RF Exposure evaluation (FCC 2.1091, 24.52)

The EUT is a wireless device used in a mobile application, at least 20 cm from any body part of the user or nearby persons.

Considering the maximum allowed antenna gain of 16.9 dBi (see report sec. 3.2), the maximum EIRP is 36.9 dBm or 4.9 W.

Using the formula for the Power Density $S = EIRP/ 4\pi D^2$, the distance D, where the Maximum Permissible Exposure (MPE) satisfies the FCC 1.1310 limit for General Population/Uncontrolled Exposure, can be calculated as:

$$D \geq \sqrt{(EIRP/ 4\pi S)}$$

The MPE Limit at 1960 MHz is 1.0 mW/cm^2 (or 10 W/m^2), therefore, $D \geq 0.197$ m

The Statement that a minimum separation distance of 20 cm between the antenna and persons must be maintained is included in the User's manual.