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/cm^2 for 1500 -100000 MHz frequency range.

The power density **P (mW/cm^2) = P$_T$ / 4π 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

$$P_T = 27.04 \text{ dBm} + 8.7 \text{ dBi} = 35.74 \text{ dBm} = 3749.73 \text{ mW, where}$$

27.04 dBm is the EUT maximum output power with the tune up tolerance (per port),
8.7 dBi – antenna gain.

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

$$r = \text{sqrt} \{ P_T / (P \times 4\pi)\} = \text{sqrt} \{3749.73 / 12.56\} = 17.28 \approx 18 \text{ cm.}$$

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