



AT-OPUS-810M



AT-OPUS-68M



AT-OPUS-46M

Introduction

The Atlona AT-OPUS-46M, AT-OPUS-68M, and AT-OPUS-810M are part of the Opus™ Series of HDMI® to HDBaseT™ matrix switchers for high dynamic range (HDR) formats. These 4x6, 6x8, and 8x10 matrix switchers are HDCP 2.2 compliant and support 4K/UHD video @ 60 Hz with 4:4:4 chroma sampling, as well as HDMI data rates up to 18 Gbps. The Opus Series enables flexible routing to HDBaseT outputs plus two additional HDMI outputs, and is compatible with the Atlona AT-OPUS-RX receiver or AT-JUNO-451-HDBT switcher for transmission of 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 signal extension over HDBaseT with no latency. Opus matrix switchers are equipped with a comprehensive host of audio and control system integration features, making them ideal for a wide range of residential and commercial applications requiring multi-zone AV distribution.

Key Features

HDBaseT outputs for transmission of HDMI, Ethernet, power, and control up to 330 feet (100 meters)

- Extends HDMI up to 330 feet (100 meters) @ 4K HDR using CAT6a/7 cable. Bidirectional extension of RS-232, IR, and Ethernet control signals.
- Delivers 4K HDR extension to AT-OPUS-RX receivers, or AT-JUNO-451-HDBT switchers with HDBaseT input.

Two HDMI outputs

- Opus Series matrix switchers include two 4K HDR HDMI outputs.
- Provides additional flexibility to facilitate a variety of output needs and destinations.

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

- Ideal for 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.

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.

Flexible, independent audio matrix switcher

- Provides audio matrix routing for the analog audio outputs from any of the source HDMI audio inputs, TOSLINK inputs, analog audio inputs, and the return audio from any television over HDBaseT.
- Simultaneous TOSLINK and analog stereo outputs provided for each HDBaseT and HDMI output. Flexible options for integrating with whole-house audio systems.

Comprehensive IR control management for sources and displays

- Direct interfacing of IR from a control processor to each HDBaseT output.
- Opus Series also allows remote IR control of source devices from OPUS-RX locations.

Specifications

Video		
Signal	Input - HDMI Output - HDMI, HDBaseT	
Copy Protection	HDCP 2.2	
Pixel Clock	600 MHz	
UHD/HD/SD	4096×2160@24/25/30/50/60Hz 3840×2160@24/25/30/50/60Hz 2048×1080p 1920×1080p@23.98/24/25/29.97/30/50/ 59.94/60Hz 1920×1080i@50/59.94/60Hz	1280×720p@50/59.94/60Hz 720×576p 720×576i 720×480p 720×480i
VESA All resolutions are 60Hz	2560×2048 2560×1600 2048×1536 1920×1200 1680×1050 1600×1200 1600×900 1440×900 1400×1050	1366×768 1360×768 1280×1024 1280×800 1280×768 1152×768 1024×768 800×600
Color Space	YUV, RGB	
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0	

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™ DTS:X®
TOSLINK	PCM 2Ch, Dolby® Digital, DTS® 5.1		
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	< 0.03% at 20 Hz to 20 kHz		
SNR	> 90 dB at 1 kHz, zero clipping @ 0 dBFS, unweighted		
EQ	5 band, 63Hz, 85Hz, 250Hz, 1kHz, 4kHz		
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz		

Ethernet	
Port	1 x RJ45
Standards and Protocols	HTTPS, Telnet, mDNS
Speeds	Local: 10/100/1000 Mbps Over HDBaseT: 10/100 Mbps
Addressing	DHCP, Static – selectable through IP & RS-232 commands, and built-in web server

RS-232	
Port	1 x 5-pin captive screw (RX, TX, GND only)
Use	OPUS matrix control and pass-through for zone control
Baud Rates	2400, 4800, 9600, 19200, 38400, 57600, 115200
Data flow	Bidirectional

IR	
Port	Matrix IR IN (all units): 1 x 5-pin captive screw (S, GND only) OPUS-810M: 9 x 4-pin captive screw OPUS-68M: 7 x 4-pin captive screw OPUS-46M: 5 x 4-pin captive screw
Use	Matrix control and pass-through zone control
Frequency Range	30 kHz to 60 kHz

CEC	
Port	1 x HDMI, Type A, 19-pin female
Triggering	Through IP, RS-232, and built-in web server

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

Buttons and Indicators			
Buttons: POWER, ENTER, FNC, CANCEL, EDID, INFO 1 - 9, 0	14 x buttons, momentary, tact-type		
Indicators: POWER (backlit) LINK PoE	OPUS-810M: 1 x LED, blue 8 x LED, yellow 8 x LED, green	OPUS-68M: 1 x LED, blue 6 x LED, yellow 6 x LED, green	OPUS-46M: 1 x LED, blue 4 x LED, yellow 4 x LED, green

Connectors	
HDMI IN	OPUS-810M: 8 x Type A, 19-pin female OPUS-68M: 6 x Type A, 19-pin female OPUS-46M: 4 x Type A, 19-pin female
HDBaseT OUT	OPUS-810M: 8 x RJ45 OPUS-68M: 6 x RJ45 OPUS-46M: 4 x RJ45
HDMI OUT	2 x Type A, 19-pin female
LAN	1 x RJ45, 100Base-T
AUDIO IN	2 x 3-pin captive screw
AUDIO OUT	OPUS-810M: 10 x 3-pin captive screw, unbalanced 2-channel OPUS-68M: 8 x 3-pin captive screw, unbalanced 2-channel OPUS-46M: 6 x 3-pin captive screw, unbalanced 2-channel
TOSLINK IN	OPUS-810M: 4 x TOSLINK OPUS-68M: 3 x TOSLINK OPUS-46M: 2 x TOSLINK
TOSLINK OUT	OPUS-810M: 10 x TOSLINK OPUS-68M: 8 x TOSLINK OPUS-46M: 6 x TOSLINK
RS-232 / IR IN	1 x 5-pin captive screw (bidirectional)
IR IN	OPUS-810M: 4 x 4-pin captive screw OPUS-68M: 3 x 4-pin captive screw OPUS-46M: 2 x 4-pin captive screw
IR OUT	OPUS-810M: 5 x 4-pin captive screw OPUS-68M: 4 x 4-pin captive screw OPUS-46M: 3 x 4-pin captive screw
FW	1 x Mini-USB
CHASSIS GROUND	1 x Machine screw
PWR	1 x IEC connector

Environmental	Fahrenheit	Celsius
Operating Temperature	+32 to +104	0 to +40
Storage Temperature	-4 to +158	-20 to +70
Operating Humidity (RH)	20% to 90%, non-condensing	

Power	
Consumption	160 W
Idle Consumption	115 W
External Power Supply	100 - 240 V AC, 50/60 Hz Output: 5 V / 4 A DC

Dimensions (H x W x D)	Inches	Millimeters
Unit	3.47 x 17.24 x 11.79	88 x 438 x 299
Unit (w/feet)	3.89 x 17.24 x 11.79	98.8 x 438 x 299
Rack Size	2U	

Weight	Pounds	Kilograms
Device	11.91	5.4

Certification	
Device	CE, FCC
Power Supply	CE, FCC, UL, TUV, RoHS

Accessories

SKU	Description
AT-LC-H2H-1M	LinkConnect HDMI to HDMI 1 Meter Cable
AT-LC-H2H-2M	LinkConnect HDMI to HDMI 2 Meter Cable
AT-LC-H2H-3M	LinkConnect HDMI to HDMI 3 Meter Cable

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