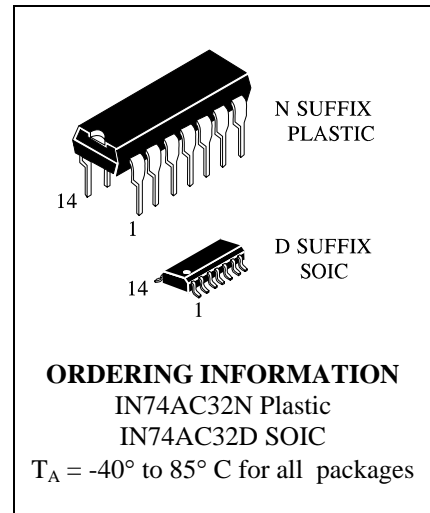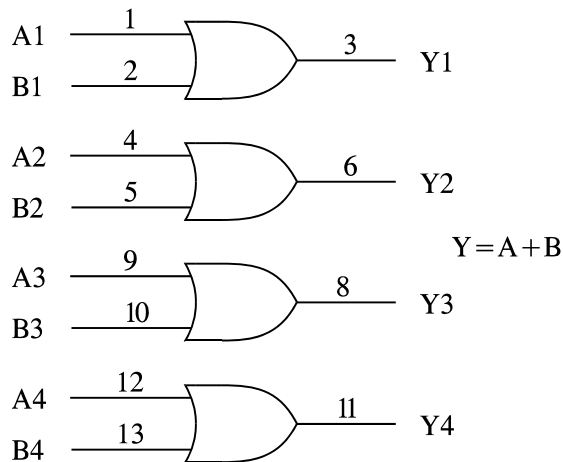# Quad 2-Input OR Gate
High-Speed Silicon-Gate CMOS

IN74AC32

The IN74AC32 is identical in pinout to the LS/ALS32, HC/HCT32. The device inputs are compatible with standard CMOS outputs; with pullup resistors, they are compatible with LS/ALS outputs.

- Outputs Directly Interface to CMOS, NMOS, and TTL
- Operating Voltage Range: 2.0 to 6.0 V
- Low Input Current: 1.0 µA; 0.1 µA @ 25°C
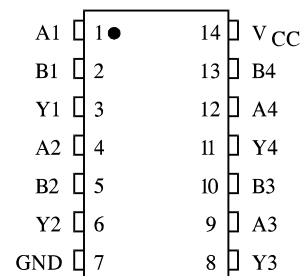- High Noise Immunity Characteristic of CMOS Devices
- Outputs Source/Sink 24 mA

N SUFFIX
PLASTIC

14

1

D SUFFIX
SOIC

14

1

ORDERING INFORMATION
IN74AC32N Plastic
IN74AC32D SOIC
T_A = -40° to 85° C for all packages

LOGIC DIAGRAM

$$Y = A + B$$

PIN 14 = V_{CC}
PIN 7 = GND

PIN ASSIGNMENT

A1 — 1●	14 — V_{CC}
B1 — 2	13 — B4
Y1 — 3	12 — A4
A2 — 4	11 — Y4
B2 — 5	10 — B3
Y2 — 6	9 — A3
GND — 7	8 — Y3

FUNCTION TABLE

Inputs		Output
A	B	Y
L	L	L
L	H	H
H	L	H
H	H	H

IKSemicon

IN74AC86

# Quad 2-Input Exclusive OR Gate
High-Speed Silicon-Gate CMOS

The IN74AC86 is identical in pinout to the LS/ALS86, HC/HCT86. The device inputs are compatible with standard CMOS outputs; with pullup resistors, they are compatible with LS/ALS outputs.

- Outputs Directly Interface to CMOS, NMOS, and TTL
- Operating Voltage Range: 2.0 to 6.0 V
- Low Input Current: 1.0 µA; 0.1 µA @ 25°C
- High Noise Immunity Characteristic of CMOS Devices
- Outputs Source/Sink 24 mA

N SUFFIX PLASTIC

D SUFFIX SOIC
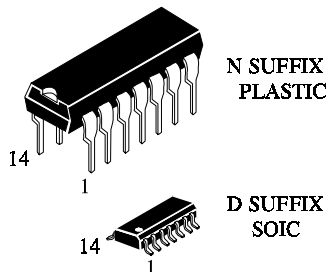
ORDERING INFORMATION
IN74AC86N Plastic
IN74AC86D SOIC
T_A = -40° to 85° C for all packages

LOGIC DIAGRAM
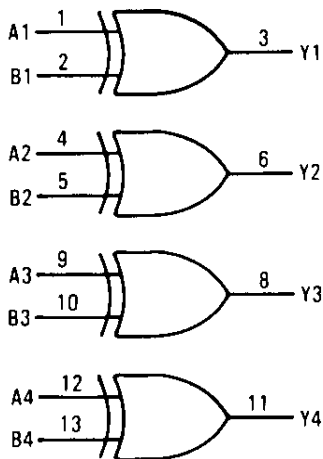
$$Y = A \oplus B$$
$$= \overline{A}B + A\overline{B}$$

PIN 14 =V_{CC}
PIN 7 = GND

PIN ASSIGNMENT

A1	1 ●	14 V_{CC}
B1	2	13 B4
Y1	3	12 A4
A2	4	11 Y4
B2	5	10 B3
Y2	6	9 A3
GND	7	8 Y3

FUNCTION TABLE

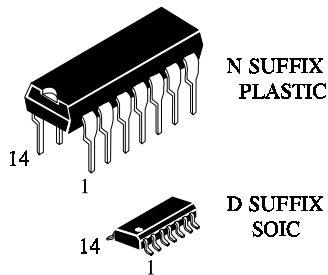| Inputs		Output
A	B	Y
L	H	L
L	L	H
H	L	H
H	H	L

IN74AC08

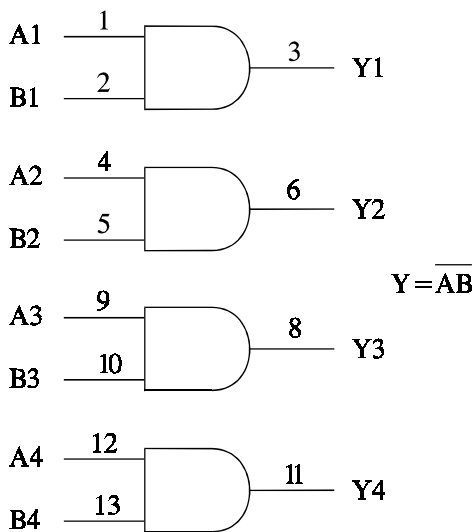# Quad 2-Input AND Gate
High-Speed Silicon-Gate CMOS

The IN74AC08 is identical in pinout to the LS/ALS08, HC/HCT08. The device inputs are compatible with standard CMOS outputs; with pullup resistors, they are compatible with LS/ALS outputs.

- Outputs Directly Interface to CMOS, NMOS, and TTL
- Operating Voltage Range: 2.0 to 6.0 V
- Low Input Current: 1.0 µA; 0.1 µA @ 25°C
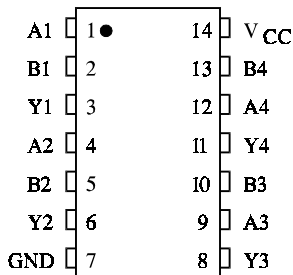- High Noise Immunity Characteristic of CMOS Devices
- Outputs Source/Sink 24 mA

N SUFFIX
PLASTIC

D SUFFIX
SOIC

ORDERING INFORMATION
IN74AC08N Plastic
IN74AC08D SOIC
T_A = -40° to 85° C for all packages

LOGIC DIAGRAM

$$Y = \overline{AB}$$

PIN 14 = V_{CC}
PIN 7 = GND

PIN ASSIGNMENT

A1	1	14	V_{CC}
B1	2	13	B4
Y1	3	12	A4
A2	4	11	Y4
B2	5	10	B3
Y2	6	9	A3
GND	7	8	Y3

FUNCTION TABLE

Inputs		Output
A	B	Y
L	L	L
L	H	L
H	L	L
H	H	H