

Keysight N1225A VME Four-Channel High Resolution Laser Axis Board

The Keysight Technologies, Inc. N1225A VME four-channel high resolution laser axis board provides ultra-sensitive fiber optic receivers and high resolution distance measurements for high performance positioning systems using laser interferometry with VME bus systems. Multiple N1225A boards can be linked together for up to 31 axes of position measurement. Includes “oscilloscope like” data capture operated with standard web browsers.



N1225A VME Four-Channel High Resolution Laser Axis Board

Key features

- Four measurement channels per board
- Receiver sensitivity of 0.065 μ W
- Position resolution of 0.15 nm using plane mirror optics
- \pm 2.29 m/s plane mirror stage velocity using 15 MHz split laser head
- Multiplexed 36 bits position output data rate @ 10 MHz/number of axes
- Simultaneous 12 bits position output at 10 MHz
- Optional cyclic error compensation available

Product specifications

Model	Hardware update rate	Maximum resolution with plane mirror optics	Maximum stage velocity using plane mirror optics and 5517FL laser head	Options
N1225A	10 MHz	0.15 nm	1050 mm/s	Standard configuration
N1225A-200	10 MHz	0.15 nm	1050 mm/s	Reduces cyclic error having a period of 1 fringe Up to 8 nm error can be reduced to less than 1 nm

Key specifications with plane mirror optics

Options	Description
Hardware measurement range	± 10.3 m
Resolution	0.15 nm, 0.3 nm, 0.6 nm, 1.2 nm, 2.4 nm, 4.8 nm programmable resolution
Velocity	Up to ± 2.29 m/s with 15 MHz laser split frequency
Backplane	Compatible with VME and VME64x
Hardware output	36 bit parallel position word on P2 connector
VMEbus	A16/A24, GAP Addr; D16/D32 data transfer cycles
LAN	10/100 BaseT, DHCP enabled, built-in web server
Power supply	Single +5V @ 5.6A max
Size	VME 6U

For more details on Keysight digital multimeters and ordering information see “Keysight ‘Low Profile’ 6½ Digit Multimeter” literature number 5989-6303E.

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