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SW DVI Plus Series

DVI AND STEREO AUDIO SWITCHERS

- Single link DVI-D switching
- Stereo audio switching
- Supports resolutions up to 1920x1200, including HDTV 1080p/60
- EDID Minder
- Selectable cable equalization for each input
- Source signal presence indication
- Active audio buffering
- Auto-input switching
- Provides +5VDC, 250mA power on the DVI output for external peripheral devices
- Front panel security lockout
- RS-232 serial control
- IR remote control with optional IR 102 handheld IR remote
- Rack-mountable 1U metal enclosure
- External universal power supply included



SW4 DVI A Plus



SW8 DVI A Plus

The SW DVI Plus Series are two, four, six, and eight input DVI switchers used to switch single link DVI-D signals and stereo audio. These switchers are ideal for use anywhere multiple DVI sources need to be switched to one digital display device.



Extron. Electronics
INTERFACING, SWITCHING AND CONTROL

DESCRIPTION

The Extron **SW DVI Plus Series** are two, four, six, and eight input, one output, single link DVI switchers, available with or without stereo audio switching. They are compatible with PC resolutions up to 1920x1200, and also support HDTV 1080p/60.

To enhance and simplify integration, all models feature EDID Minder, an Extron exclusive technology that automatically manages the EDID information between the digital display device connected to the output and all the input sources. By maintaining continuous EDID communication with all sources, EDID Minder ensures that all DVI sources power up properly and maintain their video outputs whether or not they are actively connected to the digital display device through the switcher's output.

Selectable cable equalization for each input reduces the need for additional signal conditioning equipment by compensating for signal loss when using long input cable assemblies. Front panel switches allow user selectable EQ levels for each input, and front panel LED signal presence indicators provide a quick means of active signal verification. The SW DVI Plus Series also offers a selectable auto-input switching mode, which automatically switches to the highest-numbered input with an active video signal.

Convenient control options allow easy integration into a variety of environments, and include front panel control, auto-input switching, IR, and RS-232 serial control. To help simplify integration, the SW DVI Plus Series provides +5VDC, 250mA on the output for powering external peripheral devices. All SW DVI Plus Series switchers are housed in rack-mountable, 1U enclosures.

Note: The SW DVI Plus Series are not HDCP compliant.

FEATURES

- **Single link DVI-D switching**
- **Stereo audio switching** – Select models feature stereo audio switching, and accept unbalanced input signals and output balanced or unbalanced output signals.
- **Supports resolutions up to 1920x1200, including HDTV 1080p/60**
- **EDID Minder** – Automatically manages EDID - Extended Display Identification Data communication between the display and connected input sources. EDID Minder ensures that all sources power up correctly, whether or not they are actively connected to the display device through the switcher's output.
- **Selectable cable equalization for each input** – Actively conditions incoming DVI signals to compensate for signal loss when using long DVI cables, low quality DVI cables, or source devices with poor DVI signal output. Equalization is independently selectable for each input.
- **Source signal presence indication** – LED indicators on the front panel provide real-time verification of signal presence for all inputs.
- **Auto-input switching** – Automatically switches to the highest-numbered input with an active video signal.
- **Provides +5VDC, 250mA power on the DVI output for external peripheral devices**
- **Active audio buffering** – Converts unbalanced audio signals to balanced audio signals, eliminating noise over long cable runs.
- **Front panel security lockout** – Prevents unauthorized use in non-secure environments. In lockout mode, a special button combination is required to operate the switcher from the front panel.
- **RS-232 serial control**
- **IR remote control with optional IR 102 handheld IR remote**
- **Rack-mountable 1U metal enclosure** – SW DVI Plus two and four input models feature a half rack width enclosure. Six and eight input models feature a full rack width enclosure.

EDID MINDER

EDID - Extended Display Identification Data is a data structure used to communicate video display information, including native resolution and vertical interval refresh rate requirements, to a source device. A source device will output the optimal video format for the display based on the provided EDID data, ensuring proper video image quality.

Extron SW DVI Plus Series switchers offer an enhanced EDID functionality known as EDID Minder. EDID Minder enables the switcher to emulate the display, providing EDID information to the connected source devices. Therefore, source devices connected to the switcher will continuously output video, even when there is no display connection. The switcher's EDID data can either be automatically generated or manually selected by a user.

• **Automatic EDID mode** – The switcher will automatically capture and store the display's EDID information upon active connection, overriding the default 1024 x 768 @ 60 Hz resolution.

• **User-defined mode** – The switcher will utilize a specific EDID data structure selected by the user. There are 16 factory preset EDID data options to choose from, including the option to upload user-defined EDID.

FACTORY PRESET EDID OPTIONS

	Native Resolution	Refresh Rate
1	800x600	60 Hz
2	1024x768 (default)	60 Hz
3	1280x1024	60 Hz
4	1280x800	60 Hz
5	1360x768	60 Hz
6	1366x768	60 Hz
7	1440x900	60 Hz
8	1400x1050	60 Hz
9	1680x1050	60 Hz
10	1600x1200	60 Hz
11	1920x1200	60 Hz
12	1280x720 (720p/60)	60 Hz
13	1920x1080 (1080p/60)	60 Hz
14	1280x720 (720p/50)	50 Hz
15	1920x1080 (1080p/50)	50 Hz
16	User-loaded	

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

NOTE: The SW DVI Plus Series are not HDCP compliant.

VIDEO

Maximum data rate..... 4.95 Gbps (1.65 Gbps per color)
 Maximum pixel clock..... 165 MHz
 Resolution range Up to 1920x1200 or 1080p @ 60 Hz
 Formats..... RGB and YCbCr digital video
 Standards..... DVI 1.0, HDMI 1.2

VIDEO INPUT

Number/signal type 2, 4, 6, or 8 single link DVI-D (or HDMI*)
 Connectors 2, 4, 6, or 8 female DVI-I
 Equalization +6 dB or +12 dB, switch selectable for each input

VIDEO OUTPUT

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

AUDIO

Gain Unbalanced output: 0 dB; balanced output: +6 dB
 Frequency response..... 20 Hz to 20 kHz, ±0.05 dB
 THD + Noise..... 0.01% @ 1 kHz at nominal level
 S/N..... >90 dB at maximum output (unweighted)
 Crosstalk Stereo channel separation >80 dB @ 20 Hz to 20 kHz

AUDIO INPUT

Number/signal type 6 or 8 stereo, unbalanced
 Connectors (6 or 8) 3.5 mm mini audio jacks (tip = L, ring = R, sleeve = GND)
 Impedance..... >10k ohms unbalanced, DC coupled
 Nominal level..... -10 dBV (316 mVrms)
 Maximum level +8.2 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 stereo, balanced/unbalanced
 Connectors (1) 3.5 mm captive screw connector, 5-pole
 Impedance..... 50 ohms unbalanced, 100 ohms balanced
 Maximum level (Hi-Z) >+16.5 dBu, balanced; >8.2 dBV, unbalanced at 1% THD+N
 Maximum level (600 ohm)..... >+10.4 dBm, balanced; >7.1 dBm, unbalanced at 1% THD+N

CONTROL/REMOTE — SWITCHER

Serial control port
 SW2 and SW4 DVI Plus 1 RS-232 9-pin female D
 SW6 and SW8 DVI/DVI A Plus 1 RS-232 3.5 mm captive screw connector, 5-pole (shared with auto switching control)
Baud rate and protocol 9600 baud, 8 data bits, 1 stop bit, no parity
Serial control pin configurations
 SW2 and SW4 DVI Plus 2 = Tx, 3 = Rx, 5 = GND
 SW6 and SW8 DVI/DVI A Plus 1 = Tx, 2 = Rx, 3 = GND
Contact closure..... (SW6 and SW8 DVI Plus models only)
 (1) 3.5 mm captive screw connector, 5 pole (shared with RS-232)
Contact closure pin configurations (SW6 and SW8 DVI Plus models only)
 4 and 5 shorted together enable auto switch mode.

IR controller module IR 102 Remote Control, optional (#70-224-10) 30' maximum, 40 degrees off axis
Program control Extron's Universal Switcher Control/ configuration program for Windows® Extron's Simple Instruction Set (SIS™)

GENERAL

External power supply..... 100 VAC to 240 VAC, 50-60 Hz, external; to 12 VDC, 2 A, regulated

Power input requirements

SW2 and SW4 DVI Plus 12 VDC, 0.2 A
 SW6 and SW8 DVI/DVI A Plus 12 VDC, 1.0 A

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

SW2 and SW4 DVI Plus
 Rack mount..... Yes, with optional rack shelf kit
 Back of the rack mountable with optional back-of-the-rack mounting kit
 Furniture mount..... Yes, with optional under-desk mounting kit

SW6 and SW8 DVI/DVI A Plus Rack mountable with included bracket kit

Enclosure type Metal

Enclosure dimensions

SW2 and SW4 DVI Plus 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.)
 SW6 and SW8 DVI/DVI A Plus 1.75" H x 17.5" W x 8.5" D (1U high, full rack wide)
 (4.4 cm H x 44.4 cm W x 21.6 cm D)
 (Depth excludes connectors.)

Product weight

SW2 and SW4 DVI Plus 0.6 lbs (0.3 kg)
 SW6 and SW8 DVI/DVI A Plus 3.8 lbs (1.7kg)

Shipping weight

SW2 and SW4 DVI Plus 2 lbs (1 kg)
 SW6 and SW8 DVI/DVI A Plus 5 lbs (3 kg)

DIM weight..... (SW6 and SW8 DVI/DVI A Plus only)6 lbs (2.7 kg)

Vibration..... ISTA 1A in carton (International Safe Transit Association)

Regulatory compliance

Safety..... CE, CUL, UL
 EMI/EMC CE, C-tick, FCC Class A, ICES, VCCI

MTBF..... 30,000 hours

Warranty..... 3 years parts and labor

NOTE: All nominal levels are at ±10%.

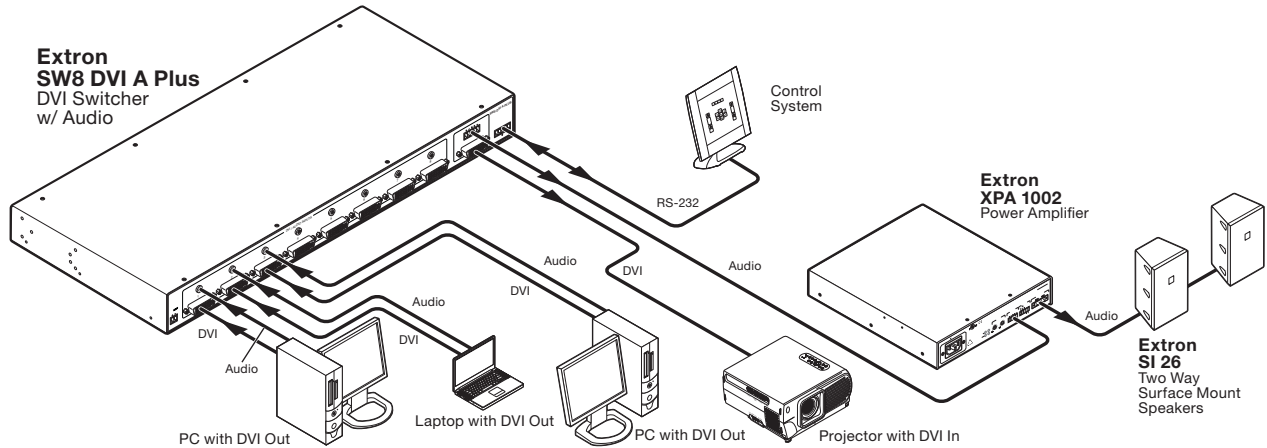
NOTE: Specifications are subject to change without notice.

Model	Version Description	Part number
SW2 DVI Plus	Two Input DVI Switcher	60-964-01
SW2 DVI A Plus	Two Input DVI Switcher w/Stereo Audio	60-964-21
SW4 DVI Plus	Four Input DVI Switcher	60-965-01
SW4 DVI A Plus	Four Input DVI Switcher w/Stereo Audio	60-965-21
SW6 DVI Plus	Six Input DVI Switcher	60-966-01
SW6 DVI A Plus	Six Input DVI Switcher w/Stereo Audio	60-966-21
SW8 DVI Plus	Eight Input DVI Switcher	60-967-01
SW8 DVI A Plus	Eight Input DVI Switcher w/Stereo Audio	60-967-21

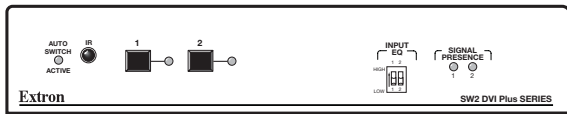
Optional Accessories

IR 102 Replacement Handheld Remote..... 70-224-10

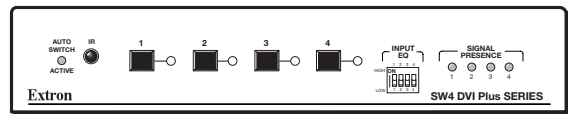
APPLICATION DRAWING



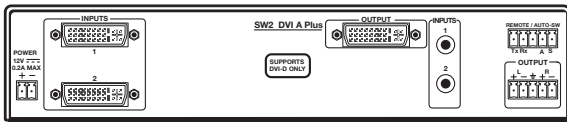
PANEL DRAWINGS



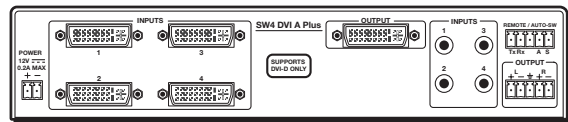
SW2 DVI A Plus - Front



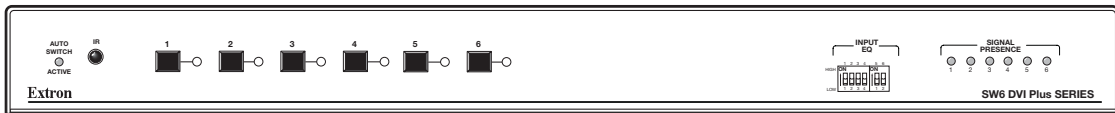
SW4 DVI A Plus - Front



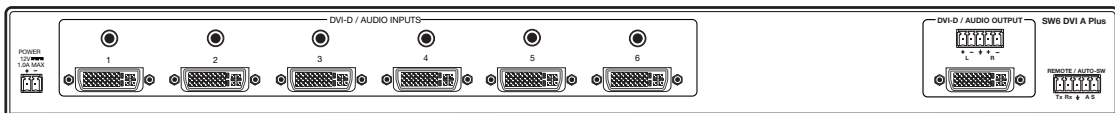
SW2 DVI A Plus - Back



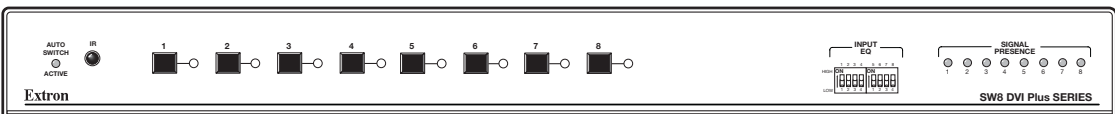
SW4 DVI A Plus - Back



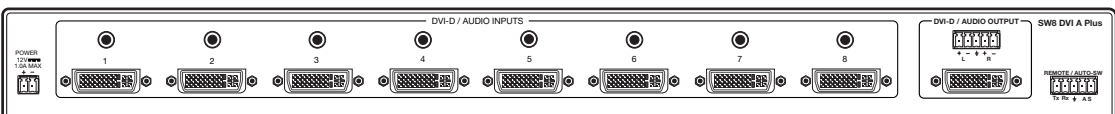
SW6 DVI A Plus - Front



SW6 DVI A Plus - Back



SW8 DVI A Plus - Front



SW8 DVI A Plus - Back



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