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

The transceiver is classified as a mobile device.

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

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

$$P_T = 27.75\ dBm + 9\ dBi = 36.75\ dBm = 4731\ mW, \text{ where}$$

27.75 dBm is the EUT maximum output power obtained from antenna array faces forwards (connectors #21 and #22),
9 dBi – antenna gain.

The power density at 20 cm (minimum safe distance, required for mobile devices), calculated as follows:

$$4731\ mW / 4\pi\ (20\ cm)^2 = 0.94\ mW/cm^2 < 1\ mW/cm^2$$

The maximum output power obtained from antenna array faces outwards (connectors #11 and #12) is 24.12 dBm, EIRP is 33.12 dBm = 2051 mW.

The power density at 20 cm (minimum safe distance, required for mobile devices), calculated as follows:

$$2051\ mW / 4\pi\ (20\ cm)^2 = 0.4\ mW/cm^2 < 1\ mW/cm^2$$

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