

U3H419E

Four-Port USB 3.1 Gen 1 (5Gbps) HUB

Highlight

- USB 2.1 & USB 3.1 Gen 1 Compliant 4-port Hub
- Supports USB 3.0 SuperSpeed (5Gbps), USB 2.0 Hi-Speed (480Mbps), Full-Speed (12Mbps), and Low-Speed (1.5Mbps)
- Per Port Power Switching and Over-Current Notification
- USB 2.0 Hub Features
 - Multi Transaction Translator (MTT) Hub: Four Transaction Translators
 - Two Asynchronous Endpoint Buffers Per Transaction Translator
- Provides USB 3.1 cable port lock mechanism
 - Upstream USB 3.1 cable port (Standard B-type Receptacle) lock mechanism
 - Downstream USB 3.1 cable port (Standard A-type Receptacle) lock mechanism
- Supports USB Battery Charging Specification Revision 1.2
- No Special Driver Requirements; Works Seamlessly on Any Operating System With USB Stack Support
- 3.5" FDD Form Factor

Introduction

U3H419E is a high-performance four-port Universal Serial Bus (USB) 3.1 Gen 1 compliant Hub.

U3H419E allows for a maximum data transfer rate of up to 5Gbps, or ten times the throughput available to USB 2.0 based devices. Other enhancements provide for improved interaction between device and host controller, including important advancements in power management.

U3H419E provides simultaneous SuperSpeed USB and High-Speed/Full-Speed connections on the upstream port and provides SuperSpeed (5Gbps) USB, High-Speed (480Mbps), Full-Speed (12Mbps), or Low-Speed (1.5Mbps) connections on the downstream ports. When the upstream port is connected to an electrical environment that only supports High-speed or Full-speed/Low-speed connections, SuperSpeed USB connectivity is disabled on the downstream ports. When the upstream port is connected to an electrical environment that only supports Full-speed/Low-speed connections, SuperSpeed USB and High-speed connectivity are disabled on the downstream ports.



Available Models

U3H419E1

Walkman-type 2.0 mm DC Jack



U3H419E2

MINI-COMBICON Headers



U3H419E

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Specification

USB 3.1 Compliant Hub, TID# 330000056

- Upstream Port Supports SuperSpeed USB, High-Speed and Full-Speed Connections
- Supports Four Downstream Ports
- Each of the Four Downstream Ports Support SuperSpeed USB, High-Speed, Full-Speed/Low-Speed Connections

USB 2.0 Hub Features

- Multi Transaction Translator (MTT) Hub: Four Transaction Translators
- Two Asynchronous Endpoint Buffers Per Transaction Translator (TT)

Provides Upstream Connection status LEDs (SuperSpeed and High-Speed):

- High-Speed status LED
 - On = Indicates the upstream port is connected to a High-Speed USB cable port
- SuperSpeed status LED
 - On = Indicates the upstream port is connected to a SuperSpeed USB cable port

Downstream Port Configuration

- Enabled all Downstream Port
- Marked as Removable
- Battery Charging Enabled
 - When Upstream Port is Connected
 - CDP Mode (Charging Downstream Port)
 - When Upstream Port is Disconnected
 - DCP Mode (Dedicated Charging Port)
 - DCP Mode Complies with Chinese Telecommunications Industry Standard YD/T 1591-2009
 - Supports D+/D- Divider Charging Port (ACP1, ACP2)
 - Supports Automatic Mode for Transition Between DCP or ACP Modes

Power

- U3H419E1 Power
 - DC Power input Connector: Walkman-type 2.0 mm DC Jack
 - Power Input Range: DC 9 ~ 24V (max. 5.0A)
- U3H419E2 Power
 - DC Power input Connector: MINI-COMBICON Headers
 - Power Input Range: DC 9 ~ 24V (max. 8.0A)

Self-powered operation

Downstream USB Bus Power

- Each downstream Port (**P1 ~ P4**) can supply up to 2.1A.

Supports Over-current detection and Individual power control

Customizable vendor ID, product ID, and device ID

USB 3.1 Cable Port (Provides USB 3.1 cable port lock mechanism)

- One upstream port (Standard B-type Receptacle)



- Four downstream ports (Standard A-type Receptacle)



Environmental Conditions

- Storage Temperature: 0°C to 65°C (32°F to 149 °F)
- Humidity : 10% to 80% (Non-Condensing)

Physical Dimensions

- PCBA: 25.4(H)x101(W)x90(D)mm
- Unit Package: 265x180x60(H)mm or 193x160x50(H)mm

