2.6 - Generator and Load Mismatches

Reading Assignment: pp. 76-78

Finally, let’s complete our transmission line circuit, by placing at the beginning of the line a source—a device that does not absorb electromagnetic energy, but instead delivers energy to the circuit.

HO: Connecting Source and Load

There are a few special cases of source and load impedance that every electrical engineer “knows” to be true—or do they?

HO: Special Cases of Source and Load

Q: So, can we now explicitly determine the plus-wave $V^+(z)$ generated on a transmission line?

A: Absolutely! We simply need to evaluate a second boundary condition.

HO: A Transmission Line Connecting Source and Load

Example: Boundary Conditions and Sources

Q: So, how can we determine the power delivered by a source?
A: **HO: DELIVERED POWER**

Q: *So how do we insure that the delivered power is as large as possible?*

A: **HO: SPECIAL CASES OF SOURCE IMPEDANCE**

Make sure you understand how conservation of energy is applied, with respect to delivered, incident, reflected, and absorbed power!

**EXAMPLE: CONSERVATION OF ENERGY AND YOU**