

AT-OME2-D2311
Specification Sheet

Omega 2 HDBaseT 3 Video Receiver with HDMI and USB Data | 100m

Description

The AT-OME2-D2311 is an Omega 2 HDBaseT 3.0 receiver that delivers uncompressed HDMI 2.0 video up to 4K@60Hz 4:4:4, with HDCP 2.2, from a compatible transmitter up to 330 feet (100 meters) away over a single Cat 6A cable. Four USB 2.0 Type-A DEVICE ports extend keyboards, mice, cameras, and other USB peripherals back to the host computer at up to 480 Mbps, with two high-power ports for demanding devices. The receiver also provides analog audio output of the transmitter's pass-through audio, de-embedded HDMI audio, bi-directional RS-232, and 1 Gbps Ethernet pass-through. Bi-directional Power over HDBaseT (PoH) lets the included 12 V power supply power both the receiver and the transmitter. A front-panel DIP switch sets the RS-232 port for pass-through or firmware update. The AT-OME2-D2311 pairs with the AT-OME2-E2311 transmitter, the AT-OME2-E2321-WP wall plate transmitter, and the AT-OME2-R2742 switcher.

Applications

Conference Rooms

- Connect a display, USB camera, and speakerphone at the front of the room to a table or rack-mounted PC.

Classrooms and Lecture Halls

- Receive a lectern source at the projector or flat panel, with USB for touch displays and document cameras.

Control Rooms and KVM

- Operate remotely located computers from a workstation with HDMI, keyboard, and mouse.

Digital Signage

- Drive a remote 4K display with RS-232 control and network access at the screen.

Key Features

- HDBaseT 3.0 receiver — uncompressed HDMI 2.0 up to 4K@60Hz 4:4:4 8-bit; HDCP 2.2.
- Up to 330 ft (100 m) at 4K@60Hz 4:4:4 over Cat 6A; 230 ft (70 m) at 4K@60Hz 4:2:0 over Cat 5e/6.

- HDR support, including Dolby Vision and HDR10+.
- 4× USB 2.0 Type-A DEVICE ports at up to 480 Mbps; two ports supply up to 1.4 A for high-power devices.
- HDMI audio pass-through including Dolby Atmos®, Dolby® TrueHD, DTS-HD® Master Audio™, and DTS:X®.
- Analog AUDIO OUT for the transmitter's pass-through audio, plus a de-embedded AUDIO OUT.
- 1000/100 Mbps Ethernet pass-through over the HDBaseT link.
- Bi-directional RS-232 pass-through.
- Bi-directional PoH — the included 12 V power supply powers both units.
- Mounting brackets included for surface installation.
- Pairs with the AT-OME2-E2311, AT-OME2-E2321-WP, and AT-OME2-R2742.

Specifications

Video	
Signal Input	HDBaseT 3.0
Signal Output	HDMI 2.0
Copy Protection	HDCP 2.2
Maximum Data Rate	18 Gbps
Maximum Resolution	4K@60Hz 4:4:4 8-bit, uncompressed
UHD / HD Resolutions	4096 × 2160 @ 24, 30, 50, 59.94, 60 Hz (4:4:4) 3840 × 2160 @ 24, 30, 60 Hz (4:4:4) 1920 × 1080p @ 60 Hz
VESA Resolutions	2560 × 1600, 2560 × 1440, 1920 × 1200, 1680 × 1050, 1600 × 1200, 1600 × 900, 1440 × 900, 1366 × 768, 1360 × 768, 1280 × 1024, 1280 × 960, 1280 × 800, 1280 × 768, 1280 × 720, 1024 × 768, 800 × 600 — all @ 60 Hz
HDR	Supported, including Dolby Vision and HDR10+

Audio	
HDMI / HDBaseT Formats	PCM 2.0 / 5.1 / 7.1, Dolby® TrueHD, Dolby Atmos®, DTS-HD® Master Audio™, DTS:X®
AUDIO OUT (Pass-Through)	Analog stereo, from the transmitter's AUDIO IN
AUDIO OUT (De-Embedded)	Analog stereo

USB	
Standard	USB 2.0; backward compatible with USB 1.1/1.0
Data Rate	USB 2.0, 480 Mbps standard; up to 350 Mbps data transfer over HDBaseT
Device Ports	4× USB Type-A
Port Power	Top two ports: 1.4 A max.; bottom two ports: 0.6 A max.

Control and Network	
RS-232	Bi-directional pass-through; firmware update
DIP Switch (SET)	Switches 3–4: Up/Up = RS-232 pass-through (default); Down/Up = MCU firmware update; Up/Down = HDBaseT chipset firmware update
Ethernet	1000/100 Mbps auto-sensing pass-through over HDBaseT

Connectors	
HDBaseT IN	1× RJ45
HDMI OUT (VIDEO OUT)	1× HDMI Type A, 19-pin female
USB DEVICE	4× USB 2.0 Type-A
AUDIO OUT (front)	1× 3.5 mm stereo jack (pass-through audio)
AUDIO OUT (rear)	1× analog stereo output (de-embedded audio)
RS-232	1× 3-pin captive screw (3.5 mm)
LAN	1× RJ45
SET	1× 4-position DIP switch
Power	1× DC 12 V input

Indicators	
POWER	On: powered; off: no power; blinking: firmware update in progress
LINK	On: HDBaseT link established; off: no link or link error
VIDEO	On: active HDMI output; off: no or inactive video signal

Cable	Maximum Distance	Supported Video
Cat 6A/7 (U/FTP or F/FTP)	330 ft (100 m)	All formats up to 4K@60Hz 4:4:4, 4K@30Hz, 1080p@60Hz
Cat 5e/6	230 ft (70 m)	4K@60Hz 4:2:0, 4K@30Hz, 1080p@60Hz
Cat 5e/6	131 ft (40 m)	4K@60Hz 4:4:4, 4K@60Hz 4:2:2
Cat 6A (U/FTP), with patch cables	330 ft (100 m)	4K@60Hz 4:2:0, 4K@30Hz, 1080p@60Hz
Cat 6A (U/FTP), with patch cables	230 ft (70 m)	4K@60Hz 4:4:4, 4K@60Hz 4:2:2
Cat 5e/6, with patch cables	230 ft (70 m)	4K@60Hz 4:2:0, 4K@30Hz, 1080p@60Hz
Cat 5e/6, with patch cables	100 ft (30 m)	4K@60Hz 4:4:4, 4K@60Hz 4:2:2

Use straight-through T568B category cable; Cat 6A U/FTP or F/FTP is recommended for full HDMI 2.0 resolutions. Up to two patch cables, each no longer than 16 ft (5 m), may be used — one at each end of the link.

Power	
Input	DC 12 V, 3 A (power supply included); powers the paired transmitter by bi-directional PoH
Consumption	18.96 W max. (when paired with the AT-OME2-E2311)

Environmental		
Operating Temperature	+32° to +113°F	0° to +45°C
Storage Temperature	-4° to +158°F	-20° to +70°C
Humidity (RH)	10% to 90%, non-condensing	
ESD Protection (Human-Body Model)	±8 kV air-gap discharge	±4 kV contact discharge

Dimensions (W × H × D)		
Unit	8.46 × 0.98 × 4.72 in.	215 × 25 × 120 mm

Weight		
Device	1.06 lbs	0.48 kg

Package Contents	
Included	1× AT-OME2-D2311 receiver 1× DC 12 V power supply 1× AC power cord 1× 3-pin captive screw connector (3.5 mm) 4× mounting brackets with screws

Certifications	
Regulatory	FCC, CE, RoHS

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

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