ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT CERTIFICATION TO FCC PART 15 REQUIREMENTS

for

UNINTENTIONAL RADIATOR

AUTO ALARM SYSTEM RECEIVER

MODEL: CS72

FCC ID NO: H50R26

REPORT NO: 99T0124-1

ISSUE DATE: MARCH 18, 1999

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

Prepared by COMPLIANCE ENGINEERING SERVICES, INC. d.b.a. COMPLIANCE CERTIFICATION SERVICES 1366 BORDEAUX DRIVE SUNNYVALE, CA 94089, USA TEL: (408) 752-8166 FAX: (408) 752-8168

TABLE OF CONTENTS

1.	VERIFICATION OF COMPLIANCE	.1
2.	PRODUCT DESCRIPTION	. 2
3.	TEST FACILITY	. 2
4.	MEASUREMENT EQUIPMENT USED	. 2
5.	TEST CONFIGURATION	.3
6.	TESTS CONDUCTED	.3
7. R	ADIATED EMISSION TEST PROCEDURE	.4
8.	COHERENT TESTS	.4
9.	EQUIPMENT MODIFICATIONS	.4
10.	TEST CONFIGURATION PHOTOS (RADIATED EMISSION TEST)	. 5

TEST DATA

- Fundamental Frequency Plot
- Radiated Emission Data

Proposed FCC ID Label	EXHIBIT 1
Agent Authorization Letter	EXHIBIT 2
Marketing Statement & Modification Report.	.EXHIBIT 3
User Manual	Attachment A
Block Diagram/Schematics	Attachment B

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	:	CS72
FCC ID	:	H50R26
DATE TESTED	:	MARCH 18, 1999
REPORT NUMBER	:	99T0124-1

TYPE OF EQUIPMENT	SECURITY EQUIPMENT (UNINTENTIONAL RADIATOR)
EQUIPMENT TYPE	310 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 CS72 is the receiving portion of a multi-purpose security device. The associated Transmitter is manufactured by Advance Security Inc, Model No: 603, FCC ID: H50603. 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	08/99
		(0.5 - 1024 MHz)	
H.P.	8566B	Spectrum Analyzer	08/99
		(100Hz - 22GHz)	
EMCO	3146	Antenna 10/99	
		(200-1000 MHz)	
H.P.	8447D	Preamplifier	09/99
		(0.1 - 1300 MHz)	
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 310 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
---	-----------------------

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 (0.5-1024 MHz) was used to radiate unmodulated CW signal to EUT at 309.81 MHz. Please refer to radiated emission data no: 990318C1 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)



