

Ptx := 17	TX power [dBm]	CM09CPUS
Ga := 3.0	Antenna gain [dBm]	2450AT45A100 Johanson Technology
d := 0.2	Distance [m]	

$$EiRP := Ptx + Ga \quad [\text{dBm}]$$

$$eIrp := 10^{\frac{EiRP-30}{10}} \quad [\text{W}]$$

$$PD(d) := \frac{eIrp}{4\pi \cdot d^2} \quad [\text{W/m}^2]$$

$$pd(d) := PD(d) \cdot \frac{1000}{10000} \quad [\text{mW/cm}^2]$$

$$pd(0.2) = 0.02 \quad [\text{mW/cm}^2]$$

limit power density: 1 mW/cm²