

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 ----->>	=	11.95 (dBm) - or -		(mW)
$G =$	gain of the antenna - worst case ----->>	=	2 (dBi) - or -		(numeric gain)
$R =$	distance to the center of the radiation of the antenna -->>	=	20		(cm)

$(P G) / (4 * R^2 * \pi)$	=	S	(mW/cm ²)
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$(15.6675107 (mw) * 1.58489 (gain)) / (4 * 20^2 (cm) * \pi)$	=	S	(mW/cm ²)
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$(24.83133105) / (4 * 400 * \pi)$	=	S	(mW/cm ²)
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$(24.83133105) / (5026.548246)$	=	0.004940	(mW/cm ²)
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