

ECEN 360 Homework Assignment #1

Transmission Lines

Telegrapher & Wave Equations

1.1 Text Problem 7.1

1.2 Text Problem 7.2

Reflection Coefficients & Transients

2.1 Text Problem 7.3

2.2 Text Problem 7.4

2.3 Text Problem 7.5 (Do not find equations. Plot the qualitative behavior only.)

Reflection Diagram & Tandem Connections

3.1 Text Problem 7.6

3.2 Text Problem 7.7

3.3 Text Problem 7.8

3.4 Text Problem 7.10

3.5 Text Problem 7.11

Pulses & TDR

4.1 Text Problem 7.12

4.2 Text Problem 7.9

4.3 Text Problem 7.13

4.4 Text Problem 7.15a

Sinusoidal Steady-State Analysis

5.1 Text Example 7.8

5.2 Text Problem 7.18

5.3 Text Problem 7.19 (Solve using the reflection coefficient and total transmission line impedance procedure, but without the aid of the Smith chart.)

Smith Chart

6.1 Text Example 7.9 (Solve using Smith chart and compare to problem 5.2.)

6.2 Text Problem 7.19 (Solve using Smith chart and compare to problem 5.3.)

VSWR & Unknown Load Measurement

7.1 Text Problem 7.28a,b

7.2 Text Problem 7.22a

7.3 Text Problem 7.29

7.4 Text Problem 7.30a

7.5 Text Problem 7.31a

Impedance Matching

8.1 Text Example 7.12

8.2 Text Example 7.14

8.3 Text Problem 7.20

8.4 Text Problem 7.22b

8.5 Text Problem 7.24

8.6 Text Problem 7.25