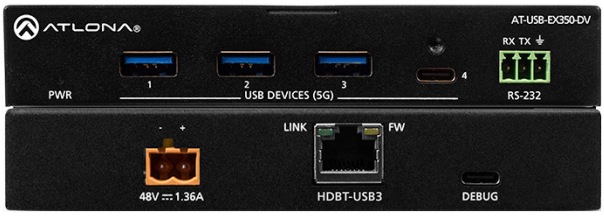
USB 3.2 Gen 1 Data Extender Kit with Host Wall Plate



Introduction

The Atlona **AT-USB-EX350-WPH-KIT** is a data only USB 3.2 extender kit featuring a US one-gang wallplate for the host connection. It supports simultaneous extension of 5 Gbps USB 3.2 Gen 1 data and 480 Mbps USB 2.0 data up to 330 feet (100 meters) using a single, cost-effective Category 6A U/FTP cable.

The USB-EX350-WPH-KIT is ideal for video conferencing or remote instruction applications where high data rate USB components including laptops, computers, cameras, microphones, and speakers are in different areas of the room.

The USB-EX350-WPH-KIT is comprised of two endpoints. The host wallplate includes a USB-C port for hosts such as laptops, computers, or other AV equipment that support USB connectivity. The device endpoint includes three USB-A ports and one USB-C port for connection to 4K cameras, conferencing bars, microphones, speakers, and other peripherals. The entire kit is powered by a single power supply connected to the device endpoint.

A LAN interface on the host endpoint provides access to advanced integration capabilities over the network, including:

- Monitor system and port status for validation and troubleshooting.
- Configure VBUS modes.
- Update firmware.
- IP to RS-232 translation supporting bi-directional serial control through the device endpoint.

The USB-EX350-WPH-KIT is a great solution for routing USB 3.2 Gen 1 data up to 5 Gbps between peripherals at distances greater than is possible with traditional cabling.

Applications

- **Education**
  Provides clean wallplate host connection for classroom applications where higher data rate USB peripherals such as 4K cameras are located at distances of up to 330 feet (100 meters) from the room computer or teacher laptop.
- **Commercial**
  Access higher data rate USB peripherals at distances of up to 330 feet (100 meters) from a room computer or BYOD laptop host connected to a wall plate matching the aesthetics of modern meeting room environments.

Features

- Point-to-point USB extender kit for devices such as cameras, speakers, microphones and other peripherals.
- Extends USB 3.2 Gen 1 and USB 2.0 data simultaneously up to 330 feet (100 meters) using a single Category 6A U/FTP cable.
- Supports USB 3.2 Gen 1 data rates up to 5 Gbps.
- Supports USB 2.0 data rates up to 480 Mbps.
- One USB-C interface for host connection on the host wallplate.
- Three USB-A and one USB-C for peripheral connections on the device endpoint.
- Kit is powered from the device endpoint, allowing a single cable connection for data and power to the host wallplate.
- LAN port for configuration, monitoring, and control.
- Configurable VBUS mode for each USB peripheral port on the device endpoint.
- IP to RS-232 translation for bi-directional RS-232 communications through the device endpoint.
- US one-gang host wallplate - interchangeable white and black trim kits.
- Compact host endpoint enclosure can be mounted in furniture, behind a display, or above a projector.
- Each peripheral port provides up to 1.5 amps (3.2 amps total) allowing even energy-hungry components to be powered by the device endpoint.
- Kit includes host wallplate, white and black trim kits, device endpoint, power supply, and mounting brackets.

Specifications

USB Capabilities	
Protocol Support	USB 2.0, USB 3.2 Gen 1 (5 Gbps)
USB 2.0 Capabilities[1]	Maximum hubs: 9 Maximum hub tiers: 5 Maximum devices: 7 Maximum endpoints: 14 (IN), 15 (OUT)
USB 3.2 Gen 1 Capabilities[1]	Maximum hub tiers: 5 Maximum end points: 126
USB Transfer Types	Control, Bulk, Interrupt, Isochronous
Internal Hubs	USB 2.0: 1 Hub, 1 Tier USB 3.2 Gen 1: 2 Hubs, 2 Tiers
USB Power	Host: No Power Device: max 1.5A per port, 3.2A total across all device ports
USB Device VBUS Control	Per-port settings: Follow USB Host, Always High, Always Low
Bandwidth[2]	USB 2.0: 480 Mbps USB 3.2 Gen 1: 5 Gbps

Ethernet	
Port	1 x RJ45 on Host Endpoint
Standards and Protocols	HTTP, HTTPS, Telnet, SSH, JSON over WebSockets, TCP Proxy for RS-232, NTP
Speeds	10/100 Mbps
Addressing	DHCP, Static – selectable through built-in web server and API commands
802.1x Support	PEAP-MSCHAPv2, EAP-TLS

RS-232	
Port	1 x 3-pin captive screw on Device Endpoint
Use	External device control via TCP Proxy
Baud Rates	9600, 19200, 38400, 57600, 115200
Data Flow	Bidirectional

Distance	Feet	Meters
CAT 6a U/FTP - straight run	330	100
CAT 6a U/FTP - through patch panel/coupler	295	90
CAT 6a UTP - either straight run or through patch panel/ coupler	230	70
CAT 5e UTP - either straight run or through patch panel/ coupler	164	50

Indicators	
Host Endpoint	
PWR	1 x LED, green
LINK	1 x LED, green
LAN	1 x LED, green; 1 x LED, amber
HDBT-USB3	1 x LED, green (LINK); 1 x LED, amber (FW)
Device Endpoint	
PWR	1 x LED, green
HDBT-USB3	1 x LED, green (LINK); 1 x LED, amber (FW)

Specifications (continued)

Connectors (Host Endpoint)	
USB HOST (5G)	1 x USB-C, locking
LAN	1 x RJ45
HDBT-USB3	1 x RJ45
48V / 1.36A	1 x 2-pin captive screw
Connectors (Device Endpoint)	
USB DEVICES (5G)	3 x USB-A 1 x USB-C, locking
DEBUG	1 x USB-C
RS-232	1 x 3-pin captive screw
HDBT-USB3	1 x RJ45
48V / 1.36A	1 x 2-pin captive screw

Environmental	Fahrenheit	Celsius
Operating Temperature	+32 to +104	0 to +40
Storage Temperature	-4 to +158	-20 to +70
Operating Humidity (RH)	20% to 90%, non-condensing	

Power	Powered from	Total System Power	Host Endpoint	Device Endpoint
Consumption (under full USB device load)	Host Endpoint	33 W (max.)	25.4 BTU/h	21 BTU/h
	Device Endpoint	29 W (max.)	11.1 BTU/h	25 BTU/h
External Power Supply	Input: 100 - 240 V AC, 50/60 Hz Output: 48 V DC / 1.36 A			

Dimensions (H x W x D)	Inches	Millimeters
Host Endpoint	4.17 x 1.77 x 2.24	106 x 45 x 57
Device Endpoint	0.91 x 5.31 x 3.94	23 x 135 x 100

Weight	Pounds	Kilograms
Host Endpoint	0.51	0.23
Device Endpoint	0.71	0.32

Certification		
Extender Kit	CE, FCC, UKCA, RCM	
Power Supply	CE, FCC, UKCA, RCM, UL	

Compliance		
NDAA-889	Yes	

Warranty	
Device	To view the product warranty, use the following link: https://atlona.com/warranty

Refer to footnotes on the next page.

Footnotes

(1) A USB device can have multiple In and Out endpoints. An In endpoint sends data to a USB Host, while an Out endpoint receives data from a USB Host.

(2) Specified bandwidth is the total available bandwidth. Actual bandwidth available for payload data will be reduced by USB and transport overhead. Practical payload data rates will be approximately 320 Mbps for USB 2.0 and 3.8 Gbps for USB 3.0.

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