

FCC ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT CERTIFICATION TO FCC PART 15 REQUIREMENTS

for

UNINTENTIONAL RADIATOR

of

Car Alarm Receiver

FCC ID Number : H5OR38
Trade Name : Advance Security Inc.
Model Number : 4900
Agency Series : N/A
Report Number : C40303405-RP
Date : March 10, 2004

Prepared for :

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, Chungshen Road, Hsintien City
Taipei Hsien, Taiwan
TEL: (02) 2217-0894
FAX: (02) 2217-1029



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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 : Michael Chen / President

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

EUT DESCRIPTION : Car Alarm Receiver

MODEL NAME/NUMBER : 4900

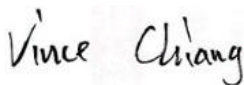
FCC ID : H5OR38

DATE TESTED : March 05, 2004

REPORT NUMBER : C40303405-RP

TYPE OF EQUIPMENT	SECURITY EQUIPMENT (UNINTENTIONAL RADIATOR)
EQUIPMENT TYPE	302 MHz Car Alarm Receiver
MEASUREMENT PROCEDURE	ANSI 63.4 / 2001
LIMIT TYPE	CERTIFICATION
FCC RULE	CFR 47, PART 15.109 / CFR 47, PART 15.107

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.



Vince Chiang / Supervisor
Compliance Certification Services Inc.

2. PRODUCT DESCRIPTION

Advance Security Inc., Model No: 4900 is the receiving portion of a multi-purpose security device. The associated transmitter is manufactured by Advance Security Inc., Model: SLRF8, FCC ID: H5OT23.

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
HP	8568B	SPECTRUM ANALYZER	08/18/04
H.P.	8447D A	AMPLIFIER	05/03/04
SCHAFFNER	CBL 6143	ANTENNA	03/15/04
BELDEN	9913	CABLE	07/29/04
CCS	N/A	Site NSA	09/13/04
EMCO	3115	ANTENNA (1-18GHz)	02/02/05
HP	8449B	AMPLIFIER (1-26.5GHz)	02/15/05
JYEBAO	LL143	CABLE (1-18GHz)	02/15/05
JYEBAO	LL142	CABLE (1-18GHz)	02/15/05
HP	8566B	EMC ANALYZER (100Hz-22GHz)	06/25/04

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, use a transmitter to emit a frequency of 302 to touch off the EUT. Then take down the highest readings.

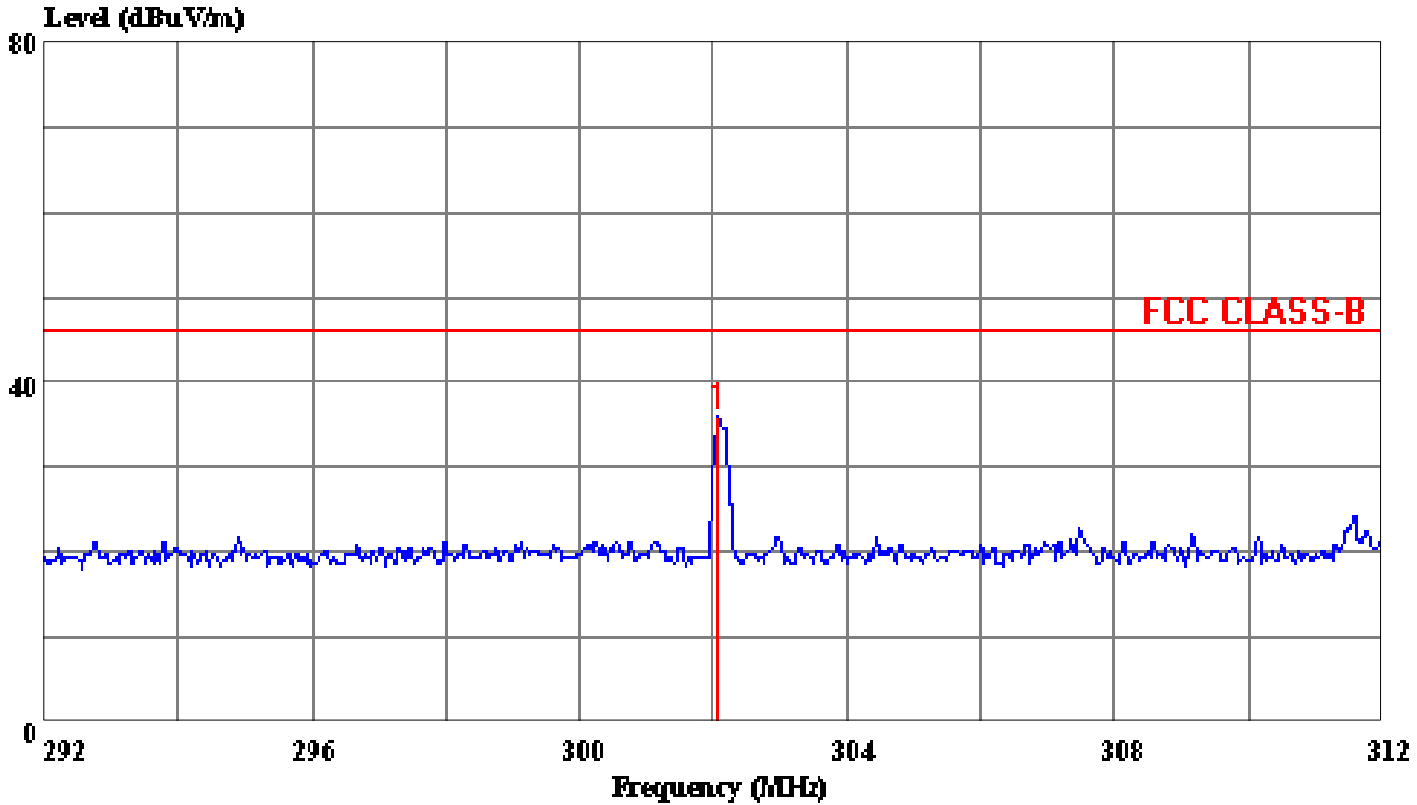
9. EQUIPMENT MODIFICATIONS

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

NOT APPLICABLE

Data#: 8 File#: C40303405E.EMI

Date: 2004-03-05 Time: 12:20:19



(Compliance E- Site)

Trace: 7

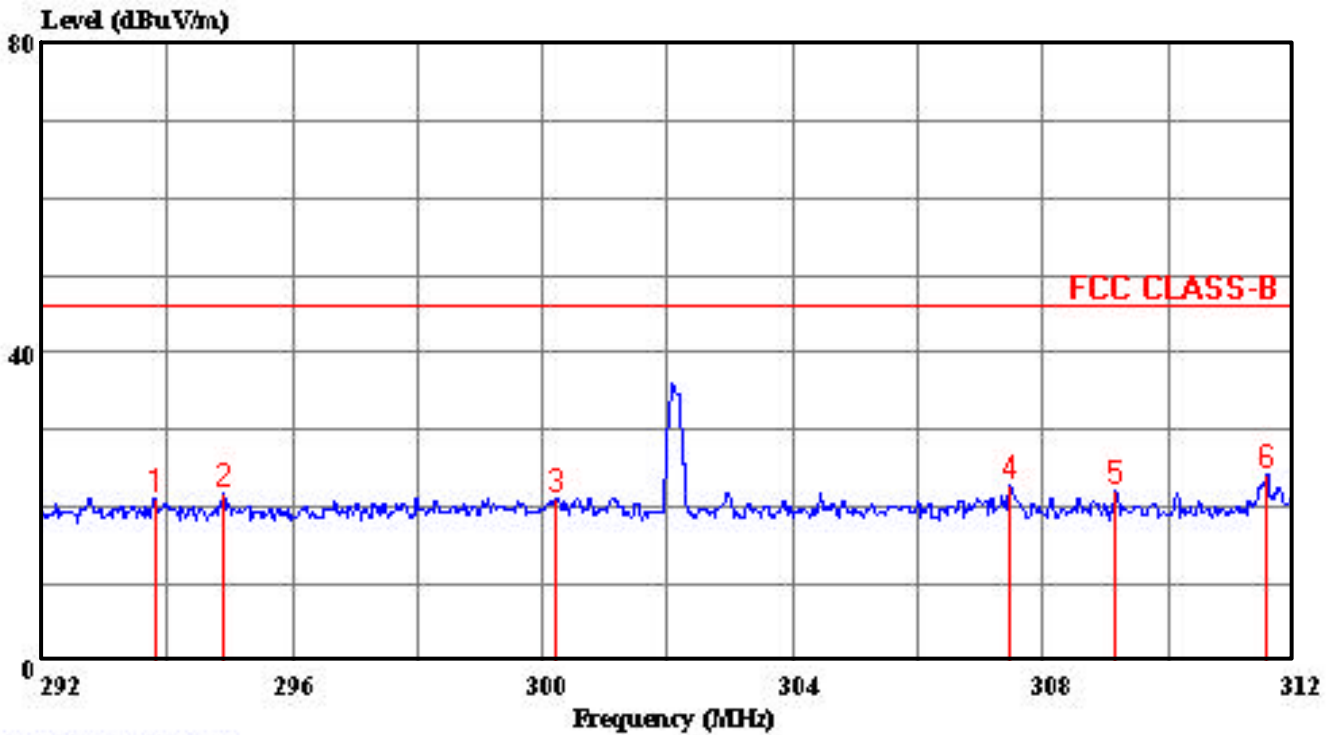
Ref Trace:

Condition: VERTICAL
 Report No. : C40303405
 Test Engr. : JIMMY CHEN
 Company : Advance Security Inc.
 EUT : 4900
 Test Config : EUT / TX
 Type of Test: FCC CLASS B
 Mode of Op. : NORMAL MODE

	Read
Freq	Level
MHz	dBuV
1 302.080	45.00

Data#: 9 File#: C40303405E.EMI

Date: 2004-03-05 Time: 12:20:42



(Compliance E-Site)

Trace: 7

Ref Trace:

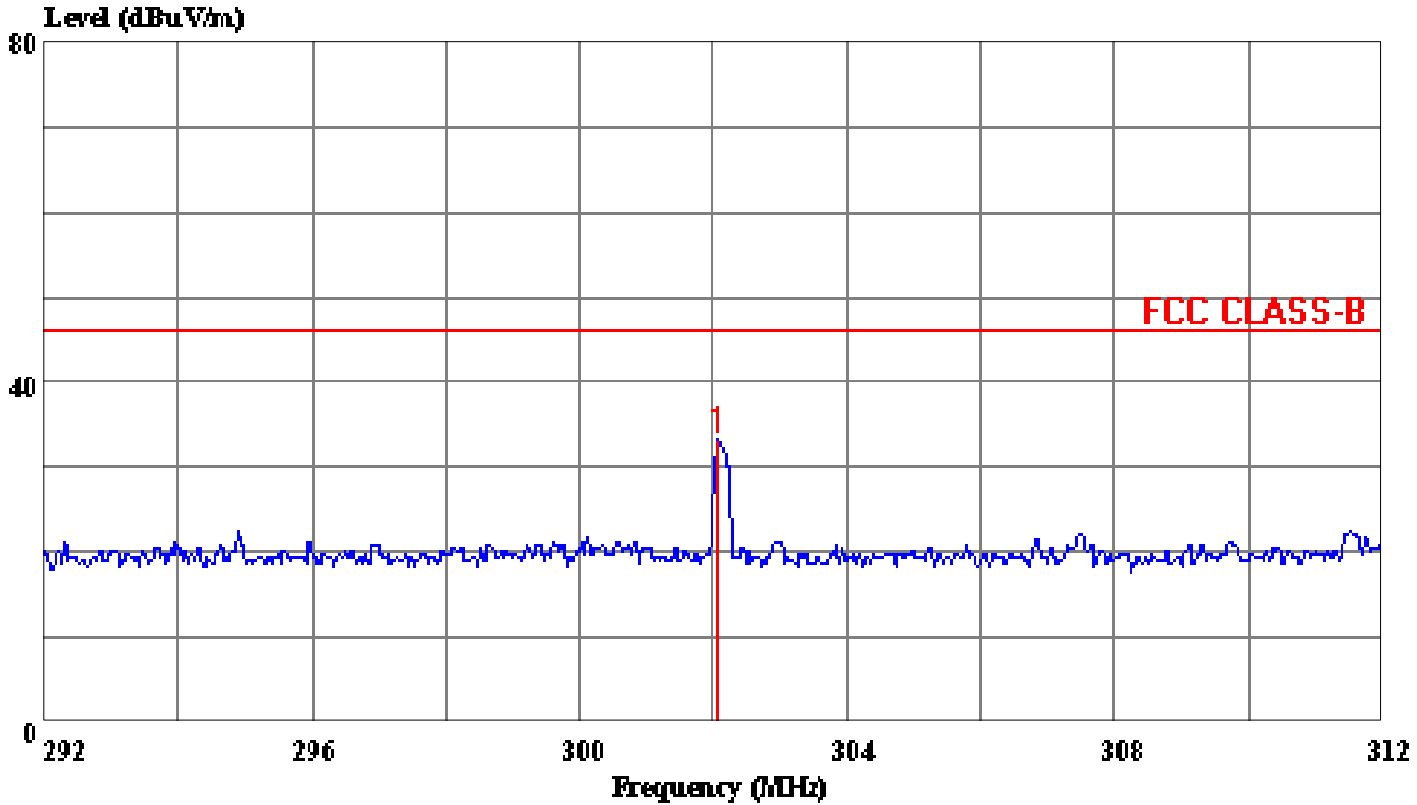
Condition: VERTICAL
Report No. : C40303405
Test Engr. : JIMMY CHEN
Company : Advance Security Inc.
EUT : 4900
Test Config : EUT / TX
Type of Test: FCC CLASS B
Mode of Op. : NORMAL MODE

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	Read Freq	Probe Level	Probe Factor	Cable Loss	Preamp Factor	Limit Level	Over Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	293.800	30.20	14.44	2.30	25.95	20.99	46.00	-25.01	Peak
2	294.900	31.00	14.46	2.30	25.95	21.81	46.00	-24.19	Peak
3	300.220	30.40	14.53	2.33	25.97	21.29	46.00	-24.71	Peak
4	307.480	32.00	14.46	2.38	26.01	22.83	46.00	-23.17	Peak
5	309.140	31.20	14.45	2.39	26.02	22.01	46.00	-23.99	Peak
6	311.560	33.60	14.42	2.40	26.03	24.39	46.00	-21.61	Peak

Data#: 5 File#: C40303405E.EMI

Date: 2004-03-05 Time: 12:19:10



(Compliance E- Site)

Trace: 4

Ref Trace:

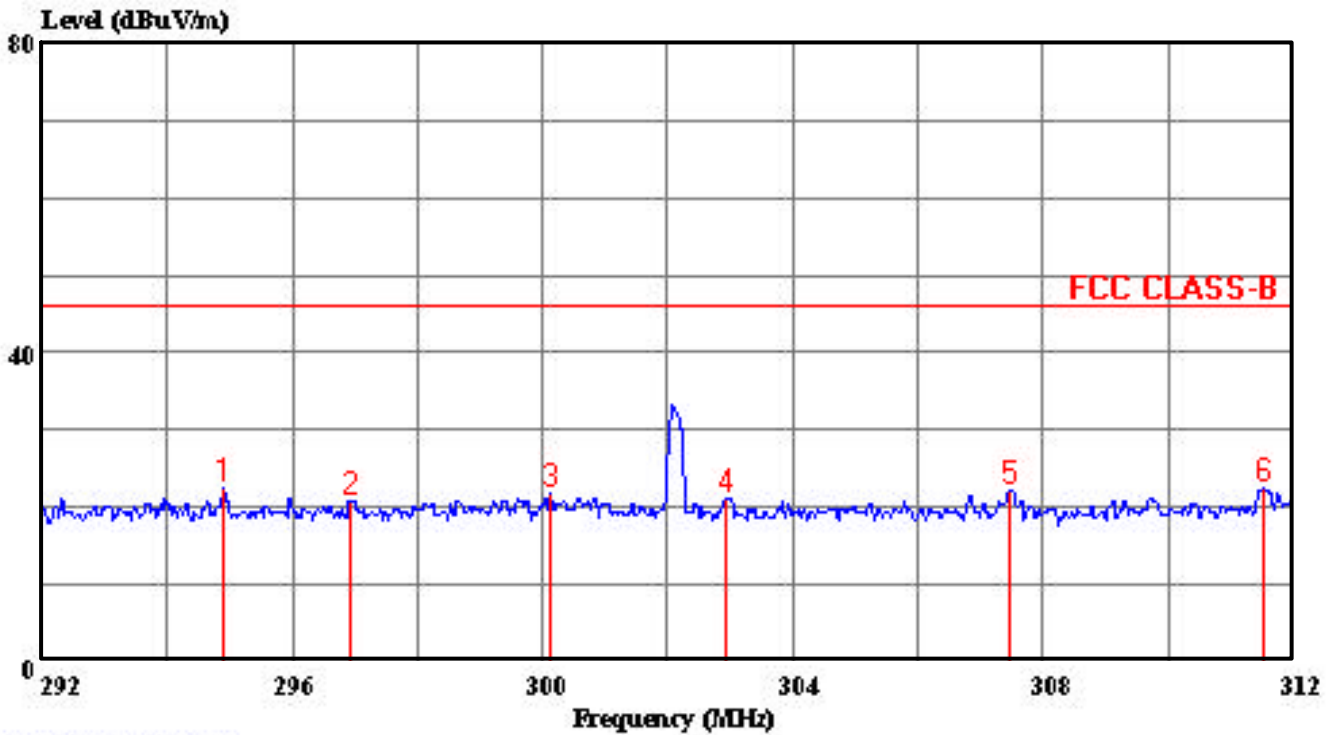
Condition: HORIZONTAL
Report No. : C40303405
Test Engr. : JIMMY CHEN
Company : Advance Security Inc.
EUT : 4900
Test Config : EUT / TX
Type of Test: FCC CLASS B
Mode of Op. : NORMAL MODE

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	Read
Freq	Level
MHz	dBuV
1 302.080	42.20

Data#: 6 File#: C40303405E.EMI

Date: 2004-03-05 Time: 12:19:36



(Compliance E-Site)

Trace: 4

Ref Trace:

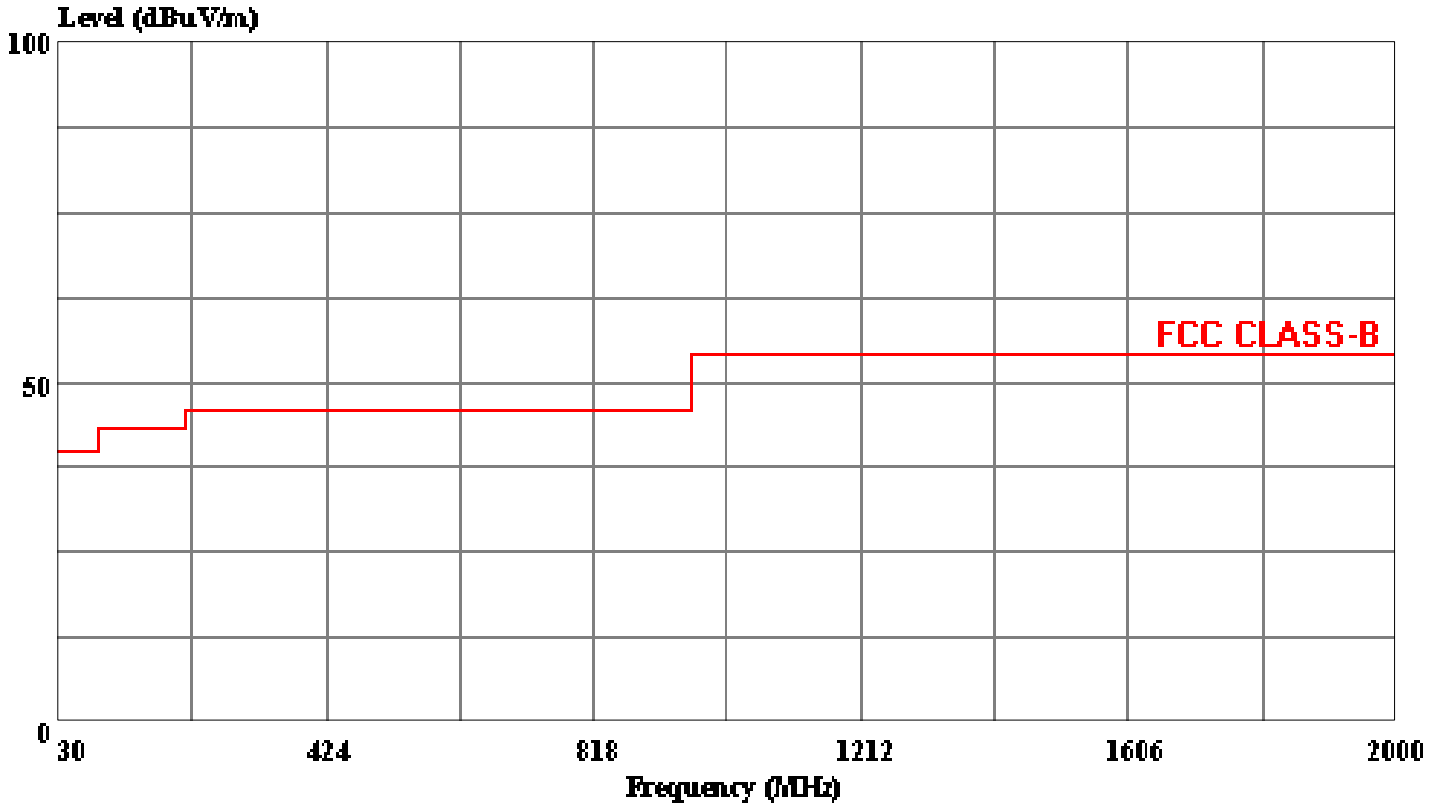
Condition: HORIZONTAL
 Report No. : C40303405
 Test Engr. : JIMMY CHEN
 Company : Advance Security Inc.
 EUT : 4900
 Test Config : EUT / TX
 Type of Test: FCC CLASS B
 Mode of Op. : NORMAL MODE

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	Read Freq	Probe Level	Probe Factor	Cable Loss	Preamp Factor	Limit Level	Over Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB	
1	294.900	31.60	14.46	2.30	25.95	22.41	46.00	-23.59	Peak
2	296.940	30.00	14.50	2.31	25.96	20.85	46.00	-25.15	Peak
3	300.100	30.80	14.53	2.33	25.97	21.69	46.00	-24.31	Peak
4	302.940	30.40	14.50	2.35	25.98	21.27	46.00	-24.73	Peak
5	307.460	31.40	14.46	2.38	26.01	22.23	46.00	-23.77	Peak
6	311.520	31.60	14.42	2.40	26.03	22.39	46.00	-23.61	Peak

Data#: 10 File#: C40303405E.EMI

Date: 2004-03-05 Time: 12:21:23



(D-Site)

Trace:

Ref Trace:

Condition:

Report No. : C40303405

Test Engr. : JIMMY CHEN

Company : Advance Security Inc.

EUT : 4900

Test Config : EUT / TX

Type of Test: FCC CLASS B

Mode of Op. : 1-2GHz

: NO OTHER EMISSION WERE FOUND WITHIN 20 dB BELOW THE LIMITS FROM 30-2000MHZ