



Nemko

Test Report: 5W42716

Applicant: Swissphone Telecom AG
Falmistrasse 21
Samstagern, Switzerland
CH-8833

Apparatus: DE920 Pager

FCC ID: L3M882

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

Tested By: Nemko Canada Inc.
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Authorized By: 
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Date: 29 July 2005

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Report Summary

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15, Subpart B. Radiated tests were conducted in accordance with ANSI C63.4-2003. Radiated emissions are made on an open area test site. A description of the test facility is on file with the FCC.

The assessment summary is as follows:

Apparatus Assessed:	DE920 Pager
Specification:	FCC Part 15 Subpart B, 15.107 and 15.109
Compliance Status:	Complies
Exclusions:	None
Non-compliances:	None
Report Release History:	Original Release

Author: Jason Nixon, Telecom Specialist

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

This test report has been completed in accordance with the requirements of ISO/IEC 17025.

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Section 1 : Equipment Under Test

1.1 Product Identification

The Equipment Under Test was identified as follows:

DE920 Pager

1.2 Samples Submitted for Assessment

The following samples of the apparatus have been submitted for type assessment:

Sample No.	Description	Serial No.
1	DE920 Pager (Frequency: 170.675MHz)	C200518.02491
2	DE920 Pager (Frequency: 150.675MHz)	C200518.02489
3	DE920 Pager (Frequency: 160.675MHz)	C200518.02490

The first samples were received on: July 12, 2005

1.3 Theory of Operation

The DE920 Pager uses two IF stages for the receive signal. The first IF stage uses low side mixing to produce a 21.25MHz signal and the second uses low side mixing to produce a 450kHz signal.

1.4 Technical Specifications of the EUT

Manufacturer: Swissphone Telecom AG

Receive Frequency: 146-155MHz
155-164MHz
164-174MHz

Channel Spacing: 12.5kHz or 25kHz

Receive Frequency LO: Rx Frequency – 21.25MHz

Receiver Type: Double super heterodyne

Antenna Data: Internal

Power Source: 1.5VDC 'AA' Battery

Section 2 : Test Conditions

2.1 Specifications

The apparatus was assessed against the following specifications:

FCC Part 15 Subpart B, 15.107 and 15.109
Unintentional Radiators

2.2 Deviations From Laboratory Test Procedures

No deviations were made from laboratory test procedures.

2.3 Test Environment

All tests were performed under the following environmental conditions:

Temperature range	:	15 – 30 °C
Humidity range	:	20 - 75 %
Pressure range	:	86 - 106 kPa
Power supply range	:	+/- 5% of rated voltages

2.4 Test Equipment

Equipment	Manufacturer	Model No.	Asset/Serial No.	Last Cal.	Next Cal.
Spectrum Analyzer	Hewlett-Packard	8566B	FA001309	May 18/05	May 18/06
Spectrum Analyzer Display	Hewlett-Packard	85662A	FA001309	May 18/05	May 18/06
Bilog	Schaffner	CBL6112B	FA001504	NCR	NCR
Horn Antenna #1	EMCO	3115	FA000649	Dec. 22/04	Dec. 22/05
1.0 – 2.0 GHz Amplifier	JCA	12-400	FA001498	July 14/05	July 14/06
Spectrum Analyzer	Hewlett-Packard	8565E	FA000981	March 10/05	March 10/06
Dipole Antenna Set	EMCO #1	3121C	FA000814	April 29/05	April 29/06

* NCR – No Calibration Required

Section 3 : Observations

3.1 Modifications Performed During Assessment

No modifications were performed during assessment.

3.2 Record Of Technical Judgements

No technical judgements were made during the assessment.

3.3 EUT Parameters Affecting Compliance

The user of the apparatus could not alter parameters that would affect compliance.

3.4 Test Deleted

No Tests were deleted from this assessment.

Section 4 : Results Summary

This section contains the following:

FCC Part 15 Subpart B : Test Results

The column headed 'Required' indicates whether the associated clauses were invoked for the apparatus under test. The following abbreviations are used:

- N No : not applicable / not relevant.
- Y Yes : Mandatory i.e. the apparatus shall conform to these tests.
- N/T Not Tested, mandatory but not assessed. (See section 3.4 Test deleted)

The results contained in this section are representative of the operation of the apparatus as originally submitted.

4.1 FCC Part 15 Subpart C : Test Results

Part 15	Test Description	Required	Result
15.107(a) 15.109(a)	Conducted Emissions for Class B Radiated Emissions for Class B	N Y	NOTE 1 Pass

Notes:

- 1) The apparatus is battery powered.

Appendix A : Test Results

Criteria: Clause 15.109(a) Radiated Emissions

Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency of Emission (MHz)	Field Strength (microvoltsmeter)
30 - 88	100
88 - 216	150
216 - 960	200
Above 960	500

Test Conditions:

Sample Number:	1, 2, 3	Temperature:	18
Date:	July 27, 2005	Humidity:	77
Modification State:	0	Tester:	Jason Nixon
		Laboratory:	OATS

Test Results:

No Emissions were detected within 20dB below the limit.

Additional Observations:

The Spectrum was searched from 30MHz to 2GHz.

The EUT was measured on three orthogonal axis with fresh new batteries.

Testing was carried out on three samples with receive frequencies set to a low, mid and high channel.

Measurement equipment setup was 120kHz Quasi-peak detector for measurements below 1GHz and 1MHz RBW/VBW peak detector above 1GHz.

All Measurements were performed at 3 meters.

Appendix B : Setup Photographs

Spurious Emissions Setup:



Appendix C : Block Diagram of Test Setups

Test Site For Radiated Emissions

