POWER DENSITY ESTIMATIONS BASED ON POWER OUTPUT, ANTENNA GAIN, AND DISTANCE FROM ANTENNA

$$(P\,G)/(4\,R^{2}\,\pi) = S$$

where:			transmitter operating variables:		must be blank if dB values are entered	
S =	maximum power density (mW/cm^2)					
P =	power input to the antenna ----------->>	=	27.37 (dBm)	- or -		(mW)
G =	gain of the antenna - worst case ----------->>	=	2.5 (dBi)	- or -		(numeric gain)
R =	distance to the center of the radiation of the antenna -->>	=	20			(cm)

(P G) / (4 * R ^{2} * π)	=	S	(mW/cm^2)
(545.7578611 (mw) 1.77828 (gain)) / (4 * 20 (cm) ^{2} * π)	=	S	(mW/cm^2)
(970.5099672) / (4 * 400 * π $_3$)	=	S	(mW/cm^2)
(970.5099672) / (5026.548246)	=	0.193077	(mW/cm^2)