Test Report:	3W06524
Applicant:	Shopguard Systems
Equipment Under Test: (EUT)	JuniorGuard 8.2 MHz Transmitter
FCC ID:	QVIS682TX
In Accordance With:	**FCC Part 15.223**
Tested By:	Nemko Canada Inc. 303 River Road, R.R. 5 Ottawa, Ontario K1V 1H2

Authorized By:	Glen Westwell, Wireless Technologist
Date:	30 January 2003
Total Number of Pages:	16

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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 C for low power devices. All tests were conducted using measurement procedure ANSI C63.4-1992. Radiated Emissions were made on an open area test site. A description of the test facility in 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:_____ Date: 28 January 2003
Russell Grant, Senior Approvals Eng.

Summary Of Test Data

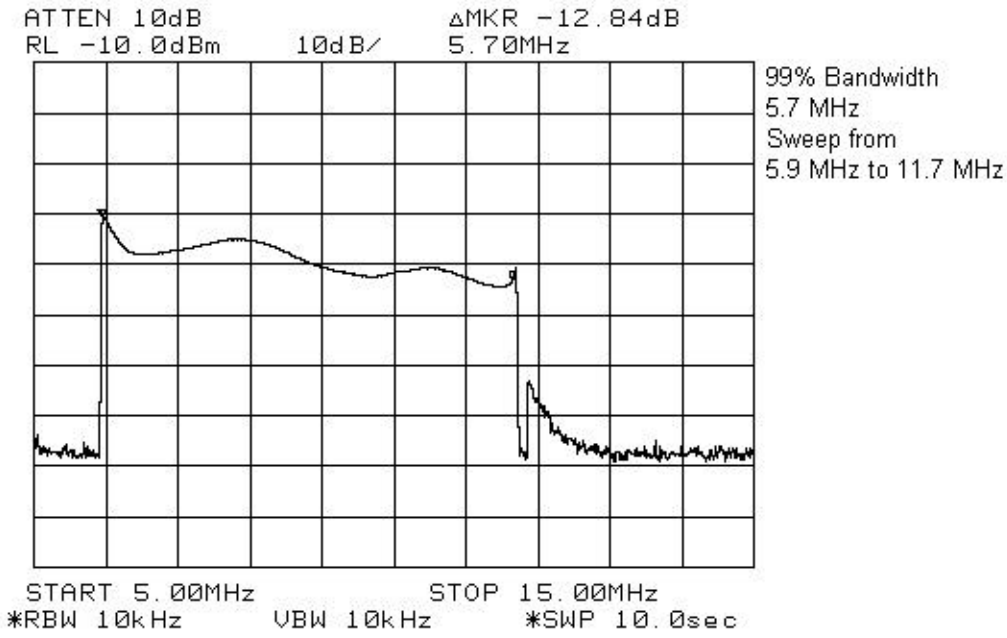
Name Of Test	Para. No.	Result
Powerline Conducted Emissions	15.207	Complies
Radiated Emissions	15.223	Complies

Test Conditions:

Indoor	Temperature:	20°C
	Humidity:	25%
Outdoor	Temperature:	-10°C
	Humidity:	20%

Section 2. General Equipment Specification

Manufacturer:	Shopguard Systems
Model No.:	JuniorGuard
Serial No.:	None
Date Received In Laboratory:	Jan 21, 2003
Nemko Identification No.:	1
Equipment:	Swept Frequency Field Disturbance Sensor
Emission Designator:	N0N Unmodulated Carrier
Frequency:	Swept from 5.9 to 11.7 MHz



This equipment is linearly swept in frequency from 5.9 to 11.7 MHz. This is a 5.8 MHz sweep. There is no provision for stopping the sweep on discrete frequencies within the band. The restricted bands within this range are

Restricted Bands (MHz)		Restricted Bandwidth (MHz)
6.215	6.218	0.003
6.26775	6.26825	0.0005
6.31175	6.31225	0.0005
8.291	8.294	0.003
8.362	8.366	0.004
8.37625	8.38675	0.0105
8.41425	8.41475	0.0005
Total Restricted Bandwidth		0.022

Therefore the fundamental is outside of the restricted bands
(1 – 0.022/5.8) x 100 = 99.62% of the time.the device is actively transmitting.

Section 3. Powerline Conducted Emissions

Para. No.: 15.207

Test Performed By: Russell Grant	**Date of Test: Jan 28, 2003**

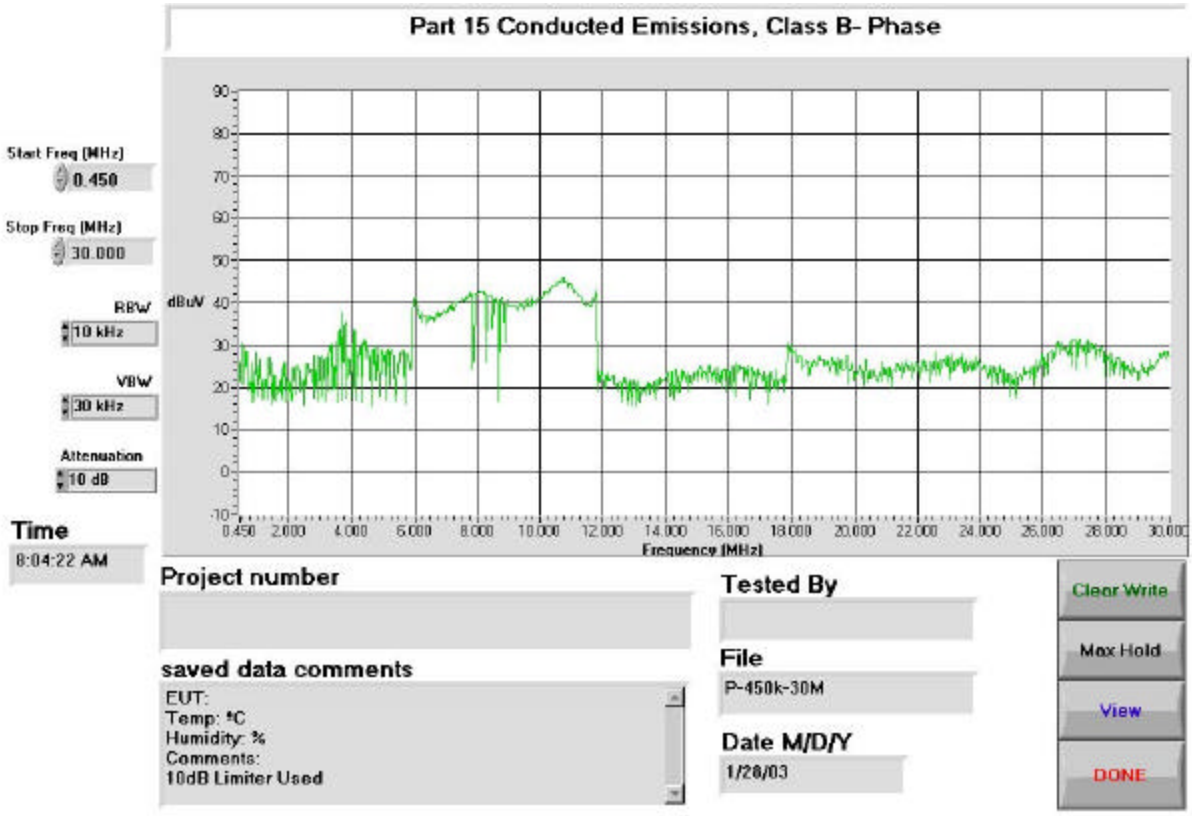
Minimum Standard:

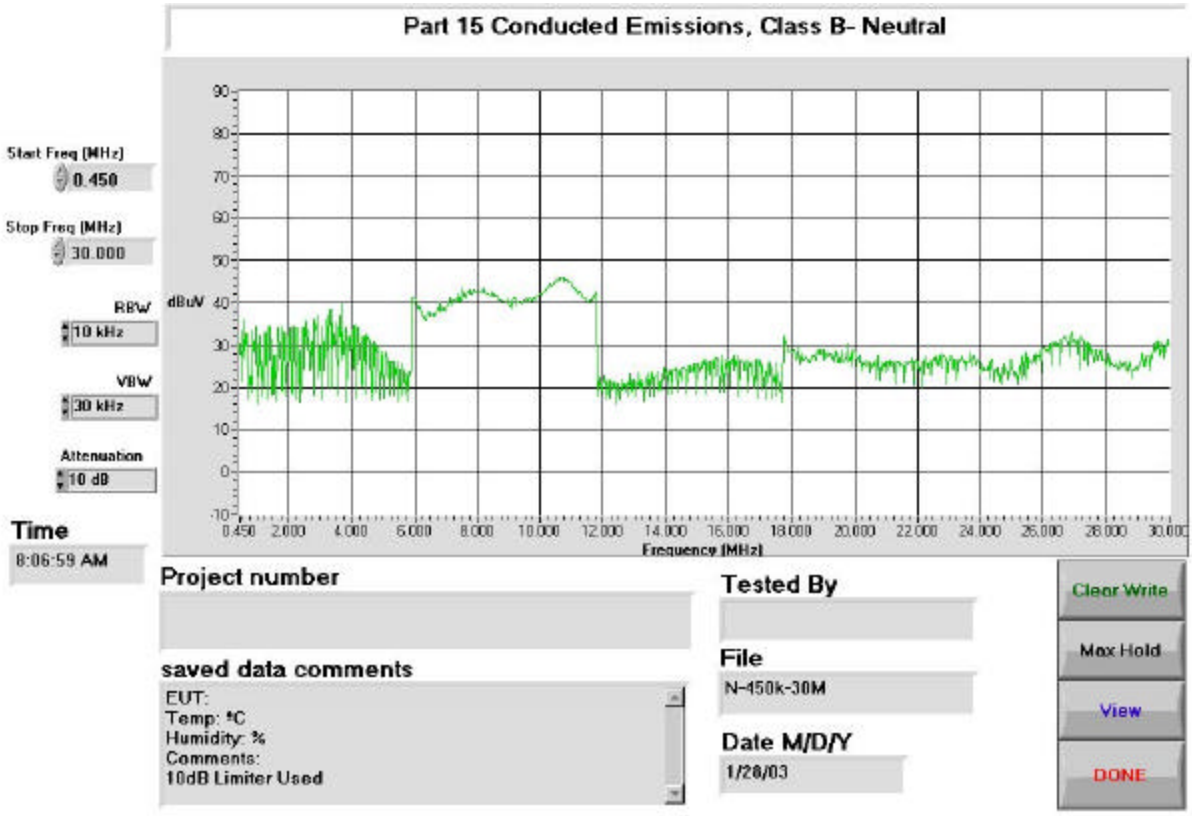
Frequency (MHz)	**Maximum Powerline Conducted RF Voltage (μV)**	**(dBμV)**
0.45 - 30.0	250	48

Test Results: Complies

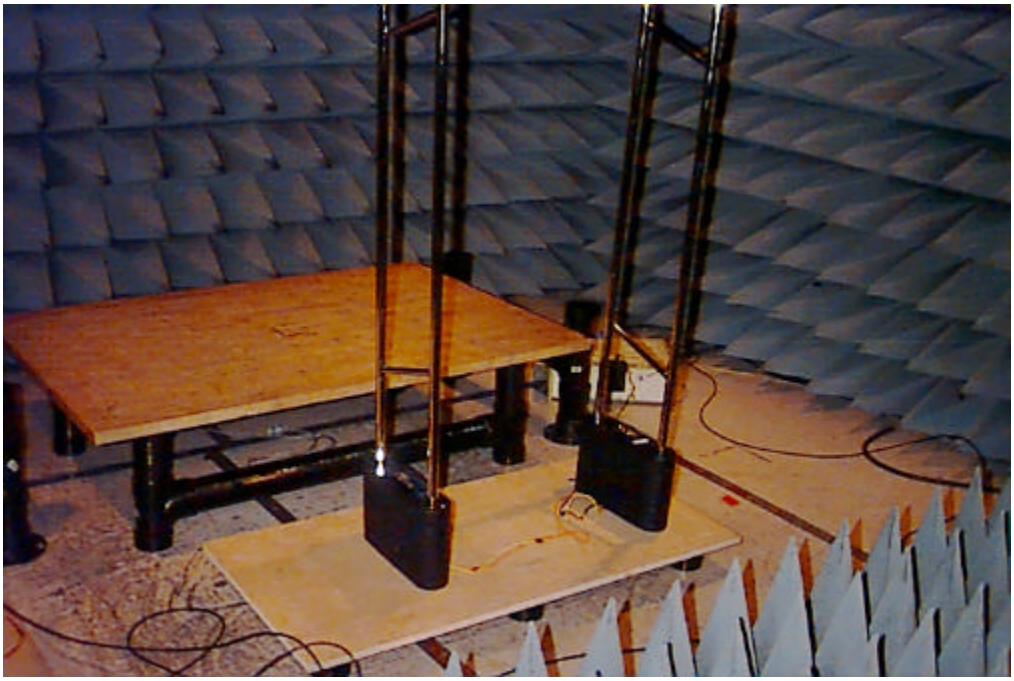
Measurement Data: See attached graph(s).

Power Line Conducted Emissions					
Frequency of Emission (MHz)	Received Signal quasi-peak(dBuV)	Broadband Correction Factor (dB)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)
Phase Conductor					
6	38	-13	25	48	23
8	43	-13	30	48	18
10.6	47	-13	34	48	14
Neutral Conductor					
6	39	-13	26	48	22
8	43	-13	30	48	18
10.6	45	-13	32	48	16
All emissions with greater than 6 dB quasi peak to average ratio are					
reduced by 13 dB for comparison to the specification limit.					


Part 15 Conducted Emissions, Class B- Phase
Start Freq (MHz)
0.450
Stop Freq (MHz)
30.000
RBW
10 kHz
VBW
30 kHz
Attenuation
10 dB
Time
8:04:22 AM
dBuV
Frequency (MHz)
Project number
saved data comments
EUT:
Temp: °C
Humidity: %
Comments:
10dB Limiter Used
Tested By
File
P-450k-30M
Date M/D/Y
1/28/03
Clear Write
Max Hold
View
DONE


Part 15 Conducted Emissions, Class B- Neutral
Start Freq (MHz)
0.450
Stop Freq (MHz)
30.000
RBW
10 kHz
VBW
30 kHz
Attenuation
10 dB
Time
8:06:59 AM
dBuV
Frequency (MHz)
Project number
saved data comments
EUT:
Temp: °C
Humidity: %
Comments:
10dB Limiter Used
Tested By
File
N-450k-30M
Date M/D/Y
1/28/03
Clear Write
Max Hold
View
DONE

Power Line Conducted Photo



Section 4. Radiated Emissions

Para. No.: 15.223

Test Performed By: Russell Grant	**Date of Test: Jan 28, 2003**

Minimum Standard:

Fundamental (MHz)	**Field Strength (μV/m)**	**Field Strength (dBμV)**
0.009 - 0.490	2400/F(kHz) @ 300m	—
0.490 - 1.705	24000/F(kHz) @ 30m	—
Fundamental 1.705 - 10	100 @ 30m	40
10 - 30	30 @ 30m	29.5
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above 960	500	54.0

Test Results: Complies

Measurement Data: See attached table.

The spectrum was searched from 9 kHz to 1 GHz. All emissions witin 20 dB of the specification limit were measured and reported.

The input power was adjusted from +/-15% to determine stability and verify worst case emissions.

Standard:	FCC Part B					**Date:**	28-Jan-03		**Tester:**		**Dome #**	1	
Tower:	A		**Distance:**	3m		**Location:**	Ottawa		Test Lab				
Receiver:	ESVP		**Comment:**			**Temp:**			**Humidity:**				
	Frequency (MHz)	**Antenna**	**Polarity**	**RCVD Signal (dBuV)**	**Ant. Factor (dB)**	**Sig. Sub. Factor**	**Amp Gain (dB)**	**Duty Cycle Corr.**	**Cable Loss (dB)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Detector**	**Amp**
1	35.0000	BC1	V	24.0	11.5				0.8	36.3	40.0	3.8		
2	35.0000	BC1	H	23.0	13.2				0.8	37.0	40.0	3.1		
3	53.0000	BC1	V	25.0	9.8				0.8	35.7	40.0	4.3		
4	53.0000	BC1	H	26.0	10.3				0.8	37.2	40.0	2.8		
5	108.0000	BC1	V	25.0	11.0				1.3	37.3	43.5	6.2		
6	108.0000	BC1	H	24.0	10.9				1.3	36.2	43.5	7.4		

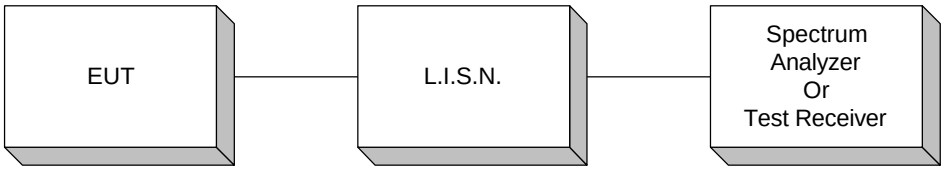
The bandwidth of the emission is greater than 10% of the center frequency.
The fundamental emission level at 8.2 MHz is 71 dBuV at 3 m and 57 dBuV 6 m. This is 14 dB per octave extrapolation factor.From 3 to 30 m is 1/Log 2 = 3.3 octave. Therefore the fundamental emisson level is
71 – 3.3 x 14 = 24.8 dBuV/m @ 30 m. This is 15.2 dB below the 40 dBuV/m specification limit.

Set-Up Photo

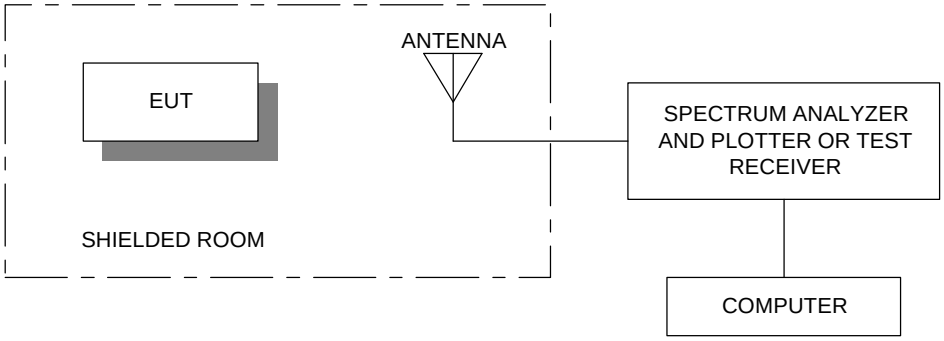
Pre-Scan Photo

Section 5. Block Diagrams

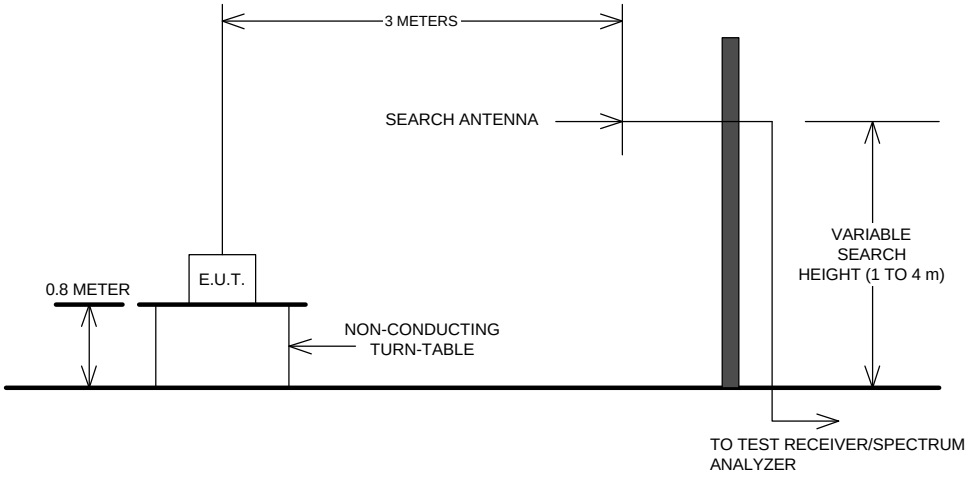
Conducted Emissions



Radiated Prescan



Test Site For Radiated Emissions



Section 6. Test Equipment List

RADIO TEST EQUIPMENT LIST

CAL CYCLE	EQUIPMENT	MANUFACTURER	MODEL	SERIAL
1 Year	Spectrum Analyzer	Hewlett Packard	8565E	FA000981
1 Year	Spectrum Analyzer-**1**	Hewlett Packard	8566B	2311A02238
1 Year	Spectrum Analyzer Display-**1**	Hewlett Packard	8566B	2314A04759
1 Year	LISN	EMCO	4825/2	0002-1/47
1 Year	Receiver	Rohde & Schwarz	ESH3	892473/002
1 Year	Receiver	Rohde & Schwarz	ESVP	892661/014
1 Year	Active Loop Antenna	Rohde & Schwarz	HFH2-Z2	FA000631