

Maximum power density calculations for **remote dish** using FCC prediction methods (Pages 26-29)
 by Jay McCandless 12/28/99

Model	Frequency (f) (GHz)	Wavelength (λ) (cm)	Specified Gain (dB)	Gain (G) is 10 ^{dB} gain/10	Aperture Diameter (D) (cm)	Aperture Area (A) (cm sq.)	Efficiency (η) is $G \cdot (\lambda / (\pi D))^2$	Maximum Specified Transmit Power (4 QAM) (dBm)
PTM 1000	28	1.07142857	34.4	2754.2287	26.67	558.646302	0.45037953	16

Transmit Power (P) (mW)	Worst Case Power Density on Surface (Ssurface) (mW/cm ²)	R-near field (cm)	Worst Case Power Density in the Near Field (Snf) (mW/cm ²)	Maximum Power Density Allowed (mW/cm ²)	Designation
	is $4P/A$	is $D^2/4\lambda$	is $16\eta P/\pi D^2$		
39.8107171	0.28505132	165.96741	0.05159722	1	Safe anywhere