

FORMULARIO ALUMNO

$$\Gamma = \frac{V_{\text{ref}}}{V_{\text{inc}}} = \frac{Z_L - Z_0}{Z_L + Z_0}$$

$$P_{\text{inc}} = \frac{V_{\text{inc}}^2}{Z_0} \qquad P_{\text{ref}} = \frac{V_{\text{ref}}^2}{Z_0} = \frac{(\Gamma \cdot V_{\text{inc}})^2}{Z_0}$$

$$P_{\text{trans}} = P_L = P_{\text{inc}} - P_{\text{ref}} = \frac{V_{\text{inc}}^2}{Z_0} - \frac{(\Gamma \cdot V_{\text{inc}})^2}{Z_0} = \frac{V_{\text{inc}}^2}{Z_0} \cdot (1 - \Gamma^2) = P_{\text{inc}} \cdot (1 - \Gamma^2)$$

$$\eta (\%) = \frac{\text{Potencia transmitida}}{\text{Potencia Incidente}} = (1 - \Gamma^2) \cdot 100$$

$$RL(dB) = -10 \cdot \log \left(\frac{P_{\text{ref}}}{P_{\text{inc}}} \right) = -10 \cdot \log \left(\frac{V_{\text{ref}}^2}{V_{\text{inc}}^2} \right) = -10 \cdot \log \Gamma^2 = -20 \cdot \log |\Gamma|$$

$$ROE = \frac{V_{\text{MAX}}}{V_{\text{MIN}}} = \frac{V_{\text{inc}} + V_{\text{ref}}}{V_{\text{inc}} - V_{\text{ref}}}$$

$$ROE = \frac{V_{\text{inc}} + |\Gamma| \cdot V_{\text{inc}}}{V_{\text{inc}} - |\Gamma| \cdot V_{\text{inc}}} = \frac{1 + |\Gamma|}{1 - |\Gamma|} \qquad |\Gamma| = \frac{ROE - 1}{ROE + 1}$$

$$ROE = \frac{R_{\text{MAX}}}{R_{\text{MIN}}}$$