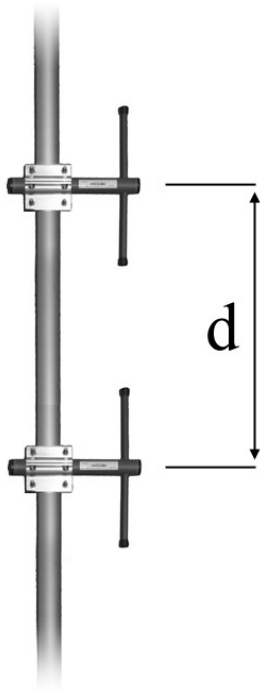


## Calculation of isolation between dipole antennas

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$$L_p = 20 \log \frac{4\pi d}{\lambda}$$

From radiation pattern:  $2 \times 15 \text{ dB} = 30 \text{ dB}$

Target:  $65 \text{ dB}$

$$\Delta L_p = 35 \text{ dB} = 20 \log \frac{4\pi d}{\lambda}$$

$$\frac{35}{20} + \log \lambda = \log 4\pi + \log d$$

$$\log d = \frac{35}{20} + \log \lambda - \log 4\pi$$

$$\log d = \frac{35}{20} + \frac{\log \lambda}{\log 4\pi}$$

$$\log d = \frac{35}{20} + \log \frac{\lambda}{4\pi}$$

$$d = 10^{\left(\frac{35}{20} + \log \frac{\lambda}{4\pi}\right)}$$