JYTEK

PCIe-PXIe-8641 Series

Specs and Manual

Specs and Manual Version: V1.0.1

Revision Date: June 5, 2024

1. PCIe-PXIe-8641 Specifications

1.1 Overview

The PCIe-PXIe-8641 expansion kit offers high-speed control of PXI Express modules in a chassis, with up to 4GB/s bandwidth via PCIe Gen 2 x8. It includes a PCIe-8641 host adapter, an x8 cable, and a 3U remote controller, all providing transparent hardware and software integration for quick detection of PXI cards without needing extra drivers or software

The PXIe-68638P/D as an optional module, enables PXIe-to-PXIe multi-chassis expansion with configurations for both daisy-chain and star-chain.

Please download JYTEK <JYPEDIA>, you can quickly inquire the product prices, the key features and available accessories.

1.2 Main Features

- PXI-5 PXI Express hardware specification rev.2.0 compliant
- PCI Express® Base specifications rev.2.0 compliant
- PCIe Gen 2 x8 each support up to 4GB/s
- PXI Express link capability:
  - Four link configuration: x4 x4 x4 x4
  - Two link configuration: x8 x8
- Expansion distance up to 5m expansion cables
- Comprehensive hardware and software transparency
- Flexible option for multi-chassis expansion as a daisy-chain or star-chain configured by using optional module PXIe-68638P/ D.

1.3 Specifications

	PCIe-8641	PXIe-8641	PXIe-68638D (Optional)	PXIe-68638P (Optional)
Format	Low Profile	Standard Profile		
Compliance	PCI Express Base Specifications Rev. 2.0	PXI-5 PXI Express Hardware Specification Rev. 2.0		
Dimensions	Low-profile PCI Express module: 142(W) x69(H) mm	PXI Express system module: 175 mm (W) x 107 mm (H)		PXIe Peripheral Module：175 mm (W) x 107 mm (H)
Up-Link Port	To Host PC PCIe: PCIe Gen2 x8	External Port: PCIe Gen2 x8		To PXIe chassis backplane: PCIe Gen2 x8
Down-Link Port	External Port: PCIe Gen2 x8	To PXIe chassis backplane: PCIe Gen2 Four-link configuration: x4 x4 x4 x4 Two-link configuration: x8 x8	To PXIe chassis backplane: PCIe Gen2 Four-link configuration: x4 x4 x4 x4 Two-link configuration: x8 x16 External Port: PCIe Gen2 x8	External Port: PCIe Gen2 x8
PXI Express Link Capability	N/A	Four-link configuration: x4 x4 x4 x4 Two-link configuration: x8 x8		
Data Bandwidth (max)	4GB/s (PCIe x8 Gen2)			
Power Consumption	4W (typical) 8W (max.)	Refer to Table 2		
Cable Length	Up to 5 meters for Gen2			
Operating Temperature	0°C to 55°C			
Storage Temperature	-20°C to 70°C			
Relative Humidity	10% to 90%, non-condensing			

Table 1 Model Specifications

Power Rail	12V	3.3V
Typical Current	0.85A	1.3A
Maximum Current	1.7A	2.6A

Table 2 PXIe-8641 & PXIe-68638 Series Power Consumption

2. Order Informations

Product	Description
PCIe-PXIe-8641/2M	PXIe remote controller kit. PCIe-8641, PXIe-8641, and 2m cable.
PCIe-PXIe-8641/5M	PXIe remote controller kit. PCIe-8641, PXIe-8641, and 5m cable.
PCIe-8641	PCIe x8 host adapter for PCIe-to-PXIe cable extension.
PXIe-8641	PXIe remote controller for PCIe-to-PXIe cable extension.
PXIe-68638P(Optional)	PXIe peripheral module for PXIe-to-PXIe cable extension.
PXIe-68638D(Optional)	PXIe System module for PCIe(PXIe) - to - PXIe cable daisy - chain expansion.
2m Cable for PCIe/PXIe-8641 SAS 2*4 Cable Assembly	2m PCIe x8 cable
5m PCIe x8 Cable for PCIe/PXIe-8641	5m PCIe x8 cable

Table 3 Ordering Options

Table of Contents

3. Introduction

The PCIe-PXIe-8641 PCI Express to PXI Express extension kit pro-vides control of PXI Express modules installed in a PXIe chassis using high bandwidth PCI Express technology. The extension kit provides up to 4GB/s bandwidth using PCIe x8 Gen2 signaling. With comprehensive hardware and software transparency, the extension kit enables fast and convenient detection of any PXI modules installed in the system, requiring no additional drivers or software.

The host PC may be separated from the PXI Express chassis by up to five meters using high-quality shielded twisted copper cables. The robust and reliable PCIe to PXIe Extension Kit is suited for test and measurement applications with high-density I/O requirements and can be used in hazardous industrial control and automation environments.

The PXIe-68638P/D as an optional module supports multi-chassis expansion in a daisy or star chain configuration. A PXIe-68638P/D in a peripheral slot can connect to another chassis with a PXIe-8641 establish multi-chassis control.

3.1 Abbreviations

- PCI: Peripheral Component Interconnect
- PXI: PCI extensions for Instrumentation

4. Hardware Information

4.1 PCIe-8641 Layout, Connectors

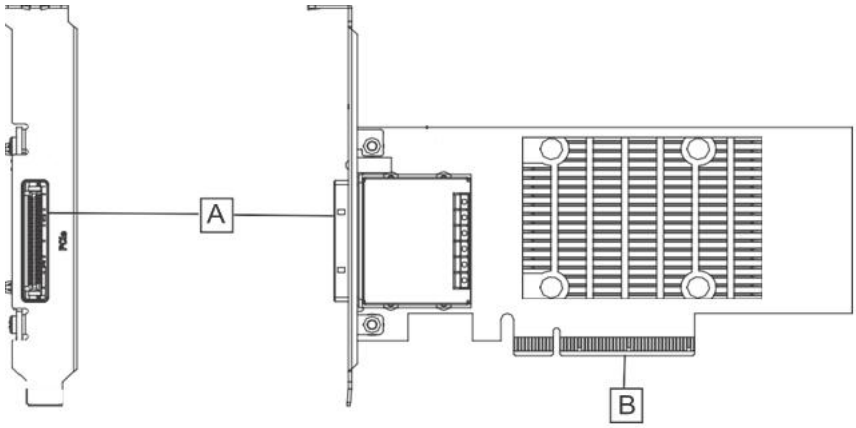


Figure 1 PCIe-8641 Mechanical Layout

A	PCIe x8 external downlink port
B	PCIe x8 edge finger

Table 4 PCIe-8641 Mechanical Layout Legend

LED	Description
PRSNT LED	Off: No power
	Green: Power Ok and device connected to downlink port is present
LINK LED	Off: No link
	0.5Hz Blinking: Link in PCIe Gen1 signaling
	1Hz Blinking: Link in PCIe Gen2 signaling

Table 5 PCIe-8641 Connectors, and LEDs

4.2 PXIe-8641 Layout, Connectors

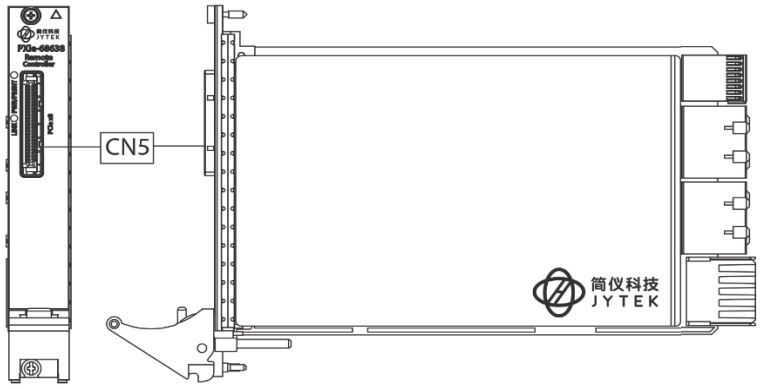


Figure 2 PXIe-8641 Mechanical Layout

Connector/Jumper/LED	Description
CN5	PXIe x8 external uplink port
PRSNT LED	Off: No power
	Green: Power OK and device connected to uplink port is present
LINK LED (Link status between PXIe-8641)	Off: No link
	0.5Hz Blinking: Link in PCIe Gen1 signaling
	1Hz Blinking: Link in PCIe Gen2 signaling

Table 6 PXIe-8641 Connectors and LEDs

4.3 PXIe-68638(P/D) Layout, Connectors (Optional module)

The PXIe-68638P module as an Optional module facilitates the expansion connection of PXIe chassis.

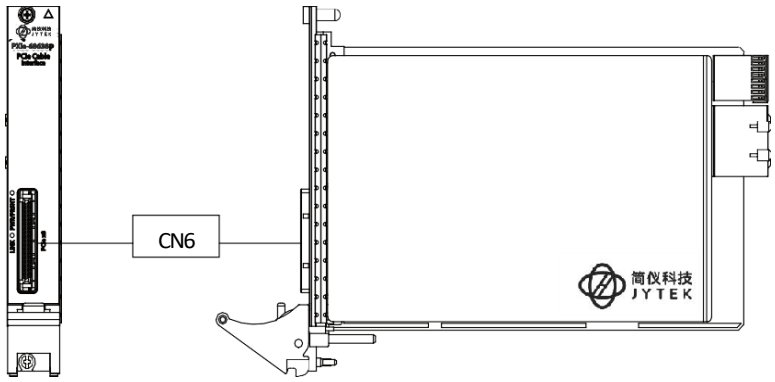


Figure 3 PXIe-68638P Mechanical Layout

The PXIe-68638D module, as an optional component, facilitates daisy-chain expansion connection of PXIe chassis.

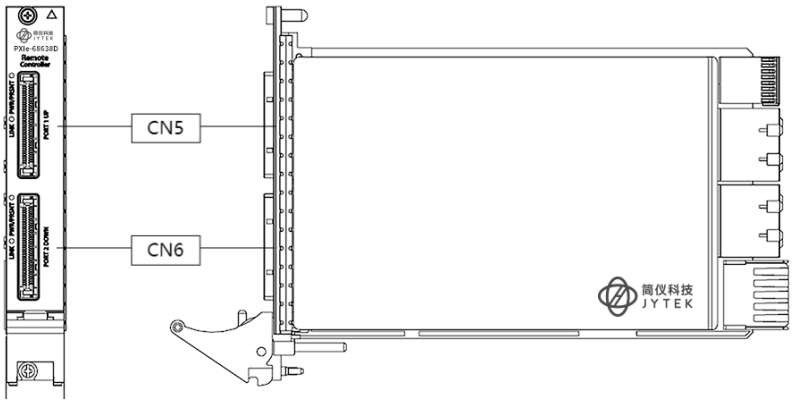


Figure 4 PXIe-68638D Mechanical Layout

Connector/Jumper/LED	Description
CN5	PXIe x8 external uplink port
CN6	PXIe x8 external downlink port
PWR/PRSNT LED	Off: No power
	Green: Power OK and device connected to uplink port is present
LINK LED (Link status between PXIe-68638 Series)	Off: No link
	0.5Hz Blinking: Link in PCIe Gen1 signaling
	1Hz Blinking: Link in PCIe Gen2 signaling

Table 7 PXIe-68638P/D Connectors and LEDs

5. Software

5.1 System Requirements

JY-8641 boards can be used in a Windows or a Linux operating system.

Microsoft Windows: Windows 7 32/64 bit, Windows 10 32/64 bit.

Linux Kernel Versions: There are many Linux versions. It is not possible JYTEK can support and test our devices under all different Linux versions. JYTEK will at the best support the following Linux versions.

Linux Version
Ubuntu LTS
16.04： 4.4.0-21-generic(desktop/server)
16.04.6：4.15.0-45-generic(desktop) 4.4.0-142-generic(server)
18.04： 4.15.0-20-generic(desktop) 4.15.0-91-generic(server)
18.04.4：5.3.0-28-generic (desktop) 4.15.0-91-generic(server)
Localized Chinese Version
中标麒麟桌面操作系统软件（兆芯版）V7.0（Build61）: 3.10.0-862.9.1.nd7.zx.18.x86_64
中标麒麟高级服务器操作系统软件V7.0U6: 3.10.0-957.el7.x86_64

Table 8 Supported Linux Versions

5.2 System Software

When using the JY-8641 in the Window environment, you need to install the following software from Microsoft website:

Microsoft Visual Studio Version 2015 or above,

.NET Framework version is 4.0 or above.

.NET Framework is coming with Windows 10. For Windows 7, please check .NET Framework version and upgrade to 4.0 or later version.

Given the resources limitation, JYTEK only tested JY-8641 be with .NET Framework 4.0 with Microsoft Visual Studio 2015. JYTEK relies on Microsoft to maintain the compatibility for the newer versions.

5.3 C# Programming Language

All JYTEK default programming language is Microsoft C#. This is Microsoft recommended programming language in Microsoft Visual Studio and is particularly suitable for the test and measurement applications. C# is also a cross platform programming language.

5.4 JY-8641 Hardware Driver

After installing the required application development environment as described above, you need to install the JY-8641 hardware driver.

JYTEK hardware driver has two parts: the shared common driver kernel software (FirmDrive) and the specific hardware driver.

Common Driver Kernel Software (FirmDrive): FirmDrive is the JYTEK's kernel software for all hardware products of JYTEK instruments. You need to install the FirmDrive software before using any other JYTEK hardware products. FirmDrive only needs to be installed once. After that, you can install the specific hardware driver.

Specific Hardware Driver: Each JYTEK hardware has a C# specific hardware driver. This driver provides rich and easy-to-use C# interfaces for users to operate various JY-8641 function. JYTEK has standardized the ways which JYTEK and other vendor's DAQ boards are used by providing a consistent user interface, using the methods, properties and enumerations in the object-oriented programming environment. Once you get yourself familiar with how one JYTEK DAQ card works, you should be able to know how to use all other DAQ hardware by using the same methods.

Note that this driver does not support cross-process, and if you are using more than one function, it is best to operate in one process.

5.5 Install the SeeSharpTools from JYTEK

To efficiently and effectively use JY-8641 boards, you need to install a set of free C# utilities, SeeSharpTools from JYTEK. The SeeSharpTools offers rich user interface functions you will find convenient in developing your applications. They are also needed to run the examples come with JY-8641 hardware. Please register and down load the latest SeeSharpTools from our website, www.jytek.com.

5.6 Running C# Programs in Linux

Most C# written programs in Windows can be run by MonoDevelop development system in a Linux environment. You would develop your C# applications in Windows using Microsoft Visual Studio. Once it is done, run this application in the MonoDevelop environment. This is JYTEK recommended way to run your C# programs in a Linux environment.
If you want to use your own Linux development system other than MonoDevelop, you can do it by using our Linux driver. However, JYTEK does not have the capability to support the Linux applications. JYTEK completely relies upon Microsoft to maintain the cross-platform compatibility between Windows and Linux using MonoDevelop.

6. Operating JY-8641

This chapter provides the operation guides for JY-8641, including introduction of PCIe-PXIe-8641 Kit Package Contents, Installation progress and precautions.

6.1 PCIe-PXIe-8641 Kit Package Contents

- ► PCI-8641 (PCI Express x8 host adapter for extension kit)
- ► PXIe-8641 Series (PXI Express remote controller)
- ► PCI Express x8 cable assembly (2 or 5m)
- ► Quick Start Guide

6.2 Installation Environment

Whenever unpacking and preparing to install any equipment described in this manual, refer to the ***8.5 Important Safety Instructions***.

Install equipment in well lit areas on flat, sturdy surfaces with access to basic tools such as flat and cross-head screwdrivers.

The PCIe to PXIe Extension Kit contains several electrostatic sensitive components that can be easily damaged by static electricity. For this reason, the modules and chassis should be handled on a grounded anti-static mat and the operator should wear an anti-static wristband during the unpacking and installation procedure.

Inspect the components for any damage. Improper shipping and handling may cause damage to the components. Be sure there is no damage to the components before continuing with the installation.

6.3 Installing the PCIe-8641 on a Host Computer

1. Power-off the host computer.

2. Unscrew the housing of the host computer using a (cross-head or flat-head) screwdriver. Open the housing.

3. Locate the PCI Express® extension module

(PCIe-8641) and remove it from its packaging. (Wear anti-static gloves and use an anti-static surface when handling the module).

4. Install the PCIe-8641 in an available x8 or x16 PCI Express slot in the host computer. Be sure to firmly attach the PCIe-8641's bracket to the backplane of the host PC.

5. Close the chassis and re-install the housing screws.

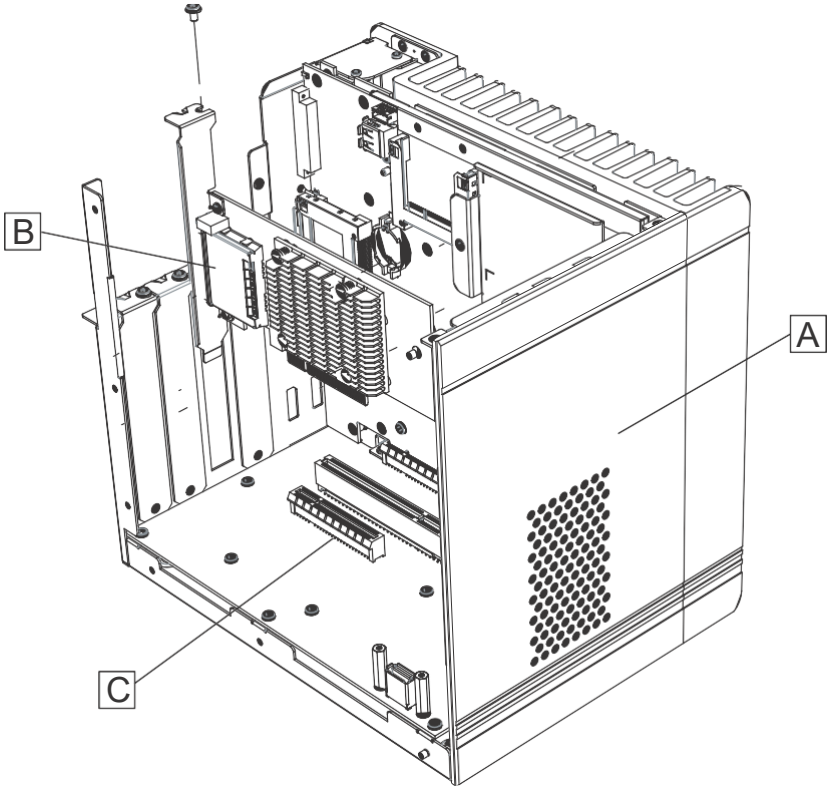


Figure 5 PCIe-8641 to Host PC Installation

Item	Description
A	Industrial or desktop PC with PCI Express x8 slot
B	PCIe-8641 (PCI Express host module)
C	PCI Express x8 slot

Table 9 PCIe-8641 to Host PC Installation Legend

6.4 PXIe-8641 Series to PXIe Chassis Installation

6.4.1 PXIe-8641/68638D to PXIe Chassis Installation

1.Remove the cover panel of the system slot.

2.Locate the PXIe-8641(or option PXIe-68638D) and remove it from its packaging. (Wear anti-static gloves and use an anti-static surface when handling the module).

3.Insert the PXIe-8641(or option PXIe-68638D) into the system slot and tighten the bracket-retaining screws on the top and bottom of the panel to fasten the PXIe-8641 to the chassis.

Warning: The PXIe-8641(or option PXIe-68638D) must be installed into the PXI™ system slot. Peripheral slots must not be used.

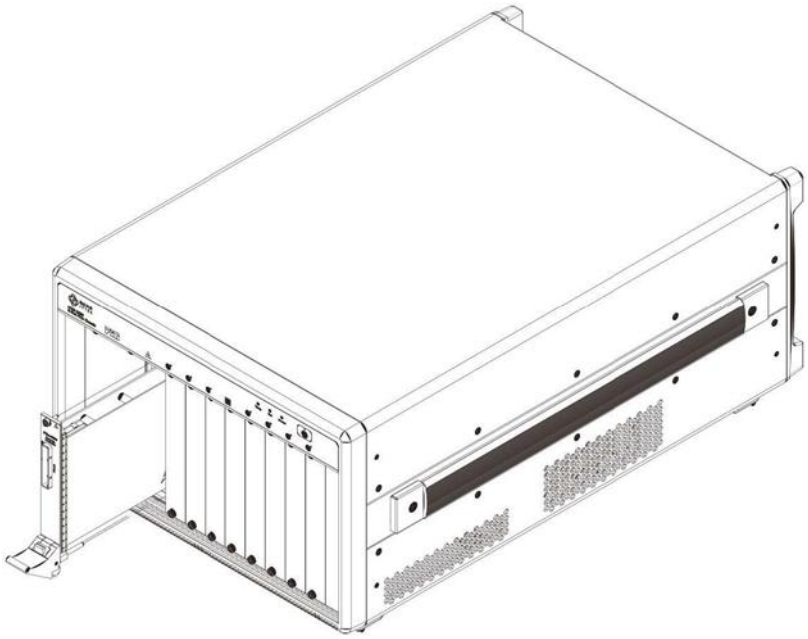


Figure 6 PXIe-8641(or option PXIe-68638D) to PXIe Chassis Installation Diagram

6.4.2 PXIe-68638P to PXIe Chassis Installation (optional module)

If there is a requirement to expand with two or more PXIe chassis, the PXIe-68638P as an optional module can be used to expand the chassis in a daisy-chain or star-chain configuration

1. Remove the cover panel of the peripheral slot assigned for connecting to an extension chassis based on application requirements.

2. Locate the PXIe-68638P and remove it from its packaging. (Wear anti-static gloves and use an anti- static sur-face when handling the module).

3. Insert the PXIe-68638P into the peripheral slot and tighten the bracket-retaining screws on the top and bottom of the panel to fasten the PXIe-68638P to the chassis.

Warning： The PXIe-68638P must be installed into the PXI peripheral slot, System slots may not be used.

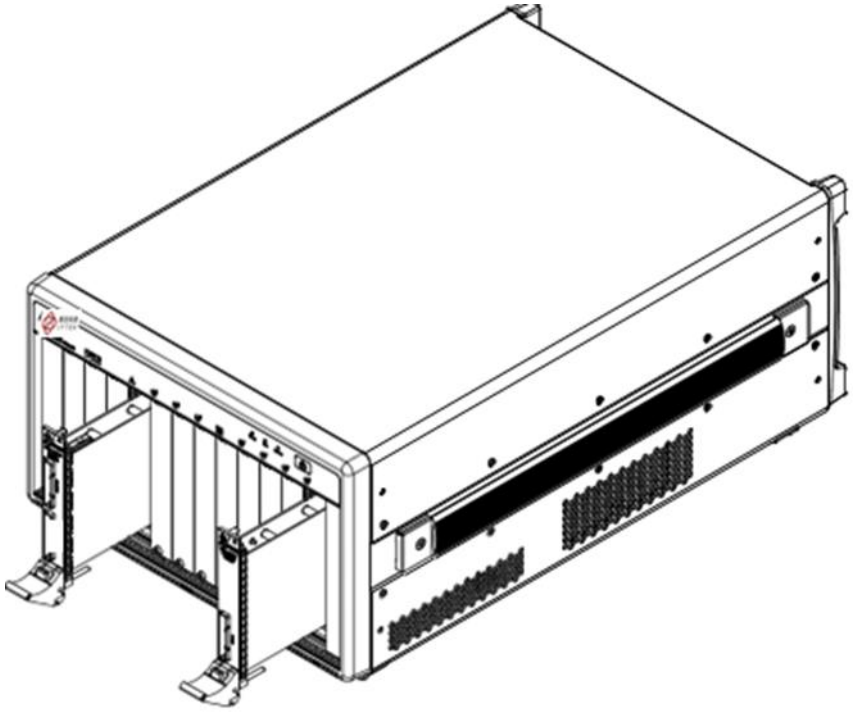


Figure 7 PXIe-68638P to PXIe Chassis Installation Diagram

6.5 Cabling the Host Computer to a PXIe Chassis

Connect the PCIe cable assembly between thePCIe-8641, PXIe-8641, and/or PXIe-68638P(Optional).

CAUTION: Removing the PCIe cable assembly after the system is powered on may cause system errors or data loss. If the cable is unplugged improperly, reconnect it and reboot the host PC and PXIe chassis.

1. Connect the cable assembly to the external port on the bracket of the PCIe-8641 located in the host PC.

2. Connect the other end of the cable assembly to the external port of the PXIe-8641 installed into the system slot of the PXI Express chassis.

3. In a multiple PXI Express chassis configuration, connect another cable assembly to the PXIe-68638P installed into the first PXI Express chassis. Then, connect the other end of cable assembly to the external port of the PXIe-8641 installed into the system slot of the next PXI Express chassis.

Figure 8 PCIe x8 Cable Assembly

6.6 Configuration Block Diagrams

6.6.1 PC to PXIe Chassis

Installing the PCIe-8641 into a PC and the PXIe-8641 into a PXIe chassis enables the basic expansion functions of the kit.

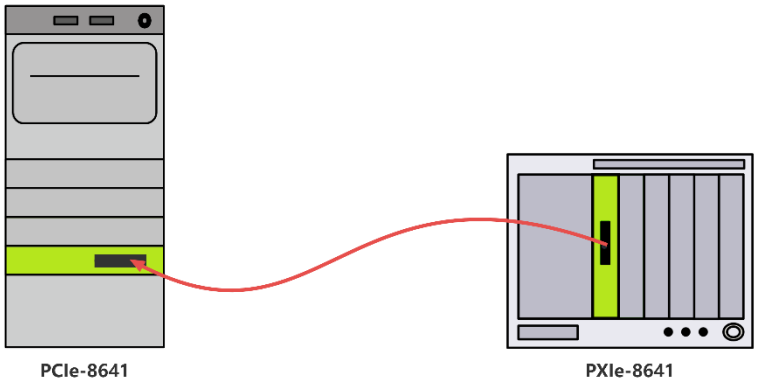


Figure 9 PC to PXIe Chassis

6.6.2 PC to PXIe Chassis (Star Topology)

Star topology for PXIe chassis can be implemented by adding the optional module PXIe-68638P.

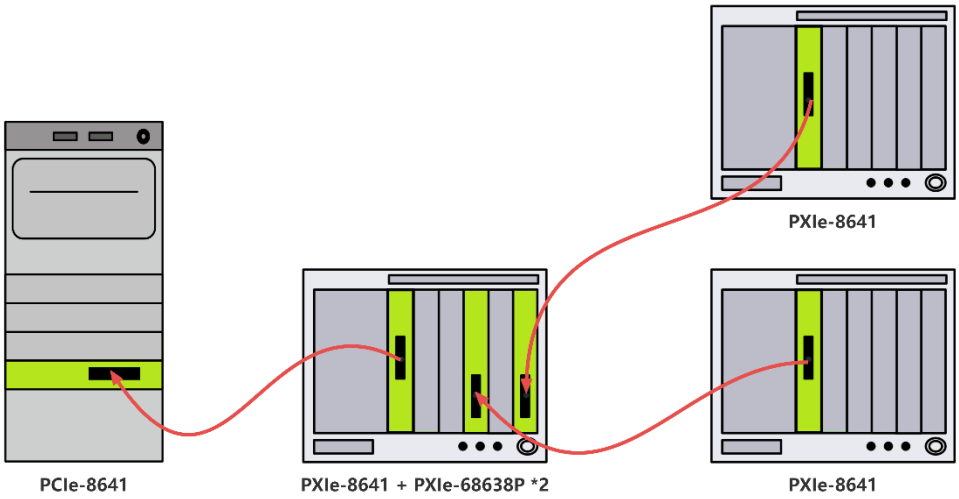


Figure 10 PC to PXIe Chassis (Star Topology)

If the PC has multiple PCIe slots, another star topology can be implemented by using multiple sets of PCIe-PXIe-8641 devices.

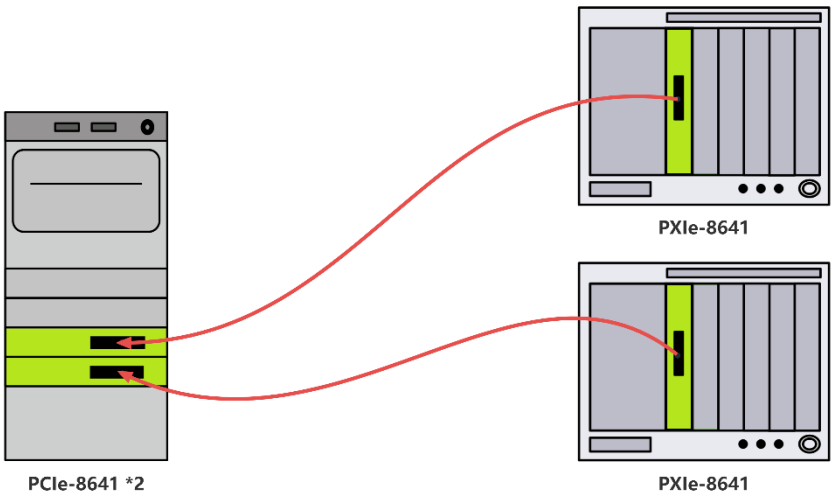


Figure 11 PC to PXIe Chassis (Multi Devices Star Topology)

6.6.3 PC to PXIe Chassis (Daisy Chain Topology)

Daisy chain topology for PXIe chassis can be implemented by adding the optional module PXIe-68638D.

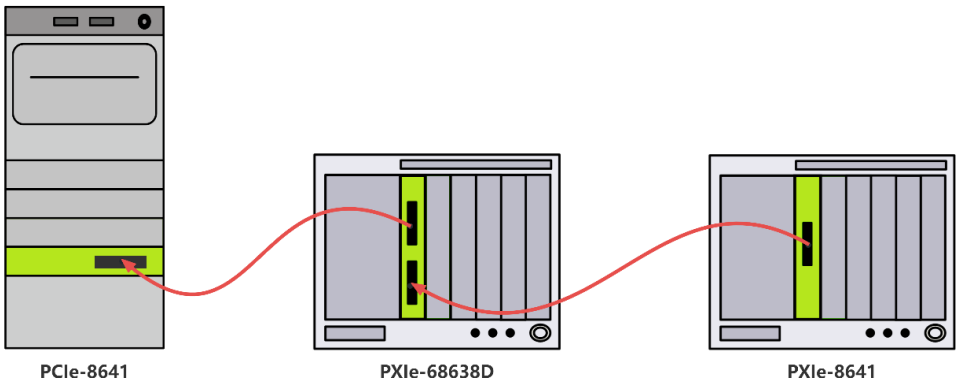


Figure 12 PC to PXIe Chassis (The PXIe-68638D Daisy Chain Topology)

Another Daisy chain topology for PXIe chassis can be implemented by adding the optional module PXIe-68638 and PXIe-68638P.

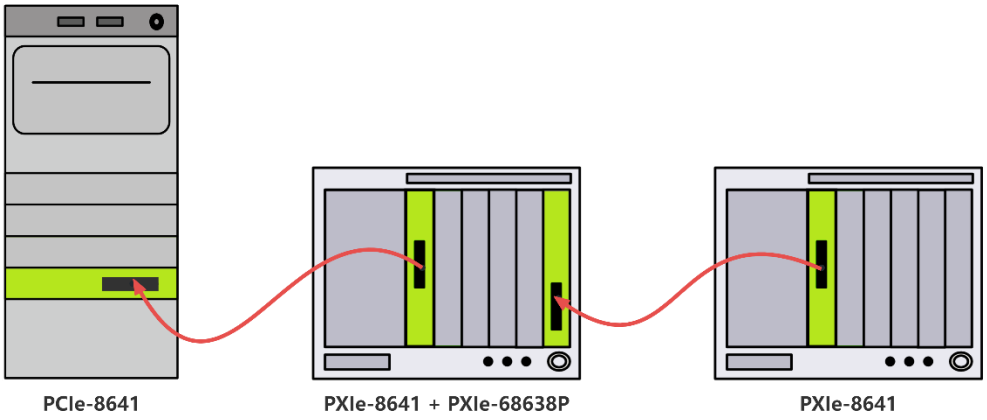


Figure 13 PC to PXIe Chassis (The PXIe-68638P Daisy Chain Topology)

6.6.4 PXIe to PXIe Chassis

The direct expansion connection of PXIe chassis can be realized by adding the optional module PXIe-68638P.

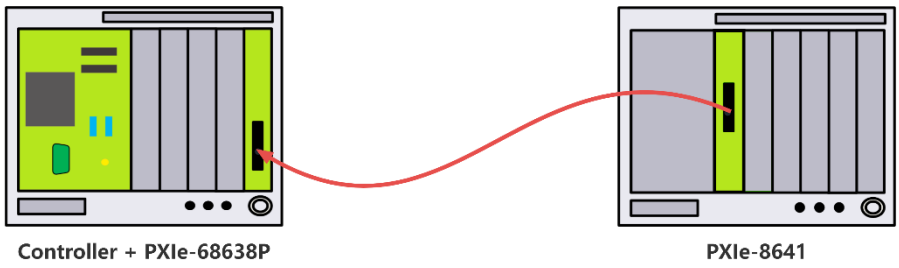


Figure 14 PXIe to PXIe Chassis Connection

6.6.5 PXIe to PXIe Chassis Connection(Star Topology)

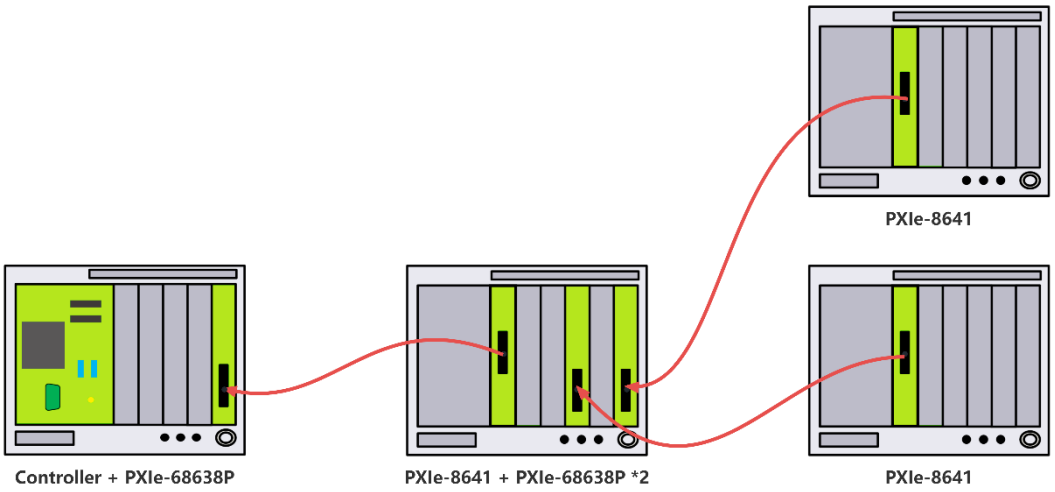


Figure 15 PXIe to PXIe Chassis (Star Topology)

6.6.6 PXIe to PXIe Chassis (Daisy Chain Topology)

Daisy chain topology for PXIe to PXIe chassis can be implemented by adding the optional module PXIe-68638P and PXIe-68638D.

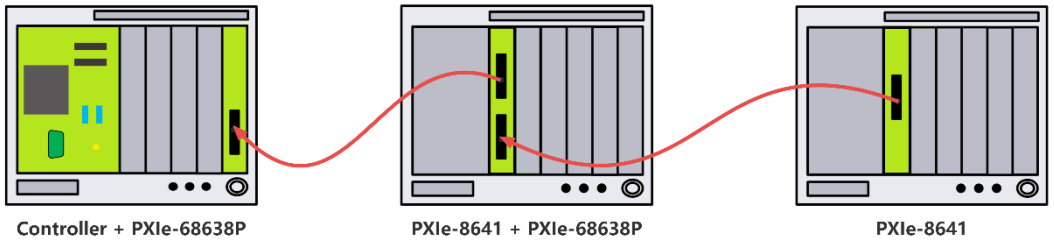


Figure 16 PXIe to PXIe Chassis (The PXIe-68638D & PXIe-68638P Daisy Chain Topology)

Another Daisy chain topology for PXIe to PXIe chassis can be implemented by adding the optional module PXIe-68638P *2.

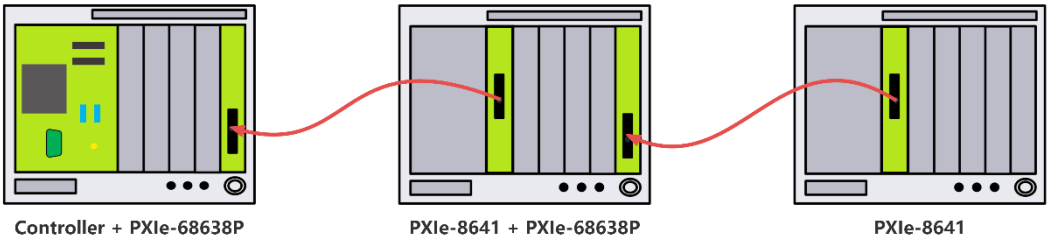


Figure 17 PXIe to PXIe Chassis (The PXIe-68638P *2 Daisy Chain Topology)

6.7 Power On/Off Sequence

To power-on the PCIe to PXIe Extension Kit:

1. Ensure that the extension cable is properly connected to the host PC and PXIe chassis.

2. In a single chassis configuration, power on the PXIe chassis. In a multiple chassis' configuration, power on the most subordinate chassis in the configuration first, then power on the uplink chassis. Continue until all chassis are powered on.

3. When the status LEDs of the PXI Express chassis and all installed modules indicate ready, power on the host PC.

CAUTION: **DO NOT** remove the cable after the system and PXIe chassis are powered on. Disconnecting the cable while the system is running may cause unpredictable system errors and/or a system crash.

As the PCIe to PXIe Extension Kit is equipped with a standard PCIe switch, the BIOS will identify each device behind the switch and assign resources to each during startup. Thus the PXI Express chassis must be powered up in order to acquire appropriate resources from the BIOS.

To power down the PCIe to PXIe Extension Kit:

1. Power down the host PC.

2. Power down the PXIe chassis.

7. Using JY-8641 in Other Software

While JYTEK's default application platform is Visual Studio, the programming language is C#, we recognize there are other platforms that are either becoming very popular or have been widely used in the data acquisition applications. Among them are Python,

C++ and LabVIEW. This chapter explains how you can use JY-8641 DAQ card using one of this software.

7.1 Python

JYTEK provides and supports a native Python driver for JY-8641 boards. There are many different versions of Python. JYTEK has only tested in CPython version 3.5.4. There is no guarantee that JYTEK python drivers will work correctly with other versions of Python.

If you want to be our partner to support different Python platforms, please contact us.

7.2 C++

We recommend our customers to use C# drivers because C# platform deliver much better efficiency and performance in most situations. We also provide C++ drivers and examples in the Qt IDE, which can be downloaded from web. However, due to the limit of our resources, we do not actively support C++ drivers. If you want to be our partner to support C++ drivers, please contact us.

7.3 LabVIEW

LabVIEW is a software product from National Instruments. JYTEK does not support LabVIEW and will no longer provide LabVIEW interface to JY-8641 boards. Our third-party partners may have LabVIEW support to JY-8641 boards. We can recommend you if you want to convert your LabVIEW applications to C# based applications.

8. Appendix

8.1 Product Specifications and Connectivity

JYTEK provides cable accessories for the PCIe-PXIe-8641 in lengths of 2 meters and 5 meters, with a maximum system interconnect cable length of 5 meters.

The PCIe-PXIe-8641 functions as a universal PXI Express system controller, supporting both 4-link and 2-link PXI Express system slots, and automatically detects the backplane for configuration without manual settings.

8.2 Software and Drivers

When using the PCIe-PXIe-8641, it is necessary to install JYTEK PXI Platform Services, which includes SMBus controller drivers and the PXI software framework. This can be downloaded from the PCIe-PXIe-8641 product page on the JYTEK website

8.3 Compatibility Issues

Compatibility concerns primarily relate to the availability of PCI bus numbers. The number of PCI bus numbers assigned by the system BIOS may exceed the requirements of the PCIe-PXIe-8641 and the PXI Express chassis.

In theory, PCI Express systems can support up to 256 bus numbers, but many systems' maximum PCI bus numbers are often limited by the system BIOS settings based on design or architecture.

The PXI Express chassis and peripheral modules consume multiple PCI bus numbers. The PCI bus number requirements for JYTEK PXI Express chassis are detailed in the table below:

Model	PCI Bus Number Requirement
PCIe-PXIe-8641 + PXIe-2519G2/G3	27
PCIe-PXIe-8641 + PXIe-2722G2/G3	44

Table 10 PCI Bus Number Requirements

Compatibility issues may manifest as missing devices in the Windows Device Manager or system boot failures. Suggestions for resolving these issues include checking the installation of the PCIe-PXIe-8641 and cables, inspecting LED status, ensuring cables

are intact, confirming sufficient PCI bus numbers are available, updating the BIOS system, trying different module installation sequences, changing the PCI Express slot or host PC, and removing some modules to free up resources.

8.4 Operating System Support

The PCIe-PXIe-8641 is designed as a standard PCIe-to-PCIe bridge and should support most modern Linux kernels without additional driver requirements. However, the PXI software framework and SMBus controller of the PCIe-PXIe-8641 are not operable under Linux, as the PXI Express software specification is based on a Windows environment.

8.5 Important Safety Instructions

For user safety, please read and follow all instructions, Warnings, Cautions, and Notes marked in this manual and on the associated device before handling/operating the device, to avoid injury or damage.

CAUTION: Risk of explosion if battery is replaced with one of an incorrect type; please dispose of used batteries appropriately.

► Read these safety instructions carefully.

► Keep the User's Manual for future reference.

► Read the Specifications section of this manual for detailed information on the recommended operating environment.

► The device can be operated at an ambient temperature of 55ºC.

► When installing/mounting or uninstalling/removing device, or when removal of a chassis cover is required for user ser- vicing (See 6.2 Installation Environment.):

1) Turn off power and unplug any power cords/cables.

2) Reinstall all chassis covers before restoring power.

► To avoid electrical shock and/or damage to device:

1) Keep device away from water or liquid sources.

2) Keep device away from high heat or humidity.

3) Keep device properly ventilated (do not block or cover ventilation openings).

4) Always use recommended voltage and power source settings.

5) Always install and operate device near an easily accessible electrical outlet.

6) Secure the power cord (do not place any object on/over the power cord).

7) Only install/attach and operate device on stable surfaces and/or recommended mountings.

► If the device will not be used for long periods of time, turn off and unplug it from its power source.

► Never attempt to repair the device, which should only be serviced by qualified technical personnel using suitable tools.

► A Lithium-type battery may be provided for uninterrupted backup or emergency power.

► The device must be serviced by authorized technicians when:

Only install/attach and operate device on stable surfaces and/or recommended mountings

1) The power cord or plug is damaged.

2) Liquid has entered the device interior.

3) The device has been exposed to high humidity and/or moisture.

4) The device is not functioning or does not function according to the User's Manual.

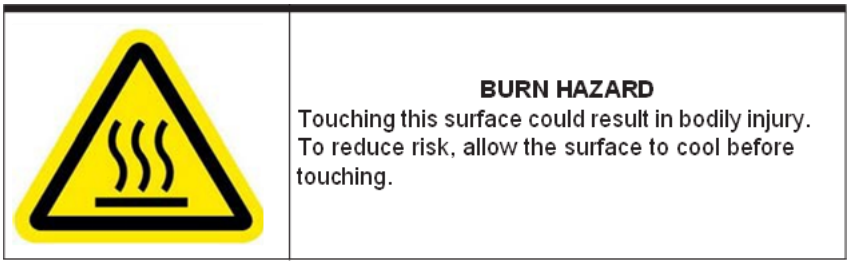
5) The device has been dropped and/or damaged and/or shows obvious signs of breakage.

► Disconnect the power supply cord before loosening the thumbscrews and always fasten the thumbscrews with a screwdriver before starting the system up.

► It is recommended that the device be installed only in a server room or computer room where access is:

1) Restricted to qualified service personnel or users familiar with restrictions applied to the location, reasons therefor, and any precautions required.

2) Only afforded by the use of a tool or lock and key, or other means of security, and controlled by the authority responsible for the location.



9. About JYTEK

9.1 JYTEK China

Founded in June, 2016, JYTEK China is a leading Chinese test & measurement company, providing complete software and hardware products for the test and measurement industry. The company is a joint venture between Adlink Technologies and a group of experienced professionals form the industry. JYTEK independently develop the software and hardware products and is entirely focused on the Chinese market. Our Shanghai headquarters and production service center have regular stocks to ensure timely supply; we have R&D centers in Xi'an and Chongqing to develop new products; we also have highly trained direct technical sales representatives in Shanghai, Beijing, Tianjin, Xi'an, Chengdu, Nanjing, Wuhan, Haerbin, and Changchun. We also have many partners who provide system level support in various cities.

9.2 JYTEK Software Platform

JYTEK has developed a complete software platform, SeeSharp Platform, for the test and measurement applications. We leverage the open sources communities to provide the software tools. Our platform software is also open sourced and is free, thus lowering the cost of tests for our customers. We are the only domestic vendor to offer complete commercial software and hardware tools.

9.3 JYTEK Warranty and Support Services

With our complete software and hardware products, JYTEK is able to provide technical and sales services to wide range of applications and customers. In most cases, our products are backed by a 1-year warranty. For technical consultation, pre-sale and after-sales support, please contact JYTEK of your country.

10.Statement

The hardware and software products described in this manual are provided by JYTEK China, or JYTEK in short.

This manual provides the product review, quick start, some driver interface explanation for JYTEK JY-8641 Series family of multi-function data acquisition boards. The manual is copyrighted by JYTEK.

No warranty is given as to any implied warranties, express or implied, including any purpose or non-infringement of intellectual property rights, unless such disclaimer is legally invalid. JYTEK is not responsible for any incidental or consequential damages related to performance or use of this manual. The information contained in this manual is subject to change without notice.

While we try to keep this manual up to date, there are factors beyond our control that may affect the accuracy of the manual. Please check the latest manual and product information from our website.

Shanghai Jianyi Technology Co., Ltd.

Address: Room 201, Building 3, NO.300 Fangchun Road, Shanghai.

Post Code: 201203

Tel: 021-5047 5899

Website: www.jytek.com