



Transição	J	K
0 → 0	0	X
0 → 1	1	X
1 → 0	X	1
1 → 1	X	0

CONTADORES SÍNCRONOS

K0	Q2	Q1	Q0	J2	K2	J1	K1	J0	K0
0	0	0	0	1	1	0	1	1	1
0	0	0	1	1	1	0	1	1	1
0	0	1	0	1	1	1	0	1	1
0	0	1	1	0	1	1	1	1	0
0	1	0	0	1	1	1	1	0	1
0	1	0	1	1	1	1	1	0	0
0	1	1	0	1	1	1	0	0	1
0	1	1	1	1	0	1	1	1	0
1	0	0	0	1	1	1	1	1	1
1	0	0	1	0	1	1	1	1	1
1	0	1	0	0	1	1	1	0	1
1	0	1	1	0	1	1	1	0	0
1	1	0	0	1	1	0	1	1	1
1	1	0	1	1	1	0	1	1	0
1	1	1	0	1	1	0	1	1	1
1	1	1	1	1	1	0	1	1	0

f_2

	$\overline{Q_1}$	Q_1	
\overline{C}	1 x	1 x	0 x
C	x 1	x 0	x 0
	$\overline{Q_0}$	Q_0	$\overline{Q_0}$

$$S = \overline{C}\overline{Q_1} + \overline{C}\overline{Q_0} + \overline{Q_1}Q_0$$

f_2

	$\overline{Q_1}$	Q_1	
\overline{C}	x 1	x 1	x 1
C	1 x	0 x	0 x
	$\overline{Q_0}$	Q_0	$\overline{Q_0}$

$$S = \overline{C}\overline{Q_0} + \overline{Q_1}$$

f_1

	$\overline{Q_1}$	Q_1	
\overline{C}	0 1	0 x	x x
C	0 1	1 x	x x
	$\overline{Q_0}$	Q_0	$\overline{Q_0}$

$$S = \overline{C}Q_2 + C\overline{Q_2} + CQ_0$$

f_4

	$\overline{Q_1}$	Q_1	
\overline{C}	x x	x 1	0 0
C	x x	x 1	1 1
	$\overline{Q_0}$	Q_0	$\overline{Q_0}$

$$S = Q_0 + C$$

So

	$\overline{Q_1}$	Q_1			
\overline{C}	1	x	x	1	$\overline{Q_2}$
	0	x	x	0	
C	1	x	x	1	Q_2
	1	x	x	0	$\overline{Q_2}$
	$\overline{Q_0}$	Q_0	$\overline{Q_0}$		

v

$S = \overline{C} \overline{Q_2} + C \overline{Q_2} + C Q_2$

So

	$\overline{Q_1}$	Q_1			
\overline{C}	x	1	0	x	$\overline{Q_2}$
	x	0	0	x	
C	x	0	0	x	Q_2
	x	1	0	x	$\overline{Q_2}$
	$\overline{Q_0}$	Q_0	$\overline{Q_0}$		

$S = \overline{Q_2} \cdot \overline{Q_1}$

D*

+

S 31427