

- High Performance 19 Slot PXI/cPCI Backplane
- 3 Slot PXI System Controller Compatible
- 600 W Industrial Grade Power Supply
- Compact Benchtop Footprint
- Integrated Carrying Handles
- Low Profile 4 U Rugged Design
- Remote Chassis Monitoring System
- Power, Temperature and Fan Monitoring LEDs
- Low Audible Operating Noise
- Optional Rack Mounting Kit
- RoHS Compliant
- 3 Year Warranty



Pickering Interfaces' 40-923A PXI Chassis is a fully compliant 19 slot PXI chassis that can accept any 3U PXI or cPCI module. It is ideal for bench top use or for use in a rack system.

The 40-923A includes all the features and performance required by the PXI standard and supports a control interface or embedded controller and up to 18 additional 3U peripheral modules. The control interface can be provided by a Pickering's 41-924 PCIe to PXI interface kit, allowing the chassis to be controlled from a PC.

The chassis is fitted with a 600W industrial grade power supply mounted at the rear of the unit with sufficient capacity to support PXI modules with very high current demands.

An intelligent chassis management system monitors the power supply voltage, internal temperature and cooling fan speed. The current condition of the chassis is displayed on front panel status LEDs and can also be monitored remotely via an RS232 port.



Pickering's Range of PXI & PXIe Chassis			
Chassis Type	Slots	Chassis Size	Model No.
PXI	8	4U Full Rack	40-908
PXI	14	4U Full Rack	40-914
PXI	19	4U Full Rack	40-923A
PXI	8	4U Half Rack	40-924
PXIe Hybrid (Gen 3)	8	4U Half Rack	42-924
PXIe Hybrid (Gen 3)	18	4U Full Rack	42-925
PXIe Hybrid (Gen 2)	18	4U Full Rack	42-926
PXI with LXI Control*	7	4U Half Rack	60-102D
PXI with LXI Control*	18	4U Full Rack	60-103D
PXI with LXI/USB Control	2	1U Half Rack	60-104
PXI with LXI/USB Control	4	2U Half Rack	60-105
PXI with LXI/USB Control*	6	1U Full Rack	60-106

*Includes Scan List Sequencing and optional Triggering function.

Three 120mm fans insure maximum PXI module cooling and an efficient direct convection design allows the chassis to operate over an extended ambient temperature range of 0°C to +55°C.

The 40-923A chassis can also be supplied with mounting brackets for installation into a standard 19" rack. These brackets are adjustable allowing the chassis to be recessed by up to 10cm, allowing clearance for connector blocks and module wiring.

The system slot is compatible with any PC-PXI bridge and any 3 slot wide PXI controller.

40-923A PXI chassis with 63-103-001 optional rack mounting hardware fitted allowing the front of the chassis to be recessed by up to 10 cm in the host rack

Specifications

Number of Slots:	1 system slot, 18 peripheral slots.
System Slot:	Accepts any 3 slot or narrower PXI compatible controller or interface. Pickering Interfaces recommends the 41-924 interface for remotely controlled configurations. Particularly, Adlink controllers are recommended for applications requiring embedded control.
Chassis Backplane:	Incorporates all the features of the PXI specification Rev 2.2. The backplane is 64-bit with PXI triggers, Star Trigger, Local Bus & internal PXI clock.

Cooling

Airflow:	Bottom intake, rear exhaust.
Per-slot Cooling Capacity:	25 W at 55 °C ambient 40 W at 40 °C ambient
Fans:	3 off 185.9 cfm fans with filters

Power Supply

Input Voltage Range:	90 - 264 VAC full range
Input Frequency:	47 to 63 Hz
Supplied with a 600 W DC output power supply with the following total capacity:	
DC Outputs	Max Current
+3.3 V	42 A
+5 V	45 A
+12 V	15 A
-12 V	4.75 A

Chassis Monitoring

Front Panel LEDs:	Power supply status Cooling fan status Internal temperature status
Remote Interface:	RS232 port on rear panel

Frequency Standard

Source:	Either 10 MHz PXI compliant internal standard or external 10 MHz standard applied to rear panel BNC connector.
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Product Order Codes

19-Slot, 3 U, PXI Chassis	40-923A-001
Optional 19" rack mounting hardware	63-103-001
PCIe to PXI Control Interface Kit	41-924-001-KIT
(for full details of our fast PCI to PXI control Interface see the 41-924 data sheet).	

Mechanical Specification

Cardcage:	Front loading 3 U x 160 mm, 19 slots, IEEE 1101.1, 1101.10 and 1101.11
Dimensions:	Width: 444 mm (17.48") Height: 178 mm (7.01") Depth: 455 mm (17.91")
Weight:	13.4 kg (29.5 lbs) without PXI modules

Operating/Storage Conditions

Operating Conditions

(operating with specified airflow)

Operating Temperature: 0 °C to +55 °C

Humidity: 10 % to 90 % non-condensing

Storage and Transport Conditions

Storage Temperature: -20 °C to +70 °C

Humidity: 10 % to 90 % non-condensing

Safety, CE & RoHS 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.

The 40-923A Chassis also complies with the European Restriction of Hazardous Substances directive (RoHS).

Connectivity Solutions

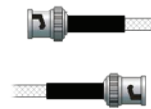
We provide a full range of supporting cable and connector solutions for all our switching products—20 connector families with 1200+ products. We offer everything from simple mating connectors to complex cables assemblies and terminal blocks. All assemblies are manufactured by Pickering and are guaranteed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



Connectors & Backshells



Multiwire 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 Relay Division. 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 support is provided for LabVIEW Real Time Operating Systems (Pharlap and Linux-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++)
- **Programming Languages** C, C++, C#, Python
- **Keysight** VEE and OpenTAP
- **Mathworks** Matlab
- **Marvin** ATEasy
- **MTQ Testsolutions** Tecap Test & Measurement Suite

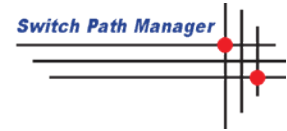
Drivers for popular Linux distributions are available, other environments are also supported, please contact Pickering with specific enquiries. We provide Soft Front Panels (SFPs) for our products for familiarity and manual control, as well as comprehensive documentation and example programs to help 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 and white papers as well as application specific product brochures to assist when looking for the switching, simulation and connection solutions you need. We have also published handy reference books on Switching Technology and for the PXI and LXI standards.



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