

KTL Test Report: 9R05172.1

Applicant: EXI Wireless Systems Inc.
Suite 100-13551 Commerce Parkway
Richmond, B.C.
V6V 2L1

**Equipment Under Test:
(E.U.T.)** Standalone Super-Heterodyne Receiver

FCC ID: HE7R2R

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: 19

EQUIPMENT: Standalone Super-Heterodyne 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



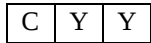
Production Unit



Class II Permissive Change



Pre-Production Unit



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: _____
Glen Westwell, Technologist

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This report applies only to the items tested.

EQUIPMENT: Standalone Super-Heterodyne Receiver
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Summary Of Test Data

Name Of Test	Para. No.	Results
Antenna Conducted Emissions	15.111	Complies
Radiated Emissions	15.109	Complies
Powerline Conducted Emissions	15.107	Complies

Footnotes For N/A's:**Test Conditions:**

Indoor Temperature: 21 °C
 Humidity: 32 %

Outdoor Temperature: 10 °C
 Humidity: 34 %

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Section 2. Equipment Under Test (E.U.T.)

Manufacturer: EXI Wireless Systems Inc.

Model No.: 122 Receiver

Serial No.: 1277

Date Received In Laboratory: November 8, 1999

KTL Identification No.: Item #1

Equipment Details

Frequency Range: 433.92 MHz

Number of Channels: One

Operating Frequency(ies) of Sample: 433.92 MHz

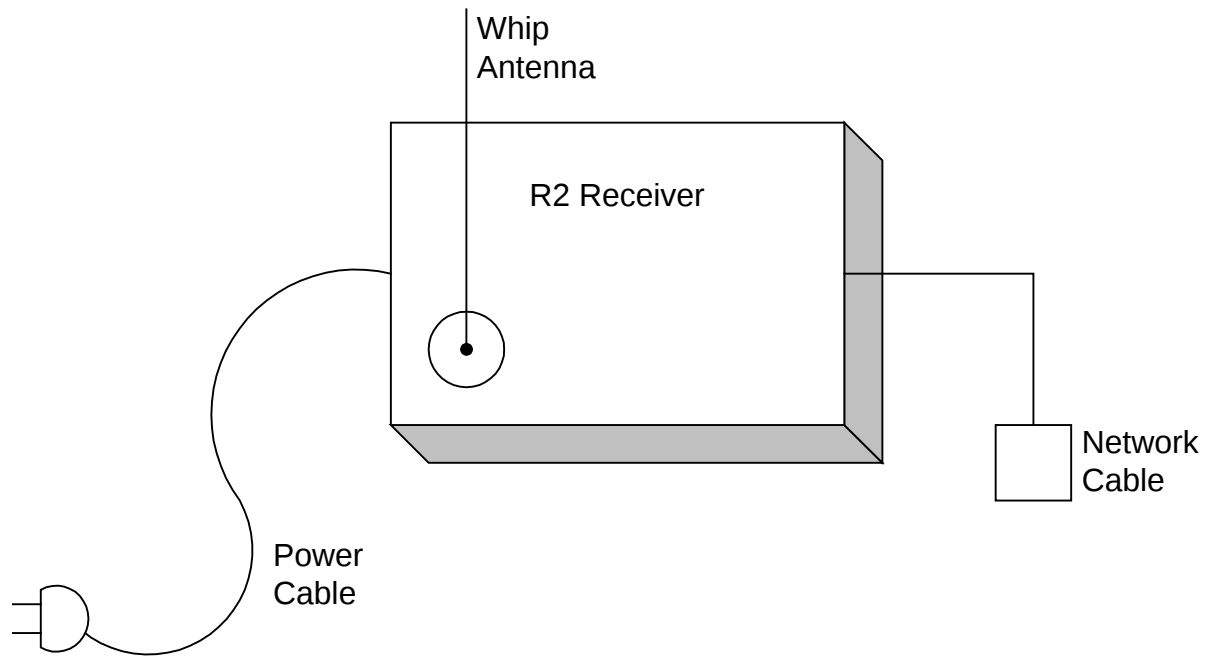
Crystal Frequency(ies): Not Applicable

Primary Power Requirement: 120 VAC, 60 Hz

Intermediate Frequency(ies): Not Applicable

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Configuration of the Equipment Under Test



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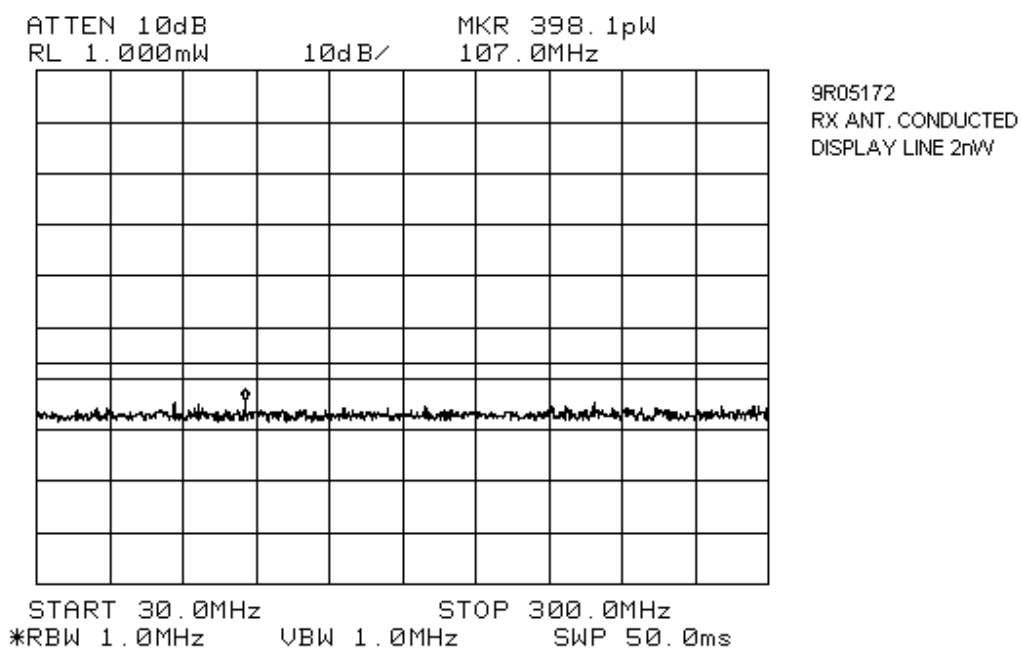
Section 3. Receiver Antenna Conducted Emissions

NAME OF TEST: Receiver Antenna Conducted Emissions	PARA. NO.: 15.111
TESTED BY: Glen Westwell	DATE: November 9, 1999

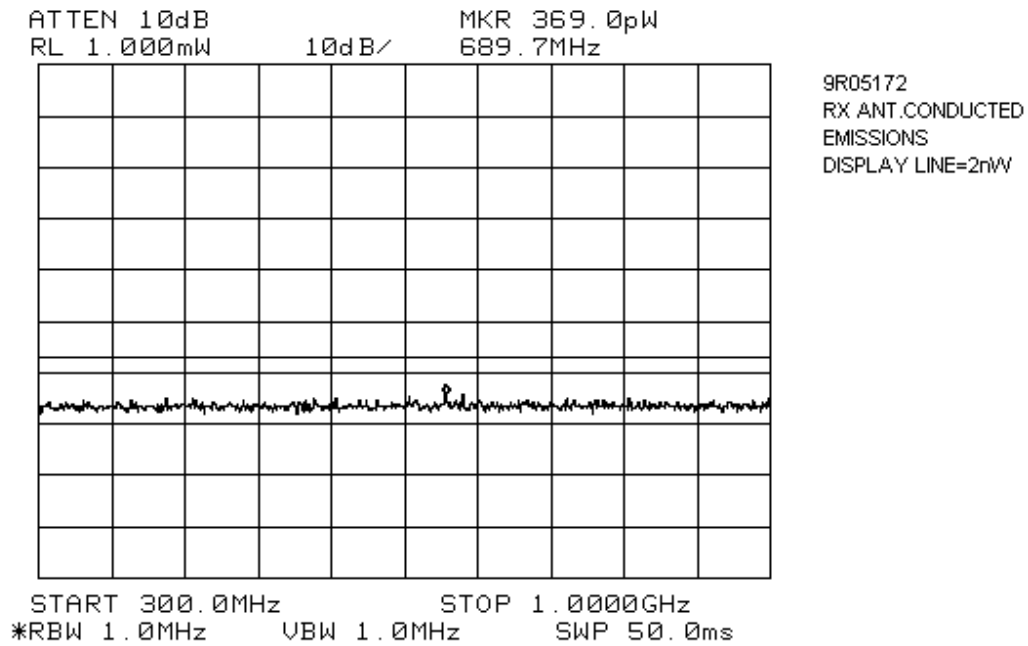
Test Results: Complies. See attached graphs and table.

Measurement Data: See attached graphs and table.

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Section 4. Radiated Emissions

NAME OF TEST: Radiated Emissions	PARA. NO.: 15.109(a)
TESTED BY: Glen Westwell	DATE: November 10, 1999

Minimum Standard:

Frequency(MHz)	Field Strength (dB μ V/m @ 3m)
30 - 88	40.0
88 - 216	43.5
216 - 960	46.0
Above 960	54.0

Test Results: Complies. No emissions were detected at 3 meters.

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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[illegible]

EQUIPMENT: Standalone Super-Heterodyne Receiver
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Radiated Photographs (Worst Case Configuration)

Front View



Rear View



EQUIPMENT: Standalone Super-Heterodyne Receiver
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Section 5. Powerline Conducted Emissions

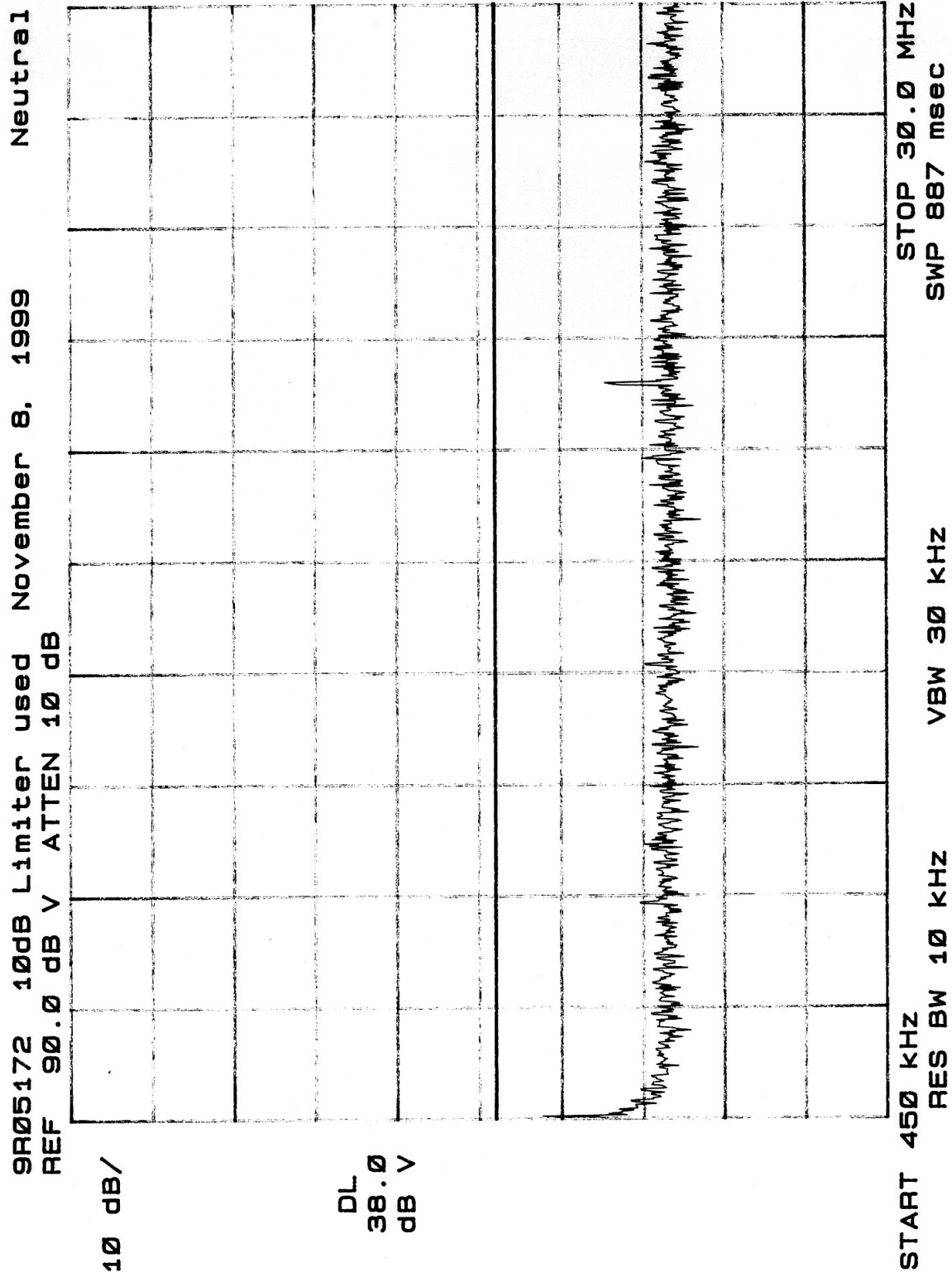
NAME OF TEST: Powerline Conducted Emissions	PARA. NO.: 15.107
TESTED BY: Kevin Rose	DATE: November 9, 1999

Minimum Standard: The RF energy feed back into the power lines shall not exceed 48 dB μ V on any frequency between 0.45 MHz and 30 MHz inclusive.

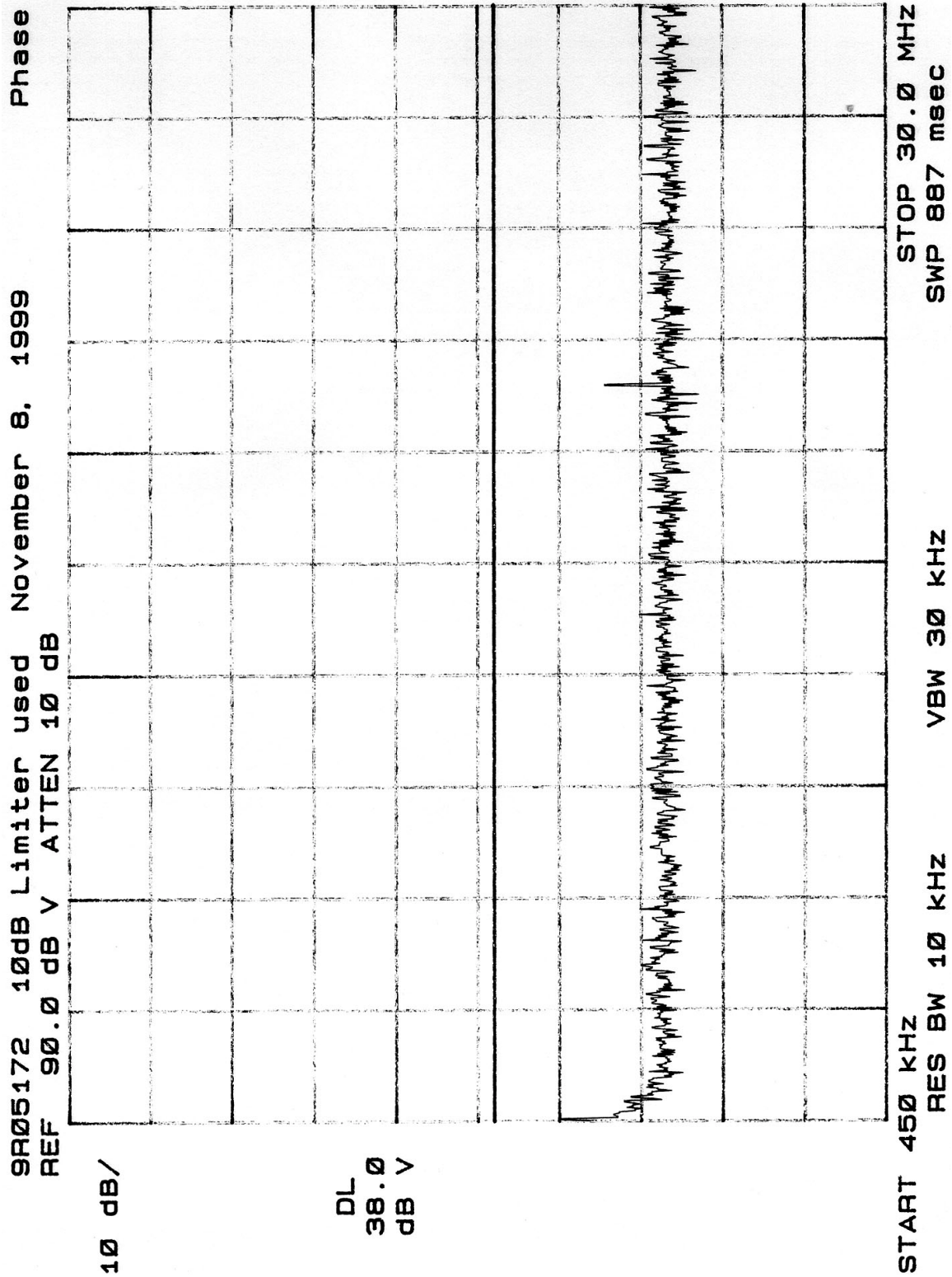
Test Results: Complies. See attached graphs.

Measurement Data: See attached graphs.

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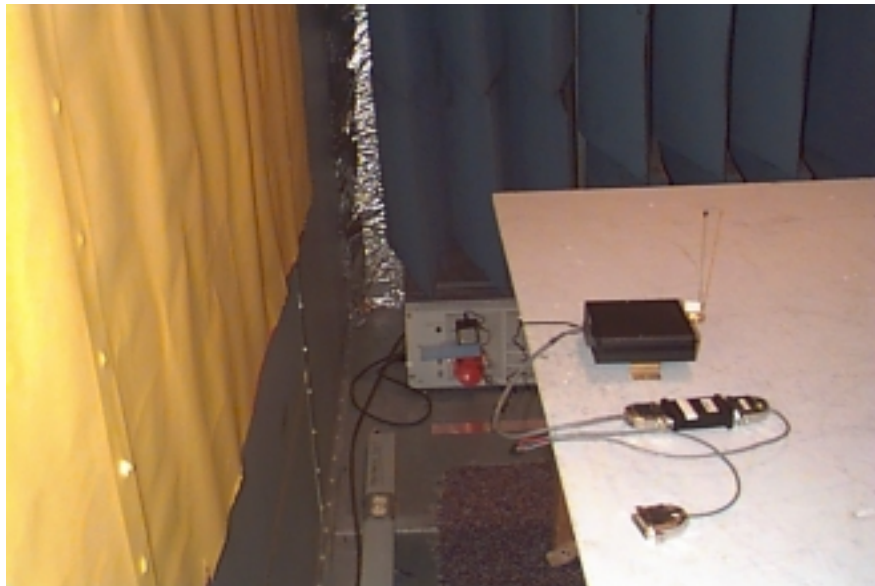
EQUIPMENT: Standalone Super-Heterodyne Receiver
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Powerline Conducted Photographs (Worst Case Configuration)

Front View



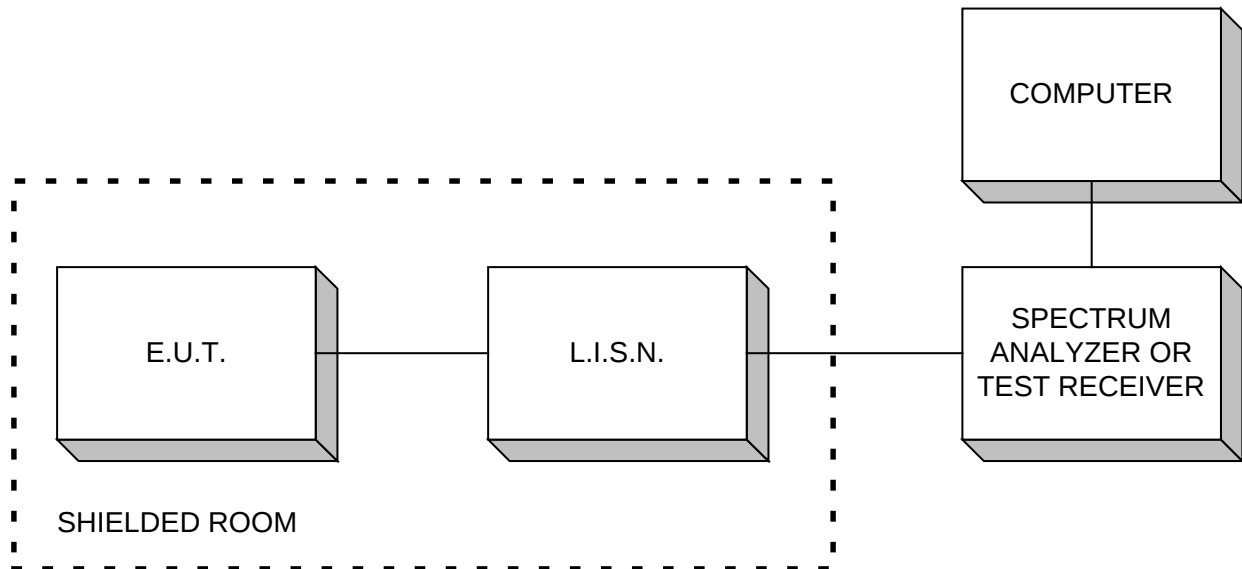
Side View



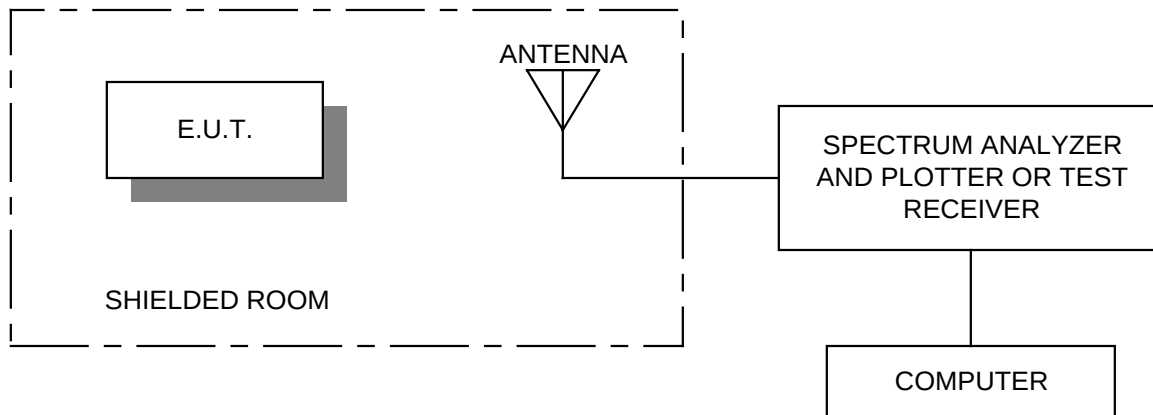
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Section 6. Block Diagrams

Conducted Emissions

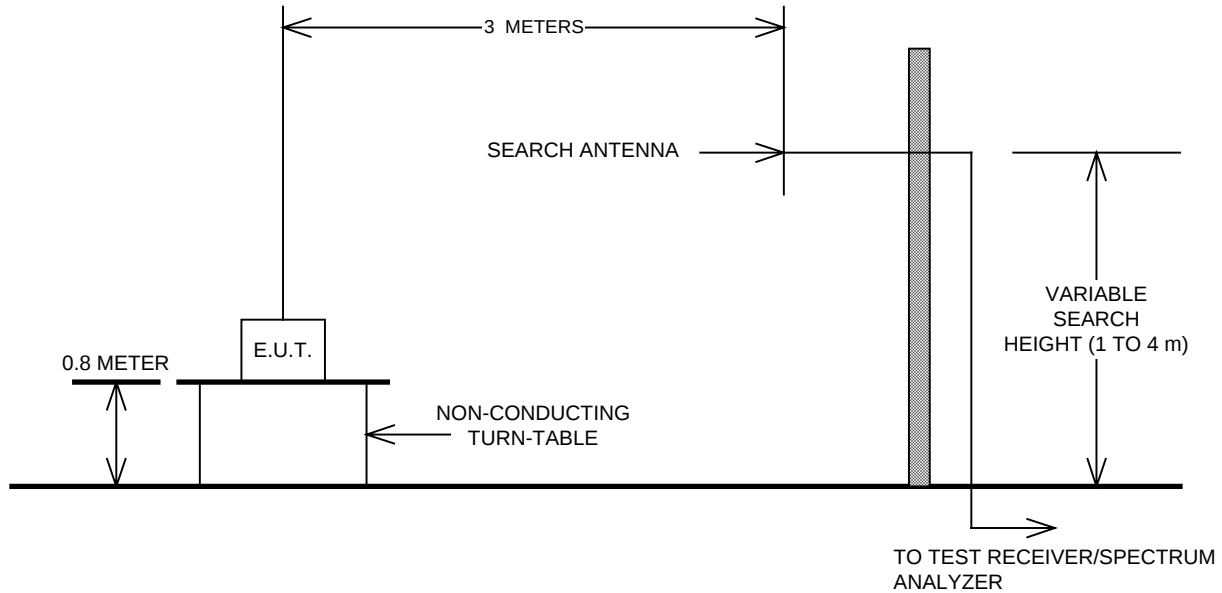


Radiated Prescan



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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 7. Test Equipment List

CAL CYCLE	EQUIPMENT	MANUFACTURER	MODEL	SERIAL	LAST CAL.	NEXT CAL.
1 Year	Spectrum Analyzer	Hewlett Packard	8564E	3846A01407	May 31/99	May 31/00
1 Year	Spectrum Analyzer-1	Hewlett Packard	8566B	2311A02238	Oct. 22/98	Oct. 22/99
1 Year	Spectrum Analyzer Display-1	Hewlett Packard	8566B	2314A04759	Oct. 22/98	Oct. 22/99
1 Year	Quasi-peak adapter-1	Hewlett-Packard	85650A	2043A00302	Oct. 22/98	Oct. 22/99
1 Year	LISN	Rohde & Schwarz	ESH2-Z5	890485/017	Aug. 24/99	Aug. 24/00
1 Year	Receiver	Rohde & Schwarz	ESH3	872079/053	Oct. 5/99	Oct. 5/00
1 Year	Receiver	Rohde & Schwarz	ESVP	892661/014	Mar. 29/99	Mar. 29/00
2 Year	Loop Antenna	Rohde & Schwarz	HFH-2-Z2	FA000631	Feb. 6/98	Feb. 8/00
1 Year	Plotter	Hewlett Packard	7550A	FA001129	NCR	NCR

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