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
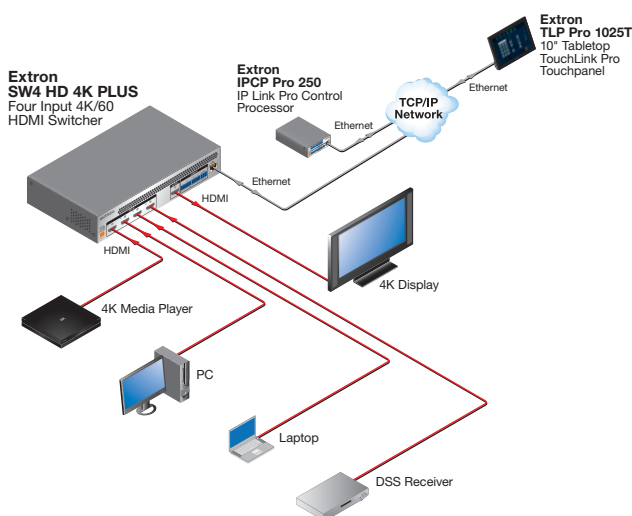
Extron

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

Extron TLP Pro 1025T 10" Tabletop TouchLink Pro Touchpanel

Extron SW4 HD 4K PLUS Four Input 4K/60 HDMI Switcher

Extron IPCP Pro 250 IP Link Pro Control Processor

TCP/IP Network

Ethernet

HDMI

HDMI

4K Media Player

4K Display

PC

Laptop

DSS Receiver

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
		12 bit
4096 x 2160 at 60 Hz 3840 x 2160 at 60 Hz	4:2:0	

Frame rate[1]	24, 25, 30, 50, or 60 fps
Chroma sampling[1]	4:4:4, 4:2:2, or 4:2:0
Color bit depth[1]	8, 10, 12 bits per color
Signal type	HDMI 2.0b, HDCP 2.3
Max. video data rate	18 Gbps (6 Gbps per color)

NOTE: [1]Subject to the maximum data rate limit. Use our calculator at www.extron.com/4Kdatarate to determine video parameters supported by this data rate.

VIDEO

Maximum data rate	18 Gbps (6 Gbps per color)
Maximum pixel clock	600 MHz
Resolution	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)
Formats	RGB and YCbCr digital video
Standards	DVI 1.0, HDMI 2.0b, HDMI 1.4, HDCP 1.4, HDCP 2.3, CEA-861E

VIDEO INPUT

Number/signal type	2, 4, 6, or 8 (depending on model) single link HDMI (or DVI-D*)
Connectors	2, 4, 6, or 8 female HDMI type A

VIDEO OUTPUT

Number/signal type	1 single link HDMI (or DVI-D*)
Connectors	1 female HDMI type A

NOTE: *Appropriate HDMI to DVI-D cables or adapters are required for DVI signal input/output.

COMMUNICATION

Serial control port	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
USB control port	1 female mini USB B on front panel
USB standards	USB 2.0, low speed
Ethernet data rate	10/100Base-T, half/full duplex, with auto detect
Ethernet protocol	ARP, ICMP (ping), IP, TCP, DHCP, HTTP, SMTP, Telnet
Program control	Extron control/configuration program for Windows® Extron Simple Instruction Set™ (SIS™) Microsoft® Internet Explorer® Telnet

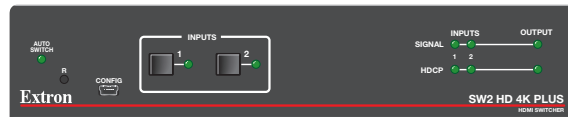| Contact closure/tally output	
SW2 HD 4K PLUS	(1) 3.5 mm captive screw, 5 pole (C,T,C,T,+V)
SW4 HD 4K PLUS	(1) 3.5 mm captive screw, 5 pole (C,T,C,T,+V) (1) 3.5 mm captive screw, 4 pole (C,T,C,T)
SW6 HD 4K PLUS	(6) 3.5 mm captive screw, 3 pole (C,G,T) (1) 3.5 mm captive screw, 3 pole (+V)
SW8 HD 4K 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

Power supply		
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

Power consumption	
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
Temperature/humidity	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
Cooling	Convection, no vents

Thermal dissipation	
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

Mounting	
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
Enclosure type	Metal

Enclosure dimensions	
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.)

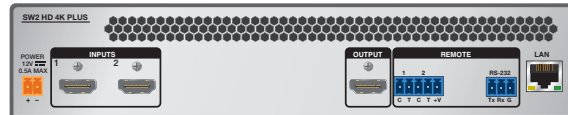| Product weight	
SW2 and SW4 HD 4K PLUS	1.2 lbs (0.5 kg)
SW6 and SW8 HD 4K PLUS	2.5 lbs (1.1 kg)
Regulatory compliance	CE, c-UL, UL, PSE, RoHs, and WEEE
Product warranty	3 years parts and labor
Everlast power supply warranty	7 years parts and labor

NOTE: All nominal levels are at ±10%.

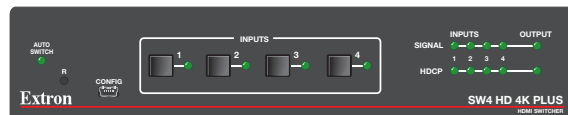| Model	Version Description	Part number
SW2 HD 4K PLUS	Two Input 4K/60 HDMI Switcher	60-1603-01
SW4 HD 4K PLUS	Four Input 4K/60 HDMI Switcher	60-1604-01
SW6 HD 4K PLUS	Six Input 4K/60 HDMI Switcher	60-1605-01
SW8 HD 4K PLUS	Eight Input 4K/60 HDMI Switcher	60-1606-01

Optional Accessories

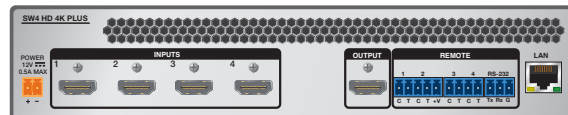| Model	Version Description	Part number
HD Pro Plenum Series	HDMI Premium High Speed Optical Cables - Plenum	26-726-xx
HDMI Pro Series	Premium High Speed, High Speed, and Standard HDMI Cables	26-650-xx
HDMI Ultra Series	Ultra Flexible Premium High Speed and High Speed HDMI Cables	26-663-xx
HD 4K 101 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
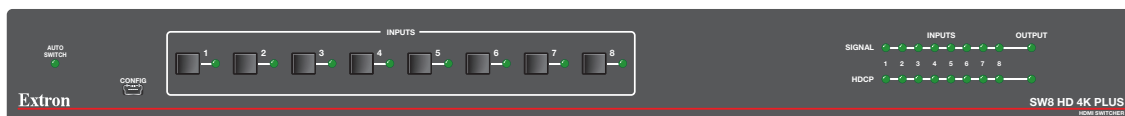

SW4 HD 4K PLUS - Back

SW6 HD 4K PLUS - Front

SW6 HD 4K PLUS - Back

SW8 HD 4K PLUS - Front

SW8 HD 4K PLUS - Back