



# Rugged SuperSpeed 4-Port USB 3.1 Hub

**Part:** HUB4SSBA | **Model:** Rugged SuperSpeed 4-Port USB 3.1 Hub

This 4-port hub features a rugged, industrial-grade, metal housing, robust ESD protections and is USB 3.1 compliant and backward compatible. The HUB4SSBA is designed to meet the advanced requirements for connecting multiple USB peripherals in extreme environments while achieving SuperSpeed operation.

## Redefining Rugged

The Rugged SuperSpeed USB 3.1 Hub checks every box for industrial use:

- USB 3.1 compliant, providing a 5 Gb/s data rate to the host
- -40°C to +85°C operating temperature
- Individual port power management
- 15kV ESD protections on USB 3.0 data lines
- 8kV ESD protections on USB 2.0 data lines
- Up to 1500mA available on all ports simultaneously
- Comprehensive input power protections (reverse polarity, voltage, surge, overcurrent, under-voltage, over-voltage)
- Includes 2-meter USB 3.0 type A to USB 3.0 type B device cable (Item #CA783)
- Wide operating voltage range (9V-30V)
- Multiple Transaction Translator (MTT) design prevents data rate bottlenecks when legacy USB devices are attached

## Charging Downstream Ports

The HUB4SSBA ships with port 4 configured as a Charging Downstream Port (CDP) capable of supplying up to 2.4A of current to a connected device. The remaining three CDPs supply up to 1500 mA to each connected device. All CDPs are USB Battery Charging Specification BCv1.2 compliant, ideal for charging batteries or powering high-current USB peripherals. The Multiple Transaction Translator (MTT) design prevents speed limitations, enabling multiple high bandwidth devices to operate at SuperSpeed.

Each downstream port has a Bi-Color Status LED that indicates two types of connections:

- USB 3.1/3.0 connection to the host will cause the LED to illuminate GREEN
- USB 2.0/1.1/1.0 connection to the host will cause the LED to illuminate YELLOW

## Features & Specifications

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#### SeaLATCH High-Retention, Locking Connectors

The HUB4SSBA integrates Sealevel's SeaLATCH locking USB 3.0 ports, which are fully compatible with standard USB cables. When used with the included USB cable with a SeaLATCH USB type B connector, the metal thumbscrew provides a secure connection to the device and prevents accidental cable disconnection. The hub's four SeaLATCH USB 3.0 type A connectors can secure downstream USB peripherals to the hub in the same way. Find optional USB cables with SeaLATCH USB connectors under the Accessories, or use the standard, included USB cables.

#### Features

- Self-powered USB 3.1 hub provides four Charging Downstream USB Ports (CDPs)
- One Charging Downstream Port (CDP) supplies up to 2.4A to a connected device
- CDPs are battery charging specification BCv1.2 compliant
- Three Charging Downstream Ports (CDPs) supply up to 1500mA to each connected device
- Device offers SDP charging when powered by external USB (up to 500mA for USB 2.0/1.1/1.0 connections or up to 900mA for USB 3.0/3.1 connections)
- Supports SuperSpeed (5Gb/s), high-speed (480Mb/s), full-speed (12Mb/s) and low-speed (1.5Mb/s) operation
- ESD protection
- ±8kV on Each USB 2.0 Data Line (D+, D-)
- ±15kV on Each USB 3.0 Data Line (SSTX+, SSTX-, SSRX+, SSRX-)
- Fully Supported in Microsoft Windows 8/10 and other USB-aware operating systems (compatible with all operating systems that USB 1.1/2.0/3.0 are compatible with).
- Optional wall-mount AC power supply accessory that outputs 24VDC @ 2.71A (Item # TR152)
- Includes 2-meter USB 3.0 type A to USB 3.0 type B device cable (Item #CA783)
- 2-meter USB 3.0 type A to SeaLATCH USB 3.0 type B device cable available as an option (Item #CA748)
- Sealevel's SeaLATCH locking USB 3.0 ports provide secure connection with optional SeaLATCH USB 3.0 cables via metal thumbscrews
- Reverse polarity input voltage protection down to -40VDC with respect to GND
- Overvoltage Protection against input voltage surges up to 80VDC with respect to GND
- Overcurrent Protection against short circuits and excessive load currents.

#### Easy Installation & Use

Fully Supported in Microsoft Windows 8/10, and backward compatible with Microsoft Windows XP/7, and other USB-aware operating systems. The hub requires no separate drivers and is easy to install.

#### Industrial Design & Operation

The HUB4SSBA features a rugged, metal enclosure and can be mounted utilizing available DIN rail clips. Standard operating temperature range is -40°C to 85°C.

#### Specifications

<b>Communications Chip</b>	USB Hub (USB5734)
<b>Dimensions</b>	5.500in (L) x 5.125in (W) x 1.750in (H)
<b>Humidity Range</b>	10 – 95% Relative Humidity, Non-Condensing
<b>Max Data Distance (When Using USB 3.0 functionality)</b>	3 Meters with Standard Passive USB 3.0 Cables, 18 Meters with an Active USB 3.0 Cable
<b>Max Data Distance (When Using USB 2.0 Functionality)</b>	5 Meters with Standard Passive USB 2.0 Cables, 30 Meters with an Active USB 2.0 Cable
<b>Max Data Rate</b>	5 Gb/s (SuperSpeed)
<b>Operating Temperature</b>	-40°C to 85°C (-40°F to 185°F)
<b># of Ports</b>	4
<b>Power Requirement(s)</b>	9-30VDC (24VDC Nominal via TR152) (for Self-Powered Mode) 5VDC Nominal via Upstream USB Host (for Bus-Powered Mode)
<b>RoHS Compliant</b>	Yes
<b>USB Specification</b>	USB 3.1 Gen 1, SuperSpeed (USB 3.0) Compliant; 2.0, 1.1, 1.0 Compatible