

ZMI 2400 Measurement Board

| P/N | DESCRIPTION |
|--------------|------------------------------------|
| 8020-0104-11 | 1 axis, VME 6U board |
| 8020-0104-15 | 1 axis, VME 6U board with Ethernet |
| 8020-0104-12 | 2 axes, VME 6U board |
| 8020-0104-16 | 2 axes, VME 6U board with Ethernet |

GENERAL

| | |
|--|---|
| Maximum Number of Boards in a System | 7; there may also be limits due to VME or P2 population |
| Reference Inputs | ST fiber optic or HSSDC2 electrical |
| Reference Outputs (1 per board) | HSSDC2 electrical |
| Measure Inputs (1 per axis) | ST fiber optic |
| Signal Strength Test Points (1 per axis) | RJ-11 connector |
| Status Indicators (LEDs) | Green – meas present (1 per axis), ref present, User LED Amber – meas error (1 per axis), ref error, Config. |
| Minimum Input Optical Power | > 1.9 μ W AC |
| Minimum Reference Optical Power | > 8 μ W AC |

POWER REQUIREMENTS

| | |
|------|-----------------------------------|
| 2401 | 5 VDC +0.25V/-0.125V @ 3.5A (max) |
| 2402 | 5 VDC +0.25V/-0.125V @ 5A (max) |

COOLING REQUIREMENTS

| | |
|-------------|----------------|
| 10 to 40° C | 60 linear fpm |
| 40 to 55° C | 120 linear fpm |

COMPLIANCE

| | |
|-------|---|
| VME | VMEbus specification ANSI/VITA 1-1994 Addressing: A16 or A24 Data Transfer: D16 or D32 D08 (O) Interrupt Acknowledge Cycle |
| Other | UL94V0, CE Mark (Emissions EN 55011A, Immunity EN 50082-1, Low Voltage Directive EN 61010-1, tested inside CE Mark compliant chassis) |

PERFORMANCE

| | |
|------------------------------------|---|
| Position Resolution ⁽¹⁾ | $\lambda/2048$ (0.31 nm) |
| Position Range ⁽¹⁾ | ± 10.6 m |
| Position Format | 36 bit - 2's complement |
| Time Stamp Resolution | 25 nanoseconds |
| Maximum Velocity ⁽¹⁾ | 2.1 m/s |
| Maximum Acceleration | 100 g (10 g max. during reset) |
| Data Age (P2 output) | 1 μ s typical |
| Data Age Uncertainty, Compensated | ± 1.2 ns (3 boards) |
| Electronic Accuracy ⁽¹⁾ | ≤ 1.2 LSB at ± 0.1 m/sec ≤ 1.4 LSB at ± 1.0 m/sec ≤ 1.6 LSB at ± 2.1 m/sec |

ENVIRONMENTAL

| | |
|-----------------------|--------------------------------------|
| Operating Temperature | 10 to 55° C |
| Operating Humidity | 0 to 90%, noncondensing |
| Operating Pressure | Standard 1 atmosphere (700-800 mmHg) |

(1) Based on double pass interferometer.