

mpw

MOSIS → VSC
CS

MUSE

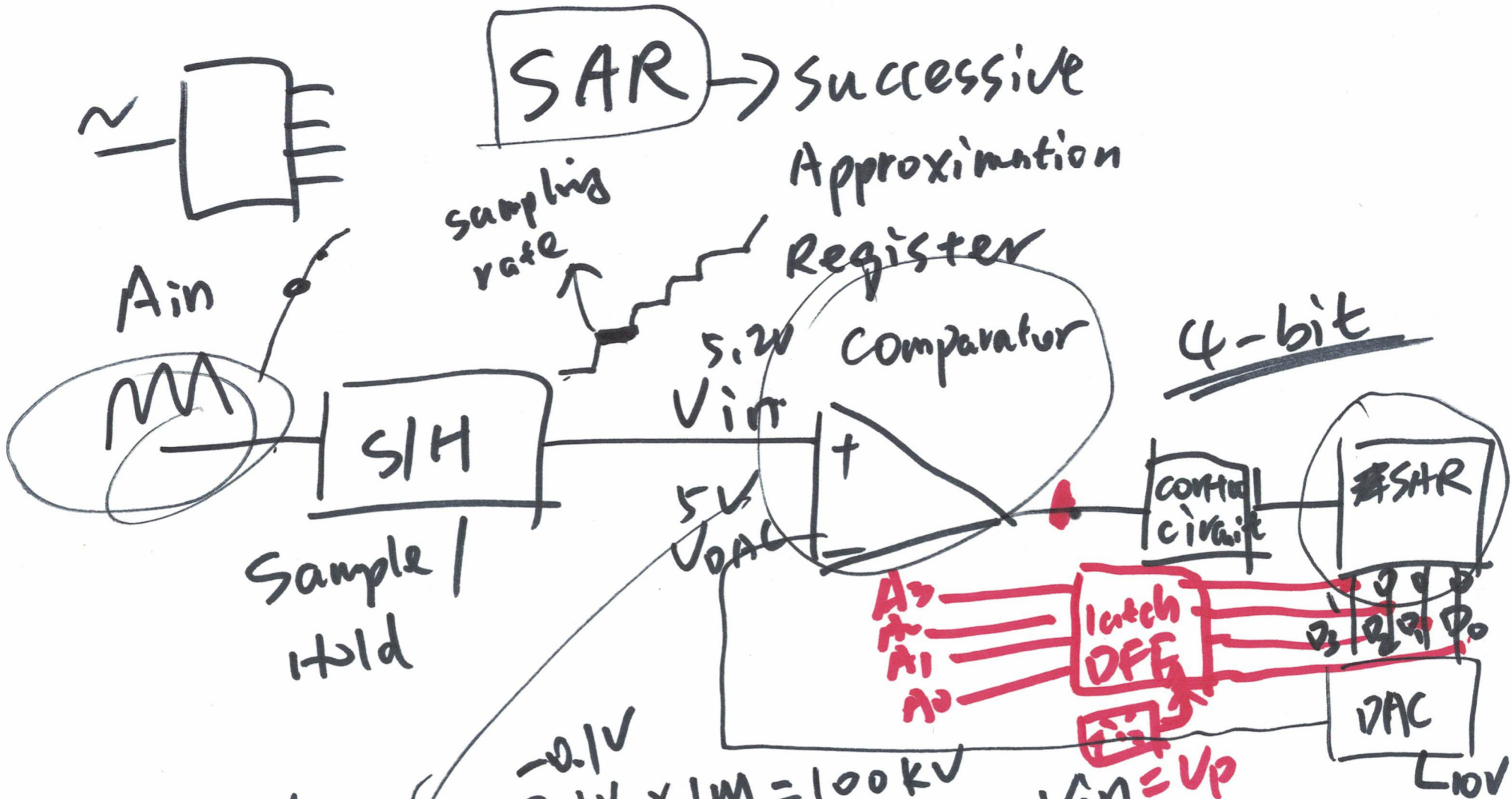
\$6,000

TSMC 180nm

90%

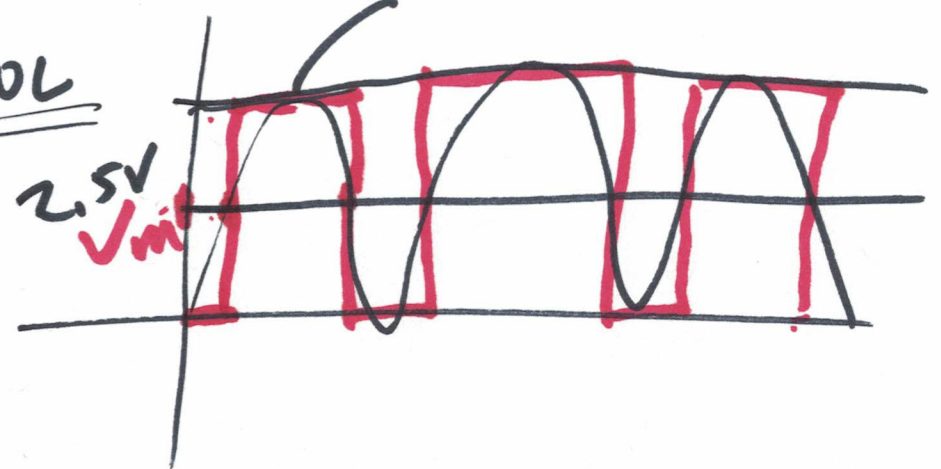


①



V_{in}
 V_P
 V_m
 $2.5V$
 $5V$
 $V_{out} = (V_P - V_m) A_{OL}$
 $A_{OL} = 100V$
 $A_{OL} \geq 1M$

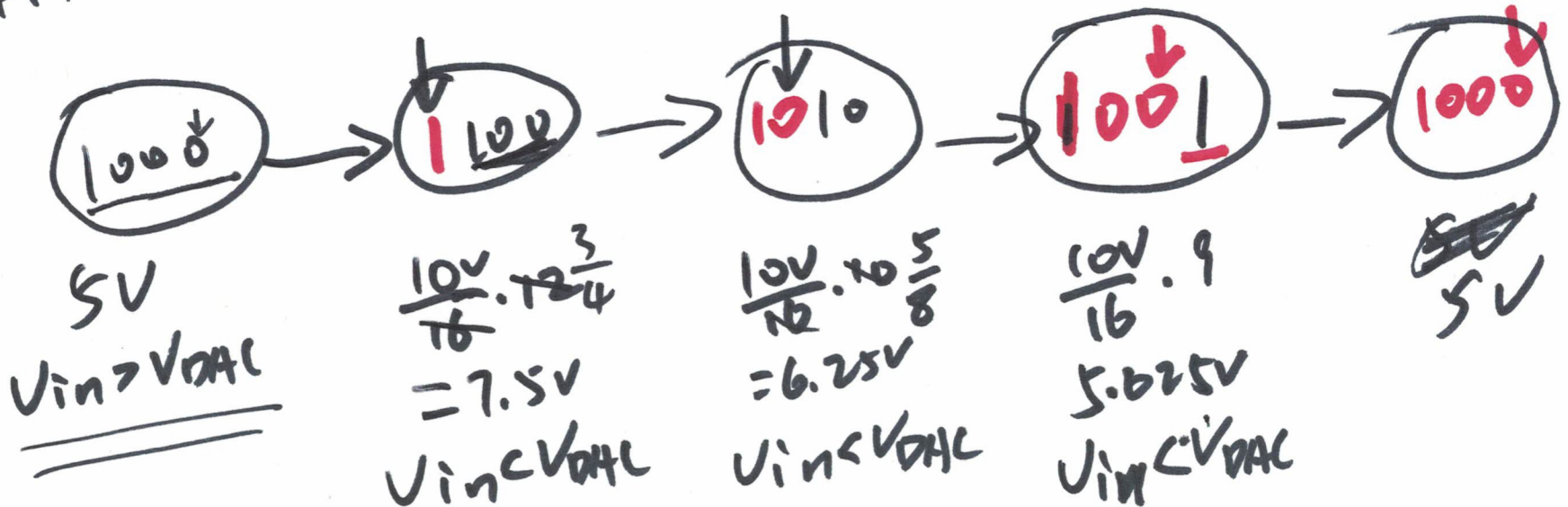
(2)



$$V_{in} = 5.2V$$

$$V_{DD} = 10V$$

~~1111~~



(3)

cycle

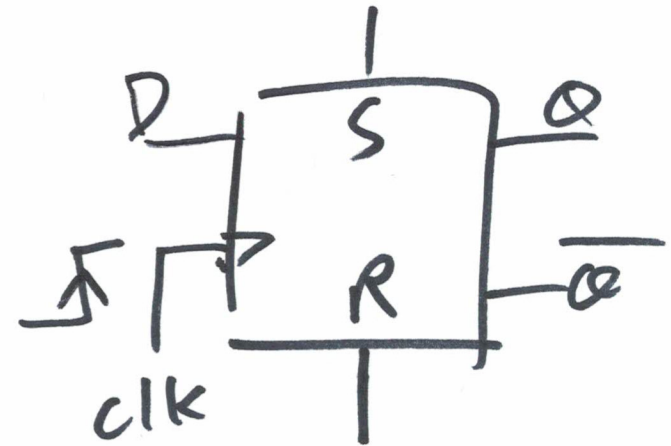
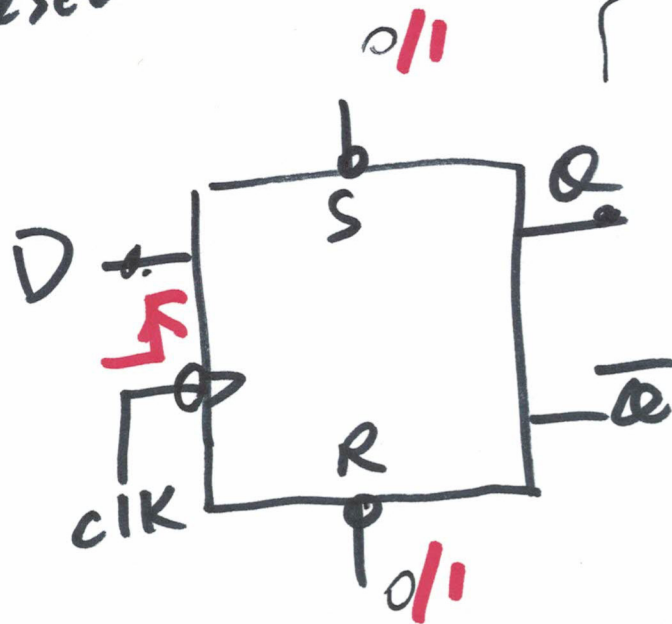
#	D ₃	D ₂	D ₁	D ₀	Comp output
1	1	0	0	0	A ₃
2	A ₃	1	0	0	A ₂
3	A ₃	A ₂	1	0	A ₁
4	A ₃	A ₂	A ₁	1	A ₀
5	A ₃	A ₂	A ₁	A ₀	

(4)

Synchronous
rising edge
triggered
set/reset active 0

~~Seq~~ Sequencer
↓
code register.

active 1



(R)