

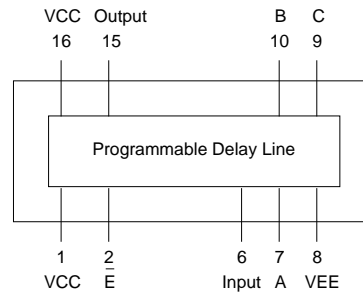
# 16 Pin DIL 3 Bit Programmable ECL Delay Lines

DELAYS AND TOLERANCES (in nS)												
PART NUMBER	MINIMUM DELAY (Inherent)	MAXIMUM DELAY (Nom)	DELAY/STEP	STEP DELAY TOLERANCE (Ref. Inherent Delay)	TRUTH TABLE (Programming Pins = CBA)							
					000	001	010	011	100	101	110	111
EP9450-1	3.0 ± .3	10	1 ± 0.3	±0.4 nS or ±5%	3	4	5	6	7	8	9	10
EP9450-2	3.0 ± .3	17	2 ± 0.4	±0.6 nS or ±5%	3	5	7	9	11	13	15	17
EP9450-3	3.0 ± .3	24	3 ± 0.5	±0.8 nS or ±5%	3	6	9	12	15	18	21	24
EP9450-4	3.0 ± .3	31	4 ± 0.5	±1.0 nS or ±5%	3	7	11	15	19	23	27	31
EP9450-5	3.0 ± .3	38	5 ± 0.5	±1.0 nS or ±5%	3	8	13	18	23	28	33	38
EP9450-6	3.0 ± .3	45	6 ± 0.6	±2.0 nS or ±5%	3	9	15	21	27	33	39	45
EP9450-7	3.0 ± .3	52	7 ± 0.7	±2.0 nS or ±5%	3	10	17	24	31	38	45	52
EP9450-8	3.0 ± .3	59	8 ± 0.8	±2.0 nS or ±5%	3	11	19	27	35	43	51	59
EP9450-9	3.0 ± .3	66	9 ± 0.9	±2.0 nS or ±5%	3	12	21	30	39	48	57	66
EP9450-10	3.0 ± .3	73	10 ± 1.0	±2.0 nS or ±5%	3	13	23	33	43	53	63	73
EP9450-15	3.0 ± .3	108	15 ± 1.5	±2.0 nS or ±5%	3	18	33	48	63	78	93	108
EP9450-20	3.0 ± .3	143	20 ± 2.0	±2.0 nS or ±5%	3	23	43	63	83	103	123	143
EP9450-25	3.0 ± .3	178	25 ± 2.0	±2.0 nS or ±5%	3	28	53	78	103	128	153	178
EP9450-30	3.0 ± .3	213	30 ± 2.0	±2.0 nS or ±5%	3	33	63	93	123	153	183	213
EP9450-35	3.0 ± .3	248	35 ± 2.0	±2.0 nS or ±5%	3	38	73	108	143	178	213	248
EP9450-40	3.0 ± .3	283	40 ± 2.5	±2.0 nS or ±5%	3	43	83	123	163	203	243	283
EP9450-45	3.0 ± .3	318	45 ± 2.5	±2.0 nS or ±5%	3	48	93	138	183	228	273	318
EP9450-50	3.0 ± .3	353	50 ± 2.5	±2.0 nS or ±5%	3	53	103	153	203	253	303	353

Delay Times referenced from input to leading edges at 25°C, 5.0V.

DC Electrical Characteristics					
(V <sub>CC1</sub> = V <sub>CC2</sub> = GRD, V <sub>EE</sub> = 5.2V ± 0.01V)					
Output Loading With 50 Ohms to -2.0V ± 0.01V)					
Parameter	Test Conditions	Min	Max	Unit	
				V <sub>OH</sub>	High Level Output Voltage
V <sub>OHT</sub>	High Level Output Threshold Voltage		-980		mV
V <sub>OLT</sub>	Low Level Output Threshold Voltage		-1630		mV
V <sub>OL</sub>	Low Level Output Voltage	V <sub>IH</sub> = Max	-1650		mV
I <sub>IH</sub>	High Level Input Current	V <sub>IH</sub> = Max	15		mA
I <sub>IL</sub>	Low Level Input Current	V <sub>IL</sub> = Min	0.5		mA
-I <sub>EE</sub>	V <sub>EE</sub> Supply Current		75		mA

## Schematic



Recommended Operating Conditions				
Parameter	Min	Max	Unit	
V <sub>EE</sub>	Supply Voltage (Negative)	4.94	5.46	V
V <sub>CC</sub>	Circuit Ground (Pins 1 and 16)	0	0	V
V <sub>IH</sub>	High Level Input Voltage	-980	-810	mV
V <sub>IHT</sub>	High Level Input Threshold Voltage	-1105		mV
V <sub>IL</sub>	Low Level Input Voltage	-1850	-1630	mV
V <sub>ILT</sub>	Low Level Input Threshold Voltage		-1475	mV
PW*	Pulse Width of Total Delay	40		%
d*	Duty Cycle		40	%
T <sub>A</sub>	Operating Free-Air Temperature	-30	+80	°C

\*These two values are inter-dependent.

Input Pulse Test Conditions @ 25° C		
V <sub>IN</sub>	Pulse Input Voltage	-1.0V (-0.75 to -1.75V)
P <sub>IN</sub>	Pulse Width of Total Delay	3 x Max Delay
T <sub>RI</sub>	Pulse Rise Time	2 nS
PRR	Pulse Repetition Rate	10 x T <sub>d</sub>
V <sub>EE</sub>	Supply Voltage	-5.2V

## Package

