

5-Tap TTL Delays Commercial & MIL-Grade

Electrical Specifications at 25°C

| Delay Tolerances | | TTL Buffered 5 Tap Modules | |
|------------------|-----------------|----------------------------|-------------------------|
| Total (ns) | Tap-to-Tap (ns) | Part Number | MIL - Grade Part Number |
| 9 ± 1.00 | ** 1 ± 0.5 | **DTZM1-9 | **DTZM3-9M |
| 13 ± 2.00 | ** 2 ± 1.0 | **DTZM1-13 | **DTZM3-13M |
| 17 ± 2.00 | ** 3 ± 1.0 | **DTZM1-17 | **DTZM3-17M |
| 25 ± 2.00 | 5 ± 2.0 | DTZM1-25 | DTZM3-25M |
| 30 ± 2.00 | 6 ± 2.0 | DTZM1-30 | DTZM3-30M |
| 35 ± 2.00 | 7 ± 2.0 | DTZM1-35 | DTZM3-35M |
| 40 ± 2.00 | 8 ± 2.0 | DTZM1-40 | DTZM3-40M |
| 45 ± 2.25 | 9 ± 2.0 | DTZM1-45 | DTZM3-45M |
| 50 ± 2.50 | 10 ± 2.0 | DTZM1-50 | DTZM3-50M |
| 60 ± 3.00 | 12 ± 2.0 | DTZM1-55 | DTZM3-60M |
| 70 ± 3.50 | 14 ± 2.0 | DTZM1-70 | DTZM3-70M |
| 75 ± 3.75 | 15 ± 2.5 | DTZM1-75 | DTZM3-75M |
| 80 ± 4.00 | 16 ± 2.5 | DTZM1-75 | DTZM3-80M |
| 100 ± 5.00 | 20 ± 3.0 | DTZM1-100 | DTZM3-100M |
| 125 ± 6.25 | 25 ± 3.0 | DTZM1-125 | DTZM3-125M |
| 150 ± 7.50 | 30 ± 3.0 | DTZM1-150 | DTZM3-150M |
| 175 ± 8.75 | 35 ± 3.5 | DTZM1-175 | DTZM3-175M |
| 200 ± 10.00 | 40 ± 4.0 | DTZM1-200 | DTZM3-200M |
| 225 ± 11.25 | 45 ± 4.5 | DTZM1-225 | DTZM3-225M |
| 250 ± 12.50 | 50 ± 5.0 | DTZM1-250 | DTZM3-250M |
| 300 ± 15.00 | 60 ± 6.0 | DTZM1-300 | DTZM3-300M |
| 350 ± 17.50 | 70 ± 7.0 | DTZM1-350 | DTZM3-350M |
| 400 ± 20.00 | 80 ± 8.0 | DTZM1-400 | DTZM3-400M |
| 450 ± 22.50 | 90 ± 9.0 | DTZM1-400 | DTZM3-450M |
| 500 ± 25.00 | 100 ± 10 | DTZM1-500 | DTZM3-500M |

** These part numbers do not have 5 equal taps. The delays specified as Tap-to-Tap are referenced to Tap 1: 5 ± 2 ns.

MIL-GRADE: These Military Grade delay lines use integrated circuits screened to MIL-STD-883B with an operating temperature range of -55 to +125°C. These part numbers will have the suffix "M": **DTZM3-XXXM**, **FSDM-XXXM**, and **MSDM-XXXM**. These MIL devices will have larger package height; see drawings below.

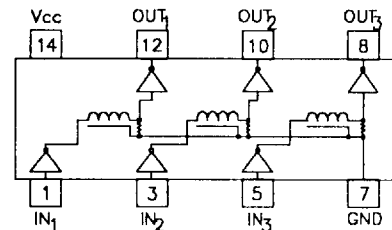
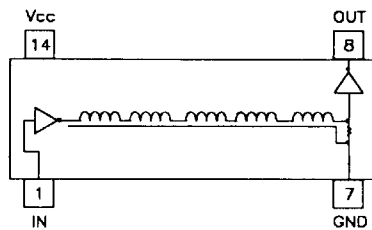
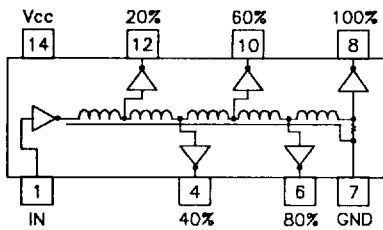
Single & Triple TTL Delay Commercial & MIL-Grade

Electrical Specifications at 25°C

| Delay Tolerance (ns) | 14 Pin DIL TTL Buffered Single Delays | | 14 Pin DIL TTL Buffered Triple Independent Delays | |
|----------------------|---------------------------------------|-----------------------|---|-----------------------|
| | Commercial Part Number | MIL-Grade Part Number | Commercial Part Number | MIL-Grade Part Number |
| 5 ± 1.00 | FSDM-5 | FSDM-5M | MSDM-5 | MSDM-5M |
| 6 ± 1.00 | FSDM-6 | FSDM-6M | MSDM-6 | MSDM-6M |
| 7 ± 1.00 | FSDM-7 | FSDM-7M | MSDM-7 | MSDM-7M |
| 8 ± 1.00 | FSDM-8 | FSDM-8M | MSDM-8 | MSDM-8M |
| 9 ± 1.00 | FSDM-9 | FSDM-9M | MSDM-9 | MSDM-9M |
| 10 ± 1.50 | FSDM-10 | FSDM-10M | MSDM-10 | MSDM-10M |
| 15 ± 2.00 | FSDM-15 | FSDM-15M | MSDM-15 | MSDM-15M |
| 20 ± 2.00 | FSDM-20 | FSDM-20M | MSDM-20 | MSDM-20M |
| 25 ± 2.00 | FSDM-25 | FSDM-25M | MSDM-25 | MSDM-25M |
| 30 ± 2.00 | FSDM-30 | FSDM-30M | MSDM-30 | MSDM-30M |
| 35 ± 2.00 | FSDM-35 | FSDM-35M | MSDM-35 | MSDM-35M |
| 40 ± 2.00 | FSDM-40 | FSDM-40M | MSDM-40 | MSDM-40M |
| 45 ± 2.25 | FSDM-45 | FSDM-45M | MSDM-45 | MSDM-45M |
| 50 ± 2.50 | FSDM-50 | FSDM-50M | MSDM-50 | MSDM-50M |
| 60 ± 3.00 | FSDM-60 | FSDM-60M | MSDM-60 | MSDM-60M |
| 70 ± 3.50 | FSDM-70 | FSDM-70M | MSDM-70 | MSDM-70M |
| 75 ± 3.75 | FSDM-75 | FSDM-75M | MSDM-75 | MSDM-75M |
| 80 ± 4.00 | FSDM-80 | FSDM-80M | MSDM-80 | MSDM-80M |
| 90 ± 4.50 | FSDM-90 | FSDM-90M | MSDM-90 | MSDM-90M |
| 100 ± 5.0 | FSDM-100 | FSDM-100M | MSDM-100 | MSDM-100M |

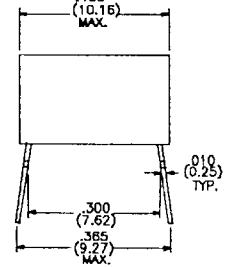
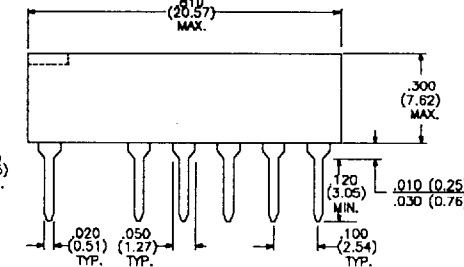
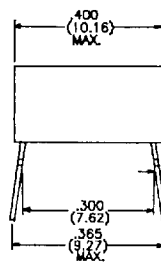
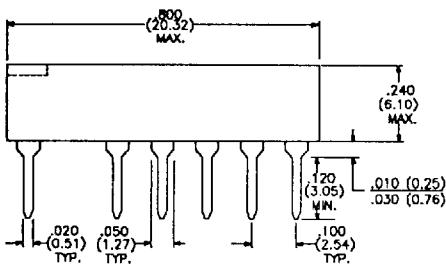
GENERAL: For Operating Specifications and Test Conditions, see Tables I and VII on page 8 of this catalog. Delays specified for the Leading Edge.

Tap Delays referenced to Input ± 5% or ± 2 ns
 Minimum Input Pulse Width, **DTZM & FSDM** 40% of total delay
 Minimum Input Pulse Width, **MSDM** 100% of total delay
 Temperature Coefficient of Delay, **DTZM & FSDM** 500ppm/°C typical
 Temperature Coefficient of Delay, **MSDM** 800ppm/°C typical
 Supply Current, I_{CC} , **DTZM & FSDM** 40 mA typ., 65 mA max.
 Supply Current, I_{CC} , **MSDM** 60 mA typ., 120 mA max.



Commercial Grade Package Dimensions, inches (mm)

Military Grade Package Dimensions, inches (mm)



VARIATIONS AVAILABLE. FOR INTERMEDIATE VALUES AND/OR CUSTOM DESIGNS PLEASE CONSULT THE FACTORY.
 Specifications subject to change without notice. DTZM-7/93



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