

# 14 Pin 10-Tap TTL Buffered Delay Modules

## OPERATING SPECIFICATIONS

V <sub>CC</sub> Supply Voltage Commercial Grade.....	5.00±0.25 VDC	
V <sub>CC</sub> Supply Voltage Military Grade.....	5.00±0.50 VDC	
I <sub>CC</sub> Supply Current.....	120 mA typical	
Logic "1" Input: V <sub>IH</sub> .....	2.00V min., 5.50V max.	
	I <sub>IH</sub> .....	50µA max. @ 2.4V
Logic "0" Input: V <sub>IL</sub> .....	0.80V max.	
	I <sub>IL</sub> .....	-2mA max.
V <sub>OH</sub> Logic "1" Voltage Out.....	2.40V min.	
V <sub>OL</sub> Logic "0" Voltage Out.....	0.50V max.	
T <sub>RO</sub> Output Rise Time.....	4.00ns max.	
P <sub>VI</sub> Input Pulse Width.....	20% of total delay min.	
Operating Temperature Range Commercial Grade.....	0° to 70°C	
Operating Temperature Range Military Grade.....	-55° to +125°C	
Storage Temperature Range.....	-65° to +150°C	

## PART NUMBER DESCRIPTION

**D2TZM1 - XXX X**

14 Pin 10-Tap Schottky TTL Delay Module

Total Delay in nanoseconds (ns)

Grade

Blank = Commercial Grade

M = Military Grade

## TEST CONDITIONS

(Measurements made at 25°C)

V<sub>CC</sub> Supply Voltage..... 5.00VDC

Input Pulse Voltage..... 3.20V

Input Pulse Rise Time..... 3.00ns max.

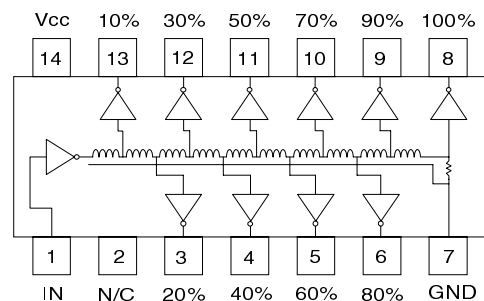
Input Pulse Period..... 5.0 x Total Delay

Input Pulse Duty Cycle..... 50%

10pF Load on Outputs

Part Number	Nominal Tap Delays (ns) ±5% or 2ns whichever is greater									OUTPUT (ns)	Tap-to-Tap (ns)
	1	2	3	4	5	6	7	8	9		
D2TZM1-10	5	6	7	8	9	10	11	12	13	14 ± 1.50	1 ± 0.5
D2TZM1-20	5	7	9	11	13	15	17	19	21	23 ± 1.50	2 ± 0.8
D2TZM1-50	5	10	15	20	25	30	35	40	45	50 ± 2.50	5 ± 2.0
D2TZM1-60	6	12	18	24	30	36	42	48	54	60 ± 3.00	6 ± 2.0
D2TZM1-70	7	14	21	28	35	42	49	56	63	70 ± 3.50	7 ± 2.0
D2TZM1-75	7.5	15	22.5	30	37.5	45	52.5	60	67.5	75 ± 3.75	7.5 ± 2.0
D2TZM1-80	8	16	24	32	40	48	56	64	72	80 ± 4.00	8 ± 2.0
D2TZM1-90	9	18	27	36	45	54	63	72	81	90 ± 4.50	9 ± 2.0
D2TZM1-100	10	20	30	40	50	60	70	80	90	100 ± 5.00	10 ± 2.0
D2TZM1-120	12	24	36	48	60	72	84	96	108	120 ± 6.00	12 ± 2.5
D2TZM1-150	15	30	45	60	75	90	105	120	135	150 ± 7.50	15 ± 3.0
D2TZM1-200	20	40	60	80	100	120	140	160	180	200 ± 10.00	20 ± 3.0
D2TZM1-250	25	50	75	100	125	150	175	200	225	250 ± 12.50	25 ± 3.0
D2TZM1-300	30	60	90	120	150	180	210	240	270	300 ± 15.00	30 ± 3.0
D2TZM1-350	35	70	105	140	175	210	245	280	315	350 ± 17.50	35 ± 4.0
D2TZM1-400	40	80	120	160	200	240	280	320	360	400 ± 20.00	40 ± 4.0
D2TZM1-500	50	100	150	200	250	300	350	400	450	500 ± 25.00	50 ± 5.0
D2TZM1-600	60	120	180	240	300	360	420	480	540	600 ± 30.00	60 ± 6.0
D2TZM1-1000	100	200	300	400	500	600	700	800	900	1000 ± 50.00	100 ± 10.0

## SCHEMATIC DIAGRAM

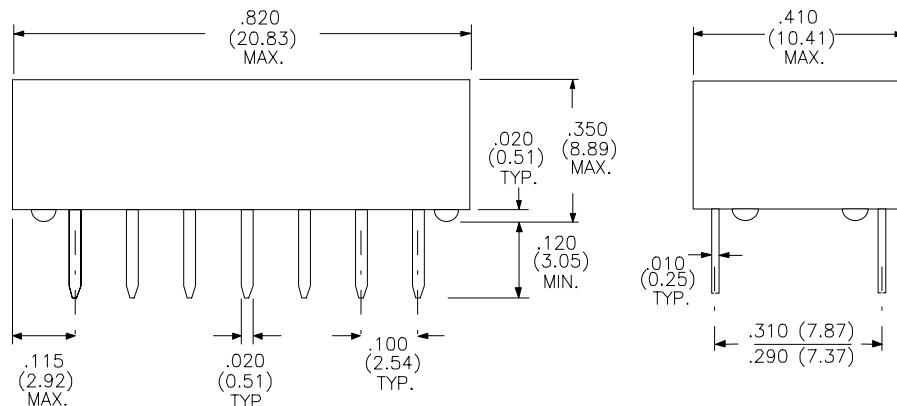


1. Rise Times are measured from 0.75V to 2.40V
2. Delays measured 1.50V level of leading edge.
3. Delays change  $\approx$  2% per 5% change in V<sub>CC</sub>.

**VARIATIONS AVAILABLE. FOR INTERMEDIATE VALUES AND/ OR CUSTOM DESIGNS PLEASE CONSULT THE FACTORY.**

## PHYSICAL DIMENSIONS

inches (mm)



Specifications subject to change without notice.

D2TZM1-10/94