H) (Z-Axis) (Battery)	86.80 (AVG)	93.97	-7.17
38.20 (H) (X-Axis) (Remote)	32.10 (QP)	40.00	-7.90
2405 (V) (X-Axis) (Battery)	85.99 (AVG)	93.97	-7.98
38.00 (H) (X-Axis) (Battery)	31.96 (QP)	40.00	-8.04
36.70 (V) (X-Axis) (Battery)	31.79 (QP)	40.00	-8.21
34.10 (H) (X-Axis) (Battery)	31.23 (QP)	40.00	-8.77

Table 2.0 CONDUCTED EMISSION RESULTS
EcoSense Plus
Model: SS6205

Frequency MHz	Emission Level* dBuV	Average Specification Limit dBuV	Delta (Spec limit-Emission) dB
0.637 (Line)	39.24	46.00	-6.76
0.637 (Neutral)	38.53	46.00	-7.47
0.763 (Line)	34.34	46.00	-11.66
2.651 (Neutral)	34.19	46.00	-11.81
2.013 (Line)	34.05	46.00	-11.95
0.783 (Line)	33.94	46.00	-12.06

Notes:
* The complete emissions data is given in Appendix E of this report

(V) Vertical
(H) Horizontal
(AVG) Average

7.2 Fundamental Field Strength (Duty Cycle Calculations)

The Peak Transmit Radiated Field Strength was measured at a 3-meter test distance. The EMI Receiver was used to obtain the duty cycle. The data sheets are located in Appendix E.

Where

$$\delta(\mathrm{dB}) = 20\log\left[\sum\left(nt_1 + mt_2 + \ldots + \xi t_x\right)/T\right]$$

n is the number of pulses of duration *t*1
m is the number of pulses of duration *t*2
ξ is the number of pulses of duration *tx*
T is the period of the pulse train or 100 ms if the pulse train length is greater than 100 ms

All of the configurations and modes were less than 10%, thus the maximum -20 dB peak to average ratio could be utilized. See Appendix E for more details and the calculations.

7.3 Variation of the Input Power

The variation of the input power test was performed using the EMI Receiver. The EUT input power was varied between 85% and 115% of the nominal rated supply voltage. The carrier frequency was monitored for any change in amplitude.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.31(e).

8. CONCLUSIONS

The EcoSense Plus, Model: SS6205, as tested, meets all of the specification limits defined in FCC Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209, and 15.249.

APPENDIX A

LABORATORY ACCREDITATIONS AND RECOGNITIONS

LABORATORY ACCREDITATIONS AND RECOGNITIONS

NVLAP®
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NVLAP LAB CODE 200528-0

For US, Canada, Australia/New Zealand, Japan, Taiwan, Korea, and the European Union, Compatible Electronics is currently accredited by NVLAP to ISO/IEC 17025.
For the most up-to-date version of our scopes and certificates please visit
http://celectronics.com/quality/scope/

Quote from ISO-ILAC-IAF Communiqué on 17025:
"A laboratory's fulfilment of the requirements of ISO/IEC 17025:2005 means the laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations. The management system requirements in ISO/IEC 17025:2005 (Section 4) are written in language relevant to laboratory operations and meet the principles of ISO 9001:2008 Quality Management Systems — Requirements."

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC Subpart B and FCC 15.249 specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

No modifications were made to the EUT during the testing.

APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

EcoSense Plus
Model: SS6205
S/N: N/A

There are no additional models covered under this report.

APPENDIX D

DIAGRAMS AND CHARTS

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP

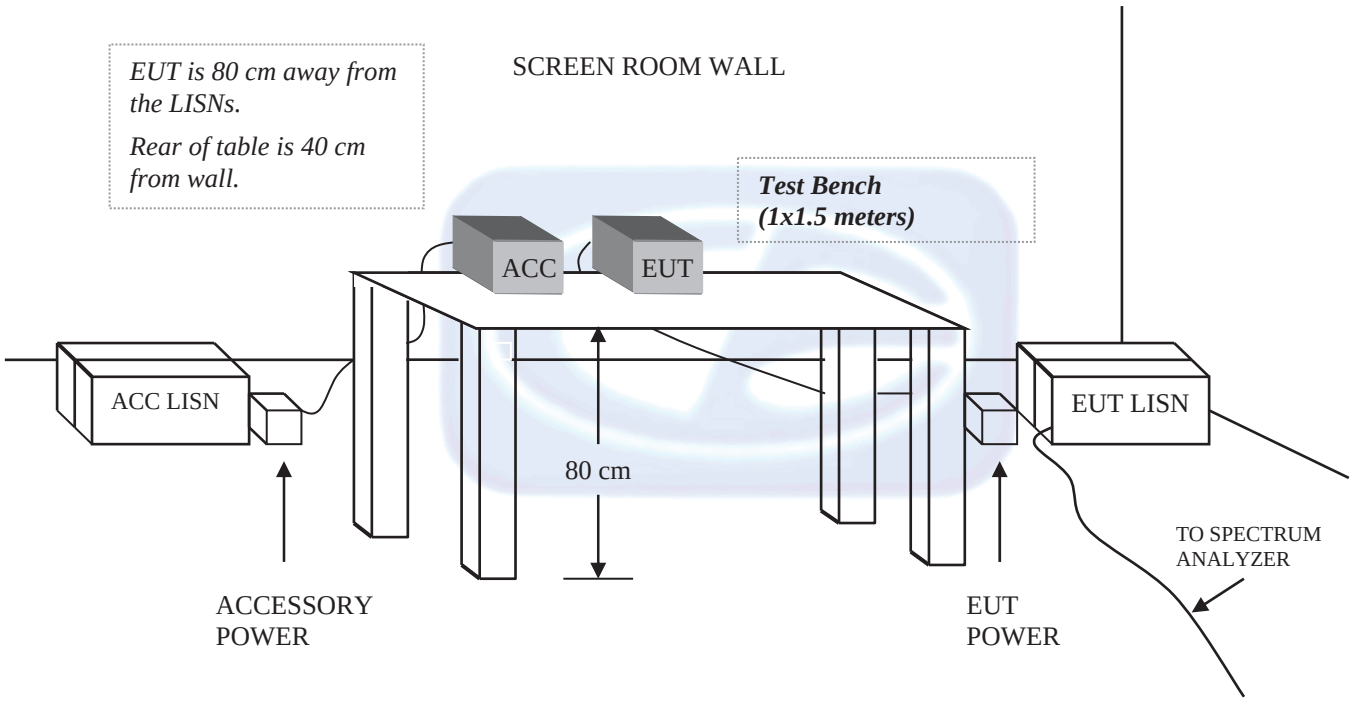
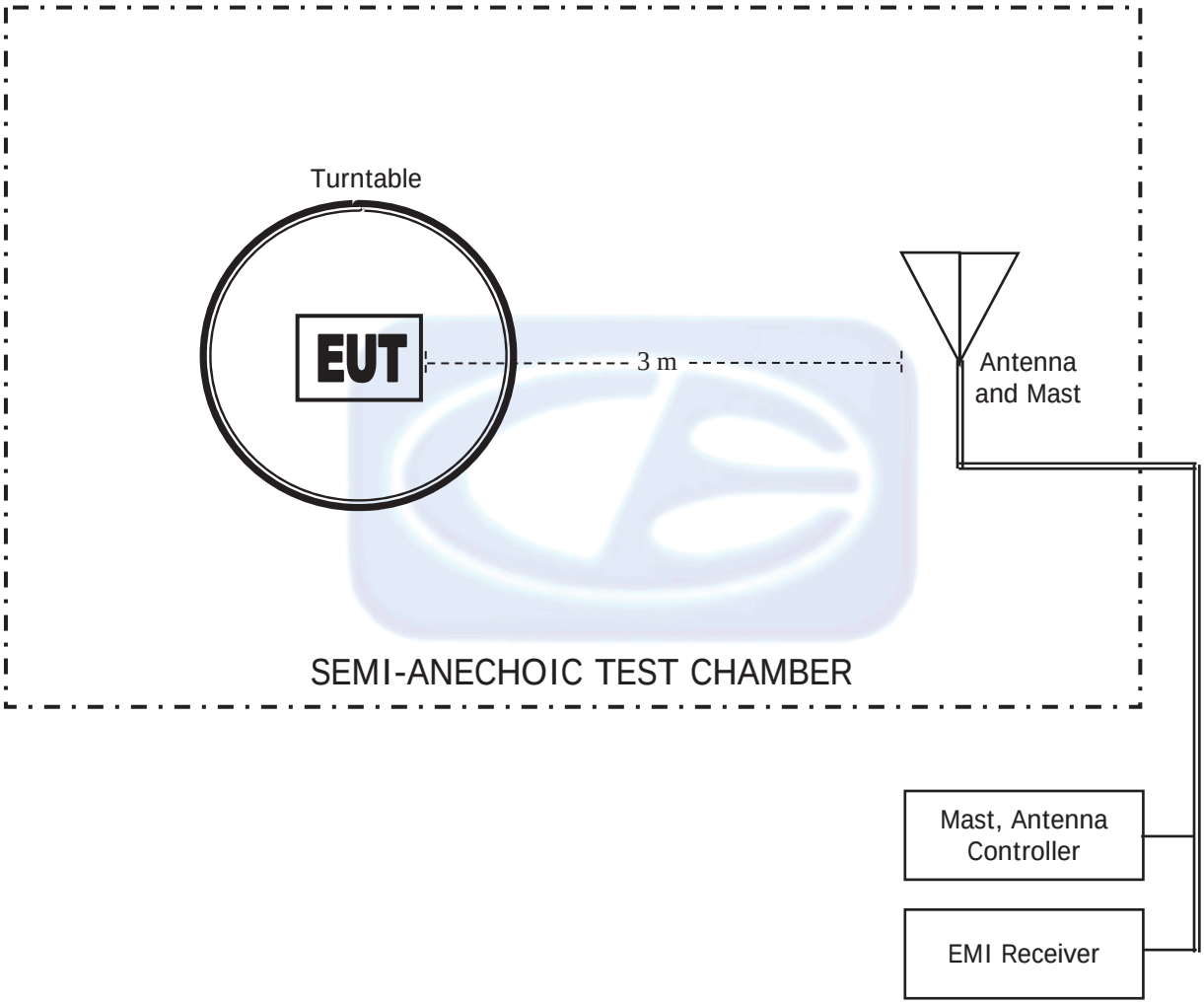


FIGURE 2: LAYOUT OF THE SEMI-ANECHOIC TEST CHAMBER



COM-POWER AL-130

LOOP ANTENNA

S/N: 17089

CALIBRATION DATE: FEBRUARY 6, 2015

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-33.18	18.32
0.01	-34.10	17.40
0.02	-38.65	12.85
0.03	-39.28	12.22
0.04	-40.09	11.41
0.05	-40.85	10.65
0.06	-40.88	10.62
0.07	-41.07	10.43
0.08	-41.04	10.46
0.09	-41.19	10.31
0.1	-41.20	10.30
0.2	-41.52	9.98
0.3	-41.53	9.97
0.4	-41.42	10.08
0.5	-41.53	9.97
0.6	-41.53	9.97
0.7	-41.43	10.07
0.8	-41.23	10.27
0.9	-41.13	10.37
1	-41.14	10.36
2	-40.80	10.70
3	-40.66	10.84
4	-40.61	10.89
5	-40.33	11.17
6	-40.53	10.97
7	-40.47	11.03
8	-40.48	11.02
9	-39.93	11.57
10	-39.81	11.69
15	-43.35	8.15
20	-39.16	12.34
25	-40.24	11.26
30	-43.18	8.32

COM-POWER AC-220

COMBILOG ANTENNA

S/N: 61060

CALIBRATION DATE: SEPTEMBER 3, 2015

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	24.00	200	13.00
35	24.30	250	15.30
40	25.40	300	18.20
45	21.50	350	17.90
50	22.50	400	18.60
60	15.40	450	19.80
70	12.70	500	21.60
80	11.10	550	22.40
90	13.40	600	23.70
100	13.80	650	24.30
120	15.40	700	24.00
125	15.40	750	24.50
140	13.10	800	24.30
150	17.20	850	26.30
160	13.20	900	26.90
175	14.20	950	26.00
180	14.30	1000	25.60

COM POWER AH-118

HORN ANTENNA

S/N: 071175

CALIBRATION DATE: FEBRUARY 26, 2014

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	24.23	10.0	38.43
1.5	25.84	10.5	40.19
2.0	28.14	11.0	40.49
2.5	29.51	11.5	41.39
3.0	31.20	12.0	42.02
3.5	32.17	12.5	43.30
4.0	31.40	13.0	42.77
4.5	31.86	13.5	40.18
5.0	34.82	14.0	42.59
5.5	34.38	14.5	41.74
6.0	36.31	15.0	41.84
6.5	34.81	15.5	38.48
7.0	37.48	16.0	39.52
7.5	36.98	16.5	37.85
8.0	36.66	17.0	41.33
8.5	38.47	17.5	44.96
9.0	37.22	18.0	48.50
9.5	37.86		

COM-POWER PAM-118A

PREAMPLIFIER

S/N: 551024

CALIBRATION DATE: MARCH 6, 2015

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	39.76	6.0	38.77
1.1	40.46	6.5	38.46
1.2	40.05	7.0	38.27
1.3	40.58	7.5	38.77
1.4	39.50	8.0	39.25
1.5	39.92	8.5	38.63
1.6	40.40	9.0	39.58
1.7	40.10	9.5	42.12
1.8	40.49	10.0	38.53
1.9	38.86	11.0	40.21
2.0	41.53	12.0	41.15
2.5	41.05	13.0	40.51
3.0	40.29	14.0	40.32
3.5	40.82	15.0	39.47
4.0	40.88	16.0	39.88
4.5	41.37	17.0	39.79
5.0	40.73	18.0	40.61
5.5	39.05		

COM-POWER AH-826

HORN ANTENNA

S/N: 71957

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	33.5	22.5	35.5
18.5	33.5	23.0	35.9
19.0	34.0	23.5	35.7
19.5	34.0	24.0	35.6
20.0	34.3	24.5	36.0
20.5	34.9	25.0	36.2
21.0	34.7	25.5	36.1
21.5	35.0	26.0	36.2
22.0	35.0	26.5	35.7

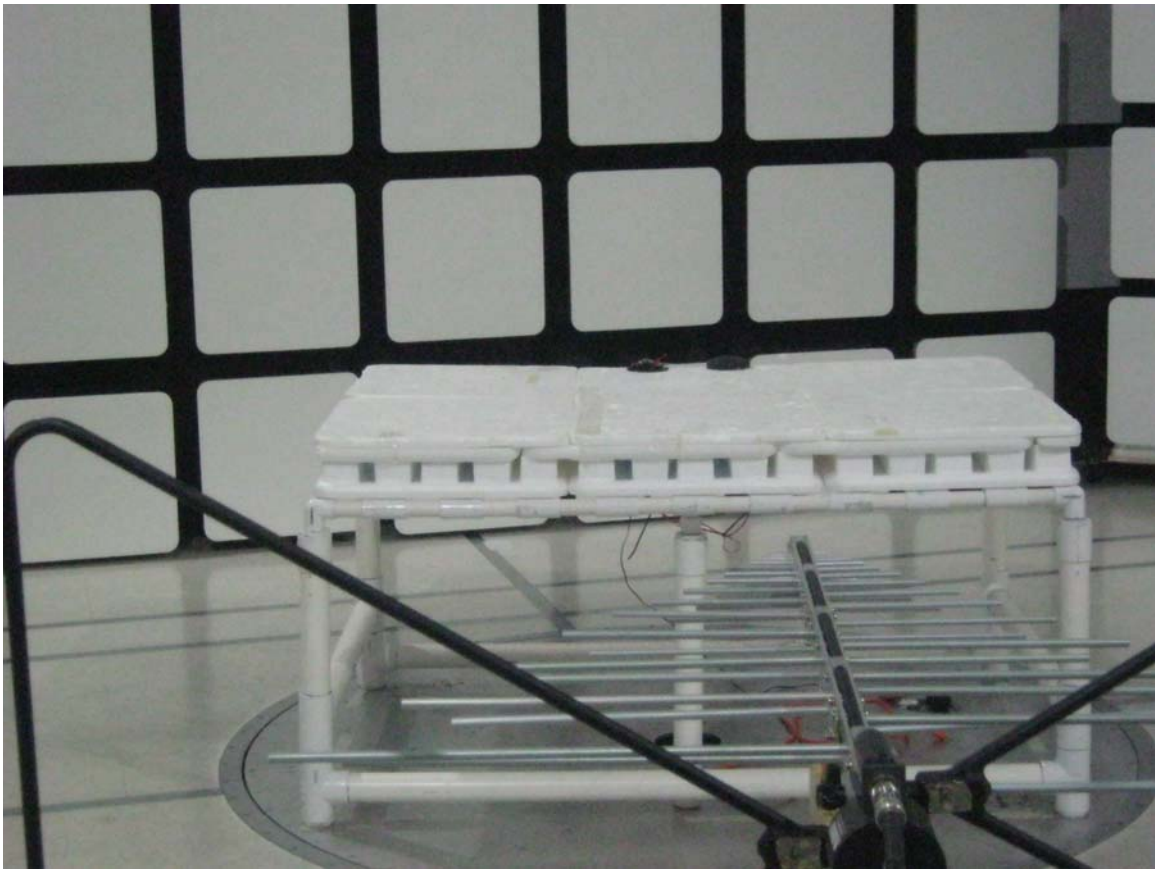
COM-POWER PA-840

MICROWAVE PREAMPLIFIER

S/N: 711013

CALIBRATION DATE: MAY 13, 2014

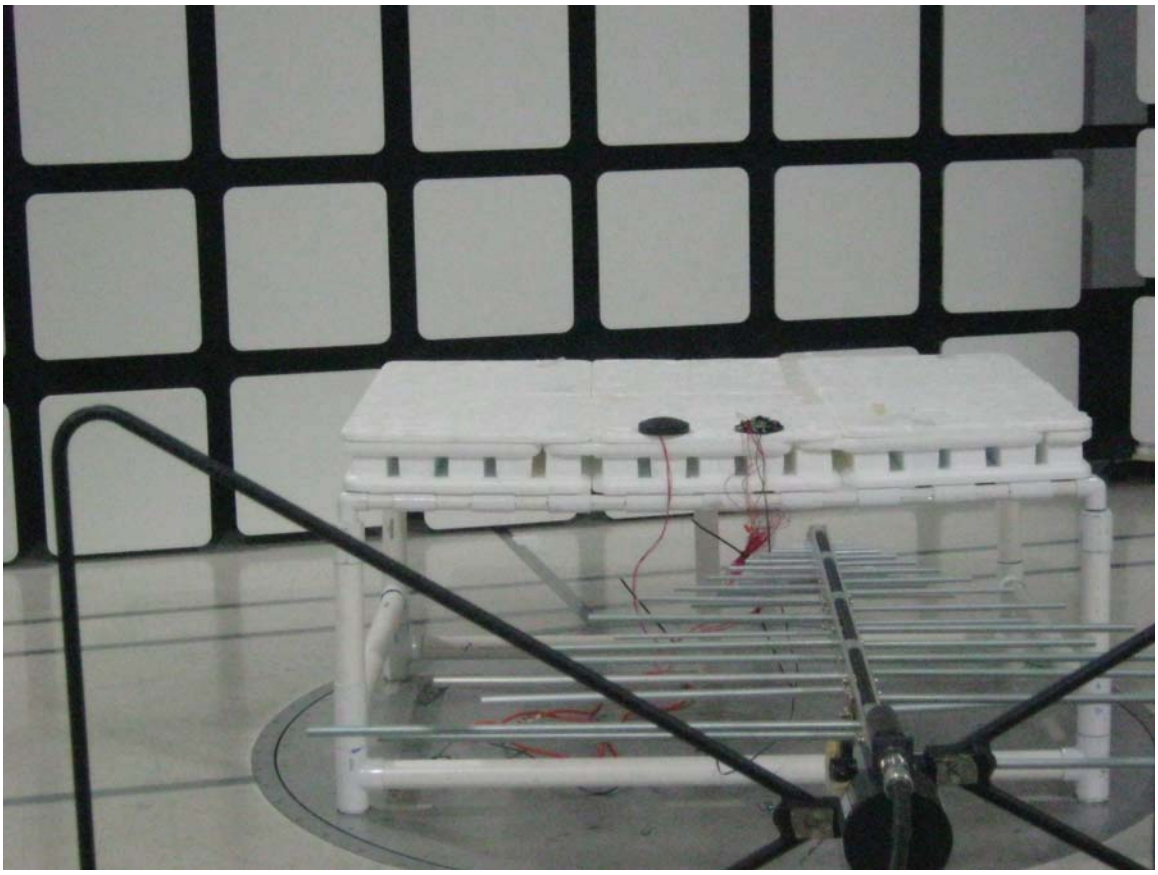
FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	25.19	31.0	25.69
19.0	24.48	31.5	25.74
20.0	24.39	32.0	26.35
21.0	24.73	32.5	26.64
22.0	23.49	33.0	25.98
23.0	24.23	33.5	24.68
24.0	24.59	34.0	24.61
25.0	25.32	34.5	23.78
26.0	25.66	35.0	24.74
26.5	25.99	35.5	24.39
27.0	26.26	36.0	23.46
27.5	25.33	36.5	23.71
28.0	24.49	37.0	26.35
28.5	24.74	37.5	23.49
29.0	25.93	38.0	25.42
29.5	26.28	38.5	24.87
30.0	26.17	39.0	22.60
30.5	26.11	39.5	20.57
		40.0	19.15



FRONT VIEW

TELKONET, INC.
ECOSENSE PLUS
MODEL: SS6205
FCC SUBPART B AND C – RADIATED EMISSIONS – AC MODE – BELOW 1 GHz

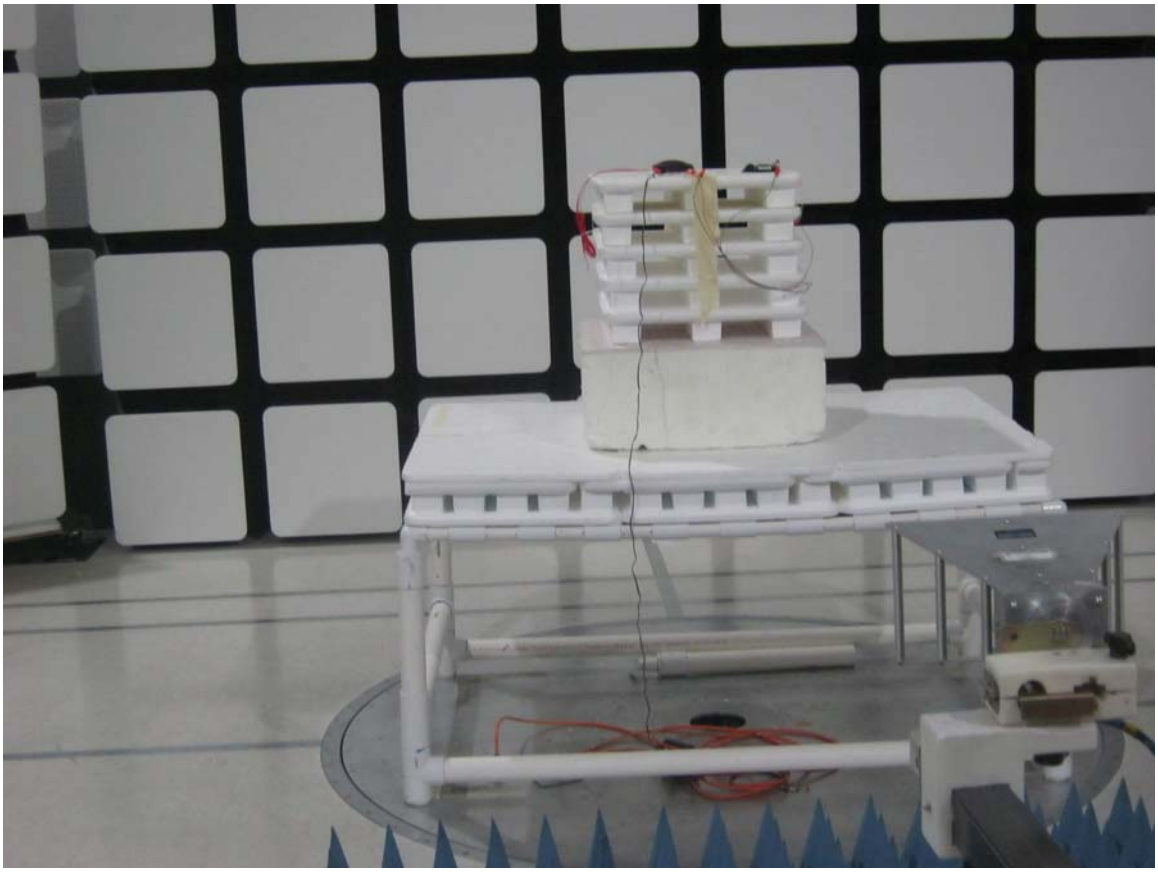
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

TELKONET, INC.
ECOSENSE PLUS
MODEL: SS6205
FCC SUBPART B AND C – RADIATED EMISSIONS – AC MODE – BELOW 1 GHz

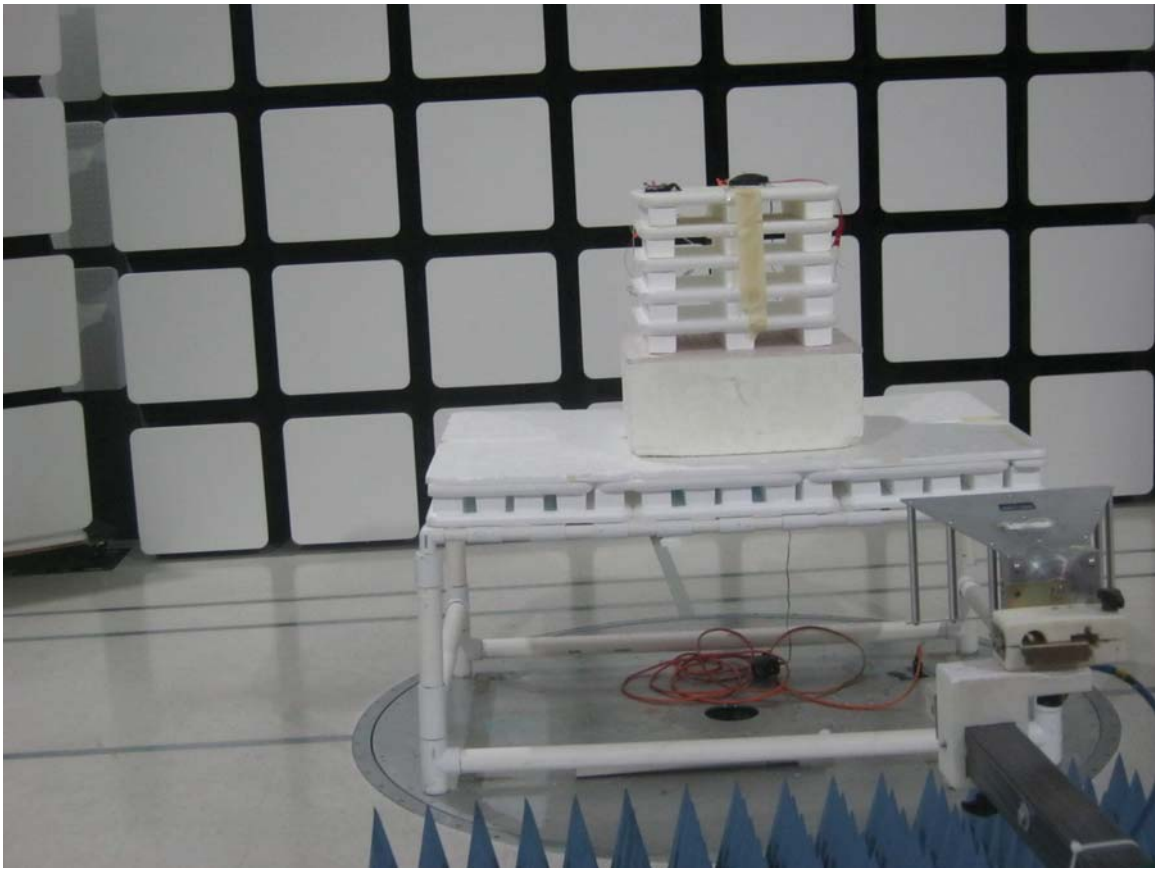
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



FRONT VIEW

TELKONET, INC.
ECOSENSE PLUS
MODEL: SS6205
FCC SUBPART B AND C – RADIATED EMISSIONS – AC MODE – ABOVE 1 GHz

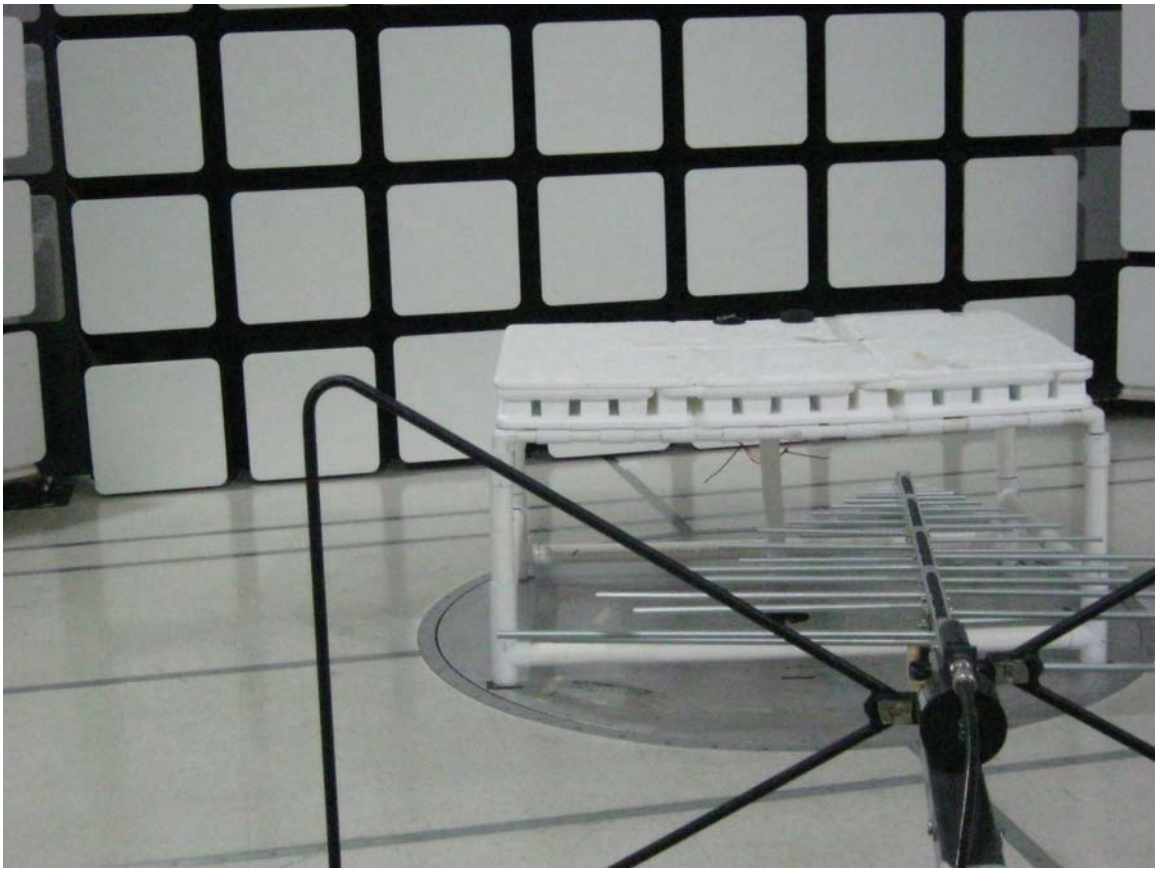
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

TELKONET, INC.
ECOSENSE PLUS
MODEL: SS6205
FCC SUBPART B AND C – RADIATED EMISSIONS – AC MODE – ABOVE 1 GHz

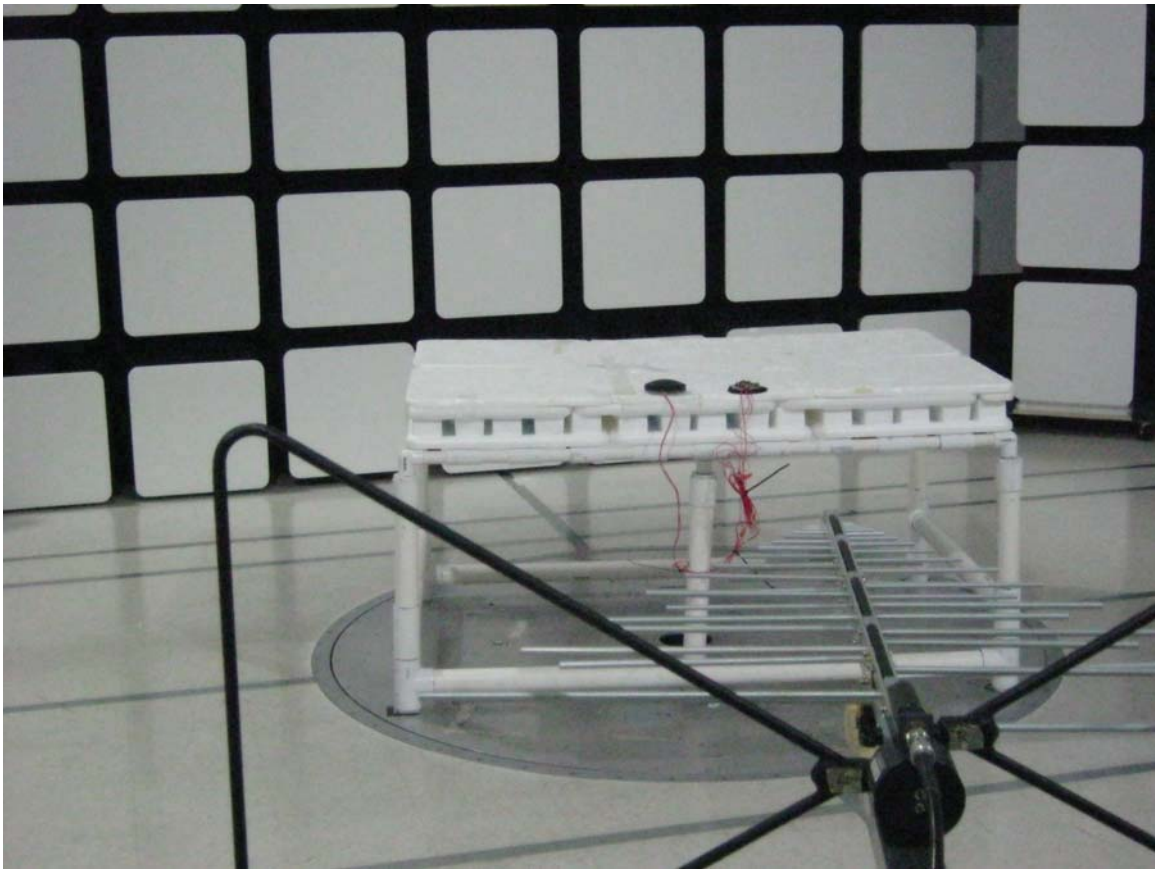
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



FRONT VIEW

TELKONET, INC.
ECOSENSE PLUS
MODEL: SS6205
FCC SUBPART B AND C – RADIATED EMISSIONS – BATTERY MODE – BELOW 1 GHz

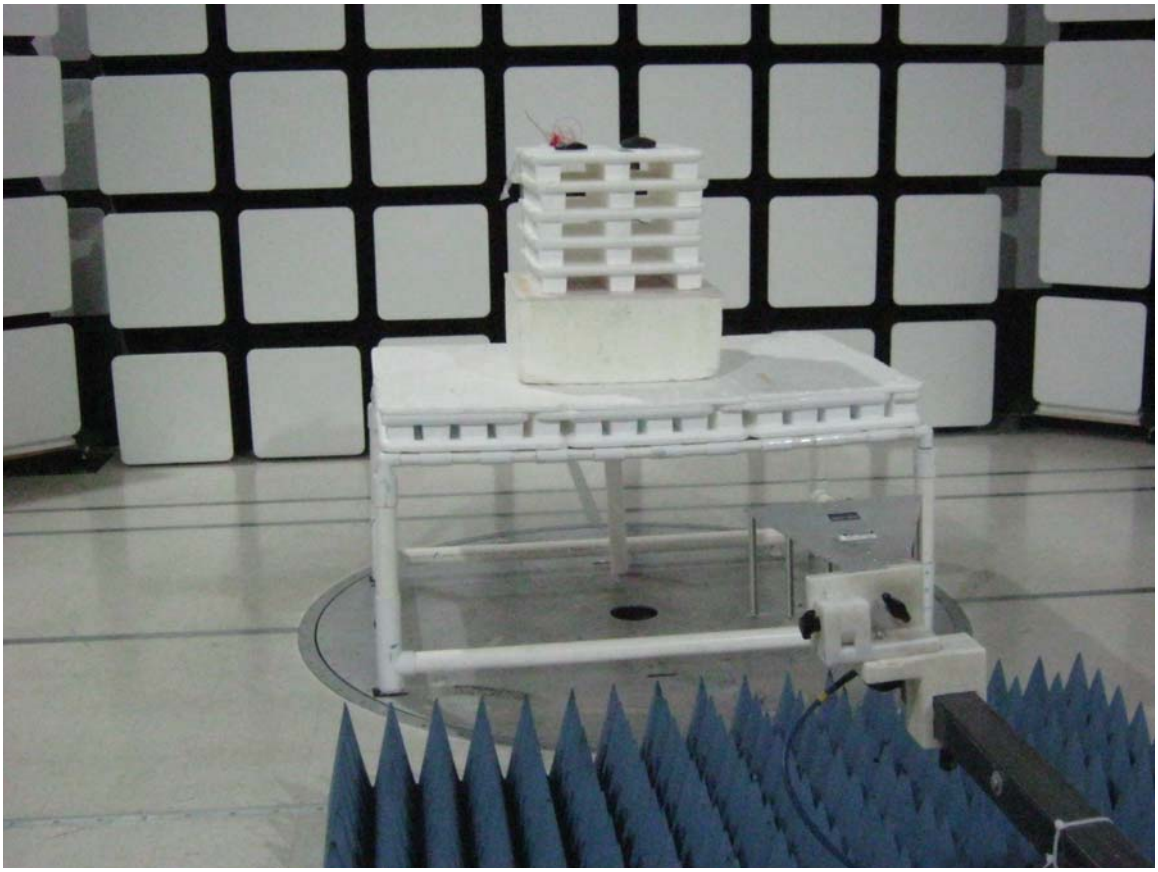
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

TELKONET, INC.
ECOSENSE PLUS
MODEL: SS6205
FCC SUBPART B AND C – RADIATED EMISSIONS – BATTERY MODE – BELOW 1 GHz

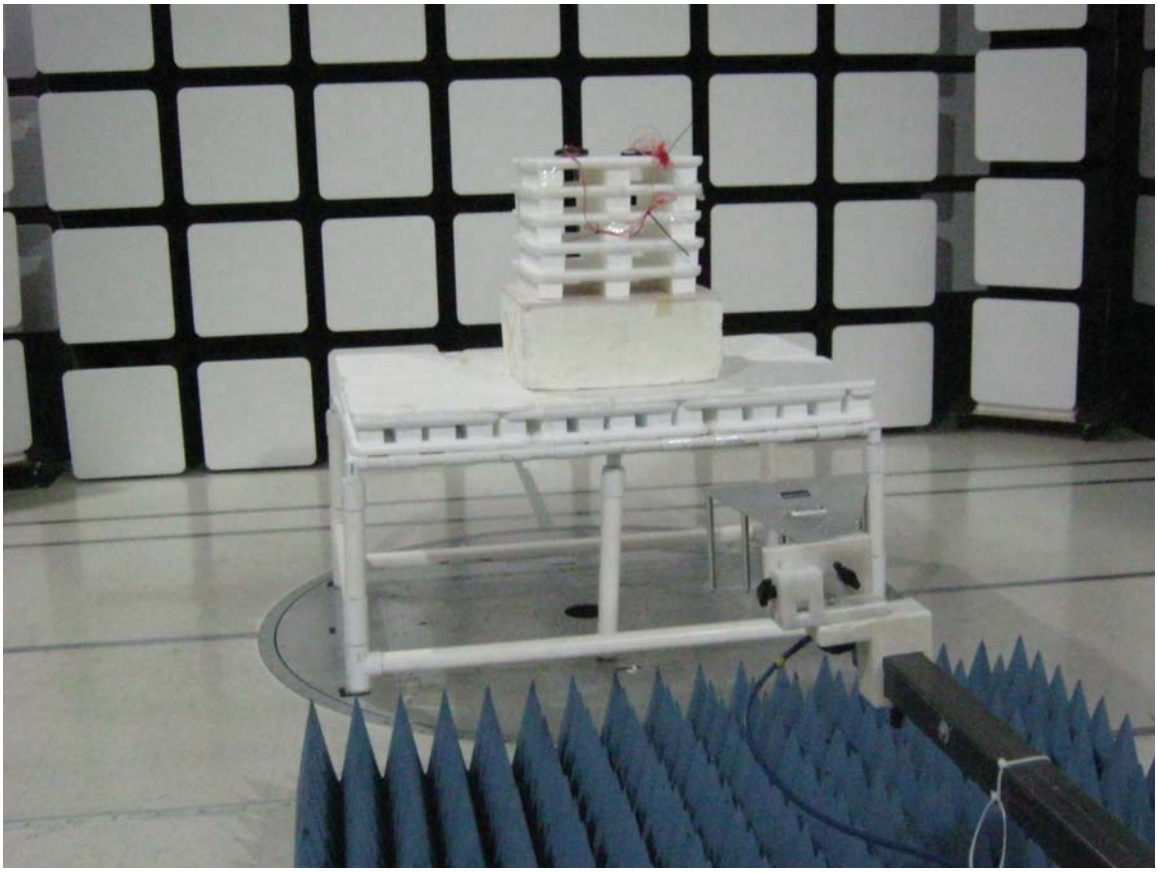
PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



FRONT VIEW

TELKONET, INC.
ECOSENSE PLUS
MODEL: SS6205
FCC SUBPART B AND C – RADIATED EMISSIONS – BATTERY MODE – ABOVE 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

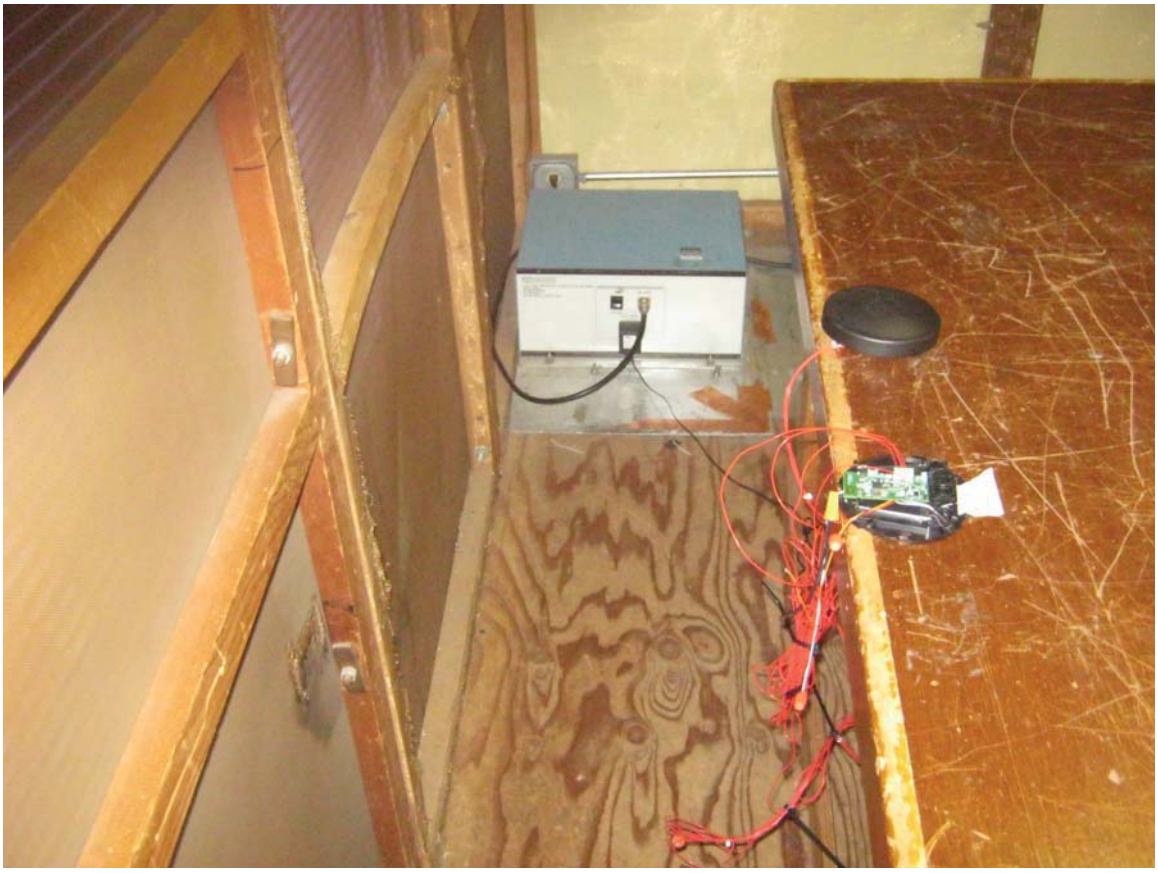
TELKONET, INC.
ECOSENSE PLUS
MODEL: SS6205
FCC SUBPART B AND C – RADIATED EMISSIONS – BATTERY MODE – ABOVE 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

TELKONET, INC.
ECOSENSE PLUS
MODEL: SS6205
FCC SUBPART B AND C – CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

TELKONET, INC.
ECOSENSE PLUS
MODEL: SS6205
FCC SUBPART B AND C – CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

RADIATED EMISSIONS DATA SHEETS

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - Battery Mode
Fundamental Readings

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2405.00	106.80	H	113.97	-7.17	Peak	181.75	239.76	**Low Channel**
2405.00	86.80	H	93.97	-7.17	Avg	181.75	239.76	**Fundamental - Z-Axis**
2405.00	103.50	V	113.97	-10.47	Peak	138.25	109.15	**Low Channel**
2405.00	83.50	V	93.97	-10.47	Avg	138.25	109.15	**Fundamental - Z-Axis**
2405.00	101.77	H	113.97	-12.20	Peak	303.25	179.16	**Low Channel**
2405.00	81.77	H	93.97	-12.20	Avg	303.25	179.16	**Fundamental - Y-Axis**
2405.00	103.43	V	113.97	-10.54	Peak	100.25	144.12	**Low Channel**
2405.00	83.43	V	93.97	-10.54	Avg	100.25	144.12	**Fundamental - Y-Axis**
2405.00	104.42	H	113.97	-9.55	Peak	364.75	212.26	**Low Channel**
2405.00	84.42	H	93.97	-9.55	Avg	364.75	212.26	**Fundamental - X-Axis**
2405.00	105.99	V	113.97	-7.98	Peak	147.25	142.56	**Low Channel**
2405.00	85.99	V	93.97	-7.98	Avg	147.25	142.56	**Fundamental - X-Axis**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - Battery Mode
Fundamental Readings

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2440.00	101.59	H	113.97	-12.38	Peak	251.75	182.92	**Middle Channel**
2440.00	81.59	H	93.97	-12.38	Avg	251.75	182.92	**Fundamental - Z-Axis**
2440.00	103.53	V	113.97	-10.44	Peak	136.75	111.28	**Middle Channel**
2440.00	83.53	V	93.97	-10.44	Avg	136.75	111.28	**Fundamental - Z-Axis**
2440.00	99.54	H	113.97	-14.43	Peak	305.25	182.50	**Middle Channel**
2440.00	79.54	H	93.97	-14.43	Avg	305.25	182.50	**Fundamental - Y-Axis**
2440.00	101.49	V	113.97	-12.48	Peak	97.25	146.32	**Middle Channel**
2440.00	81.49	V	93.97	-12.48	Avg	97.25	146.32	**Fundamental - Y-Axis**
2440.00	101.59	H	113.97	-12.38	Peak	361.33	211.16	**Middle Channel**
2440.00	81.59	H	93.97	-12.38	Avg	361.25	211.16	**Fundamental - X-Axis**
2440.00	96.97	V	113.97	-17.00	Peak	180.75	182.62	**Middle Channel**
2440.00	76.97	V	93.97	-17.00	Avg	180.75	182.62	**Fundamental - X-Axis**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel - Battery Mode
Fundamental Readings

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2480.00	105.01	H	113.97	-8.96	Peak	69.01	158.44	**High Channel**
2480.00	85.01	H	93.97	-8.96	Avg	69.01	158.44	**Fundamental - Z-Axis**
2480.00	102.58	V	113.97	-11.39	Peak	137.75	104.26	**High Channel**
2480.00	82.58	V	93.97	-11.39	Avg	137.75	10.43	**Fundamental - Z-Axis**
2480.00	98.59	H	113.97	-15.38	Peak	307.75	182.59	**High Channel**
2480.00	78.59	H	93.97	-15.38	Avg	307.75	182.59	**Fundamental - Y-Axis**
2480.00	98.41	V	113.97	-15.56	Peak	85.25	141.21	**High Channel**
2480.00	78.41	V	93.97	-15.56	Avg	85.25	141.21	**Fundamental - Y-Axis**
2480.00	103.92	H	113.97	-10.05	Peak	133.25	158.44	**High Channel**
2480.00	83.92	H	93.97	-10.05	Avg	133.25	158.44	**X-Axis - Worst Case**
2480.00	104.13	V	113.97	-9.84	Peak	133.25	158.44	**High Channel**
2480.00	84.13	V	93.97	-9.84	Avg	133.25	158.44	**X-Axis - Worst Case**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - Battery Mode
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	51.85	V	73.97	-22.12	Peak	355.00	182.29	
4810	31.85	V	53.97	-22.12	Avg	355.00	182.29	
7215	53.22	V	73.97	-20.75	Peak	81.75	191.61	
7215	33.22	V	53.97	-20.75	Avg	81.75	191.61	
9620								**No Emissions**
9620								**Detected**
12025								**No Emissions**
12025								**Detected**
14430								**No Emissions**
14430								**Detected**
16835								**No Emissions**
16835								**Detected**
19240								**No Emissions**
19240								**Detected**
21645								**No Emissions**
21645								**Detected**
24050								**No Emissions**
24050								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - Battery Mode
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	51.33	V	73.97	-22.64	Peak	8.75	170.71	
4810	31.33	V	53.97	-22.64	Avg	8.75	170.71	
7215	57.21	V	73.97	-16.76	Peak	96.50	175.24	
7215	37.21	V	53.97	-16.76	Avg	96.50	175.24	
9620								**No Emissions**
9620								**Detected**
12025								**No Emissions**
12025								**Detected**
14430								**No Emissions**
14430								**Detected**
16835								**No Emissions**
16835								**Detected**
19240								**No Emissions**
19240								**Detected**
21645								**No Emissions**
21645								**Detected**
24050								**No Emissions**
24050								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - Battery Mode
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	58.13	V	73.97	-15.85	Peak	175.75	170.71	
4810	38.13	V	53.97	-15.85	Avg	175.75	170.71	
7215	54.26	V	73.97	-19.71	Peak	165.25	184.25	
7215	34.26	V	53.97	-19.71	Avg	165.25	184.25	
9620								**No Emissions**
9620								**Detected**
12025								**No Emissions**
12025								**Detected**
14430								**No Emissions**
14430								**Detected**
16835								**No Emissions**
16835								**Detected**
19240								**No Emissions**
19240								**Detected**
21645								**No Emissions**
21645								**Detected**
24050								**No Emissions**
24050								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - Battery Mode
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	57.67	H	73.97	-16.30	Peak	122.00	179.91	
4810	37.67	H	53.97	-16.30	Avg	122.00	179.91	
7215	55.54	H	73.97	-18.44	Peak	135.00	185.25	
7215	35.54	H	53.97	-18.44	Avg	135.00	185.25	
9620								**No Emissions**
9620								**Detected**
12025								**No Emissions**
12025								**Detected**
14430								**No Emissions**
14430								**Detected**
16835								**No Emissions**
16835								**Detected**
19240								**No Emissions**
19240								**Detected**
21645								**No Emissions**
21645								**Detected**
24050								**No Emissions**
24050								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - Battery Mode
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	57.70	H	73.97	-16.27	Peak	156.25	161.52	
4810	37.70	H	53.97	-16.27	Avg	156.25	161.52	
7215	54.26	H	73.97	-19.71	Peak	154.25	145.25	
7215	34.26	H	53.97	-19.71	Avg	154.25	145.25	
9620								**No Emissions**
9620								**Detected**
12025								**No Emissions**
12025								**Detected**
14430								**No Emissions**
14430								**Detected**
16835								**No Emissions**
16835								**Detected**
19240								**No Emissions**
19240								**Detected**
21645								**No Emissions**
21645								**Detected**
24050								**No Emissions**
24050								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - Battery Mode
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810	51.81	H	73.97	-22.16	Peak	216.00	165.28	
4810	31.81	H	53.97	-22.16	Avg	216.00	165.28	
7215	57.55	H	73.97	-16.42	Peak	213.00	175.25	
7215	37.55	H	53.97	-16.42	Avg	213.00	175.25	
9620								**No Emissions**
9620								**Detected**
12025								**No Emissions**
12025								**Detected**
14430								**No Emissions**
14430								**Detected**
16835								**No Emissions**
16835								**Detected**
19240								**No Emissions**
19240								**Detected**
21645								**No Emissions**
21645								**Detected**
24050								**No Emissions**
24050								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - Battery Mode
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	51.81	V	73.97	-22.16	Peak	135.00	160.86	
4880	31.81	V	53.97	-22.16	Avg	135.00	160.86	
7320	57.31	V	73.97	-16.66	Peak	53.25	190.75	
7320	37.31	V	53.97	-16.66	Avg	53.25	190.75	
9760								**No Emissions**
9760								**Detected**
12200								**No Emissions**
12200								**Detected**
14640								**No Emissions**
14640								**Detected**
17080								**No Emissions**
17080								**Detected**
19520								**No Emissions**
19520								**Detected**
21960								**No Emissions**
21960								**Detected**
24400								**No Emissions**
24400								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - Battery Mode
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	51.91	V	73.97	-22.06	Peak	183.50	148.38	
4880	31.91	V	53.97	-22.06	Avg	183.50	148.38	
7320	57.55	V	73.97	-16.42	Peak	66.25	141.64	
7320	37.55	V	53.97	-16.42	Avg	66.25	141.64	
9760								**No Emissions**
9760								**Detected**
12200								**No Emissions**
12200								**Detected**
14640								**No Emissions**
14640								**Detected**
17080								**No Emissions**
17080								**Detected**
19520								**No Emissions**
19520								**Detected**
21960								**No Emissions**
21960								**Detected**
24400								**No Emissions**
24400								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - Battery Mode
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	48.15	V	73.97	-25.82	Peak	131.75	161.52	
4880	28.15	V	53.97	-25.82	Avg	131.75	161.52	
7320	55.99	V	73.97	-17.99	Peak	355.00	155.42	
7320	35.99	V	53.97	-17.99	Avg	355.00	155.42	
9760								**No Emissions**
9760								**Detected**
12200								**No Emissions**
12200								**Detected**
14640								**No Emissions**
14640								**Detected**
17080								**No Emissions**
17080								**Detected**
19520								**No Emissions**
19520								**Detected**
21960								**No Emissions**
21960								**Detected**
24400								**No Emissions**
24400								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - Battery Mode
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	51.59	H	73.97	-22.38	Peak	355.00	163.19	
4880	31.59	H	53.97	-22.38	Avg	355.00	163.19	
7320	57.37	H	73.97	-16.60	Peak	237.25	165.25	
7320	37.37	H	53.97	-16.60	Avg	237.25	165.25	
9760								**No Emissions**
9760								**Detected**
12200								**No Emissions**
12200								**Detected**
14640								**No Emissions**
14640								**Detected**
17080								**No Emissions**
17080								**Detected**
19520								**No Emissions**
19520								**Detected**
21960								**No Emissions**
21960								**Detected**
24400								**No Emissions**
24400								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - Battery Mode
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	51.31	H	73.97	-22.67	Peak	174.25	145.52	
4880	31.31	H	53.97	-22.67	Avg	174.25	145.52	
7320	57.34	H	73.97	-16.64	Peak	59.00	150.23	
7320	37.34	H	53.97	-16.64	Avg	59.00	150.23	
9760								**No Emissions**
9760								**Detected**
12200								**No Emissions**
12200								**Detected**
14640								**No Emissions**
14640								**Detected**
17080								**No Emissions**
17080								**Detected**
19520								**No Emissions**
19520								**Detected**
21960								**No Emissions**
21960								**Detected**
24400								**No Emissions**
24400								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - Battery Mode
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880	51.63	H	73.97	-22.34	Peak	128.25	158.53	
4880	31.63	H	53.97	-22.34	Avg	128.25	158.53	
7320	57.01	H	73.97	-16.96	Peak	25.50	161.82	
7320	37.01	H	53.97	-16.96	Avg	25.50	161.82	
9760								**No Emissions**
9760								**Detected**
12200								**No Emissions**
12200								**Detected**
14640								**No Emissions**
14640								**Detected**
17080								**No Emissions**
17080								**Detected**
19520								**No Emissions**
19520								**Detected**
21960								**No Emissions**
21960								**Detected**
24400								**No Emissions**
24400								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel - Battery Mode
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	52.68	V	73.97	-21.29	Peak	273.25	185.21	
4960	32.68	V	53.97	-21.29	Avg	273.25	185.21	
7440	57.74	V	73.97	-16.23	Peak	221.50	174.11	
7440	37.74	V	53.97	-16.23	Avg	221.50	174.11	
9920								**No Emissions**
9920								**Detected**
12400								**No Emissions**
12400								**Detected**
14880								**No Emissions**
14880								**Detected**
17360								**No Emissions**
17360								**Detected**
19840								**No Emissions**
19840								**Detected**
22320								**No Emissions**
22320								**Detected**
24800								**No Emissions**
24800								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel - Battery Mode
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	51.26	V	73.97	-22.71	Peak	22.00	165.16	
4960	31.26	V	53.97	-22.71	Avg	22.00	165.16	
7440	57.29	V	73.97	-16.68	Peak	120.75	185.21	
7440	37.29	V	53.97	-16.68	Avg	120.75	185.21	
9920								**No Emissions**
9920								**Detected**
12400								**No Emissions**
12400								**Detected**
14880								**No Emissions**
14880								**Detected**
17360								**No Emissions**
17360								**Detected**
19840								**No Emissions**
19840								**Detected**
22320								**No Emissions**
22320								**Detected**
24800								**No Emissions**
24800								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel - Battery Mode
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	52.60	V	73.97	-21.37	Peak	93.75	195.31	
4960	32.60	V	53.97	-21.37	Avg	93.75	195.31	
7440	57.09	V	73.97	-16.88	Peak	29.00	178.17	
7440	37.09	V	53.97	-16.88	Avg	29.00	178.17	
9920								**No Emissions**
9920								**Detected**
12400								**No Emissions**
12400								**Detected**
14880								**No Emissions**
14880								**Detected**
17360								**No Emissions**
17360								**Detected**
19840								**No Emissions**
19840								**Detected**
22320								**No Emissions**
22320								**Detected**
24800								**No Emissions**
24800								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel - Battery Mode
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	52.88	H	73.97	-21.09	Peak	305.50	178.29	
4960	32.88	H	53.97	-21.09	Avg	305.50	178.29	
7440	57.03	H	73.97	-16.94	Peak	223.25	163.19	
7440	37.03	H	53.97	-16.94	Avg	223.25	163.19	
9920								**No Emissions**
9920								**Detected**
12400								**No Emissions**
12400								**Detected**
14880								**No Emissions**
14880								**Detected**
17360								**No Emissions**
17360								**Detected**
19840								**No Emissions**
19840								**Detected**
22320								**No Emissions**
22320								**Detected**
24800								**No Emissions**
24800								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel - Battery Mode
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	52.36	H	73.97	-21.61	Peak	355.00	170.05	
4960	32.36	H	53.97	-21.61	Avg	355.00	170.05	
7440	57.23	H	73.97	-16.74	Peak	115.25	160.56	
7440	37.23	H	53.97	-16.74	Avg	115.25	160.56	
9920								**No Emissions**
9920								**Detected**
12400								**No Emissions**
12400								**Detected**
14880								**No Emissions**
14880								**Detected**
17360								**No Emissions**
17360								**Detected**
19840								**No Emissions**
19840								**Detected**
22320								**No Emissions**
22320								**Detected**
24800								**No Emissions**
24800								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel - Battery Mode
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960	52.54	H	73.97	-21.44	Peak	209.50	148.20	
4960	32.54	H	53.97	-21.43	Avg	209.50	148.20	
7440	57.43	H	73.97	-16.54	Peak	89.00	148.20	
7440	34.43	H	53.97	-19.54	Avg	89.00	148.20	
9920								**No Emissions**
9920								**Detected**
12400								**No Emissions**
12400								**Detected**
14880								**No Emissions**
14880								**Detected**
17360								**No Emissions**
17360								**Detected**
19840								**No Emissions**
19840								**Detected**
22320								**No Emissions**
22320								**Detected**
24800								**No Emissions**
24800								**Detected**

FCC 15.249 and FCC Class B

Telkonet, Inc.
EcoSense Plus
Model: SS6205

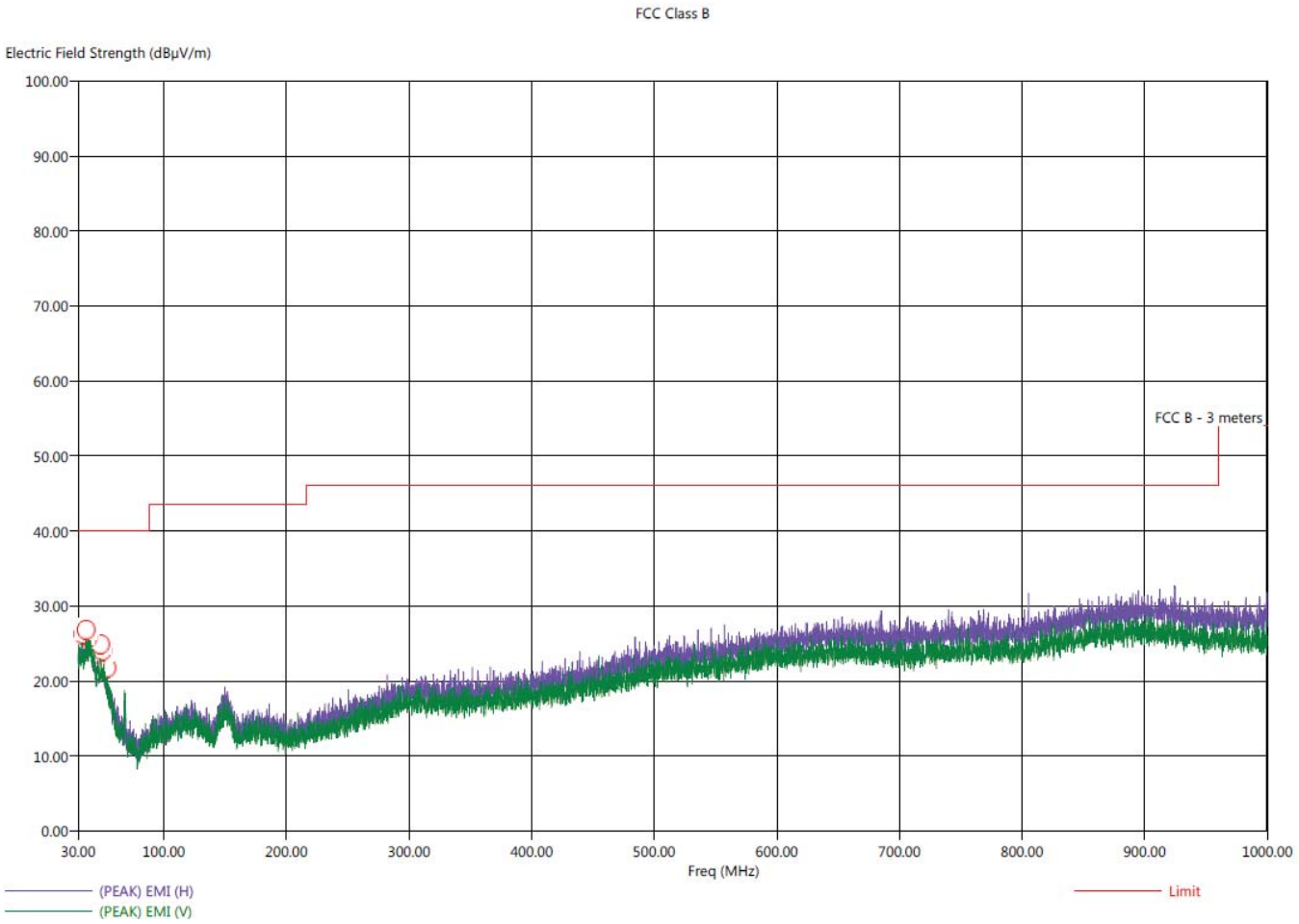
Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Battery Mode
Non Harmonic Emissions from the Tx and Digital Portion - 10 kHz to 1 GHz
Non Harmonic Emissions from the Tx and Digital Portion - 1 GHz to 25 GHz

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions Found for the
								Digital Portion
								from 10 kHz to 1 GHz
								for both Vertical and Horizontal
								Polarizations
								No Non Harmonic Emissions Found
								for the Tx Mode
								from 10 kHz to 1 GHz
								for both Vertical and Horizontal
								Polarizations
								Investigated in the X-Axis, Y-Axis,
								and Z-Axis
								No Emissions Found for the
								Digital Portion
								from 1 GHz to 25 GHz
								for both Vertical and Horizontal
								Polarizations
								No Non Harmonic Emissions Found
								for the Tx Mode
								from 1 GHz to 25 GHz
								for both Vertical and Horizontal
								Polarizations
								Investigated in the X-Axis, Y-Axis,
								and Z-Axis

Title: Pre-Scan - FCC Class B
File: Pre-Scan - X-Axis - Battery Power - 30 MHz to 1000 MHz - FCC Class B.set
Operator: Kyle Fujimoto
EUT Type: EcoSense Plus
EUT Condition: Continuously Transmitting - X-Axis - Worst Casse - Battery Power Mode
Comments: Customer: Telkonet, Inc.
Model: SS6205

2/15/2016 4:58:22 PM
Sequence: Preliminary Scan



Title: Radiated Final - 30-1000 MHz -FCC Class B
File: Final Scan - X-Axis - Battery Power Mode - 30 MHz to 1000 MHz - FCC Class B.set
Operator: Kyle Fujimoto
EUT Type: EcoSense Plus
EUT Condition: Continuously Transmitting - X-Axis Worst Case - Battery Power Mode
Comments: Customer: Telkonet, Inc.
Model: SS6205

2/15/2016 5:12:00 PM
Sequence: Final Measurements

FCC Class B - Final Scan

Freq (MHz)	Pol	(PEAK) EMI (dBµV/m)	(QP) EMI (dBµV/m)	(PEAK) Margin (dB)	(QP) Margin (dB)	Limit (dBµV/m)	Transducer (dB)	Cable (dB)	Ttbl Aql (deg)	Twr Ht (cm)
34.10	H	35.38	31.23	-4.62	-8.77	40.00	24.24	0.38	339.75	175.79
36.70	V	36.29	31.79	-3.71	-8.21	40.00	24.74	0.41	298.00	377.70
38.00	H	36.60	31.96	-3.40	-8.04	40.00	24.93	0.41	142.75	100.68
48.40	H	33.53	29.28	-6.47	-10.72	40.00	22.16	0.49	302.50	241.34
49.90	H	34.32	29.61	-5.68	-10.39	40.00	22.46	0.50	25.75	191.37
53.60	H	31.66	26.78	-8.34	-13.22	40.00	19.68	0.52	112.75	288.38

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - AC Power Mode
Fundamental Readings

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2405.00	104.42	H	113.97	-9.55	Peak	246.25	176.28	**Low Channel**
2405.00	84.42	H	93.97	-9.55	Avg	246.25	176.28	**Fundamental - X-Axis**
2405.00	104.61	V	113.97	-9.36	Peak	138.75	103.26	**Low Channel**
2405.00	84.61	V	93.97	-9.36	Avg	138.75	103.26	**Fundamental - X-Axis**
2405.00	103.25	H	113.97	-10.72	Peak	310.25	169.58	**Low Channel**
2405.00	83.25	H	93.97	-10.72	Avg	310.25	169.58	**Fundamental - Y-Axis**
2405.00	103.35	V	113.97	-10.62	Peak	96.25	147.32	**Low Channel**
2405.00	83.35	V	93.97	-10.62	Avg	96.25	147.32	**Fundamental - Y-Axis**
2405.00	104.23	H	113.97	-9.74	Peak	333.25	208.14	**Low Channel**
2405.00	84.23	H	93.97	-9.74	Avg	333.25	208.14	**Fundamental - Z-Axis**
2405.00	97.71	V	113.97	-16.26	Peak	177.75	185.69	**Low Channel**
2405.00	77.71	V	93.97	-16.26	Avg	177.75	185.69	**Fundamental - Z-Axis**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - AC Power Mode
Fundamental Readings

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2440.00	103.35	H	113.97	-10.62	Peak	256.75	178.95	**Middle Channel**
2440.00	83.35	H	93.97	-10.62	Avg	256.75	178.95	**Fundamental - X-Axis**
2440.00	100.13	V	113.97	-13.84	Peak	131.25	102.25	**Middle Channel**
2440.00	80.13	V	93.97	-13.84	Avg	131.25	102.25	**Fundamental - X-Axis**
2440.00	101.86	H	113.97	-12.12	Peak	310.25	183.26	**Middle Channel**
2440.00	81.86	H	93.97	-12.12	Avg	310.25	183.26	**Fundamental - Y-Axis**
2440.00	101.54	V	113.97	-12.43	Peak	111.25	151.58	**Middle Channel**
2440.00	81.54	V	93.97	-12.43	Avg	111.25	151.58	**Fundamental - Y-Axis**
2440.00	102.08	H	113.97	-11.89	Peak	341.25	213.26	**Middle Channel**
2440.00	82.08	H	93.97	-11.89	Avg	341.25	213.26	**Fundamental - Z-Axis**
2440.00	97.71	V	113.97	-16.26	Peak	177.75	169.58	**Middle Channel**
2440.00	77.71	V	93.97	-16.26	Avg	177.75	169.58	**Fundamental - Z-Axis**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel - AC Power Mode
Fundamental Readings

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2480.00	99.59	H	113.97	-14.38	Peak	251.75	182.92	**High Channel**
2480.00	79.59	H	93.97	-14.38	Avg	251.75	182.92	**Fundamental - X-Axis**
2480.00	103.92	V	113.97	-11.85	Peak	136.75	111.28	**High Channel**
2480.00	83.92	V	93.97	-11.85	Avg	136.75	111.28	**Fundamental - X-Axis**
2480.00	101.86	H	113.97	-12.11	Peak	305.25	182.50	**High Channel**
2480.00	81.86	H	93.97	-12.11	Avg	305.25	182.50	**Fundamental - Y-Axis**
2480.00	101.54	V	113.97	-12.43	Peak	97.25	146.32	**High Channel**
2480.00	81.54	V	93.97	-12.43	Avg	97.25	146.32	**Fundamental - Y-Axis**
2480.00	103.04	H	113.97	-10.93	Peak	361.33	211.16	**High Channel**
2480.00	83.04	H	93.97	-10.93	Avg	361.25	211.16	**Fundamental - Z-Axis**
2480.00	94.02	V	113.97	-19.95	Peak	180.75	182.62	**High Channel**
2480.00	74.02	V	93.97	-19.95	Avg	180.75	182.62	**Fundamental - Z-Axis**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - AC Power Mode
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810.00	50.87	V	73.97	-23.10	Peak	295.75	140.14	
4810.00	30.87	V	53.97	-23.10	Avg	295.75	140.14	
7215.00	56.13	V	73.97	-17.84	Peak	183.50	130.53	
7215.00	36.13	V	53.97	-17.84	Avg	183.50	130.53	
9620.00								**No Emissions**
9620.00								**Detected**
12025.00								**No Emissions**
12025.00								**Detected**
14430.00								**No Emissions**
14430.00								**Detected**
16835.00								**No Emissions**
16835.00								**Detected**
19240.00								**No Emissions**
19240.00								**Detected**
21645.00								**No Emissions**
21645.00								**Detected**
24050.00								**No Emissions**
24050.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - AC Power Mode
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810.00	50.29	V	73.97	-23.68	Peak	212.25	119.85	
4810.00	30.29	V	53.97	-23.68	Avg	212.25	119.85	
7215.00	56.75	V	73.97	-17.22	Peak	90.50	112.44	
7215.00	36.75	V	53.97	-17.22	Avg	90.50	112.44	
9620.00								**No Emissions**
9620.00								**Detected**
12025.00								**No Emissions**
12025.00								**Detected**
14430.00								**No Emissions**
14430.00								**Detected**
16835.00								**No Emissions**
16835.00								**Detected**
19240.00								**No Emissions**
19240.00								**Detected**
21645.00								**No Emissions**
21645.00								**Detected**
24050.00								**No Emissions**
24050.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - AC Power Mode
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810.00	52.09	V	73.97	-21.88	Peak	163.00	112.86	
4810.00	32.09	V	53.97	-21.88	Avg	163.00	112.86	
7215.00	56.04	V	73.97	-17.93	Peak	55.00	117.22	
7215.00	36.04	V	53.97	-17.93	Avg	55.00	117.22	
9620.00								**No Emissions**
9620.00								**Detected**
12025.00								**No Emissions**
12025.00								**Detected**
14430.00								**No Emissions**
14430.00								**Detected**
16835.00								**No Emissions**
16835.00								**Detected**
19240.00								**No Emissions**
19240.00								**Detected**
21645.00								**No Emissions**
21645.00								**Detected**
24050.00								**No Emissions**
24050.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - AC Power Mode
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810.00	50.63	H	73.97	-23.34	Peak	28.00	123.85	
4810.00	30.63	H	53.97	-23.34	Avg	28.00	123.85	
7215.00	56.57	H	73.97	-17.40	Peak	258.25	117.88	
7215.00	36.57	H	53.97	-17.40	Avg	258.25	117.88	
9620.00								**No Emissions**
9620.00								**Detected**
12025.00								**No Emissions**
12025.00								**Detected**
14430.00								**No Emissions**
14430.00								**Detected**
16835.00								**No Emissions**
16835.00								**Detected**
19240.00								**No Emissions**
19240.00								**Detected**
21645.00								**No Emissions**
21645.00								**Detected**
24050.00								**No Emissions**
24050.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - AC Power Mode
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810.00	51.11	H	73.97	-22.86	Peak	125.50	112.44	
4810.00	31.11	H	53.97	-22.86	Avg	125.50	112.44	
7215.00	56.22	H	73.97	-17.75	Peak	128.58	113.59	
7215.00	36.22	H	53.97	-17.75	Avg	128.58	113.59	
9620.00								**No Emissions**
9620.00								**Detected**
12025.00								**No Emissions**
12025.00								**Detected**
14430.00								**No Emissions**
14430.00								**Detected**
16835.00								**No Emissions**
16835.00								**Detected**
19240.00								**No Emissions**
19240.00								**Detected**
21645.00								**No Emissions**
21645.00								**Detected**
24050.00								**No Emissions**
24050.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - AC Power Mode
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4810.00	49.89	H	73.97	-24.08	Peak	52.25	96.20	
4810.00	29.89	H	53.97	-24.08	Avg	52.25	96.20	
7215.00	56.55	H	73.97	-17.42	Peak	44.25	112.56	
7215.00	36.55	H	53.97	-17.42	Avg	44.25	112.56	
9620.00								**No Emissions**
9620.00								**Detected**
12025.00								**No Emissions**
12025.00								**Detected**
14430.00								**No Emissions**
14430.00								**Detected**
16835.00								**No Emissions**
16835.00								**Detected**
19240.00								**No Emissions**
19240.00								**Detected**
21645.00								**No Emissions**
21645.00								**Detected**
24050.00								**No Emissions**
24050.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - AC Power Mode
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	51.43	V	73.97	-22.54	Peak	356.50	155.97	
4880.00	31.43	V	53.97	-22.54	Avg	356.50	155.97	
7320.00	57.31	V	73.97	-16.66	Peak	261.00	140.80	
7320.00	37.31	V	53.97	-16.66	Avg	261.00	140.80	
9760.00								**No Emissions**
9760.00								**Detected**
12200.00								**No Emissions**
12200.00								**Detected**
14640.00								**No Emissions**
14640.00								**Detected**
17080.00								**No Emissions**
17080.00								**Detected**
19520.00								**No Emissions**
19520.00								**Detected**
21960.00								**No Emissions**
21960.00								**Detected**
24400.00								**No Emissions**
24400.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - AC Power Mode
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	49.66	V	73.97	-24.31	Peak	72.75	129.94	
4880.00	29.66	V	53.97	-24.31	Avg	72.75	129.94	
7320.00	57.08	V	73.97	-16.89	Peak	22.75	132.98	
7320.00	37.08	V	53.97	-16.89	Avg	22.75	132.98	
9760.00								**No Emissions**
9760.00								**Detected**
12200.00								**No Emissions**
12200.00								**Detected**
14640.00								**No Emissions**
14640.00								**Detected**
17080.00								**No Emissions**
17080.00								**Detected**
19520.00								**No Emissions**
19520.00								**Detected**
21960.00								**No Emissions**
21960.00								**Detected**
24400.00								**No Emissions**
24400.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - AC Power Mode
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	52.12	V	73.97	-21.85	Peak	95.25	102.95	
4880.00	32.12	V	53.97	-21.85	Avg	95.25	102.95	
7320.00	57.44	V	73.97	-16.53	Peak	276.00	112.86	
7320.00	37.44	V	53.97	-16.53	Avg	276.00	112.86	
9760.00								**No Emissions**
9760.00								**Detected**
12200.00								**No Emissions**
12200.00								**Detected**
14640.00								**No Emissions**
14640.00								**Detected**
17080.00								**No Emissions**
17080.00								**Detected**
19520.00								**No Emissions**
19520.00								**Detected**
21960.00								**No Emissions**
21960.00								**Detected**
24400.00								**No Emissions**
24400.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - AC Power Mode
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	57.36	H	73.97	-16.61	Peak	175.50	136.14	
4880.00	37.36	H	53.97	-16.61	Avg	175.50	136.14	
7320.00	57.61	H	73.97	-16.36	Peak	164.25	138.15	
7320.00	37.61	H	53.97	-16.36	Avg	164.25	138.15	
9760.00								**No Emissions**
9760.00								**Detected**
12200.00								**No Emissions**
12200.00								**Detected**
14640.00								**No Emissions**
14640.00								**Detected**
17080.00								**No Emissions**
17080.00								**Detected**
19520.00								**No Emissions**
19520.00								**Detected**
21960.00								**No Emissions**
21960.00								**Detected**
24400.00								**No Emissions**
24400.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - AC Power Mode
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	58.09	H	73.97	-15.88	Peak	125.50	138.59	
4880.00	38.09	H	53.97	-15.88	Avg	125.50	138.59	
7320.00	58.20	H	73.97	-15.77	Peak	117.75	141.94	
7320.00	38.20	H	53.97	-15.77	Avg	117.75	141.94	
9760.00								**No Emissions**
9760.00								**Detected**
12200.00								**No Emissions**
12200.00								**Detected**
14640.00								**No Emissions**
14640.00								**Detected**
17080.00								**No Emissions**
17080.00								**Detected**
19520.00								**No Emissions**
19520.00								**Detected**
21960.00								**No Emissions**
21960.00								**Detected**
24400.00								**No Emissions**
24400.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Middle Channel - AC Power Mode
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4880.00	58.27	H	73.97	-15.70	Peak	292.00	134.00	
4880.00	38.27	H	53.97	-15.70	Avg	292.00	134.00	
7320.00	51.14	H	73.97	-22.83	Peak	278.50	142.11	
7320.00	31.14	H	53.97	-22.83	Avg	278.50	142.11	
9760.00								**No Emissions**
9760.00								**Detected**
12200.00								**No Emissions**
12200.00								**Detected**
14640.00								**No Emissions**
14640.00								**Detected**
17080.00								**No Emissions**
17080.00								**Detected**
19520.00								**No Emissions**
19520.00								**Detected**
21960.00								**No Emissions**
21960.00								**Detected**
24400.00								**No Emissions**
24400.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel - AC Power Mode
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	52.04	V	73.97	-21.94	Peak	261.00	141.94	
4960.00	32.04	V	53.97	-21.94	Avg	261.00	141.94	
7440.00	57.32	V	73.97	-16.65	Peak	70.00	145.10	
7440.00	37.32	V	53.97	-16.65	Avg	70.00	145.10	
9920.00								**No Emissions**
9920.00								**Detected**
12400.00								**No Emissions**
12400.00								**Detected**
14880.00								**No Emissions**
14880.00								**Detected**
17360.00								**No Emissions**
17360.00								**Detected**
19840.00								**No Emissions**
19840.00								**Detected**
22320.00								**No Emissions**
22320.00								**Detected**
24800.00								**No Emissions**
24800.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel - AC Power Mode
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	52.28	V	73.97	-21.69	Peak	168.50	170.23	
4960.00	32.28	V	53.97	-21.69	Avg	168.50	170.23	
7440.00	57.20	V	73.97	-16.77	Peak	355.00	178.25	
7440.00	37.20	V	53.97	-16.77	Avg	355.00	178.25	
9920.00								**No Emissions**
9920.00								**Detected**
12400.00								**No Emissions**
12400.00								**Detected**
14880.00								**No Emissions**
14880.00								**Detected**
17360.00								**No Emissions**
17360.00								**Detected**
19840.00								**No Emissions**
19840.00								**Detected**
22320.00								**No Emissions**
22320.00								**Detected**
24800.00								**No Emissions**
24800.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel - AC Power Mode
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	52.90	V	73.97	-21.07	Peak	100.50	159.19	
4960.00	32.90	V	53.97	-21.07	Avg	100.50	159.19	
7440.00	56.68	V	73.97	-17.29	Peak	103.25	160.25	
7440.00	36.68	V	53.97	-17.29	Avg	103.25	160.25	
9920.00								**No Emissions**
9920.00								**Detected**
12400.00								**No Emissions**
12400.00								**Detected**
14880.00								**No Emissions**
14880.00								**Detected**
17360.00								**No Emissions**
17360.00								**Detected**
19840.00								**No Emissions**
19840.00								**Detected**
22320.00								**No Emissions**
22320.00								**Detected**
24800.00								**No Emissions**
24800.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel – AC Power Mode
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	52.76	H	73.97	-21.21	Peak	191.00	140.56	
4960.00	32.76	H	53.97	-21.21	Avg	191.00	140.56	
7440.00	57.38	H	73.97	-16.59	Peak	91.50	137.22	
7440.00	37.38	H	53.97	-16.59	Avg	91.50	137.22	
9920.00								**No Emissions**
9920.00								**Detected**
12400.00								**No Emissions**
12400.00								**Detected**
14880.00								**No Emissions**
14880.00								**Detected**
17360.00								**No Emissions**
17360.00								**Detected**
19840.00								**No Emissions**
19840.00								**Detected**
22320.00								**No Emissions**
22320.00								**Detected**
24800.00								**No Emissions**
24800.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel - AC Power Mode
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	52.52	H	73.97	-21.45	Peak	35.00	147.85	
4960.00	32.52	H	53.97	-21.45	Avg	35.00	147.85	
7440.00	56.91	H	73.97	-17.07	Peak	112.50	153.52	
7440.00	36.91	H	53.97	-17.07	Avg	112.50	153.52	
9920.00								**No Emissions**
9920.00								**Detected**
12400.00								**No Emissions**
12400.00								**Detected**
14880.00								**No Emissions**
14880.00								**Detected**
17360.00								**No Emissions**
17360.00								**Detected**
19840.00								**No Emissions**
19840.00								**Detected**
22320.00								**No Emissions**
22320.00								**Detected**
24800.00								**No Emissions**
24800.00								**Detected**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

High Channel – AC Power Mode
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
4960.00	52.49	H	73.97	-21.48	Peak	36.75	159.19	
4960.00	32.49	H	53.97	-21.48	Avg	36.75	159.19	
7440.00	57.59	H	73.97	-16.38	Peak	108.00	169.64	
7440.00	37.59	H	53.97	-16.38	Avg	108.00	169.64	
9920.00								**No Emissions**
9920.00								**Detected**
12400.00								**No Emissions**
12400.00								**Detected**
14880.00								**No Emissions**
14880.00								**Detected**
17360.00								**No Emissions**
17360.00								**Detected**
19840.00								**No Emissions**
19840.00								**Detected**
22320.00								**No Emissions**
22320.00								**Detected**
24800.00								**No Emissions**
24800.00								**Detected**

FCC 15.249 and FCC Class B

Telkonet, Inc.
EcoSense Plus
Model: SS6205

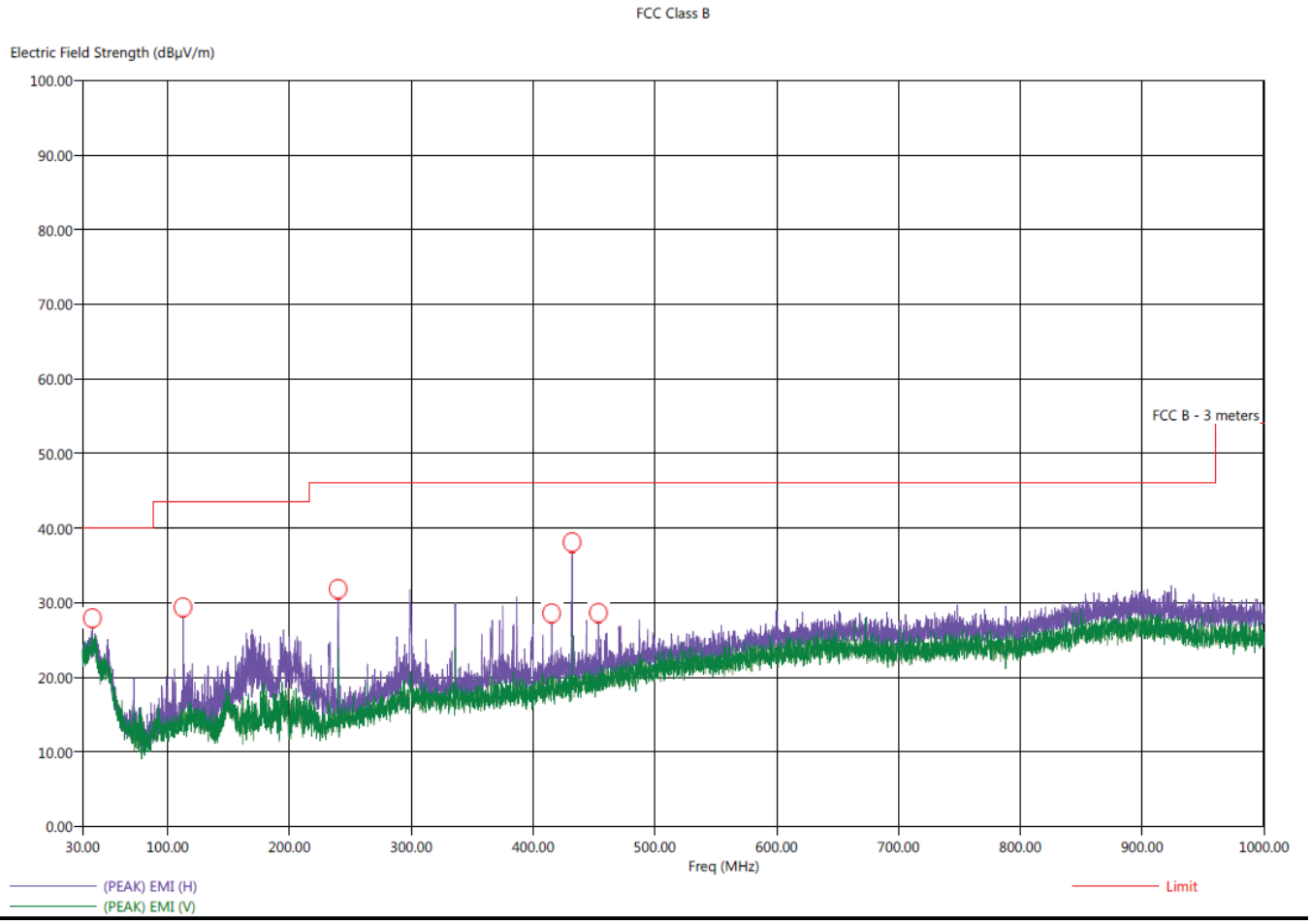
Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

AC Power Mode
Non Harmonic Emissions from the Tx and Digital Portion - 10 kHz to 1 GHz
Non Harmonic Emissions from the Tx and Digital Portion - 1 GHz to 25 GHz

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions Found for the
								Digital Portion
								from 10 kHz to 1 GHz
								for both Vertical and Horizontal
								Polarizations
								No Non Harmonic Emissions Found
								for the Tx Mode
								from 10 kHz to 1 GHz
								for both Vertical and Horizontal
								Polarizations
								Investigated in the X-Axis, Y-Axis,
								and Z-Axis
								No Emissions Found for the
								Digital Portion
								from 1 GHz to 25 GHz
								for both Vertical and Horizontal
								Polarizations
								No Non Harmonic Emissions Found
								for the Tx Mode
								from 1 GHz to 25 GHz
								for both Vertical and Horizontal
								Polarizations
								Investigated in the X-Axis, Y-Axis,
								and Z-Axis

Title: Pre-Scan - FCC Class B
File: Pre-Scan - Z-Axis - Remote Power - 30 MHz to 1000 MHz - FCC Class B.set
Operator: Kyle Fujimoto
EUT Type: EcoSense Plus
EUT Condition: Continuously Transmitting - Z-Axis - Worst Case - Remote Power Mode
Comments: Customer: Telkonet, Inc.
Model: SS6205

2/15/2016 3:53:31 PM
Sequence: Preliminary Scan



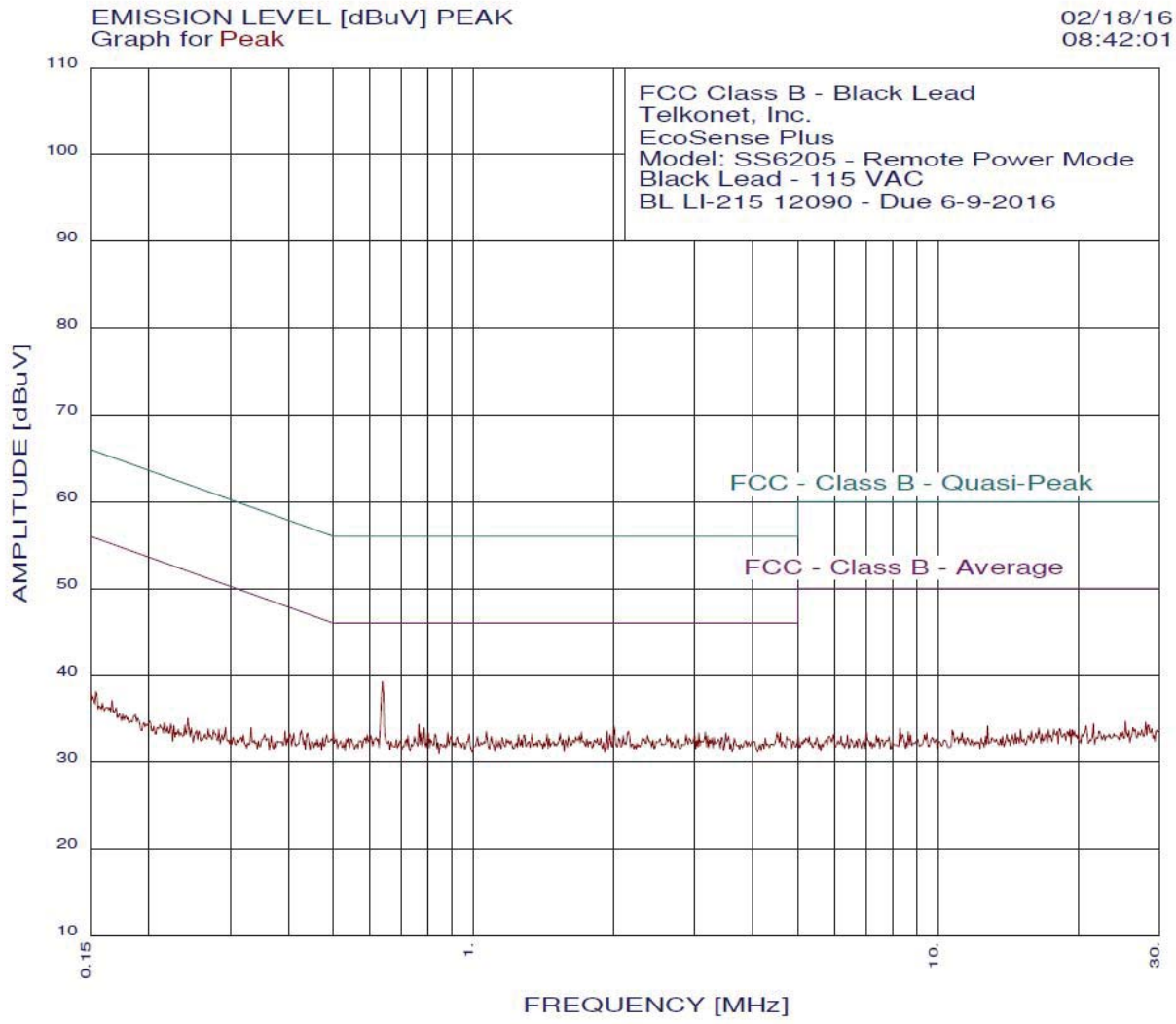
Title: Radiated Final - 30-1000 MHz -FCC Class B
File: Final Scan - X-Axis - Remote Power - 30 MHz to 1000 MHz - FCC Class B.set
Operator: Kyle Fujimoto
EUT Type: EcoSense Plus
EUT Condition: Continuously Transmitting - X-Axis Worst Case - Remote Power Mode
Comments: Customer: Telkonet, Inc.
Model: SS6205

2/15/2016 4:03:31 PM
Sequence: Final Measurements

FCC Class B - Final Scan

Freq (MHz)	Pol	(PEAK) EMI (dBµV/m)	(QP) EMI (dBµV/m)	(PEAK) Margin (dB)	(QP) Margin (dB)	Limit (dBµV/m)	Transducer (dB)	Cable (dB)	Ttbl Agl (deg)	Twr Ht (cm)
38.20	H	36.11	32.10	-3.89	-7.90	40.00	25.03	0.42	240.50	365.28
112.60	H	26.26	22.41	-17.24	-21.09	43.50	14.82	0.77	333.25	222.65
240.00	H	27.27	23.00	-18.73	-23.00	46.00	14.88	1.19	41.00	224.56
415.30	H	32.31	28.09	-13.69	-17.91	46.00	18.98	1.63	274.50	143.19
432.10	H	32.88	28.66	-13.12	-17.34	46.00	19.38	1.68	155.25	271.91
453.60	H	33.28	29.35	-12.72	-16.65	46.00	19.93	1.74	360.25	271.73

CONDUCTED EMISSIONS DATA SHEETS


EMISSION LEVEL [dBuV] PEAK
Graph for Peak
02/18/16
08:42:01
FCC Class B - Black Lead
Telkonet, Inc.
EcoSense Plus
Model: SS6205 - Remote Power Mode
Black Lead - 115 VAC
BL LI-215 12090 - Due 6-9-2016
FCC - Class B - Quasi-Peak
FCC - Class B - Average
AMPLITUDE [dBuV]
110
100
90
80
70
60
50
40
30
20
10
0.15
1.
10.
30.
FREQUENCY [MHz]

page 1/1

02/18/16 08:42:01

FCC Class B - Black Lead
Telkonet, Inc.
EcoSense Plus
Model: SS6205 - Remote Power Mode
Black Lead - 115 VAC
BL LI-215 12090 - Due 6-9-2016
Test Engineer : Kyle Fujimoto

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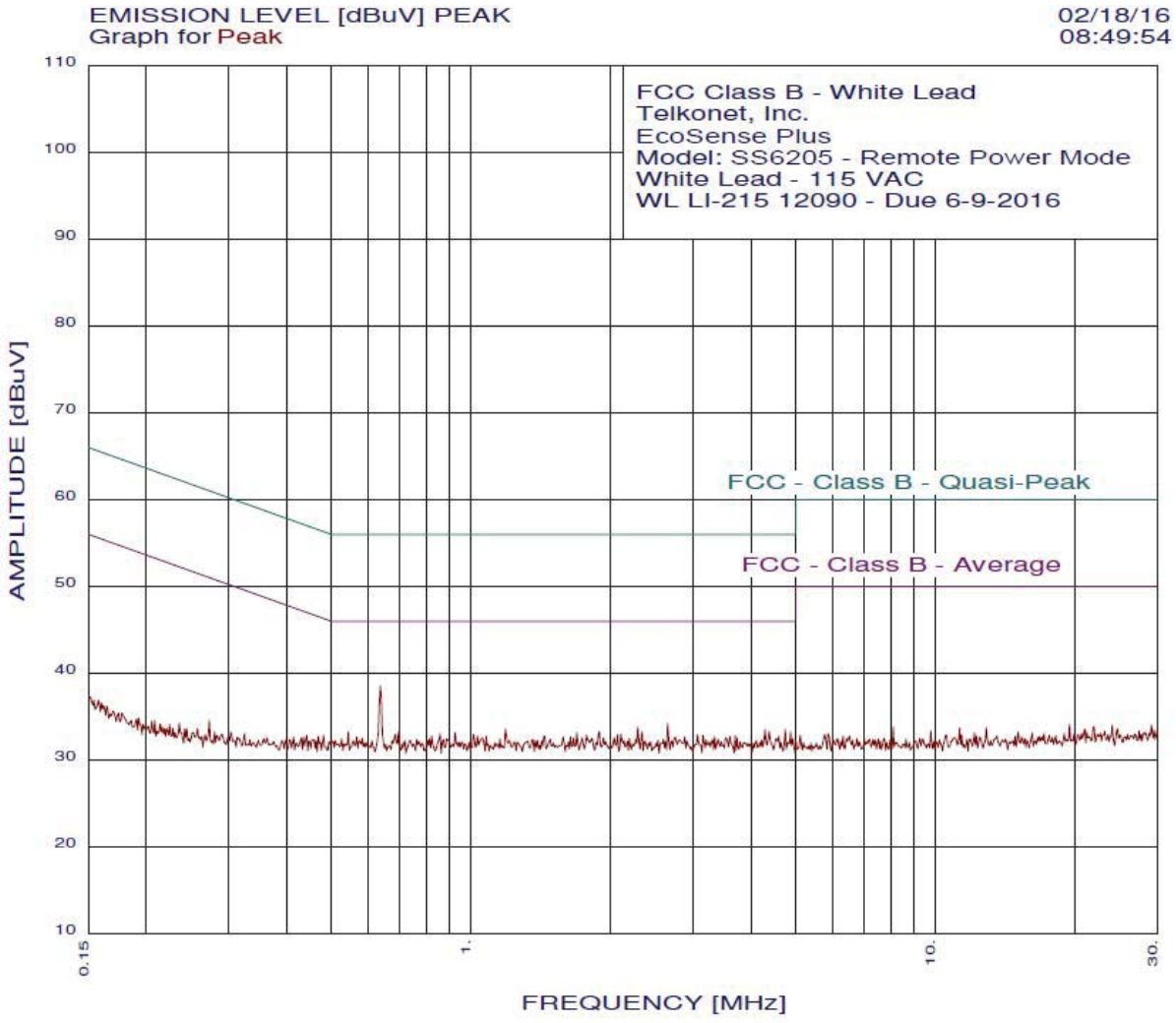
39 highest peaks above -50.00 dB of FCC - Class B - Average limit line
Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.637	39.24	46.00	-6.76
2	0.763	34.34	46.00	-11.66
3	2.013	34.05	46.00	-11.95
4	0.783	33.94	46.00	-12.06
5	2.156	33.55	46.00	-12.45
6	1.939	33.54	46.00	-12.46
7	1.066	33.54	46.00	-12.46
8	3.158	33.45	46.00	-12.55
9	0.500	33.45	46.01	-12.56
10	4.504	33.44	46.00	-12.56
11	0.771	33.44	46.00	-12.56
12	0.881	33.43	46.00	-12.57
13	1.708	33.42	46.00	-12.58
14	3.059	33.35	46.00	-12.65
15	3.492	33.34	46.00	-12.66
16	4.576	33.34	46.00	-12.66
17	0.801	33.34	46.00	-12.66
18	1.536	33.30	46.00	-12.70
19	1.338	33.27	46.00	-12.73
20	0.826	33.23	46.00	-12.77
21	0.979	33.23	46.00	-12.77
22	1.441	33.18	46.00	-12.82
23	1.249	33.16	46.00	-12.84
24	2.610	33.15	46.00	-12.85
25	2.870	33.15	46.00	-12.85
26	2.995	33.15	46.00	-12.85
27	1.971	33.15	46.00	-12.85
28	0.592	33.14	46.00	-12.86
29	1.290	33.07	46.00	-12.93
30	2.100	33.05	46.00	-12.95
31	2.371	33.05	46.00	-12.95
32	3.192	33.05	46.00	-12.95
33	0.724	33.04	46.00	-12.96
34	1.603	33.00	46.00	-13.00
35	1.094	32.94	46.00	-13.06
36	4.722	32.94	46.00	-13.06
37	0.747	32.94	46.00	-13.06
38	1.021	32.93	46.00	-13.07
39	0.924	32.93	46.00	-13.07


EMISSION LEVEL [dBuV] PEAK
Graph for Peak
02/18/16
08:49:54
FCC Class B - White Lead
Telkonet, Inc.
EcoSense Plus
Model: SS6205 - Remote Power Mode
White Lead - 115 VAC
WL LI-215 12090 - Due 6-9-2016
FCC - Class B - Quasi-Peak
FCC - Class B - Average
AMPLITUDE [dBuV]
110
100
90
80
70
60
50
40
30
20
10
0.15
1.
10.
30.
FREQUENCY [MHz]

page 1/1

02/18/16 08:49:54

FCC Class B - White Lead
Telkonet, Inc.
EcoSense Plus
Model: SS6205 - Remote Power Mode
White Lead - 115 VAC
WL LI-215 12090 - Due 6-9-2016
Test Engineer : Kyle Fujimoto

---

39 highest peaks above -50.00 dB of FCC - Class B - Average limit line
Peak criteria : 0.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.637	38.53	46.00	-7.47
2	2.651	34.19	46.00	-11.81
3	2.286	33.79	46.00	-12.21
4	1.184	33.56	46.00	-12.44
5	4.748	33.52	46.00	-12.48
6	4.294	33.52	46.00	-12.48
7	4.384	33.32	46.00	-12.68
8	2.334	33.29	46.00	-12.71
9	1.889	33.28	46.00	-12.72
10	0.698	33.23	46.00	-12.77
11	0.544	33.22	46.00	-12.78
12	4.877	33.22	46.00	-12.78
13	1.690	33.18	46.00	-12.82
14	0.924	33.14	46.00	-12.86
15	0.858	33.04	46.00	-12.96
16	2.100	32.99	46.00	-13.01
17	1.011	32.95	46.00	-13.05
18	0.686	32.93	46.00	-13.07
19	3.075	32.90	46.00	-13.10
20	2.066	32.89	46.00	-13.11
21	1.772	32.88	46.00	-13.12
22	3.702	32.81	46.00	-13.19
23	3.158	32.80	46.00	-13.20
24	1.434	32.77	46.00	-13.23
25	1.077	32.75	46.00	-13.25
26	1.032	32.75	46.00	-13.25
27	0.822	32.74	46.00	-13.26
28	4.600	32.72	46.00	-13.28
29	3.605	32.71	46.00	-13.29
30	3.346	32.70	46.00	-13.30
31	2.885	32.70	46.00	-13.30
32	1.637	32.67	46.00	-13.33
33	1.577	32.67	46.00	-13.33
34	0.567	32.63	46.00	-13.37
35	2.751	32.60	46.00	-13.40
36	2.034	32.59	46.00	-13.41
37	1.929	32.58	46.00	-13.42
38	1.735	32.58	46.00	-13.42
39	1.663	32.57	46.00	-13.43

BAND EDGES DATA SHEETS

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Low Channel - Battery Mode
Band Edges

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2405.00	105.99	V	113.97	-7.98	Peak	147.25	142.56	**Fundamental @ 2405 MHz**
2405.00	85.99	V	93.97	-7.98	Avg	147.25	142.56	**X-Axis - Worst Case**
2400.00	52.73	V	73.97	-21.24	Peak	147.25	142.56	**Band Edge**
2400.00	32.73	V	53.97	-21.24	Avg	147.25	142.56	**X-Axis - Worst Case**
2405.00	106.80	H	113.97	-7.17	Peak	181.75	239.76	**Fundamental @ 2405 MHz**
2405.00	86.80	H	93.97	-7.17	Avg	181.75	239.76	**Z-Axis - Worst Case**
2390.00	53.37	H	73.97	-20.60	Peak	181.75	239.76	**Band Edge**
2390.00	33.37	H	53.97	-20.60	Avg	181.75	239.76	**Z-Axis - Worst Case**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
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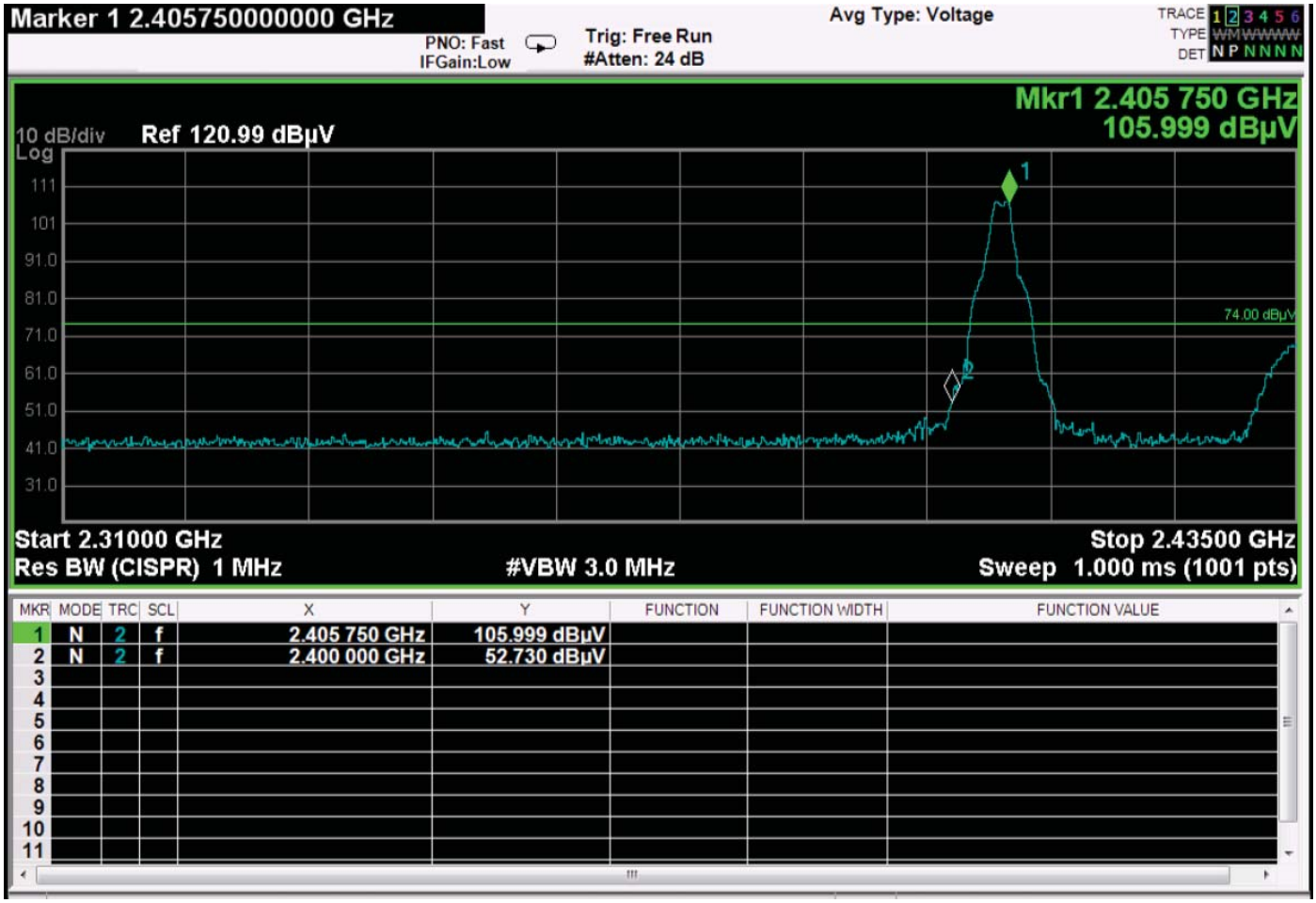
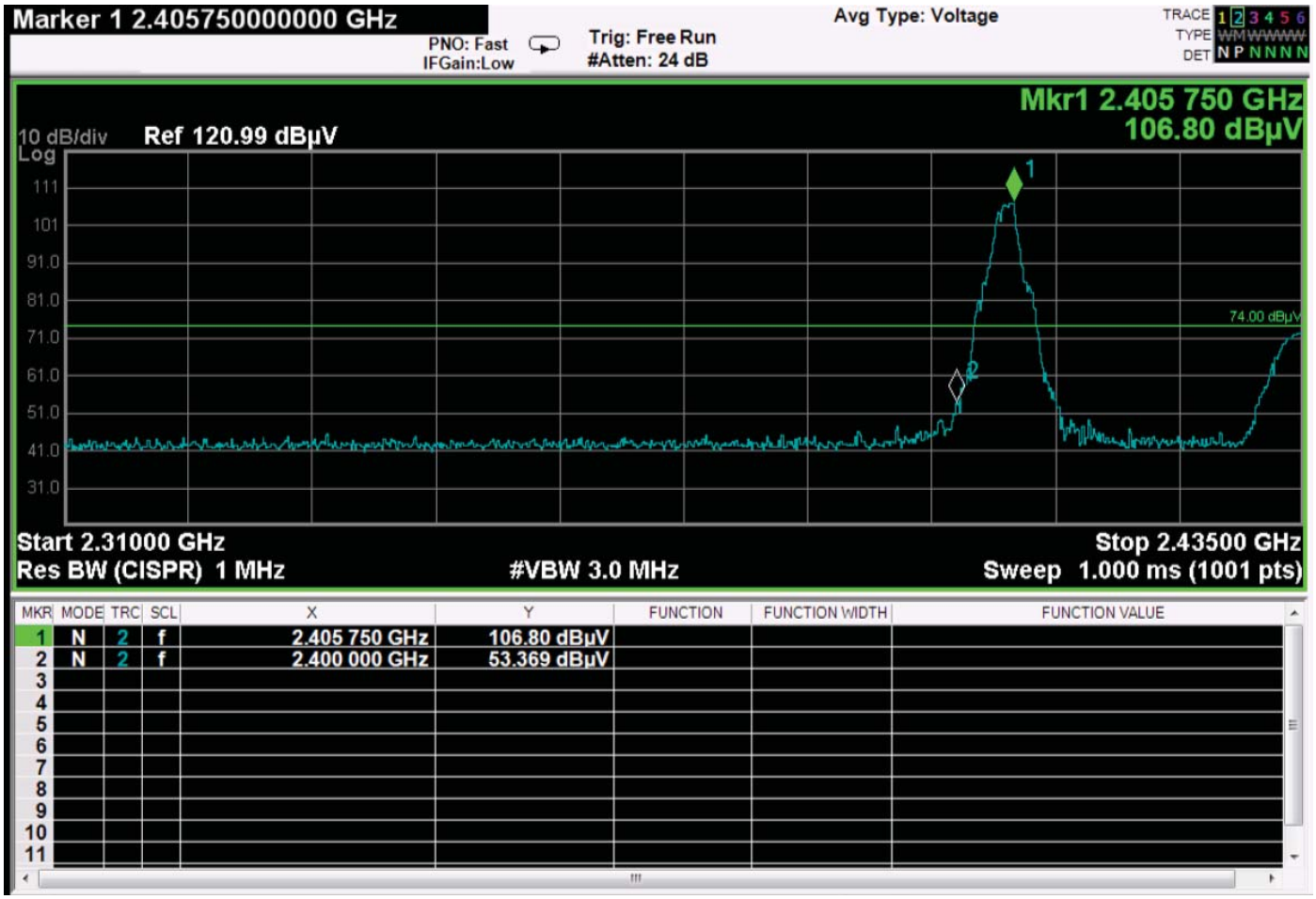
High Channel - Battery Mode
Band Edges

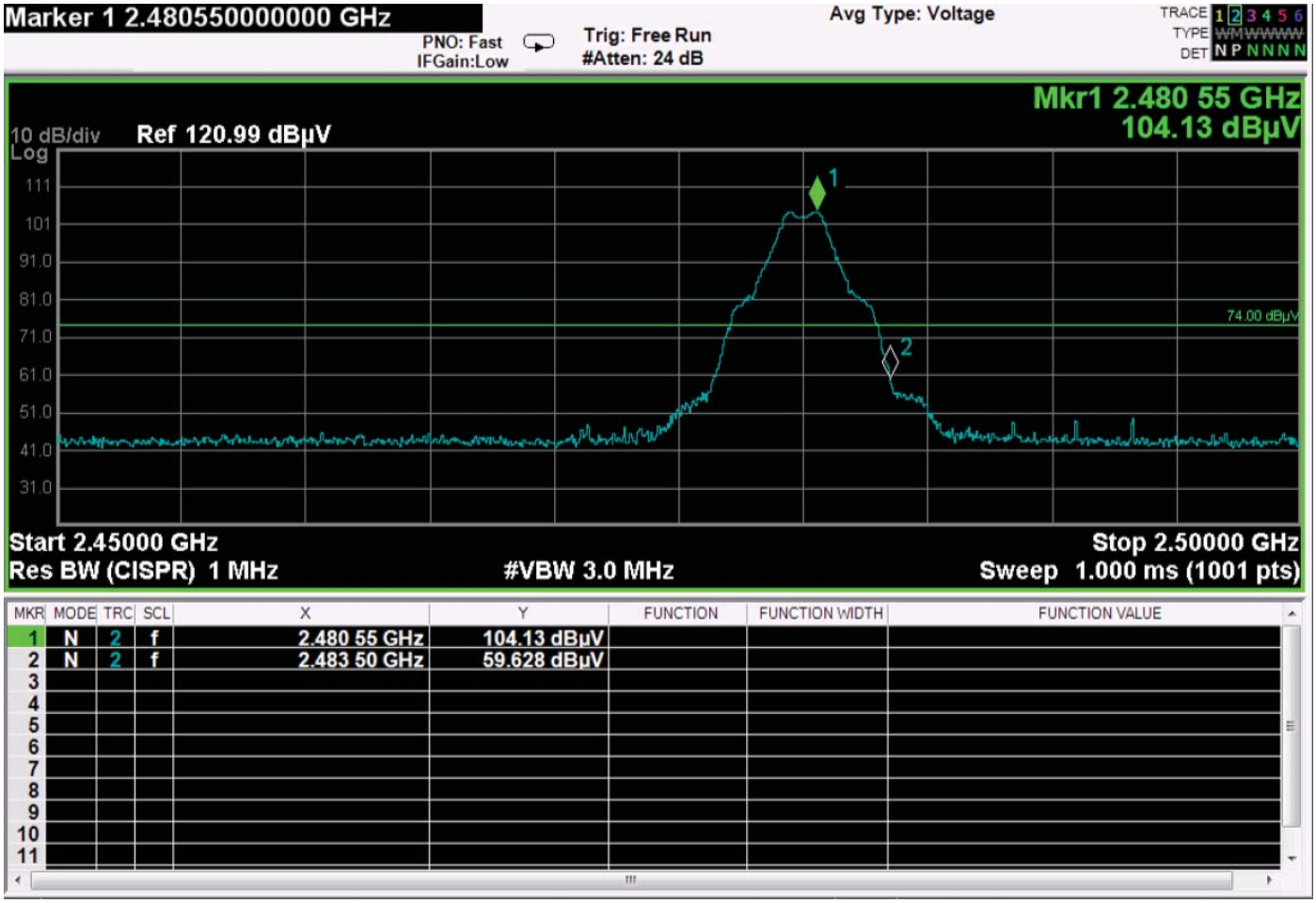
Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2480.00	104.13	V	113.97	-9.84	Peak	133.25	158.44	**Fundamental @ 2480 MHz**
2480.00	84.13	V	93.97	-9.84	Avg	133.25	158.44	**X-Axis - Worst Case**
2483.50	59.63	V	73.97	-14.34	Peak	133.25	158.44	**Band Edge**
2483.50	40.53	V	53.97	-13.44	Avg	133.25	158.44	**X-Axis - Worst Case**
2480.00	105.01	H	113.97	-8.96	Peak	69.01	158.44	**Fundamental @ 2480 MHz**
2480.00	85.01	H	93.97	-8.96	Avg	69.01	158.44	**Z-Axis - Worst Case**
2483.50	61.00	H	73.97	-12.98	Peak	69.01	158.44	**Band Edge**
2483.50	41.00	H	53.97	-12.97	Avg	69.01	158.44	**Z-Axis - Worst Case**



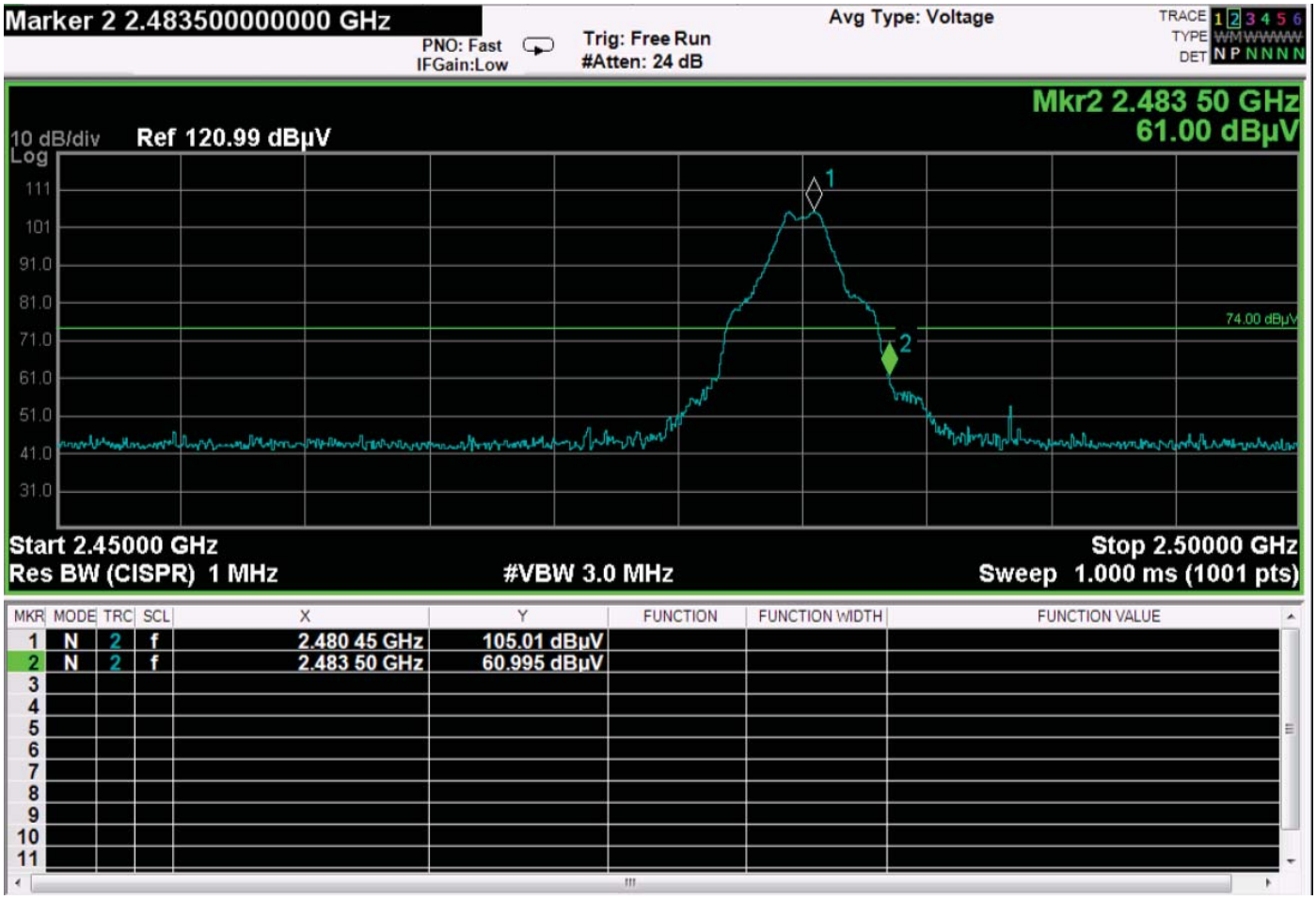
Band Edge – Vertical Polarization – Low Channel – X-Axis Worst Case – Battery Mode



Band Edge – Horizontal Polarization – Low Channel – Z-Axis Worst Case – Battery Mode



Band Edge – Vertical Polarization – High Channel – X-Axis Worst Case – Battery Mode



Band Edge – Horizontal Polarization – High Channel – Z-Axis Worst Case – Battery Mode

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
Lab: D
Tested By: Kyle Fujimoto

Band Edges
Low Channel – AC Power Mode

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2405.00	104.61	V	113.97	-9.36	Peak	138.75	103.26	**Fundamental @ 2405 MHz**
2405.00	84.61	V	93.97	-9.36	Avg	138.75	103.26	**X-Axis - Worst Case**
2398.78	55.67	V	73.97	-18.30	Peak	138.75	103.26	**Band Edge**
2398.78	35.67	V	53.97	-18.30	Avg	138.75	103.26	**X-Axis - Worst Case**
2405.00	104.23	H	113.97	-9.74	Peak	333.25	208.14	**Fundamental @ 2405 MHz**
2405.00	84.23	H	93.97	-9.74	Avg	333.25	208.14	**Z-Axis - Worst Case**
2400.00	50.21	H	73.97	-23.76	Peak	333.25	208.14	**Band Edge**
2400.00	30.21	H	53.97	-23.76	Avg	333.25	208.14	**Z-Axis - Worst Case**

FCC 15.249
Telkonet, Inc.
EcoSense Plus
Model: SS6205

Date: 02/11/2016
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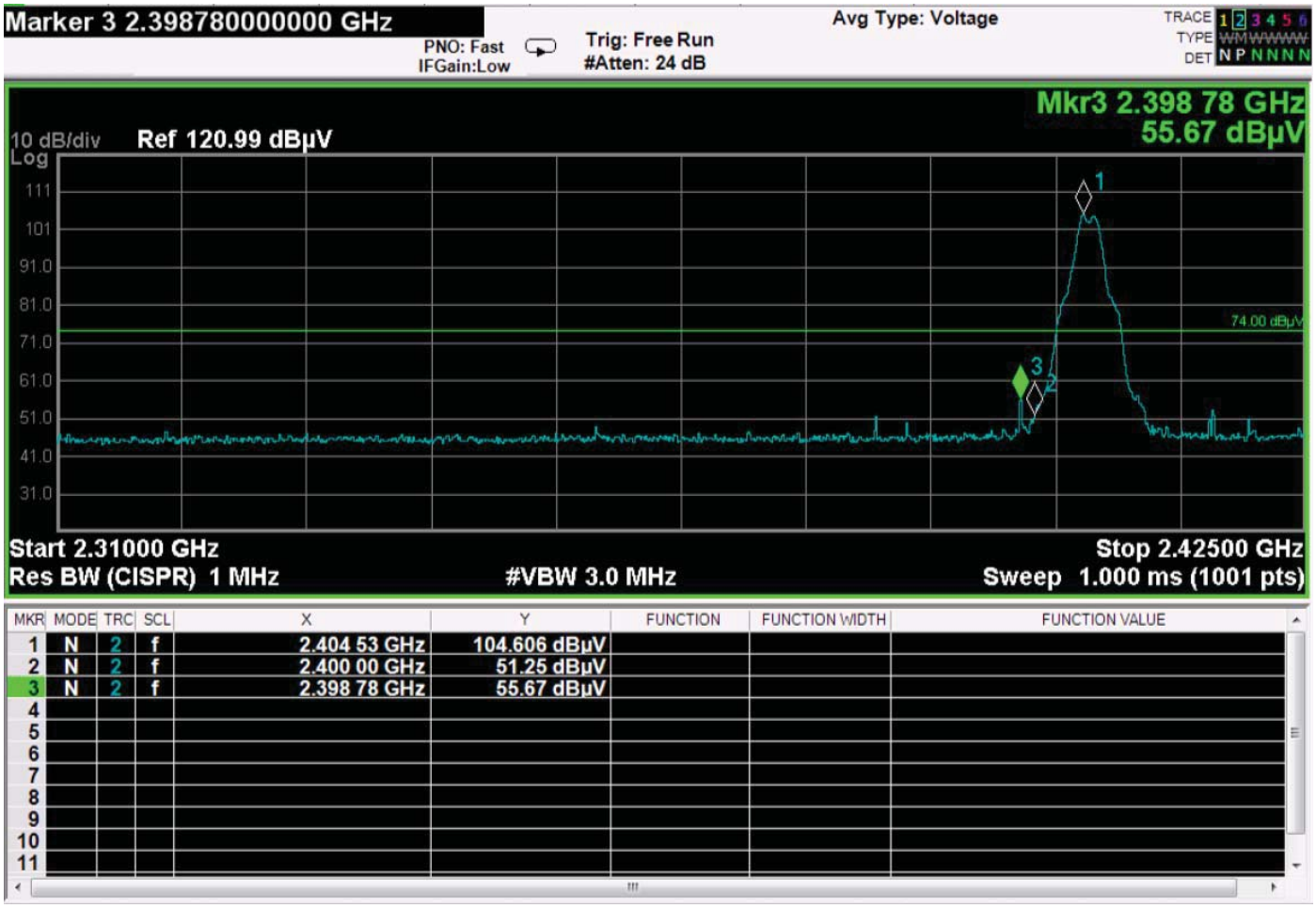
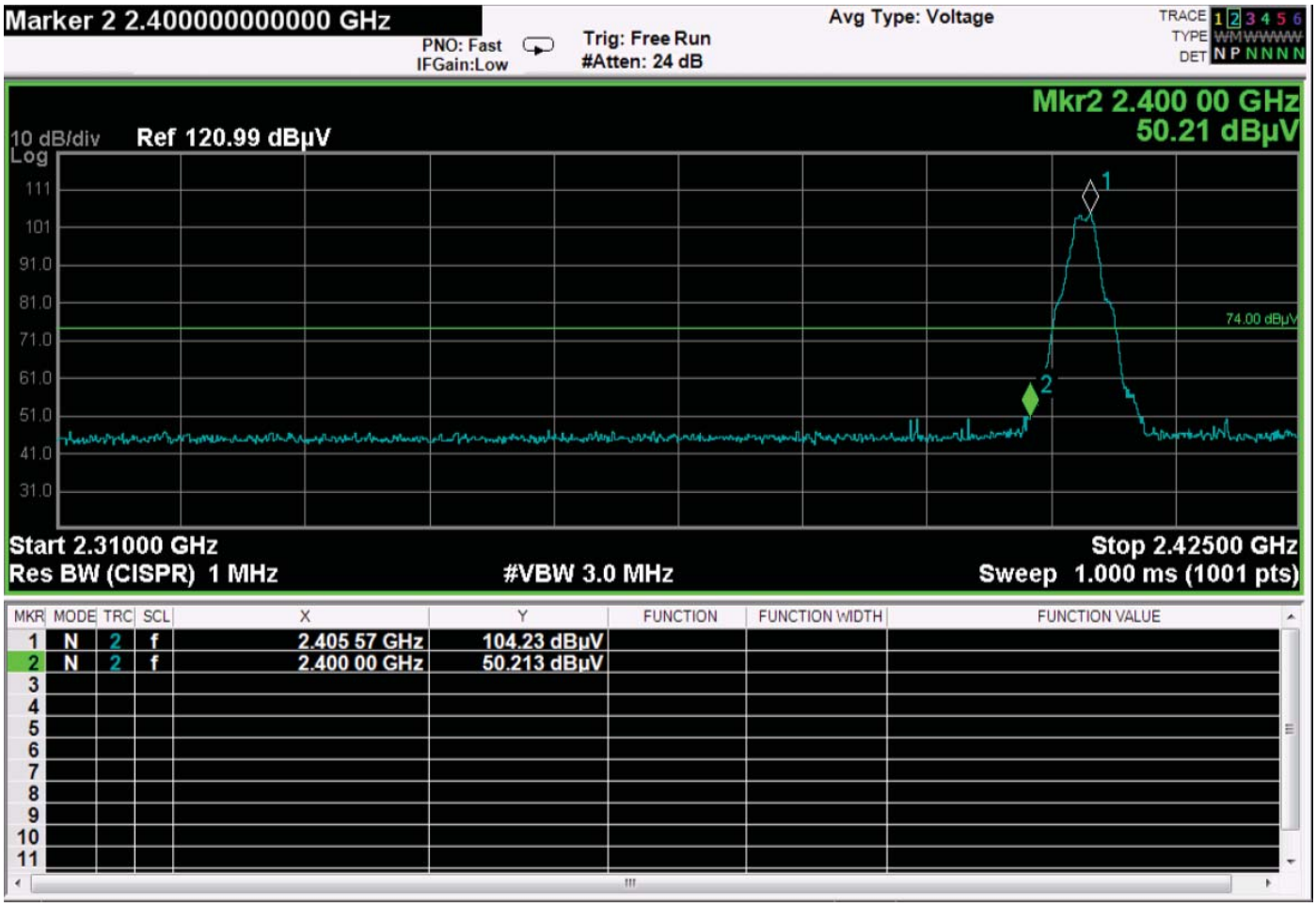
Band Edges
High Channel – AC Power Mode

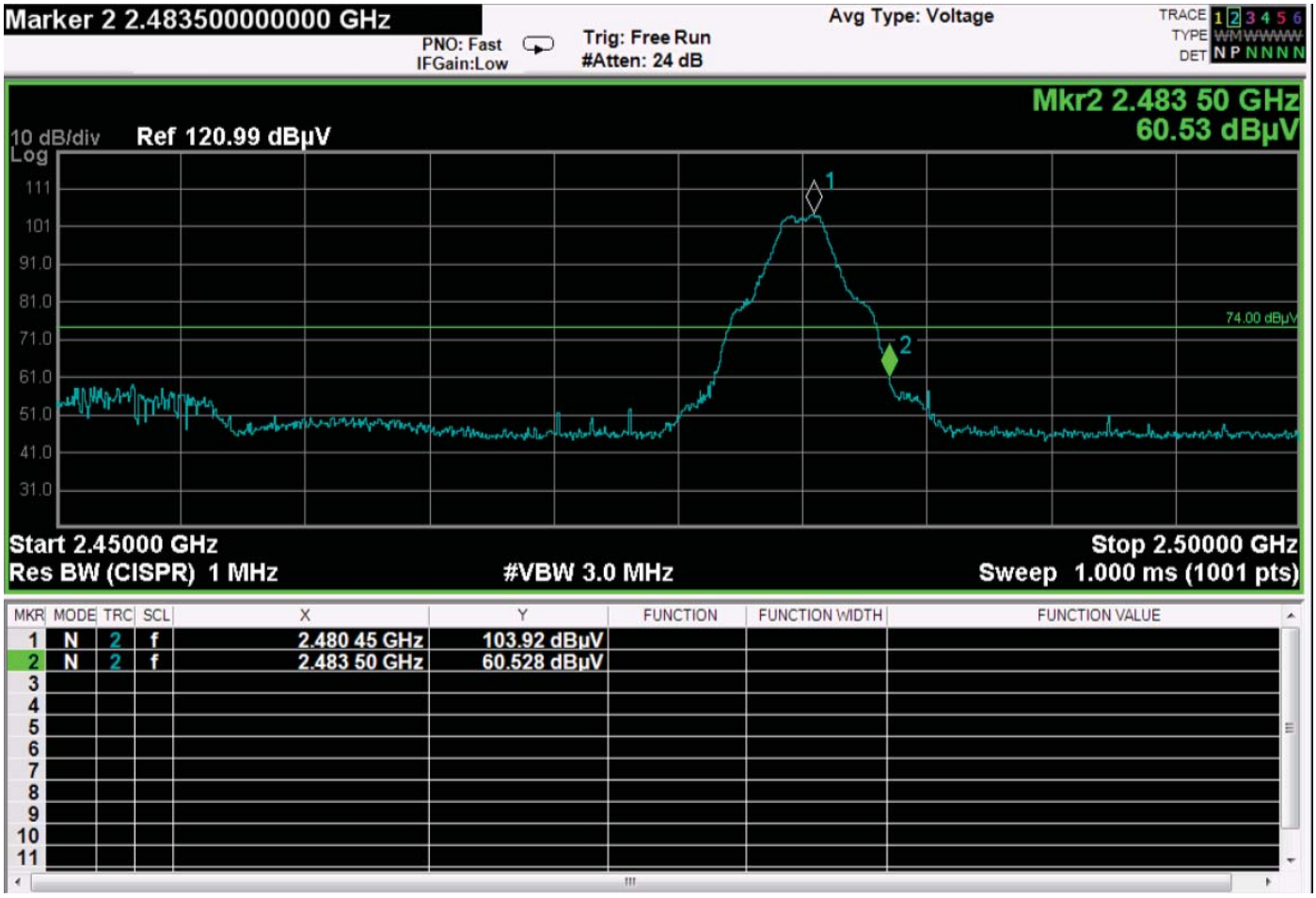
Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2480.00	103.92	V	113.97	-11.85	Peak	136.75	111.28	**Fundamental @ 2480 MHz**
2480.00	83.92	V	93.97	-11.85	Avg	136.75	111.28	**X-Axis - Worst Case**
2483.50	55.67	V	73.97	-18.30	Peak	138.75	103.26	**Band Edge**
2483.50	35.67	V	53.97	-18.30	Avg	138.75	103.26	**X-Axis - Worst Case**
2480.00	103.04	H	113.97	-10.93	Peak	361.33	211.16	**Fundamental @ 2480 MHz**
2480.00	83.04	H	93.97	-10.93	Avg	361.25	211.16	**Z-Axis - Worst Case**
2483.50	59.54	H	73.97	-23.76	Peak	361.33	211.16	**Band Edge**
2483.50	39.54	H	53.97	-23.76	Avg	361.25	211.16	**Z-Axis - Worst Case**



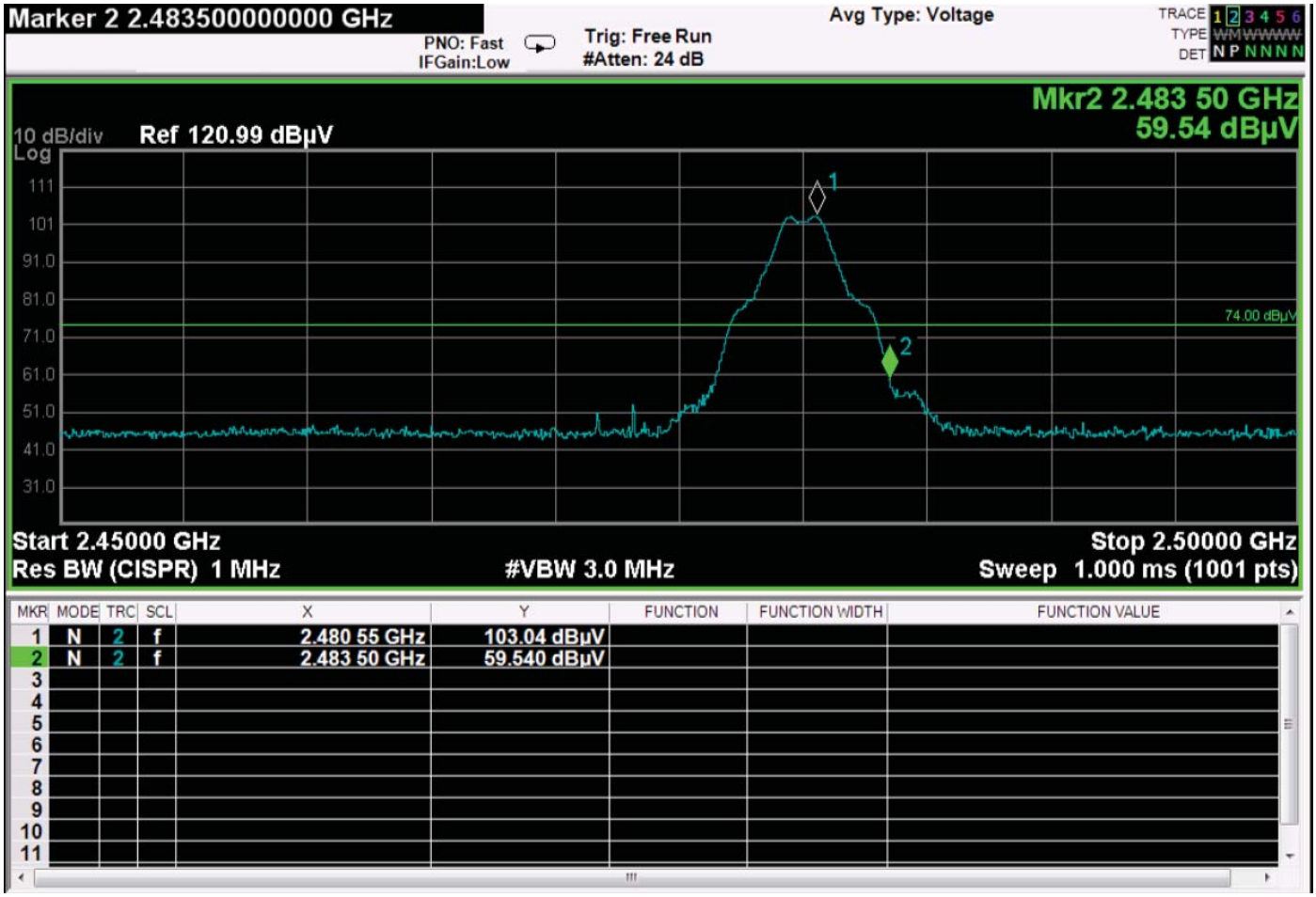
Band Edge – Vertical Polarization – Low Channel – X-Axis Worst Case – AC Power Mode



Band Edge – Horizontal Polarization – Low Channel – Z-Axis Worst Case – AC Power Mode

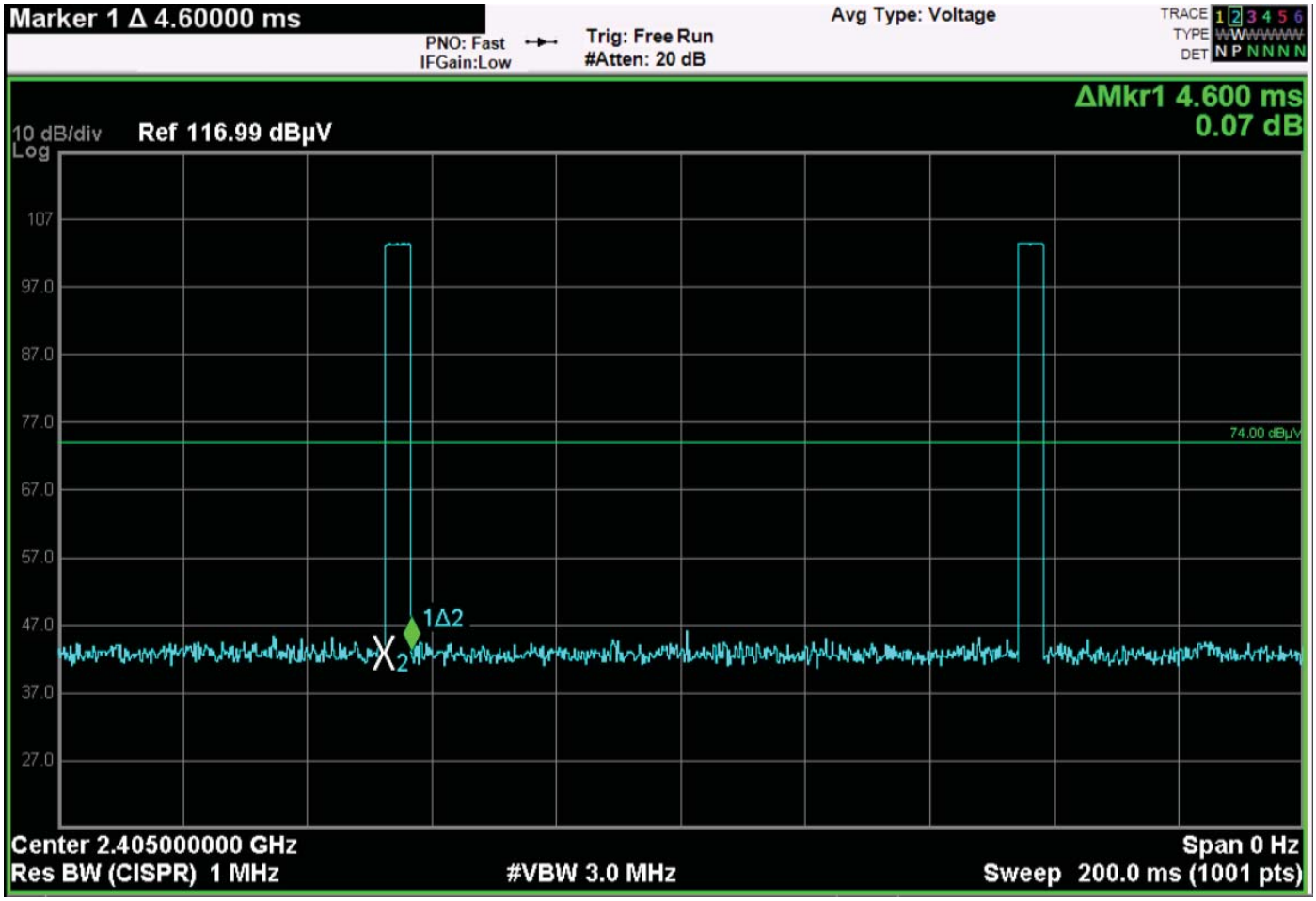


Band Edge – Vertical Polarization – High Channel – X-Axis Worst Case – AC Power Mode

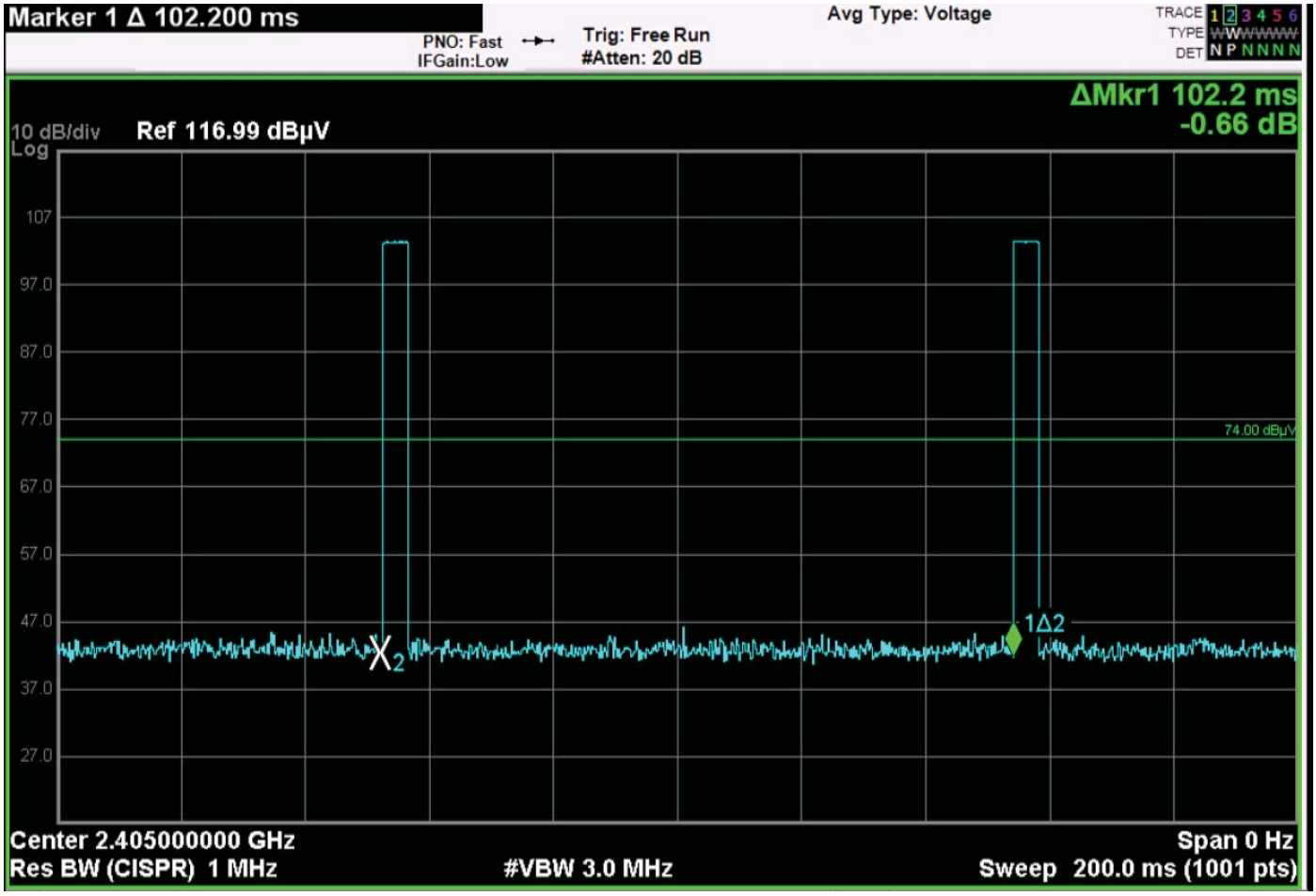


Band Edge – Horizontal Polarization – High Channel – Z-Axis Worst Case – AC Power Mode

DUTY CYCLE DATA SHEETS



Time of One Pulse = 4.6 ms



Time between Pulses = 102.2 ms

Duty Cycle = 4.6 ms / 100 ms = 4.60%

The full -20 dB peak to average ratio can be utilized.