

**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 confirm a safe distance.

Limit for power density for general population/uncontrolled exposure is  $f/1500$  mW/cm<sup>2</sup> for 300 – 1500 MHz frequency range:

$$P = 700/1500 = 0.47 \text{ mW/cm}^2$$

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

$$P_T = 41.64 \text{ dBm} + 13.5 \text{ dBi} = 55.14 \text{ dBm} = 326588 \text{ mW}, \text{ where}$$

41.64 dBm is the EUT maximum output power,  
13.5 dBi – antenna gain.

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

$$r = \sqrt{P_T / (P \times 4\pi)} = \sqrt{326588 / (0.47 \times 12.56)} = 235 \text{ cm}.$$

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