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

$$P_T = 27.95 \text{ dBm} + 11 \text{ dBi} = 38.95 \text{ dBm} = 7852.3 \text{ mW, where}$$

27.95 dBm is the EUT maximum calculated output power (per port),
11 dBi – antenna gain.

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

$$r = \text{sqrt } \{ P_T / (P \times 4\pi) \} = \text{sqrt } \{7852.3 / 12.56\} = 49.77 \approx 50 \text{ cm.}$$

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