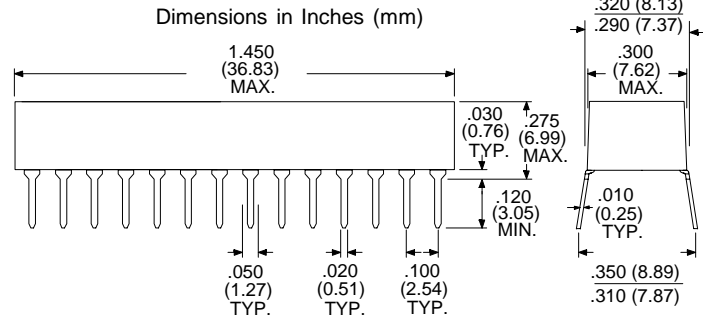
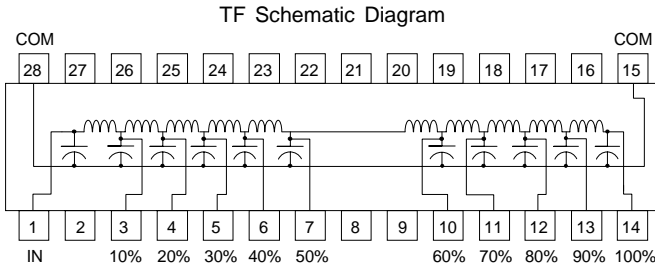


# TF Series Fast $t_r$ High Performance 20 Section 10-Tap 28-Pin Delay Lines

- Fast Rise Time ( $t_d/t_r \approx 10$ )
- High Bandwidth  $\approx 0.35/t_r$
- Low Distortion LC Network
- 10 Equal Delay Taps
- Standard Impedances: 50 - 75 - 100 - 200  $\Omega$
- Stable Delay vs. Temperature: 100 ppm/ $^{\circ}C$
- Operating Temperature Range -55 $^{\circ}C$  to +125 $^{\circ}C$



Electrical Specifications at 25 $^{\circ}C$  <sup>1, 2, 3</sup> (Refer to Operating Specifications for Passive Delays page 2.)

Delay Tolerances		50 Ohm Part Number	Rise Time (ns)	DCR max. (Ohms)	75 Ohm Part Number	Rise Time (ns)	DCR max. (Ohms)	100 Ohm Part Number	Rise Time (ns)	DCR max. (Ohms)
Total (ns)	Tap-to-Tap (ns)									
50 ± 2.5	5.0 ± 1.0	TF50-5	6.2	1.9	TF50-7	6.2	2.0	TF50-10	6.4	2.2
75 ± 3.7	7.5 ± 2.0	TF75-5	9.2	2.1	TF75-7	9.2	2.2	TF75-10	9.4	2.3
80 ± 4.0	8.0 ± 2.0	TF80-5	9.5	2.2	TF80-7	9.6	2.3	TF80-10	9.9	2.4
100 ± 5.0	10.0 ± 2.0	TF100-5	11.2	2.3	TF100-7	11.7	2.5	TF100-10	12.5	2.7
120 ± 6.0	12.0 ± 2.0	TF120-5	13.4	2.3	TF120-7	13.7	2.7	TF120-10	13.8	3.1
150 ± 15.0	15.0 ± 2.5	TF150-5	15.7	2.4	TF150-7	16.1	3.1	TF150-10	16.4	3.5
200 ± 10.0	20.0 ± 3.0	TF200-5	21.3	2.5	TF200-7	21.5	3.3	TF200-10	21.6	3.8
250 ± 12.5	25.0 ± 3.0	TF250-5	27.2	2.6	TF250-7	27.3	3.5	TF250-10	27.5	4.3
300 ± 15.0	30.0 ± 3.5	TF300-5	31.1	2.7	TF300-7	31.4	3.6	TF300-10	32.3	4.6
400 ± 20.0	40.0 ± 4.0	TF400-5	41.0	2.8	TF400-7	41.3	3.7	TF400-10	41.7	4.8
500 ± 25.0	50.0 ± 5.0	TF500-5	50.8	2.9	TF500-7	53.1	3.9	TF500-10	54.2	5.1

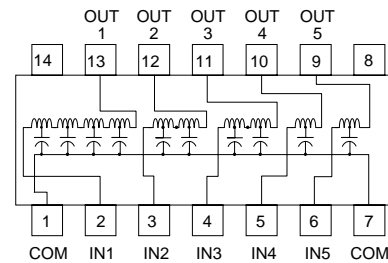
## Multi-Line Delay Modules

5 Independent Lines can be Cascaded to Achieve Wide Range of Delays

Applications include Video & Test Equipment

- Standard Impedances: 50 - 75 - 100  $\Omega$
- Stable Delay vs. Temperature: 100 ppm/ $^{\circ}C$
- Operating Temperature Range -55 $^{\circ}C$  to +125 $^{\circ}C$

DLM5 Schematic Diagram



Electrical Specifications at 25 $^{\circ}C$  <sup>1, 2, 3</sup> (Refer to Operating Specifications for Passive Delays page 2.)

Multi-Line Passive P/N	Nominal Impedance	Nominal Combined Delay	DCR max. (Ohms)	Line 1 (ns) Pin 2 to Pin 13	Line 2 (ns) Pin 3 to Pin 12	Line 3 (ns) Pin 4 to Pin 11	Line 4 (ns) Pin 5 to Pin 10	Line 5 (ns) Pin 6 to Pin 9
DLM5-1555	50 $\Omega$	155	1.2	80 ± 4.0	40 ± 2.0	20 ± 1.0	10 ± 1.0	5.0 ± 0.5
DLM5-785	50 $\Omega$	77.5	1.1	40 ± 2.0	20 ± 1.0	10 ± 1.0	5.0 ± 0.5	2.5 ± 0.5
DLM5-395	50 $\Omega$	38.5	0.9	20 ± 1.0	10 ± 1.0	5.0 ± 0.5	2.5 ± 0.5	1.0 ± 0.4
DLM5-1557	75 $\Omega$	155	1.3	80 ± 4.0	40 ± 2.0	20 ± 1.0	10 ± 1.0	5.0 ± 0.5
DLM5-787	75 $\Omega$	77.5	1.2	40 ± 2.0	20 ± 1.0	10 ± 1.0	5.0 ± 0.5	2.5 ± 0.5
DLM5-397	75 $\Omega$	38.5	1.0	20 ± 1.0	10 ± 1.0	5.0 ± 0.5	2.5 ± 0.5	1.0 ± 0.4
DLM5-1551	100 $\Omega$	155	1.8	80 ± 4.0	40 ± 2.0	20 ± 1.0	10 ± 1.0	5.0 ± 0.5
DLM5-781	100 $\Omega$	77.5	1.7	40 ± 2.0	20 ± 1.0	10 ± 1.0	5.0 ± 0.5	2.5 ± 0.5
DLM5-391	100 $\Omega$	38.5	1.5	20 ± 1.0	10 ± 1.0	5.0 ± 0.5	2.5 ± 0.5	1.0 ± 0.4

.300" Wide DIP  
14 Pin Package  
Detailed Drawing.  
See pg. 9 (TZB type)

D14-300

1. Rise Times are measured from 10% to 90% points.
2. Delay Times measured at 50% points of leading edge.
3. Output (100% Tap) terminated through  $Z_0$  to ground.

Specifications subject to change without notice.

For other values & Custom Designs, contact factory.

DLM\_TF 1/98