

# SW HD 4K PLUS Series

4K/60 HDMI SWITCHERS WITH ETHERNET  
MONITORING AND CONTROL



**18 Gbps**  
4K/60 4:4:4

The Extron SW HD 4K PLUS Series HDMI switchers with Ethernet control provide signal switching between multiple HDMI source devices to a single display. The switchers support video signals at resolutions up to 4K/60 with 4:4:4 color sampling and data rates up to 18 Gbps. The SW HD 4K PLUS Series offers integrator-friendly features that ensure reliable operation in professional AV applications.

- ▶ Switches HDMI video and embedded multi-channel digital audio signals
- ▶ Available with two, four, six or eight inputs
- ▶ Supports computer and video resolutions up to 4K/60 @ 4:4:4
- ▶ HDCP 2.3 compliant
- ▶ Supported HDMI 2.0b specification features include data rates up to 18 Gbps, HDR, Deep Color up to 12 bit, 3D, and HD lossless audio formats
- ▶ Ethernet monitoring and control
- ▶ EDID Minder® automatically manages EDID communication between connected devices
- ▶ Automatic input cable equalization to 25 feet (7.6 meters) when used with Extron HDMI Pro Series cable
- ▶ Compatible with TeamWork® Show Me® Cables

**Extron**

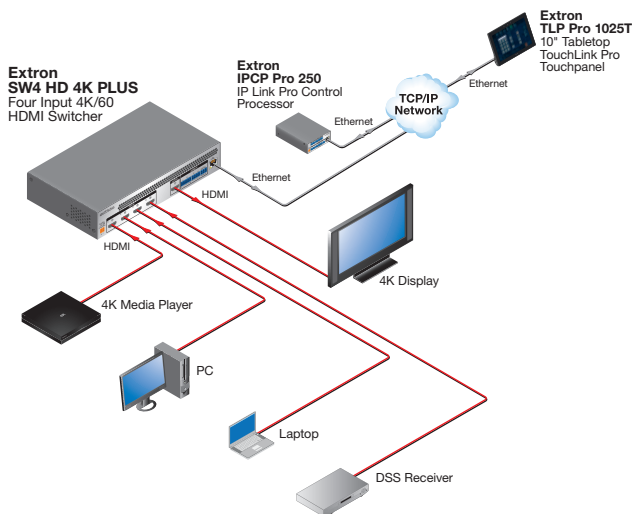
## DESCRIPTION

The Extron **SW HD 4K PLUS Series** HDMI switchers support 4K/60 with 4:4:4 color sampling. Available in sizes from two-inputs up to eight-inputs, the SW HD 4K PLUS Series switchers are HDCP compliant and support data rates up to 18 Gbps, HDR, 12-bit Deep Color, 3D, and HD lossless audio formats. The SW HD 4K PLUS Series is easy to operate using the front panel controls or auto-switching. Ethernet, RS-232, and contact closure ports provide ample options for integration with any control system. All models feature EDID Minder®, which maintains continuous EDID communication with connected devices and ensures that the HDMI sources power up properly and maintain correct video output. The switchers provide automatic input cable equalization up to 25 feet (7.6 meters) on Extron HDMI Pro Series cable.

To enhance and simplify integration, the SW HD 4K PLUS Series provides integrator-friendly features, including automatic input cable equalization, automatic color bit depth management, indicators for monitoring and troubleshooting, as well as peripheral device power on the output. Automatic input cable equalization corrects for signal loss due to lengthy input cables, ensuring signal integrity up to 25 feet (7.6 meters), when used with Extron HDMI Pro Series cable. The SW HD 4K PLUS Series automatically adjusts color bit depth based on the display EDID, preventing color compatibility conflicts between source and display. Front panel LED indicators provide immediate visual confirmation of HDCP authentication and signal presence for each input and output. If HDCP-encrypted content is transmitted to a non-compliant display, a full-screen green signal provides immediate visual confirmation that protected content cannot be viewed on that display. The SW HD 4K PLUS Series also provides +5 VDC, 250 mA on the HDMI output for powering peripheral devices such as an Extron HD 4K 101 Plus cable equalizer.

The SW HD 4K PLUS Series two and four-input models are housed in 1U, half rack width enclosures that are suitable for mounting in a rack or under a table. The six and eight-input models are housed in a 1U, full rack width enclosures and come standard with brackets for mounting in a rack.

## APPLICATION DIAGRAM



## KEY FEATURES

- ▶ Supports computer and video resolutions up to 4K/60 @ 4:4:4
- ▶ Available with two, four, six or eight inputs
- ▶ HDCP 2.3 compliant
- ▶ Supported HDMI 2.0b specification features include data rates up to 18 Gbps, HDR, Deep Color up to 12 bit, 3D, and HD lossless audio formats.
- ▶ Ethernet monitoring and control – Enables control and proactive monitoring over a LAN or WAN.
- ▶ Support for HDR – High Dynamic Range video – Enables greater contrast range and wider color gamut by providing the necessary video bandwidth, color depth, and metadata interchange capability for HDR video.
- ▶ EDID Minder® automatically manages EDID communication between connected devices – EDID Minder ensures that all sources power up properly and reliably output content for display.
- ▶ Automatic input cable equalization to 25 feet (7.6 meters) when used with Extron HDMI Pro Series cable
- ▶ User-selectable HDCP authorization – Allows individual inputs to appear HDCP compliant or non-HDCP compliant to the connected source, which is beneficial if the source automatically encrypts all content when connected to an HDCP-compliant device. Protected material is not passed in non-HDCP mode.
- ▶ HDCP Visual Confirmation provides a green signal when encrypted content is sent to a non-compliant display – A full screen green signal is sent when HDCP encrypted content is transmitted to a non HDCP compliant display, providing immediate visual confirmation that protected content cannot be viewed on the display.
- ▶ HDCP authentication and signal presence LED indicators
- ▶ Automatic color bit depth management – The switcher automatically adjusts color bit depth based on the display EDID, preventing color compatibility conflicts between source and display.
- ▶ HDMI to DVI Interface Format Correction – Automatically reformats HDMI signals for output to a connected DVI display.
- ▶ Provides +5 VDC, 250 mA power on the output for external peripheral devices
- ▶ Front panel USB configuration port
- ▶ Easy setup and commissioning with Extron's PCS – Product Configuration Software
- ▶ Front panel security lockout
- ▶ Auto-input switching – Automatically switches to the highest-numbered input with an active video signal or to an active input based on a configured priority
- ▶ Contact closure remote control with tally output – Allows for remote selection of an input channel. +5 VDC is provided to light an LED to indicate the currently selected input.
- ▶ Compatible with TeamWork Show Me Cables – Show Me cables provide convenient connectivity and user input selection and control for TeamWork Collaboration Systems.
- ▶ Extron Everlast Power Supply is covered by a 7-year parts and labor warranty

# SPECIFICATIONS

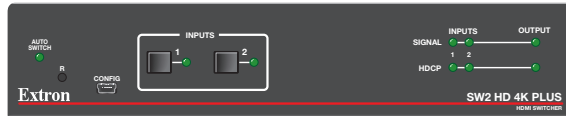
## TRUE 4K SPECIFICATION

Max 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max Bit Depth per Color
4096 x 2160 at 60 Hz 3840 x 2160 at 60 Hz 4096 x 2160 at 30 Hz 3840 x 2160 at 30 Hz	4:4:4	8 bit
4096 x 2160 at 60 Hz 3840 x 2160 at 60 Hz	4:2:0	12 bit
<b>Frame rate</b> <sup>1</sup>	24, 25, 30, 50, or 60 fps	
<b>Chroma sampling</b> <sup>1</sup>	4:4:4, 4:2:2, or 4:2:0	
<b>Color bit depth</b> <sup>1</sup>	8, 10, 12 bits per color	
<b>Signal type</b>	HDMI 2.0b, HDCP 2.3	
<b>Max. video data rate</b>	18 Gbps (6 Gbps per color)	
<b>NOTE:</b> <sup>1</sup> Subject to the maximum data rate limit. Use our calculator at <a href="http://www.extron.com/4Kdata">www.extron.com/4Kdata</a> to determine video parameters supported by this data rate.		

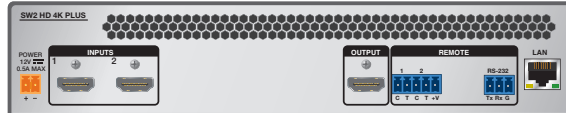
VIDEO	
<b>Maximum data rate</b>	18 Gbps (6 Gbps per color)
<b>Maximum pixel clock</b>	600 MHz
<b>Resolution</b>	Up to 1920 x 1200 or 1080p @ 60Hz, 12-bit color 4K (4096x2160) @ 60 Hz (4:4:4 color space, 8 bit color) (Max for HDMI variant only) UHD (3840 x 2160) @ 60Hz with 4:4:4 color space, 8-bit color (Max for DTP variant only)
<b>Formats</b>	RGB and YCbCr digital video
<b>Standards</b>	DVI 1.0, HDMI 2.0b, HDMI 1.4, HDCP 1.4, HDCP 2.3, CEA-861E
VIDEO INPUT	
<b>Number/signal type</b>	2, 4, 6, or 8 (depending on model) single link HDMI (or DVI-D*)
<b>Connectors</b>	2, 4, 6, or 8 female HDMI type A
VIDEO OUTPUT	
<b>Number/signal type</b>	1 single link HDMI (or DVI-D*)
<b>Connectors</b>	1 female HDMI type A
<b>NOTE:</b> *Appropriate HDMI to DVI-D cables or adapters are required for DVI signal input/output.	
COMMUNICATION	
<b>Serial control port</b>	1 RS-232, 3.5 mm, 3 pole captive screw connector
Pin configuration	1 = Tx, 2 = Rx, 3 = GND
Baud rate and protocol	9600 baud, 8 data bits, 1 stop bit, no parity
<b>USB control port</b>	1 female mini USB B on front panel
<b>USB standards</b>	USB 2.0, low speed
<b>Ethernet data rate</b>	10/100Base-T, half/full duplex, with auto detect
<b>Ethernet protocol</b>	ARP, ICMP (ping), IP, TCP, DHCP, HTTP, SMTP, Telnet
<b>Program control</b>	Extron control/configuration program for Windows® Extron Simple Instruction Set™ (SIS™) Microsoft® Internet Explorer® Telnet
<b>Contact closure/tally output</b>	
SW2 HD 4K PLUS	(1) 3.5 mm captive screw, 5 pole (C,T,C,T,+)V
SW4 HD 4K PLUS	(1) 3.5 mm captive screw, 5 pole (C,T,C,T,+)V (1) 3.5 mm captive screw, 4 pole (C,T,C,T)
SW6 HD 4K PLUS	(6) 3.5 mm captive screw, 3 pole (C,G,T) (1) 3.5 mm captive screw, 3 pole (+V)
SW8 HD 4K PLUS	(8) 3.5 mm captive screw, 3 pole (C,G,T) (1) 3.5 mm captive screw, 3 pole (+V) C = contact, G = ground, T = tally, +V = +5 V

GENERAL		
<b>Power supply</b>		
SW2 and SW4 HD 4K PLUS	External	Input: 100-240 VAC, 50-60 Hz Output: 12 VDC, 1.5 A, 18 watts
SW6 and SW8 HD 4K PLUS	Internal	Input: 100-240 VAC, 50-60 Hz
<b>Power consumption</b>		
SW2 and SW4 HD 4K PLUS		
Device		3.9 watts, 12 VDC
Device and power supply		5.5 watts, 12 VDC
SW6 and SW8 HD 4K PLUS		12.1 watts
<b>Temperature/humidity</b>		
		Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
<b>Cooling</b>		Convection, no vents
<b>Thermal dissipation</b>		
SW2 and SW4 HD 4K PLUS		
Device		12.2 BTU/hr
Device and power supply		17.8 BTU/hr
SW6 and SW8 HD 4K PLUS		40.4 BTU/hr
<b>Mounting</b>		
SW2 and SW4 HD 4K PLUS		
Rack mount		Yes, with optional 1U rack shelf
Furniture mount		Yes, with optional under-desk mounting kit or through-desk mounting kit
SW6 and SW8 HD 4K PLUS		
Rack mount		Yes, with supplied mounting brackets
<b>Enclosure type</b>		Metal
<b>Enclosure dimensions</b>		
SW2 and SW4 HD 4K PLUS		1.75" H x 8.75" W x 6.0" D (1U high, half rack wide) (44 mm H x 222 mm W x 152 mm D) (Depth excludes connectors.)
SW6 and SW8 HD 4K PLUS		1.75" H x 17.5" W x 8.5" D (1U high, full rack wide) (44 mm H x 445 mm W x 216 mm D) (Depth excludes connectors.)
<b>Product weight</b>		
SW2 and SW4 HD 4K PLUS		1.2 lbs (0.5 kg)
SW6 and SW8 HD 4K PLUS		2.5 lbs (1.1 kg)
<b>Regulatory compliance</b>		CE, c-UL, UL, PSE, RoHS, and WEEE
<b>Product warranty</b>		3 years parts and labor
<b>Everlast power supply warranty</b>		7 years parts and labor
<b>NOTE:</b> All nominal levels are at ±10%.		
<b>Model</b>	<b>Version Description</b>	<b>Part number</b>
SW2 HD 4K PLUS	Two Input 4K/60 HDMI Switcher	60-1603-01
SW4 HD 4K PLUS	Four Input 4K/60 HDMI Switcher	60-1604-01
SW6 HD 4K PLUS	Six Input 4K/60 HDMI Switcher	60-1605-01
SW8 HD 4K PLUS	Eight Input 4K/60 HDMI Switcher	60-1606-01
<b>Optional Accessories</b>		
<b>Model</b>	<b>Version Description</b>	<b>Part number</b>
HD Pro Plenum Series	HDMI Premium High Speed Optical Cables - Plenum	26-726-xx
HDMI Pro Series	Premium High Speed, High Speed, and Standard HDMI Cables	26-650-xx
HDMI Ultra Series	Ultra Flexible Premium High Speed and High Speed HDMI Cables	26-663-xx
HD 4K 101 Plus	HDMI Cable Equalizer for 4K/60 Sources	60-1621-01
UTS 100	Series Under Table Shelf System	70-1028-0x
MBU 123	Low-Profile Mount Kit for 1/8, 1/4, and 1/2 Rack Width Products	70-212-01
MBU 149	Low-Profile Mount Kit for Full Rack Width, Four-Piece Enclosures	70-222-01
RSB 129	Basic Rack Shelf for 9.5" Deep Products	60-604-02
Half Rack Shelf	Half-Rack Width Rack Shelf and Accessories	60-1251-xx
ZipClip 100	Mounting Kit for PS Series Power Supplies	101-002-01

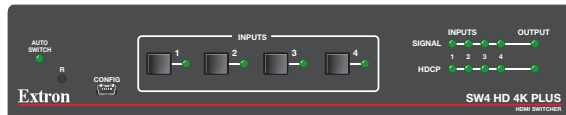
# PANEL DRAWINGS



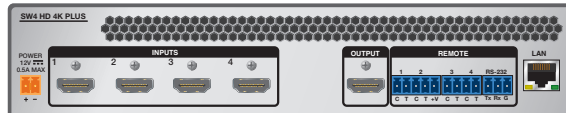
SW2 HD 4K PLUS - Front



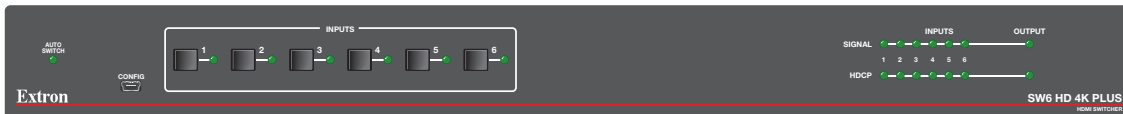
SW2 HD 4K PLUS - Back



SW4 HD 4K PLUS - Front



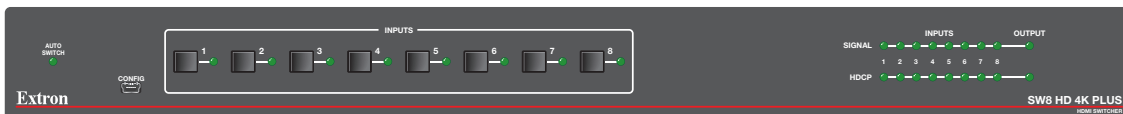
SW4 HD 4K PLUS - Back



SW6 HD 4K PLUS - Front



SW6 HD 4K PLUS - Back



SW8 HD 4K PLUS - Front



SW8 HD 4K PLUS - Back

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