

41-720 Isolated Power Supply

- One Slot Module Provides up to 4 Regulated Output Voltages
- Short Circuit and Thermally Protected
- Power On/Off Control for Each Regulated Output
- Output Voltages of 5V and 12V Available
- Bipolar Output can be Used to Provide 24V
- Output Isolated From The PXI Power Supply
- Fully Floating Operation
- Available With D-Type Plug or 1mm Sockets
- VISA Drivers Supplied for Windows Plus Soft Front Panel
- 2 Year Warranty



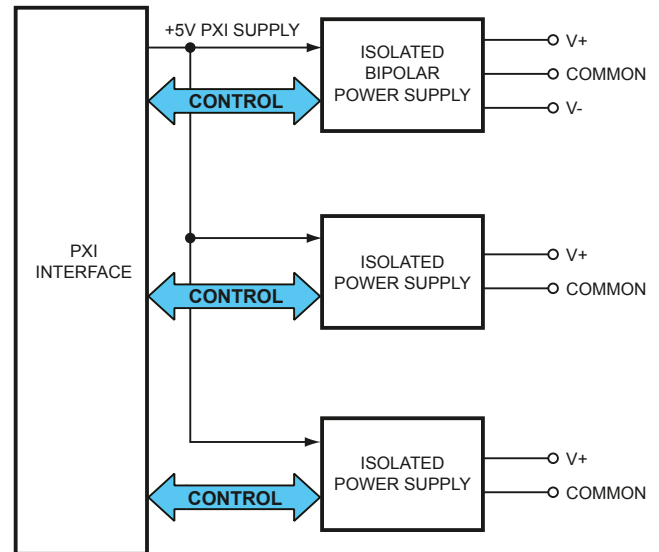
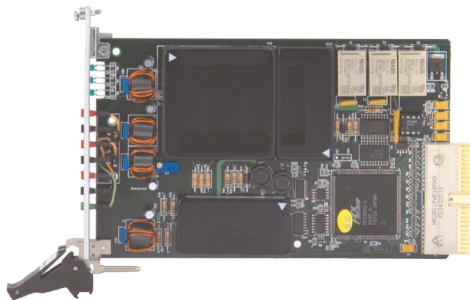
The 41-720 Isolated Power Supply module provides fixed output voltage power supplies suitable for powering devices under test that have a medium power consumption. The module is ideal for providing fixed voltages to the device under test and can significantly reduce the space needed by the test system by eliminating the bench power supply from the system.

The output voltages are fully isolated from the chassis and can be used as floating outputs referenced to a DC pedestal voltage.

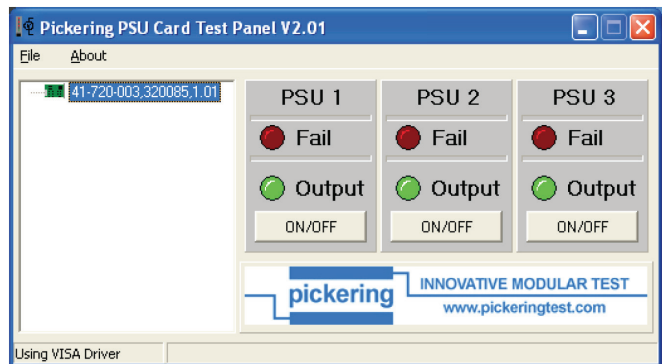
The module can be supplied with a variety of voltage options, each module having up to one isolated bipolar output and two isolated single output voltages.

The bipolar output provides two output voltages, one positive and one negative, referenced to a common output terminal. The outputs can be used in series for higher voltage applications. All single output voltages can be used to provide a positive or a negative output by simply using either the negative or the positive output as the reference.

The voltage regulators use a switch mode pulse width modulated regulator that can operate at up to 80% efficiency to preserve the available power from the chassis.



41-720 Schematic Overview



41-720 Soft Front Panel



Width and Dimensions

Occupies 1 slot of a 3U PXI chassis

Connectors

Power supply outputs are carried either on a 9-pin male D-type connector or 1mm sockets, the allocation of pins to supply rails is determined by the order number. The connector type is specified by the part number suffix.

PXI bus via 32 bit P1/J1 backplane connector.

Electrical Specification

Each module is fitted with up to one bipolar output and two single output power supplies.

Isolation Voltage

The outputs are fully isolated, maximum common mode output voltage of 500 Volts

Power Supply Control

Each regulator can be independently turned on or off.

Bipolar Output

One fitted to each module, defined by xx option

Version	Option 02
Output voltage (referenced to common)	±12V
Maximum Output Current (each output)	0.625A
Ripple Voltage (peak to peak) at maximum current (typical, no added capacitive load)	130mV
Load Regulation (at 10% minimum load)	1%

Single Outputs

Any two options fitted to each module, including two of the same, defined by yy and zz options.

Version	Option 11	Option 12
Output voltage (referenced to common)	5V	12V
Maximum Output Current (each output)	1.6A	0.665A
Ripple voltage (peak to peak) at maximum current (typical, no added load capacitor)	50mV	130mV
Load Regulation (at 10% minimum load)	0.5%	

Power Consumption

No current is taken from the PXI +3.3V supply or the ±12 Volt supplies.

Current required from +5V PXI supply:

All regulators off:	100 mA
Additional current (each) at full load	
Option 02	3.75 Amps
Option 11 & 12	2.1 Amps

Module current consumption should be limited to 6 Amps for chassis meeting only the minimum requirements of PXI specification version 2.1.

Product Order Codes

For each module select one bipolar output option and two single output voltages. Order code is constructed as:

41-720-XX-YY-ZZ-D for 9-pin D-type output connector

41-720-XX-YY-ZZ-B for 1mm socket output connectors

where **XX** is the option number of the bipolar output

where **YY** is the option number for the first single output

and **ZZ** is the option number of the second single output

Allowed XX options:

Option 00 Not fitted

Option 02 ±12 Volts

Allowed YY and ZZ options:

Option 00 Not fitted

Option 11 5 Volts

Option 12 12 Volts

Pricing for this part is based on how many of the optional supplies are fitted. If only two are fitted the price is as the “partial loaded” version, if all three are supplied it is as the “fully loaded” part.

Mating Connectors & Cabling

For connection accessories for the 41-720 module please refer to the **90-003D** 9-pin D-type Connector Accessories data sheet where a complete list and documentation can be found for accessories.

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: www.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**
- **MTO Testsolutions** Tecap Test & Measurement Suite
- **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**

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

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

PXI & CompactPCI Compliance

The module is compliant with the PXI Specification 2.2. Local Bus, Trigger Bus and Star Trigger are not implemented. Uses a 33MHz 32-bit backplane interface.

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.

PXI & LXI Chassis Compatibility

Compatible with all chassis conforming to the 3U PXI and 3U cPCI specification. Compatible with Legacy and Hybrid peripheral slots in a 3U PXI Express chassis.

Compatible with Pickering Interfaces LXI Modular Chassis. For information on driving your switching solution in an LXI environment refer to the LXI Product Guide.



Latest Details

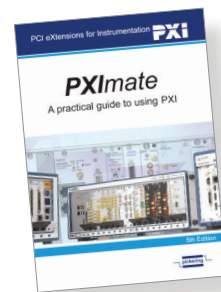
Please refer to our Web Site for Latest Product Details.
www.pickeringtest.com



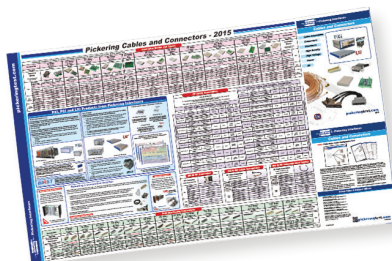
Please refer to the 200 page Pickering Interfaces **“Connection Solutions”** catalog for the full list of connector/cabling options, including drawings, photos and specifications. Available in either print or as a download. Alternatively our web site has dynamically linked connector/cabling options, including pricing, for all Pickering PXI modules.



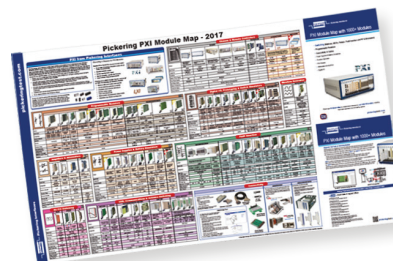
“The Big PXI Catalog” gives full details of Pickering’s entire range of PXI switch modules, instrument modules and support products. At over 500 pages, the Big PXI Catalog is available on request or can be downloaded from the Pickering website.



Ever wondered what PXI is all about? Pickering Interfaces’ **“PXImate”** explains the basics of PXI and provides useful data for engineers working on switch based test systems. The PXImate is available free on request from the Pickering website.



The **“Cables & Connectors Map”** - outlines the cable and connector options available for all PXI Modules.



The **“PXI Module Map”** - a simple fold-out selection guide to all Pickering’s 1000+ PXI Modules.



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