

Chapter 5

Analog Transmission

- DIGITAL-TO-ANALOG CONVERSION

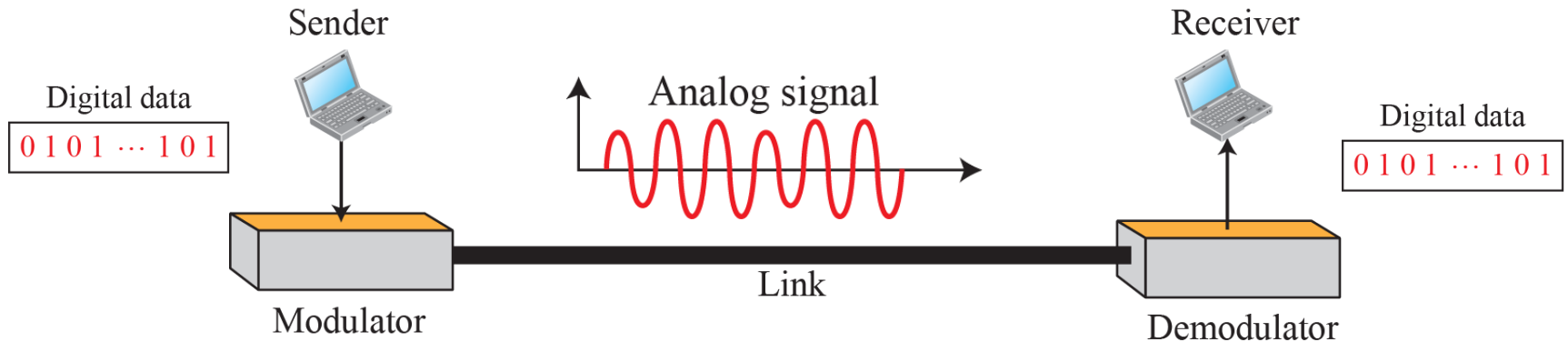
- ANALOG-TO-ANALOG CONVERSION

DIGITAL-TO-ANALOG CONVERSION

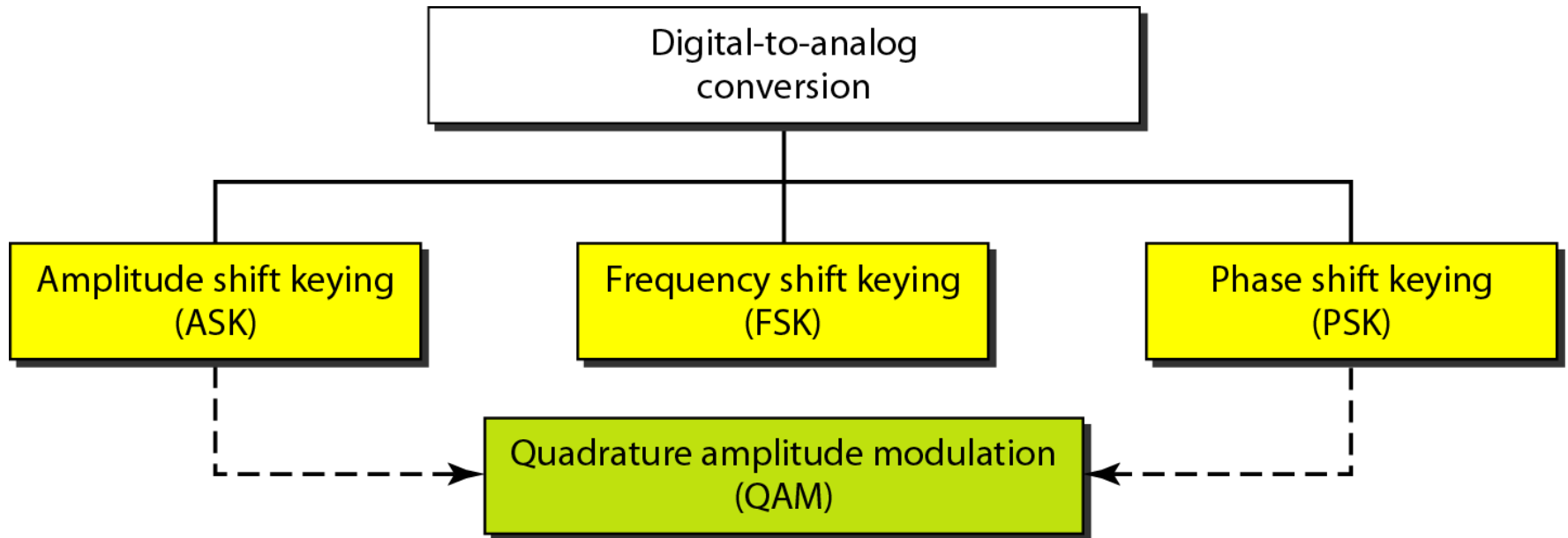
- ***the process of changing one of the characteristics of an analog signal based on the information in digital data.***

Digital-to-analog conversion

- **Figure shows the relationship between the digital information, the digital-to-analog modulating process, and the resultant analog signal.**



Types of digital to analog conversion

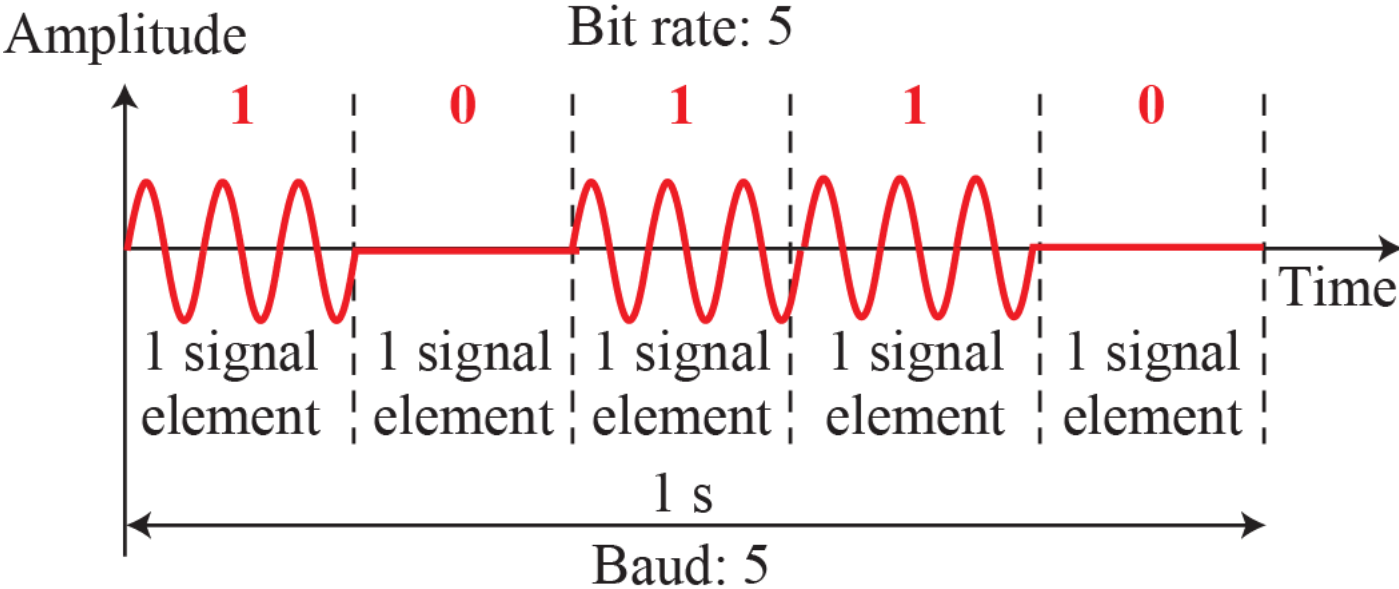


Amplitude Shift Keying

In amplitude shift keying, the amplitude of the carrier signal is varied to create signal elements.

Both frequency and phase remain constant while the amplitude changes.

Binary amplitude shift keying

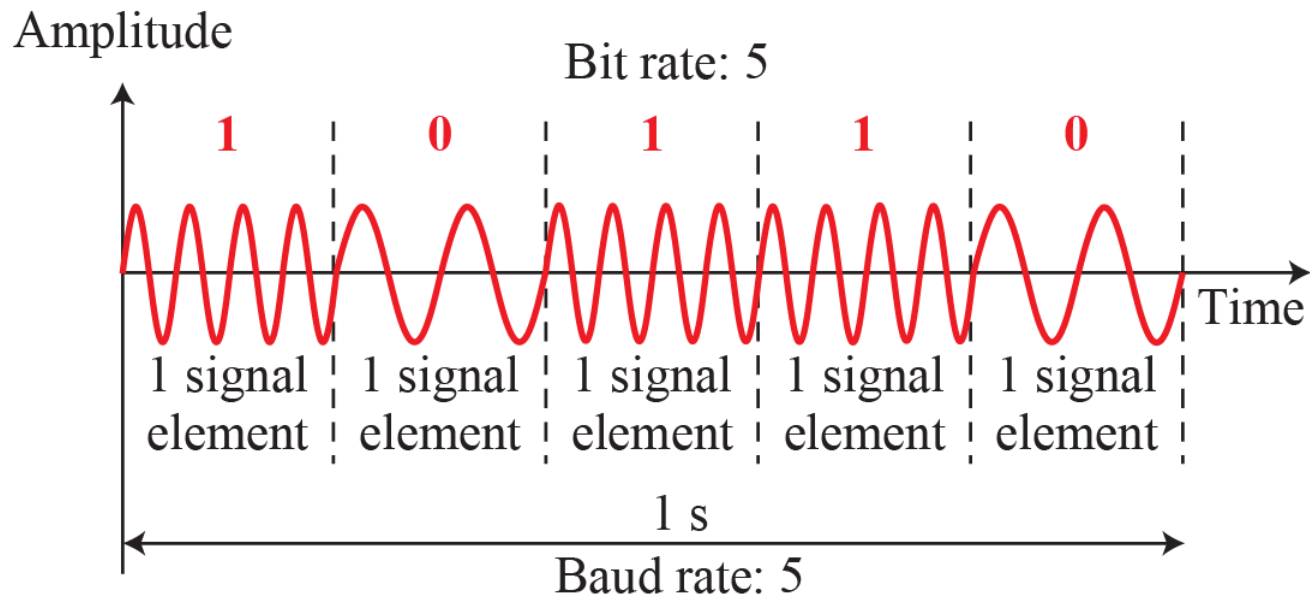


Frequency Shift Keying

In frequency shift keying, the frequency of the carrier signal is varied to represent data.

Both peak amplitude and phase remain constant for all signal elements.

Binary frequency shift keying



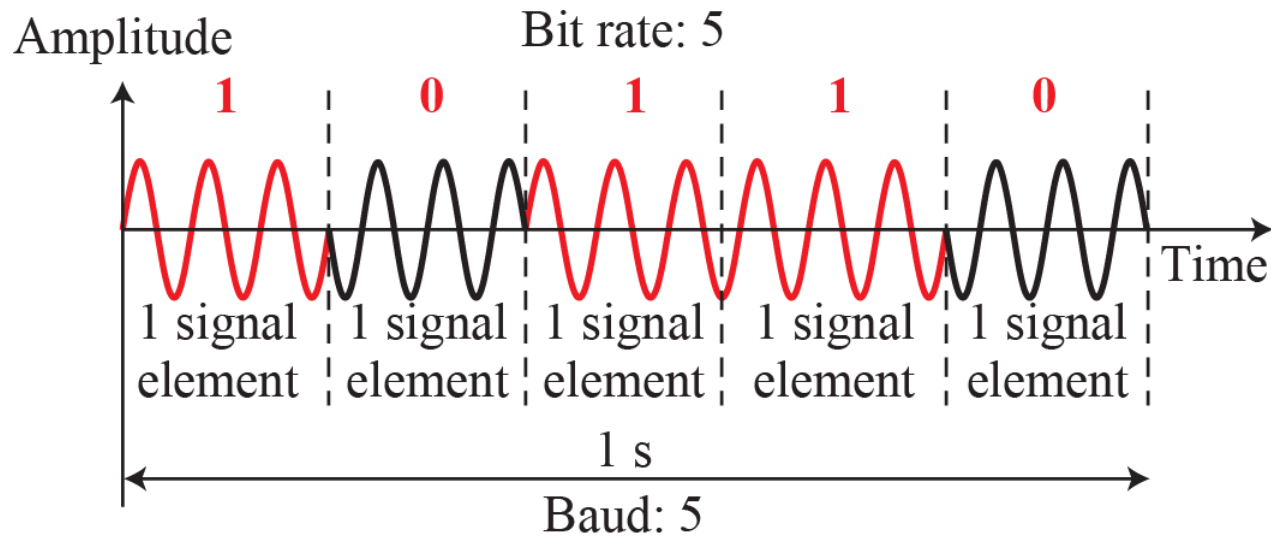
Phase Shift Keying

In phase shift keying, the phase of the carrier is varied to represent two or more different signal elements.

Both peak amplitude and frequency remain constant as the phase changes.

Today, PSK is more common than ASK or FSK.

Binary phase shift keying

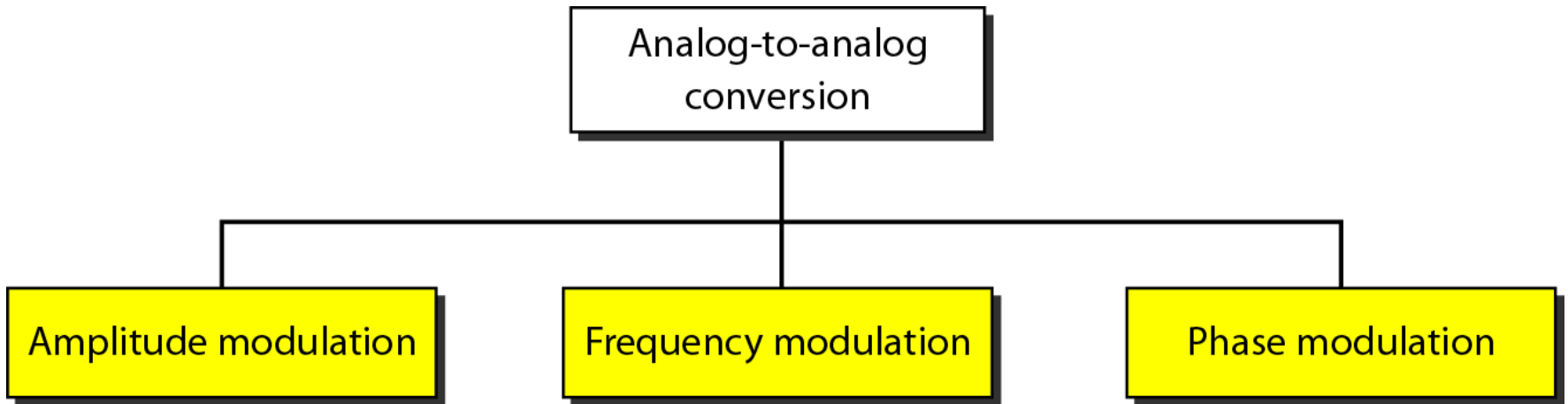


ANALOG-TO-ANALOG CONVERSION

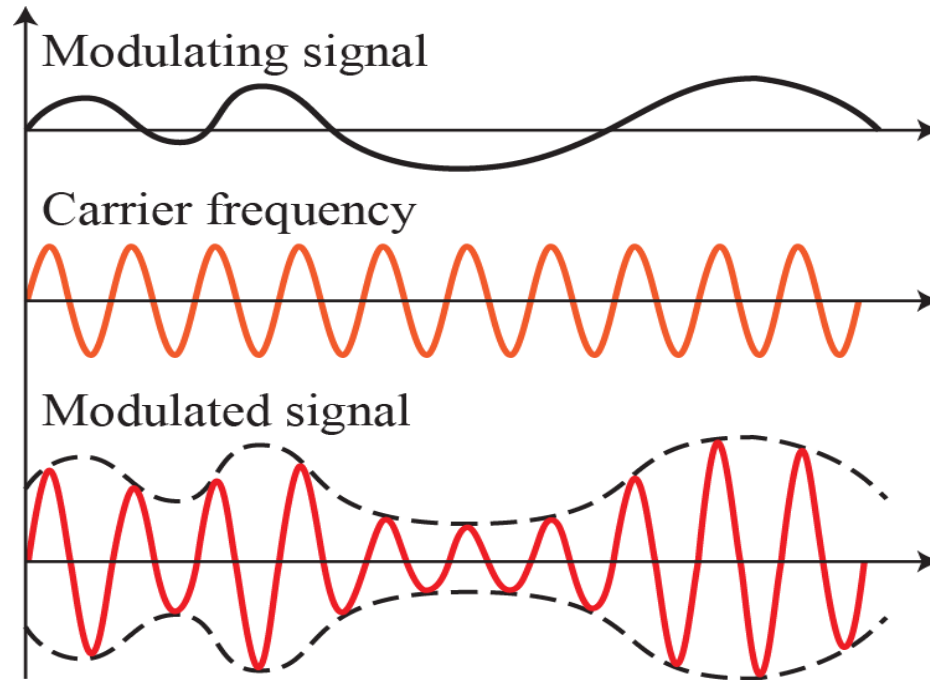
Analog-to-analog conversion, or analog modulation, is the representation of analog information by an analog signal.

Analog-to-analog conversion can be accomplished in three ways: AM FM and PM.

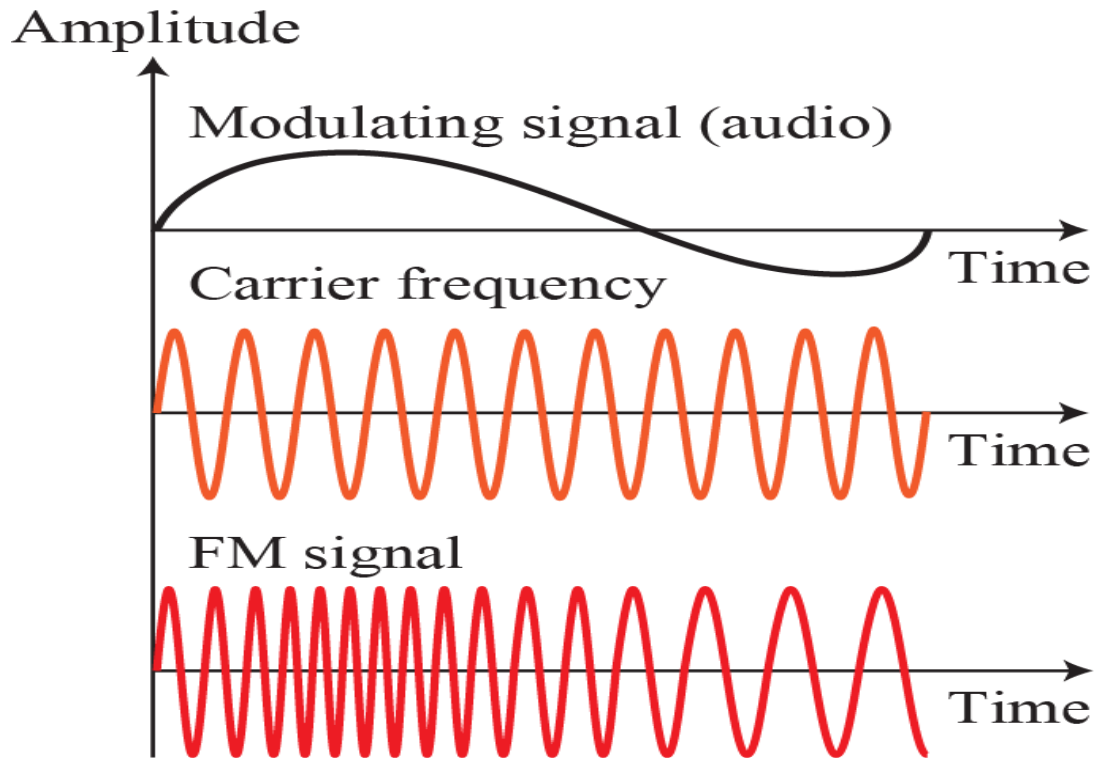
Types of analog-to-analog modulation



Amplitude modulation



Frequency modulation



Phase modulation

