

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:	<small>must be blank if dB values are entered</small>	
	P =	power input to the antenna ----->>	=	22.15 (dBm) - or -	(mW)
	G =	gain of the antenna - worst case ----->>	=	1.4 (dBi) - or -	(numeric gain)
	R =	distance to the center of the radiation of the antenna -->>	=	20	(cm)

$$(P \quad G) / (4 * R ^ 2 * \pi) = S \quad (mW/cm^2)$$

$$(\underset{(mw)}{164.0589773} \quad \underset{(gain)}{1.38038}) / (4 * \underset{^2}{20} * \pi) = S \quad (mW/cm^2)$$

$$(\underset{^2}{226.4644308}) / (4 * \underset{^2}{400} * \pi) = S \quad (mW/cm^2)$$

$$(\underset{^2}{226.4644308}) / (\underset{^2}{5026.548246}) = \underset{^2}{0.045054} \quad (mW/cm^2)$$