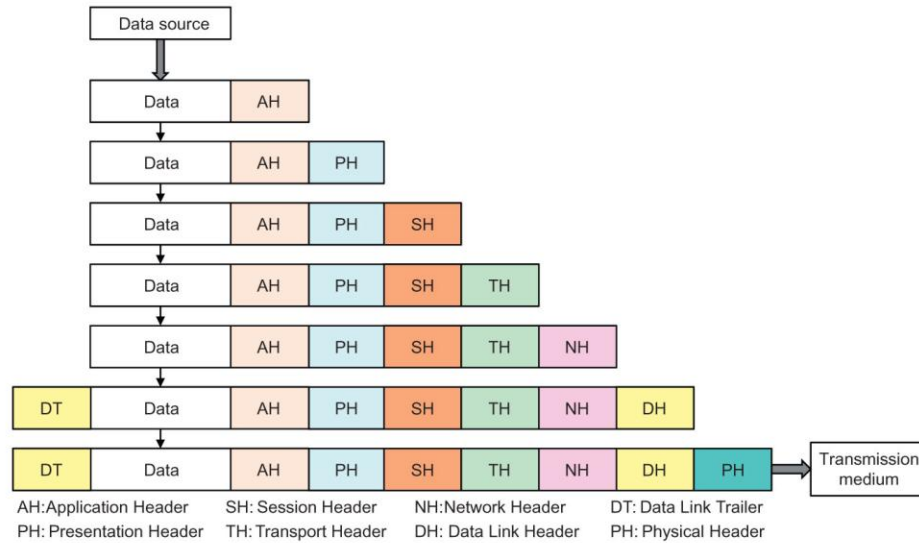
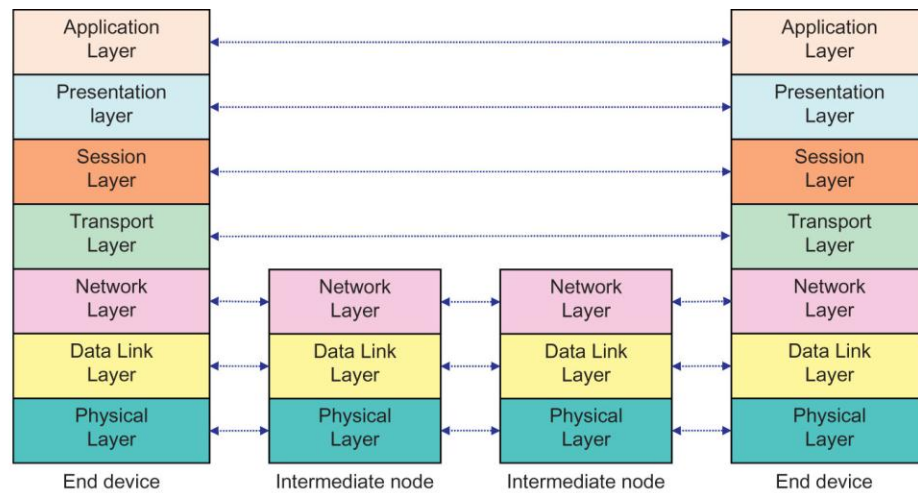


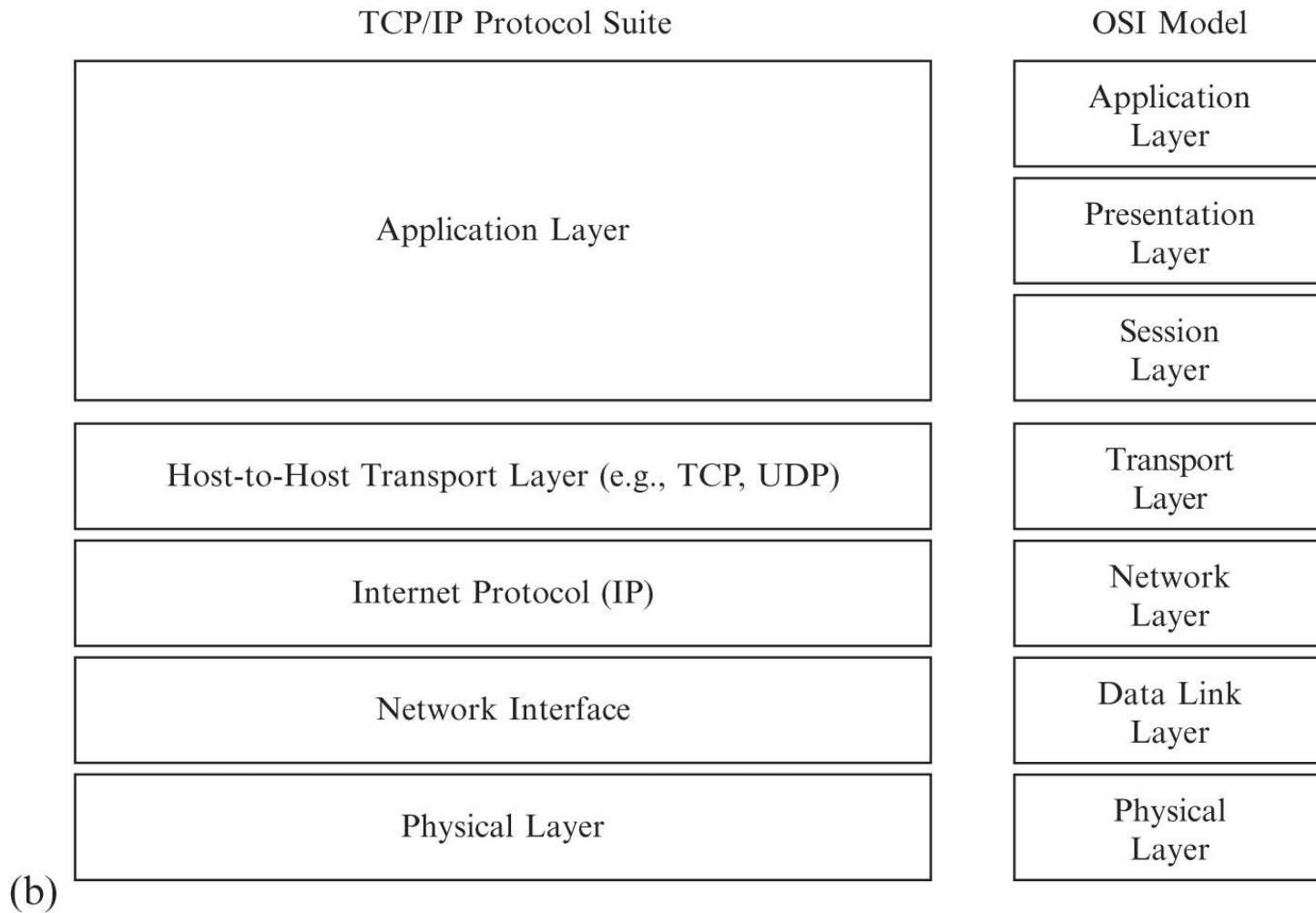
# Chapter 02

## Fundamental Aspects of Digital Communications



(a)

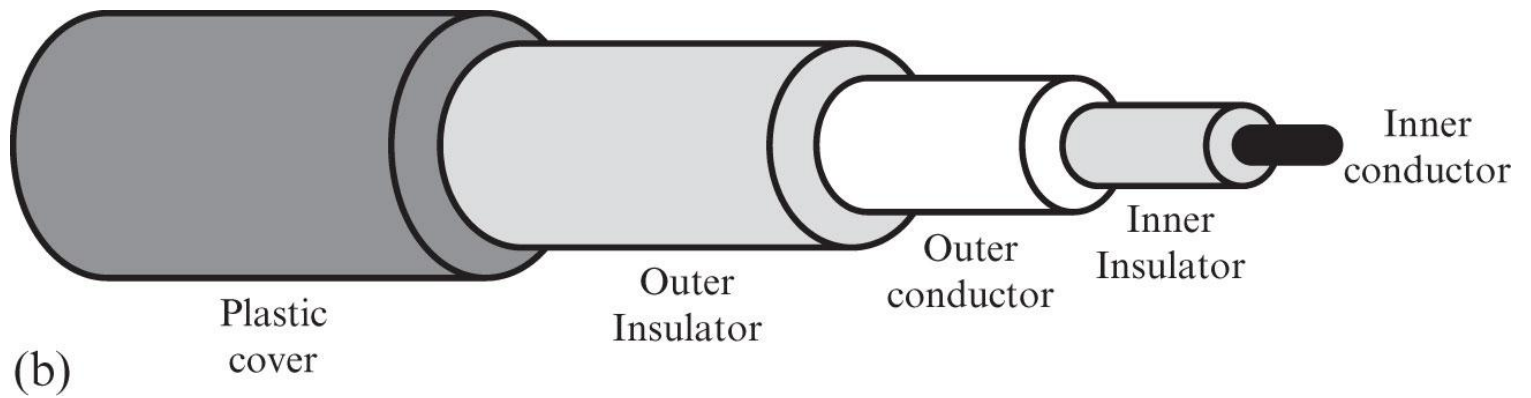
**Figure 2.1a** Communication network models: (a) the OSI model and (b) the TCP/IP model.



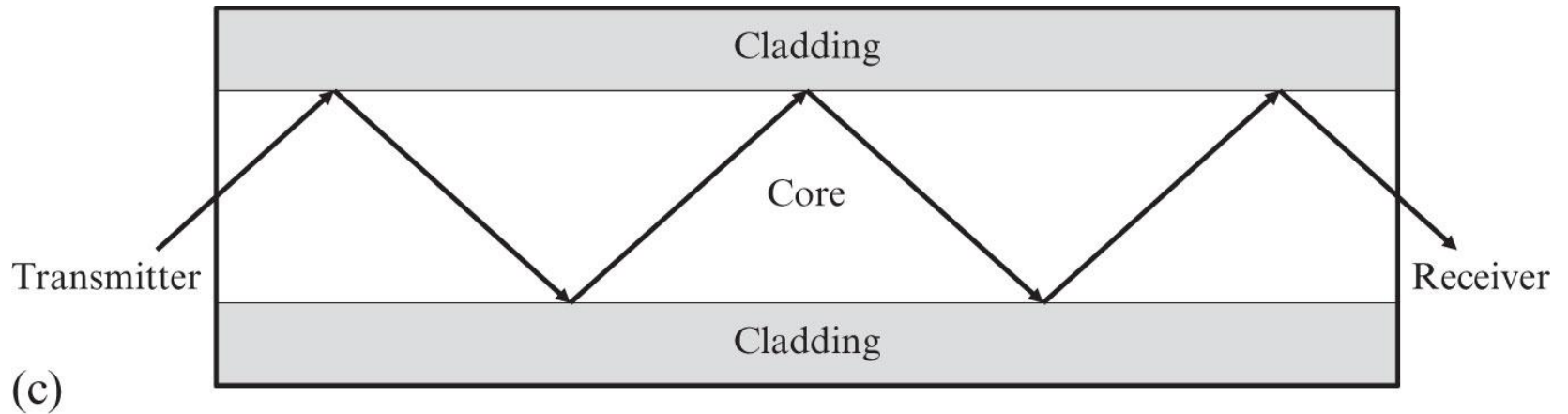
**Figure 2.1b** Communication network models: (a) the OSI model and (b) the TCP/IP model.



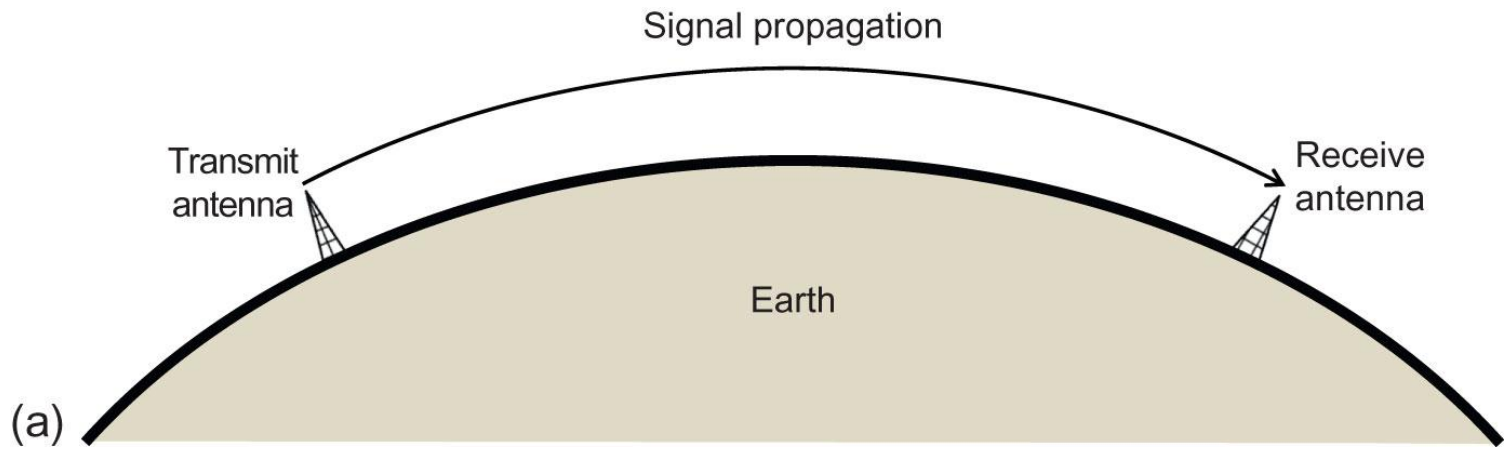
**Figure 2.2a** Guided-transmission media: (a) twisted-pair cable, (b) coaxial cable, and (c) fiber-optic cable.



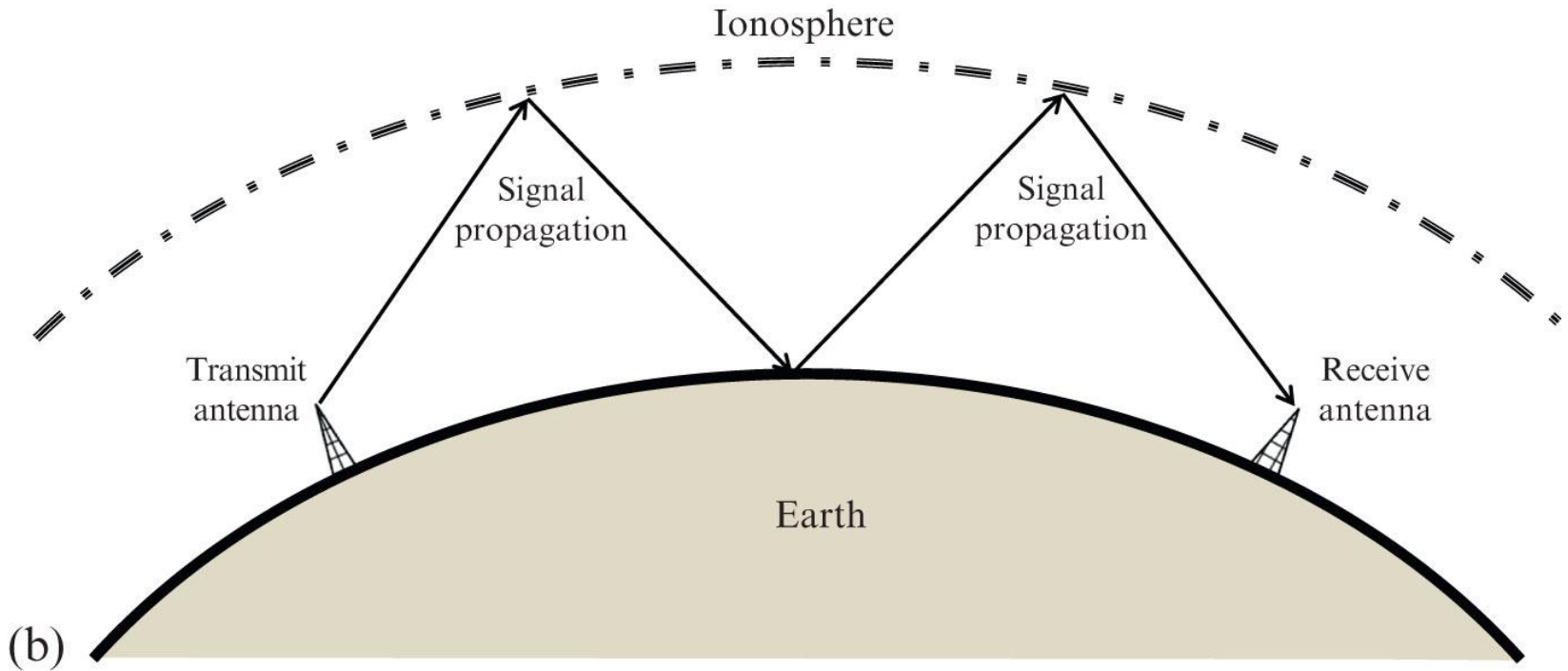
**Figure 2.2b** Guided-transmission media: (a) twisted-pair cable, (b) coaxial cable, and (c) fiber-optic cable.



**Figure 2.2c** Guided-transmission media: (a) twisted-pair cable, (b) coaxial cable, and (c) fiber-optic cable.

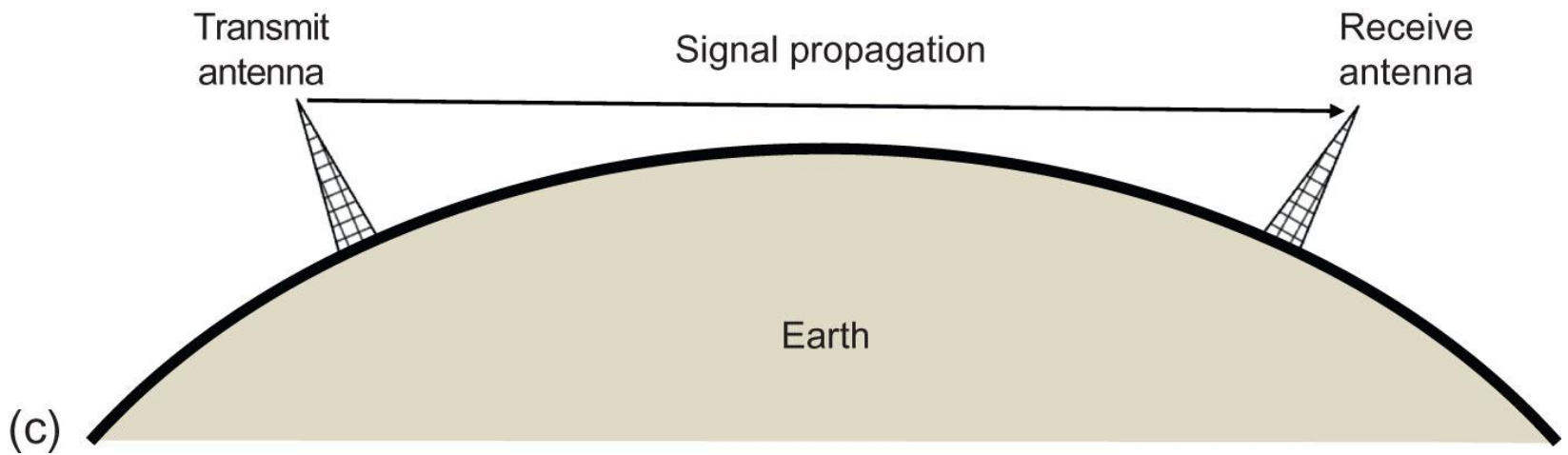


**Figure 2.3a** Radio propagation modes: (a) ground-wave propagation, (b) sky-wave propagation, and (c) line-of-sight propagation.

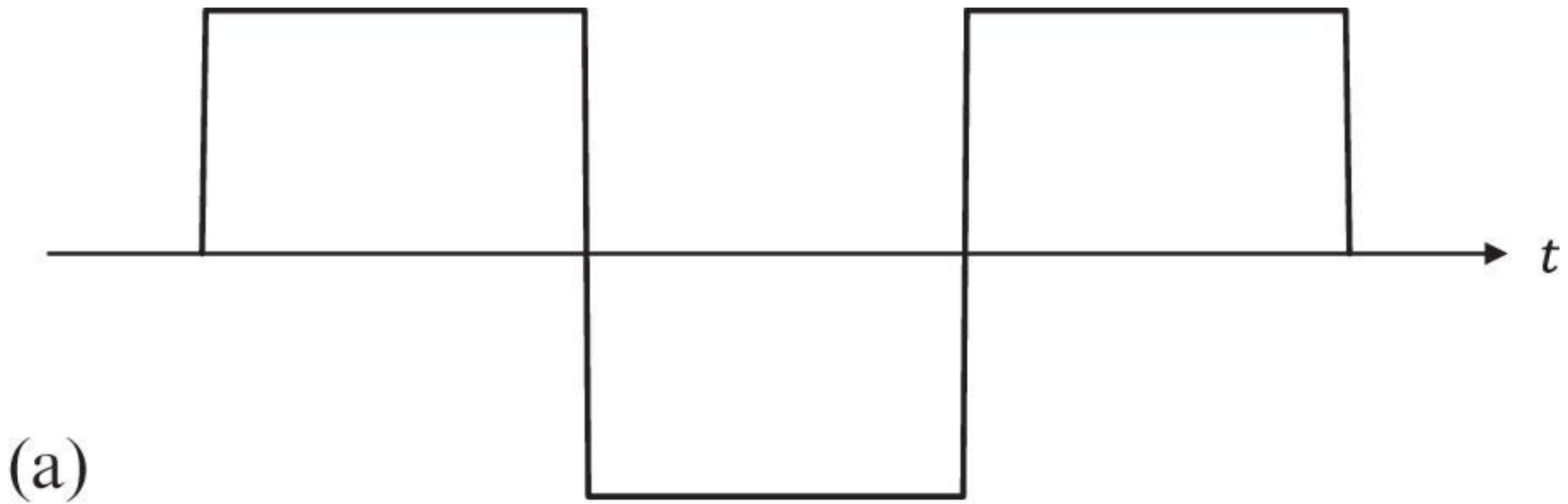


**Figure 2.3b** Radio propagation modes: (a) ground-wave propagation, (b) sky-wave propagation, and (c) line-of-sight propagation.

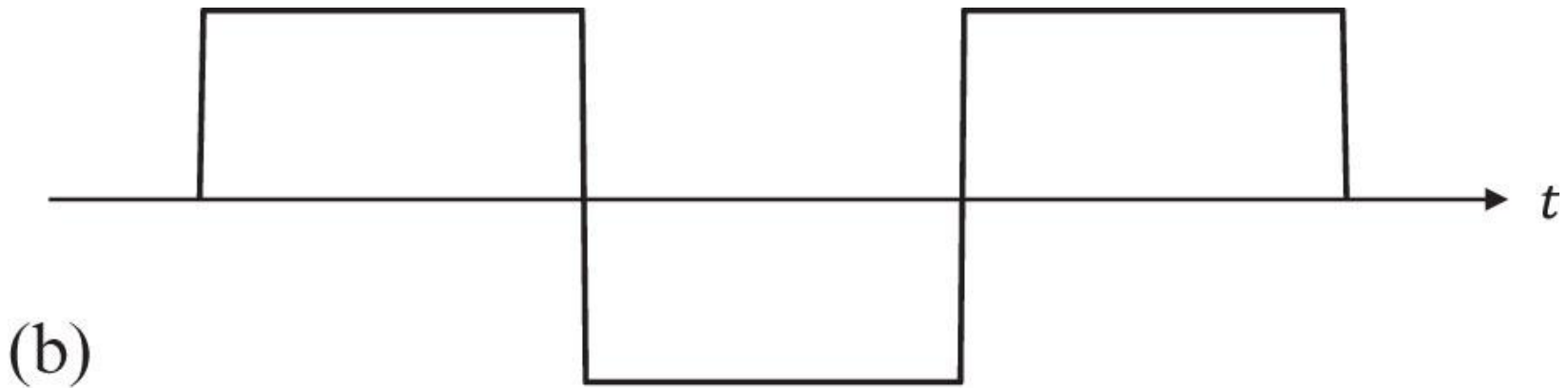




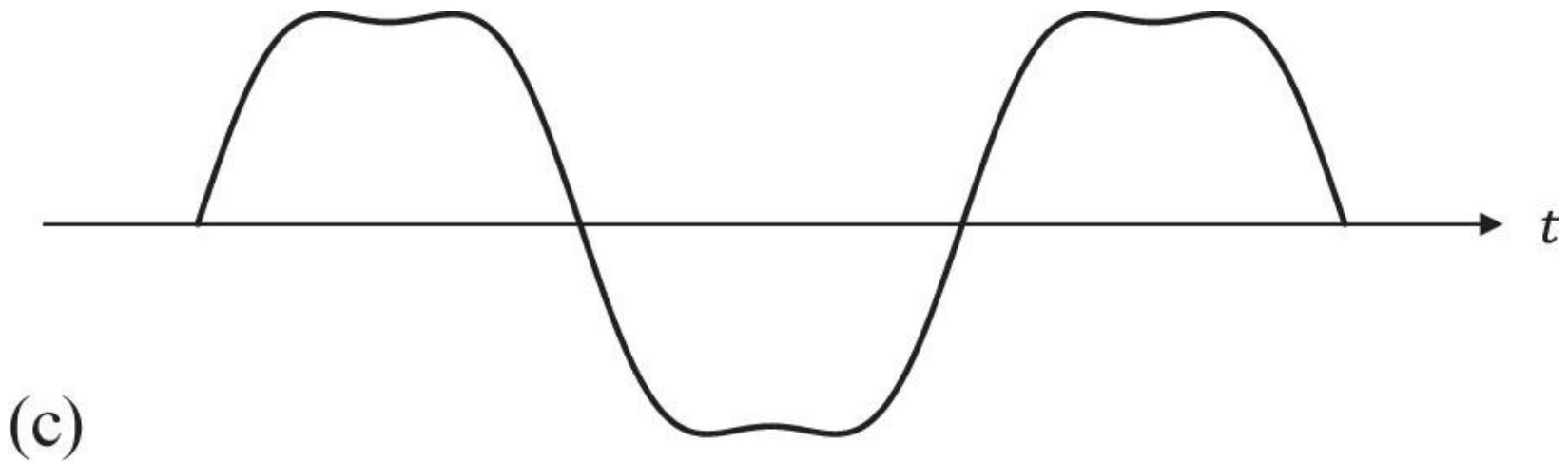
**Figure 2.3c** Radio propagation modes: (a) ground-wave propagation, (b) sky-wave propagation, and (c) line-of-sight propagation.



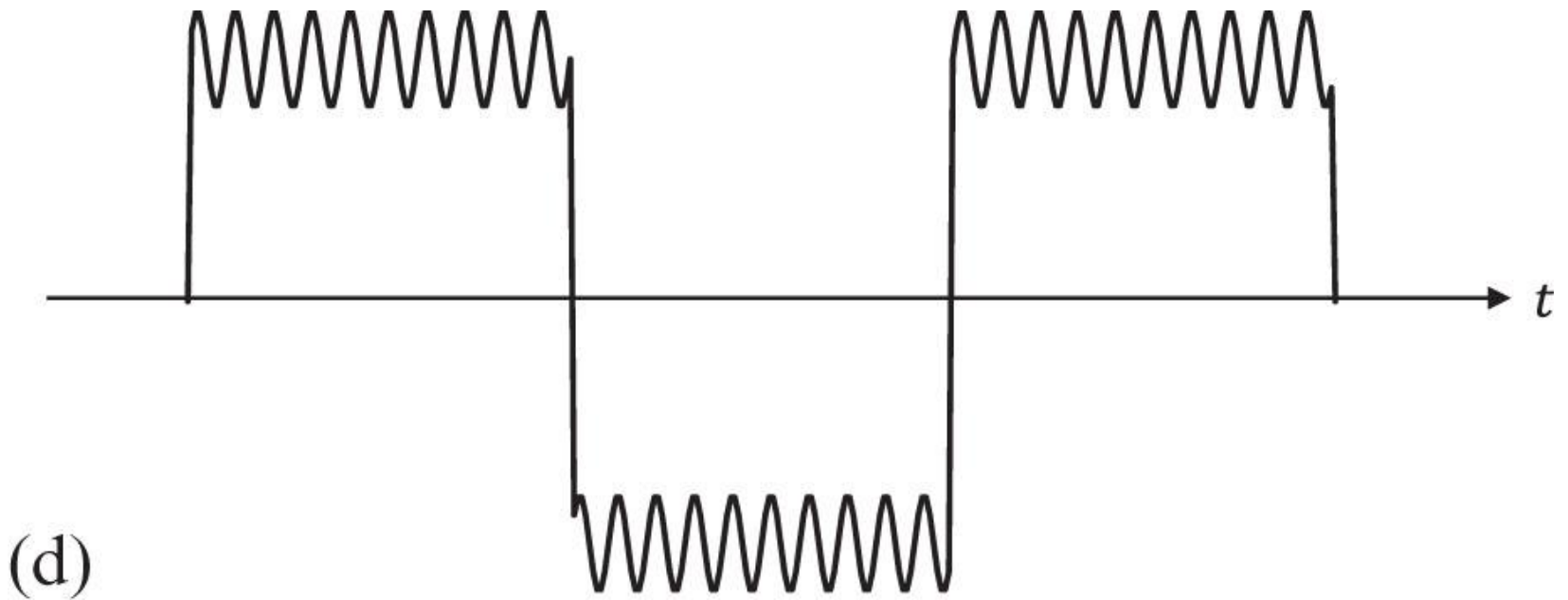
**Figure 2.4a** An example of transmission impairments: (a) transmitted signal; (b) effects of attenuation; (c) effects of distortion; (d) effects of interference; (e) effects of noise; and (f) aggregate effects of impairments.



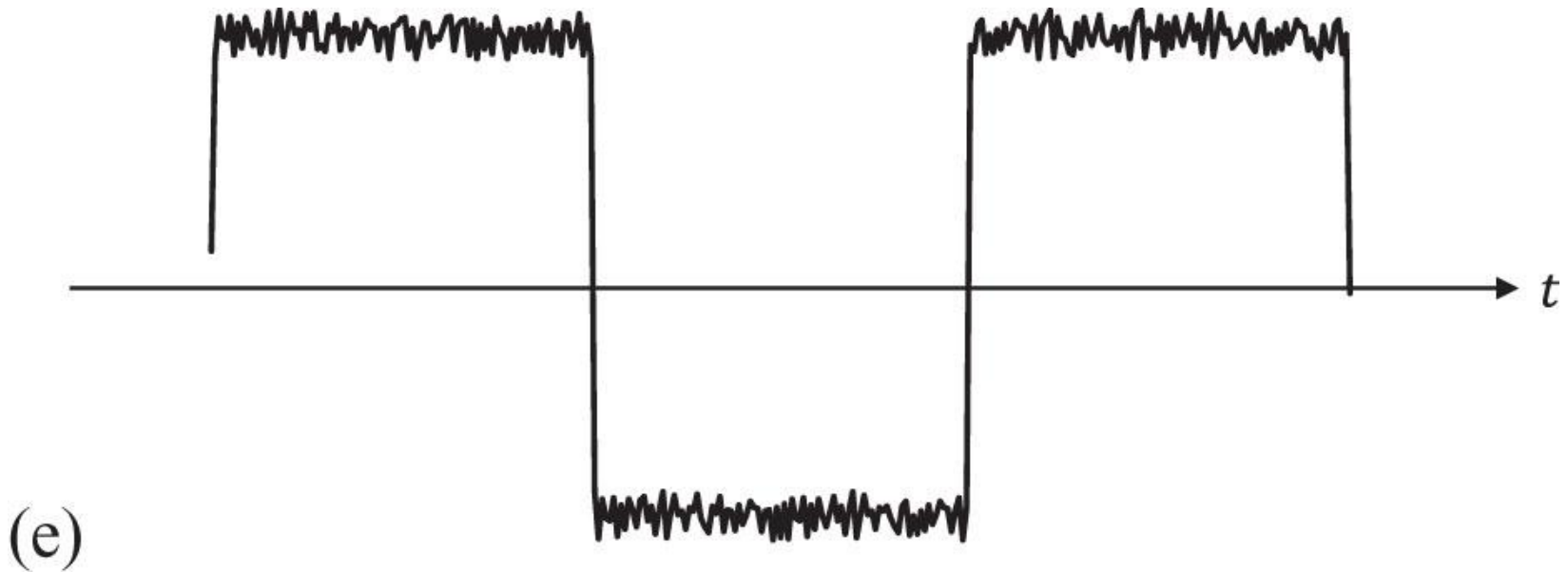
**Figure 2.4b** An example of transmission impairments: (a) transmitted signal; (b) effects of attenuation; (c) effects of distortion; (d) effects of interference; (e) effects of noise; and (f) aggregate effects of impairments.



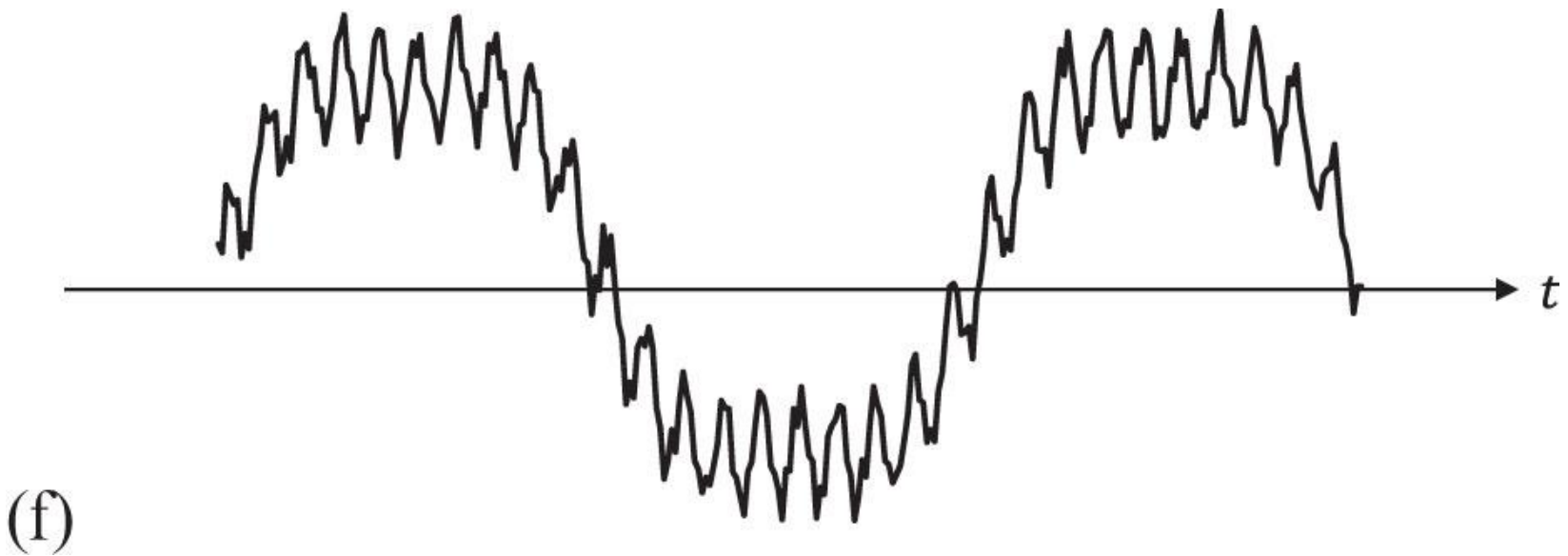
**Figure 2.4c** An example of transmission impairments: (a) transmitted signal; (b) effects of attenuation; (c) effects of distortion; (d) effects of interference; (e) effects of noise; and (f) aggregate effects of impairments.



**Figure 2.4d** An example of transmission impairments: (a) transmitted signal; (b) effects of attenuation; (c) effects of distortion; (d) effects of interference; (e) effects of noise; and (f) aggregate effects of impairments.



**Figure 2.4e** An example of transmission impairments: (a) transmitted signal; (b) effects of attenuation; (c) effects of distortion; (d) effects of interference; (e) effects of noise; and (f) aggregate effects of impairments.



**Figure 2.4f** An example of transmission impairments: (a) transmitted signal; (b) effects of attenuation; (c) effects of distortion; (d) effects of interference; (e) effects of noise; and (f) aggregate effects of impairments.