October 27, 1998

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

Subject: Maximum Permissible Exposure calculations for   **FCC ID: EV9WNIP2458R**

To whom it may concern,

Wireless is submitting a low power transmitter for the WaveNet IP System. The unit has a low power frequency hopping spread spectrum radio operating in the 5725 - 5850 MHz range with a radiated output power of 205 W.

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.

$$\text{Surface area of a sphere} = 4*\Pi*\text{radius}^2$$

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:

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

EV9WNIP2458R MPE distance

SP1-2/5 Dual Band Antenna   = (304 mW*1*213/4*3.14*1)$^{1/2}$
                                 = 71.8 cm
                                 = 28.3 in

SP2I-2/5 Dual Band Antenna   = (304 mW*1*676/4*3.14*1)$^{1/2}$
                                 = 127 cm
                                 = 50.3 in
If you have any questions please do not hesitate to call me.

Sincerely,

Chris Byleckie
Technical Director
Electronic Compliance Laboratories