

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 ----->>	=	27.2	(dBm) - or -	(mW)
$G =$	gain of the antenna - worst case ----->>	=	9.01	(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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$(\frac{524.8074602}{(mw)} \quad \frac{7.96159}{(gain)})$	$/$	$(4 * \frac{20}{(cm)}^2 * \pi)$	$=$	S	(mW/cm^2)
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(4178.303666)	$/$	$(4 * 400 * \pi)$	$=$	S	(mW/cm^2)
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(4178.303666)	$/$	(5026.548246)	$=$	0.831247	(mW/cm^2)
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