

**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 ----->>	=	19.09	(dBm) - or - (mW)
	G =	gain of the antenna - worst case ----->>	=	2	(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)
-----------------------------	---	---	-----------------------

$(81.09610579 \ 1.58489) / (4 * 20^2 * \pi)$ (mw) (gain) (cm)	=	S	(mW/cm ²)
---	---	---	-----------------------

$(128.528666) / (4 * 400 * \pi)$	=	S	(mW/cm ²)
----------------------------------	---	---	-----------------------

$(128.528666) / (5026.548246)$	=	0.025570	(mW/cm ²)
--------------------------------	---	----------	-----------------------