

**Test Report:** 1W03826

**Applicant:** Digital Security Controls Ltd.  
3301 Langstaff Road  
Vaughan, Ontario  
L4K 4L2

**Equipment Under Test:  
(EUT)** PC5102, UA269

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

**Tested By:** Nemko Canada Inc.  
(Formerly KTL Ottawa Inc.)  
3325 River Road, R.R. 5  
Ottawa, Ontario K1V 1H2

**Authorized By:**

G. Westwell, Technologist

**Date:**

**Total Number of Pages:** 10

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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 C63.4-1992 was used for all tests. Radiated Emissions were measured on an open area test site.

New Submission

Production Unit

Class II Permissive Change

Pre-Production Unit

C	Y	Y
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Equipment Code

**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".



**NVLAP LAB CODE: 100351-0**

TESTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
Russell Grant, Wireless Group Manager

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This report applies only to the items tested.



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**Section 2.           General Equipment Specification**

**Date Received In Laboratory:**                   April 16, 2001

**Nemko Identification No.:**                        Item #1

**Frequency Range:**                                433 MHz

**Number of Channels:**                            1

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### Section 3. Radiated Emissions

Para. No.: 15.109(a)

<b>Test Performed By:</b> Russell Grant	<b>Date of Test:</b> April 16, 2001
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**Minimum Standard:**

Frequency(MHz)	Field Strength (dB $\mu$ V/m @ 3m)
30 - 88	40.0
88 - 216	43.5
216 - 960	46.0
Above 960	54.0

**Test Results:** Complies. The worst-case emission level is 40.0 dB $\mu$ V/m @ 3m at 1692.88 MHz. This is 14.0 dB below the specification limit.

**Measurement Data:** See attached table.

For super-regenerative receivers the receiver is coerhered using a signal generator and dipole antenna.

Handheld equipment and equipment not designed to be mounted in any fixed orientation, the EUT is tested in three orthogonal axis to obtain worst case results.

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**Test Data - Radiated Emissions**

Test Distance (meters) : 3		Range: A Tower		Receiver: ESVP		RBW(kHz): 120/1000		Detector: Peak	
Freq. (MHz)	Ant. *	Pol. (V/H)	RCVD Signal (dBµV/m)	Ant. Factor (dB)**	Amp. Gain (dB)***	Dist. Corr. (dB)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
423.22	E/D4	V	4.0	24.7			28.7	46.0	17.3
423.22	E/D4	H	1.2	24.7			25.9	46.0	20.1
846.44	E/D4	V	-9.5	31.3			21.8	46.0	24.2
846.44	E/D4	H	-7.7	31.3			23.6	46.0	22.4
1269.66	Hrn2	V	53.0	30.5	-48.0		35.5	54.0	18.5
1269.66	Hrn2	H	54.0	30.5	-48.0		36.5	54.0	17.5
1692.88	Hrn2	V	56.0	32.0	-48.0		40.0	54.0	14.0
1692.88	Hrn2	H	53.0	32.0	-48.0		37.0	54.0	17.0

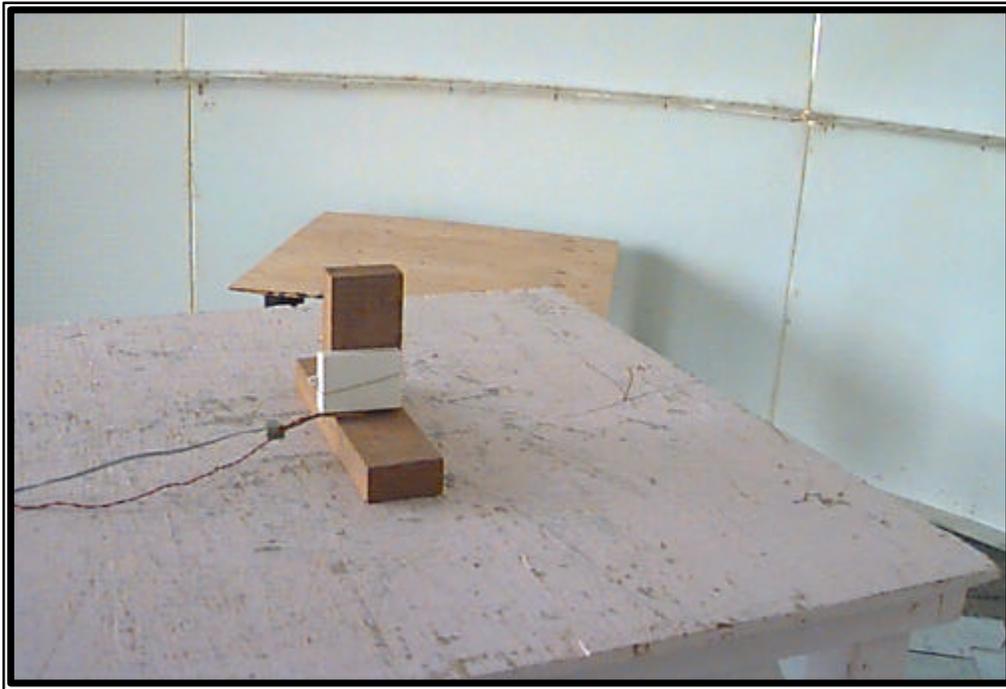
**Notes:**  
 B/C = Biconical, B/L = Biconilog, L/P = Log-Periodic, H = Horn, D/P = Dipole  
 \* Re-Measured Using Dipole Antenna. ( ) Denotes Failing Emission Level.  
 (1) 120 kHz, Q-Peak,  
 (2) 10 kHz, Peak,  
 (3) 100 kHz RGW, 300 kHz VBW, Peak,  
 (4) 300 kHz RBW, 1 MHz VBW, Peak,  
 (5) 1 MHz RBW, 3 MHz VBW, Peak,  
 (6) 1 MHz RBW, 10 Hz VBW, Peak  
 N.D. = Not Detected

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**Radiated Photographs**

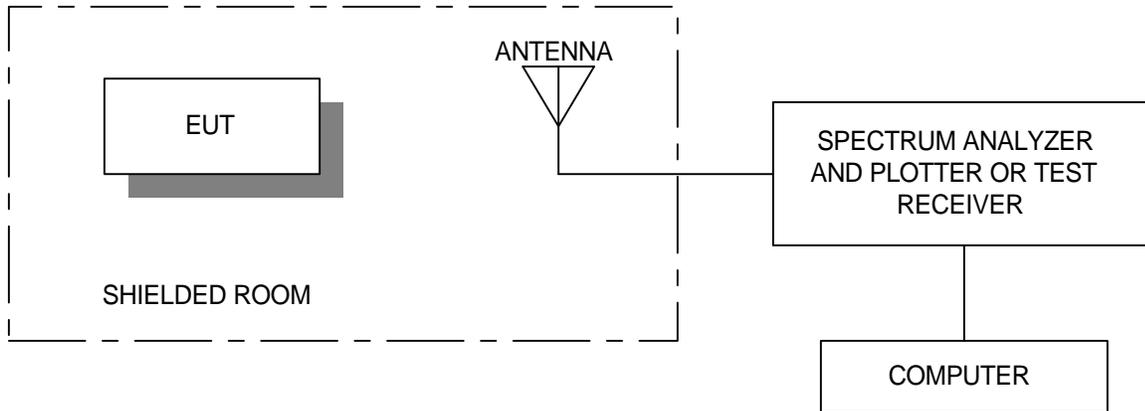
**Front View**



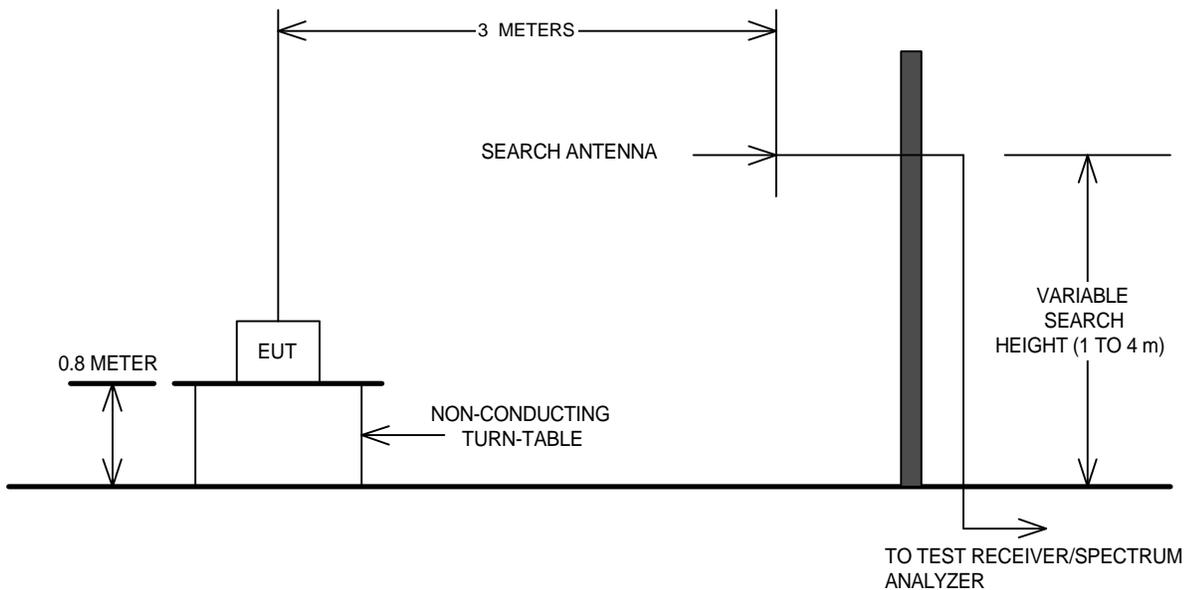
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### Section 4. Block Diagrams

#### Radiated Prescan



#### Outdoor Test Site For Radiated Emissions



The spectrum was searched up to the 10th harmonic of the fundamental frequency of operation.

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**Section 5. Test Equipment List**

CAL CYCLE	EQUIPMENT	MANUFACTURER	MODEL	SERIAL	LAST CAL.	NEXT CAL.
1 Year	Spectrum Analyzer	Hewlett Packard	8565E	FA000981	June 16/00	June 16/01
EX	Receiver	Rohde & Schwarz	ESVP	892661/014	April 5/00	July 5/5401
1 Year	Horn Antenna	EMCO #2	3115	4336	Dec. 1/00	Dec. 1/01
1 Year	Biconical (1) Antenna	EMCO	3109	9204-2708	Aug. 10/00	Aug. 10/01

NA: Not Applicable  
NCR: No Cal Required  
COU: CAL On Use