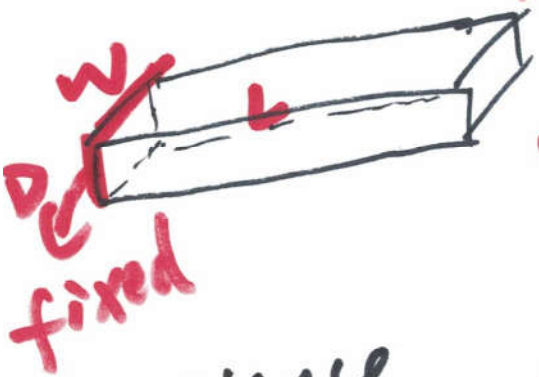


855  $\Omega$ /square



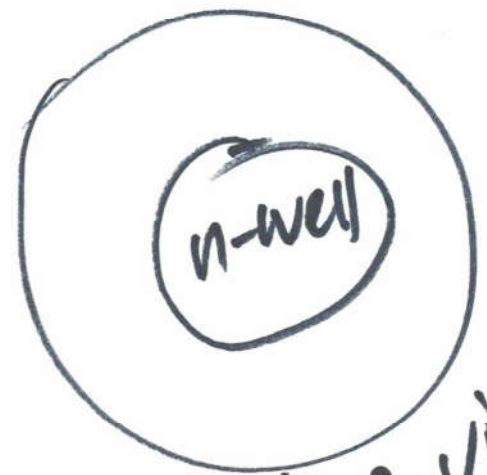
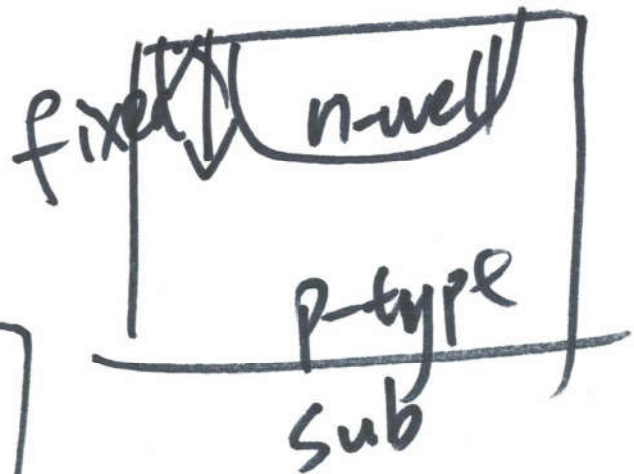
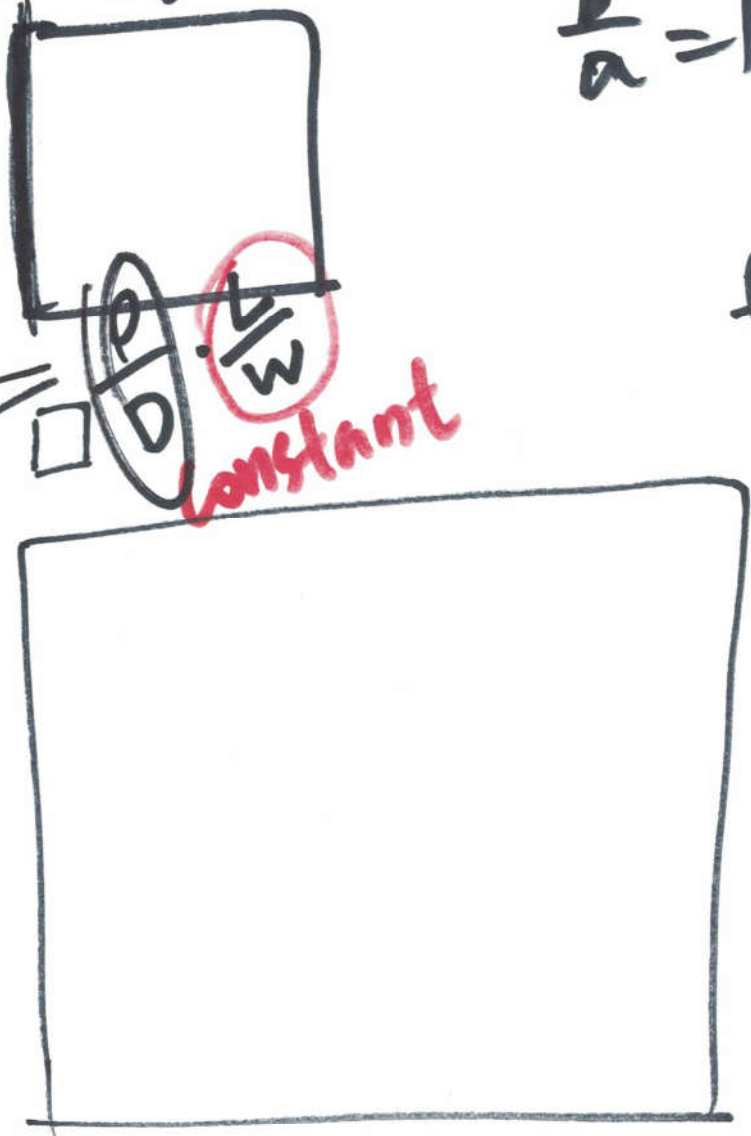
depth of  $b$

$$\frac{b}{a} = 1$$

resistance

$$= \rho \frac{L}{A} = \rho \frac{L}{D \cdot W}$$

A: cross-sectional Area  
L: length  
 $\rho$ : resistivity

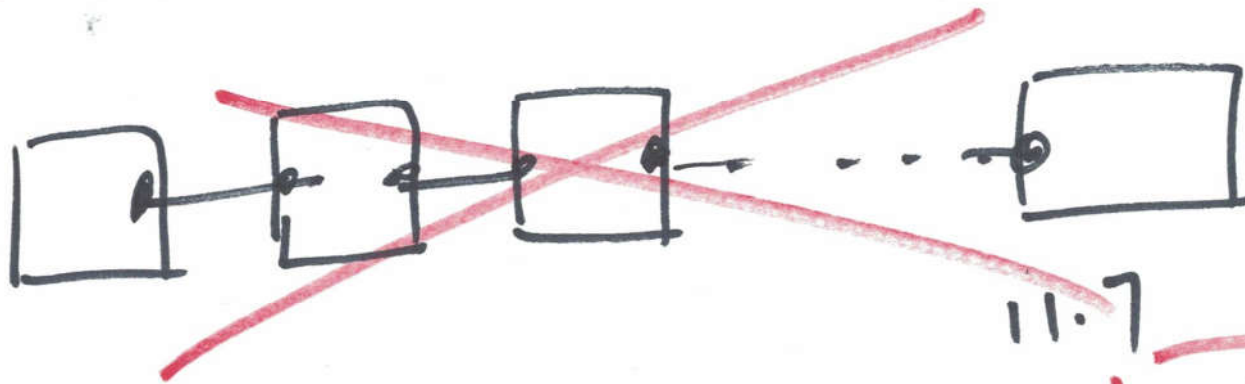


top-view

①

$$\frac{10k\Omega}{855\Omega} = 11.7 \text{ squares of sheet resistance}$$

855  $\Omega$ /square



minimum width of n-wells | 12 lambda

12 ·  $\lambda$

$\lambda = 300 \text{ nm}$

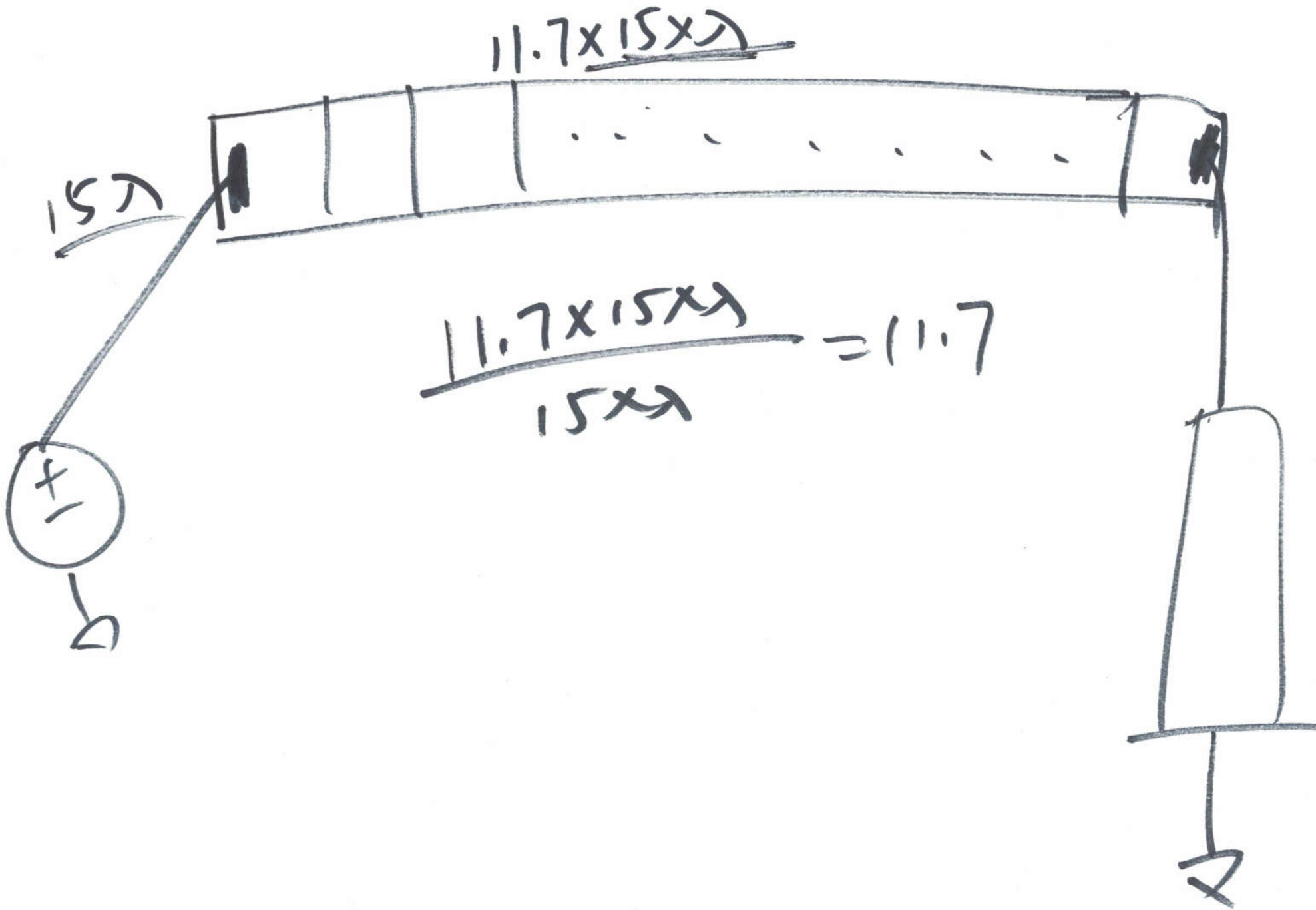
$12 \times 300 \text{ nm}$   
 $= 3600 \text{ nm}$

500 nm

$2\lambda = 2 \times 300 \text{ nm} = \underline{\underline{600 \text{ nm}}}$

smallest length.

(2)



③

## DRC check

= errors in schematics or layouts

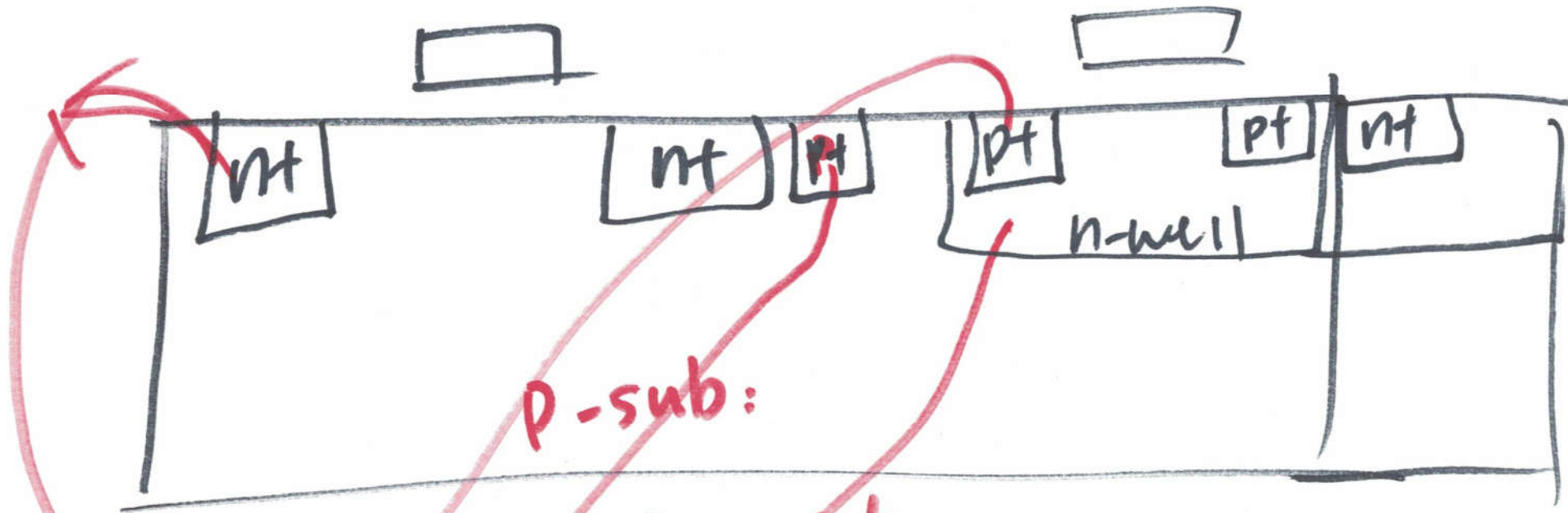
## LVS check

= layout versus schematic

## Well-check

if n-wells are shorted to the highest voltage in circuit p-well (p-sub) is shorted to the lowest potential





nAct: nt in the p-sub

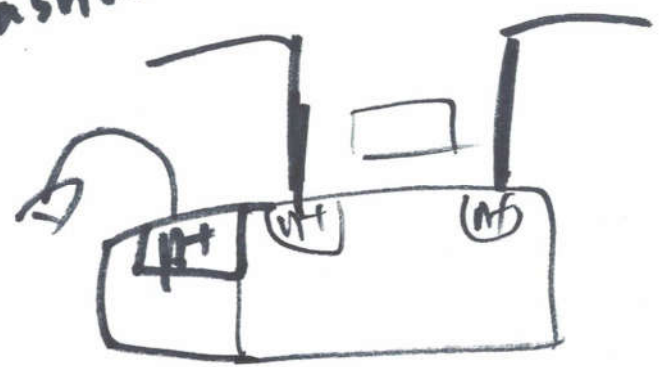
n-well: n-well in the p-sub

pAct: pt in the n-well

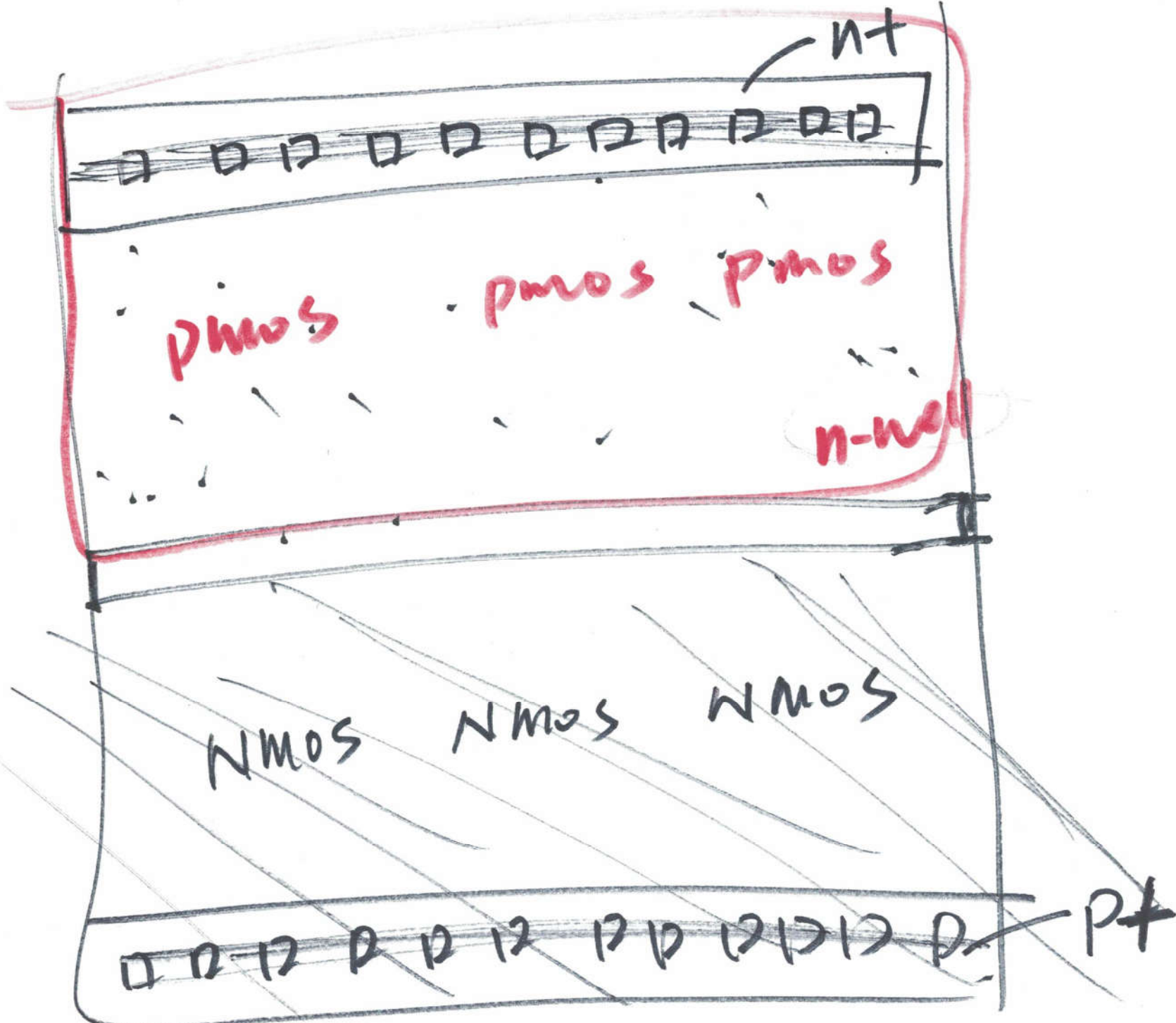
p-well: pt in the p-sub

Yellow dots: nt material  
 Black slashes: p-sub

Black dots: n-well  
 Yellow slashes: pt



5



6