



Intertek Testing Services
ETL SEMKO

***Evaluation of Compliance with FCC-Specified Guidelines for
Human Exposure to Radio Frequency Electromagnetic Fields***

on the

**Radio Packet Modem
Model: CNI-903M
FCC ID: N79CNI-903M**

for

Communication Network Interface Inc.

Date of Test: March 21, 2000

Job # J20007646

Total No. of Pages Contained in this Report: 8 + data pages

All services undertaken are subject to the following general policy: Reports are submitted for exclusive use of the client to whom they are addressed. Their significance is subject to the adequacy and representative character of the samples and to the comprehensiveness of the tests, examinations or surveys made. No quotations from reports or use of Intertek Testing Services' name is permitted except as expressly authorized by Intertek Testing Services in writing.

FCC 2.1091 & ANSI 95.1-1992



Intertek Testing Services NA Inc.
1365 Adams Court, Menlo Park, CA 94025
Telephone 650-463-2900 Fax 650-463-2910 Home Page www.etlsemko.com





VERIFICATION OF COMPLIANCE

Report No. J20007646B

Verification is hereby issued to the named APPLICANT and is VALID ONLY for the equipment identified hereon for use under the rules and regulations listed below.

Equipment Under Test:

Radio Packet Modem

Trade Name:

CNI

FCC ID:

N79CNI-903M

Model No.:

CNI-903M

Serial No.:

Not Labeled

Applicant:

Communication Network Interface Inc.

Contact:

Mr. Won S. Lee

Address:

165-5, Dongkyo-Dong, Mapo-Ku

Seoul 121-200, Korea

Tel. number:

82-2-330-5626

Fax number:

82-2-330-5733

Applicable Regulation:

FCC 2.1091 & ANSI C95.1:1992

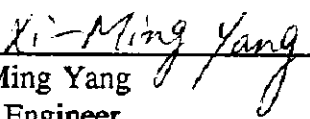
Equipment Class:

Uncontrolled Environments

Date of Test:

March 21, 2000

We attest to the accuracy of this report:


Xi-Ming Yang
Test Engineer


David Chernomordik
Engineering Manager



Table of Contents

1.0	Introduction.....	1
2.0	Description of Equipment.....	1
3.0	Test Summary	1
4.0	System Test Configuration.....	2
4.1	Support Equipment	2
4.2	Block Diagram of Test Setup	2
4.3	Justification.....	3
4.4	Software Exercise Program	3
4.5	Mode of Operation During Test.....	3
4.6	Modifications Required for Compliance	3
5.0	Radiated Emissions	4
5.1	Radiated Emission Limits	4
5.2	Site Description and List of Test Equipment.	5
5.3	Test Procedure	5
5.4	Field Strength Calculation.....	5
5.5	Configuration Photographs.....	6
5.6	Test Data.....	7
6.0	Miscellaneous Information or Other Comments	8

1.0 Introduction

This report is designed to show compliance with the FCC Part 2.1091 Radio Frequency Radiation Exposure Evaluation for mobile and unlicensed devices. The test procedures and limits, as described in American National Standards Institute C95.1-1992, were employed. A description of the product and operating configuration, the various provisions of the rules, the methods for determining compliance, and a detailed summary of the results are included within this test report.

2.0 Description of Equipment

The CNI-903M, RPM (Radio Packet Modem) is a digital data communication equipment in accordance with Mobitex specification. The frequency it uses ranges from 896 MHz to 901 MHz for transmission and from 935 MHz to 941 MHz for reception.

A production version of the sample was received on March 21, 2000 in good condition.

3.0 Test Summary

The CNI-903M Radio Packet Modem was tested by Intertek Testing Services as documented herein, and the energy emitted by the EUT was found to be below the recommended levels of Maximum Permissible Exposure for Uncontrolled Environments in FCC 1.1310 (ANSI C95.1: 1992).

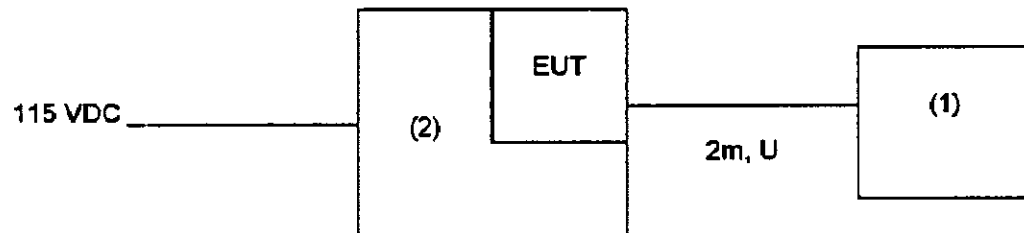
Therefore, in reference to the limits set forth in FCC 1.1310 use of the equipment is deemed to be safe with respect to human exposure to Radio Frequency Electromagnetic Fields, when used in a normal fashion.

4.0 System Test Configuration

4.1 Support Equipment

Item #	Description	Model No.	Serial No.	FCC ID
1	Samsung Computer	SFM-1400LW	400391AK700238	DOC B
2	CNC RPM Interface Test Board Module	RPM	N/A	N/A
3	Whip Antenna	N/A	N/A	N/A

4.2 Block Diagram of Test Setup



* = EUT	S = Shielded	F = With Ferrite
** = No ferrites on video cable	U = Unshielded	

4.3 Justification

The system was configured for testing in a typical fashion (as a customer would normally use it).

4.4 Software Exercise Program

The CNI software was used during the test.

4.5 Mode of Operation During Test

Transmitting full power (0.47W).

4.6 Modifications Required for Compliance

The following modifications were installed during compliance testing in order to bring the product into compliance (Please note that this list does not include changes made specifically by Communication Network Interface Inc. prior to compliance testing):

No modifications were installed by Intertek Testing Services.

5.0 Radiated Emissions**5.1 Radiated Emission Limits, FCC 1.1310**

The following exposure limits apply to equipment use in Uncontrolled Environments:

Maximum Permissible Exposure for Uncontrolled Environments

Frequency Range (MHZ)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) E-field, H-field (mW/cm ²)	Averaging Time (Minutes)
0.3 - 1.34	614	1.63	*100	30
1.34 - 30	824/f	2.19/f	*180/f ²	30
30 - 300	27.5	0.073	0.2	30
300 - 1500	-	-	f/1500	30
1500 - 100,000	-	-	1.0	30

* = Plane-wave equivalent power density.

Dashes "-" are used to indicate that there is no limit under the guideline.

5.2 Site Description and List of Test Equipment.

All tests were performed on Open Area Test Site.

Measurement equipment used for radiated emission compliance testing utilized some of the equipment on the following list:

Manufacturer	Equipment	Model Number	Calibration Due
Holaday	Field Strength Meter	HI-3004EX	5/17/00

5.3 Test Procedure

The test was performed at 836 MHz. The antenna was placed on a 0.8m wooden table on open site. The antenna was connected to the EUT. EUT output power was measured at RF output connector. EUT has 0.47W ERP power output.

The sensor of the field strength meter was moved around the antenna to obtain the maximum reading of the field strength meter. The measurements were performed at the distance 0.1m to 1m from the antenna.

5.4 Field Strength Calculation

The field strength was measured directly from the meter. The power density (PD in W.m²) was calculated using the following formula:

$$Pd = E^2/120\pi$$

Where E is Field Strength in V/m

5.5 Configuration Photographs

Radiated Emission

5.6 Test Data

The results on the following page(s) were obtained when the device was tested in the condition described in section 4.

Test Distance m	Maximum Field Strength Reading V/m	Calculated Power Density MW/cm ²	FCC Limit for Time- Averaging Interval of 30 min. mW/cm ²
0.1	4.5	0.54	0.60
0.2	21	0.12	0.60
0.3	17	0.077	0.60
0.5	11	0.032	0.60
1.0	5	0.0066	0.60
1.5	3.5	0.0032	0.60

Judgment: Passed

6.0 Miscellaneous Information or Other Comments

None.