



7 Port USB 3.2 Gen 1 Hub PCBA

w/ ESD Surge Protection

Model Number: *CG-7PU31HB-PCBA*

Installation Guide

Coolgear, Inc.

Version: 1.0

Date: 04/08/2024

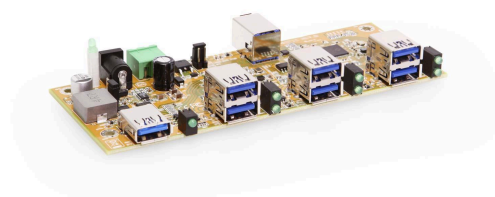


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Revision History

Revision	Date	Comments
1.0	04/08/2024	First Release

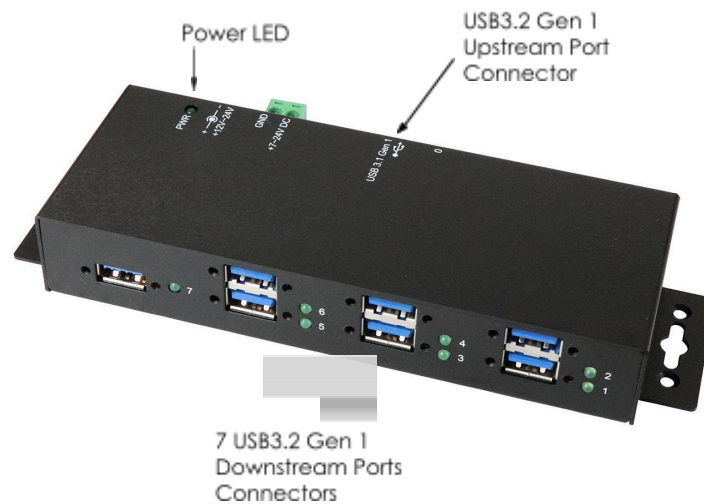
1. Introduction

Thank you for purchasing Coolgear's 7-Port USB3.2 Gen 1 Metal Hub. It provides an ideal solution to expand 7 USB3.2 Gen 1 ports from one single USB3.2 Gen 1 host port. It provides a DC Jack and 2-pin terminal blocks for self power source (+7~24V DC) to provide enough power on USB3.2 Gen 1 buses.

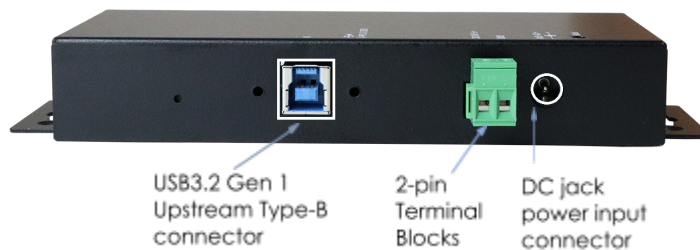
Features:

- ✓ Compliant with USB 3.1 Gen 1 Specifications
- ✓ Rigid and Wall-mountable Metal Case
- ✓ Provides 7 Downstream USB3.2 Gen 1 Facing Ports
- ✓ Supports 5Gbps (Super-speed), 480Mbps (High-speed), 12Mbps Full-speed) and 1.5Mbps (Low-speed) Speed
- ✓ Supports 15KV ESD Surge Protection for Each Port
- ✓ Multi Transaction Translators (TT) per Hub
- ✓ Support USB Battery Charging: CDP and DCP modes
- ✓ Supports +7~24V DC Power Input for the Terminal Blocks

2. Connector Layout



- **USB3.2 Gen 1 Downstream Port Connectors:** There are 7 Type-A connectors for USB3.2 Gen 1, USB2.0 or USB1.1 devices. They support normal type USB cables.
- **USB3.2 Gen 1 Upstream Port Connector:** Type-B connector from upstream USB3.2 Gen 1 port. It is connected from the host or another USB3.2 Gen 1 hub. Supports both normal and screw-lock type USB cables.



- **DC jack Self Power Input Connector:** This connector is used to connect an AC-to-DC power adapter to self-power the hub, it can be +7~24V DC. The recommendation voltage is 12V DC.



WARNING!!

Please make sure the supplied power should not be over 24V DC. Otherwise, it may damage the hub and the USB devices connected.

3. Hardware Installation

1. Use static electricity discharge precautions.

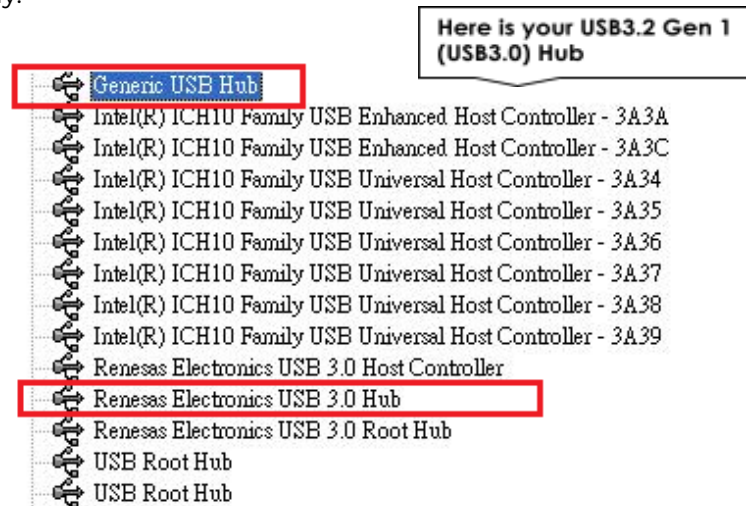
Remove possible static discharge potential from any objects that the hub may come in contact with before installation. This can be accomplished by touching a bare metal chassis rail after you have turned off the power.

2. **Apply +12V DC power to the DC jack Connector.** The hub was self-powered by this connector
3. **Connecting USB Host cable:** The host cable could be either a standard A-to-B USB3.2 Gen 1 cable or an optional A-to-B USB3.2 Gen 1 screw-lock cable. Please connect the type-A end connector of the cable to your PC's USB3.2 Gen 1 host port, then insert the type-B end connector to this hub. Since the USB hub is plug-and-play, you don't have to turn off your host computer when installing the hub.
4. **Connect the USB devices to the downstream ports of this hub.**
5. **Mount your hub on the wall or DIN RAIL if required.**

4. Checking the USB3.2 Gen 1 Hub Installation

To check the USB3.2 Gen 1 hub installation in Windows device manager, please follow the following steps:

1. Click **Start** □ **Control Panel** □ **System** □ **Device Manager** button
2. Double click **Universal Serial Bus Controller**
3. Double click **Generic USB Hub**, the message will show that this device is working properly.



5. Environmental Specifications

Operating temp.: 0 to 55°C (32 to 131°F)

Operating humidity: 5 to 95% RH

Dimensions (LxWxH): 7.12"(L)x2.34"(W)x1.03"(H)
(181.00 x 59.40 x 26.30 mm)

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Safety

- Read the entire Installation Guide before implementing this product for your application. This guide contains important information about electrical connections that must be followed for safe and proper operation.
- Inspect the product closely for visual defects before putting it to use.
- Keep away from areas where moisture builds, this product contains electrical components that can be damaged by moisture build up, this can adversely affect your equipment connected to it.
- Do not disassemble the product. Handling the product's internal components can expose it to ESD (Electro-Static Discharge) hazards that can affect the function of the device.
- If this product is not functioning properly, email our support team at support@coolgear.com.

USB CHARGING & CONNECTIVITY EXPERTS

Within Every Great Machine

For over 20 years our rugged, off-the-shelf USB hubs, chargers, and serial products are ready to go for your next project. Based in the US, Coolgear has successfully engineered and deployed millions of connectivity solutions into industrial, medical, automotive, commercial, and aerospace industries.

We understand the importance of reliability, build quality, & consider all our customers' applications as critical, wanting to ensure long-lasting event-free integrations.

Compliance Statement

View compliance within the product's respective Technical Data Sheet, found on the product's online listing.

Technical Support

When you reach out to Coolgear support, you'll find yourself in the hands of a solution-oriented and knowledgeable expert ready to answer whatever question you throw at them. If you ever need help with your product, visit coolgear.com/support for support tickets, downloads, and other support resources. For the latest drivers, please visit coolgear.com/download.

Product Standard Warranty

One (1) Year Warranty from Date of Purchase Invoice. Coolgear will repair or replace any Product determined to be defective and which has been returned, at your risk and expense, to Coolgear. Where Coolgear determines in its sole judgment that repair or replacement of such Product is not reasonable, Coolgear will keep the non-conforming Product and refund to you the amount you paid for such Product. Returned Products shall be subject to the balance of the Warranty Period otherwise applicable. Any reconditioned parts used by Coolgear shall be subject to all the same provisions as otherwise applicable to new parts. THE FOREGOING DESCRIBES COOLGEAR'S SOLE LIABILITY, AND YOUR SOLE REMEDY, FOR ANY BREACH OF WARRANTY. IF YOU DO NOT AGREE WITH THE TERMS OF THIS LIMITED WARRANTY, YOU MUST RETURN THE PRODUCTS UNUSED AND IN THEIR ORIGINAL CONTAINERS TO YOUR ORIGIN OF PURCHASE.

Limitation of Liability

This Limited Warranty does not cover: (i) defects or damages resulting from natural causes, casualty, accident, misuse or abuse, neglect, alterations, service or repair by other than Coolgear, including without limitation by you; (ii) improper installation or de-installation, operation or maintenance, improper connections with peripherals or other causes not arising out of defects in the materials or workmanship of Products; (iii) any Product for which the warranty sticker has been removed, modified or defaced; (iv) normal wear and tear; (v) damage to or loss of repaired or replaced Products during shipping by Coolgear except when such damage or loss is caused by poor or inadequate packaging by Coolgear; or (vi) Products purchased outside the United States. UNDER NO CIRCUMSTANCES WILL COOLGEAR BE LIABLE FOR ANY LOSS OF USE, INTERRUPTION OF BUSINESS OR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY KIND (INCLUDING LOST PROFITS) REGARDLESS OF THE FORM OF ACTION WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT PRODUCT LIABILITY OR OTHERWISE, EVEN IF COOLGEAR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL THE TOTAL LIABILITY OF COOLGEAR HEREUNDER EXCEED THE GREATER OF \$50.00 OR THE AMOUNT YOU ACTUALLY PAID FOR THE PRODUCT GIVING RISE TO SUCH LIABILITY, REGARDLESS OF THE CAUSE OF ACTION, IN CONTRACT, TORT, STRICT LIABILITY OR OTHERWISE. NOT ALL JURISDICTIONS ALLOW SUCH LIMITATIONS OF DAMAGES SO THE FOREGOING LIMITATIONS MAY NOT APPLY TO YOU.

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