

Exposure limit according to §15.247(i)

The device is classified as mobile.

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) = $P_T / 4\pi r^2$, 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

$$P_T = 20.99 \text{ dBm} + 9 \text{ dBi} = 29.99 \text{ dBm} = 997.7 \text{ mW}, \text{ where}$$

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

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

$$997.7 \text{ mW} / 4\pi (20 \text{ cm})^2 \approx 0.198 \text{ mW/cm}^2 < 1 \text{ mW/cm}^2$$

General public cannot be exposed to dangerous RF level.