

KTL Test Report: 9R01885

Applicant: VCALL Systems Inc.
1900 Merivale Road, Suite 202
Nepean, Ontario
K2G 4N4

**Equipment Under Test:
(E.U.T.)** VC 100 Receiver

FCC ID: OWKVC100

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: 18

EQUIPMENT: VC 100 Receiver
FCC ID: OWKVC100

Table Of Contents

Section 1. Summary of Test Results..... 3

Section 2. Equipment Under Test (E.U.T.)..... 5

Section 3. Radiated Emissions 7

Section 4. Powerline Conducted Emissions 12

Section 5. Block Diagrams..... 16

Section 6. Test Equipment List..... 18

EQUIPMENT: VC 100 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

C	Y	Y
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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 Rose, Test Technician

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This report applies only to the items tested.

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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	Complies

Footnotes For N/A's: Non-detachable antenna.

Test Conditions:

Indoor Temperature: 21 °C
 Humidity: 32 %

Outdoor Temperature: 10 °C
 Humidity: 18 %

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

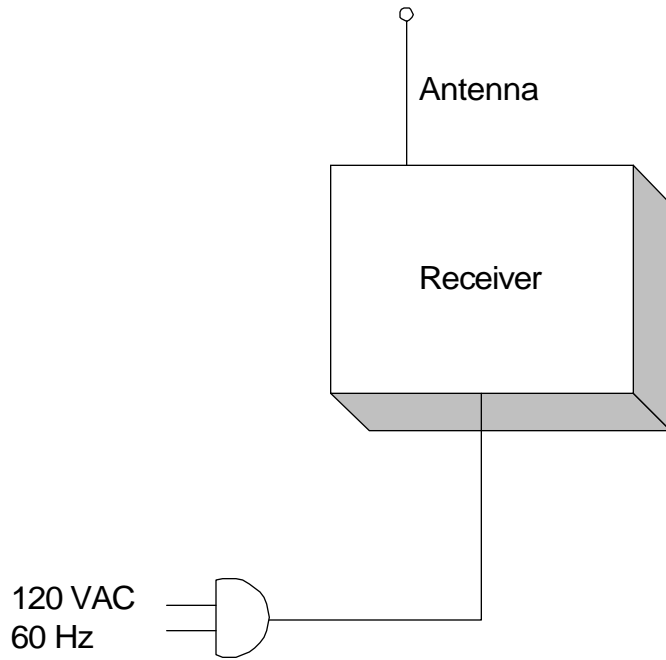
Manufacturer: VCALL Systems
Model No.: VC 100
Serial No.: None
Date Received In Laboratory: February 9, 2000
KTL Identification No.: Item #17

Equipment Details

Frequency Range: 303.89 MHz
Number of Channels: 1
Operating Frequency(ies) of Sample: 303.89 MHz
Crystal Frequency(ies): 48.17 MHz
Primary Power Requirement: 120 VAC to 12 Vdc XFormer

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Configuration of the Equipment Under Test



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Section 3. Radiated Emissions

NAME OF TEST: Radiated Emissions	PARA. NO.: 15.109(a)
TESTED BY: Kevin Rose	DATE: February 9, 2000

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. The worst-case emission level is 34.6 dB μ V/m @ 3m at 293.12 MHz. This is 11.4 dB below the specification limit.

Measurement Data: See attached table.

For super-regenerative receivers the receiver is cohored 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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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)	Ant. HGT. (m)	Table (deg.)	RCVD Signal (dBµV/m)	Ant. Factor (dB)**	Amp. Gain (dB)***	Dist. Corr. (dB)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
293.12	E/D3				12.8	21.8			34.6	46.0	11.4
293.12	E/D3				12.3	21.8			34.1	46.0	11.9
586.25	E/D4				6.7	30.0			36.7	46.0	9.3
586.25	E/D4				6.7	30.0			36.7	46.0	9.3

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

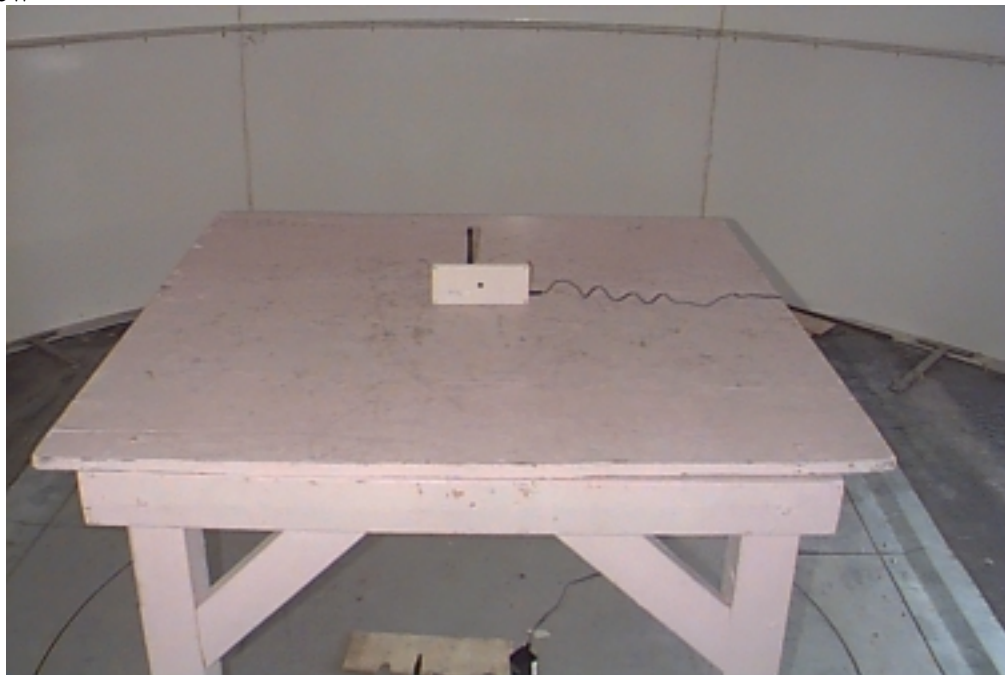
EQUIPMENT: VC 100 Receiver
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Radiated Photographs (Worst Case Configuration)

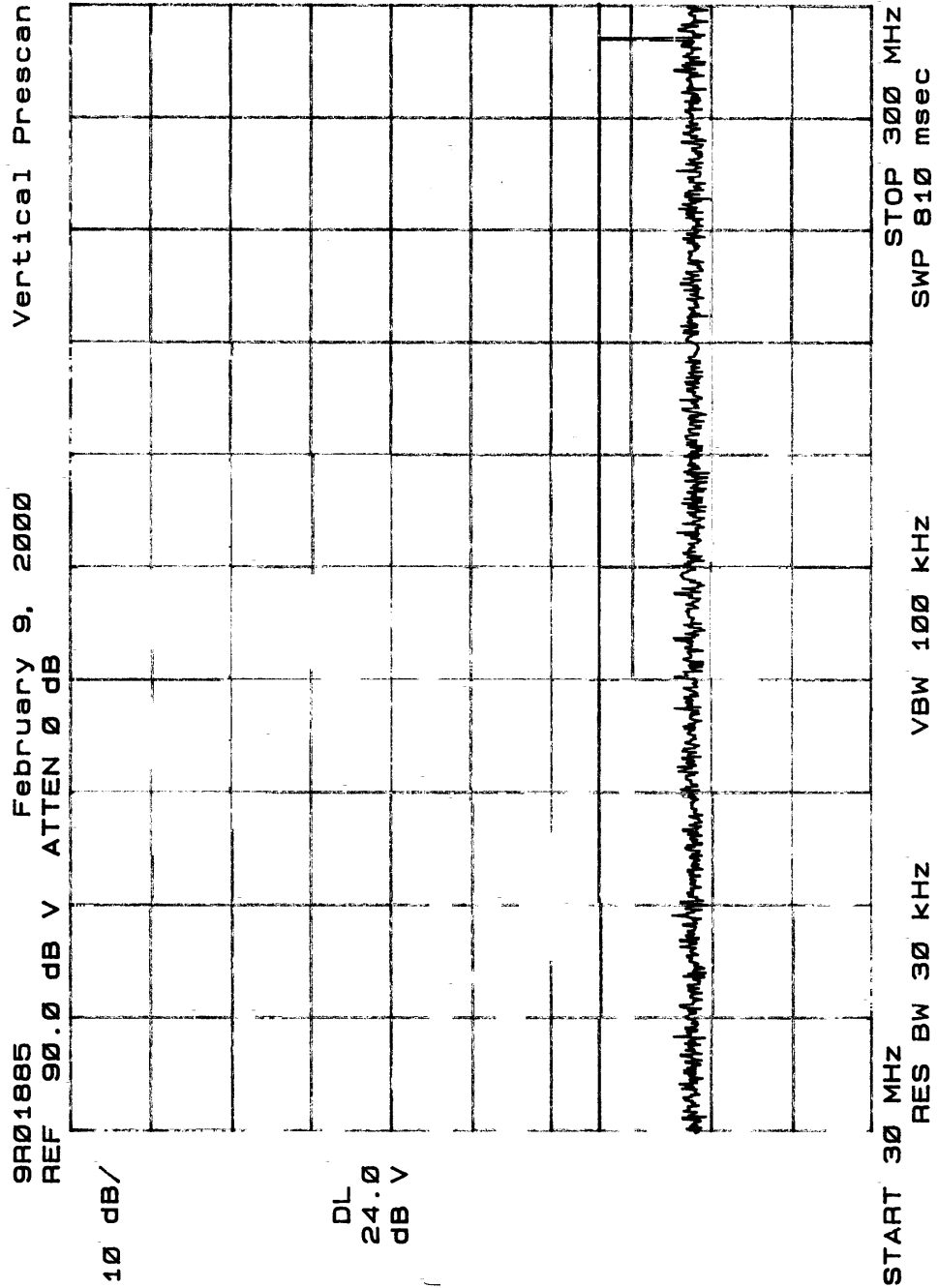
Front View



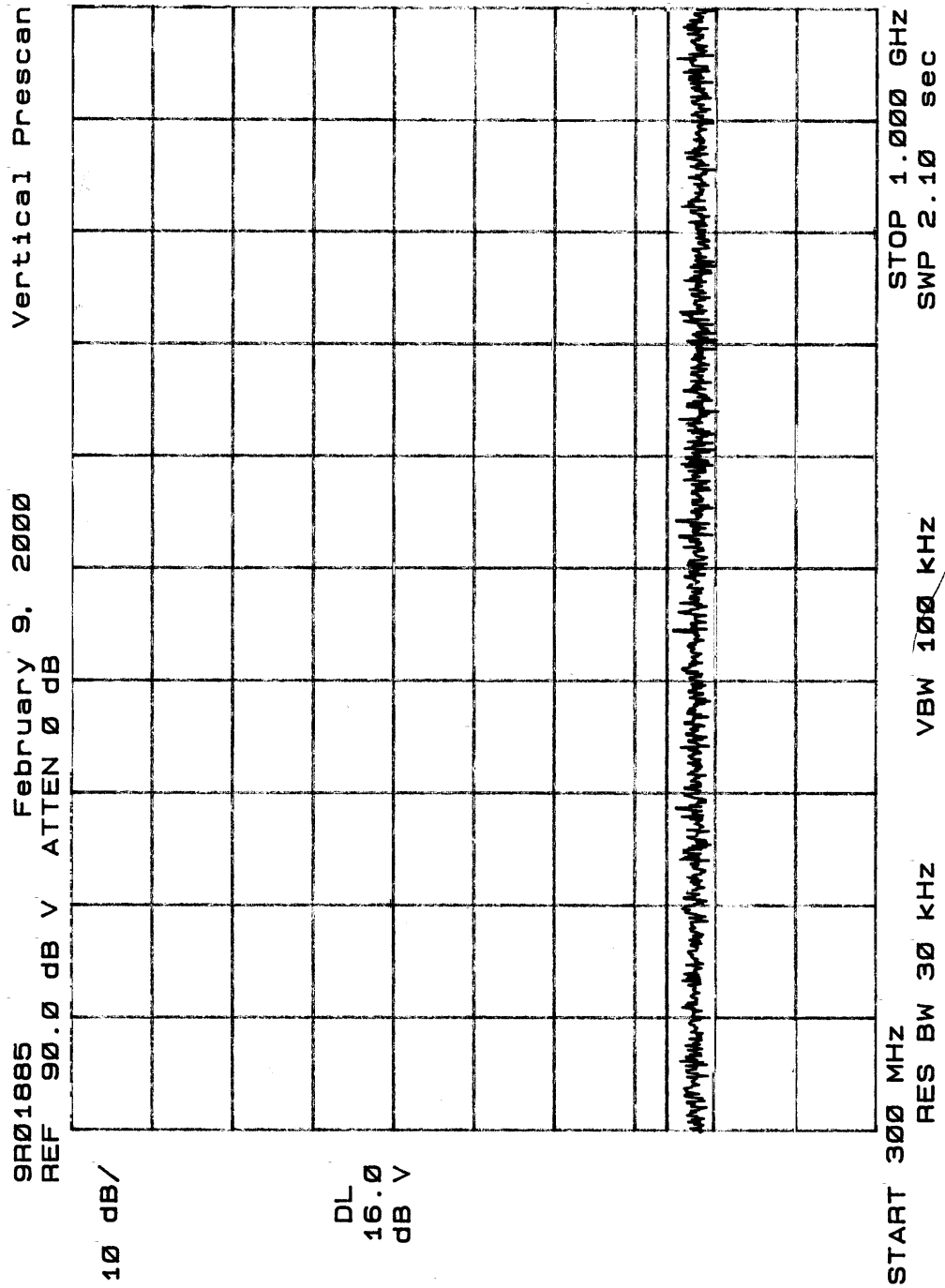
Rear View



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Section 4. Powerline Conducted Emissions

NAME OF TEST: Powerline Conducted Emissions	PARA. NO.: 15.107
TESTED BY: Kevin Rose	DATE: February 9, 2000

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.

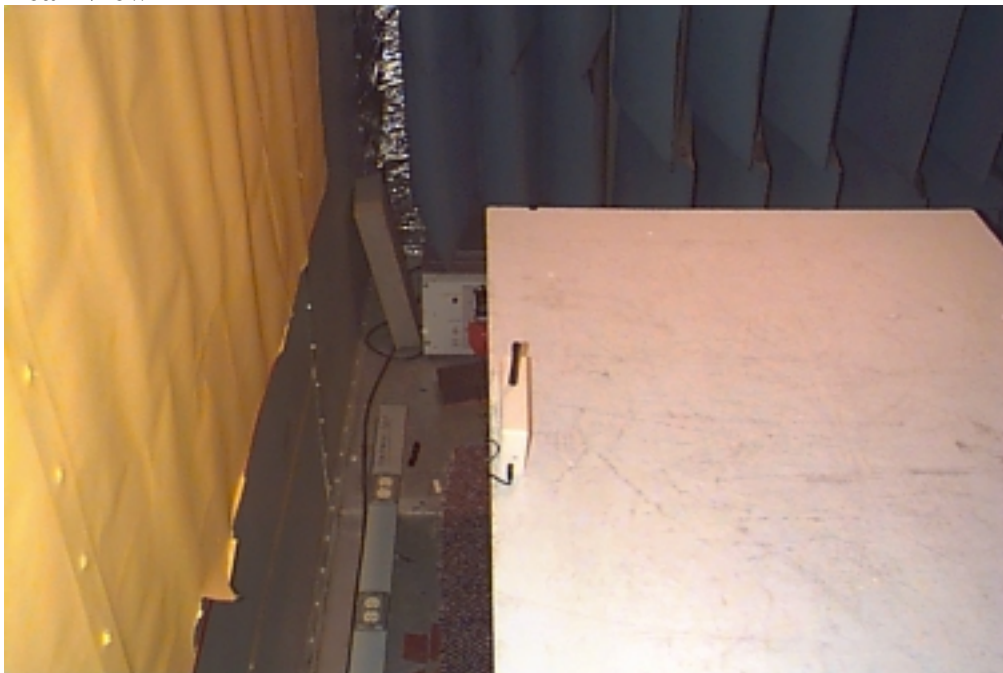
EQUIPMENT: VC 100 Receiver
FCC ID: OWKVC100

Powerline Conducted Photographs (Worst Case Configuration)

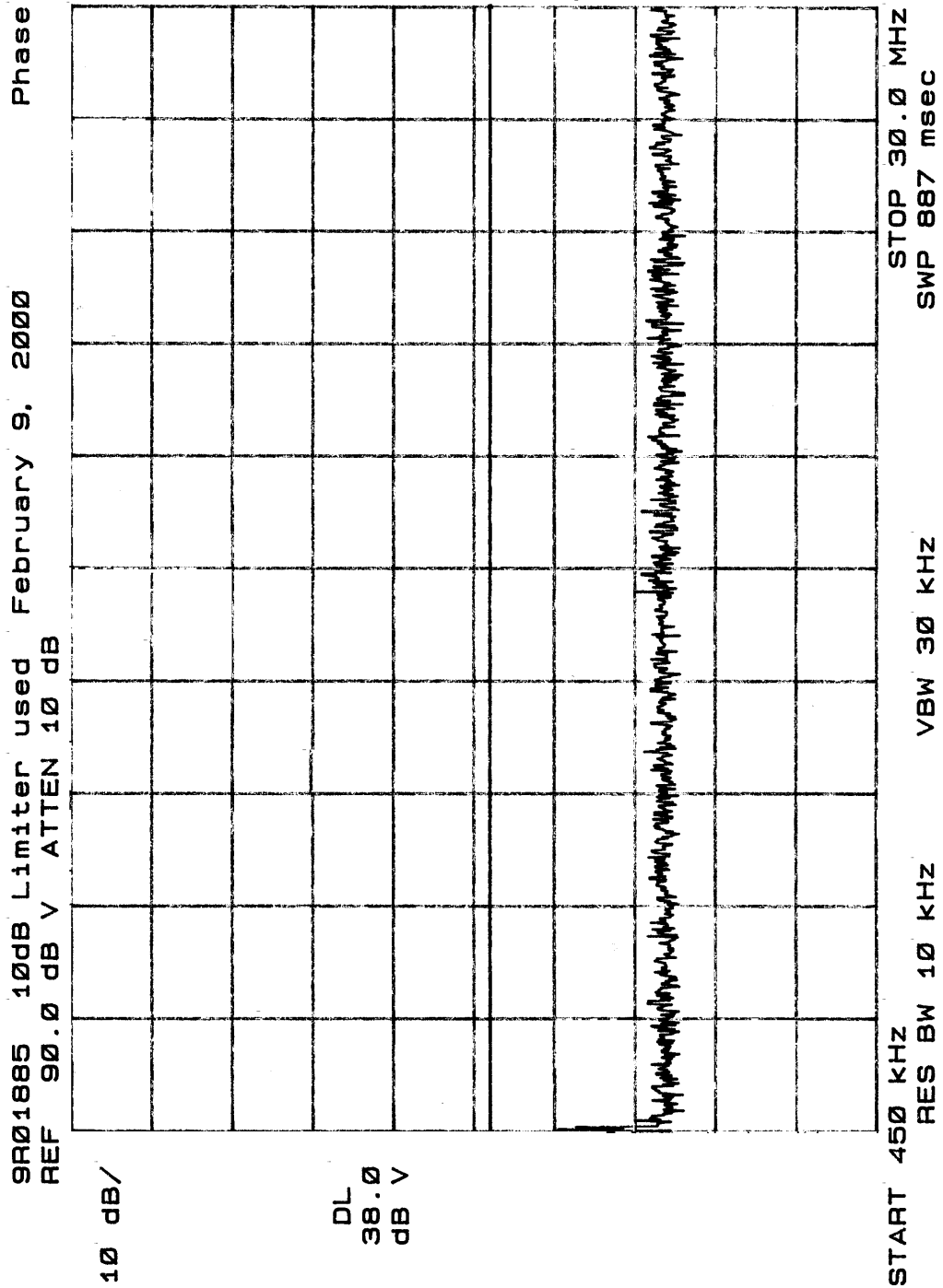
Front View



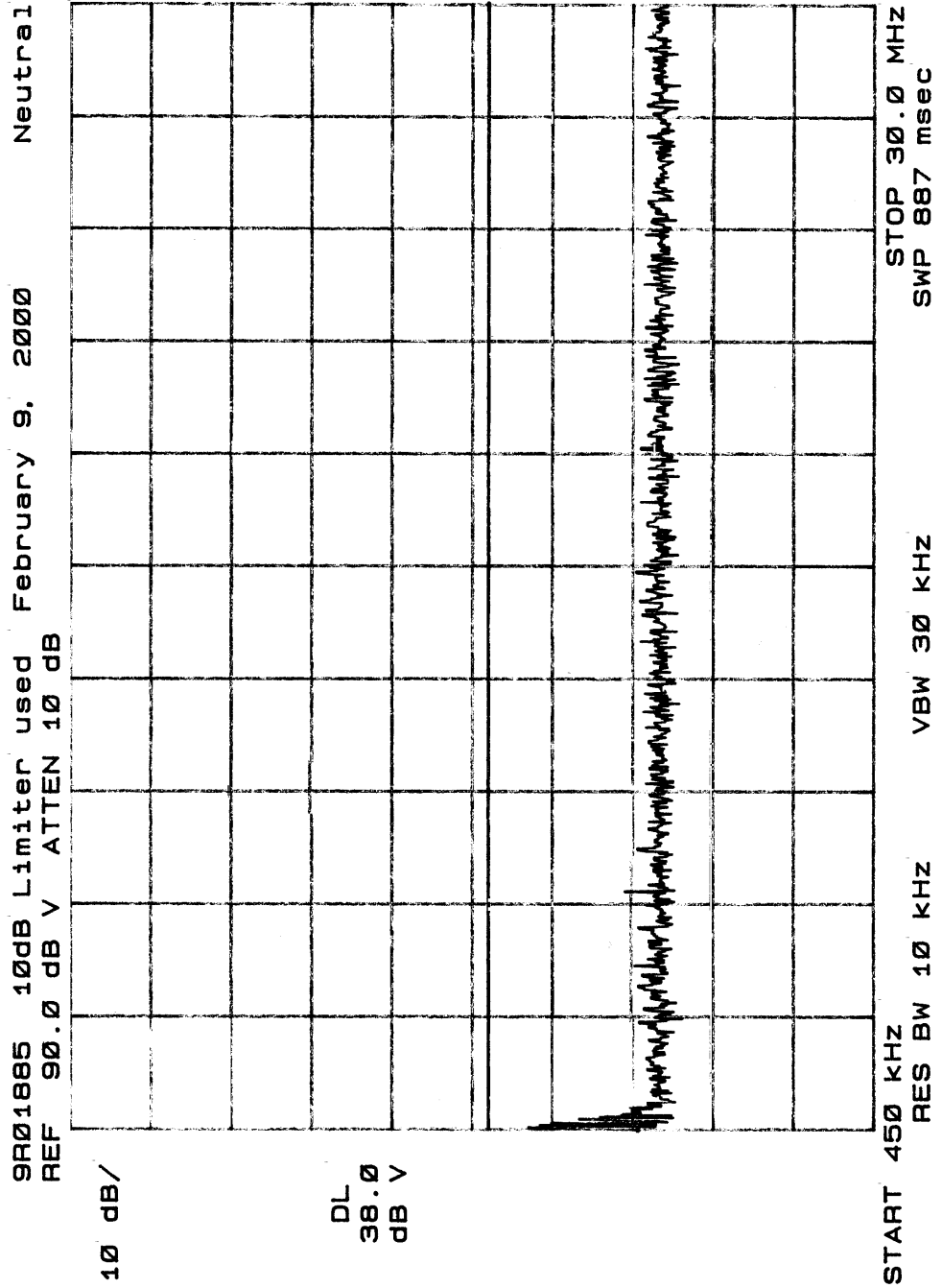
Rear View



EQUIPMENT: VC 100 Receiver
FCC ID: OWKVC100



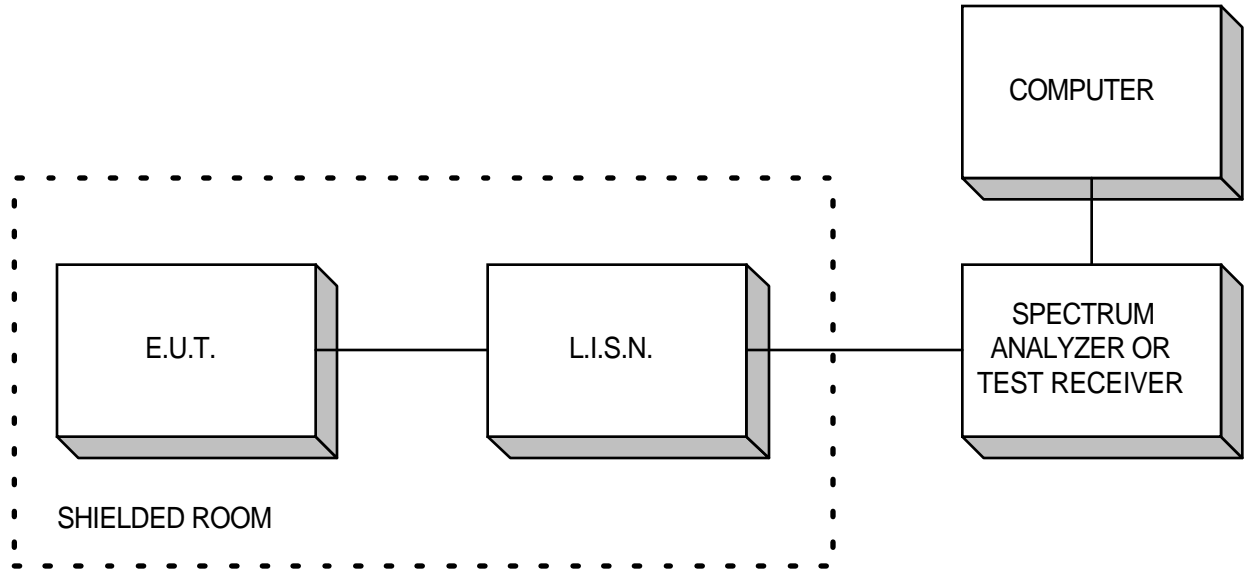
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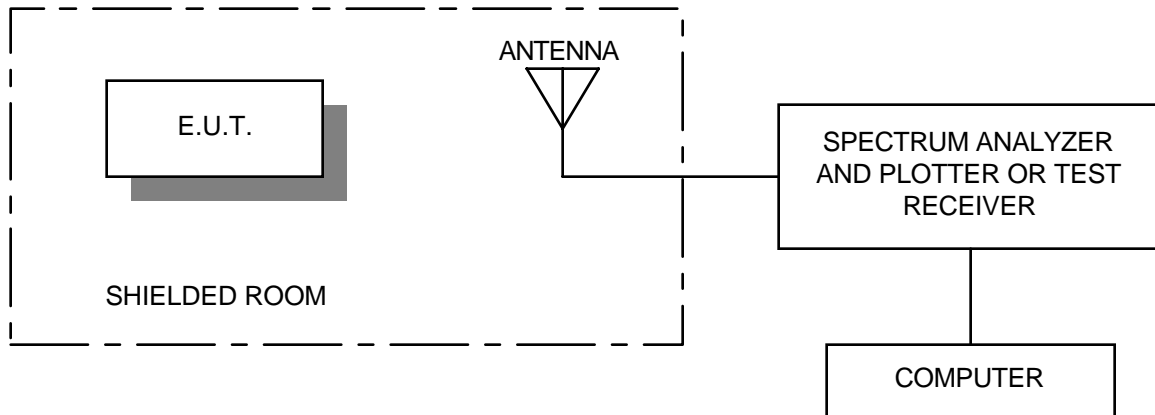
EQUIPMENT: VC 100 Receiver
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Section 5. Block Diagrams

Conducted Emissions

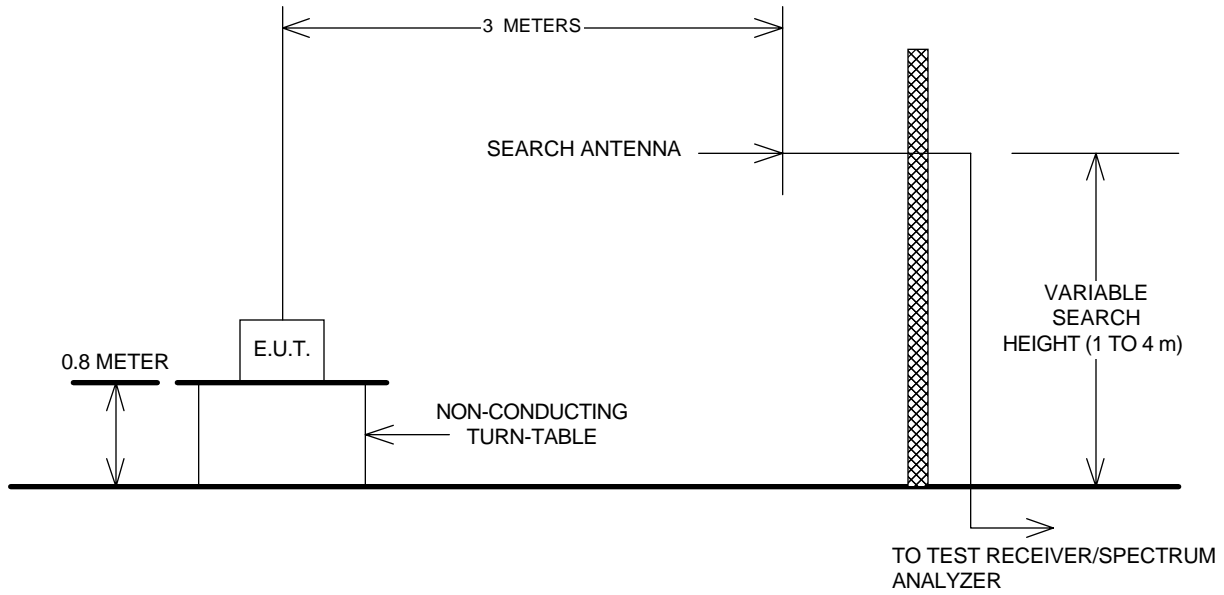


Radiated Prescan



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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 6. Test Equipment List

CAL CYCLE	EQUIPMENT	MANUFACTURER	MODEL	SERIAL	LAST CAL.	NEXT CAL.
1 Year	Spectrum Analyzer-1	Hewlett Packard	8566B	2311A02238	Nov. 6/99	Nov. 6/00
1 Year	Spectrum Analyzer Display-1	Hewlett Packard	8566B	2314A04759	Nov. 6/99	Nov. 6/00
1 Year	Quasi-peak adapter-1	Hewlett-Packard	85650A	2043A00302	Nov. 11/99	Nov. 11/00
	Plotter	Hewlett Packard	7470A	2308A30807	NCR	NCR
1 Year	LISN	Rohde & Schwarz	ESH2-Z5	890485/017	Aug. 24/99	Aug. 24/00
1 Year	Receiver	Rohde & Schwarz	ESVP	892661/014	Mar. 29/99	Mar. 29/00
1 Year	Dipole Antenna Set	EMCO #2	3121C	FA001349	Apr. 5/99	Apr. 5/00

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