

# MIH Series

5mm X 7mm Ceramic SMD

**MMD**  
COMPONENTS



- **Ceramic SMD Package**
- **5.0, 3.3, 2.5, and 1.8 Volt**
- **HCMOS/TTL Compatible Output**
- **Stability to  $\pm 10$ ppm**
- **Tape and Reel Packaging**

## Electrical Specifications

Frequency Range	5V and 3.3V	1.500MHz to 156.250MHz
	2.5V	1.500MHz to 70.000MHz
	1.8V	1.544MHz to 40.000MHz
Frequency Stability (Inclusive of Temperature, Load, Voltage and Aging)		$\pm 100$ ppm to $\pm 10$ ppm
Operating Temperature Range		0°C - 70°C to -40°C - 85°C
Storage Temperature Range		-55°C - 125°C
Supply Voltage (Vdd)	$\pm 5\%$	5.0Vdc, 3.3Vdc, 2.5Vdc, or 1.8Vdc
Supply Current	Vdd = 5V	70mA max.
	Vdd = 3.3V	40mA max.
	Vdd = 2.5V	35mA max.
	Vdd = 1.8V	15mA max.
Output Voltage HCMOS	Logic 0	10% Vdd max.
	Logic 1	90% Vdd min.
Duty Cycle	50% of waveform	40%/60% max. or 45%/55% max.
Load Drive Capability	5V(less than 50MHz)	10 TTL Gates or 50pF
	5V(greater than 50MHz)	10 TTL Gates or 15pF
	3.3V(less than 50MHz)	10 TTL Gates or 30pF
	3.3V(greater than 50MHz)	10 TTL Gates or 15pF
	2.5V	10 TTL Gates or 15pF
	1.8V	10 TTL Gates or 15pF
Rise / Fall Time		4nSec max.
Start Up Time		10mSec max.
Jitter	RMS	10pSec max.*

\*Please contact your MMD representative for up-to-date typical jitter information

*Notes*



[www.mmdcomp.com](http://www.mmdcomp.com)

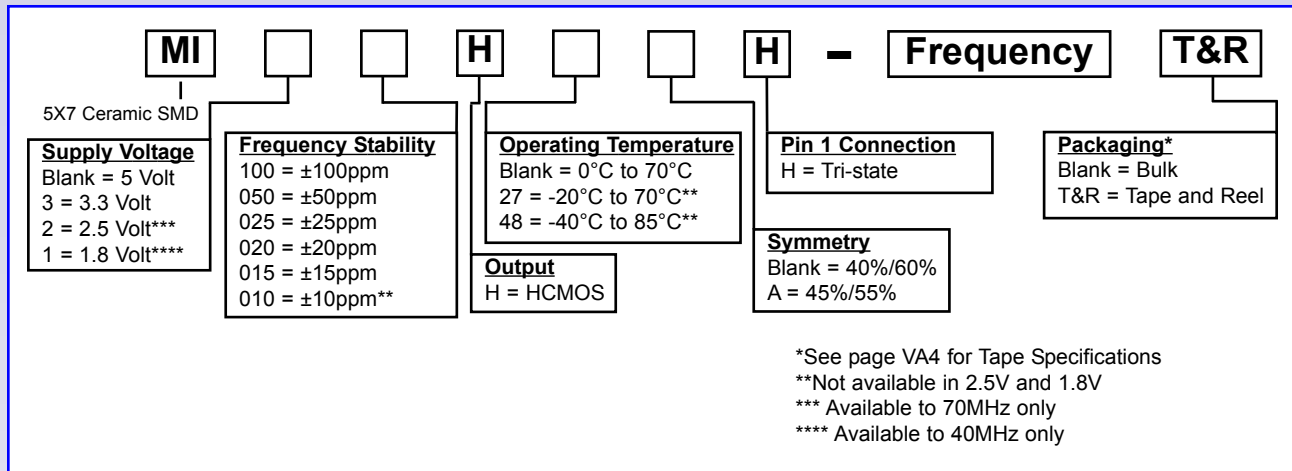
phone: 949-709-5075 / fax: 949-709-3536

OS11

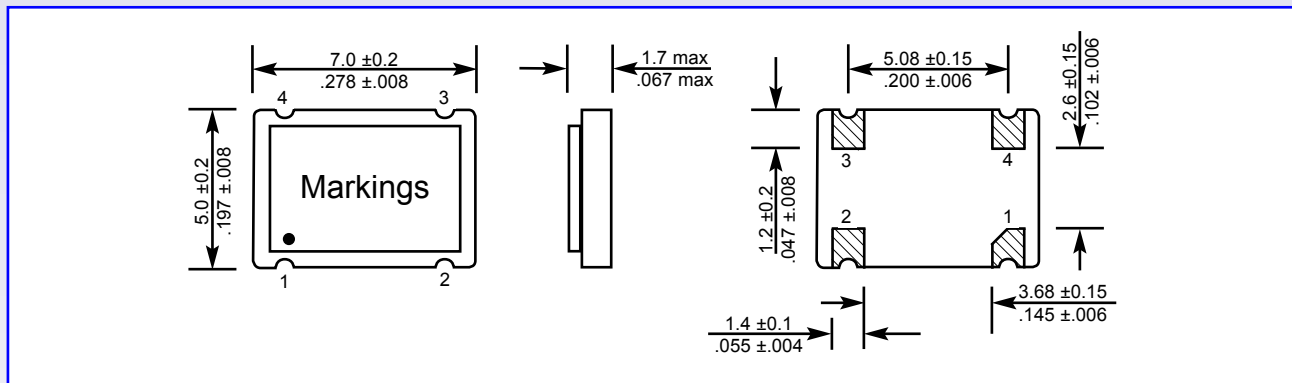
Specifications subject to change without notice

Revision: 4/20/04 I

## Part Numbering Guide



## Mechanical Dimensions

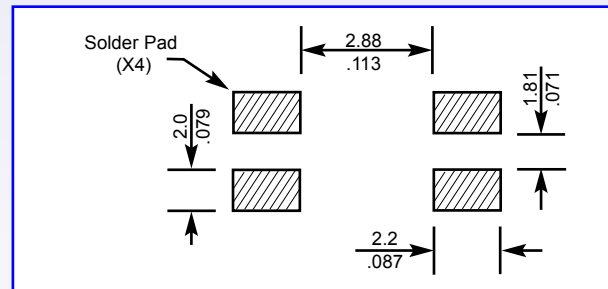


## Pad Connections

**Tri-state Operation**  
 Logic 1 or NC = Oscillation  
 Logic 0 or GND = High Impedance

Pin 1: Tri-State  
 Pin 2: Ground / Case  
 Pin 3: Output  
 Pin 4: Supply Voltage

## Suggested Solder Pad Layout



## Environmental / Mechanical

Shock: MIL-STD-883, Method 2002, Condition B  
 Solderability: MIL-STD-883, Method 2003  
 Solvent Resistance: MIL-STD-202, Method 215  
 Vibration: MIL-STD-883, Method 2007, Condition A  
 Gross Leak Test: MIL-STD-883, Method 1014, Condition C  
 Fine Leak Test: MIL-STD-883, Method 1014, Condition A2

## Markings

Line 1: MMD "Date Code"  
 Line 2: Frequency