

**Environmental evaluation and exposure limit according to FCC CFR 47 part1, §§1.1307, 1.310.**

FCC §1.1310 limit of power density for general population/uncontrolled exposure is 1 mW/cm<sup>2</sup>.

The power density calculation is  $S = (P_t / 4\pi r^2)$ .

Where:

$P_t$  - The transmitted power EIRP (mW)

$r$  - The distance from the unit. (cm)

The limit 1mW/cm<sup>2</sup> can be calculated from the above based on the following data:

$P_t$ - the transmitted maximum EIRP power = 17.3 dBm = 53.7 mW.

Maximum allowed distance “ $r$ ”, where RF exposure limits may not be exceeded =  $\text{SQRT}(53.7/4\pi)$  and is more than 2 cm from the tested unit.

Peak power density for distance 20 cm is:  $P_t/4\pi r^2 = 53.7 \text{ mW}/4\pi \cdot 0.2^2 = 0.011 \text{ mW/cm}^2$ . That is less than 1 mW/cm<sup>2</sup> power density limit.