VTI Instruments / AMETEK PROGRAMMABLE POWER

EX1208B

FEATURES

- Compact Design
- 3U Rack Mountable
- Scalable
- High Density
- Performance Grade
- Cost Effective
- Set Up and Run

LXI 16-SLOT SWITCHING & DATA ACQUISITION MAINFRAME

VTIinstruments.com

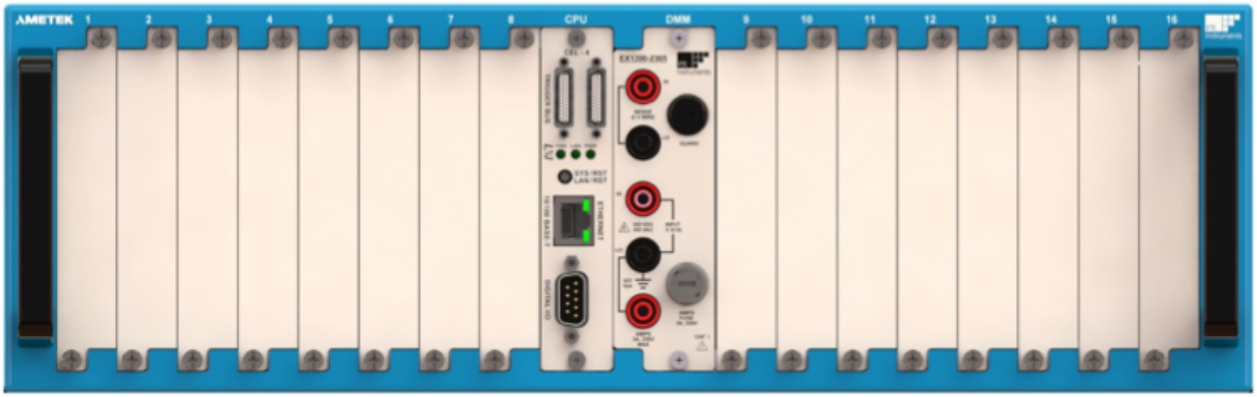
9250 Brown Deer Road • San Diego, CA 92121 • USA
vti.sales@ametek.com • +1 858-4500085

20240611

EX1208B LXI 16-SLOT SWITCHING & DATA ACQUISITION MAINFRAME

Overview

The EX1208B LXI 16-Slot Switching & Data Acquisition Mainframe EX1208B LXI mainframe is compliant with LXI Standards supports up to 16 3U modules along with an optional 6.5-digit DMM in a single mainframe. The EX1200 series Plug in cards offers nearly double the available working space and increased channel count capacity to ensure the highest degree of signal integrity in the same vertical footprint as PXI.



Applications

- High-performance switching from DC to 26.5 GHz
- Power supply switching
- Temperature monitoring (RTD, thermocouple, thermistor)
- High voltage monitor
- Automotive ECM testing
- Data logging applications
- Cable/harness testing
- Battery test
- RTD/sensor simulation
- White goods Testing

Highlights

- Modular, scalable in a 3U full rack mount form factor, provides low cost per channel across a wide range of configurations.
- Optional EXLab “Set Up and Run” software simplifies data acquisition tasks.
- Measurement support for all thermocouple types, RTDs, and built-in cold junction compensation when using the available 6.5 digit DMM and associated terminal block.
- Scan list architecture, switching can be tightly synchronized with the internal 6.5-digit DMM, which increases test throughput.
- Analog and digital plug-in modules provide control capability of external devices.
- 5-lane analog backplane allows for direct connection from the internal DMM to Multiplexer cards or for 4 channel matrix expansion.
- LXI/Ethernet communication interface simplifies connectivity and helps reduce cost and eliminate long term obsolescence issues.
- Tightly synchronized measurements in a distributed architecture using IEEE 1588.
- Highly determined handshaking when using the LXI wired trigger bus.

EX1208B LXI 16-SLOT SWITCHING & DATA ACQUISITION MAINFRAME

Switch/Measure and Control for Data Acquisition

When installed with the optional 6.5-digit DMM, the EX1208B LXI mainframe can be configured as a cost-effective, high-density, scanning measurement and control instrument capable of acquiring data from thermocouples, RTDs, thermistors, and voltage/current sensors at rates up to 1000 samples per second.

Plug-in switch/multiplexer modules are used to expand the number of channels that can be scanned in a single system. Additional plug-in modules extend the capabilities of this instrument for data acquisition by adding precision analog and digital outputs for controlling external devices, as well as pulse/tach inputs for additional measurement capability. The chassis is fitted with a 1000 W industrial grade power supply mounted at the rear of the unit with sufficient capacity to support any VTI LXI module available for this chassis.

This EX12xx family contains the following core components Mainframes, Plug-in cards, Accessories, and connectivity.

Mainframes

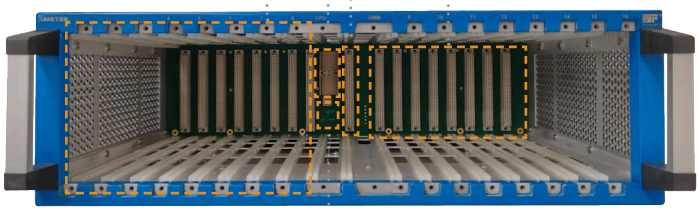
- Provides power to the plugin cards
- Analog bus for routing measurements from plugin cards to DMM
- A shared communication bus and system clock
- Synchronization

Slots for inserting plug-in cards for specific functionality.

5-lane analog bus capable of routing signals up to 300 V, 3 A internally to the DMM for measurement.

LXI wired trigger bus for precision synchronization with other instruments.

Optional 6.5 digit DMM capable of measuring DCV, ACV, DCI, ACI, 2W Ω, 4W Ω, temperature transducers and frequency.



LXI interface allows users to control instrument and acquire data using Ethernet.

EX1208B LXI 16-SLOT SWITCHING & DATA ACQUISITION MAINFRAME

Specifications

The EX1208B LXI 16-Slot Switching & Data Acquisition Mainframe EX1208B LXI mainframe is compliant with LXI Standards and supports up to 16 3U modules along with an optional 6.5-digit DMM in a single mainframe. The EX1200 series Plug in cards offers nearly double the available working space and increased channel count capacity to ensure the highest degree of signal integrity in the same vertical footprint as PXI.

GENERAL SPECIFICATIONS	
Number of Slots	1 System Slot,1 DMM Slot and 16 Peripheral Slots
Input Voltage Range	85-263VAC
Power	1000 Watts
DC Outputs per Slot(s)	24V@2A 5V@2.2A 3.3V@2A
Dimensions	17.75” D, 16.72” W, 5.20” H
Temperature	Operating: 0 °C - 55 °C Storage: -40 °C - 70 °C
Operating Altitude	10,000 ft (3,000 m) maximum
Operating Humidity	5% - 95% non-condensing @ 0 °C - 30 °C, 5% - 75% non-condensing @ 30 °C - 40 °C 5% - 45% non-condensing @ 40 °C - 50 °C (per 3.8.3 of MIL-PRF-28800F Class 3)
Weight	17.2 lbs (7.8 kg)
Shock and Vibration	Conforms to MIL-PRF-28800 Class 3
CE Compliant	Yes

Specifications subject to change without notice

CLOCK SPECIFICATIONS	
Clock Oscillator Accuracy	±50 PPM
Synchronization Accuracy	Reports “synchronized” when < ±200 µs of the 1588 master clock
Timestamp Accuracy	As good as time synchronization down to 50 ns
Timestamp Resolution	25ns
LXI Supported Extension	LXI WTB, LXI Event Log, LXI Event Messaging, LXI IEEE 1588 Clock Synchronization, LXI Timestamped Date

Specifications subject to change without notice

EX1208B LXI 16-SLOT SWITCHING & DATA ACQUISITION MAINFRAME

Plug-in Cards

A family of over 35 cards provides complete test and measurement capability in a high-density form factor for high-performance, low-cost testing.

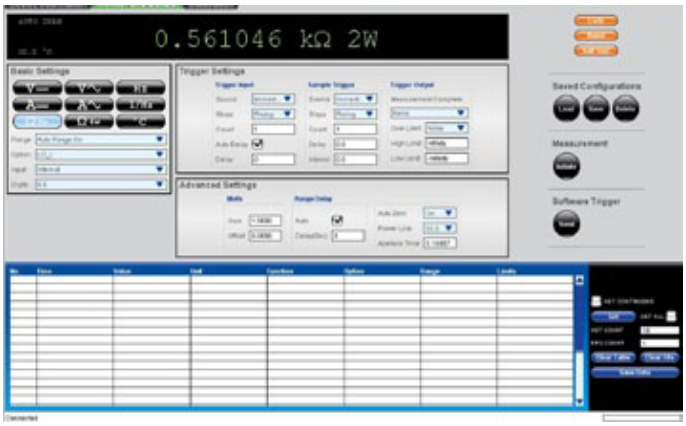
- General purpose switching
- Multiplexers
- Matrix Switching
- RF Switching
- Power switching up to 16A
- High voltage switching up to 1000V
- RTD Simulator
- Isolated DAC (Digital to Analog Convertor)
- Comparator/threshold detector
- RF/Microwave Switching
- Multifunction card Teach/Pulse measurements, AWG and DIO
- DIGITAL I/O
- Programmable Resistor/Load
- 6.5 Digit DMM capable of measuring DCV, ACV, DCI, ACI, 2W Ω and 4W Ω, temperature transducers and frequency

EX1208B LXI 16-SLOT SWITCHING & DATA ACQUISITION MAINFRAME

Easy-to-use Graphical Control

The EX1200 series is delivered with an embedded web interface that provides virtual monitoring and control of all switches and instruments without the need for any third-party software.

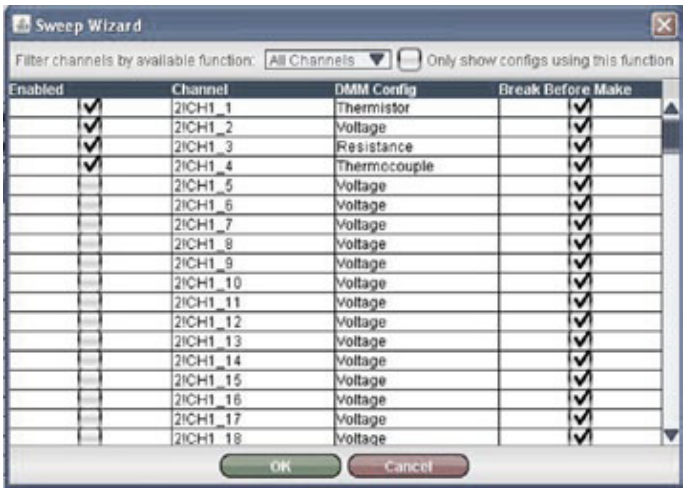
The web interface is accessible from any web-enabled device, including smart phones and tablets, and provides easy to use tools for test sequencing and scanning. Power on your instrument and start taking data in less than a minute.



Built-in Test Sequencing

A powerful embedded application dedicated to scanning measurements and control is provided. Each measurement channel can be configured independently with pass/fail limits that can be evaluated on the fly.

Stimulus and switch settings can be modified as part of the test sequence and input channels can be measured to verify how they respond to these changes. This robust utility minimizes processor overhead and test execution time.



ORDERING INFORMATION

75-0046-800R	EX1208B 16-Slot Chassis with included LXI/Ethernet Controller (DMM not included)
70-0370-103R	Accessory Rack Ear Kit with Rear Support Bracket, 3U, EX1208B
70-0370-104R	Accessory Rack Ear Kit, Full Rack, 3U, EX1208B