

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 ----->>	=	15.98	(dBm) - or -	(mW)
$G =$	gain of the antenna - worst case ----->>	=	5	(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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$($	39.62780343	$)$	$/$	$($	4	$*$	20	2	$*$	π	$)$	$=$	S	(mW/cm^2)
	(mw)						(cm)							

$($	125.3141175	$)$	$/$	$($	4	$*$	400	$*$	π	$)$	$=$	S	(mW/cm^2)
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$($	125.3141175	$)$	$/$	$($	5026.548246	$)$	$=$	0.024930	(mW/cm^2)
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