

16 Pin DIP 3 Bit Programmable TTL Delay Lines (Auto-Insertable)

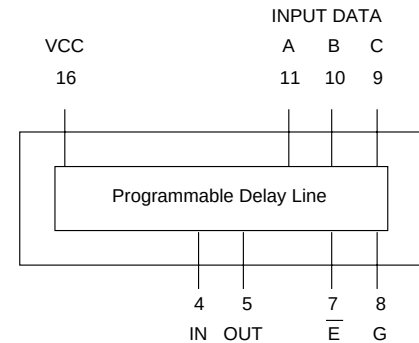
PART NUMBER	MIN DELAY ±2 nS	MAX DELAY nS	STEP	OUTPUT DELAY TIME PROGRAMMING (nS)							
				DATA INPUT (CBA)							
				000	001	010	011	100	101	110	111
EP8076-1	7	14	1 ± 0.5 nS	7	8	9	10	11	12	13	14
EP8076-2	7	21	2 ± 0.5 nS	7	9	11	13	15	17	19	21
EP8076-3	7	28	3 ± 0.6 nS	7	10	13	16	19	22	25	28
EP8076-4	7	35	4 ± 0.8 nS	7	11	15	19	23	27	31	35
EP8076-5	7	42	5 ± 1.0 nS	7	12	17	22	27	32	37	42
EP8076-6	7	49	6 ± 1.0 nS	7	13	19	25	31	37	43	49
EP8076-7	7	56	7 ± 1.0 nS	7	14	21	28	35	42	49	56
EP8076-8	7	63	8 ± 1.0 nS	7	15	23	31	39	47	55	63
EP8076-9	7	70	9 ± 1.0 nS	7	16	25	34	43	52	61	70
EP8076-10	7	77	10 ± 1.0 nS	7	17	27	37	47	57	67	77

Max delay tolerances ±2 nS or ±5% whichever is greater

All delays measured at 1.5V level on leading edge, no load (enable = "0"), at 25°C, 5.0Vdc

DC Electrical Characteristics					
Parameter	Test Conditions	Min	Max	Unit	
V _{OH}	High-Level Output Voltage	V _{CC} = min. V _{IL} = max. I _{OH} = max	2.7		V
V _{OL}	Low-Level Output Voltage	V _{CC} = min. V _{IH} = min. I _{OL} = max	0.5		V
V _{IK}	Input Clamp Voltage	V _{CC} = min. I _I = I _{IK}	-1.2		V
I _{IH}	High-Level Input Current	V _{CC} = max. V _{IN} = 2.7V	10		mA
		V _{CC} = max. V _{IN} = 5.25V	15		mA
I _{IL}	Low-Level Input Current	V _{CC} = max. V _{IN} = 0.5V	15		mA
I _{OS}	Short Circuit Output Current	V _{CC} = max. V _{OUT} = 0.	-100		mA
	(One output at a time)				
I _{CC} H	High-Level Supply Current	V _{CC} = max. V _{IN} = OPEN	45		mA
I _{CC} L	Low-Level Supply Current	V _{CC} = max. V _{IN} = 0	90		mA
T _{RO}	Output Rise Time	T _d ≤ 500 nS (0.75 to 2.4 Volts)	4		nS
N _H	Fanout High-Level Output	V _{CC} = max. V _{OH} = 2.7V	20 TTL LOAD		
N _L	Fanout Low-Level Output	V _{CC} = max. V _{OL} = 0.5V	10 TTL LOAD		

Schematic



Recommended Operating Conditions		Min	Max	Unit
V _{CC}	Supply Voltage	4.75	5.25	V
V _{IH}	High-Level Input Voltage	2.0		V
V _{IL}	Low-Level Input Voltage		0.8	V
I _{IK}	Input Clamp Current		-18	mA
I _{OH}	High-Level Output Current		-1.0	mA
I _{OL}	Low-Level Output Current		20	mA
PW*	Pulse Width of Total Delay	100		%
d*	Duty Cycle		20	%
T _A	Operating Free-Air Temperature	0	+70	°C

*These two values are inter-dependent.

Input Pulse Test Conditions		Unit	
E _{IN}	Pulse Input Voltage	3.2	Volts
PW	Pulse Width % of Total Delay	150	%
T _{RI}	Pulse Rise Time (0.75 - 2.4 Volts)	2.0	nS
PRR	Pulse Repetition Rate @ T _d ≤ 500 nS	1.0	MHz
V _{CC}	Supply Voltage	5.0	Volts

Package

