

Title: Evaluation of ER Exposure from CellNet Transmitters for General Population / Uncontrolled Exposure***Methodology:***

Using Table 1 in Appendix A of FCC OET Bulletin 65 (Edition 01-01), the Maximum Permissible Exposure limit for general population / uncontrolled exposure is specific as a power density:

$$MPE = f / 1500 \text{ milliwatts per square centimeter, where } f \text{ is in MHz (between 300 to 1500 MHz)}$$

Averaged over 30 minutes. Based on spherical surface around the source, the minimum distance D can be computed as:

$$D = \text{SQRT} (EIRP / 4\pi * MPE)$$

Average transmit power (dBm)	Antenna gain (dBi)	Duty cycle (average over 30 minutes)	Avg EIRP (dBm)	Avg EIRP (mW)	Frequency (MHz)	Max permitted power density	Minimum distance (cm)	Power Density at 20cm (mW/cm ²)
23	0	.01%	-17	0.02	917.58	0.612 mW/cm ²	0.05	0.00
23	0	N/A	23	199.5			5.1	0.04

Note 1: The BAMM will be used with an integral Loop antenna with a 0 dBi gain (refer to Installation Guide, page 7 of 13).

Note 2: The RF safety exposure statement is included in the Installation Guide on page 7 of 13.

Note 3: The peak power density (i.e. non-time-averaged) at 20cm from the device is below the maximum permitted level of 0.612 mW/cm². The time-averaged value is much lower.

Reference:

[1] FCC OET Bulletin 65 (01-01 Edition), "Evaluation Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields", June 2001.