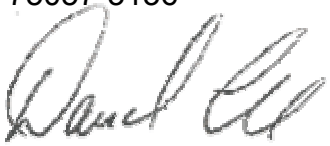
Nemko Test Report:	4L0008RUS2
Applicant:	Enfora Inc.
Equipment Under Test: **(E.U.T.)**	Small Portfolio Quad Band Radio with GSM0108 Radio Module
In Accordance With:	**FCC Part 24, Subpart E** Broadband PCS Subscriber Station
Tested By:	Nemko USA Inc. 802 N. Kealy Lewisville, TX 75057-3136
Authorized By:	 David Light, Production Manager
Date:	1/23/04

Table of Contents

Section 1. Summary of Test Results

Manufacturer: Enfora Inc

Model No.: GSM3208

Serial No.: None

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 24, Subpart E.

☒ New Submission ☐ Production Unit

☐ Class II Permissive Change ☒ Pre-Production Unit

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". None

This report applies only to the items tested.

Summary Of Test Data

NAME OF TEST	PARA. NO.	RESULT
RF Power Output	24.232	N/A
Occupied Bandwidth (CDMA)	24.238	N/A
Occupied Bandwidth (GSM)	24.238	N/A
Occupied Bandwidth (NADC)	24.238	N/A
Spurious Emissions at Antenna Terminals	24.238(a)	N/A
Field Strength of Spurious Emissions	24.238(a)	Complies
Frequency Stability	24.235	N/A

Footnotes:

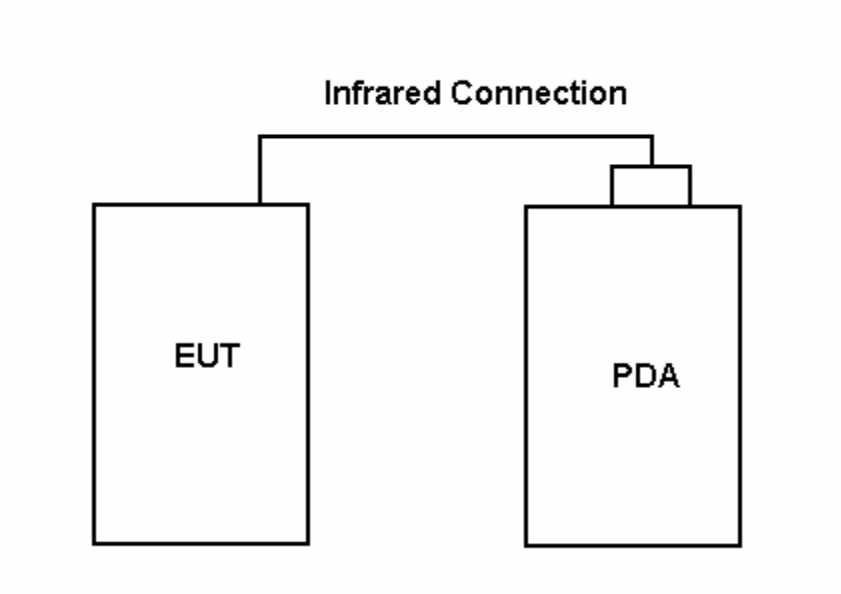
Section 2. General Equipment Specification

Supply Voltage Input:			
Frequency Bands:	1850 to 1910 MHz		
Type of Modulation and Designator:	**CDMA (G7W)** ☐	**GSM (GXW)** ☒	**NADC (DXW)** ☐
Necessary Bandwidth:	270 kHz		
Emission Designator:	270K0GXW		
Output Impedance:	50 ohms		

System Description

This is a wireless modem for a PDA that communicates via infrared connection.

System Diagram



Section 3. Field Strength of Spurious

NAME OF TEST: Field Strength of Spurious	PARA. NO.: 2.1053
TESTED BY: Art Ruvalcaba	DATE: 1/19/04

Test Results: Complies.

Test Data: See attached table.

Test Data - Radiated Emissions

Dallas Headquarters:
802 N. Kealy
Lewisville, TX 75057
Tel: (972) 436-9600
Fax: (972) 436-2667

Nemko Dallas, Inc.

EIRP Substitution Method

Page 1 of 1 — Complete X

Job No.: 4L0008 — Date: 1/19/04 — Preliminary

Specification: Pt 24 — Temperature(°C): 23

Tested By: Art Ruvalcaba — Relative Humidity(%) 41

E.U.T.: GSM3208

Configuration: Upright (Worst case)

Sample No: 1

Location: AC 3 — RBW: 1 MHz — Measurement

Detector Type: Peak — VBW: 1 MHz — Distance: 3 m

Test Equipment Used

Antenna: 1306 — Directional Coupler:

Pre-Amp: — Cable #1: 1484

Filter: — Cable #2: 1485

Receiver: 1464 — Cable #3:

Attenuator #1 — Cable #4:

Attenuator #2: — Mixer:

Additional equipment used:

Measurement Uncertainty: +/-3.6 dB

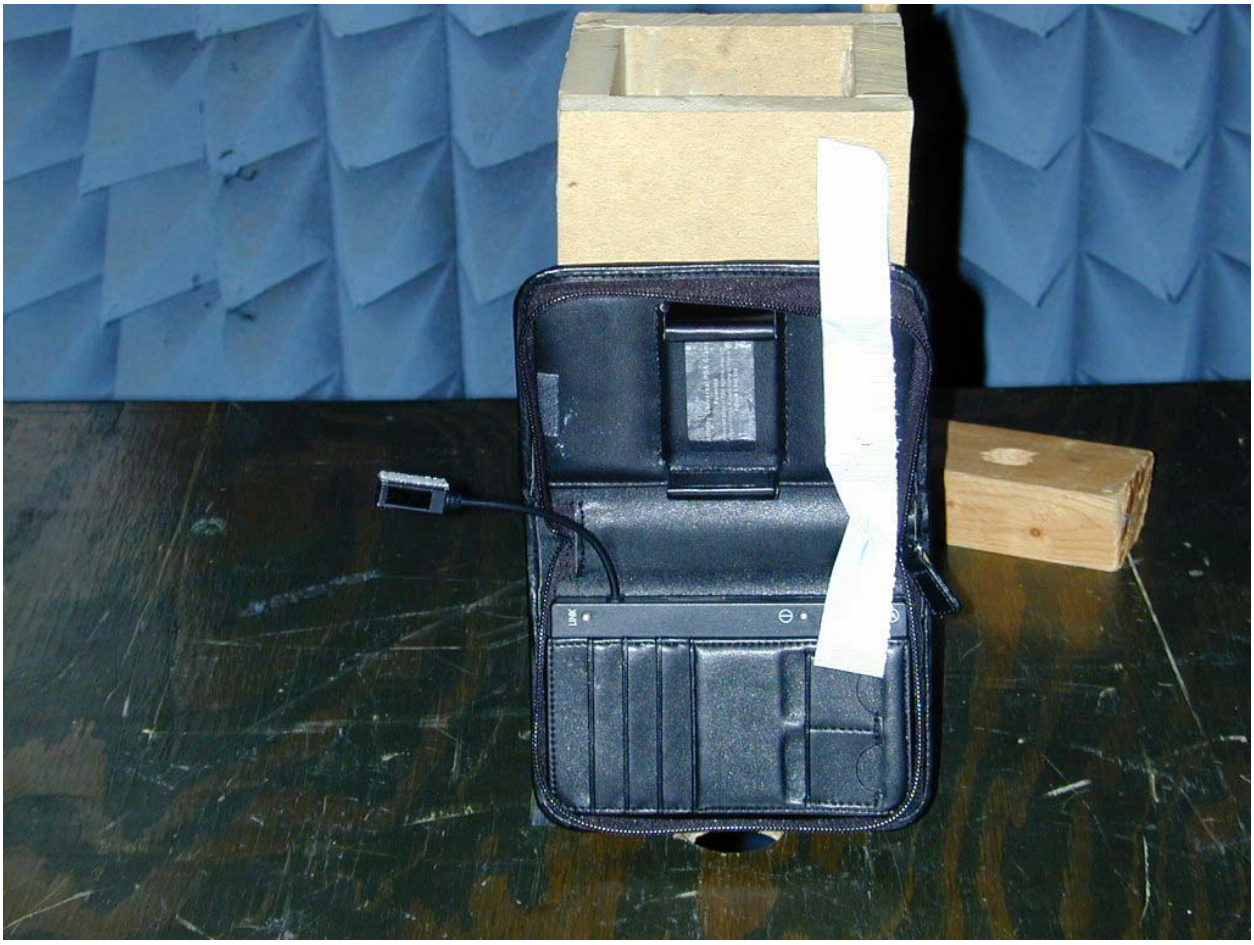
Frequency (MHz)	Meter Reading (dBm)	Correction Factor (dB)		Pre-Amp Gain (dB)	Substitution Antenna Gain (dBi)		EIRP (dBm)	EIRP (mW)	Polarity	Comments
3760.44	-70.8	35.5		0	10.7	-13	-24.6	0.0035	H	
5640.66	-45.2	37.8		33	11.4	-13	-28.9	0.0013	H	
7520.87	-48.7	41.5		32.5	11.3	-13	-28.4	0.0015	H	NF
9400.82	-46.2	42.3		34.6	11.7	-13	-26.7	0.0021	H	NF
11280.97	-45.8	47.0		34.6	12.5	-13	-20.9	0.0082	H	NF
13161.22	-54.5	47.8		35.3	11.9	-13	-30.1	0.0010	H	NF
15041.47	-60.8	47.7		32.8	12.8	-13	-33.2	0.0005	H	NF
16921.72	-61.5	49.3		33.3	14.5	-13	-31.0	0.0008	H	NF
3760.44	-68.7	43.3		0	10.7	-13	-14.6	0.0344	V	
5640.66	-44.2	39.8		33	11.4	-13	-25.9	0.0025	V	
7520.87	-50.7	41.8		32.5	11.3	-13	-30.0	0.0010	V	NF
9400.82	-49.8	41.3		34.6	11.7	-13	-31.4	0.0007	V	NF
11280.97	-45.2	43.7		34.6	12.5	-13	-23.6	0.0044	V	NF
13161.22	-53.7	45.8		35.3	11.9	-13	-31.2	0.0008	V	NF
15041.47	-62.3	45.2		32.8	12.8	-13	-37.2	0.0002	V	NF
16921.72	-58.8	46.0		33.3	14.5	-13	-31.6	0.0007	V	NF

Notes: **Nothing was detected within 20 dB of the Spec limit following the 3rd harmonic.**

Photographs of Test Setup

On End Position (AS TESTED WORST CASE)

On Edge Position



Flat Position

Section 4. Test Equipment List

Asset #	Manufacturer	Model #	S/N	Cal Date	Cal Due
1464	Hewlett Packard Spectrum Analyzer	8563E	3551A04428	2/11/03	2/11/04
1016	Hewlett Packard Pre Amp	8449A	2749A00159	8/23/03	8/23/04
1033	EMCO Horn Antenna	3115	8812-3035	9/22/03	9/22/04
1482	K&L Filter	N/A	2	N/A	N/A
1481	K&L Filter	N/A	4	N/A	N/A

ANNEX A - TEST METHODOLOGIES

NAME OF TEST: Field Strength of Spurious Radiation PARA. NO.: 2.1053

Minimum Standard: Para. No.24.238(a). On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power by at least 43 + 10 log (P) dB.

Test Method: TIA/EIA-603-1992, Section 2.2.12

The antenna substitution method was used to determine the equivalent radiated power at spurious frequencies. The spurious emissions were measured at a distance of 3 meters. The EUT was then replaced with a reference substitution antenna with a known gain referenced to a dipole. This antenna was fed with a signal at the spurious frequency. The level of the signal was adjusted to repeat the previously measured level. The resulting erp is the signal level fed to the reference antenna corrected for gain referenced to a dipole.

ANNEX B - TEST DIAGRAMS

Para. No. 2.993 - Field Strength of Spurious Radiation