



**Test Report:** 4W07734, Issue 2

**Applicant:** Swissphone Telecom AG  
Roosstrasse 53  
CH-8832 Wollerau  
Switzerland

**Equipment Under Test:** DE900  
(EUT)

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

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

A handwritten signature in blue ink, appearing to read 'Kevin Carr'.

**Authorized By:** Kevin Carr, EMC/EMI/Wireless Specialist

**Date:** 5 March 2004

**Total Number of Pages:** 11

Table Of Contents

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

Section 2.      General Equipment Specification.....5

Section 3.      Radiated Emissions.....6

Section 4.      Block Diagrams .....10

Section 5.      Test Equipment List .....11

## 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. 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. NONE  
See "Summary of Test Data".

TESTED BY: \_\_\_\_\_  
Daxesh Thakker, Wireless Test Engineer

DATE: 5 March 2004

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.

Nemko Canada Inc. authorizes the above named company to reproduce this report provided it is reproduced in its entirety and for use by the company's employees only.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Nemko Canada Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

This report applies only to the items tested.

This report shall not be reproduced except in full without the written approval of the testing laboratory.



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.

*EQUIPMENT: DE900*

---

**Summary Of Test Data**

<b>Name Of Test</b>	<b>Para. No.</b>	<b>Results</b>
Antenna Conducted Emissions	15.111	N/A (1)
Radiated Emissions	15.109	Complied
Powerline Conducted Emissions	15.107	N/A (2)

**Justification for N/A's**

- (1) No Test Port
- (2) Battery Powered

**Test Conditions:**

**Outdoor**                      Temperature: 17 °C  
                                     Humidity:        8 %

## **Section 2.        General Equipment Specification**

<b>Manufacturer:</b>	Swissphone Telecon AG
<b>Model No.:</b>	DE900
<b>Serial No.:</b>	C200403.01860, C200403.02365, C200403.01861, C200407.01242, C200403.02364, C200407.01243.
<b>Date Received In Laboratory:</b>	February 24, 2004
<b>Nemko Identification No.:</b>	1 (173.95 MHz), 2 (156.05 MHz), 3 (400.05 MHz), 4 (435.05 MHz), 5 (138.05 MHz), 6 (469.95 MHz)
<b>Frequency Range (<i>or fixed frequency</i>):</b>	138 – 174 MHz 400 – 420 MHz 430 – 470 MHz
<b>Type of Equipment:</b>	Paging Receiver.

**Section 3. Radiated Emissions****Para. No.: 15.109(a)****Test Performed By:** Daxesh Thakker**Date of Test:** February 26, 2004**Minimum Standard:**

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

**Test Results:** Complied

**Measurement Data:** See attached table. Notes: The spectrum was searched up to 2GHz and all emissions within 20dB of the specification limits were measured and reported.

The equipment under test was configured on 3 orthogonal axis with fresh batteries in order to determine worst case orientation.

EQUIPMENT: DE900

Test Date: 25 Feb. 2004											
Engineer's Name: Daxesh Thakker											
Temperature (C°): 17							Humidity %: 8				
Tested as per Table Top											
Test Distance (meters): 3							Dome: 1				
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBμV)	Ant. Factor (dB)	Amp. Gain (dB)	Cable Loss (dB)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Amp.
<b>Low Ch.</b>											
152.5500	BC1	V	16.5	13.0	--	1.5	31.0	43.5	12.5	QP	--
152.5500	BC1	H	18.7	12.5	--	1.5	32.7	43.5	10.8	QP	--
<b>Mid. Ch.</b>											
159.4500	BC1	V	11.8	13.0	--	1.5	26.3	43.5	17.2	QP	--
159.4500	BC1	H	16.5	12.5	--	1.5	30.5	43.5	13.0	QP	--
<b>High Ch.</b>											
177.4500	BC1	V	12.8	13.1	--	1.7	27.6	43.5	15.9	QP	--
177.4500	BC1	H	15.0	12.4	--	1.7	29.1	43.5	14.4	QP	--
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole											
Note 2: Detector Legend: Q-Peak = 120 kHz RBW, Average = 1.0 MHz RBW											
Notes:											

EQUIPMENT: DE900

Test Date: 25 Feb. 2004											
Engineer's Name: Daxesh Thakker											
Temperature (C°): 17							Humidity %: 8				
Tested as per Table Top											
Test Distance (meters): 3							Dome: 1				
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBμV)	Ant. Factor (dB)	Amp. Gain (dB)	Cable Loss (dB)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Amp.
<b>Low Ch.</b>											
355.0500	LP1	V	18.5	15.0	--	2.4	35.9	46.0	10.1	QP	--
355.0500	LP1	H	19.4	15.3	--	2.4	37.1	46.0	8.9	QP	--
710.1000	LP1	V	8.0	20.8	--	3.4	32.2	46.0	13.8	QP	--
710.1000	LP1	H	8.0	21.3	--	3.4	32.7	46.0	13.3	QP	--
<b>Mid. Ch.</b>											
390.0500	LP1	V	12.5	15.9	--	2.6	31.0	46.0	15.0	QP	--
390.0500	LP1	H	21.3	16.1	--	2.6	40.0	46.0	6.0	QP	--
780.1000	LP1	V	9.5	20.9	--	3.8	34.2	46.0	11.8	QP	--
780.1000	LP1	H	11.1	22.1	--	3.8	37.0	46.0	9.0	QP	--
<b>High Ch.</b>											
424.9500	LP1	V	20.1	16.1	--	2.6	38.8	46.0	7.2	QP	--
424.9500	LP1	H	19.6	16.5	--	2.6	38.7	46.0	7.3	QP	--
849.9000	LP1	V	8.0	22.2	--	3.9	34.1	46.0	11.9	QP	--
849.9000	LP1	H	9.5	22.5	--	3.9	35.9	46.0	10.1	QP	--
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole											
Note 2: Detector Legend: Q-Peak = 120 kHz RBW, Average = 1.0 MHz RBW											
Notes:											



*EQUIPMENT: DE900*

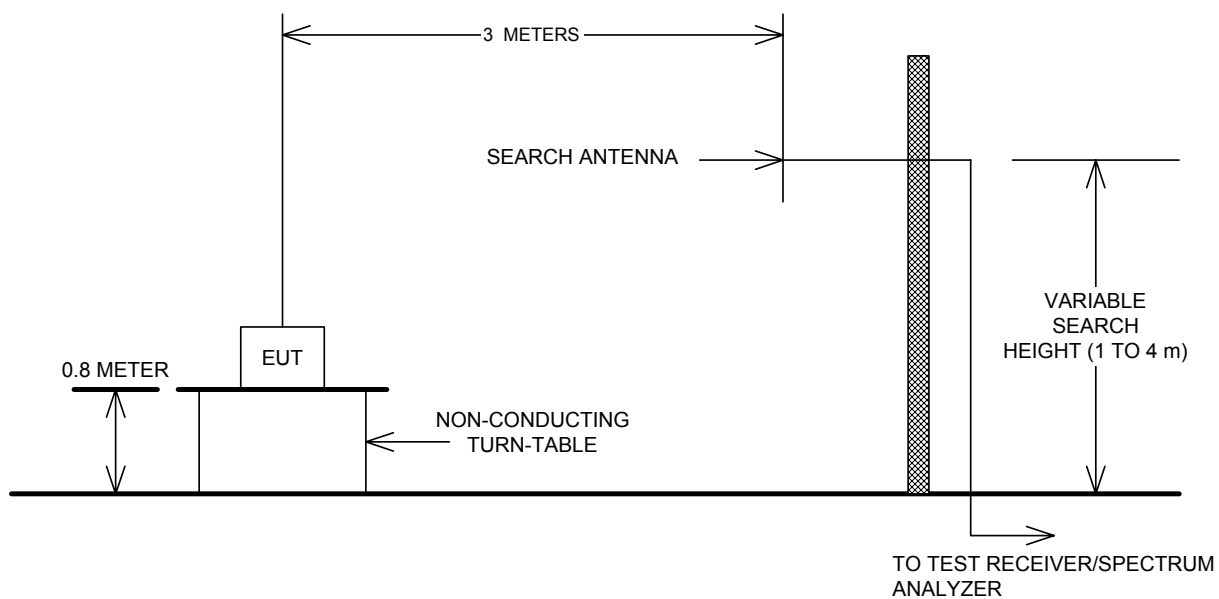
---

Set up Photo



## Section 4. Block Diagrams

### Outdoor Test Site For Radiated Emissions



*EQUIPMENT: DE900*

---

**Section 5. Test Equipment List***Equipment List - Radiated Emissions*

CAL Cycle	Equipment	Manufacturer	Model No.	Asset/Serial No.	Last Cal.	Next Cal.
1 Year	Receiver	Rohde & Schwarz	ESVS-30	FA001437	July. 24/03	July. 24/04
1 Year	Spectrum Analyzer	Hewlett-Packard	8565E	FA000981	July. 03/03	July. 03/04
1 Year	Biconical (1) Antenna	EMCO	3109	FA000805	April. 15/03	April. 15/04
1 Year	Horn Antenna #1	EMCO	3115	FA000649	Dec. 18/03	Dec. 18/04
1 Year	Log Periodic Antenna #1	EMCO	LPA-25	FA000477	Sept. 02/03	Sept. 02/04
1 Year	1.0 – 2.0 GHz Amplifier	JCA	12-400	FA001498	June. 18/03	June. 18/04

Note: N/A = Not Applicable, NCR = No Cal Required, COU = CAL On Use, OUT = Out For CAL/Repair