

A attenuation of the RF power in dB

G gain $G = 10^{\frac{A}{20}}$

Z_{in} desired input impedance

Z_{out} desired output impedance

$$R_1 = \frac{1}{\frac{G+1}{Z_{\text{in}} \cdot (G-1)} - \frac{1}{R_2}}$$

$$R_2 = \frac{G-1}{2} \cdot \sqrt{\frac{Z_{\text{in}} \cdot Z_{\text{out}}}{G}}$$

$$R_3 = \frac{1}{\frac{G+1}{Z_{\text{out}} \cdot (G-1)} - \frac{1}{R_2}}$$