

# Wide Temp. Range Hub

Model Number: CG-G1M4PHT

# **Installation Guide**

**Coolgear, Inc.** Version: 1.0 Date: 04/25/2024



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### **Revision History**

Revision	Date	Comments
1.0	04/25/2024	First Release

# **1. Introduction**

Thank you for purchasing Coolgear's 4 Port Mini USB 3.2 Gen 1 Industrial Wide Temp. Range Hub. Thank you for purchasing this Super-speed 4-port USB3.2 Gen 1 Industrial Micro hub, designed to meet the demands of industrial environments. It provides an ideal solution for expanding connectivity with four USB3.2 Gen 1 ports (USB-A connectors) from a single USB3.2 host port. With a self-power input (7~48V DC from 2-pin Terminal Blocks), it ensures sufficient power delivery to the USB3.2 Gen 1 downstream facing ports. The hub operates effectively within temperature ranges from -40°C to +85°C.

#### Features:

- ✔ Compliant with USB3.2 Gen 1 Specifications
- ✔ Rigid Wall and DIN RAIL Mountable Compact Metal Case
- ✔ Provides Multi-Orientation Mounting Bracket and DIN Rail Clip
- ✓ Provides 1 USB-B Upstream and 4 USB-A Downstream USB3.2 Gen 1 Ports
- ✓ Supports 5Gbps (Super-speed), 480Mbps (High-speed), 12Mbps Full-speed) and 1.5Mbps (Low-speed) Speed
- ✓ Supports 15KV ESD Surge Protection
- ✔ Multi Transaction Translators (TT) per Hub
- ✓ Input Power: 7~48V DC
- ✓ Support USB Battery Charging: CDP and DCP modes
- ✔ Operating Temperature: -40~+85°C

# 2. Connector Layout

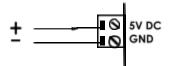
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- Power LED: Turns on indicates the hub was powered by either the Bus-Power or the Self-Power.
- USB-B Upstream Facing Port Connector: The Type-B connector from upstream USB3.2 port. It is connected from the host or another USB3.2 hub's downstream facing port.
- USB-A Downstream Facing Port Connectors: There are 4 USB-A connectors for standard USB3.2 and Legacy USB2.0/1.1 devices.
- Self Power Input Connector: This 2-pin (one pin plus voltage and the other pin is GND) terminal block is used to connect a 7~48V DC power source to self-power the hub.

#### Warning!!

Please make sure the power value doesn't 48V DC and the polarity should be correctly match the terminal block pins



### 3. Hardware Installation

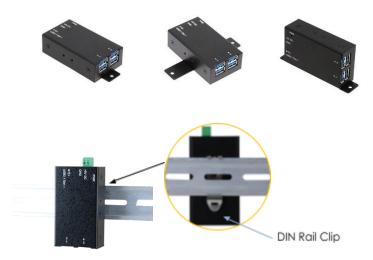
#### Use static electricity discharge precautions. 1.

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.

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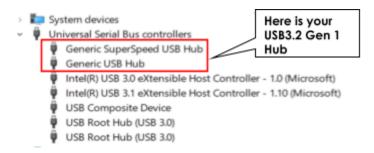
- 2. Apply DC power (can be in range 7 to 48V) to the 2-pin Terminal Block Connector. The hub was bus-powered by the upstream USB port (USB-B connector), this terminal block connector is to add power to ensure enough power for the 4 downstream ports.
- **3. Connecting USB Host cable:** The host cable can be a standard B-to-A or B-to-C USB3.2 cable (depends on the host port's connector type). Please connect the type-A (or Type-C) end connector of the cable to your USB host port, then connect 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 (with the Multi-Orientation Bracket) or DIN Rail (with the DIN Rail Clip) if required.



## 4. Checking the 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 and dimensions

Operating temp.:	-40 to 85°C (-40 to 131°F)
Operating humidity:	5 to 95% RH
Dimensions (LxWxH):	3.20"(L)x1.81"(W)x0.96"(H) (81.5x46.1x24.5 mm)

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Safety	<ul> <li>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.</li> <li>Inspect the product closely for visual defects before putting it to use.</li> <li>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.</li> <li>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.</li> <li>If this product is not functioning properly, email our support team at support@coolgear.com.</li> </ul>
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## **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**

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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**

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