

m(~~8, 9, 7, 10, 15, 6, 4, 2, 5, 1, 3~~)

A	B	C	D	
0	0	0	0	1
0	0	0	1	1
0	0	1	0	1
0	0	1	1	1
				1
0	1	0	0	1
0	1	0	1	1
0	1	1	0	1
0	1	1	1	1
1	0	0	0	1
1	0	0	1	1
1	0	1	0	1
1	0	1	1	0
1	1	0	0	0
1	1	0	1	0
1	1	1	0	0
1	1	1	1	1

	00	01	11	10
CD \ AB	$\bar{A}\bar{B}$	$\bar{A}B$	AB	$A\bar{B}$
00 $\bar{C}\bar{D}$	1	1	0	1
01 $\bar{C}D$	1	1	0	1
11 CD	1	1	1	0
10 $C\bar{D}$	1	1	0	1

$$f = \bar{A} + \bar{B}\bar{D} + BCD + \bar{B}\bar{C}$$

NOT: 4
AND: 4
OR: 3 } $\Rightarrow 11$

$$\bar{F} = ABC\bar{C} + A\bar{B}C\bar{D} + AB\bar{D}$$

$$(\bar{F}) = (\bar{A} + \bar{B} + C)(\bar{A} + B + \bar{C} + \bar{D})(\bar{A} + \bar{B} + D)$$

NOT: 4
AND: 2
OR: 7 } $\Rightarrow 13$

R: 7 optimized inputs minTermen