coolgear

16 Port USB 2.0 Rack-Mountable Hub

w/Internal Power Supply, ESD Surge Protection, & Port Status LEDs

Model Number: *HUB-1600i-RM*

Installation Guide

Coolgear, Inc.

Version: 1.0

Date: 04/30/2024

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Revision History

Revision	Date	Comments
1.0	04/30/2024	First Release

1. Introduction

Thank you for purchasing Coolgear's 16 Port USB 2.0 Rack-Mountable Hub. HUB-1600i-RM expands one USB port into 16 USB 2.0 ports. All USB signals are protected by 15kV ESD protection. The HUB-1600i-RM supports USB 2.0 high speed 480Mbps, full speed 12Mbps or USB 1.1 low speed 1.5Mbps data transfer rates. It is powered by a high quality industrial grade switching power supply and provides up to 500mA current to downstream devices. The hub incorporates the USB hub chips specifically designed for industrial usage. There is no need for any driver or software installation. By plugging the cable from the USB hub to the host USB port of the PC and connecting your USB devices to the downstream port of the hub, the host PC immediately gains 16 USB ports.

HUB-1600i-RM USB hub is designed for use in industrial applications. It is housed in a DIN rail mountable metal case with screw holes for securing USB and power cables. Next to each USB downstream port connector, there are two screw holes for securing USB cables to ensure reliability of connection. The terminal power input connector is securely locked with two screw holes, preventing the power wires from accidentally disconnecting. This hub is able to operate at a wide ambient temperature range from -40°C to 70°C (-40°F to 158°F), allowing it to be used in harsh environments.
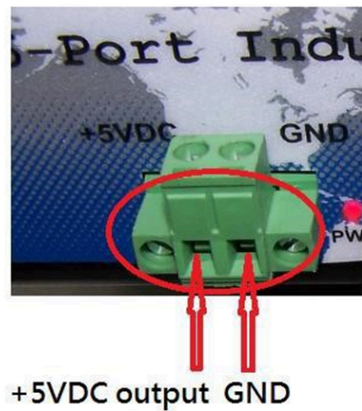
Features:

- ✔ Expands one USB port into 16 USB 2.0 ports
- ✔ 15kV ESD immunity for all USB data lines for protection
- ✔ Common mode filtering on all data lines
- ✔ Each port provides 5V 500mA power to downstream device
- ✔ Supports USB 2.0 high speed 480Mbps, full speed 12Mbps and USB1.1 low speed
- ✔ 1.5Mbps data rate
- ✔ Plug-and-play: no software or drivers required
- ✔ LEDs for power and USB status indication
- ✔ Wide ambient temperature operation from -40°C to 70°C (-40°F to 158°F)
- ✔ 90 to 264VAC power input
- ✔ Provides a terminal block connector to support 5V 1A power for external devices
- ✔ Individual port power management
- ✔ Overcurrent protection
- ✔ Industrial-grade USB 2.0 hub with rack-mountable metal case suitable for DIN rail mounting
- ✔ All USB connectors have screw holes to secure USB cables
- ✔ Input power connector has screw holes to lock the power cable
- ✔ CE, FCC approval

2. DIAGRAM OF HUB-1600i-RM

The HUB-1600i-RM provides a lockable terminal power connector to supply 5V, 1A power to each connected USB device.

All USB connectors have screw holes to secure USB cables.

3. INSTALLATION

This 16-port USB hub is a plug-and-play device. The software drivers are installed automatically.

1. Connect the AC power adapter to HUB-1600i-RM. The red power LED will light on when the hub is receiving power. Connect the upstream port cable to an unused USB port on your computer.

2. After the software drivers are loaded, you will find a new "Generic USB Hub" in Universal Serial Bus controllers under "Device Manager" of the "System Properties" screen. ("Device Manager" can be accessed from Start → Settings → Control Panel → System Properties → Hardware → Device → Device Manager).

3. Connect your USB devices to the downstream ports on HUB-1600i-RM. The green USB status LED will illuminate when your USB devices have connected to the USB ports successfully.

4. Specifications

Function		Specification
Ports	Downstream	Sixteen
	Upstream	One
LEDS	Power	One
	Port Status	Sixteen
Power Mode		Self-Power Mode
Output Voltage (per port)		+5VDC
Output Current(per port)		500mA maximum
Operating Temperature		-40°C to 70°C
Storage Temperature		-40°C to 85°C
Humidity		0 to 90% RH. noncondensing
Safety Approvals		CE, FCC
Housing		Rack-mountable metal case
Weight		1100g
Dimensions		427mm × 144mm × 44mm (W × L × H) 449mm × 144mm × 44mm (W × L × H) with DIN rail ears
Input Power Range		90VAC to 264VAC
Terminal Block Connector Output Power		+5VDC 1A

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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.

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