Introduction

The Atlona **AT-UHD-SW-51** is a 5×1 HDMI switcher with auto-switching and advanced control capability. The switcher supports 4K/UHD @ 60 Hz with 4:2:0 color, offers 3D pass-through, and 10.2 Gbps bandwidth. With front panel buttons and IR control, it can be a standalone switcher. Designed as a cost-effective, easy to install solution, the switcher offers a web-based GUI for easy set-up and management of EDID and HDCP. Additional control options include auto-switching, front panel selector, and compatibility with RS-232 or TCP/IP-based control systems. Audio features include de-embedding of PCM audio over HDMI to either S/PDIF or two-channel analog audio outputs; pass-through of Dolby TrueHD® and DTS-HD Master Audio™; plus an Audio Return Channel feed to the S/PDIF output from the HDMI display. The compact, 1U, half-rack width enclosure is easily installed in rack mounted systems with the 19" rack mount brackets. Two units can be mounted side-by-side.

Applications

This switcher is ideal for custom residential systems and various commercial AV applications requiring performance and dependability in an HDMI switcher, as well as the convenience of automatic input switching and streamlined control system integration.

Key Features

4K/UHD capability

- Compatible with Ultra High Definition sources and displays.

- Supports high-resolution applications such as CAD, desktop publishing, and detailed financial reporting.

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.

TCP/IP, RS-232, and IR control

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

- Reduces integration time and costs.

EDID management

- Manages EDID communications between source and destination; allows integrators to force sources to preferred resolution.

- Ensures desired audio formats and video resolutions are provided to the AV system; eliminates the need for EDID management device.

HDCP management

- HDCP compliance can be switched on/off from control systems for use with non-compliant displays, streaming devices, and codecs.

- Allows non-protected material from PCs to pass to non-compliant displays and teleconference systems while protected content is not transmitted.

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.

ARC – Audio Return Channel

- Audio is returned from the remote display via HDMI to the S/PDIF or analog audio outputs.

- Allows ARC-enabled TVs, such as smart TVs, to transmit audio back to an AV receiver through the same HDMI cable used to connect the input.

Multi-channel audio compliant

- Supports PCM, 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

Key Features (continued)

Rack-mountable, 1U, half rack width enclosure

- Installs easily in rack-mounted systems with 19" rack mount brackets.

- Simplifies installations; included hardware allows two units to be mounted side-by-side.

HDCP management

- Allows non-protected material from PCs to pass to non-compliant displays and teleconference systems while protected content is not transmitted.

- HDCP compliance can be switched on/off from control systems for use with non-compliant displays, streaming devices, and codecs.

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[1]/50[1]/30/25/24Hz 3840×2160@60[1]/50[1]/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 · 1366×768 2560×1600 · 1360×768 2048×1536 · 1280×1024 1920×1200 · 1280×800 1680×1050 · 1280×768 1600×1200 · 1152×768 1600×900 · 1024×768 1440×900 · 800×600 1400×1050 · 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	unbalanced, 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

Buttons and Indicators	
Buttons: POWER, INPUT	2 - momentary, tact-type
Indicators: HDMI 1 - HDMI 5 VOLUME	5 - LED, blue 9 - LED, green, amber, red

Connectors	
HDMI IN	5 – Type A, 19-pin female
HDMI OUT	1 – Type A, 19-pin female
LAN	1 - RJ45, 10/100 Mbps
AUDIO OUT	2 – RCA-type, unbalanced 2-channel
S/PDIF OUT	1 – RCA-type, female
RS-232	1 – 3-pin captive screw (bidirectional)
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 90%, non-condensing	

Power		
Consumption	5.94 W	
Supply	Input: 100 - 240 V AC, 50/60 Hz Output: 5 V / 3.6 A DC	

Dimensions (H x W x D)	Inches	Millimeters
Unit	1.73 x 8.64 x 10	44 x 219 x 254
Power Supply	1.2 x 2 x 3.2	30 x 50 x 81

Weight	Pounds	Kilograms
Device	1.40	3.10

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

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) 4096×2160 @ 50/60 Hz and 3840×2160 @ 50/60Hz supported @ chroma subsampling 4:2:0 8-bit only.

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