

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/cm² and 1 mW/cm² respectively.

The antennas are as follows: MicroAnt 0.45meter Off Set Parabolic (OFP), 2.4meter GDSatcom Series 3244 and the GDSatcom 3.8meter Offset Fed Dual Optics Antennas with Hylas 4. The antennas will be operated in a controlled area, and will be directed towards the horizon. 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):	125
Maximum Antenna Gain (dBi):	55
Duty Cycle (%):	1
Transmitter Power (dBm):	50.9691
EIRP (dBm):	105.9691
Non-dimensional Antenna Gain:	316227.766
Transmitter Avg Power (Watts):	1.25
EIRP Watts:	39528470.7521
Avg EIRP Watts:	395284.7075

Minimum Safe Distance

	Occupational	General Public
Meters:	25.0822	56.0854
Feet:	82.2896	184.0051