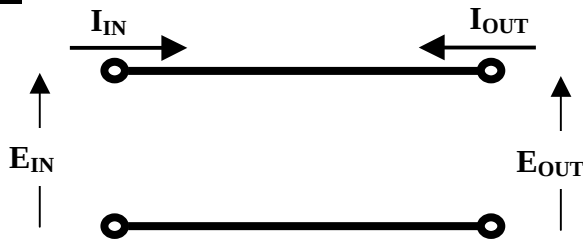




PARÁMETROS DE TRANSMISIÓN EN CUADRIPOLOS SIMPLES

CASO 1:



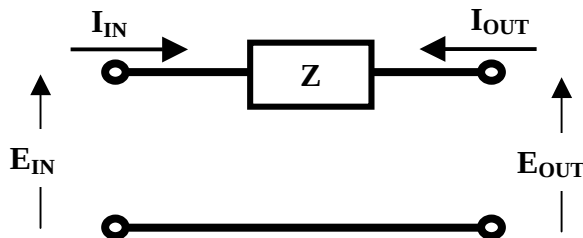
$$E_{IN} = E_{OUT}$$

$$I_{IN} = -I_{OUT}$$

$$\begin{cases} E_{IN} = 1 * E_{OUT} + 0 * (-I_{OUT}) \\ I_{IN} = 0 * E_{OUT} + 1 * (-I_{OUT}) \end{cases}$$

$$ABCD = \begin{vmatrix} 1 & 0 \\ 0 & 1 \end{vmatrix}$$

CASO 2:



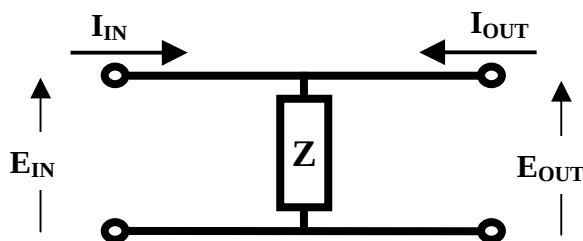
$$E_{IN} = Z * I_{IN} + E_{OUT}$$

$$I_{IN} = -I_{OUT}$$

$$\begin{cases} E_{IN} = 1 * E_{OUT} + Z * (-I_{OUT}) \\ I_{IN} = 0 * E_{OUT} + 1 * (-I_{OUT}) \end{cases}$$

$$ABCD = \begin{vmatrix} 1 & Z \\ 0 & 1 \end{vmatrix}$$

CASO 3:



$$E_{IN} = E_{OUT}$$

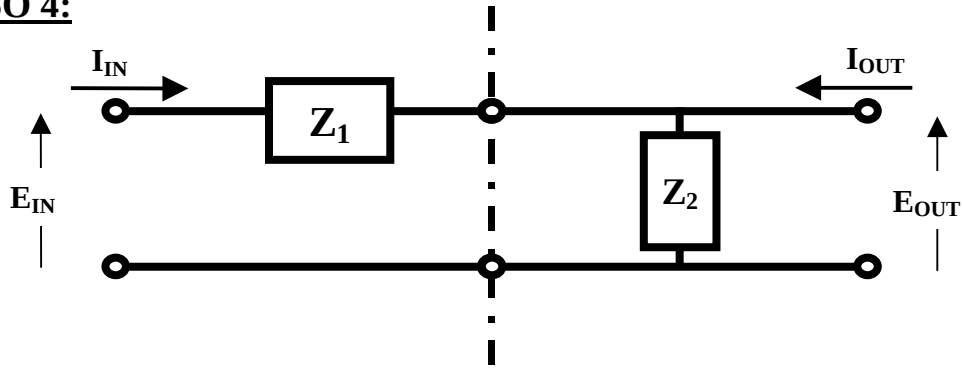
$$I_{IN} = \frac{E_{OUT}}{Z} - I_{OUT}$$

$$\begin{cases} E_{IN} = 1 * E_{OUT} + 0 * (-I_{OUT}) \\ I_{IN} = \frac{1}{Z} * E_{OUT} + 1 * (-I_{OUT}) \end{cases}$$

$$ABCD = \begin{vmatrix} 1 & 0 \\ 1/Z & 1 \end{vmatrix}$$



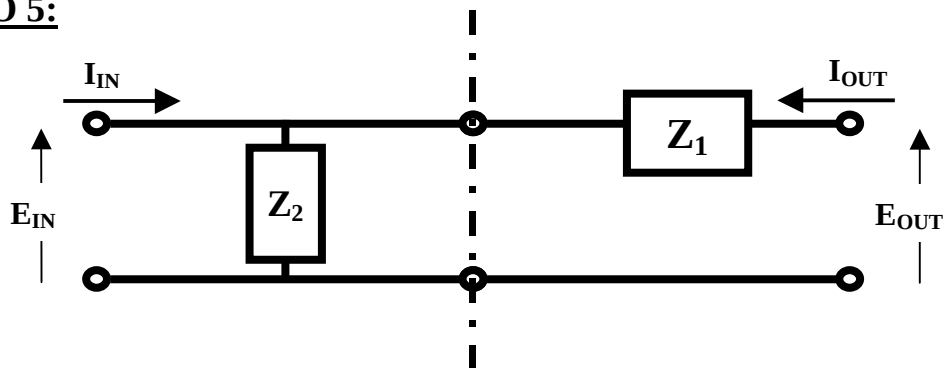
CASO 4:



$$ABCD = \begin{vmatrix} 1 & Z_1 \\ 0 & 1 \end{vmatrix} * \begin{vmatrix} 1 & 0 \\ 1/Z_2 & 1 \end{vmatrix}$$

$$ABCD = \begin{vmatrix} 1 + Z_1/Z_2 & Z_1 \\ 1/Z_2 & 1 \end{vmatrix}$$

CASO 5:

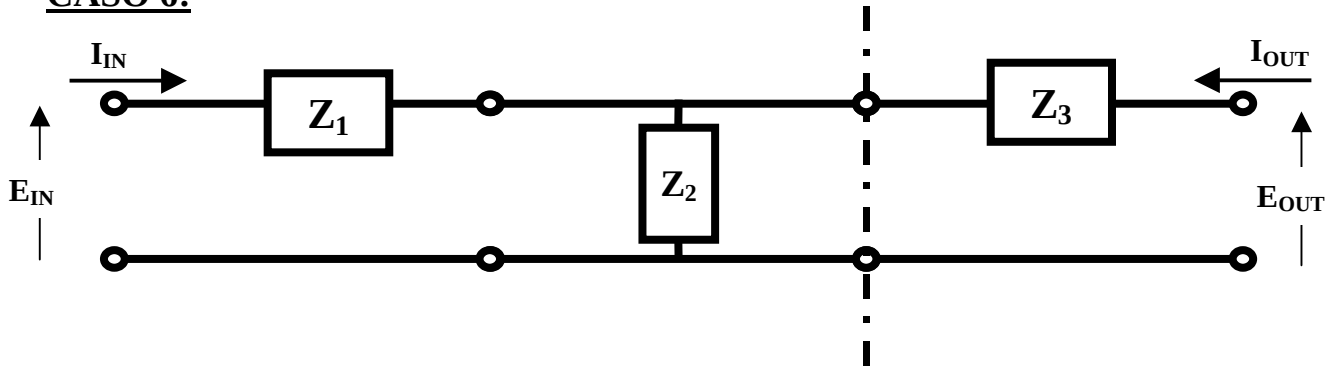


$$ABCD = \begin{vmatrix} 1 & 0 \\ 1/Z_2 & 1 \end{vmatrix} * \begin{vmatrix} 1 & Z_1 \\ 0 & 1 \end{vmatrix}$$

$$ABCD = \begin{vmatrix} 1 & Z_1 \\ 1/Z_2 & 1 + Z_1/Z_2 \end{vmatrix}$$



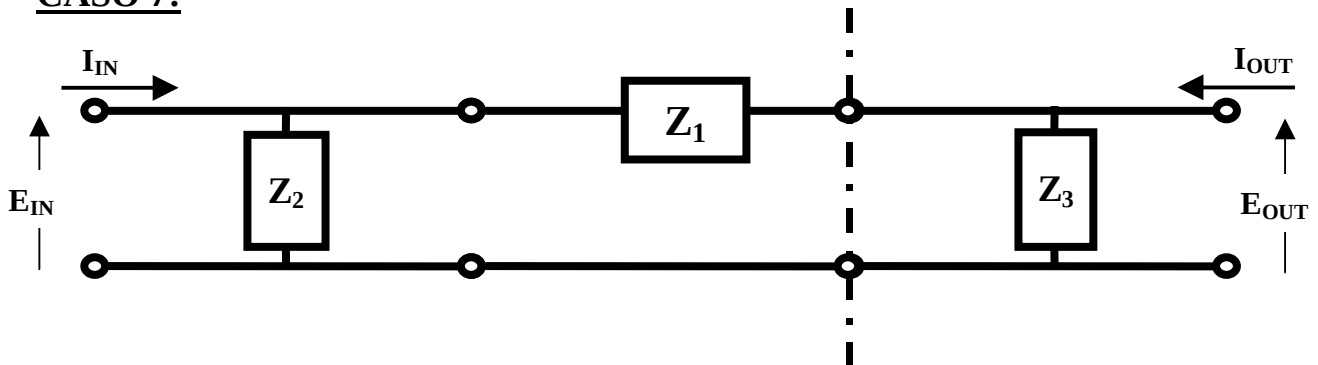
CASO 6:



$$ABCD = \begin{vmatrix} 1 + \frac{Z_1}{Z_2} & Z_1 \\ \frac{1}{Z_2} & 1 \end{vmatrix} * \begin{vmatrix} 1 & Z_3 \\ 0 & 1 \end{vmatrix}$$

$$ABCD = \begin{vmatrix} 1 + \frac{Z_1}{Z_2} & Z_3 + \frac{Z_1 * Z_3}{Z_2} + Z_1 \\ \frac{1}{Z_2} & \frac{Z_3}{Z_2} + 1 \end{vmatrix}$$

CASO 7:



$$ABCD = \begin{vmatrix} 1 & Z_1 \\ \frac{1}{Z_2} & 1 + \frac{Z_1}{Z_2} \end{vmatrix} * \begin{vmatrix} 1 & 0 \\ \frac{1}{Z_3} & 1 \end{vmatrix}$$

$$ABCD = \begin{vmatrix} 1 + \frac{Z_1}{Z_3} & Z_1 \\ \frac{1}{Z_2} + \frac{1}{Z_3} + \frac{Z_1}{Z_2 * Z_3} & 1 + \frac{Z_1}{Z_2} \end{vmatrix}$$