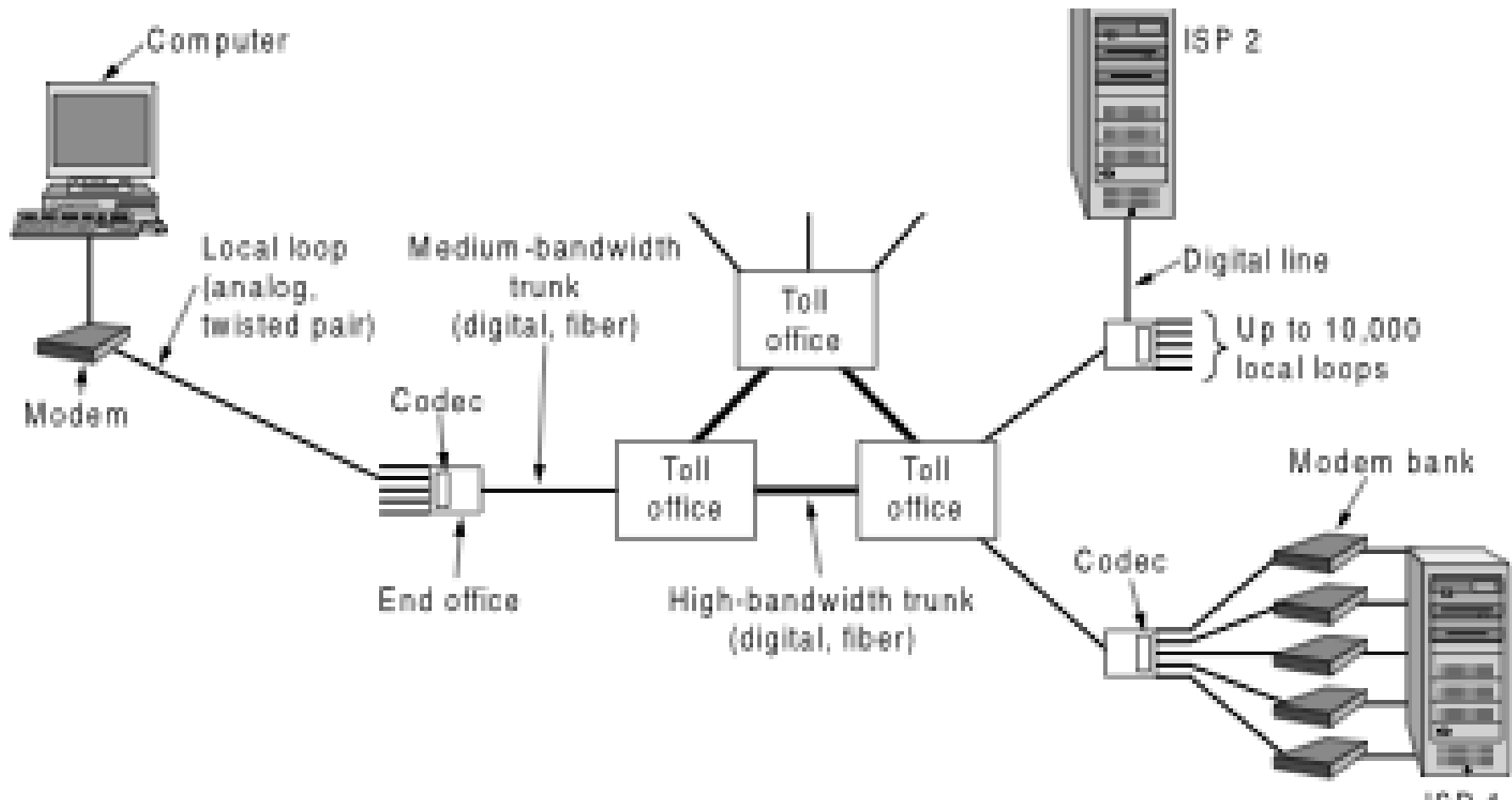


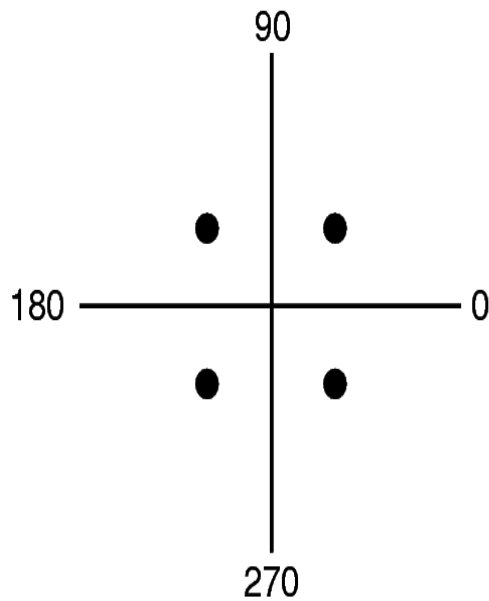
Lecture 6

Transmission Media and
Multiplexing/Switching

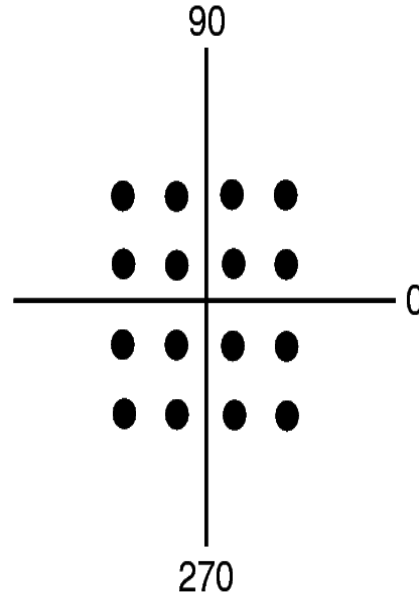
Telephone system



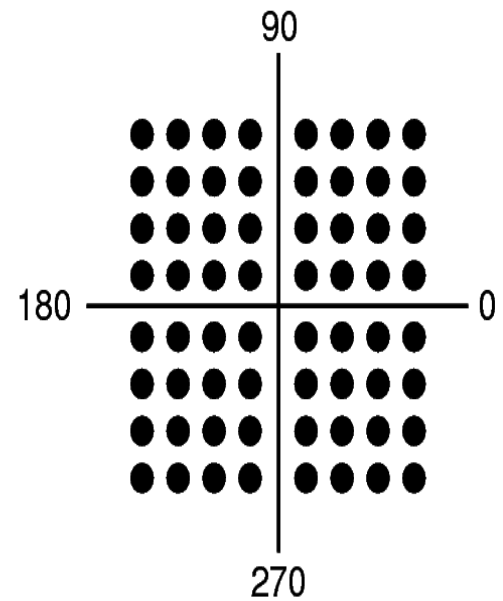
QAM Constellation Diagram



(a)

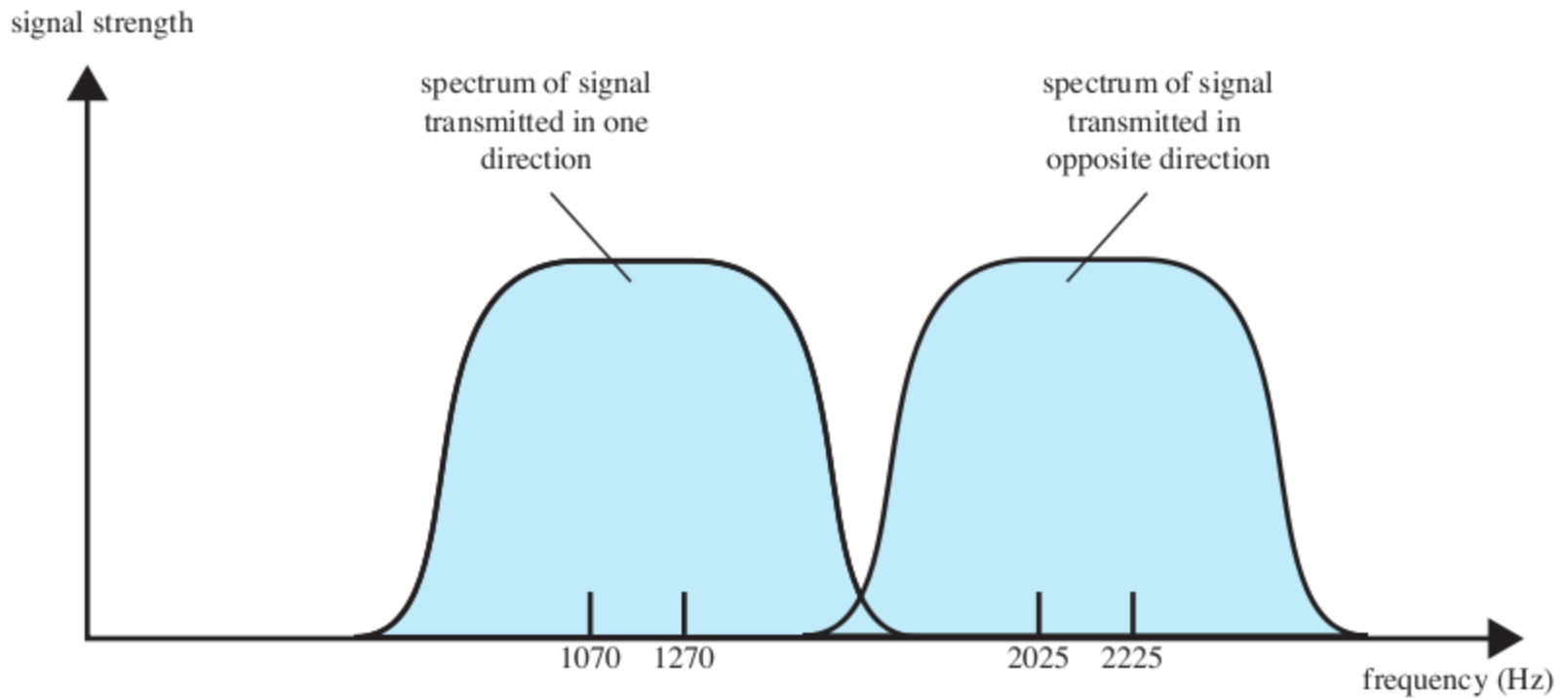


(b)



(c)

Modem FDM

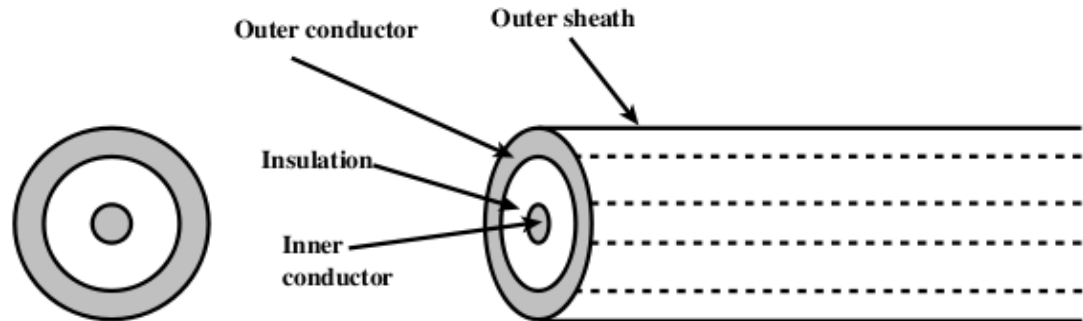


Guided Medium

- Separately insulated
- Twisted together
- Often "bundled" into cables
- Usually installed in building during construction

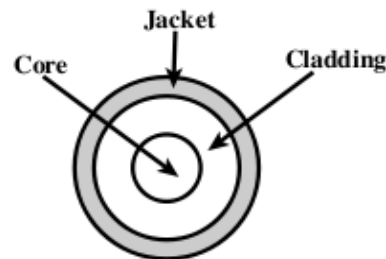


(a) Twisted pair

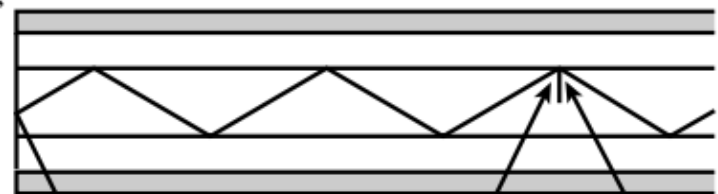


- Outer conductor is braided shield
- Inner conductor is solid metal
- Separated by insulating material
- Covered by padding

(b) Coaxial cable

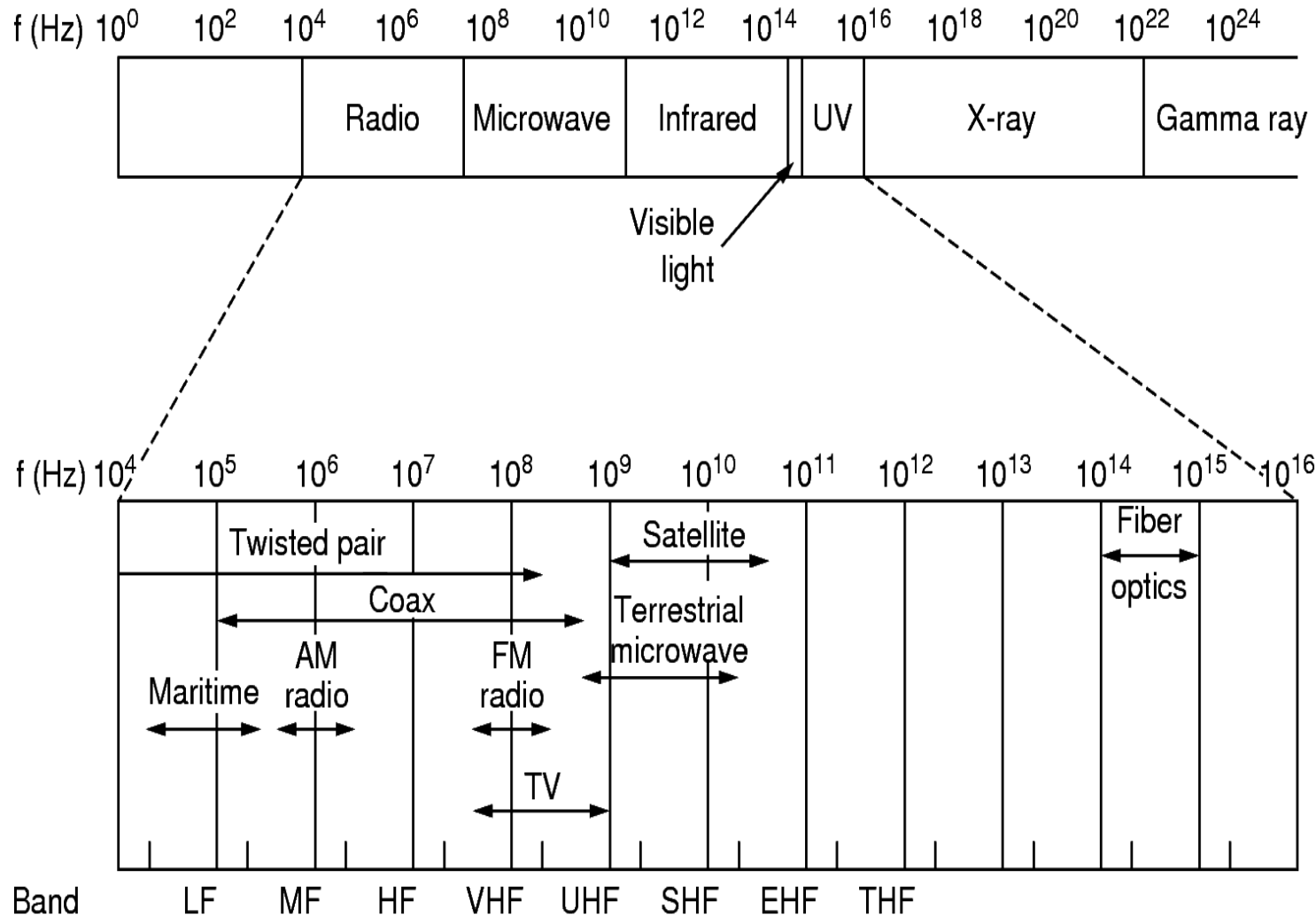


- Glass or plastic core
- Laser or light emitting diode
- Specially designed jacket
- Small size and weight

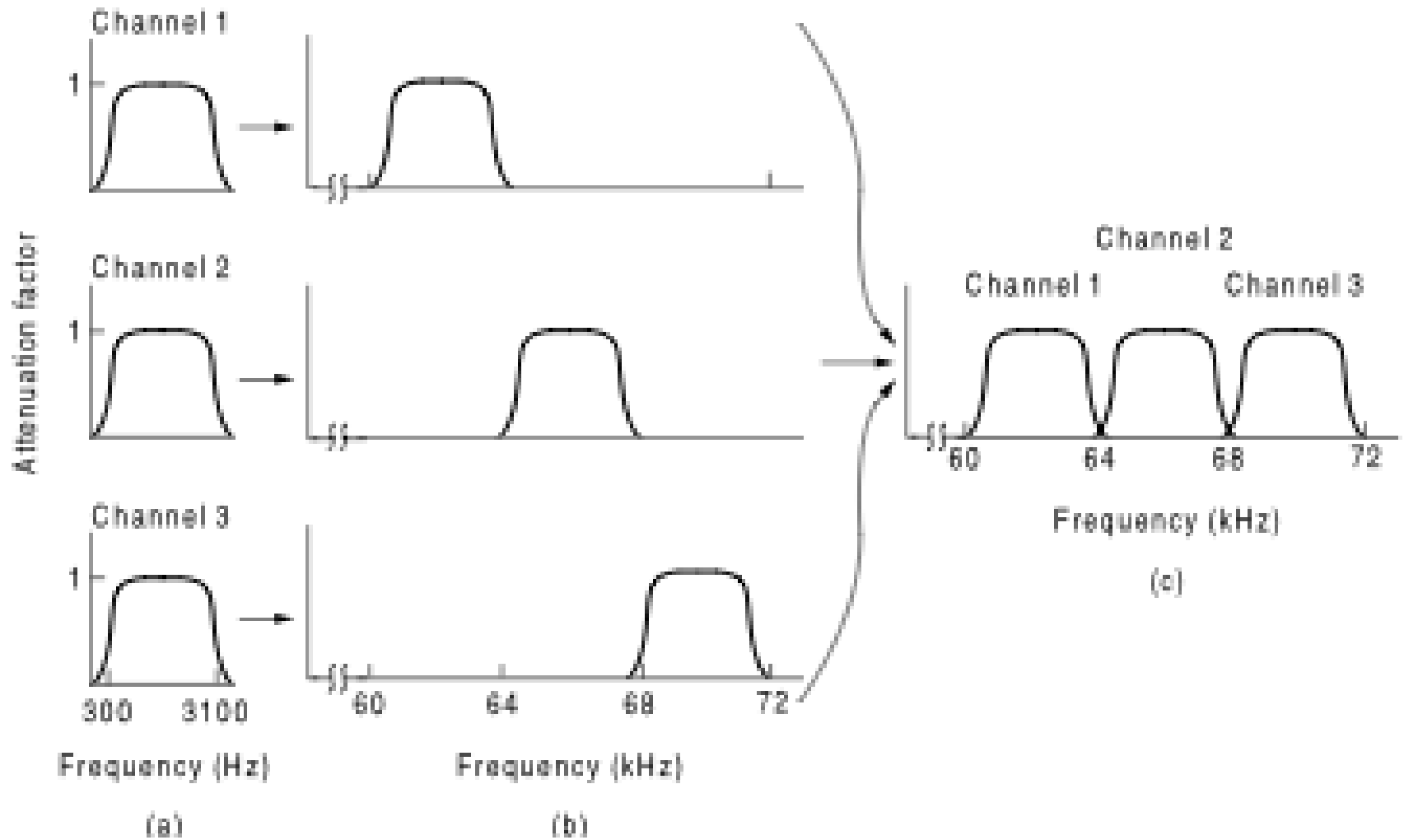


(c) Optical fiber

Wireless



FDM



TDM

