FM Stereo

KEEE343 Communication Theory
Lecture #21, May 26, 2011

Prof. Young-Chai Ko
koyc@korea.ac.kr

Summary

- Theme Example: FM Stereo

FM Stereo

- The specification of standards for FM stereo transmission is influenced by two factors

  - The transmission has to operate within the allocated FM broadcast channels

  - It has to be compatible with monophonic radio receivers.

$$m(t) = [m_l(t) + m_r(t)] + [m_l(t) - m_r(t)] \cos(4\pi f_c t) + K \cos(2\pi f_c t)$$

  - The multiplied signal is recovered by frequency demodulating the incoming FM wave.
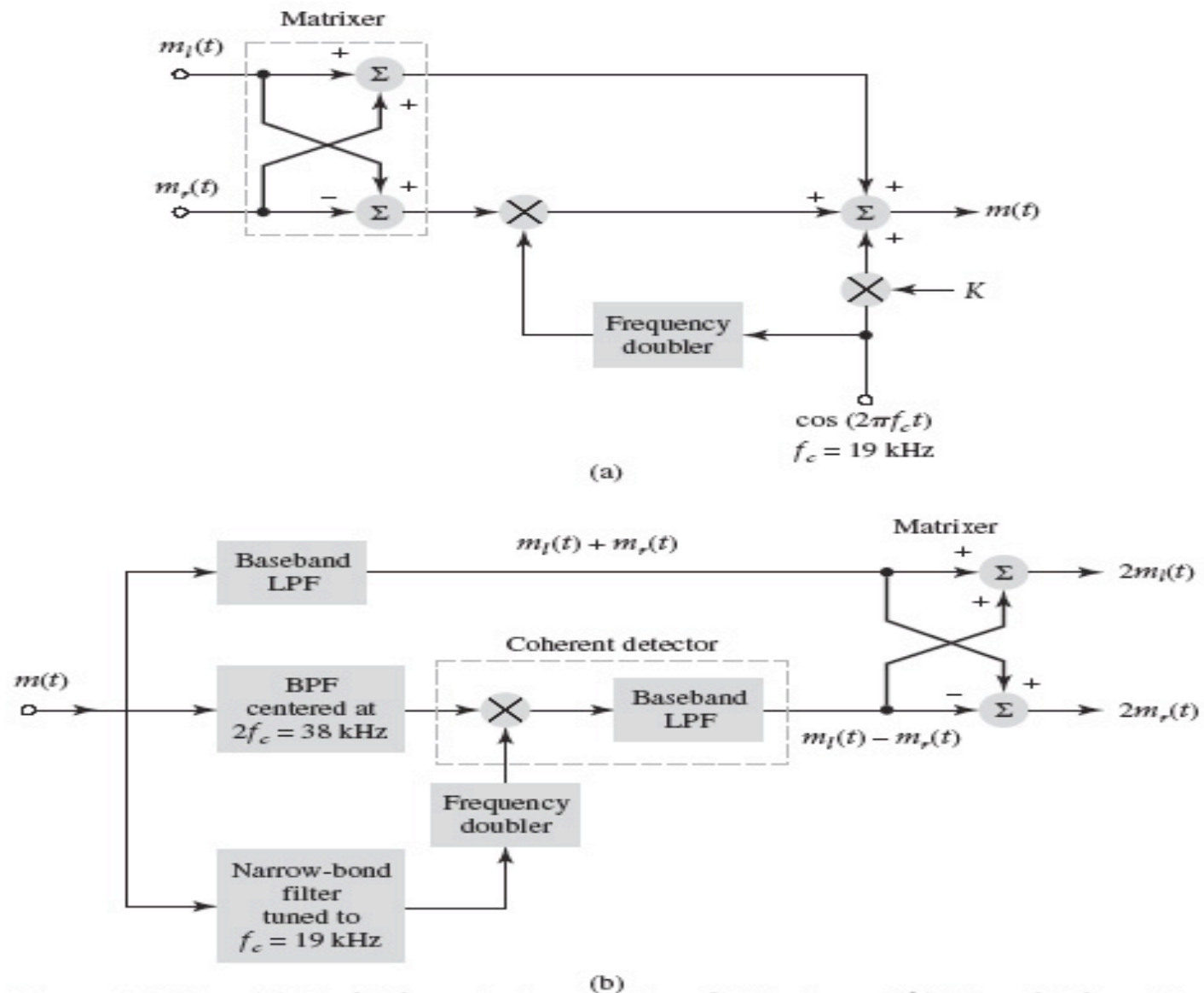
FIGURE 4.16 (*a*) Multiplexer in transmitter of FM stereo. (*b*) Demultiplexer in receiver of FM stereo.

[Ref: Haykin & Moher, Textbook]