- **High Performance 18 Slot PXI/cPCI Backplane**
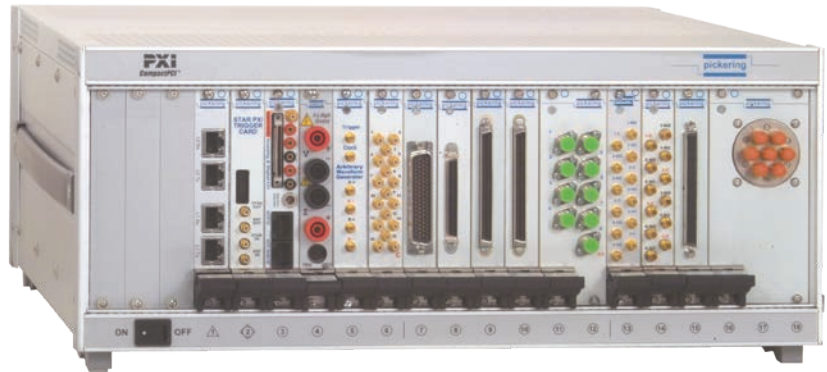- **Four Modular Power Supplies**
- **Compact Benchtop Footprint**
- **Integrated Carrying Handles**
- **Low Profile 4U Rugged Design**
- **Voltage Monitoring Included**
- **Power Supplies Hot Swap Capable**
- **Low Audible Operating Noise Versions Available**
- **3 Year Warranty**

Pickering Interfaces 40-918 PXI Chassis features an industry-standard, eighteen-slot PXI/cPCI backplane integrated into a 3U cardcage.

The 41-918 includes all the features and performance required by the PXI standard and supports a control interface or embedded controller and up to 17 additional 3U peripheral modules.
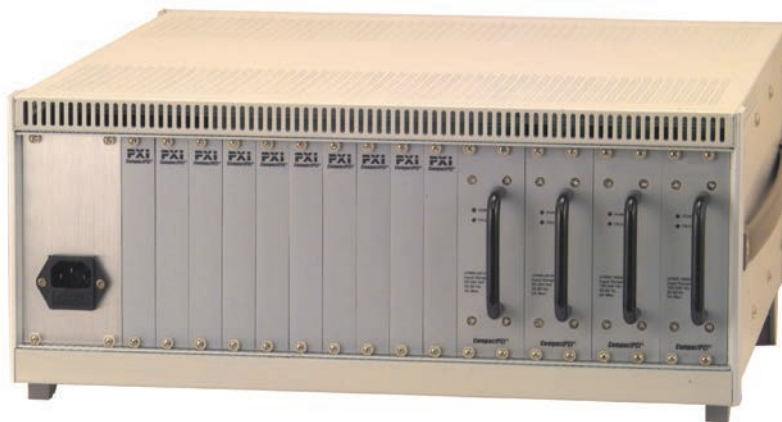
The chassis can be controlled from a PC using Pickering Interfaces PCI to PXI Control Interface 41-921.

It has very high power capability provided by four modular power supplies mounted in the rear of the chassis. Its power capacity is well suited to supporting modules with very high current demands. The modular power supplies are hot swappable, replacement power supply modules are available from Pickering.

Power supply voltage status and fault monitoring is via front panel LEDs. Two 56cfm fans provide dedicated power supply cooling with easy access to the filter media.

Four 56cfm fans (total 224cfm) insure maximum PXI module cooling with minimal noise. Quick filter media and fan maintenance is provided by a removable fan tray.

For applications such as office or laboratory environments where acoustic noise levels are critical the chassis can be supplied with either lower speed fans or with fans whose speed can be set to full, medium or slow with easily accessed internal switches.

Rear View of the Chassis Showing Location of the Four Hot Swappable Power Supplies

pickering | **Pickering Interfaces**

pickeringtest.com

Specifications

Chassis Backplane:	Incorporates all the features of the PXI specification. The backplane is 64-bit with PXI triggers, Star Trigger, Local Bus & internal PXI clock.

Cooling

Airflow:	Bottom intake, side/rear exhaust, pressurized cardcage.
Fans:	4 off 55cfm fans (224cfm total).
Acoustic Noise:	68.4 - 70.3dB @ 1meter (A weighting).
Air Filter:	Bottom accessible, washable media.
Low Acoustic Noise Versions:	Available with selectable fan speed (3 speeds set by internal switches). Available with low noise fans.

Power Supply

Input Voltage Range:	90 - 264VAC, universal input, Line Fuse protected.

Supplied with four 175W power supplies (Type 59102) with the following total capacity:

DC Outputs	Total Current
+3.3V	100A
+5V	100A
+12V	12A
-12V	4A

Note: Combined 3.3V and 5V current, 108Amps Maximum.

Power Factor:	0.99 (typical).
Efficiency:	70% (typical).

Power Supply Cooling

Airflow:	Bottom intake, side/rear exhaust
Fans:	2 off 56cfm fans (112cfm total).
Air Filter:	Bottom accessible, washable media.

Power Supply Monitoring

Interface:	Front panel LED indicators.
Functions:	Power supply DC output voltage verification (90% nominal).
Indicators:	Green LEDs for Power OK, Red LED for Fault.

Mechanical Specification

Cardcage:	Front loading 3U x 160mm, flush, 18 slots, IEEE 1101.1, 1101.10 and 1101.11
Dimensions:	Depth: 482.6mm (19.00”) Width: 442.2mm (17.41”) without rack mount flanges. Width: 482.6mm (19.00”) with rack mount flanges. Height:177mm (6.97”)
Weight:	14.74kg (32.5 lbs) without PXI modules

Product Order Codes

18-Slot, 3U, PXI Chassis	**40-918-001**
Chassis with 3 speed fans	**40-918-101**
Chassis with low noise fans	**40-918-201**
PCI to PXI Control Interface Kit	**41-921-001-KIT**

(for full details of our fast PCI to PXI control Interface see the 41-921 data sheet).

Accessories

Replacement Power Supply Module	**44-901-003**

Operating/Storage Conditions

Operating Conditions

Operating Temperature:	0°C to +55°C
Humidity:	Up to 95% non-condensing
Altitude:	5000m

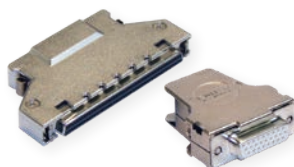### Storage and Transport Conditions

Storage Temperature:	-20°C to +70°C
Humidity:	Up to 95% non-condensing
Altitude:	15000m

Safety & CE Compliance

All modules are fully CE compliant and meet applicable EU directives: Low-voltage safety EN61010-1:2001, EMC Immunity EN61000-6-1:2001, Emissions EN55011:1998.
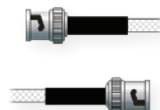
Connectivity Solutions

We provide a full range of supporting cable and connector solutions for all our switching products—20 connector families with 1200+ products. We offer everything from simple mating connectors to complex cables assemblies and terminal blocks. All assemblies are manufactured by Pickering and are guaranteed to mechanically and electrically mate to our modules.

Connectors & Backshells   **Multiway Cable Assemblies**   **RF Cable Assemblies**   **Connector Blocks**

We also offer customized cabling and have a free online Cable Design Tool that can be used to create custom cable solutions for many applications.
Visit: pickeringtest.com/cdt to start your design.

Mass Interconnect

We recommend the use of a mass interconnect solution when an Interchangeable Test Adapter (ITA) is required for a PXI or LXI based test system. Our modules are fully supported by both Virginia Panel and MacPanel.

Pickering Reed Relays

We are the only switch provider with in-house reed relay manufacturing capability via our sister company, Pickering Electronics. These instrument grade reed relays feature *SoftCenter*® technology, ensuring long service life and repeatable contact performance

To learn more, please go to: pickeringrelay.com

Programming

Pickering provide kernel, IVI and VISA (NI & Keysight) drivers which are compatible with all Microsoft supported versions of Windows and popular older versions. For a list of all supporting operating systems, please see: pickeringtest.com/os

The VISA driver is also compatible with Real-Time Operating Systems such as LabVIEW RT. For other RTOS support contact Pickering. These drivers may be used with a variety of programming environments and applications including:

- **Pickering Interfaces Switch Path Manager**
- **National Instruments** products (LabVIEW, LabWindows/CVI, Switch Executive, MAX, TestStand, VeriStand, etc.)
- **Microsoft Visual Studio** products (Visual Basic, Visual C+)
- **Keysight** VEE
- **Mathworks** Matlab
- **Marvin** ATEasy
- **MTQ Testsolutions** Tecap Test & Measurement Suite

Drivers for popular Linux distributions are available, other environments are also supported, please contact Pickering with specific enquiries.

We provide Soft Front Panels (SFPs) for our products for familiarity and manual control, as well as comprehensive documentation and example programs to help you develop test routines with ease.

To learn more about software drivers and development environments, please go to: pickeringtest.com/software

Signal Routing Software

Our signal routing software, Switch Path Manager, automatically selects and energizes switch paths through Pickering switching systems. Signal routing is performed by simply defining test system endpoints to be connected together, greatly accelerating Test System software development.

To learn more, please go to: pickeringtest.com/spm

Diagnostic Relay Test Tools

eBIRST Switching System Test Tools are designed specifically for our PXI, PCI or LXI products, these tools simplify switching system fault-finding by quickly testing the system and graphically identifying the faulty relay.

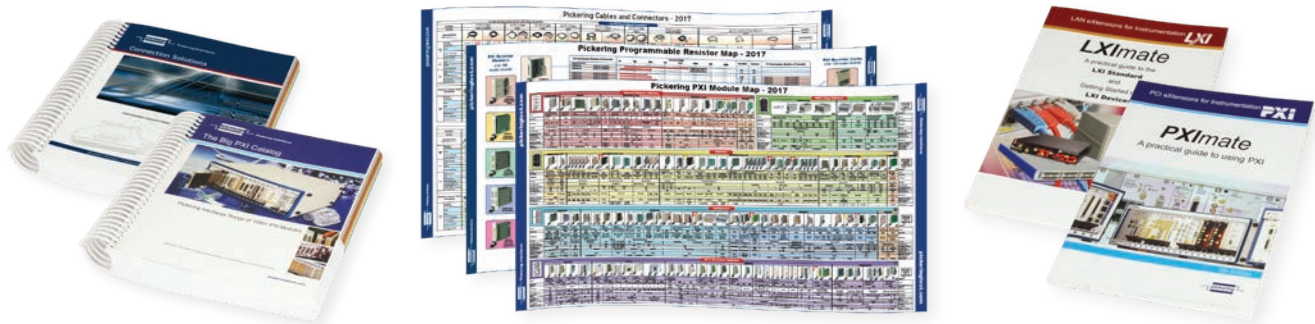To learn more, please go to: pickeringtest.com/ebirst

Three Year Warranty & Guaranteed Long-Term Support

All standard products manufactured by Pickering Interfaces are warranted against defective materials and workmanship for a period of three years from the date of delivery to the original purchaser. Extended warranty and service agreements are available for all our modules and systems with various levels to suit your requirements. Although we offer a 3-year warranty as standard, we also include guaranteed long-term support—with a history of supporting our products for typically 15-20 years. To learn more, please go to: pickeringtest.com/support

Available Product Resources

We have a large library of product resources including success stories, product and support videos, articles, as well as complete product catalogs and product reference maps to assist when looking for the switching, simulation and cable and connector solutions you need. We have also published handy reference books for the PXI and LXI standards.

To view, download or request any of our product resources, please visit: pickeringtest.com/resources

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