

## RF Exposure Evaluation according to §15.407(f) and §1.1307

The transceiver is classified as fixed. The calculation was done for minimum safety distance.

The device operating frequency ranges are 5255 - 5345 MHz, 5475 – 5720 MHz. Limit for power density for general population/uncontrolled exposure is 1 mW/cm<sup>2</sup> (for 1500 –100,000 MHz frequency range).

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

$P_T$  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

$$P_T = 4 \text{ dBm} + 22 \text{ dBi} = 26 \text{ dBm} = 398 \text{ mW, where}$$

4 dBm is the EUT maximum output power in 5475 – 5720 MHz range and external antenna,  
22 dBi – antenna gain.

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

$$r = \sqrt{P_T / (P \times 4\pi)} = \sqrt{398 / 12.56} = 5.6 \text{ cm.}$$

General public cannot be exposed to dangerous RF level.