

- High Performance 8 Slot PXI/cPCI Backplane
- 3 Slot PXI System Controller Compatible
- 400 W Industrial Grade Power Supply
- Compact Benchtop Footprint
- Integrated Carrying Handles
- Low Profile 4U Rugged Design
- Power Rail LED Indication
- Low Audible Operating Noise
- Optional Rack Mounting Kit
- RoHS Compliant
- 3 Year Warranty



Pickering Interfaces' 40-924 PXI Chassis is a fully compliant 8 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 40-924 includes all the features and performance required by the PXI standard and supports a control interface or embedded controller and up to 7 additional 3U peripheral modules. The control interface can be provided by a Pickering's 41-924 PCI to PXI interface kit, allowing the chassis to be controlled from a PC.



40-924-001 PXI 8-Slot Chassis Rear View

The chassis is fitted with a 400 W 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 the cooling fan speed. The current condition of the chassis is displayed on front panel status LEDs.

One 100 cfm fan insures 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.

Low acoustic emissions make the chassis ideal for applications such as office or laboratory environments where noise levels are critical. The sound pressure level varies between 41.6 dB and 47.3 dB dependant upon the controlled fan speed which automatically responds to the internal chassis temperature.

The 40-924 chassis can be supplied with a mounting frame to allow installation into a standard 19" rack. The frame increases the overall height to 5U and allows space for cooling air to be drawn into the underside and expelled from the top of the chassis.

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

Specifications

Number of Slots:	1 system slot, 7 peripheral slots.
System Slot:	Accepts any 3 slot or narrower PXI compatible controller or interface. Pickering Interfaces recommends the 41-921 interface for remotely controlled configurations. Particularly, Adlink controllers are recommended for applications requiring embedded control.
Chassis Backplane:	Incorporates all the features of the PICMG rev 3.0 and PXI 2.0. The backplane is 64-bit with PXI triggers, Star Trigger, Local Bus & internal PXI clock.

Cooling

Airflow:	Bottom intake, rear exhaust.
Per-slot Cooling:	30 W at 55 °C ambient
Fans:	1 off 100 cfm fan with filter

Acoustic Emissions

Sound Pressure Level (dBA):	Minimum fan speed: 41.6 dB Maximum fan speed: 47.3 dB
Sound Power (dBA):	Minimum fan speed: 51.9 dB Maximum fan speed: 55.5 dB

Power Supply

Input Voltage Range:	100 - 240 VAC
Input Frequency:	47 to 63 Hz
Input Current Rating:	8 A 115 VAC or 4 A 230 VAC
Supplied with a 400 W DC output power supply with the following total capacity:	
DC Outputs	Max Current
+3.3 V	28 A
+5 V	40 A
+12 V	12 A
-12 V	1 A

Chassis Monitoring

Front Panel LEDs:	Power supply status
-------------------	---------------------

Mechanical Specification

Cardcage:	Front loading 3U x 160 mm, 8 slots, IEEE 1101.1, 1101.10 and 1101.11
Dimensions:	Width: 245 mm Height: 192 mm (with feet) Depth: 391 mm
Weight:	4.2 kg without PXI modules

Operating/Storage Conditions

Operating Conditions:	(operating with specified airflow)
Operating Temperature:	0 °C to +55 °C
Humidity:	10 % to 95 % 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 40-924 Chassis also complies with the European Restriction of Hazardous Substances directive (RoHS).

Product Order Codes

8-Slot, 3U, PXI Chassis	40-924-001
-------------------------	------------

Accessories

Optional 19 inch rack mounting hardware	63-924-001
PCI to PXI Control Interface Kit	41-924-001-KIT

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

The 40-924 is part of a range of PXI and PXIe Hybrid chassis which includes PXI chassis with an LXI or USB control interface.

Pickering's Range of PXI & PXIe Chassis			
Chassis Type	Number of 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
PXIe Hybrid (Gen 2)	21	4U Full Rack	42-927
PXI with LXI/USB Control	7	4U Half Rack	60-102D
PXI with LXI/USB 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



PXI Switching and Sensor Simulation

Pickering is a leading manufacturer of PXI switching and sensor simulation modules, available in PXI and PXIe formats. With our deep portfolio of over 1,000 modules, we provide the assurance that you can optimize your test system switching and simulation to exactly fit your needs. These modules range from the highest density switching matrices, RF/Microwave and optical switching, to sensor simulation, including programmable resistors, strain gauge, battery and thermocouple simulators.

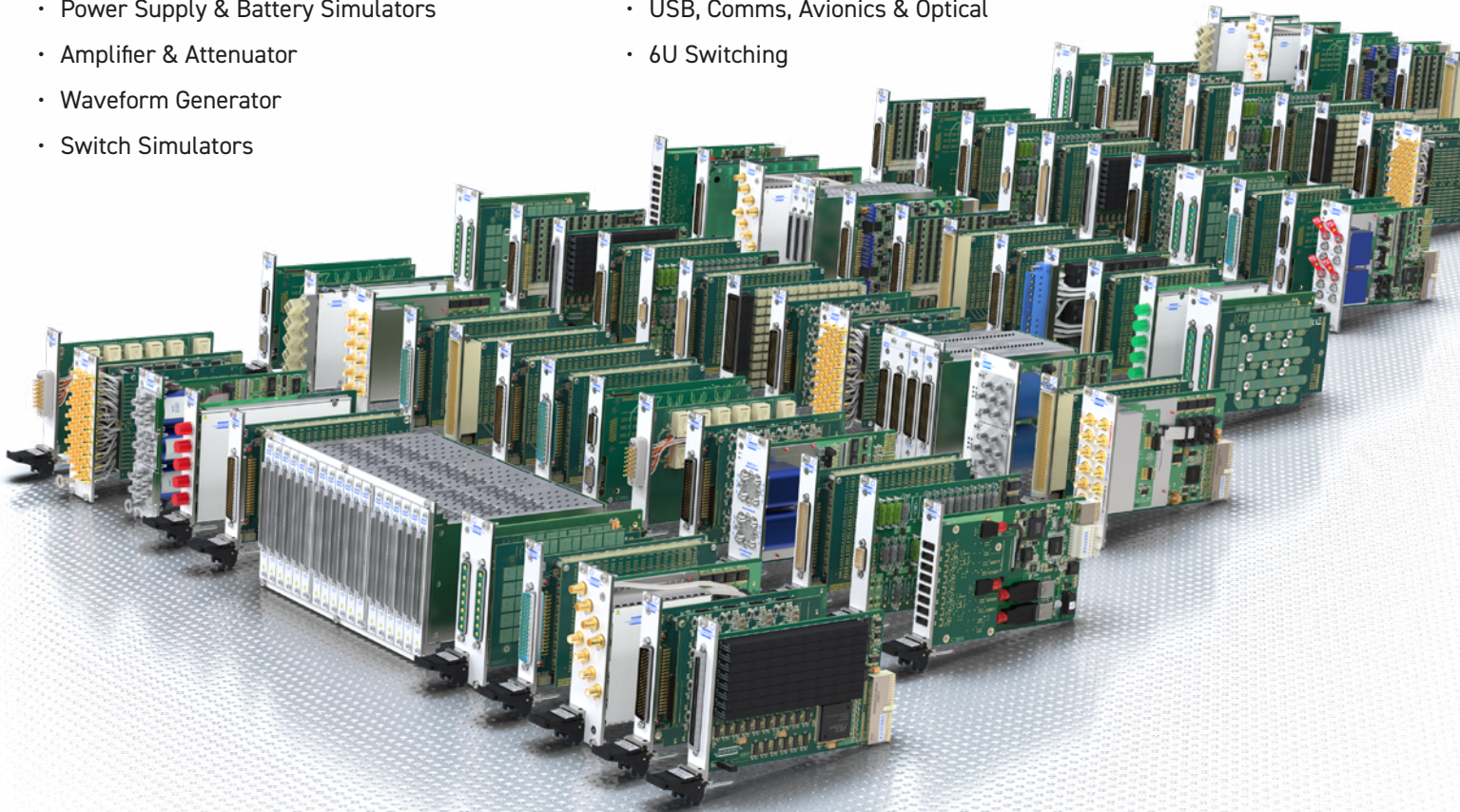
Please refer to the categories below and visit pickeringtest.com/pxi to find the products you need:

Sensor Simulation

- Programmable Resistors
- Thermocouple Simulators
- LVDT/RVDT/Resolver Simulators
- Analog Output/Current Loop Simulators
- Strain Gauge Simulators
- Digital I/O and Prototype
- Power Supply & Battery Simulators
- Amplifier & Attenuator
- Waveform Generator
- Switch Simulators

Switching

- General Purpose Relay
- BRIC™ Large Matrices
- Matrices
- Multiplexers
- RF & Microwave
- Fault Insertion
- USB, Comms, Avionics & Optical
- 6U Switching



All of our PXI modules will plug into any PXI compliant chassis or a Hybrid Slot in a PXIe chassis and may also be used in our Ethernet controlled modular LXI switching chassis. Our PXIe modules will plug into any compliant PXIe slot or Hybrid Slot in a PXIe chassis.

Connectivity Solutions

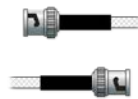
We provide a full range of supporting cable and connector solutions for all our switching products—20 connector families with 1200+ products. We offer everything from simple mating connectors to complex cables assemblies and terminal blocks. All assemblies are manufactured by Pickering and are guaranteed to mechanically and electrically mate to our modules. These accessories are detailed in Connector Accessories data sheets, where a complete list and documentation can be found for each accessory.



Connectors & Backshells



Multi-way Cable Assemblies



RF Cable Assemblies



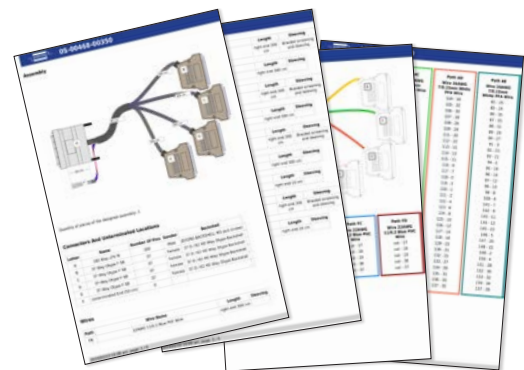
Breakouts



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.

- Fully supported on modern browsers and tablet operating systems.
- Built-in tutorials and videos allow you to get quickly up to speed.
- Store cable assemblies in the Cloud and develop over time.
- Each cable design has a downloadable PDF documentation file detailing all specifications



Start designing your custom cabling, go to pickeringtest.com/cdt

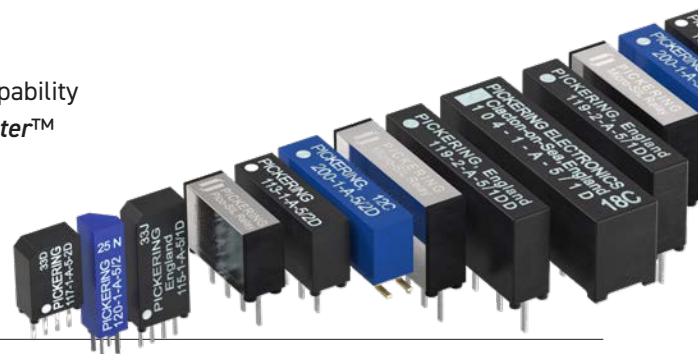
Mass Interconnect

We recommend the use of a mass interconnect solution when an Interchangeable Test Adapter (ITA) is required for PXI/LXI based test systems. Our modules are fully supported by 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 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 more information go to 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, Simulink**
- **Marvin ATEasy**
- **MTQ Testsolutions Tecap Test & Measurement Suite**

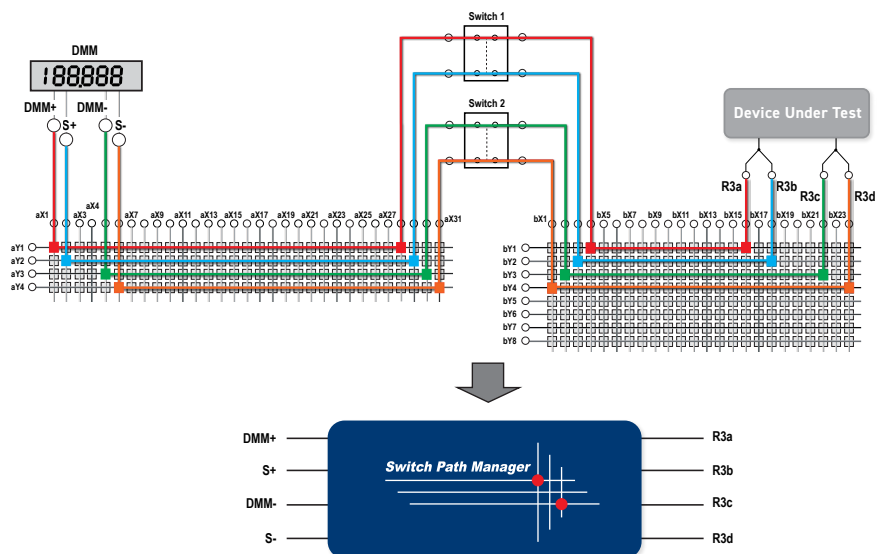
Drivers for popular Linux distributions are available, other environments are also supported, please contact Pickering with specific enquiries. We provide Soft Front Panels (SFPs) for our products for familiarity and manual control, as well as comprehensive documentation and example programs to help you develop test routines with ease.

To learn more about software drivers and development environments 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 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 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 three years from the date of delivery to the original purchaser. Extended warranty and service agreements are available with various levels for 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 go to pickeringtest.com/support

Available Product Resources

We have a library of resources including success stories, product and support videos, articles and white papers as well as application-specific brochures to assist you. We have also published reference books on switching technology and the PXI and LXI standards.

To view, download or request any of our product resources go to pickeringtest.com/resources

