



4 Port USB 3.1 Gen1 Isolated Hub with 15KV ESD Surge Protection

Product Manual



Coolgear, Inc.

Version 1.1

September 2017

Model Number: CG-U31iS4PH

Revision History

Revision	Date	Author	Comments
1.0	3/20/2017	Coolgear	Original format
1.1	10/9/2017	Coolgear	New Manual Format

About this document

This product manual outlines installation and features of the 4 Port USB 3.1 Gen1 Isolated Hub with 15KV ESD Surge Protection.

Scope

The scope of this manual is to give the user of the product an understanding of its use with detailed diagrams and verbiage. The manual allows the users to apply the product to their application.

Intended Audience

This product is intended for use in numerous industries including but not limited to applications such as; Automotive, Machine Equipment, Kiosk, Office, and others.

Product Support

support@coolgear.com

Table of Contents

1. Introduction	4
1.1 Features	4
1.2 Connector Layout.....	5
1.3 Supported USB Devices.....	5
1.4 I/O Hardware	6
1.5 Environmental Specifications	6
2. Notes, Tips, Warnings, and Safety	7
3. Supporting References	8

Table of Figures

Figure 1 – Connector Layout.....	5
Figure 2 – Supported Devices.....	6

1. Introduction

The new CG-U31iS4PH USB 3.1 4 port hub isolates the four downstream ports from the upstream host port giving you valued circuit protection. With a small footprint, the hub supports 5Gbps super-speed data and backwards compatibility down to USB 1.0 1.5Mbps. With its DIN RAIL mounting plate, it's an ideal hub mountable hub with protection. The hub provides an external 5V AC/DC power adapter for its downstream ports. It supports USB charging specifications by turning its downstream ports from a Standard Downstream Port (SDP) into Charging Downstream Port (CDP) or Dedicated Charging Ports (DCP).

WEIGHT	.7 lbs
DIMENSIONS	5.95"(L) x 2.44"(W) x 1.33"(H) (151.1 x 62.0 x 34.0 mm)
UPC	045079159969
WARRANTY	1 year from date of purchase
COLOR	White
DOWNSTREAM PORTS	4 USB 3.1 Gen1 Type-A Ports
UPSTREAM PORTS	1 USB 3.1 Gen1 Type-B Port

1.1 Features

<ul style="list-style-type: none"> • Compliant with USB 3.1 Gen 1 Specifications • 1 USB-B Upstream and 4 USB-A Downstream USB 3.1 Gen1 Facing Ports • Up to 3KV AC Isolation Between Upstream and Downstream Ports • Supports up to 15KV ESD Surge Protection for Each Port • Built-in RISC-like USB3.1 Gen 1 Hub Controller • Charges all 4 USB Ports up to 1.5A Each Simultaneously 	<ul style="list-style-type: none"> • Supports 5Gbps (Super-Speed), 480Mbps (high-Speed), 12Mbps (Full-Speed), and 1.5Mbps (Low-Speed) Speeds • Multi Transaction Translators (TT) per Hub • Supports USB Battery Charging BC 1.2 CDP and DCP modes • Plastic Case with DIN RAIL Mounting Option and Wall Mounting Bracket for Critical Applications • Supports USB Screw-Lock Cable Mechanism
--	--

1.2 Connector Layout

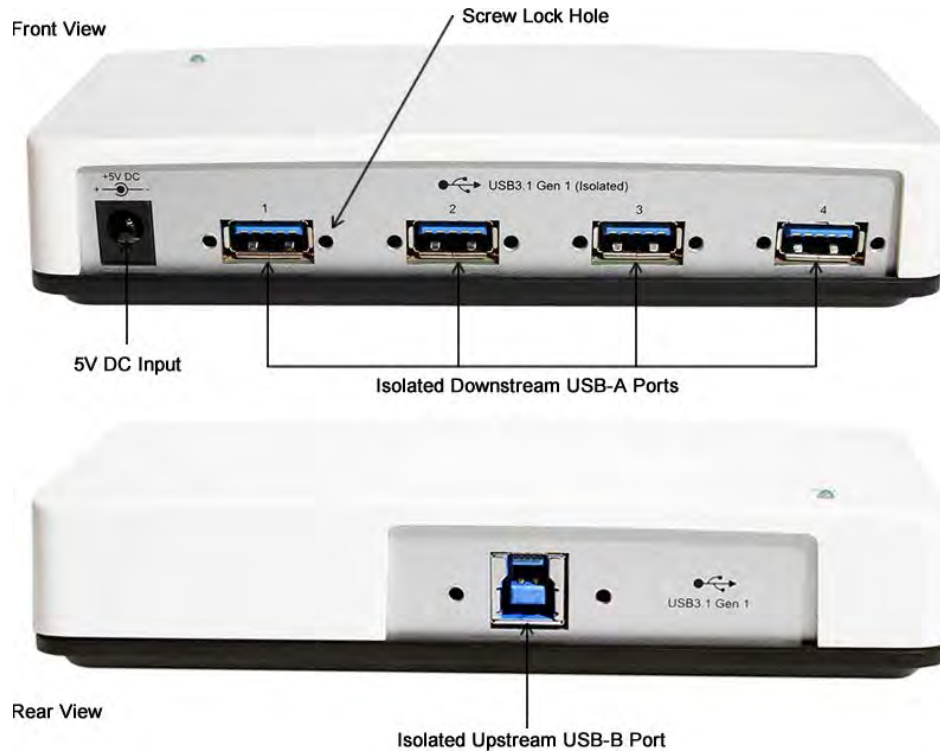


Figure 1

USB A Downstream Port	USB B Upstream Port	5V DC Power Input
3KVrms isolated Downstream Port Domain for the 4 downstream USB 3.1 Type-A ports with 15KV ESD surge protection per port.	3KVrms isolated Upstream Port for USB 3.1 Type-B to A host port with 15KV ESD surge protection.	5V AC/DC power adapter for downstream ports. It supports USB charging specifications by turning its downstream ports from a Standard Port (SDP) into Charging Downstream Port (CDP) or Dedicated Charging Ports (DCP).

1.3 Supported USB Devices

- Supports keyboard, mouse, monitor, scanner, printer, PC Camera, telephone, DVD drive, joystick, virtual reality helmet, modem, PBX and many more USB devices.



Figure 2

1.4 I/O Hardware

- Supports 4 external USB3.1 Gen 1 Type-A connectors and 1 USB3.1 Gen 1 Type-B Upstream connector.
- Supports a DC-Jack Connector (on the Downstream Port Domain) for external power input from AC/DC power adapter.

1.5 Environmental Specifications

Specification	Data
Operating Temperature:	0-70°C (32 to 158°F)
Operating Temperature:	-20 to 85°C (-4 to 185°F)
Operating Humidity:	5 to 95% RH

2. Notes, Tips, Warnings, and Safety

Note

For Systems with USB3.1 Gen 1, USB2.0, or USB1.1 Ports

Tip

N/A

Warning

N/A

Safety

- Read the entire Product Manual before implementing this product for your application. This manual 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.

3. Supporting References

Document	Link
Website Product Page	https://www.coolgear.com/product/4-port-usb-3-gen1-isolated-hub-15kv-esd-surge-protection

© 2017 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.