

# MOS transistors:

1) Reduce S/D parasitics

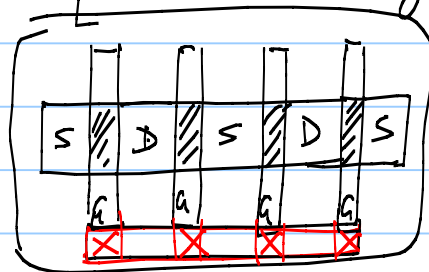
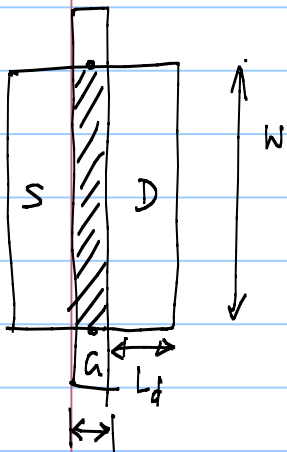
2) Minimize the effect of

gate resistance

Note Title

$$\frac{W}{L} = \frac{N_f \cdot W_f}{L}$$

18-09-2007

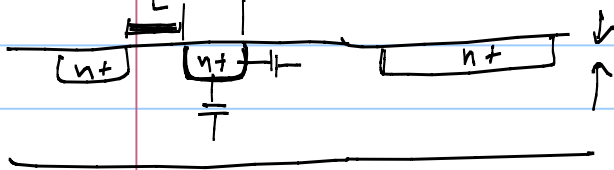


$$a_s = W \cdot L_d = a_d$$

$$p_s = 2(W + L_d) = p_d$$

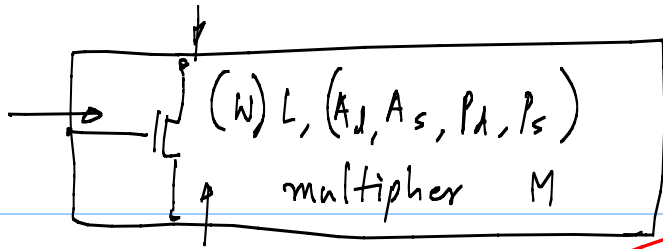
$$\left\{ \begin{array}{l} a_s = \frac{3}{4} \cdot W L_d \\ a_d = \frac{1}{2} W L_d \\ p_s = \\ p_d = \end{array} \right.$$

$C_j \cdot \text{Area} + C_{jsw} \cdot \text{Perimeter}$

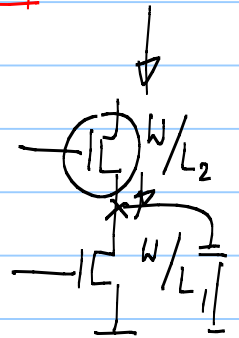
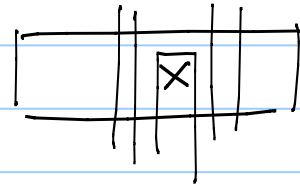
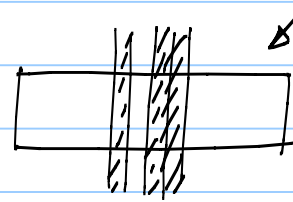
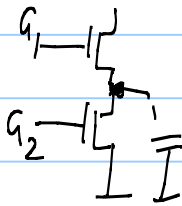
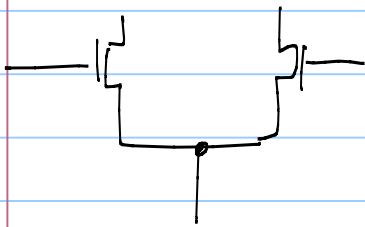
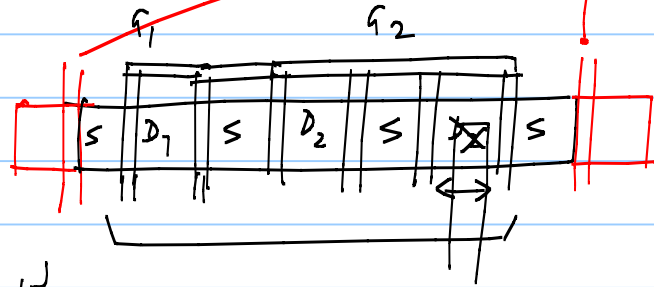
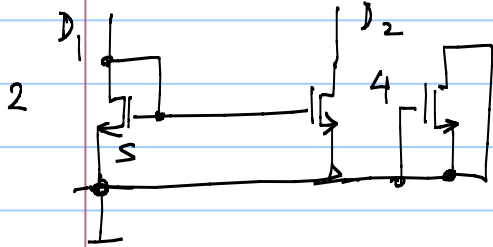


$$R_{gate} = \frac{W}{L} \cdot R_{sh}$$

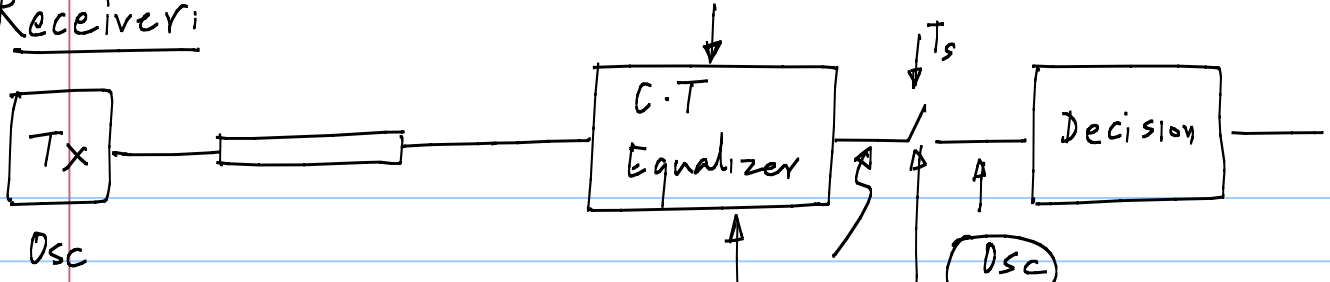
$$\frac{W/N_f}{L} \cdot R_{sh} \cdot \frac{1}{N_f}$$



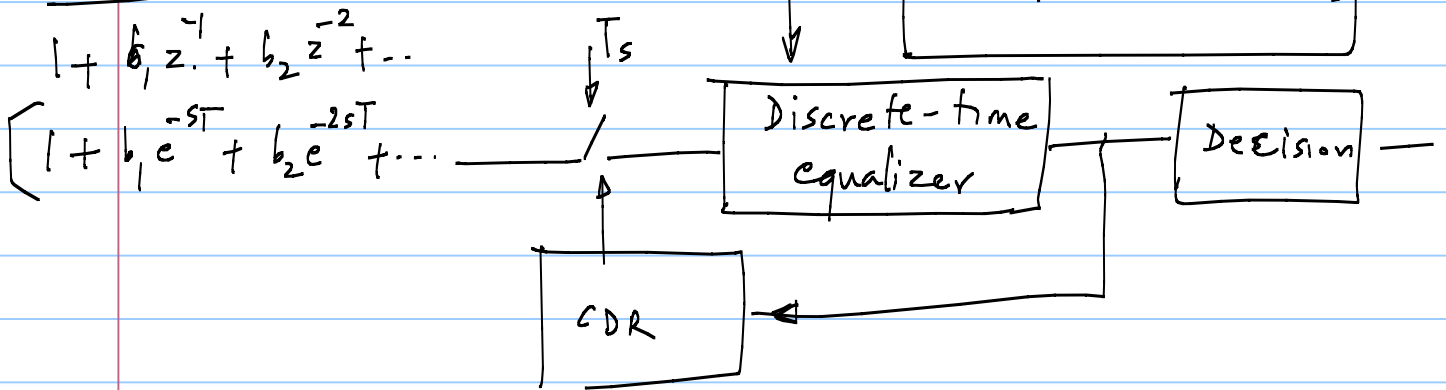
Dummy transistors



Receiver:



FIR



# Continuous time FIR filter:

