ULTRA-4K

Dual-Head HDMI and USB 2.0 KVM Extender

Specifications

Rev. 1.0 — October 16, 2026



INTRODUCTION

Product Overview

The ULTRA-4K is a Dual-Head HDMI and USB 2.0 KVM Extender over just one CAT6 cable to 100m. The ULTRA-4K Sender provides 2 HDMI inputs and one USB port for connection to a host PC. The Sender provides local HDMI outputs as well as a 2 port USB hub. Remote Receiver connects to the Sender using just one Cat6 cable. The Sender provides 3 RJ45 outputs so more than one Receiver can be connected to allow access to the PC from multiple remote locations. When more than one Receiver is connected to the same sender, all Receivers show the same two video outputs and keyboard/mouse function is automatically routed based on user activity.

Description

The ULTRA-4K Receiver provides two HDMI video outputs, dedicated keyboard and mouse USB 1.1 ports (with auto switching), and a 4-port USB 2.0 hub for connection of other USB devices such as touch-screens, printers, etc. Plug-and-Play operation requires no setup, just connect the Sender to the Receiver using a Cat6 cable and you are ready to go! The system supports video resolutions to 3840 x 2160 (UHD/4K), but it also supports and is ideal for applications requiring 2560 x 1600, 2560 x 1440, and 1920 x 1080 resolutions. Other standard HDTV and PC resolutions are also supported. The Receivers also feature an RJ45 loop output for connection to other Receivers for expansion. The RJ45 outputs on both the Sender and the Receiver are also compatible with Single-Head video receiver (Model ULTRA-V-R). The ULTRA-V-R by default will display Video A, but it can be user configured to display video B if desired.

Features

- Supports high resolution HDMI video including FHD (1920×1080), WQHD (2560×1440), and 4K UHD (3840×2160)
- Two video heads and one USB port extended over a single CAT6 cable up to 100m/328ft
- Full plug-and-play support with USB keyboard, mouse, and connected peripherals
- Computer OS independent – No driver or software required
- Local HDMI and USB outputs at Sender
- Three Sender extension outputs and one Receiver daisy-chain output to distribute video to multiple locations
- No video calibration required; no video quality reduction due to cable length or type
- Locking power supply connector to prevent inadvertent disconnection
- Sender includes mounting ears for standard 19” rack; Receiver includes mounting brackets for surface-mounting.

SPECIFICATIONS

Specification	ULTRA-4K
Video	
Standards	DVI (single link)
Connectors	**ULTRA-4K-S** 2x HDMI inputs, 2x HDMI outputs 1x USB-B host port, 2x USB-A device ports 3x RJ45 Link outputs 1x 2.1 mm locking DC power input **ULTRA-4K-R** 2x HDMI outputs 2x USB-A 1.1 device ports 4x USB-A 2.0 device ports 1x RJ45 link input, 1x RJ45 link output 1x 2.0mm locking DC power input
Resolutions	**PC** VGA to WQXGA (2560x1600) **HDTV** 480p to 4K UHD including QHD (2560x1440)
Refresh Rates	60 Hz for resolutions up to and including HD (1920x1080) and WUXGA (1920x1200) 30 Hz for resolutions above and including QHD (2560x1440)
Other Signals	
USB	ULTRA-4K-S: USB 2.0 (2) from built-in hub ULTRA-4K-R: USB 1.0 (2) and USB 2.0 (4)
General	
Power Supply	100 VAC to 240 VAC, 47-63 Hz, External; 5 VDC
Temp/humidity	Storage: -40 to +158 degrees F (-40 to +70 degrees C)/ 10% to 90%, non-condensing Operating: +32 to +122 degrees F (0 to +50 degrees C) / 10% to 90%, non-condensing
Typical DC	5 VDC, 4.0 A power supply
Current Draw	ULTRA-4K-S: 2.5 A DC depending on # and type of connected USB devices. ULTRA-4K-R: 1.5 A DC depending on # and type of connected USB devices.
Cooling	Convection
Enclosure Type	Metal (Steel)

Specification	ULTRA-4K
Dimensions	ULTRA-4K-S: 6.09” L x 11.23” W x 1.66” H ULTRA-4K-R: 5.04” L x 9.00” W x 1.12” H
Product Weight	Model only ULTRA-4K-S: 2.8 lbs (1.3 Kg) ULTRA-4K-R: 1.3 lbs (0.6 Kg) Shipping ULTRA-4K-S: 4.4 lbs (2.0 Kg) ULTRA-4K-R: 3.1 lbs (1.4 Kg)
MTBF	90,000 hours (estimate)
Warranty	3 years parts and labor
Certifications	
Safety	CE per IEC / EN 60601-1-2
EMI/EMC	CE, FCC, Class A

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