MAXIMUM PERMISSIBLE EXPOSURE FOR SUBPART C, SECTION 15.249

Calculations

Power density at the specific separation:

$$S = PG / (4R^2\pi)$$
$$S = EIRP / (4R^2\pi)$$
$$S = (0.7362) / (4 * 20^2 * \pi)$$
$$S = 0.0001465 \text{ mW/cm}^2 \text{ (at 20 cm)}$$
$$\text{Limit} = 1 \text{ mW/cm}^2$$

where

S = Maximum power density (mW/cm^2)
P = Power input to the antenna (mW) –
G = Numeric power gain of the antenna
R = distance to the center of the radiation of the antenna (20 cm = limit for MPE)
$EIRP$ = Equivalent Isotropic Radiated Power in mW
$EIRP$ (dBm) = dBuV/m + [20 Log (Test Distance in Meters)] - 104.77
The worst case is 93.90 dBuV/m peak at 3 Meters = 0.7362 mW EIRP

The maximum permissible exposure (MPE) for the general population is 1 mW/cm^2.

The power density at 20 cm does not exceed the 1 mW/cm^2 limit. Therefore, the exposure condition is compliant with FCC rules.