KTL Test Report:	0R02488
Applicant:	Digital Security Controls Ltd. 3301 Langstaff Road Vaughan, Ontario L4K 4L2
Equipment Under Test: (E.U.T.)	LCD-5501Z32-433
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:	
	R. Grant, Wireless Group Manager
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	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: _____
Kevin Carr, Technologist

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

Footnotes For N/A's: 15.111 – Integral Antenna
15.107 – 12 Vdc Powered

Test Conditions:

Indoor Temperature: 24 °C
Humidity: 40 %

Outdoor Temperature: 15 °C
Humidity: 40 %

Section 2. General Equipment Specification

Manufacturer:	Digital Security Controls Ltd.
Model No.:	LCD-5501Z32-433
Serial No.:	None
Date Received In Laboratory:	April 24, 2000
KTL Identification No.:	Item #1
Frequency Range:	433.92 MHz Fixed
Number of Channels:	1
Operating Frequency(ies) of Sample:	433.92
Crystal Frequency(ies):	39.66
Primary Power Requirement:	12 Vdc
Bandwidth and Emission Designator:	L1D

Section 3. Radiated Emissions

Para. No.: 15.109(a)

Test Performed By: Kevin Carr	**Date of Test:** April 24, 2000

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 41.1 dBμV/m @ 3m at 846.44 MHz. This is 4.9 dB below the specification limit.

Measurement Data: See attached table.

For super-regenerative receivers the receiver is cohered 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.

Test Data - Radiated Emissions

Test Distance (meters) : 3		Range: A Tower		Receiver: ESVP		RBW(kHz): 120		Detector: Q-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	1.9	25.7			27.6	46.0	18.4
423.22	E/D4	H	1.4	25.7			27.1	46.0	18.9
846.44	E/D4	V	6.7	34.3			41.0	46.0	5.0
846.44	E/D4	H	6.8	34.3			41.1	46.0	4.9
1269.66	Hrn2	V	7.5	29.2			36.7	54.0	17.3
1269.66	Hrn2	H	7.5	29.2			36.7	54.0	17.3
1692.8	Hrn2	V	16.3	31.9			48.2	54.0	5.8
1692.8	Hrn2	H	16.3	31.9			48.2	54.0	5.8
39.66	B/C1	V	8.2	12.9			21.1	40.0	18.9
39.66	B/C1	H	-0.8	12.9			12.1	40.0	27.9

Notes:

B/C = Biconical, B/L = Biconilog, L/P = Log-Periodic, H = Horn, D/P = Dipole

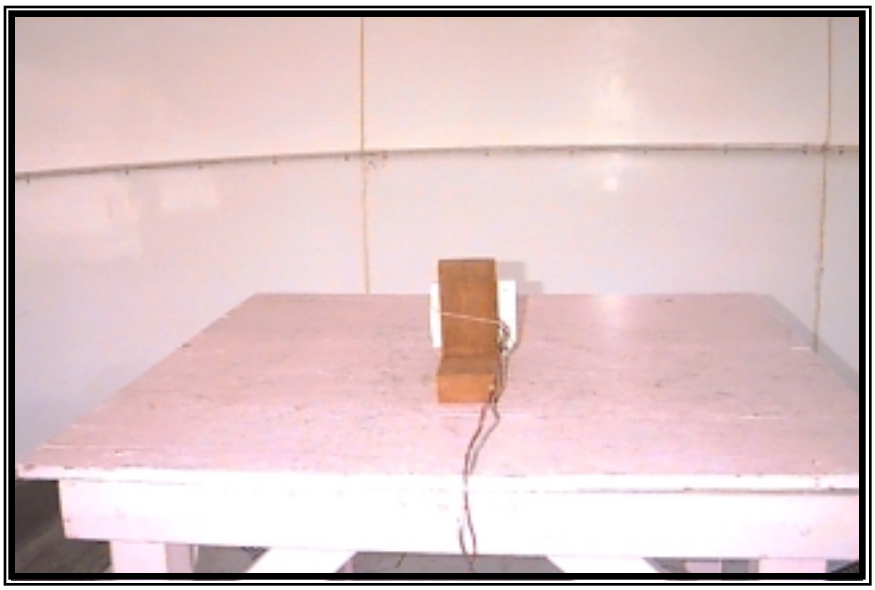
* Re-Measured Using Dipole Antenna. ( ) Denotes Failing Emission Level.

(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

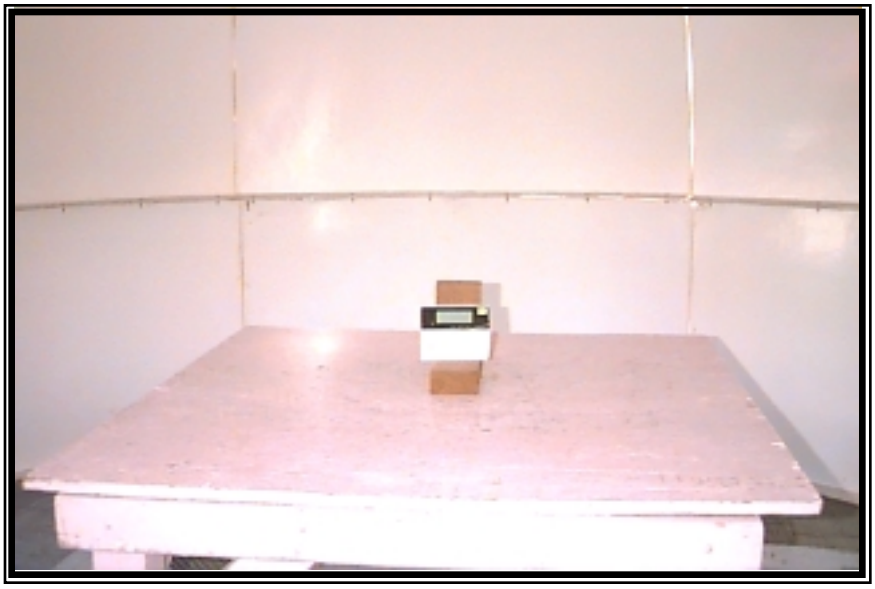
N.D. = Not Detected

Radiated Photographs

Front View

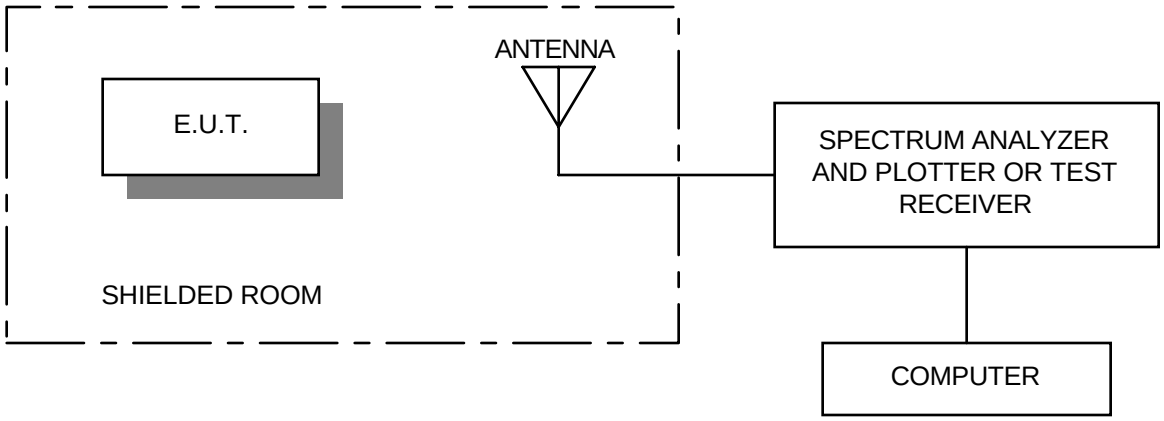


Rear View

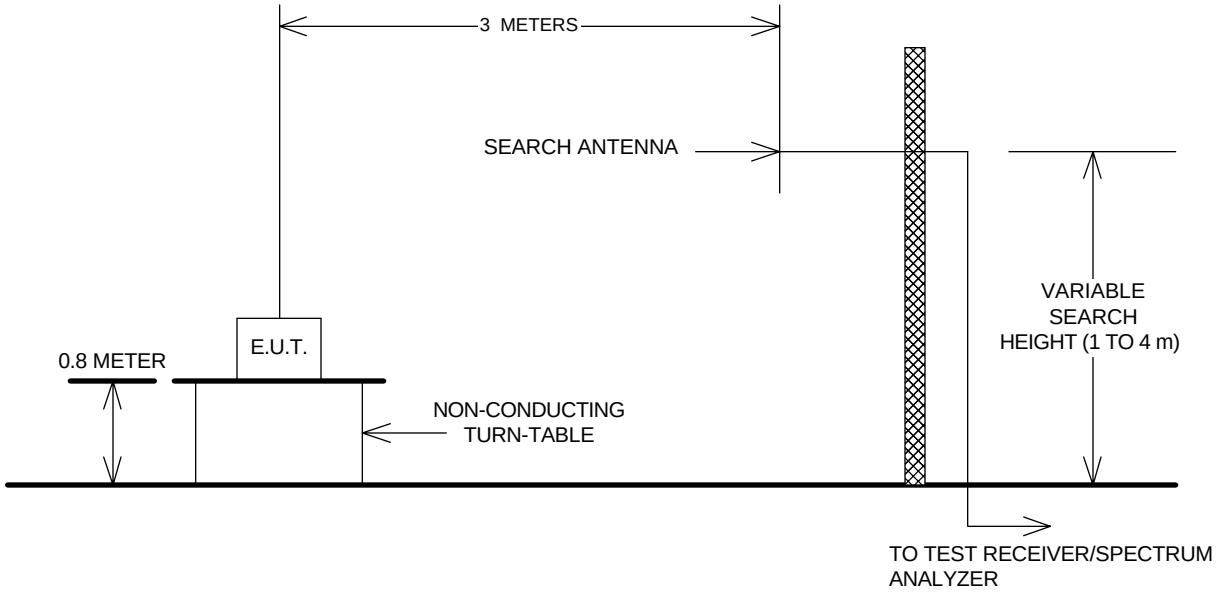


Section 4. Block Diagrams

Radiated Prescan



Outdoor Test Site For Radiated Emissions



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

Section 5. Test Equipment List

CAL CYCLE	EQUIPMENT	MANUFACTURER	MODEL	SERIAL	LAST CAL.	NEXT CAL.
1 Year	Spectrum Analyzer	Hewlett Packard	8565E	FA000981	June 16/99	June 16/00
1 Year	Receiver	Rohde & Schwarz	ESVP	892661/014	April 5/2000	April 5/2001
1 Year	Dipole Antenna Set	EMCO #2	3121C	FA001349	Apr. 5/99	Apr. 5/00
1 Year	Biconical (1) Antenna	EMCO	3109	9204-2708	Aug. 4/99	Aug. 4/00

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