

SERIES EL518 ECL (10K COMPATIBLE) PROGRAMMABLE LOGIC DELAY MODULES (6-BIT)

- 6-Bit ECL Programmable Delay Line • 48 Pin DIP Package
- ECL Input and Output Levels • 70 ECL DC Fan-out Capacity

Specifications:

- Supply Voltage : -5.2VDC to Vee
- Logic 1 Voltage : $-.96\text{v}$ 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.
- Storage Temperature : -55°C to $+125^\circ\text{C}$
- Operating Temperature : -30°C to $+85^\circ\text{C}$
- Temperature Coefficient : $100\text{ PPM}/^\circ\text{C}$
- Power Dissipation : 925mW 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
	6	5	4	3	2	1	
0	0	0	0	0	0	0	1D
0	0	0	0	0	0	1	1D+T
0	0	0	0	0	1	0	1D+2T
0	0	0	0	0	1	1	1D+3T
0	0	0	0	1	0	0	1D+4T
0	0	0	0	1	0	1	1D+5T
0	0	0	0	1	1	0	1D+6T
0	0	0	0	1	1	1	1D+7T
0	0	0	1	0	0	0	1D+8T
0	0	0	1	1	1	1	1D+15T
0	0	1	0	0	0	0	1D+16T
0	0	1	1	1	1	1	1D+31T
0	1	0	0	0	0	0	1D+32T
0	1	1	1	1	1	1	1D+63T

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)

For simplicity, all 64 programmable steps are not shown in this Truth Table.

Electrical Specifications at 25°C

Part Number	Inherent Delay Time (NS) (1)	Incremental Delay Per Step (NS) (1)	Max Delay Time (NS) (1)
EL518-8-0.5	8 ± 1	0.5 ± 0.2	39.5 ± 2
EL518-8-1	8 ± 1	1 ± 0.4	71 ± 2
EL518-8-2	8 ± 1	2 ± 0.6	134 ± 3
EL518-8-3	8 ± 1	3 ± 1.0	197 ± 4
EL518-8-4	8 ± 1	4 ± 1.0	260 ± 5
EL518-8-5	8 ± 1	5 ± 1.0	323 ± 6
EL518-8-6	8 ± 1	6 ± 1.0	386 ± 8
EL518-8-8	8 ± 1	8 ± 1.0	512 ± 10
EL518-8-10	8 ± 1	10 ± 1.5	638 ± 12
EL518-12-0.5	12 ± 1	0.5 ± 0.2	43.5 ± 2
EL518-12-1	12 ± 1	1 ± 0.4	75 ± 2
EL518-12-2	12 ± 1	2 ± 0.6	138 ± 3
EL518-12-3	12 ± 1	3 ± 1.0	201 ± 4
EL518-12-4	12 ± 1	4 ± 1.0	264 ± 5
EL518-12-5	12 ± 1	5 ± 1.0	327 ± 6
EL518-12-6	12 ± 1	6 ± 1.0	390 ± 8
EL518-12-8	12 ± 1	8 ± 1.0	516 ± 10
EL518-12-10	12 ± 1	10 ± 1.5	642 ± 12

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 .

