



BG-USX-B100CH

DUAL-HOST USB 3.2/HDMI SWITCHER & HDBASET 3.0 EXTENDER KIT WITH DUAL USB-C HOST INPUTS AND DUAL 4K60 HDMI OUTPUTS WITH BI-DIRECTIONAL POC/RS-232 UP TO 328FT

The BG-USX-B100CH is a professional-grade USB 3.2 Gen 1 extender that simultaneously extends high-speed USB data and dual HDMI video signals up to 100 meters (328 feet) over a single CAT6a (F/FTP) cable. Supporting USB data rates up to 5Gbps and dual 4K@60Hz HDMI outputs via DisplayLink technology, it provides a powerful solution for applications requiring long-distance connectivity without sacrificing performance.

Designed for demanding AV, industrial, and enterprise environments, the BG-USX-B100CH features dual USB-C host inputs with automatic or manual source switching, bi-directional Power over Cable (PoC), RS-232 pass-through, FSYNC GPIO support, and analog audio de-embedding. Its robust metal construction, flexible USB connectivity, and professional integration features make it ideal for control rooms, medical imaging, machine vision, and collaborative workspaces.



FEATURES



100M USB 3.2 EXTENSION

Extends USB data up to 328ft (100m) over a single CAT6a (F/FTP) cable while supporting transfer speeds up to 5Gbps



DUAL USB-C SWITCHING

Features two USB-C host inputs with automatic and manual switching for seamless multi-computer operation



DUAL 4K HDMI OUTPUTS

Uses DisplayLink technology to deliver dual HDMI video outputs with resolutions up to 4K@60Hz



BI-DIRECTIONAL POC

Supports 24V PoC, allowing the transmitter and receiver to be powered using a single external power supply



PROFESSIONAL CONTROL

Includes RS-232 pass-through, API control support, and FSYNC GPIO for industrial and machine vision applications



FLEXIBLE USB CONNECTIVITY

Provides USB-C and USB-A device ports on both the transmitter and receiver for connecting multiple high-speed USB peripherals



TECH SPECIFICATIONS

Technical

USB Protocol	USB 3.2 Gen 1
Data Rate	Up to 5Gbps
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
Video Bandwidth	18Gbps
Maximum Video Resolution	Up to 4K@60Hz
Color Depth	8 / 10 / 12-bit
Color Space	RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
ESD Protection	IEC 61000-4-2: ±8kV (Air), ±4kV (Contact)

Transmission

Transmission	100m / 328ft via CAT6a (F/FTP)
USB Cable Distance	1.5m / 4.9ft
1.5m / 4.9ft	1.5m / 4.9ft

Connections – Transmitter (TX)

USB-C Host Inputs	2 x USB-C (24-pin, Female)
USB Device Outputs	1 x USB-C (24-pin), 2 x USB-A (9-pin)
Extension Port	1 x HDBT-USB3 (RJ45, 24V PoC)
RS-232 Control	1 x 3-Pin 3.5mm Phoenix
FSYNC	1 x 1-Pin 3.5mm Phoenix
Service Port	1 x USB-C (Firmware Upgrade)
Power Input	DC 24V / 3.75A

Connections – Receiver (RX)

Extension Input	1 x HDBT-USB3 (RJ45, 24V PoC)
USB Device Outputs	1 x USB-C (24-pin), 2 x USB-A (9-pin)
HDMI Outputs	2 x HDMI Type-A
Audio Output	1 x 5-Pin 3.5mm Phoenix (Balanced / Unbalanced)
RS-232 Control	1 x 3-Pin 3.5mm Phoenix
FSYNC	1 x 1-Pin 3.5mm Phoenix
Service Port	1 x USB-C (Firmware Upgrade)
Power Input	DC 24V / 3.75A

Limited Product Warranty Terms

Pro Line: 5-year warranty from the date of purchase for AV/Broadcasting products bought on or after August 1, 2024.

Essential Line: 3-year warranty from the date of purchase for AV/Broadcasting products bought on or after August 1, 2024.

Cables: Lifetime Limited Product Warranty.

For complete warranty information, please visit bzbgear.com/warranty.

For questions, please call 1.888.499.9906 or email support@bzbgear.com.

Pro Line Products
5-YEAR WARRANTY
Essential Line Products
3-YEAR WARRANTY
Cables Products
LIFETIME WARRANTY





TECH SPECIFICATIONS

Mechanical & Environmental

Housing	Metal Enclosure
Color	Black
Dimensions (TX) (WxDxH)	5.5 x 3 x 0.91in [140 x 75 x 23 mm]
Dimensions (RX) (WxDxH)	7.1 x 3.7 x 0.91in [180 x 95 x 23 mm]
Weight (TX)	0.71 lbs [324 g]
Weight (RX)	1.1 lbs [486 g]
Power Supply	AC 100–240V, 50/60Hz; DC 24V / 3.75A
Power Consumption (TX)	18.48W (Max)
Power Consumption (RX)	19.44W (Max)
Operating Temperature	32°F to 104°F / 0°C to 40°C
Storage Temperature	-4°F to 140°F / -20°C to 60°C
Operating Humidity	20%–80% RH, Non-Condensing
Storage Humidity	10%–90% RH, Non-Condensing



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