

Transmission Media

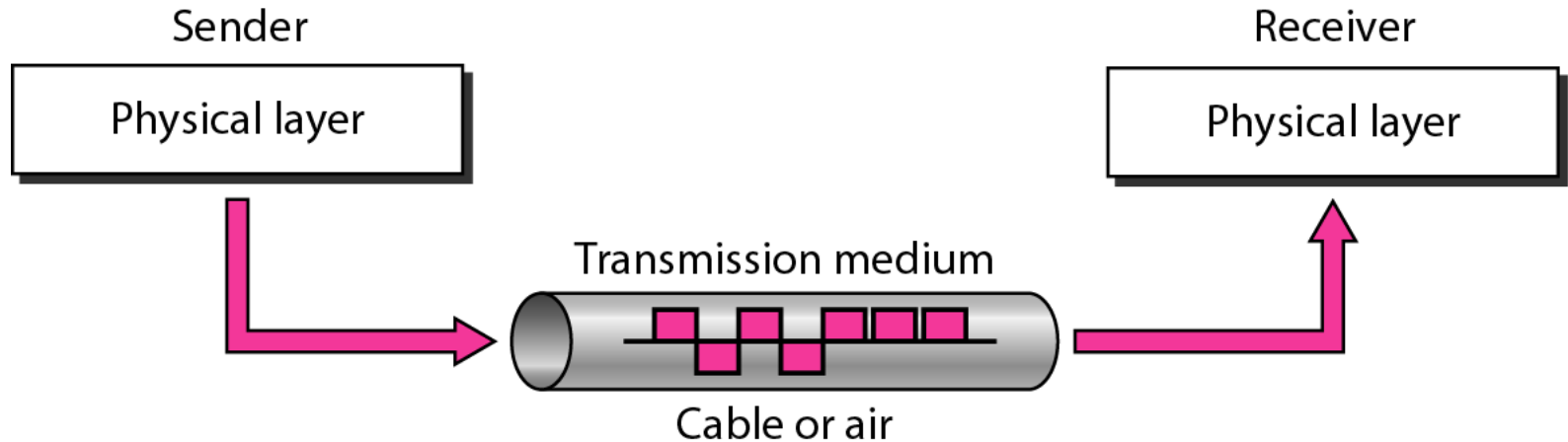


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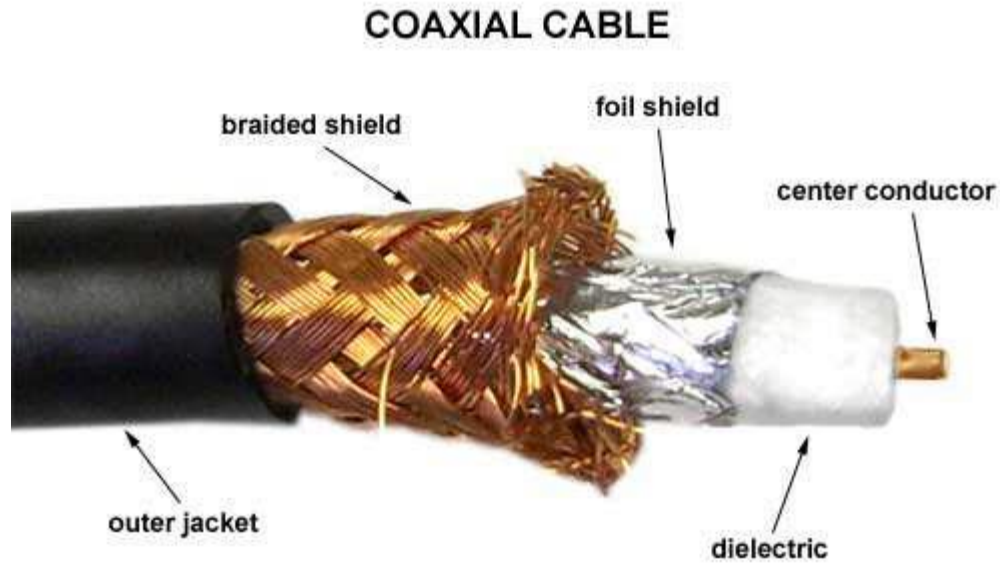
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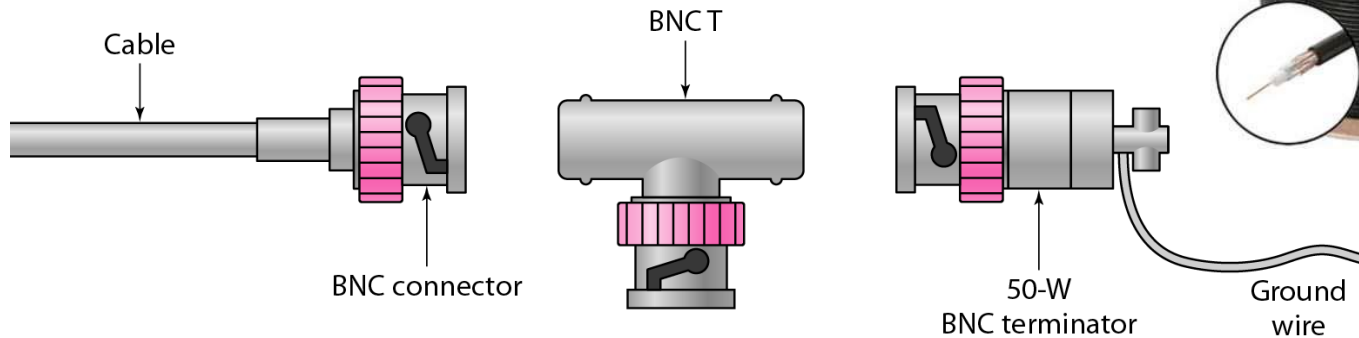
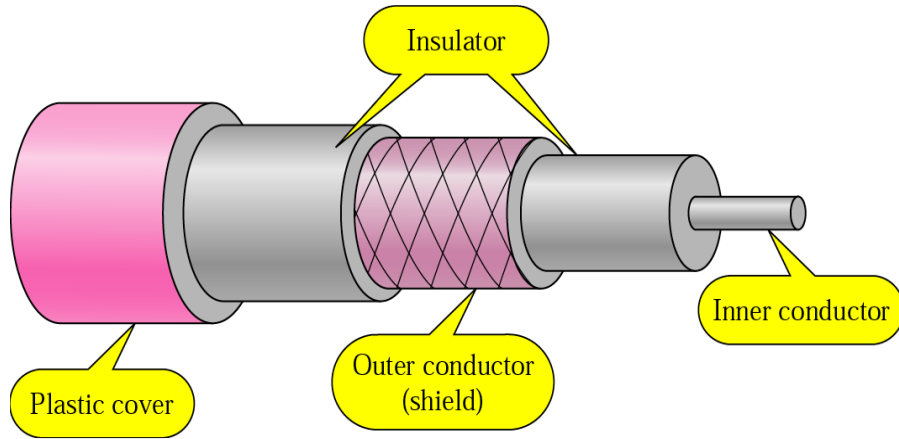
What is a Transmission Media ?



Coaxial Cable



Coaxial Cable



Categories of Coaxial Cables

<i>Category</i>	<i>Impedance</i>	<i>Use</i>
RG-59	75 Ω	Cable TV
RG-58	50 Ω	Thin Ethernet
RG-11	50 Ω	Thick Ethernet

- ✓ Co-axial cable carries higher frequency range Signals
- ✓ Inner conductor is a solid wire
- ✓ Outer conductor serves as a shield against noise and a second conductor
- ✓ Coaxial cables are categorized by Radio Governance (RG) ratings
- ✓ RG is De Jure standards

BNC Connectors

- ✓ BNC Connectors – Bayone Neil Concelman Coaxial Cable Connectors
- ✓ Connects coaxial cable to devices
- ✓ BNC Connector is used at the end of the cable to a device
Example: TV set connection
- ✓ BNC T connector used to Ethernet networks to branch out connection to computer or other devices
- ✓ BNC terminator is used at the end of the cable to prevent the reflection of the signal

Coaxial Cables

Applications

- ✓ Most versatile medium
- ✓ Television distribution
- ✓ Long distance telephone transmission
- ✓ Can carry 10,000 voice calls simultaneously
- ✓ Short distance computer systems links
- ✓ Local area networks

Coaxial Cables

Advantages

- ✓ Easy to wire
- ✓ Easy to expand
- ✓ Moderate level of Electro Magnetic Interference

Disadvantages

- ✓ Single cable failure can take down an entire network
- ✓ Cost of installation of a coaxial cable is high due to its thickness
- ✓ Cost of maintenance is also high

References

- ✓ Book: Data communication and Networking
Fourth edition
By : BEHROUZ A FOROUZAN
- ✓ various relevant websites

Thank you