

Description of Antennas and ERP

The proposed systems will utilize two different antennas. In addition, although the peak power has been specified on the technical portion of the forms, three different average power settings may also be utilized. This exhibit contains the additional information required.

Antenna #1:

- 6-foot open array.
- Elevation 3 dB beamwidth is 22 degrees.
- Azimuth 3 dB beamwidth is 1.35 degrees.
- Antenna gain is 29 dBi.

Antenna #2:

- 2 foot dish.
- Elevation 3 dB beamwidth is 3.8 degrees.
- Azimuth 3 dB beamwidth is 3.8 degrees.
- Antenna gain is 32 dBi.

Average Power Operation:

Depending on the range setting utilized, three different average power outputs may occur. The power specified on the technical section of the form represents the maximum peak power proposed for the operation. The three average power settings are 4.2, 9, and 12 Watts. These settings result in the average effective radiated powers specified in the table below.

Average Power	Antenna #1		Antenna #2	
	ERP (isotropic)		ERP (isotropic)	
4.2 Watts	35.23 dBW	3.334 kW	38.23 dBW	6.653 kW
9 Watts	38.54 dBW	7.145 kW	41.54 dBW	14.26 kW
12 Watts	39.79 dBW	9.528 kW	42.79 dBW	19.01 kW