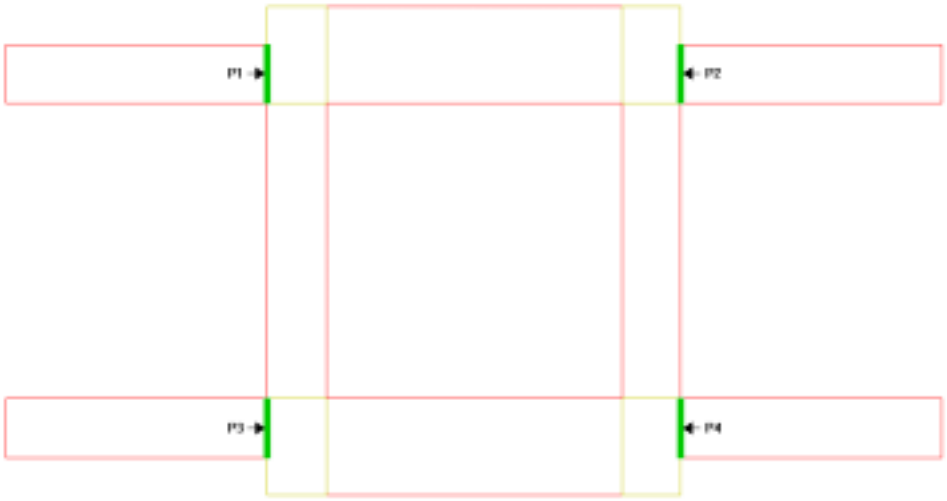
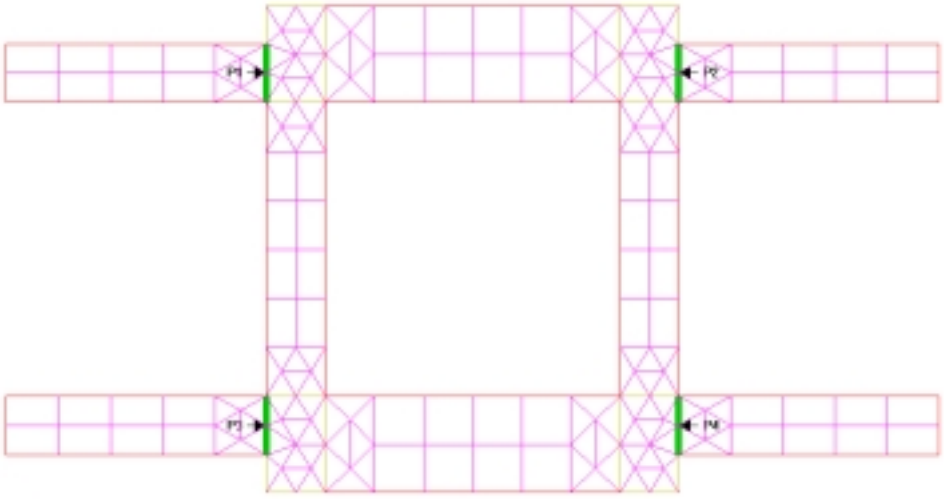
90° Branchline Coupler

Parameters:

Substrate: Thickness = 1.6 mm, Er = 2.54
Frequency: f_0 = 1.9 GHz
Sampling Rate: 40 for regular regions, 40 for discontinuous regions

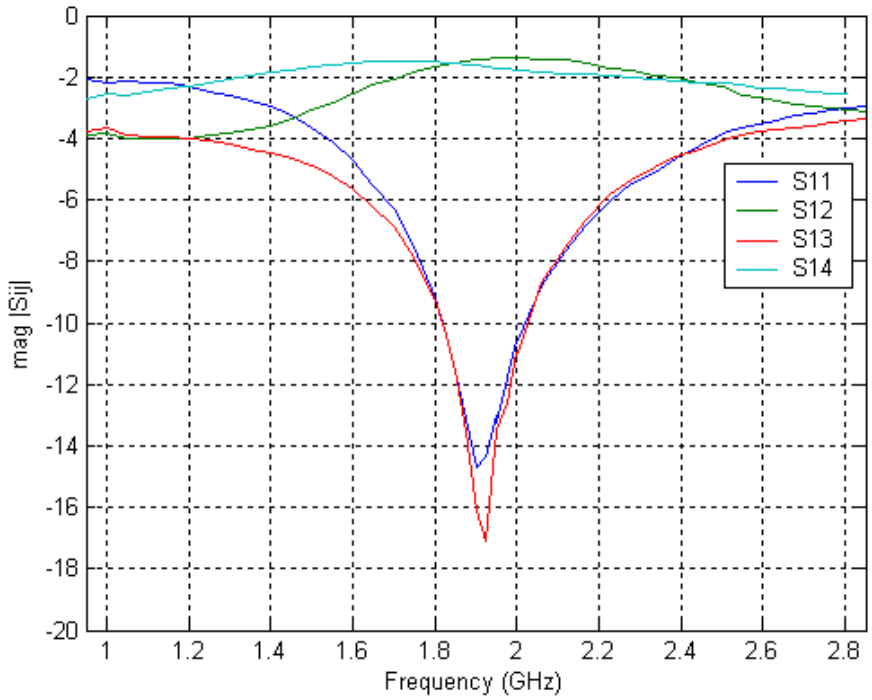


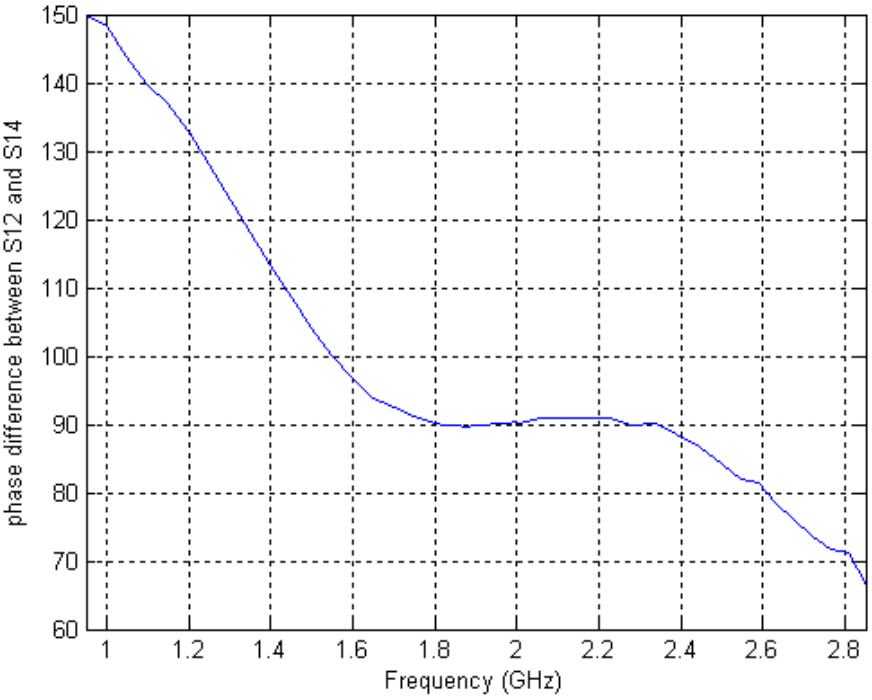


Literature:

Pozar, “Microwave Engineering, 2nd Edition”, pp.379-384.

Results:





The 90° branchline coupler portrays the expected characteristics. At the center frequency, 1.9 GHz, Port 1 shows low reflection, and Port 3 is isolated. While Ports 2 and 4 show power transmission from Port 1 at a 90 degree phase difference.