

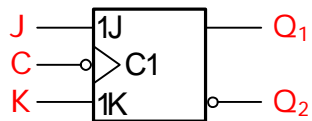
Digitaltechnik

Synchroner 1-aus-10 Zähler

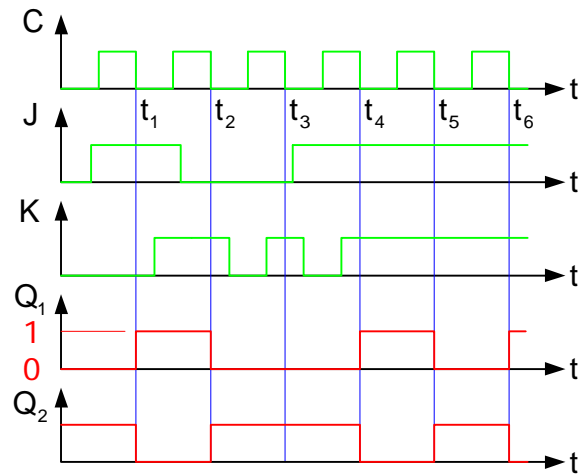
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Prof. Dr. S.Bischoff

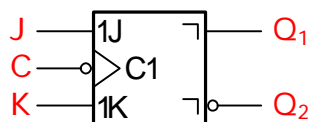
Einflankengesteuertes JK-Flipflop (abfallende Taktflanke) mit Wahrheitstabelle und Zeitablauf-Diagramm



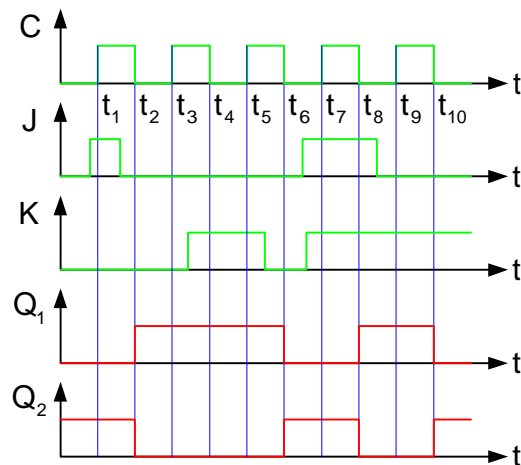
Fall	t_n		t_{n+1}	
	K	J	Q_1	Q_2
1	0	0	Q_{1n}	Q_{2n}
2	0	1	1	0
3	1	0	0	1
4	1	1	\bar{Q}_{1n}	\bar{Q}_{2n}



Zweiflankengesteuertes JK-Flipflop (Master-Slave-Flipflop) mit Wahrheitstabelle und Zeitablauf-Diagramm



Fall	t_n		t_{n+1}	
	K	J	Q_1	Q_2
1	0	0	Q_{1n}	Q_{2n}
2	0	1	1	0
3	1	0	0	1
4	1	1	\bar{Q}_{1n}	\bar{Q}_{2n}



Dezimal- zahlenwert	t_n				t_{n+1}				Dezimal- zahlenwert
	2^3	2^2	2^1	2^0	2^3	2^2	2^1	2^0	
	Q_D	Q_C	Q_B	Q_A	Q_D	Q_C	Q_B	Q_A	
0	0	0	0	0	0	0	0	1	1
1	0	0	0	1	0	0	1	0	2
2	0	0	1	0	0	0	1	1	3
3	0	0	1	1	0	1	0	0	4
4	0	1	0	0	0	1	0	1	5
5	0	1	0	1	0	1	1	0	6
6	0	1	1	0	0	1	1	1	7
7	0	1	1	1	1	0	0	0	8
8	1	0	0	0	1	0	0	1	9
9	1	0	0	1	1	0	1	0	10
10	1	0	1	0	1	0	1	1	11
11	1	0	1	1	1	1	0	0	12
12	1	1	0	0	1	1	0	1	13
13	1	1	0	1	1	1	1	0	14
14	1	1	1	0	1	1	1	1	15
15	1	1	1	1	0	0	0	0	12

