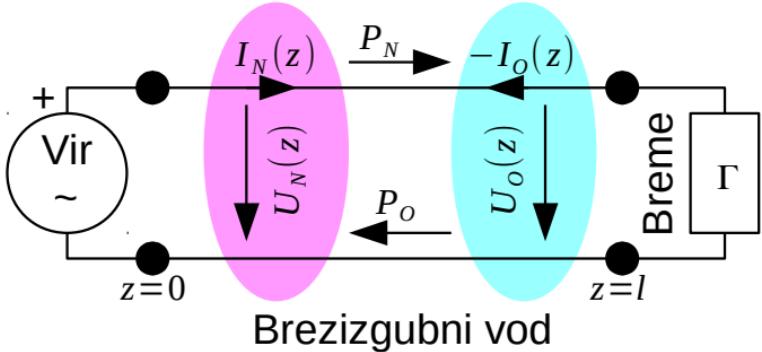


Napredujući val

Odbiti val



$$U(z) = U_N(z) + U_O(z)$$

$$I(z) = I_N(z) + I_O(z)$$

$$\frac{U_N(z)}{I_N(z)} = -\frac{U_O(z)}{I_O(z)} = Z_K = \sqrt{\frac{L/l}{C/l}}$$

$$P = \frac{U(z) \cdot I(z)^*}{2} = \frac{1}{2} \left[U_N(0) \cdot e^{-j\beta z} + U_O(0) \cdot e^{+j\beta z} \right] \cdot \left[\frac{U_N(0)^*}{Z_K} \cdot e^{+j\beta z} - \frac{U_O(0)^*}{Z_K} \cdot e^{-j\beta z} \right]$$

$$P = \frac{|U_N|^2}{2Z_K} - \frac{|U_O|^2}{2Z_K} + j \frac{|U_N \cdot U_O|}{Z_K} \cdot \sin(2\beta l + \varphi)$$

$$U_N(0) \cdot U_O(0)^* = |U_N \cdot U_O| \cdot e^{-j\varphi}$$

$$U_O(0) \cdot U_N(0)^* = |U_N \cdot U_O| \cdot e^{+j\varphi}$$

Moči valov

$$P_N = \frac{|U_N|^2}{2Z_K}$$

$$P_O = \frac{|U_O|^2}{2Z_K}$$

Energija
stojnega
vala

Napredujuća moč

Odbita moč

$$\text{Re}[P] = P_N - P_O$$

$$P_O = |\Gamma|^2 \cdot P_N$$

$$\text{Re}[P] = P_N \cdot (1 - |\Gamma|^2)$$