

**SERIES EL519 ECL (10K COMPATIBLE) PROGRAMMABLE DELAY MODULES (8-BIT)**

- 8-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 : -.96v Min
- Logic 1 Current : 265µA Max
- Logic 0 Voltage : -1.65v Max
- Logic 0 Current : .5µA Min
- Output Rise Time<sup>(2)</sup> : 5NSEC Typ.
- Storage Temperature : -55°C to +125°C
- Operating Temperature : -30°C to +85°C
- Temperature Coefficient : 100 PPM/°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
	8	7	6	5	4	3	2	1	
0	0	0	0	0	0	0	0	0	1D
0	0	0	0	0	0	0	0	1	1D+1T
0	0	0	0	0	0	0	1	0	1D+2T
0	0	0	0	0	0	1	0	0	1D+4T
0	0	0	0	0	1	0	0	0	1D+8T
0	0	0	0	1	1	1	1	1	1D+15T
0	0	0	1	0	0	0	0	0	1D+32T
0	0	1	0	0	0	0	0	0	1D+64T
0	0	1	1	1	1	1	1	1	1D+127T
0	1	0	0	0	0	0	0	0	1D+128T
0	1	1	1	1	1	1	1	1	1D+255T

1 = High    0 = Low  
 When Eo is 1, no output  
 1D = Inherent Delay  
 T = Multiplier of Incremental Delay  
 (Delay change per step)

For simplicity, all 256 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)
EL519-12-0.5	12±1	0.5±0.3	139.5±2
EL519-12-1	12±1	1±0.5	267±5
EL519-12-2	12±1	2±0.8	522±10
EL519-12-3	12±1	3±1.0	777±15
EL519-12-4	12±1	4±1.0	1032±20
EL519-12-5	12±1	5±1.5	1287±25
EL519-12-6	12±1	6±1.5	1542±30
EL519-12-7	12±1	7±1.5	1797±35
EL519-12-8	12±1	8±2.0	2052±40
EL519-12-9	12±1	9±2.0	2307±50
EL519-12-10	12±1	10±2.0	2562±60
EL519-15-0.5	15±1	0.5±0.3	142.5±2
EL519-15-1	15±1	1±0.5	270±5
EL519-15-2	15±1	2±0.8	525±10
EL519-15-3	15±1	3±1.0	780±15
EL519-15-4	15±1	4±1.0	1035±20
EL519-15-5	15±1	5±1.5	1290±25
EL519-15-6	15±1	6±1.5	1545±30
EL519-15-7	15±1	7±1.5	1800±35
EL519-15-8	15±1	8±2.0	2055±40
EL519-15-9	15±1	9±2.0	2310±50
EL519-15-10	15±1	10±2.0	2565±60

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.

