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

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

where:	S =	maximum power density (mW/cm^2)	transmitter operating variables:		must be blank if dB values are entered	
	P =	power input to the antenna --------------------------------->>	=	6.87 (dBm) - or -		(mW)
	G =	gain of the antenna - worst case --------------------------->>	=	0.5 (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)
(108.6425624 (mw) 1.58489 (gain)) / (4 * 20^2 (cm) * π)	=	S	(mW/cm^2)
(172.1868575) / (4 * 400 * π₃)	=	S	(mW/cm^2)
(172.1868575) / (5026.548246)	=	0.034255	(mW/cm^2)