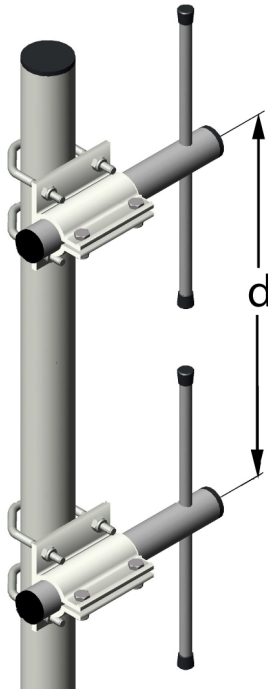


Antenna Isolation



$$I = L_p + A_r$$

I = Isolation between vertically polarized collinear mounted antennas

$$A_r = \text{Attenuation (Radiation patterns)} \\ = \quad \text{dB} + \quad \text{dB} = \quad \text{dB}$$

$$L_p = \text{Path loss (Free Space)} = 20 \log \frac{4\pi d}{\lambda}$$

d = distance between the antenna phase centers

Target isolation: dB

Frequency: MHz

Wavelength (λ): m

Antenna distance (d): m

Isolation of two vertically polarized antennas by vertical separation $I(d/\lambda)$ [dB]

