

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/cm²)		transmitter operating variables:		must be blank if dB values are entered	
P =	power input to the antenna ----->>	=	17.753 (dBm) - or -		(mW)
G =	gain of the antenna - worst case ----->>	=	-1.6 (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/cm²)
(59.60737545 (mw) 0.69183 (gain)) / (4 * 20 (cm) ^ 2 * π)		=	S	(mW/cm²)
(41.23822843) / (4 * 400 * π)		=	S	(mW/cm²)
(41.23822843) / (5026.548246)		=	0.008204	(mW/cm²)