

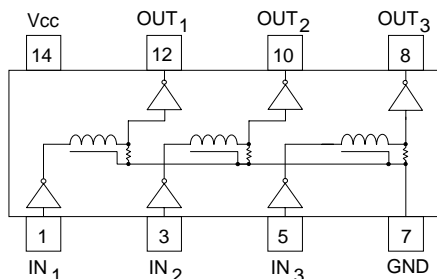
MSDM Series FAST / TTL Buffered Triple Independent Delays

- 14-Pin Package Commercial and Mil-Grade Versions
- FAST/TTL Logic Buffered
- 3 Independent Equal Delay Lines
*** Unique Delays Per Line are Available ***
- Operating Temperature Ranges
0°C to +70°C, or -55°C to +125°C
- 8-pin DIP/SMD Versions: FAM3D Series
14-pin DIP/SMD Versions: FAI3D Series

Electrical Specifications at 25°C

Delay Tolerance (ns)	14 Pin DIL TTL Buffered Triple Independent Delays	
	Commercial Part Number	MIL-Grade Part Number
5 ± 1.00	MSDM-5	MSDM3-5M
6 ± 1.00	MSDM-6	MSDM3-6M
7 ± 1.00	MSDM-7	MSDM3-7M
8 ± 1.00	MSDM-8	MSDM3-8M
9 ± 1.00	MSDM-9	MSDM3-9M
10 ± 1.50	MSDM-10	MSDM3-10M
15 ± 2.00	MSDM-15	MSDM3-15M
20 ± 2.00	MSDM-20	MSDM3-20M
25 ± 2.00	MSDM-25	MSDM3-25M
30 ± 2.00	MSDM-30	MSDM3-30M
35 ± 2.00	MSDM-35	MSDM3-35M
40 ± 2.00	MSDM-40	MSDM3-40M
45 ± 2.25	MSDM-45	MSDM3-45M
50 ± 2.50	MSDM-50	MSDM3-50M
60 ± 3.00	MSDM-60	MSDM3-60M
70 ± 3.50	MSDM-70	MSDM3-70M
75 ± 3.75	MSDM-75	MSDM3-75M
80 ± 4.00	MSDM-80	MSDM3-80M
90 ± 4.50	MSDM-90	MSDM3-90M
100 ± 5.0	MSDM-100	MSDM3-100M

MSDM 14-Pin Schematic



TEST CONDITIONS -- FAST / TTL

- V_{CC} Supply Voltage 5.00VDC
 Input Pulse Voltage 3.20V
 Input Pulse Rise Time 3.0 ns max.
 Input Pulse Width / Period 1000 / 2000 ns
 1. Measurements made at 25°C
 2. Delay Times measured at 1.50V level of leading edge.
 3. Rise Times measured from 0.75V to 2.40V.
 4. 10pf probe and fixture load on output under test.

OPERATING SPECIFICATIONS

- V_{CC} Supply Voltage 5.00 ± 0.25 VDC
 I_{CC} Supply Current 45 mA typ, 95 mA max.
 Logic "1" Input: V_{IH} 2.00 V min., 5.50 V max.
 I_{IH} 20 µA max. @ 2.70V
 Logic "0" Input: V_{IL} 0.80 V max.
 I_{IL} -0.6 mA mA
 V_{OH} Logic "1" Voltage Out 2.40 V min.
 V_{OL} Logic "0" Voltage Out 0.50 V max.
 P_{VI} Input Pulse Width 100% of Delay min.
 Operating Temperature Range 0° to 70°C
 Storage Temperature Range -65° to +150°C

P/N Description

MSDM - XXX X

Buffered Triple Delays:

14-pin Com'l: MSDM
 14-pin MIL: MSDM3

Total Delay in nanoseconds (ns)

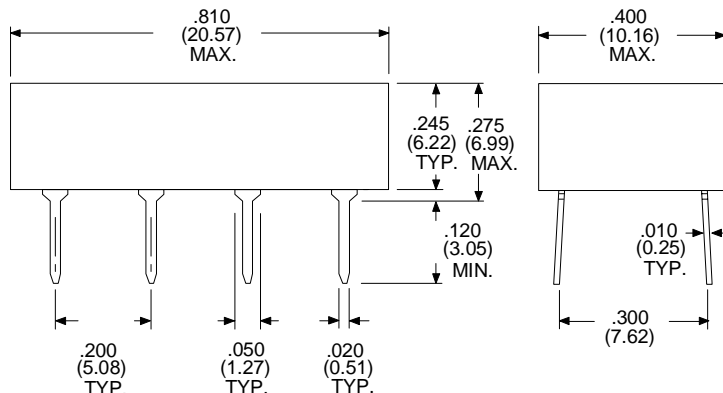
Temp. Range Blank = Commercial
 M = Mil-Grade

Examples: MSDM-25 = 25ns (25ns per Line)
 74F, 14-Pin Thru-hole

MSDM3-50M = 50ns (50ns per Line)
 74F, 14-Pin, Mil-Grade

Dimensions in Inches (mm)

Commercial Grade 14-Pin Package with Unused Leads Removed as per Schematic. (For Mil-Grade MSDM3 the Height is 0.335")



MIL-GRADE: MSDM3 Military Grade delay lines use integrated circuits screened to MIL-STD-883B with an operating temperature range of -55 to +125°C. These devices have a package height of .335"

Auto-Insertable DIP and Surface Mount Versions:
 Refer to **FAI3D Series**, same 14-pin footprint.
 For space saving, refer to **FAM3D 8-pin Series**

Specifications subject to change without notice.

For other values & Custom Designs, contact factory.

MSDM 9901