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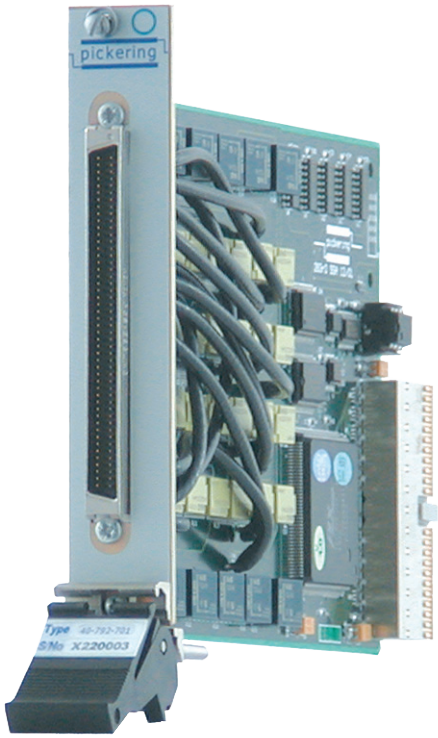
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Find the *Pickering 40-792-701* at our website: ***Click HERE***

40-792/793
2MBit/s Daisy-Chain Tributary Switching Module

- Suitable For Testing SONET/SDH Transmission Multiplexers
- 8 or 16 Tributaries Per 1-Slot Module
- Up To 272 Tributaries Per 18-Slot PXI Chassis
- Expandable To Any Size: 8, 16, 24,....
- 75Ω Impedance
- All Tributaries Can Be Daisy-Chained to One Signal
- Pickering Interfaces Can Construct and Test Custom Switching Networks
- VISA, IVI & Kernel Drivers Supplied for Windows
- Supported by PXI or LXI Chassis
- 3 Year Warranty



The 40-792/793 Daisy Chain Switching Module is designed for telecom test applications. It allows production or verification testing of SONET/SDH transmission multiplexers switching 2MBit/s or 1.5MBIt/s data with a characteristic impedance of 75Ω.

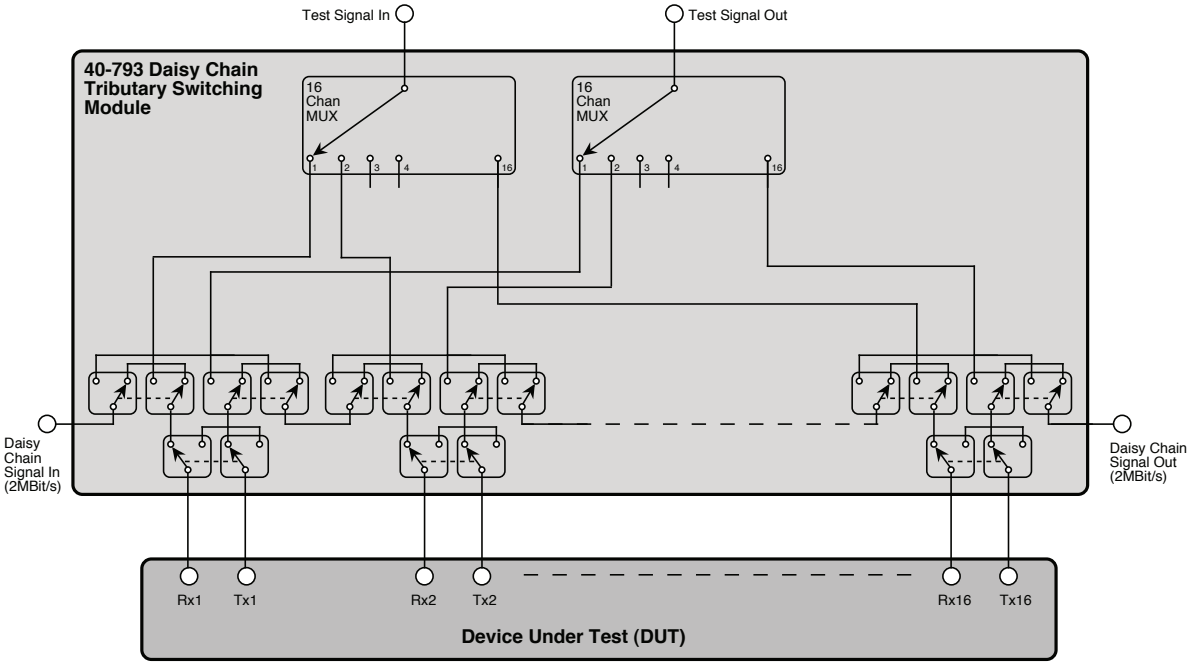
Range Description:

- **40-792** 8 Trib Daisy Chain Switch
- **40-793** 16 Trib Daisy Chain Switch

Multiple modules can be cascaded together to form very large systems, for example a 7 slot PXI chassis can contain a 112 tributary switching system and an 18 slot PXI chassis can contain up to 272 Tributaries.

Traffic is sequentially Daisy-Chained through all tributaries (or any selection of tributaries), modules can be cascaded to test any number of tributaries. Two additional multiplexers have been built in to allow Transmit or Receive instrumentation to connect to any individual tributary this allows specific testing of that port, for example to measure pulse shape distortion or return loss. Refer to graphic below.

For further information please refer to User Manual (available from our web site) or contact sales office/factory to discuss your application in detail.



Block Diagram of 16-Channel Tributary Daisy Chain Switching Module

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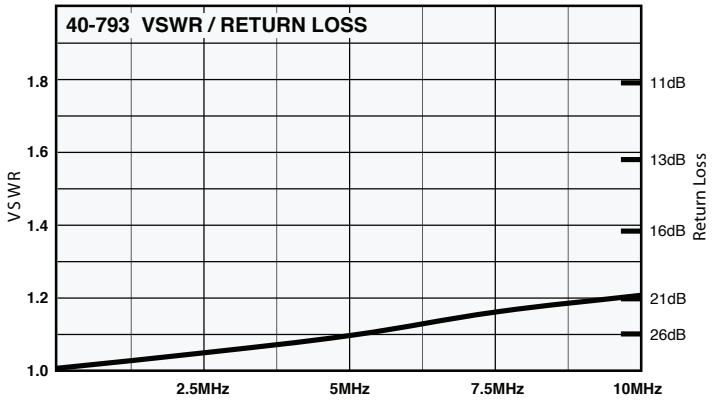
General Specification (All Versions)

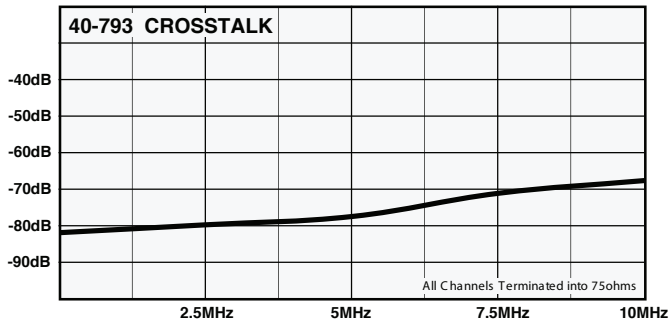
Maximum Voltage:	100VDC/100VAC
Maximum Power:	30W
Maximum Switch Current:	1.0A
On Path Resistance:	<500mΩ
Off Path Resistance:	>1x10^{8}Ω
Expected Life (Low Power):	>1x10^8 operations
Expected Life (Max Power):	>2x10^5 operations
Total Switching Time:	10ms
Relay Mechanical Setting Time:	<3ms

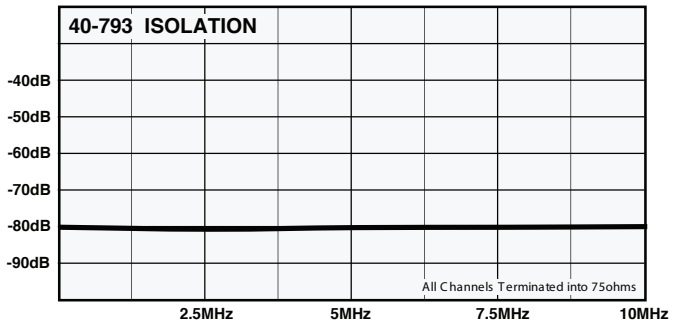
R.F. Specification (Multiplexer)

Characteristic Impedance:	75Ω
Maximum Frequency:	100MHz
Rise Time:	<1ns
Insertion Loss (<10MHz):	<0.3dB
Return Loss (<10MHz):	>21dB
VSWR (<10MHz):	<1:1.15
Isolation (<10MHz):	>50dB









Typical RF Performance Plots for 40-793-701
(1 Tributary Switched To The Test Multiplexer)

SDH/SONET Tributary Testing is a very specialised area, please contact Pickering Interfaces for additional application information and to discuss your exact requirements.

Pickering Interfaces also have SDH/SONET switching solutions in our System 30 (VXI) and System 20 (IEEE-488) switching systems.

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Using The Tributary Daisy Chain Switch

The 40-792/793 comprises 2 sections (see graphic on previous page).

1. Daisy-Chain switches. These are used to feed 2M signals into and out of the DUT (device under test), any selection of tributaries may be routed (e.g. all even, all odd, etc).

2. Breakout multiplexer. This is used to test a specific tributary.

The 40-792/793 is programmed as a 4x16 matrix:-

1st row is used to route the Daisy-Chain switches. The default setting is for all tributaries to be selected.

2nd row is used to switch polarity.

3rd row is used to select the receive multiplexer to a specific tributary.

4th row is used to select the transmit multiplexer to a specific tributary.

Power Requirements

+3.3V	+5V	+12V	-12V
0	500mA (typ 340mA)	0	0

Width and Dimensions

Single width slot 3U PXI (CompactPCI card).

3D models for all versions in a variety of popular file formats are available on request.

Connectors

PXI bus via 32-bit P1/J1 backplane connector.

Signals via front panel 96-pin male micro-D connector.

Product Order Codes

8 Trib Daisy Chain Switch, 75Ω	**40-792-701**
16 Trib Daisy Chain Switch, 75Ω	**40-793-701**

Support Products

Spare Relay Kits

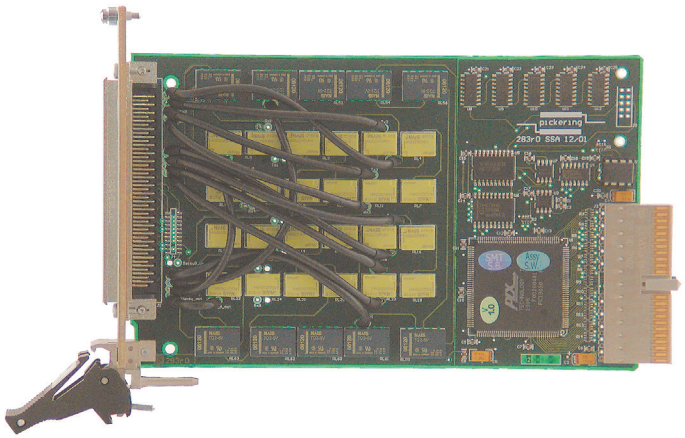
Kits of replacement relays are available for the majority of Pickering's PXI switching modules, simplifying servicing and reducing down-time. The relay kits for the 40-792/793 range are as follows:

91-100-040 & 91-100-023 kits for 40-792-701
91-100-040 & 91-100-023 kits for 40-793-701

For further assistance, please contact your local Pickering sales office.

Mating Connectors & Cabling

For connection accessories for the 40-792/793 modules please refer to the **90-016D** 96-pin micro-D connector data sheet where a complete list and documentation can be found for accessories, or refer to the Connection Solutions catalog.



40-793-701 16 Tributary Daisy Chain Switch Module

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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**
- **MTQ 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

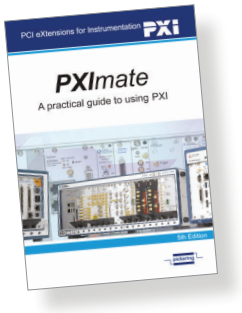
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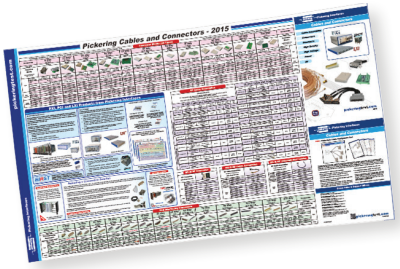
Please refer to the 200 page Pickering Interfaces "**Connection Solutions**" catalog for the full list of connector/cabling options, including drawings, photos and specifications. Available in either print or as a download.
Alternatively our web site has dynamically linked connector/cabling options,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



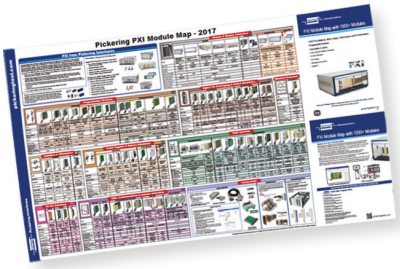
"**The Big PXI Catalog**" gives full details of Pickering's entire range of PXI switch modules, instrument modules and support products.
At over 500 pages, the Big PXI Catalog is available on request or can be downloaded from the Pickering website.



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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