FCC PART 15 SUBPART B and C
TEST REPORT

for

8.2 MHz MIRAGE SYSTEM

Model: UNI-MONO8.2A

Prepared for

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

Prepared by:_____

KYLE FUJIMOTO

Approved by:_____

JAMES ROSS

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DATE: JANUARY 7, 2012

	REPORT BODY	APPENDICES					TOTAL
		A	***B***	***C***	***D***	***E***	
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GENERAL REPORT SUMMARY

Compatible Electronics Inc. generates this electromagnetic emission 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 Mirage System Model: UNI-MONO8.2A S/N: N/A
Product Description:	See Expository Statement
Modifications:	The EUT was modified in order to meet the specifications. Please see the list located in Appendix B.
Customer:	Universal Surveillance Systems, LLC 11172 Elm Avenue Rancho Cucamonga, California 91730
Test Date(s):	April 2, 3, and 4, 2012
Test Specifications:	EMI requirements CFR Title 47, Part 15 Subpart B; and Subpart C, Sections 15.205, 15.207, 15.209, and 15.223
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, 15.209, and 15.223.

*U = Expanded Uncertainty with a coverage factor of k=2

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the 8.2 MHz Mirage System, Model: UNI-MONO8.2A. The EMI 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
Adel Sayegh	President & CEO

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 EMI 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 – EMI

The 8.2 MHz Mirage System, Model: UNI-MONO8.2A (EUT) was connected to an AC Adapter via its DC input port.

The entire system was continuously transmitting and receiving. The EUT was tested in both the minimum and maximum power levels.

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 2-meter unshielded cable connecting the EUT to the AC Adapter. 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 MIRAGE SYSTEM (EU)	UNIVERSAL SURVEILLANCE SYSTEMS, LLC	UNI-MONO8.2A	N/A	X2TUSS-MRG-82-400
AC ADAPTER	MAXIM	MA481507	N/A	N/A

5.2 EMI 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 27, 2011	1 Year
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	2648A13404	May 27, 2011	1 Year
Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00424	May 27, 2011	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	61027	June 9, 2011	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	1 Year
LISN	Com-Power	LI-215	12090	June 20, 2011	1 Year
Transient Limiter	Com-Power	252A910	1	Nov. 7, 2011	1 Year

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1.2 of this report for EMI test location.

6.2 EUT Mounting, Bonding and Grounding

The EUT was placed directly on the non-conductive carpet above the ground plane. The carpet is less than 12mm thick.

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 quasi-peak function was used only for those readings which are marked accordingly on the data sheets.

The frequencies above 1 GHz were adjusted by a “duty cycle correction factor”, derived from 20 log (dwell time / 100 mS).

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 1 GHz	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 from for the fundamental and all emissions above the 10^{th} harmonic of the fundamental up to 1 GHz. The EUT was tested at a 3-meter test distance to obtain the final test data from 30 MHz to up to the 10^{th} harmonic of the fundamental.

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, 15.209, and 15.223 (transmitter portion) for radiated emissions.

7.3 RF Emissions Test Results

Table 1.0 CONDUCTED EMISSION RESULTS – 120 VAC, 60 Hz
8.2 MHz Mirage System, Model: UNI-MONO8.2A

Frequency MHz	Emission Level* dBuV	Average Specification Limit dBuV	Delta (Spec limit-Emission) dB
0.826 (WL) (Minimum Power)	42.35	46.00	-3.65
0.637 (WL) (Minimum Power)	41.49	46.00	-4.51
0.637 (WL) (Maximum Power)	41.19	60.00	-4.81
0.826 (BL) (Minimum Power)	40.65	46.00	-5.35
0.831 (BL) (Maximum Power)	40.55	46.00	-5.45
0.831 (BL) (Minimum Power)	40.55	46.00	-5.45

Table 2.0 RADIATED EMISSION RESULTS – 120 VAC, 60 Hz
8.2 MHz Mirage System, Model: UNI-MONO8.2A

Frequency MHz	Corrected Reading* dBuV	Specification Limit dBuV	Delta (Cor. Reading – Spec. Limit) dB
7.4 (V) (Maximum Power)	47.52 (Avg)	47.98	-0.4551
37 (V) (Maximum Power)	39.51 (QP)	40.00	-0.49
79.2 (V) (Maximum Power)	39.47 (QP)	40.00	-0.53
66.6 (H) (Maximum Power)	38.79 (QP)	40.00	-1.21
51.8 (H) (Maximum Power)	38.58 (QP)	40.00	-1.42
7.4 (H) (Maximum Power)	45.78 (Avg)	47.98	-2.1951

Notes:

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

8. CONCLUSIONS

The 8.2 MHz Mirage System, Model: UNI-MONO8.2A, 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 15.207, FCC 15.209, 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.

1) Add a Snap-on Ferrite on to the Transmitter Antenna wire The ferrite will have 2.5 turns and will be placed close to the transmit terminal block of the device circuit board.

The part number of the ferrite is 0446167251 and is manufactured by Fair-Rite products.

APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST	8.2 MHz Mirage System Model: UNI-MONO8.2A 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 FLOOR STANDING UNITS

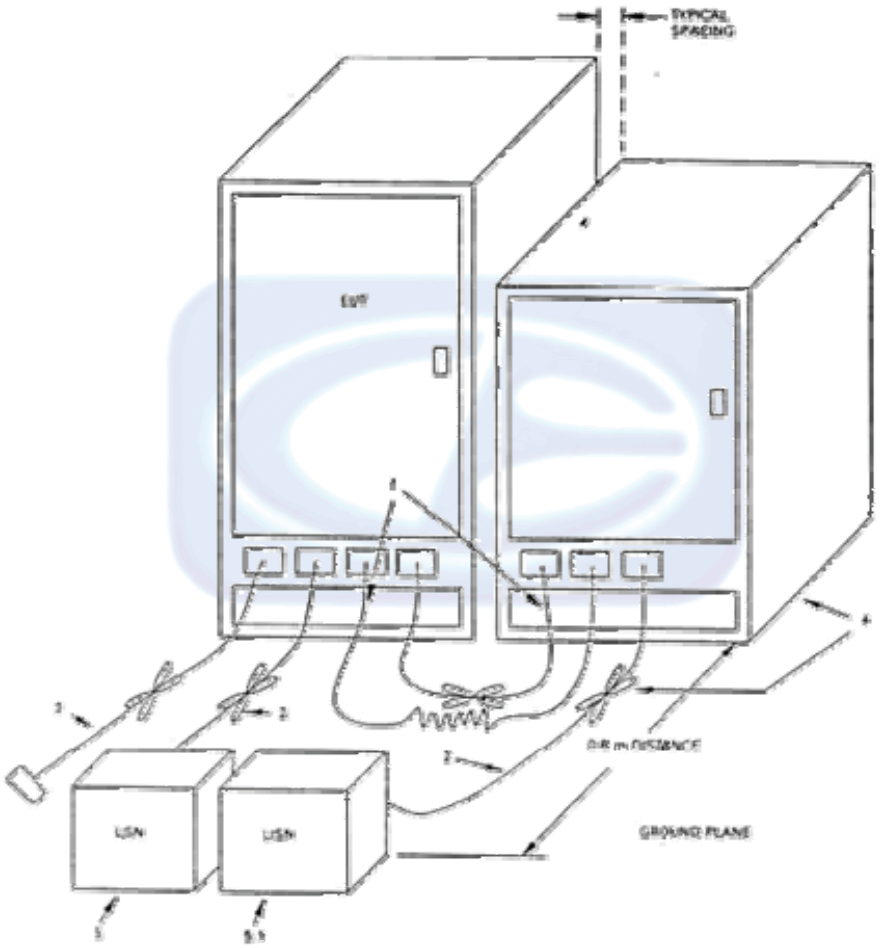
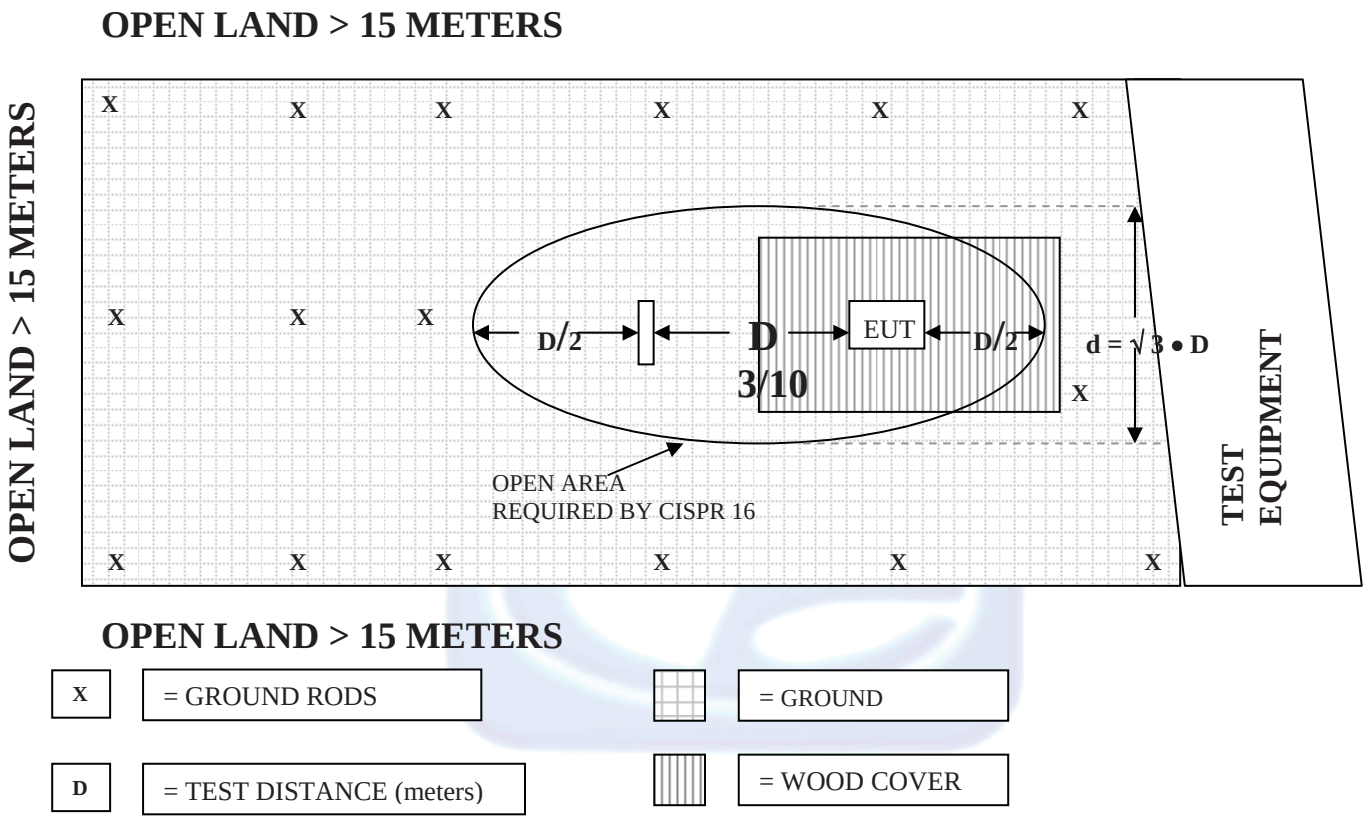


FIGURE 2: PLOT MAP AND LAYOUT OF THE RADIATED TEST SITE



COM-POWER AC-220

COMBILOG ANTENNA

S/N: 61027

CALIBRATION DATE: JUNE 9, 2011

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	16.7	160	9.0
35	17.4	180	9.3
40	18.3	200	9.3
45	17.2	250	11.6
50	17.2	300	13.0
60	13.7	400	16.9
70	8.6	500	17.2
80	6.2	600	19.0
90	7.2	700	18.9
100	9.0	800	21.8
120	10.1	900	22.0
140	10.2	1000	21.8

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 MIRAGE SYSTEM
Model: UNI-MONO8.2A
FCC 15.209 and FCC 15.223 – RADIATED EMISSIONS – 10 kHz to 30 MHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz MIRAGE SYSTEM
Model: UNI-MONO8.2A
FCC 15.209 and FCC 15.223 – RADIATED EMISSIONS – 10 kHz to 30 MHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz MIRAGE SYSTEM
Model: UNI-MONO8.2A
FCC 15.209 – RADIATED EMISSIONS – 30 MHz to 10th HARMONIC OF FUNDAMENTAL

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

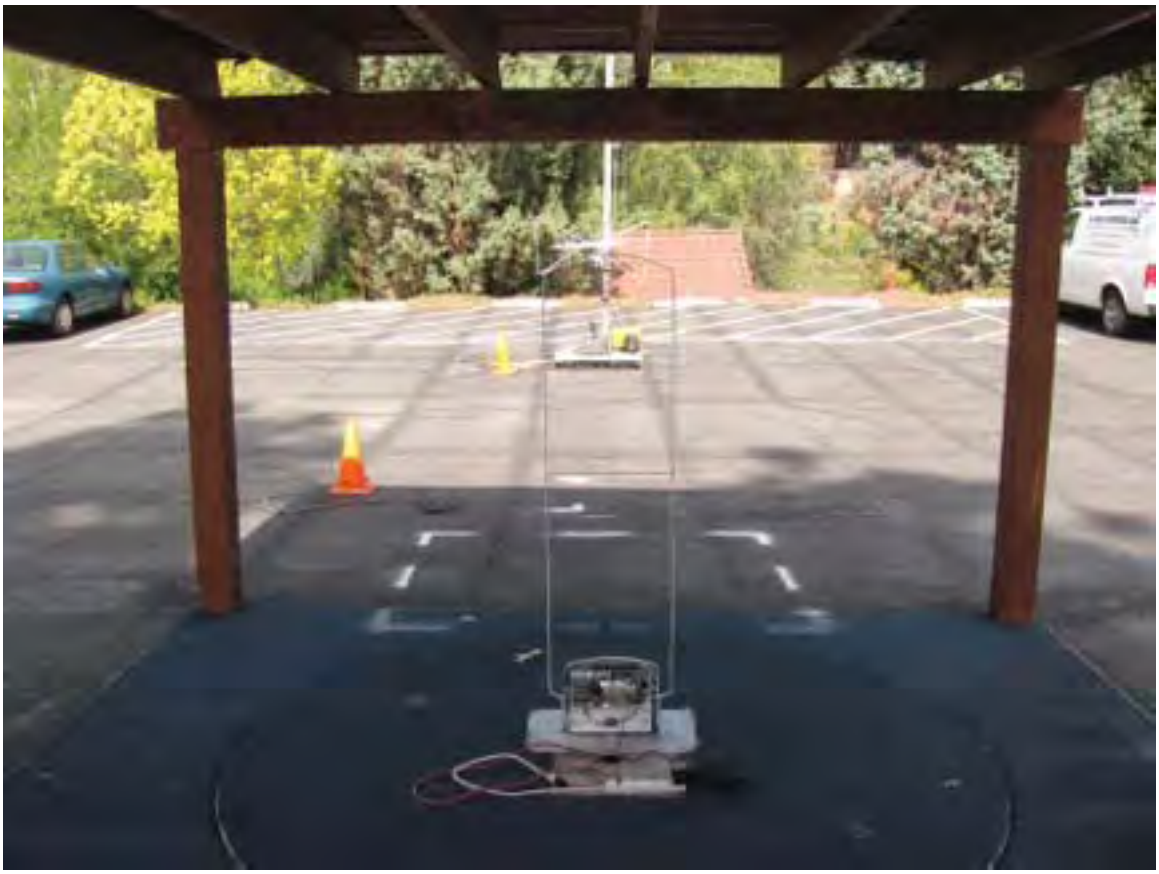
UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz MIRAGE SYSTEM
Model: UNI-MONO8.2A
FCC 15.209 – RADIATED EMISSIONS – 30 MHz to 10th HARMONIC OF FUNDAMENTAL

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz MIRAGE SYSTEM
Model: UNI-MONO8.2A
FCC CLASS A – RADIATED EMISSIONS – 30 MHz to 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz MIRAGE SYSTEM
Model: UNI-MONO8.2A
FCC CLASS A – RADIATED EMISSIONS – 30 MHz to 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

UNIVERSAL SURVEILLANCE SYSTEMS, LLC
8.2 MHz MIRAGE SYSTEM
Model: UNI-MONO8.2A
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 MIRAGE SYSTEM
Model: UNI-MONO8.2A
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 Mirage System
Model: UNI-MONO8.2A

Date: 04/02/2012
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
Maxmium Power

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (at 10 Meters)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
7.4	67.52	V	47.98	19.5449	Peak	1	90	Low Channel Peak
7.4	47.52	V	47.98	-0.4551	Avg	1	90	Low Channel Average
14.8	38.5	V	48.62	-10.125	Peak	1	90	2nd Harmonic
22.2	36.8	V	48.62	-11.825	Peak	1	90	3rd Harmonic
8.8	64.07	V	47.42	16.6523	Peak	1	90	High Channel Peak
8.8	44.07	V	47.42	-3.3477	Avg	1	90	High Channel Average
17.6	38.89	V	48.62	-9.7349	Peak	1	90	2nd Harmonic
26.4	35.95	V	48.62	-12.675	Peak	1	90	3rd Harmonic

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)

Low Channel = 226 kHz / 8.12 MHz = 27.83 Ratio
High Channel = 212 kHz / 8.12 MHz = 26.10 Ratio

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A

Date: 04/02/2012
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
Maximum Power

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (at 10 Meters)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
7.4	65.78	H	47.98	17.8049	Peak	1	90	Low Channel Peak
7.4	45.78	H	47.98	-2.1951	Avg	1	90	Low Channel Average
14.8	36.45	H	48.62	-12.175	Peak	1	90	2nd Harmonic
22.2	37.52	H	48.62	-11.105	Peak	1	90	3rd Harmonic
8.8	63.35	H	47.42	15.9323	Peak	1	90	High Channel Peak
8.8	43.35	H	47.42	-4.0677	Avg	1	90	High Channel Average
17.6	39.45	H	48.62	-9.1749	Peak	1	90	2nd Harmonic
26.4	37.35	H	48.62	-11.275	Peak	1	90	3rd Harmonic

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)

Low Channel = 226 kHz / 8.12 MHz = 27.83 Ratio
High Channel = 212 kHz / 8.12 MHz = 26.10 Ratio

FCC 15.223
Universal Surveillance Systems
8.2 MHz Mirage System
Model: UNI-MONO8.2A

Date: 04/02/2012
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 limi
Minimum Power

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (at 10 Meters)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
7.4	50.12	V	47.98	2.14489	Peak	1	90	Low Channel Peak
7.4	30.12	V	47.98	-17.855	Avg	1	90	Low Channel Average
14.8	38.5	V	48.62	-10.125	Peak	1	90	2nd Harmonic
22.2	36.5	V	48.62	-12.125	Peak	1	90	3rd Harmonic
8.8	48.29	V	47.42	0.87234	Peak	1	90	High Channel Peak
8.8	28.29	V	47.42	-19.128	Avg	1	90	High Channel Average
17.6	36.7	V	48.62	-11.925	Peak	1	90	2nd Harmonic
26.4	33.2	V	48.62	-15.425	Peak	1	90	3rd Harmonic

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)

Low Channel = 226 kHz / 8.12 MHz = 27.83 Ratio
High Channel = 212 kHz / 8.12 MHz = 26.10 Ratio

FCC 15.223
Universal Surveillance Systems
8.2 MHz Mirage System
Model: UNI-MONO8.2A

Date: 04/02/2012
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 limi
Minimum Power

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (at 10 Meters)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
7.4	46.2	H	47.98	-1.7751	Peak	1	90	Low Channel Peak
7.4	26.2	H	47.98	-21.775	Avg	1	90	Low Channel Average
14.8	42.25	H	48.62	-6.3749	Peak	1	90	2nd Harmonic
22.2	36.85	H	48.62	-11.775	Peak	1	90	3rd Harmonic
8.8	46.55	H	47.42	-0.8677	Peak	1	90	High Channel Peak
8.8	26.55	H	47.42	-20.868	Avg	1	90	High Channel Average
17.6	41.25	H	48.62	-7.3749	Peak	1	90	2nd Harmonic
26.4	39.82	H	48.62	-8.8049	Peak	1	90	3rd Harmonic

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)

Low Channel = 226 kHz / 8.12 MHz = 27.83 Ratio
High Channel = 212 kHz / 8.12 MHz = 26.10 Ratio

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A

Date: 04/02/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode - 7.4 MHz
Test Distance: 3 Meters
4th to 10th Harmonics - to FCC 15.209 Limits
Maximum Power

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (dBuV/m)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
29.6								No Emission
29.6								Detected
37	46.19	V	40.00	6.19	Peak	1	90	
37	39.51	V	40.00	-0.49	QP	1	90	
44.4	42.87	V	40.00	2.87	Peak	1	90	
44.4	37.05	V	40.00	-2.95	QP	1	90	
51.8	46.1	V	40.00	6.1	Peak	1	90	
51.8	37.01	V	40.00	-2.99	QP	1	90	
59.2	40.57	V	40.00	0.57	Peak	1	90	
59.2	35.58	V	40.00	-4.42	QP	1	90	
66.6	43.13	V	40.00	3.13	Peak	1	90	
66.6	33.62	V	40.00	-6.38	QP	1	90	
74	37.01	V	40.00	-2.99	Peak	1	90	
74	21.57	V	40.00	-18.43	QP	1	90	

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A

Date: 04/02/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode - 7.4 MHz
Test Distance: 3 Meters
4th to 10th Harmonics - to FCC 15.209 Limits
Maximum Power

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (dBuV/m)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
29.6								No Emission
29.6								Detected
37	38.91	H	40.00	-1.09	Peak	1	225	
37	34.56	H	40.00	-5.44	QP	1	225	
44.4	40.68	H	40.00	0.68	Peak	1	225	
44.4	35.68	H	40.00	-4.32	QP	1	225	
51.8	44.09	H	40.00	4.09	Peak	1	90	
51.8	38.58	H	40.00	-1.42	QP	1	90	
59.2	40.61	H	40.00	0.61	Peak	1	90	
59.2	34.25	H	40.00	-5.75	QP	1	90	
66.6	42.07	H	40.00	2.07	Peak	1	90	
66.6	38.79	H	40.00	-1.21	QP	1	90	
74	26.18	H	40.00	-13.82	Peak	1	90	
74	21.51	H	40.00	-18.49	QP	1	90	

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A

Date: 04/02/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode - 7.4 MHz
Test Distance: 3 Meters
4th to 10th Harmonics - to FCC 15.209 Limits
Minimum Power

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (dBuV/m)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
29.6								No Emission
29.6								Detected
37	38.56	V	40.00	-1.44	Peak	1	90	
37	33.58	V	40.00	-6.42	QP	1	90	
44.4	36.89	V	40.00	-3.11	Peak	1	90	
44.4	31.06	V	40.00	-8.94	QP	1	90	
51.8	40.58	V	40.00	0.58	Peak	1	90	
51.8	31.29	V	40.00	-8.71	QP	1	90	
59.2	34.69	V	40.00	-5.31	Peak	1	90	
59.2	29.84	V	40.00	-10.16	QP	1	90	
66.6	37.62	V	40.00	-2.38	Peak	1	90	
66.6	27.61	V	40.00	-12.39	QP	1	90	
74	31.09	V	40.00	-8.91	Peak	1	90	
74	15.68	V	40.00	-24.32	QP	1	90	

FCC 15.223
Universal Surveillance Systems
8.2 MHz Mirage System
Model: UNI-MONO8.2A

Date: 04/02/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode - 7.4 MHz
Test Distance: 3 Meters
4th to 10th Harmonics - to FCC 15.209 Limits
Minimum Power

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (dBuV/m)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
29.6								No Emission
29.6								Detected
37	31.59	H	40.00	-1.09	Peak	1	225	
37	28.01	H	40.00	-5.44	QP	1	225	
44.4	33.76	H	40.00	0.68	Peak	1	225	
44.4	29.86	H	40.00	-4.32	QP	1	225	
51.8	37.18	H	40.00	4.09	Peak	1	90	
51.8	31.62	H	40.00	-1.42	QP	1	90	
59.2	33.8	H	40.00	-5.75	Peak	1	90	
59.2	27.54	H	40.00	10.61	QP	1	90	
66.6	35.01	H	40.00	2.07	Peak	1	90	
66.6	31.52	H	40.00	-1.21	QP	1	90	
74	19.98	H	40.00	-13.82	Peak	1	90	
74	14.86	H	40.00	-18.49	QP	1	90	

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
8.2 MHz Mirage System
Model: UNI-MONO8.2A

Date: 04/02/2012
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
Digital Portion and Non-Harmonic Emissions from 10 kHz to 30 MHz

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (at 10 Meters)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								The EUT had no
								Non-Harmonic Emissions
								from 10 kHz to 30 MHz
								for both the Vertical
								and Horizontal
								Polarizations.
								The EUT had no
								Emissions from the Digital
								Portion from 10 kHz
								to 30 Mhz
								for both the Vertical
								and Horizontal
								Polarizations.
								The Minimum and
								Maximum Powers
								were Investigated

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A

Date: 04/03/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode - 8.8 MHz
Test Distance: 3 Meters
4th to 10th Harmonics - to FCC 15.209 Limits
Maximum Power

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (dBuV/m)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
35.2	39.79	V	40.00	-0.21	Peak	1	90	
35.2	37.02	V	40.00	-2.98	QP	1	90	
44	39.22	V	40.00	-0.78	Peak	1	90	
44	33.87	V	40.00	-6.13	QP	1	90	
52.8	42.98	V	40.00	2.98	Peak	1	90	
52.8	37.04	V	40.00	-2.96	QP	1	90	
61.6	45.03	V	40.00	5.03	Peak	1	90	
61.6	38.59	V	40.00	-1.41	QP	1	90	
70.4	38.81	V	40.00	-1.19	Peak	1	90	
70.4	34.15	V	40.00	-5.85	QP	1	90	
79.2	44.75	V	40.00	4.75	Peak	1	90	
79.2	39.47	V	40.00	-0.53	QP	1	90	
88	38.22	V	40.00	-1.78	Peak	1	90	
88	33.33	V	40.00	-6.67	QP	1	90	

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A

Date: 04/03/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode - 8.2 MHz
Test Distance: 3 Meters
4th to 10th Harmonics - to FCC 15.209 Limits
Maximum Power

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (dBuV/m)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
35.2	39.99	H	40.00	-0.01	Peak	1	225	
35.2	33.5	H	40.00	-6.5	QP	1	**225**	
44	41.4	H	40.00	1.4	Peak	1	225	
44	34.81	H	40.00	-5.19	QP	1	225	
52.8	41.18	H	40.00	1.18	Peak	1	90	
52.8	34.13	H	40.00	-5.87	QP	1	90	
61.6	36.84	H	40.00	-3.16	Peak	1	90	
61.6	31.84	H	40.00	-8.16	QP	1	90	
70.4	35.11	H	40.00	-4.89	Peak	1	90	
70.4	27.55	H	40.00	-12.45	QP	1	90	
79.2	39.53	H	40.00	-0.47	Peak	1	90	
79.2	33.39	H	40.00	-6.61	QP	1	90	
88	40.92	H	40.00	0.92	Peak	1	90	
88	26.82	H	40.00	-13.18	QP	1	90	

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A

Date: 04/03/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode - 8.8 MHz
Test Distance: 3 Meters
4th to 10th Harmonics - to FCC 15.209 Limits
Minimum Power

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (dBuV/m)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
35.2	37.35	V	40.00	-2.65	Peak	1	90	
35.2	36.35	V	40.00	-3.65	QP	1	90	
44	32.4	V	40.00	-7.6	Peak	1	90	
44	31.24	V	40.00	-8.76	QP	1	90	
52.8	24.73	V	40.00	-15.27	Peak	1	90	
52.8	22.58	V	40.00	-17.42	QP	1	90	
61.6	28.65	V	40.00	-11.35	Peak	1	90	
61.6	26.98	V	40.00	-13.02	QP	1	90	
70.4	38.08	V	40.00	-1.92	Peak	1	90	
70.4	33.21	V	40.00	-6.79	QP	1	90	
79.2	32.18	V	40.00	-7.82	Peak	1	90	
79.2	31.65	V	40.00	-8.35	QP	1	90	
88	27.42	V	40.00	-12.58	Peak	1	90	
88	26.54	V	40.00	-13.46	QP	1	90	

FCC 15.223
Universal Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A

Date: 04/03/2012
Lab: A
Tested By: Kyle Fujimoto

Transmit Mode - 8.2 MHz
Test Distance: 3 Meters
4th to 10th Harmonics - to FCC 15.209 Limits
Minimum Power

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Spec Limit (dBuV/m)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
35.2	18.95	H	40.00	-21.05	Peak	1	225	
35.2	16.52	H	40.00	-23.48	QP	1	**225**	
44	19.4	H	40.00	-20.6	Peak	1	225	
44	18.21	H	40.00	-21.79	QP	1	225	
52.8	22.12	H	40.00	-17.88	Peak	1	90	
52.8	21.41	H	40.00	-18.59	QP	1	90	
61.6	19.94	H	40.00	-20.06	Peak	1	90	
61.6	17.59	H	40.00	-22.41	QP	1	90	
70.4	18.59	H	40.00	-21.41	Peak	1	90	
70.4	17.52	H	40.00	-22.48	QP	1	90	
79.2	35.69	H	40.00	-4.31	Peak	1	90	
79.2	33.39	H	40.00	-6.61	QP	1	90	
88	40.92	H	40.00	0.92	Peak	1	90	
88	26.82	H	40.00	-13.18	QP	1	90	

Test Location : Compatible Electronics **Page :** 1/2
Customer : Universal Surveillance Systems, LLC **Date :** 04 / 04 / 2012
Manufacturer : Universal Surveillance Systems, LLC **Time:** 11:37:01 AM
Eut name : 8.2 MHz Mirage System **Lab:** A
Model : UNI-MONO8.2A **Test Distance :** 10.00 Meters
Serial # : N/A
Specification : FCC A
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Test Type: Radiated Emissions Qual - Maximum Power
7.4 MHz Channel
Test Range: 74.4 MHz to 1 GHz (Vertical and Horizontal)
Tested By: Kyle Fujimoto

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
1H	81.214	62.00	1.34	6.32	32.90	36.76	39.10	-2.34
2H	81.215Qp	52.26	1.34	6.32	32.90	27.02	39.10	-12.08
3V	81.240	65.00	1.34	6.32	32.90	39.76	39.10	0.66
4V	81.240Qp	60.46	1.34	6.32	32.90	35.22	39.10	-3.88
5H	110.784	53.60	1.70	9.59	32.84	32.06	43.50	-11.44
6V	125.640	49.70	1.71	10.13	32.83	28.71	43.50	-14.79
7V	140.448	55.40	1.89	10.17	32.83	34.63	43.50	-8.87
8H	140.488	56.30	1.89	10.17	32.83	35.53	43.50	-7.97
9H	147.982	53.80	1.98	9.72	32.83	32.67	43.50	-10.83
10V	148.002	56.60	1.98	9.72	32.83	35.47	43.50	-8.03
11V	155.054	54.30	2.02	9.30	32.83	32.78	43.50	-10.72
12H	155.329	55.00	2.02	9.28	32.83	33.47	43.50	-10.03
13V	162.454	56.40	2.05	9.04	32.83	34.65	43.50	-8.85
14H	162.631	53.80	2.05	9.04	32.84	32.05	43.50	-11.45
15V	184.805	41.70	2.18	9.30	32.79	20.39	43.50	-23.11
16V	192.205	54.60	2.24	9.30	32.75	33.39	43.50	-10.11
17V	207.075	61.40	2.38	9.63	32.74	40.67	43.50	-2.83
18H	207.251	45.90	2.39	9.63	32.74	25.18	43.50	-18.32
19V	214.348	57.80	2.47	9.96	32.76	37.47	43.50	-6.03
20H	222.051	36.10	2.56	10.31	32.79	16.19	46.40	-29.81
21V	229.511	55.80	2.62	10.66	32.80	36.27	46.40	-10.13
22V	236.909	65.80	2.65	11.00	32.80	46.64	46.40	0.24
23V	236.909Qp	63.18	2.65	11.00	32.80	44.02	46.40	-2.38
24H	244.297	46.10	2.68	11.34	32.81	27.31	46.40	-19.09
25V	244.309	52.60	2.68	11.34	32.81	33.81	46.40	-12.59
26V	259.055	53.10	2.70	11.85	32.81	34.85	46.40	-11.55
27H	259.217	49.80	2.70	11.86	32.81	31.55	46.40	-14.85
28V	266.455	55.30	2.70	12.06	32.80	37.26	46.40	-9.14
29V	288.927	50.90	2.92	12.69	32.79	33.72	46.40	-12.68
30H	295.785	58.10	3.03	12.88	32.79	41.22	46.40	-5.18
31V	296.024	50.20	3.04	12.89	32.79	33.33	46.40	-13.07
32H	303.277	40.70	3.11	13.13	32.78	24.16	46.40	-22.24
33V	303.320	43.90	3.11	13.13	32.78	27.36	46.40	-19.04
34V	310.902	32.50	3.14	13.43	32.77	16.30	46.40	-30.10
35V	318.073	49.40	3.17	13.70	32.75	33.52	46.40	-12.88

Test Location : Compatible Electronics **Page :** 2/2
Customer : Universal Surveillance Systems, LLC **Date :** 04 / 04 / 2012
Manufacturer : Universal Surveillance Systems, LLC **Time:** 11:37:01 AM
Eut name : 8.2 MHz Mirage System **Lab:** A
Model : UNI-MONO8.2A **Test Distance :** 10.00 Meters
Serial # : N/A
Specification : FCC A
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Test Type: Radiated Emissions Qual - Maximum Power
7.4 MHz Channel
Test Range: 74.4 MHz to 1 GHz (Vertical and Horizontal)
Tested By: Kyle Fujimoto

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
36V	325.492	52.40	3.20	13.99	32.74	36.86	46.40	-9.54
37V	332.921	46.40	3.23	14.28	32.72	31.19	46.40	-15.21
38H	347.661	48.90	3.29	14.86	32.69	34.35	46.40	-12.05
39V	347.745	49.60	3.29	14.86	32.69	35.06	46.40	-11.34
40H	354.819	48.00	3.34	15.14	32.69	33.79	46.40	-12.61
41V	355.145	49.70	3.34	15.15	32.68	35.51	46.40	-10.89
42V	377.233	45.90	3.52	16.01	32.66	32.77	46.40	-13.63
43V	392.081	42.30	3.64	16.59	32.65	29.88	46.40	-16.52
44V	399.675	38.40	3.70	16.89	32.64	26.34	46.40	-20.06
45V	406.910	45.40	3.78	16.92	32.62	33.49	46.40	-12.91
46V	414.242	49.50	3.87	16.94	32.59	37.72	46.40	-8.68
47H	414.244	49.20	3.87	16.94	32.59	37.42	46.40	-8.98
48H	421.501	41.90	3.96	16.96	32.57	30.25	46.40	-16.15
49V	421.511	37.80	3.96	16.96	32.57	26.15	46.40	-20.25
50H	436.417	43.60	4.14	17.01	32.52	32.22	46.40	-14.18
51V	443.790	43.60	4.23	17.03	32.50	32.36	46.40	-14.04
52V	451.138	41.90	4.30	17.05	32.48	30.77	46.40	-15.63
53H	451.217	43.10	4.30	17.05	32.48	31.97	46.40	-14.43
54H	473.160	46.50	4.25	17.12	32.51	35.36	46.40	-11.04
55H	495.403	44.70	4.21	17.19	32.54	33.55	46.40	-12.85
56V	495.640	47.70	4.21	17.19	32.54	36.55	46.40	-9.85
57V	503.175	41.40	4.23	17.26	32.54	30.35	46.40	-16.05
58H	510.031	39.30	4.30	17.38	32.53	28.45	46.40	-17.95
59H	524.741	40.90	4.45	17.65	32.50	30.50	46.40	-15.90
60V	525.291	39.90	4.45	17.66	32.49	29.51	46.40	-16.89
61H	540.001	39.50	4.60	17.92	32.46	29.56	46.40	-16.84
62V	547.712	38.40	4.68	18.06	32.45	28.69	46.40	-17.71
63H	650.848	46.30	5.31	18.95	32.23	38.33	46.40	-8.07
64H	709.884	40.80	5.78	19.19	32.24	33.53	46.40	-12.87
65V	710.769	38.40	5.79	19.21	32.24	31.16	46.40	-15.24
66V	769.819	42.40	6.34	20.92	32.21	37.45	46.40	-8.95
67H	798.942	35.40	6.69	21.77	32.20	31.66	46.40	-14.74

Test Location : Compatible Electronics **Page :** 1/2
Customer : Universal Surveillance Systems, LLC **Date :** 04 / 02 / 2012
Manufacturer : Universal Surveillance Systems, LLC **Time:** 02:59:50 PM
Eut name : 8.2 MHz Mirage System **Lab:** A
Model : UNI-MONO8.2A **Test Distance :** 10.00 Meters
Serial # : N/A
Specification : FCC A
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Test Type: Radiated Emissions Qual - Minimum Power
7.4 MHz Channel
Test Range: 74.4 MHz to 1 GHz (Vertical and Horizontal)
Tested By: Kyle Fujimoto

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
1H	66.797	40.30	1.20	10.23	32.91	18.82	39.10	-20.28
2V	81.400	57.60	1.34	6.34	32.90	32.38	39.10	-6.72
3H	89.309	48.70	1.58	7.13	32.92	24.49	43.50	-19.01
4V	111.001	47.00	1.70	9.61	32.84	25.47	43.50	-18.03
5V	118.410	45.50	1.70	10.01	32.83	24.38	43.50	-19.12
6H	118.771	42.90	1.70	10.03	32.83	21.80	43.50	-21.70
7V	125.801	39.40	1.71	10.13	32.83	18.41	43.50	-25.09
8H	126.039	42.70	1.71	10.13	32.83	21.71	43.50	-21.79
9V	133.315	57.00	1.80	10.17	32.83	36.14	43.50	-7.36
10V	148.115	56.90	1.98	9.71	32.83	35.76	43.50	-7.74
11V	155.515	40.90	2.02	9.27	32.83	19.36	43.50	-24.14
12V	162.915	40.60	2.05	9.04	32.84	18.86	43.50	-24.64
13V	170.207	37.90	2.08	9.15	32.84	16.30	43.50	-27.20
14V	177.607	49.50	2.12	9.26	32.83	28.06	43.50	-15.44
15V	192.426	48.40	2.24	9.30	32.75	27.19	43.50	-16.31
16V	199.826	49.30	2.30	9.30	32.71	28.19	43.50	-15.31
17V	214.626	59.90	2.48	9.97	32.76	39.59	43.50	-3.91
18V	222.026	51.20	2.56	10.31	32.79	31.29	46.40	-15.11
19V	229.426	56.90	2.62	10.65	32.80	37.37	46.40	-9.03
20V	236.721	63.60	2.65	10.99	32.80	44.43	46.40	-1.97
21V	236.722Qp	62.47	2.65	10.99	32.80	43.30	46.40	-3.10
22V	244.122	57.00	2.68	11.33	32.81	38.20	46.40	-8.20
23V	251.522	41.70	2.70	11.64	32.81	23.23	46.40	-23.17
24V	258.891	50.20	2.70	11.85	32.81	31.94	46.40	-14.46
25V	266.416	52.30	2.70	12.06	32.80	34.26	46.40	-12.14
26V	273.821	49.30	2.70	12.27	32.80	31.47	46.40	-14.93
27V	281.221	33.60	2.80	12.47	32.80	16.08	46.40	-30.32
28V	288.424	48.30	2.91	12.68	32.79	31.10	46.40	-15.30
29H	295.782	55.30	3.03	12.88	32.79	38.42	46.40	-7.98
30H	318.128	45.80	3.17	13.71	32.75	29.93	46.40	-16.47
31V	325.395	54.70	3.20	13.99	32.74	39.15	46.40	-7.25
32H	325.465	53.50	3.20	13.99	32.74	37.96	46.40	-8.44
33V	332.737	46.70	3.23	14.28	32.72	31.48	46.40	-14.92
34H	332.763	53.30	3.23	14.28	32.72	38.08	46.40	-8.32
35H	347.703	51.10	3.29	14.86	32.69	36.56	46.40	-9.84

Test Location : Compatible Electronics **Page :** 2/2
Customer : Universal Surveillance Systems, LLC **Date :** 04 / 02 / 2012
Manufacturer : Universal Surveillance Systems, LLC **Time:** 02:59:50 PM
Eut name : 8.2 MHz Mirage System **Lab:** A
Model : UNI-MONO8.2A **Test Distance :** 10.00 Meters
Serial # : N/A
Specification : FCC A
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Test Type: Radiated Emissions Qual - Minimum Power
7.4 MHz Channel
Test Range: 74.4 MHz to 1 GHz (Vertical and Horizontal)
Tested By: Kyle Fujimoto

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
36V	348.039	52.60	3.29	14.87	32.69	38.07	46.40	-8.33
37H	355.049	51.70	3.34	15.15	32.68	37.50	46.40	-8.90
38V	355.383	51.70	3.34	15.16	32.68	37.52	46.40	-8.88
39H	362.370	48.20	3.40	15.43	32.68	34.35	46.40	-12.05
40V	362.666	46.80	3.40	15.44	32.68	32.97	46.40	-13.43
41H	377.680	42.70	3.52	16.03	32.66	29.59	46.40	-16.81
42H	406.624	45.70	3.78	16.92	32.62	33.78	46.40	-12.62
43V	414.466	52.70	3.87	16.94	32.59	40.92	46.40	-5.48
44V	473.815	45.70	4.25	17.12	32.51	34.56	46.40	-11.84
45V	496.293	43.30	4.21	17.19	32.54	32.15	46.40	-14.25
46V	511.150	39.00	4.31	17.40	32.53	28.19	46.40	-18.21
47H	635.932	38.20	5.19	18.96	32.26	30.09	46.40	-16.31
48H	687.732	41.80	5.60	18.91	32.24	34.08	46.40	-12.32
49H	739.916	35.50	6.02	20.06	32.22	29.35	46.40	-17.05
50H	769.516	38.50	6.33	20.92	32.21	33.54	46.40	-12.86
51H	798.876	37.10	6.69	21.77	32.20	33.35	46.40	-13.05
52H	828.435	43.30	6.93	21.86	32.17	39.91	46.40	-6.49

Test Location : Compatible Electronics **Page :** 1/3
Customer : Universal Surveillance Systems, LLC **Date :** 04 / 03 / 2012
Manufacturer : Universal Surveillance Systems, LLC **Time:** 02:15:25 PM
Eut name : 8.2 MHz Mirage System **Lab:** A
Model : UNI-MONO8.2A **Test Distance :** 10.00 Meters
Serial # : N/A
Specification : FCC A
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Test Type: Radiated Emissions Qual - Maximum Power
8.8 MHz Channel
Test Range: 88 MHz to 1000 MHz - FCC Class A
Tested By: Kyle Fujimoto

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
1V	35.167	52.00	0.90	17.43	32.99	37.35	39.10	-1.75
2V	35.169	53.29	0.90	17.43	32.99	38.64	39.10	-0.46
3V	35.169Qp	51.29	0.90	17.43	32.99	36.64	39.10	-2.46
4V	35.200	33.60	0.90	17.44	32.99	18.95	39.10	-20.15
5V	44.000	46.90	1.04	17.42	32.96	32.40	39.10	-6.70
6V	44.000	33.90	1.04	17.42	32.96	19.40	39.10	-19.70
7V	52.808	40.30	1.13	16.22	32.92	24.73	39.10	-14.37
8V	52.817	37.70	1.13	16.21	32.92	22.12	39.10	-16.98
9V	61.608	47.50	1.20	12.88	32.93	28.65	39.10	-10.45
10V	61.617	38.80	1.20	12.88	32.93	19.94	39.10	-19.16
11V	70.467	41.80	1.20	8.49	32.90	18.59	39.10	-20.51
12V	70.528	61.30	1.21	8.47	32.90	38.08	39.10	-1.02
13V	70.528Qp	56.42	1.21	8.47	32.90	33.20	39.10	-5.90
14V	79.200	57.40	1.29	6.39	32.90	32.18	39.10	-6.92
15V	79.200Qp	56.87	1.29	6.39	32.90	31.65	39.10	-7.45
16V	88.000	51.80	1.54	7.00	32.92	27.42	39.10	-11.68
17H	96.797	53.00	1.67	8.42	32.87	30.23	43.50	-13.27
18H	96.801	52.20	1.67	8.42	32.87	29.43	43.50	-14.07
19H	105.601	52.40	1.70	9.31	32.84	30.57	43.50	-12.93
20V	114.382	56.30	1.70	9.79	32.83	34.96	43.50	-8.54
21H	114.386	59.90	1.70	9.79	32.83	38.56	43.50	-4.94
22H	114.397	56.90	1.70	9.79	32.83	35.56	43.50	-7.94
23H	123.190	49.80	1.70	10.12	32.83	28.79	43.50	-14.71
24H	131.965	57.30	1.78	10.16	32.83	36.41	43.50	-7.09
25V	131.982	52.10	1.78	10.16	32.83	31.21	43.50	-12.29
26H	140.719	50.00	1.89	10.16	32.83	29.22	43.50	-14.28
27H	149.518	52.00	1.99	9.63	32.83	30.79	43.50	-12.71
28H	158.268	43.10	2.03	9.10	32.83	21.40	43.50	-22.10
29H	167.075	44.90	2.07	9.11	32.84	23.24	43.50	-20.26
30V	167.182	44.20	2.07	9.11	32.84	22.54	43.50	-20.96
31H	184.675	41.70	2.18	9.30	32.79	20.39	43.50	-23.11
32V	184.712	46.60	2.18	9.30	32.79	25.29	43.50	-18.21
33V	193.512	56.10	2.25	9.30	32.74	34.90	43.50	-8.60
34V	202.312	50.10	2.33	9.41	32.72	29.12	43.50	-14.38
35H	211.075	51.00	2.43	9.81	32.75	30.49	43.50	-13.01

Test Location : Compatible Electronics **Page :** 2/3
Customer : Universal Surveillance Systems, LLC **Date :** 04 / 03 / 2012
Manufacturer : Universal Surveillance Systems, LLC **Time:** 02:15:25 PM
Eut name : 8.2 MHz Mirage System **Lab:** A
Model : UNI-MONO8.2A **Test Distance :** 10.00 Meters
Serial # : N/A
Specification : FCC A
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Test Type: Radiated Emissions Qual - Maximum Power
8.8 MHz Channel
Test Range: 88 MHz to 1000 MHz - FCC Class A
Tested By: Kyle Fujimoto

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
36V	211.112	58.80	2.43	9.81	32.75	38.29	43.50	-5.21
37H	219.962	44.20	2.54	10.22	32.78	24.18	46.40	-22.22
38V	220.014	62.10	2.54	10.22	32.78	42.08	46.40	-4.32
39H	228.812	46.30	2.62	10.63	32.80	26.74	46.40	-19.66
40H	237.587	47.30	2.65	11.03	32.81	28.17	46.40	-18.23
41V	246.278	63.70	2.69	11.43	32.81	45.01	46.40	-1.39
42V	246.278Qp	58.43	2.69	11.43	32.81	39.74	46.40	-6.66
43H	255.187	52.70	2.70	11.75	32.81	34.34	46.40	-12.06
44V	255.252	56.00	2.70	11.75	32.81	37.64	46.40	-8.76
45V	272.837	48.80	2.70	12.24	32.80	30.94	46.40	-15.46
46H	281.587	60.60	2.81	12.48	32.80	43.09	46.40	-3.31
47V	290.437	46.60	2.95	12.73	32.79	29.49	46.40	-16.91
48H	307.826	51.10	3.13	13.31	32.77	34.76	46.40	-11.64
49V	307.891	50.60	3.13	13.31	32.77	34.27	46.40	-12.13
50H	316.482	55.50	3.17	13.64	32.76	39.55	46.40	-6.85
51V	316.736	53.00	3.17	13.65	32.76	37.06	46.40	-9.34
52H	325.215	46.80	3.20	13.98	32.74	31.24	46.40	-15.16
53V	325.479	51.80	3.20	13.99	32.74	36.26	46.40	-10.14
54H	334.066	49.80	3.24	14.33	32.72	34.64	46.40	-11.76
55H	343.004	54.50	3.27	14.68	32.70	39.75	46.40	-6.65
56V	343.524	54.30	3.27	14.70	32.70	39.57	46.40	-6.83
57H	351.964	49.70	3.32	15.03	32.69	35.35	46.40	-11.05
58V	352.230	57.50	3.32	15.04	32.69	43.17	46.40	-3.23
59V	360.924	43.30	3.39	15.38	32.68	29.38	46.40	-17.02
60H	369.504	44.80	3.46	15.71	32.67	31.30	46.40	-15.10
61H	378.286	43.70	3.53	16.05	32.66	30.62	46.40	-15.78
62H	404.634	40.80	3.76	16.91	32.63	28.84	46.40	-17.56
63V	413.494	49.10	3.86	16.94	32.60	37.31	46.40	-9.09
64H	413.548	50.60	3.86	16.94	32.60	38.81	46.40	-7.59
65H	422.140	51.00	3.97	16.97	32.57	39.36	46.40	-7.04
66V	422.246	50.70	3.97	16.97	32.57	39.06	46.40	-7.34
67V	431.542	37.20	4.08	16.99	32.54	25.73	46.40	-20.67
68H	448.503	45.10	4.28	17.05	32.48	33.94	46.40	-12.46
69H	457.467	49.20	4.29	17.07	32.49	38.07	46.40	-8.33
70H	466.714	40.50	4.27	17.10	32.50	29.36	46.40	-17.04

Test Location : Compatible Electronics **Page :** 3/3
Customer : Universal Surveillance Systems, LLC **Date :** 04 / 03 / 2012
Manufacturer : Universal Surveillance Systems, LLC **Time:** 02:15:25 PM
Eut name : 8.2 MHz Mirage System **Lab:** A
Model : UNI-MONO8.2A **Test Distance :** 10.00 Meters
Serial # : N/A
Specification : FCC A
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Test Type: Radiated Emissions Qual - Maximum Power
8.8 MHz Channel
Test Range: 88 MHz to 1000 MHz - FCC Class A
Tested By: Kyle Fujimoto

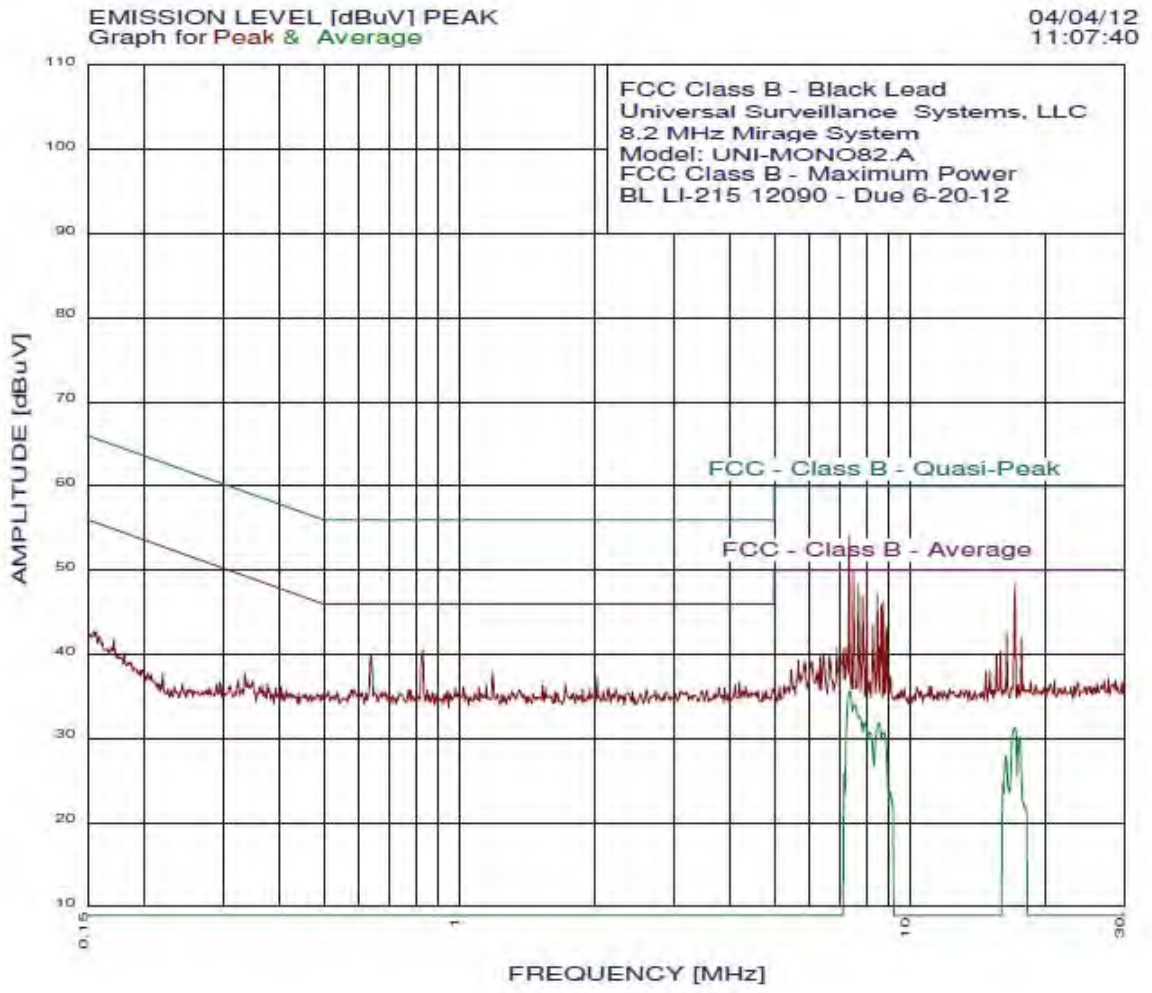
Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
71H	484.443	53.20	4.23	17.15	32.53	42.06	46.40	-4.34
72H	492.365	46.70	4.22	17.18	32.54	35.55	46.40	-10.85
73V	492.551	46.00	4.21	17.18	32.54	34.85	46.40	-11.55
74V	518.903	41.60	4.39	17.54	32.51	31.02	46.40	-15.38
75V	659.703	35.80	5.38	18.94	32.23	27.89	46.40	-18.51
76H	703.708	45.20	5.73	19.01	32.24	37.70	46.40	-8.70
77V	774.103	44.20	6.39	21.05	32.21	39.43	46.40	-6.97
78H	809.176	39.30	6.77	21.82	32.19	35.70	46.40	-10.70
79V	818.103	34.10	6.84	21.84	32.18	30.60	46.40	-15.80
80V	844.827	42.60	7.06	21.89	32.16	39.39	46.40	-7.01
81V	915.341	43.00	7.12	21.97	32.04	40.05	46.40	-6.35

Test Location : Compatible Electronics **Page :** 1/2
Customer : Universal Surveillance Systems, LLC **Date :** 04 / 04 / 2012
Manufacturer : Universal Surveillance Systems, LLC **Time:** 07:57:26 AM
Eut name : 8.2 MHz Mirage System **Lab:** A
Model : UNI-MONO8.2A **Test Distance :** 10.00 Meters
Serial # : N/A
Specification : FCC A
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Test Type: Radiated Emissions Qual - Minimum Power
8.8 MHz Channel
Test Range: 88 MHz to 1000 MHz - FCC Class A
Tested By: Kyle Fujimoto

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
1H	35.227	39.80	0.90	17.44	32.99	25.16	39.10	-13.94
2H	61.870	35.20	1.20	12.75	32.93	16.21	39.10	-22.89
3H	79.270	39.30	1.29	6.38	32.90	14.07	39.10	-25.03
4V	114.400	48.50	1.70	9.79	32.83	27.16	43.50	-16.34
5H	114.427	45.70	1.70	9.79	32.83	24.36	43.50	-19.14
6V	114.455	51.00	1.70	9.80	32.83	29.66	43.50	-13.84
7V	123.222	41.60	1.70	10.12	32.83	20.59	43.50	-22.91
8H	149.627	43.90	2.00	9.62	32.83	22.69	43.50	-20.81
9V	158.422	44.90	2.03	9.09	32.83	23.19	43.50	-20.31
10H	167.227	42.50	2.07	9.11	32.84	20.84	43.50	-22.66
11V	176.022	56.70	2.11	9.24	32.83	35.21	43.50	-8.29
12H	184.774	39.60	2.18	9.30	32.79	18.29	43.50	-25.21
13V	202.422	48.30	2.33	9.41	32.72	27.32	43.50	-16.18
14V	211.163	54.70	2.43	9.81	32.75	34.20	43.50	-9.30
15V	220.039	61.10	2.54	10.22	32.78	41.08	46.40	-5.32
16H	220.068	49.70	2.54	10.22	32.78	29.68	46.40	-16.72
17H	228.868	47.50	2.62	10.63	32.80	27.94	46.40	-18.46
18V	228.890	55.80	2.62	10.63	32.80	36.24	46.40	-10.16
19H	246.464	56.80	2.69	11.44	32.81	38.11	46.40	-8.29
20V	246.490	63.20	2.69	11.44	32.81	44.52	46.40	-1.88
21V	246.490Qp	62.51	2.69	11.44	32.81	43.83	46.40	-2.57
22H	255.226	50.80	2.70	11.75	32.81	32.44	46.40	-13.96
23V	272.788	53.80	2.70	12.24	32.80	35.94	46.40	-10.46
24H	272.868	45.50	2.70	12.24	32.80	27.64	46.40	-18.76
25V	281.592	56.30	2.81	12.48	32.80	38.79	46.40	-7.61
26H	281.726	55.80	2.81	12.49	32.80	38.30	46.40	-8.10
27V	290.341	50.10	2.95	12.73	32.79	32.98	46.40	-13.42
28H	290.526	40.60	2.95	12.73	32.79	23.49	46.40	-22.91
29V	307.908	51.50	3.13	13.31	32.77	35.17	46.40	-11.23
30H	308.098	48.00	3.13	13.32	32.77	31.67	46.40	-14.73
31H	316.872	55.40	3.17	13.66	32.76	39.47	46.40	-6.93
32H	325.634	49.00	3.20	14.00	32.74	33.46	46.40	-12.94
33V	343.182	56.10	3.27	14.68	32.70	41.35	46.40	-5.05
34H	343.198	52.50	3.27	14.68	32.70	37.75	46.40	-8.65
35H	351.878	50.30	3.32	15.02	32.69	35.95	46.40	-10.45

Test Location : Compatible Electronics **Page :** 2/2
Customer : Universal Surveillance Systems, LLC **Date :** 04 / 04 / 2012
Manufacturer : Universal Surveillance Systems, LLC **Time:** 07:57:26 AM
Eut name : 8.2 MHz Mirage System **Lab:** A
Model : UNI-MONO8.2A **Test Distance :** 10.00 Meters
Serial # : N/A
Specification : FCC A
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : Test Type: Radiated Emissions Qual - Minimum Power
8.8 MHz Channel
Test Range: 88 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
36V	351.956	55.00	3.32	15.03	32.69	40.65	46.40	-5.75
37V	360.710	48.30	3.39	15.37	32.68	34.37	46.40	-12.03
38H	360.993	40.90	3.39	15.38	32.68	26.99	46.40	-19.41
39V	378.244	48.00	3.53	16.05	32.66	34.92	46.40	-11.48
40H	378.764	44.80	3.53	16.07	32.66	31.74	46.40	-14.66
41V	387.180	45.10	3.60	16.40	32.65	32.44	46.40	-13.96
42V	395.946	42.30	3.67	16.74	32.64	30.07	46.40	-16.33
43V	413.628	45.70	3.86	16.94	32.60	33.91	46.40	-12.49
44H	413.925	46.10	3.87	16.94	32.60	34.31	46.40	-12.09
45V	422.392	48.10	3.97	16.97	32.57	36.47	46.40	-9.93
46H	422.743	49.90	3.97	16.97	32.57	38.27	46.40	-8.13
47H	431.314	43.50	4.08	16.99	32.54	32.03	46.40	-14.37
48H	448.751	46.60	4.29	17.05	32.48	35.45	46.40	-10.95
49H	457.332	51.00	4.29	17.07	32.49	39.87	46.40	-6.53
50H	466.230	40.00	4.27	17.10	32.50	28.86	46.40	-17.54
51H	501.360	41.50	4.21	17.22	32.55	30.39	46.40	-16.01
52H	510.208	37.90	4.30	17.38	32.53	27.06	46.40	-19.34
53V	528.047	42.80	4.48	17.70	32.49	32.50	46.40	-13.90
54V	660.047	37.10	5.38	18.94	32.23	29.19	46.40	-17.21
55V	704.047	22.40	5.73	19.02	32.24	14.91	46.40	-31.49
56H	704.239	43.80	5.73	19.02	32.24	36.32	46.40	-10.08
57H	739.020	39.60	6.01	20.03	32.22	33.42	46.40	-12.98
58V	774.385	40.30	6.39	21.06	32.21	35.54	46.40	-10.86
59H	836.136	35.30	6.99	21.87	32.16	32.00	46.40	-14.40
60H	844.228	49.70	7.05	21.89	32.16	46.49	46.40	0.09
61H	844.228Qp	44.96	7.05	21.89	32.16	41.75	46.40	-4.65


EMISSION LEVEL [dBuV] PEAK
Graph for Peak & Average
04/04/12
11:07:40
FCC Class B - Black Lead
Universal Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO82.A
FCC Class B - Maximum Power
BL LI-215 12090 - Due 6-20-12
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

04/04/12 11:07:40

FCC Class B - Black Lead
USS Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A
FCC Class B - Maximum Power
BL LI-215 12090 - Due 6-20-12
Test Engineer : Kyle Fujimoto

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48 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	7.333	54.14	50.00	4.14**
2	7.489	50.05	50.00	0.05**
3	7.689	48.36	50.00	-1.64**
4	17.116	48.27	50.00	-1.73**
5	8.023	47.27	50.00	-2.73**
6	8.461	47.19	50.00	-2.81**
7	7.856	46.87	50.00	-3.13**
8	8.729	46.20	50.00	-3.80**
9	8.640	45.90	50.00	-4.10**
10	0.831	40.55	46.00	-5.45
11	0.637	39.78	46.00	-6.22
12	8.282	43.49	50.00	-6.51**
13	8.873	43.31	50.00	-6.69**
14	16.404	42.63	50.00	-7.37**
15	17.669	42.10	50.00	-7.90**
16	1.184	37.98	46.00	-8.02
17	2.023	37.20	46.00	-8.80
18	7.217	40.84	50.00	-9.16**
19	4.182	36.77	46.00	-9.23
20	7.100	40.63	50.00	-9.37
21	6.882	40.63	50.00	-9.37
22	1.717	36.54	46.00	-9.46
23	15.893	40.40	50.00	-9.60
24	1.148	36.37	46.00	-9.63
25	4.092	36.37	46.00	-9.63
26	1.528	36.30	46.00	-9.70
27	4.316	36.18	46.00	-9.82
28	1.106	36.17	46.00	-9.83
29	1.021	36.15	46.00	-9.85
30	1.552	36.10	46.00	-9.90
31	3.781	36.08	46.00	-9.92
32	6.424	40.02	50.00	-9.98
33	2.145	36.00	46.00	-10.00
34	4.954	35.99	46.00	-10.01
35	3.882	35.98	46.00	-10.02
36	0.979	35.95	46.00	-10.05
37	2.226	35.90	46.00	-10.10
38	1.950	35.89	46.00	-10.11
39	15.561	39.88	50.00	-10.12
40	1.879	35.87	46.00	-10.13
41	0.771	35.86	46.00	-10.14
42	6.627	39.82	50.00	-10.18
43	2.596	35.81	46.00	-10.19
44	3.547	35.79	46.00	-10.21
45	1.359	35.79	46.00	-10.21
46	0.583	35.78	46.00	-10.22
47	0.577	35.78	46.00	-10.22
48	4.600	35.78	46.00	-10.22

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

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04/04/12 11:07:40

FCC Class B - Black Lead
USS Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A
FCC Class B - Maximum Power
BL LI-215 12090 - Due 6-20-12
Test Engineer : Kyle Fujimoto

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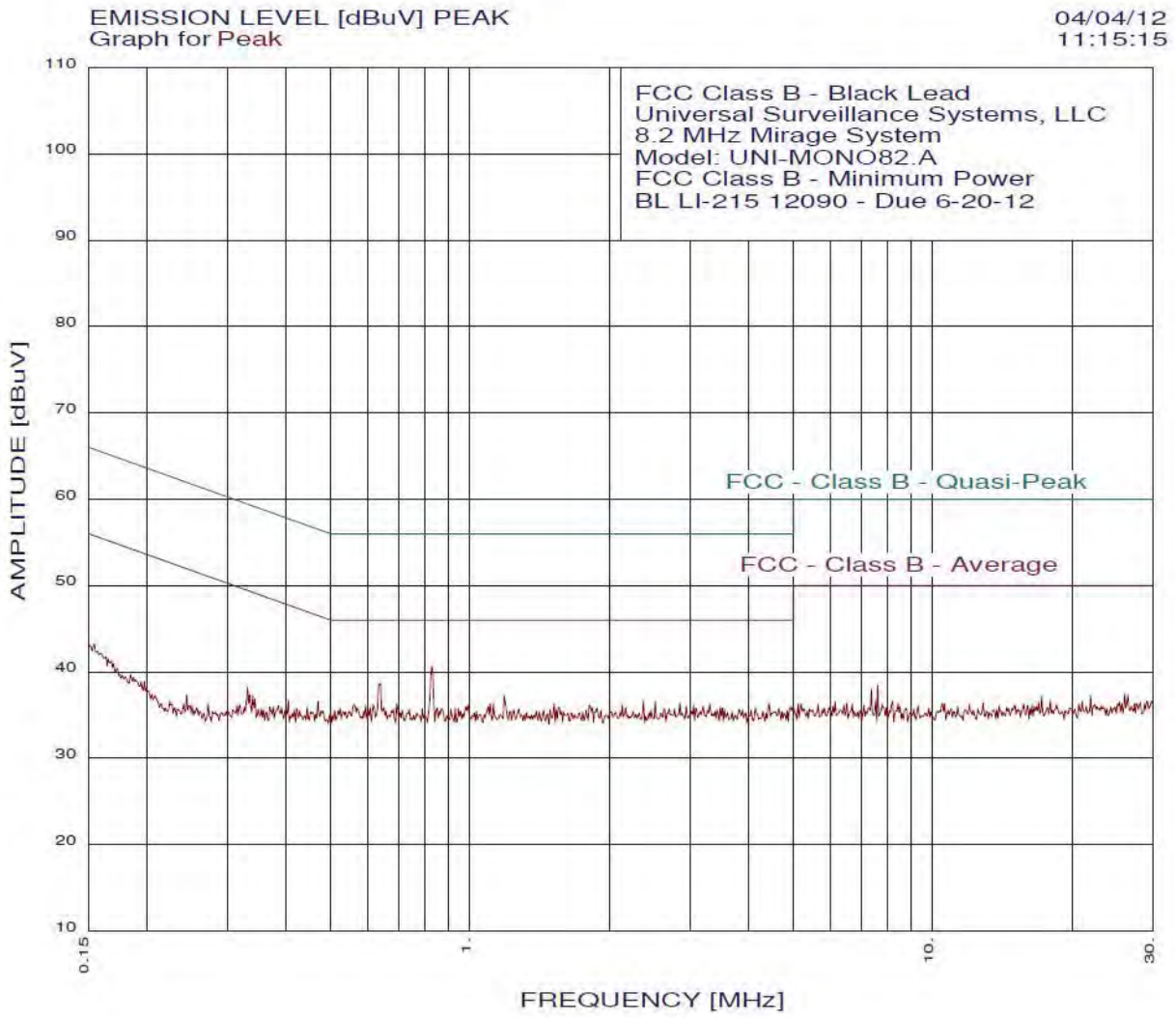
16 highest peaks above -50.00 dB of FCC - Class B - Average limit line
Peak criteria : 0.00 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	7.372	35.54	50.00	-14.46
2	7.567	33.98	50.00	-16.02
3	7.731	32.64	50.00	-17.36
4	7.898	32.01	50.00	-17.99
5	8.551	31.87	50.00	-18.13
6	7.981	31.63	50.00	-18.37
7	17.116	31.28	50.00	-18.72
8	8.107	30.77	50.00	-19.23
9	8.777	30.70	50.00	-19.30
10	8.685	30.69	50.00	-19.31
11	17.478	30.10	50.00	-19.90
12	16.315	27.90	50.00	-22.10
13	7.139	25.88	50.00	-24.12
14	16.059	24.59	50.00	-25.41
15	9.065	23.63	50.00	-26.37
16	18.145	21.80	50.00	-28.20


EMISSION LEVEL [dBuV] PEAK
Graph for Peak
04/04/12
11:15:15
FCC Class B - Black Lead
Universal Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO82.A
FCC Class B - Minimum Power
BL LI-215 12090 - Due 6-20-12
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

04/04/12 11:15:15

FCC Class B - Black Lead
USS Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A
FCC Class B - Minimum Power
BL LI-215 12090 - Due 6-20-12
Test Engineer : Kyle Fujimoto

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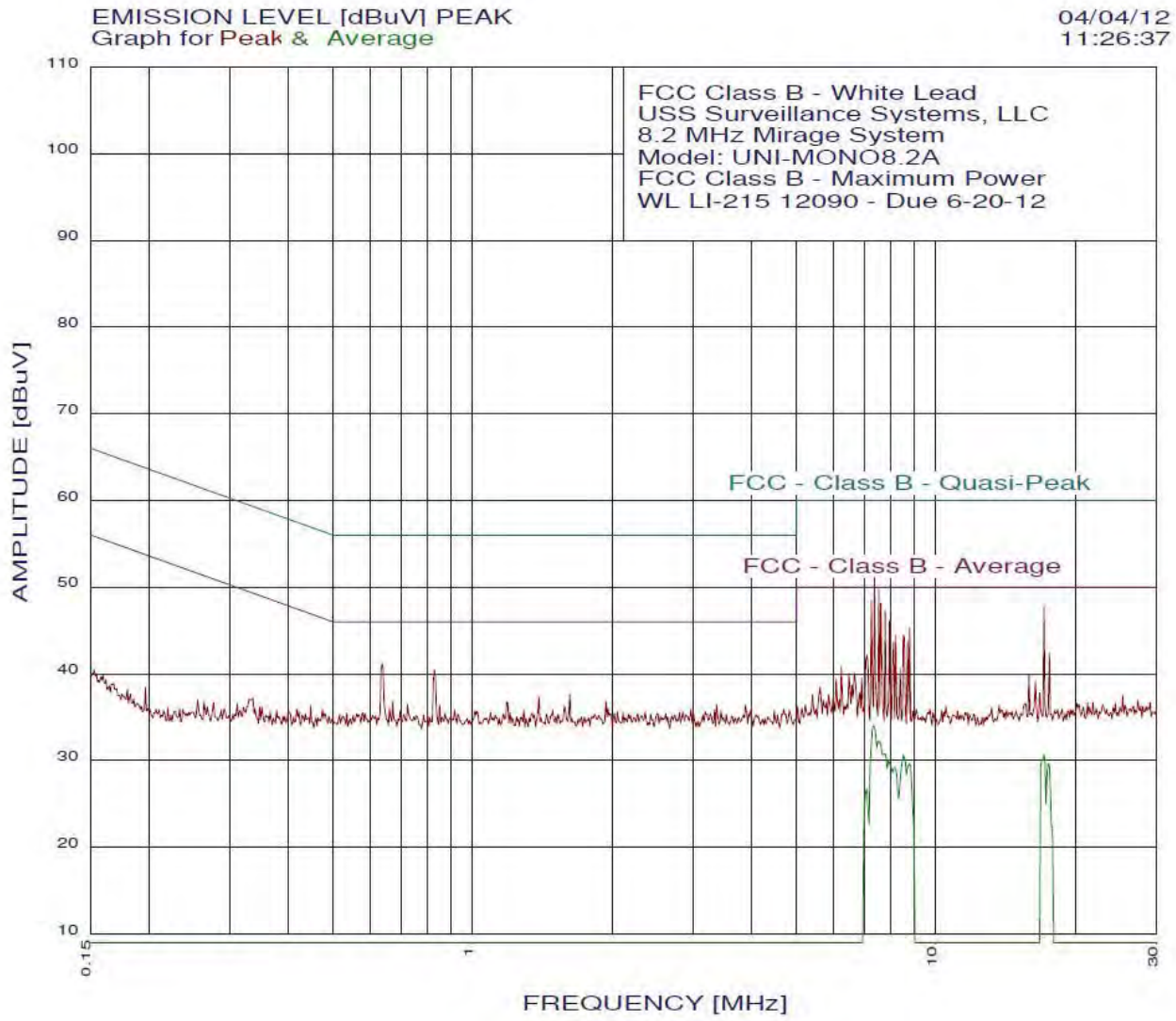
48 highest peaks above -50.00 dB of FCC - Class B - Average limit line
Peak criteria : 0.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.826	40.65	46.00	-5.35
2	0.641	38.68	46.00	-7.32
3	0.634	38.48	46.00	-7.52
4	1.184	37.18	46.00	-8.82
5	2.514	36.61	46.00	-9.39
6	2.371	36.61	46.00	-9.39
7	2.840	36.42	46.00	-9.58
8	4.432	36.38	46.00	-9.62
9	0.694	36.37	46.00	-9.63
10	1.124	36.37	46.00	-9.63
11	1.106	36.37	46.00	-9.63
12	3.294	36.31	46.00	-9.69
13	1.520	36.29	46.00	-9.71
14	2.134	36.20	46.00	-9.80
15	0.618	36.19	46.00	-9.81
16	0.561	36.18	46.00	-9.82
17	1.810	36.16	46.00	-9.84
18	0.990	36.15	46.00	-9.85
19	3.043	36.12	46.00	-9.88
20	0.595	36.09	46.00	-9.91
21	0.469	36.57	46.53	-9.97
22	2.932	36.02	46.00	-9.98
23	3.192	36.01	46.00	-9.99
24	1.094	35.96	46.00	-10.04
25	0.979	35.95	46.00	-10.05
26	1.560	35.90	46.00	-10.10
27	3.474	35.90	46.00	-10.10
28	4.928	35.89	46.00	-10.11
29	0.608	35.89	46.00	-10.11
30	0.570	35.88	46.00	-10.12
31	0.651	35.88	46.00	-10.12
32	1.879	35.87	46.00	-10.13
33	4.137	35.87	46.00	-10.13
34	1.840	35.86	46.00	-10.14
35	0.849	35.85	46.00	-10.15
36	0.929	35.85	46.00	-10.15
37	3.075	35.82	46.00	-10.18
38	2.168	35.80	46.00	-10.20
39	3.511	35.79	46.00	-10.21
40	3.547	35.79	46.00	-10.21
41	4.648	35.78	46.00	-10.22
42	0.524	35.77	46.00	-10.23
43	0.788	35.75	46.00	-10.25
44	0.867	35.75	46.00	-10.25
45	0.944	35.75	46.00	-10.25
46	2.766	35.72	46.00	-10.28
47	2.693	35.71	46.00	-10.29
48	2.637	35.71	46.00	-10.29


EMISSION LEVEL [dBuV] PEAK
Graph for Peak & Average
04/04/12
11:26:37
FCC Class B - White Lead
USS Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A
FCC Class B - Maximum Power
WL LI-215 12090 - Due 6-20-12
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

04/04/12 11:26:37

FCC Class B - White Lead
USS Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A
FCC Class B - Maximum Power
WL LI-215 12090 - Due 6-20-12
Test Engineer : Kyle Fujimoto

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48 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	7.372	51.10	50.00	1.10**
2	7.528	49.70	50.00	-0.30**
3	7.255	48.49	50.00	-1.51**
4	7.606	48.20	50.00	-1.80**
5	17.116	47.83	50.00	-2.17**
6	7.773	47.30	50.00	-2.70**
7	7.940	46.11	50.00	-3.89**
8	8.777	45.32	50.00	-4.68**
9	0.637	41.19	46.00	-4.81
10	8.193	44.51	50.00	-5.49**
11	0.826	40.45	46.00	-5.55
12	8.506	44.42	50.00	-5.58**
13	8.685	43.82	50.00	-6.18**
14	8.107	43.71	50.00	-6.29**
15	17.573	42.36	50.00	-7.64**
16	7.100	42.19	50.00	-7.81**
17	1.620	37.69	46.00	-8.31
18	1.389	37.37	46.00	-8.63
19	1.939	36.82	46.00	-9.18
20	0.672	36.79	46.00	-9.21
21	6.254	40.78	50.00	-9.22
22	1.184	36.74	46.00	-9.26
23	8.372	40.61	50.00	-9.39**
24	0.724	36.48	46.00	-9.52
25	3.365	36.44	46.00	-9.56
26	0.849	36.35	46.00	-9.65
27	3.882	36.34	46.00	-9.66
28	1.577	36.29	46.00	-9.71
29	0.662	36.09	46.00	-9.91
30	6.664	40.08	50.00	-9.92
31	6.491	40.08	50.00	-9.92
32	1.960	36.03	46.00	-9.97
33	15.893	39.96	50.00	-10.04
34	2.963	35.94	46.00	-10.06
35	4.696	35.85	46.00	-10.15
36	1.290	35.85	46.00	-10.15
37	3.328	35.84	46.00	-10.16
38	3.987	35.84	46.00	-10.16
39	0.914	35.84	46.00	-10.16
40	1.488	35.78	46.00	-10.22
41	4.825	35.76	46.00	-10.24
42	4.480	35.75	46.00	-10.25
43	3.438	35.74	46.00	-10.26
44	1.011	35.73	46.00	-10.27
45	0.698	35.68	46.00	-10.32
46	3.175	35.64	46.00	-10.36
47	2.840	35.64	46.00	-10.36
48	1.021	35.63	46.00	-10.37

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

page 1/1

04/04/12 11:26:37

FCC Class B - White Lead
USS Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A
FCC Class B - Maximum Power
WL LI-215 12090 - Due 6-20-12
Test Engineer : Kyle Fujimoto

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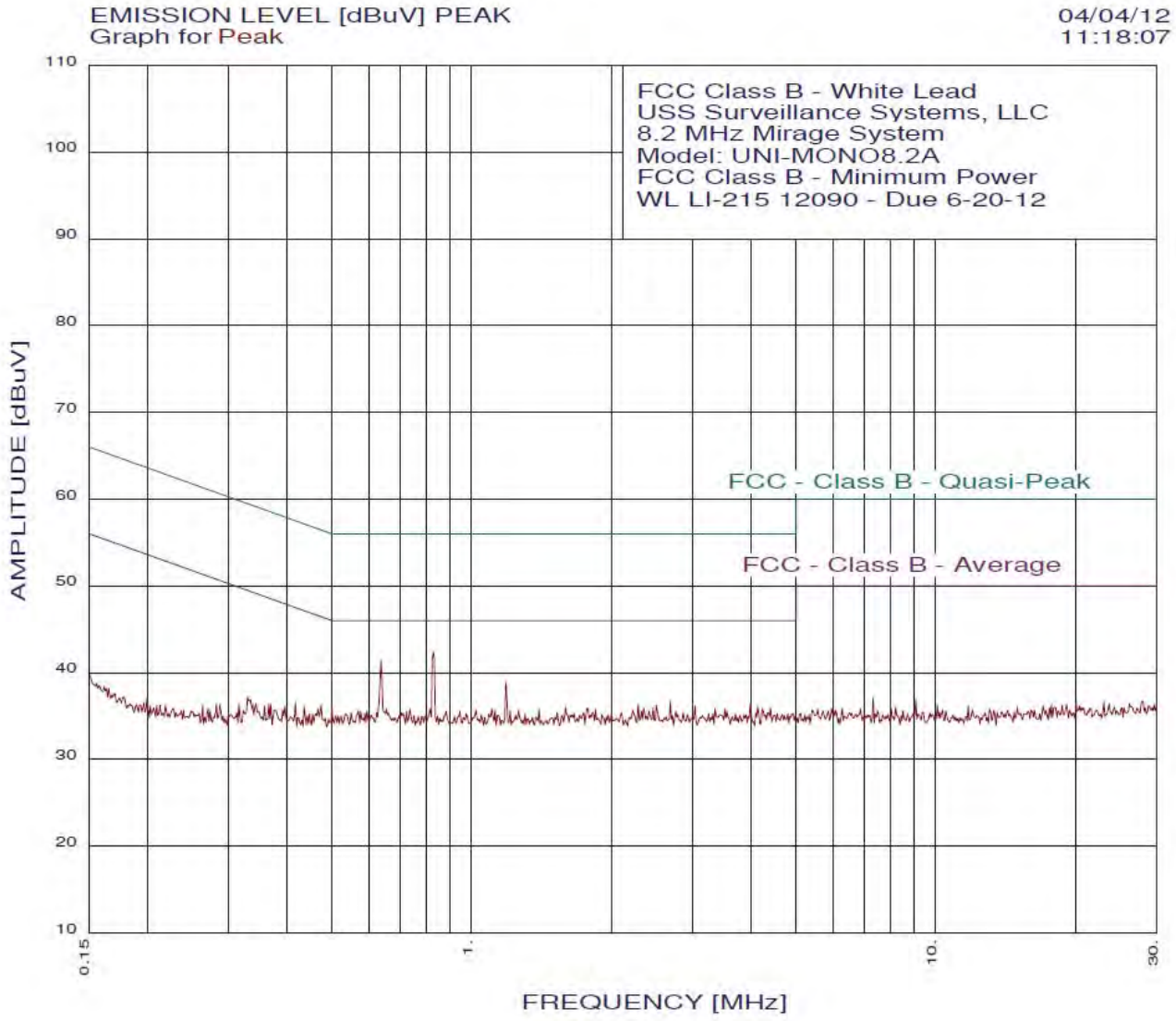
11 highest peaks above -50.00 dB of FCC - Class B - Average limit line
Peak criteria : 0.00 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	7.333	34.01	50.00	-15.99
2	7.528	32.26	50.00	-17.74
3	7.773	30.74	50.00	-19.26
4	8.506	30.61	50.00	-19.39
5	17.116	30.60	50.00	-19.40
6	7.898	30.06	50.00	-19.94
7	8.777	29.64	50.00	-20.36
8	17.478	29.63	50.00	-20.37
9	8.148	29.16	50.00	-20.84
10	7.100	26.60	50.00	-23.40
11	17.859	22.36	50.00	-27.64


EMISSION LEVEL [dBuV] PEAK
Graph for Peak
04/04/12
11:18:07
FCC Class B - White Lead
USS Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A
FCC Class B - Minimum Power
WL LI-215 12090 - Due 6-20-12
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

04/04/12 11:18:07

FCC Class B - White Lead
USS Surveillance Systems, LLC
8.2 MHz Mirage System
Model: UNI-MONO8.2A
FCC Class B - Minimum Power
WL LI-215 12090 - Due 6-20-12
Test Engineer : Kyle Fujimoto

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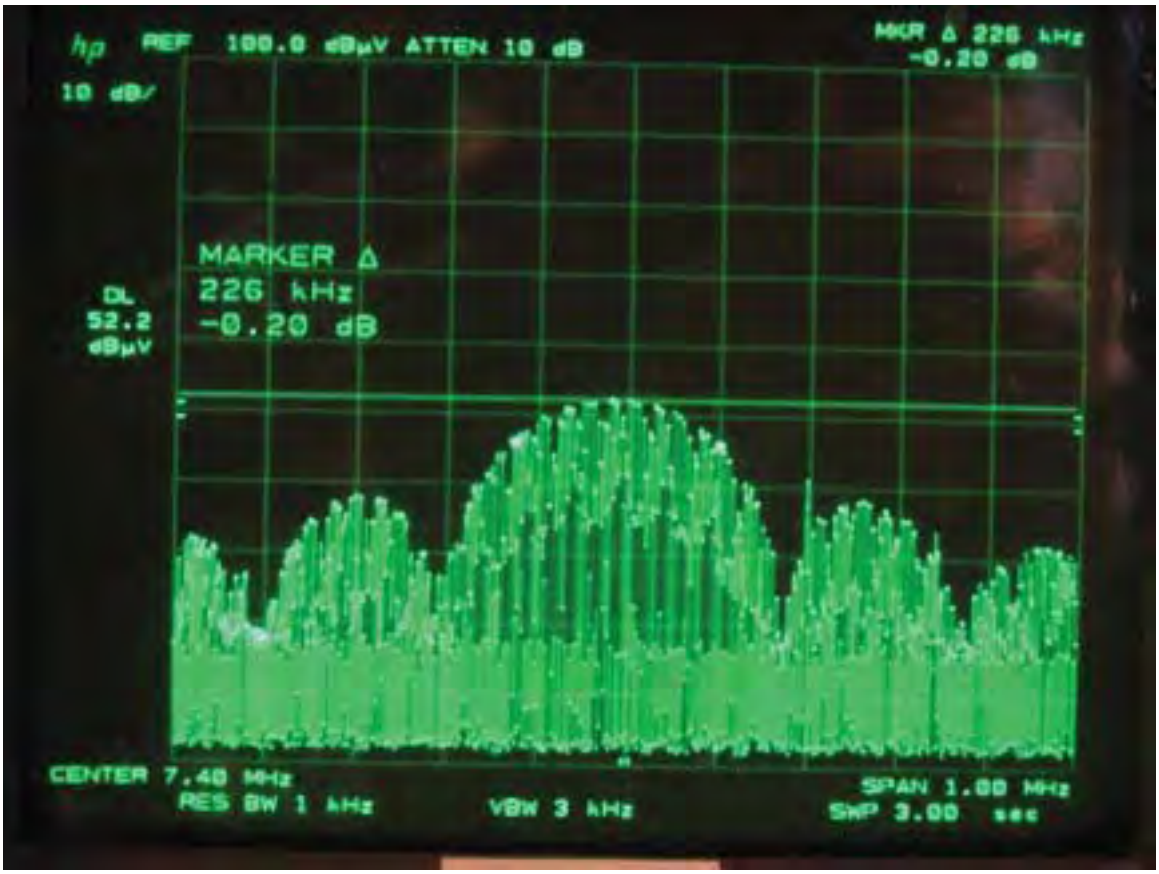
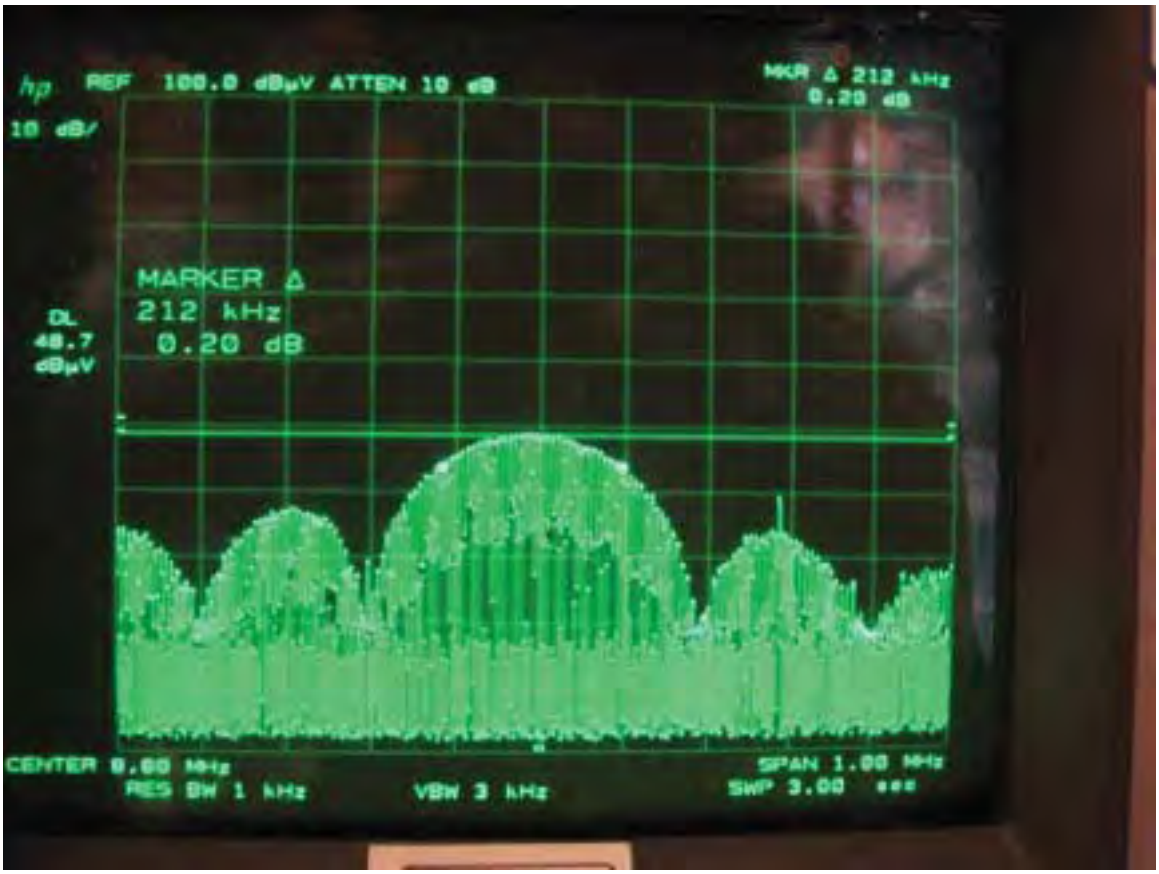
48 highest peaks above -50.00 dB of FCC - Class B - Average limit line
Peak criteria : 0.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.826	42.35	46.00	-3.65
2	0.637	41.49	46.00	-4.51
3	1.184	38.84	46.00	-7.16
4	2.679	36.63	46.00	-9.37
5	3.987	36.44	46.00	-9.56
6	2.286	36.33	46.00	-9.67
7	2.501	36.23	46.00	-9.77
8	3.027	36.14	46.00	-9.86
9	4.137	36.04	46.00	-9.96
10	1.594	35.99	46.00	-10.01
11	4.408	35.95	46.00	-10.05
12	2.346	35.93	46.00	-10.07
13	2.462	35.93	46.00	-10.07
14	0.500	35.92	46.01	-10.09
15	1.772	35.91	46.00	-10.09
16	1.397	35.87	46.00	-10.13
17	4.227	35.84	46.00	-10.16
18	3.346	35.84	46.00	-10.16
19	1.106	35.84	46.00	-10.16
20	0.655	35.79	46.00	-10.21
21	0.735	35.77	46.00	-10.23
22	0.474	36.22	46.45	-10.23
23	0.814	35.76	46.00	-10.24
24	3.511	35.74	46.00	-10.26
25	1.849	35.71	46.00	-10.29
26	1.262	35.65	46.00	-10.35
27	1.210	35.64	46.00	-10.36
28	1.124	35.64	46.00	-10.36
29	1.021	35.63	46.00	-10.37
30	2.226	35.63	46.00	-10.37
31	0.570	35.61	46.00	-10.39
32	0.595	35.60	46.00	-10.40
33	0.881	35.54	46.00	-10.46
34	3.547	35.54	46.00	-10.46
35	0.944	35.54	46.00	-10.46
36	2.751	35.54	46.00	-10.46
37	2.322	35.53	46.00	-10.47
38	2.410	35.53	46.00	-10.47
39	0.577	35.50	46.00	-10.50
40	0.724	35.48	46.00	-10.52
41	2.855	35.44	46.00	-10.56
42	2.100	35.43	46.00	-10.57
43	1.820	35.41	46.00	-10.59
44	0.550	35.41	46.00	-10.59
45	1.745	35.40	46.00	-10.60
46	0.624	35.40	46.00	-10.60
47	0.662	35.39	46.00	-10.61
48	1.528	35.38	46.00	-10.62



-6 dB BANDWIDTH OF THE FUNDAMENTAL AT 7.4 MHz



-6 dB BANDWIDTH OF THE FUNDAMENTAL AT 8.8 MHz