Telrad Networks Ltd. FCC ID:ARA-BU1005X

Environmental evaluation and exposure limit according to FCC CFR 47part 1, §1.1307, §1.1310

The transceiver is classified as fixed, the calculation was done to check a safe distance.

Limit for power density for general population/uncontrolled exposure is 1 mW/cm² for 1500 -100000 MHz frequency range.

The power density **P (mW/cm²) = P_T / 4** π **r**², where

 P_{T} is the transmitted power, which is equal to the peak transmitter output power plus maximum antenna gain. The maximum equivalent isotropically radiated power EIRP is

$$P_T = 19 \text{ dBm} + 17 \text{ dBi} = 36 \text{ dBm} = 3981 \text{ mW}$$
, where

19 dBm is the EUT maximum output power (per port), 17 dBi – antenna gain.

The minimum safe distance "r", where RF exposure does not exceed FCC permissible limit, is

$$r = sqrt \{ PT / (Px4\pi) \} = sqrt \{3981 / 12.56 \} = 18 cm.$$

A warning about a safe distance is contained in the user manual.