

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.