

$$|\Gamma| = \frac{VSWR - 1}{VSWR + 1}$$

$$Z = Z_0 \cdot \frac{1 + \Gamma}{1 - \Gamma}$$

$$VSWR = \frac{1 + |\Gamma|}{1 - |\Gamma|}$$

$$R_{\min} = \frac{50\Omega}{VSWR}$$

$$\Gamma = 10^{\frac{-\text{Return Loss}}{20}}$$

$$\text{Return Loss} = -20 \cdot \log(\Gamma)$$

$$Z_0 = \frac{60}{\sqrt{\epsilon}} \cdot \ln \frac{D}{d}$$