

KTL Test Report: 0R03391

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

**Equipment Under Test:
(E.U.T.)** P5132A-433
PC5132A-433
Receiver

FCC ID: F5301NB5132

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

Tested By: KTL Ottawa Inc.
3325 River Road, R.R. 5
Ottawa, Ontario K1V 1H2

Authorized By:

G. Westwell, Technologist

Date:

Total Number of Pages: 10

EQUIPMENT: P5132A-433, PC5132A-433 Receiver
FCC ID: F5301NB5132

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EQUIPMENT: P5132A-433, PC5132A-433 Receiver
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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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Summary Of Test Data

Name Of Test	Para. No.	Results
Antenna Conducted Emissions	15.111	Not Applicable
Radiated Emissions	15.109	Complies
Powerline Conducted Emissions	15.107	Not Applicable

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Section 2. General Equipment Specification

Manufacturer: Digital Security Controls Ltd.

Model No.: P5132A-433, PC5132A-433

Date Received In Laboratory: December 18, 2000

KTL Identification No.: Item #1

Frequency Range: 433.92 MHz Fixed

Number of Channels: 1

Primary Power Requirement: 12 VDC

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Section 3. Radiated Emissions

Para. No.: 15.109(a)

Test Performed By: Russell Grant	Date of Test: January 2, 2001
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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. The worst-case emission level is 37.4 dB μ V/m @ 3m at 423.22 MHz. This is 8.6 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 E.U.T. 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/8565E		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	12.7	24.7			37.4	46.0	8.6
423.22	E/D4	H	10.4	24.7			35.1	46.0	10.9
846.44	E/D4	V	-13.5	31.3			17.8	46.0	28.2
846.44	E/D4	H	-9.7	31.3			21.6	46.0	24.4
1269.66	Hrn2	V	54.2	30.5	-48.0		36.7	54.0	17.3
1269.66	Hrn2	H	48.8	30.5	-48.0		31.3	54.0	22.7
1692.88	Hrn2	V	36.8	32.0	-48.0		20.8	54.0	33.2
1692.88	Hrn2	H	44.0	32.0	-48.0		28.0	54.0	26.0

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

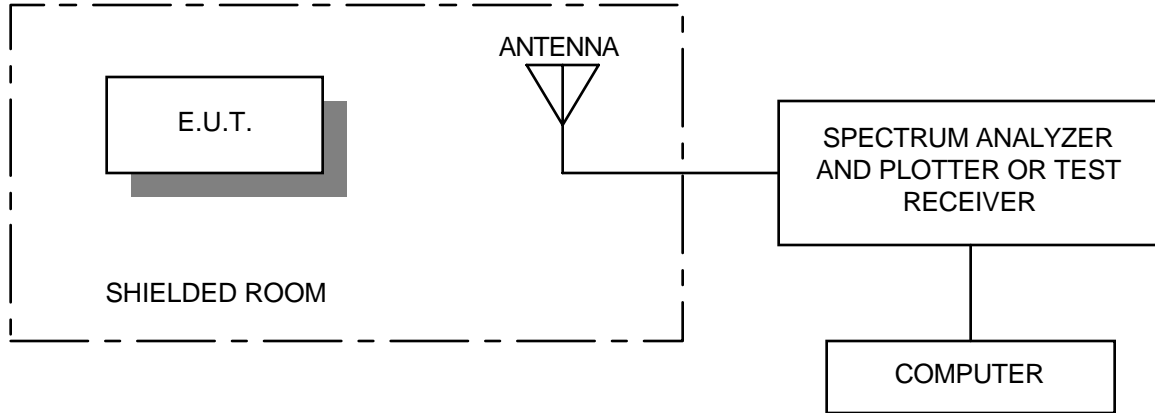
Front View



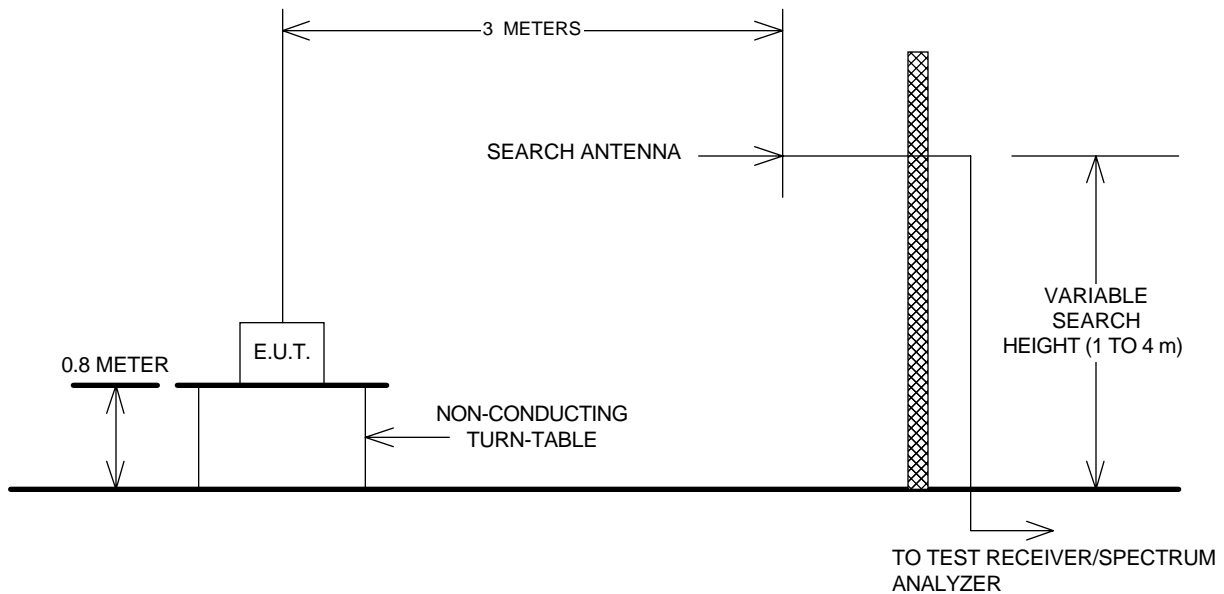
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Section 4. Block Diagrams

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
	Power Supply	Astron	VS-50M	8405071	NCR	NCR
1 Year	Receiver	Rohde & Schwarz	ESVP	892661/014	April 5/00	April 5/01
1 Year	Horn Antenna	EMCO #2	3115	4336	Nov. 11/99	Nov. 11/00
1 Year	Dipole Antenna Set	EMCO #2	3121C	FA001349	June 27/00	June 27/01
1 Year	RF AMP	JCA	1-2 GHz	FA001498	May 31/00	May 31/01

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