

# **Exhibit 11**

# **RF Exposure Information**

## **Radio Frequency Radiation Exposure Evaluation**

Rule Part Number: 1.1307, 1.1310, 2.1091

### **1.1307 Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.**

**TABLE 1—TRANSMITTERS, FACILITIES AND OPERATIONS SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION**

Service (title 47 CFR rule part)	Evaluation required if—
Broadband Radio Service and Educational Broadband Service (subpart M of part 27).	Non-building-mounted antennas: height above ground level to lowest point of antenna < 10 m and power > 1640 W EIRP. Building-mounted antennas: power > 1640 W EIRP. BRS and EBS licensees are required to attach a label to subscriber transceiver or transverter antennas that: (1) Provide adequate notice regarding potential radiofrequency safety hazards, <i>e.g.</i> , information regarding the safe minimum separation distance required between users and transceiver antennas; and (2) reference the applicable FCC-adopted limits for radio frequency exposure specified in § 1.1310.

### **1.1310 Radio frequency radiation exposure limits.**

**TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)**

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minutes)
-----------------------	-------------------------------	-------------------------------	-------------------------------------	--------------------------

#### **(A) Limits for Occupational/Controlled Exposures**

1500–100,000 .....	.....	.....	5	6
--------------------	-------	-------	---	---

#### **(B) Limits for General Population/Uncontrolled Exposure**

1500–100,000 .....	.....	.....	1.0	30
--------------------	-------	-------	-----	----

f = frequency in MHz

### **§ 2.1091 Radio Frequency radiation exposure evaluation: mobile devices.**

(a) Requirements of this section are a consequence of Commission responsibilities under the National Environmental Policy Act to evaluate the environmental significance of its actions. See subpart I of part 1 of this chapter, in particular § 1.1307(b).

(b) For purposes of this section, a mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. In this context, the term "fixed location" means that the device is physically secured at one location and is not able to be easily moved to another location. Transmitting devices designed to be used by consumers or workers that can be easily relocated, such as wireless devices associated with a personal computer, are considered to be mobile devices if they meet the 20 centimeter separation requirement.

(d) The limits to be used for evaluation are specified in § 1.1310 of this chapter. All unlicensed personal communications service (PCS) devices and unlicensed NII devices shall be subject to the limits for general population/un-controlled exposure. (1) For purposes of analyzing mobile transmitting devices under the occupational/ controlled criteria specified in § 1.1310 of this chapter, time-averaging provisions of the guidelines may be used in conjunction with typical maximum duty factors to determine maximum likely exposure levels. (2) Time-averaging provisions may not be used in determining typical exposure levels for devices intended for use by consumers in general population uncontrolled environments as defined in § 1.1310 of this chapter. However, “source-based” time-averaging based on an inherent property or duty-cycle of a device is allowed. An example of this is the determination of exposure from a device that uses digital technology such as a time-division multiple-access (TDMA) scheme for transmission of a signal. In general, maximum average power levels must be used to determine compliance.

Calculations: The NextNet Wireless Expedience OSU-2510-A operates at a maximum of 2 watts (33 dBm) average power while transmitting in the 2496-2690 MHz band. The OSU-2510-A has a maximum transmit duty cycle of 14.29 % and is based on a TDM frame (see test information at end of this report).

The vertically polarized antenna has 13 dBi of gain. Therefore, the maximum radiated transmit power would be:

**14.29% Transmit Duty Cycle:**

$$\begin{aligned} P_{max} &= P_{tx}(dBm) + G(\text{antenna}(dBi)) - 10 * \log(\text{duty cycle})(dB) \\ P_{max} &= 33 + 13 - 10 * \log(0.1429) = 33 + 13 - 8.45 \\ P_{max} &= 37.55 dBm = 5.688 \text{ Watts EIRP} < 1640 \text{ Watts EIRP} \end{aligned}$$

The horizontally polarized antenna has 11 dBi of gain. Therefore, the maximum radiated transmit power would be:

**14.29% Transmit Duty Cycle:**

$$\begin{aligned} P_{max} &= P_{tx}(dBm) + G(\text{antenna}(dBi)) - 10 * \log(\text{duty cycle})(dB) \\ P_{max} &= 33 + 11 - 10 * \log(0.1429) = 33 + 11 - 8.45 \\ P_{max} &= 35.55 dBm = 3.5892 \text{ Watts EIRP} < 1640 \text{ Watts EIRP} \end{aligned}$$

Calculations: The following calculations can be used to determine the distance from the transmitting antenna that must be maintained to ensure that the exposure limit as defined in Table 1 of part 1.1310 (B) Limits for General Population/Uncontrolled Exposure. The formula for the following calculations are found in the OET Bulletin 65, edition 97-01 August 1997, “Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields”.

The maximum power level from the previous calculations will be used.

$$S = \text{EIRP}/4\pi R^2$$

or

$$R = (\text{EIRP}/4\pi S)^{0.5}$$

**2496-2690 MHz Band:**

$$S = 1 \text{ mW/cm}^2$$

$$R = 20 \text{ cm}$$

$$\text{EIRP} = 5.688 \text{ W}$$

$$\text{EIRP} = 5.688 \text{ W}$$

$$\text{EIRP} = 5688 \text{ mW}$$

$$\text{EIRP} = 5688 \text{ mW}$$

$$S = 1 \text{ mW/cm}^2$$

$$R = 20 \text{ cm}$$

$$R = (5688/(4\pi \cdot 1))^{0.5}$$

$$S = 5688/(4\pi \cdot 20^2)$$

$$R = 21.27 \text{ cm}$$

$$S = 1.1316 \text{ mW/cm}^2$$

Calculated safe distance from the transmitting antenna is 21.27 cm for a point source radiation element, or the maximum field strength for a point source radiation element at 20 cm would be 1.1316 mW/cm<sup>2</sup>. The NextNet Wireless Expedience CPE uses a four element patch array. The power supplied to each patch is one quarter the total power that would be supplied to a single radiating antenna as described in Bulletin 65. Because the transmitted power is distributed over a larger area, the actual signal at 20 cm will be less than the calculated value. A measurement of the signal strength at 20 cm is detailed below.

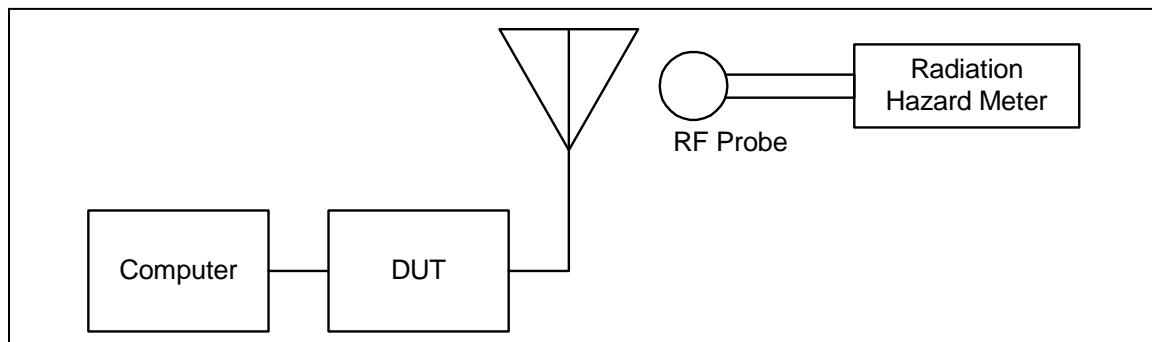
**Test Procedure:**

The NextNet Wireless, Inc. Expedience system operates as a Time Division Duplex (TDD) product with a Time Division Multiplex (TDM) frame structure. The OSU-2510-AV and OSU-2510-AH Customer Premise Equipment (CPE) are able to transmit a time division duplex (TDD) signal up to a 14.29 % transmit duty cycle. To measure the RF Exposure, the OSU transmitter is enabled in a test mode that transmits random data at the 2 watt power level into the antenna. Measurements are performed at the low, mid, and high channels of each channel bandwidth, using the maximum transmitter duty cycle and both antenna polarizations.

Standard: IEEE Standard C95.3-2002  
IEEE Recommended Practice for Measurements and Computations  
of Radio Frequency Electromagnetic Fields  
With Respect to Human Exposure to Such Fields, 100 kHz–300  
GHz

Test Conditions: Frequencies:  
2499, 2575, 2621 MHz (6 MHz channels)  
2504.75, 2565.25, 2626.75, 2687.25 MHz (5.5 MHz channels)  
Temperature = 25°C  
Supply Voltage = 19.5 VDC nominal applied to OSU-2510-A

Test Set-Up:



Test Results: Vertically Polarized Antenna

14.29 % Duty Cycle

At 20 cm away from the surface of the OSU-2510-AV, the highest RF Exposure reading was measured to be  $0.58 \text{ mW/cm}^2$ .

Correcting for the calibration factor, this value becomes  $0.58 \times 1.05 = 0.61 \text{ mW/cm}^2$ .

Horizontally Polarized Antenna

14.29 % Duty Cycle

At 20 cm away from the surface of the OSU-2510-AH, the highest RF Exposure reading was measured to be  $0.42 \text{ mW/cm}^2$ .

Correcting for the calibration factor, this value becomes  $0.42 \times 1.05 = 0.44 \text{ mW/cm}^2$ .

Test Conclusion: The NextNet Wireless, Inc., Expedience, OSU-2510-AV and OSU-2510-AH Customer Premise Equipment is below the limits for RF Exposure as detailed in 47CFR1.1310.

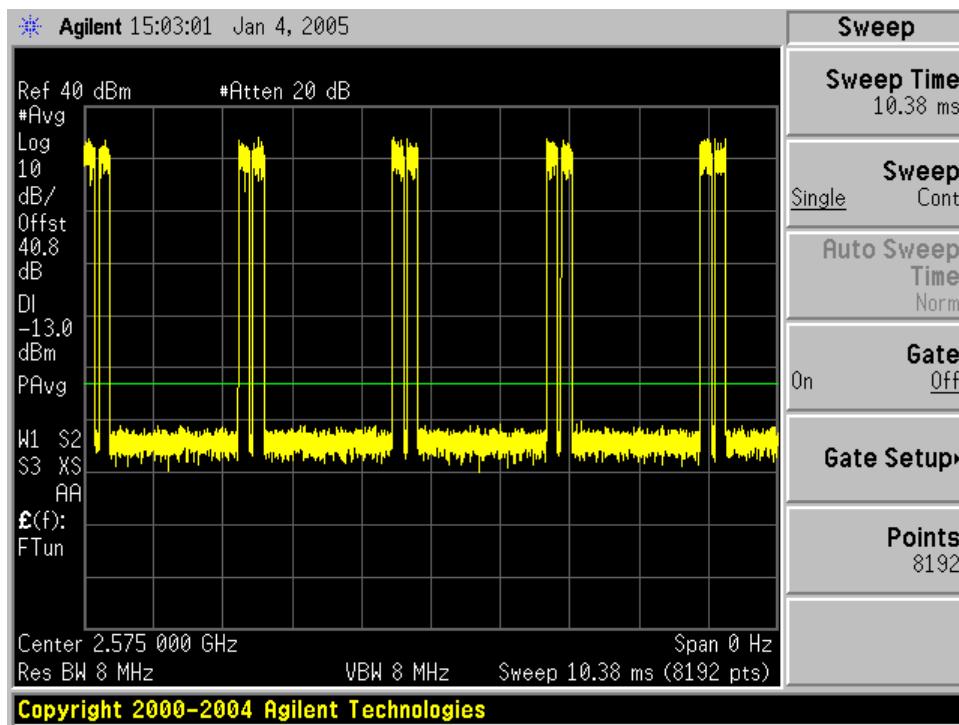
**The following warning statement is included in the OSU-2510-A operating manual:**

NOTICE: This equipment has been tested and found to comply with the Radio Frequency Radiation Exposure Limits detailed below. A minimum of 20 centimeters (8 inches) separation between the OSU and the operator and all other persons should be maintained.

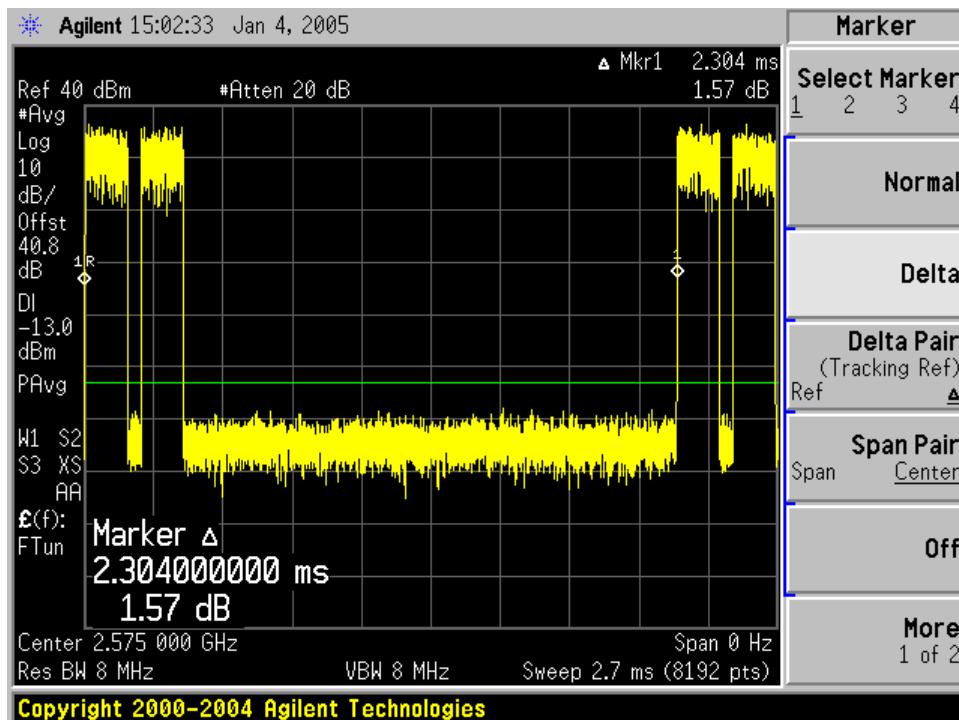
**The following information is located on the OSU-2510-A product:**

To comply with FCC radio frequency exposure rules, 47CFR1.1307 and 1.1310, a minimum separation of 20 cm (8 inches) is required between this device and all persons.

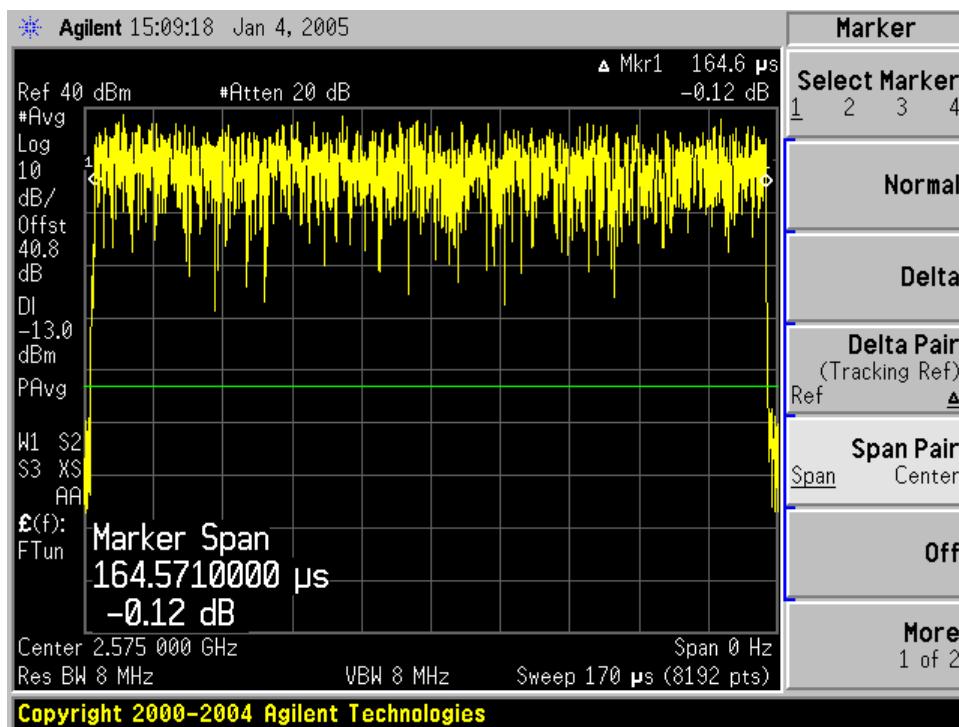
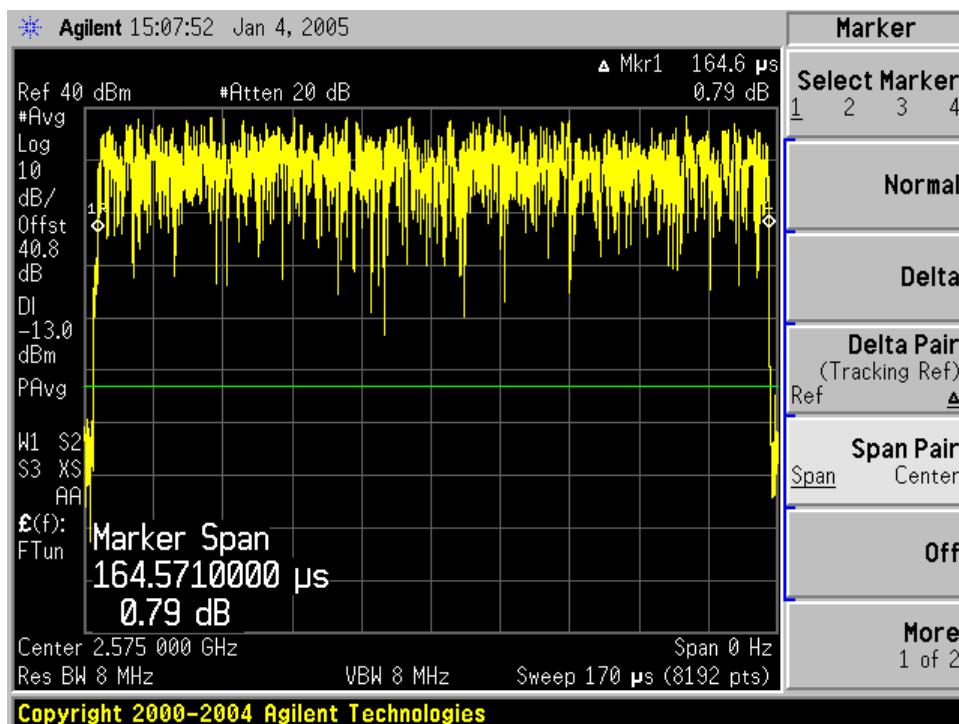
Verification of the transmit duty cycle is shown below.

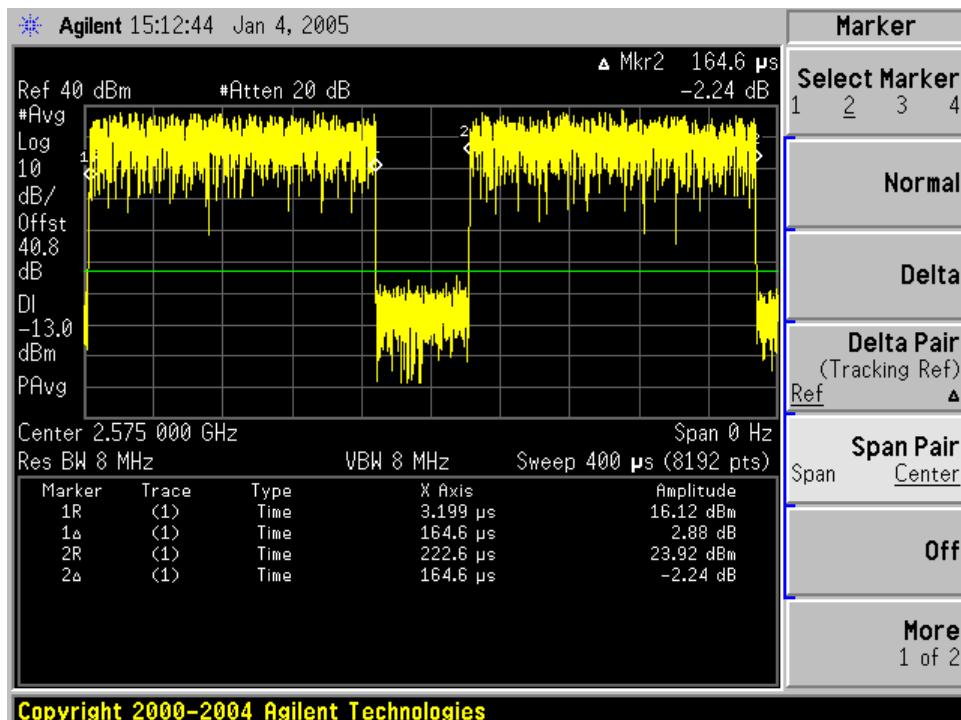


Wide time sweep of transmitter at maximum duty cycle (14.29%)



Time measurement between one complete transmit cycle is 2.304 msec.





TX pulse 1 and 2

Transmit duty cycle = total time transmitting / time between repetition

Transmit duty cycle =  $(164.6 \text{ usec} + 164.6 \text{ usec}) / 2.304 \text{ msec}$

Transmit duty cycle =  $329.2 \text{ usec} / 2.304 \text{ msec} = .14288$  or 14.288 %