



Flom Test Labs  
EMI, EMC, RF Testing Experts Since 1963

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Date: April 28, 2006

Federal Communications Commission  
Via: Electronic Filing

Attention: Authorization & Evaluation Division

Applicant: Digital Wireless Corporation  
Equipment: DB-1000-4 Digital Station  
FCC ID: OHN-B1000-4  
FCC Rules: Radiofrequency Radiation Exposure Limits  
47 CFR 1.1310  
MPE - Mobiles \_\_\_\_\_

Fixed Based Station  X

Gentlemen:

On behalf of the Applicant, enclosed please find the Supplemental Test Data Report, the whole for Environmental Assessment (MPE) of the referenced equipment as shown.

We trust the same is in order. Should you need any further information, kindly contact the writer who is authorized to act as agent.

Sincerely yours,

David E. Lee, FCC/IC Compliance Manager

enclosure(s)  
cc: Applicant  
DEL/del

Flom Test Labs  
3356 N. San Marcos Place, Suite 107  
Chandler, Arizona 85225-7176  
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FCC ID: OHN-B1000-2  
MFA p0630002, d0640029



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## **Environmental Assessment**

for

**Mobiles/Fixed Base Station**

for

**FCC ID: OHN-B1000-4**

Model: DB-1000-4 Digital Station

to

**Federal Communications Commission**

**47 CFR 1.1310 (MPE)**

Radiofrequency Radiation Exposure Limits

**Date Of Report:** April 28, 2006

### **On the Behalf of the Applicant:**

Digital Wireless Corporation

### **At the Request of:**

Digital Wireless Corporation  
696 Moulton Ave, Unit E  
Los Angeles, CA 90031

### **Attention of:**

Brent Jaybush  
323-276-5311  
Email: [bjay@digitalwireless.com](mailto:bjay@digitalwireless.com)

### **Supervised By:**

David E. Lee, FCC/IC Compliance Manager

## Table of Contents

<b>Rule</b>	<b>Description</b>	<b>Page</b>
	Test Report	1
	Identification of the Equipment Under Test	2
	Standard Test Conditions and Engineering Practices	3

*Required information per ISO/IEC Guide 25-1990, paragraph 13.2:*

a) **Test Report (Supplemental)**

b) Laboratory: M. Flom Associates, Inc.  
(FCC: 31040/SIT) 3356 N. San Marcos Place, Suite 107  
(Canada: IC 2044) Chandler, AZ 85225

c) Report Number: d0580029

d) Client: Digital Wireless Corporation  
696 Moulton Ave, Unit E  
Los Angeles, CA 90031

e) Identification: DB-1000-4 Digital Station  
FCC ID: OHN-B1000-4  
Description: A narrowband repeater specifically designed for DV/IP format digital transmissions used on the i2way network.

f) EUT Condition: Not required unless specified in individual tests.

g) Report Date: April 28, 2006  
EUT Received: March 1, 2006

h, j, k): As indicated in individual tests.

i) Sampling method: No sampling procedure used.

l) Uncertainty: In accordance with MFA internal quality manual.

m) Supervised by:



David E. Lee, FCC/IC Compliance Manager

n) Results: The results presented in this report relate only to the item tested.

o) Reproduction: This report must not be reproduced, except in full, without written permission from this laboratory.

**Identification of the Equipment Under Test (EUT)****Name and Address of Applicant:**

Digital Wireless Corporation  
696 Moulton Ave, Unit E  
Los Angeles, CA 90031

**Manufacturer:**

Digital Wireless Corporation  
696 Moulton Ave, Unit E  
Los Angeles, CA 90031

**FCC ID:** OHN-B1000-4

**Model Number:** DB-1000-4 Digital Station

**Description:** A narrowband repeater specifically designed for DV/IP format digital transmissions used on the i2way network.

**Type of Emission:** 10K7F1E, 10K7F1D, 11K2F3E

**Frequency Range, MHz:** 406 - 479

**Power Rating, Watts:** 25W  
☐ Switchable ☐ Variable ☒ N/A

**Modulation:**  
☐ AMPS  
☐ TDMA  
☐ CDMA  
☒ OTHER

**Antenna:**  
☒ Helical  
☒ Monopole  
☒ Whip  
☒ Other

**Note:** For RF Safety test antenna gain taken at the upper range of expected gain (i.e. 6 dBi) and RF Power set to highest nominal power across all channels.

## Standard Test Conditions and Engineering Practices

Except as noted herein, the following conditions and procedures were observed during the testing:

In accordance with ANSI C63.4-1992/2003, and unless otherwise indicated in the specific measurement results, the ambient temperature of the actual EUT was maintained within the range of 10° to 40°C (50° to 104 °F) unless the particular equipment requirements specify testing over a different temperature range. Also, unless otherwise indicated, the humidity levels were in the range of 10% to 90% relative humidity.

Prior to testing, the EUT was tuned up in accordance with the manufacturer's alignment procedures. All external gain controls were maintained at the position of maximum and/or optimum gain throughout the testing.

Measurement results, unless otherwise noted, are worst-case measurements.



## A2LA

"A2LA has accredited M. Flom Associates, Inc. Chandler, AZ for technical competence in the field of Electrical Testing. The accreditation covers the specific tests and types of tests listed on the agreed scope of accreditation. This laboratory meets the requirements of ISO/IEC 17025 - 1999 'General Requirements for the Competence of Testing and Calibration Laboratories' and any additional program requirements in the identified field of testing."

Certificate Number: **2152-01**

Specification: FCC: 47 CFR 1.1310

EUT is a Part 90 Base Station, building mounted or tower mounted antenna, >1000W ERP.  
Routine Evaluation is not required. (47 CFR 1.1310, Table 1)

RF Exposure considerations must be addressed at time of installation.

The following calculation is provided for the advice of installers.

MPE Calculated based on Uncontrolled Exposure  
100% Duty Cycle, 6dBi Antenna  
Frequency, MHZ 406.000  
Limit  $F/1500 = 0.271\text{mW}/\text{cm}^2$   
Minimum Safe Distance  $= [4 \times 25.00 / (12.56 \times 2.71)]^{1/2}$   
 $= 1.72 \text{ m}$



Calculated By:

David E. Lee, FCC/IC Compliance Manager

**(The following will be placed in the Instruction Manual)**

**Mandatory Safety Instructions to Installers**

**Antenna Minimum Safe Distance:** 2.00m.

Antenna Gain: 6dB referenced isotropic.

The Federal Communications Commission has adopted a safety standard for human exposure to RF (Radio Frequency) energy, which is below the OSHA (Occupational Safety and Health Act) limits.

**Antenna Mounting:** The antenna should be fixed-mounted on an outdoor permanent structure.

RF Exposure compliance must be addressed at the time of installation.

**Warning:** Maintain a separation distance from the antenna to a person(s) of at least 2.00m for General Population / Uncontrolled Exposure.

The operation of this transmitter must satisfy the requirements of Occupational/Controlled Exposure Environment, for work-related use. Transmit only when person(s) are at least the minimum distance from the properly installed, externally mounted antenna.

**Testimonial  
and  
Statement of Certification**

**This is to certify that:**

1. **That** the application was prepared either by, or under the direct supervision of, the undersigned.
2. **That** the technical data supplied with the application was taken under my direction and supervision.
3. **That** the data was obtained on representative units, randomly selected.
4. **That**, to the best of my knowledge and belief, the facts set forth in the application and accompanying technical data are true and correct.



Certifying Engineer:

David E. Lee, FCC/IC Compliance Manager