

7400 series TTL IC's: 7400-7449 Pin Assignment

7400

Quad 2-input NAND gates.

+-----+-----+				+-----*-----+			$/Y = \overline{AB}$
1A	1	+--+	14 VCC	A	B	/Y	
1B	2		13 4B	+====*====+			
/1Y	3		12 4A	0	0	1	
2A	4	7400	11 /4Y	0	1	1	
2B	5		10 3B	1	0	1	
/2Y	6		9 3A	1	1	0	
GND	7		8 /3Y	+-----*-----+			
+-----+							

7402

Quad 2-input NOR gates.

+-----+-----+				+-----*-----+			$/Y = \overline{A+B}$
/1Y	1	+--+	14 VCC	A	B	/Y	
1A	2		13 /4Y	+====*====+			
1B	3		12 4B	0	0	1	
/2Y	4	7402	11 4A	0	1	0	
2A	5		10 /3Y	1	0	0	
2B	6		9 3B	1	1	0	
GND	7		8 3A	+-----*-----+			
+-----+							

7404

Hex inverters.

+-----+-----+				+-----*-----+		$/Y = \overline{A}$
1A	1	+--+	14 VCC	A	/Y	
/1Y	2		13 6A	+====*====+		
2A	3		12 /6Y	0	1	
/2Y	4	7404	11 5A	1	0	
3A	5		10 /5Y	+-----*-----+		
/3Y	6		9 4A			
GND	7		8 /4Y			
+-----+						

7408

Quad 2-input AND gates.

	1A	1B	1Y	2A	2B	2Y	GND	14	13	12	11	10	9	8
	1	2	3	4	5	6	7	VCC	4B	4A	4Y	3B	3A	3Y

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

$$Y = AB$$

7410

Triple 3-input NAND gates.

	1A	1B	2A	2B	2C	/2Y	GND	14	13	12	11	10	9	8
	1	2	3	4	5	6	7	VCC	1C	/1Y	3C	3B	3A	/3Y

	A	B	C	/Y
	0	X	X	1
	1	0	X	1
	1	1	0	1
	1	1	1	0

$$/Y = \overline{ABC}$$

7420

Dual 4-input NAND gates.

	1A	1B	1C	1D	/1Y	GND	14	13	12	11	10	9	8
	1	2	3	4	5	6	7	VCC	2D	2C	2B	2A	/2Y

	A	B	C	D	/Y
	0	X	X	X	1
	1	0	X	X	1
	1	1	0	X	1
	1	1	1	0	1
	1	1	1	1	0

$$/Y = \overline{ABCD}$$

7430

8-input NAND gate.

+-----+				
A	1	+--+	14 VCC	$/Y = \overline{ABCDEFGH}$
B	2		13	
C	3		12 H	
D	4	7430	11 G	
E	5		10	
F	6		9	
GND	7		8 /Y	
+-----+				

7432

Quad 2-input OR gates.

+-----+				+-----*-----+			
1A	1	+--+	14 VCC	A	B	Y	$Y = A+B$
1B	2		13 4B	=====*	=====+		
1Y	3		12 4A	0	0	0	
2A	4	7432	11 4Y	0	1	1	
2B	5		10 3B	1	0	1	
2Y	6		9 3A	1	1	1	
GND	7		8 3Y	+-----*-----+			
+-----+							

7446, 7447

Open-collector BCD to 7-segment decoder/common-anode LED driver with ripple blank input and output.

7446 has 30V outputs, 7447 has 15V outputs.

+-----+			
A1	1	+--+	16 VCC
A2	2		15 /YF
/LT	3		14 /YG
/RBO	4		13 /YA
/RBI	5	7447	12 /YB
A3	6		11 /YC
A0	7		10 /YD
GND	8		9 /YE
+-----+			

7448

BCD to 7-segment decoder/common-cathode LED driver with ripple blank input and output.

		+-----+-----+			
A1	1	+++	16	VCC	
A2	2		15	YF	
/LT	3		14	YG	
/RBO	4		13	YA	
/RBI	5	7448	12	YB	
A3	6		11	YC	
A0	7		10	YD	
GND	8		9	YE	
		+-----+-----+			