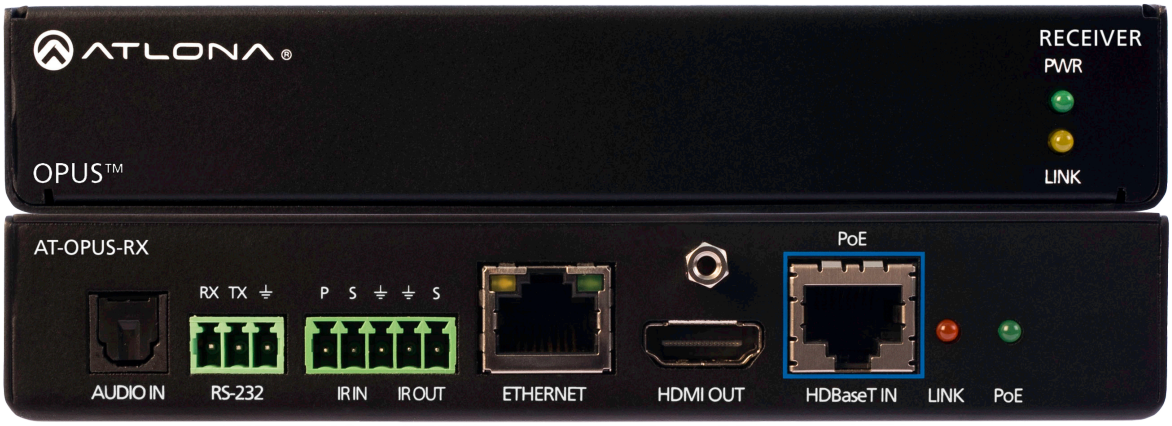
Opus

# 4K HDR HDMI Over 100 M HDBaseT RX

for Opus Series Matrix Switchers




## Introduction

The Atlona AT-OPUS-RX is an HDBaseT receiver for high dynamic range (HDR) formats, designed for use with the Opus™ Series of HDMI to HDBaseT matrix switchers. The OPUS-RX is HDCP 2.2 compliant and supports 4K/UHD video @ 60 Hz with 4:4:4 chroma sampling, as well as HDMI data rates up to 18 Gbps. It receives HDMI, Ethernet pass-through, and bidirectional IR and RS-232 control signals up to 330 feet (100 meters) over CAT6a/7 cable. Visually lossless VESA Display Stream Compression (DSC) enables HDR and 4K/60 4:4:4 video signal extension over HDBaseT with no latency. For additional integration convenience, the receiver is remotely powered by an Opus Series matrix switcher through Power over Ethernet (PoE). The OPUS-RX can transmit digital audio from a television back to an AV receiver through a dedicated HDBaseT audio return path to the matrix switcher.

## Applications

- **Residential installations**
  An Opus system of matrix switchers and OPUS-RX receivers is ideal as the AV distribution centerpiece for whole-house video and audio.
- **Commercial applications**
  Opus systems are also ideal for a variety of light commercial, education, and corporate applications requiring compatibility with new and forthcoming devices for 4K presentations.

## Key Features

**4K/UHD capability @ 60 Hz with 4:4:4 chroma sampling, plus support for HDR formats**

- Ideal for with new and emerging 4K/UHD and HDR-capable sources and displays. Supports HDR10 @ 60 Hz and Dolby Vision @ 30 Hz, as well as HLG.
- Fully supports video resolutions, audio formats, and color space formats in the HDMI 2.0b specification.

**HDCP 2.2 compliant**

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

**HDBaseT receiver for HDMI, Ethernet, power, and control up to 330 feet (100 meters)**

- Receives HDMI up to 330 feet (100 meters) @ 4K HDR using CAT6a/7 cable.
- Uses easy-to-integrate category cable for low-cost, reliable system installation.

**Remotely powered by Opus matrix switcher via PoE (Power over Ethernet)**

- Power for receiver is supplied by an Opus Series matrix switcher over HDBaseT.
- Allows convenient receiver installation at a display or projector without the need for local AC power.

**Extends RS-232, IR, and Ethernet control signals over HDBaseT**

- Bidirectional extension of RS-232, IR, and Ethernet control signals.
- Streamlines integration of control for displays.

**Visually lossless VESA Display Stream Compression**

- Enables HDBaseT transmission of HDMI up to 18 Gbps using extremely light video compression.
- Innovative signal extension solution delivers very high, pristine image quality.

**Delivers return audio from a TV via dedicated HDBaseT audio return path**

- Provides a return audio pathway from a television, via TOSLINK digital audio interface, back to the Opus matrix switcher over HDBaseT.
- Easy and convenient integration of television audio for over-the-air broadcasts, OTT (over-the-top) media services, and more.

**Integrated HDBaseT link status monitoring**

- Continuously monitors integrity of the HDBaseT cable link between the Opus matrix switcher and receiver. Web GUI provides real-time link status, plus detailed HDBaseT and HDMI signal information.
- Quick, easy verification or troubleshooting of RJ-45 termination or twisted pair cable quality.

## Specifications

| Video | | |
|---|---|---|
| Signal | Input - HDMI<br>Output - HDMI | |
| Copy Protection | up to 2.2 | |
| Bandwidth | 18 Gbps | |
| UHD/HD/SD | 4096x2160@60/50/30/25/24Hz<br>3840×2160@60/50/30/25/24Hz<br>2048x1080p<br>1920x1080p@60/59.9/50/30/29.97/25/24/23.98Hz<br>1920x1080i@30/29.97/25Hz | 720p@60/59.94/50Hz<br>576p@50Hz<br>576i@25Hz<br>480p@60/59.96Hz<br>480i@30Hz |
| VESA<br>All resolutions are 60Hz | 2560x2048<br>2560×1600<br>2048×1536<br>1920×1200<br>1680×1050<br>1600×1200<br>1600x900<br>1440×900<br>1400×1050 | 1366×768<br>1360×768<br>1280×1024<br>1280×800<br>1280x768<br>1152×864<br>1024×768<br>800×600 |
| Color Space | YUV, RGB | |
| Chroma Subsampling | 4:4:4, 4:2:2, 4:2:0 | |
| Color Depth | 8-bit, 10-bit, 12-bit | |
| HDR | HDR10, Hybrid-Log Gamma (HLG) @ 60Hz, and Dolby® Vision™ @ 30Hz | |

| Audio | | | |
|---|---|---|---|
| HDMI Pass-Through Formats | PCM 2.0<br>LPCM 5.1<br>LPCM 7.1 | Dolby® Digital<br>Dolby Digital Plus™<br>Dolby TrueHD<br>Dolby Atmos® | DTS® Digital Surround™<br>DTS-HD Master Audio™<br>DTS:X® |
| TOSLINK | PCM 2.0 | Dolby Digital | DTS Digital Surround |
| Sample Rate | 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz | | |
| Bit Rate | 24 Mbits/s max | | |

| Resolution / Distance | 4K/UHD - Feet / Meters | | 1080p - Feet / Meters | |
|---|---|---|---|---|
| HDMI IN/OUT | 15 | 5 | 30 | 10 |
| CAT5e | 295 | 90 | 330 | 100 |
| CAT6/6a/7 | 330 | 100 | 330 | 100 |

| Indicators | |
|---|---|
| PWR | 1 - LED, green |
| LINK | 1 - LED, yellow |
| HDBaseT LINK | 1 - LED, red |
| HDBaseT PoE | 1 - LED, green |

| Connectors | |
|---|---|
| HDBaseT IN | 1 - RJ45 |
| HDMI OUT | 1 - Type A, 19-pin female |
| TOSLINK IN/OUT | 1 - S/PDIF, Optical fiber connector |
| LAN | 1 - RJ45 |
| DEBUG | 1 - Mini-USB, 5-pin female |
| RS-232 | 1 - 3-pin captive screw |
| IR IN/OUT | 1 - 2-pin captive screw |

| Temperature | Fahrenheit | Celsius |
|---|---|---|
| Operating | 32 to 104 | 0 to 40 |
| Storage | -40 to 158 | -40 to 70 |
| Humidity (RH) | 20% to 90%, non-condensing | |

| Power | |
|---|---|
| Consumption | 6.6W over PoE |
| BTU/h | 22.5 |

| Dimensions (H x W x D) | Inches | Millimeters |
|---|---|---|
| Unit | 1.02 x 6.86 x 3.51 | 26 x 174.2 x 89.16 |
| With Ears | 1.02 x 1 x 3.51 | 26 x 1 x 89.16 |

| Weight | Pounds | Kilograms |
|---|---|---|
| Device | 0.99 | 0.45 |

| Certification | |
|---|---|
| Device | CE, FCC, UL |

| Warranty | |
|---|---|
| Device | To view the product warranty, use the following link: https://atlona.com/warranty |

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