

Sensor Error detect

D = right most bit

A = left most

K Map: -

Map

	$\overline{C}.D$	$\overline{C}.D$	$C.D$	$C.\overline{D}$
$\overline{A}.\overline{B}$	0	1	1	0
$\overline{A}.B$	0	1	1	1
$A.B$	1	1	1	1
$A.\overline{B}$	0	1	1	1

Map Layout

	$\overline{C}.D$	$\overline{C}.D$	$C.D$	$C.\overline{D}$
$\overline{A}.\overline{B}$	0	1	3	2
$\overline{A}.B$	4	5	7	6
$A.B$	12	13	15	14
$A.\overline{B}$	8	9	11	10

Sum of Products:-

$$y = D + B.C + A.C + A.B$$

2 level circuit:-

