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

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

Limit for power density for general population/uncontrolled exposure is 1 mW/cm^2 for 1500 -100000 MHz frequency range.

The power density $\textbf{P (mW/cm}^2\textbf{)} = \textbf{P}_\textbf{T} \textbf{/ 4}\pi \textbf{ r}^2$, 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

$$P_T = 22.49 \text{ dBm} +10 \text{ dBi} = 32.49 \text{ dBm} = 1774.189 \text{ mW, where}$$

According to manufacture's declaration the duty cycle is 74%, hence, the equivalent averaged EIRP is:

$$P_T = 1774.189 \text{ mW x } 0.74 = 1312.89 \text{ mW}$$

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

$$r = \text{sqrt} \{ P_T / (Px4\pi)\} = \text{sqrt} \{1312.89 / 12.56\} = 10.22 \text{ cm} \approx 10.5 \text{ cm.}$$

A warning about a 20 cm safe distance is contained in the user manual.