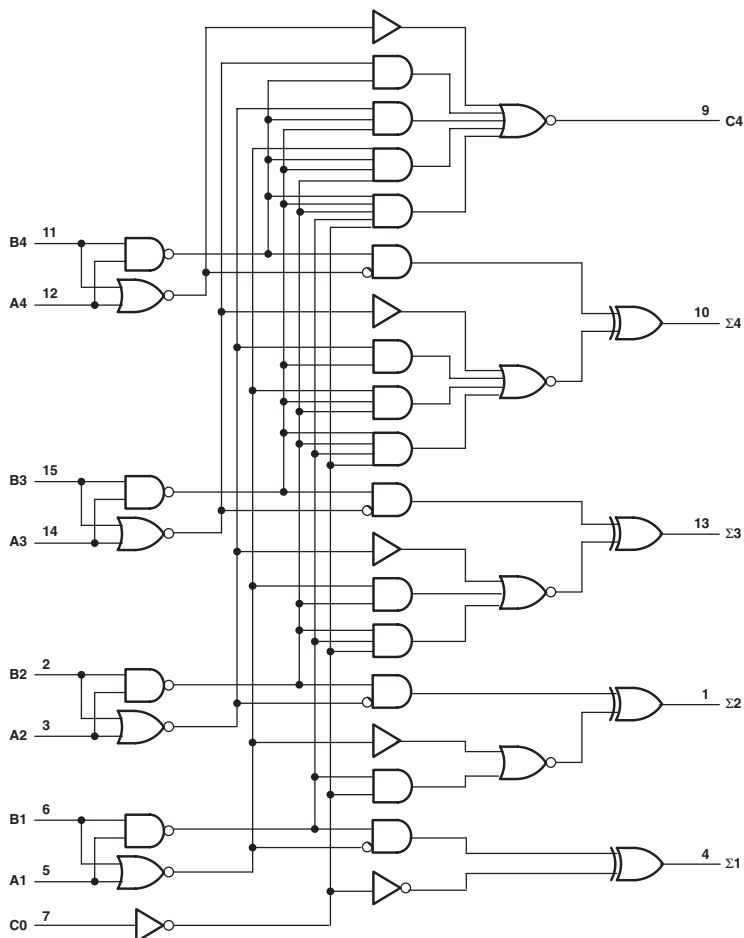


4-BIT BINARY FULL ADDERS WITH FAST CARRY

- Full-Carry Look-Ahead Across the Four Bits

Logic Diagram (SN74)



FUNCTION TABLE (SN74)

[illegible]

ELECTRICAL CHARACTERISTICS AND RECOMMENDED OPERATING CONDITIONS

PARAMETER		MAX or MIN	TTL	LS	S	F	CD74 HC	CD74 HCT	CD74 AC	CD74 ACT	UNIT
I _{CC}		MAX	110	39	160	55	0.16	0.16	0.16	0.16	mA
I _{OH}	Any OUTPUT except C4	MAX	-0.8	-0.4	-1	-1	-4	-4	-24	-24	mA
	C4	MAX	-0.4		-0.5						
I _{OL}	Any OUTPUT except C4	MAX	16	8	20	20	4	4	24	24	mA
	C4	MAX	8		10						

SWITCHING CHARACTERISTICS

PARAMETER	INPUT	OUTPUT	MAX or MIN	TTL	LS	S	F	CD74 HC	CD74 HCT	CD74 AC	CD74 ACT	
t_{PLH}	C0 (CD74:C _{IN})	Any Σ (CD74:S _J)	MAX	21	24	18	10.5	69	80	17.6	17.6	
t_{PHL}			MAX	21	24	18	10.5	69	80	17.6	17.6	
t_{PLH}	An or Bn	Σ_n (CD74:Sn)	MAX	24	24	18	10.5	63	74	18.2	18.2	
t_{PHL}			MAX	24	24	18	10.5	63	74	18.2	18.2	
t_{PLH}	C0 (CD74:C _{IN})	C4 (CD74:C _{OUT})	MAX	14	17	11	8.5	59	69	17.6	17.6	
t_{PHL}			MAX	16	22	11	8	59	69	17.6	17.6	
t_{PLH}	An or Bn		MAX	14	17	12	8.5	59	72	17.6	17.6	
t_{PHL}			MAX	16	17	12	8	59	72	17.6	17.6	

UNIT: ns