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**MAXIMUM PERMISSIBLE EXPOSURE FOR SUBPART C 2.4 GHz BAND**

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**Calculations**

Power density at the specific separation:

$$S = PG/(4R^2\pi)$$
$$S = (32.66 * 1.413) / (4 * 20^2 * \pi)$$
$$S = 0.009 \text{ mW/cm}^2$$

where

S = Maximum power density (mW/cm<sup>2</sup>)  
P = Power input to the antenna (mW) – 15.14 dBm  
G = Numeric power gain of the antenna  
R = distance to the center of the radiation of the antenna (20 cm = limit for MPE)

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

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

The numeric gain (G) of the antenna with a gain specified in dB is determined by:

$$G = \text{Log}^{-1} (\text{dB antenna gain}/10)$$
$$G = \text{Log}^{-1} (1.5 \text{ dBi}/10)$$
$$G = 1.413$$