RF Exposure MPE Exhibit

Maximum permissible exposure is Freq. (MHz)/1500 = MPE mW/cm^2
869 MHz/1500 = 0.5793 mw/cm^2

The following calculations determine at what distance from the antenna the power density is = 0.5793 mw/cm^2

Tx output power = 36 dBm
Antenna Gain = 12 dBi
EIRP of TX and Antenna = 48 dBm
45 dBm= 63.09 Watts or 63090 mW

MPE Calculation

$$PowerDensity = Pd(\mathrm{mW/cm^2}) = \frac{EIRP}{4\pi d^2}$$

$$d = \sqrt{\frac{EIRP}{4\pi Pd}}$$

$$d = \sqrt{\frac{63090}{4\pi 0.5793 mw/cm2}}$$

d = 93.09 cm

The minimum safe distance is 93.09 cm for the UtStarcom iBTS when installed. . This product is installed by trained professionals in outdoor applications only