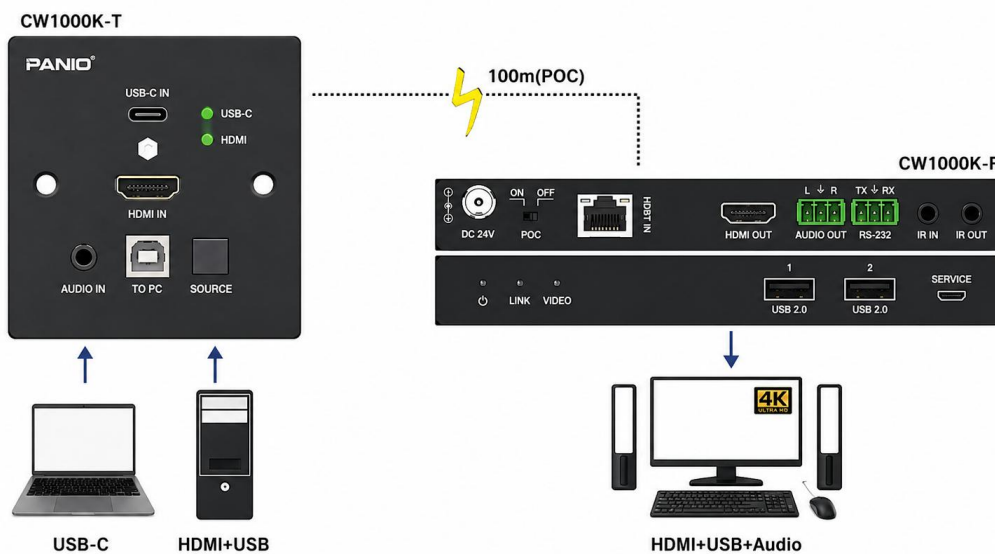


PANIO CW1000K_W

4K60 HDMI / USB-C 2×1 HDBaseT KVM Wallplate Extender

Support HDBaseT 100m, USB-C Input, Bidirectional POC, IR & RS-232 Control

Diagram



Product Overview

The CW1000K_W is a professional-grade 4K60 HDMI / USB-C 2×1 HDBaseT KVM Wallplate Extender system, engineered for B2B AV signal distribution in conference rooms, lecture halls, training centers, corporate lobbies, and commercial display environments. The system consists of a standard 86×86 mm wall-plate transmitter (TX) and a compact metal-enclosure HDBaseT receiver (RX), enabling dual-source switching at the wall and long-distance signal extension over a single CAT6 cable.

The transmitter accepts both HDMI and USB-C inputs—covering laptops, PCs, Blu-ray players, tablets, and modern USB-C devices—and transmits the selected source up to 328 ft / 100 m (HBT mode, 4K60) or 492 ft / 150 m (LRM mode, 4K30 / 1080P). With full HDMI 2.0b and HDCP 2.2 / 1.x compliance, 18 Gbps video bandwidth, 7.1-channel HD audio support, bidirectional IR and RS-232 pass-through, USB 2.0 KVM extension at the display end, and bidirectional 24V POC, the CW1000K_W delivers a complete one-cable solution for permanent installations. Dual-mode

transmission, four EDID presets, analog audio embedding, and intelligent power-over-cable management ensure stable operation, simplified cabling, and seamless integration in mission-critical professional AV deployments.

Product Features

- **Dual-Source 2×1 Wallplate Switching:** Combines HDMI and USB-C inputs into a single 86×86 mm wall-plate transmitter; SOURCE button toggles between sources with synchronized USB host switching for full KVM workflow—no manual cable swapping required.
- **4K@60Hz UHD Video & HDCP 2.2 Compliance:** Delivers maximum resolution of 3840×2160@60Hz with YUV 4:4:4 chroma subsampling; 18 Gbps HDMI 2.0b bandwidth with HDCP 2.2 / 1.x; backward compatible with 4K30, 1080P, and lower resolutions for mixed-source environments.
- **Long-Distance HDBaseT Transmission:** HBT mode supports 4K60 / 4K30 / 1080P up to 328 ft / 100 m; LRM mode extends 4K30 / 1080P up to 492 ft / 150 m over a single CAT6 cable—no signal repeaters, no quality degradation.
- **USB-C Single-Cable Source Input:** Dedicated USB-C input carries video (up to 5.4 Gbps) and USB 2.0 data simultaneously; ideal for modern laptops, tablets, and BYOD environments where a single connection replaces multiple cables.
- **Bidirectional 24V POC (Power over Cable):** Either TX or RX may be powered by the included 24V/1A locking adapter; on-unit POC switches enable single-side powering and reduce installation cabling, simplifying wall-box integration.
- **Intelligent EDID Management:** Built-in EDID DIP switch with 4 presets — Copy RX Display EDID (default), 4K30 4:4:4, 1080p60 4:4:4, and 1200p60 4:4:4 — ensuring stable handshake across mixed-resolution sources and displays.
- **Bidirectional IR & RS-232 Control:** Full pass-through of IR and RS-232 commands in both directions for integration with AMX, Crestron, and custom AV control systems; seamless display, source, and KVM control across the link.
- **USB 2.0 KVM Extension at the Display End:** Receiver provides 2× USB Type-A ports for keyboard, mouse, USB flash drives, and other peripherals — extending full KVM operation up to 100 m from the source location.
- **Multi-Format Audio Support:** HDMI embedded LPCM 7.1CH, Dolby TrueHD, and DTS-HD Master Audio (Full Format, 48 kHz); analog audio embedding from a 3.5 mm AUDIO IN at TX; de-embedded analog AUDIO OUT at RX for external amplifiers and speakers.
- **Robust Durability & Architectural Integration**
 - ESD protection: ±8 kV (Air-gap discharge) / ±4 kV (Contact discharge) shields against electrostatic damage in dry or industrial environments.

- 86×86 mm wall-plate form factor for clean architectural installation in standard wall boxes; compact metal-enclosure receiver (157.2×88×20 mm) for permanent rack or under-desk mounting.

Specification

System Specifications

Parameter	Specification
Model Name	CW1000K_W (TX + RX kit)
Product Type	4K60 HDMI / USB-C 2×1 HDBaseT KVM Wallplate Extender
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.2 / 1.x
Video Bandwidth	HDMI: 18 Gbps USB-C: 5.4 Gbps
Max Video Resolution	4K2K@60Hz (4:4:4); backward compatible with 4K30, 1080P / 720P
Color Space	RGB 4:4:4, YCbCr 4:4:4 / 4:2:2 / 4:2:0
Color Depth	8-bit / 10-bit / 12-bit
Audio Formats	LPCM 7.1CH, Dolby TrueHD, DTS-HD Master Audio (Full Format), 48 kHz
Transmission (HBT Mode)	Up to 328 ft / 100 m for 4K60 / 4K30 / 1080P over single CAT6
Transmission (LRM Mode)	Up to 492 ft / 150 m for 4K30 / 1080P over single CAT6
EDID Management	4 presets via DIP switch (Copy RX / 4K30 / 1080p60 / 1200p60)
Control Modes	Front SOURCE button, Bidirectional IR Pass-through, Bidirectional RS-232 Pass-through
ESD Protection	Human body model — ±8 kV (Air-gap) / ±4 kV (Contact discharge)

Transmitter (Wall-plate TX) Interface

Interface	Description
Video Input	1× HDMI IN (Type-A, 19-pin female) 1× USB-C IN (USB Type-C)
Audio Input	1× AUDIO IN (3.5 mm Stereo)
Output	1× HDBaseT OUT (RJ45)
Control	1× TO PC (USB Type-B) 1× RS-232 (3-pin 3.81 mm Phoenix) 1× IR IN (3-pin Phoenix) 1× IR OUT (2-pin Phoenix)
Power	DC 24V / 1A (POC capable)

Receiver (HDBT RX) Interface

Interface	Description
Input	1× HDBT IN (RJ45)
Video Output	1× HDMI OUT (Type-A, 19-pin female)
Audio Output	1× AUDIO OUT (3-pin 3.81 mm Phoenix)
USB	2× USB 2.0 (Type-A) for KVM peripherals
Control	1× RS-232 (3-pin Phoenix) 1× IR IN (3-pin Phoenix) 1× IR OUT (2-pin Phoenix) 1× SERVICE (Micro USB)
Power	DC 24V / 1A (POC capable)

Mechanical & Environmental

Parameter	Specification
Transmitter Dimensions	86 × 86 × 38.5 mm (W×D×H), standard 86 mm wall-box form factor
Receiver Dimensions	157.2 × 88 × 20 mm (W×D×H)
Transmitter Weight	234 g (net)
Receiver Weight	377 g (net)
Housing	TX: White front panel / black rear case RX: Metal enclosure

Power Supply	24V / 1A locking adapter, 100–240V AC input (bidirectional POC)
Max Power Consumption	12.48 W
Operating Temperature	0 °C – 40 °C (32 °F – 104 °F)
Storage Temperature	–20 °C – 60 °C (–4 °F – 140 °F)
Relative Humidity	20% – 90% RH (non-condensing)
Recommended Cable	CAT6 / CAT6A or higher, STP, T568B straight-through, point-to-point

Connection Diagram

The CW1000K_W deploys as a point-to-point system. The wall-plate transmitter (TX) is installed at the source location with HDMI and USB-C inputs available to end users; the receiver (RX) is installed at the display end. A single CAT6 / CAT6A cable carries video, audio, USB, IR, and RS-232 between TX and RX, with optional 24V POC powering either side.

Section	Connections
Source Side (TX)	<ul style="list-style-type: none"> • HDMI Source (PC / Notebook / Blu-ray / Console) → TX HDMI IN • USB-C Source (Notebook / Tablet) → TX USB-C IN • Host PC (USB) → TX TO PC (Type-B) for KVM • Audio Source → TX AUDIO IN (3.5 mm) • IR / RS-232 Controller → TX IR IN / RS-232
HDBaseT Link	<ul style="list-style-type: none"> • Single CAT6 / CAT6A cable, point-to-point • TX HDBaseT OUT (RJ45) ↔ RX HDBT IN (RJ45) • Up to 100 m (HBT, 4K60) / 150 m (LRM, 4K30) • Bidirectional 24V POC over the same cable
Display Side (RX)	<ul style="list-style-type: none"> • RX HDMI OUT → Display (LCD / TV / Projector / Laser Projector) • RX AUDIO OUT → External Speaker / Amplifier • RX USB 2.0 ×2 → Keyboard / Mouse / USB Storage (KVM) • RX IR OUT / RS-232 → Display Control

Power-over-Cable: Either TX or RX may be powered by the included 24V/1A locking adapter; the other unit receives power via the CAT6 cable when both POC switches are set to ON. Only one power supply is required for a complete installation.

Package Contents

- 1× CW1000K-W TX — 4K60 HDMI / USB-C 2×1 HDBaseT Wall-plate Transmitter
- 1× CW1000K-W RX — 4K60 HDBaseT Receiver
- 1× 24V / 1A Locking Power Adapter (100–240V AC, with regional plug options)
- 1× Wideband IR Receiver Cable (1.5 m)
- 1× IR Blaster Cable (1.5 m)
- 4× 3-pin 3.81 mm Phoenix Connectors (male)
- 2× 2-pin 3.81 mm Phoenix Connectors (male)
- 2× Mounting Ears
- 4× Machine Screws (M3×4)
- 1× User Manual

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