



Introduction

The Atlona **AT-UHD-SW-510W** is a 5x1 multi-format switcher with wireless presentation capability. It provides universal BYOD (bring your own device) compatibility with HDMI, DisplayPort, and USB-C inputs, plus wireless connectivity for mobile devices. The SW-510W is HDCP 2.2 compliant, and features an HDMI output and a mirrored HDBaseT™ output that can be used with the Atlona AT-UHD-EX-100CE-RX-PSE HDBaseT receiver. It also includes automatic input switching and automatic display control capability, both applicable to wired and wireless source connections. This unique multi-format switcher and wireless gateway provides a universal connectivity solution for presentation devices in a wide range of professional AV applications.

The USB-C port on the SW-510W is ideal for newer Mac®, Chromebook™, and Windows® PCs. All inputs and the local HDMI output are compatible with video signals up to 4K/UHD @ 60 Hz with 4:4:4 chroma sampling, as well as data rates up to 18 Gbps. For integration convenience and flexibility, simultaneous 18 Gbps HDMI and 10 Gbps HDBaseT outputs make the SW-510W ideal for various presentation scenarios such as primary and confidence displays in a corporate auditorium or lecture hall. The HDBaseT output extends video, audio, control, and Ethernet up to 100 meters.

Applications

- Flexibility to accept any presenter device
- Conference rooms, boardrooms, and classrooms
- Small to medium-sized meeting spaces
- Presentation spaces where two displays are needed

Key Features

5x1 universal AV switcher

- Two HDMI, one DisplayPort, and one USB-C* input, plus a dedicated wireless AV input.
- Delivers true BYOD capability for a wide range of presentation sources.

Wireless AV gateway

- Provides convenient Wi-Fi® connectivity for an iOS, Android, Mac, Chromebook, or Windows-based device.
- Includes dual IEEE 802.11ac Wi-Fi access points – secondary access point required for Miracast™ (Wi-Fi Direct®).
- Integrated access point can be segregated from the facility network for security reasons.

Native platform-based, wireless interfacing

- Allows screen mirroring without the need for a separate app.
- Supports wireless video up to 1080p/30 4:2:0 (up to 1080p/60 with Miracast)†.
- Also supports Miracast over Infrastructure for use of facility Wi-Fi or Ethernet network.

Secure wireless access and content sharing

- Prevent unauthorized access (room hijacking) or content sharing with user-defined or randomly-generated security authentication codes.
- Ensures presentation content is not received by SW-510W units in adjacent rooms.

Automatic input selection and automatic display control

- Automatically changes display power state, and switches between inputs based on device connection or disconnection from the switcher.
- Works for both wired and wireless source devices.
- Enables effortless, automated system operation without the need for an external control system.

USB-C charging for laptops, tablets, and smartphones

- Conveniently provides mobile device powering during a meeting or presentation.
- Simple one-cable connection for AV and charging.

4K/UHD capability @ 60 Hz with 4:2:0 chroma subsampling, plus support for 4K/60 4:4:4 and HDR formats on local ports (HDMI, USB-C, and DisplayPort)

- Ideal for new and emerging 4K/UHD and HDR-capable sources and displays.
- Compatible with 4K HDR10 and Dolby® Vision™ @ 60 Hz.

Mirrored HDMI and HDBaseT outputs

- HDBaseT output transmits AV, control, and Ethernet up to 330 feet (100 meters) @ 1080p with CAT5e/6 or 4K/UHD using CAT6a/7 cable.
- Mirrored 18 Gbps HDMI and 10 Gbps HDBaseT outputs provide flexible options for AV system designs and applications.

HDCP 2.2 compliant

- Adheres to latest specification for High-bandwidth Digital Content Protection.
- Allows protected content stream to pass between devices.
- HDCP 2.2 supported only for wired AV connections.

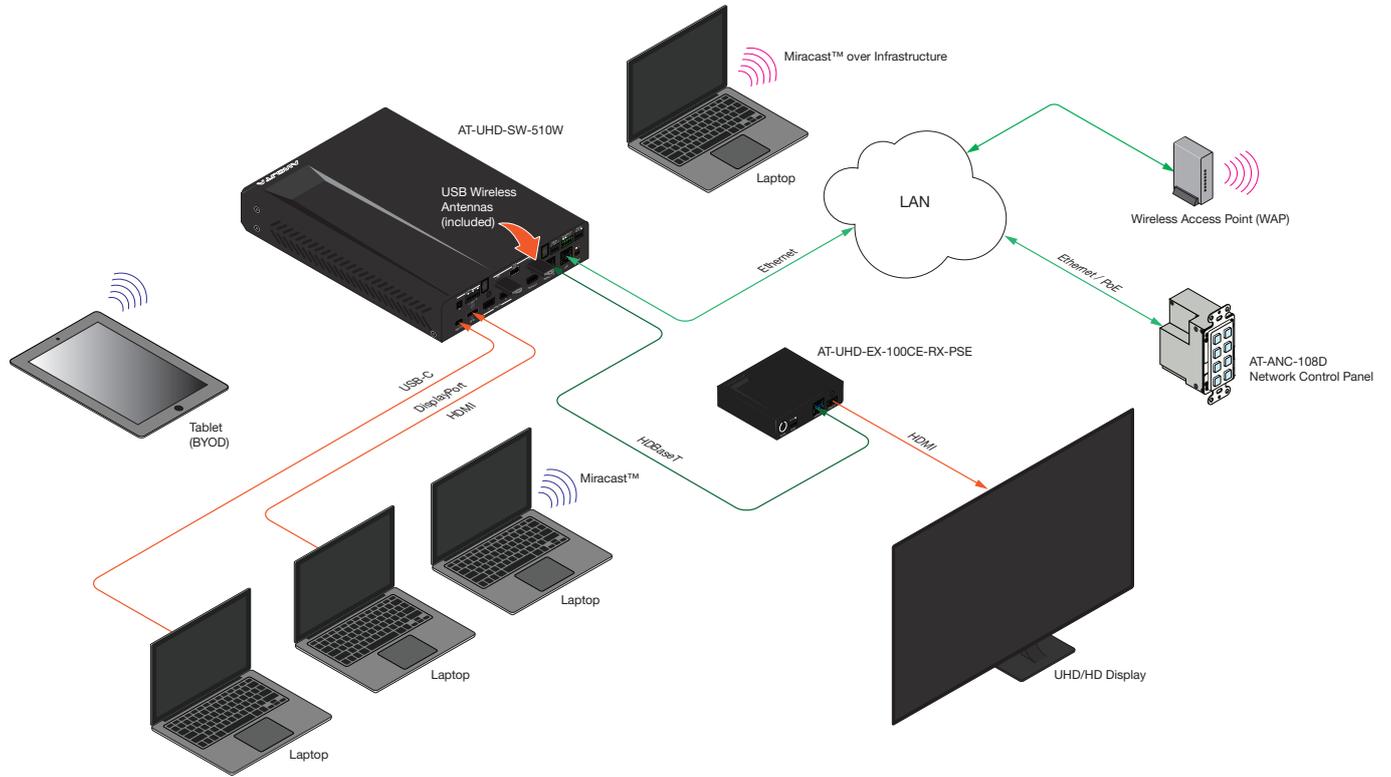
SW-510W versions available

- **AT-UHD-SW-510W:** For US, Canada, and India.
- **AT-UHD-SW-510W-EU:** For Europe, Australia, South Africa, and Asia.
- **AT-UHD-SW-510W-KIT:** Includes AT-UHD-EX-100CE-RX-PSE HDBaseT receiver.
- **AT-UHD-SW-510W-EU-KIT:** Includes AT-UHD-EX-100CE-RX-PSE HDBaseT receiver.

* USB-C port supports AV and device charging, but not USB data.

† Video resolution capability is dependent on wireless signal quality.

Connection Diagram



Specifications

Video	
UHD/HD/SD	4096x2160@60/30/25/24Hz*, 3840x2160@60/30/25/24Hz*, 1080p@60/59.9/50/30/29.97/25/24/23.98Hz, 1080i@60/59.94/50Hz, 720p@60/59.94/50Hz, 576p@50Hz, 576i@50Hz, 480p@60/59.96Hz, 480i@60Hz
VESA	2560x1600, 2048x1536, 1920x1200, 1680x1050, 1600x1200, 1440x900, 1400x1050, 1280x1024, 1280x800, 1366x768, 1360x768, 1152x864, 1024x768, 800x600, 640x480
USB-C	Up to 4K/UHD @ 60Hz for devices supporting USB-C Alternate Mode video output
Wireless	Up to 1080p @ 30Hz 4:2:0 (up to 1080p @ 60Hz with Miracast™); dependent on wireless signal quality
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 and Dolby® Vision™ @ 60Hz

* HDMI output supports 4K/UHD @ 50 or 60Hz with 4:4:4 chroma sampling. HDBaseT output supports 4K/UHD @ 50 or 60Hz with 4:2:0 chroma subsampling.

† HDR not supported for HDBaseT output.

Audio	
Pass-Through Formats	PCM, Dolby® Digital, Dolby Digital Plus™, Dolby TrueHD, Dolby Atmos®, DTS® Digital Surround™, DTS-HD Master Audio™, and DTS:X®
Analog Input	Unbalanced 2-channel, 3.5 mm
Analog Output	Balanced / unbalanced 2-channel, 5-pin captive screw
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
Bit Rate	24-bit (max.)

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

Signal	
Bandwidth	18 Gbps*
CEC Support	Yes
HDCP	2.2 (wired device connections, only)

* 18 Gbps supported for HDMI 2.0 output. HDBaseT output limited to 10 Gbps.

USB	
Port	USB Type C: USB-C for AV input (Alternate Mode), USB 2.0 Type A for Wi-Fi® antenna modules (3 ports)
USB-C Power	Up to 60 W / 3 A at 20 V
USB-C Device Charging Capability	Up to 20 V, 3 A Output: 60 W @ 20 V, 36 W @ 12 V, 15 W @ 5 V

IP	
Ethernet Ports	RJ-45
Protocols	DHCP, HTTP, HTTPS, SFTP, SMTP, SNMP, Telnet, SSH, TCP/IP, UDP
Ethernet Speed	10/100/1000 Mbps
Addressing	DHCP, static
Wi-Fi	IEEE 802.11n/ac 2.5 GHz / 5 GHz
Wi-Fi Protocols	WEP, WPA, PSK, WPA2 PSK, WPA Enterprise, WPA2 Enterprise
Antenna	2 included

Control Ports	
RS-232	Bidirectional, 3-pin captive screw
Relay	3-pin captive screw, normally open (NO), with adjustable Toggle and Pulse modes Electrical rating: 48 V @ 1 A
Trigger	4-pin captive screw Electrical rating: 30 V @ 1 A (max.)

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 (full load)	121 W
Idle Consumption	35 - 40 W
Supply	Input: 100 - 240 V AC, 50/60 Hz Output: 5 V DC

Dimensions	Inches	Millimeters
H x W x D (w/ feet)	1.77 x 8.46 x 10.19	48 x 215 x 259
H x W x D (w/o feet)	1.73 x 8.46 x 10.00	44 x 215 x 254

Weight	Pounds	Kilograms
Device	3.70	1.68

Certification	
Device	CE, FCC, UL