



BG-EXH-4KFE

4K 18GBPS HDMI 2.0 FIBER EXTENDER KIT UP TO 10 KM WITH INCLUDED SFP+ MODULES AND USB KVM/BI-DIRECTIONAL IR/RS-232 AND AUDIO DE-EMBEDDING SUPPORT

The BG-EXH-4KFE is a professional HDMI over fiber extender engineered to deliver uncompressed 4K@60Hz 4:4:4 video over distances of up to 10km (6.2 miles) using single-mode fiber. Supporting the full 18Gbps HDMI 2.0b bandwidth with HDCP 2.2 compliance and HDR pass-through, it provides exceptional image quality and signal reliability for mission-critical AV installations where copper cabling is no longer practical.

Designed for professional AV integration, the BG-EXH-4KFE combines long-distance video transmission with bi-directional IR, RS-232 pass-through, USB KVM extension, HDMI loop-out, advanced EDID management, and analog audio de-embedding. Its compact, durable metal enclosure and robust fiber-based architecture make it an ideal solution for broadcast facilities, control rooms, digital signage, enterprise campuses, and large commercial installations.



FEATURES



ULTRA-LONG DISTANCE EXTENSION

Transmits uncompressed HDMI signals up to 10km (6.2 miles) over single-mode fiber, with support for 300m (984ft) over OM4 multi-mode fiber using compatible SFP modules



18GBPS PERFORMANCE

Supports HDMI 2.0b, HDCP 2.2, and resolutions up to 4K@60Hz 4:4:4 with full 18Gbps bandwidth



PROFESSIONAL CONTROL INTEGRATION

Features bi-directional IR, RS-232 pass-through, and USB 1.1 KVM extension for remote device control and system integration



HDR & PREMIUM AUDIO

Passes HDR10, HDR10+, Dolby Vision, HLG, LPCM 7.1, Dolby TrueHD, DTS-HD Master Audio, and other advanced audio formats



LOOPOUT & AUDIO EXTRACTION

Includes HDMI loop-out on the transmitter and analog audio de-embedding on the receiver for flexible AV workflows



ADVANCED EDID MANAGEMENT

Provides selectable EDID modes to optimize compatibility between source devices and connected displays



TECH SPECIFICATIONS

Technical

HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2
Video Bandwidth	18Gbps
Video Resolution (Max)	Up to 4K@60Hz (3840x2160), 4:4:4
Supported Resolutions	4K@60/50Hz, 4K@30/25Hz, 1080p@60/50Hz, 1920x1200, 1360x768, 1280x720, 1024x768
Color Space	RGB, YCbCr 4:4:4 / 4:2:2 / 4:2:0
Color Depth	8/10/12-bit
HDR Support	HDR10, HDR10+, Dolby Vision, HLG
Audio Formats	LPCM 2/5.1/7.1CH, Dolby Digital/Plus/EX, Dolby TrueHD, DTS, DTS-EX, DTS-96/24, DTS-HD Master Audio, DSD
Fiber Type	10G SFP+ module
Transmission Distance	Up to 10km (single-mode fiber), up to 300m (OM4 multi-mode)
IR Level	5Vp-p
IR Frequency	20K-60KHz (wideband)
ESD Protection	IEC 61000-4-2: ±8kV air, ±4kV contact

Connection

Transmitter Inputs	1x HDMI IN, 1x IR IN (3.5mm), 1x USB-B (HOST), 1x RS-232 (3-pin phoenix)
Transmitter Outputs	1x HDMI OUT (loop out), 1x IR OUT, 1x LC Fiber OUT
Transmitter Control	1x USB-C (service/firmware)
Receiver Inputs	1x LC Fiber IN, 1x IR IN
Receiver Outputs	1x HDMI OUT, 1x IR OUT, 1x AUDIO OUT (3-pin phoenix)
Receiver USB	2x USB-A (keyboard & mouse)
Receiver Control	1x RS-232 (3-pin phoenix), 1x USB-C (service)

Mechanical

Housing	Metal enclosure
Color	Black
Dimensions (W x D x H)	5.7in x 3.1in x 0.91in [144mm x 78mm x 23mm] (TX/RX)
Weight	TX: 0.74lb [337g] / RX: 0.73lb [330g]
Power Supply	5V/2A locking power adapter (AC 100-240V, 50/60Hz)
Power Consumption	TX: 5W max / RX: 5W 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)

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

