

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

The calculation was completed to confirm the required safe distance for fixed device.

Based on the calculated  $r$  in 1) below, General public cannot be exposed to harmful RF level in the case of a fixed device is located at least 0.2 m safe distance from the persons.

Limit for Maximum Permissible Exposure (MPE) to radiofrequency electromagnetic fields for general population/uncontrolled exposure is  $1.0 \text{ mW/cm}^2$  (**P**) for 1,500 - 100,000 MHz frequency range:

The power density **P** ( $\text{mW/cm}^2$ ) =  $PT / 4\pi r^2$ , where PT is the maximum equivalent isotropically radiated power (EIRP).

1) The peak output power of 23.04 dBm with 15 dBi total antenna gain (please refer to Test A.1/A.2 of the test report 2647ERM.001)

$$PT = 23.04 \text{ dBm} + 15.00 \text{ dBi} = 38.04 \text{ dBm}, \text{ which is equal to } 6,368 \text{ mW}$$

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

$$r = \sqrt{PT / (P \times 4\pi)} = \sqrt{6368 / 12.56} = 23 \text{ cm}$$