

Date:	January 21, 2008	
Applicant:	Novatel Wireless Inc. 9645 Scranton Rd, Suite 205 San Diego, CA 92121	
Attention of:	John Spall, Project Manager Ph: 858-812-0697 Fax: 858-450-7183 Email: jspall@nvtl.com	
Equipment: FCC ID: FCC Rules:	PKRNVWE725 Collocated with E2KWM3945ABG PKRNVWE725 Radio Frequency Radiation Exposure Limits 47 CFR 1.1310 MPE - Mobiles X	802.11.a Fixed Based Station

#### Gentlemen:

Enclosed please find your copy of the Supplemental Test Data Report, the whole for Environmental Assessment (MPE) of the referenced equipment as shown.

Please allow from 8-12 weeks to hear from the Commission, who may request additional data or information, and even a sample for pre-grant audit testing.

Should you need any clarification, just fax or phone. Thank you again for this order - it has been a pleasure to be of service.

Sincerely yours,

ande

Hoosamuddin S. Bandukwala, Lab Director

enclosure(s) HSB/jhe



Date:

January 21, 2008

Federal Communications Commission Via: Electronic Filing

Attention:	Authorization & Evaluation Division	
Applicant: Equipment: FCC ID: FCC Rules:	Novatel Wireless Inc. PKRNVWE725 Collocated with E2KWM3945A PKRNVWE725 Radio Frequency Radiation Exposure Limits 47 CFR 1.1310 MPE - Mobiles <u>X</u>	ABG 802.11.a 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

Flom Test Labs 3356 N. San Marcos Place, Suite 107 Chandler, Arizona 85225-7176 (866) 311-3268 phone, (480) 926-3598 fax



toll-teen (866) 311-3268 fac: (480) 926-3598 http://www.flomlabs.com wfo@fomlabs.com

# **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: January 21, 2008

Novatel Wireless Inc.

On the Behalf of the Applicant:

At the Request of:

Attention of:

Novatel Wireless Inc. 9645 Scranton Rd, Suite 205 San Diego, CA 92121

John Spall, Project Manager Ph: 858-812-0697 Fax: 858-450-7183 Email: jspall@nvtl.com

Hoosamuddin S. Bandukwala, Lab Director

Supervised By:

Flom Test Labs 3356 N. San Marcos Place, Suite 107 Chandler, Arizona 85225-7176 (866) 311-3268 phone, (480) 926-3598 fax



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Required information per ISO 17025-2005, paragraph 5.0:

a)	Test Report (Supplemental)
b) Laboratory: (FCC: 31040/SIT) (Canada: IC 2044)	Flom Test Labs 3356 N. San Marcos Place, Suite 107 Chandler, AZ 85225
c) Report Number:	d0810012
d) Client:	Novatel Wireless Inc. 9645 Scranton Rd, Suite 205 San Diego, CA 92121
e) Identification:	PKRNVWE725 FCC ID: PKRNVWE725
Description:	Dell laptop model XFR630
f) EUT Condition:	Not required unless specified in individual tests.
g) Report Date:	January 21, 2008
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:	

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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 model XFR630			
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 C63.4-2004, 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  $10^{\circ}$  to  $40^{\circ}$ C ( $50^{\circ}$  to  $104^{\circ}$ 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  $10^{\circ}$  to  $90^{\circ}$  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.

# <u>A2LA</u>

"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 <u>www.a2la.org</u> 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: Description, EUT:	1.1307, 1.1310, 1.1311, 2.1091 See page 2 of Test Report	
Limits: Uncontrolled Exposure 47 CFR 1.1310 Table 1, (B)	0.3-1.234 MHz: 1.34-30 MHz: 30-300 MHz: 300-1500 MHz 1500-100,000 MHz:	Limit $[mW/cm^{2}] = 100$ Limit $[mW/cm^{2}] = (180/f^{2})$ Limit $[mW/cm^{2}] = 0.2$ Limit $[mW/cm^{2}] = f/1500$ Limit $[mW/cm^{2}] = 1.0$
Test Frequencies, MHz Power, Conducted, mW Antenna Gain Antenna Model Distance cm	824 – 848 = 291 = 3 dBi Planer Inverted F Antenna 20	
Limit Calculations	$\text{Limit}_{[mW/cm2]} = 0.549$	
Test Frequencies, MHz Power, Conducted, mW Antenna Gain Antenna Model Distance cm	1851 - 1908 = 296 = 3 dBi Planer Inverted F Antenna 20	
Limit Calculations	$\text{Limit}_{[mW/cm2]} = 1.0$	



# 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 MHz	TX Power (mW)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Result
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

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Hoosamuddin S. Bandukwala, Lab Director

Supervised By:



#### 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.

and

Hoosamuddin S. Bandukwala, Lab Director

Certifying Engineer:

Flom Test Labs 3356 N. San Marcos Place, Suite 107 Chandler, Arizona 85225-7176 (866) 311-3268 phone, (480) 926-3598 fax