

Isolated USB 3.2 Gen2 4-Port Hub

Quick Installation Guide



USB3-GEN2iH

1. Introduction

Isolated USB 3.2 Gen2 4-Port Hub protects PC or Laptop while connecting USB peripherals which is wired to high voltage. This small, industrial grade isolator hub is very easy to use and provides a high-voltage barrier protection against surges, noise and ground loop errors. It is suitable for using in sensitive applications like automotive measurements.

Isolated USB 3.2 Gen2 4-Port Hub provides a high-voltage isolation barrier between computer and its connected USB devices. The isolation protects equipment from electrical over-voltages and transient voltage spikes, by eliminating ground loop currents flowing between the PC and USB devices which can cause damage and inaccurate measurements. Additionally, isolation minimizes conducted noise from static discharge, magnetic fields and radio frequency interference.

2. Features

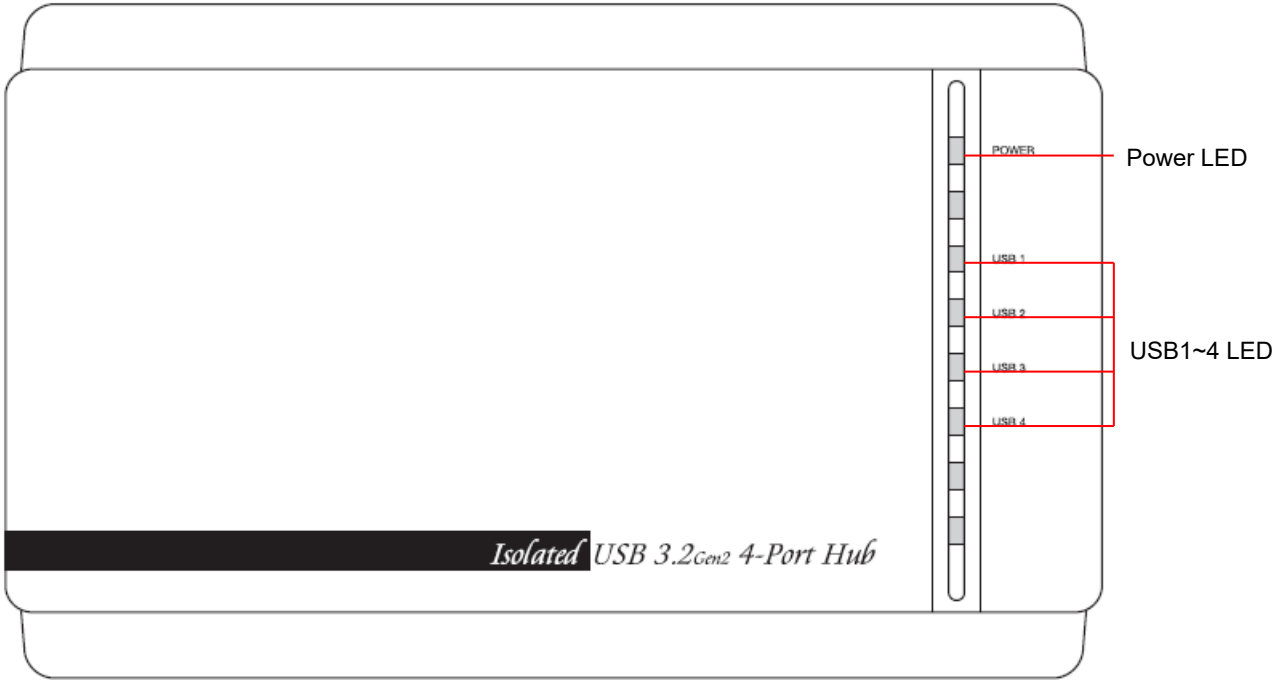
- Isolation 2000VDC between USB host and USB devices.
- Supports USB 3.2 Gen2 data transfer rates up to 10 Gbps.
- Fully Compliant with USB specification 1.1, 2.0, 3.2 Gen1, 3.2 Gen2.
- Isolated host power through a DC-to-DC converter.
- Compatible with all USB-C and Thunderbolt 3 devices.
- Class 3A contact ESD performance per ANSI / ESD STM5.1-2007; Supports ±15kV ESD protection on each port.
- High common-mode transient immunity :>50 kV/μs.
- Auto-Negotiation of Link Speed.
- The USB 3.2 Gen2 Type-C ports comply with USB Battery Charging Spec 1.2; and enable to provide up to 1.5A (CDP mode) output current on each port.
- Compatible OS thru USB 2.0: Windows 98SE / ME / 2000 / XP / Vista / 7 / 8 / 8.1 / 10 / 11; Mac OS 8.6 or higher.
- Compatible OS thru USB 3.2 Gen1 and 3.2 Gen2: Windows 7 / 8 / 8.1 / 10 / 11; Mac OS X Mountain Lion or higher.

Specification

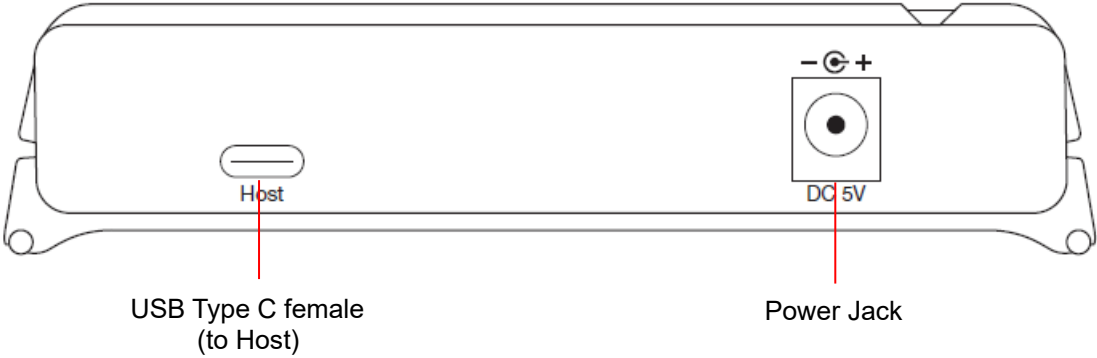
Model No.		USB3-GEN2iH	
Isolation	D+ & D-	2000VDC	
	VCC	3000VDC	
Transfer Rate		1.5M / 12M / 480M / 5G / 10Gbps	
Connector	Host	USB 3.2 Gen2 Type-C Female	
	Device	Type-C	USB 3.2 Gen2 Type-C Female x 2
		Type-A	USB 3.2 Gen2 Type-A Female x 2
Cable Length		1m	
Environmental	Operating Temperature		0 ~ 40°C
	Storage Temperature		0 ~ 60°C
	Humidity		0-80% RH, Non-condensing
LED		5	
Power Supply		5VDC 4A	
Downstream Power	Type-C	Up to 1.5A on each port	
	Type-A	Up to 500mA on each port	
Housing		Aluminum	
Dimension (L x W x H)		130 x 74 x 30 mm	

3. Physical Diagram

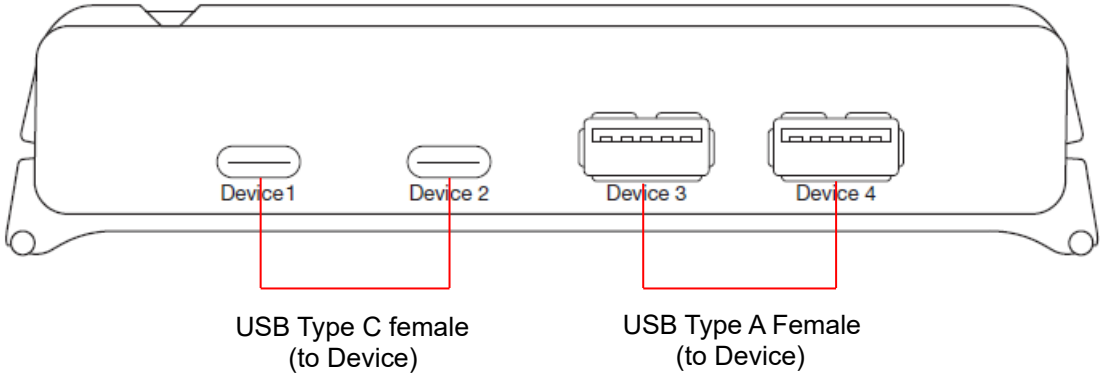
Upper



Front



Rear



4. Connecting

Typical Application

- Industrial automation systems
- Measurement devices
- Environments requiring safety insulation
- Broadcast and Studio
- Audiophile-grade home systems
- All applications requiring clean and stable USB connections with separate grounds

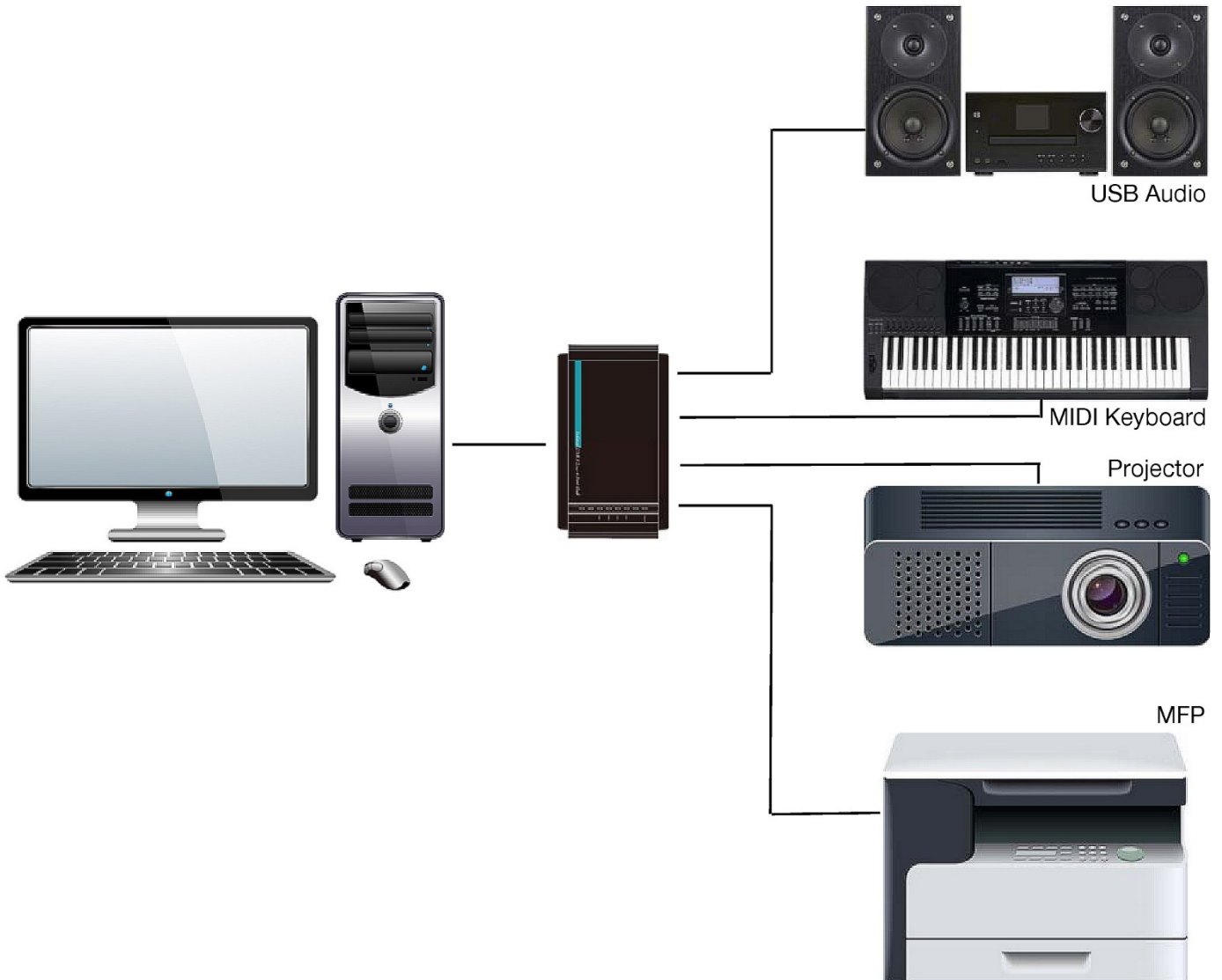


Fig 1. The Isolated USB 3.2 4-Port Hub unit is installed in-line between the PC and 4 connected USB devices.

5. Installation

1. Plug the USB Type C male cable into the host computer or USB hub, and plug in the 5VDC 4A power adaptor.
2. The Power LED will light on, indicating power is being received from the power outlet and the Isolated USB 3.2 GEN2 4-Port Hub unit is ready.
3. Plug the downstream device into the unit. There are 2 types of cable users may use; one is USB Type C, another is USB 3.2 cable. The USB1~USB4 LED will light on once the devices are connecting successfully.
4. The USB Isolator is transparent to the host operating system and does not require configuration or software installation.

Caution: Apply a DC 5V power adaptor to the power port of this unit once you connect the USB devices need a lot of power current from their upstream such as USB hard drive enclosure, USB fan, handheld game console, USB CD player etc.

6. Troubleshooting

Table -1 provides troubleshooting tips. The solutions are arranged in the order in which they should be executed in most situations. If you are unable to resolve the problem after following these instructions, contact your distributor for further support.

Table -1 Troubleshooting tips

Problem	Cause	Solution
The USB device is attached but not functioning.	<ul style="list-style-type: none"> • The USB device requires drivers that were not installed. • The USB device does not support USB hubs. • The USB device might be failed. 	<ol style="list-style-type: none"> 1. Install the required USB device driver on the computer operating system before plug in the USB device to the receiver. Access your USB device's manufacturer's Web site for detail info. 2. In the Universal Serial Bus (USB) controllers section of Device Manager, check if the USB device is listed.
The USB device is attached but not functioning.	<ul style="list-style-type: none"> • An over current condition has occurred because the USB device is drew more current than it can be supplied per USB specification (500mA). Operating systems may pop up to indicate an issue. 	<ol style="list-style-type: none"> 1. Unplug the power adapter from the receiver, wait approximately 30 seconds; plug the power adapter into receiver again. 2. If over current keeps occurring, either the USB device may use more power than the USB specification, or the USB device may be damaged. 3. Consult your USB device documentation and plug into your USB device with the required power adapter.

Regulatory Compliance

Disclaimer

Information in this document is subject to change without notice. The manufacturer does not make any representations or warranties (implied or otherwise) regarding the accuracy and completeness of this document and shall in no event be liable for any loss of profit or any other commercial damage, including but not limited to special, incidental, consequential, or other damages.

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CE Certification

This equipment complies with the requirements relating to electromagnetic compatibility. It has been manufactured under the scope of RoHS compliance.

FCC Compliance Statement

This equipment generates and uses radio frequency and may cause interference to radio and television reception if not installed and used properly. This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

You are cautioned that changes or modification not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation



WEEE (Waste of Electrical and Electronic Equipment), Recycling of Electronic Products

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.

Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products. More details can be obtained from your national WEEE recycling agency.