

SERIES EL553 ECL (100K COMPATIBLE) PROGRAMMABLE DELAY MODULES (4-BIT)

T-47-17

- ECL 100K Input and Output Levels • 24-pin DIL Package
- All Delays Digitally Programmable • 70 ECL DC Fan-out Capacity

Specifications:

- Supply Voltage : -4.5VDC to Vee
- Logic 1 Input Voltage : -1.165v Min
- Logic 0 Input Voltage : -1.475v Max
- Logic 1 Output Voltage : -1.025v Min
- Logic 0 Output Voltage : -1.63v Max
- Output Rise Time (2) : 2NSEC Typ.
- Operating Temperature : -30°C to +85°C
- Storage Temperature : -55°C to +125°C

Test Conditions:

- Input Pulse-Width : Min 150% of Total Delay
- Input Pulse Rise Time : 2NSEC Max
- Input Pulse Voltage : 0.8v P.P (-0.9vH to -1.7vL)
- Vee Supply Voltage : -4.5VDC

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 $2.8 \pm .2$
 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)
EL553-2.8-0.1	$2.8 \pm .2$	0.1	$4.3 \pm .2$
EL553-2.8-0.2	$2.8 \pm .2$	0.2	$5.8 \pm .2$
EL553-2.8-0.3	$2.8 \pm .2$	0.3	$7.3 \pm .25$
EL553-2.8-0.4	$2.8 \pm .2$	0.4	$8.8 \pm .3$
EL553-2.8-0.5	$2.8 \pm .2$	0.5	$10.3 \pm .4$
EL553-2.8-0.6	$2.8 \pm .2$	0.6	$11.8 \pm .5$
EL553-2.8-0.7	$2.8 \pm .2$	0.7	$13.3 \pm .6$
EL553-2.8-0.8	$2.8 \pm .2$	0.8	$14.8 \pm .7$
EL553-2.8-0.9	$2.8 \pm .2$	0.9	$16.3 \pm .8$
EL553-2.8-1.0	$2.8 \pm .2$	1.0	$17.8 \pm .9$
EL553-2.8-1.5	$2.8 \pm .2$	1.5	25.3 ± 1.3
EL553-2.8-2.0	$2.8 \pm .2$	2.0	32.8 ± 1.7
EL553-2.8-2.5	$2.8 \pm .2$	2.5	40.3 ± 2.1
EL553-2.8-3.0	$2.8 \pm .2$	3.0	47.8 ± 2.5
EL553-2.8-3.5	$2.8 \pm .2$	3.5	55.3 ± 2.8
EL553-2.8-4.0	$2.8 \pm .2$	4.0	62.8 ± 3.0
EL553-2.8-4.5	$2.8 \pm .2$	4.5	70.3 ± 3.5
EL553-2.8-5.0	$2.8 \pm .2$	5.0	77.8 ± 3.5

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

(2) Output Rise Time measured from 20% to 80% Pulse Amplitude.

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