PM-FM

$$s_{PM}(t) = U_v \cos(\omega_v t + k_{PM} s_m(t))$$

$$s_{FM}(t) = U_v \cos\left(\omega_v t + k_{FM} 2\pi \int_0^t s_m(\alpha) d\alpha\right)$$

$$\Delta\Phi(t) = \begin{cases} k_{PM} s_m(t) & PM \\ 2\pi k_{FM} \int_0^t s_m(\alpha) d\alpha & FM \end{cases}$$

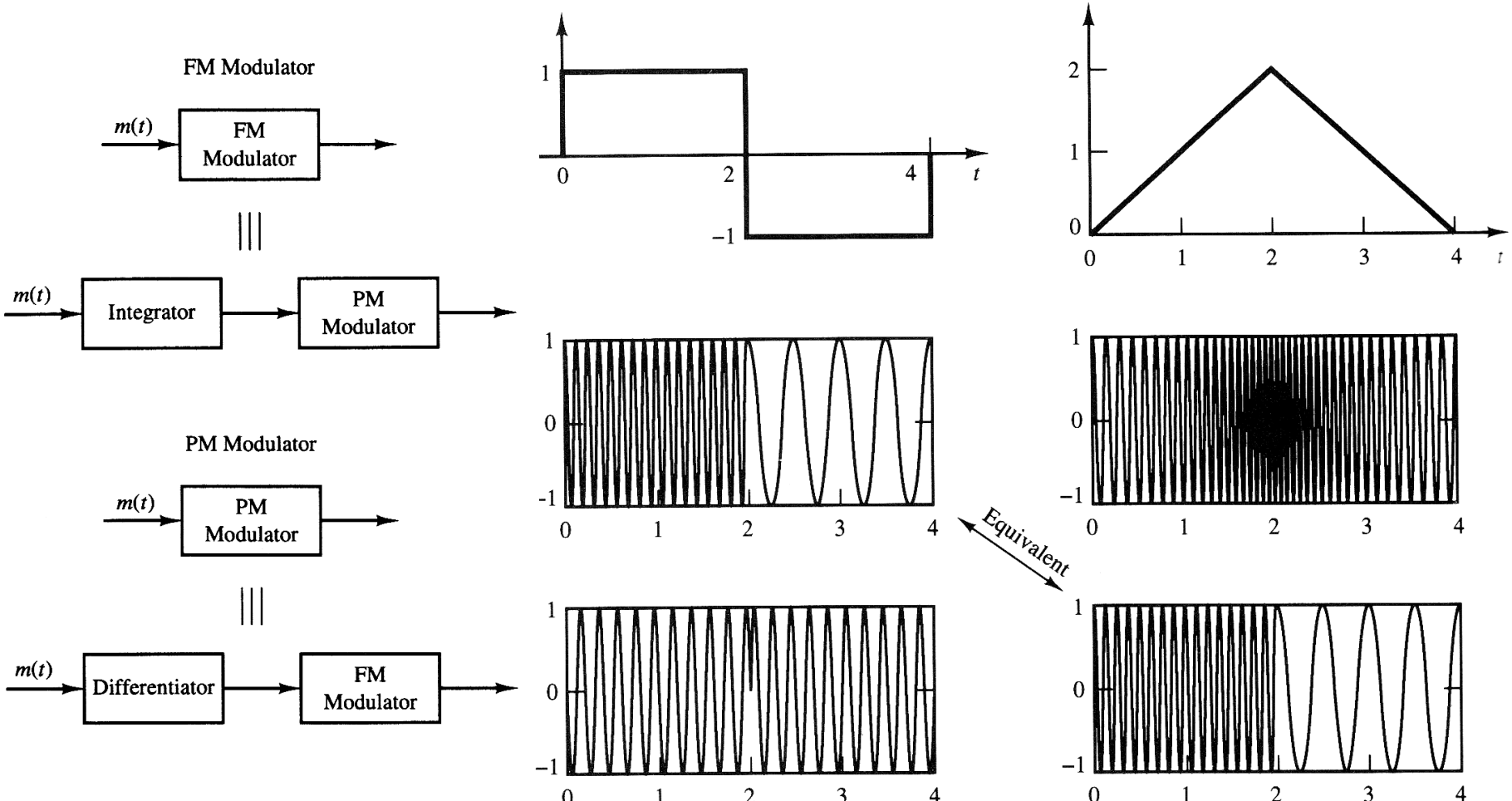
$$\Delta f(t) = \begin{cases} k_{PM} \dfrac{1}{2\pi} \dfrac{d}{dt} s_m(t) & PM \\ k_{FM} s_m(t) & FM \end{cases}$$

PM

FM

$$\Delta\Phi(t) = \begin{cases} k_{PM}\, s_m(t) & PM \\ 2\pi k_{FM} \int_0^t s_m(\alpha)\, d\alpha & FM \end{cases}$$

$$\Delta f(t) = \begin{cases} k_{PM}\, \dfrac{1}{2\pi}\, \dfrac{d}{dt}\, s_m(t) & PM \\ k_{FM}\, s_m(t) & FM \end{cases}$$



FM-PM jel sávszélessége

Carlson-féle formula

PM

$$\Phi_D = k_{PM} U_m$$

$$f_{D,PM} = \Phi_D f_m$$

FM

$$f_D = k_{FM} U_m$$

$$\Phi_{D,FM} = \frac{f_D}{f_m}$$

$$B = \begin{cases} 2\left(f_D + f_m\right) & FM \\ 2 f_m \left(\Phi_D + 1\right) & PM \end{cases}$$