

# EXT-UHDV-HBTL5-TX



4K Ultra HD Multi-Format 2x1 HDBaseT™ Sender  
with Scaler, Auto-Switching, and POH



## AUTO-SWITCH 4K ULTRA HD HDMI AND VGA, SCALE, AND EXTEND UP TO 70 METERS/230 FEET, OVER A SINGLE CAT-5

The Gefen EXT-UHDV-HBTL5-TX is a high-performance solution in a compact easy-to-install enclosure for switching 4K Ultra HD HDMI and VGA inputs, and extending them up to 70 meters (230 feet) at 1080p and 40 meters (130 feet) at 4K, over a single CAT-5e cable. Switching between the HDMI and VGA can be set to Automatic or be done manually via the front panel button or RS-232. Its HDMI input supports 18 Gbps of data and 600 MHz TMDS Clock frequency, accepting full spec HDMI 2.0 to 4K Ultra HD (3860 x 2160) and 4K Cinema-DCI (4096 x 2160), at 60 Hz 4:4:4 with HDCP 2.2 and 1.4. The HDBaseT™ extension system supports 10.2 Gbps of data throughput and 300 MHz TMDS Clock frequency, and resolution/timing up to 4K 30 Hz 4:4:4. It uses Gefen's implementation of the HDBaseT™ technology with enhancements including Advanced EDID Management.

Highest performance multichannel digital audio including 7.1 channels of LPCM and HBR (High Bit Rate) digital audio formats, such as Dolby Atmos®, Dolby® TrueHD, DTS:X™, and DTS-HD Master Audio™ are passed through from the HDMI input to output. The VGA input features a companion L/R analog audio input, and accepts VESA and CEA resolutions up to WUXGA (1920 x 1200 to 60 Hz, 4:4:4) and 1080p Full HD (1920 x 1080 at 60 Hz, 4:4:4). A powerful built-in scaler can upscale lower resolution VGA signals with legacy aspect ratio to widescreen WUXGA, ensuring stunning presentations and smooth switching transitions between the HDMI and the VGA sources. The EXT-UHDV-HBTL5-TX extends RS-232 and 2-way IR when used with a compatible Receiver unit such as the Gefen EXT-UHDA-HBTL-RX, facilitating the control of A/V sources placed near the Sender from the viewing location, and sending commands from the head end to control the display or another device placed near the Receiver unit. It also accepts RS-232 commands for switching, scaler controls, and EDID management from a third-party controller placed near the Sender or remotely by the Receiver. Audio volume can be adjusted or muted via the front panel buttons or RS-232 commands from a third-party controller,

a very useful tool for presentations in corporate, educational, and institutional installations. Bi-Directional HDBaseT™ standard POH (Power Over HDBaseT™) technology can supply power remotely from the EXT-UHDV-HBTL5-TX to a compatible Receiver unit, or it can pass power from a compatible Receiver unit to this Sender, using the same CAT-5 cable that extends the HDMI signal. Only one of the two units will need a power supply. This feature simplifies installation in cases when an electrical outlet may not be available near the source or the display. The 2x1 Sender's small, ultra-low-profile enclosure can be securely surface-mounted, and thanks to its IR Extender input, it can be conveniently hidden away from sight. It also accommodates a Gefen locking power supply plug for secure and reliable connection.

### Note:

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

## FEATURES\*

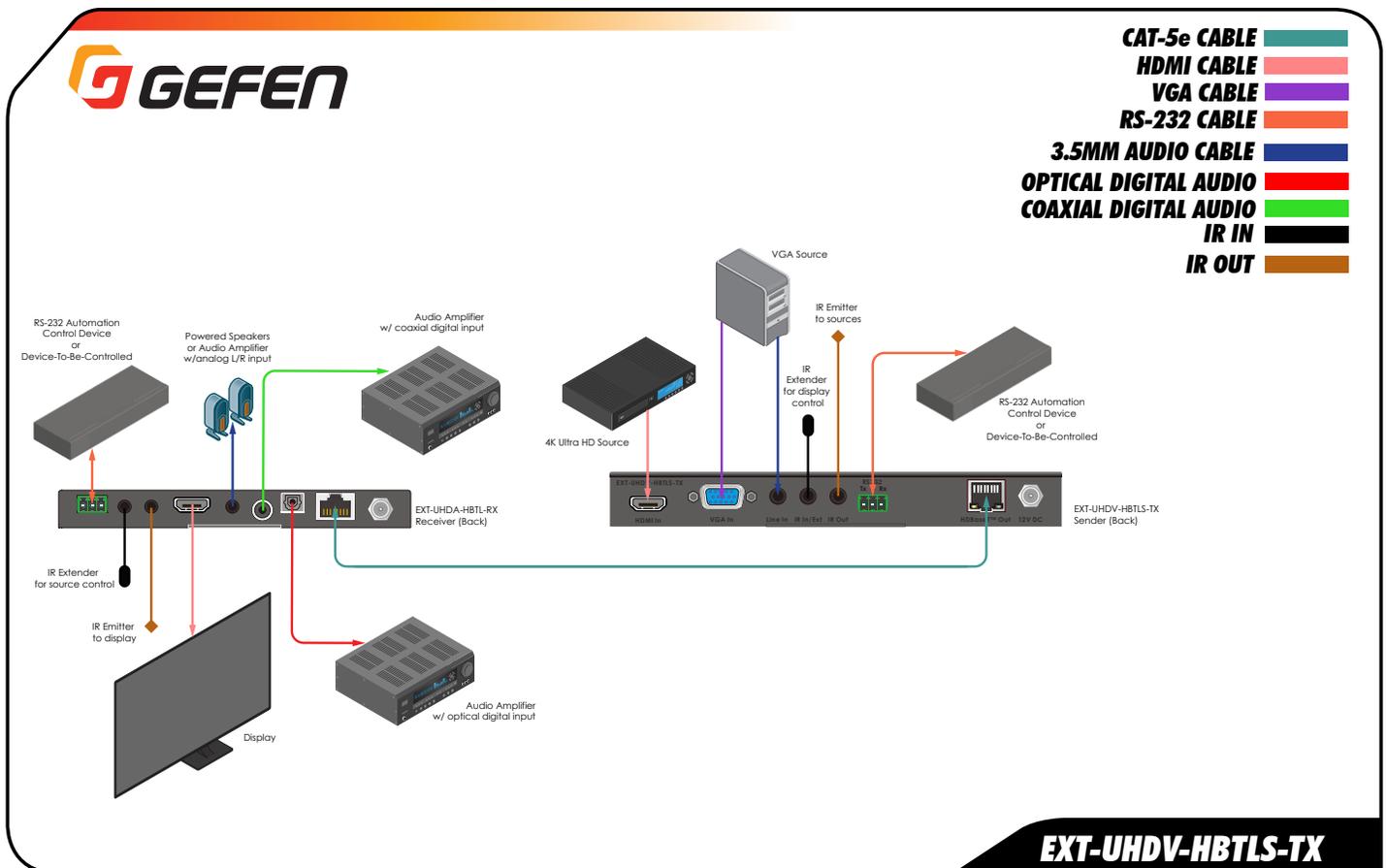
- HDMI Input supports 600 MHz TMDS Clock and data throughput of up to 18 Gbps: 4K Ultra HD (3840 x 2160) or 4K Cinema-DCI (4096 x 2160) up to 60 Hz, 4:4:4
- HDBaseT™ extension supports 300 MHz TMDS Clock and data throughput of up to 10.2 Gbps
- Automatic switching of 4K HDMI and VGA
- Manual switching of 4K HDMI and VGA via front panel button or RS-232
- VGA scaling up to 1920 x 1200 with picture adjustments
- Extend HDMI, VGA with analog audio, 2-way IR, and RS-232 over a single CAT-5e:
  - 4K Ultra HD (3840 x 2160 @ 30 Hz, 4:4:4), up to 130 feet/40 meters (8-bit color)
  - 4K Cinema-DCI (4096 x 2160 @ 24 or 30 Hz 4:4:4), up to 130 feet/40 meters (8-bit color)
  - 1080p Full HD (60 Hz) or WUXGA (1920x1200 @ 60 Hz), up to 230 feet/70 meters (up to 12-bit Deep Color)
- HDMI Features Supported:
  - HDMI 2.0
  - HDCP 2.2 and 1.4
  - 12-bit Deep Color (at 1080p)
  - LPCM 7.1, Dolby Atmos®, Dolby® TrueHD, DTS:X™, and DTS-HD Master Audio™ pass-through
  - 3DTV pass-through
  - CEC pass-through
  - Lip Sync pass-through
- Analog L/R audio input for VGA
- RS-232 control of switching, scaler, and EDID management functions, locally and from a compatible Receiver

- Bi-Directional RS-232 extension when used with a compatible Receiver
- 2-way IR extension when used with a compatible Receiver
- Bi-Directional Power over HDBaseT™ (POH) provides power to this Sender or a compatible Receiver unit over the link cable - only one side will need external power
- Uses Gefen's implementation of HDBaseT™ technology with enhanced features
- Advanced EDID Management for rapid integration of source and display
- Field-updateable firmware via USB Micro-B and RS-232 ports, using the Gefen Syner-G™ software
- Locking power connector
- Compact, ultra-low-profile enclosure is surface-mountable and can be hidden away

## SPECIFICATIONS\*

- Recommended Receiver: EXT-UHDA-HBTL-RX
- Maximum TMDS Clock:
  - HDMI Input: 600 MHz
  - Extension System: 300 MHz
- Total Signal Bandwidth/Data Rate:
  - HDMI Input: 18 Gbps
  - Extension System: 10.2 Gbps
- Video Input Connector:
  - (1) HDMI Type A 19-pin, female
  - (1) VGA HD-15, female
- L/R Analog Audio Input port: (1) 3.5mm mini-stereo jack
- Link Connector: (1) RJ-45, shielded
- RS-232 port: (1) 3-pin Phoenix
- IR In/Ext port: (1) 3.5mm mini-stereo jack

- IR Out port: (1) 3.5mm mini-mono jack
- IR Extender type: EXT-RMT-EXTIRN
- Firmware Update port: (1) USB Micro-B, female
- Power Indicator LED: (1) Blue
- HDMI Input Indicator LED: (1) Green
- VGA Input Indicator LED: (1) Green
- Auto-Switch-On Indicator LED: (1) Green
- Input Select Switch (hold to select Auto or Manual): (1) tact-type
- Menu (On Screen Display) Select Switch: (1) tact-type
- Volume Up and Down Switches (hold both for Mute): (2) tact-type
- Power Supply Connector:
  - (1) 5.5mm barrel/2.1mm pin, Locking
- Power Supply:
  - (1) 12V DC, locking, 5.5mm barrel/2.1mm pin
- Power Consumption:
  - Not powering a Receiver: 9W maximum
  - Powering a Receiver: 22W maximum
- Operating Temperature: +32 to +122 °F (0 to +50 °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, not including the connectors):
  - Not including the mounting brackets: 7.7" x 0.93" x 4" (195mm x 24 x 100mm)
  - Including the mounting brackets: 8.7" x 0.93" x 4" (221mm x 24 x 100mm)
- Net Weight: 0.8 lbs (0.35 kg)
- Shipping Weight: TBD



\* Features and specifications are subject to change without notice.

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