toll-free: ( 866 ) 311-3268 fax: ( 480 ) 926-3598 www.flomlabs.com info@flomlabs.com

D-4	Danamban 47,0000
Date:	December 17, 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:** PKRNVWE725 collocated with E2K533ANH

FCC ID: PKRNVWE725

FCC Rules: Radio Frequency Radiation Exposure Limits

47 CFR 1.1310

MPE - Mobiles X 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.

Supervised By:

December 17, 2008

47 CFR 1.1310 MPE - Mobiles toll-free: (866)311-3268 fax: (480)926-3598 www.flomlabs.com info@flomlabs.com

Fixed Based Station

Attention:	Federal Communications Commission Authorization & Evaluation Division	
Via:	Electronic Filing	
Applicant:	Novatel Wireless Inc.	
Equipment:	PKRNVWE725 collocated with E2K533ANH	
FCC ID:	PKRNVWE725	
FCC Rules:	Radio Frequency Radiation Exposure Limits	

Gentlemen:

Date:

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.

Supervised By:



toll-free: (866)311-3268 fax: (480)926-3598 www.flomlabs.com info@flomlabs.com

# **Environmental Assessment**

for

**Mobiles** 

for

FCC ID: PKRNVWE725

Model: PKRNVWE725 collocated with E2K533ANH

to

**Federal Communications Commission** 

47 CFR 1.1310

Radio Frequency Radiation Exposure Limits

Date Of Report: December 17, 2008

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 Spall, Project Manager

Ph: 858-812-0697 Fax: 858-450-7183 email: jspall@nvtl.com

Supervised By:



# **Test Report Revision History**

Revision	Date	Revised By	Reason for revision
1.0	December 17, 2008	J Erhard	Original Document



## **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.

Supervised By:



# **Table of Contents**

Rule	Description	Page	
	Test Report	1	
	Identification of the Equipment Under Test	2	
	Standard Test Conditions and Engineering Practices	4	
1.1310	Environmental Assessment	5	



Required information per ISO 17025-2005, paragraph 5.10:

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: d08c0021

d) Client: Novatel Wireless Inc.

9645 Scranton Rd, Suite 205

San Diego, CA 92121

e) Identification: PKRNVWE725 collocated with E2K533ANH

Description: Laptop model Latitude XT2

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

g) Report Date: December 17, 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:

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:	Latitude XT2				
Description:	Laptop model Latitude XT2				
Type of Emission:	CDMA				
Frequency Range, MHz:	824 – 848, 1851 - 1908				
Power Rating, Watts: Switchable	296 mW Variable X N/A				
Modulation:	AMPS TDMA X CDMA X OTHER				
Antenna:	Helical  X Monopole Whip Other				
Note: For RF Safety test antenna gair	n taken at the upper range of expected gain (i.e. 0 dBd) and RF Powe				

er set to highest nominal power across all channels.



## 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 <a href="www.a2la.org">www.a2la.org</a> for current scope of accreditation.

Certificate number: 2152.01





### **Standard Test Conditions and Engineering Practices**

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

In accordance with ANSI C63.4-2003 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.



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

**Limits: Uncontrolled Exposure** 

0.3-1.234 MHz: Limit  $[mW/cm^2] = 100$ 47 CFR 1.1310 1.34-30 MHz: Limit  $[mW/cm^2] = (180/f^2)$ **Table 1, (B)** 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 - 848Power, Conducted, mW = 291 **Antenna Gain** = 3 dBi

**Antenna Model** Planer Inverted F Antenna

Distance cm 20

**Limit Calculations** 0.549 Limit<sub>[mW/cm2]</sub> =

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

**Antenna Model** Planer Inverted F Antenna

Distance cm

**Limit Calculations** 1.0 Limit<sub>[mW/cm2]</sub> =



#### **PKRNVWE725 CDMA**

CDMA Frequency	TX Power	Power Density	Limit	Result
MHz	(m)W	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )	
824 – 848	291	0.116	0.549	Pass
1851 - 1908	296	0.118	1.0	Pass

#### E2K533ANH 802.11

802.11 Frequency MHz	TX Power (mW)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Result
2412 - 2462	0.438	0.1742	1.0	Pass
5725 - 5850	0.441	0.1754	1.0	Pass
5180 - 5240	0.044	0.0175	1.0	Pass
5260 - 5320	0.045	0.0179	1.0	Pass
5470 - 5745	0.045	0.0179	1.0	Pass

## PKRNVWE725 CDMA Collocated with E2K533ANH 802.11

CDMA Frequency	802.11	CDMA	802.11	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	2412 - 2462	0.116	0.1742	0.2902	0.549	Pass
824 – 848	5725 - 5850	0.116	0.1754	0.2914	0.549	Pass
824 – 848	5180 - 5240	0.116	0.0175	0.1335	0.549	Pass
824 – 848	5260 - 5320	0.116	0.0179	0.1339	0.549	Pass
824 – 848	5470 - 5745	0.116	0.0179	0.1339	0.549	Pass
1851 - 1908	2412 - 2462	0.118	0.1742	0.2922	1.0	Pass
1851 - 1908	5725 - 5850	0.118	0.1754	0.2934	1.0	Pass
1851 - 1908	5180 - 5240	0.118	0.0175	0.1355	1.0	Pass
1851 - 1908	5260 - 5320	0.118	0.0179	0.1359	1.0	Pass
1851 - 1908	5470 - 5745	0.118	0.0179	0.1359	1.0	Pass

Supervised By: