Introduction

The Atlona AT-UHD-PRO3-88M is a dual-distance 8x8 HDMI to HDBaseT™ matrix switcher for 4K/UHD @ 60Hz video signals with Power over Ethernet for receivers and analog audio breakout. The matrix provides flexible HDBaseT routing with both extended distance, 328 foot (100 meter) and long distance, 230 foot (70 meter) transmission over category cable with bidirectional extension of both RS-232 and IR Control. Two HDMI outputs are provided as mirrored outputs designed for routing HDMI-based audio to an AVR or as additional matrix outputs. The matrix switcher is HDCP 2.2 compliant and supports EDID communication. The matrix is control system-friendly and integrates with any TCP/IP, RS-232, or IR based control signals. Designed for multi-zone residential or commercial distribution applications, the AT-UHD-PRO3-88M features a 2U, rack-mountable enclosure with internal, international power supply.

The matrix switcher features advanced capabilities for AV signal distribution and a host of integrator-friendly features. The switcher supports 4K/UHD @ 60 Hz, 4:2:0, 8-bit video signals; offers 3D pass-through and meets HDCP 2.2 copy protection standards. Remote power for compatible Atlona UHD-EX Series HDBaseT receivers is provided using industry standard IEEE 802.3af PoE supplied by the switcher over HDBaseT links. Professional audio capabilities include analog audio de-embedding with volume, mute, and 5-band EQ for the first six output zones on line level, captive screw connectors. The matrix supports digital audio signals up to 192 kHz/24-bits. Flexible control capability is provided by the supplied IR remote, front panel control, GUI-based integrated web server as well as compatibility with TCP/IP, RS-232, or IR based control system.

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

Key Features

Eight HDBaseT outputs with dual-distance transmission of A/V, control and power signals over a single category cable

• Four extended distance, 328 foot (100 meter) outputs and three long distance, 230 foot (70 meter) outputs offer bidirectional extension of both RS-232 and IR control plus remote power.

• Ensures distance and value requirements are addressed to meet the needs of the installation and budget.

Two HDMI outputs with independently selectable mirror and matrix modes

• Switchable HDMI output can mirror any HDBaseT output for routing HDMI-based audio signals to an AVR; in matrix mode, the HDMI output can become an additional matrix output.

• Provides output flexibility to facilitate a variety of output needs and destinations.

4K/UHD capability with HDCP 2.2 copy protection

• Compatible with ultra-high definition PCs and other sources and displays and adheres to latest content protection specification.

• Future proofs AV systems in preparation for technology improvements, 4K/UHD streaming services and playback devices.

Power over Ethernet for remote-powered receivers

• Industry standard IEEE 802.3af PoE supplied by the matrix over HDBaseT.

• No local AC outlet required; saves time and integration costs.

Audio de-embedding

• Stereo, line level audio breakout with volume, mute, and 5-band EQ on captive screw connectors for three output zones.

• Provides audio signal routing to sound system.

TCP/IP, RS-232, and IR control

• Flexible control options compatible with all 3rd-party control systems .

• Reduces integration time and costs.

Specifications

Video	
Signal Type	Input - HDMI
	Output - HDBaseT, HDMI
HDCP	HDCP 2.2
Pixel Clock	300MHz

UHD/HD/SD		
	4096x2160@60[1]/50[1]/30/25/24Hz 3840×2160@60[1]/50[1]/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
Color Space	YUV, RGB	
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0	
Color Depth	8-bit, 10-bit, 12-bit	

Audio			
HDMI / HDBaseT Pass-Through Formats	PCM 2.0 LPCM 5.1 LPCM 7.1	Dolby® Digital Dolby Digital Plus™ Dolby TrueHD	DTS® Digital Surround™ DTS-HD Master Audio™
Bit Depth	Up to 24 bits		
Analog Audio			
Format	Stereo 2-Channel		
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	10/100 Mbps
Addressing	DHCP, Static – selectable through rear panel, IP & RS-232 commands, and built-in web server

RS-232	
Port	1 x 5-pin captive screw; TX, RX, GND
Use	Device control and configuration
Baud Rates	2400, 4800, 9600, 19200, 38400, 57600, 115200
Data flow	Bidirectional pass-through from control system over HDBaseT

IR	
Port	6 x 4-pin captive screw, 1 x 5-pin captive screw; S, GND
Use	Local input/output and zone control
Frequency Range	30 kHz to 60 kHz

CEC			
Port	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/6 (Port 1-4)	230	70	100	330
CAT5e/6 (Port 5-7, 9)	115	35	60	197
CAT6a/7 (Port 1-4)	100	330	100	330
CAT6a/7 (Port 5-7, 9)	70	230	70	230

Buttons and Indicators	
Buttons: Menu and Number	14 - momentary, tact-type
Indicators: Power	1 - LED, blue

Connectors	
HDMI IN	8 - Type A, 19-pin female
HDBaseT OUT	8 - RJ45, female
HDMI OUT	2 - Type A, 19-pin female
FW	1 - Micro-A USB
RS-232	1 - 3-pin captive screw (bidirectional)
IR IN	9 - 2-pin captive screw (bidirectional)
IR OUT	8 - 2-pin captive screw (bidirectional)
AUDIO OUT	6 - 4-pin captive screw, balanced / unbalanced 2-channel
RS-232	1 - 3-pin captive screw (bidirectional)
LAN	1 - RJ45, 100Base-T
PWR	1 - Internal 100-240 VAC 50/60Hz, IEC female connector

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	**Idle**: 100W **Full load**: 150W
Supply	AC100 - 240 VAC, 50/60 Hz

Dimensions	Inches	Millimeters
H x W x D w/feet	3.90 x 17.31 x 11.88	99.02 x 439.74 x 301.63
H x W x D w/rack ears	3.49 x 19.00 x 11.88	88.63 x 482.60 x 301.63
Rack Unit	1U	

Weight	Pounds	Kilograms
Device	11.40	5.18

Certification	
Device	CE, FCC, RoHS, RCM, TUV

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
AT-UHD-EX-100CE-RX	4K/UHD HDMI Over 100 M HDBaseT Receiver with Ethernet, Control, and PoE
AT-UHD-EX-70C-RX	4K/UHD HDMI Over HDBaseT Receiver with Control and PoE

Footnotes

(1) 4K/UHD @ 50/60Hz only supports 4:2:0 over HDBaseT.