

# UHBX-R-PSE

## HDBaseT™ Receiver with HDMI output, Bidirectional IR, RS232, and PoH Source (Power over HDBaseT™)



- Extends HDMI or DVI video to 500 ft on just one Cat6
- Includes RS232 and IR extension in both directions
- Supports virtually all HDMI and DVI resolutions including 4Kx2K
- Only one end requires power, other side is powered via UTP
- Power-over-HDBaseT™ meets IEEE 802.3af standard
- Sturdy metal enclosures with mounting provisions

UHBX-R-PSE receiver module when paired with compatible sender ( Hall Research model UHBX-S-PD or UHBX-SC-WP ), can extend HDMI, bi-directional IR, full-duplex RS232, and PoH (power over HDBaseT™) over distances of up to 150 meters (500 feet) using a single Cat6 cable. The pair can extend HDMI or single-link DVI video of virtually any resolution, to a maximum distance of 500 ft (150 m). Moreover, these extenders complies with Power-over-HDBaseT™ or PoH, hence only one end requires a power supply . The end identified as PSE (power sourcing equipment) injects power on to the Cat6 cable and the side identified as PD (powered device) is powered through the Cat6 cable. The PSE side requires connection of an AC adapter that supplies 5v DC, while the PD or WP(wall plate) side is simply powered through the RJ45 connector from the opposite side.

Full-duplex RS232 Serial Port extension is provided that can operate at any baud rate to 115,200 (independent of video activity). The extender can also extend IR from one end to the other. IR Detector and IR Emitter cables are sold separately. The IR extension preserves the modulation(carrier) frequency and provides compatibility to virtually any standard. It supports modulation range from 30 KHz to 60 KHz.

Two user selectable distance modes are available: Standard(default) and Long Reach. If the length of UTP cable is less than 100 meters (330 ft), then STD mode should be used. For the lengths above 330 ft Long Reach (L.R.) mode must be set. Long Reach setting can extend maximum of 1080p@60 Hz, 8-bit color (does not support deep-color or 4Kx2K) , RS232, IR and Power up to 500ft (150m)

UHBX-R-PSE is fully compatible with the following HDBaseT™ senders from Hall Research:

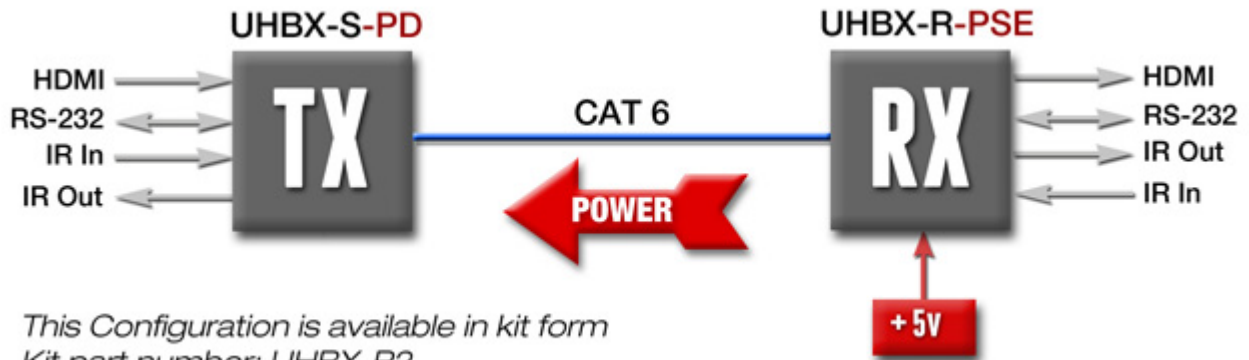
UHBX-S-PD : Pair Sold as a kit (see UHBX-P2)

UHBX-SC-WP : Pair Sold as a kit (see UHBX-WPC-P2)

For best results we recommend using Alliance approved cables listed at this site.

UHBX-R-PSE is also partially compatible with other HDBaseT™ senders from Hall Research.

## Block Diagram



## Specifications

Max Distance:	Standard Mode (STD): 330 ft (100m) Long Reach Mode (LR) : 500 ft (150m)
Video Standards:	DVI (single link) and HDMI (compliant with HDMI 1.4 video specifications including 12 bit color depth, 3D video and 4K support)
Signal Type:	TMDS
Connectors:	Locking HDMI
Video Resolutions:	DVI: VGA (640x480) to WUXGA (1920x1200)
HDTV:	480i to 1080p
Digital Cinema:	4K (4096x2160)
Audio Formats:	Supports 4K@60 Hz (4:2:0 8 bit color) or 4K@30 Hz (4:4:4 and 8 bit color) All HDMI Embedded Audio including: LPCM 7.1CH, Dolby TrueHD and DTS-HD Master Audio (32-192kHz sample rate)
DDC:	Pass-Thru DDC for reading EDID directly from remotely connected LCD and HDCP handshake
CEC:	Pass-Thru DDC for Consumer Electronics Control compatible devices
RS232:	Bi-directional (full-duplex) any baud rate upto 115,200
IR:	Extended in both directions. Carrier modulation range from 30 KHz to 60
KHz	
PoH:	Power-over-HDBase™ meets IEEE 802.3af standard. PD side identifies as Class 2 (3.84–6.49 watts). Actual power consumption of PD side is 5.5 watts max
Power Supply:	100 VAC to 240 VAC, 50-60 Hz, external; 5 VDC, 3.2 A, regulated Actual DC current (powering both –PSE and –PD sides) 1.8A max
Power:	Sender: 3.5 watts (12 BTU) maximum
Receiver:	5.5 watts (19 BTU) maximum
Temp/humidity:Storage:	-40 to +158 °F (-40 to +70 °C) / 10% to 90%, non-condensing
Operating:	+32 to +122 °F (0 to +50 °C) / 10% to 90%, non-condensing
Cooling:	Convection
Mounting:	End plates have L bracket with hole for surface mounting
Enclosure:	Metal (Steel ends and Aluminum extrusion)
Dimensions:	1.18" H x 4.13" W x 4.57" D (30mm H x 105mm W x 116mm D) Depth excludes connectors
Product weight:	Sender: 9.3 oz (0.58 lb or 264 g)
Receiver:	10 oz (0.63 lb or 284 g)
Vibration:	Kit (shipping) 37 oz (2.3 lb or 1050 g) includes: sender, receiver, power supply, power cord, HDMI cable, manual, and packaging
Safety:	ISTA 1A in carton (International Safe Transit Association)
MTBF:	CE EMI/EMC:CE, FCC Class A 90,000 hours (Calculated Estimate)