FCC PART 15, SUBPART B and C
TEST REPORT

for

ECOTOUCH

MODEL: SS6560

Prepared for

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

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DATE: AUGUST 28, 2015

	REPORT	APPENDICES					TOTAL
	BODY	***A***	***B***	***C***	***D***	***E***	
PAGES	18	2	2	2	20	40	**84**

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TABLE OF CONTENTS

Section / Title	PAGE
GENERAL REPORT SUMMARY	***4***
SUMMARY OF TEST RESULTS	***5***
1. PURPOSE	**6**
2. ADMINISTRATIVE DATA	**7**
2.1 Location of Testing	7
2.2 Traceability Statement	7
2.3 Cognizant Personnel	7
2.4 Date Test Sample was Received	7
2.5 Disposition of the Test Sample	7
2.6 Abbreviations and Acronyms	7
3. APPLICABLE DOCUMENTS	**8**
4. DESCRIPTION OF TEST CONFIGURATION	**9**
4.1 Description of Test Configuration - Emissions	9
4.1.1 Cable Constructions and Termination	9
5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT	**10**
5.1 EUT and Accessory List	10
6. TEST SITE DESCRIPTION	**12**
6.1 Test Facility Description	12
6.2 EUT Mounting, Bonding and Grounding	12
7. TEST PROCEDURES	**13**
7.1 RF Emissions	13
7.1.1 Radiated Emissions (Spurious and Harmonics) Test – Lab B	13
7.1.2 Radiated Emissions (Spurious and Harmonics) Test – Lab D	15
7.1.3 Conducted Emissions Test	16
7.1.4 RF Emissions Test Results	17
8. CONCLUSIONS	**18**

LIST OF APPENDICES

APPENDIX	TITLE
A	Laboratory Accreditations and Recognitions
B	Modifications to the EUT
C	Additional Models Covered Under This Report
D	Diagrams and Charts • Test Setup Diagrams • Antenna and Effective Gain Factors
E	Data Sheets

LIST OF FIGURES

FIGURE	TITLE
1	Conducted Emissions Test Setup
2	Plot Map And Layout of Radiated Site
3	Layout of the Semi-Anechoic Test Chamber

LIST OF TABLES

FIGURE	TITLE
1.0	Conducted Emissions Test Results
2.0	Radiated Emissions Test Results

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:	EcoTouch Model: SS6560 S/N: N/A
Product Description:	See Expository Statement.
Modifications:	The EUT was not modified during testing.
Customer:	Telkonet, Inc. 10200 Innovation Drive, Suite 300 Milwaukee, Wisconsin 53226
Test Dates:	July 22 and 23, 2015
Test Specifications:	Emissions requirements CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209, and 15.249
Test Procedure:	ANSI C63.4
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 – 25,000 MHz (Transmitter 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
2	Conducted RF Emissions, 150 kHz to 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

1. PURPOSE

This document is a qualification test report based on the emissions tests performed on the EcoTouch, Model: SS6560. The emissions measurements were performed according to the measurement procedure described in ANSI C63.4. 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.

Jeffery 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 prior to the initial test date.

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
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network
N/A	Not Applicable
DNF	Do Not Fit
PCB	Printed Circuit Board
cm	Centimeter

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
ANSI C63.4 2009	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: 2009	American National Standard for Testing Unlicensed Wireless Devices
EN 50147-2: 1997	Anechoic chambers. Alternative test site suitability with respect to site attenuation

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - Emissions

The EcoTouch, Model: SS6560 (EUT) was connected to the AC mains via a Class 2 Transformer for AC mode. The EUT was connected to 2 AA batteries for battery mode. A laptop computer was used to set the channel of the EUT and then removed from the test setup during testing.

The EUT was tested for emissions at the low, middle, and high channels in both AC and battery modes. The EUT was continuously transmitting.

The final radiated data for the EUT as was taken in the modes described above. Please see Appendix E for the data sheets.

4.1.1 Cable Constructions and Termination

Cable 1 This is a 30 cm unshielded cable connecting the EUT to the Class 2 Transformer. The cable was hardwired to the transformer and had a two pin power connector on the EUT end. This cable was only used during AC mode testing.

Cable 2 This is a 30 cm unshielded cable connecting the EUT to the battery holder. The cable was hardwired to the battery holder and had a five pin power connector on the EUT end. This cable was only used during the battery mode testing.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
ECOTOUCH	TELKONET, INC.	SS6560	N/A	XV6SS6560
BATTERY HOLDER	N/A	N/A	N/A	N/A
LAPTOP COMPUTER	HP	G60-441US	2CE927RF3Q	DoC
CLASS 2 TRANSFORMER	JARD	TA202424-B51	N/A	N/A

5.2 Emissions Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CAL. CYCLE
GENERAL TEST EQUIPMENT USED IN LAB B					
Computer	Compaq	CQ5210F	CNX9360CF9	N/A	N/A
Monitor	Hewlett Packard	HPs2031a	3CQ046N3MD	N/A	N/A
EMI Receiver	Rohde & Schwarz	ESIB40	100194	December 4, 2014	1 Year
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
LCD Monitor	Hewlett Packard	52031a	3CQ046N3MG	N/A	N/A
EMI Receiver, 20 Hz – 26.5 GHz	Agilent Technologies	N9038A	MY51100115	April 3, 2015	1 Year
RF RADIATED EMISSIONS TEST EQUIPMENT					
CombiLog Antenna	Com-Power	AC-220	61060	May 20, 2014	2 Year
Preamplifier	Com-Power	PA-118	551024	March 6, 2015	1 Year
Loop Antenna	Com-Power	AL-130	17089	February 6, 2015	2 Year
Horn Antenna	Com-Power	AH-118	071175	February 26, 2014	2 Year
Preamplifier	Com-Power	PA-840	711013	May 13, 2014	2 Year
Horn Antenna	Com-Power	AH-826	0071957	N/A	N/A
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
Turntable	Com-Power Corporation	TT-100	N/A	N/A	N/A
Antenna-Mast	Sunol Sciences Corporation	TWR95-4	112213-3	N/A	N/A
RF CONDUCTED EMISSIONS TEST EQUIPMENT					
Shield Room Test	Compatible Electronics	11CD	N/A	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
LISN	Com-Power	LI-215	12076	June 9, 2015	1 Year
LISN	Com-Power	LI-215	12090	June 9, 2015	1 Year
Transient Limiter	Com-Power	252A910	1	October 10, 2014	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

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 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 Radiated Emissions (Spurious and Harmonics) Test – Lab B

The EMI Receiver was used as a measuring meter. A preamplifier was used to increase the sensitivity of the instrument. The Com Power Microwave Preamplifier Model: PA-118 was used for frequencies above 1 GHz and the PA 840 for frequencies above 18 GHz. The EMI Receiver was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the EMI Receiver records the highest measured reading over all the sweeps.

For frequencies above 1 GHz, the readings were averaged using the RMS detector in the EMI receiver.

The measurement bandwidth and transducer used for the radiated emissions test were:

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
1 GHz to 25 GHz	1 MHz	Horn Antenna

The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 2009. 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 by the Radiated Emission Manual Test software. 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.

Radiated Emissions (Spurious and Harmonics) Test – Lab B (con't)

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance from 1 GHz to 25 GHz to obtain the final test data.

The EUT was tested at a 3 meter test distance. The six highest emissions are listed in Table 1.0.

Test Results:

The EUT 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, Sections 15.209 and 15.249 for radiated emissions. Please see Appendix E for the data sheets.

7.1.2 Radiated Emissions (Spurious and Harmonics) Test – Lab D

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 EMI test chamber of Compatible Electronics, Inc. was used for radiated emissions testing. This test site is set up according to ANSI C63.4 and EN 50147-2. 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 measurement bandwidths and transducers used for the radiated emissions test were:

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

The EUT was tested at a three meter distance. The six highest emissions are located on Table 1.0

Test Results:

The EUT 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, Sections 15.209 and 15.249 for radiated emissions. Please see Appendix E for the data sheets.

7.1.3 Conducted Emissions Test

The spectrum analyzer was used as a measuring meter. The data was collected with the spectrum analyzer in the peak detect mode with the "Max Hold" feature activated. The quasi-peak was used only where indicated in the data sheets. A transient limiter was used for the protection of the spectrum analyzer input stage, and the offset was adjusted accordingly to read the actual data measured. The LISN output was measured using the spectrum analyzer. 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 C63.4. 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 the Shield Room Test software in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave. The final qualification data is located in Appendix E.

The EUT was tested at 120 VAC. The six highest emissions are listed in Table 2.0.

Test Results:

The EUT 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 15.107 for conducted emissions.

7.1.4 RF Emissions Test Results

Table 1.0 RADIATED EMISSION RESULTS
EcoTouch, Model: SS6560

Frequency MHz	Corrected Reading* dBuV	Specification Limit dBuV	Delta (Cor. Reading – Spec. Limit) dB
2445 (Middle Channel) (Y-Axis) (AC Mode) (V)	93.27 (Avg)	94.00	-0.73
138.20 (High Channel) (Y-Axis) (AC Mode) (V)	42.61 (QP)	43.50	-0.89
139.50 (High Channel) (Y-Axis) (AC Mode) (V)	42.47 (QP)	43.50	-1.03
2405 (Low Channel) (Y-Axis) (Battery Mode) (V)	92.70 (Avg)	94.00	-1.30
2480 (High Channel) (Y-Axis) (Battery Mode) (H)	92.31 (Avg)	94.00	-1.69
2405 (Low Channel) (Y-Axis) (AC Mode) (V)	91.87 (Avg)	94.00	-2.13

Table 2.0 CONDUCTED EMISSION RESULTS
EcoTouch, Model: SS6560

Frequency MHz	Corrected Reading* dBuV	Specification Limit dBuV	Delta (Cor. Reading – Spec. Limit) dB
0.637 (BL)	37.54	46.00	-8.46
0.634 (WL)	35.82	46.00	-10.18
1.663 (WL)	35.01	46.00	-10.99
1.197 (BL)	34.76	46.00	-11.24
0.858 (BL)	34.63	46.00	-11.37
1.708 (BL)	34.32	46.00	-11.68

Notes:

(H)	Horizontal
(V)	Vertical
(QP)	Quasi-Peak
(BL)	Black Lead
(WL)	White Lead
(Avg)	Average
*	The complete emissions data is given in Appendix E of this report.

8. CONCLUSIONS

The EcoTouch, Model: SS6560, 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 LAB CODES 200063-0, 200528-0, 200527-0

For US, Canada, Australia/New Zealand, Japan, Taiwan, Korea, and the European Union, Compatible Electronics is currently accredited by NVLAP to ISO/IEC 17025. Please follow the link to the NIST/NVLAP site for each of our facilities' NVLAP certificate and scope of accreditation

NVLAP listing links

Agoura Division / **Brea Division** / **Silverado/Lake Forest Division**

.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."

ANSI listing CETCB

Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for EMC under the US/EU Mutual Recognition Agreement (MRA).
US/EU MRA list NIST MRA site

Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for Taiwan/BSMI under the US/APEC (Asia-Pacific Economic Cooperation) Mutual Recognition Agreement (MRA).
APEC MRA list NIST MRA site

We are also listed for IT products by the following country/agency:

VCCI Support member: Please visit http://www.vcci.jp/vcci_e/

FCC Listing, from FCC OET site
FCC test lab search https://fjallfoss.fcc.gov/oetcf/eas/reports/TestFirmSearch.cfm

Industry Canada Industrie Canada

Compatible Electronics IC listing can be found at:
http://www.ic.gc.ca/eic/site/ic1.nsf/eng/home

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

EcoTouch
Model: SS6560
S/N: N/A

ADDITIONALS MODELS COVERED UNDER THIS REPORT

No additional models were covered under this report.

APPENDIX D

DIAGRAMS AND CHARTS

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP

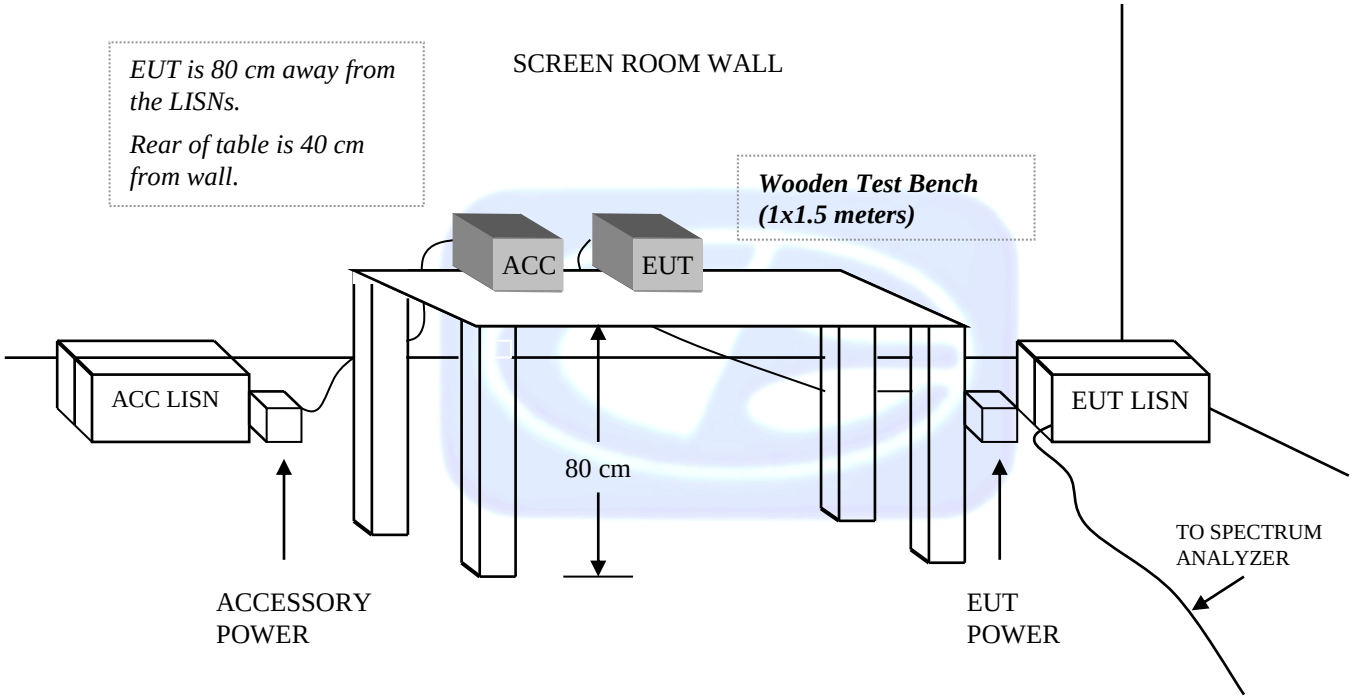
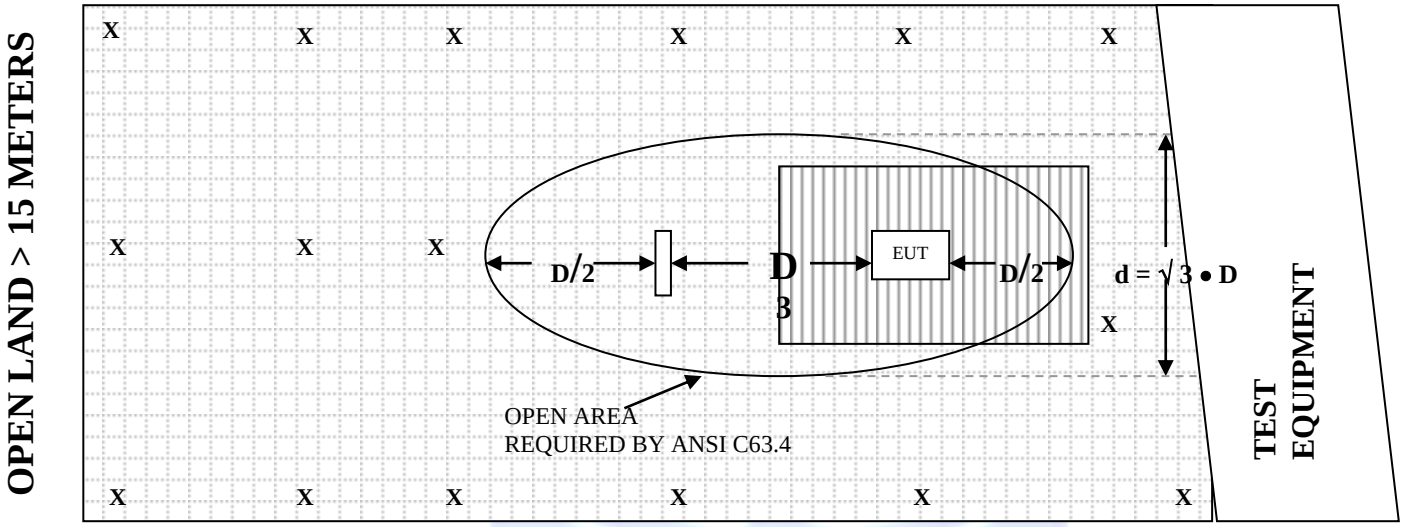


FIGURE 2: PLOT MAP AND LAYOUT OF RADIATED SITE

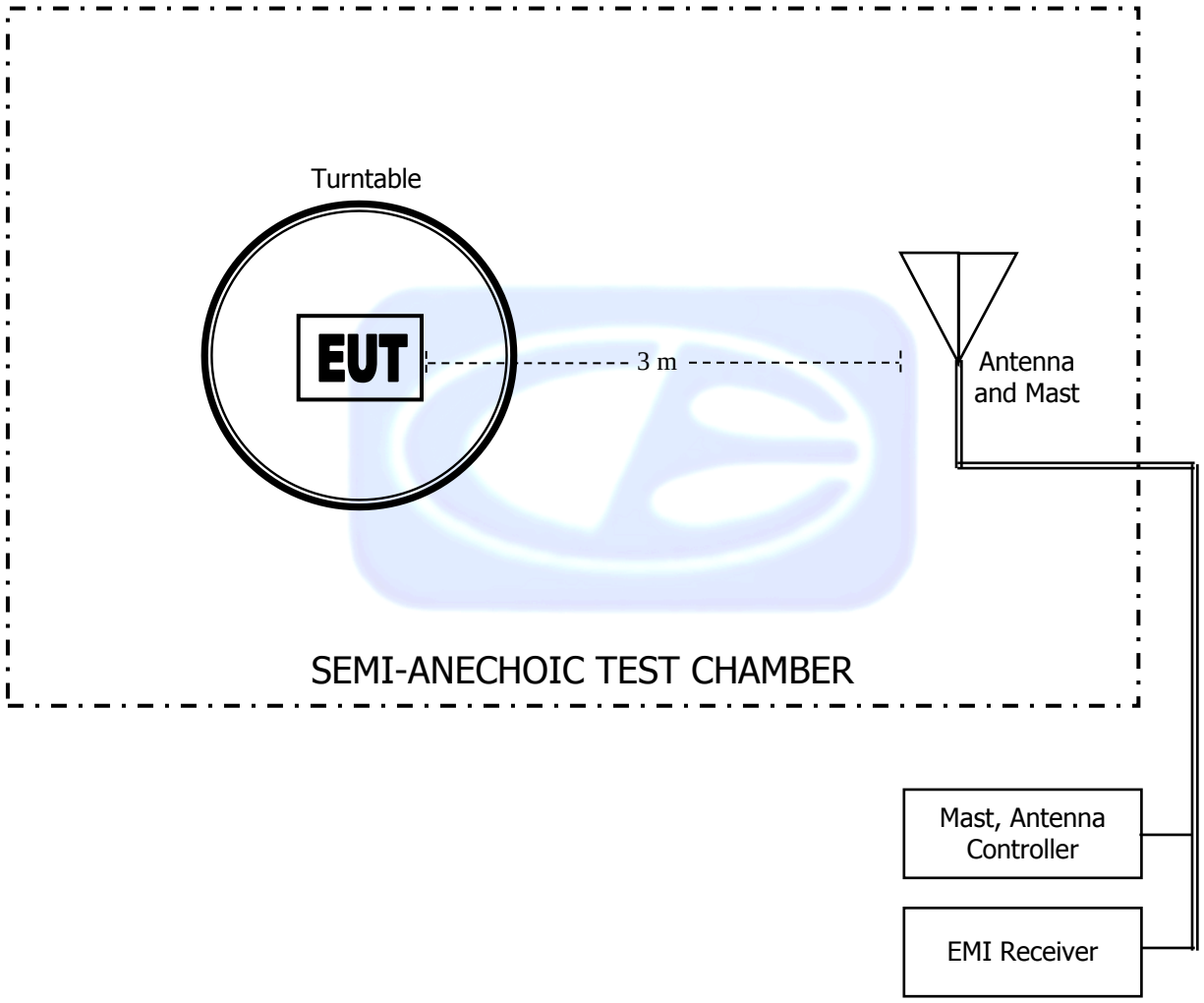
OPEN LAND > 15 METERS



OPEN LAND > 15 METERS

X = GROUND RODS	= GROUND SCREEN
D = TEST DISTANCE (meters)	= WOOD COVER

FIGURE 3: 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: MAY 20, 2014

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	23.40	200	14.40
35	23.70	250	16.40
40	24.20	300	17.90
45	22.60	350	15.60
50	22.10	400	19.90
60	17.90	450	20.40
70	12.70	500	21.60
80	11.60	550	21.50
90	12.20	600	22.30
100	13.20	650	23.50
120	15.70	700	23.70
125	15.80	750	25.90
140	13.60	800	25.90
150	16.90	850	26.40
160	14.20	900	27.00
175	14.90	950	27.70
180	15.00	1000	27.50

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 PA-118

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

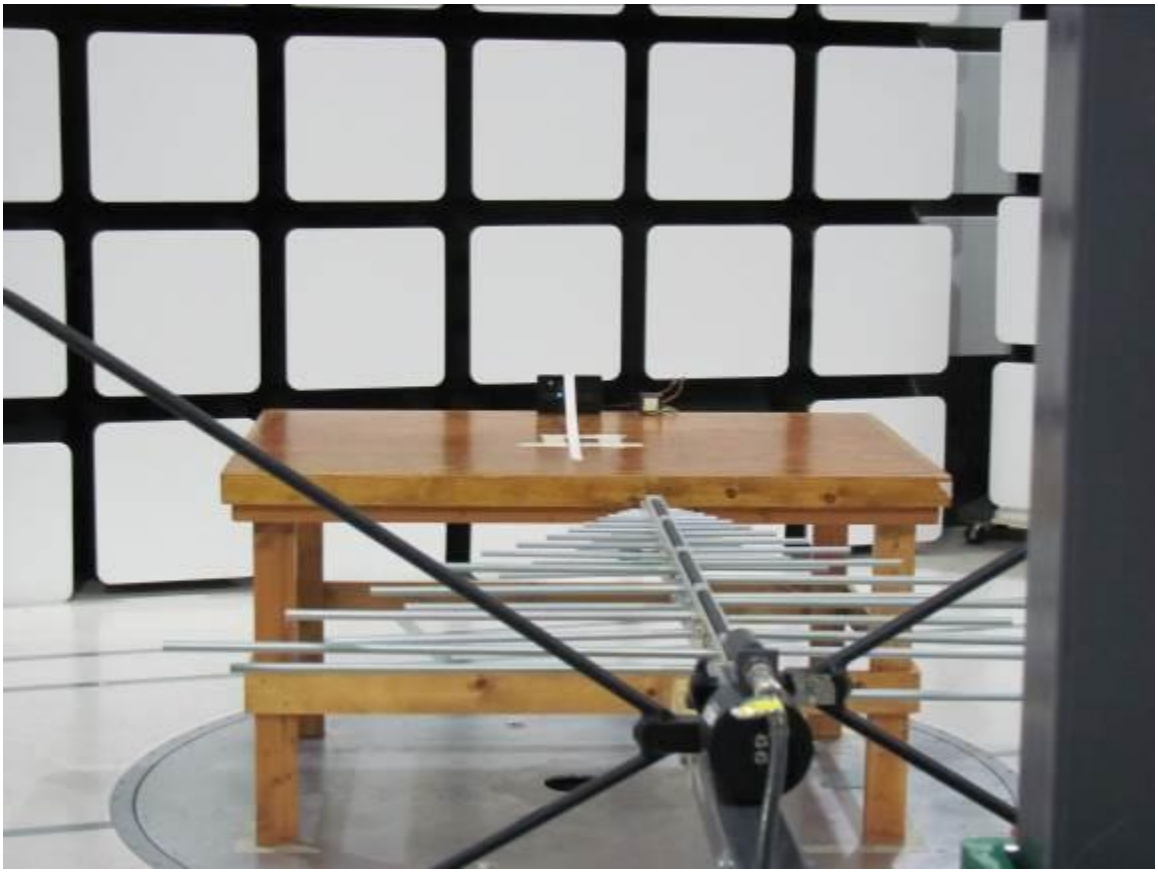
COM-POWER PA-840

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

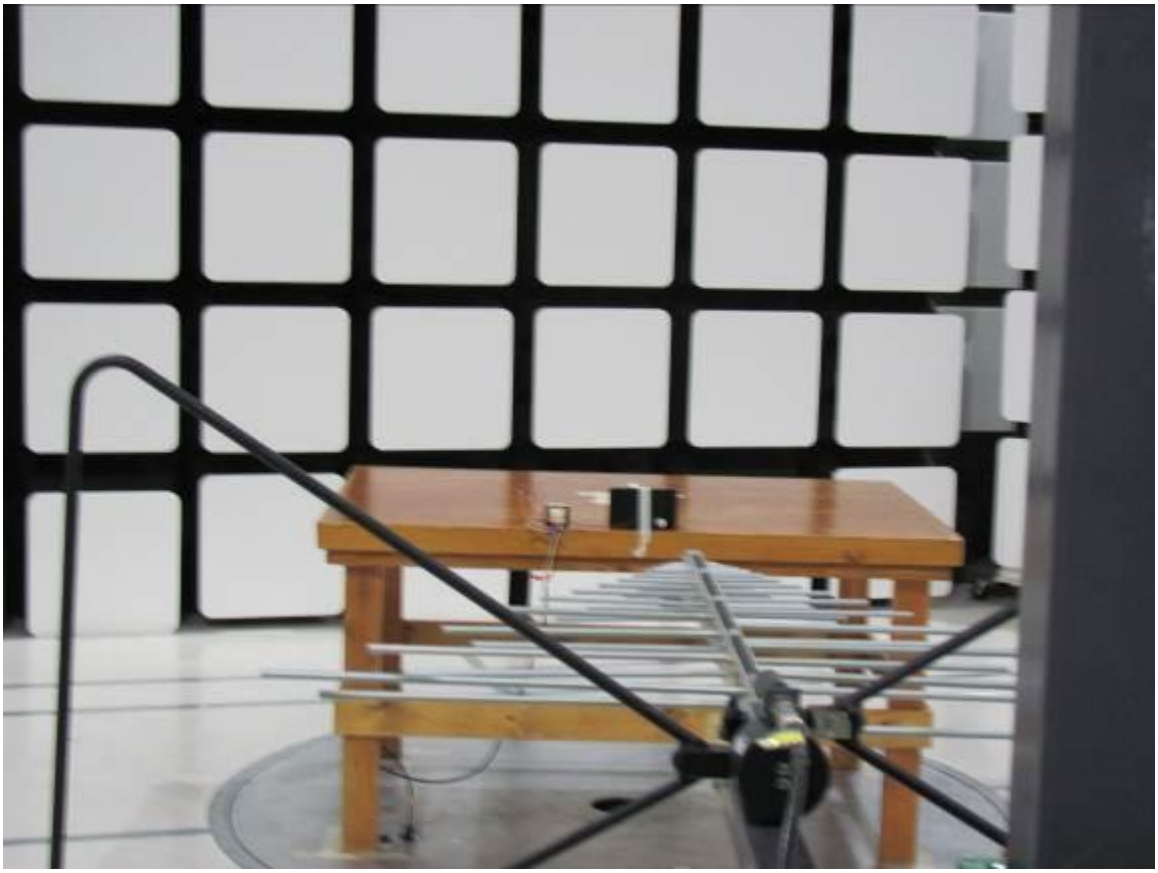


FRONT VIEW

AC MODE

TELKONET, INC.
ECOTOUCH
MODEL: SS6560
FCC SUBPART B AND C – RADIATED EMISSIONS – BELOW 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

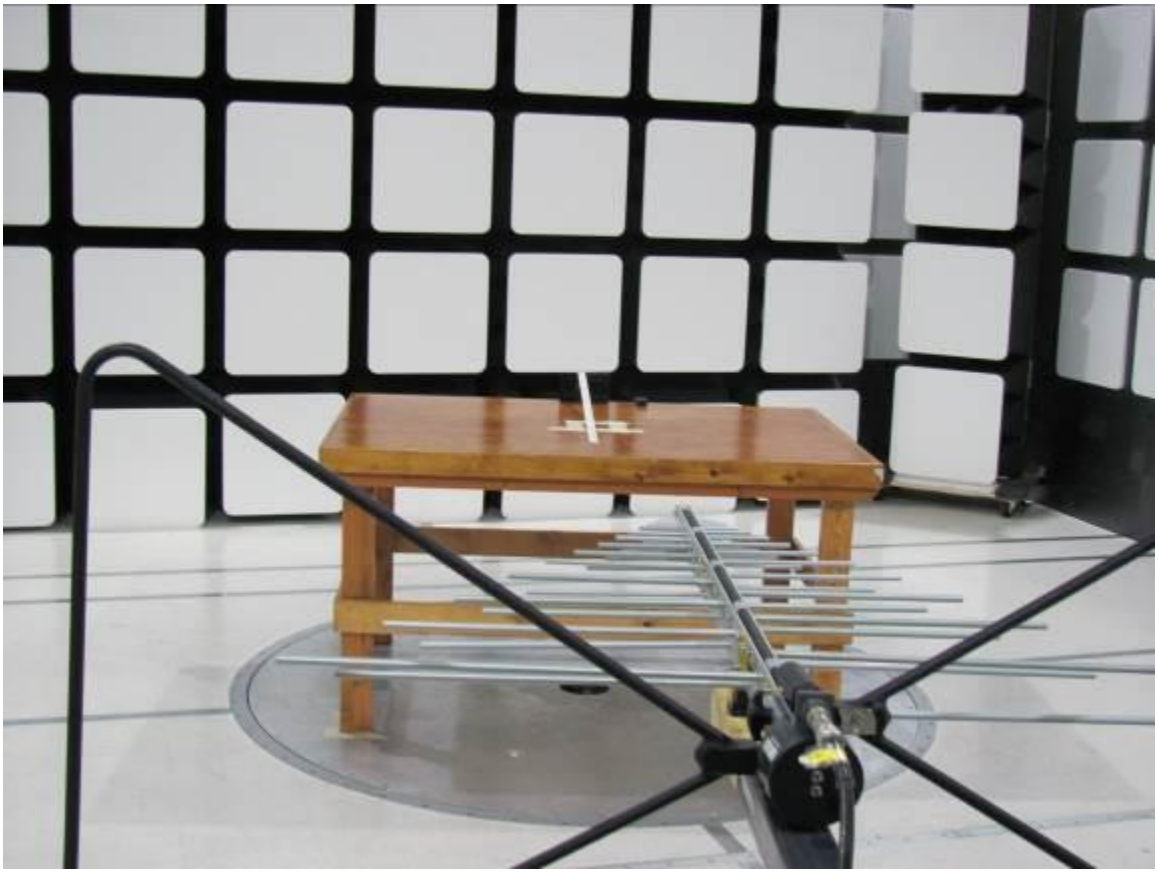


REAR VIEW

AC MODE

TELKONET, INC.
ECOTOUCH
MODEL: SS6560
FCC SUBPART B AND C – RADIATED EMISSIONS – BELOW 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

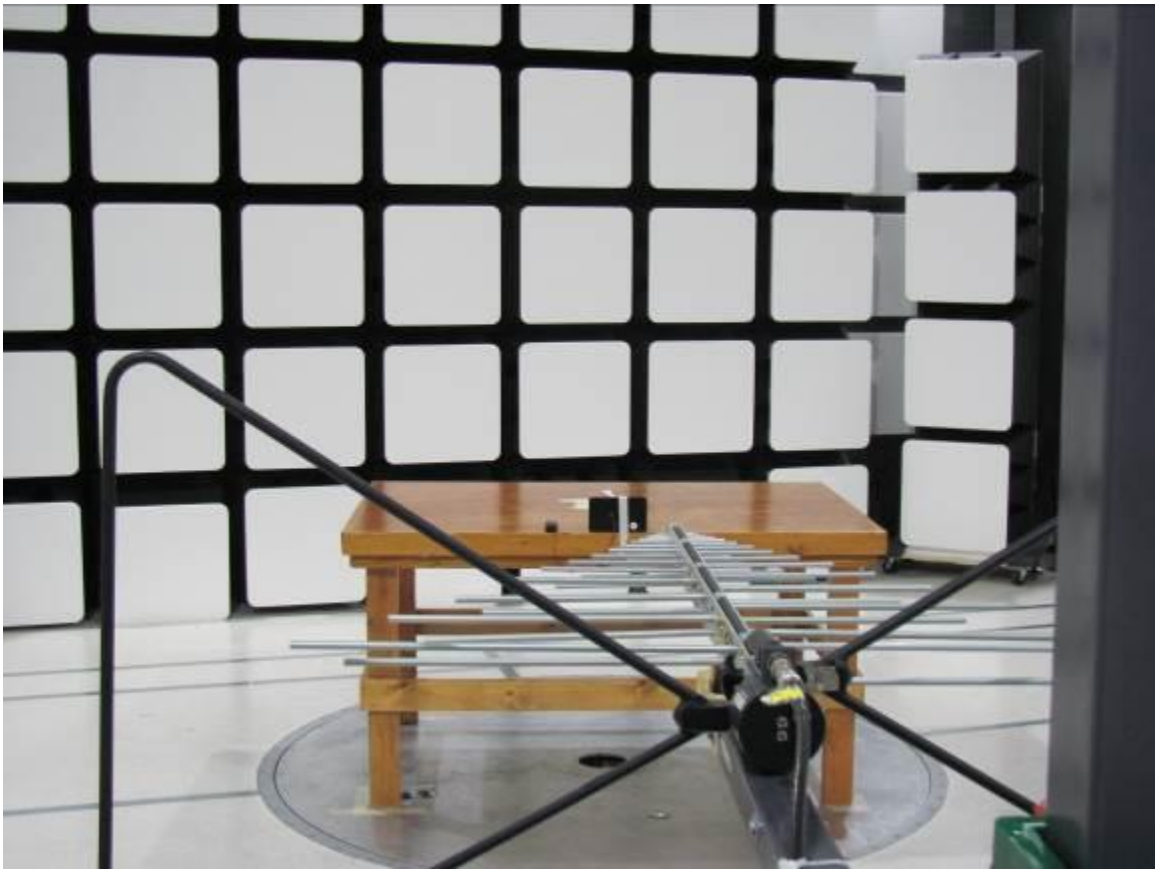


FRONT VIEW

BATTERY MODE

TELKONET, INC.
ECOTOUCH
MODEL: SS6560
FCC SUBPART B AND C – RADIATED EMISSIONS – BELOW 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

BATTERY MODE

TELKONET, INC.
ECOTOUCH
MODEL: SS6560
FCC SUBPART B AND C – RADIATED EMISSIONS – BELOW 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

AC MODE

TELKONET, INC.
ECOTOUCH
MODEL: SS6560
FCC SUBPART B AND C – RADIATED EMISSIONS – ABOVE 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

AC MODE

TELKONET, INC.
ECOTOUCH
MODEL: SS6560
FCC SUBPART B AND C – RADIATED EMISSIONS – ABOVE 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

BATTERY MODE

TELKONET, INC.
ECOTOUCH
MODEL: SS6560
FCC SUBPART B AND C – RADIATED EMISSIONS – ABOVE 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

BATTERY MODE

TELKONET, INC.
ECOTOUCH
MODEL: SS6560
FCC SUBPART B AND C – RADIATED EMISSIONS – ABOVE 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

TELKONET, INC.
ECOTOUCH
MODEL: SS6560
FCC SUBPART B AND C – CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

TELKONET, INC.
ECOTOUCH
MODEL: SS6560
FCC SUBPART B AND C – CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

RADIATED EMISSIONS

DATA SHEETS

AC MODE

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/22/2015
Lab: B
Tested By: Kyle Fujimoto

Low Channel - AC Power
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2405	95.71	V	114	-18.29	Peak	1.25	155	
2405	91.87	V	94	-2.13	Avg	1.25	155	
4810	48.61	V	74	-25.39	Peak	1.25	155	
4810	40.51	V	54	-13.49	Avg	1.25	155	
7215	59.32	V	74	-14.68	Peak	1.35	165	
7215	50.99	V	54	-3.01	Avg	1.35	165	
9620								No Emission
9620								Detected
12025								No Emission
12025								Detected
14430								No Emission
14430								Detected
16835								No Emission
16835								Detected
19240								No Emission
19240								Detected
21645								No Emission
21645								Detected
24050								No Emission
24050								Detected

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/22/2015
Lab: B
Tested By: Kyle Fujimoto

Low Channel - AC Power
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2405	91.11	H	114	-22.89	Peak	1.25	45	
2405	87.57	H	94	-6.43	Avg	1.25	45	
4810	46.31	H	74	-27.69	Peak	1.25	45	
4810	35.97	H	54	-18.03	Avg	1.25	45	
7215	49.27	H	74	-24.73	Peak	1.35	165	
7215	38.04	H	54	-15.96	Avg	1.35	165	
9620								No Emission
9620								Detected
12025								No Emission
12025								Detected
14430								No Emission
14430								Detected
16835								No Emission
16835								Detected
19240								No Emission
19240								Detected
21645								No Emission
21645								Detected
24050								No Emission
24050								Detected

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/22/2015
Lab: B
Tested By: Kyle Fujimoto

Middle Channel - AC Power
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2445	96.09	V	114	-17.91	Peak	1.25	180	
2445	93.27	V	94	-0.73	Avg	1.25	180	
4890	51.74	V	74	-22.26	Peak	1.35	180	
4890	45.99	V	54	-8.01	Avg	1.35	180	
7335	58.46	V	74	-15.54	Peak	1.45	180	
7335	51.27	V	54	-2.73	Avg	1.45	180	
9780								No Emission
9780								Detected
12250								No Emission
12250								Detected
14670								No Emission
14670								Detected
17115								No Emission
17115								Detected
19560								No Emission
19560								Detected
22005								No Emission
22005								Detected
24450								No Emission
24450								Detected

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/22/2015
Lab: B
Tested By: Kyle Fujimoto

Middle Channel - AC Power
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2445	88.18	H	114	-25.82	Peak	1.25	145	
2445	81.27	H	94	-12.73	Avg	1.25	145	
4890	51.31	H	74	-22.69	Peak	1.25	225	
4890	39.64	H	54	-14.36	Avg	1.25	225	
7335	52.14	H	74	-21.86	Peak	1.25	180	
7335	37.98	H	54	-16.02	Avg	1.25	180	
9780								No Emission
9780								Detected
12250								No Emission
12250								Detected
14670								No Emission
14670								Detected
17115								No Emission
17115								Detected
19560								No Emission
19560								Detected
22005								No Emission
22005								Detected
24450								No Emission
24450								Detected

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/22/2015
Lab: B
Tested By: Kyle Fujimoto

High Channel - AC Power
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2480	93.28	V	114	-20.72	Peak	1.25	315	
2480	89.84	V	94	-4.16	Avg	1.25	315	
4960	48.01	V	74	-25.99	Peak	1.35	275	
4960	45.45	V	54	-8.55	Avg	1.35	275	
7440	52.86	V	74	-21.14	Peak	1.25	285	
7440	41.78	V	54	-12.22	Avg	1.25	285	
9920								No Emission
9920								Detected
12400								No Emission
12400								Detected
14880								No Emission
14880								Detected
17360								No Emission
17360								Detected
19840								No Emission
19840								Detected
22320								No Emission
22320								Detected
24800								No Emission
24800								Detected

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

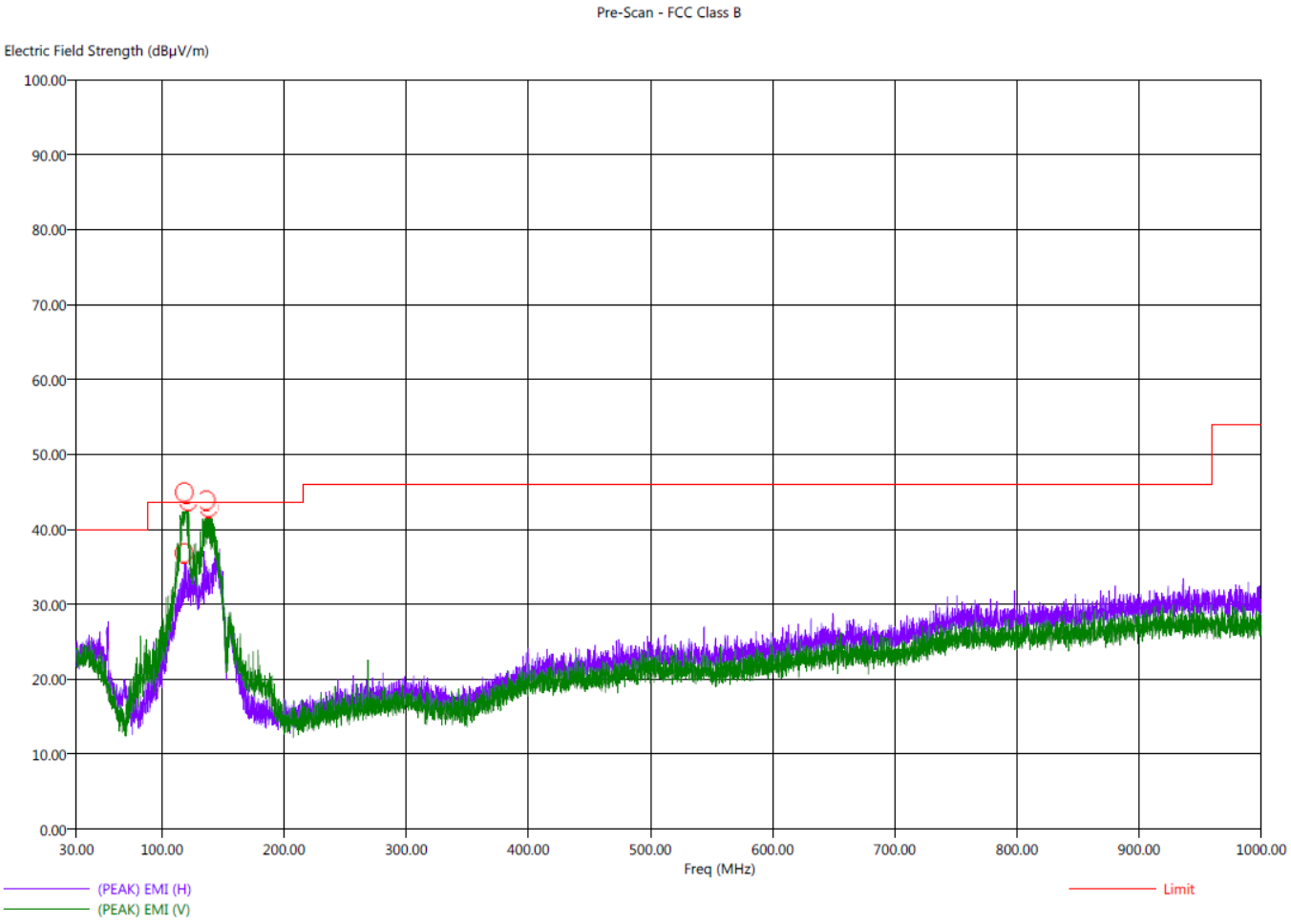
Date: 07/22/2015
Lab: B
Tested By: Kyle Fujimoto

High Channel - AC Power
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2480	94.91	H	114	-19.09	Peak	1.25	180	
2480	91.18	H	94	-2.82	Avg	1.25	180	
4960	51.89	H	74	-22.11	Peak	1.25	180	
4960	48.06	H	54	-5.94	Avg	1.25	180	
7440	55.33	H	74	-18.67	Peak	1.35	235	
7440	44.56	H	54	-9.44	Avg	1.35	235	
9920								No Emission
9920								Detected
12400								No Emission
12400								Detected
14880								No Emission
14880								Detected
17360								No Emission
17360								Detected
19840								No Emission
19840								Detected
22320								No Emission
22320								Detected
24800								No Emission
24800								Detected

Title: Pre-Scan - FCC Class B
File: Agilent - Radiated Pre-Scan 30-1000 MHz - FCC Class B - AC Powered - 07-23-2015.set
Operator: Kyle Fujimoto
EUT Type: EcoTouch
EUT Condition: The EUT is Continuously Transmitting - AC Powered
Comments: Customer: Telkonet, Inc.
Model: SS6560

7/23/2015 2:19:47 PM
Sequence: Preliminary Scan



Title: Radiated Final - 30-1000 MHz - FCC Class B
File: Agilent - Radiated Final Scan 30-1000 MHz - FCC Class B - AC Powered - 07-23-2015.set
Operator: Kyle Fujimoto
EUT Type: EcoTouch
EUT Condition: The EUT is Continuously Transmitting - AC Powered
Comments: Customer: Telkonet, Inc.
Model: SS6560

7/23/2015 2:30:37 PM
Sequence: Final Measurements

Table19

Freq (MHz)	Pol	(PEAK) EMI (dBµV/m)	(QP) EMI (dBµV/m)	(PEAK) Margin (dB)	(QP) Margin (dB)	Limit (dBµV/m)	Cable (dB)	Transducer (dB)	Ttbl Agl (deg)	Twr Ht (cm)
118.30	H	39.13	34.28	-4.37	-9.22	43.50	0.78	15.50	31.25	256.14
118.50	V	39.42	34.56	-4.08	-8.94	43.50	0.78	15.55	340.75	190.83
120.10	V	38.63	33.58	-4.87	-9.92	43.50	0.79	15.69	0.00	126.00
121.60	V	38.54	34.17	-4.96	-9.33	43.50	0.79	15.73	112.25	363.25
136.30	V	41.76	37.74	-1.74	-5.76	43.50	0.85	14.11	335.50	255.01
138.20	V	46.70	42.61	3.20	-0.89	43.50	0.86	13.84	306.00	223.25
139.50	V	46.88	42.47	3.38	-1.03	43.50	0.86	13.67	306.25	223.19

FCC 15.249 and FCC Class B
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/22/2015
Labs: B and D
Tested By: Kyle Fujimoto

Radiated Emissions 10 kHz to 30 MHz and 1 GHz to 25 GHz - AC Power

Axis of EUT	Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Comments
								No Emissions Detected
								from 10 kHz to 30 MHz
								for the Non-Harmonic
								Emissions from the
								EUT for both the Vertical and
								Horizontal Polarizations.
								No Emissions Detected
								from 10 kHz to 30 MHz
								for the Digital Portion
								of the EUT
								for both the Vertical and
								Horizontal Polarizations.
								No Emissions Detected
								from 1 GHz to 25 GHz
								for the Non-Harmonic
								Emissions from the
								EUT for both the Vertical and
								Horizontal Polarizations.
								No Emissions Detected
								from 1 GHz to 25 GHz
								for the Digital Portion
								of the EUT
								for both the Vertical and
								Horizontal Polarizations.

RADIATED EMISSIONS

DATA SHEETS

BATTERY MODE

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/23/2015
Lab: B
Tested By: Kyle Fujimoto

Low Channel - Battery Power
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2405	98.6	V	114	-15.4	Peak	1.25	180	
2405	92.7	V	94	-1.3	Avg	1.25	180	
4810	49.73	V	74	-24.27	Peak	1.25	180	
4810	36.72	V	54	-17.28	Avg	1.25	180	
7215	52.11	V	74	-21.89	Peak	1.25	180	
7215	42.39	V	54	-11.61	Avg	1.25	180	
9620								No Emission
9620								Detected
12025								No Emission
12025								Detected
14430								No Emission
14430								Detected
16835								No Emission
16835								Detected
19240								No Emission
19240								Detected
21645								No Emission
21645								Detected
24050								No Emission
24050								Detected

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/23/2015
Lab: B
Tested By: Kyle Fujimoto

Low Channel - Battery Power
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2405	91.91	H	114	-22.09	Peak	1.25	135	
2405	88.5	H	94	-5.5	Avg	1.25	135	
4810	53.62	H	74	-20.38	Peak	1.25	135	
4810	50.74	H	54	-3.26	Avg	1.25	135	
7215	51.92	H	74	-22.08	Peak	1.35	270	
7215	43.54	H	54	-10.46	Avg	1.35	270	
9620								No Emission
9620								Detected
12025								No Emission
12025								Detected
14430								No Emission
14430								Detected
16835								No Emission
16835								Detected
19240								No Emission
19240								Detected
21645								No Emission
21645								Detected
24050								No Emission
24050								Detected

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/22/2015
Lab: B
Tested By: Kyle Fujimoto

Middle Channel - Battery Power
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2445	95.23	V	114	-18.77	Peak	1.25	135	
2445	90.85	V	94	-3.15	Avg	1.25	135	
4890	49.83	V	74	-24.17	Peak	1.35	145	
4890	42.25	V	54	-11.75	Avg	1.35	145	
7335	51.22	V	74	-22.78	Peak	1.25	155	
7335	42.63	V	54	-11.37	Avg	1.25	155	
9780								No Emission
9780								Detected
12250								No Emission
12250								Detected
14670								No Emission
14670								Detected
17115								No Emission
17115								Detected
19560								No Emission
19560								Detected
22005								No Emission
22005								Detected
24450								No Emission
24450								Detected

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/22/2015
Lab: B
Tested By: Kyle Fujimoto

Middle Channel - Battery Power
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2445	91.06	H	114	-22.94	Peak	1.25	225	
2445	85.84	H	94	-8.16	Avg	1.25	225	
4890	51.74	H	74	-22.26	Peak	1.25	135	
4890	43.99	H	54	-10.01	Avg	1.25	135	
7335	54.03	H	74	-19.97	Peak	1.35	125	
7335	44.91	H	54	-9.09	Avg	1.35	125	
9780								No Emission
9780								Detected
12250								No Emission
12250								Detected
14670								No Emission
14670								Detected
17115								No Emission
17115								Detected
19560								No Emission
19560								Detected
22005								No Emission
22005								Detected
24450								No Emission
24450								Detected

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/23/2015
Lab: B
Tested By: Kyle Fujimoto

High Channel - Battery Power
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2480	94.94	V	114	-19.06	Peak	1.25	135	
2480	91.45	V	94	-2.55	Avg	1.25	135	
4960	47.43	V	74	-26.57	Peak	1.25	180	
4960	36.81	V	54	-17.19	Avg	1.25	180	
7440	49.73	V	74	-24.27	Peak	1.35	175	
7440	39.11	V	54	-14.89	Avg	1.35	175	
9920								No Emission
9920								Detected
12400								No Emission
12400								Detected
14880								No Emission
14880								Detected
17360								No Emission
17360								Detected
19840								No Emission
19840								Detected
22320								No Emission
22320								Detected
24800								No Emission
24800								Detected

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

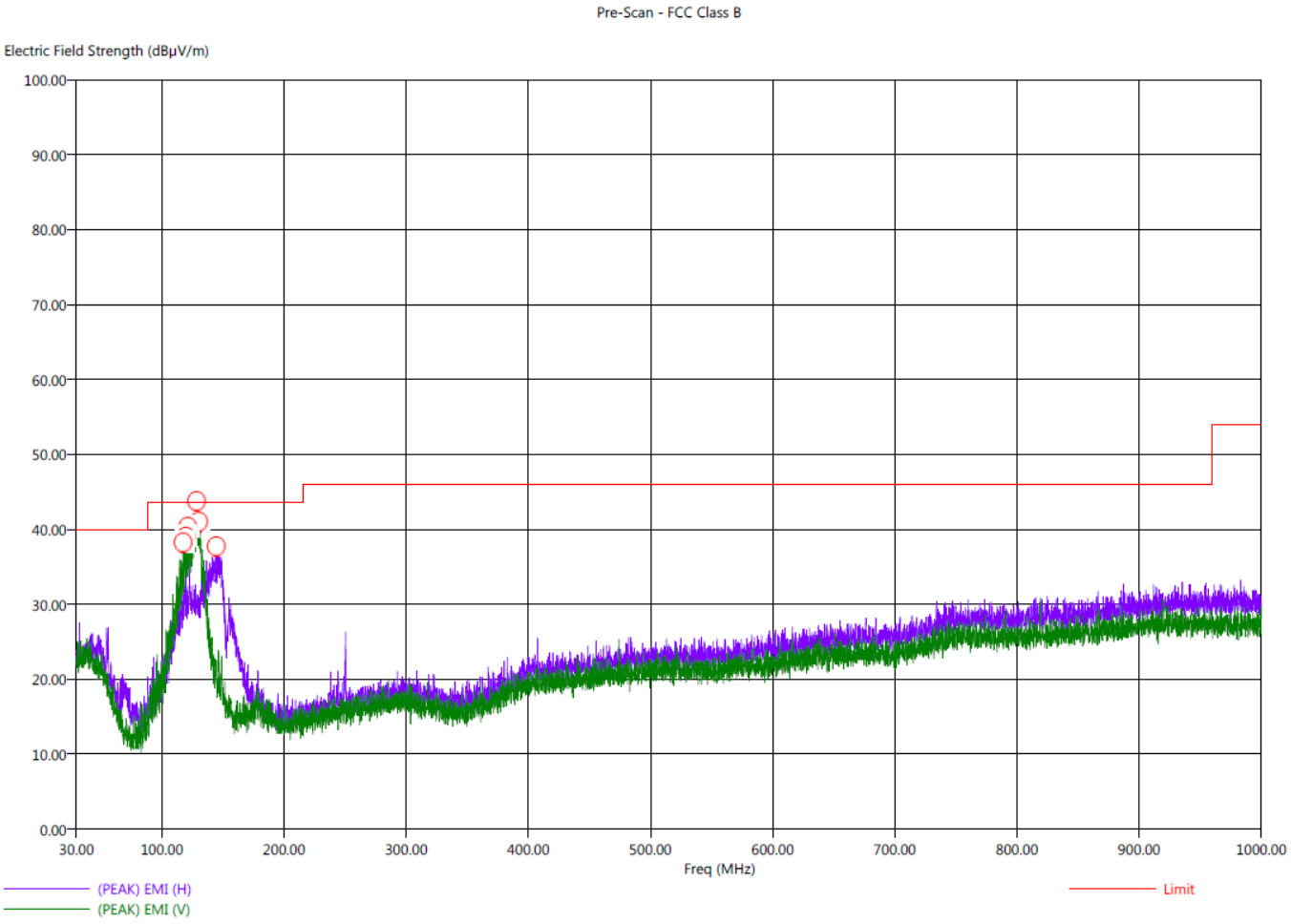
Date: 07/23/2015
Lab: B
Tested By: Kyle Fujimoto

High Channel - Battery Power
Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2480	95.88	H	114	-18.12	Peak	1.25	180	
2480	92.31	H	94	-1.69	Avg	1.25	180	
4960	52.74	H	74	-21.26	Peak	1.35	135	
4960	48.95	H	54	-5.05	Avg	1.35	135	
7440	54.44	H	74	-19.56	Peak	1.25	145	
7440	46.08	H	54	-7.92	Avg	1.25	145	
9920								No Emission
9920								Detected
12400								No Emission
12400								Detected
14880								No Emission
14880								Detected
17360								No Emission
17360								Detected
19840								No Emission
19840								Detected
22320								No Emission
22320								Detected
24800								No Emission
24800								Detected

Title: Pre-Scan - FCC Class B
File: Agilent - Radiated Pre-Scan 30-1000 MHz - FCC Class B - Battery Powered - 07-23-2015.set
Operator: Kyle Fujimoto
EUT Type: EcoTouch
EUT Condition: The EUT is Continuously Transmitting - Battery Powered
Comments: Customer: Telkonet, Inc.
Model: SS6560

7/23/2015 1:18:01 PM
Sequence: Preliminary Scan



Title: Radiated Final - 30-1000 MHz - FCC Class B
File: Agilent - Radiated Final Scan 30-1000 MHz - FCC Class B - Battery Powered - 07-23-2015.set
Operator: Kyle Fujimoto
EUT Type: EcoTouch
EUT Condition: The EUT is Continuously Transmitting - Battery Powered
Comments: Customer: Telkonet, Inc.
Model: SS6560

7/23/2015 1:46:09 PM
Sequence: Final Measurements

Table19

Freq (MHz)	Pol	(PEAK) EMI (dBµV/m)	(QP) EMI (dBµV/m)	(PEAK) Margin (dB)	(QP) Margin (dB)	Limit (dBµV/m)	Cable (dB)	Transducer (dB)	Ttbl Agl (deg)	Twr Ht (cm)
117.40	V	37.42	31.84	-6.08	-11.66	43.50	0.78	15.38	118.00	400.14
119.70	V	36.73	31.21	-6.77	-12.29	43.50	0.79	15.64	355.50	237.46
121.20	V	37.63	32.43	-5.87	-11.07	43.50	0.79	15.72	0.00	142.89
128.50	V	40.03	35.20	-3.47	-8.30	43.50	0.81	15.30	337.75	239.13
130.20	V	43.73	38.94	0.23	-4.56	43.50	0.82	14.98	308.50	223.67
144.60	H	40.21	35.91	-3.29	-7.59	43.50	0.88	15.11	16.75	159.49

FCC 15.249 and FCC Class B
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/23/2015
Labs: B and D
Tested By: Kyle Fujimoto

Radiated Emissions 10 kHz to 30 MHz and 1 GHz to 25 GHz - Battery Power

Axis of EUT	Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Comments
								No Emissions Detected
								from 10 kHz to 30 MHz
								for the Non-Harmonic
								Emissions from the
								EUT for both the Vertical and
								Horizontal Polarizations.
								No Emissions Detected
								from 10 kHz to 30 MHz
								for the Digital Portion
								of the EUT
								for both the Vertical and
								Horizontal Polarizations.
								No Emissions Detected
								from 1 GHz to 25 GHz
								for the Non-Harmonic
								Emissions from the
								EUT for both the Vertical and
								Horizontal Polarizations.
								No Emissions Detected
								from 1 GHz to 25 GHz
								for the Digital Portion
								of the EUT
								for both the Vertical and
								Horizontal Polarizations.

BAND EDGES

DATA SHEETS

AC MODE

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/22/2015
Lab: B
Tested By: Kyle Fujimoto

Band Edges - Vertical Polarization - AC Power

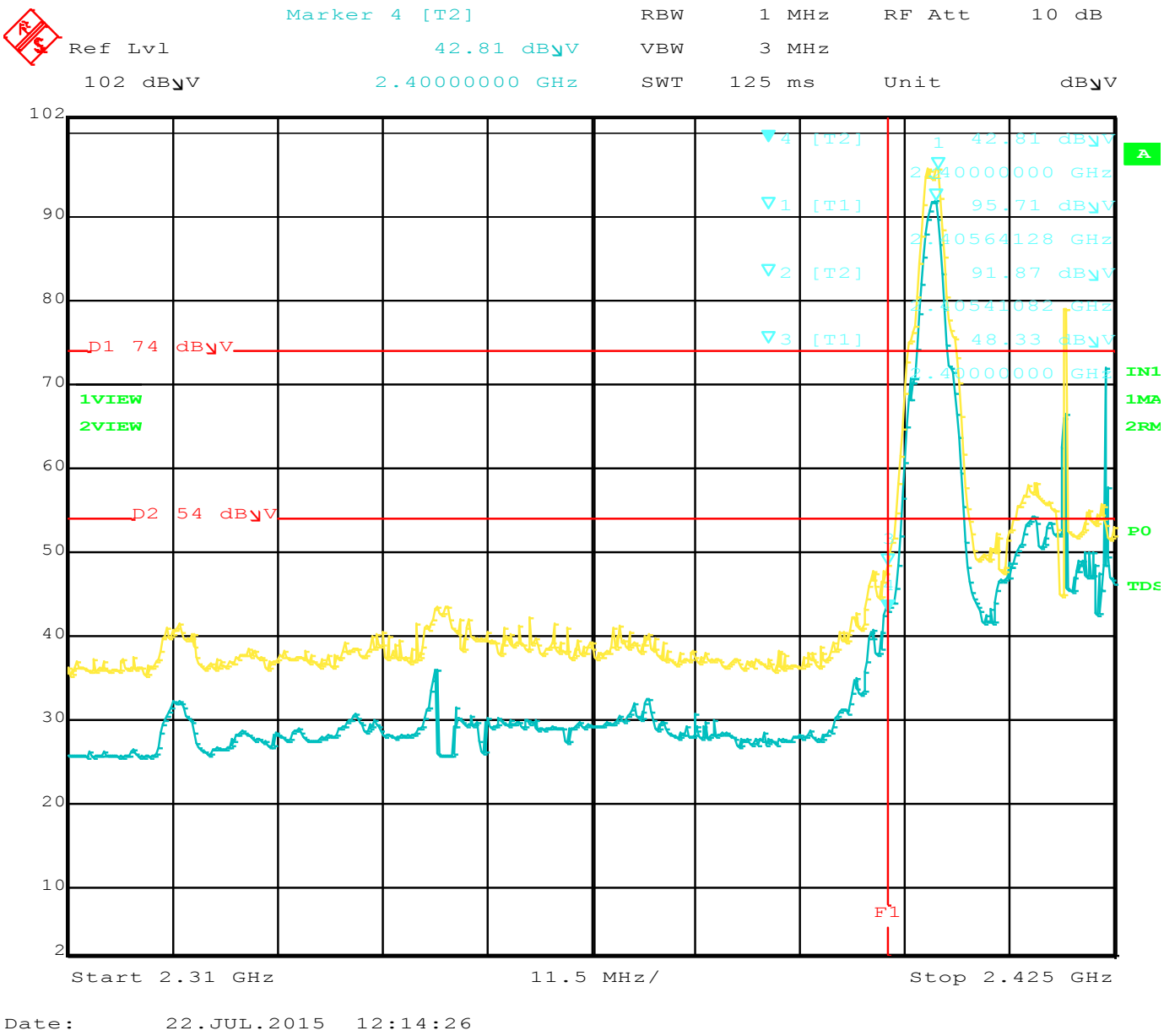
Worst Case Axis of EUT	Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
Y-Axis	2405	95.71	V	114	-18.29	Peak	1.25	155	**Fundamental of**
Y-Axis	2405	91.87	V	94	-2.13	Avg	1.25	155	**Low Channel @ 3 Meters**
Y-Axis	2400	48.33	V	74	-25.67	Peak	1.5	180	**Band Edge of**
Y-Axis	2400	42.81	V	54	-11.19	Avg	1.5	180	**Low Channel @ 3 Meters**
Y-Axis	2480	93.28	V	114	-20.72	Peak	1.25	315	**Fundamental of**
Y-Axis	2480	89.84	V	94	-4.16	Avg	1.25	315	**High Channel @ 3 Meters**
Y-Axis	2483.5	55.84	V	74	-18.16	Peak	1.25	315	**Band Edge of**
Y-Axis	2483.5	50.03	V	54	-3.97	Avg	1.25	315	**High Channel @ 3 Meters**

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

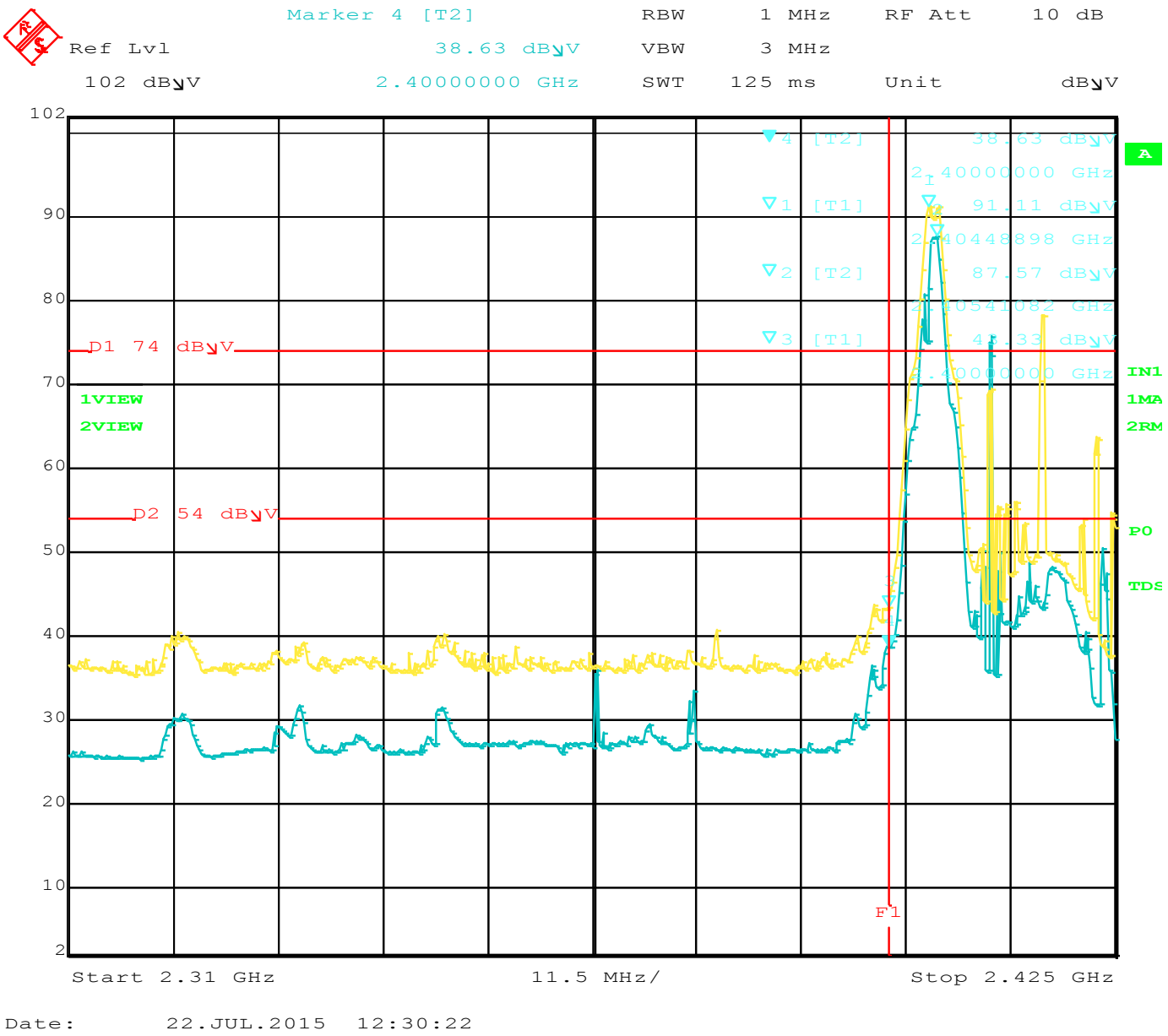
Date: 07/22/2015
Lab: B
Tested By: Kyle Fujimoto

Band Edges - Horizontal Polarization - AC Power

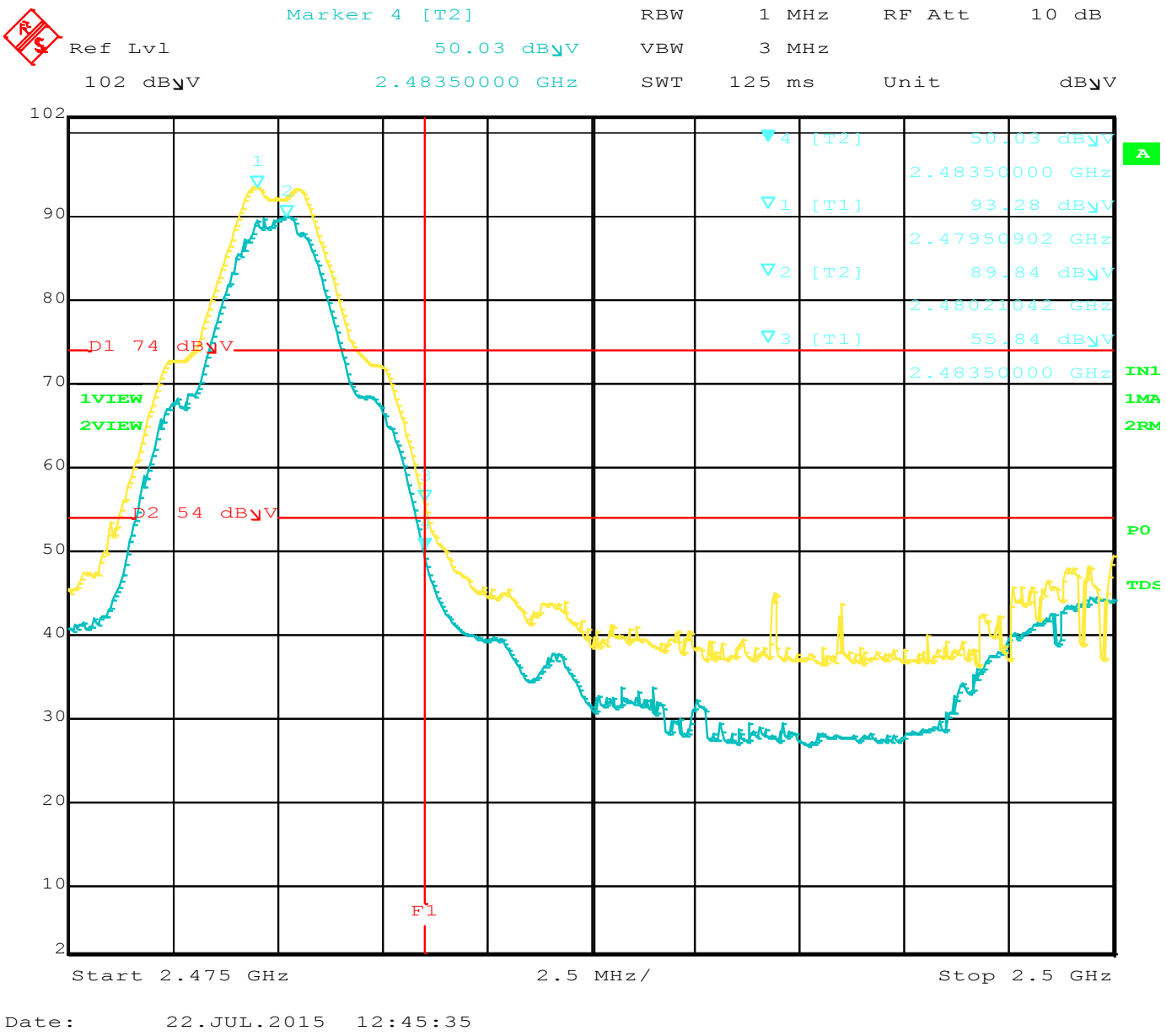
Worst Case Axis of EUT	Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
Y-Axis	2405	91.11	H	114	-22.89	Peak	1.25	45	Fundamental of
Y-Axis	2405	87.57	H	94	-6.43	Avg	1.25	45	Low Channel @ 3 Meters
Y-Axis	2400	43.33	H	54	-10.67	Peak	1.25	45	Band Edge of
Y-Axis	2400	38.63	H	54	-15.37	Avg	1.25	45	Low Channel @ 3 Meters
Y-Axis	2480	94.91	H	114	-19.09	Peak	1.25	180	Fundamental of
Y-Axis	2480	91.18	H	94	-2.82	Avg	1.25	180	High Channel @ 3 Meters
Y-Axis	2483.5	56.93	H	54	2.93	Peak	1.25	180	Band Edge of
Y-Axis	2483.5	51.8	H	54	-2.2	Avg	1.25	180	High Channel @ 3 Meters



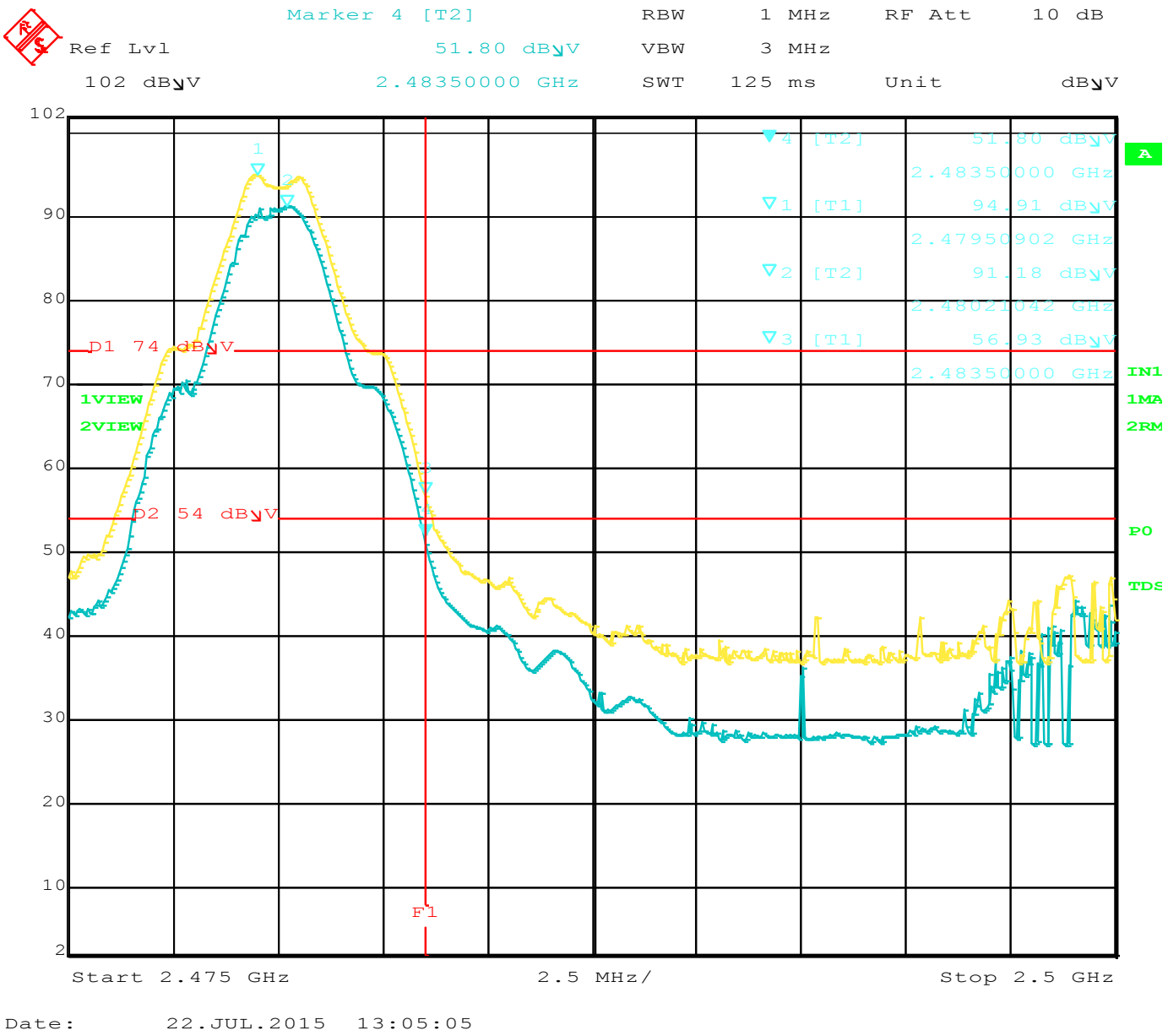
Band Edge – Low Channel – Vertical Polarization – AC Mode – Y-Axis – Worst Case



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



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



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

BAND EDGES

DATA SHEETS

BATTERY MODE

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

Date: 07/23/2015
Lab: B
Tested By: Kyle Fujimoto

Band Edges - Vertical Polarization - Battery Power

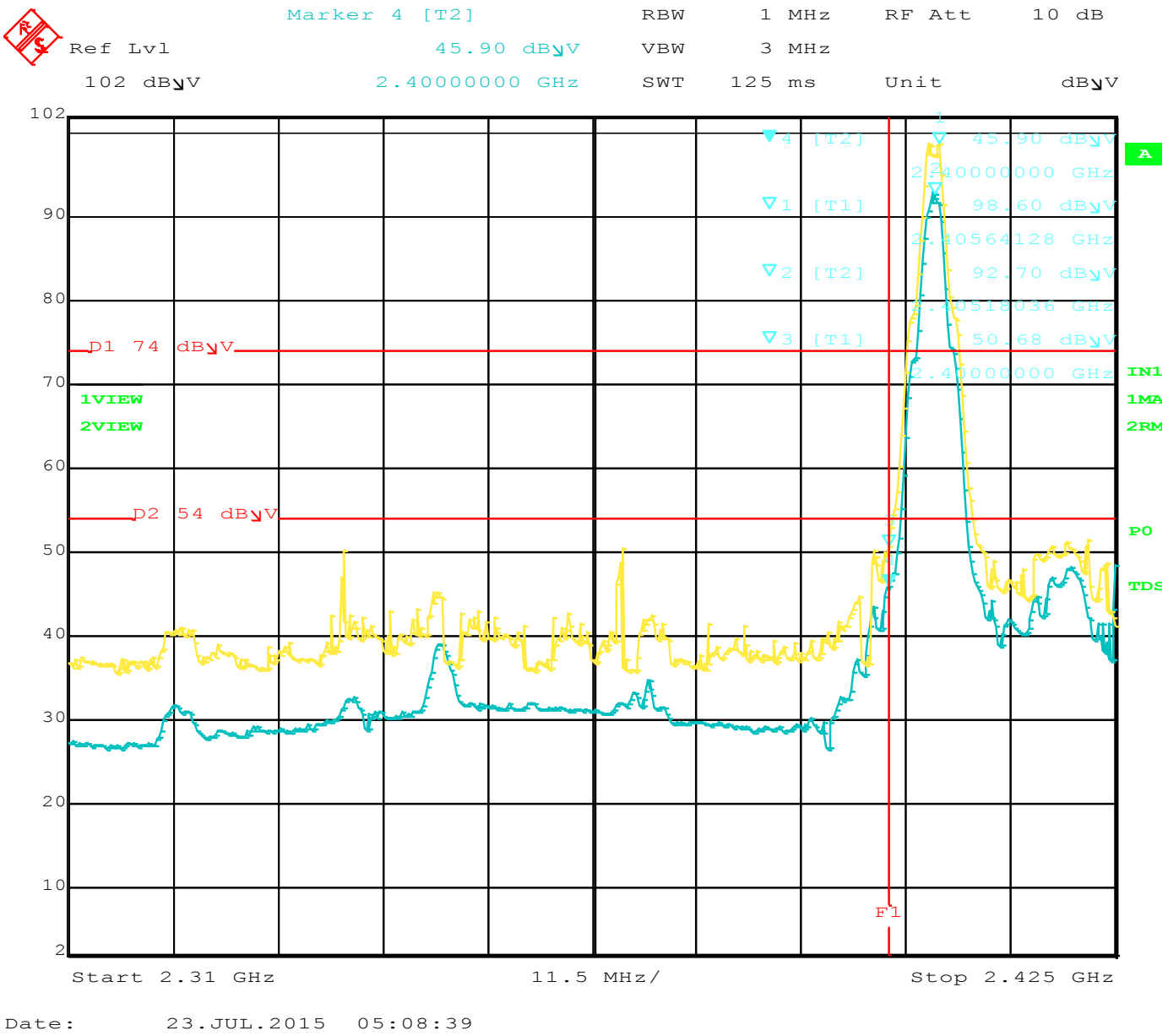
Worst Case Axis of EUT	Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
Y-Axis	2405	98.6	V	114	-15.4	Peak	1.25	180	**Fundamental of**
Y-Axis	2405	92.7	V	94	-1.3	Avg	1.25	180	**Low Channel @ 3 Meters**
Y-Axis	2400	50.68	V	74	-23.32	Peak	1.25	180	**Band Edge of**
Y-Axis	2400	45.9	V	54	-8.1	Avg	1.25	180	**Low Channel @ 3 Meters**
Y-Axis	2480	94.94	V	114	-19.06	Peak	1.25	135	**Fundamental of**
Y-Axis	2480	91.45	V	94	-2.55	Avg	1.25	135	**High Channel @ 3 Meters**
Y-Axis	2483.5	58.36	V	74	-15.64	Peak	1.25	135	**Band Edge of**
Y-Axis	2483.5	52.43	V	54	-1.57	Avg	1.25	135	**High Channel @ 3 Meters**

FCC 15.249
Telkonet, Inc.
EcoTouch
Model: SS6560

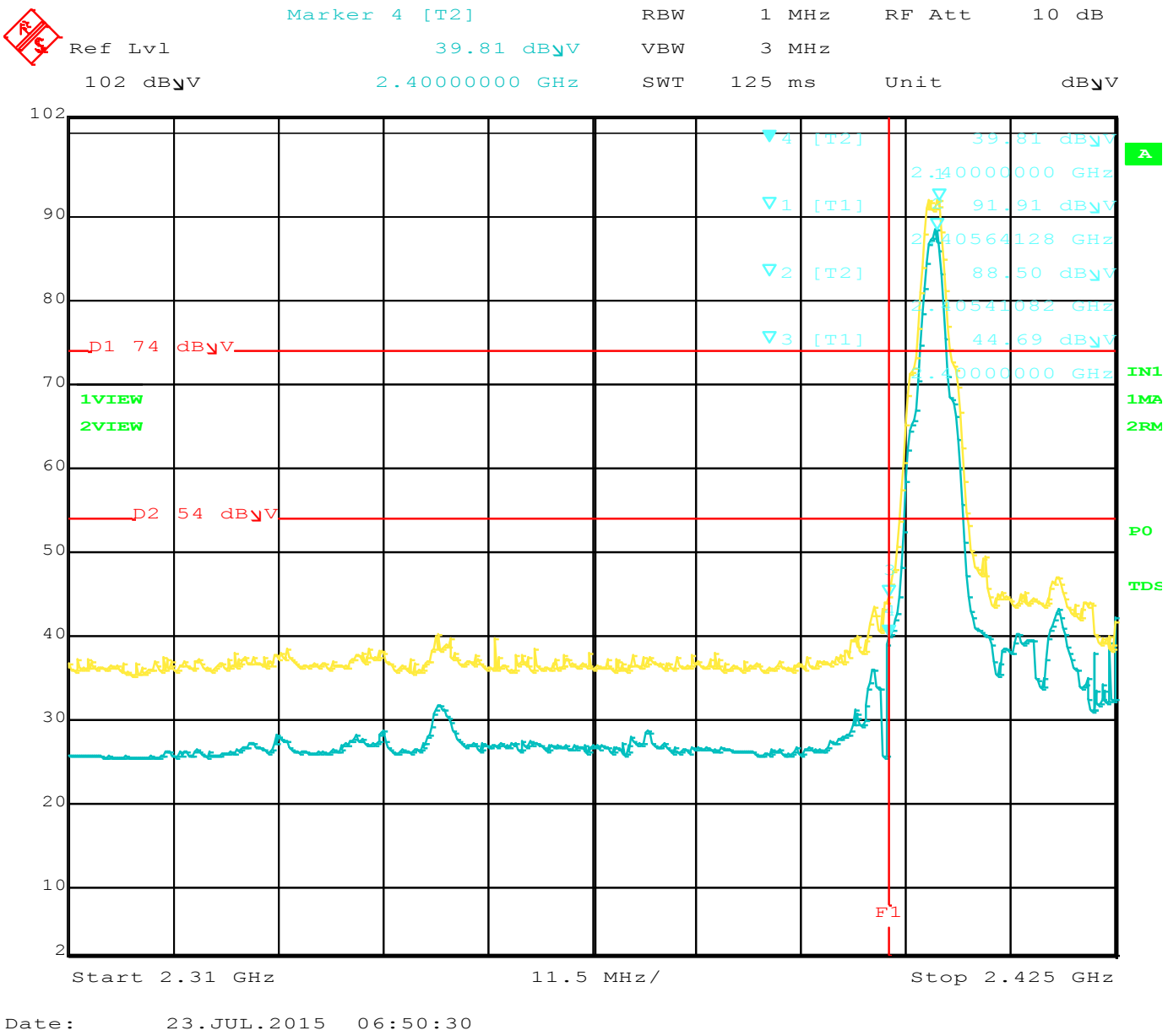
Date: 07/23/2015
Lab: B
Tested By: Kyle Fujimoto

Band Edges - Horizontal Polarization - Battery Power

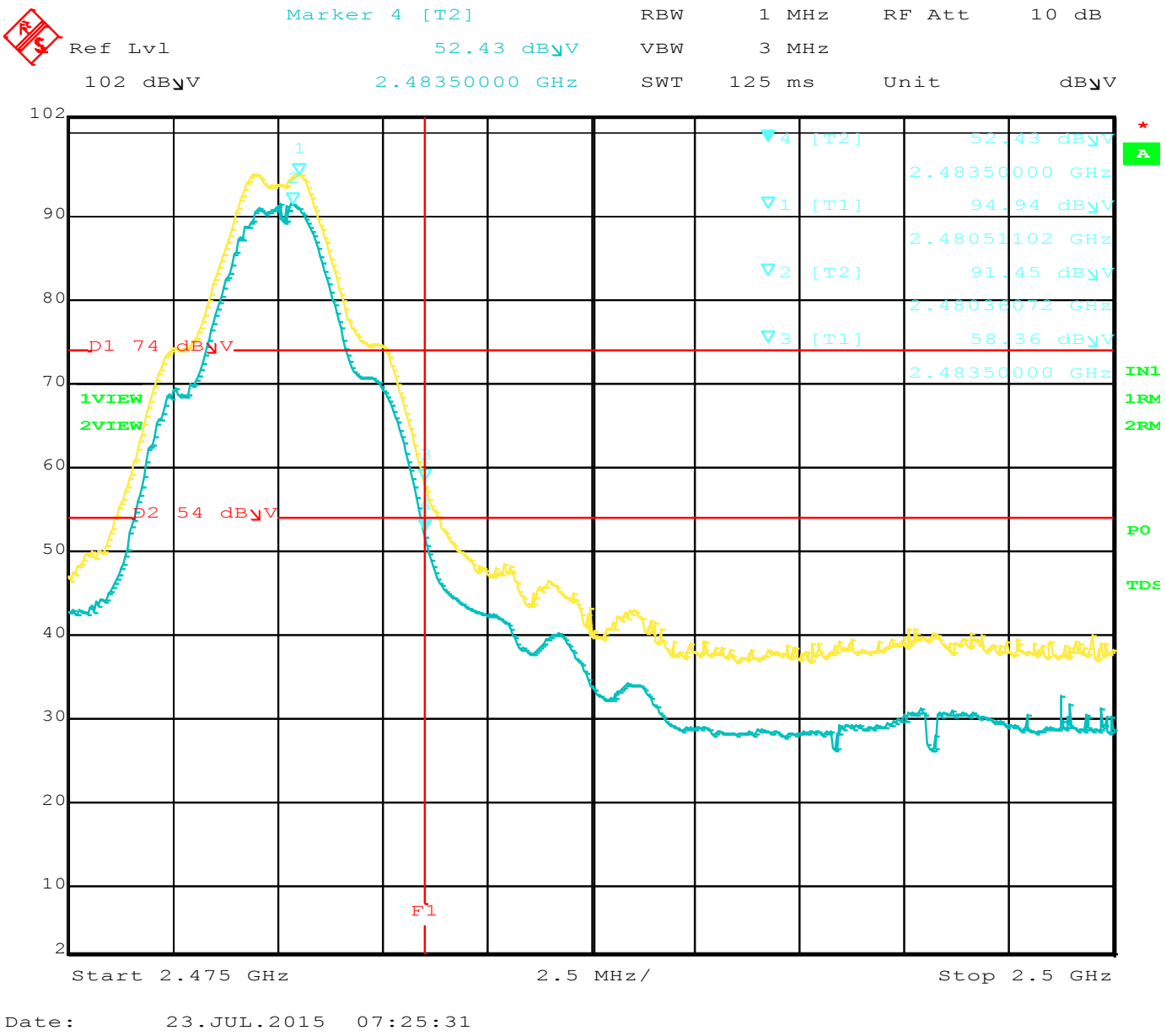
Worst Case Axis of EUT	Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
Y-Axis	2405	91.91	H	114	-22.09	Peak	1.25	135	Fundamental of
Y-Axis	2405	88.5	H	94	-5.5	Avg	1.25	135	Low Channel @ 3 Meters
Y-Axis	2483.5	44.69	H	74	-29.31	Peak	1.25	135	Band Edge of
Y-Axis	2483.5	39.81	H	54	-14.19	Avg	1.25	135	Low Channel @ 3 Meters
Y-Axis	2480	95.88	H	114	-18.12	Peak	1.25	180	Fundamental of
Y-Axis	2480	92.31	H	94	-1.69	Avg	1.25	180	High Channel @ 3 Meters
Y-Axis	2483.5	58.72	H	74	-15.28	Peak	1.25	180	Band Edge of
Y-Axis	2483.5	52.68	H	54	-1.32	Avg	1.25	180	High Channel @ 3 Meters



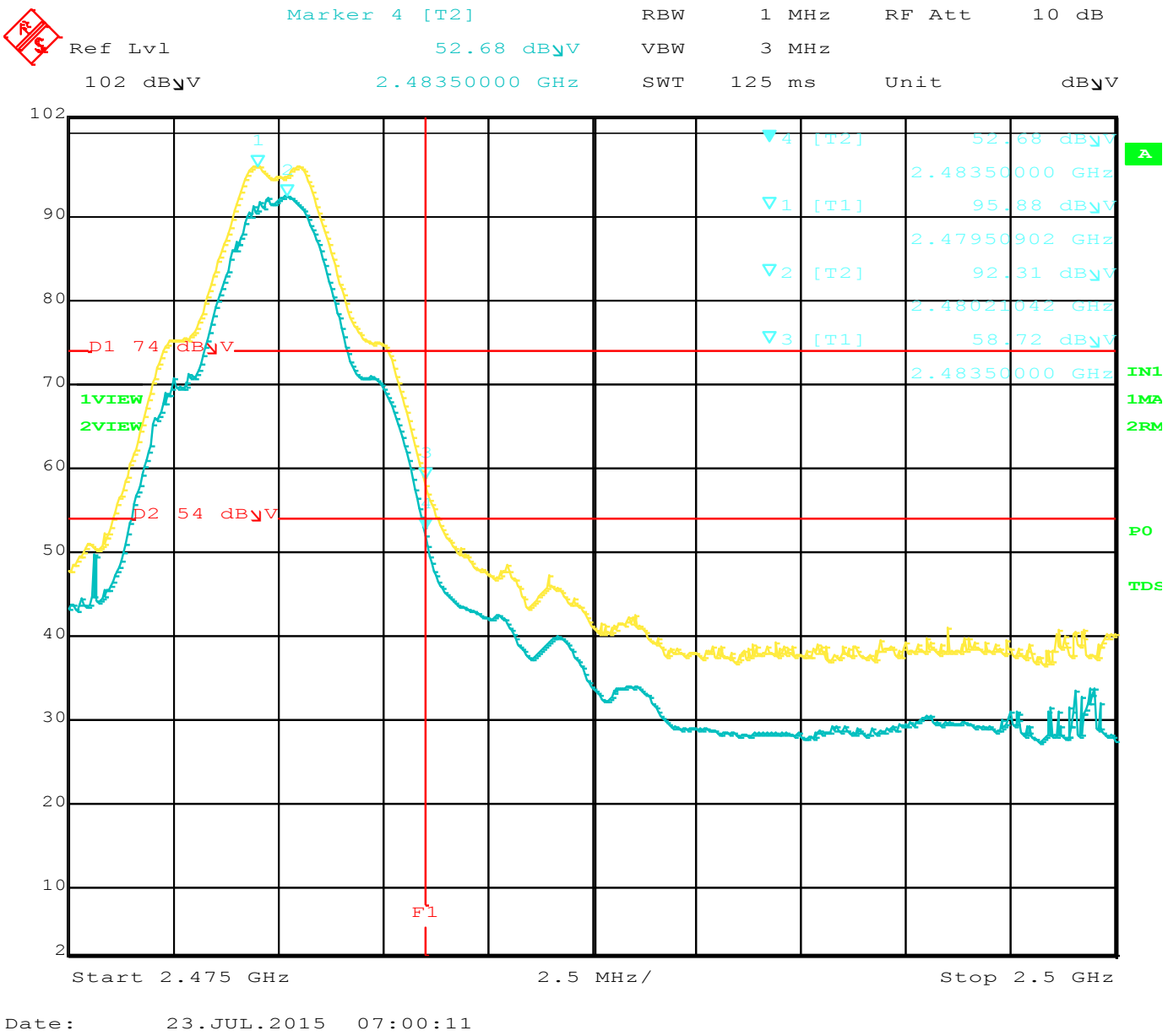
Band Edge – Low Channel – Vertical Polarization – Battery Mode – Y-Axis – Worst Case



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



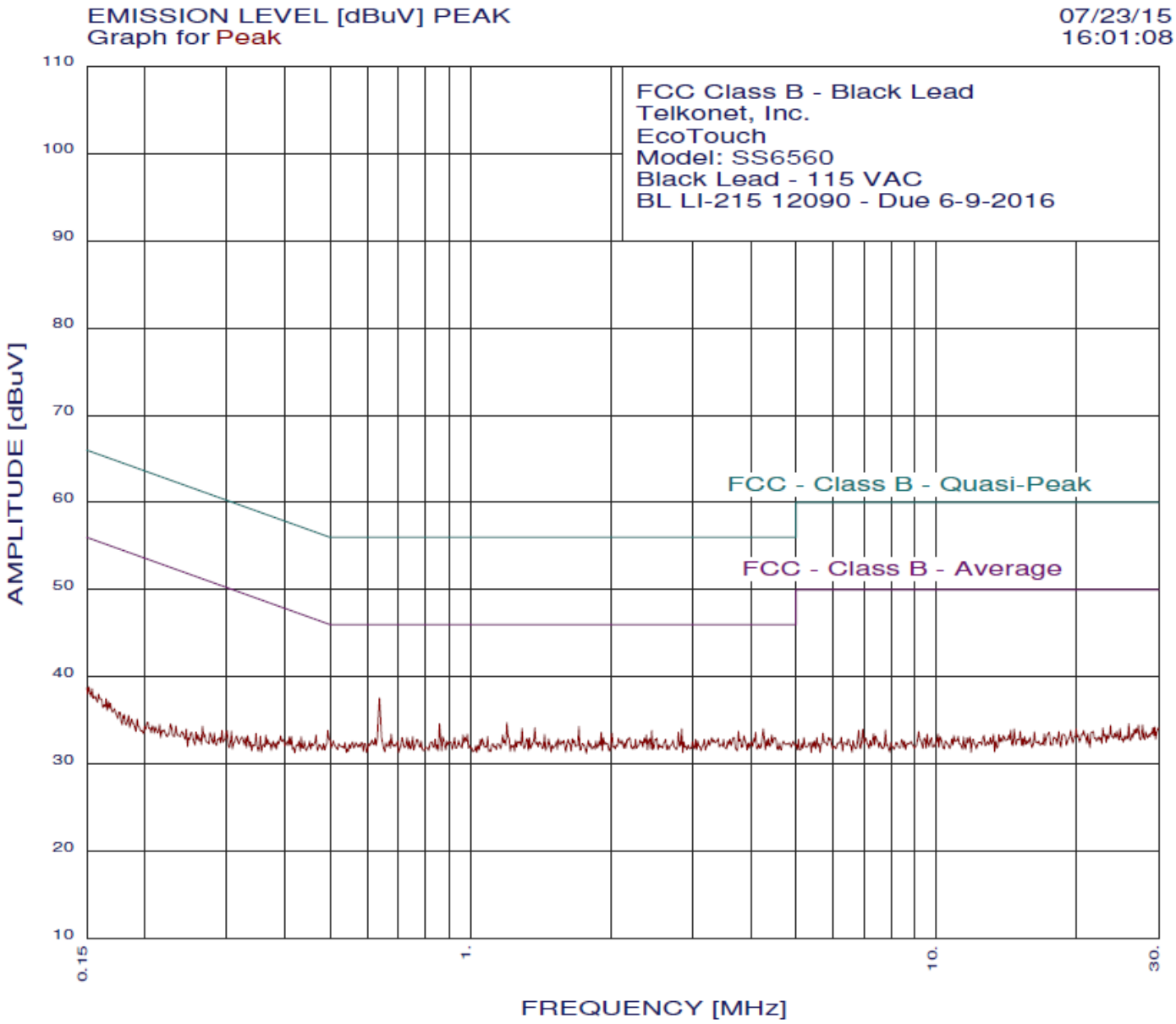
Band Edge – High Channel – Vertical Polarization – Battery Mode – Y-Axis – Worst Case



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

CONDUCTED EMISSIONS

DATA SHEETS


EMISSION LEVEL [dBuV] PEAK
Graph for Peak
07/23/15
16:01:08
FCC Class B - Black Lead
Telkonet, Inc.
EcoTouch
Model: SS6560
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

07/23/15 16:01:08

FCC Class B - Black Lead
Telkonet, Inc.
EcoTouch
Model: SS6560
Black Lead - 115 VAC
BL LI-215 12090 - Due 6-9-2016
Test Engineer : Kyle Fujimoto

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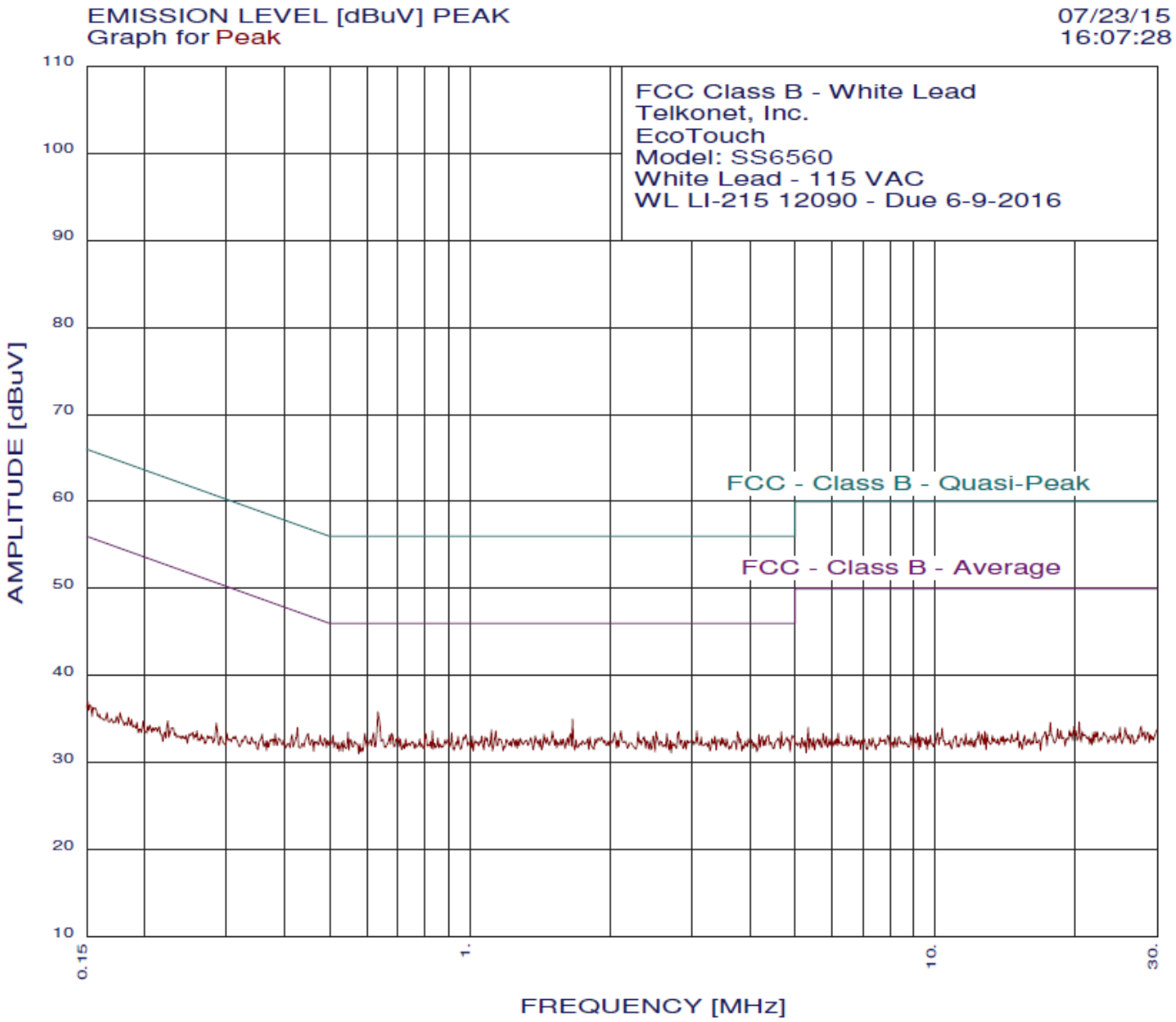
39 highest peaks above -50.00 dB of FCC - Class B - Average limit line
Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.637	37.54	46.00	-8.46
2	1.197	34.76	46.00	-11.24
3	0.858	34.63	46.00	-11.37
4	1.708	34.32	46.00	-11.68
5	1.374	34.18	46.00	-11.82
6	1.290	34.07	46.00	-11.93
7	2.840	34.05	46.00	-11.95
8	4.249	34.04	46.00	-11.96
9	2.449	33.85	46.00	-12.15
10	0.494	33.85	46.09	-12.25
11	3.761	33.74	46.00	-12.26
12	2.796	33.65	46.00	-12.35
13	1.908	33.64	46.00	-12.36
14	4.092	33.64	46.00	-12.36
15	2.013	33.55	46.00	-12.45
16	0.676	33.44	46.00	-12.56
17	0.984	33.43	46.00	-12.57
18	1.441	33.38	46.00	-12.62
19	1.172	33.35	46.00	-12.65
20	2.384	33.35	46.00	-12.65
21	4.432	33.34	46.00	-12.66
22	3.862	33.24	46.00	-12.76
23	1.089	33.14	46.00	-12.86
24	0.751	33.14	46.00	-12.86
25	0.872	33.13	46.00	-12.87
26	2.190	33.05	46.00	-12.95
27	3.294	33.05	46.00	-12.95
28	1.929	33.04	46.00	-12.96
29	3.663	33.04	46.00	-12.96
30	0.713	33.04	46.00	-12.96
31	0.731	33.04	46.00	-12.96
32	0.924	33.03	46.00	-12.97
33	1.338	32.97	46.00	-13.03
34	1.325	32.97	46.00	-13.03
35	2.077	32.95	46.00	-13.05
36	2.423	32.95	46.00	-13.05
37	2.514	32.95	46.00	-13.05
38	1.544	32.90	46.00	-13.10
39	1.472	32.89	46.00	-13.11


EMISSION LEVEL [dBuV] PEAK
Graph for Peak
07/23/15
16:07:28
FCC Class B - White Lead
Telkonet, Inc.
EcoTouch
Model: SS6560
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

07/23/15 16:07:28

FCC Class B - White Lead
Telkonet, Inc.
EcoTouch
Model: SS6560
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 : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.634	35.82	46.00	-10.18
2	1.663	35.01	46.00	-10.99
3	1.112	33.75	46.00	-12.25
4	1.136	33.65	46.00	-12.35
5	2.111	33.65	46.00	-12.35
6	3.075	33.64	46.00	-12.36
7	0.831	33.63	46.00	-12.37
8	1.504	33.59	46.00	-12.41
9	2.298	33.55	46.00	-12.45
10	2.514	33.55	46.00	-12.45
11	3.761	33.55	46.00	-12.45
12	2.811	33.55	46.00	-12.45
13	4.672	33.54	46.00	-12.46
14	0.547	33.52	46.00	-12.48
15	2.044	33.45	46.00	-12.55
16	0.914	33.43	46.00	-12.57
17	0.621	33.42	46.00	-12.58
18	2.651	33.35	46.00	-12.65
19	0.801	33.33	46.00	-12.67
20	0.679	33.33	46.00	-12.67
21	0.595	33.32	46.00	-12.68
22	1.646	33.31	46.00	-12.69
23	1.441	33.28	46.00	-12.72
24	4.182	33.24	46.00	-12.76
25	0.979	33.23	46.00	-12.77
26	0.672	33.23	46.00	-12.77
27	4.384	33.14	46.00	-12.86
28	4.928	33.14	46.00	-12.86
29	0.508	33.12	46.00	-12.88
30	1.382	33.08	46.00	-12.92
31	2.475	33.05	46.00	-12.95
32	3.365	33.04	46.00	-12.96
33	4.249	33.04	46.00	-12.96
34	1.060	33.04	46.00	-12.96
35	1.011	33.03	46.00	-12.97
36	0.944	33.03	46.00	-12.97
37	1.077	32.94	46.00	-13.06
38	0.701	32.93	46.00	-13.07
39	1.810	32.93	46.00	-13.07