

**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 ----->>	=	17.106 (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)

$(P \quad G) / (4 * R^2 * \pi)$	=	S (mW/cm ²)
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$(\text{51.35704178 (mw)} \quad \text{1.58489 (gain)}) / (4 * \text{20 (cm)}^2 * \pi)$	=	S (mW/cm ²)
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$(\text{81.39542591}) / (4 * \text{400} * \pi)$	=	S (mW/cm ²)
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$(\text{81.39542591}) / (\text{5026.548246})$	=	0.016193 (mW/cm ²)
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