

JK Flip-Flop

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Table 12.19 Truth Table for JK Flip-Flop.

Inputs		Present State	Next State
J	K	Q	Q(t + 1)
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	0
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	0

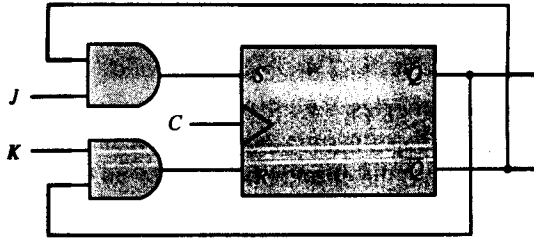


Fig. 12.42 A JK flip-flop.

Is there any problem ?

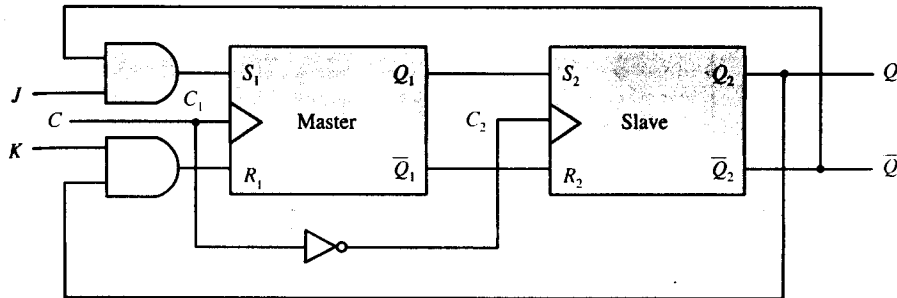


Fig. 12.44 A JK master-slave flip-flop.

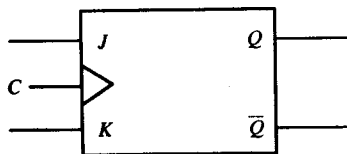
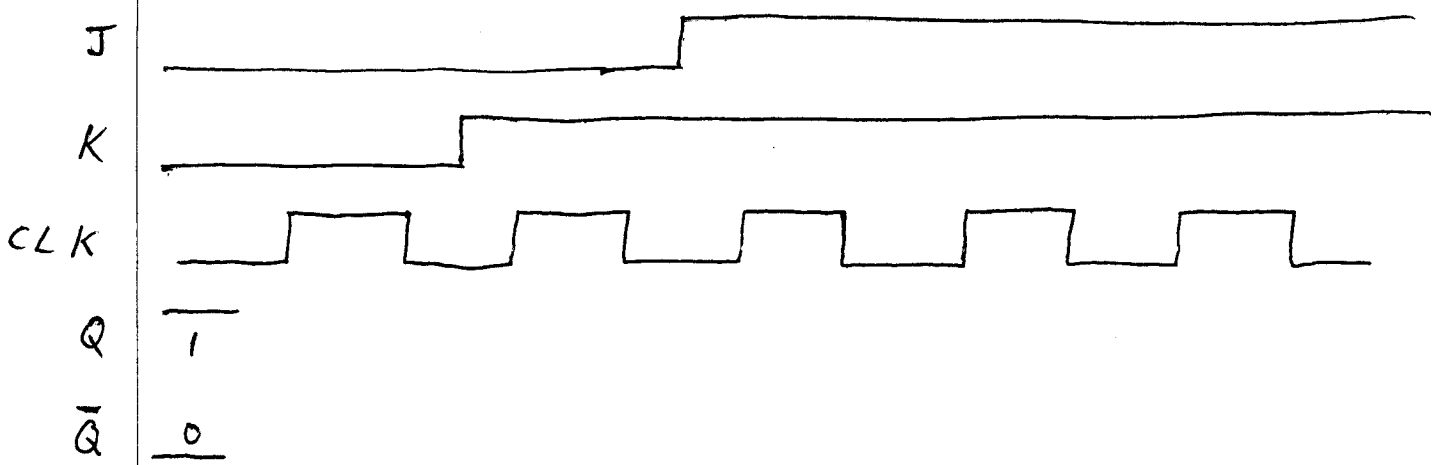


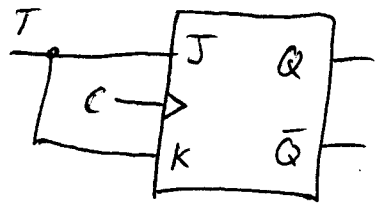
Fig. 12.43 Circuit symbol of a JK flip-flop.

Timing Diagram:

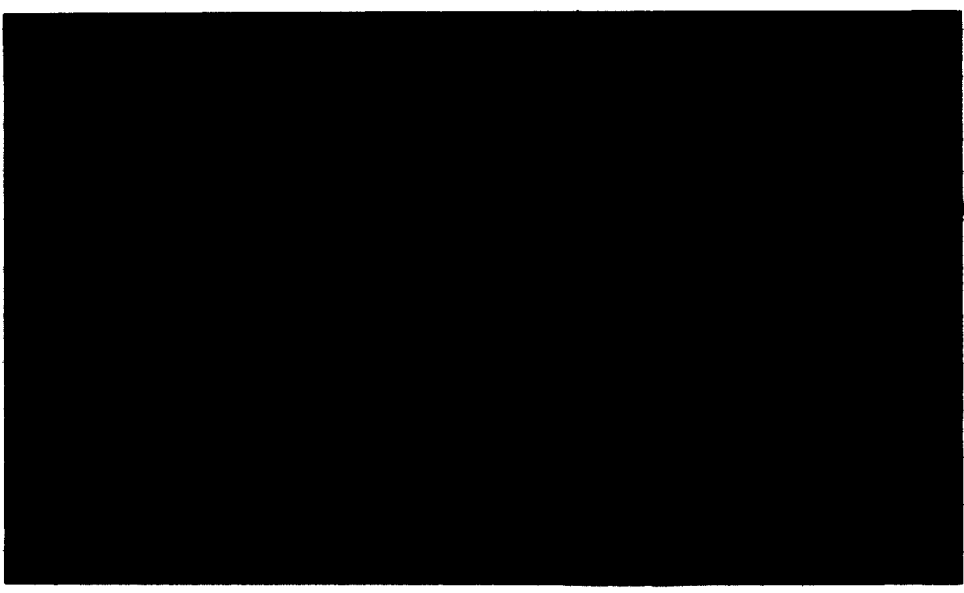


"Edge-triggered" vs. "Level-triggered"

T (Toggle) FF:



(JK means Master-Slave by default - else not useful!)



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