

MPS 601

MEDIA PRESENTATION SWITCHER

- ▶ Integrates HDMI, RGB, and audio sources into presentation systems
- ▶ Digitizes RGB and analog audio signals, and switches them through the HDMI output
- ▶ EDID Minder® automatically manages EDID communication between connected devices
- ▶ Key Minder® continuously verifies HDCP compliance for quick, reliable switching
- ▶ HDCP compliant
- ▶ Supports PC-video to 1920x1200, including HDTV 1080p/60 and 2K
- ▶ Supported HDMI specification features include data rates up to 6.75 Gbps, Deep Color up to 12-bit, 3D, Lip Sync, and HD lossless audio formats
- ▶ Multiple control options including front panel, RS-232, contact closure, and auto-input switching
- ▶ Rack-mountable, 1U, half-rack width metal enclosure



The Extron MPS 601 is a compact six input, one output media presentation switcher for HDMI, RGB, and audio sources. Analog signals are digitized and switched through the HDMI output along with native HDMI signals, providing a single video format and cable connection to the display. The MPS 601 is ideal for applications that require the routing of digital and analog sources to a single display.



Extron Electronics
INTERFACING, SWITCHING AND CONTROL

DESCRIPTION

The Extron **MPS 601** is a compact six input, one output media presentation switcher for digital and analog sources. It offers four, HDCP-compliant HDMI inputs and two RGB video inputs with analog stereo audio. RGB video and analog audio are digitized and switched through the HDMI output. The MPS 601 features two Extron-exclusive technologies: EDID Minder®, which maintains continuous EDID communication between connected devices, and Key Minder®, which continuously authenticates and maintains HDCP encryption between input and output devices to ensure quick and reliable switching. The MPS 601 is ideal for applications that require the routing of digital and analog sources to a single display.

For ease of integration, analog audio inputs can be assigned. In normal operation, the analog audio inputs follow the corresponding RGB input. Alternately, they can be assigned to follow preset groups of digital and RGB inputs. This enables the grouped inputs to share a common analog audio input.

The MPS 601 offers integrator-friendly features, including cable equalization on each HDMI input, automatic color bit depth management, indicators for monitoring and troubleshooting, as well as peripheral device powering. Automatic input cable equalization corrects for signal loss due to lengthy input cables, ensuring signal integrity for up to 50 feet (15 meters) of Extron HDMI Pro Series cable at 1080p/60 with 8-bit color. To prevent color compatibility conflicts between the source and display, the switcher automatically adjusts color bit depth based on the display EDID. Front panel LED indicators provide immediate visual confirmation of HDCP authentication and signal presence for each input and the output. The MPS 601 also provides +5 VDC, 250 mA on the HDMI output for powering peripheral devices such as the HDMI 101 Plus cable equalizer.

The MPS 601 provides multiple control points, allowing for streamlined integration into various environments. Convenient control options include front panel, RS-232, contact closure with tally, and auto-input switching. The six contact closure ports with tally allow for remote selection and output muting of an input via a simple push-button control. Housed in a 1U half-rack width metal enclosure, the compact MPS 601 can be rack-mounted, installed in a lectern with the Extron Half Rack Shelf System, or mounted under a table with the Extron UTS Series Under Table Shelf System.

FEATURES

- ▶ **Integrates HDMI, RGB, and audio sources into presentation systems**
- ▶ **Four HDMI inputs and two RGB inputs** – The MPS 601 allows for switching between HDMI and analog video sources.
- ▶ **Digitizes RGB and analog audio signals, and switches them through the HDMI output** – Analog signals are digitized, and switched through the HDMI output along with native HDMI signals, providing a single video format and cable connection to the display.
- ▶ **HDMI audio embedding** – Analog input audio signals can be embedded onto the HDMI output signal.

FEATURES (Cont.)

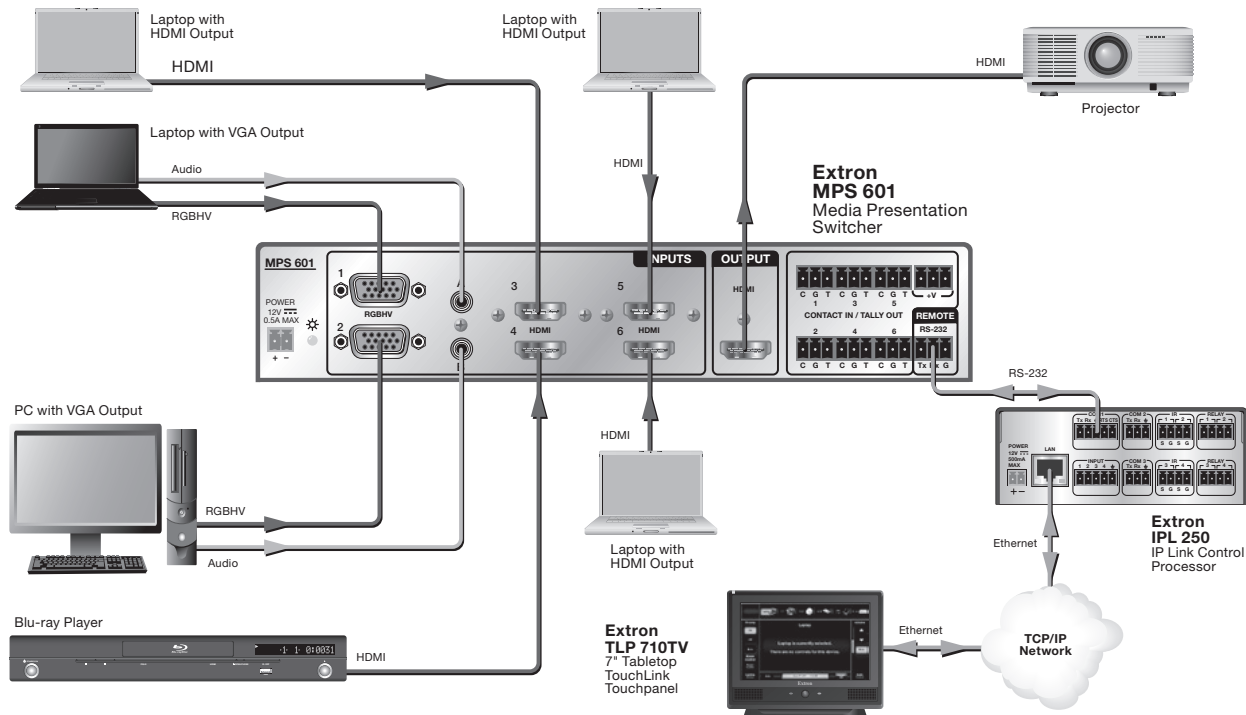
- ▶ **EDID Minder® automatically manages EDID communication between connected devices** – EDID Minder ensures that all sources power up properly and reliably output content for display.
- ▶ **Key Minder® continuously verifies HDCP compliance for quick, reliable switching** – Key Minder authenticates and maintains continuous HDCP encryption between input and output devices to ensure quick and reliable switching in professional AV environments.
- ▶ **Supports computer-video to 1920x1200, including HDTV 1080p/60 and 2K**
- ▶ **Supported HDMI specification features include data rates up to 6.75 Gbps, Deep Color up to 12-bit, 3D, Lip Sync, and HD lossless audio formats**
- ▶ **HDCP compliant**
- ▶ **HDCP authentication and signal presence LED indicators**
- ▶ **Automatic color bit depth management** – The switcher automatically adjusts color bit depth of the currently selected HDMI input signal based on the display EDID, preventing color compatibility conflicts between HDMI source and display.
- ▶ **HDMI to DVI Interface Format Correction** – Automatically reformats HDMI source signals for output to a DVI display.
- ▶ **Automatic input cable equalization to 50 feet (15 meters) at 1080p/60 with 8-bit color when used with Extron HDMI Pro Series cable** – Actively conditions incoming HDMI signals to compensate for signal loss when using long HDMI cables, low quality HDMI cables, and source devices with poor HDMI signal output.
- ▶ **Video and audio muting control** – Provides the capability to mute video and audio signals via contact closure or RS-232 control.
- ▶ **Audio input assignment for integration flexibility** – In normal operation, the analog audio inputs follow the corresponding RGB input. Alternately, they can be assigned to follow preset groups of RGB and digital inputs. Grouped inputs can share a common analog audio input. The HDMI output can be set to pass incoming digital audio, embed the analog audio, or to automatically embed the analog audio when no digital audio is detected.
- ▶ **Provides +5 VDC, 250 mA power on the output for external peripheral devices**
- ▶ **Multiple control options including front panel, RS-232, contact closure, and auto-input switching**
- ▶ **Auto-input switching** – Automatically switches to the input with an active video signal. When multiple inputs are active, the switching priority is configurable.
- ▶ **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.
- ▶ **Rack-mountable, 1U, half rack width metal enclosure**
- ▶ **Includes LockIt® HDMI cable lacing brackets**
- ▶ **Energy-efficient external universal power supply included**

SPECIFICATIONS

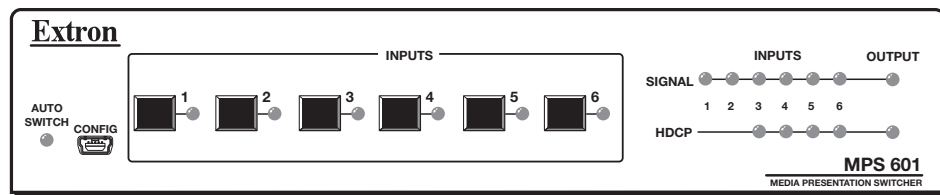
VIDEO	
VGA inputs	
Gain	Unity
Resolution	640x480 @ 60 Hz to 2048x1080 @ 60 Hz
HDMI inputs	
Maximum data rate	6.75 Gbps (2.25 Gbp per color)
Maximum pixel clock	225 MHz
Resolution	1920x1200 @ 60 Hz or 1080p @ 60 Hz and 2K, 12 bit color
Formats	RGB and YCbCr digital video
Standards	DVI 1.0, HDMI, HDCP 1.4
NOTE: The MPS 601 supports TMDS bit rates up to 6.75 Gbps, deep color up to 12-bit, 3D, HD lossless audio, and other HDMI specification features.	
VIDEO INPUT	
Number/signal type	
VGA inputs	2 VGA-QXGA, RGBHV, RGBS
HDMI inputs	4 single link HDMI (or single link DVI-D, with appropriate adapters)
Connectors	
VGA inputs	2 female 15 pin HD
HDMI inputs	4 female HDMI, type A
Nominal level	
VGA inputs	0.7 Vp-p for RGB
Minimum/maximum levels	
VGA inputs	Analog 0.3 V to 1.5 Vp-p with no offset
Impedance	75 ohms
Return loss	<-40 dB @ 5 MHz
Equalization	Automatic. Input cable <50' (15 m) @ 1920x1200, 50 or 60 Hz; or 1080p; 12-bit color and 2K, using Extron HDMI Pro Series cable
NOTE: The transmission distance varies depending on the signal resolution and on the type of cable, graphics card, and display used in the system.	
VIDEO OUTPUT	
Number/signal type	1 HDMI (or single link DVI-D)
Re-clocking	Automatic
Peripheral device power	250 mA per output
AUDIO INPUT	
Connectors	(2) 3.5 mm, stereo mini jacks; tip (L), ring (R), sleeve (Gnd)
Input impedance	>10k ohms unbalanced, DC coupled
NOTE: 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV = 2 dBu	
CONTROL/REMOTE — SWITCHER	
Serial control port	1 RS-232, 3.5 mm captive screw connector, 3-pole, rear panel
Baud rate and protocol	9600 baud, 8 data bits, 1 stop bit, no parity
Contact closure	(6) 3.5 mm captive screw connectors, 3-pole, shared with tally outputs
Tally output	(6) 3.5 mm captive screw connectors, 3-pole, shared with contact closure
Tally output power	+5 VDC, 0.2 A
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™)

CONTROL/REMOTE CONTACT CLOSURE WITH TALLY OUTPUTS		
Number/type	(6) contact closure inputs and 6 tally outs	
Connectors	(6) 3.5 mm captive screw connectors, 3-pole	
Contact closure and tally pin configurations	C = contact, G = ground, T = tally, active when contact pin momentarily shorts to ground	
GENERAL		
Power supply	External Input: 100-240 VAC, 50-60 Hz Output: 12 VDC, 1A, 12 watts	
Power consumption		
Device	3.9 watts at 12 VDC	
Device and power supply	5.3 watts at 12 VDC	
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		
Device	7.4 BTU/hr	
Device and power supply	12.3 BTU/hr	
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 6.0" D (1U high, half rack wide) 4.4 cm H x 22.2 cm W x 15.2 cm D (Depth excludes connectors.)	
Product weight	1.0 lbs (0.5 kg)	
Shipping weight	3.0 lbs (1.4 kg)	
Vibration	ISTA 1A in carton (International Safe Transit Association)	
Regulatory compliance		
Safety	CE, c-UL, UL	
EMI/EMC	CE, C-tick, ICES, FCC Class A, VCCI, ICES	
Environmental	Complies with the appropriate requirements of RoHS, WEEE	
Warranty	3 years parts and labor	
NOTE: All nominal levels are at ±10%.		
Model	Version Description	Part number
MPS 601	Six Input HDMI, VGA, & Audio Switcher	60-1377-01
Optional Accessories		
HDMI Micro Series	MicroDigital™ Ultra-Flexible HDMI Cables	26-667-xx
HDMI Ultra Series	Ultra Flexible High Speed HDMI Cables	26-663-xx
HDMI Pro Series	High Speed and Standard Speed HDMI Cables	26-650-xx
Half Rack Shelf System	Half-Rack Width Rack Shelf and Accessories	60-1251-xx
UTS Series	Under Table Shelf System	70-1028-0x

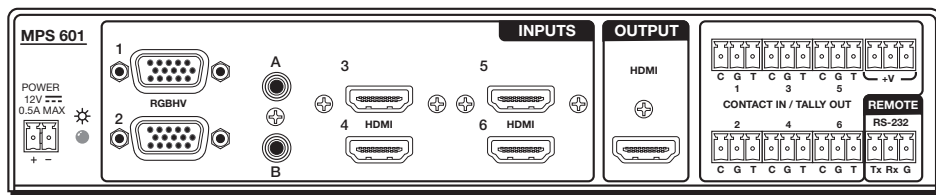
APPLICATION DIAGRAM



PANEL DRAWINGS



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