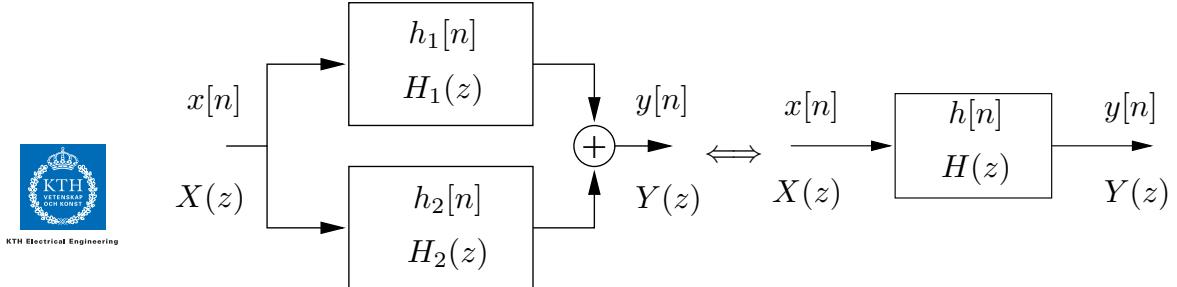
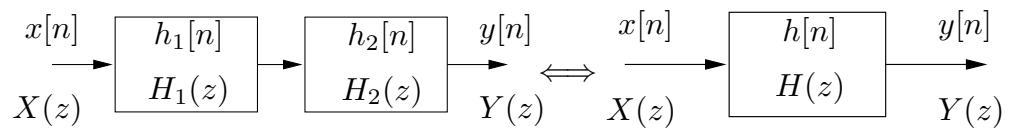


SAMMANSATTA SYSTEM

Parallelkoppling: $h[n] = h_1[n] + h_2[n]$, $H(z) = H_1(z) + H_2(z)$

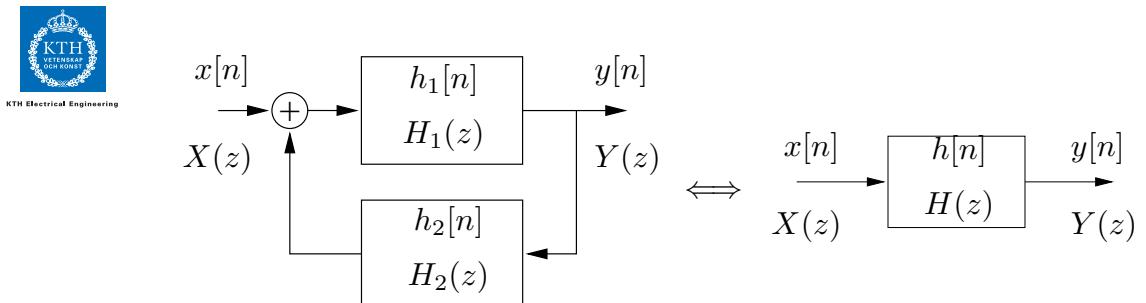


Seriekoppling: $h[n] = h_1[n] * h_2[n]$, $H(z) = H_1(z)H_2(z)$

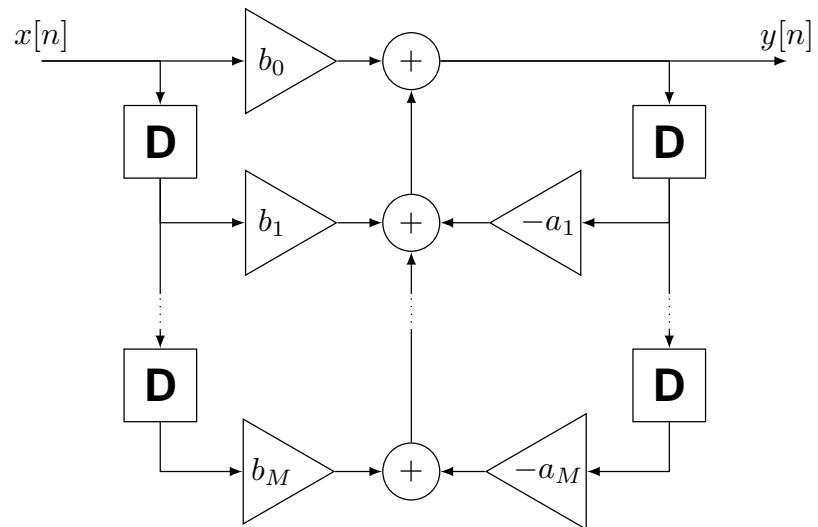


ÅTERKOPPLAT SYSTEM

Återkoppling: $H(z) = \frac{H_1(z)}{1 - H_1(z)H_2(z)}$

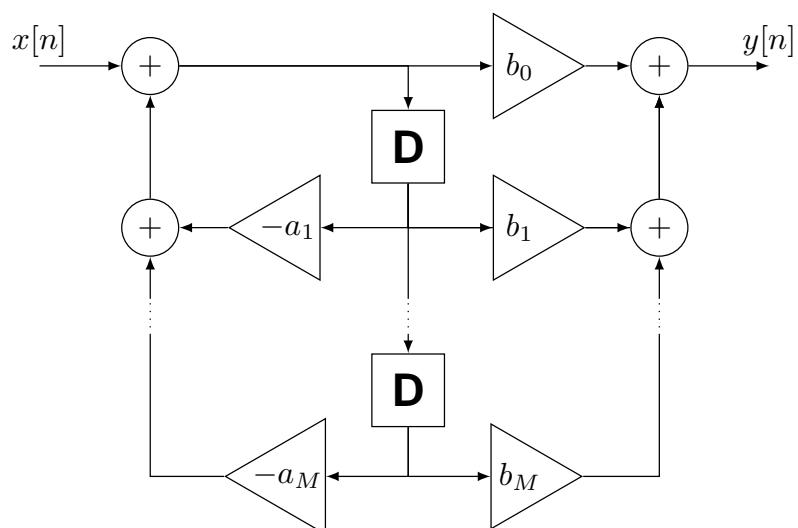


IMPLEMENTATIONSSTRUKTUR: DIREKTFORM I



$$y[n] + a_1 y[n-1] + \cdots + a_M y[n-M] = b_0 x[n] + b_1 x[n-1] + \cdots + b_M x[n-M]$$

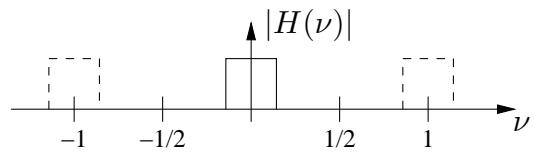
IMPLEMENTATIONSSTRUKTUR: DIREKTFORM II



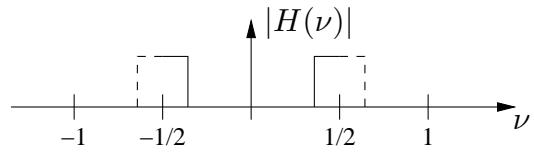
$$y[n] + a_1 y[n-1] + \cdots + a_M y[n-M] = b_0 x[n] + b_1 x[n-1] + \cdots + b_M x[n-M]$$

IDEALA FILTERTYPER

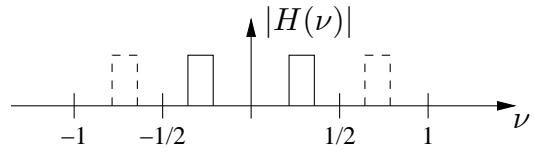
Idealt lågpass (LP)



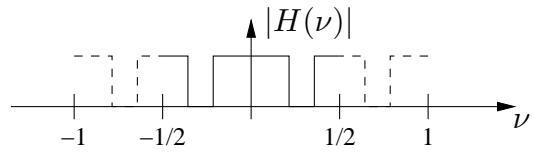
Idealt högpass (HP)



Idealt bandpass



Idealt bandspärr (LP)



KTH Electrical Engineering