ATLONA
a PANDUIT company

Omega™

4K/UHD 6x2 Matrix Switcher

for HDMI, USB-C, and HDBaseT with USB

Introduction

The Atlona AT-OME-PS62 is a 6x2 matrix presentation switcher with HDMI, USB-C, and HDBaseT inputs, plus HDMI and HDBaseT outputs. Part of the Omega™ Series of integration products for modern AV communications and collaboration, the OME-PS62 features HDBaseT extension for video up to 4K/60 4:2:0, plus embedded audio, control, Ethernet, and USB over distances up to 330 feet (100 meters). The HDMI and USB-C ports support video up to UHD/60 4:4:4. The OME-PS62 is HDCP 2.2 compliant and features 4K/60 4:4:4 upscaling and downscaling for the HDMI output. 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 OME-PS62 includes USB 3.0 and USB-C interfaces for three host PCs, plus two peripheral devices such as a camera, microphone, speaker phone, or keyboard and mouse. The OME-PS62 is ideal for a wide range of 4K presentation applications with Omega Series transmitters and receivers.

Applications

- **Meeting rooms and conference rooms**
  The OME-PS62 can serve as an AV integration centerpiece in a credenza, with interfacing into sources in the rack, plus remote AV and USB connectivity from wall, table, and display locations.
- **Video conferencing and USB data**
  With compatible Omega Series endpoints, this presentation switcher provides interfacing for local and remote USB devices for soft codec conferencing, with video and USB switched together between host PCs. As a matrix switcher with scaling, the OME-PS62 is also ideal for hardware-based video conferencing, with the ability to route and optimize any source content to the codec far-end.
- **Auditoriums and lecture halls**
  The HDBaseT output of the OME-PS62 can be used to extend 4K video to a projector, while the HDMI output serves to optimize for a 1080p or 4K confidence monitor. Also available is a microphone input and mixing with program audio.
- **Active learning classrooms**
  In education applications, the OME-PS62 can be installed below each student table, with the HDMI output feeding a local display, and the HDBaseT output used to send content to the main classroom AV switcher and display.
- **Lecture capture**
  The secondary, HDMI output can also be used to feed into a lecture capture or streaming video system, with video scaled as appropriate for the application.

Key Features

6×2 AV matrix switcher with HDBaseT, HDMI, and USB-C inputs

- Features two HDBaseT and three HDMI inputs, plus a USB-C input.
- Delivers flexible BYOD capability, as well as integration versatility for local and remote AV sources.

USB-C input for AV, data, and device charging

- Provides immediate compatibility with laptops and tablets with USB-C ports supporting AV output.
- Allows clutter-free, single cable connectivity to a PC for video conferencing and collaboration.

HDBaseT and HDMI outputs with selectable AV switching modes

- HDBaseT output transmits AV, control, and Ethernet up to 330 feet (100 meters) @ 1080p with CAT5e/6 or 4K/UHD using CAT6a/7 cable.
- Three selectable switching modes, including mirrored HDMI and HDBaseT outputs, matrixed outputs (default), and a special mode with one input fixed to one of the outputs.

4K/UHD downscaling and upscaling for HDMI output

- Preserves color and spatial detail when down-converting 4K content to 1080p or vice versa. Ideal for presentation applications where content is to be viewed on 4K and HD displays.
- Also ideal for downscaling to 1080p for hardware video conferencing codecs and lecture capture systems.

USB 3.0 hub and extension over HDBaseT

- Two USB type B interfaces for connection to a host PC, plus two USB type A ports for peripheral devices such as cameras, soundbars, or touch displays. USB-C input is also available for data connection to a host PC or USB peripheral.
- Provides an ideal USB integration solution for software video conferencing and other applications.

Splash screen customizable with welcome message

- The OME-PS62 can display a welcome screen with messaging, such as BYOD connection or room scheduling information.
- Splash screen background images can be uploaded or served over the network.

Comprehensive audio integration features

- Audio embedding and de-embedding, microphone/line level input with 48 volt phantom power and automatic ducking, audio output matrix mixing, and volume, mute, and five-band EQ for each output.
- Integrated audio processing and optimization features without the need for additional equipment.

Power over Ethernet (PoE) for transmitters and receivers

- Supplies industry standard IEEE 802.3af PoE over HDBaseT to Omega Series and other compatible transmitters and receivers.
- Allows convenient endpoint installation at remote locations without the need for local AC power.

Display control

- Supports CEC and bidirectional RS-232 to control local and remote displays.
- Bidirectional conversion of control data from TCP/IP to and from RS-232.

Specifications

Video	
HDMI	2.0 (1.4 when downscaled)
HDCP	2.2 / 1.4
UHD/HD/SD	4096x2160@60(1)/50/30/25/24Hz, 3840×2160@60(1)/50/30/25/24Hz, 1080p@60/59.9/50/30/29.97/25/24/23.98Hz, 1080i@30/29.97/25Hz, 720p@60/59.94/50Hz, 576p@50Hz, 576i@25Hz, 480p@60/59.96Hz, 480i@30Hz
VESA	2560×1600, 2048×1536, 1920×1200, 1680×1050, 1600×1200, 1440×900, 1400×1050, 1280×1024, 1280×800, 1366×768, 1360×768, 1152×864, 1024×768, 800×600, 640×480
USB-C	Up to 4K/UHD @ 60Hz
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), and Dolby® Vision™ @ 60Hz; HDMI and USB-C ports only

Audio	
HDMI / HDBaseT 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™, and DTS:X®
Bit Rate	24 Mbits/s max
Analog Audio	
Format	Stereo 2-Channel
Balanced Output	+4 dBu nominal gain, +20 dB headroom
Frequency Response	20 Hz to 20 kHz, ± 0.5 dB
Impedance	150 Ω
Stereo channel separation	> 90 dB
THD+N	< 0.004% at 20 Hz to 20 kHz
SNR	> 103.7 dB at 1 kHz, zero clipping @ 0 dBFS, unweighted
EQ	5 band, 63Hz, 85Hz, 250Hz, 1kHz, 4kHz
MIC	
Phantom Power	48V, enable and disable through webGUI / 3-pin MIC option
Ducking	Selectable on/off
Trigger level	Selectable, -60 to -10 dB
Attack Time	Selectable, 1 to 5000 ms
Release Time	Selectable, 1 to 5000 ms
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz

USB	
Signal	2.0
Maximum Data Rate	120 Mbps
USB-C	Supports Audio, Video, and device & host data

Control	
RS-232	Device control and configuration Bidirectional pass-through from control system over HDBaseT Supported baud rates: 2400, 4800, 9600, 19200, 38400, 57600, 115200
IP	Protocols: Https, Telnet, mDNS Modes: DHCP, Static - selectable through front panel and webGUI
CEC Support	Yes

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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

Connectors, Controls, and Indicators	
HDMI IN	3 - Type A, 19-pin female
HDBaseT IN	2 - RJ45, female
USB-C IN	1 - USB Type-C v3.1, 24-pin female, AV input (Alternate Mode)
HDMI OUT	1 - Type A, 19-pin female
HDBaseT OUT	1 - RJ45, female
USB HUB	2 - Type A, 4-pin female
USB HOST	2 - Type B, female
LINE/MIC IN	1 - 6-pin captive screw, balanced / unbalanced line level input w/3-pin MIC option
LINE/MIC Switch	1 - 3 position switch - MIC, 48V, and LINE
AUDIO IN	2 - 5-pin captive screw, balanced / unbalanced 2-channel
AUDIO OUT	2 - 5-pin captive screw, balanced / unbalanced 2-channel
RS-232	2 - 3-pin captive screw (bidirectional)
LAN	2 - RJ45, 100Base-T
PWR	1 - Internal 100-240 VAC 50/60Hz, IEC female connector
Control Buttons: MENU, NAV, and NUMBER IP MODE and RESET	 10 - momentary, tact-type 2 - momentary, recessed
Function Indicators: IP MODE, RESET	 2 - LED, green

Temperature	Fahrenheit	Celsius
Operating	32 to 122	0 to 50
Storage	-4 to 140	-20 to 60
Humidity (RH)	20% to 60%, non-condensing	

Power	
Consumption	TBD
Supply	100-240 VAC, 50/60Hz

Dimensions	Inches	Millimeters
H x W x D	1.73 x 17.24 x 10	44 x 438 x 254

Weight	Pounds	Kilograms
Device	7.76	3.52

Certification	
Device	CE, FCC, UL

(1) UHDp60 only supports 4:2:0 over HDBaseT.