


# AT-OME-EX-TX-WPC
# Specification Sheet

**Omega™ HDBaseT Transmitter w/USB and USB-C Wall Plate**

## Description

The AT-OME-EX-TX-WPC is an HDBaseT transmitter with a USB-C input. It sends video up to 4K/30 4:4:4, plus embedded audio, control, and USB over distances up to 330 feet (100 meters). It features a US one-gang, Decora®-style wallplate form factor, and includes interchangeable black and white wallplates and faceplates. Part of the Omega™ Series of integration products for modern AV communications and collaboration, the AT-OME-EX-TX-WPC is HDCP 2.2 compliant and extends RS-232 control signals. The USB-C input is ideal for AV interfacing with newer Mac®, Chromebook™, and Windows® PCs, as well as smartphones and tablets. With a matching HDBaseT receiver, the integrated USB extension addresses the challenge of connecting between USB devices at remote locations, and is ideal for software video conferencing and touch or interactive displays. The AT-OME-EX-TX-WPC includes a PC host interface over USB-C, plus a USB 2.0 interface for a peripheral device such as a speakerphone, microphone, or keyboard and mouse. This transmitter is ideal for use with Omega Series receivers as well as switchers with HDBaseT inputs.

## Applications

### Complete System Integration

- The AT-OME-EX-TX-WPC and AT-OME-SR21 together provide a compact, yet comprehensive and cost-effective integration solution, with 4K scaling, display control, HDBaseT link testing, and audio system interfacing provided by the receiver.

### Lecture Halls and Training Rooms

- Extend AV connectivity from an AT-OME-PS62 in a central equipment rack to lecterns as well as wall and floor box locations, where presenters can easily access the system.

### Video Conferencing

- With a compatible Omega Series receiver or switcher, ideal for soft codec and web-based conferencing with PCs, cameras, speakerphones, and microphones.

## Key Features

### US one-gang enclosure for Decora®-style wallplate openings, with interchangeable black or white trim kits

- Allows inconspicuous installation on a wall, in furniture, or in a floor box. Includes black and white wallplates and faceplates.
- Meets end-user requirements for conveniently accessible yet discreet AV connectivity.

### USB-C input for AV and data

- Immediate compatibility with laptops and tablets with USB-C ports that support AV. The USB-C port does not supply device power.
- No need for USB-C to HDMI adapters.

### Video, audio, power, and data over category cable using HDBaseT technology

- Transmits 4K/UHD video up to 330 feet (100 meters) with Cat 6/6a/7 cable, or up to 295 feet (90 meters) with Cat 5e cable.
- Uses easy-to-integrate category cable for low-cost, reliable system installation.

### USB 2.0 interfacing and extension up to 330 feet (100 meters)

- USB-C interface for a host PC, plus a USB Type-A port for a peripheral device such as a microphone, speakerphone, or keyboard and mouse.
- Provides an ideal USB integration solution for software video conferencing and interactive collaboration (up to 120 Mbps over HDBaseT).

### 4K/UHD capability at 30 Hz with 4:4:4 chroma subsampling

- Transmits video up to and including 4K/UHD @ 30 Hz 4:4:4 8-bit.
- Supports video data rates up to 10 Gbps from PCs, media players, and Ultra HD Blu-ray players.

### HDCP 2.2 compliant

- Adheres to the latest specification for High-bandwidth Digital Content Protection.
- Allows protected content to pass between authenticated devices.

### Remote powering over HDBaseT

- IEEE 802.3af PoE is supplied by a compatible receiver or switcher over HDBaseT.
- Allows convenient wall, floor box, or furniture installation without local AC power.

## Specifications

| Video | |
|---|---|
| Signal | Input: DisplayPort Alternate Mode (USB-C)<br>Output: HDBaseT |
| Copy Protection | HDCP 1.4 / 2.2 |
| Pixel Clock | 300 MHz |
| UHD / HD / SD | 4096 × 2160 (DCI) @ 24, 30 Hz<br>3840 × 2160 (UHD) @ 24, 25, 30 Hz<br>2560 × 1440 @ 30 Hz<br>1920 × 1080p @ 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 Hz<br>1920 × 1080i @ 25, 29.97, 30 Hz<br>1280 × 720p @ 30, 50, 59.94, 60 Hz<br>720 × 576i/p @ 50 Hz<br>720 × 480i/p @ 60 Hz |
| VESA | 2560 × 1600, 1920 × 1200, 1680 × 1050, 1600 × 1200, 1440 × 900, 1400 × 1050, 1366 × 768, 1360 × 768, 1280 × 1024, 1280 × 800, 1152 × 864, 1024 × 768, 800 × 600, 640 × 480 — all @ 60 Hz |
| VESA 21:9 | 2560 × 1080 @ 30 Hz 4:4:4<br>2560 × 1080 @ 60 Hz 4:4:4<br>3440 × 1440 @ 30 Hz 4:4:4<br>3440 × 1440 @ 50 Hz 4:4:4<br>3840 × 1600 @ 30 Hz 4:4:4 |
| Color Space | YUV, RGB |
| Chroma Subsampling | 4:4:4 |
| Color Depth | 8-bit, 10-bit, 12-bit |

| Audio | |
|---|---|
| Pass-Through Formats | PCM 2.0, LPCM 5.1, LPCM 7.1, Dolby® Digital, Dolby Digital Plus™, Dolby TrueHD, Dolby Atmos®, DTS® Digital Surround™, DTS-HD Master Audio™, DTS:X® |
| Bit Rate | 24 Mbps maximum |
| Sample Rate | 32, 44.1, 48, 88.2, 96, 176.4, 192 kHz |

| USB | |
|---|---|
| Signal | USB 2.0 |
| Maximum Data Rate | 120 Mbps |
| Internal Hubs | 1 USB hub |

| RS-232 | |
|---|---|
| Default Parameters | 115200 baud, 8 data bits, no parity, 1 stop bit |
| Use | Connected display or source control |
| Baud Rates | 2400, 4800, 9600, 19200, 38400, 57600, 115200 |
| Data Flow | Bi-directional |

| Connectors | |
|---|---|
| USB-C | 1× USB Type-C, 24-pin female |
| HDBaseT OUT | 1× RJ45 |
| DEVICE | 1× USB Type-A |
| RS-232 | 1× 3-pin captive screw |

| Indicators | |
|---|---|
| PWR | 1× LED, green |
| LINK | 1× LED, yellow |

| Cable / Resolution | 4K/UHD | 1080p |
|---|---|---|
| USB-C | 6 ft (2 m) | 6 ft (2 m) |
| Cat 5e | 295 ft (90 m) | 330 ft (100 m) |
| Cat 6 / 6a / 7 | 330 ft (100 m) | 330 ft (100 m) |

| Power | |
|---|---|
| Consumption | Unit only: 12.5 W<br>Full load: 15.07 W (while powering a USB Type-A device up to 2.5 W) |
| Supply | PoE via the connected receiver |
| BTU/h | Unit only: 42.6<br>Full load: 51.4 |

| Environmental | Fahrenheit | Celsius |
|---|---|---|
| Operating Temperature | +32 to +104 °F | 0 to +40 °C |
| Storage Temperature | -4 to +140 °F | -20 to +60 °C |
| Operating Humidity (RH) | 20% to 60%, non-condensing | |

| Dimensions (H × W × D) | Inches | Millimeters |
|---|---|---|
| Unit | 4.07 × 1.80 × 2.63 in | 103.5 × 45.8 × 67.0 mm |

| Weight | Pounds | Kilograms |
|---|---|---|
| Device | 0.40 lb | 0.18 kg |

| Certifications | |
|---|---|
| Device | FCC, CE, RoHS |

| Compliance | |
|---|---|
| NDAA-889 | Yes |
| TAA | Yes |

| Warranty | |
|---|---|
| Device | To view the product warranty, visit: hallresearch.com/warranty |

The AT-OME-EX-TX-WPC is not compatible with the AT-UHD-HDVS-300 system for USB extension.

The USB-C port does not support device powering. Maximum 120 Mbps USB data rate over HDBaseT.

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