Pre-lab for Experiment 2 Two Port Network Parameters

Reading: In your circuit text, review the chapter on two port parameters. In the laboratory reference, e.g., Stanley Wolf and Richard F. M. Smith; Student Reference Manual for Electronic Instrumentation Laboratories; Prentice-Hall, 1990, (or equivalent) read the chapters on the oscilloscope (6) and ac signal sources (13).

Pre-lab work: Be prepared to submit the answers for the following questions at the beginning of the first lab (I will initial the work):

1. Draw the two circuits to be used to measure the z parameters, and define the variables to be used to calculate each of the z parameters in part A 1.

2. Draw the two circuits to be used to measure the y parameters, and define the variables to be used to calculate each of the y parameters in part A 2.

3. Draw the two circuits to be used for the h parameters, and define the variables to be used to calculate each of the h parameters in part B 1.

4. Present a matrix that relates the z, y, and h parameters; this should be available in your circuits text.

5. (due at the beginning of the second lab) Derive the equations that you will use to calculate I1 and I3 for Figure 3

Comments on lab report:

Lab groups will be formed consisting of two students, or three if necessary. Only one lab report will be submitted for each lab group, but each lab partner will append their individual prelab submittal and conclusion paragraph to the lab report.

The lab report will be due at the end of the second lab period.