



Test Report: 5W36823.8 Issue 3

Applicant: Instantel Inc.
309 Legget Drive
Kanata, Ontario
K2K 3A3

**Equipment Under Test:
(EUT)** International Local Area Receiver

FCC ID: ISEILR

In Accordance With: **FCC Part 15, Subpart B, 15.107 and 15.109**

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

Authorized By:

A handwritten signature in blue ink, appearing to read 'Sim Jagpal'.

Sim Jagpal, Resource Manager

Date: March 29, 2005

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 for digital emissions. All tests were conducted using measurement procedure ANSI C63.4-2003. Radiated Emissions were made 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

March 29, 2005
DATE: _____

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This report applies only to the items tested.

Summary Of Test Data

Name Of Test	Para. No.	Result
Powerline Conducted Emissions	15.107	Complies
Radiated Emissions	15.109	Complies

Footnotes For N/A's:

None

Test Conditions:

Indoor Temperature: 23°C
 Humidity: 16%

Outdoor Temperature: 10°C
 Humidity: 43%

Section 2. General Equipment Specification

Manufacturer:	Instantel Inc.
Model No.:	806A5301
Serial No.:	None
Date Received In Laboratory:	January 21, 2005
Nemko Identification No.:	7
Receive Frequency Range:	433.42-434.42MHz (Direct Conversion)
Power Source:	10 to 30 VDC

Section 3. Powerline Conducted Emissions

Para. No.: 15.107

Test Performed By: Jason Nixon

Date of Test: January 24, 2005

Minimum Standard:

Frequency (MHz)	Maximum Powerline Conducted RF Voltage (dBμV)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56	56 to 46
0.5 – 5	56	46
5 – 30	60	50

Test Results:

Complies

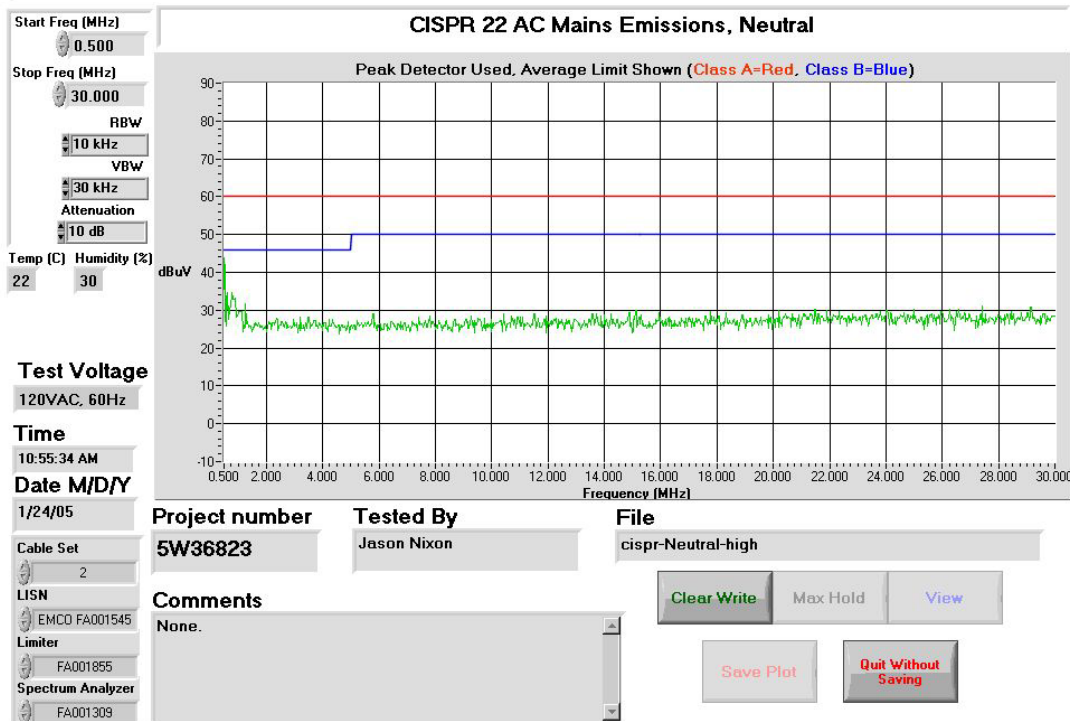
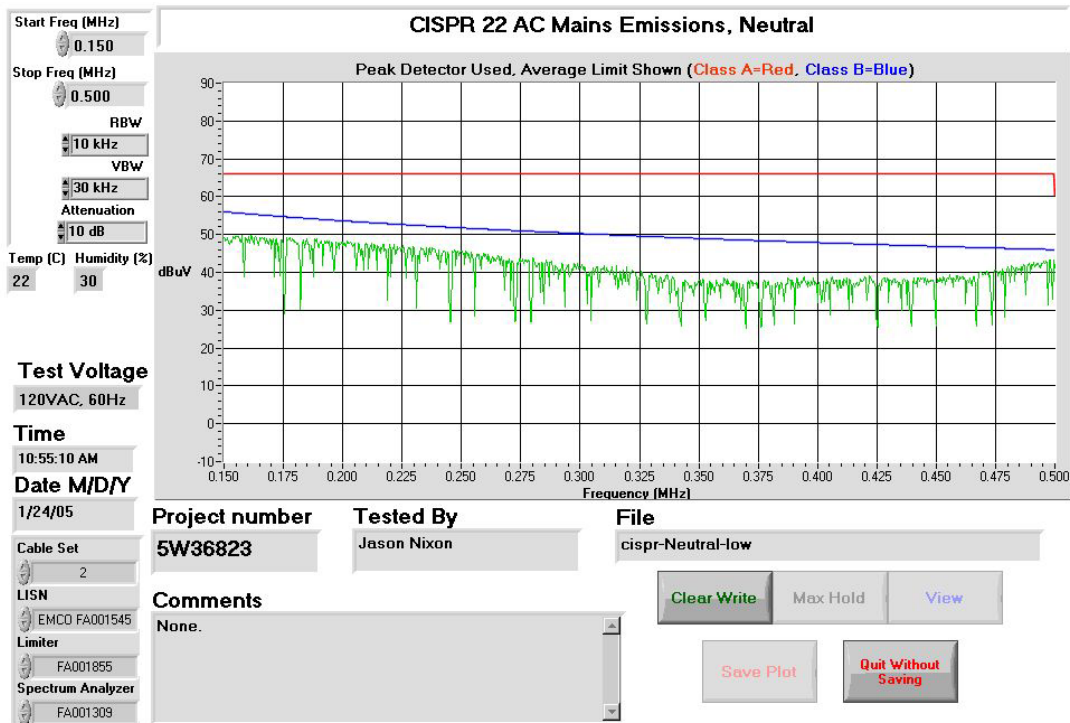
These test results were achieved using a representative 12VDC power supply (M/N: DV-1250)

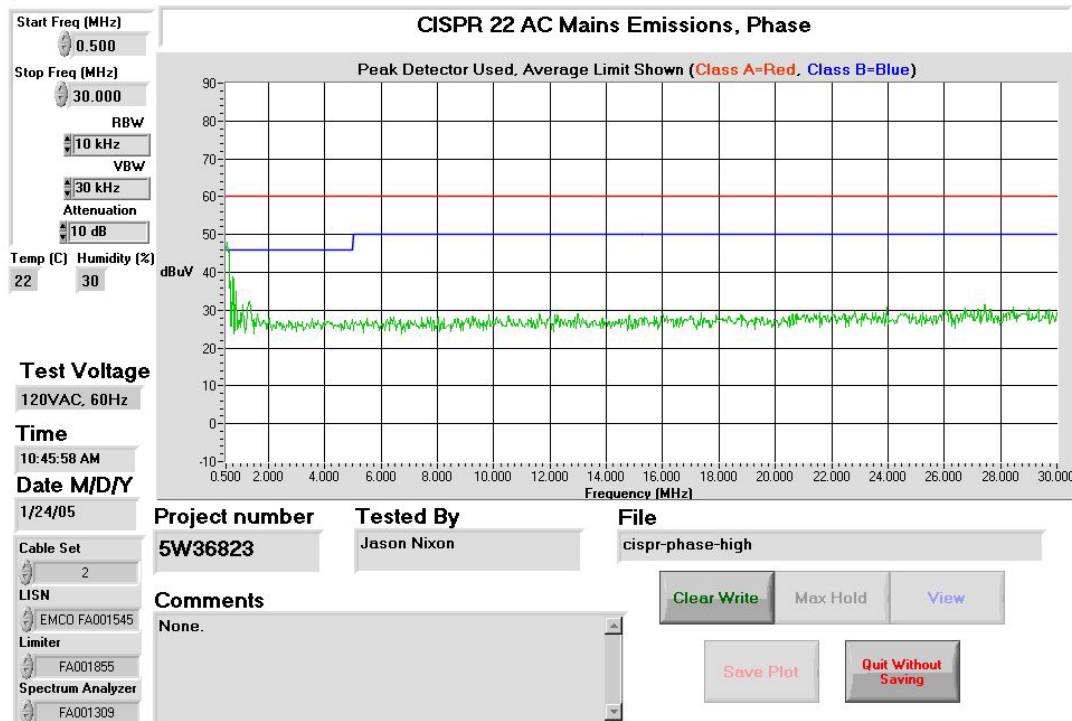
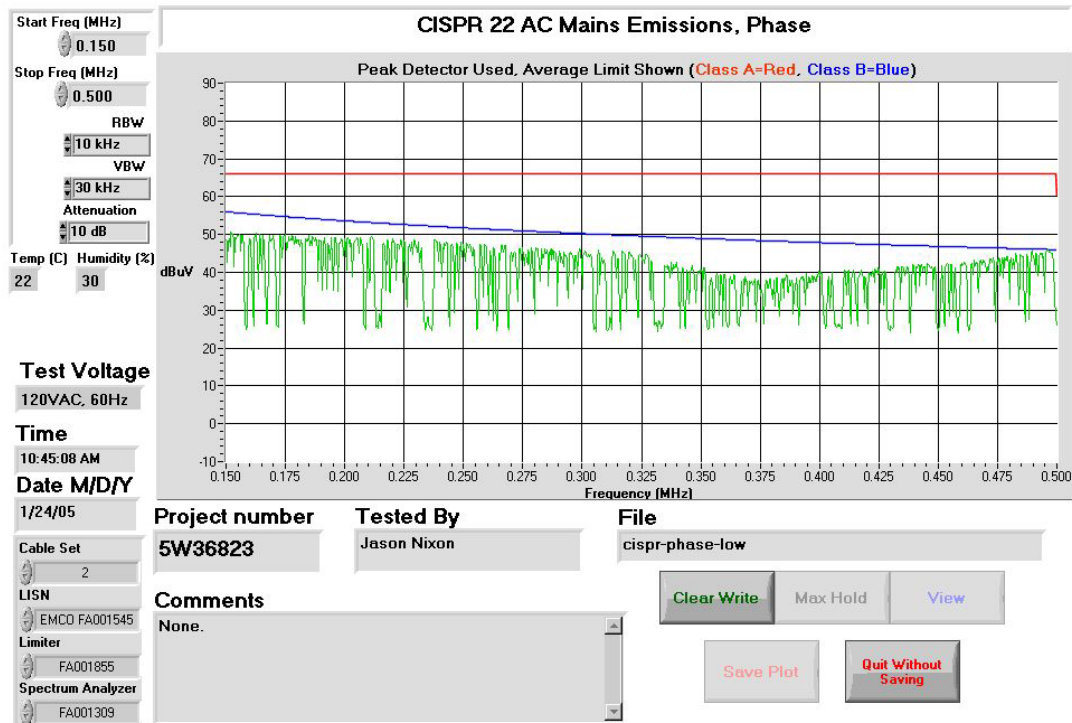
Measurement Data:

See attached graphs and tabulated data.

Emissions in the graphs are measured using a Peak detector and compared to the Average limit. Any emission found to be above the limit using the Peak detector was remeasured using an Average and Quasi-peak detector and recorded in the Table below.

Conductor		Frequency (MHz)	Detector	Emission Level (dBuV)	LISN Loss (dB)	Cable Loss (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)
1	Phase	0.5439	Quasi Peak	37.6	0.00	0.11	37.71	56.0	18.3
			Average	9.6	0.00	0.11	9.71	46.0	36.3
2	Neutral	0.5230	Quasi Peak	34.2	0.00	0.15	34.35	56.0	21.6
			Average	7.1	0.00	0.15	7.25	46.0	38.7

EQUIPMENT: International Local Area Receiver

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Section 4. Radiated Emissions

Para. No.: 15.109

Test Performed By: Jason Nixon**Date of Test: January 26, 2005****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	—
1.705 - 30	30 @ 30m	—
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.

All measurements were performed using a Peak Detector with 100kHz RBW below 1GHz and a 1MHz RBW above 1GHz.

All emissions were searched from 30MHz up to the 10th harmonic of the receiver.

EQUIPMENT: International Local Area Receiver

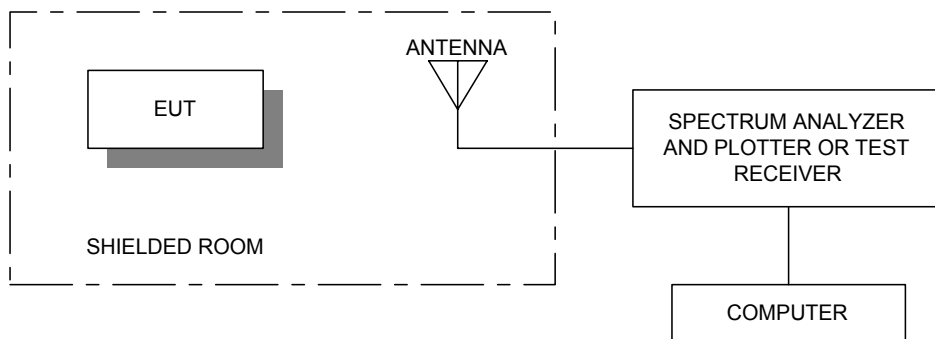
Frequency (MHz)	Antenna	Polarit y	RCVD Signal (dBuV)	Ant. Factor (dB)	Cable Loss (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
197.0264	BC1	V	8.3	14.1	1.7	24.1	43.5	19.4
197.0264	BC1	H	8.7	13.8	1.7	24.2	43.5	19.3
162.0222	BC1	V	21.3	13.1	1.5	35.9	43.5	7.6
162.0222	BC1	H	26.2	12.4	1.5	40.1	43.5	3.4
182.0206	BC1	V	13.0	13.2	1.7	27.9	43.5	15.6
182.0206	BC1	H	13.1	12.5	1.7	27.3	43.5	16.2
210.0288	BC1	V	12.5	15.2	1.8	29.5	43.5	14.0
210.0288	BC1	H	13.8	14.4	1.8	30.0	43.5	13.5
95.2631	BC1	V	15.4	9.1	1.2	25.7	43.5	17.8
95.2631	BC1	H	14.4	8.4	1.2	24.0	43.5	19.5
70.0013	BC1	V	20.2	8.8	1.0	30.0	40.0	10.0
300.0047	BC1	V	13.5	17.7	2.3	33.5	46.4	12.9
300.0047	BC1	H	13.9	18.2	2.3	34.4	46.4	12.0
158.0209	BC1	V	23.8	13.0	1.5	38.3	43.5	5.2
158.0209	BC1	H	26.3	12.5	1.5	40.3	43.5	3.3
129.5180	BC1	V	20.9	12.8	1.5	35.2	43.5	8.4
129.5180	BC1	H	12.2	12.3	1.5	26.0	43.5	17.6
435.0069	LP1	V	10.5	16.1	2.7	29.3	46.4	17.1
435.0069	LP1	H	11.6	16.7	2.7	31.0	46.4	15.5
Legend: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole								

Section 5. Block Diagrams

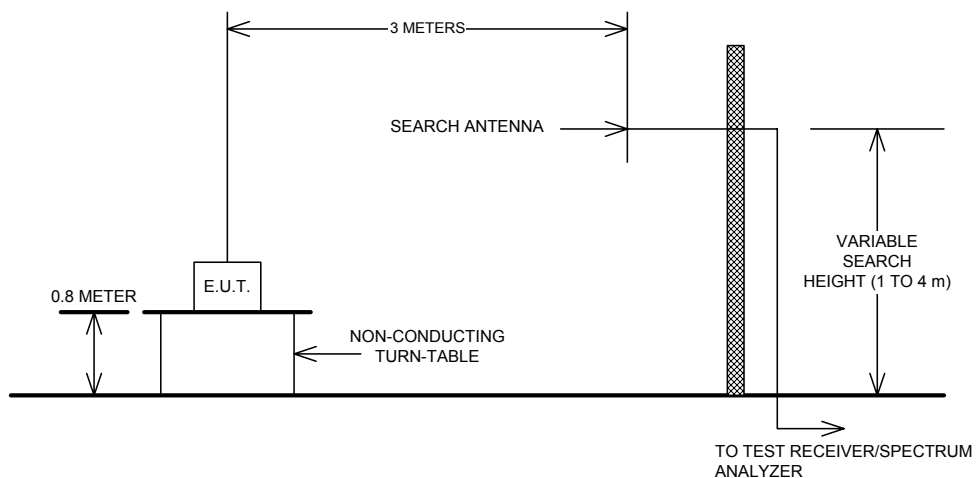
Conducted Emissions



Radiated Prescan



Test Site For Radiated Emissions



*EQUIPMENT: International Local Area Receiver***Section 6. Test Equipment List**

<i>Radiated Emissions Test Equipment Used</i>						
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	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	Dipole Antenna Set	EMCO #1	3121C	FA000814	April 21/04	April 21/05
1 Year	Log Periodic Antenna #1	EMCO	LPA-25	FA000477	Aug. 26/04	Aug. 26/05
1 Year	Horn Antenna #2	EMCO	3115	FA000825	Dec. 14/04	Dec. 14/05
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
1 Year	4.0 – 8.0 GHz Amplifier	JCA	48-600	FA001497	June 18/04	June 18/05
Note: N/A = Not Applicable, NCR = No Cal Required, COU = CAL On Use						