4K/UHD Five-Input HDMI Switcher

with Two HDBaseT Inputs and Mirrored HDMI / HDBaseT Outputs

Introduction

The Atlona **AT-UHD-SW-5000ED** is a 5x1 switcher with two HDBaseT™ inputs, three HDMI inputs, mirrored HDMI and HDBaseT outputs, balanced audio outputs, automatic input selection, and advanced display control capability. The HDBaseT inputs match perfectly with the HDVS-200-TX modules to enable VGA and HDMI sources to be easily integrated into a system. The switcher supports 4K/UHD @ 60 Hz, 4:2:0; (10.2 Gbps). It transmits AV signals along with Ethernet, power, and control over a single cable to displays up to 328 feet (100 meters) from the switcher. Control options include automatic input selection, front-panel buttons, and compatibility with IR, RS-232, or TCP/IP-based control systems. Displays are automatically turned on and off using CEC, IP, or RS-232. Advanced features also include a web-based GUI for easy set-up and management of EDID, HDCP, and display control. The switcher offers audio de-embedding of PCM audio over HDMI to two-channel, balanced +4 dBu analog audio outputs. The switcher is a cost-effective product for professional integration featuring a compact, 1U, half-rack width enclosure that is easily installed with included 19" rack-mount brackets. Two units can be mounted side-by-side.

The **AT-UHD-SW-5000ED** enables two HDVS transmitters to be used in a single system. With Ethernet enabled HDBaseT transmission to the HDVS transmitters and the receiver control, setup and maintenance is simplified. Automatic input selection and display control simplify the system, reducing cost, reducing setup time and resulting in a better end user experience.

Applications

- **Lecture halls and various meeting spaces**
  Presentations may be given from two separate locations, both remote from the lectern, equipment rack, or credenza.

- **Conference rooms and meeting rooms**
  The SW-5000ED is compact and ideal for under-table mounting. It conveniently provides automatic switching and display control for simplified user operation, especially when laptops are brought into the system.

- **Presentation spaces where two displays are needed**
  This switcher can be installed in a lectern to serve a confidence monitor, plus the primary display in a remote location.

Key Features

Two, Ethernet-enabled HDBaseT Inputs

- Supports two HDVS-200 Series transmitters for placement at remote sources near lecterns, conference tables, and instructor's desks.
- Simplifies integration of remote sources by eliminating power supplies when used with PoE-powered transmitters[1]; single category cable carries AV signals, control and power.

Mirrored, dual outputs on HDMI and HDBaseT

- Supports dual display environments with local and extended distance 330 foot (100 meter) displays.
- Eliminates cost associated with extra extension components; simplifies installation. HDMI output can be used with additional HDBaseT transmitter.

Automatic display control

- Automatically changes projector power state based on active or standby mode of switcher. Control signals transmitted via CEC, IP, or RS-232.
- Eliminates need for complex control system in AV systems. Enables display and volume control directly. CEC enables control of low-cost consumer displays.
- Any product that has mirrored output with HDMI and HDBaseT will have CEC functionality through the HDBaseT output.

Automatic input selection using hot plug detect and video detection technology

- Selects active input when sources are connected or if there is a change in source power status.
- Eliminates need for complex control system in AV systems.

Ethernet-enabled HDBaseT

- Simplifies installation, maintenance with IP controlled switcher, transmitters and receivers using Atlona AMS.
- Configure, backup, update, maintain and monitor from a simple PC interface.

IR, RS-232 and Ethernet HDBaseT insertion

- Adds internally-generated or externally-generated display control signals to the HDBaseT transmission.
- Simplifies display control from third-party control systems.

EDID management and HDCP management

- Manages EDID communications between source and display; allows integrators to force sources to preferred resolution.
- Ensures desired audio formats and video resolutions are provided to the AV system; enables PC output to non-compliant codecs.

4K/UHD capability

- Compatible with Ultra High Definition sources and displays.
- Supports high-resolution applications such as CAD, desktop publishing, and detailed financial reporting.
- Supports up to HDCP 1.4 (Does not support HDCP 2.2 devices).

Key Features (continued)

AV, Ethernet, power and control over HDBaseT

- Delivers 4K/UHD video, audio, 100Base-T Ethernet, power and control through a single cable.
- Eliminates multiple cable runs between source, control system router and display.

Power over Ethernet for remote-powered HDBaseT transmitters[1] and receivers

- Industry standard IEEE 802.3af PoE supplied by the switcher over HDBaseT
- No local AC outlet required; saves time and integration costs

TCP/IP, RS-232, and IR control

- Flexible control options compatible with 3rd-party control systems.
- Reduces integration time and costs.

Easy, GUI-based configuration using integrated web server

- Offers menu-based configuration of network settings, RS-232 settings, input switching, EDID, and HDCP management and audio.
- Allows fast configuration of internal product settings and troubleshooting from a tablet, smart phone, or PC in the field.

Volume controls

- Volume up and volume down button adjust output level to sound system.
- Alternatively send RS-232 or TCP/IP commands to external control device.

Volume setting indicator

- Displays volume level of the switcher.
- Provides quick indication of level during setup.

Balanced, line level output

- Reduces noise and requirement for external components.
- Matches requirements of commercial sound systems.

Multi-channel audio compliant

- Supports PCM[2], Dolby® Digital, Dolby Digital Plus™, Dolby TrueHD, Dolby Atmos®, DTS Digital Surround™, and DTS-HD Master Audio™.
- Allows any multi-channel audio stream to be used within a professional audio system.

Rack-mountable, 1U, half rack width enclosure

- Installs easily in rack-mounted systems with included 19" rack-mount brackets.
- Simplifies installations; included hardware allows two units to be mounted side-by-side.

Works with Velocity with Integrated AMS

- This IP-controllable product can be remotely managed by the Atlona Management System software.
- Integrates product configuration, management, and updates to reduce installation time and enable remote support.

Included accessories

- User guide, rack and surface mounting hardware, and external universal power supply.

Product warranty

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

Specifications

Video		
Signal Type	HDMI	
HDCP	1.4	
Pixel Clock	300MHz	
UHD/HD/SD	4096×2160@60[3]/50[3]/30/25/24Hz 3840×2160@60[3]/50[3]/30/25/24Hz 2048x1080p 1920x1080p@60/59.94/50/30/29.97/25/ 24/23.98Hz 1920x1080i@60/59.94/50Hz	1280x720p@60/59.94/50Hz 720x576p 720x576i 640x480p 640x480i
VESA	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 1024×768 800×600 640×480
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 Dolby Atmos®	DTS® Digital Surround™ DTS-HD Master Audio™ DTS:X®
S/PDIF	PCM 2.0	Dolby® Digital	DTS-HD Master Audio™
Bit Depth	Up to 24 bits		
Analog Audio			
Format	Maximum analog output: balanced +18dBu @ 0 dBfs, LPCM 2.0 only		
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz		

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 web server		
CEC Support	Yes		

Resolution / Distance	4K/UHD - Feet / Meters		1080p - Feet / Meters	
HDMI IN/OUT	15	5	30	10
CAT5e/6	230	70	330	100
CAT6a/7	330	100	330	100

Buttons and Indicators	
Buttons: POWER, UP, DOWN, INPUT	4 - Momentary, tact-type
Indicators: HDBaseT 1 - HDBaseT 2, HDMI 3 - HDMI 5 VOLUME	5 - LED, blue 9 - LED, green, amber, red

Connectors	
HDMI IN	3 – Type A, 19-pin female
HDMI OUT	1 – Type A, 19-pin female
HDBaseT IN	2 - RJ45
HDBaseT OUT	1 - RJ45
LAN	1 - RJ45, 10/100 Mbps
AUDIO OUT	1 – 5-pin captive screw, balanced / unbalanced 2-channel
RS-232	1 – 3-pin captive screw (bidirectional)
IR IN/OUT	1 – 5-pin captive screw
FW	1 – Mini USB
PWR	1 - 2-pin captive screw

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	44.22 W	
Idle Consumption	22 W	
Supply	Input: 100 - 240 V AC, 50/60 Hz Output: 48 V / 1.25 A DC	

Dimensions (H x W x D)	Inches	Millimeters
Unit	1.73 x 8.64 x 10	44 x 219.5 x 254
Power Supply (AT-PS-4812-C)	1.42 x 1.81 x 4.41	36 x 46 x 112

Weight	Pounds	Kilograms
Device	3.70	1.66

Certification		
Device	CE, FCC	
Power Supply	CE, FCC, cULus, RoHS	

Compliance	
NDAA-899	Yes

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

Footnotes

(1) The SW-5000ED does not provide remote powering for the AT-OME-ST31.
(2) Only PCM sources are de-embedded and routed by the SW-5000ED.
(3) 4096×2160 @ 50/60 Hz and 3840×2160@50/60Hz supported @ chroma subsampling 4:2:0 8-bit only.

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20249-R4