

## 1.1 Exposure limit according to §15.247(b)(5) and §1.1310

The transceiver is classified as fixed. The calculation was done for minimum safety distance.

Limit for power density for general population/uncontrolled exposure is 1 mW/cm<sup>2</sup> (for 1500 –100,000 MHz frequency range).

The power density  $P$  (mW/cm<sup>2</sup>) =  $P_T / 4\pi r^2$

$P_{T1}$  is the transmitted power, which is equal to the peak transmitter output power 21.36 dBm plus maximum antenna gain 28 dBi, the maximum equivalent isotropically radiated power EIRP is

$$P_{T1} = 21.36 \text{ dBm} + 28 \text{ dBi} = 49.36 \text{ dBm} = 86300 \text{ mW}.$$

The minimum safe distance “r”, where RF exposure does not exceed FCC permissible limit, is 83 cm.

$$r = \sqrt{P_T / (P \times 4\pi)} = \sqrt{86300 / 12.56} = 83 \text{ cm}$$

The User Guide contains warning about minimum 200 cm safety distance.