FCC MPE Calculation

RF Power = 1.0 W
Cable Attenuation = 1 dB
Power to Antenna = 0.794 W
General Population Limit = 10 W/m^2
Antenna Gain = 10.1 dBi
Numeric Antenna Gain = 10.2

Minimum Distance

$$R = \sqrt{\frac{GP}{4\pi P_D}} = \sqrt{\frac{10.2 \times 0.794}{4\pi x 10}} = 0.254m$$

The user manual specifies 0.8 m minimum separation distance in section 2.7 which would result in a power density of:

$$P_D = \frac{GP}{4\pi R^2} = \frac{10.2 x 0.794}{4\pi x 0.8^2} = 1W/m^2$$

This provides a safety factor of 10 dB.