

UNIVERSIDADE FEDERAL DA PARAÍBA

INTRODUÇÃO À MICROELETRÔNICA

Atividade 2

Professor:
Hugo Cavalcante

Aluno:
João Wallace Lucena Lins
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1 AND2

Fórmula:

$$Y = A.B$$

Tabela Verdade:

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

Figuras:

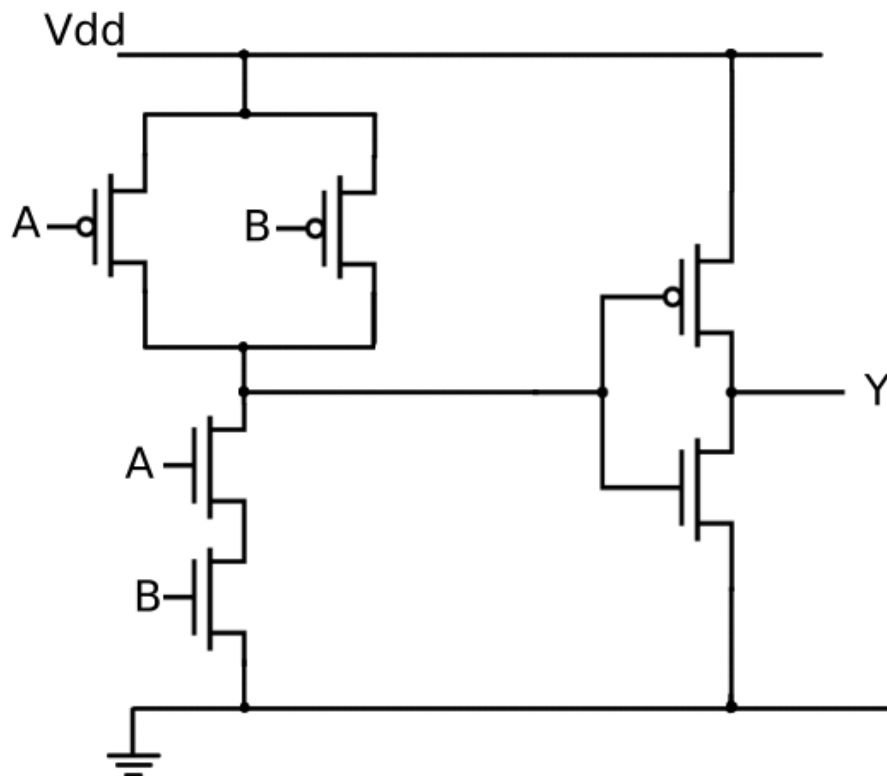


Figura 1: Diagrama esquemático em nível de transistores da AND2.

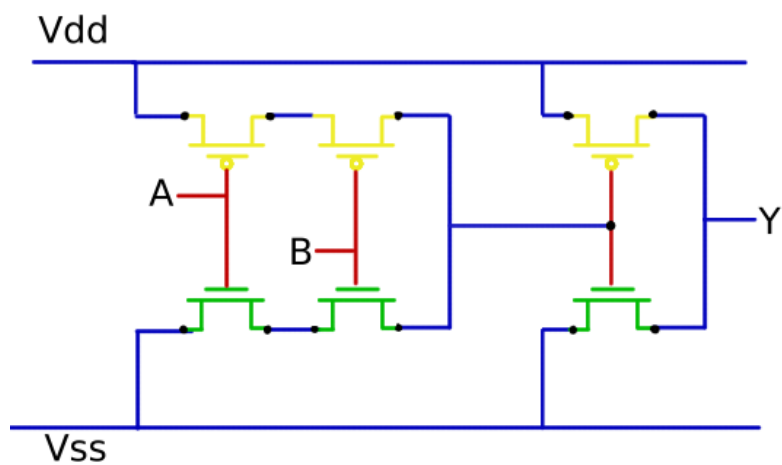


Figura 2: Diagrama horizontal colorido da AND2.

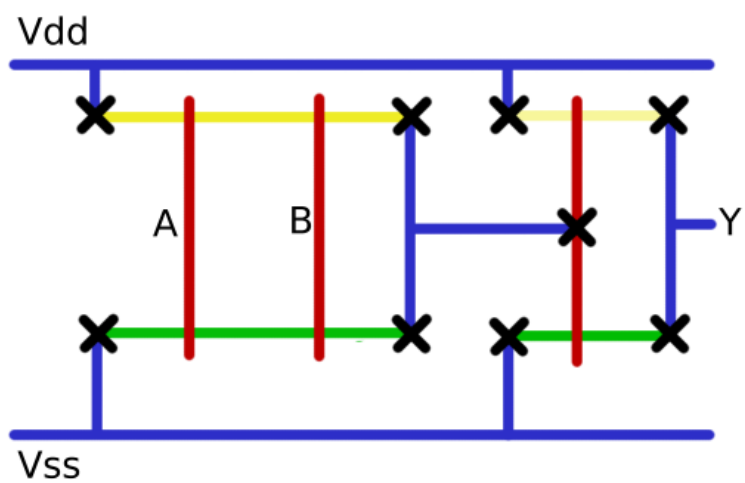


Figura 3: Diagrama de palitos da AND2.

2 AOI

Fórmula:

$$Y = \overline{A.B + C}$$

Tabela Verdade:

A	B	C	Y
0	0	0	1
0	0	1	0
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	0
1	1	1	0

Figuras:

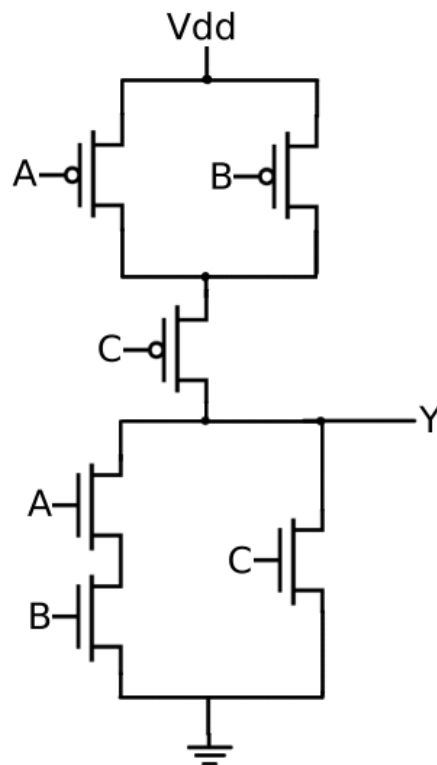


Figura 4: Diagrama esquemático em nível de transistores da AOI.

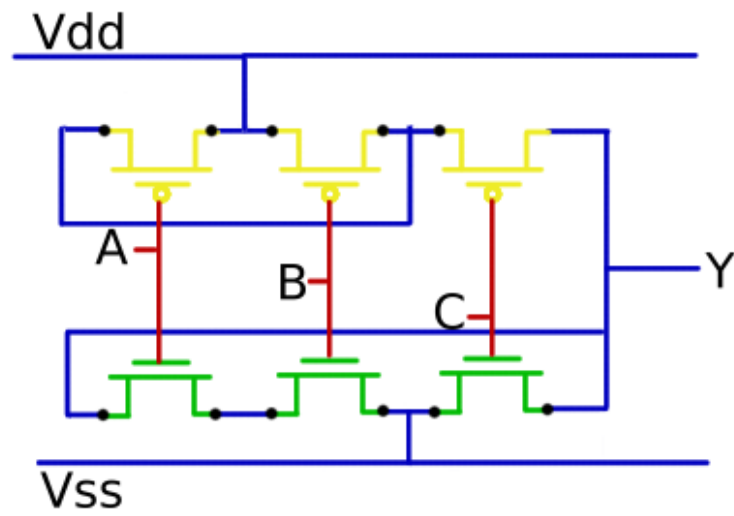


Figura 5: Diagrama horizontal colorido da AOI.

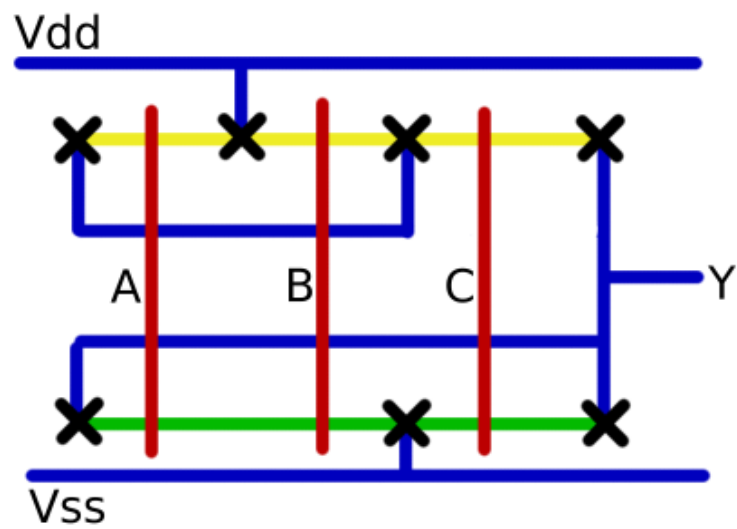


Figura 6: Diagrama de palitos da AOI.

3 XOR2

Fórmula:

$$Y = A.\overline{B} + \overline{A}.B$$

$$Y = \overline{\overline{A.\overline{B} + \overline{A}.B}}$$

$$Y = \overline{(\overline{A.\overline{B}}).(\overline{\overline{A}.B})}$$

$$Y = \overline{(\overline{A} + B).(A + \overline{B})}$$

Tabela Verdade:

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

Figuras:

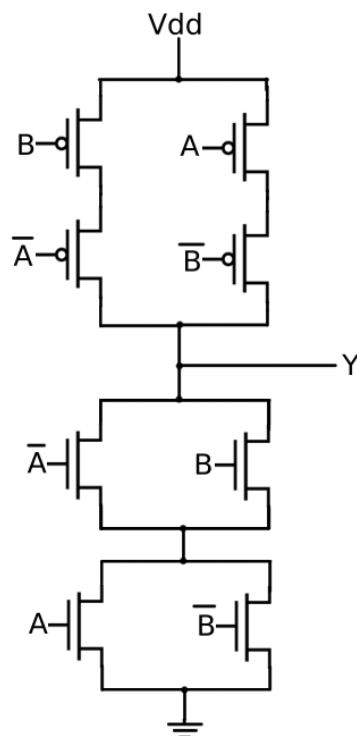


Figura 7: Diagrama esquemático em nível de transistores da XOR2.

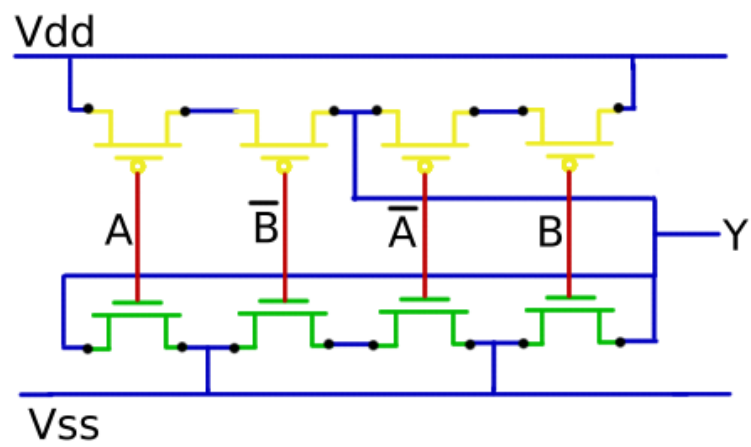


Figura 8: Diagrama horizontal colorido da XOR2.

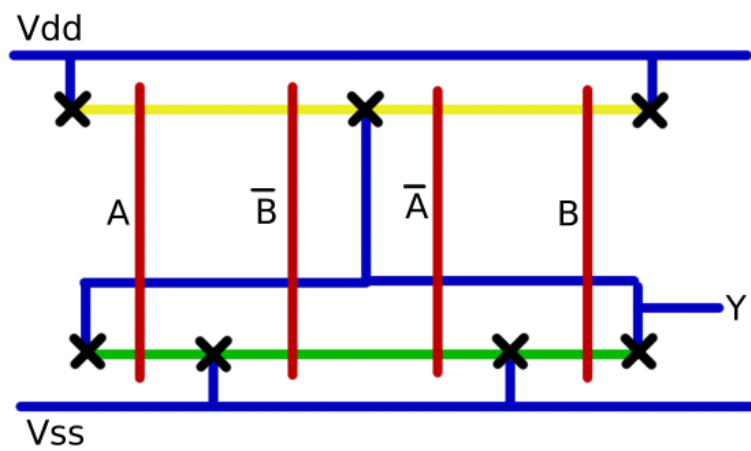


Figura 9: Diagrama de palitos da XOR2.