

**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 ----->>	=	19.476 (dBm) - or -		(mW)
$G =$	gain of the antenna - worst case ----->>	=	2.67 (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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$(88.63392873 \quad 1.84927)$	$/$	$(4 * 20^2 * \pi)$	$=$	S	(mW/cm ²)
(mw)	(gain)	(cm)			

(163.907943)	$/$	$(4 * 400 * \pi)$	$=$	S	(mW/cm ²)

(163.907943)	$/$	(5026.548246)	$=$	0.032608	(mW/cm ²)