

Chapter 06

Baseband Digital Transmission

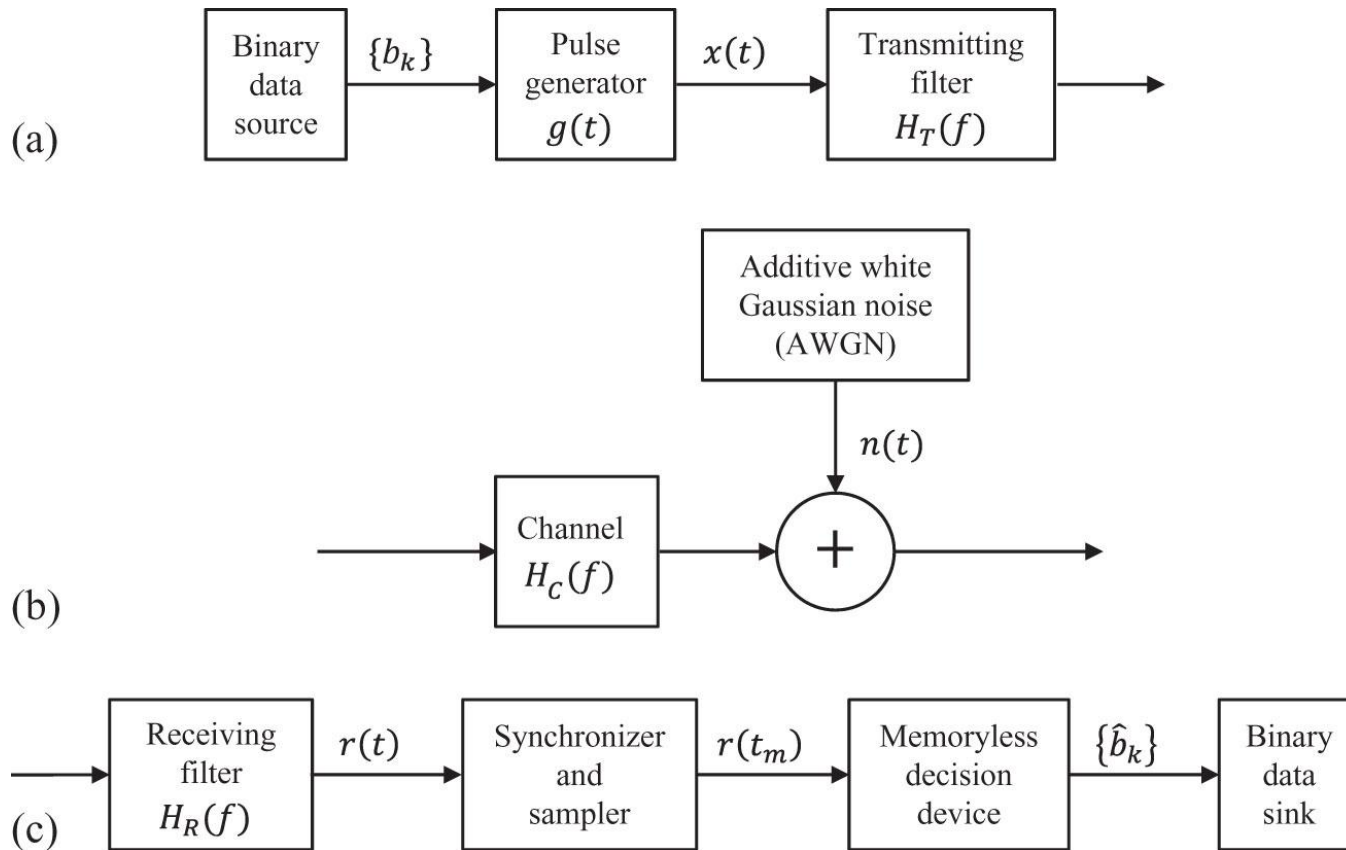


Figure 6.1 Baseband binary PAM transmission system: (a) transmitter, (b) channel, and (c) receiver.

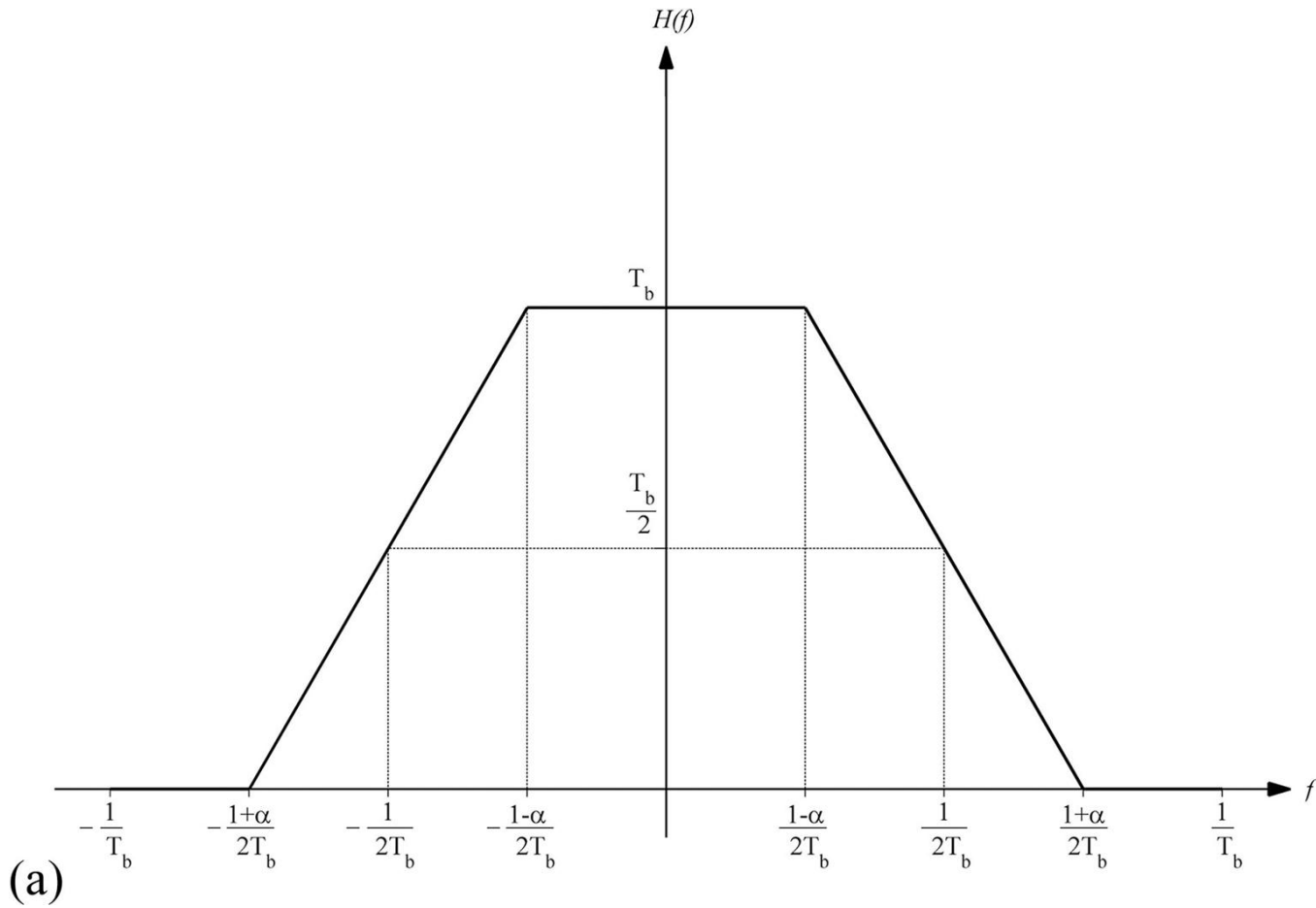


Figure 6.2a Pulse in Example 6.3: (a) Fourier transform and (b) impulse response.

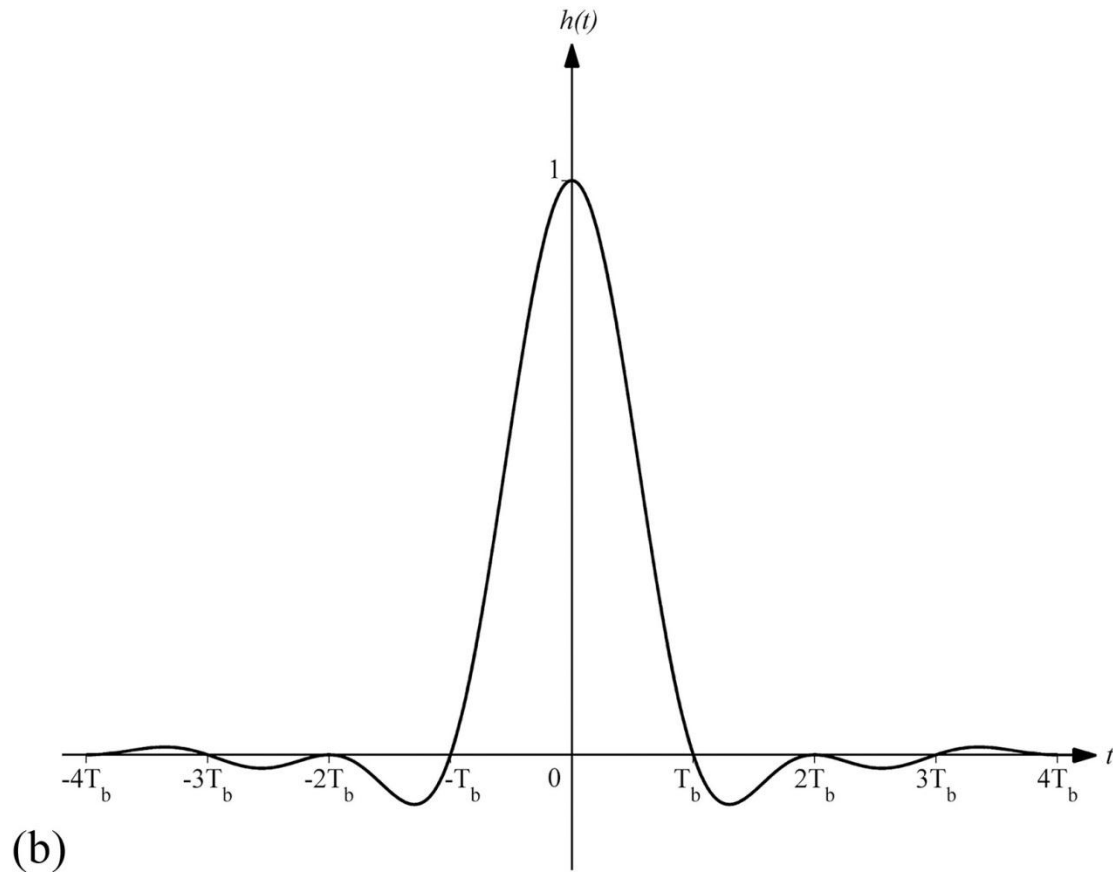


Figure 6.2b Pulse in Example 6.3: (a) Fourier transform and (b) impulse response.

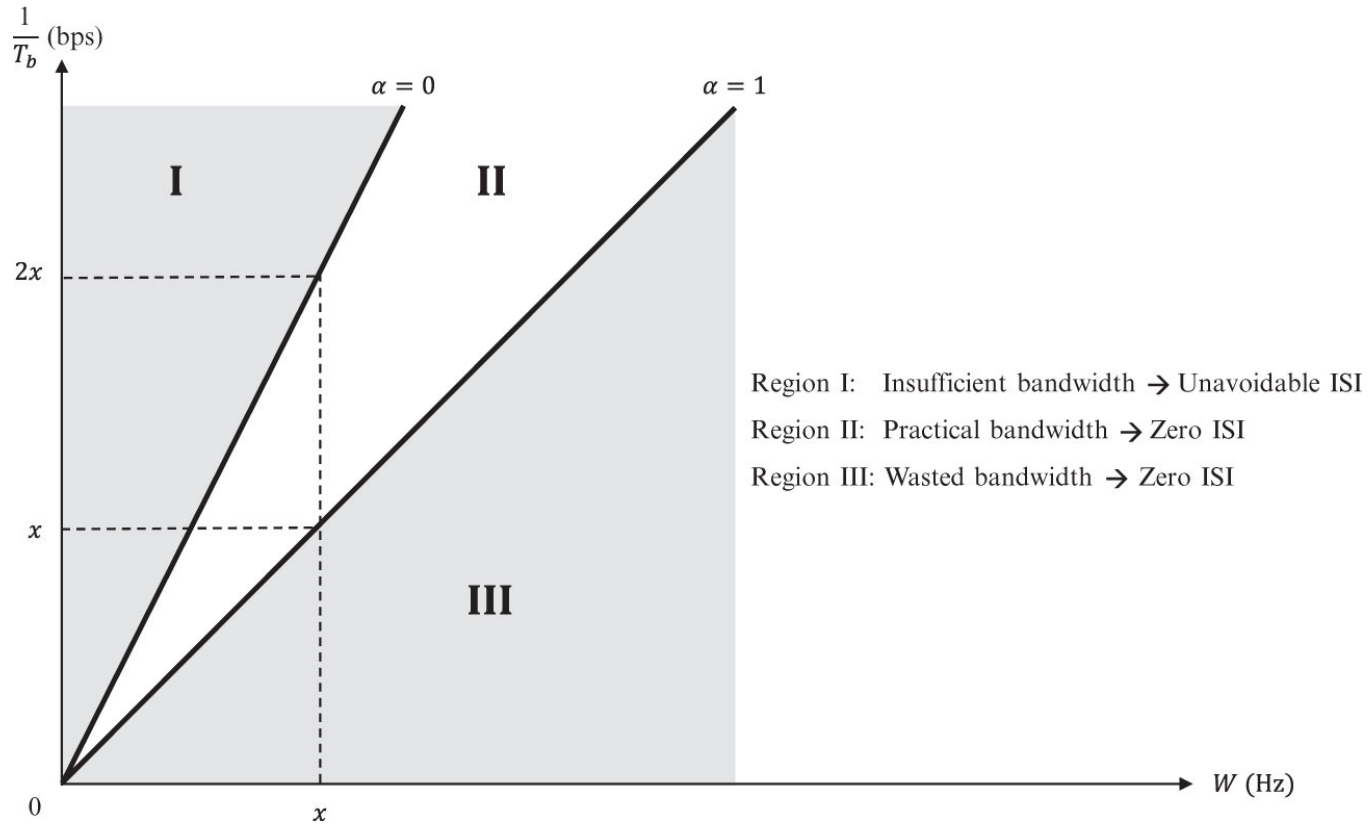


Figure 6.3 Relationships among the required bandwidth, allowable bit rate, and potential intersymbol interference.

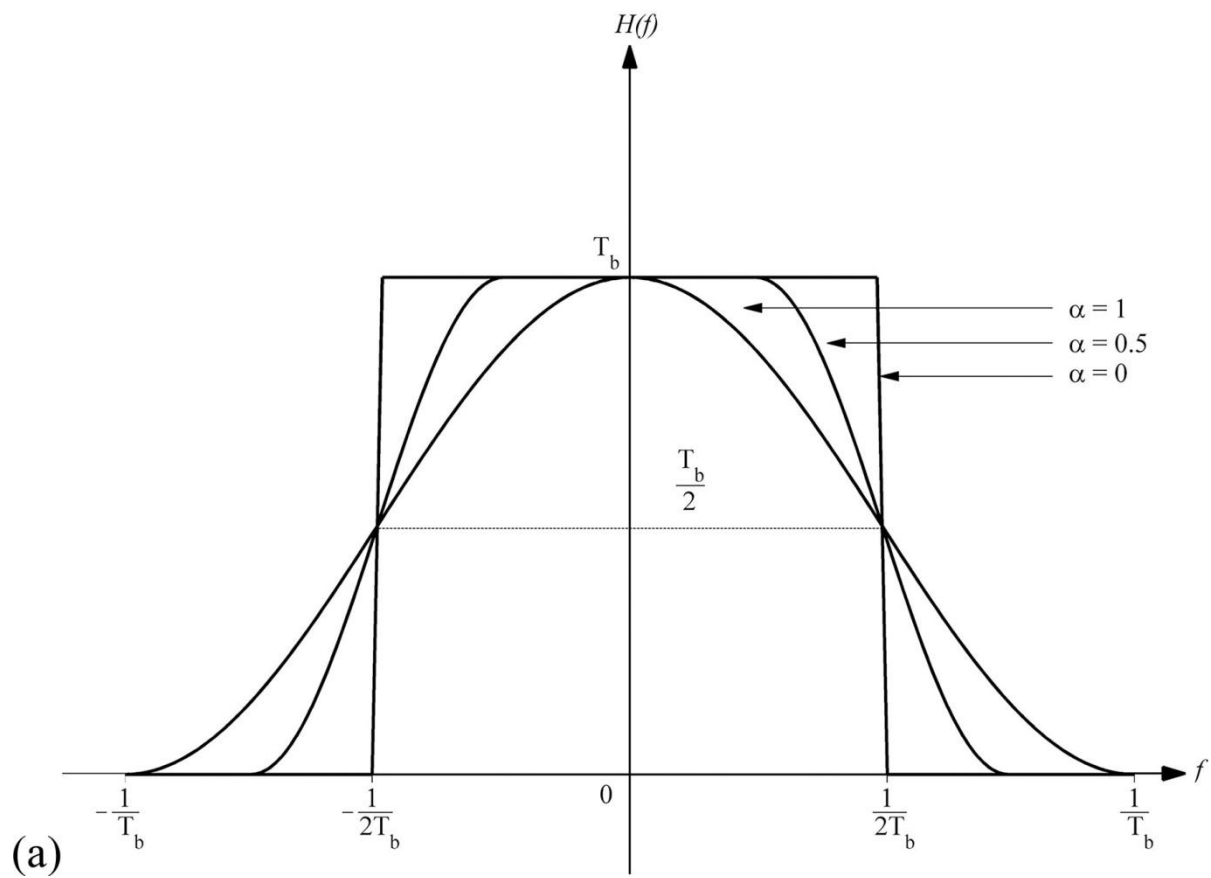


Figure 6.4a Raised cosine pulse: (a) pulse in frequency domain and (b) pulse in time domain.

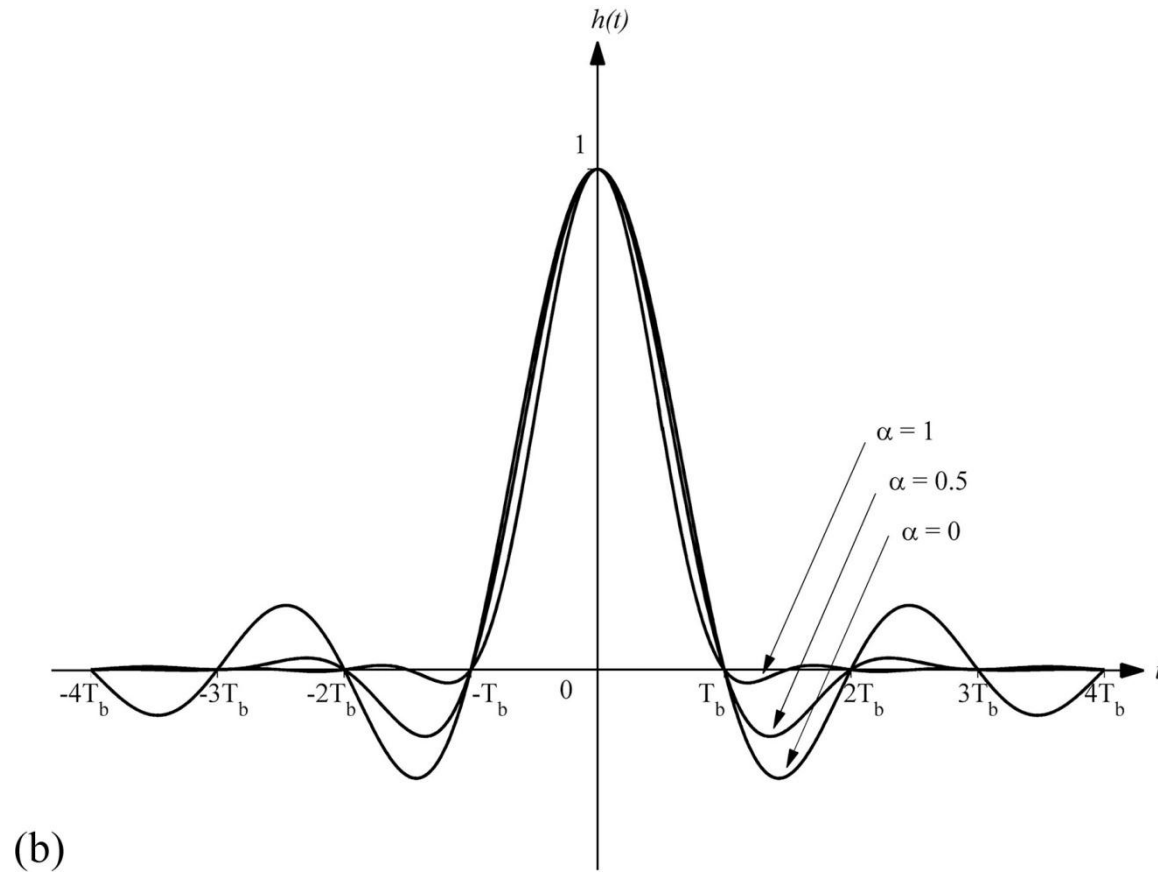


Figure 6.4b Raised cosine pulse: (a) pulse in frequency domain and (b) pulse in time domain.

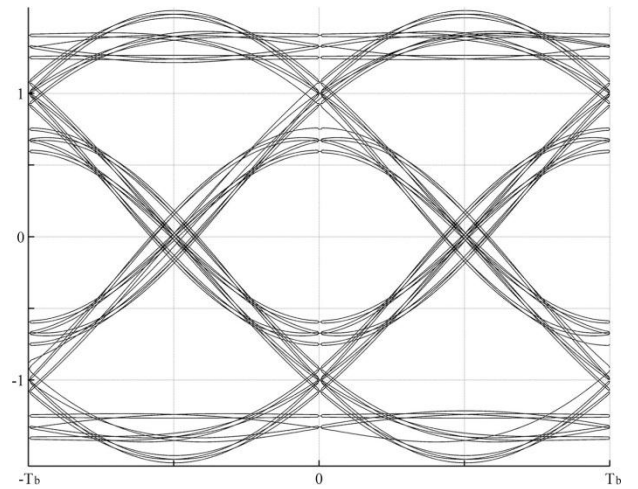
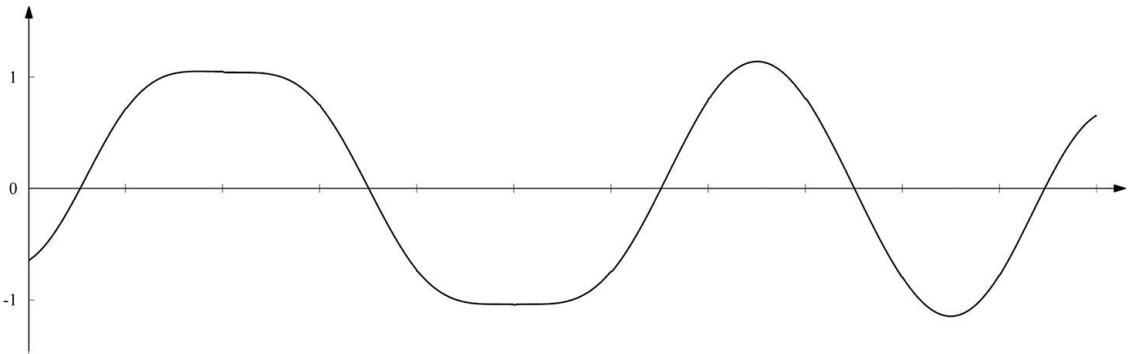
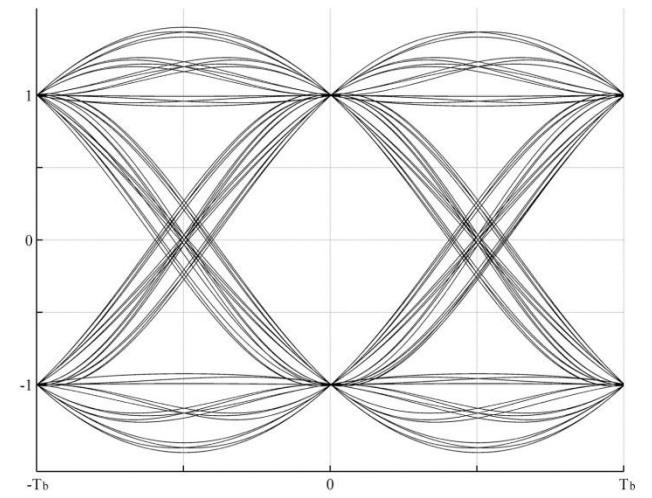
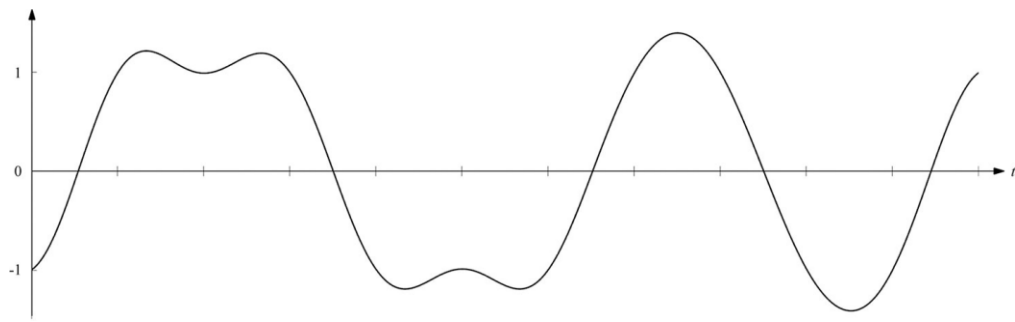


Figure 6.5 Various received signals and corresponding eye patterns: (a) ideal signal and (b) distorted signal.

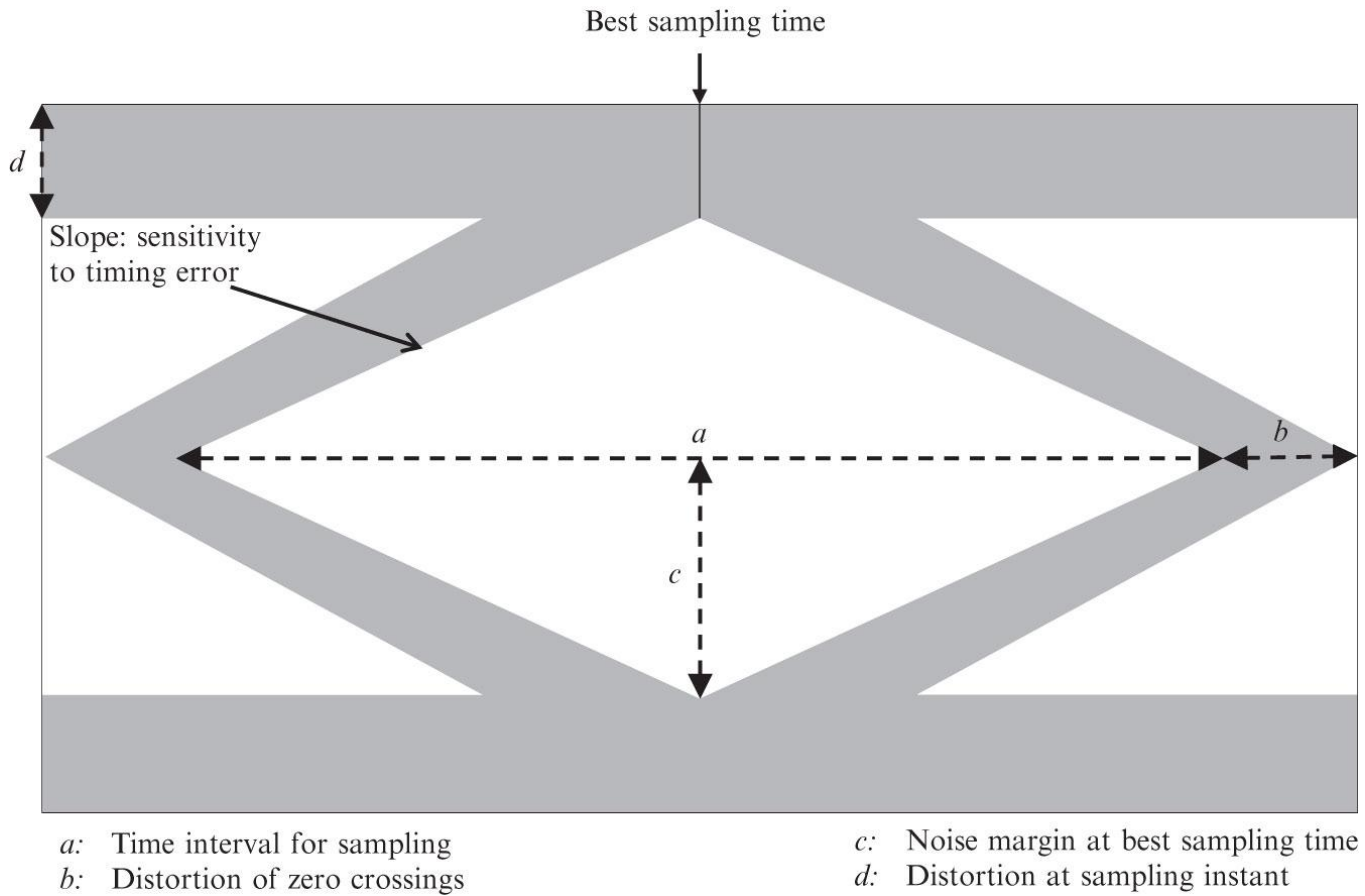


Figure 6.6 Interpretation of eye pattern.

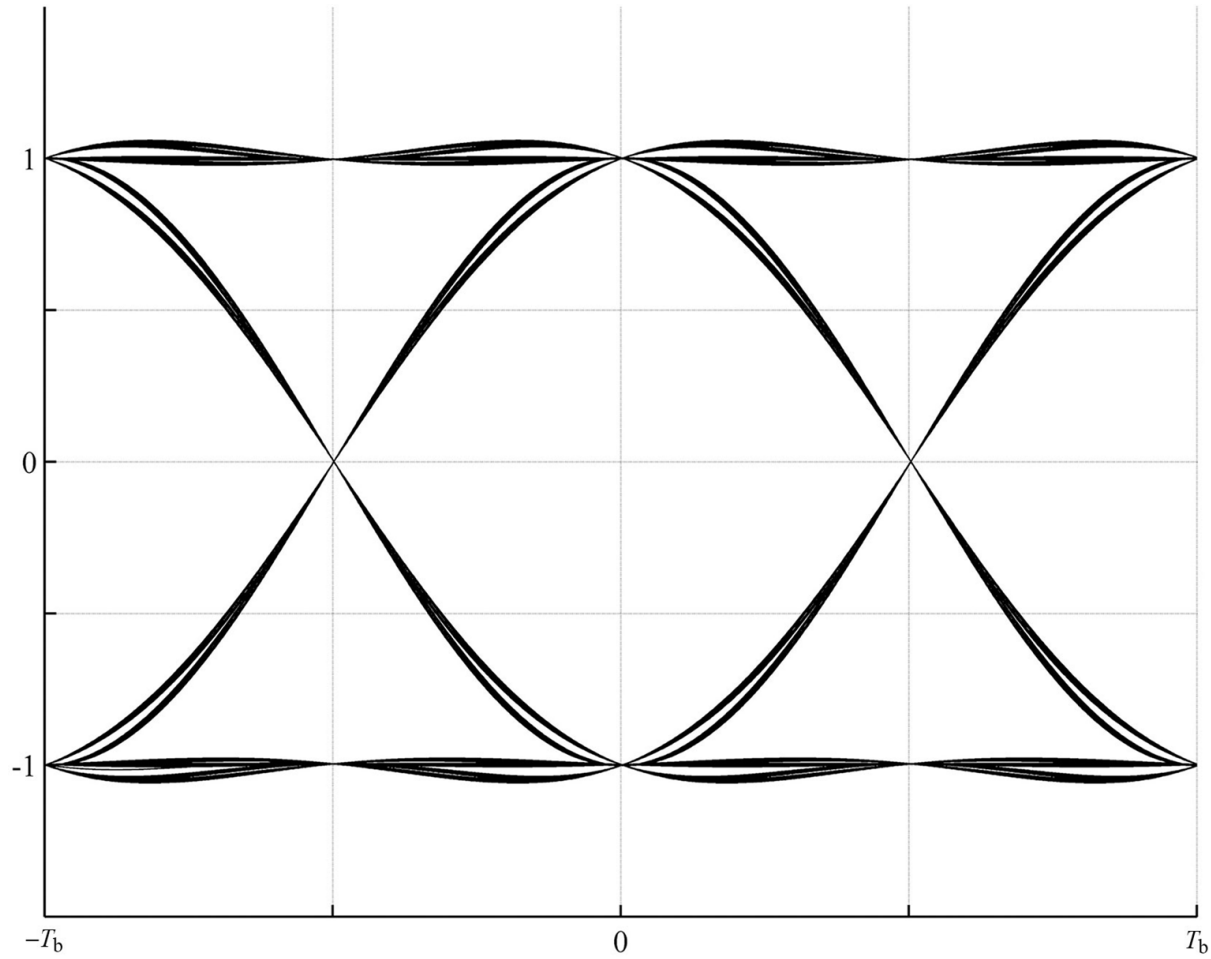


Figure 6.7 Eye pattern for 100% raised-cosine pulse.

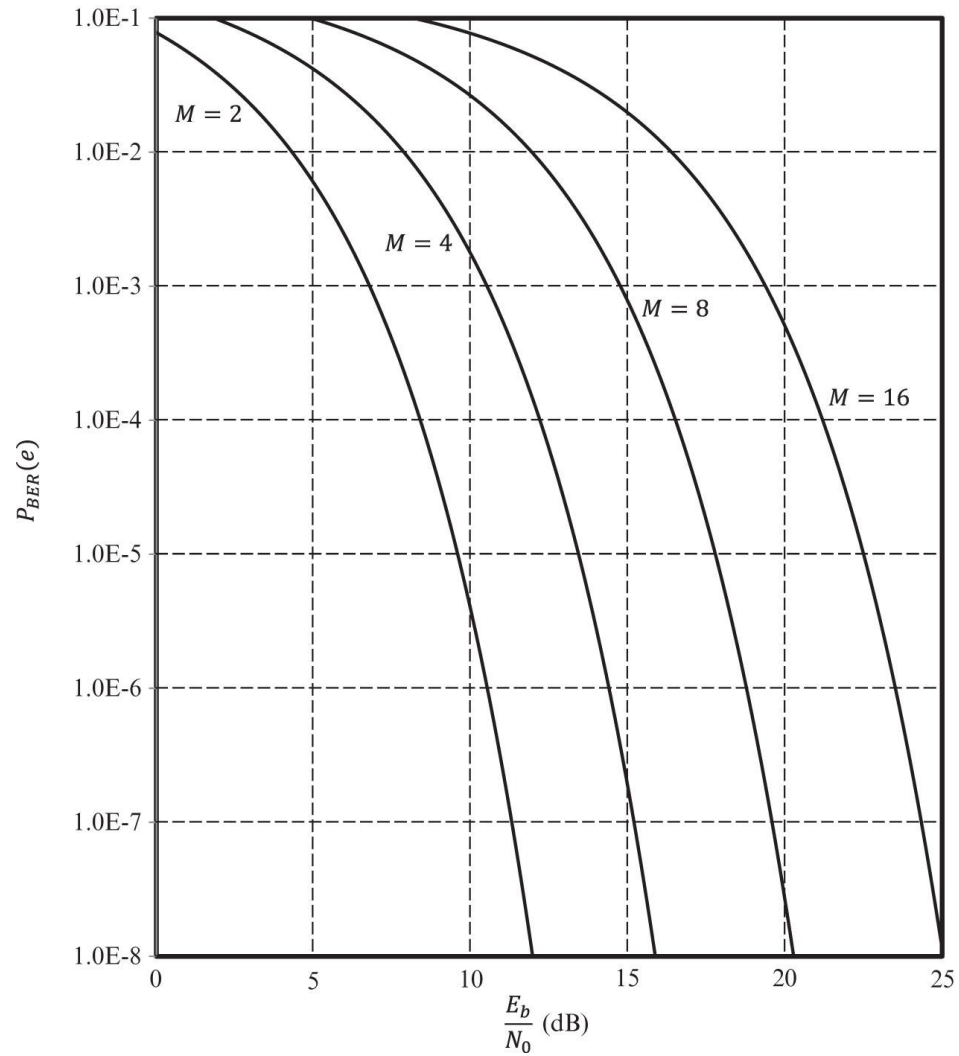


Figure 6.8 Bit error rate performance for M -ary signaling.

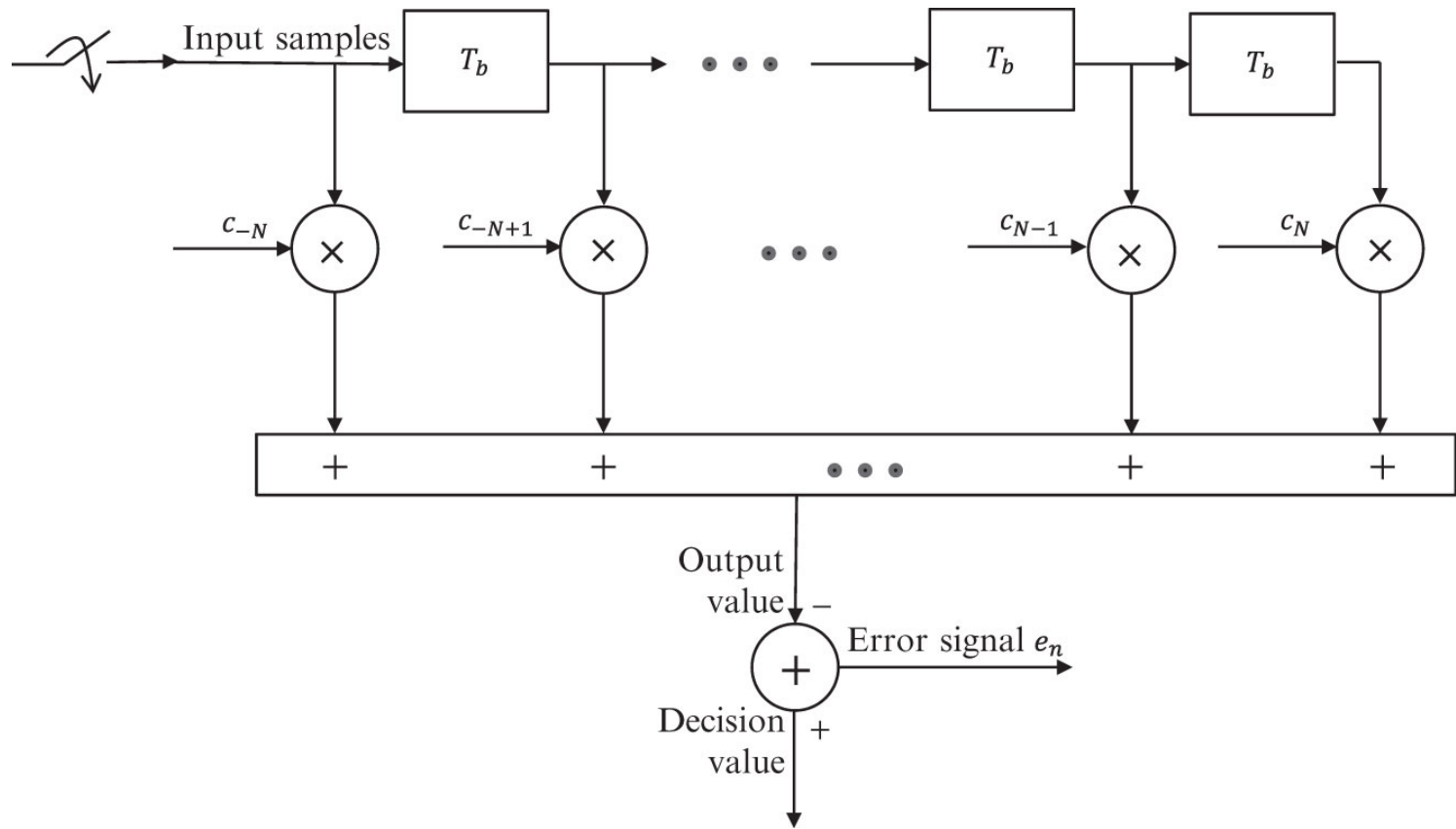


Figure 6.9 A linear equalizer.

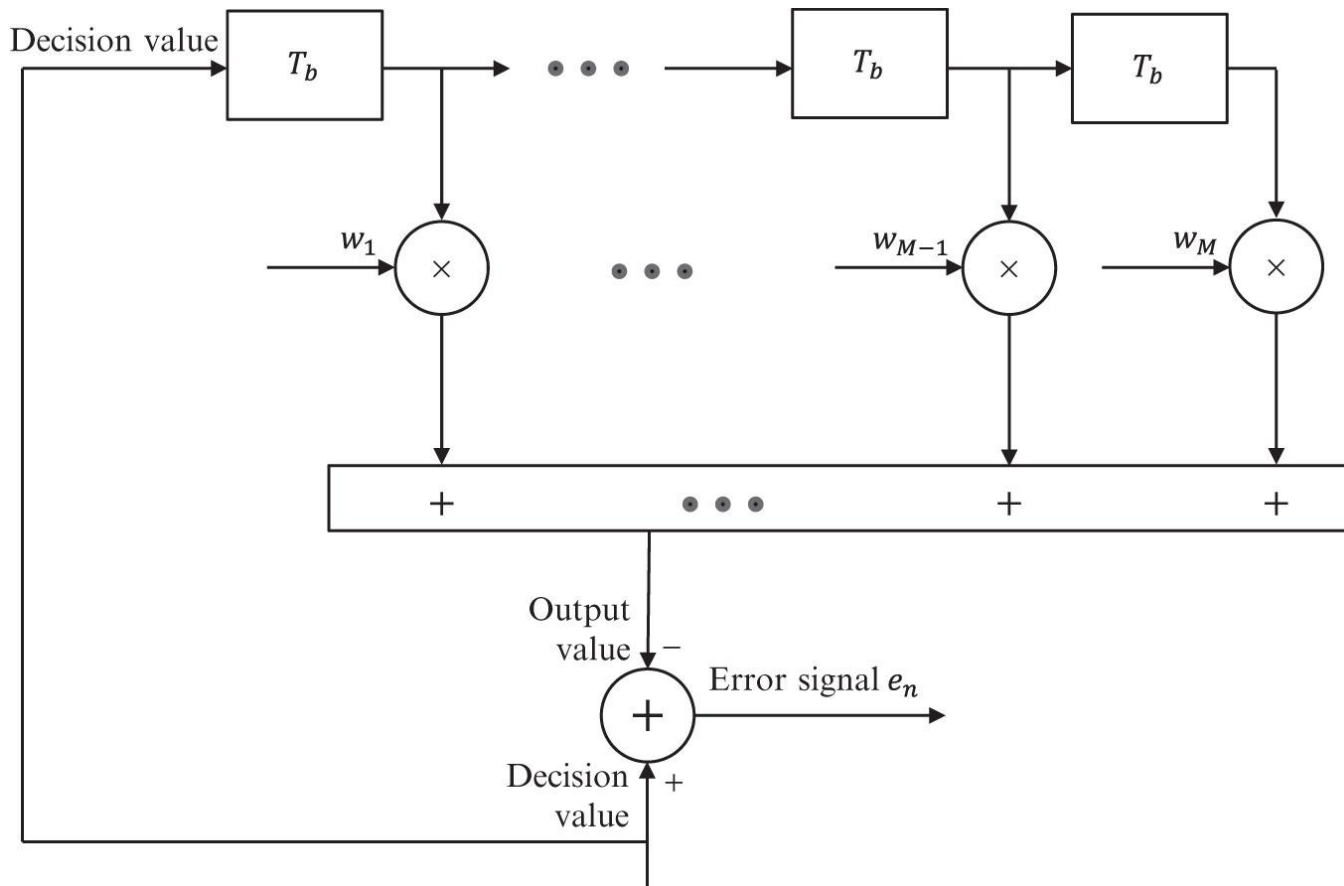


Figure 6.10 A decision-feedback part of DFE.

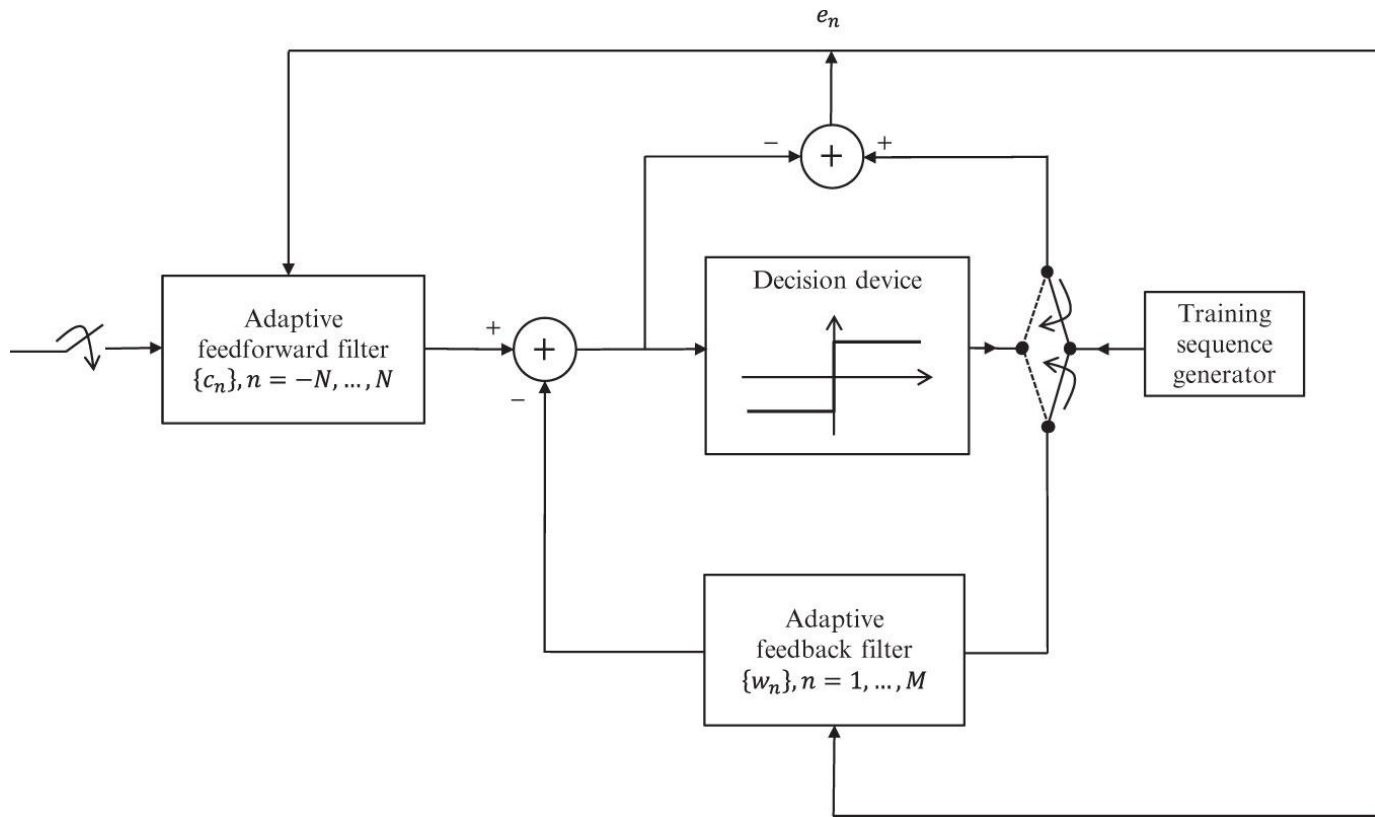


Figure 6.11 An adaptive equalizer.