

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 ----->>	=	29.81	(dBm)	- or -		(mW)
G =	gain of the antenna - worst case ----->>	=	6	(dBi)	- or -		(numeric gain)
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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$(957.1940713 \ 3.98107)$	$/$	$(4 * 20^2 * \pi)$	$=$	S	(mW/cm ²)
(mw)	(gain)	(cm)			

(3810.658234)	$/$	$(4 * 400 * \pi)$	$=$	S	(mW/cm ²)

(3810.658234)	$/$	(5026.548246)	$=$	0.758106	(mW/cm ²)