

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

*for*

**UNINTENTIONAL RADIATOR  
AUTO ALARM SYSTEM RECEIVER**

**MODEL: 6978**

**FCC ID NO: H5OR28**

**REPORT NO: 99T0387-2**

**ISSUE DATE: JULY 06, 1999**

*Prepared for*

**ADVANCE SECURITY INC.  
3F, 48, TA AN STREET, HSI CHIH  
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ATTACHMENT:

- Proposed FCC ID Label
- Agent Authorization Letter
- Test data
  - Radiated Emission Data
- Block Diagram/Schematics
- User Manual

# 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 : 6978

DATE TESTED : JULY 06, 1999

REPORT NUMBER : 99T0387-2

TYPE OF EQUIPMENT	SECURITY EQUIPMENT (UNINTENTIONAL RADIATOR)
EQUIPMENT TYPE	433.92 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.

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

## 2. PRODUCT DESCRIPTION

ADVANCE SECURITY INC., Model 6978 is the receiving portion of a multi-purpose security device. The associated Transmitter is manufactured by Advance Security Inc, Model No: 6704S, FCC ID: H5OT09. It can be used with any 677X series alarms.

## 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)	08/99
EMCO	3146	Antenna (200-1000 MHz)	10/99
H.P.	8447D	Preamplifier (0.1 - 1300 MHz)	09/99
ARA	DRG-18/A	Antenna(1 - 18GHZ)	12/99
H.P.	8449B	Preamplifier (1-26.5GHZ)	03/00

## 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 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 433.92 MHz. Please refer to radiated emission data no: 990706F1 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

## 10. TEST CONFIGURATION PHOTOS (Radiated Emission Test)

