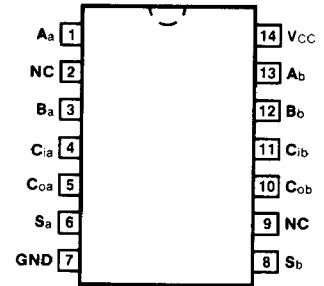
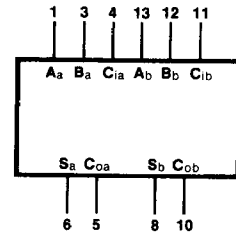


✓ **54H/74H183** 610012
DUAL HIGH SPEED ADDER

CONNECTION DIAGRAM
PINOUT A



LOGIC SYMBOL



V_{CC} = Pin 14
 GND = Pin 7

DESCRIPTION — The '183 contains two independent full adders. Each adder has an individual carry output for use in multiple-input, carry-save techniques to produce the true sum and true carry outputs with no more than two gate delays. Typical propagation delay is 12 ns.

ORDERING CODE: See Section 9

PKGS	PIN OUT	COMMERCIAL GRADE	MILITARY GRADE	PKG TYPE
		V _{CC} = +5.0 V ±5%, T _A = 0°C to +70°C	V _{CC} = +5.0 V ±10%, T _A = -55°C to +125°C	
Plastic DIP (P)	A	74H183PC		9A
Ceramic DIP (D)	A	74H183DC	54H183DM	6A
Flatpak (F)	A	74H183FC	54H183FM	3I

TRUTH TABLE
 (Each Half)

INPUTS			OUTPUTS	
A	B	C _i	S	C _o
L	L	L	L	L
H	L	L	H	L
L	H	L	H	L
L	L	H	H	L
H	H	L	L	H
H	L	H	L	H
L	H	H	L	H
H	H	H	H	H

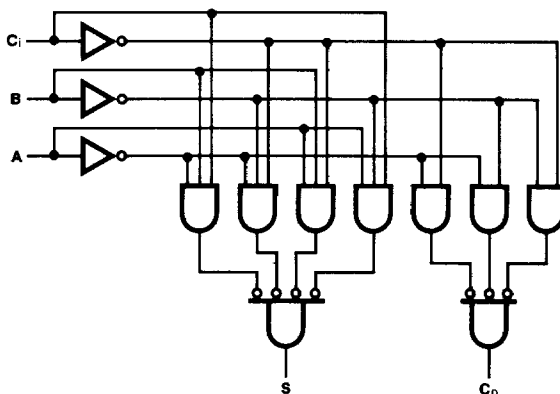
H = HIGH Voltage Level
 L = LOW Voltage Level

INPUT LOADING/FAN-OUT: See Section 3 for U.L. definitions

PIN NAMES	DESCRIPTION	54/74H (U.L.) HIGH/LOW
A _a , B _a	Side a Operand Inputs	3.75/3.75
A _b , B _b	Side b Operand Inputs	3.75/3.75
C _{ia} , C _{ib}	Carry Inputs	3.75/3.75
S _a , B _b	Sum Outputs	25/12.5
C _{oa} , C _{ob}	Carry Outputs	25/12.5

4

LOGIC DIAGRAM



DC CHARACTERISTICS OVER OPERATING TEMPERATURE RANGE (unless otherwise specified)

SYMBOL	PARAMETER	54/74H		UNITS	CONDITIONS
		Min	Max		
I _{CC}	Power Supply Current	XM	69	mA	V _{CC} = Max All Inputs = Gnd
		XC	75		

AC CHARACTERISTICS: V_{CC} = +5.0 V, T_A = +25° C (See Section 3 for waveforms and load configurations)

SYMBOL	PARAMETER	54/74H		UNITS	CONDITIONS
		C _L = 25 pF R _L = 280 Ω			
		Min	Max		
t _{PLH} t _{PHL}	Propagation Delay A _x , B _x or C _{ix} to S _x		15 18	ns	Figs. 3-1, 3-20
t _{PLH} t _{PHL}	Propagation Delay A _x , B _x or C _{ix} to C _{ox}		15 18	ns	Figs. 3-1, 3-5