

S_0

B

A

AB

00 01 11 10

CD

00 01 11 10

D

C

00	0	1	0	0
01	1	0	0	0
11	0	0	0	0
10	0	0	0	0

0000 0100 1100 1000

0001 0101 1101 1001

0011 0111 1111 1011

0010 0110 1110 1010

$$S_0 = \underline{\overline{A}\overline{B}\overline{C}D} + \underline{\overline{A}B\overline{C}\overline{D}}$$