4K Ultra HD Extender for HDMI over One CAT-5 with Ethernet, RS-232, Bi-Directional IR, and POL
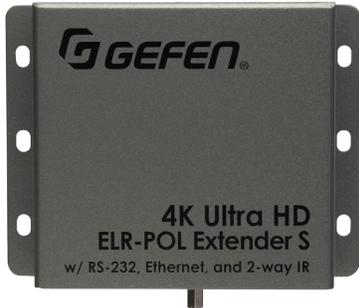
EXT-UHD-CAT5-ELRPOL

Extend HDMI, Ethernet, RS-232, and 2-way IR over one CAT-5e cable, up to 495 feet (150 meters)

The Gefen 4K Ultra HD ELR-POL Extender uses Gefen's implementation of the HDBaseT™ technology to extend HDMI up to 495 feet (150 meters) using one CAT-5e cable. Resolutions up to 4K Ultra HD with 7.1 channels of HBR (High Bit Rate) lossless digital audio are supported. This product provides Ethernet, RS-232 and 2-way IR extension between the Sender and the Receiver units, making 10/100BaseT wired Ethernet connection available at the remote location without the need to run a separate cable. It also allows the transfer of IR commands and RS-232 communications between two remote locations. RS-232 and Bi-Directional IR can be used to control A/V sources placed near the Sender unit and to send automation commands to the display or another device placed near the Receiver unit. Gefen's Bi-Directional POL (Power Over Line) technology powers the Sender or the Receiver unit using the same cable that extends the HDMI signal. Only one of the two units needs a power supply. This feature simplifies installation.

How It Works

The Sender unit is placed near the source and the Receiver unit near the Display. Connect the supplied locking HDMI cable between the Sender unit and the source. Connect an HDMI cable between the Receiver unit and the display. Connect an RS-232 automation device to the Sender unit using the included Phoenix-to-female DB-9 cable. Connect the Receiver unit to an RS-232-controlled device (such as the display) using the included Phoenix-to-male DB-9 cable. To send an IR control signal from the viewing location to the source unit, connect the IR output from an automation control device or the included Gefen EXT-RMT-EXTIRN IR Extender to the IR In/Ext port on the Receiver, and connect an IR Emitter to the IR Out port on the Sender unit and attach it to the IR Sensor window of the source. To control devices at the viewing location (such as the display) via IR from the source side, use the IR In/Ext port on the Sender side and the IR Out connection on the Receiver side. Connect the Sender and the Receiver units together using a CAT-5e or better cable. Connect the locking power supply to either the Sender or the Receiver unit and plug it into an electrical outlet. Only one of the units needs an external power supply. The other unit will be powered through the CAT-5 cable. Power up all associated equipment.

Note: Shielded (STP) CAT-5e or CAT-6 is recommended. Unshielded (UTP) CAT-5e or CAT-6 may be acceptable depending on cable quality but is not the best choice. Care should always be given to keep these cables away from power lines and other sources of electromagnetic interference.

Features*

- Extends 4K Ultra HD (3840 x 2160 @ 30 Hz), Ethernet, RS-232, and Bi-Directional IR over a single CAT-5e cable up to 330 feet/100 meters (8-bit color)
- Extends HDMI at 1080p Full HD, Ethernet, RS-232, and Bi-Directional IR over a single CAT-5e cable up to 330 feet/100 meters (up to 12-bit Deep Color)
- Extends HDMI at 1080p Full HD, Ethernet, RS-232, and Bi-Directional IR over a single CAT-5e cable up to 495 feet/150 meters (8-bit color)
- HDMI Features Supported:
  - HDCP
  - 12-bit Deep Color
  - LPCM 7.1 audio, Dolby® TrueHD, and DTS-HD Master Audio™ pass-through
  - 3DTV pass-through
  - CEC pass-through
  - Lip Sync pass-through
- RS-232 Extension
- IR extension from Sender to Receiver and from Receiver to Sender
- Gefen Bi-Directional POL feature provides power to the Sender or the Receiver unit over the link cable - only one side needs external power
- Uses Gefen's implementation of HDBaseT™ technology
- Advanced EDID Management
- Firmware upgradable via RS-232
- Locking power connector
- Surface mountable

Specifications*

- Maximum Pixel Clock: 300 MHz
- Video Input Connector (Sender): (1) HDMI Type A 19-pin, female, locking
- Video Output Connector (Receiver): (1) HDMI Type A 19-pin, female, locking
- Link Connector (Sender/Receiver): (1) RJ-45, shielded
- RS-232 port (Sender): (1) 3-pin Phoenix - DB-9 adaptor cable included
- RS-232 port (Receiver): (1) 3-pin Phoenix - DB-9 adaptor cable included
- IR Ext/In port (Sender/Receiver): (1) 3.5mm mini-stereo jack
- IR Extender type: EXT-RMT-EXTIRN
- IR Out port (Sender/Receiver): (1) 3.5mm mini-mono jack
- Power/Link Indicator LED (Sender/Receiver): (1) Bi-color: Blue/Green
- Power Supply: (1) 24V DC, locking
- Power Consumption (Sender and Receiver combined): 12W maximum
- Operating Temperature: +32 to +113 °F (0 to +45 °C)
- Operating Humidity: 5% to 90% RH, non-condensing
- Storage Temperature: -4 to +185 °F (-20 to +85 °C)
- Storage Humidity: 0% to 95% RH, non-condensing
- MTBF: 50000 hours
- Dimensions (W x H x D, Sender/Receiver): 4.3" x 1" x 3.2" (110mm x 26mm x 85mm)
- Net Weight (Sender/Receiver): 0.4 lbs (0.2 kg) each
- Shipping Weight: 3.0 lbs. (1.4 kg)

* Features and specifications are subject to change without notice.
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