



4-Port Gigabit Ethernet to USB3.1 Gen1 Adapter

w/ Mounting Kit

Model Number: *CG-4P31G1EA*

Installation Guide

Coolgear, Inc.

Version: 1.0

Date: 05/13/2024



Table of Contents

1. Introduction 2

Revision History

Revision	Date	Comments
1.0	05/13/2024	First Release

1. Introduction

Thank you for purchasing Coolgear's 4-Port Gigabit Ethernet to USB3.1 Gen1 Adapter. Thank you for purchasing this 4-Port Gigabit Ethernet to USB3.1 (Gen 1) Adapter (hereinafter "the Product") that provides an instant expansion of 4 Gigabit Ethernet ports for your Notebook, Desktop, Server and Thin-Client computers.

The Product complies with the USB3.1 Gen 1 and 10/100/1000 Ethernet specifications. It supports USB type-C screw lock cables for the secure cable connection. The universal detachable mounting kit provides different mounting options for many applications.

Features:

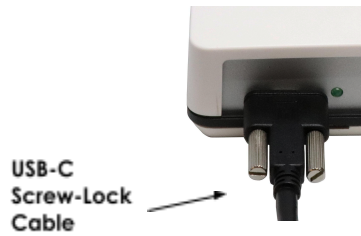
- ✓ Compliant with USB Specification 3.1 Gen 1
- ✓ Supports Wall Mounting Kit and Optional DIN RAIL Mounting Kit for Industrial Critical Applications
- ✓ Adds 4 RJ45 Gigabit Ethernet Ports (10/100/1000M)
- ✓ An Upstream Type-C USB3.1 Gen 1(5 Gbps) Port, Backward Compatible with USB2.0 and USB1.1
- ✓ Easy Installation for Windows, Simply Plug and Go
- ✓ Supports all USB Power Saving Modes
- ✓ A DIP Switch to Instantly Enable/Disable Each Port
- ✓ Supports IEEE 802.3, 802.3u, and 802.3ab, 802.1Q
- ✓ Supports IEEE 802.3az-2010 (Energy Efficient Ethernet)
- ✓ Supports Jumbo Frames up to 9K Bytes
- ✓ Supports Microsoft AOAC (Always On Always Connected)
- ✓ LEDs for Ethernet Status and Data Transferring Speed
- ✓ Supports USB-C Screw-Lock Cable Mechanism
- ✓ Supports Windows, Mac OS and Linux

2. Connector Layout



Connectors and LED Indicators:

- **DC Jack Power Connector:** An optional power supply is connected to here if the bus power of the host USB port is not enough. In most cases you don't need to connect any external power supply on this connector unless your USB port does have a problem to power up the Product.
- **PWR LED (Green):** It lights steadily when the Product is correctly powered.
- **Type-C USB Upstream Facing Port Connector:** It should be connected to the PC's USB host port or a USB Hub's Downstream Facing Port via a USB C-to-A or C-to-C cable. This connector supports the USB-C screw lock mechanism for the USB-C screw-lock cable. The following picture shows how it works.



- **RJ45 Ethernet Connectors:** The 4 10/100/1000Mbps Ethernet ports. They support auto crossover features. You can use the same cable to connect to either a Hub/Switch or a host computer.
- **LAN LED Indicators:** There are 2 LEDs on each RJ45 connector, they are described as the following table:

LED Name	Color	LED Function
Link/Act	Green	Steady on: The Connection on the Ethernet port is built and Active Blinking: Transferring Ethernet Data Off: Ethernet Port Disconnected
Speed	Yellow	Off: 10/100Mbps Mode Steady on: Gigabit (1000Mbps) Mode

Switch Description:



Switch Pin#	Ethernet Port Controlled	Switch Positions	Description
1	Port# 1	OFF	Disabled*
		ON	Enabled* (Default)
2	Port# 2	OFF	Disabled
		ON	Enabled (Default)
3	Port# 3	OFF	Disabled
		ON	Enabled (Default)
4	Port# 4	OFF	Disabled
		ON	Enabled (Default)

- ***Switch Pin# 1 also controls the onboard Windows drivers. When it is set ON, it enables the drivers. Otherwise, it disables the onboard Windows drivers.**

3. Installing the Product

Review the settings of the 4-pin DIP switch on the front panel. By default, all 4 switch pins are set ON to enable all 4 Gigabit Ethernet ports. It is OK if you don't care which port will be detected by Windows first. However, because Windows usually tries to install all ports simultaneously and aligns them depends on which one is detected first. As a result, it won't guarantee the port numbers are aligned as the Product's front panel marked (1, 2, 3, and 4 from left to right). To solve this problem, you can use the DIP switch to enable the ports sequentially. Here is the procedure:

1. Set switch Pin 2, 3, 4 to OFF, only let Pin 1 is ON.
2. Plug the USB cable to the host PC, Windows then will install the drivers automatically (the following dialog box will appear if this is first time you plug in the Product)



You will see only the Port 1 shown on Windows Device Manager, assigned as Ethernet Port #1

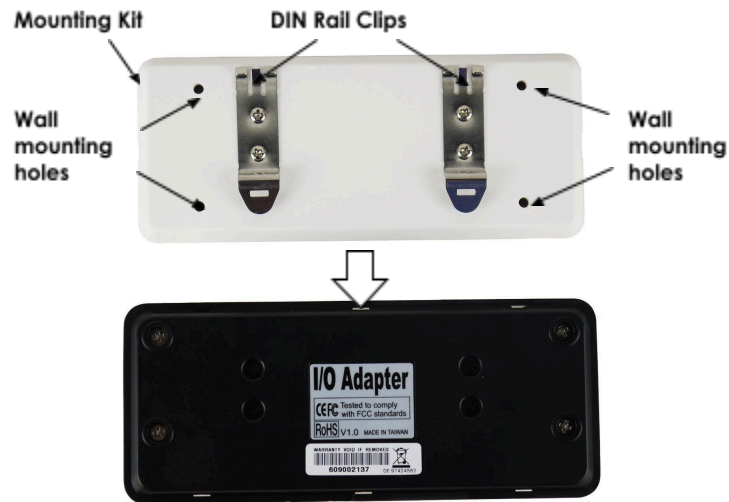
3. Set switch Pin 2 to ON while still keep Pin 3 and 4 at OFF, Windows then install the drivers for Port 2 and adds Ethernet Port #2 to its Device Manager
4. Set switch Pin 3 to ON, adds Ethernet Port #3
5. Set switch Pin 4 to ON, adds Ethernet Port #4

After installing the drivers for all ports, you are ready to plug the Network Cable to the RJ45 connectors of the Product.

4. Mounting the Product

The Product provides a detachable mounting kit that can mount its wall or a DIN Rail (with optional DIN Rail clips). The following procedures show how to install the DIN Rail Mounting Kit:

1. Installing the 2 DIN Rail Clips on the Mounting Kit



2. Assemble the mounting kit at the bottom of the Product:



3. Assemble the Product on the DIN Rail:



5. Environmental Specifications

Power requirements: 5V DC, 700mA (max)

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

Operating humidity: 5 to 95% RH

Contact Us:

Coolgear Inc.

5120 110th Avenue North

Clearwater, Florida 33760 U.S.A.

Toll Free: 1 888-688-2188

Local: 1 727-209-1300

Fax: 1 727-209-1302

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.

© 2024 Coolgear, Inc. All Rights Reserved. All products and accompanying digital documentation including images are the property and / or trademarks of Coolgear Inc. Coolgear Inc. are continuously improving upon its products. Product specifications are subject to change without notice.