DTP T SW4 HD 4K

FOUR INPUT HDMI SWITCHER WITH INTEGRATED DTP TRANSMITTER

DTP SYSTEMS

4K/UHD

▸ **Transmits HDMI plus control up to 330 feet (100 meters) over a shielded CATx cable**

▸ **Auto-switching between inputs**

▸ **Supports computer and video resolutions up to 4K**

▸ **Remote powering of DTP receiver**

▸ **Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance**

▸ **Supported HDMI specification features include data rates up to 10.2 Gbps, Deep Color up to 12-bit, 3D, and HD lossless audio formats**

▸ **DTP output is compatible with HDBaseT-enabled devices**

▸ **Bidirectional RS-232 and IR pass-through for AV device control**

▸ **User-selectable HDCP authorization**

▸ **EDID Minder® automatically manages EDID communication between connected devices**

▸ **Contact closure remote control with tally output**

The Extron DTP T SW4 HD 4K is a four-input switcher with a DTP output that sends HDMI and control signals up to 330 feet (100 meters) over a shielded CATx cable. With integrator-friendly features in a compact enclosure, this switcher is well-suited for a variety of applications.

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

DESCRIPTION

The Extron **DTP T SW4 HD 4K** is a four-input switcher for sending HDMI and control signals over shielded CATx cable up to 330 feet (100 meters) to DTP®-enabled products. It supports computer and video signals at resolutions up to 4K. The many integrator-friendly features include EDID Minder®, selectable HDCP authorization, along with bidirectional RS-232 and IR pass-through for remote AV device control. Front panel, RS-232, contact closure, and auto-input switching control capabilities facilitate integration of the switcher into a wide variety of environments.

The HDCP-compliant DTP T SW4 HD 4K provides reliable switching and transmission of HDMI signals, automatically switching among as many as four sources. The DTP output can be configured for compatibility with HDBaseT-enabled displays to send digital video with embedded audio plus bidirectional RS-232 and IR signals up to 330 feet (100 meters) over a shielded CATx cable.
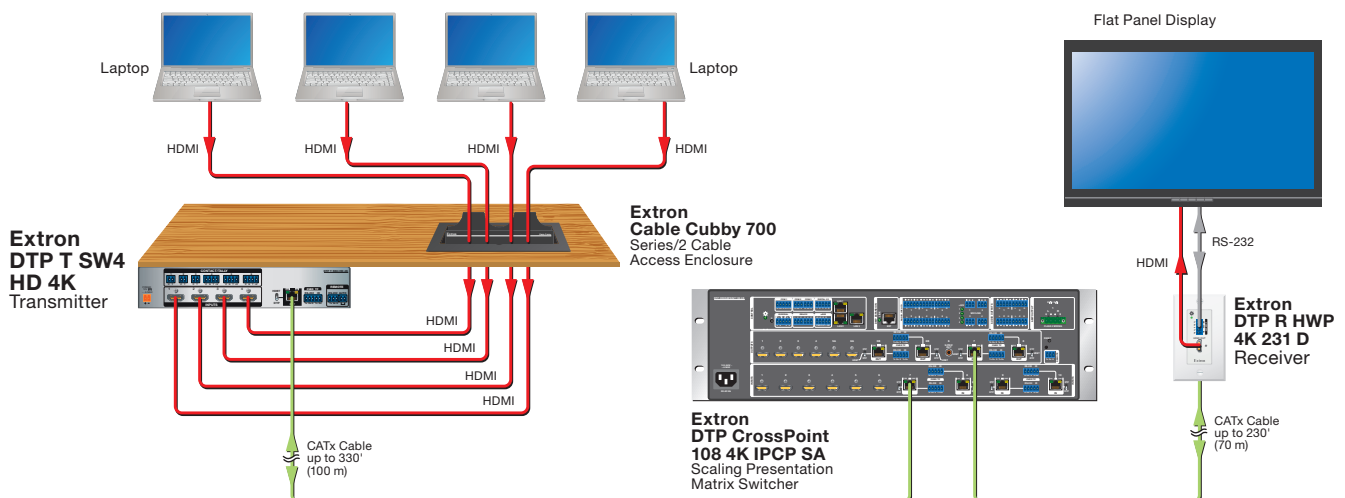
Front panel LED indicators provide immediate visual confirmation of HDCP authentication and signal presence for each input and the output. If HDCP-encrypted content is transmitted to a non-compliant display, a full-screen green signal provides immediate visual confirmation that protected content cannot be viewed on that display.

The switcher supports simultaneous transmission of bidirectional RS-232 and IR signals from a control system for AV device control. For added installation flexibility, it can supply power to a DTP-enabled receiver over the shielded twisted pair cable. This simplifies installation and allows both devices to share one power supply.

Convenient control options include front panel control, RS-232, IR, and contact closure with tally output. Configuration of the DTP T SW4 HD 4K is made simple with Extron's PCS - Product Configuration Software with a user-friendly GUI that is very easy to navigate. This software application allows for expedited setup and commissioning, real-time operation and monitoring, plus the ability to configure several units in the same session.

KEY FEATURES

▶ **Transmits HDMI plus control up to 330 feet (100 meters) over a shielded CATx cable**

▶ **Four HDMI inputs**

▶ **Auto-switching between inputs** – Auto-switching allows for simple, unmanaged installation in locations such as in a lectern or under a conference table.

▶ **Supports computer and video resolutions up to 4K**

▶ **Remote powering of DTP receiver** – For simplified installation, the transmitter can supply power to a DTP receiver over the twisted pair connection.

▶ **Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance**

▶ **Supported HDMI specification features include data rates up to 10.2 Gbps, Deep Color up to 12-bit, 3D, and HD lossless audio formats**

▶ **DTP output is compatible with HDBaseT-enabled devices**

▶ **Bidirectional RS-232 and IR pass-through for AV device control**

▶ **User-selectable HDCP authorization**

▶ **EDID Minder® automatically manages EDID communication between connected devices**

▶ **Automatic input cable equalization to 50 feet (15 meters) when used with Extron HDMI Pro Series cable**

▶ **HDCP Visual Confirmation provides a green signal when encrypted content is sent to a non-compliant display**

▶ **Compatible with all DTP 230 and DTP 330 Series receivers, and DTP-enabled products**

▶ **RS-232 control port**

▶ **Contact closure remote control with tally output**

▶ **LED indicators for signal presence, HDCP, and power**

▶ **Rack mountable, 1U half rack width metal enclosure**

▶ **Highly reliable, energy-efficient external universal power supply included**

COMPATIBLE WITH ALL EXTRON DTP RECEIVERS

Extron offers a wide selection of HDCP-compliant DTP twisted pair receivers for extending video, audio, and control signals over a shielded twisted pair cable. Designed for rack mount and architectural applications, the DTP receivers provide convenient connection points at remote display locations.

- **Models available to support DisplayPort, HDMI, and DVI**

- **Built-in signal conversion** – Any DTP receiver is compatible with any DTP Transmitter regardless of video format

- **Remote power capability** – For simplified installation, a DTP receiver can be remotely powered by a DTP-enabled product over the twisted pair connection

COMPATIBLE WITH ALL EXTRON DTP SYSTEMS PRODUCTS

Extron DTP switchers and matrix switchers are powerful, all-in-one AV integration solutions for presentation environments. Products range from the MPS 602 six input presentation switcher to the DTP CrossPoint 108 4K scaling matrix switcher with exclusive Vector 4K scaling. Models are available to deliver all the core functionality of an AV system including high performance switching, scaling, comprehensive audio DSP, a choice of energy efficient 100 watt Class D mono or stereo audio power amplifiers, a built-in Extron IPCP Pro control processor for complete AV system control, as well as integrated extension of video, audio, and control signals over a shielded CATx cable.

- **MPS 602** – Media Presentation Switcher with DTP Extension

- **IN1608** – Eight-Input Scaling Presentation Switcher with DTP Extension

- **DTP CrossPoint 84** – 8x4 Scaling Presentation Matrix Switcher

- **DTP CrossPoint 4K Series** –10x8, 8x6, 8x4, and 8x2 Seamless 4K Scaling Presentation Matrix Switchers

SPECIFICATIONS

TRUE 4K SPECIFICATION

Max 4K Capabilities

Resolution and Refresh Rate	Chroma Sampling	Max Bit Depth per Color
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	

Fame 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 bits per color
Signal type	HDMI 1.4, HDCP 1.4
Max. video data rate	10.2 Gbps (3.4 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	10.2 Gbps (3.4 Gbps per color)
Maximum pixel clock	300 MHz (600 MHz for 4K rates with 4:2:0 chroma subsampling)
Resolution	Up to 1920 x 1200 or 1080p @ 60 Hz, 12-bit color 4K (4096x2160) @ 30 Hz, UHD (3840x2160) @ 30 Hz 4K/UHD @ 60 Hz with 4:2:0 chroma subsampling
Formats	RGB and YCbCr digital video
Standards	DVI 1.0, HDMI 1.4, HDCP 1.4

NOTE: The DTP T SW4 HD 4K switchers support TMDS data rates up to 10.2 Gbps, Deep Color up to 12-bit, 3D**, HD lossless audio, and other HDMI specification features.

NOTE: **Extron strongly recommends compatibility testing while designing and before installing any 3D system. There are several unique 3D formats in use by source devices and display manufacturers. The 3D support in this porduct is limited to signals operating within 164 MHz pixel clock and requires format and EDID compatibility between source and sink devices. Please contact an Extron Application Engineer for more information.

VIDEO INPUT

Number/signal type	4 single link HDMI (or DVI-D*)
Connectors	4 female HDMI type A

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

VIDEO OUTPUT

Number/signal type	1 DTP 330 or HDBT Output
Connectors	1 RJ-45 Jack

INTERCONNECTION BETWEEN TRANSMITTER AND RECEIVER

Connectors	1 female RJ-45 per unit
Termination standard	TIA/EIA T568B
Signal transmission distance	
1080p @ 60 Hz	Up to 330' (100 m) using shielded twisted pair (STP) cable or XTP DTP 24 STP cable
2560x1600 @ 60 Hz	Up to 330' (100 m) using shielded twisted pair (STP) cable or XTP DTP 24 STP cable
4K/UHD @ 30 and 60 Hz	Up to 330' (100 m) using shielded twisted pair (STP) cable or XTP DTP 24 STP cable
Cable requirements	Solid conductor, 24 AWG or better
Cable recommendations	400 MHz bandwidth, STP (shielded twisted pair)

NOTE: Extron XTP DTP 24 shielded twisted pair cable is strongly recommended for optimal performance.

CONTROL/REMOTE — SWITCHER

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
Auto-input switching	(1) 3.5 mm, 2 pole captive screw connector
Pin configuration	Pins 1 and 2 of captive screw connector shorted together enable auto-input switching.
Contact closure	(3) 3.5 mm captive screw, 2-pole (shared with Tally output) (2) 3.5 mm captive screw, 4-pole (shared with Tally output)
Tally output	(3) 3.5 mm captive screw, 2-pole (shared with Contact closure) (2) 3.5 mm captive screw, 4-pole (shared with Contact closure)
Tally output power	+5 VDC, 0.2 A
IR controller module	IR 102 remote control (optional) 30' maximum, 40 degrees off axis
USB control ports	1 front panel female mini USB, type B
USB standards	USB 2.0, low speed
Program control	Extron PCS Software for Windows, Extron Simple Instruction Set™ (SIS™)

GENERAL

Power supply	External Input: 100-240 VAC, 50-60 Hz Output: 12 VDC, 1 A, 12 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
Mounting	
Rack mount	Yes, with optional 1U rack shelf
Furniture mount	Yes, with optional under-desk mounting kit or through-desk mounting kit
Enclosure type	Metal
Enclosure dimensions	1.75" H x 8.75" W x 3.0" D (1U high, half rack wide) (4.4 cm H x 22.2 cm W x 7.6 cm D) (Depth excludes connectors.)
Product weight	0.5 lb (0.3 kg)
Vibration	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety	CE, c-UL, UL
EMI/EMC	CE, C-Tick, FCC Class A, ICES, VCCI
Environmental	Complies with appropriate requirements of RoHs and WEEE.
Warranty	3 years parts and labor

NOTE: All nominal levels are at ±10%.

Model	Version Description	Part number
DTP T SW4 HD 4K	Four Input HDMI Switcher with DTP Tx	60-1625-01

For complete specifications, please go to www.extron.com
Specifications are subject to change without notice.

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