- Fully Compliant LXI Interface (1.5)
- Ethernet 1000baseT Interface
- USB 3 Compatible
- Supports 1000+ Pickering PXI 3U Modules Including:
    - Programmable Resistors
    - Matrices
    - Multiplexers
    - General Purpose Relays
    - RF Switches
    - Fault Insertion
- Supports Four User Slots
- Compact 1/2 Rack Width 2U Form Factor
- 3 Year Warranty

Pickering Interfaces' 60-105 modular chassis offers a small lightweight form factor, making it ideal for portable, benchtop, and space restrictive applications.

The 60-105 supports between one and four 3U PXI modules and accepts Pickering's PXI products, it is the perfect platform to construct small scale applications.

Possible systems include switching matrices up to 2208 crosspoints (one 40-560 BRIC4 occupying all four slots) or up to 72 channels of programmable resistor/sensor emulation (four 40-295 18-channel resistor modules occupying four slots).

For a list of compatible PXI modules, please refer to the 60-105 user manual.
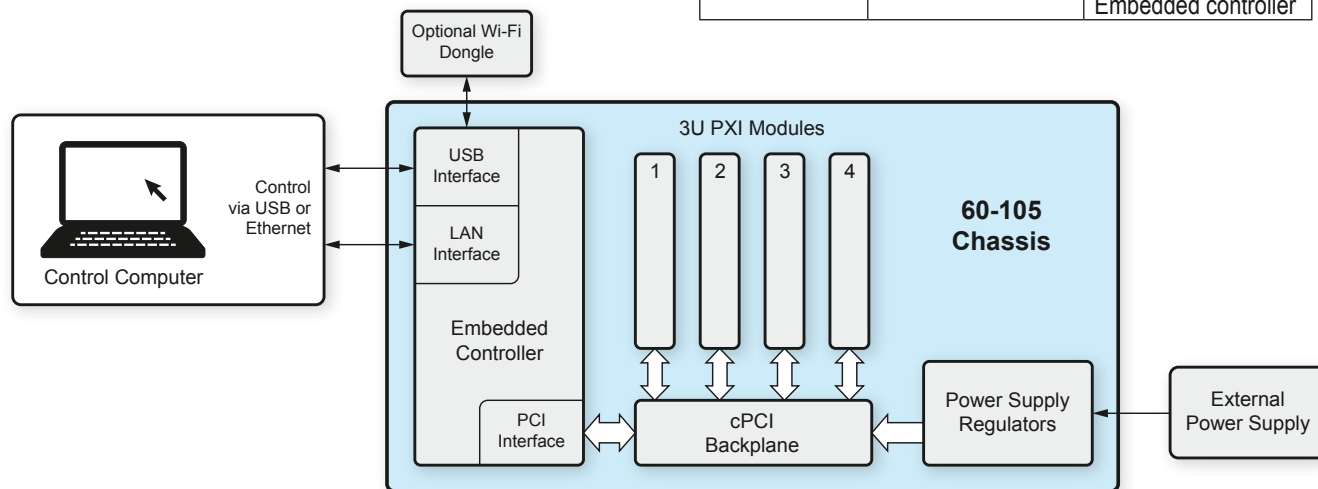
The USB compatible and LXI compliant interfaces enable the chassis to be controlled directly through standard interfaces found on most personal computers, allowing for a very cost effective route into the modular test and measurement market.

The option of a Wi-Fi dongle is useful for control from mobile devices via HTML5 SFP.

The chassis can be controlled through built in software drivers. Chassis configuration and module control is possible through the W3C web page interface.

The 60-105 is powered from an external DC supply, making it lightweight, versatile and extremely portable.

Pickering's Range of PXI/LXI/USB Chassis		
Part Number	Description	Control Options
60-104-001	2-Slot USB/LXI Modular Chassis	USB/LXI
60-105-001	4-Slot USB/LXI Modular Chassis	USB/LXI
60-102B-001	7-Slot LXI Modular Switching Chassis	LXI
60-103B-001	18-Slot LXI Modular Switching Chassis	LXI
40-922A-001	8-Slot PXI Chassis	Remote interface / Embedded controller
40-923A-001	19-Slot PXI Chassis	Remote interface / Embedded controller

60-105 Modular Chassis Block Diagram

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Specifications

Chassis Backplane:	32-bit cPCI backplane, compatible with PXI.
Chassis Capacity:	4 off 3U user slots available.

PXI Module compatibility

The chassis is supplied with drivers for Pickering PXI modules.	
Switching Support:	Most of 3U Pickering Interface's PXI switching modules. Includes (but not limited to): All 2 & 4-slot 3U BRIC matrices, featuring up to 2208 crosspoints.
Simulation support:	All programmable resistor and potentiometer modules offering up to 72 channels, RF attenuators, digital I/O and other simulation modules.

Power Supply

Input Voltage Range:	19V (DC)
Input Current Rating:	5.2A (DC)

Cooling

Airflow:	Crossflow
Per-slot Cooling Capacity:	25W at 40°C ambient
Fans:	1 off 7.7 cfm fan and 1 off 33 cfm fan

Acoustic Noise Emissions

With fans on maximum:	53dBA typical

LAN Interface

Designed to comply with the LXI Standard Version 1.5	
Connector:	RJ45 Connector.
Connection Speed:	1000BaseT interface.

USB Interface

Designed to be compatible with USB3 (backwardly compatible with USB/USB2)	
Connector:	USB3 type B
Connection Speed:	400MBps

Mechanical Specification

Dimensions:	
With Rubber Bumpers:	Width: 215.5mm (8.48") Height: 98.1mm (3.86") Depth: 311mm (12.24")
Without Rubber Bumpers:	Width: 201.1mm (7.92") Height: 85mm (3.35") Depth: 301mm (11.85")
Weight:	3.0kg without PXI modules

Slot Capacity (Per Slot)

+3.3V	+5V	+12V	-12V
6A	6A	1A	1A

NOTE: Maximum power is 60W for all slots or 30W per slot.

Operating/Storage Conditions

Operating Conditions

Operating Temperature:	0°C to +55°C
Humidity:	Up to 90% non-condensing
Altitude:	5000m

Storage and Transport Conditions

Storage Temperature:	-20°C to +75°C
Humidity:	Up to 90% non-condensing
Altitude:	15000m

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 60-105 Chassis also complies with the European Restriction of Hazardous Substances directive (RoHS).

Product Order Codes

Chassis

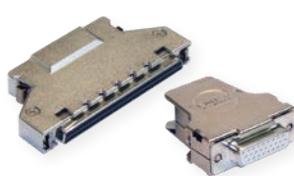| USB/LXI Modular Switching Chassis, 4-Slot	60-105-001

Accessories

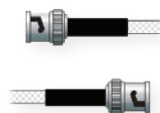| Replacement 19V DC Power Supply	63-104-001
Optional Wi-Fi Dongle	63-104-002
Optional Chassis Strap Mounting Kit	63-105-003
Optional Rack Shelf for 1 or 2 off 60-105 Chassis	63-105-004
Optional Chassis Low Profile Plate Mounting Kit	63-105-005

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

All LXI devices are supplied with built-in software drivers, web pages for configuration and soft front panels as required by the LXI specification. A variety of drivers are provided (C, .NET, IVI, SOAP) 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 drivers may be used in many commonly used 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++, Visual C#)
- **Keysight** VEE
- **Mathworks** Matlab
- **Marvin** ATEasy
- **MTQ Testsolutions** Tecap Test & Measurement Suite

As well as various open source environments such as:

- **Sharp Develop**
- **Dev-C++**

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

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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.

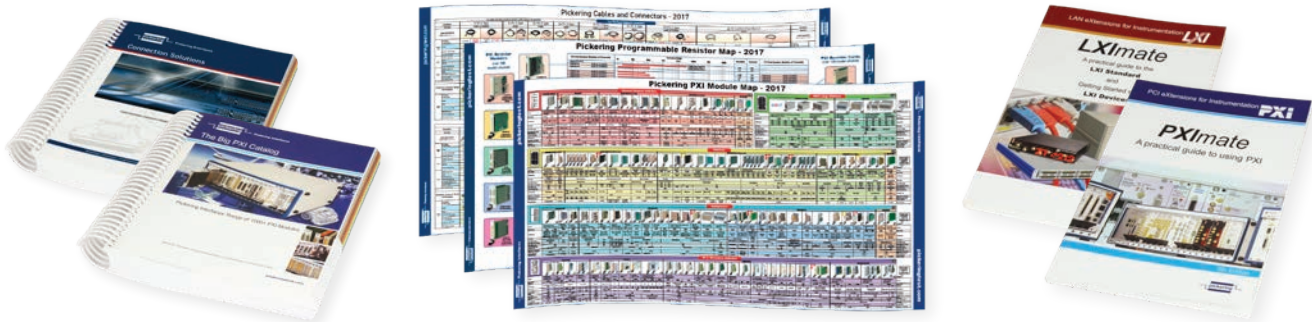To learn more, please go to: pickeringtest.com/ebirst

Three Year Warranty

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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