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Date: June 7, 2007

Federal Communications Commission Via: Electronic Filing

Attention: Authorization & Evaluation Division

Applicant: Novatel Wireless Inc.

Equipment: PKRNVWE725 Collocated with E2KWM3945ABG 802.11.a

FCC ID: PKRNVWE725

FCC Rules: Radio Frequency Radiation Exposure Limits

47 CFR 1.1310

MPE - Mobiles Fixed Based Station

#### 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,

Hoosamuddin S. Bandukwala, Lab Director

enclosure(s) cc: Applicant HSB/jh



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## **Environmental Assessment**

for

**Mobiles** 

for

FCC ID: FCC ID: PKRNVWE725

Model:PKRNVWE725

to

**Federal Communications Commission** 

47 CFR 1.1310 (MPE)

Radio Frequency Radiation Exposure Limits

Date Of Report: June 7, 2007

On the Behalf of the Applicant: Novatel Wireless Inc.

At the Request of: Novatel Wireless Inc.

9645 Scranton Rd, Suite 205

San Diego, CA 92121

Attention of: John Jiang, Project Manager

888-888-9231; FAX: -2888

Email: jjiang@novatelwireless.com

Supervised By:

Hoosamuddin S. Bandukwala, Lab Director



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#### Required information per ISO 17025-2005, paragraph 5.0:

a) Test Report (Supplemental)

b) Laboratory: Flom Test Labs

(FCC: 31040/SIT) 3356 N. San Marcos Place, Suite 107

(Canada: IC 2044) Chandler, AZ 85225

c) Report Number: d0760007

d) Client: Novatel Wireless Inc.

9645 Scranton Rd, Suite 205

San Diego, CA 92121

e) Identification: PKRNVWE725

FCC ID: PKRNVWE725

Description: Dell laptop models Inspiron 1720, Inspiron 1721, Vostro 1700 and XPS

M1730

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

g) Report Date: June 7, 2007

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

i) Sampling method: No sampling procedure used.

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

m) Supervised by:

Hoosamuddin S. Bandukwala, Lab Director

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:	Novatel Wireless Inc. 9645 Scranton Rd, Suite 205 San Diego, CA 92121			
Manufacturer:	Novatel Wireless Inc. 9645 Scranton Rd, Suite 205 San Diego, CA 92121			
FCC ID:	PKRNVWE725			
Model Number:	PKRNVWE725			
Description:	Dell laptop models Inspiron 1720, Inspiron 1721, Vostro 1700 and XPS M1730			
Type of Emission:	CDMA collocated with 802.11.a			
Frequency Range, MHz:	CDMA 824 - 848 and 1851 - 1908 802.11.a 5180 - 5240 and 5260 - 5320			
Power Rating, Watts: Switchable	0.296 Variable X_ N/A			
Modulation:	AMPS TDMA X CDMA X OTHER			
Antenna:	Helical Monopole Whip X Other			

**Note:** For RF Safety test antenna gain taken at the upper range of expected gain (i.e. 0 dBd) 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 C63.4-1992/2000, section 6.1.9, 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 Flom Test Labs, 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 17025:2005 'General Requirements for the Competence of Testing and Calibration Laboratories' and any additional program requirements in the identified field of testing."

Please refer to www.a2la.org for current scope of accreditation.

Certificate number: 2152.01





Name of Test: Environmental Assessment

**Specification**: FCC: 47 CFR 1.1310

Measurement Guide: ANSI/IEEE C95.1 1992

Name of Test: R.F. Radiation Exposure

FCC Rules: 1.1307, 1.1310, 1.1311, 2.1091 Description, EUT: See page 2 of Test Report

Limits: Uncontrolled Exposure

47 CFR 1.1310 Table 1, (B) 0.3-1.234 MHz: Limit  $[mw/cm^2] = 100$ 1.34-30 MHz: Limit  $[mw/cm^2] = (180/f^2)$ 30-300 MHz: Limit  $[mw/cm^2] = 0.2$ 300-1500 MHz Limit  $[mw/cm^2] = f/1500$ 1500-100,000 MHz: Limit  $[mw/cm^2] = 1.0$ 

Test Frequencies, MHz 824 – 848 Power, Conducted, mW = 291 Antenna Gain = 3 dBi

Antenna Model Planer Inverted F Antenna

Distance cm 20

Limit Calculations  $Limit_{[mW/cm2]} = 0.549$ 

Test Frequencies, MHz 1851 - 1908 Power, Conducted, mW = 296 Antenna Gain = 3 dBi

Antenna Model Planer Inverted F Antenna

Distance cm 20

Limit Calculations  $Limit_{[mW/cm2]} = 1.0$ 



#### **PKRNVWE725 CDMA**

CDMA Frequency MHz	TX Power (m)W	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Result
824 – 848	291	0.116	0.549	Pass
1851 - 1908	296	0.117	1.0	Pass

### E2KWM3945ABG 802.11.a

802.11 a Frequency	TX Power	Power Density	Limit	Result
MHz	(mW)	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )	
5180 - 5240	45	0.018	1.0	Pass
5260 - 5320	69	0.027	1.0	Pass

### PKRNVWE725 CDMA Collocated with E2KWM3945ABG 802.11.a

CDMA Frequency	802.11.a	CDMA	802.11.a	Total	Limit	Result
MHz	Frequency	Power	Power	Power	(mW/cm <sup>2</sup> )	
	MHz	Density	Density	Density		
		(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )		
824 – 848	5180 - 5240	0.116	0.018	0.124	0.549	Pass
824 – 848	5260 - 5320	0.116	0.027	0.143	0.549	pass
1851 - 1908	5180 - 5240	0.117	0.018	0.125	1.0	Pass
1851 - 1908	5260 - 5320	0.117	0.027	0.144	1.0	pass

Supervised By:

Hoosamuddin S. Bandukwala, Lab Director



# 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:

Hoosamuddin S. Bandukwala, Lab Director