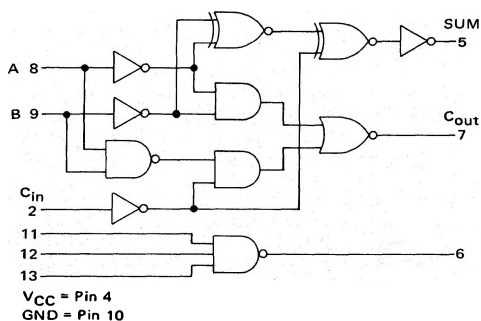


FULL ADDERS

MC4300/MC4000 series

MC4326F,L • MC4327F,L*
MC4026F,L,P • MC4027F,L,P*



Input Loading Factor:

A, B = 2
 C_{in}, Pins 11, 12, 13 = 1

Output Loading Factor:

MC4326 = 15 MTTL I Loads
 MC4327 = 7 MTTL I Loads
 MC4026 = 12 MTTL I Loads
 MC4027 = 6 MTTL I Loads

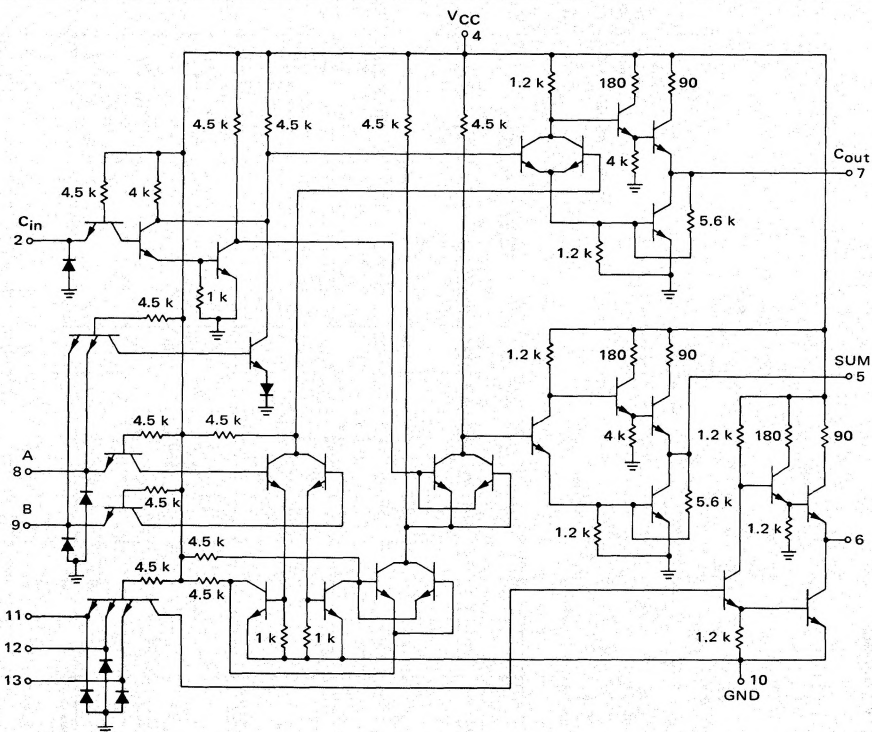
These full adders are designed for serial and ripple-carry parallel adder systems. True Sum and Carry are produced at the output from the input information. A separate 3-input NAND gate is provided on the monolithic chip to provide the inverted Sum or Carry output.

TRUTH TABLE

Input Pins			Output Pins	
8	9	2	5	7
A	B	C _{in}	SUM	C _{out}
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
0	1	1	0	1
1	0	0	1	0
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1

Total Power Dissipation = 90 mW typ/pkg
 Add Delay = 25 ns typ
 Carry Delay = 13 ns typ

CIRCUIT SCHEMATIC



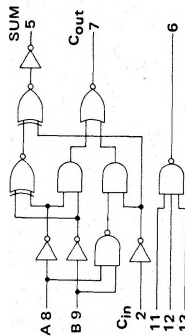
*F suffix = TO-86 ceramic flat package (Case 607).

L suffix = TO-116 ceramic dual in-line package (Case 632).

P suffix = TO-116 plastic dual in-line package (Case 605).

ELECTRICAL CHARACTERISTICS

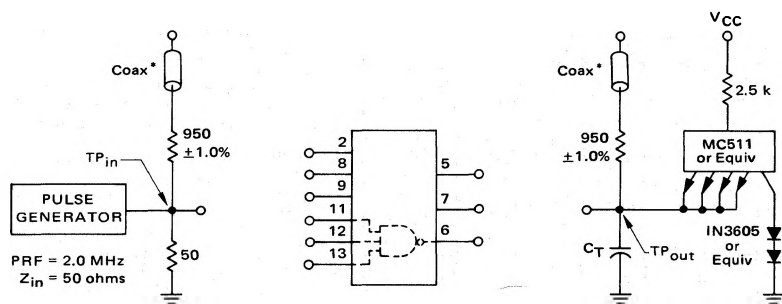
Test procedures are shown for inputs A and Cin. Other inputs are tested in the same manner. Output tests should be completed according to the truth table.

[illegible]

Prime Fan-Out

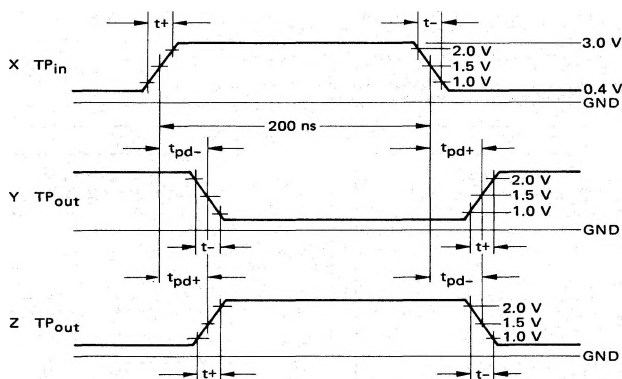
MC4326F,L, MC4327F,L, MC4026F,L,P, MC4027F,L,P (continued)

SWITCHING TIME TEST CIRCUIT AND WAVEFORMS



$C_T = 15 \text{ pF}$ = total parasitic capacitance, which includes probe, wiring, and load capacitances.

* The coax delays from input to scope and output to scope must be matched. The scope must be terminated in 50-ohm impedance. The 950-ohm resistor and the scope termination impedance constitute a 20:1 attenuator probe. Coax shall be CT-070-50 or equivalent.



SWITCHING TIME TEST PROCEDURES

(Letters shown in test columns refer to waveforms.)

[illegible]