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^2 for 300 – 1500 MHz frequency range:

P = 700/1500 = 0.47 mW/cm^2

The power density **$P\ (mW/cm^2) = P_T / 4\pi r^2$**, 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 = 41.6 dBm +13.5 dBi = 55.1 dBm = 323594 mW, where

41.6 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

$$r = \sqrt{\{P_T / (P \times 4\pi)\}} = \sqrt{\{323594 / (0.47 \times 12.56)\}} = 234 \text{ cm}.$$

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