FCC 15.223
TEST REPORT

for

8.2 MHZ DEACTIVATOR

MODEL: STD-001

Prepared for

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
11172 ELM AVENUE
RANCHO CUCAMONGA, CALIFORNIA 91730

Prepared by:_____

KYLE FUJIMOTO

Approved by:_____

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DATE: DECEMBER 8, 2012

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GENERAL REPORT SUMMARY

Compatible Electronics Inc. generates this emissions test report, 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 endorsement by NVLAP, NIST or any other agency of the U.S. Government.

Device Tested:	8.2 MHz Deactivator Model: STD-001 S/N: N/A
Product Description:	See Expository Statement
Modifications:	The EUT was not modified during the testing.
Customer:	Universal Surveillance Systems Corporation 11172 Elm Avenue Rancho Cucamonga, California 91730
Test Date(s):	March 21 and 22, 2012; October 9, 10 and 12, 2012
Test Specifications:	EMI requirements CFR Title 47, Part 15 Subpart B; and Subpart C, Sections 15.205 and 15.209
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	Conducted RF Emissions 150 kHz to 30 MHz	Complies with the **Class A** limits of **CFR** Title 47, Part 15, Subpart B; and Subpart C Section 15.207.
2	Radiated RF Emissions 9 kHz – 1000 MHz	Complies with the **Class A** limits of **CFR** Title 47, Part 15, Subpart B; and Subpart C Sections 15.205 and 15.209 and 15.223.

1. PURPOSE

This document is a qualification test report based on the emissions tests performed on the 8.2 MHz Deactivator, Model: STD-001. 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 A** specification limits defined by CFR Title 47, Part 15, Subpart B for the digital portion; and Subpart C, sections 15.205, 15.207, 15.209, and 15.223 for the transmitter portion.

Note: The receiver portion was not performed because it is exempt from the technical provisions in CFR Title 47, Part 15, Subpart B per CFR Title 47, Part 15, Subpart B, section 15.101 (b).

2. ADMINISTRATIVE DATA

2.1 Location of Testing

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

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

Universal Surveillance Systems, LLC

Janki Bhalodia	R&D Technologist
Ed Redublo	Head of R&D

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 date of testing.

2.5 Disposition of the Test Sample

The test sample was returned prior to the date of this report.

2.6 Abbreviations and Acronyms

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

FCC	Federal Communications Commission
RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
ITE	Information Technology Equipment
LISN	Line Impedance Stabilization Network
NVLAP	National Voluntary Laboratory Accreditation Program
CFR	Code of Federal Regulations
N/A	Not Applicable
Ltd.	Limited
Inc.	Incorporated
IR	Infrared

3. APPLICABLE DOCUMENTS

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

SPEC	TITLE
CFR Title 47, Part 15	FCC Rules – Radio frequency devices (including digital devices)
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

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration – Emissions

The 8.2 MHz Deactivator, Model: STD-001 (EUT) was connected to antenna #1, antenna #2, and a power supply via its antenna and AC 15 volt ports respectively. The EUT also had unterminated cables connected to its LF Sync in / In wire Out and LF Sync out ports. The EUT is continuously transmitting 8.2 MHz.

Note: The digital portion emissions were tested to the **Class A** limits specification limits defined by CFR Title 47, Part 15, Subpart B.

It was determined that the emissions were at their highest level when the EUT was operating in the above configuration. The final emissions data was taken in this mode of operation and any cables were maximized. All initial investigations were performed with the measurement receiver in manual mode scanning the frequency range continuously. Photographs of the test setup are in Appendix D of this report.

4.1.1 Cable Construction and Termination

Cable 1 This is a 1-meter unshielded cable connecting the EUT to antenna #1. The cable is hard wired at each end.

Cable 2 This is a 1-meter unshielded cable connecting the EUT to antenna #2. The cable is hard wired at each end.

Cable 3 This is a 1-meter unshielded, unterminated cable connecting the EUT's LF Sync In / In Wire Out port. The cable is hard wired into the EUT. The cable was bundled to a length of 40-centimeters.

Cable 4 This is a 1-meter unshielded, unterminated cable connecting the EUT's LF Sync Out port. The cable is hard wired into the EUT. The cable was bundled to a length of 40-centimeters.

Cable 5 This is a 5-meter unshielded cable connecting the EUT to the power supply. The cable is hard wired at each end.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
8.2 MHZ DEACTIVATOR (EUT)	UNIVERSAL SURVEILLANCE SYSTEMS, LLC	STD-001	N/A	X2TUSS-RF-DEAC-82
CLASS 2 POWER SUPPLY	MAXIM	MA481507	N/A	N/A
ANTENNA #1 (RF PAD)	UNIVERSAL SURVEILLANCE SYSTEMS, LLC	STD-002	N/A	N/A
ANTENNA #2 (RF PAD)	UNIVERSAL SURVEILLANCE SYSTEMS, LLC	STD-002	N/A	N/A

5.2 Emissions Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
GENERAL TEST EQUIPMENT USED FOR ALL RF EMISSIONS TESTS					
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	2637A03618	May 29, 2012	1 Year
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	2648A13404	May 29, 2012	1 Year
Quasi-Peak Adapter	Hewlett Packard	85650A	2811A01363	May 29, 2012	1 Year
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A
Computer	Hewlett Packard	4530	US91912319	N/A	N/A
RF RADIATED EMISSIONS TEST EQUIPMENT					
Radiated Emissions Data Capture Program	Compatible Electronics	2.0	N/A	N/A	N/A
CombiLog Antenna	Com-Power	AC-220	61060	May 29, 2012	1 Year
Loop Antenna	Com-Power	AL-130	17089	January 21, 2011	2 Year
Preamplifier	Com-Power	PA-103	1582	Dec. 28, 2011	1 Year
Turntable	Com-Power	TT-100	N/A	N/A	N/A
Antenna-Mast	Com-Power	AM-100	N/A	N/A	N/A
RF CONDUCTED EMISSIONS TEST EQUIPMENT					
Emissions Program	Compatible Electronics	2.3 (SR19)	N/A	N/A	N/A
LISN	Com-Power	LI-215	12076	June 20, 2011	2 Year
LISN	Com-Power	LI-215	12090	June 20, 2011	2 Year
Transient Limiter	Com-Power	252A910	1	Nov. 7, 2012	1 Year

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.2 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.

6.3 Facility Environmental Characteristics

When applicable refer to the data sheets in Appendix E for the relative humidity, air temperature, and barometric pressure.

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 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 Compatible Electronics conducted emissions 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.

Note: Due to the fact the transmitter portion limits for conducted emissions (**FCC 15.207)** have a lower limit than the digital portion limits for conducted emissions (**Class A**), the data was taken with the lower limits (**FCC 15.207**).

Test Results:

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

7.2 Radiated Emissions (Spurious, Fundamental, and Harmonics) Test

The spectrum analyzer was used as a measuring meter along with the quasi-peak adapter. A preamplifier was used to increase the sensitivity of the instrument. The spectrum analyzer was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps.

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

The fundamental was averaged manually by narrowing the video filter down to 10 Hz and putting the sweep time on AUTO on the spectrum analyzer to keep the amplitude reading calibrated.

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
9 kHz to 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 1000 MHz	120 kHz	Combilog 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. 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 loop antenna was also rotated in the horizontal and vertical axis in order to ensure accurate results.

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 10-meter test distance to obtain the final test data for the fundamental, harmonics below 30 MHz, and digital portion. The EUT was tested at a 3-meter test distance to obtain the final test data for harmonics above 30 MHz up to the 10^{th} harmonic.

Test Results:

The EUT complies with the **Class A (digital portion)** limits of CFR Title 47, Part 15, Subpart B; and CFR Title 47, Part 15, Subpart C, sections 15.205, and 15.209 (transmitter portion) for radiated emissions.

7.3 RF Emissions Test Results

Table 1.0 CONDUCTED EMISSION RESULTS
8.2 MHz Deactivator, Model: STD-001

Frequency MHz	Corrected Reading* dBuV	Specification Limit dBuV	Delta (Cor. Reading – Spec. Limit) dB
0.637 (Black Lead)	43.93 (A)	46.00	-2.07
0.826 (Black Lead)	43.29 (A)	46.00	-2.71
0.826 (White Lead)	43.01 (A)	46.00	-2.99
0.637 (White Lead)	42.81 (A)	46.00	-3.19
1.184 (White Lead)	41.52	46.00	-4.48
1.184 (Black Lead)	40.26	46.00	-5.74

Table 2.0 RADIATED EMISSION RESULTS
8.2 MHz Deactivator, Model: STD-001

Frequency MHz	Corrected Reading* dBuV	Specification Limit dBuV	Delta (Cor. Reading – Spec. Limit) dB
39.77 (H)	36.69	40.00	-3.31
7.955 (V)	38.7 (A)	42.61	-3.9067
8.475 (V)	38.15	42.61	-4.4567
42.22 (H)	34.93	40.00	-5.07
7.955 (H)	36.5	42.61	-6.1067
84.75 (H)	33.59	40.00	-6.41

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

8. CONCLUSIONS

The 8.2 MHz Deactivator, Model: STD-001, as tested, meets all of the **Class A** specification limits defined in CFR Title 47, Part 15, Subpart B for the digital portion; and the limits defined in Subpart C, sections 15.205, 15.207, 15.209, and 15.223 for the transmitter portion.

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

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 15.205, 15.207, FCC 15.209, FCC 15.223, or FCC **Class A** 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	8.2 MHz Deactivator Models: STD-001 S/N: N/A

There were no additional models covered under this report.

APPENDIX D

DIAGRAMS, CHARTS AND PHOTOS

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP FOR TABLETOP UNITS

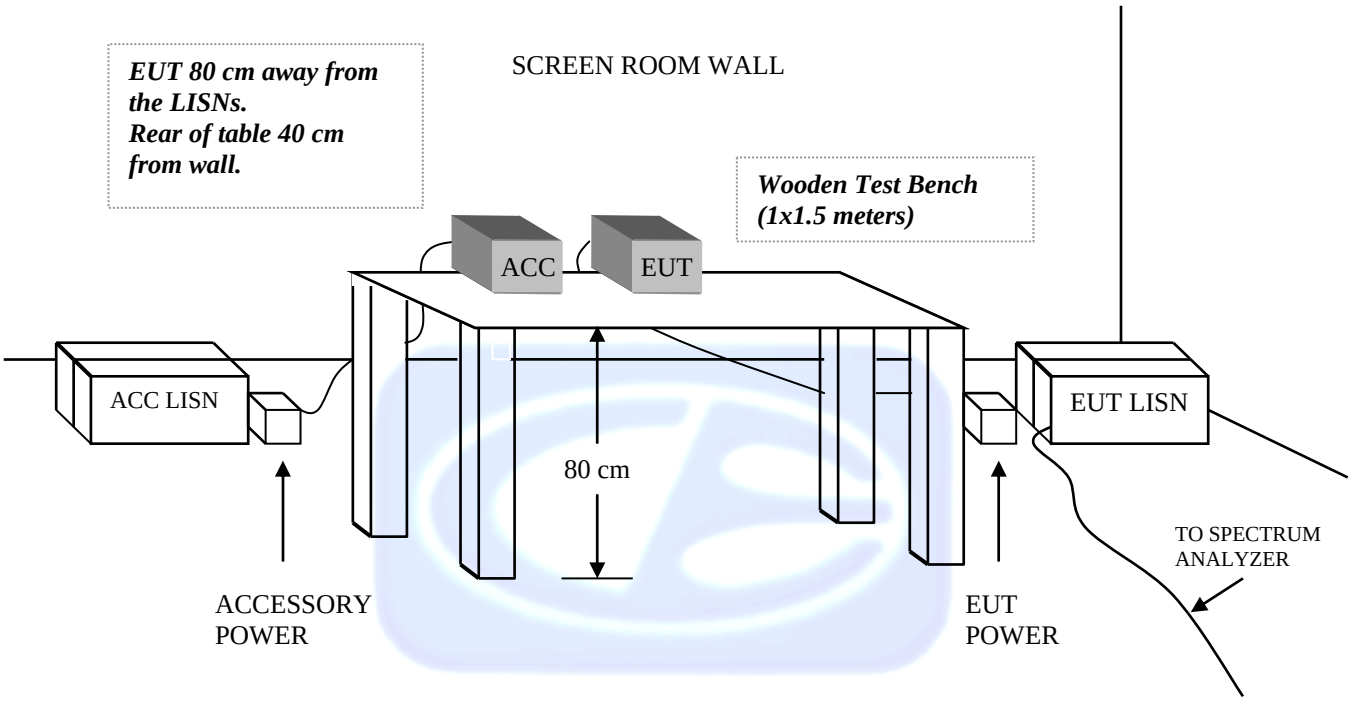
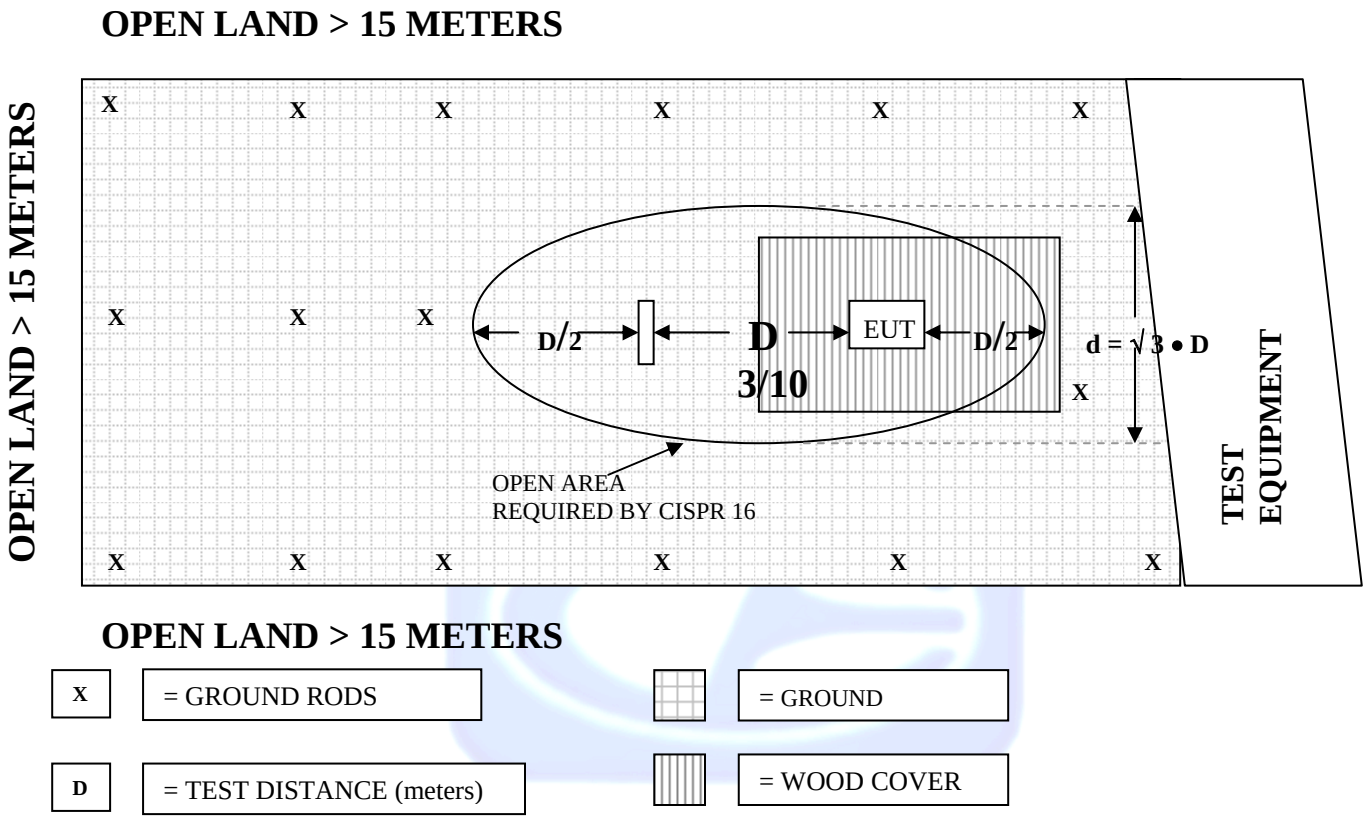


FIGURE 2: PLOT MAP AND LAYOUT OF THE RADIATED TEST SITE



COM-POWER AC-220

COMBILOG ANTENNA

S/N: 61060

CALIBRATION DATE: MAY 29, 2012

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	19.10	200	8.80
35	18.60	250	11.70
40	19.80	300	13.50
45	17.40	350	13.80
50	17.40	400	15.00
60	12.50	450	15.70
70	8.30	500	17.40
80	5.40	550	17.20
90	7.10	600	18.10
100	8.30	650	18.40
120	9.70	700	20.40
125	9.70	750	20.80
140	8.10	800	21.10
150	10.80	850	21.80
160	8.30	900	22.60
175	8.80	950	22.90
180	8.90	1000	23.10

COM-POWER PA-103

PREAMPLIFIER

S/N: 1582

CALIBRATION DATE: DECEMBER 28, 2011

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	32.98	300	32.79
40	32.99	350	32.69
50	32.91	400	32.64
60	32.94	450	32.48
70	32.90	500	32.55
80	32.90	550	32.44
90	32.92	600	32.34
100	32.84	650	32.23
125	32.83	700	32.24
150	32.83	750	32.22
175	32.84	800	32.20
200	32.71	850	32.15
225	32.80	900	31.96
250	32.81	950	32.23
275	32.80	1000	31.75

COM-POWER AL-130

LOOP ANTENNA

S/N: 17089

CALIBRATION DATE: JANUARY 21, 2011

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-41.9	9.6
0.01	-41.79	9.71
0.02	-41.43	10.07
0.05	-41.53	9.97
0.07	-41.47	10.03
0.1	-41.44	10.06
0.2	-41.61	9.89
0.3	-41.62	9.88
0.5	-41.66	9.84
0.7	-41.48	10.02
1	-41.13	10.37
2	-40.89	10.61
3	-41.00	10.50
4	-41.14	10.36
5	-41.02	10.48
10	-40.69	10.82
15	-40.41	11.09
20	-41.07	10.43
25	-42.10	9.40
30	-41.15	10.35

FRONT VIEW

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz DEACTIVATOR
Model: STD-001
FCC 15.209 – RADIATED EMISSIONS – ABOVE 30 MHz to 10th HARMONIC

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz DEACTIVATOR
Model: STD-001
FCC 15.209 – RADIATED EMISSIONS – ABOVE 30 MHz to 10th HARMONIC

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz DEACTIVATOR
Model: STD-001
FCC 15.223 – RADIATED EMISSIONS – BELOW 30 MHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz DEACTIVATOR
Model: STD-001
FCC 15.223 – RADIATED EMISSIONS – BELOW 30 MHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz DEACTIVATOR
Model: STD-001
FCC CLASS A – RADIATED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz DEACTIVATOR
Model: STD-001
FCC 15.223 – RADIATED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz DEACTIVATOR
Model: STD-001
FCC 15.207 and FCC SUBPART B – CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz DEACTIVATOR
Model: STD-001
FCC 15.207 and FCC SUBPART B – CONDUCTED EMISSIONS

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Deactivator
Model: STD-001

Date: 12/27/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode
Test Distance: 10 Meters
Corrected Spec Limit at 10 Meters = [40 Log (spec test dist./actual test dist.)] + spec limit

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (at 10 Meters)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
7.955	42.5	V	42.61	-0.1067	Peak	1	90	Low Channel Peak
7.955	38.7	V	42.61	-3.9067	Avg	1	90	Low Channel Avg
15.91								No Emission Found
23.865								No Emission Found
8.475	38.15	V	42.61	-4.4567	Peak	1	90	High Channel Peak
16.95								No Emission Found
25.425								No Emission Found
7.955	40.6	H	42.61	-2.0067	Peak	1	90	Low Channel Peak
7.955	36.5	H	42.61	-6.1067	Avg	1	90	Low Channel Avg
15.91								No Emission Found
23.865								No Emission Found
8.475	36.19	H	42.61	-6.4167	Peak	1	90	High Channel Peak
16.95								No Emission Found
25.425								No Emission Found

General Limits to FCC 15.209:
Limit in uV/m = 2400/F (kHz) at 300 Meters from 9 kHz to 490 kHz
Limit in uV/m = 24000/F (kHz) at 30 Meters from 490 kHz to 1705 kHz
Limit in uV/m = 30 at 30 Meters from 1705 kHz to 30 MHz

dBuV/m = 20 Log (uV/m)

Note: 15 uV/m was used at 30 meters for the fundamental
because the BW (kHz) / Center Frequency (MHz) was less than 15

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Deactivator
Model: STD-001

Date: 12/27/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode - Band Edges
Test Distance: 10 Meters
Corrected Spec Limit at 10 Meters = [40 Log (spec test dist./actual test dist.)] + spec limit

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (at 10 Meters)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
8.291		V						No Emission Found
								When EUT at Low Ch.
8.291		H						No Emission Found
								When EUT at Low Ch.
8.41475		V						No Emission Found
								When EUT at High Ch.
8.41475		H						No Emission Found
								When EUT at High Ch.

Limit in uV/m = 2400/F (kHz) at 300 Meters from 9 kHz to 490 kHz
Limit in uV/m = 24000/F (kHz) at 30 Meters from 490 kHz to 1705 kHz
Limit in uV/m = 30 at 30 Meters from 1705 kHz to 30 MHz

dBuV/m = 20 Log (uV/m)

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Deactivator
Model: STD-001

Date: 12/27/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode - 7.955 MHz
Test Distance: 3 Meters
4th to 10th Harmonics - to FCC 15.209 Limits

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (dBuV/m)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
31.82	57.14	V	40.00	17.14	Peak	1	180	
31.82	24.93	V	40.00	-15.07	QP	1	180	
39.775	32.36	V	40.00	-7.64	Peak	1	180	
47.73	39.23	V	40.00	-0.77	Peak	1	180	
47.73	26.62	V	40.00	-13.38	QP	1	180	
55.685	59.48	V	40.00	19.48	Peak	1	180	
55.685	27.33	V	40.00	-12.67	QP	1	180	
63.64	48.43	V	40.00	8.43	Peak	1	90	
63.64	27.15	V	40.00	-12.85	QP	1	90	
71.595	58.19	V	40.00	18.19	Peak	1	90	
71.595	27.83	V	40.00	-12.17	QP	1	90	
79.55	38.66	V	40.00	-1.34	Peak	1	90	
79.55	25.11	V	40.00	-14.89	QP	1	90	

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Deactivator
Model: STD-001

Date: 12/27/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode - 7.955 MHz
Test Distance: 3 Meters
4th to 10th Harmonics - to FCC 15.209 Limits

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (dBuV/m)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
31.82	40.84	H	40.00	0.84	Peak	1	180	
31.82	16.61	H	40.00	-23.39	QP	1	180	
39.775	36.69	H	40.00	-3.31	Peak	1	180	
47.73	39.72	H	40.00	-0.28	Peak	1	180	
47.73	20.24	H	40.00	-19.76	QP	1	180	
55.685	52.39	H	40.00	12.39	Peak	1	180	
55.685	18.58	H	40.00	-21.42	QP	1	180	
63.64	33.75	H	40.00	-6.25	Peak	1	90	
63.64	15.51	H	40.00	-24.49	QP	1	90	
71.595	43.41	H	40.00	3.41	Peak	1	90	
71.595	15.58	H	40.00	-24.42	QP	1	90	
79.55	30.39	H	40.00	-9.61	Peak	1	90	
79.55	13.64	H	40.00	-26.36	QP	1	90	

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Deactivator
Model: STD-001

Date: 12/27/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode - 8.475 MHz
Test Distance: 3 Meters
4th to 10th Harmonics - to FCC 15.209 Limits

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (dBuV/m)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
33.9	54.64	V	40.00	14.64	Peak	1	180	
33.9	24.98	V	40.00	-15.02	QP	1	180	
42.375	38.98	V	40.00	-1.02	Peak	1	180	
42.375	31.48	V	40.00	-8.52	QP	1	180	
50.85	51.15	V	40.00	11.15	Peak	1	180	
50.85	30.09	V	40.00	-9.91	QP	1	180	
59.325	63.11	V	40.00	23.11	Peak	1	180	
59.325	27.67	V	40.00	-12.33	QP	1	180	
67.8	53.79	V	40.00	13.79	Peak	1	90	
67.8	28.18	V	40.00	-11.82	QP	1	90	
76.275	59.52	V	40.00	19.52	Peak	1	90	
76.275	26.46	V	40.00	-13.54	QP	1	90	
84.75	45.09	V	40.00	5.09	Peak	1	90	
84.75	19.98	V	40.00	-20.02	QP	1	90	

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Deactivator
Model: STD-001

Date: 12/27/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode - 8.475 MHz
Test Distance: 3 Meters
4th to 10th Harmonics - to FCC 15.209 Limits

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (dBuV/m)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
33.9	41.44	H	40.00	1.44	Peak	1	180	
33.9	17.48	H	40.00	-22.52	QP	1	180	
42.375	39.91	H	40.00	-0.09	Peak	1	180	
42.375	34.93	H	40.00	-5.07	QP	1	180	
50.85	37.77	H	40.00	-2.23	Peak	1	180	
50.85	18.32	H	40.00	-21.68	QP	1	180	
59.325	52.52	H	40.00	12.52	Peak	1	180	
59.325	16.77	H	40.00	-23.23	QP	1	180	
67.8	39.5	H	40.00	-0.5	Peak	1	90	
67.8	20.69	H	40.00	-19.31	QP	1	90	
76.275	47.33	H	40.00	7.33	Peak	1	90	
76.275	16.95	H	40.00	-23.05	QP	1	90	
84.75	33.59	H	40.00	-6.41	Peak	1	90	

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Deactivator
Model: STD-001

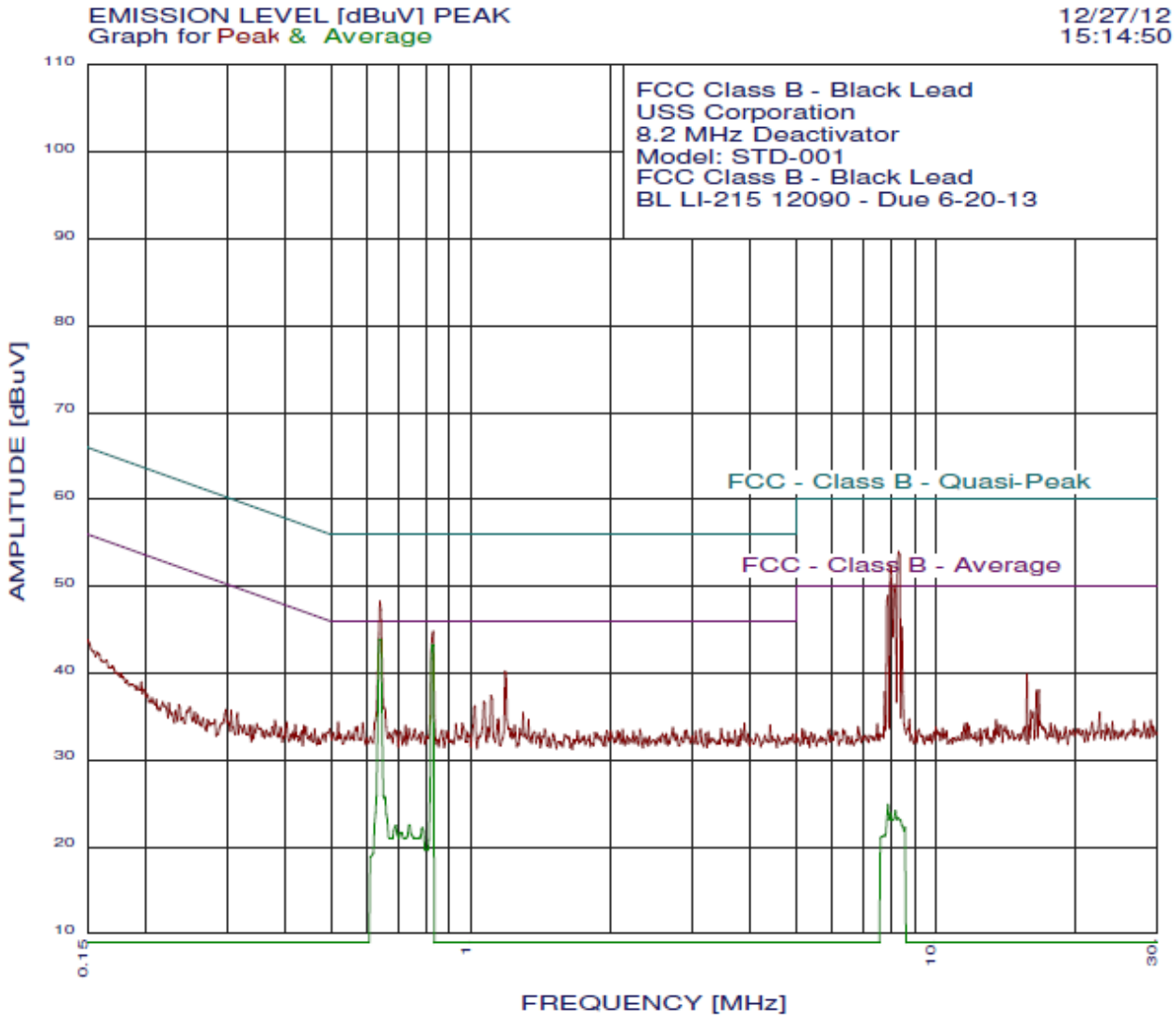
Date: 12/27/2012
Lab: A
Tested By: Kyle Fujimoto

Other Spurious Emissions Below the 10th harmonic
FCC Class B

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (at 10 Meters)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
60	30.46	V	40.00	-9.54	Peak	1	225	
60	22.06	H	40.00	-17.94	Peak	1	225	
								Note: No other emissions
								detected from 10 kHz
								to 84.75 MHz
								for both the Vertical
								and Horizontal
								Polarizations

Test Location : Compatible Electronics **Page :** 1/1
Customer : USS, LLC **Date :** 12 / 27 / 2012
Manufacturer : USS, LLC **Time:** 11:24:15 AM
Eut name : 8.2 MHz Deactivator **Lab:** A
Model : STD-001 **Test Distance :** 10.00
Serial # : N/A
Specification : FCC A
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Test Type: Radiated Emissions Qual
Vertical and Horizontal Polarization
Test Range: 84.75 MHz to 1000 MHz - FCC Class A
Tested By: Kyle Fujimoto

Pol	Freq	Rdng	Cable loss	Ant factor	Amp gain	Cor'd rdg = R	Limit = L	Delta R-L
	MHz	dBuV	dB	dB	dB	dBuV	dBuV/m	dB
1H	109.852	57.90	1.70	8.99	32.84	35.75	43.50	-7.75
2H	119.084	63.80	1.70	9.64	32.83	42.30	43.50	-1.20
3H	119.084Qp	46.51	1.70	9.64	32.83	25.01	43.50	-18.49
4H	134.979	69.30	1.82	8.64	32.83	46.93	43.50	3.43
5H	134.980Qp	51.44	1.82	8.64	32.83	29.07	43.50	-14.43
6H	166.000	78.30	2.06	8.50	32.84	56.03	43.50	12.53
7H	166.000Qp	58.58	2.06	8.50	32.84	36.31	43.50	-7.19
8H	184.114	73.80	2.17	8.88	32.79	52.06	43.50	8.56
9H	184.115Qp	53.75	2.17	8.88	32.79	32.01	43.50	-11.49
10H	245.792	66.40	2.68	11.46	32.81	47.73	46.40	1.33
11H	245.792Qp	45.91	2.68	11.46	32.81	27.24	46.40	-19.16
12H	363.568	50.80	3.41	14.13	32.68	35.66	46.40	-10.74
13H	395.935	58.40	3.67	14.90	32.64	44.33	46.40	-2.07
14H	395.935Qp	28.35	3.67	14.90	32.64	14.28	46.40	-32.12


EMISSION LEVEL [dBuV] PEAK
Graph for Peak & Average
12/27/12
15:14:50
FCC Class B - Black Lead
USS Corporation
8.2 MHz Deactivator
Model: STD-001
FCC Class B - Black Lead
BL LI-215 12090 - Due 6-20-13
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

12/27/12 15:14:50

FCC Class B - Black Lead
USS Corporation
8.2 MHz Deactivator
Model: STD-001
FCC Class B - Black Lead
BL LI-215 12090 - Due 6-20-13
Test Engineer : Kyle Fujimoto

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45 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	8.327	53.99	50.00	3.99**
2	7.981	52.47	50.00	2.47**
3	0.637	48.28	46.00	2.28**
4	8.148	50.18	50.00	0.18**
5	7.898	48.97	50.00	-1.03**
6	0.831	44.85	46.00	-1.15**
7	8.461	45.29	50.00	-4.71**
8	1.184	40.26	46.00	-5.74
9	1.106	37.46	46.00	-8.54
10	1.066	36.75	46.00	-9.25
11	1.021	36.25	46.00	-9.75
12	15.727	39.88	50.00	-10.12
13	1.297	35.45	46.00	-10.55
14	1.148	34.76	46.00	-11.24
15	1.331	34.65	46.00	-11.35
16	0.518	34.37	46.00	-11.63
17	0.586	34.29	46.00	-11.71
18	0.958	34.25	46.00	-11.75
19	3.882	34.24	46.00	-11.76
20	0.929	34.15	46.00	-11.85
21	16.671	38.11	50.00	-11.89
22	4.408	34.06	46.00	-11.94
23	1.243	34.06	46.00	-11.94
24	16.493	38.01	50.00	-11.99
25	0.724	33.97	46.00	-12.03**
26	0.570	33.88	46.00	-12.12
27	7.773	37.86	50.00	-12.14**
28	1.089	33.75	46.00	-12.25
29	2.722	33.74	46.00	-12.26
30	0.735	33.66	46.00	-12.34**
31	3.456	33.65	46.00	-12.35
32	0.759	33.56	46.00	-12.44**
33	3.124	33.55	46.00	-12.45
34	1.441	33.54	46.00	-12.46
35	3.820	33.54	46.00	-12.46
36	2.310	33.52	46.00	-12.48
37	0.497	33.56	46.05	-12.49
38	2.123	33.51	46.00	-12.49
39	0.686	33.47	46.00	-12.53**
40	0.867	33.45	46.00	-12.55
41	2.916	33.45	46.00	-12.55
42	3.702	33.44	46.00	-12.56
43	2.066	33.40	46.00	-12.60
44	1.960	33.40	46.00	-12.60
45	0.547	33.37	46.00	-12.63

**Please See the Average Readings on the Next Page and on the Plot

page 1/1

12/27/12 15:14:50

FCC Class B - Black Lead
USS Corporation
8.2 MHz Deactivator
Model: STD-001
FCC Class B - Black Lead
BL LI-215 12090 - Due 6-20-13
Test Engineer : Kyle Fujimoto

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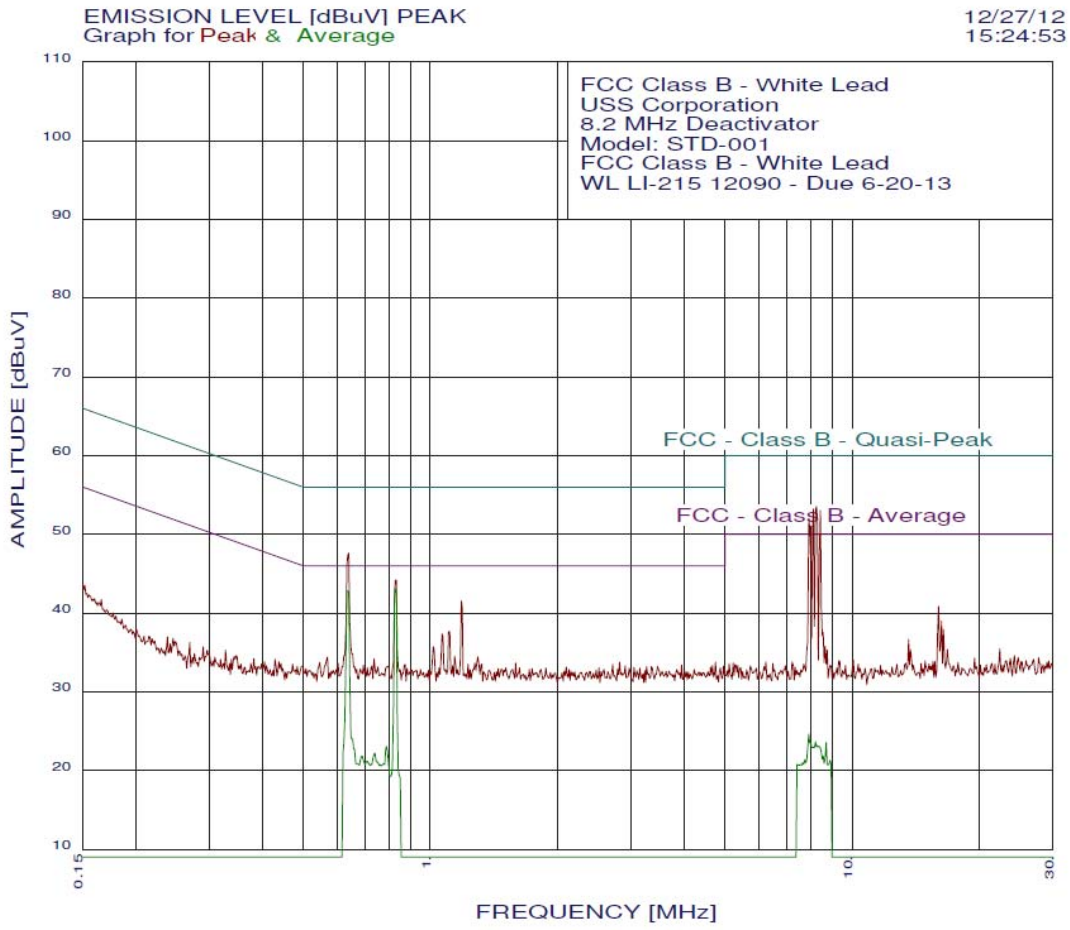
15 highest peaks above -50.00 dB of FCC - Class B - Average limit line
Peak criteria : 0.00 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.637	43.93	46.00	-2.07
2	0.826	43.29	46.00	-2.71
3	0.655	25.79	46.00	-20.21
4	0.735	22.55	46.00	-23.45
5	0.690	22.47	46.00	-23.53
6	0.788	22.23	46.00	-23.77
7	0.705	21.70	46.00	-24.30
8	0.775	21.13	46.00	-24.87
9	7.898	24.90	50.00	-25.10
10	8.193	24.19	50.00	-25.81
11	7.981	23.90	50.00	-26.10
12	8.282	23.40	50.00	-26.60
13	0.608	18.93	46.00	-27.07
14	8.595	22.28	50.00	-27.72
15	7.731	21.34	50.00	-28.66


EMISSION LEVEL [dBuV] PEAK
Graph for Peak & Average
12/27/12
15:24:53
FCC Class B - White Lead
USS Corporation
8.2 MHz Deactivator
Model: STD-001
FCC Class B - White Lead
WL LI-215 12090 - Due 6-20-13
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

12/27/12 15:24:53

FCC Class B - White Lead
USS Corporation
8.2 MHz Deactivator
Model: STD-001
FCC Class B - White Lead
WL LI-215 12090 - Due 6-20-13
Test Engineer : Kyle Fujimoto

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45 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	8.238	53.51	50.00	3.51**
2	8.107	53.21	50.00	3.21**
3	8.416	53.01	50.00	3.01**
4	7.898	52.00	50.00	2.00**
5	0.641	47.59	46.00	1.59**
6	0.826	44.15	46.00	-1.85**
7	1.184	41.52	46.00	-4.48
8	1.106	37.62	46.00	-8.38
9	1.066	37.33	46.00	-8.67
10	16.059	40.85	50.00	-9.15
11	1.016	35.73	46.00	-10.27
12	16.315	38.96	50.00	-11.04
13	1.142	34.52	46.00	-11.48
14	1.297	34.42	46.00	-11.58
15	0.570	34.41	46.00	-11.59
16	0.735	34.17	46.00	-11.83**
17	16.493	37.87	50.00	-12.13
18	2.811	33.76	46.00	-12.24
19	4.748	33.75	46.00	-12.25
20	0.547	33.71	46.00	-12.29
21	1.594	33.63	46.00	-12.37
22	0.605	33.60	46.00	-12.40
23	1.325	33.52	46.00	-12.48
24	1.230	33.52	46.00	-12.48
25	2.707	33.46	46.00	-12.54
26	0.872	33.45	46.00	-12.55
27	3.945	33.40	46.00	-12.60
28	0.694	33.38	46.00	-12.62**
29	4.672	33.34	46.00	-12.66
30	1.130	33.32	46.00	-12.68
31	0.728	33.27	46.00	-12.73**
32	2.900	33.27	46.00	-12.73
33	0.792	33.26	46.00	-12.74**
34	4.954	33.26	46.00	-12.74
35	3.456	33.19	46.00	-12.81
36	3.346	33.18	46.00	-12.82
37	3.260	33.18	46.00	-12.82
38	0.497	33.22	46.05	-12.83
39	2.100	33.13	46.00	-12.87
40	0.709	33.08	46.00	-12.92**
41	3.043	33.07	46.00	-12.93
42	4.877	33.05	46.00	-12.95
43	2.514	33.05	46.00	-12.95
44	1.512	33.03	46.00	-12.97
45	1.629	33.03	46.00	-12.97

**Please See the Average Readings on the Next Page and on the Plot

page 1/1

12/27/12 15:24:53

FCC Class B - White Lead
USS Corporation
8.2 MHz Deactivator
Model: STD-001
FCC Class B - White Lead
WL LI-215 12090 - Due 6-20-13
Test Engineer : Kyle Fujimoto

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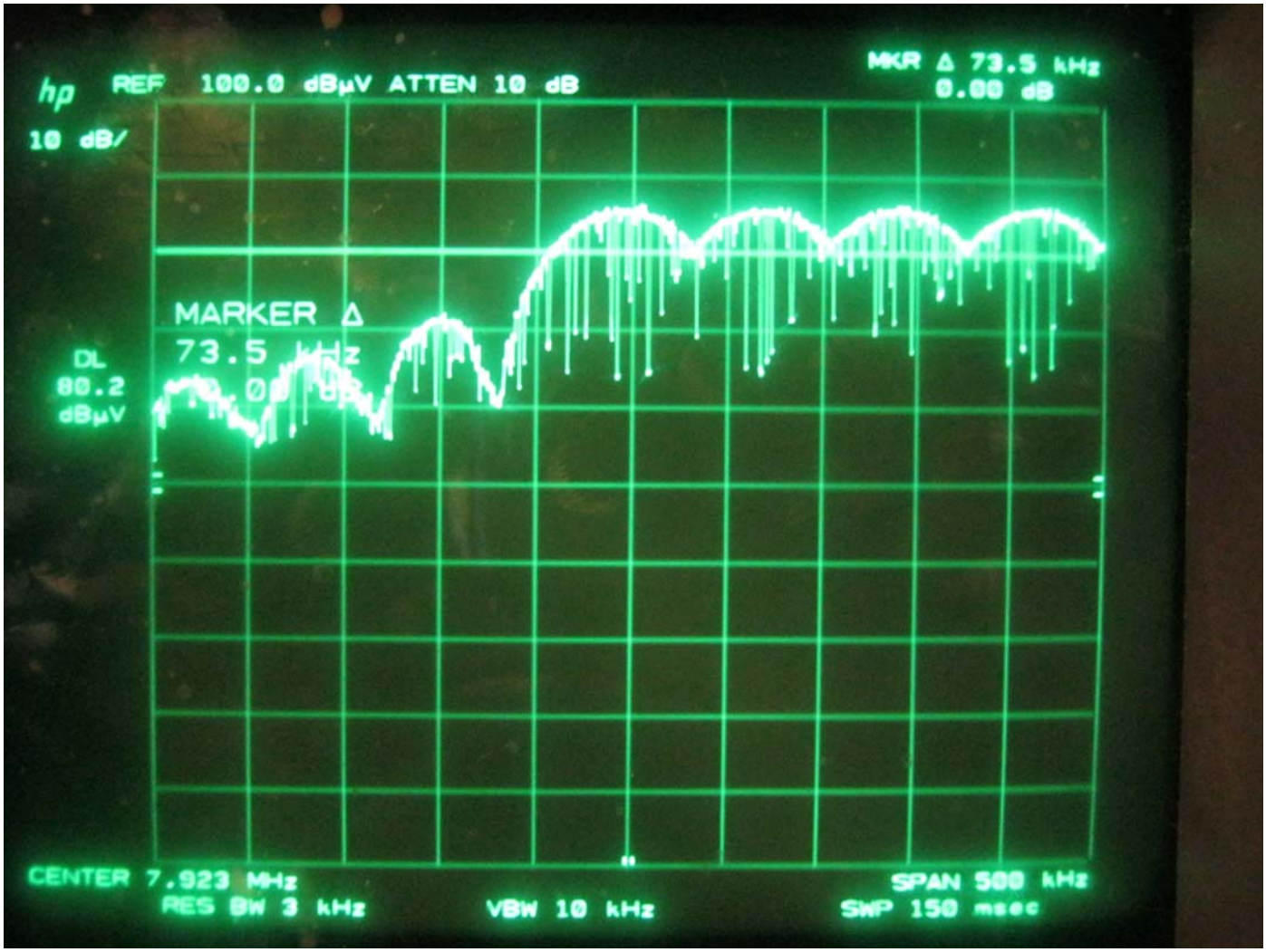
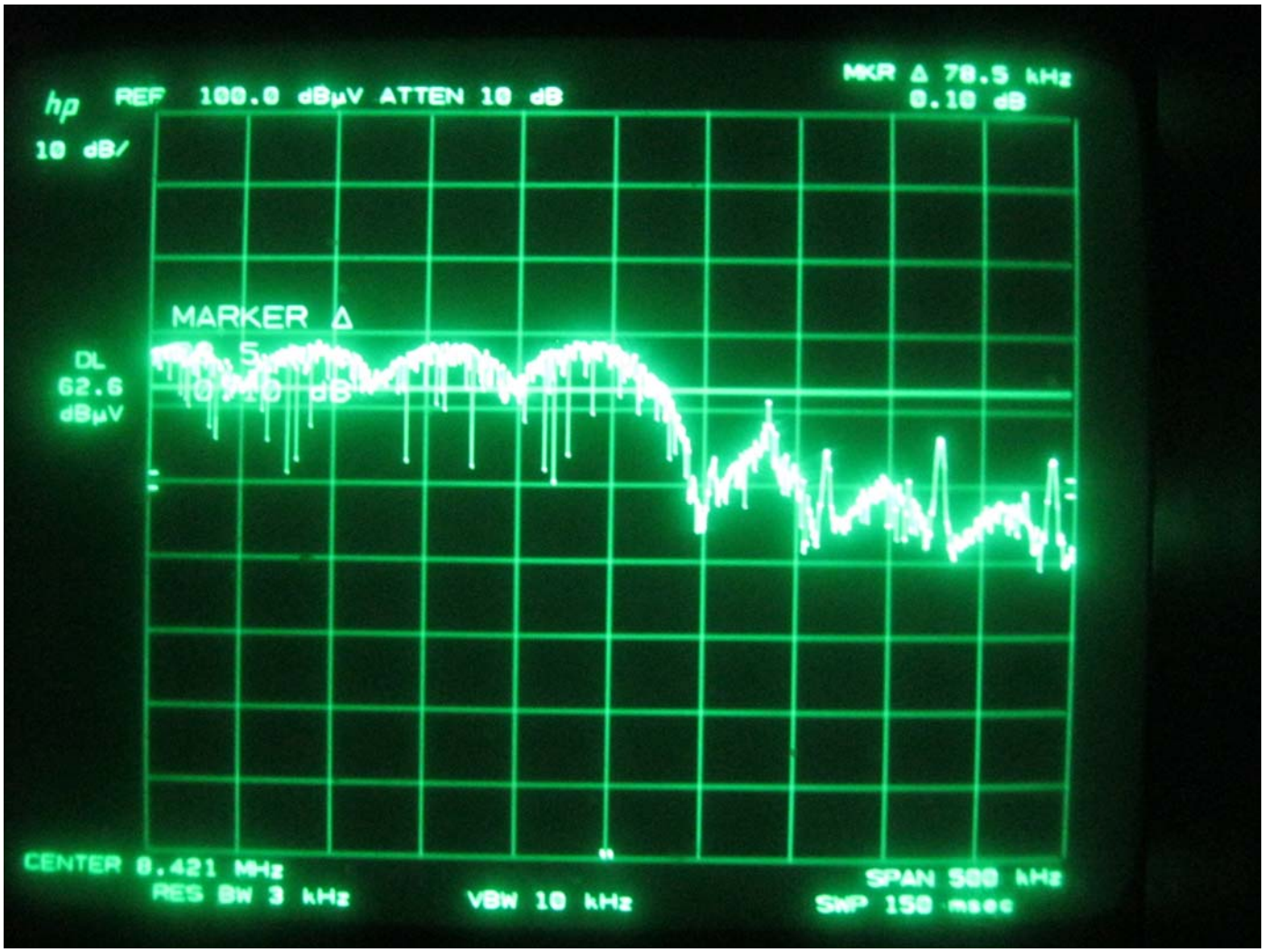
22 highest peaks above -50.00 dB of FCC - Class B - Average limit line
Peak criteria : 0.00 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.826	43.01	46.00	-2.99
2	0.637	42.81	46.00	-3.19
3	0.788	23.05	46.00	-22.95
4	0.739	22.19	46.00	-23.81
5	0.686	21.78	46.00	-24.22
6	0.705	21.15	46.00	-24.85
7	0.775	20.84	46.00	-25.16
8	0.724	20.77	46.00	-25.23
9	0.759	20.76	46.00	-25.24
10	7.898	24.63	50.00	-25.37
11	8.193	23.64	50.00	-26.36
12	8.685	23.58	50.00	-26.42
13	7.981	23.57	50.00	-26.43
14	8.282	23.12	50.00	-26.88
15	8.372	23.05	50.00	-26.95
16	8.107	22.97	50.00	-27.03
17	8.551	21.83	50.00	-28.17
18	7.731	21.36	50.00	-28.64
19	8.873	21.29	50.00	-28.71
20	7.648	20.98	50.00	-29.02
21	7.567	20.79	50.00	-29.21
22	7.411	20.79	50.00	-29.21



-6 dB BANDWIDTH OF THE FUNDAMENTAL AT LOW CHANNEL



-6 dB BANDWIDTH OF THE FUNDAMENTAL AT HIGH CHANNEL