

**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 ----->>	=	27.96	(dBm) - or -	(mW)
$G =$	gain of the antenna - worst case ----->>	=	8.12	(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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$(\frac{625.1726928}{(mw)} \quad \frac{6.48634}{(gain)}) / (4 * \frac{20}{(cm)}^2 * \pi)$	=	S	(mW/cm ²)
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$(4055.085354) / (4 * 400 * \pi)$	=	S	(mW/cm ²)
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$(4055.085354) / (5026.548246)$	=	0.806734	(mW/cm ²)
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