

2.1 基本逻辑运算

三种基本逻辑运算

- 与 (AND)
- 或 (OR)
- 非 (NOT)

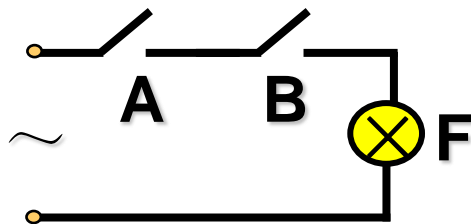


2.1 基本逻辑运算

1. AND（逻辑“与”）

$$F=A \cdot B$$

① 也称为： 逻辑“乘”

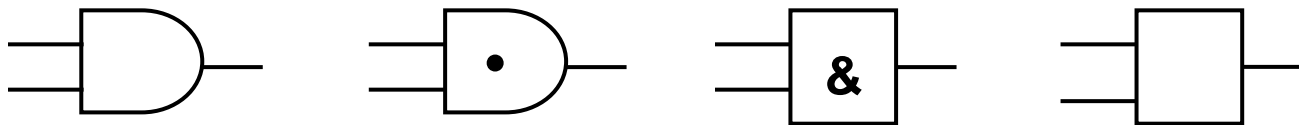


真值表

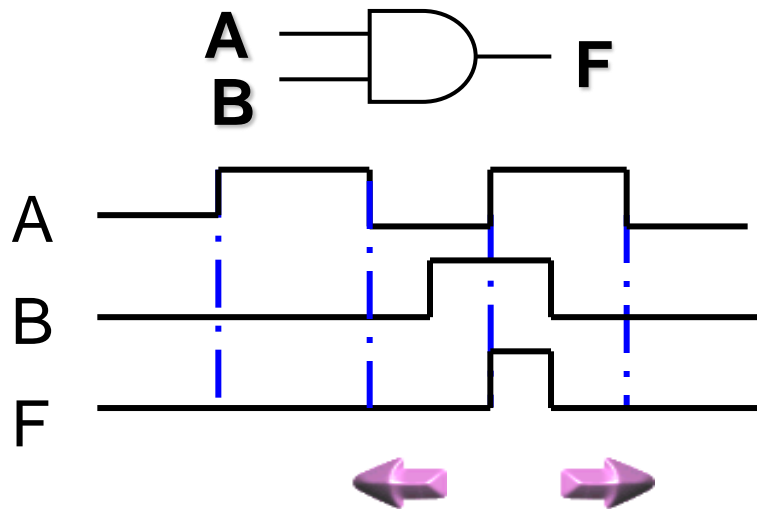
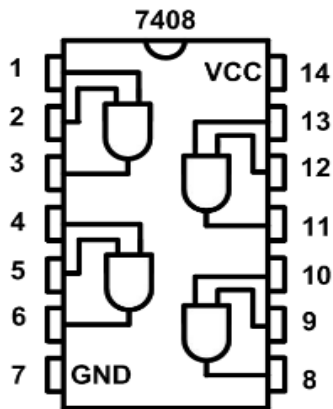
A	B	F
0	0	0
0	1	0
1	0	0
1	1	1



② 逻辑符号



③ Typical Chip: 74LS08

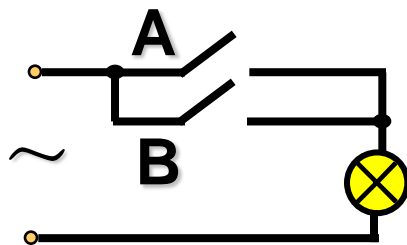


2.1 基本逻辑运算

2. OR（逻辑“或”）

$$F=A+B$$

①也称为：逻辑“加”

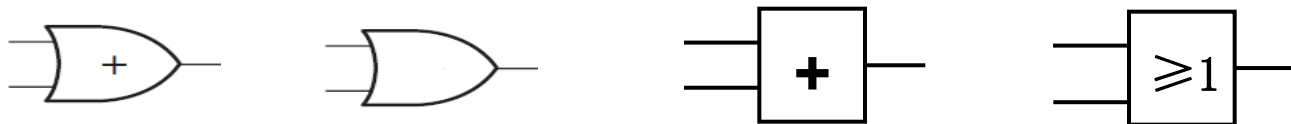


真值表

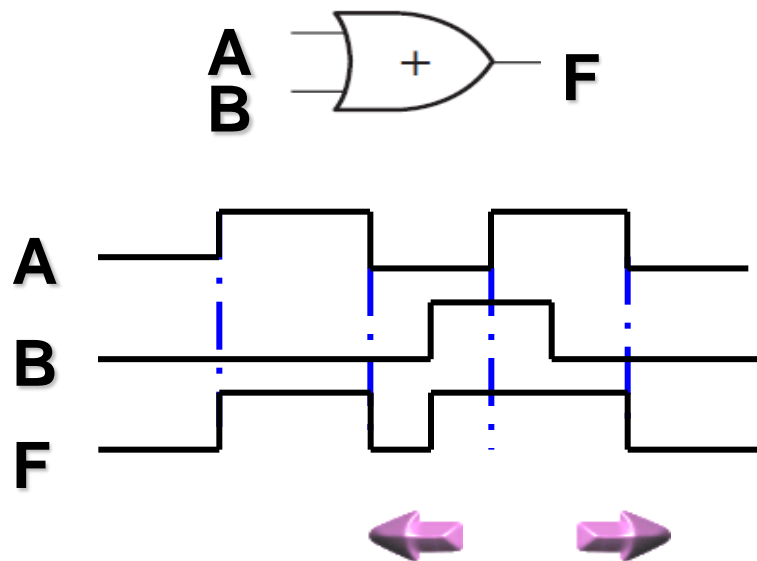
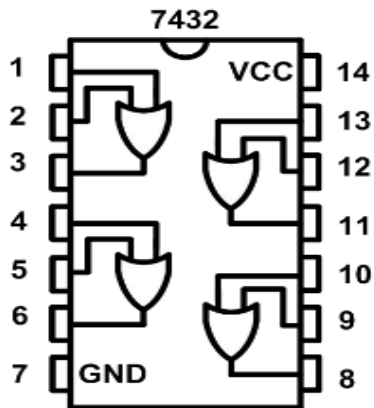
A	B	F
0	0	0
0	1	1
1	0	1
1	1	1



② 逻辑符号



③ Typical Chip: 74LS32



2.1 基本逻辑运算

3. NOT (逻辑 “非”)

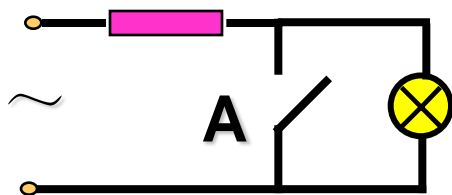
$$F = \bar{A}$$

(or $F = A'$)

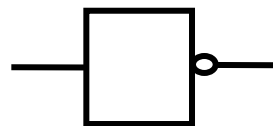
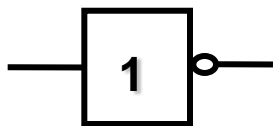
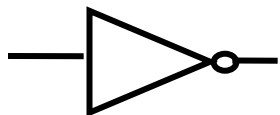
①也称为：反相器

真值表

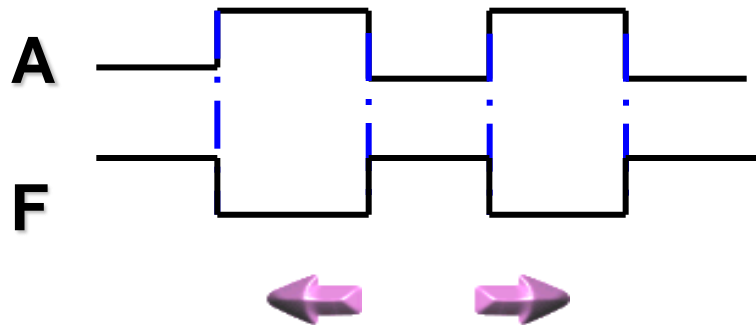
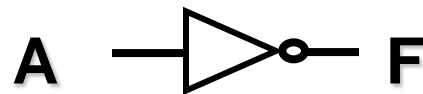
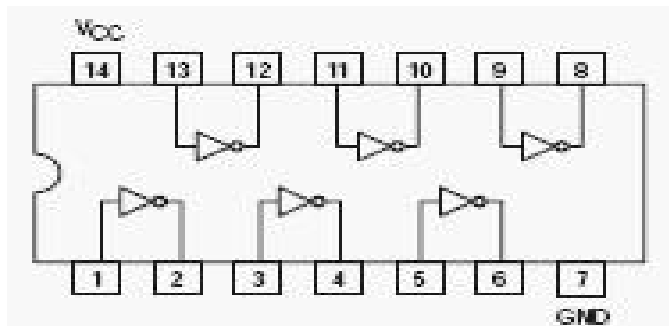
A	F
0	1
1	0



② 逻辑符号



③ Typical Chip: 74LS04



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