



Test Report: 4W07716 Issue 2

Applicant: Paradox Security Systems
780 Industrial Blvd
Ste-Eustache, Quebec
J7R 5V3

**Equipment Under Test:
(EUT)** Magellan 433MHz All-In-One Wireless Security System

FCC ID: KDYMG6060

In Accordance With: **FCC Part 15, Subpart B**

Tested By: Nemko Canada Inc.
303 River Road, R.R. 5
Ottawa, Ontario K1V 1H2

A handwritten signature in blue ink that reads 'Kevin Carr'.

Authorized By:

Kevin Carr, EMC/EMI/Wireless Specialist

Date: 13 October 2004

Total Number of Pages: 12

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Section 1. Summary of Test Results

General

All measurements are traceable to national standards.

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 15, Subpart B. Measurement procedure ANSI C63.4-2001 was used for all tests. Radiated Emissions were measured on an open area test site. A description of the test facility is on file with the FCC.

THIS TEST REPORT RELATES ONLY TO THE ITEM(S) TESTED.

THE FOLLOWING DEVIATIONS FROM, ADDITIONS TO, OR EXCLUSIONS FROM THE TEST SPECIFICATIONS HAVE BEEN MADE.

See " Summary of Test Data".



TESTED BY: _____
Jason Nixon, Telecom Specialist

DATE: 13 October 2004

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Nemko Canada Inc., a testing laboratory, is accredited by the Standards Council of Canada.
The tests included in this report are within the scope of this accreditation.

Summary Of Test Data

Name Of Test	Para. No.	Results
Antenna Conducted Emissions	15.111	N/A (1)
Radiated Emissions	15.109	Complies
Powerline Conducted Emissions	15.107	Complies

Justification for N/A's

(1) The apparatus had an internal Antenna with no test port.

Test Conditions:

Indoor Temperature: 22°C
 Humidity: 64%

Outdoor Temperature: 29°C
 Humidity: 56%

Section 2. General Equipment Specification

Manufacturer: Paradox Security Systems

Model No.: MG-6060

Serial No.: MF00000470

Date Received In Laboratory: June 4, 2004

Nemko Identification No.: 32

Frequency Range (*or fixed frequency*): 87.5 – 179.5MHz internal FM Radio Receiver, 433MHz – EUT Operational Frequency - Fixed

Type of Equipment: Alarm control system with FM radio

Section 3. Radiated Emissions

Para. No.: 15.109(a)

Test Performed By: Jason Nixon	Date of Test: July 30, 2004
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Minimum Standard:

Frequency(MHz)	Field Strength (dBμV/m @ 3m)
30 - 88	40.0
88 - 216	43.5
216 - 960	46.0
Above 960	54.0

Test Results:

Complies

As per Part 15.33(b)(3) the frequency range measured was from 30MHz to 2GHz.

Measurement Data:

See attached table.

Radiated Disturbance Test Data:

Test Date: July 27, 2004											
Engineer's Name: Jason Nixon											
Temperature (C°): 29						Humidity %: 56					
Tested as per (Table Top/Floor Standing): Table Top											
Test Distance (meters): 3m						Dome: 1					
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Cable Loss (dB)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Amp.
162.4986	BC1	V	25.1	13.3	-	1.5	39.9	43.5	3.6	Q-peak	-
162.4986	BC1	H	21.1	12.3	-	1.5	35.0	43.5	8.6	Q-peak	-
162.3147	BC1	V	25.0	13.3	-	1.5	39.8	43.5	3.7	Q-peak	-
162.3147	BC1	H	15.0	12.3	-	1.5	28.8	43.5	14.7	Q-peak	-
194.9983	BC1	V	20.5	14.0	-	1.8	36.3	43.5	7.3	Q-peak	-
194.9983	BC1	H	17.1	13.7	-	1.8	32.6	43.5	11.0	Q-peak	-
181.2604	BC1	V	11.5	13.3	-	1.7	26.5	43.5	17.0	Q-peak	-
181.2604	BC1	H	21.4	12.7	-	1.7	35.8	43.5	7.7	Q-peak	-
162.6823	BC1	V	20.4	13.3	-	1.6	35.2	43.5	8.3	Q-peak	-
162.6823	BC1	H	14.5	12.3	-	1.6	28.4	43.5	15.2	Q-peak	-
194.8147	BC1	V	16.9	14.0	-	1.8	32.7	43.5	10.9	Q-peak	-
194.8147	BC1	H	18.7	13.7	-	1.8	34.2	43.5	9.4	Q-peak	-
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole											
Note 2: Detector Legend: Q-Peak = 120 kHz RBW, Average = 1.0 MHz RBW											
Notes:											

The EUT was searched to the 5th harmonic of the highest frequency generated or used by the device.

EQUIPMENT: Magellan 433MHz All-In-One Wireless Security System

Radiated Emissions Setup Photo



Section 4. Powerline Conducted Emissions

Para. No.: 15.107

Test Performed By: Jason Nixon	Date of Test: July , 2004
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Minimum Standard:

Frequency Range MHz	Limits dB(μV)	
	Quasi-Peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50

Test Results: Complies

Measurement Data:

Conductor	Frequency (MHz)	Detector	Emission Level (dBuV)	LISN Loss (dB)	Cable Loss (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)
Phase	0.1595	Quasi-Peak	47.1	0.1	0	47.2	65.5	18.3
		Average	3.5	0.1	0	3.6	55.5	51.9
	0.1641	Quasi-Peak	47.6	0.1	0	47.7	65.3	17.6
		Average	22.6	0.1	0	22.7	55.3	32.6
	0.1700	Quasi-Peak	47.2	0.1	0	47.3	65.0	17.7
		Average	19.8	0.1	0	19.9	55.0	35.1
Neutral	0.1556	Quasi-Peak	47.3	0.1	0	47.4	65.7	18.3
		Average	1.2	0.1	0	1.3	55.7	54.4
	0.1642	Quasi-Peak	47.6	0.1	0	47.7	65.2	17.5
		Average	19	0.1	0	19.1	55.2	36.1
	0.1729	Quasi-Peak	47.1	0.1	0	47.2	64.8	17.6
		Average	3.8	0.1	0	3.9	54.8	50.9

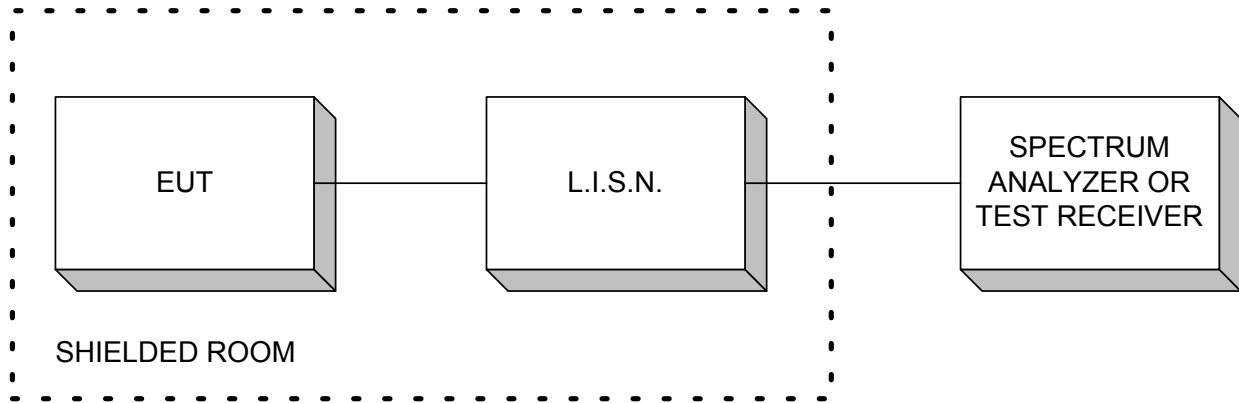
EQUIPMENT: Magellan 433MHz All-In-One Wireless Security System

Conducted Emissions Setup Photo

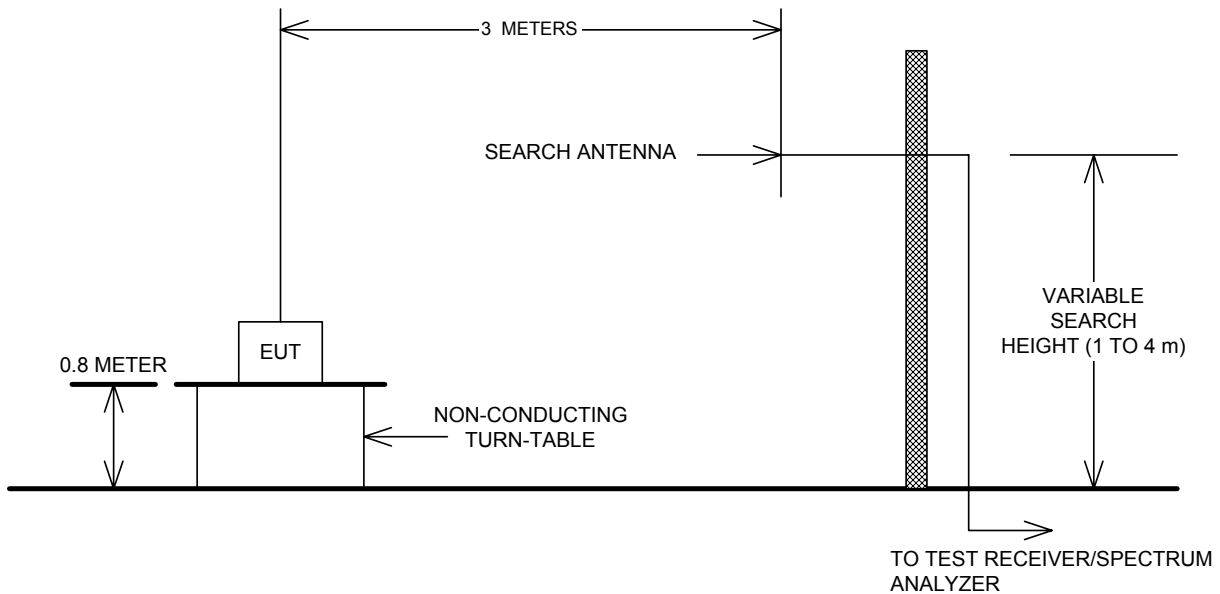


Section 5. Block Diagrams

Conducted Emissions



Outdoor Test Site For Radiated Emissions



Section 6. Test Equipment List

Equipment List – Conducted Emissions

CAL Cycle	Equipment	Manufacturer	Model No.	Asset/Serial No.	Last Cal.	Next Cal.
1 Year	LISN	EMCO	4825/2	FA001545	Oct. 30/03	Oct. 30/04
1 Year	Receiver	Rohde & Schwarz	ESH3	FA000872	Jan. 14/04	Jan. 14/05
1 Year	Spectrum Analyzer	Hewlett-Packard	8566B	FA001309	May 28/04	May 28/05
1 Year	Spectrum Analyzer Display	Hewlett-Packard	85662A	FA001309	May 28/04	May 28/05
1 Year	Transient Limiter	Hewlett-Packard	1194 7A	FA000975	June. 10/04	June. 10/05

Note: N/A = Not Applicable, NCR = No Cal Required, COU = CAL On Use, OUT = Out For CAL/Repair

Equipment List - Radiated Emissions

CAL Cycle	Equipment	Manufacturer	Model No.	Asset/Serial No.	Last Cal.	Next Cal.
1 Year	Receiver	Rohde & Schwarz	ESVS-30	FA001437	July. 26/04	July. 26/05
1 Year	Biconical (1) Antenna	EMCO	3109	FA000805	April. 23/04	April. 23/05
1 Year	Log Periodic Antenna #1	EMCO	LPA-25	FA000477	Sept. 02/03	Sept. 02/04
1 Year	Spectrum Analyzer	Hewlett-Packard	8565E	FA000981	May 31/04	May 31/05
1 Year	Horn Antenna #1	EMCO	3115	FA000649	Dec. 18/03	Dec. 18/04
1 Year	1.0 – 2.0 GHz Amplifier	JCA	12-400	FA001498	June. 18/04	June. 18/05
1 Year	2.0 – 4.0 GHz Amplifier	JCA	24-600	FA001496	June. 18/04	June. 18/05

Note: N/A = Not Applicable, NCR = No Cal Required, COU = CAL On Use, OUT = Out For CAL/Repair