



June 30, 1999

Federal Communications Commission  
Equipment Authorization Division  
7435 Oakland Mills Road  
Columbia, MD 21046

**Subject:** Maximum Permissible Exposure calculations for **FCC ID: EV9N2L5-7S1-01**

To whom it may concern,

Wireless, Inc. is submitting a low power transmitter for the NII Link. The unit operates in the 5.725 - 5.825 GHz range with a peak transmit power of with a radiated output power of 2.06 mW.

Assuming a worst case of no duty cycle.

For an Isotropic radiator the surface area of a sphere can be used to determine the area over which the transmitter energy is radiated.

$$\text{Surface area of a sphere} = 4 \cdot \pi \cdot \text{radius}^2$$

In the case where there is antenna gain, the worst case energy density is increased by the antenna gain. The exposure level can be calculated as follows for the antenna gain:

$$\text{MPE distance} = (\text{output power} \cdot \text{duty cycle} \cdot 10(\text{antenna gain}/10)) / (4 \cdot \pi \cdot \text{Exposure Limit (mW/cm}^2\text{)})^{1/2}$$

$$\text{EV9N2L5-7S1-01 MPE distance} = (2.06 \text{ mW} \cdot 1 \cdot 28.5 / 4 \cdot 314 \cdot 1)^{1/2}$$

$$= 2.16 \text{ cm}$$

$$= 0.85 \text{ in}$$

If you have any questions please do not hesitate to call me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Chip Matheny'.

Chip Matheny  
Technical Officer