

Maximum Public Exposure to RF (MPE) CFR 15.247 (i)

The maximum exposure level to the public from the RF power of the EUT shall not exceed a power density, **S**, of 1 mW/cm² at a distance, d, of 20 cm from the EUT.

Therefore, for:

Highest Gain Dipole Antenna= 5 dBi

Peak Power (Watts) = 0.0575 (from Table 9 of Test Report)

Gain of Transmit Antenna = 5 dBi = 3.162, numeric (from Table 3 of Test Report)

d = Distance = 20 cm = 0.2 m

$$\begin{aligned} S &= (PG / 4\pi d^2) = EIRP / 4A = 0.0575 (3.162) / 4 * \pi * 0.2 * 0.2 \\ &= 0.1818 / 0.503 = 0.3614 \text{ W/m}^2 \\ &= (\text{W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\ &= 0.03614 \text{ mW/cm}^2 \end{aligned}$$

which is << less than 0.61 mW/cm²

Highest Gain Yagi Antenna= 6 dBi

Peak Power (Watts) = 0.0575 (from Table 9 of Test Report)

Gain of Transmit Antenna = 6 dBi = 3.981, numeric (from Table 3 of Test Report)

d = Distance = 20 cm = 0.2 m

$$\begin{aligned} S &= (PG / 4\pi d^2) = EIRP / 4A = 0.0575 (3.981) / 4 * \pi * 0.2 * 0.2 \\ &= 0.2289 / 0.503 = 0.4551 \text{ w/m}^2 \\ &= (\text{W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\ &= 0.04551 \text{ mW/cm}^2 \end{aligned}$$

which is << less than 0.61 mW/cm²