



SPECIFICATION FOR SMT – GULLWING OSCILLATOR MtronPTI P/N: M2002S432

I. GENERAL & ELECTRICAL REQUIREMENTS:

1. FREQUENCY: 12.000000 MHz
2. FREQUENCY STABILITY @23°C ±3°C : ± 100 ppm (Includes initial tolerance +/-25ppm, deviation over temperature, shock, vibration, voltage & load variations, and aging.)
3. OPERATING TEMPERATURE RANGE: -55°C to +125°C
4. OPERATING VOLTAGE (Vdd): 3.3 V ± 10%
5. OPERATING CURRENT: 10 mA max.
6. OUTPUT TYPE: HCMOS/TTL Compatible
7. SYMMETRY: 40/60% ref. to ½ Vdd
8. RISE/FALL TIME: 10 nS max. ref. 10% to 90% Vdd
9. OUTPUT LOGIC LEVELS: V_{OL} = 10% Vdd max. V_{OH} = 90% Vdd min.
10. OUTPUT LOAD: 15 pF max.
11. ENABLE/DISABLE TIME: 150 ns. max.
12. HIGH LEVEL INPUT VOLTAGE: 2.0 Vdd max. - 10 µA
13. TRISTATE FUNCTION (Pad 1): Logic “high” or “floating”, clock signal output
Logic “low”, output (pin 3) disables to high impedance state

II. ENVIRONMENTAL/MECHANICAL REQUIREMENTS:

1. SHOCK: MIL-STD-202, Method 213, Condition C.
2. VIBRATION: MIL-STD-202, Methods 201 & 204.
3. HERMETICITY: MIL-STD-883, Method 1014, Test Condition A1 for Fine Leak, Test Condition C1 for Gross Leak
4. STORAGE TEMPERATURE: -55°C to +125°C
5. SOLDERABILITY: Per MIL-STD-883, Method 2003
6. REFLOW SOLDER CONDITIONS: +260°C for 10 secs. max.
7. PACKAGE: 4 - Pad leadless ceramic package with (4) Gullwing Leads attached (M2 Type)
8. LEAD ATTACHMENT: Thermo-compression Weld using Copper Leads and Gold Pads
9. LEAD PULL TEST: Shall withstand 8oz. pull per MIL-STD-883, Method 2004, Condition A
10. LEAD FINISH: Hot Solder Dipped
11. PART MARKING: All parts that have completed all test and screen requirements shall be marked with a dot on the top surface

III. TEST/SCREEN REQUIREMENTS:

1. PRODUCT TESTING: All lots supplied to Hamilton shall have all electrical parameters shown in Table I verified at -55°C to +125°C. When tested, lots shall demonstrate a percent defective of no greater than 0.5% (99.5% yield). A demonstrated reject rate greater than 0.5% will be sufficient cause for the lot rejections.
2. DATE CODE: All parts from one lot should be from one date code. Product should be no older than one year from receiving date of the purchase order from Hamilton.
3. VISUAL INSPECTION: 100% external inspection shall be performed under a minimum 30x magnification to validate that there are no flaws associated with the Lead attach – positioning, connection, and integrity of lead and carrier should be inspected. Per Mil-STD-883, Method 2009.

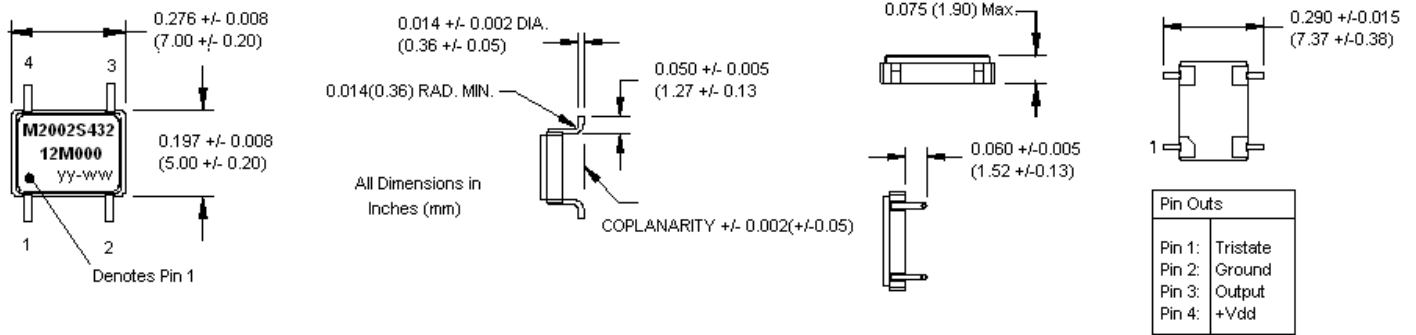
IV. DIMENSIONS

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MtronPTI P/N: M2002S432
 (Ref. Hamilton P/N: 1000425-4)
 Effective Date: July 17, 2005

IV. DIMENSIONS



V. SOLDER PROFILE:

