



Nemko



Test Report: 2W04779

Applicant: Position Technology Inc.
780 Industrial Blvd.
Ste-Eustache, Quebec
J7R 5V3

Equipment Under Test: CR-R885-A & CR-R885-S
(EUT) Pin & Proximity Readers
FCC ID: N4CPOSIPIN

In Accordance With: FCC Part 15, Subpart C, 15.209

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

Authorized By:

J. Harrington, RF Group Manager

Date: 8 May 2002

Total Number of Pages: 11

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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 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: Glen Westwell, Wireless Technologist

DATE: 8 May 2002

Nemko Canada Inc., a testing laboratory, is accredited by the Standards Council of Canada. The tests included in this report are within the scope of this accreditation. The results apply only to the samples tested.

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This report applies only to the items tested.

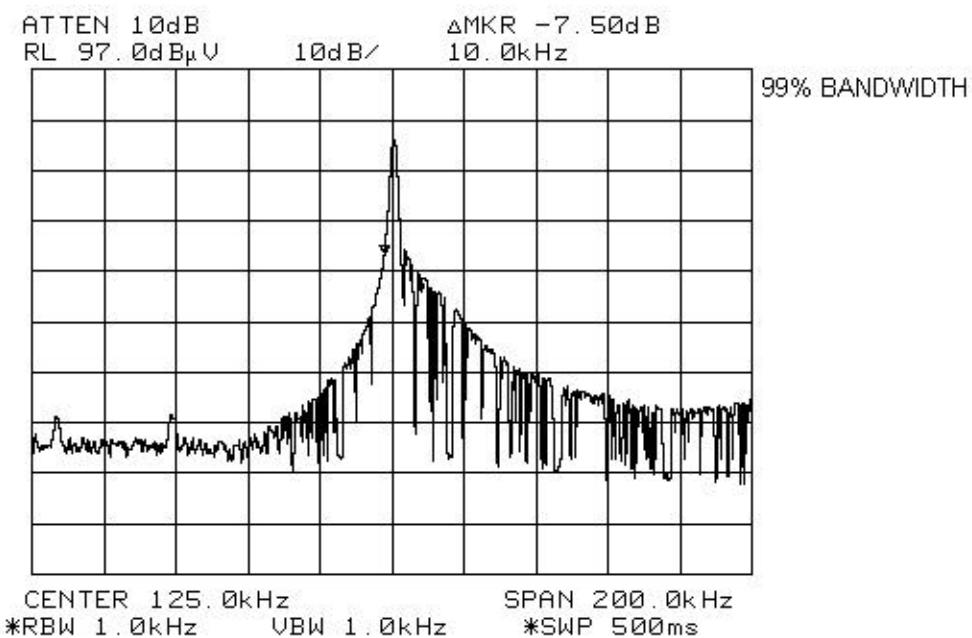
Summary Of Test Data

Name Of Test	Para. No.	Result
Powerline Conducted Emissions	15.207	N/A
Radiated Emissions	15.209	Complies

Footnotes For N/A's: 12 VDC external power supply.**Test Conditions:****Indoor** Temperature: 24 °C
Humidity: 38 %**Outdoor** Temperature: -5 °C
Humidity: 44 %

Section 2. General Equipment Specification**Manufacturer:** Position Technology Inc.**Model No.:** CR-R885-A
CR-R885-S**Serial No.:** None**Date Received In Laboratory:** Nov. 16, 2001**Nemko Identification No.:** Item #17 & 18**Frequency:** 125 kHz**Modulation:** Pulse Modulated**Emission Designator:** 10K0PON

Both models are electrically identical and differ only in software features and functions.
Measurements were made on the model CR-R885-S.



Section 3. Radiated Emissions**Para. No.: 15.209****Test Performed By:** Russell Grant**Date of Test:** August 17, 2001**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.

*EQUIPMENT: CR-R885-A & CR-R885-S***Test Data - Radiated Emissions**

Frequency of Emission (MHz)	Received Signal (dBuV/m@10m)	Limit @ 300m (dBuV/m)	Limit @10m (dBuV/m)	Margin (dB)
0.125	53	25.7	55.2	2.2

Frequency of Emission (MHz)	Received Signal (dBuV/m@2m)	Received Signal (dBuV/m@4m)	Extrapolated Signal (dBuV/m@300m)	Limit (dBuV/m)	Margin (dB)
0.250	69.0	52.0	-53.9	19.6	73.6
0.375	64.0	49.0	-44.0	16.1	60.1
0.500	59.0	40.0	-78.3	33.6	111.9
0.625	54.0	38.0	-61.6	31.7	93.9
0.750	50.0	35.0	-58.4	30.1	88.5
0.875	48.0	32.0	-67.6	28.8	96.4
1.000	37.0	27.0	-35.3	27.6	62.9
1.375	40.0	26.0	-61.2	24.8	86
1.500	38.0	26.0	-48.8	24.1	72.9
1.625	36.0	25.0	-43.4	23.4	66.8
1.750	35.0	26.0	-30.1	29.5	59.6
1.875	34.0	30.0	5.1	29.5	24.4

Note: Emissions measured at 2 m & 4m. dB/decade extrapolation using field strength measurement from 2 to 4m.

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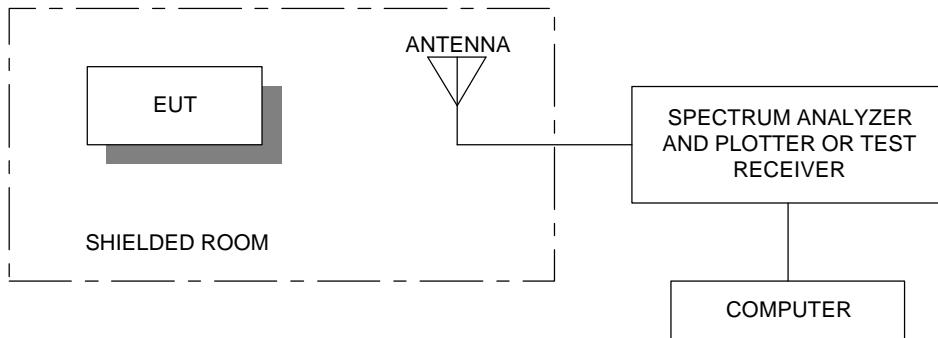
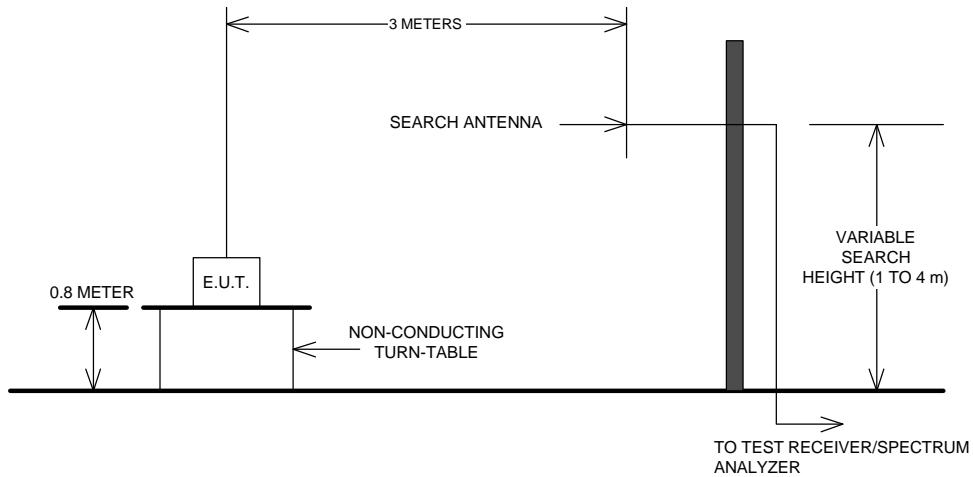
FCC PART 15, SUBPART C, 15.209

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EQUIPMENT: CR-R885-A & CR-R885-S

Radiated Emissions- Photographs



Section 4. Block Diagrams**Radiated Prescan****Test Site For Radiated Emissions**

Section 5. Test Equipment List

CAL CYCLE	EQUIPMENT	MANUFACTURER	MODEL	SERIAL	LAST CAL.	NEXT CAL.
1 Year	Spectrum Analyzer	Hewlett Packard	8565E	FA000981	June 08/01	June 08/02
1 Year	Receiver	Rohde & Schwarz	ESH3	892473/002	Jan. 3/01	Jan. 3/02
1 Year	Receiver	Rohde & Schwarz	ESVP	892661/014	Apr. 3/01	Apr. 3/02
1 Year	Log Periodic Antenna 1	EMCO	LPA-25	1141	Aug. 28/01	Aug. 28/02
1 Year	Biconical (1) Antenna	EMCO	3109	9204-2708	Aug. 22/01	Aug. 22/02
1 Year	Active Loop Antenna	Rohde & Schwarz	HFH2-Z2	FA000631	March 20/01	March 20/02

NA: Not Applicable

NCR: No Cal Required

COU: CAL On Use