

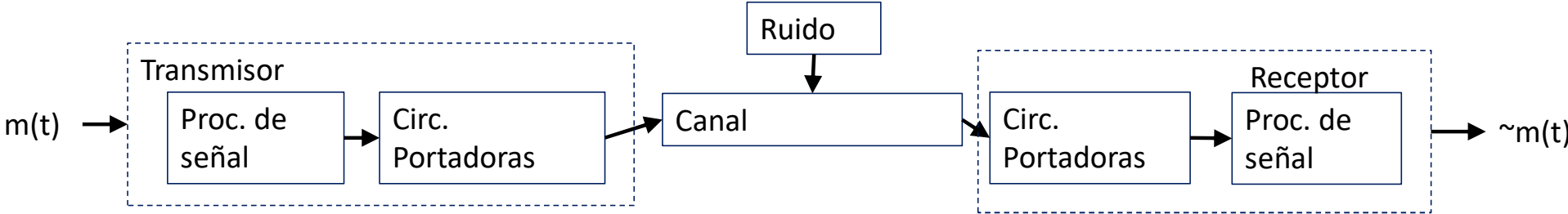


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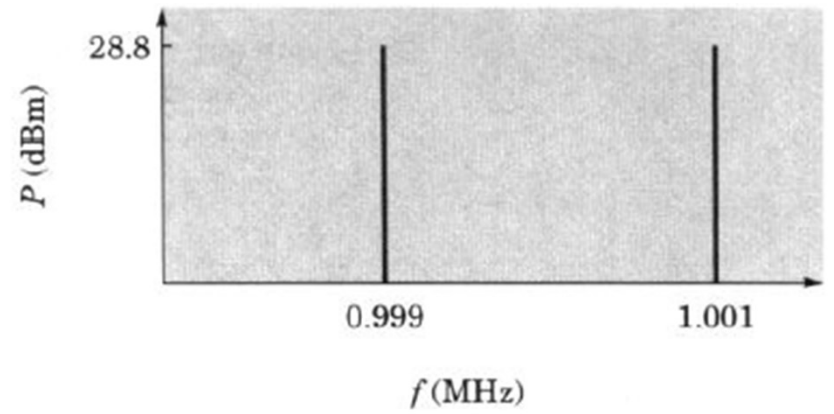
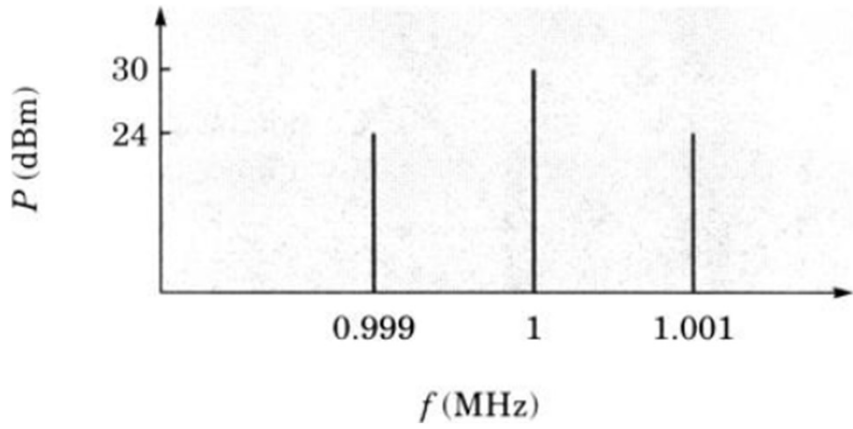
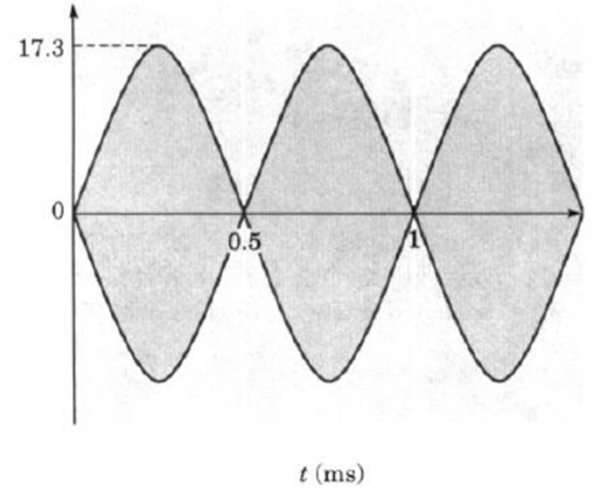
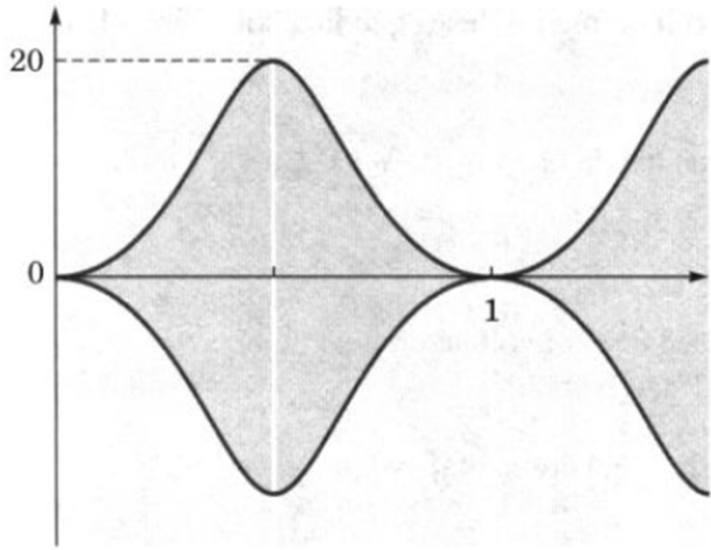
SISTEMAS DE COMUNICACIONES

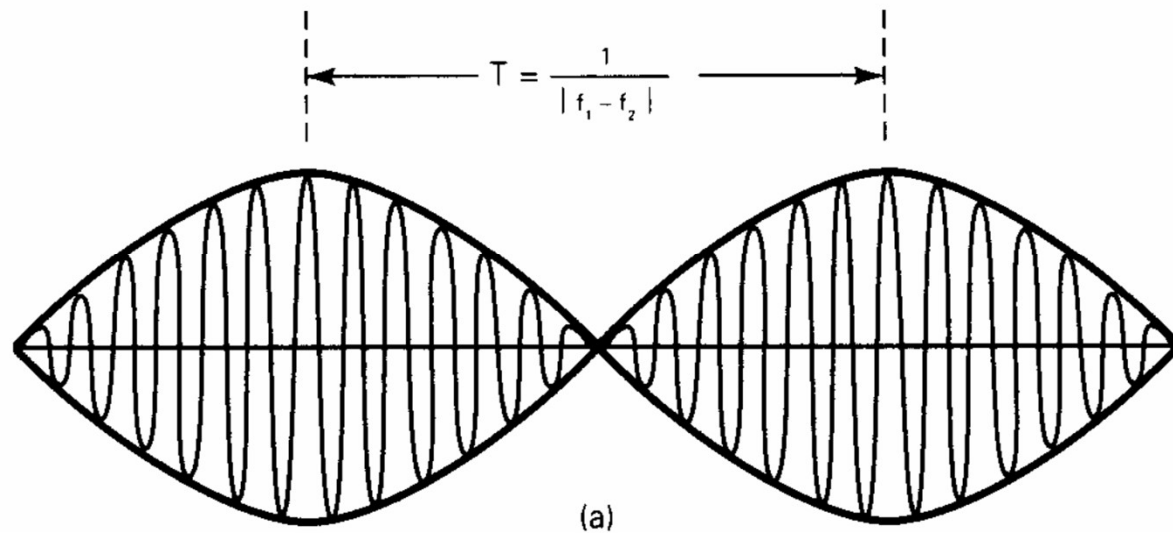
DBL, BLU

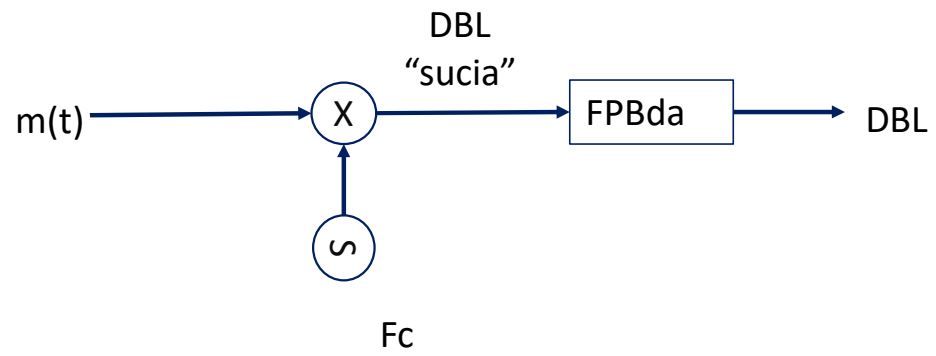
Componentes de un SC



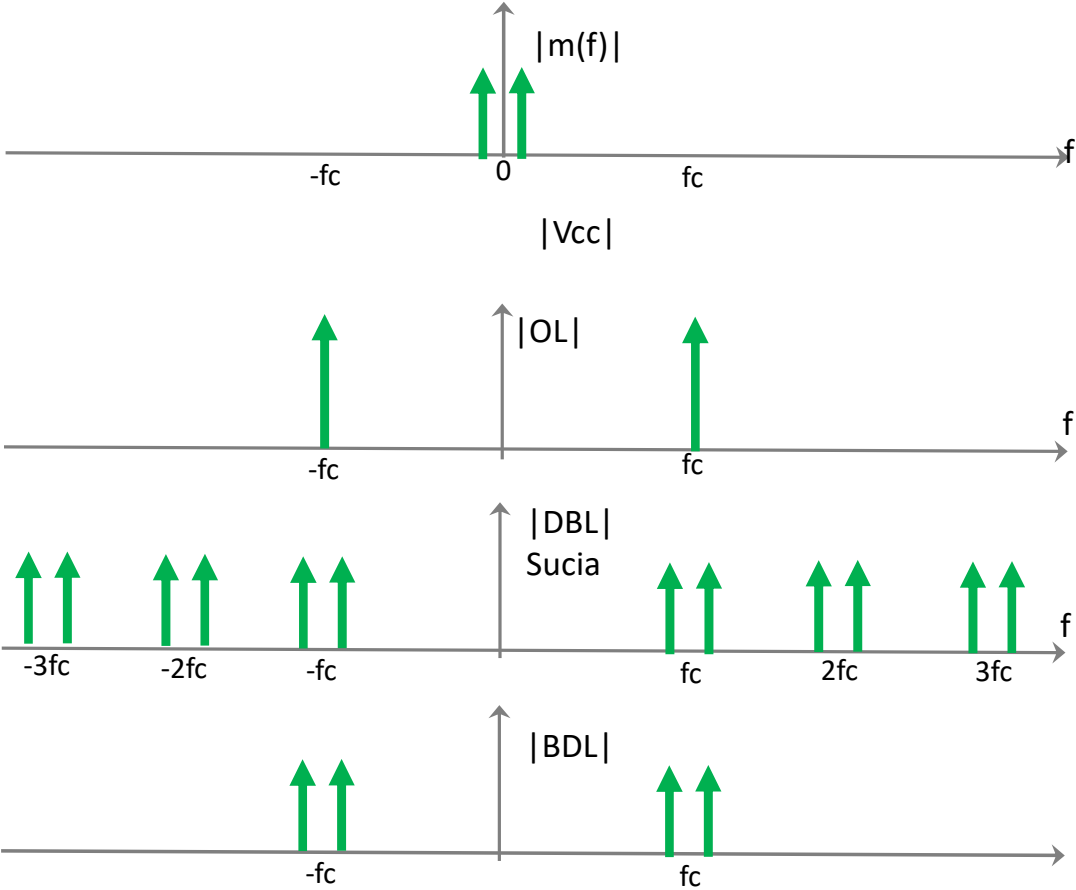
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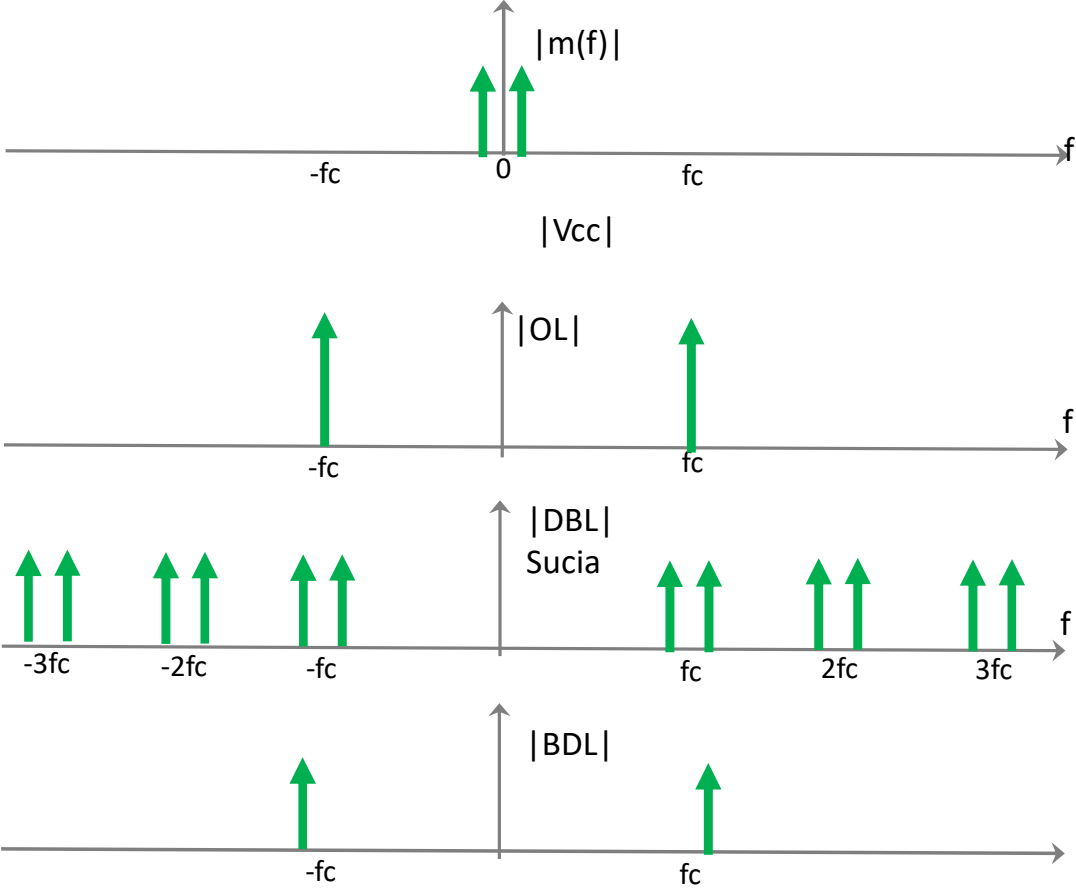


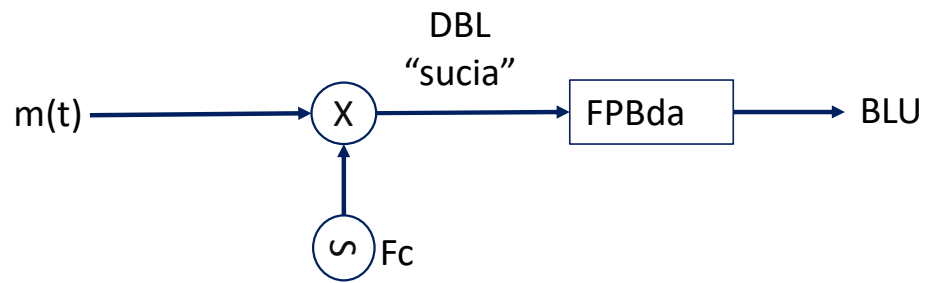


Modulación DBL

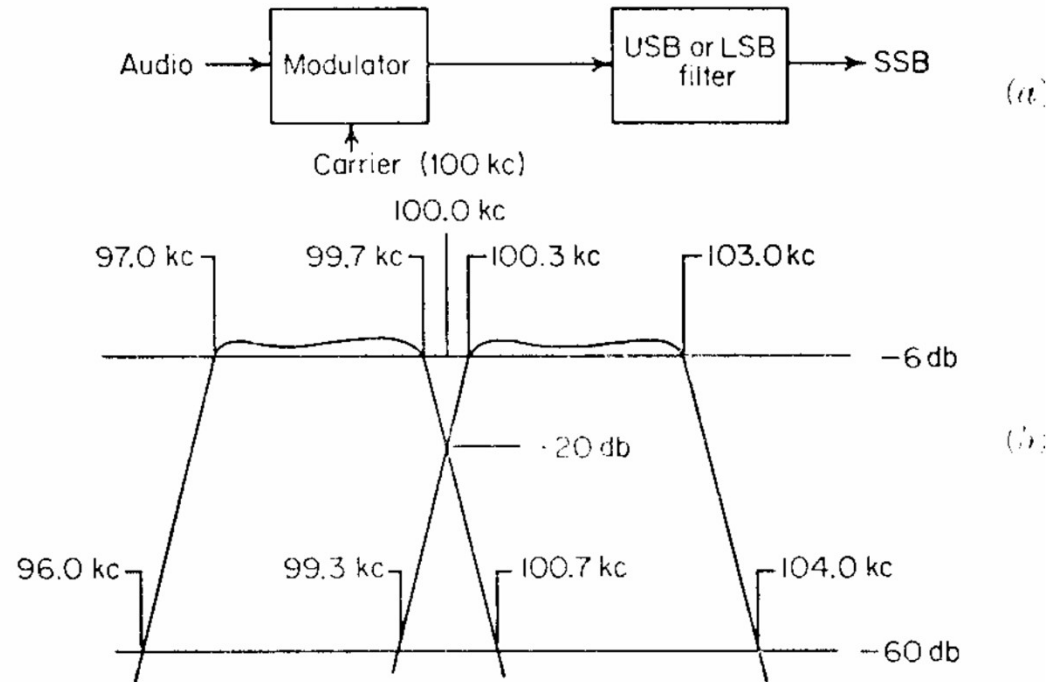


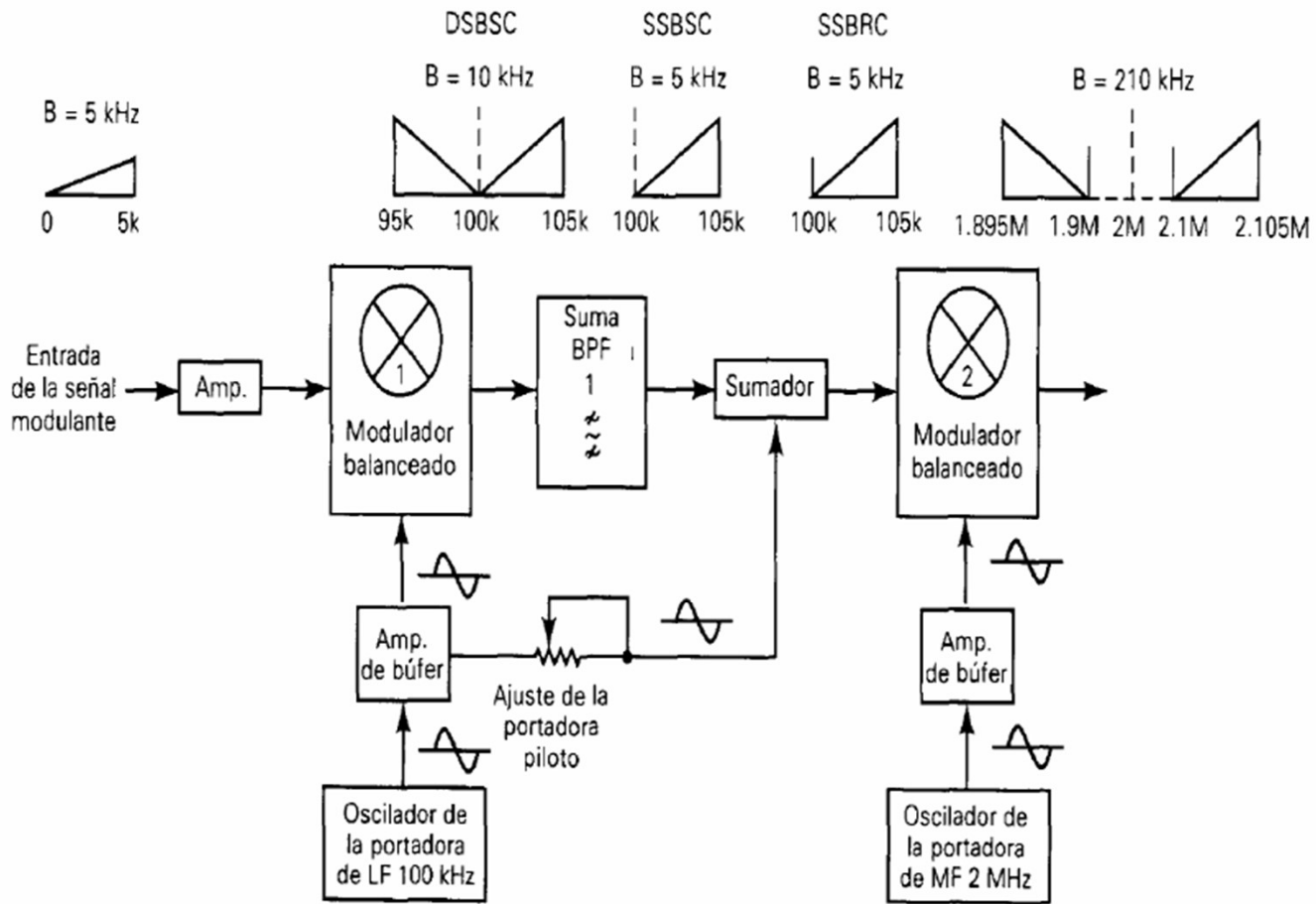
Modulación BLU



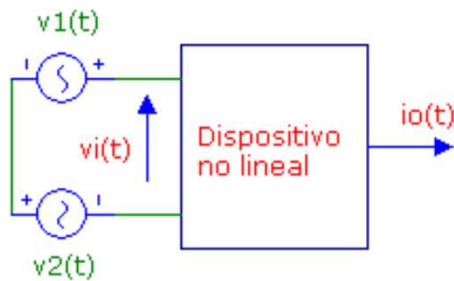


Modulación BLU: x Filtrado





Moduladores: SLD



$$i_o(t) = I_o + a v_i(t) + b [v_i(t)]^2 + c [v_i(t)]^3 + \dots$$

$$i_o(t) = I_o + a v_i(t) + b [v_i(t)]^2$$

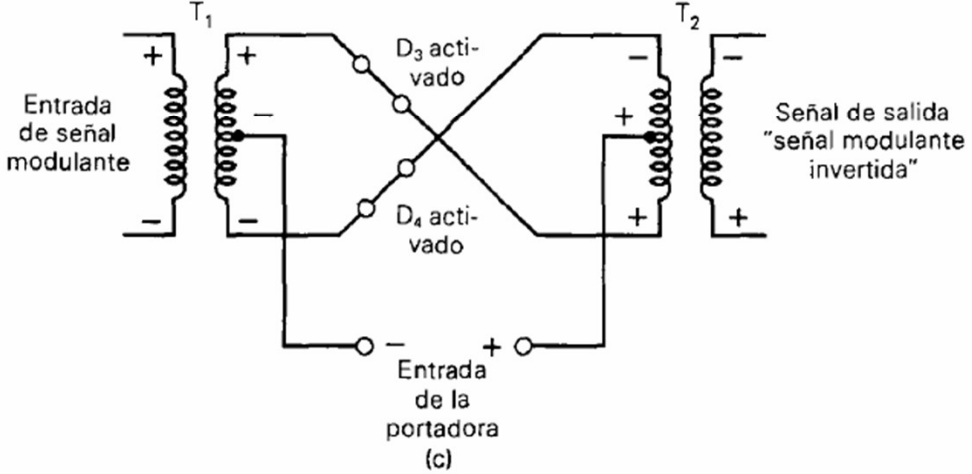
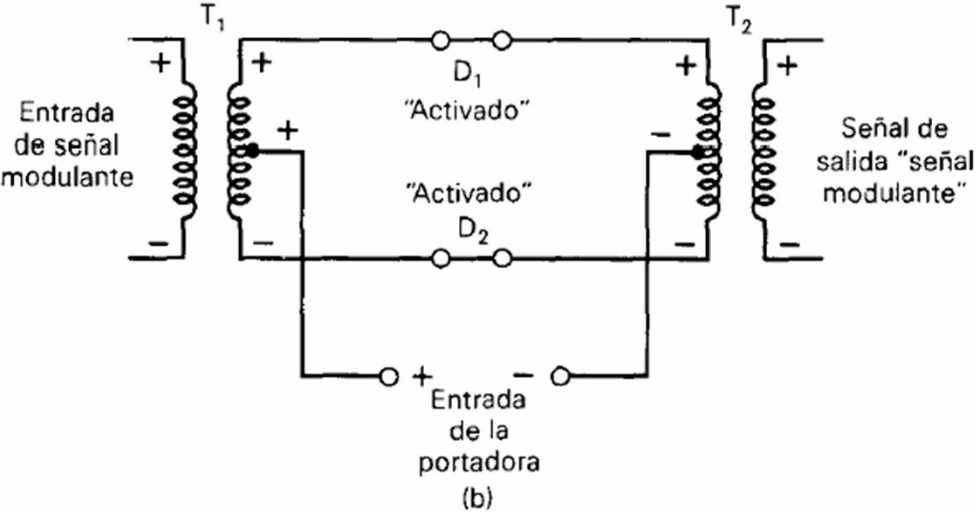
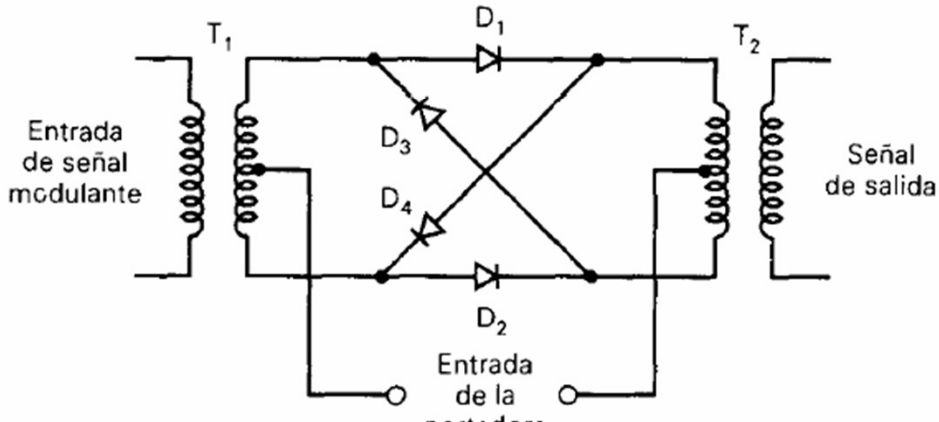
Si suponemos que la entrada es $v_i(t) = V_s \cos \omega_s t + V_o \cos \omega_o t$

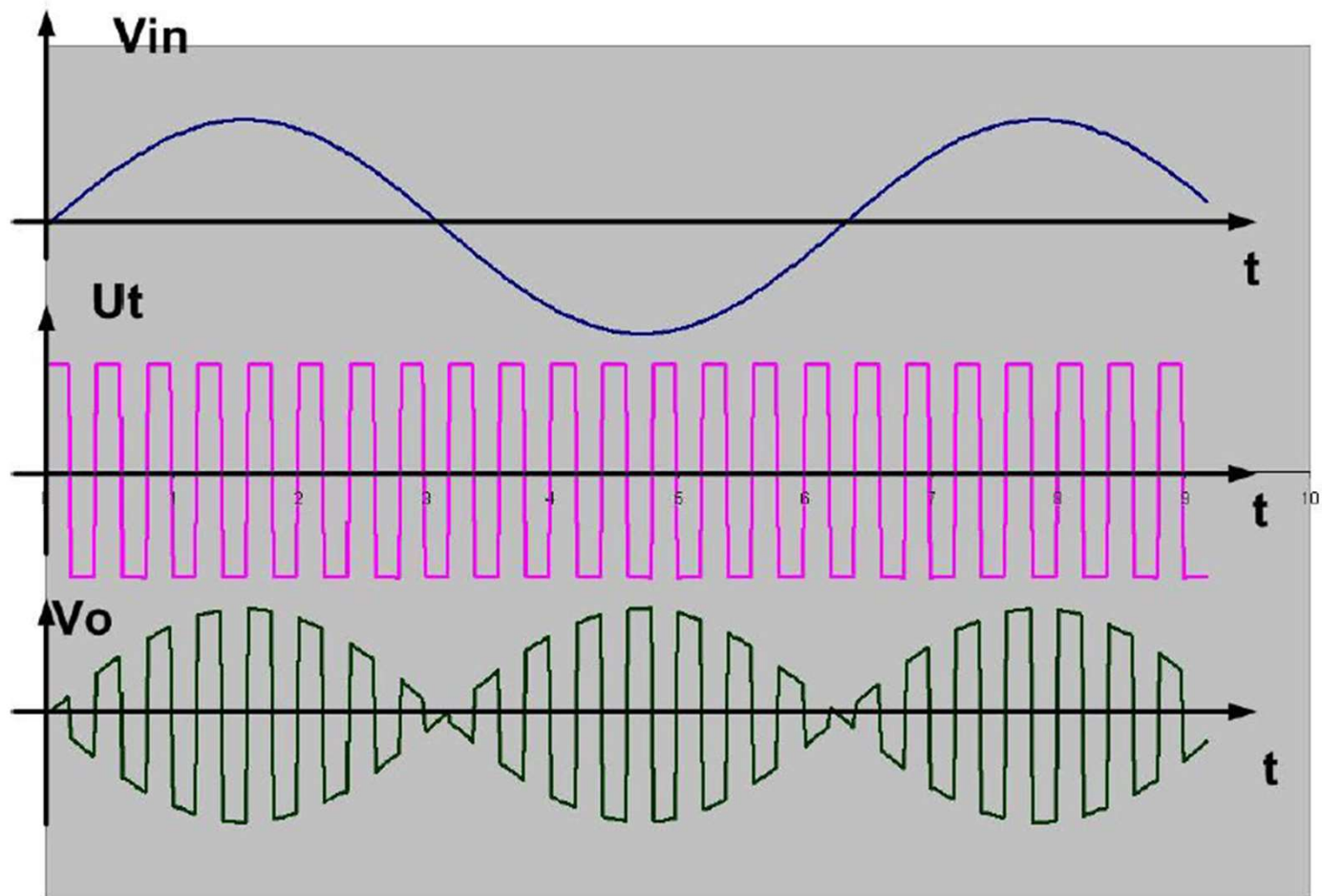
Obtenemos: $i_o(t) = I_o + a(V_s \cos \omega_s t + V_o \cos \omega_o t) + b(V_s \cos \omega_s t + V_o \cos \omega_o t)^2$

$$i_o(t) = I_o + a(V_s \cos \omega_s t + V_o \cos \omega_o t) + b(V_s^2 \cos^2 \omega_s t + V_o^2 \cos^2 \omega_o t + 2V_s V_o \cos \omega_s t \cos \omega_o t)$$

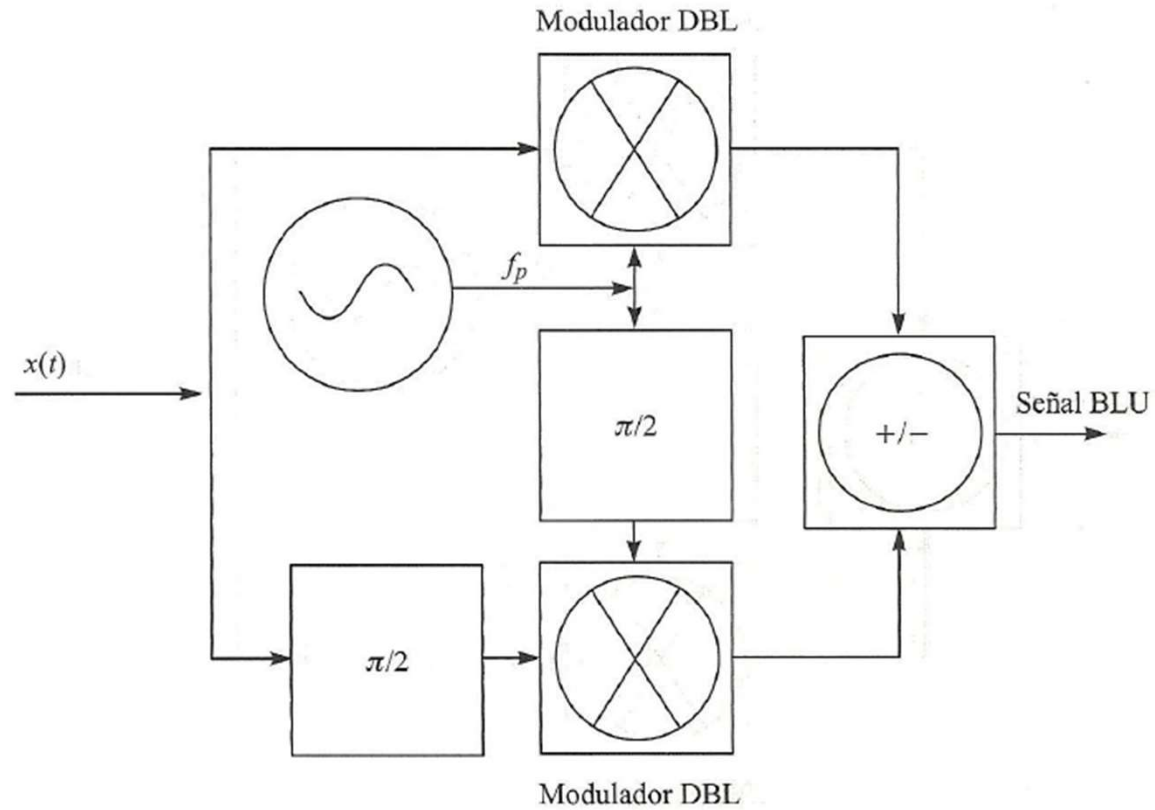
$$i_o(t) = b V_s V_o [\cos(\omega_o - \omega_s)t + \cos(\omega_o + \omega_s)t]$$

Moduladores: H(t)

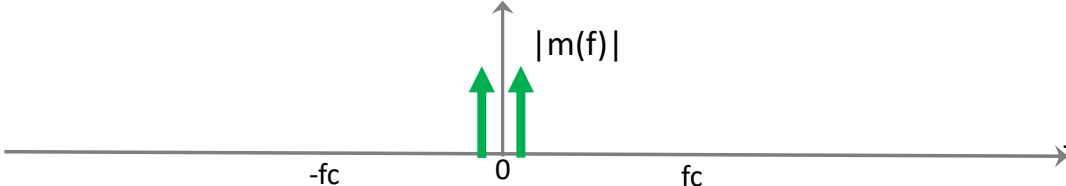
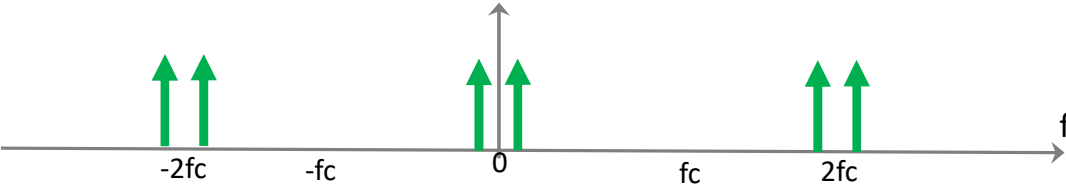
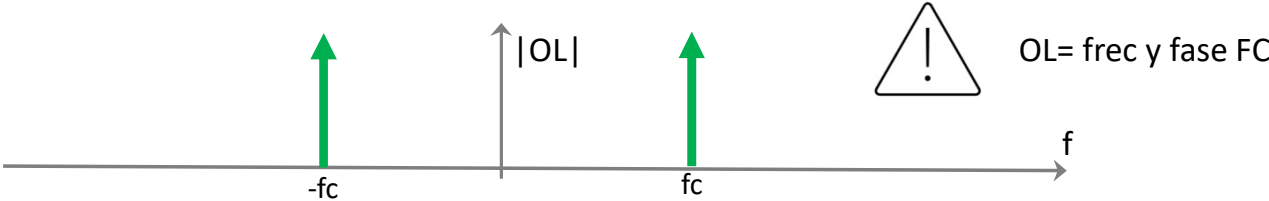
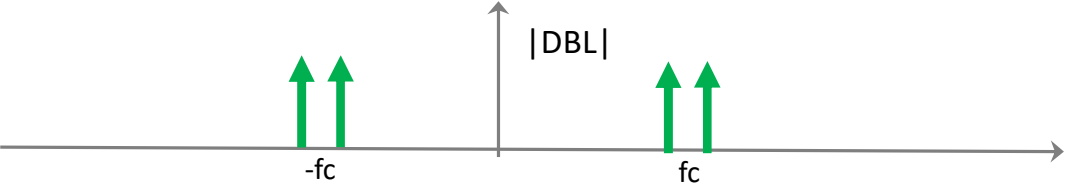


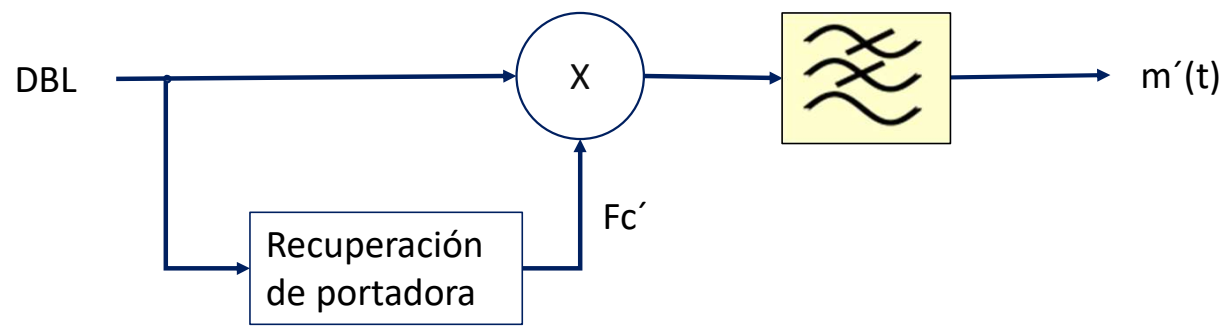


Modulación BLU: x Desfasaje

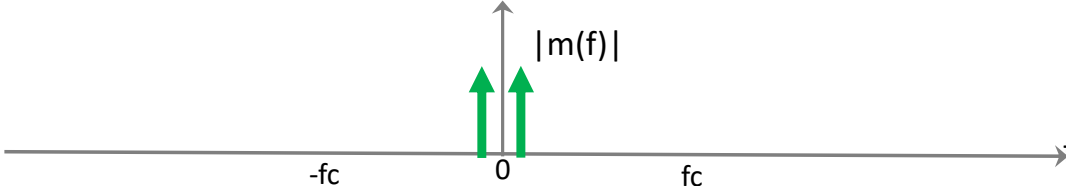
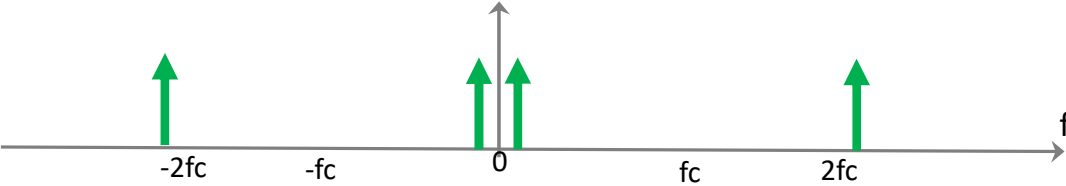
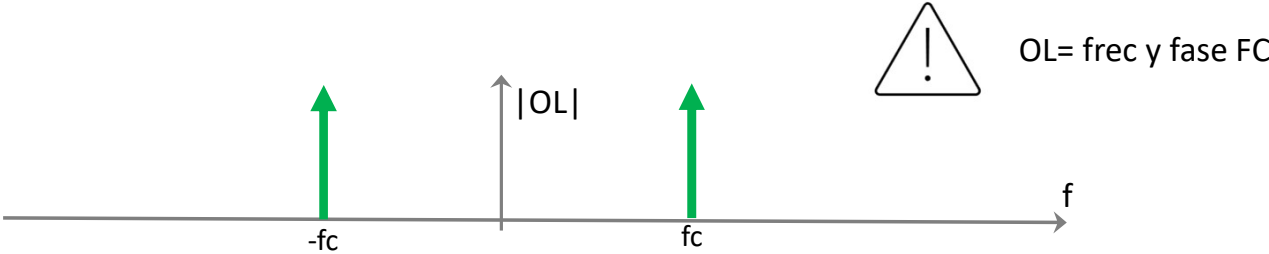
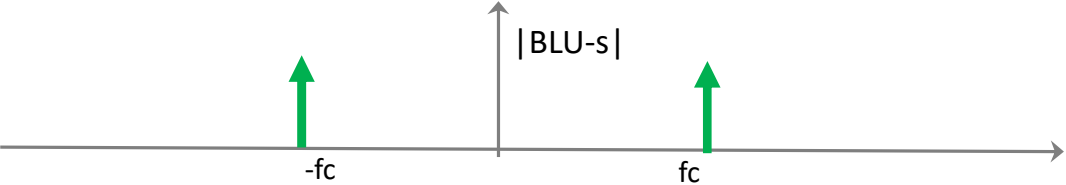


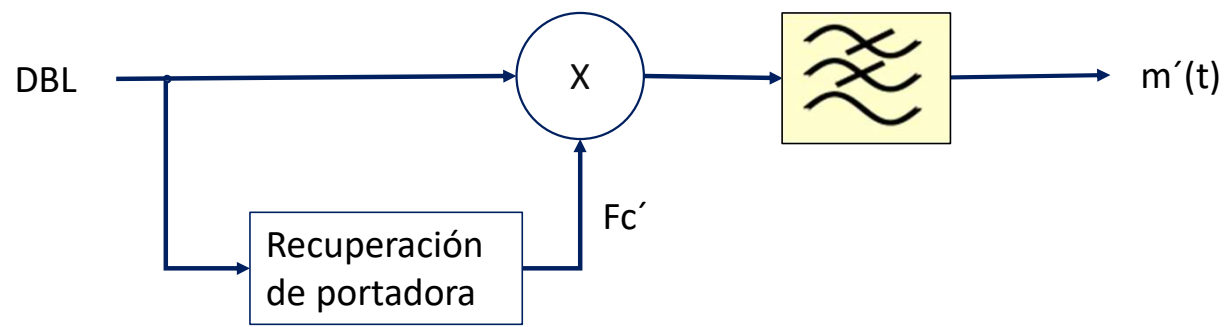
Demodulación DBL

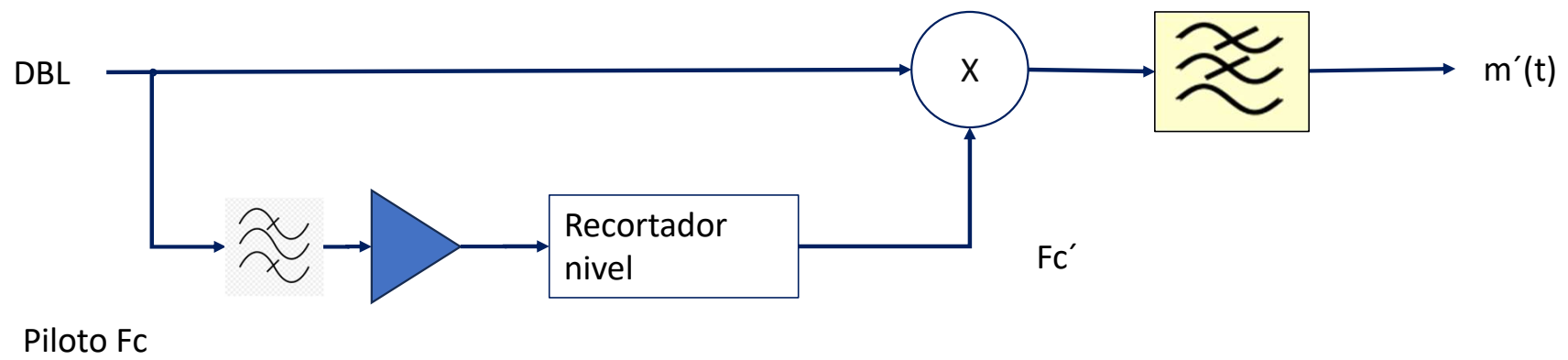


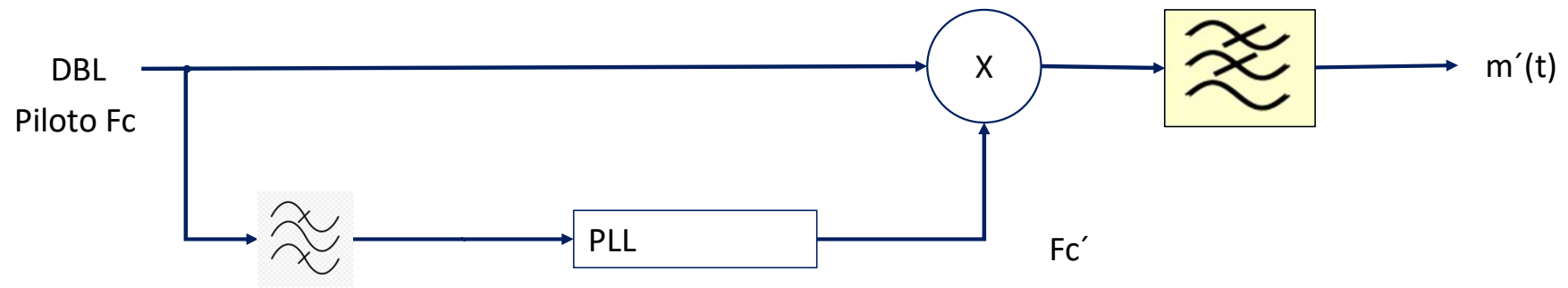


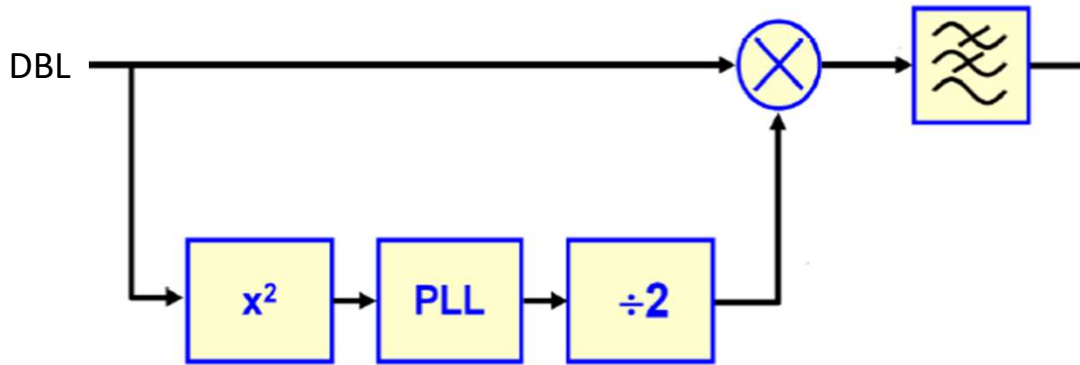
Demodulación BLU

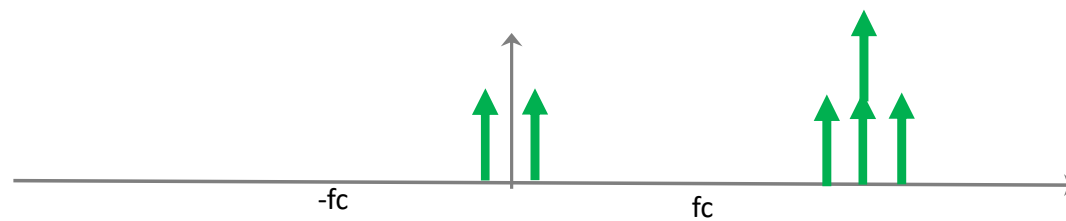
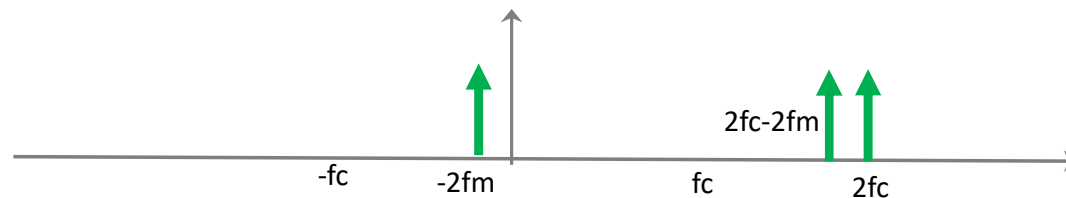
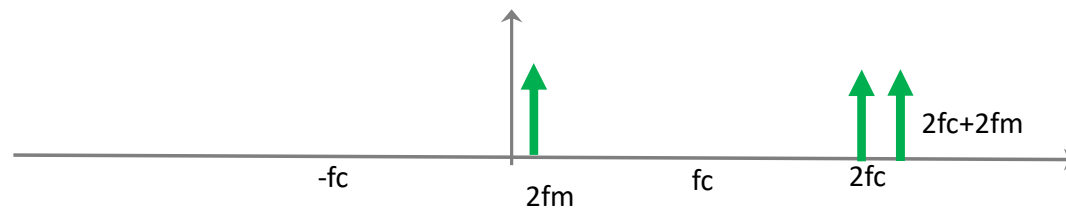
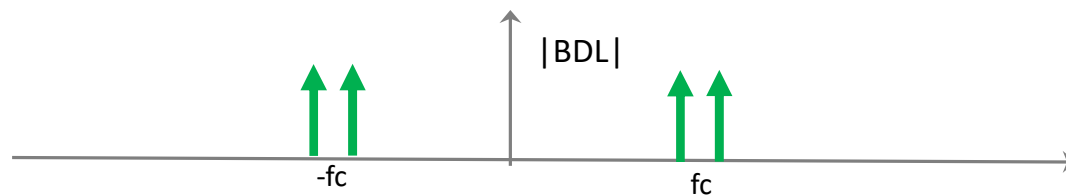


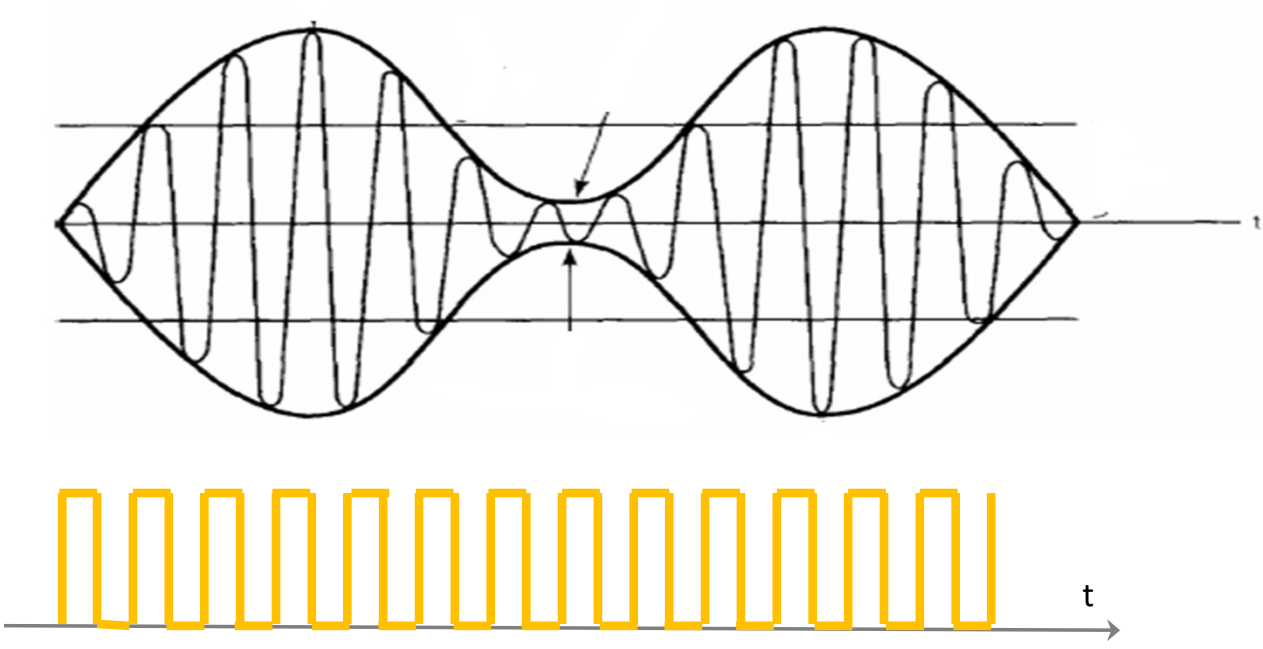


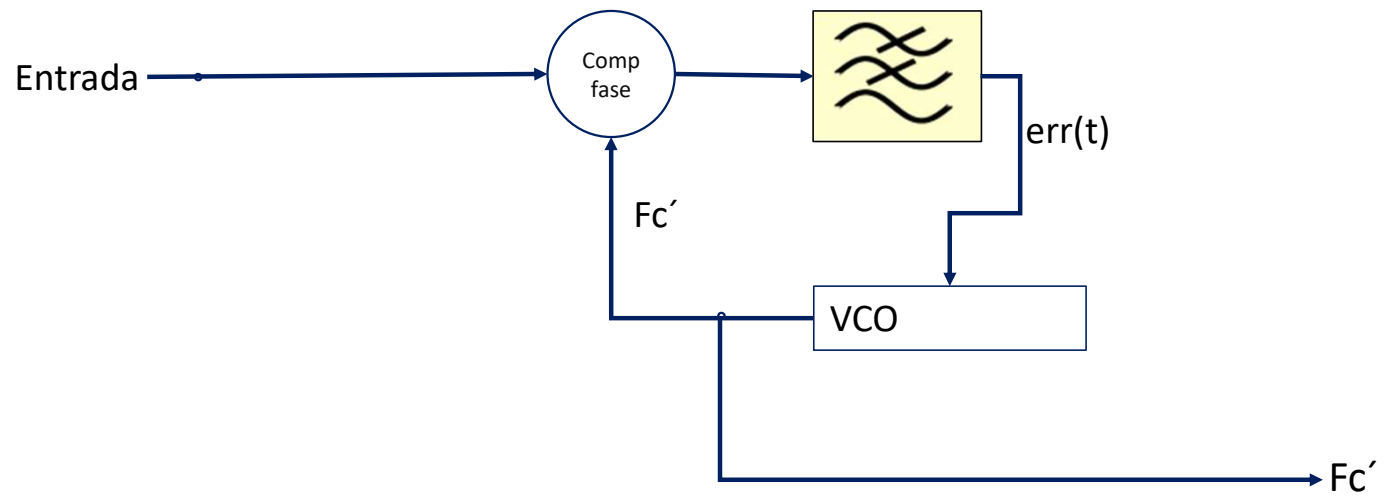














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