

Eqn coupling_coeff = 1

Eqn Yn_1 = 1 / sqrt(coupling_coeff + 1)

Egn Yn_2 = sqrt(coupling_coeff / (coupling_coeff + 1))

Eqn S_theor = -j * {{0, Yn_1, 0, Yn_2}, {Yn_1, 0, Yn_2, 0}, {0, Yn_2, 0, -Yn_1}, {Yn_2, 0, -Yn_1, 0}}

S_theor(1, 1)	S_theor(2, 1)	S_theor(3, 1)	S_theor(4, 1)
<-infinity> / 0.000	-3.010 / -90.000	<-infinity> / 0.000	-3.010 / -90.000

S_theor(1, 3)	S_theor(2, 3)	S_theor(3, 3)	S_theor(4, 3)
<-infinity> / 0.000	-3.010 / -90.000	<-infinity> / 0.000	-3.010 / 90.000

Eqn Z0 = 50 Eqn Z1 = Z0 / Yn_1 Eqn Z2 = Z0 / Yn_2

Yn_1	Yn_2	Z1	Z2
0.707	0.707	70.711	70.711