



Introduction

The Atлона **AT-HDR-SW-52** is a 5x2 HDMI matrix switcher for high dynamic range (HDR) formats. Part of the comprehensive family of Atлона 4K HDR integration products, it features five HDMI inputs and matrixed or mirrored HDMI outputs. The HDR-SW-52 is HDCP 2.2 compliant and supports 4K/UHD video @ 60 Hz with 4:4:4 chroma sampling, as well as HDMI data rates up to 18 Gbps. It is ideal for the latest as well as emerging 4K/UHD and HDR sources and displays, and includes EDID management features, and automatic input switching. Additionally, 4K downscaling to 1080p @ 60, 30, or 24 Hz is available for the HDMI outputs when connected to an HD display. The HDR-SW-52 can de-embed audio from an HDMI input to S/PDIF or balanced analog audio outputs. This HDMI switcher can be controlled via Ethernet, RS-232, and IR.

Applications

- **Conference rooms and meeting rooms**
The HDR-SW-52 is compact and ideal for under-table mounting. It conveniently provides automatic switching for simplified user operation, especially when laptops are brought into the system.
- **Presentation spaces where two displays are needed**
This matrix switcher can feed separate content into dual, side-by-side presentation displays.

Key Features

5x2 HDMI matrix switcher

- HDMI inputs and outputs.
- Delivers flexible matrix switching capability for meeting and presentation spaces.

Selectable AV switching modes

- Selectable switching modes available with mirrored or matrixed outputs.
- Enables simple configuration and effortless user operation, tailored to the specific AV application.

Selectable 4K to 1080p downscaling

- Integrated video processing available for down-converting 4K/UHD @ 60, 30, or 24 Hz to 1080p.
- Ideal for applications with 1080p displays, video conferencing codecs, and other HD sink devices.

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⁽¹⁾.
- Enables simplified, automatic system operation without user intervention.

Audio de-embedding

- De-embeds two channel PCM audio from the selected HDMI source to S/PDIF and balanced, analog audio outputs.
- De-embeds 5.1 channel PCM audio from the selected HDMI source to S/PDIF audio output.
- Provides direct interfacing into an external audio system.

TCP/IP, RS-232, and IR control

- Flexible control options for compatibility with the Atлона Velocity™ control system, as well as other third-party control systems.
- Reduces integration time and costs.

Front panel button controls and status LEDs

- Allows input selection and audio volume adjustment (for the analog audio output).
- Convenient audio level indicator available to monitor real-time signal activity.

Specifications

Video		
Signal	Input - HDMI Output - HDMI	
Copy Protection	HDCP 2.2	
Pixel Clock	600 MHz	
UHD/HD/SD	4096x2160 (DCI) @ 24/25/30/50/60 Hz 3840x2160 (UHD) @ 24/25/30/50/60 Hz 1920x1080p @ 23.97/24/25/29.97/30/50/60 Hz 1920x1080i @ 50/60 Hz 1280x720p @ 30/50/60 Hz	720x576p @ 50 Hz 720x576i @ 25/50 Hz 720x480p @ 60 Hz 640x480p @ 60 Hz 640x480i @ 60 Hz
VESA All resolutions are 60 Hz	2560x2048 2560x1600 2048x1536 1920x1200 1680x1050 1600x1200 1600x900 1440x900 1400x1050	1366x768 1360x768 1280x1024 1280x800 1280x768 1152x768 1024x768 800x600 640x480
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™ @ 60 Hz	

Audio			
HDMI Pass-Through Formats	LPCM 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	LPCM 2.0	Dolby® Digital	DTS® Digital Surround™
Bit Depth	Up to 24 bits		
Analog Audio			
Format	Stereo 2-Channel		
Balanced Output	+4 dBu nominal gain, +19 dB headroom		
Frequency Response	20 Hz to 20 kHz, ± 0.5 dB		
THD+N	< 0.006% at 20 Hz to 20 kHz		
SNR	> 105 dB at 1 kHz, zero clipping @ 0 dBFS, unweighted		
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	HTTP, Telnet
Speeds	10/100 Mbps
Addressing	DHCP, Static – selectable through built-in web server and Telnet commands

RS-232	
Port	1 x 3-pin captive screw
Use	Unit and external device control and configuration
Baud Rates	2400, 4800, 9600, 19200, 38400, 57600, 115200
Data Flow	Bidirectional

Resolution / Distance	4K/UHD - Feet / Meters		1080p - Feet / Meters	
HDMI IN/OUT	15	5	30	10

Buttons and Indicators	
Buttons: POWER, UP, DOWN, INPUT	4 x momentary, tact-type
Indicators: POWER HDMI 1 - HDMI 5, VOLUME	1 x LED, blue 5 x LED, blue 9 x LED, green, amber, red

Connectors	
HDMI IN	5 x Type A, 19-pin female
HDMI OUT	2 x Type A, 19-pin female
LAN	1 x RJ45
L/R	1 x 5-pin captive screw
S/PDIF OUT	1 x RCA, female
RS-232	1 x 3-pin captive screw
FW	1 x mini-USB
DC 5V	1 x 2-pin captive screw

Environmental	Fahrenheit	Celsius
Operating Temperature	+32 to +122	0 to +50
Storage Temperature	-4 to +140	-20 to +60
Operating Humidity (RH)	20% to 90%, non-condensing	

Power	
Consumption	18.06 W
BTU/h	61.6
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	1.34 x 8.19 x 4.41	34 x 208 x 112
Power Supply (AT-PS-54-C)	1.20 x 2.00 x 3.20	30 x 51 x 81

Weight	Pounds	Kilograms
Device	1.44	3.15

Certification	
Device	CE, RoHS, FCC
Power Supply	CE, FCC, UL, CUL, TUV-GS, CB, PSE, CCC

Compliance	
NDA-889	Yes
TAA	Yes

Warranty	
Device	To view the product warranty, use the following link: https://atlon.com/warranty

Footnotes

(1) Available when the switching mode is set to mirrored outputs.

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