

Per CFR 47, section 1.1307.b(1), Table 1, all applications for experimental operations with an ERP greater than 100 watts require evaluation for compliance with human exposure limits defined in section 1.1310, and if exceeded require submission of an Environmental Assessment as defined in section 1.1311.

The below calculations define the minimum safe working distance for both Occupational and General Public, which are based on the maximum permissible exposure limits of 5 mW/cm<sup>2</sup> and 1 mW/cm<sup>2</sup> respectively.

The antenna is a VSAT AVL Technologies antenna array operating in the high power mode. The antenna will be operated in a controlled area. Only authorized occupational workers will be allowed access to the area of operation. In addition the transmitter will be secured prior to conducting maintenance, and the area will be monitored during the operation to ensure that personnel are clear of any radiation hazard area.



Transmitter Peak Power (Watts):	12.58925
Maximum Antenna Gain (dBi):	52.2
Duty Cycle (%):	100
Transmitter Power (dBm):	41
EIRP (dBm):	93.2
Non-dimensional Antenna Gain:	165958.6907
Transmitter Avg Power (Watts):	12.58925
EIRP Watts:	2089295.4474
Avg EIRP Watts:	2089295.4474

**Minimum Safe Distance**

	Occupational	General Public
Meters:	<b>57.6647</b>	<b>128.9422</b>
Feet:	<b>189.1863</b>	<b>423.0335</b>