

FCC ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT CERTIFICATION TO FCC PART 15 REQUIREMENTS

for

Car Alarm Receiver

FCC ID Number: H5OR43

Trade Name : Advance Security Inc.

Model Number: CS400S

Agency Series : N/A

Report Number: 41129404-RP1 **Date**: December 7, 2004

Prepared to:

Advance Security Inc. 3F, 48 Ta An Street, Hsi Chih, Taipei Hsien, Taiwan, R.O.C.



Prepared by:

Compliance Certification Services Inc. Hsintien Lab.

No. 165, Chunghsen Road, Hsintien City Taipei Hsien, Taiwan

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1. VERIFICATION OF COMPLIANCE

COMPANY NAME : Advance Security Inc.

3F, 48 Ta An Street, Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

Date of Issue: December 7, 2004

CONTACT PERSON : Michael Chen / President

TELEPHONE NO. : (886-2) 8648-1688

EUT DESCRIPTION : Car Alarm Receiver

MODEL NAME/NUMBER: CS400S

FCC ID : H5OR43

DATE TESTED : December 2, 2004

REPORT NUMBER : 41129404-RP1

TYPE OF EQUIPMENT	SECURITY EQUIPMENT
EQUIPMENT TYPE	433.92 MHz Car Alarm Receiver
MEASUREMENT PROCEDURE	ANSI 63.4 / 2003
LIMIT TYPE	CERTIFICATION
FCC RULE	CFR 47, PART 15.109

The above equipment was tested by Compliance Certification Services Inc. for compliance with the requirements set forth in the FCC CFR 47, PART 15. The results of testing in this report apply to the product/system which was tested only. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties. **Warning**: This document reports conditions under which testing was conducted and results of tests performed. This document may not be altered or revised in any way unless done so by Compliance Engineering Services, Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification Services Inc. will constitute fraud and shall nullify the document.

Approved by:

David Wang

Manager of Hsintien Laboratory

Compliance Certification Services Inc.

Reviewed by:

Vince Chiang

Section Manager of Hsintjen Laboratory

Compliance Certification Services Inc.

2. PRODUCT DESCRIPTION

Advance Security Inc., Model No: CS400S is the receiving portion of a multi-purpose security device. The associated transmitter is manufactured by Advance Security Inc., FCC ID: H5OT21.

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3. TEST FACILITY

The open area test sites and conducted measurement facilities used to collect the radiated data are located at No. 165 & No. 199, Chung Sheng Road, Hsin Tien City, Taipei, Taiwan R.O.C. The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

The measuring instrument which was utilized in performing the tests documented herein has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment which is traceable to recognized national standards.

4. MEASUREMENT EQUIPMENT USED

Manufacturer	Model Number	Description	Cal Due Date	
CCS E Site		SITE NSA	09/10/2005	
R&S DSAI-D/ESBI-RF		EMI TEST RECEIVER	03/08/2005	
SCHAFFNER CBL 6112B		ANTENNA	09/25/2005	
H.P. 8447D A		AMPLIFIER	04/30/2005	
BELDEN	9913	CABLE	03/05/2005	
TFA	N/A	THERMO-HYGRO METER	11/09/2005	

5. TEST CONFIGURATION

Set frequency generator to 433.92 MHz. EUT receiving transmission continuously. All the wires are placed on the turn table to their maximum length to simulate the worse emission

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conditions.

6. TESTS CONDUCTED

CFR 47, 15.109	RADIATED AT 3 METERS
RADIATED EMISSION TESTS	

7. RADIATED EMISSION TEST PROCEDURE

The EUT and all other support equipment are placed on a wooden table 80 cm above the ground screen. Antenna to EUT distance is 3 meters. During the test, the table is rotated 360 degrees to maximize emissions and the antenna is positioned from 1 to 4 meters above the ground screen to further maximize emissions. The antenna is polarized in both vertical and horizontal positions.

Monitor the frequency range of interest at a fixed antenna height and EUT azimuth. Frequency span should be small enough to easily differentiate between broadcast stations and intermittent ambients. Rotate EUT 360 degrees to maximize emissions received from EUT. If emission increases by more than 1 dB, or if another emission appears that is greater by 1 dB, return to azimuth where maximum occurred and perform additional cable manipulation to further maximize received emission.

Move antenna up and down to further maximize suspected highest amplitude signal. If emission increased by 1 dB or more, or if another emission appears that is greater by 1dB or more, return to antenna height where maximum signal was observed and manipulate cables to produce highest emissions, noting frequency and amplitude.

8. COHERENT TESTS

During Radiated Emission Tests, use a transmitter to emit a frequency of 433.92 to touch off the EUT. Then take down the highest readings.

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9. EQUIPMENT MODIFICATIONS

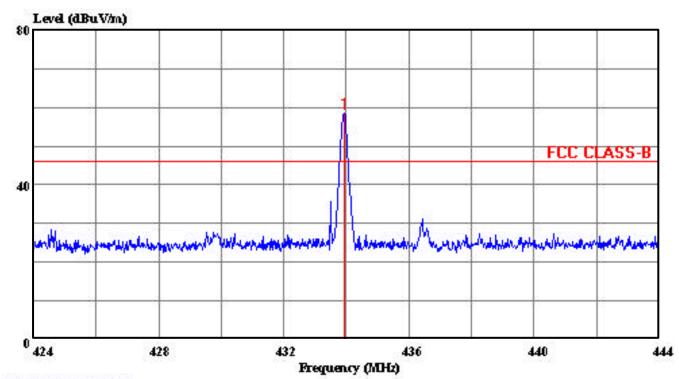
To achieve compliance to FCC section 15.109, the following change(s) were made during compliance testing:

NOT APPLICABLE



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Data#: 13 File#: 41129404E.EMI Date: 2004-12-02 Time: 10:38:12



(Compliance E-Site)

Trace: 9 Ref Trace:

Condition: VERTICAL
Report No. : 41129404
Test Engr. : ELVIS ZENG

Company : Advance Security Inc.

EUT : CS400S

Test Config : EUT / DC POWER Type of Test: FCC 15.109 Mode of Op. : NORMAL MODE

Page: 1

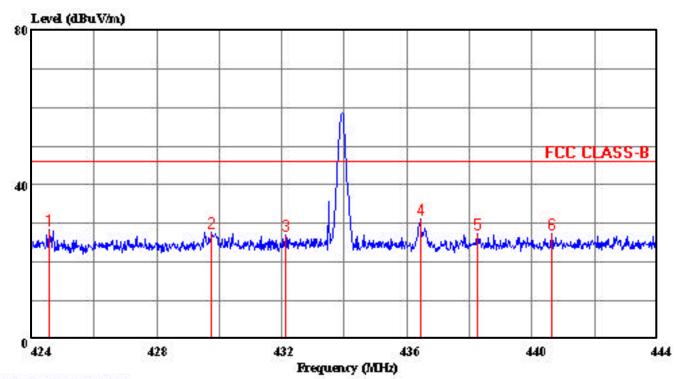
Freq	Read Level
MHz	dBuV

1 * 433.940 63.32



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Data#: 16 File#: 41129404E.EMI Date: 2004-12-02 Time: 10:40:33



(Compliance E-Site)

Trace: 9 Ref Trace:

Condition: VERTICAL
Report No. : 41129404
Test Engr. : ELVIS ZENG

Company : Advance Security Inc.

EUT : CS400S

Test Config : EUT / DC POWER Type of Test: FCC 15.109 Mode of Op. : NORMAL MODE

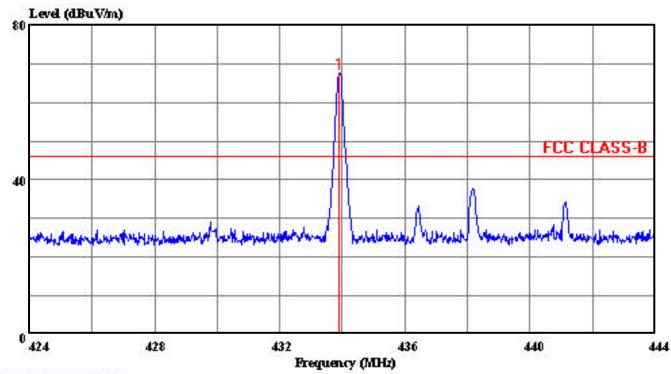
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		Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dв	${\tt dBuV/m}$	${\tt dBuV/m}$	dВ	
1	424.580	33.40	-5.02	28.38	46.00	-17.62	Peak
2	429.760	32.79	-4.92	27.88	46.00	-18.12	Peak
3	432.140	31.85	-4.87	26.99	46.00	-19.01	Peak
4	436.420	35.82	-4.80	31.02	46.00	-14.98	Peak
5	438.240	32.06	-4.72	27.34	46.00	-18.66	Peak
6	440.640	31.98	-4.60	27.38	46.00	-18.62	Peak



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Data#: 14 File#: 41129404E.EMI Date: 2004-12-02 Time: 10:42:23



(Compliance E-Site)

Trace: 11 Ref Trace:

Condition: HORIZONTAL
Report No. : 41129404
Test Engr. : ELVIS ZENG

Company : Advance Security Inc.

EUT : CS400S

Test Config : EUT / DC POWER Type of Test: FCC 15.109 Mode of Op. : NORMAL MODE

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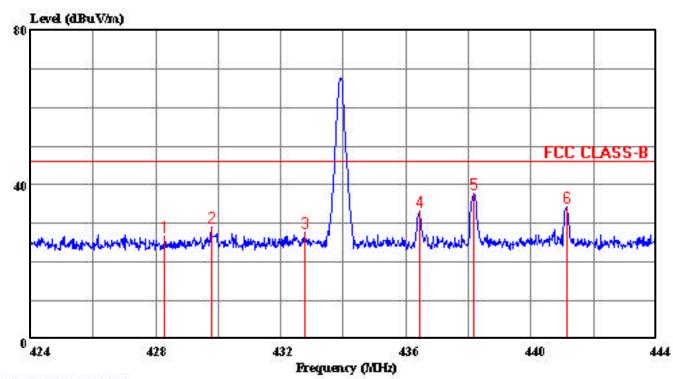
Freq	Read Level
MHz	dBuV

1 * 433.900 72.33



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Data#: 15 File#: 41129404E.EMI Date: 2004-12-02 Time: 10:43:02



(Compliance E-Site)

Trace: 11 Ref Trace:

Condition: HORIZONTAL
Report No. : 41129404
Test Engr. : ELVIS ZENG

Company : Advance Security Inc.

EUT : CS400S

Test Config : EUT / DC POWER Type of Test: FCC 15.109 Mode of Op. : NORMAL MODE

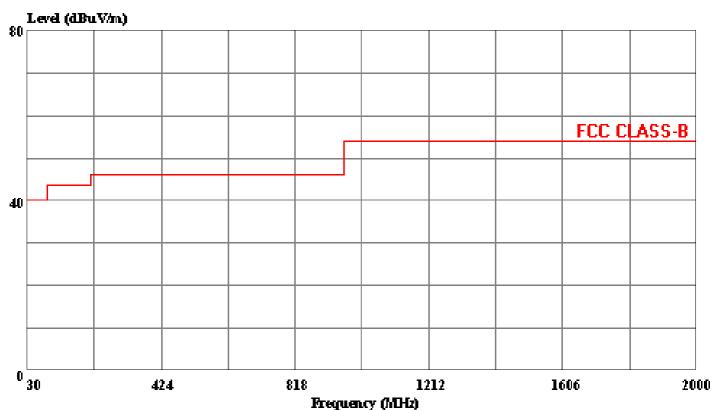
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		Read			Limit	Over	
	Freq	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dв	${\tt dBuV/m}$	${\tt dBuV/m}$	dВ	
1	428.280	31.42	-4.87	26.55	46.00	-19.45	Peak
2	429.780	34.14	-4.92	29.22	46.00	-16.78	Peak
3	432.760	32.44	-4.84	27.60	46.00	-18.40	Peak
4	436.440	37.95	-4.79	33.15	46.00	-12.85	Peak
5	438.180	42.62	-4.71	37.91	46.00	-8.09	Peak
6	441.140	38.81	-4.60	34.21	46.00	-11.79	Peak



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Data#: 7 File#: 41129404E.EMI Date: 2004-12-02 Time: 11:01:02



(Compliance E-Site)

Trace: Ref Trace:

Condition:

Report No. : 41129404
Test Engr. : ELVIS ZENG

Company : Advance Security Inc.

EUT : CS400S

Test Config : EUT / DC POWER Type of Test: FCC 15.109 Mode of Op. : NORMAL MODE

: No other emissions were found within : 10dB below the limits from 30-2000MHz.