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) is 30/f	Specified Gain (dB)	Gain (G) is 10^dB gain/10	Aperture Diameter (D) (cm)	Aperture Area (A) (cm sq.)	Efficiency (η) is $G*(\lambda/(\pi D)^2$	Maximum Specified Transmit Power (4 QAM) (dBm)
PTM 1000	31	0.96774194	34.4	2754.2287	26.67	558.646302	0.36742721	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**	183.749633	0.04209388	**1**	**Safe anywhere**