COMPATIBLE ELECTRONICS

MPE Calculations   **Page 1 of 1**
For RF Exposure Requirements
iPhone Camera Stand with Remote
Model: F8Z896

MAXIMUM PERMISSIBLE EXPOSURE FOR SUBPART C 2.4 GHz BAND

Calculations

Power density at the specific separation:

$$S = PG/(4R^2\pi)$$
$$S = (3.56451133 * 1.585) / (4 * 20^2 * \pi)$$
$$S = 0.001124 \text{ mW/cm}^2 \text{ (at 20 cm)}$$
$$\text{Limit} = 1 \text{ mW/cm}^2$$

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)

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. Therefore, the exposure condition is compliant with FCC rules.

Additionally the power density at 1 cm does not exceed the 1 mW/cm^2

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

$$G = \text{Log}_{-1} \text{ (dB antenna gain/10)}$$
$$G = \text{Log}_{-1} \text{ (2 dBi/10)}$$
$$G = 1.585$$