

P.O. Box 630 100 Douglas Ave. Yankton, SD 57078 USA Phone: 800-762-8800 or 605-665-9321 Fax: 605-665-1709 Website: www.mtron.com SPECIFICATION FOR SMT 9 x 14 OSCILLATOR MtronPTI P/N: M2015S037

I. GENERAL & ELECTRICAL REQUIREMENTS:

- 1. FREQUENCY: 40.000000 MHz
- 2. FREQUENCY STABILITY OVER TEMPERATURE: ± 100 ppm
- 3. OPERATING TEMPERATURE RANGE: -55°C to +125°C
- 4. OPERATING VOLTAGE (Vdd): 5.0 V \pm 10 %
- 5. OPERATING CURRENT: 20 mA max.
- 6. OUTPUT TYPE: HCMOS Compatible
- 7. SYMMETRY: 40/60% ref. to ¹/₂Vdd
- 8. OUTPUT LOAD: 50 pF max.
- 9. RISE/FALL TIME: 7 nS max. ref. 10% to 90%
- 10. OUTPUT LOGIC LEVELS: $V_{OL} = 10\%$ Vdd max. $V_{OH} = 90\%$ Vdd min.
- 11. JITTER (Cycle-to-Cycle): 20 pS RMS max.
- 12. TRISTATE FUNCTION (Pad 1): Logic level "1", or floating: normal output

Logic level "0": output disables to high impedance

II. ENVIRONMENTAL & MECHANICAL REQUIREMENTS:

- 1. SHOCK: MIL-STD-202, Method 213, Condition C.
- 2. VIBRATION: MIL-STD-202, Methods 201 & 204.
- 3. HERMETICITY: 1 X 10⁻⁸ atm cc/sec min.
- 4. SOLDERABILITY: Per EIAJ-STD-002
- 5. REFLOW SOLDER CONDITIONS: 260°C for 10 seconds max.
- 6. PACKAGE: 4 –J lead ceramic package with tinned leads. (M7S type)
- 7. SCREENING: HiRel Screening required per Hamilton Product Specs.

III. DIMENSIONS



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IV. Product Revision Table:

Date	Revision	PCN Number	Details of Revision
1-13-05	А	10065	Drop In Substrate mounting in the Ceramic package changed to a "sandwich" design to improve CTE issues in product
			testing and use in HiRel environments. Manual dispensing of epoxy changed to an automated process
1-13-05			Product Part Number changed to track product improvement. Product part number previously was 1517-995
2-18-08	В	N/A	Datasheet updated to reflect Hamilton Specification update to Revision P - Rise and Fall time changed to 7ns from 10