



# 2x1 Bi-Directional USB-C Switch - 8K 60 Hz Video, HDCP Passthrough, USB 3.2 Gen 2, 100W PD Charging, Black

# MODEL NUMBER: U415-002-BDS











Switches between 2 video sources on a single display or switches one video source between 2 displays up to 8K 60 Hz.

#### **Features**

#### Connect 2 Audio/Video Sources to a Display or 2 Displays to a Single A/V Source

The U415-002-BDS connects two 8K or 4K source devices to one 8K or 4K display and lets you switch back and forth between them. Or you can connect two displays to a single source and switch between the displays. This bi-directional HDMI switch works with a wide range of sources (media servers, Blu-ray players, game consoles, etc.) and displays (televisions, monitors, projectors) to let you customize your A/V installation.

#### Suitable for a Wide Range of Audio/Video Applications for Work or Play

This switch is recommended anywhere a variety of video signals is transmitted to a hi-def display. It is suitable for home theaters, video and multimedia presentations, security applications or digital signage in classrooms, bars, restaurants, conference rooms, lecture halls, exhibition centers and trade shows.

# Also Functions as a USB Hub and Multiport Adapter

When not being used as an 8K video switch, the U415-002-BDS acts as a USB-C hub for connecting peripherals and charging mobile devices. It can switch between two hosts and one USB-C peripheral or one host and two peripherals. It supports USB 3.2 Gen 2 speeds up to 10 Gbps to ensure lightning-fast data transfers between the host and an external storage device. The USB-C PD 3.0 port also provides up to 100W for charging the host device.

#### Transmits Top-of-the-Line Ultra High Definition Video

This USB-C switch is capable of extending the host device's desktop or mirroring the host's content to a connected display at 8K (7680 x 4320) at 60 Hz or 4K (3840 x 2160) at 120 Hz. Ideal for creative professionals and gamers looking for the best video resolution possible, the U415-002-BDS can switch between a work or personal laptop and a high-end design or gaming laptop quickly and easily. **Note**: Only one video output is supported at one time. The host device(s), USB-C cabling and display(s) must support DisplayPort Alt Mode and 8K video resolution for 8K resolution to be obtained.

# Plug-and-Play Operation for Quick Setup and Immediate Use

The U415-002-BDS works right out of the box with no software or external power required. Connect your devices to the switch's USB-C ports with user-supplied USB-C cables (sold separately). Use the push button on top of the unit to switch between the dual ports. A blue LED identifies which output is being used. The two USB-C outputs are compatible with USB-C-to-HDMI or USB-C-to-DisplayPort adapter

## **Highlights**

- Recommended for digital signage, home theaters and 4K video presentations
- Supports UHD resolutions up to 4K @ 120 Hz (4:4:4) or 8K @ 60 Hz
- HDCP passthrough allows 4K/8K signals from source to display with no loss in resolution
- USB-C PD 3.0 pass-through ports provide up to 100W charging to the host computer
- Supports USB 3.2 Gen 2 speeds up to 10 Gbps to ensure lightning-fast data transfers

## **System Requirements**

- Computer(s) with an available USB-C input
- Computer must support USB 3.2 Gen 2 (10 Gbps) to transfer data at 10 Gbps output
- Computer(s), USB-C cabling and display(s) must all support 8K video resolution for 8K resolution to be achieved
- Power adapter and USB-C cable capable of 100W PD charging are required for 100W PD charging

#### **Package Includes**

- U415-002-BDS 2x1 Bi-Directional USB-C Switch
- Installation instructions





cables for use with traditional video inputs on monitors and televisions.

# **Specifications**

OVERVIEW	
UPC Code	037332288196
Product Type	USB-C Switch + Hub
Device Compatibility	Chromebook; Computer; Laptop; Monitor/HDTV; Tablet; Video Game System; Watch
Technology	Thunderbolt; USB 3.x
Country/Region	Global
Host Connector	USB C (MALE)
VIDEO	
Video Input	USB C (MALE)
Video Output	USB C (FEMALE)
Number of Monitors Supported	1
Video Ports	(2) USB C (FEMALE)
Video Ports Details	DisplayPort 1.4
Resolutions Supported	Capable of transmitting video to a USB-C display at resolutions up to 8K (7680 x 4320) @ 60 Hz and 4K (3840 x 2160) @ 120 Hz
Supported Resolutions	3840x4320 (4K); 7680x2160 (8K)
Max Supported Video Resolution	7680 x 4320 @ 60 Hz
Extended Mode	Yes
Extended Mode Details	Capable of extending the desktop of the host(s) to a connected USB-C display at resolutions including 8K (7680 x 4320) @ 60 Hz or 4K (3840 x 2160) @ 120 Hz. Note: Only one display may be used at a time. The switch may be connected between two displays and one source, with the pushbutton used to switch displays, or with two hosts and one display to switch between hosts.
Mirror Mode	Yes
Mirror Mode Details	Capable of mirroring the content of the host(s) to a connected USB-C display at resolutions including 8K (7680 x 4320) @ 60 Hz or 4K (3840 x 2160) @ 120 Hz. Note: Only one display may be used at a time. The switch may be connected between two displays and one source, with the pushbutton used to switch displays, or with two hosts and one display to switch between hosts.
Max Supported Color Depth	36-bit Deep Color
HDR Support	Yes
3D Video Supported	Yes
Chroma Sub Sampling	4:2:0; 4:2:2; 4:4:4
EDID Support	Yes
Signal Transmission	Bidirectional
Bandwidth	40 Gbps
DisplayPort Alt Mode	Yes





DSC Support	Yes	
DATA		
Data Ports	(2) USB C (FEMALE)	
Data Ports Details	(2) USB-C - USB 3.2 Gen 2 (10 Gbps)	
POWER		
USB Power Delivery (PD) Charging Support	Yes	
CONNECTIONS		
Side A - Connector 1	USB C (MALE)	
Side B - Connector 1	(2) USB C (FEMALE)	
Connector Plating	Nickel	
Contact Plating	Gold	
Connector Type	Molded	
Connector Style	Straight	
USER INTERFACE, ALERTS & CONTROLS		
LED Indicators	(2) Blue = Identifies active USB-C port	
CHARGING		
Number of Charging Ports	2	
Total Charging Amps	5	
Total Charging Watts	100	
Charging Port Type	(2) USB C (FEMALE)	
Charging Ports	(2) USB-C: 100W (20V 5A) Power Delivery (PD 3.0)	
Charging Ports / Amps	(2) 5A	
Compatible Devices	Chromebook; Laptop; Portable Speaker; Smartphone; Tablet; Video Game Console	
PHYSICAL		
Color	Black	
Material of Construction	PVC	
Cable Jacket Color	Black	
Cable Jacket Material	PVC	
Cable Jacket Rating	VW-1	
Cable Outer Diameter (OD)	4.8 mm	
Wire Gauge (AWG)	34/23	
Cable Length (ft.)	1.6	





Cable Length (m)	0.49	
Cable Length (in.)	19.7	
Shipping Dimensions (hwd / in.)	9.00 x 7.00 x 0.50	
Shipping Dimensions (hwd / cm)	22.86 x 17.78 x 1.27	
Shipping Weight (lbs.)	0.26	
Shipping Weight (kg)	0.12	
Unit Dimensions (hwd / in.)	0.590 x 2.170 x 2.170	
Unit Dimensions (hwd / cm)	1.5 x 5.5 x 5.5	
ENVIRONMENTAL		
Operating Temperature Range	14 to 140 F (-10 to 60 C)	
Storage Temperature Range	-4 to 158 F (-20 to 70 C)	
Relative Humidity	10% to 85% RH, Non-Condensing	
FEATURES & SPECIFICATIONS		
USB Hub Ports	Yes	
Number of USB Hub Ports	2	
USB Specification	USB 3.2 Gen 2 (Up to 10 Gbps)	
IP68 Rated	No	
Suspend Mode Support	Yes	
Remote Wakeup Support	No	
Driver Required	No	
STANDARDS & COMPLIANCE		
Product Certifications	EN 55032; EN 55035	
Product Compliance	CE (Europe); FCC (USA); REACH; RoHS; UKCA; WEEE	
WARRANTY & SUPPORT		
Product Warranty Period (Worldwide)	3-year limited warranty	

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