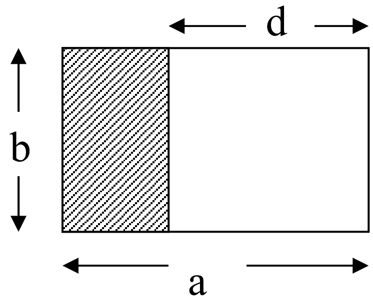
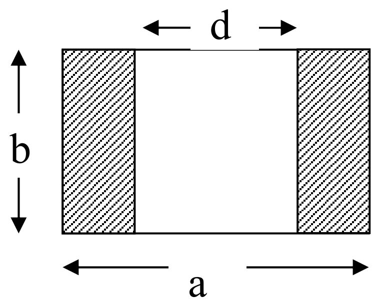
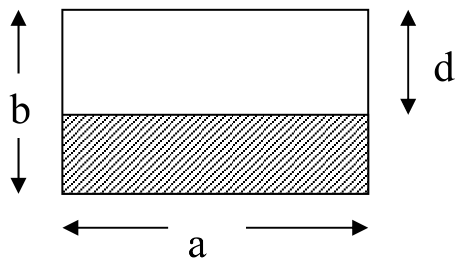
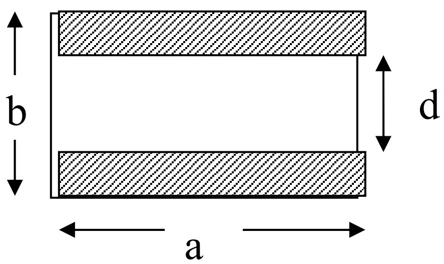
DISCONTINUIDADES EN GUÍA

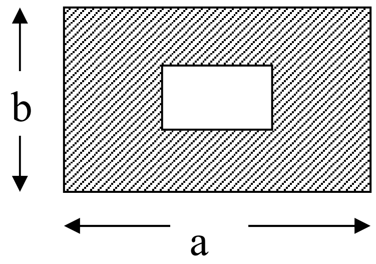
a) Diafragma vertical

	$\overline{B} = -\frac{2\pi}{\beta a}\cot^2\frac{\pi d}{2a}\left(1+\csc^2\frac{\pi d}{2a}\right);$ $\gamma_3 = \left[\left(\frac{3\pi}{a}\right)^2 - k_0^2\right]^{\frac{1}{2}}$
	$\overline{B} = -\frac{2\pi}{\beta a}\cot^2\frac{\pi d}{2a}\left(1+\frac{a\gamma_3-3\pi}{4\pi}\sin^2\frac{\pi d}{a}\right);$

b) Diafragma horizontal

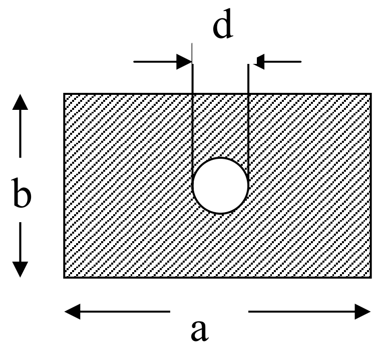
	$\overline{B} = \frac{4\beta b}{\pi}\left[\ln\csc\frac{\pi d}{2b}+\left(\frac{\pi}{b\gamma_1}-1\right)\cos^4\frac{\pi d}{2b}\right];$ $\gamma_1 = \left[\left(\frac{\pi}{b}\right)^2 - \beta^2\right]^{\frac{1}{2}}$
	$\overline{B} = \frac{2\beta b}{\pi}\left[\ln\csc\frac{\pi d}{2b}+\left(\frac{\pi}{b\gamma_2}-1\right)\cos^4\frac{\pi d}{2b}\right];$ $\gamma_2 = \left[\left(\frac{2\pi}{b}\right)^2 - \beta^2\right]^{\frac{1}{2}}$

c) Diafragma rectangular

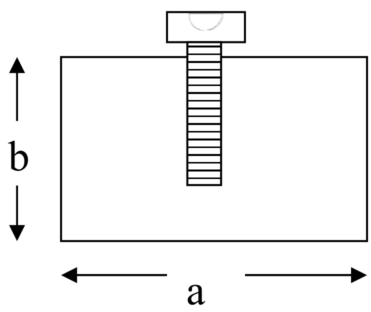
	$\overline{B}=\frac{4\beta b}{\pi}\left[\ln \csc\frac{\pi d}{2b}+\left(\frac{\pi}{b\gamma_1}-1\right)\cos^4\frac{\pi d}{2b}\right];$ $\gamma_1=\left[\left(\frac{\pi}{b}\right)^2-\beta^2\right]^{\frac{1}{2}}$

Su carácter resonante puede razonarse cualitativamente en base a que es una combinación de los dos anteriores.

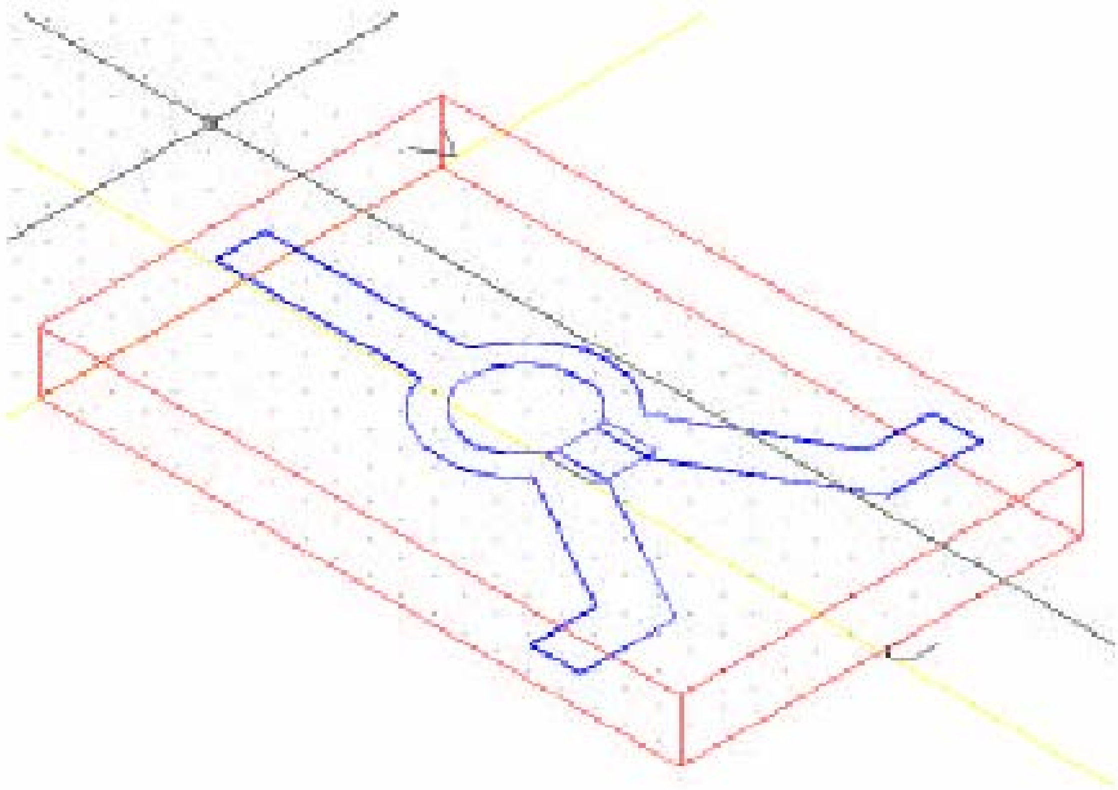
d) Apertura circular pequeña (iris)

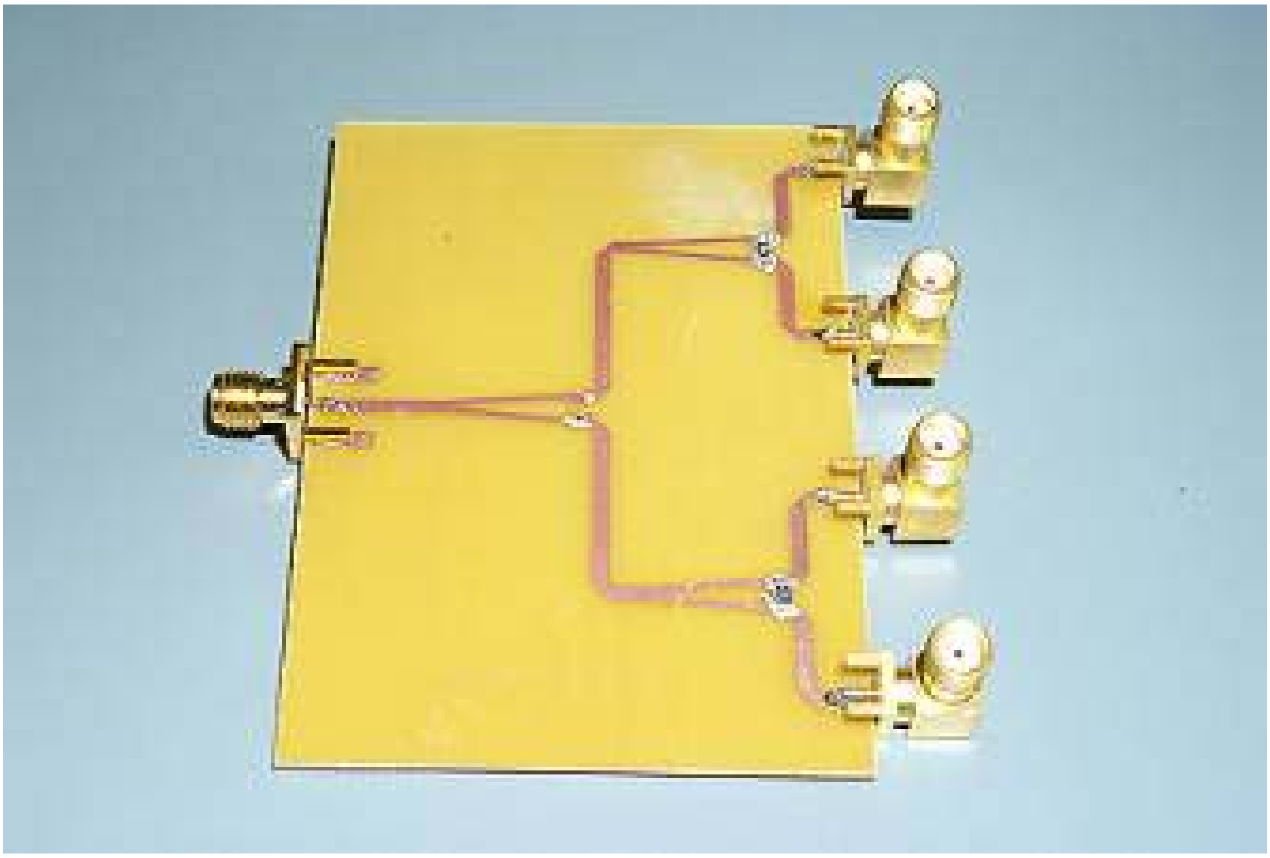
	$\overline{B}=-\frac{3ab}{8\beta d^3}$

e) Poste

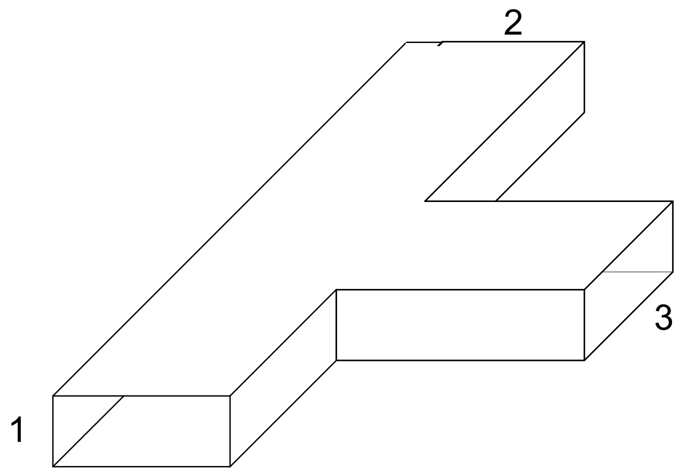
	

EL DIVISOR DE WILKINSON

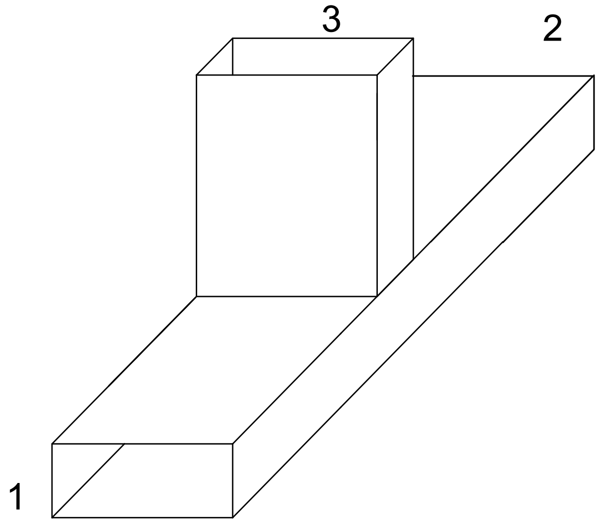


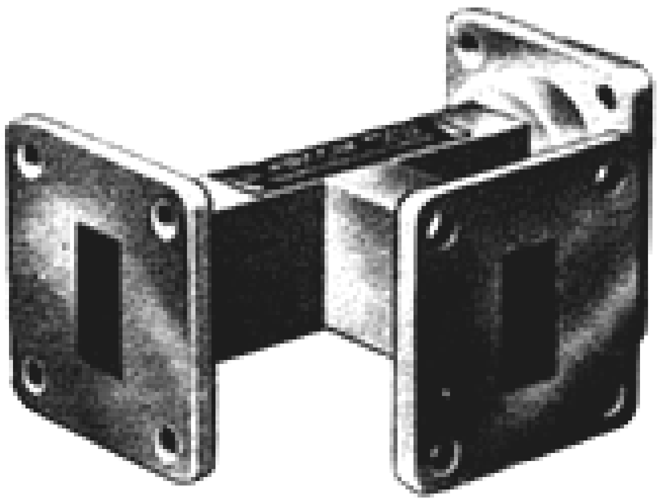


T EN PLANO H

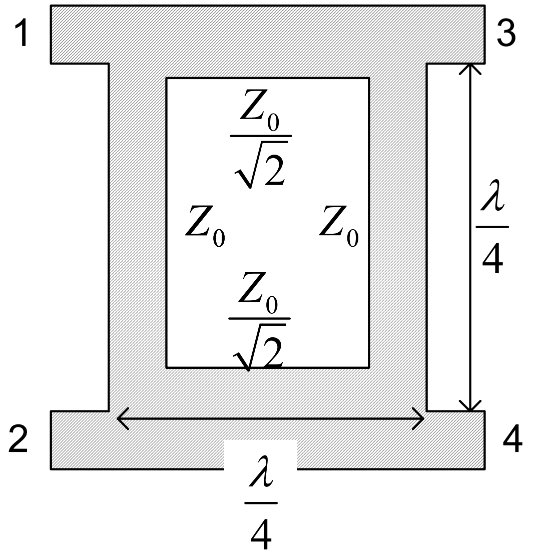


T EN PLANO E

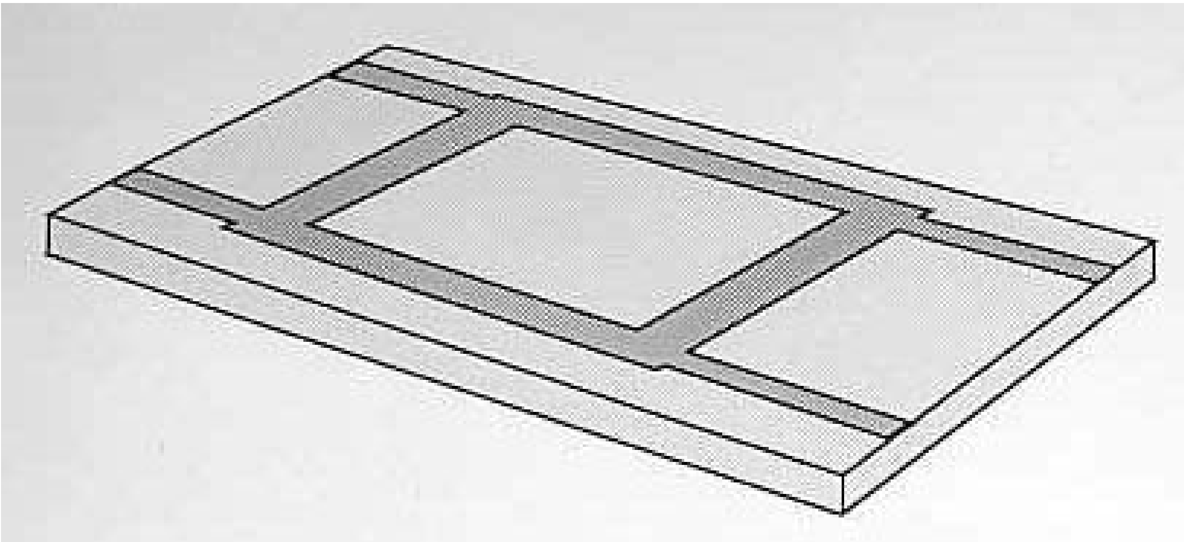


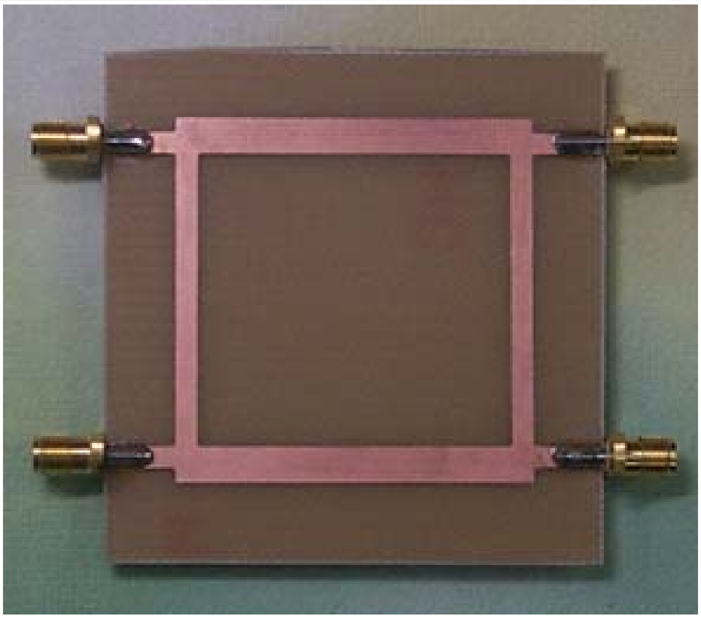


-Realización en microstrip del híbrido de 90º. Branch-line

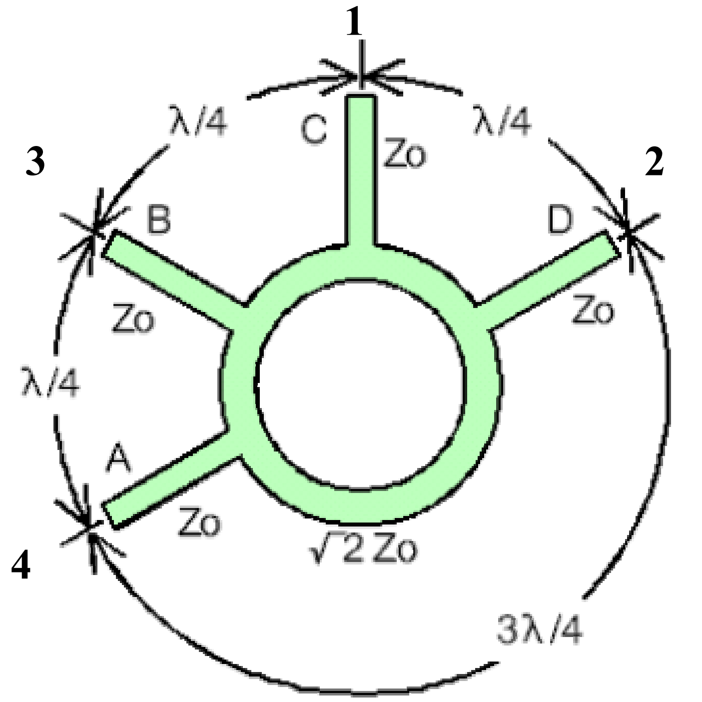


$$[S] = \frac{-1}{\sqrt{2}} \begin{bmatrix} 0 & 0 & j & 1 \\ 0 & 0 & 1 & j \\ j & 1 & 0 & 0 \\ 1 & j & 0 & 0 \end{bmatrix}$$

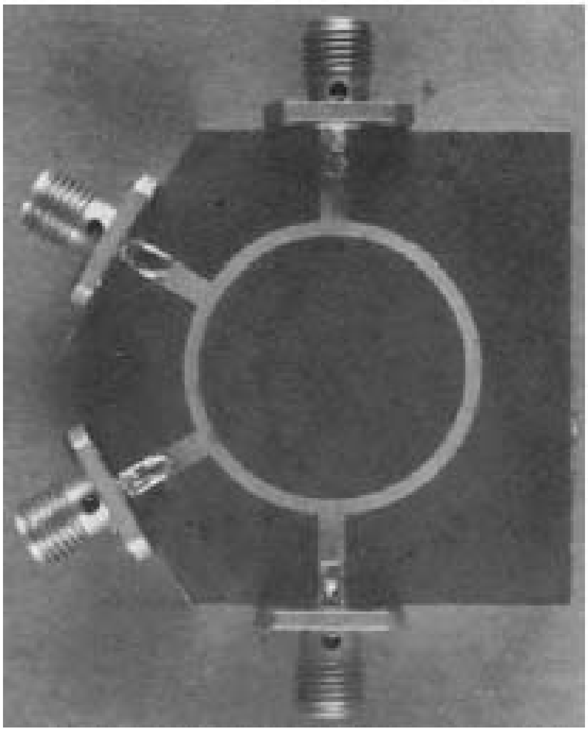


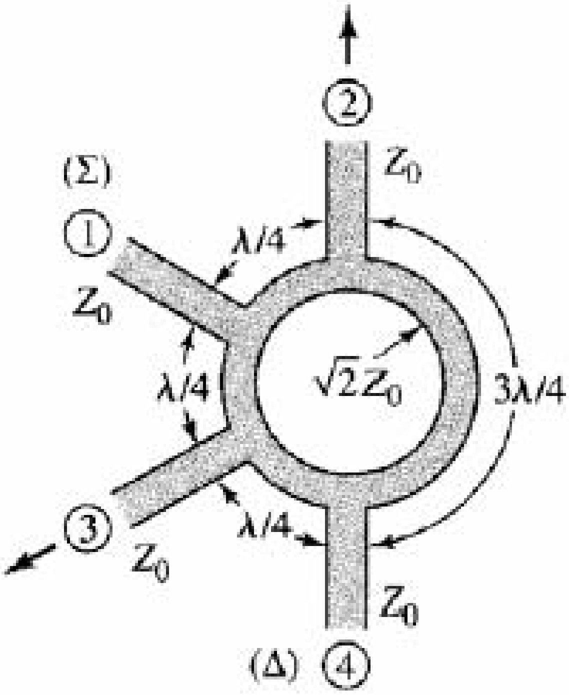


- Realización en microstrip del híbrido de 180º. Rat-race

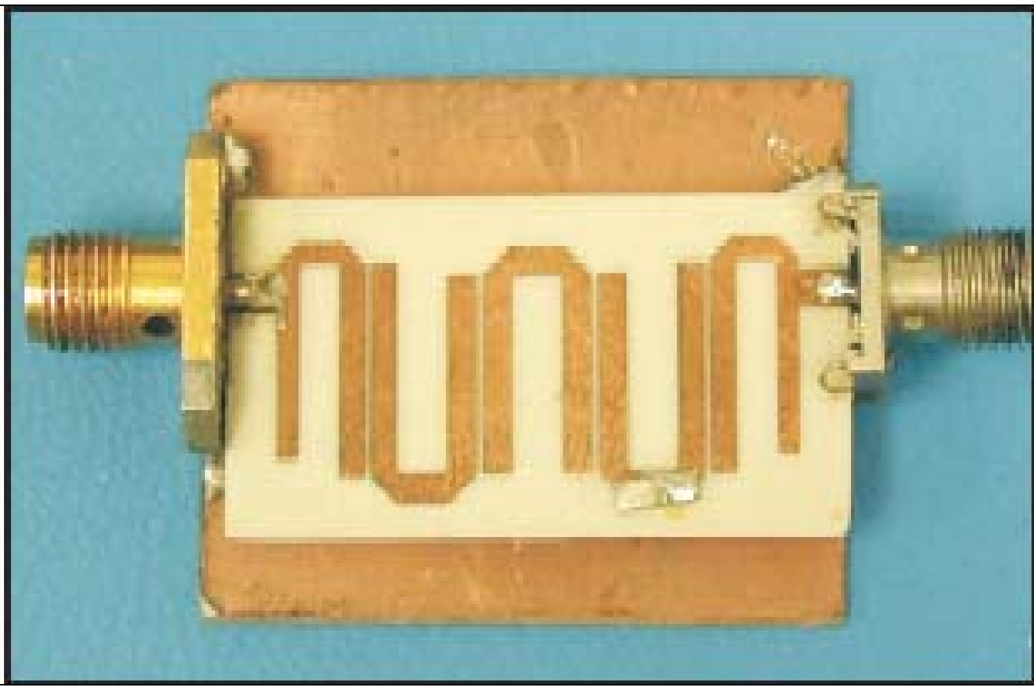


$$[S]=\frac{-j}{\sqrt{2}}\begin{bmatrix}0 & 0 & 1 & 1\\ 0 & 0 & 1 & -1\\ 1 & 1 & 0 & 0\\ 1 & -1 & 0 & 0\end{bmatrix}$$





LÍNEAS ACOPLADAS MICROSTRIP



ACOPLADOR DIRECCIONAL EN GUIA