

16 Pin DIP 3 Bit Programmable TTL Delay Lines With I/O Completely Buffered

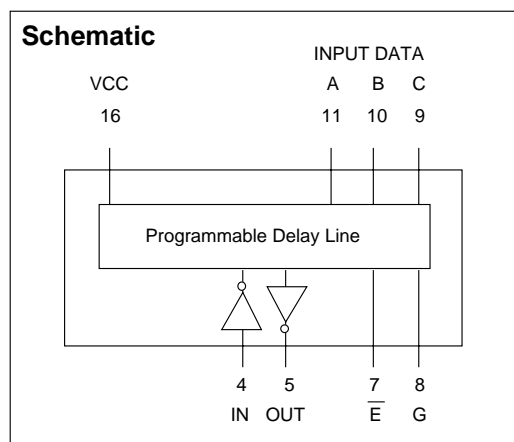
PART NUMBER	MIN DELAY (INHERENT) ±2 nS	TOTAL DELAY* nS	DELAY per STEP **	OUTPUT DELAY TIME PROGRAMMING (nS)							
				DATA INPUT (CBA)							
				000	001	010	011	100	101	110	111
EPA563-1	14	7	1 ± 0.5 nS	14	15	16	17	18	19	20	21
EPA563-2	14	14	2 ± 0.5 nS	14	16	18	20	22	24	26	28
EPA563-3	14	21	3 ± 0.6 nS	14	17	20	23	26	29	32	35
EPA563-4	14	28	4 ± 0.8 nS	14	18	22	26	30	34	38	42
EPA563-5	14	35	5 ± 1.0 nS	14	19	24	29	34	39	44	49
EPA563-6	14	42	6 ± 1.0 nS	14	20	26	32	38	44	50	56
EPA563-7	14	49	7 ± 1.0 nS	14	21	28	35	42	49	56	63
EPA563-8	14	56	8 ± 1.0 nS	14	22	30	38	46	54	62	70
EPA563-9	14	63	9 ± 1.0 nS	14	23	32	41	50	59	68	77
EPA563-10	14	70	10 ± 1.0 nS	14	24	34	44	54	64	74	84

Total 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 / 5.0 Vdc.

*This value does not include the inherent delay.

DC Electrical Characteristics		Test Conditions	Min	Max	Unit
VOH	High-Level Output Voltage	VCC = min. VIL = max. IOH = max	2.7		V
VOL	Low-Level Output Voltage	VCC = min. VIH = min. IOL = max		0.5	V
VIK	Input Clamp Voltage	VCC = min. II = IIK		-1.2	V
IiH	High-Level Input Current	VCC = max. VIN = 2.7V		50	µA
		VCC = max. VIN = 5.25V		1.0	mA
IiL	Low-Level Input Current	VCC = max. VIN = 0.5V		-2	mA
IoS	Short Circuit Output Current	VCC = max. VOUT = 0. (One output at a time)	-40	-100	mA
ICCH	High-Level Supply Current	VCC = max. VIN = OPEN		130	mA
ICCL	Low-Level Supply Current	VCC = max. VIN = 0		150	mA
TRO	Output Rise Time	Td ≤ 500 nS (0.75 to 2.4 Volts)		4	nS
NH	Fanout High-Level Output	VCC = max. VOH = 2.7V		20 TTL LOAD	
NL	Fanout Low-Level Output	VCC = max. VOL = 0.5V		10 TTL LOAD	



Recommended Operating Conditions		Min	Max	Unit
VCC	Supply Voltage	4.75	5.25	V
VIH	High-Level Input Voltage	2.0		V
VIL	Low-Level Input Voltage		0.8	V
IiK	Input Clamp Current		-18	mA
IOH	High-Level Output Current		-1.0	mA
IOL	Low-Level Output Current		20	mA
PW*	Pulse Width of Total Delay	100		%
d*	Duty Cycle		20	%
TA	Operating Free-Air Temperature	0	+70	°C

*These two values are inter-dependent.

Input Pulse Test Conditions		Unit
EiN	Pulse Input Voltage	3.2 Volts
PW	Pulse Width % of Total Delay	150 %
TRI	Pulse Rise Time (0.75 - 2.4 Volts)	2.0 nS
PRR	Pulse Repetition Rate @ Td ≤ 500 nS	1.0 MHz
VCC	Supply Voltage	5.0 Volts

