

**ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT
CERTIFICATION TO FCC PART 15 REQUIREMENTS**

for

UNINTENTIONAL RADIATOR

AUTO ALARM SYSTEM RECEIVER

MODEL: 6908A

FCC ID NO: H50R23

REPORT NO: 98E7486

JUNE 19, 1998

Prepared for

**ADVANCE SECURITY INC.
3F, 48, TA AN STREET, HSI CHIH
TAIPEI HSIEN, TAIWAN, R.O.C.**

Prepared by

**COMPLIANCE ENGINEERING SERVICES, INC.
1366 BORDEAUX DRIVE
SUNNYVALE, CA 94089, USA
TEL: (408) 752-8166
FAX: (408) 752-8168**



1366 BORDEAUX DRIVE, SUNNYVALE, CA 94089-1005



ADVANCE SECURITY INC.

3F, 48 Ta An Street, Hsi Chih,
Taipei Hsien, TAIWAN, R.O.C.
P. O. BOX: I-32 Hsi Chih,
TEL: (886-2)643-8192
FAX: (886-2)642-0576

Date :

Ref :

Pages:

From :

TO :

ATTN:

Date: Dec. 27, 1996

Federal Communications Commission
Authorization and Evaluation Division
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046

To whom it may concern:

We, the undersigned, hereby authorized Compliance Engineering Services, Inc. to act on our behalf in all matters relation to application for equipment authorization, including signing of all documents relation to these matters. Any and all acts carried out by Compliance Engineering Service, Inc. on our behalf shall have the same effect as acts of our own.

We, the undersigned, hereby certify that we are not subject to a denial of federal benefits, that includes FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 853(a).

This authorization is valid until further written notice from the applicant.

Sincerely Yours,



ADVANCE SECURITY INC.
JESSIE CHIU / SALES MANAGER

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TEST DATA

- Fundamental Frequency Plot
- Radiated Emission Data

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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.

CONTACT PERSON : JESSIE CHIU/SALES MANAGER

TELEPHONE NO. : 886-2-643-8192

EUT DESCRIPTION : AUTO ALARM SYSTEM RECEIVER

MODEL NAME/NUMBER : 6908A

FCC ID : H50R23

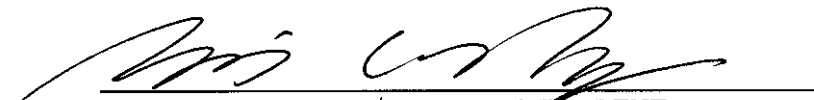
DATE TESTED : JUNE 19, 1998

REPORT NUMBER : 98E7486

Statement

TYPE OF EQUIPMENT	SECURITY EQUIPMENT (UNINTENTIONAL RADIATOR)
EQUIPMENT TYPE	302 MHZ SUPERREGENERATE RECEIVER
MEASUREMENT PROCEDURE	ANSI 63.4 / 1992
LIMIT TYPE	CERTIFICATION
FCC RULE	CFR 47, PART 15.109

The above equipment was tested by Compliance Engineering Services, Inc. for compliance with the requirements set forth in CFR 47, PART 15. This said equipment in the configuration described in this report shows that maximum emission levels emanating from equipment are within the compliance requirements.



MIKE C.I. KUO / VICE PRESIDENT
 COMPLIANCE ENGINEERING SERVICES, INC.

2. PRODUCT DESCRIPTION

ADVANCE SECURITY INC., Model 6908A is the receiving portion of a multi-purpose security device. The associated Transmitter is manufactured by Advance Security Inc, Model No: MAGTX3, FCC ID: H50T08.

3. TEST FACILITY

The 3 meter open area test site and conducted measurement facility used to collect the radiated data is located at 561F Monterey Road, Morgan Hill, California, U.S.A. A detailed description of the test facilities was submitted to the Commission on May 27, 1994.

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
H.P.	E4432A	Signal Generator (0.5 - 1024 MHz)	08/99
H.P.	8566B	Spectrum Analyzer (100Hz - 22GHz)	08/98
EMCO	3146	Antenna (200-1000 MHz)	10/98
H.P.	8447D	Preamplifier (0.1 - 1300 MHz)	09/98
ARA	DRG-18/A	Antenna(1 - 18GHZ)	12/98
H.P.	8449B	Preamplifier (1-26.5GHZ)	03/99

5. TEST CONFIGURATION

Set frequency generator to 302 MHz ✓ EUT receiving transmission continuously. All the wires are placed on the

turn table to their maximum length to simulate the worse emission conditions.

6. TESTS CONDUCTED

CFR 47, 15.109 RADIATED EMISSION TESTS	CONDUCTED AT 3 METERS
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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, H.P. signal generator model no: E4432A (0.5- 1024mhz) was used to radiate unmodulated CW signal to EUT at 302mhz. Please refer to radiated emission data no:980619F1 for six highest readings.

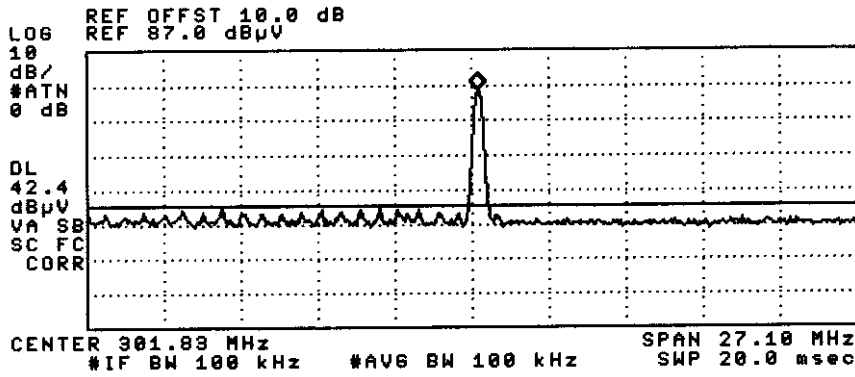
9. EQUIPMENT MODIFICATIONS

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

NOT APPLICABLE

08:49:01 JUN 19, 1998 3 METER DISTANCE
RX GAIN: ADVANCE SECURITY(302MHz RX) FCC ID: H5DR23

ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 302.03 MHz
75.29 dB μ V



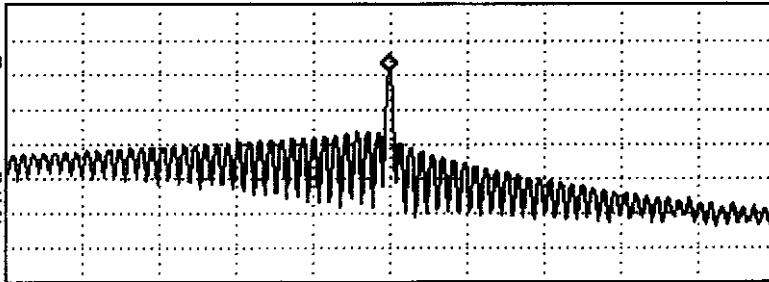
08:35:54 JUN 19, 1998 FCC ID: H5DR23
NEAR FIELD PROBE: RX GAIN; ADVANCE SECURITY(302MHz RX

ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 302.01 MHz
77.64 dB μ V

LOG REF 97.0 dB μ V

10
dB/
ATN
10 dB

VA SB
SC FC
CORR



CENTER 302.13 MHz SPAN 50.00 MHz
#IF BW 100 kHz #AVG BW 100 kHz SWP 20.0 msec

Compliance Engineering Services Inc.

Project No. : 98E7486
Report No. : 980619F1
Date : 06/19/1998
Time : 09:49
Test Engr : JUAN MARTINEZ

>> 3 M RADIATED EMISSION DATA <<

J.M.

Company : ADVANCE SECURITY, INC.
Equipment Under Test : 302MHz ALARM RECEIVER (MOD: 6908A)
Test Configuration : EUT ONLY
Type of Test : FCC CLASS B
Mode of Operation : RX

Freq.	dBuV	PreAmp	Ant	Cable	dBuV/m	Limit	Margin	Pol	Hgt (m)	Az
RX GAIN EMISSIONS:										
301.36	40.73	-30.60	15.65	4.10	29.87	46.00	-16.13	H	1.0	320
300.61	41.71	-30.60	15.64	4.09	30.84	46.00	-15.16	H	1.0	320
299.19	40.98	-30.60	15.59	4.08	30.05	46.00	-15.95	H	1.0	320
297.15	40.98	-30.61	15.46	4.07	29.90	46.00	-16.10	H	1.0	320
292.34	41.15	-30.63	15.15	4.03	29.70	46.00	-16.30	H	1.0	320
289.57	40.73	-30.64	14.97	4.01	29.07	46.00	-16.93	H	1.0	320

Total # of data 6
V. f2.2