## <u>Chapter 3 - Transmission Lines</u> <u>and Waveguides</u>

First, some definitions:

Transmission Line - A two conductor structure that can support a TEM wave.

Waveguide - A one conductor structure that cannot support a TEM wave.

Q: What is a TEM wave?

A: An electromagnetic wave wherein both the electric and magnetic fields are perpendicular to the direction of wave propagation.

HO: WAVEGUIDE

3.5 Coaxial Line

Reading Assignment: p. 130

The most **prevalent** type of transmission line is the **coaxial** transmission line.

HO: COAXIAL TRANSMISSION LINES