

**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:		
	P =	power input to the antenna ----->>	=	19.09	(dBm) - or -
	G =	gain of the antenna - worst case ----->>	=	2	(dBi) - or -
	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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$(81.09610579 \ 1.58489) / (4 * 20^2 * \pi)$ <small>(mw) (gain) (cm)</small>	=	S	(mW/cm ²)
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$(128.528666) / (4 * 400 * \pi)$	=	S	(mW/cm ²)
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$(128.528666) / (5026.548246)$	=	0.025570	(mW/cm ²)
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