

**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 ----->>	=	19.87	(dBm) - or -		(mW)
	G =	gain of the antenna - worst case ----->>	=	1.9	(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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$(\text{97.05099672} \quad \text{1.54882})$	$/$	$(4 * \text{20}^2 * \pi)$	$=$	S	(mW/cm^2)
(mw)		(gain)			
		(cm)			

(150.3141966)	$/$	$(4 * 400 * \pi)$	$=$	S	(mW/cm^2)

(150.3141966)	$/$	(5026.548246)	$=$	0.029904	(mW/cm^2)
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Note: The power input to the antenna is the maximum target level plus a 1.0 dB tune up tolerance