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 ----------------------------->>	=	19.87 (dBm)	- or -		(mW)
G =	gain of the antenna - worst case ------------------------>>	=	1.9 (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)
(97.05099672 (mw) 1.54882 (gain)) / (4 * 20^2 (cm) * π)	=	S	(mW/cm^2)
(150.3141966) / (4 * 400 * π ₃)	=	S	(mW/cm^2)
(150.3141966) / (5026.548246)	=	0.029904	(mW/cm^2)

Note: The power input to the antenna is the maximum target level plus a 1.0 dB tune up tolerance