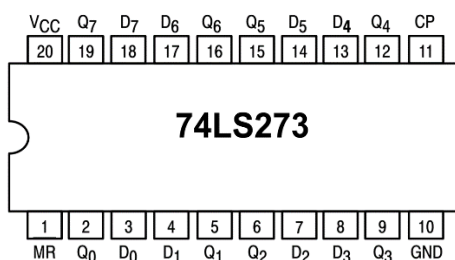


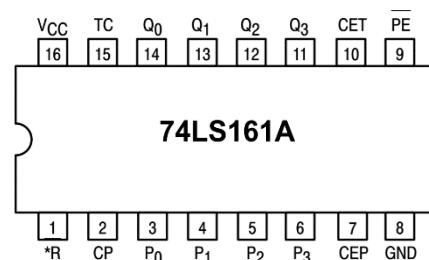
PIN NAMES

S Common Select Input
 E Enable (Active LOW) Input
 I0a-I0d Data Inputs from Source 0
 I1a-I1d Data Inputs from Source 1
 Za-Zd Multiplexer Outputs (Note b)



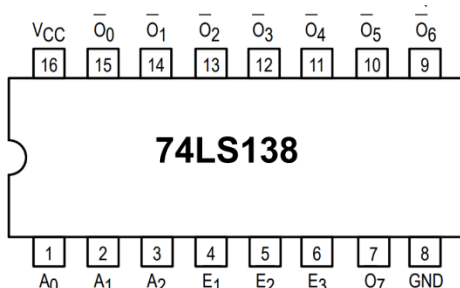
PIN NAMES

CP Clock (Active HIGH Going Edge) Input
 D0-D7 Data Inputs
 MR Master Reset (Active LOW) Input
 Q0-Q7 Register Outputs (Note b)



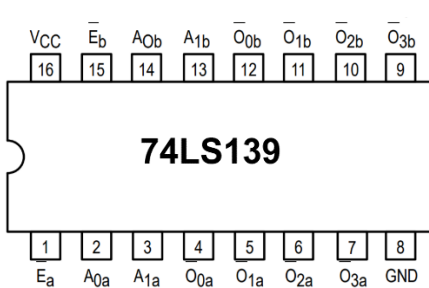
PIN NAMES

PE Parallel Enable (Active LOW) Input
 P0-P3 Parallel Inputs
 CEP Count Enable Parallel Input
 CET Count Enable Trickle Input
 CP Clock (Active HIGH Going Edge) Input
 MR Master Reset (Active LOW) Input
 SR Synchronous Reset (Active LOW) Input
 Q0-Q3 Parallel Outputs (Note b)
 TC Terminal Count Output (Note b)



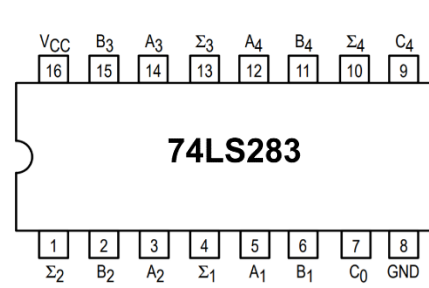
PIN NAMES

A0-A2 Address Inputs
 E1, E2 Enable (Active LOW) Inputs
 E3 Enable (Active HIGH) Input
 O0-O7 Active LOW Outputs (Note b)



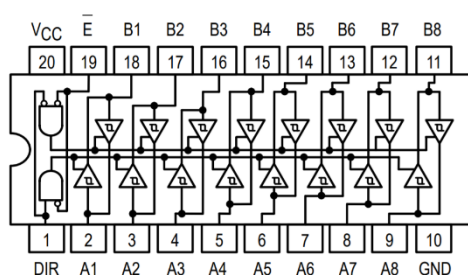
PIN NAMES

A0, A1 Address Inputs
 E Enable (Active LOW) Input
 O0-O3 Active LOW Outputs (Note b)



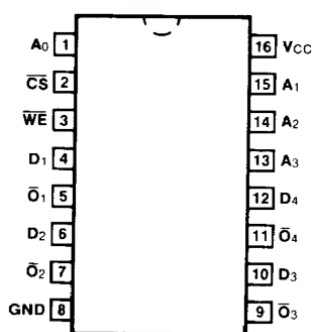
PIN NAMES

A1-A4 Operand A Inputs
 B1-B4 Operand B Inputs
 C0 Carry Input
 S1-S4 Sum Outputs (Note b)
 C4 Carry Output (Note b)



74LS245

INPUTS		OUTPUT
E	DIR	
L	L	Bus B Data to Bus A
L	H	Bus A Data to Bus B
H	X	Isolation



74LS189

PIN NAMES	DESCRIPTION
A0-A3	Address Inputs
CS	Chip Select Input (Active LOW)
WE	Write Enable Input (Active LOW)
D1-D4	Data Inputs
O1-O4	Inverted Data Outputs

74138 3 to 8 decoder	7400 NAND
74139 Dual 2-line to 4-line decoder	7402 NOR
74157 Quad 2-line to 1-line multiplexer	7404 NOT
74161 4-bit synchronous binary counter	7408 AND
74189 64-bit RAM	7432 OR
74245 Octal bus transceiver	7476 JK
74273 Octal D flip-flop	7486 XOR
74283 4-bit binary full adder	