

Lecture 6 -- Propagation practices, VSWR, and terminated line driving point impedance

How can reflected wave propagation be explained in terms of a “evil twin” wave?

Draw the propagation of a 1ns square voltage pulse through a line of impedance Z_0 terminated in a short.

Sketch the propagation of a sinusoidal wave through a line of impedance Z_0

What interference pattern is made by incident and reflected waves when sinusoids are driven onto a transmission line?

How do we calculate the amplitude of superposed sinusoidal waves on a line? Why is it periodic

What is the maximum voltage of a value on the line? The minimum voltage? The VSWR?

What are the period and velocity of the beat pattern on the line?

How does the beat pattern evolve in time?

What is the impedance of a terminated line of length z ?