

**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 ----->>	=	24.12	(dBm) - or -		(mW)
	G =	gain of the antenna - worst case ----->>	=	12.02	(dBi) - or -		(numeric gain)
	R =	distance to the center of the radiation of the antenna -->>	=	20			(cm)

$(P \quad G)$	$/$	$(4 * R^2 * \pi)$	$=$	S	(mW/cm^2)
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$(\begin{matrix} 258.2260191 \\ (mw) \end{matrix} \quad \begin{matrix} 15.92209 \\ (gain) \end{matrix})$	$/$	$(4 * \begin{matrix} 20 \\ (cm) \end{matrix}^2 * \pi)$	$=$	S	(mW/cm^2)
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(4111.497211)	$/$	$(4 * 400 * \pi)$	$=$	S	(mW/cm^2)
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(4111.497211)	$/$	(5026.548246)	$=$	0.817956	(mW/cm^2)
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