

EXT-4K300A-MF-41-HBTLS



4K Ultra HD Multi-Format 4x1 Scaler
w/ Auto-Switching & Split HDMI & HDBaseT™ Outputs



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

The Gefen EXT-4K300A-MF-41-HBTLS is a 4x1 Presentation Switcher with HDMI, DisplayPort™, DVI, and VGA inputs, along with an L/R analog audio input that accompanies both the DVI and VGA inputs. It features split HDMI/HDBaseT™ outputs, and a de-embedded analog L/R audio output. The 4 inputs can be switched automatically or manually. Control options include the front panel, a hand-held IR remote, electrical IR, RS-232, and contact closure. The split HDMI and HDBaseT™ outputs can simultaneously feed a local and a remotely-installed display, adding flexibility in larger presentation environments. This 4x1 Switcher and its recommended Receiver (the EXT-UHDA-HBTL-RX, sold separately) use Gefen's implementation of the HDBaseT™ technology to extend the HDMI output of the Switcher up to 230 feet/70 meters at 1080p Full HD and up

to 130 feet/40 meters at 4K, using one CAT-5e or better cable. The HDMI and DisplayPort™ inputs support resolutions up to 4K 60 Hz 4:2:0, with HDCP 2.2 and 1.4. The HDMI input and output, and the HDBaseT™ output support up to 7.1 channels of highest performance LPCM and HBR (High Bit Rate) lossless digital audio, such as Dolby Atmos®, Dolby® TrueHD, DTS:X™, and DTS-HD Master Audio™. The DVI and VGA inputs support resolutions up to WUXGA (1920x1200) and 1080p Full HD. The DVI input also supports HDCP 1.4. A powerful built-in scaler can upscale lower resolution DVI and VGA signals with legacy aspect ratio to widescreen WUXGA or 1080p Full HD, ensuring stunning presentations and smooth switching transitions between the connected AV sources. The 4x1 Switcher features an analog L/R audio de-embedder. The optional Receiver features analog and digital audio (optical and coaxial) outputs. Any or all audio outputs can be connected to sound-reinforcement systems, adding impact and presence to AV presentations. The Switcher features Advanced EDID Management to ensure that sources are best-optimized for the displays in use. The 4x1 Switcher, when used with the optional

EXT-UHDA-HBTL-RX HDBaseT™ Receiver, provides 2-way RS-232 and Source-to-Display IR extension, facilitating RS-232 control of A/V sources placed near the Sender unit, and sending IR or RS-232 automation commands to the remote display or another device placed near the Receiver unit. Industry-standard Power-Over-HDBaseT™ technology provides power from the Switcher to the Receiver, over the same cable that extends the video signal. The Switcher and Receiver's small, ultra-low-profile enclosures can be securely surface-mounted, and conveniently hidden away from sight in the equipment closet or behind the display. Locking HDMI ports on the Switcher & locking power jacks on both units ensure long-lasting and reliable connections.

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*

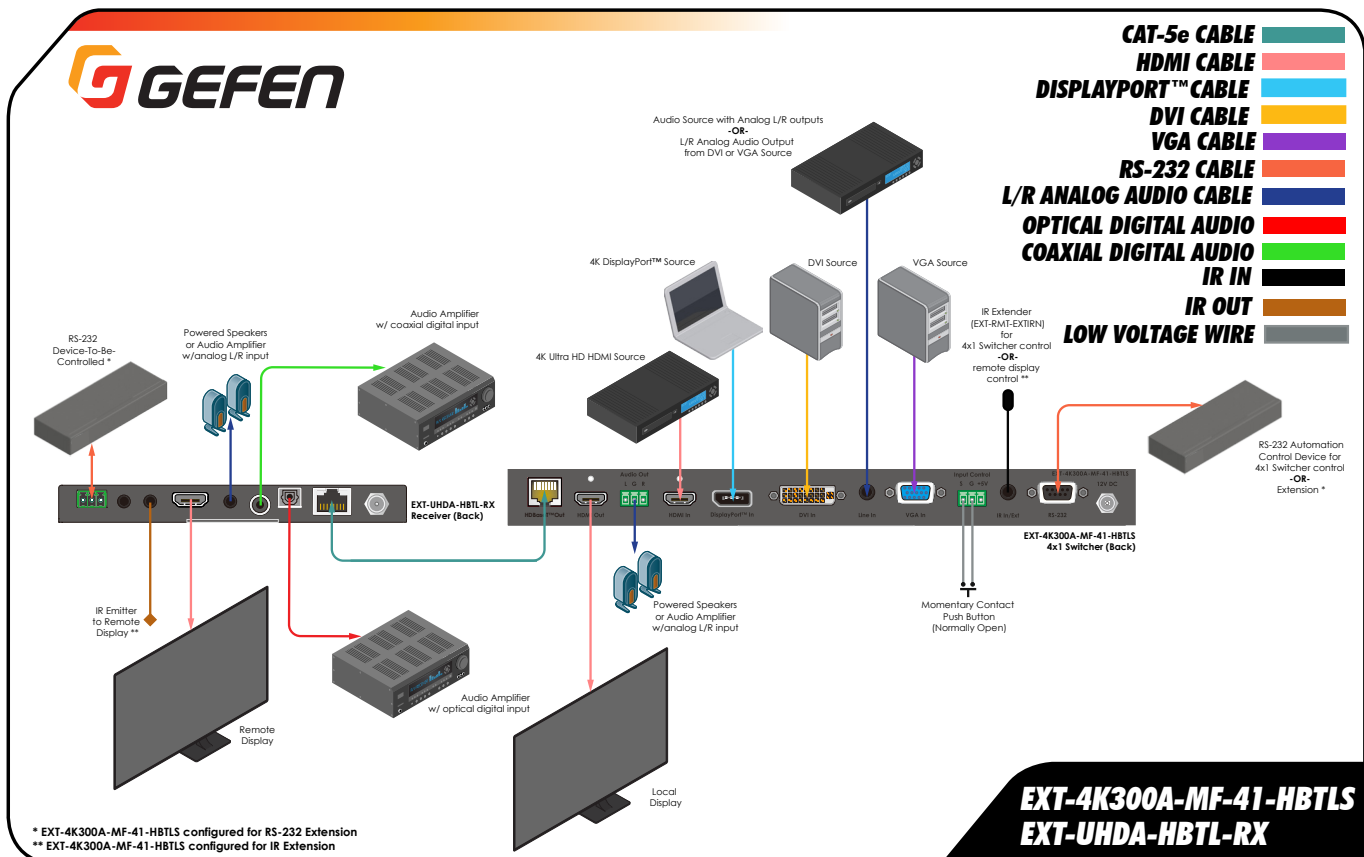
- Automatic switching of the 4 video inputs
- Manual switching of video inputs via front panel button, handheld IR remote, electrical IR, or RS-232
- Split HDMI and HDBase™ Outputs feed local and remote displays simultaneously
- Inputs:
 - 1x HDMI
 - 1x DisplayPort™
 - 1x DVI
 - 1x VGA
 - 1x L/R Analog Audio
- Outputs:
 - 1x HDMI
 - 1x HDBase™
 - 1x L/R Analog Audio
- Supports up to 340 MHz TMDS clock and 10.2 Gbps data throughput
- VGA and DVI feature scaling up to WUXGA (1920 x 1200 at 60 Hz) and 1080p Full HD (60 Hz) with picture adjustment capabilities
- DVI input can be associated with the L/R Analog Audio Input or with audio embedded in the video
- When used with optional EXT-UHDA-HBTL-RX HDBase™ Receiver, extends the HDMI output, outbound IR, and RS-232 over a single CAT-5e:
 - 4K Ultra HD (3840 x 2160 @ 60 Hz, 4:2:0), 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
- DisplayPort™ features supported:
 - DP 1.1
 - HDCP 2.2 and 1.4
- DVI input supported formats:
 - DVI-D, HDMI 1.4, VGA, YpPr (Component Video), and Composite Video
 - HDCP 1.4 (for DVI-D and HDMI signals)
- VGA input supported formats:
 - VGA, YpPr (Component Video), and Composite Video
- RS-232 extension or unit control
- IR extension (outbound only) or unit control
- Analog L/R audio breakout
- Dry contact for input switching with indicator LED +5V power source
- Uses Gefen's implementation of HDBase™ technology with enhanced features
- Advanced EDID Management for rapid integration of source and display
- Field-updateable firmware via micro-USB port, using the Gefen Syner-G™ software
- Locking HDMI connectors
- Locking power connector

- Power over HDBase™ (POH) provides power to a compatible Receiver unit (such as EXT-UHDA-HBTL-RX) over the link cable
- IR In/Ext port works with Gefen EXT-RMT-EXTIRN IR Extender Module or electrical IR from a third-party controller
- Compact, ultra-low-profile enclosure is surface-mountable and can be hidden away

SPECIFICATIONS*

- Recommended HDBase™ Receiver: EXT-UHDA-HBTL-RX
- Maximum TMDS Clock: 340 MHz
- Total Signal Bandwidth/Data Rate: 10.2 Gbps
- Video Input Connectors:
 - (1) HDMI Type A 19-pin, locking, female
 - (1) DisplayPort™ 20-pin, female
 - (1) DVI 29-pin, female, digital and analog
 - (1) VGA HD-15, female
- Video Output Connectors:
 - (1) HDMI Type A 19-pin, locking, female
 - (1) HDBase™ RJ-45, shielded
- L/R Analog Audio Input port:
 - (1) 3.5mm mini-stereo jack
- L/R Analog Audio Output port:
 - (1) 3-pin Phoenix with removable plug
- Input Control port:
 - (1) 3-pin Phoenix with removable plug
- RS-232 port: (1) DB-9, female
- IR In/Ext port: (1) 3.5mm mini-stereo 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
- DisplayPort™ Input Indicator LED: (1) Green
- DVI 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
- POH On/Off Switch: (1) slide-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: 10W 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: 12" x 1.2" x 4" (305mm x 30mm x 100mm)
 - Including the mounting brackets: 13.1" x 1.2" x 4" (332mm x 30mm x 100mm)
- Net Weight: 1.3 lbs. (0.6 kg)
- Shipping Weight: 2.7 lbs. (1.25 kg)



* EXT-4K300A-MF-41-HBTLs configured for RS-232 Extension
 ** EXT-4K300A-MF-41-HBTLs configured for IR Extension

EXT-4K300A-MF-41-HBTLs
EXT-UHDA-HBTL-RX

* Features and specifications are subject to change without notice.

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