

SERIES EL516 ECL (10K COMPATIBLE) PROGRAMMABLE DELAY MODULES (4-BIT)

- Digitally Programmable in 16 Delay Steps • 32 Pin DIP Package
- ECL Input and Output Levels • 70 ECL DC Fan-out Capacity

Specifications:

- Supply Voltage : -5.2VDC to Vee
- Logic 1 Voltage : -96v Min
- Logic 1 Current : $265\mu\text{A}$ Max
- Logic 0 Voltage : -1.65v Max
- Logic 0 Current : $5\mu\text{A}$ Min
- Output Rise Time⁽²⁾ : 5NSEC Typ
- Operating Temperature : -30°C to $+85^\circ\text{C}$
- Storage Temperature : -55°C to $+125^\circ\text{C}$
- Temperature Coefficient : 100 PPM/ $^\circ\text{C}$
- Power Dissipation : 615mW Typ

Test Conditions:

- Input Pulse-Width : 150% of Total Delay
- Input Pulse Rise Time : 2NSEC Max
- Input Pulse Voltage : 1v (-0.75vH to -1.75vL)
- Vee Supply Voltage : -5.2VDC



Truth Table

Enable Eo	Address Bit No.				Total Delay
	4	3	2	1	
0	0	0	0	0	1D
0	0	0	0	1	1D+1T
0	0	0	1	0	1D+2T
0	0	0	1	1	1D+3T
0	0	1	0	0	1D+4T
0	0	1	0	1	1D+5T
0	0	1	1	0	1D+6T
0	0	1	1	1	1D+7T
0	1	0	0	0	1D+8T
0	1	0	0	1	1D+9T
0	1	0	1	0	1D+10T
0	1	0	1	1	1D+11T
0	1	1	0	0	1D+12T
0	1	1	0	1	1D+13T
0	1	1	1	0	1D+14T
0	1	1	1	1	1D+15T

1 = High 0 = Low

When Eo is 1, no output

1D = Inherent Delay 3 ± 0.3

T = Multiplier of Incremental Delay
(Delay change per step)

Electrical Specifications at 25°C

Part Number	Inherent Delay Time (NS) (1)	Incremental Delay Per Step (NS) (1)	Max Delay Time (NS) (1)
EL516-6-1	6 ± 1	1 ± 5	21 ± 1
EL516-15-1	15 ± 1	1 ± 5	30 ± 1
EL516-30-1	30 ± 2	1 ± 5	45 ± 2
EL516-45-1	45 ± 2	1 ± 5	60 ± 2
EL516-60-1	60 ± 2	1 ± 5	75 ± 2.5
EL516-75-1	75 ± 3	1 ± 5	90 ± 3
EL516-90-1	90 ± 3	1 ± 5	105 ± 3.5
EL516-105-1	105 ± 3	1 ± 5	120 ± 3.5
EL516-120-1	120 ± 4	1 ± 5	135 ± 4.0
EL516-135-1	135 ± 4	1 ± 5	150 ± 4.5
EL516-150-1	150 ± 4	1 ± 5	165 ± 5.0
EL516-15-2	15 ± 1	2 ± 8	45 ± 1
EL516-15-3	15 ± 1	3 ± 1	60 ± 2
EL516-15-4	15 ± 1	4 ± 1	75 ± 2
EL516-15-5	15 ± 1	5 ± 1	90 ± 2
EL516-15-10	15 ± 1	10 ± 1	165 ± 3
EL516-15-16	15 ± 1	16 ± 1	255 ± 4

Note: (1) Measured at -1.3v level leading edge.

(2) Measured from 20% to 80% Pulse Amplitude

(3) Outputs terminated through 270 ohms to -5.2VDC .

