FM Modulation

Sinusoidal Modulation

$(A_m/f_m)\sin(2\pi f_m t)$

$\varnothing_m = (A_m K_{vco}/f_m)\sin(2\pi f_m t) = \beta\sin(2\pi f_m t)$

$A_m\cos(2\pi f_m t)$ → $1/s$ → $2\pi K_{vco}$

+

Σ → $A_c\cos(\varnothing_m + \varnothing_c)$

+

$\varnothing_c = 2\pi f_c t$

t → $2\pi f_c$
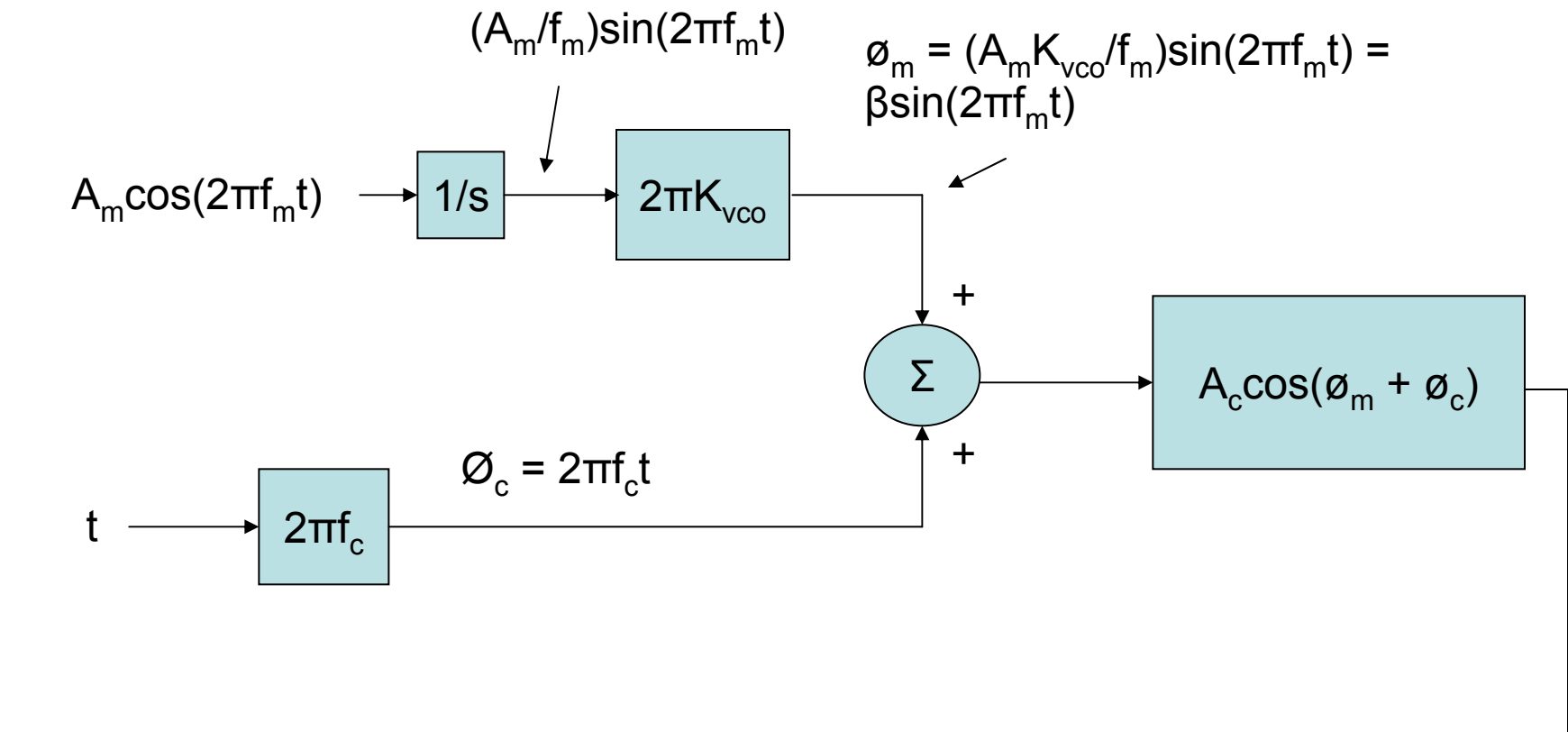
$x_{fm}(t) = A_c\cos[(2\pi f_c t) + \beta\sin(2\pi f_m t)]$ = link pdf file $x_{fm}(t)$ expression with the summation of J_n terms

because $\beta = A_m K_{vco}/f_m$