



q_3	q_2	q_1	q_0	Dec	A	B	C	D	$q_3^+ q_2^+ q_1^+ q_0^+$	Dec
0	0	0	0	0				1	0 0 0 1	1
0	0	0	1	1			1	1	0 0 1 0	2
0	0	1	0	2				1	0 0 1 0	2
0	0	1	1	3		1		1	0 1 1 1	7
0	1	0	0	4				1	0 1 0 1	5
0	1	0	1	5			1	1	0 1 1 0	6
0	1	1	0	6			1		0 1 0 0	4
0	1	1	1	7	1	1	1	1	1 0 0 1	9
1	0	0	0	8				1	1 0 1 1	11
1	0	0	1	9			1	1	1 0 1 0	10
1	0	1	0	10			1	1	1 0 0 0	8
1	0	1	1	11	1		1	1	0 0 0 1	1
1	1	0	0	12	1	1		1	0 0 0 1	1
1	1	0	1	13			1	1	1 1 1 0	13
1	1	1	0	14		1		1	1 0 1 1	11
1	1	1	1	15	1	1	1	1	0 0 0 1	1

$$A = q_3 q_2 \bar{q}_1 \bar{q}_0 + q_2 q_1 q_0 + q_3 q_1 q_0$$

$$B = q_3 q_2 \bar{q}_0 + q_3 q_2 q_1 + \bar{q}_3 q_1 q_0$$

$$C = \bar{q}_1 q_0 + q_2 q_0 + q_3 q_0 + \bar{q}_3 q_2 q_1 + q_3 \bar{q}_2 q_1$$

$$D = \bar{q}_1 + (q_2 \oplus q_0)(\bar{q}_3 q_1) + q_3 q_2 \bar{q}_1 \bar{q}_0$$