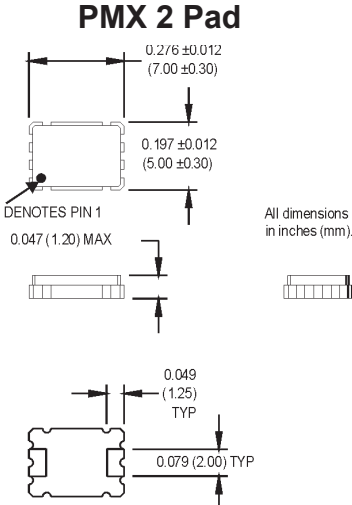
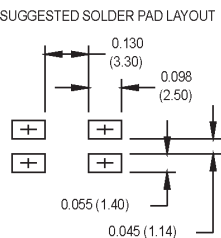
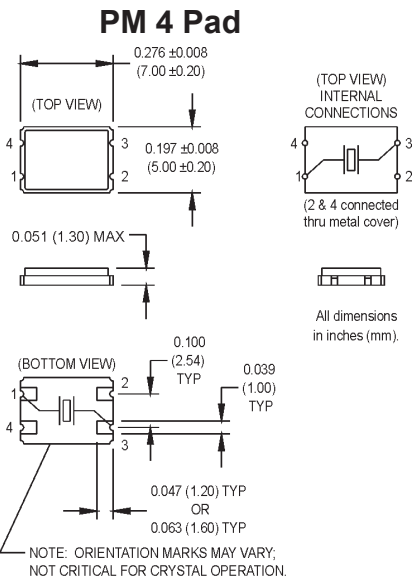
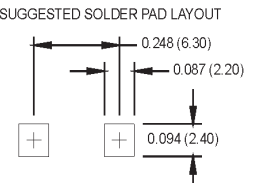


# PM and PMX Surface Mount Crystals

## 5.0 x 7.0 x 1.3 mm



- Miniature low profile package (2 & 4 Pad)
- RoHS Compliant
- Wide frequency range
- PCMCIA - high density PCB assemblies



### Ordering Information

PM 1 M M XX 00.0000 MHz

**Product Series**  
PMX: 2 Pad  
PM: 4 Pad

**Temperature Range**  
1: 0°C to +70°C    2: -40°C to +85°C  
3: -55°C to +105°C    4: -55°C to +125°C  
5: -10°C to +85°C    6: -20°C to +70°C

**Tolerance**  
D: ±10 ppm    F: ±15 ppm  
G: ±20 ppm    H: ±25 ppm  
J: ±30 ppm    M: ±50 ppm

**Stability**  
D: ±10 ppm    F: ±15 ppm  
G: ±20 ppm    H: ±25 ppm  
J: ±30 ppm    M: ±50 ppm  
P: ±100 ppm

**Load Capacitance**  
Blank: 18 pF (std)  
S: Series Resonant  
XX: Customer Specified 10 pF to 32 pF

**Frequency (customer specified)**

**Table 1: Available Stabilities vs. Temperature**

| T \ S | D | F | G | H | J | M | P |
|-------|---|---|---|---|---|---|---|
| 1     | A | A | A | A | A | S | A |
| 2     | N | A | A | A | A | A | A |
| 3     | N | N | N | N | N | A | A |
| 4     | N | N | N | N | N | A | A |
| 5     | N | A | A | A | A | A | A |
| 6     | N | A | A | A | A | A | A |

A = Available    S = Standard  
N = Not Available

| PARAMETERS                               | VALUE                               |      |
|--|-------------------------------------|------|
| Frequency Range*                         | 9.500 to 150.000 MHz                |      |
| Tolerance @ +25°C                        | See Table Above                     |      |
| Stability                                | See Table Above                     |      |
| Aging                                    | ±5 ppm/yr Max                       |      |
| Shunt Capacitance                        | 5 pF Max.                           |      |
| Load Capacitance                         | See ordering information            |      |
| Standard Operating Conditions            | See Table Above                     |      |
| Equivalent Series Resistance (ESR), Max. | Fundamental (AT-cut)                |      |
|  | 9.5000 to 10.999 MHz                | 80 Ω |
|  | 11.000 to 13.999 MHz                | 50 Ω |
|  | 14.000 to 15.999 MHz                | 40 Ω |
|  | 16.000 to 40.500 MHz                | 30 Ω |
|  | Third Overtones (AT-cut)            |      |
| 35.000 to 39.999 MHz                     | 100 Ω                               |      |
| 40.000 to 49.999 MHz                     | 80 Ω                                |      |
| 50.000 to 90.000 MHz                     | 100 Ω                               |      |
| Fifth Overtones (AT-cut)                 |                                     |      |
| 90.000 to 150.000 MHz                    | 100 Ω                               |      |
| Drive Level                              | 100 μW Max., 50 μW Typ., 10 μW Min. |      |
| Mechanical Shock                         | MIL-STD-202, Method 213, C          |      |
| Vibration                                | MIL-STD-202, Method 201 & 204       |      |
| Thermal Cycle                            | MIL-STD, Method 1010, B             |      |
| Max Soldering Conditions                 | See solder profile, Figure 1        |      |

\* Because this product is based on AT-strip technology, not all frequencies in the range stated are available. Contact the factory for availability of frequencies >100 MHz.

MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

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# MtronPTI Lead Free Solder Profile

