

# FCC 15.209 TEST REPORT

for

# 58 kHz DEACTIVATOR **Model: UXT-P-ADSC**

Prepared for

AMERICAN SECURITY SPOL. S R.O. K VILKAM 1633 107 00 PRAGUE 10 - DUBEC, CZECH REPUBLIC

Prepared by:	
	KYLE FUJIMOTO
Approved by:	

**JAMES ROSS** 

COMPATIBLE ELECTRONICS INC. 114 OLINDA DRIVE BREA, CALIFORNIA 92823 (714) 579-0500

**DATE: AUGUST 19, 2013** 

	REPORT	APPENDICES				TOTAL	
	BODY	$\boldsymbol{A}$	В	C	D	E	
PAGES	17	2	2	2	12	11	46

This report shall not be reproduced except in full, without the written approval of Compatible Electronics.

FCC Part 15 Subpart B and FCC Section 15.209 Test Report 58 kHz Deactivator Model: UXT-P-ADSC

# TABLE OF CONTENTS

Section / Title	PAGE
GENERAL REPORT SUMMARY	4
SUMMARY OF TEST RESULTS	4
1. PURPOSE	5
2. ADMINISTRATIVE DATA  2.1 Location of Testing  2.2 Traceability Statement  2.3 Cognizant Personnel  2.4 Date Test Sample was Received  2.5 Disposition of the Test Sample	6 6 6 6
<ul><li>2.6 Abbreviations and Acronyms</li><li>3. APPLICABLE DOCUMENTS</li></ul>	6 <b>7</b>
<ul> <li>4. DESCRIPTION OF TEST CONFIGURATION</li> <li>4.1 Description of Test Configuration – Emissions</li> <li>4.1.1 Cable Construction and Termination</li> </ul>	<b>8</b> 8 9
<ul> <li>5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT</li> <li>5.1 EUT and Accessory List</li> <li>5.2 Emissions Test Equipment</li> </ul>	<b>10</b> 10 11
<ul> <li>6. TEST SITE DESCRIPTION</li> <li>6.1 Test Facility Description</li> <li>6.2 EUT Mounting, Bonding and Grounding</li> <li>6.3 Facility Environmental Characteristics</li> </ul>	12 12 12 12
<ul> <li>7. TEST PROCEDURES</li> <li>7.1 Conducted Emissions Test</li> <li>7.2 Radiated Emissions (Spurious, Fundamental, and Harmonics) Test</li> <li>7.3 Variation of the Input Power</li> <li>7.4 RF Emissions Test Results</li> <li>8. CONCLUSIONS</li> </ul>	13 13 14 15 16



### LIST OF APPENDICES

APPENDIX	TITLE			
A	Laboratory Accreditations and Recognitions			
В	Modifications to the EUT			
С	Additional Model Covered Under This Report			
D	Diagram, Charts, and Photos			
	Test Setup Diagram			
	Antenna and Amplifier Factors			
	Radiated and Conducted Emissions Photos			
Е	Data Sheets			

# LIST OF FIGURES

FIGURE	TITLE
1	Conducted Emissions Test Setup
2	Plot Map and Layout of the Radiated Test Site



# 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: 58 kHz Deactivator

Model: UXT-P-ADSC

S/N: N/A

Product Description: See Expository Statement

Modifications: The EUT was not modified during the testing.

American Security spol. s r.o. **Customer:** 

K Vilkam 1633

107 00 Prague 10 - Dubec, Czech Republic

Test Date(s): July 22, 23, and 24, 2013

**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 <b>Class A</b> limits of <b>CFR</b> Title 47, Part 15, Subpart B; and Subpart C Section 15.207.
2	Radiated RF Emissions 9 kHz – 1000 MHz	Complies with the <b>Class A</b> limits of <b>CFR</b> Title 47, Part 15, Subpart B; and Subpart C Sections 15.205 and 15.209.



FCC Part 15 Subpart B and FCC Section 15.209 Test Report 58 kHz Deactivator Model: UXT-P-ADSC

#### **PURPOSE**

This document is a qualification test report based on the emissions tests performed on the 58 kHz Deactivator, Model: UXT-P-ADSC. 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, and 15.209 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).

FCC Part 15 Subpart B and FCC Section 15.209 Test Report
58 kHz Deactivator
Model: UXT-P-ADSC

#### 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

American Security spol. s r.o.

Clint Meyer Technical Manager

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

FCC Part 15 Subpart B and FCC Section 15.209 Test Report

58 kHz Deactivator Model: UXT-P-ADSC

### 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

58 kHz Deactivator Model: UXT-P-ADSC



#### DESCRIPTION OF TEST CONFIGURATION

#### 4.1 **Description of Test Configuration – Emissions**

The 58 kHz Deactivator, Model: UXT-P-ADSC (EUT) was connected to a pad and E-comm via its antenna and PC ports, respectively. The E-comm was also connected to a router and AC Adapter via its ethernet and power ports, respectively. The router was also connected to an AC Adapter and laptop via its ethernet and power ports, respectively.

The EUT was continuously transmitting and receiving at 58.25 kHz. The EUT was also investigated with a tag continuously being read by the EUT. The laptop was used to monitor the status of the EUT on a continuous basis.

Note #1: The digital portion emissions were tested to the Class A limits specification limits defined by CFR Title 47, Part 15, Subpart B.

Note #2: The molded ferrite on the antenna cable and power cable for the EUT were already mounted prior to the testing and will be sold with the units.

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 29-meter unshielded cable connecting the E-comm to the router. The cable has an RJ-45 connector at each end.
- Cable 2 This is a 1-meter unshielded cable connecting the E-comm to the EUT. The cable has an RJ-11 connector at each end.
- Cable 3 This is a 1.5-meter braid shielded cable connecting the pad to the EUT. The cable has a 6-pin terminal block on the EUT end and is hard wired into the pad. The shield of the cable was grounded to the chassis via the connector. The cable has a molded ferrite at the EUT end.
- Cable 4 This is a 2-meter unshileded cable connecting the E-comm to the power supply. The cable has a 1/8 inch power connector at the E-comm end and is hard wired into the power supply.
- Cable 5 This is a 2-meter unshileded cable connecting the router to the power supply. The cable has a 1/8 inch power connector at the router end and is hard wired into the power supply.
- This is a 2-meter unshileded cable connecting the EUT to the AC public mains. The cable has a Cable 6 female 3-prong AC connector at the EUT end and a male 3-prong AC connector at the AC public mains end. The cable has a molded ferrite at the EUT end.
- Cable 7 This is a 6-meter unshielded cable connecting the router to the laptop. The cable has an RJ-45 connector at each end.

FCC Part 15 Subpart B and FCC Section 15.209 Test Report
58 kHz Deactivator
Model: UXT-P-ADSC

# 5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

# 5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
58 kHz DEACITVATOR (EUT)	AMERICAN SECURITY SPOL. S R.O.	UXT-P-ADSC	N/A	UXT-P-ADSC
PAD (PART OF EUT)	AMERICAN SECURITY SPOL. S R.O.	UXT-P-ADSC	N/A	N/A
E-COMM	AMERICAN SECURITY SPOL. S R.O.	D-ECOM	244153	N/A
E-COMM POWER SUPPLY	STONTRONICS	3A-066WPI2	N/A	N/A
ROUTER	D-LINK	DI-704	0L00B02399	N/A
ROUTER POWER SUPPLY	MAXTELA	MOC005005WA1A	N/A	N/A
LAPTOP	LENOVO	Y510P	N/A	N/A



# **5.2** Emissions Test Equipment

EQUIPMENT TYPE	MANU- FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE		
GEN	GENERAL TEST EQUIPMENT USED FOR ALL RF EMISSIONS TESTS						
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08784	May 20, 2014	1 Year		
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	2648A14530	May 20, 2014	1 Year		
Quasi-Peak Adapter	Hewlett Packard	85650A	2811A01363	May 20, 2014	1 Year		
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A		
Computer	Hewlett Packard	4530	US91912319	N/A	N/A		
	RF RADIATE	D EMISSIONS TH	EST EQUIPMENT	Γ			
Compatible Electronics Radiated Test	Compatible Electronics	2011	N/A	N/A	N/A		
CombiLog Antenna	Com-Power	AC-220	61027	May 20, 2014	1 Year		
Loop Antenna	Com-Power	AL-130	17089	January 29, 2013	2 Year		
Preamplifier	Com-Power	PA-103	1582	December 30, 2013	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 CONDUCTI	ED EMISSIONS T	TEST EQUIPMEN	T			
ShieldRoom Test	Compatible Electronics	11CD	N/A	N/A	N/A		
LISN	Com-Power	LI-215	12082	June 12, 2014	1 Year		
LISN	Com-Power	LI-215	12090	June 12, 2014	1 Year		
Transient Limiter	Com-Power	252A910	1	October 8, 2013	1 Year		
VARIATION OF THE INPUT POWER TEST EQUIPMENT							
Variable Auto Transformer	Staco Energy Products	3PN1010	N/A	N/A	N/A		
Multimeter	Wavetek	DM25XT	40209875	May 20, 2014	1 Year		

FCC Part 15 Subpart B and FCC Section 15.209 Test Report 58 kHz Deactivator Model: UXT-P-ADSC

### 6. TEST SITE DESCRIPTION

# **6.1** Test Facility Description

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

### 6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 0.8 meter non-conductive surface 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.

FCC Part 15 Subpart B and FCC Section 15.209 Test Report

58 kHz Deactivator

Model: UXT-P-ADSC

#### 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.

FCC Part 15 Subpart B and FCC Section 15.209 Test Report
58 kHz Deactivator
Model: UXT-P-ADSC

# 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 adapter was used only for those readings which are marked accordingly on the data sheets.

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
9 kHz to 150 kHz	200 Hz	Active Loop Antenna
9 KHZ to 130 KHZ	200 112	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 (except for the fundamental) was tested at a 10-meter test distance to obtain the final test data.

The final qualification data sheets are located in Appendix E.

#### **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.

FCC Part 15 Subpart B and FCC Section 15.209 Test Report 58 kHz Deactivator Model: UXT-P-ADSC

# 7.3 Variation of the Input Power

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

#### **Test Results:**

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



#### 7.4 RF Emissions Test Results

Table 1.0 CONDUCTED EMISSION RESULTS 58 kHz Deactivator, Model: UXT-P-ADSC

Frequency MHz	Corrected Reading* dBuV	<u> </u>	
14.293 (White Lead)	46.00	50.00	-4.00
10.910 (White Lead)	45.97	50.00	-4.03
10.792 (White Lead)	45.97	50.00	-4.03
11.027 (White Lead)	45.57	50.00	-4.43
0.641 (White Lead)	41.54	46.00	-4.46
0.929 (White Lead)	40.84	46.00	-5.16

Table 2.0 RADIATED EMISSION RESULTS 58 kHz Deactivator, Model: UXT-P-ADSC

Frequency MHz	Corrected Reading* dBuV	Specification Limit dBuV	Delta (Cor. Reading – Spec. Limit) dB
0.5825 (Horizontal)	48.60	51.38	-2.78
0.52425 (Horizontal)	49.20	52.30	-3.10
57.231 (Vertical)	35.58	39.08	-3.50
0.52425 (Vertical)	48.30	52.30	-4.00
0.5825 (Vertical)	47.2	51.38	-4.18
40.985 (Vertical)	30.97	39.08	-8.11

Notes:

<sup>\*</sup> The complete emissions data is given in Appendix E of this report.

FCC Part 15 Subpart B and FCC Section 15.209 Test Report 58 kHz Deactivator Model: UXT-P-ADSC

#### 8. CONCLUSIONS

The 58 kHz Deactivator, Model: UXT-P-ADSC, as tested, meets all of the <u>Class A specification</u> <u>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, and 15.209 for the transmitter portion.</u>





# **APPENDIX A**

# LABORATORY ACCREDITATIONS AND RECOGNITIONS

FCC Part 15 Subpart B and FCC Section 15.209 Test Report

58 kHz Deactivator

58 kHz Deactivator Model: UXT-P-ADSC

# LABORATORY ACCREDITATIONS AND RECOGNITIONS



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

Model: UXT-P-ADSC



# **APPENDIX B**

# **MODIFICATIONS TO THE EUT**

FCC Part 15 Subpart B and FCC Section 15.209 Test Report 58 kHz Deactivator Model: UXT-P-ADSC

# MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC 15.205, 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.

No modifications were made to the EUT during the testing.





# **APPENDIX C**

# ADDITIONAL MODEL COVERED UNDER THIS REPORT



# ADDITIONAL MODEL COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

58 kHz Deactivator Model: UXT-P-ADSC

S/N: N/A

There were no additional Model covered under this report.

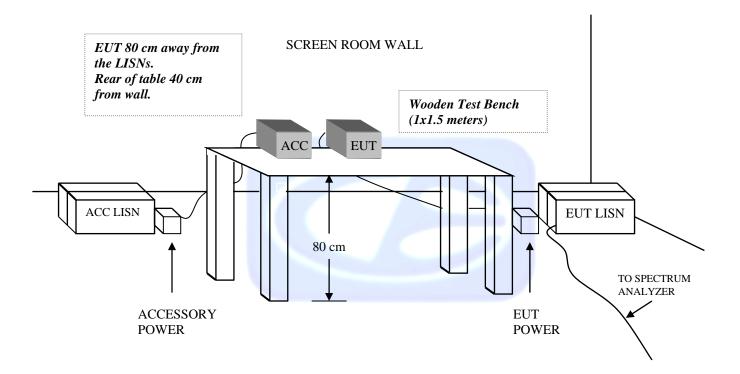




# APPENDIX D

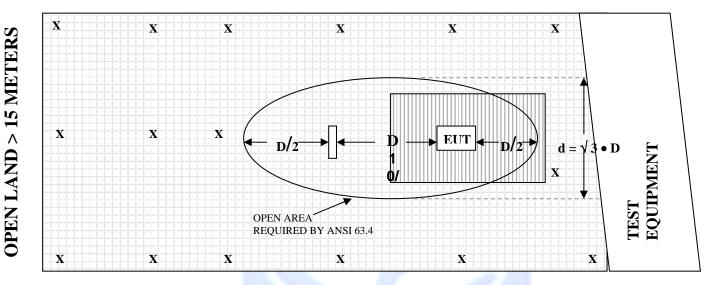
# DIAGRAMS, CHARTS AND PHOTOS

# FIGURE 1: CONDUCTED EMISSIONS TEST SETUP



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

### **OPEN LAND > 15 METERS**



# **OPEN LAND > 15 METERS**

 $\mathbf{X}$ = GROUND RODS = GROUND SCREEN = WOOD COVER D = TEST DISTANCE (meters)

# **COM-POWER AC-220**

# **COMBILOG ANTENNA**

S/N: 61027

CALIBRATION DATE: MAY 20, 2014

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	21.50	200	14.50
35	22.00	250	16.80
40	22.60	300	18.60
45	21.20	350	16.30
50	18.70	400	20.70
60	18.40	450	21.00
70	13.70	500	22.70
80	10.30	550	21.70
90	12.50	600	22.80
100	12.90	650	23.20
120	15.70	700	24.20
125	15.80	750	25.50
140	14.50	800	25.90
150	14.40	850	26.60
160	14.50	900	26.70
175	15.30	950	27.90
180	14.70	1000	28.30

# COM-POWER AL-130

# **LOOP ANTENNA**

S/N: 17089

CALIBRATION DATE: JANUARY 29, 2013

FREQUENCY (MHz)	MAGNETIC (dB/m) -42.5 -42.3 -42.1	ELECTRIC (dB/m)
0.009	-42.5	9
0.01	-42.3	9.2
0.02	-42.1	9.4
0.03	-41.4	10.1
0.04	-41.8	9.7
0.05	-42.4	9.1
0.06	-42.3	9.2
0.07	-42.5	9
0.08	-42.4	9.1
0.09	-42.5	9
0.1	-42.5	
0.2	-42.7	8.8
0.3	-42.6	8.9
0.4	-42.5	9
0.5	-42.7	8.8
0.6	-42.7	8.8
0.7	-42.5	9
0.8	-42.3	9.2
0.9	-42.2	9.3
1	-42.2	9.3
2	-41.8	9.7
3	-41.7	9.8
4	-41.7	9.8
5	-41.5	10
6	-41.6	9.9
7	-41.4	10.1
8	-41	10.5
9	-40.8	10.7
10	-41.3	10.2
15	-41.4	10.1
20	-41.2	10.3
25	-42.6	8.9
30	-41.7	9.8



# **COM-POWER PA-103**

# **PREAMPLIFIER**

S/N: 1582

# CALIBRATION DATE: DECEMBER 30, 2013

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	32.60	300	32.40
40	32.70	350	32.00
50	32.50	400	32.20
60	32.50	450	32.00
70	32.50	500	32.00
80	32.40	550	31.90
90	32.50	600	31.80
100	32.40	650	31.80
125	32.40	700	31.70
150	32.30	750	31.60
175	32.30	800	31.70
200	32.30	850	31.50
225	31.60	900	31.00
250	32.40	950	31.30
275	32.30	1000	31.40

58 kHz Deactivator Model: UXT-P-ADSC



## **FRONT VIEW**

AMERICAN SECURITY SPOL. S R.O. 58 kHz DEACTIVATOR Model: UXT-P-ADSC FCC 15.209 – RADIATED EMISSIONS – BELOW 30 MHz



## **REAR VIEW**

AMERICAN SECURITY SPOL. S R.O.
58 kHz DEACTIVATOR
Model: UXT-P-ADSC
FCC 15.209 – RADIATED EMISSIONS – BELOW 30 MHz

58 kHz Deactivator Model: UXT-P-ADSC



# **FRONT VIEW**

AMERICAN SECURITY SPOL. S R.O. 58 kHz DEACTIVATOR Model: UXT-P-ADSC FCC SUBPART B - RADIATED EMISSIONS - ABOVE 30 MHz



#### **REAR VIEW**

AMERICAN SECURITY SPOL. S R.O.
58 kHz DEACTIVATOR
Model: UXT-P-ADSC
FCC SUBPART B – RADIATED EMISSIONS – ABOVE 30 MHz



### **FRONT VIEW**

AMERICAN SECURITY SPOL. S R.O.
58 kHz DEACTIVATOR
Model: UXT-P-ADSC
FCC 15.207 and FCC SUBPART B – CONDUCTED EMISSIONS



#### **REAR VIEW**

AMERICAN SECURITY SPOL. S R.O.
58 kHz DEACTIVATOR
Model: UXT-P-ADSC
FCC 15.207 and FCC SUBPART B – CONDUCTED EMISSIONS

**APPENDIX E** 

DATA SHEETS



FCC 15.209

American Security spol. s r.o. Date: 06/23/2014

58 kHz Deactivator Lab: A

Model: UXT-P-ADSC Tested By: Kyle Fujimoto

**Transmit Mode** 

**Test Distance: 10 Meters** 

Freq.	Level	Pol (v/h)	Spec Limit (at 10 Meters)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
58.25	61.2	V	91.38	-30.18	Peak	1	180	
116.5	47.9	V	85.36	-37.46	Peak	1	180	
174.75	49.3	V	81.84	-32.54	Peak	1	180	
233	52.9	V	79.34	-26.44	Peak	1	180	
291.25	54.8	V	77.40	-22.60	Peak	1	180	
349.5	53.4	V	75.82	-22.42	Peak	1	180	
407.75	55.0		74.40	40.00	Dools	4	400	
407.75	55.2	V	74.48	-19.28	Peak	1	180	
466	54.2	V	73.32	-19.12	Peak	1	180	
524.25	48.3	V	52.30	-4.00	Peak	1	180	
582.5	47.2	V	51.38	-4.18	Peak	1	180	

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 15.209

American Security spol. s r.o. Date: 06/23/2014

Lab: A

Model: UXT-P-ADSC Tested By: Kyle Fujimoto

**Transmit Mode** 

58 kHz Deactivator

**Test Distance: 10 Meters** 

Freq. (kHz)	Level (dBuV)	Pol (v/h)	Spec Limit (at 10 Meters)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
58.25	57.1	Н	91.38	-34.28	Peak	1	90	
116.5	47.5	Н	85.36	-37.86	Peak	1	90	
174.75	48.2	Н	81.84	-33.64	Peak	1	90	
233	52.4	Н	79.34	-26.94	Peak	1	90	
291.25	50.2	Н	77.40	-27.20	Peak	1	90	
349.5	50.3	Н	75.82	-25.52	Peak	1	90	
407.75	51.8	Н	74.48	-22.68	Peak	1	90	
466	51.1	Н	73.32	-22.22	Peak	1	90	
524.25	49.2	Н	52.30	-3.10	Peak	1	90	
582.5	48.6	Н	51.38	-2.78	Peak	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 15.209

American Security spol. s r.o. Date: 06/23/2014

58 kHz Deactivator Lab: A

Model: UXT-P-ADSC 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. (kHz)	Level (dBuV)	Pol (v/h)	Spec Limit (at 10 Meters)	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Non-Harmonic
								Emissions nor
								Emissions from the
								Digital Portion
								Detected
								from the EUT
								from 10 kHz to 30 MHz
								Tested in the Vertical
								and Horizontal
					SECTION AND ADDRESS OF THE PROPERTY OF THE PRO			Polarizations

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)



Page: 1/1 Test Location : Compatible Electronics

Customer : American Security spol. s r.o. Date: 06/23/2014 Manufacturer: American Security spol. s r.o. Time: 11:43:06 AM

Eut name : 58 kHz Deactivator Lab: A Test Distance: 10.00 Model : UXT-P-ADSC

Serial # : N/A Specification : FCC A

Distance correction factor (20 \* log(test/spec)) : 0.00

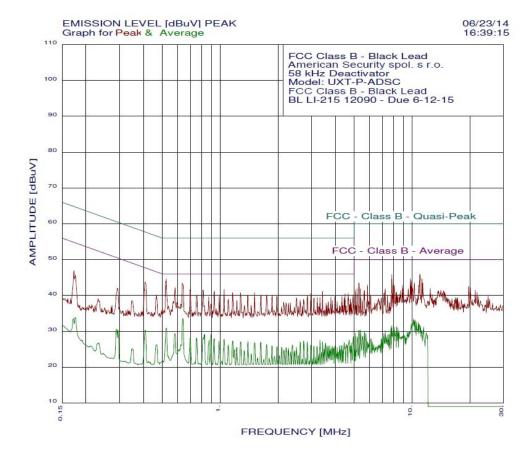
Test Mode : Test Type: Spurious Emissions Qualification Scan

Test Range: 30 MHz to 1 GHz (Horizontal and Vertical) FCC Class A

Test Engineer: 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/n	n dB
1V	40.985	40.50	0.83	22.32	32.68	30.97	39.08	-8.11
2V	57.231	48.50	1.10	18.48	32.50	35.58	39.08	-3.50
3 <b>H</b>	65.160	41.50	1.15	15.97	32.50	26.13	39.08	-12.95
4H	66.818	40.40	1.17	15.20	32.50	24.26	39.08	-14.82
5V	78.031	46.30	1.36	10.97	32.42	26.21	39.08	-12.87
6V	86.061	46.10	1.46	11.63	32.46	26.73	39.08	-12.35
7H	110.700	40.10	1.40	14.40	32.40	23.50	43.52	-20.02
8V	112.736	46.90	1.40	14.68	32.40	30.58	43.52	-12.94
9H	117.218	33.40	1.40	15.31	32.40	17.71	43.52	-25.81
10V	131.190	46.40	1.47	15.26	32.38	30.76	43.52	-12.76
11H	138.818	35.80	1.57	14.60	32.34	19.62	43.52	-23.90
12V	155.608	44.60	1.68	14.46	32.30	28.43	43.52	-15.09
13V	175.903	45.30	1.61	15.19	32.30	29.80	43.52	-13.72
14H	185.218	37.80	1.72	14.65	32.30	21.87	43.52	-21.65
15V	199.782	42.90	1.90	14.50	32.30	27.00	43.52	-16.52
16V	200.090	49.80	1.90	14.50	32.30	33.91	43.52	-9.61
17H	216.418	34.10	1.70	15.26	31.84	19.22	46.44	-27.22
18H	228.418	34.40	1.74	15.81	31.71	20.23	46.44	-26.21
19V	242.982	35.20	2.32	16.48	32.18	21.82	46.44	-24.62
20H	263.618	37.10	2.71	17.29	32.35	24.75	46.44	-21.69
21H	344.082	36.10	3.28	16.57	32.05	23.90	46.44	-22.54
22H	360.130	37.20	3.38	17.19	32.04	25.73	46.44	-20.71
23H	550.138	31.10	4.80	21.70	31.90	25.70	46.44	-20.74
24H	649.748	37.80	5.50	23.20	31.80	34.70	46.44	-11.74
25H	800.430	35.00	6.70	25.91	31.70	35.91	46.44	-10.53
26H	994.830	30.90	8.08	28.26	31.39	35.85	49.54	-13.69

58 kHz Deactivator Model: UXT-P-ADSC



page 1/1

06/23/14 16:39:15

FCC Class B - Black Lead American Security spol. s r.o.

58 kHz Deactivator Model: UXT-P-ADSC FCC Class B - Black Lead BL LI-215 12090 - Due 6-12-15 Test Engineer: Kyle Fujimoto

47 highest peaks above -50.00 dB of FCC - Class B - Average limit line

47 nign Peak cr	est peaks above -5 riteria: 1.00 dB, Ci	inve · Peak	Class B - AV	erage ilmit iine
Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.524	44.64	46.00	-1.36**
2	0.634	43.54	46.00	-2.46**
3	0.583	42.14	46.00	-3.86**
4	10.968	45.97	50.00	-4.03**
5	0.406	43.68	47.72	-4.04**
6	7.856	45.80	50.00	-4.20**
7	0.698	41.74	46.00	-4.26**
8	1.049	41.65	46.00	-4.35**
9	0.814	41.54	46.00	-4.46**
10	0.934	41.24	46.00	-4.76**
11	3.419	41.14	46.00	-4.86**
12	1.276	40.79	46.00	-5.21**
13	1.160	40.77	46.00	-5.23**
14	1.512	40.74	46.00	-5.26**
				-5.26
15 16	9.813	44.63	50.00	-5.37** -5.42**
	11.263	44.58	50.00	-5.42
17	4.648	40.55	46.00	-5.45**
18	2.963	40.54	46.00	-5.46**
19	4.480	40.45	46.00	-5.55**
20	4.928	40.15	46.00	-5.85**
21	0.990	40.14	46.00	-5.86**
22	1.389	40.12	46.00	-5.88**
23	9.916	44.03	50.00	-5.97**
24	1.869	40.01	46.00	-5.99**
25	1.745	39.99	46.00	-6.01**
26	1.637	39.97	46.00	-6.03**
27	2.855	39.94	46.00	-6.06**
28	0.755	39.94	46.00	-6.06**
29	4.316	39.75	46.00	-6.25**
30	3.966	39.75	46.00	-6.25**
31	1.971	39.74	46.00	-6.26**
32	0.872	39.64	46.00	-6.36**
33	5.280	43.55	50.00	-6.45**
34	10.293	43.55	50.00	-6.45**
35	3.781	39.54	46.00	-6.46**
36	11.381	43.48	50.00	-6.52**
37	0.466	40.06	46.58	-6.52**
38	3.311	39.44	46.00	-6.56**
39	3.209	39.44	46.00	-6.56**
40	4.432	39.35	46.00	-6.65**
41	2.501	39.34	46.00	-6.66**
42	7.981	43.30	50.00	-6.70**
43	3.091	39.24	46.00	-6.76**
44	5.869	42.96	50.00	-7.04**
45	1.100	38.96	46.00	-7.04**
46	4.774	38.95	46.00	-7.05**
47	2.722	38.94	46.00	-7.06**

<sup>\*\*</sup>Please See the Average Readings on the Next Page and on the Plot

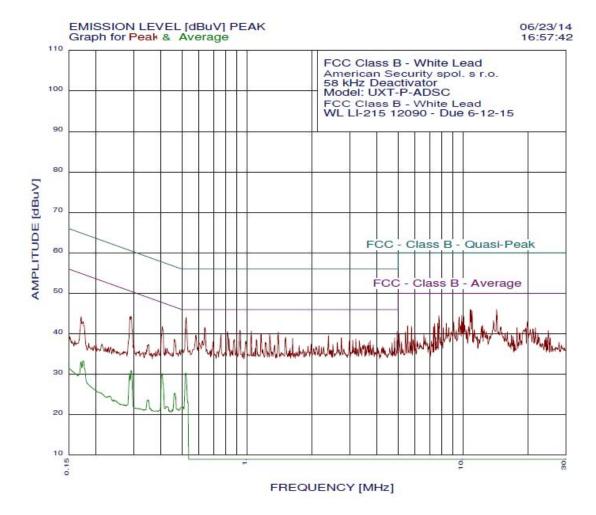
page 1/1

06/23/14 16:39:15

FCC Class B - Black Lead American Security spol. s r.o. 58 kHz Deactivator Model: UXT-P-ADSC FCC Class B - Black Lead BL LI-215 12090 - Due 6-12-15 Test Engineer: Kyle Fujimoto

Total Engineer : Tyle Fajimete									
47 high Peak c	47 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	33.55	46.00	-12.45					
2	0.524	30.91	46.00	-15.09					
3	10.183	33.48	50.00	-16.52					
4	0.583	29.33	46.00	-16.67					
5	0.899	29.22	46.00	-16.78					
6	10.403	33.20	50.00	-16.80					
7	0.826	29.19	46.00	-16.81					
8	10.293	33.01	50.00	-16.99					
9	10.568	32.61	50.00	-17.39					
10	0.406	30.28	47.72	-17.44					
11	4.954	28.49	46.00	-17.51					
12	10.792	32.45	50.00	-17.55					
13	0.818	28.33	46.00	-17.67					
14	0.701	28.16	46.00	-17.84					
15	0.755	28.16	46.00	-17.84					
16	10.074	32.11	50.00	-17.89					
17	9.916	32.01	50.00	-17.99					
18	0.934	27.95	46.00	-18.05					
19	10.910	31.94	50.00	-18.06					
20	1.049	27.83	46.00	-18.17					
21	7.856	31.61	50.00	-18.39					
22	4.696	27.58	46.00	-18.42					
23	0.876	27.51	46.00	-18.49					
24	3.311	27.48	46.00	-18.52					
25	11.086	31.42	50.00	-18.58					
26	1.166	27.35	46.00	-18.65					
27	2.722	27.24	46.00	-18.76					
28	8.327	31.24	50.00	-18.76					
29	0.984	27.23	46.00	-18.77					
30	11.498	31.23	50.00	-18.77					
31	7.773	31.20	50.00	-18.80					
32	1.283	27.15	46.00	-18.85					
33	1.397	27.12	46.00	-18.88					
34	3.419	27.10	46.00	-18.90					
35	8.107	31.10	50.00	-18.90					
36	2.840	27.00	46.00	-19.00					
37	2.610	27.00	46.00	-19.00					
38	8.461	30.96	50.00	-19.04					
39	1.629	26.93	46.00	-19.07					
40	1.512	26.85	46.00	-19.15					
41	4.825	26.81	46.00	-19.19					
42	4.432	26.81	46.00	-19.19					
43	3.547	26.65	46.00	-19.35					
44	10.678	30.56	50.00	-19.44					
45	4.552	26.40	46.00	-19.60					
46	1.745	26.39	46.00	-19.61					
47	5.390	30.35	50.00	-19.65					

58 kHz Deactivator Model: UXT-P-ADSC



page 1/1

06/23/14 16:57:42

FCC Class B - White Lead American Security spol. s r.o.

58 kHz Deactivator Model: UXT-P-ADSC

FCC Class B - White Lead WL LI-215 12090 - Due 6-12-15 Test Engineer : Kyle Fujimoto

47 highest peaks above -50.00 dB of FCC - Class B - Average limit line

Peak cr	iteria: 1.00 dB, C	urve : Peak	Class B - Av	crage min m
Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.524	44.05	46.00	-1.95**
2	14.293	46.00	50.00	-4.00
3	10.910	45.97	50.00	-4.03
4	10.792	45.97	50.00	-4.03
5	11.027	45.57	50.00	-4.43
6	0.641	41.54	46.00	-4.46
7	0.929	40.84	46.00	-5.16
8	1.049	40.75	46.00	-5.25
9	4.954	40.54	46.00	-5.46
10	0.814	40.54	46.00	-5.46
11	9.865	44.53	50.00	-5.47
12	7.731	44.49	50.00	-5.51
13	1.397	40.42	46.00	-5.58
14	10.074	44.34	50.00	-5.66
15	9.608	44.13	50.00	-5.87
16	0.406	41.79	47.72	-5.94**
17	1.276	39.89	46.00	-6.11
18	1.166	39.87	46.00	-6.13
19	0.291	44.34	50.49	-6.15**
20	0.759	39.84	46.00	-6.16
21	0.580	39.64	46.00	-6.36
22	2.384	39.54	46.00	-6.46
23	13.848	43.28	50.00	-6.72
24	1.512	39.14	46.00	-6.86
25	19.848	43.04	50.00	-6.96
26	2.736	39.04	46.00	-6.96
27	9.065	43.02	50.00	-6.98
28	4.825	38.94	46.00	-7.06
29	1.629	38.86	46.00	-7.14
30	0.826	38.84	46.00	-7.16
31	9.967	42.84	50.00	-7.16
32	3.192	38.74	46.00	-7.26
33	8.372	42.61	50.00	-7.39
34 35	7.648 7.372	42.59 42.59	50.00	-7.41 -7.41
36			50.00	
37	1.106 0.876	38.56 38.54	46.00	-7.44 -7.46
38			46.00	
39	3.091 3.722	38.44 38.34	46.00	-7.56 -7.66
40	2.979	38.34	46.00 46.00	-7.66
41	0.621	38.24		-7.76
42	3.311	38.24	46.00 46.00	-7.76
43	0.990	38.24	46.00	-7.76
44	10.183	42.14	50.00	-7.86
45	9.711	42.13	50.00	-7.87
46	12.318	42.12	50.00	-7.88
47	0.698	38.04	46.00	-7.96
	0.000	30.04	+0.00	7.50

<sup>\*\*</sup>Please See the Average Readings on the Next Page and on the Plot



page 1/1

06/23/14 16:57:42

FCC Class B - White Lead American Security spol s r.o. 58 kHz Deactivator Model: UXT-P-ADSC FCC Class B - White Lead WL LI-215 12090 - Due 6-12-15 Test Engineer: Kyle Fujimoto

-----

37 highes	st peaks above -5	0.00 dB of FCC -	· Class B - Av	erage limit line
Peak crite	ería: 0.00 dB, Cu	ırve : Average		
Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.521	30.28	46.00	-15.72
2	0.406	30.16	47.72	-17.57
3	0.291	30.89	50.49	-19.60
4	0.286	30.32	50.63	-20.31
5	0.461	25.27	46.67	-21.39
6	0.175	33.31	54.72	-21.41
7	0.171	33.12	54.90	-21.77
8	0.508	21.93	46.00	-24.07
9	0.502	21.85	46.00	-24.15
10	0.494	21.76	46.09	-24.33
11	0.479	21.50	46.36	-24.86
12	0.350	23.64	48.95	-25.31
13	0.424	22.05	47.37	-25.32
14	0.347	23.59	49.04	-25.46
15	0.452	21.24	46.85	-25.61
16	0.438	21.05	47.11	-26.05
17	0.442	20.86	47.02	-26.16
18	0.358	21.55	48.78	-27.23
19	0.383	20.98	48.21	-27.23
20	0.365	21.09	48.61	-27.52
21	0.212	25.43	53.14	-27.71
22	0.210	25.44	53.23	-27.79
23	0.232	24.58	52.39	-27.81
24	0.229	24.59	52.48	-27.89
25	0.339	21.22	49.22	-28.00
26	0.334	21.24	49.35	-28.11
27	0.320	21.49	49.71	-28.22
28	0.315	21.60	49.84	-28.24
29	0.224	24.34	52.65	-28.32
30	0.250	23.44	51.77	-28.33
31	0.242	23.69	52.04	-28.35
32	0.279	22.45	50.85	-28.40
33	0.244	23.53	51.95	-28.42
34	0.310	21.53	49.97	-28.44
35	0.272	22.48	51.07	-28.59
36	0.275	22.37	50.98	-28.61
37	0.260	22.60	51.42	-28.82