
FEATURES

- 4-port USB 3.1 Gen 2 hub with data transfers up to 10Gbps
- Four USB Type C downstream ports with Battery Charging v1.2 and Apple Charging standards (up to 3A per port)
- IEC 61000-4 Lvl 4 ESD, EFT & Surge Protection on all USB data lines
- Rugged (0°C to 70°C) operation
- Locking upstream, downstream, and power connectors prevent accidental disconnects
- SuperSpeed+ (10Gbps), SuperSpeed (5Gbps), Hi-Speed (480Mbps), Full-Speed (12Mbps), and Low-Speed (1.5Mbps) transfers supported on all ports
- Requires 24V power via DC jack or a pair of screw terminals
- Compact, steel, low-profile enclosure
- RoHS compliant

FACTORY OPTIONS

- OEM (board only) option with PC/104 mounting holes and footprint for convenience in embedded applications
- Economy version equipped with standard, instead of locking USB connectors
- Tantalum capacitors for flight and space based applications
- Conformal coating

FUNCTIONAL DESCRIPTION

The USB3C-104-HUB4C is an industrial-grade 4-port USB hub optimized for harsh and rugged environments. This hub has latching / locking connectors on upstream and downstream ports as well as power, preventing accidental disconnects - making it perfect for applications that require vibration proofing. The rugged steel enclosure, positive retention connections, and 0°C to +70°C operation makes the USB3C-104-HUB4C stand out compared to commercially available hubs — and it's 100% Made in the USA.

Each connection has been designed for rugged use without loose or intermittent cables disrupting your application. The input power is secured via screw terminals or a threaded DC Jack. Type C connections utilize USB-standard latching cables.

In addition to secure retention connectors signal integrity is further protected by IEC 61000-4-2 maximum-rated ESD protection diodes (15kV Contact & Air-gap).

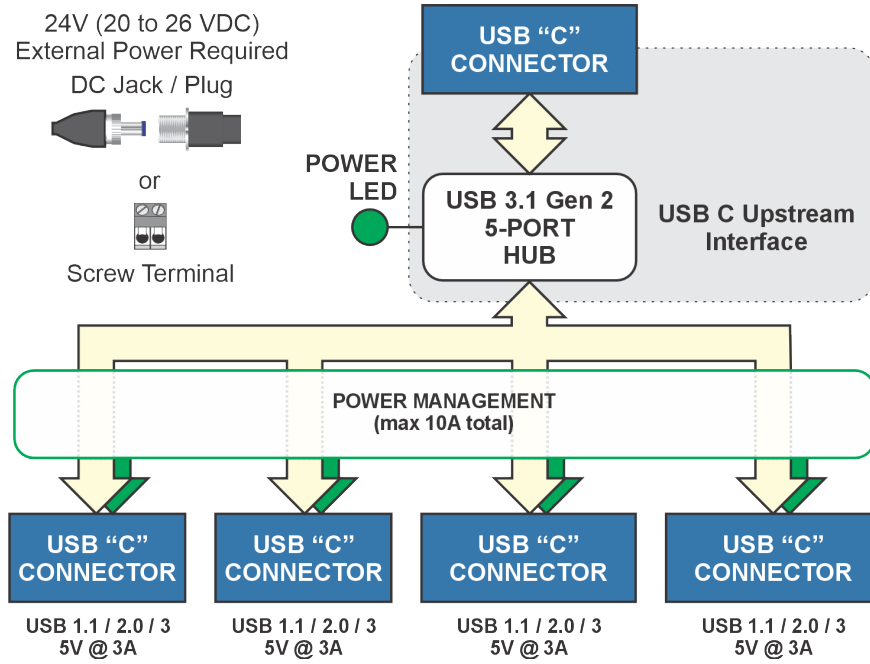
The board is designed to be used in rugged environments but is small enough to fit nicely onto any desk or testing station. The module is PC/104 sized at 3.550" by 3.775", while the enclosure is approximately 4" x 4" x 1".

ACCESSORIES

Available accessories include the MP104-DIN for DIN rail mounting the USB3C-104-HUB4C and an external instrument grade power supply. Power plugs and power cables are also available if you have your own 24V power supply.

SOFTWARE

No software is provided or needed with this board. There is no need to install any drivers to use the USB3C-104-HUB4C. It will enumerate as a Generic Hub which uses the USB Hub Class Driver that is built into Windows OS or Linux, et al.



BLOCK DIAGRAM

SPECIFICATIONS

Bus Type: USB 3.1 Gen 2
 SS+, SS, HS, FS, and LS supported on all ports
 One upstream Type C port
 Four Type C downstream

Environmental

Operating: 0° to +70°C
Storage: -40° to +85°C
Humidity: 5-95% non-condensing
Board Size: 3.550" x 3.775"
Enclosure Size: 3.985" x 3.990" x 1.045"
Weight: 304 grams (with enclosure)
 85 grams (-OEM version)

Cable 6' USB3 cable Type C to Type C

Power Required external power 20 to 26VDC, via screw terminals 14-26 AWG or a locking DC jack / plug
 Downstream ports supply up to 3A each (max 10A total)

Connectors

DC Jack (locking) (MIL-STD-202G) Vibration: Method 201A
 Ins. Resistance: Method 302 Cond. B
 Thermal Shock: Method 107G
 Temperature: -40-105°C (-40-+221°F)
 USB Type C 8 Newtons disconnect non-latching cable

Ordering Guide

USB3C-104-HUB4C RoHS compliant industrial USB 3.1 Gen 2 hub with locking/latching connectors in rugged enclosure (includes 6' high-quality USB 3.1 Type C latching cable)

Model Options

-OEM Board only version (no enclosure)
 -TAN Tantalum Capacitors instead of Electrolytic for high altitude usage
 -CC Conformal Coating for use in high humidity and dusty environments

Optional Accessories

PWR-ACDC-24V10A-L 24VDC 10A locking AC/DC adapter
 MP104-DIN DIN rail mounting provision
 LF-JDC-PLUG Locking power plug connector
 CAB-PWR-01 Locking DC power cable assembly
 CAB-PWR-02 Locking DC pwr cable assy right angle

