# UNIVERSITY ©F P©RTLAND Sch©©l of Engineering

EE 301 Spring 2004 A.Inan

#### **EE 301/Handout #8**

(Monday, February 16, 2004)

## Homework #4

## Sinusoidal Steady-State (SSS) Waves on Transmission Lines

(Due Wednesday, February 25, 2004, 11:25a.m.)

- (1) 3-3. Microwave filter. Inan<sup>2</sup> (red book), page 226.
- (2) 3-5. Input impedance. Inan<sup>2</sup> (red book), page 226.
- (3) 3-8. A wireless communication antenna. Inan<sup>2</sup> (red book), page 227.
- (4) 3-10. Resistive line impedance. Inan<sup>2</sup> (red book), page 227.
- (5) 3-12. Input impedance. Inan<sup>2</sup> (red book), page 227.
- (6) 3-17. Power dissipation. Inan<sup>2</sup> (red book), page 228.
- **(7) 3-20. Two antennas.** Inan<sup>2</sup> (red book), page 229.

## Please use the following guidelines for your homework solutions:

- 1) On the first sheet, at the top, indicate that this is <u>EE 301/Spring 2004/HW #4</u> <u>Solutions</u> and provide <u>your name</u> somewhere on that sheet where the grader can easily see it.
- 2) Solve each problem on a separate sheet unless the solution is very short.
- 3) Do not use the back of the sheets unless you have to.
- 4) Staple your solutions in the above order before you turn them in.

Please turn in your homework solutions on time. The solutions (or answers) for each homework assignment will be provided as a separate handout on the due date. <u>Late</u> homework solutions will not be accepted!

#### Reminder note:

EE 301-Midterm # 1 is scheduled to be given on Friday, February 27, 2004

(It will be in-class closed-book exam. One formula sheet will be allowed.)