

# SW MTP 15HD A Series

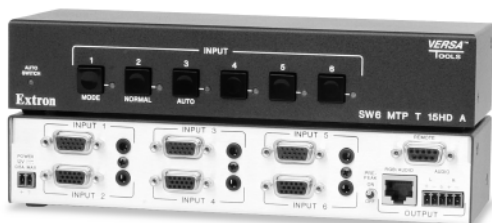
TWO, FOUR, AND SIX INPUT HIGH RESOLUTION VIDEO AND AUDIO SWITCHERS WITH INTEGRATED TWISTED PAIR TRANSMITTERS



SW2 MTP 15HD A



SW4 MTP 15HD A



SW5 MTP 15HD A

The Extron SW MTP 15HD A Series of switchers are ideal for routing multiple computer-video and audio signals up to 750 feet (230 meters) using unshielded twisted pair (UTP) cable. These units will accept up to six sources, routing the selected source to an MTP receiver to feed a monitor, presentation display, or data projector.

- Two, four, and six input, one output models
- Compatible with computer-video resolutions up to 1600 x 1200
- Compatible with RGBHV, RGBS, and RGsB
- Compatible with HDTV component video (bi-level and tri-level sync)
- Transmits summed mono audio (L + R summed)
- Local balanced & unbalanced stereo audio output
- Input autoswitching capabilities
- RS-232 and contact closure control
- Versatile mounting options
- External international power supply included



## Extron® Electronics

[www.extron.com](http://www.extron.com)

# DESCRIPTION

The Extron **SW MTP 15HD A** series is a versatile family of switchers for selecting and transmitting high resolution computer-video and audio sources long distances to presentation displays over a single unshielded twisted pair cable (UTP cable). The SW2 MTP T 15HD A, SW4 MTP T 15HD A, and SW6 MTP T 15HD A are two, four and six input, one output switchers that transmit RGBHV, RGBS, RGsB, HDTV, and other high resolution video and audio signals to a compatible MTP R 15HD A receiver. The SW MTP 15HD A series can be used with any CAT 5, 5e, or 6 twisted pair cable or with Extron Enhanced Skew-Free A/V UTP cable (patent pending) for cable runs of up to 600 feet (185 meters) with XGA signals, and 450 feet (135 meters) with UXGA signals.

Each model accepts two, four, or six computer video and audio inputs on female 15-pin HD connectors and 3.5 mm stereo audio jacks. The switcher transmits the selected computer video and summed mono (L+R) audio signal to a compatible twisted pair receiver. Also, the switcher features a second audio output from a 3.5 mm captive screw connector for sending a balanced or unbalanced analog stereo audio signal to a local amplifier.

Each switcher can be controlled using the front panel or remotely via contact closure or RS-232 signals. The dual-function remote control feature allows for numerous installation and control options. For example, the switcher can be installed in a secure location, such as an equipment rack or cabinet, and the control of the switcher can be managed using the optional Extron IR 102 Universal Remote Control Kit, or Extron KP 6 Keypad Remote Control, or Extron IP Link control interface to create cost-effective solutions with maximum functionality.

Using the autoswitching feature, the switcher can be set to switch automatically to the active source. For example, a number of wall plate receptacles can be installed around a room, each routed to a different input of the switcher. When an active computer-video source is connected to the wall plate, the switcher automatically selects that input. When two or more sources are detected at the same time the highest numbered input is automatically selected. The autoswitch function can be enabled or disabled via front panel buttons.

Part of the VersaTools family of economical, compact products, the SW MTP 15HD A Series of switchers are designed for easy integration into new and existing A/V environments. The entire family of Extron MTP 15HD products sets the price/performance standard for audio/video twisted pair technology. The MTP 15HD series is a complete twisted pair system including transmitters, receivers, and switchers, providing the ability to send, route, and distribute high resolution video, audio, and control signals. SW MTP 15HD A switchers are ideal for systems where high resolution video signals must be transmitted long distances to a display, or where space is limited in conduit, or for audio/video systems which cabling might be exposed or visible.

# FEATURES

- **Inputs** – Two, four, and six input models available.
- **Outputs** – Transmit a computer video and summed mono (L+R) audio signal to an MTP R 15HD A mini twisted pair receiver over any CAT 5, 5e, or 6 twisted pair cable or with Extron Skew-Free A/V UTP cable (patent pending). A 3.5 mm captive screw connector is also provided for balanced or unbalanced analog stereo audio output.
- **Autoswitching** – Input sources are selected automatically when the switcher detects an active sync signal, making the SW MTP 15HD A switchers ideal for automatic routing and unattended operation.
- **RS-232 control** – Rear panel, RS-232 port enables control via PC-based control software. Extron's Simple Instruction Set (SIS™) allows for quick and easy programming.
- **Contact Closure Control** – Enables control using control products like the optional Extron KP 6 keypad remote control or IPL T CR 48 control interface.
- **IR control** – With the optional Extron IR 102 Remote Control Kit, SW MTP T 15HD A switchers can be easily controlled with an IR 102 handheld remote.
- **Compact metal enclosure** – 1U, quarter rack width metal enclosure
- **Versatile mounting options** – Rack, under-desk, and projector-mountable
- **Power indicator** – Front panel LED for easy troubleshooting
- **Power supply** – External international power supply included (part number 70-055-01)

MTP Series	Transmission Distances																		
	50' 15 m	100' 30 m	150' 45 m	200' 60 m	250' 75 m	300' 90 m	350' 105 m	400' 120 m	450' 135 m	500' 150 m	550' 165 m	600' 185 m	650' 200 m	700' 215 m	750' 230 m	800' 245 m	900' 275 m	1000' 300 m	
<b>Composite Video</b>																			
<b>S-Video &amp; Component</b>																			
<b>640 x 480 (VGA)</b>																			
<b>800 x 600 (SVGA)</b>																			
<b>1024 x 768 (XGA)</b>																			
<b>1280 x 1024 (SXGA)</b>																			
<b>1600 x 1200 (UXGA)</b>																			

**Highest Image Quality**
 **Variable Image Quality**
 **Not Recommended**

## VIDEO

Number/signal type ..... 1 set of proprietary analog signals  
Connectors ..... 1 female RJ-45

## VIDEO INPUT

Number/signal type ..... 2, 4, or 6 (depending on the model)  
analog VGA-UXGA RGBHV, RGBS, RGsB  
Connectors ..... 2, 4, or 6 (depending on the model)  
female 15-pin HD  
Nominal level ..... 0.7 V p-p for RGB  
Minimum/maximum levels ..... Analog: 0.3 V to 1 V p-p with no offset  
Impedance ..... 75 ohms  
Horizontal frequency ..... 15 kHz to 130 kHz  
Vertical frequency ..... 30 Hz to 150 Hz  
Return loss ..... <-30dB @ 5 MHz  
DC offset (max. allowable) ..... 2 V

## VIDEO OUTPUT — refer to twisted pair receivers' specifications and manuals

Sync  
Input type ..... RGBHV, RGBS, RGsB  
Input level ..... 2.5 V to 5.5 V  
Input impedance ..... 560 ohms  
Max input voltage ..... 5.5 V

## AUDIO

Number/signal type ..... 1 set of proprietary analog signals  
Connectors ..... 1 female RJ-45  
Gain ..... ±0.1 dB channel to channel  
Frequency response ..... 20 Hz to 20 kHz, ±1 dB  
THD + Noise ..... 0.01% @ 1 kHz, 0.03% @ 20 kHz  
S/N ..... >100 dB at maximum output, unweighted  
Crosstalk ..... <-70 dB @ 20 Hz to 20 kHz, +4 dBu stereo output  
Stereo channel separation ..... >65 dB @ 20 Hz to 20 kHz  
CMRR ..... >43 dB @ 20 Hz to 20 kHz

## AUDIO INPUT

Number/signal type ..... 2, 4, or 6 (depending on the model)  
stereo, unbalanced  
Connectors ..... 2, 4, or 6 (depending on the model)  
3.5 mm mini audio jacks (tip, ring, sleeve)  
Impedance ..... >10k ohms unbalanced  
Nominal level ..... -10 dBV (316 mVrms)  
Maximum level ..... +16 dBV, unbalanced, at <1% THD+N  
**NOTE:** 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu

## AUDIO OUTPUT

Number/signal type ..... 1 set of proprietary analog signals to be sent to an MTP receiver  
1 stereo, balanced/unbalanced  
Connectors ..... 1 female RJ-45 (for proprietary signals)  
(1) 3.5 mm captive screw connector, 5 pole  
Impedance ..... 50 ohms unbalanced, 100 ohms balanced (for the stereo output)  
Gain error ..... ±1 dB channel to channel (for stereo output)  
Maximum level (Hi-Z) ..... >+23 dBu, balanced, at <1% THD+N (for stereo output)  
Maximum level (600 ohm) ..... >+17 dBu, balanced at <1% THD+N (for stereo output)  
Stereo channel separation ..... >60 dB @ 1 kHz

## CONTROL/REMOTE — Switcher/Transmitter

Serial control port ..... RS-232, 9-pin female D connector (shared with contact closure)  
Baud rate and protocol ..... 9600 baud, 8 data bits, 1 stop bit, no parity  
Serial control pin configurations ..... 2 = TX, 3 = RX, 5 = GND  
Contact closure ..... RS-232, 9-pin female D connector (shared with serial control)  
Contact closure pin configurations .. 1 = input 1, 4 = input 2, 5 = GND, 6 = input 3, 7 = input 4, 8 = input 5, 9 = input 6  
Program control ..... Extron's control/configuration program for Windows® Extron's Simple Instruction Set (SIS™)

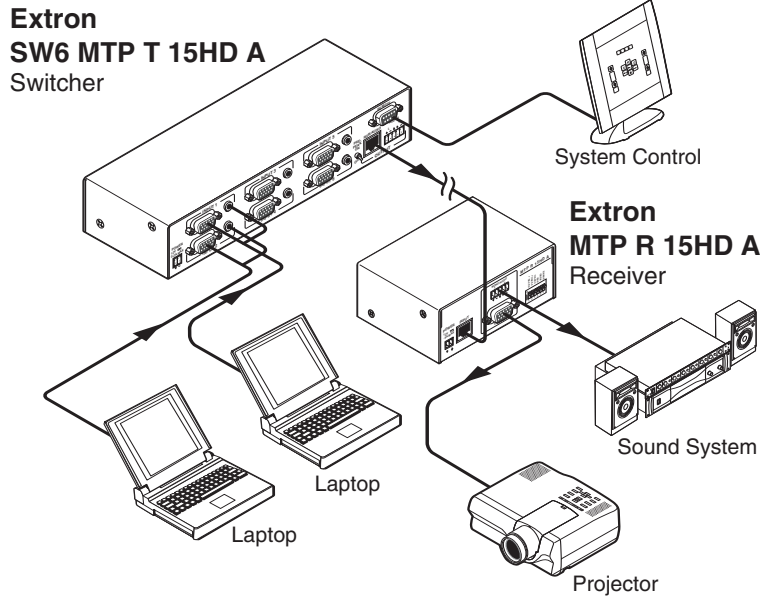
## GENERAL

Power ..... Supplied by an external power supply  
**NOTE:** The SW MTP Series transmitters cannot supply remote power to or receive remote power from attached receivers.  
External power supply ..... 100 VAC to 240 VAC, 50/60 Hz, external, autoswitchable; to 12 VDC, 1 A, regulated  
Power input requirements ..... 12 VDC, 600 mA  
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  
Rack mount ..... Yes, with optional 1U rack shelf, part #60-190-01 or 60-604-01; or VersaTools® rack shelf, part #60-190-20 or 60-604-20 Also furniture mountable with optional Under-Desk Mounting Kit #70-212-01  
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 and toggle switch.)  
Product weight ..... 0.8 lbs (0.4 kg)  
Shipping weight ..... 3 lbs (2 kg)  
Vibration ..... ISTA 1A in carton (International Safe Transit Association)  
Listings ..... UL, CUL  
Compliances ..... CE, FCC Class A, VCCI, AS/NZS, ICES  
MTBF ..... 30,000 hours  
Warranty ..... 3 years parts and labor  
**NOTE:** All nominal levels are at ±10%.

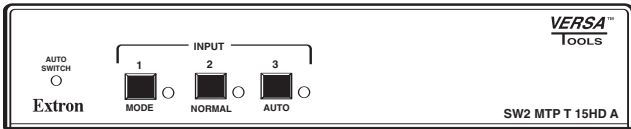
Model	Part Numbers
SW2 MTP T 15HD A	70-648-01
SW4 MTP T 15HD A	70-649-01
SW6 MTP T 15HD A	70-650-01

Optional Accessories	Part Numbers
VersaTools Rack Shelf Kit	60-190-20
1U Universal Rack Shelf Kit	60-190-01
Mini Under-desk Mount Kit	70-212-01
KP 6 Keypad Remote Control	60-111-20
IR 102 Universal Remote Control Kit	70-224-01

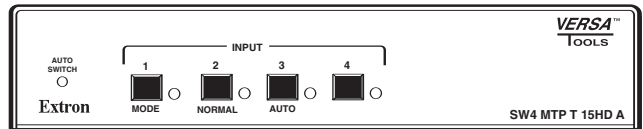
# APPLICATION DIAGRAM



# PANEL DRAWINGS



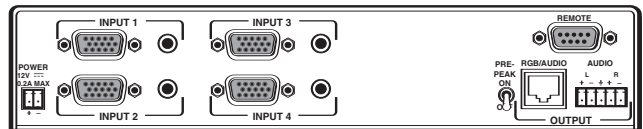
SW2 MTP T 15HD A (Front)



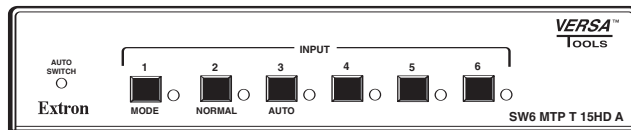
SW4 MTP T 15HD A (Front)



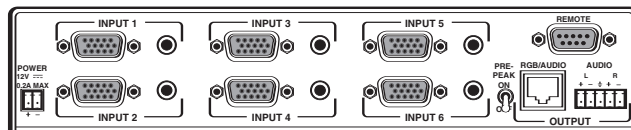
SW2 MTP T 15HD A (Back)



SW4 MTP T 15HD A (Back)



SW6 MTP T 15HD A (Front)



SW6 MTP T 15HD A (Back)



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