

**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 ----->>	=	10.34 (dBm) - or -	(mW)
	G =	gain of the antenna - worst case ----->>	=	1.8 (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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$(\text{10.81433951} \quad \text{1.51356}) / (4 * \text{20}^2 * \pi)$ (mw) (gain) (cm)	=	S	(mW/cm ²)
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$(\text{16.36816521}) / (4 * \text{400} * \pi)$ 3	=	S	(mW/cm ²)
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$(\text{16.36816521}) / (\text{5026.548246})$	=	0.003256	(mW/cm ²)
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