

40-738

USB 2.0 Hub with Programmable Connect/Disconnect

- Adds USB 2.0 Instruments and DUT Directly to PXI Chassis
- 8 Port USB 2.0 Hub
- Data Stream Directly From Controller PCI Bus
- USB Power On All Outputs
- Programmatic Disconnect of USB Power and Data thru Pickering Interfaces Switch Driver
- USB Data Connection Via Vendor USB Driver
- 3 Year Warranty

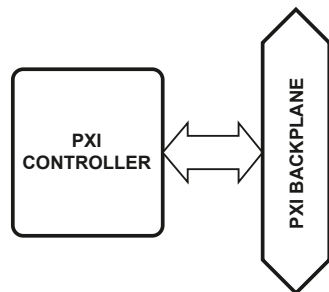
The 40-738 is a USB hub that allows data to be streamed to and from the USB devices by the system controller PCI system via the PXI backplane

The output ports can be connected or disconnected programmatically to simulate the mechanical connection of a USB device to the module. Additionally, each port has the ability to connect and disconnect the power and data paths separately, enabling the simulation of various connection faults.

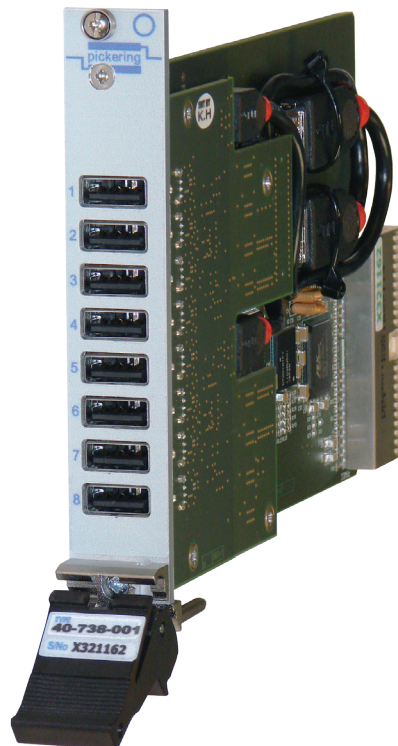
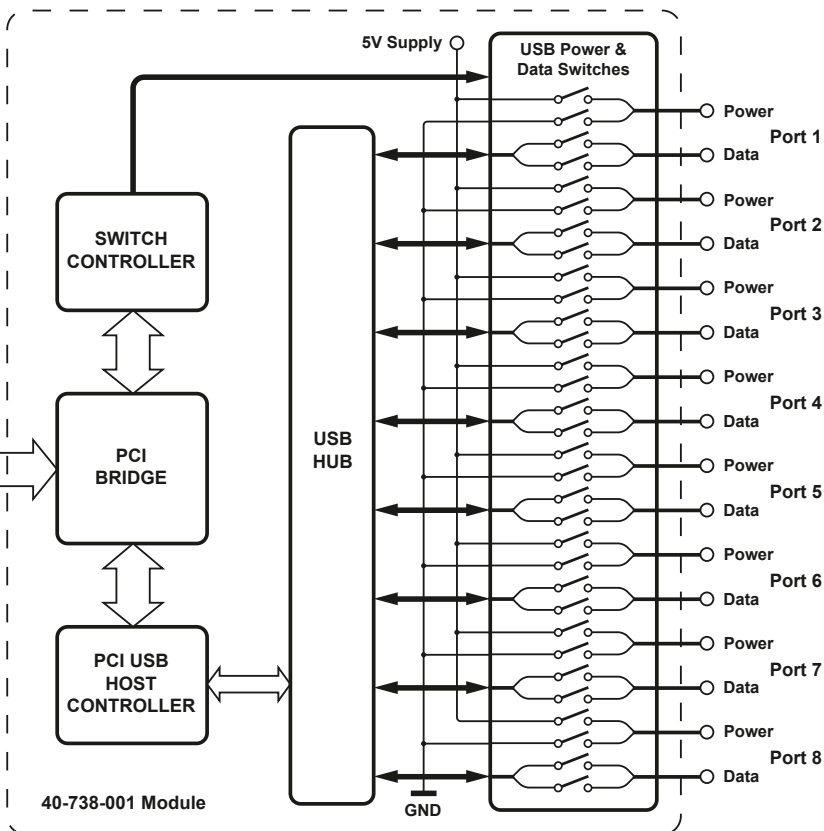
Using Pickering Interfaces standard switch drivers, a simple method is provided of attaching or detaching USB connections or restarting the USB connection. Each USB output port supports up to 0.5A at 5V in accordance with the USB specification through a USB protected power switch.

The 40-738 can be used to attach USB based devices under test or USB test equipment to the test system without reliance on the PXI controller USB ports. By providing USB power

on each port the 40-738 allows the expansion of the USB capacity without the need for a free standing hub and protects the host controller from attachment to faulty devices under test. The module provides a simple way of expanding the range of test equipment supported by PXI based systems to include USB power meters, USB data acquisition systems and and USB scopes.



Functional diagram
for the 40-738
USB 2.0 Hub



PXI Chassis Compatibility

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

Not compatible with Pickering Interfaces LXI Modular Chassis.

USB Test Devices



Smart Phone

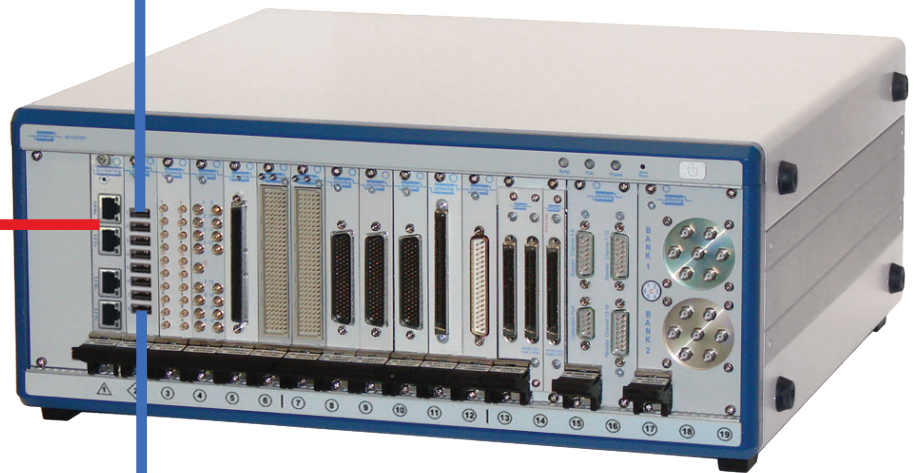


Tablet



Disk Drive

Controller PC



USB Test Equipment



Oscilloscope



Power Sensor



Data Acquisition

Specification

USB Hub:	8 port USB hub, data and power to USB 2.0
USB Common:	Direct connection from PXI controller to PCI interface via PXI backplane
USB Data:	USB device appears on the PXI controller PCI bus to enable use of standard Windows drivers for data flow.
USB Ports:	USB Type A connectors on front panel
USB Power	Up to 0.5A at 5V, includes USB power protection switch
Connection Function:	Allows any USB port to be connected or disconnected from the USB hub, independent control of power (switches V+ and V-) and data (switches D+ and D-) for each port. Connections controlled by Pickering Interfaces PXI drivers.
Mechanical Characteristics:	Single slot 3U PXI (CompactPCI card) Compatible with PXIe chassis hybrid slot

Product Order Codes

**USB 2.0 HUB With Programmable
Connect/Disconnect**

40-738-001

Power Requirements

+3.3V	+5V	+12V	-12V
1A	Up to 4.1A (0.5A on every Channel)	0	0

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.

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 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.

Not compatible with Pickering Interfaces LXI Modular Chassis.

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

Latest Details

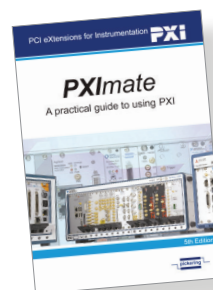
Please refer to our Web Site for Latest Product Details.
www.pickeringtest.com



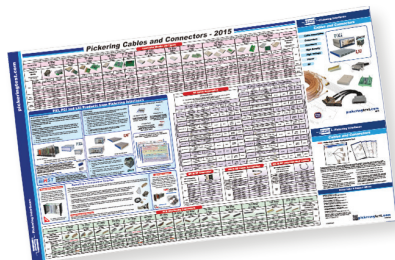
Please refer to the 200 page Pickering Interfaces **"Connection Solutions"** catalog for the full list of connector/cabling options, including drawings, photos and specifications. Available in either print or as a download. Alternatively our web site has dynamically linked connector/cabling options,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



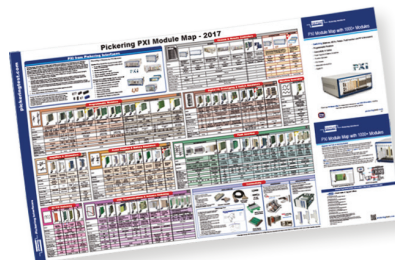
"The Big PXI Catalog" gives full details of Pickering's entire range of PXI switch modules, instrument modules and support products. At over 500 pages, the Big PXI Catalog is available on request or can be downloaded from the Pickering website.



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.