HDMI DA Series

HDMI DISTRIBUTION AMPLIFIERS

▸ **Distributes HDMI video and embedded multi-channel digital audio signals**

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

▸ **Key Minder® continuously verifies HDCP compliance**

▸ **HDCP compliant**

▸ **Supports computer-video to 1920x1200, including HDTV 1080p/60 and 2K**

▸ **Provides +5 VDC, 250 mA power on each output for external peripheral devices**

▸ **Output muting via RS-232**

The Extron HDMI DA Series are two, four, and six output HDMI distribution amplifiers. They feature EDID Minder® and Key Minder®, two Extron-exclusive technologies that automatically manage EDID communication and HDCP negotiation for reliable operation in commercial AV applications. The HDMI DA Series is ideal for applications that require the distribution of an HDMI source signal to multiple displays.

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

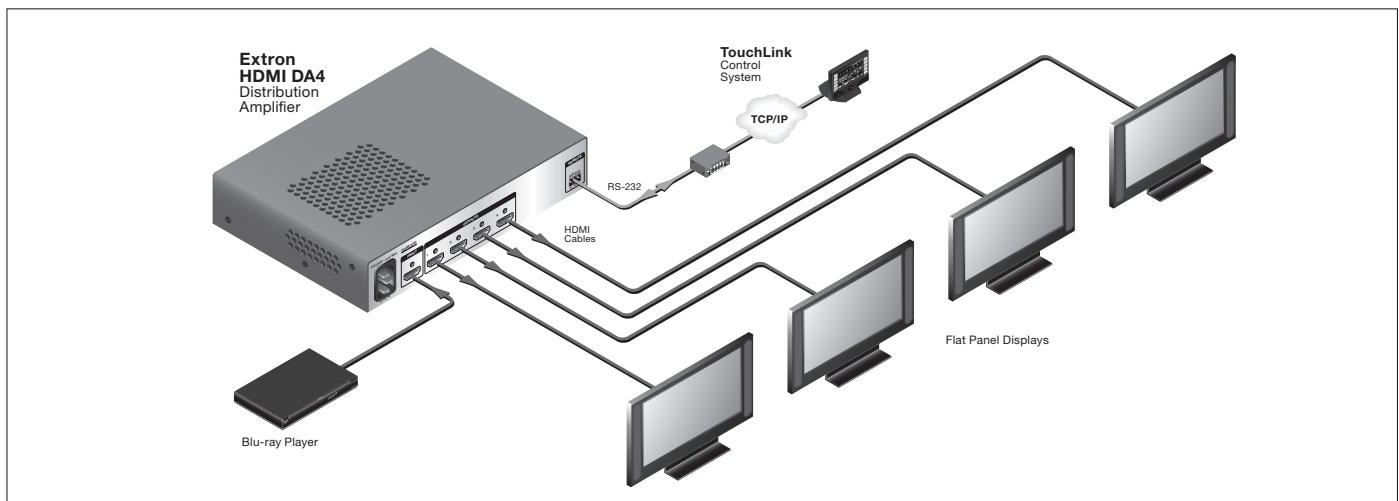SERVICE SUPPORT 3 SOLUTIONS

DESCRIPTION

The Extron **HDMI DA Series** of distribution amplifiers reliably distributes one HDMI source signal to two, four, or six displays. The HDMI DA Series supports HDMI specification features including data rates up to 6.75 Gbps, 12-bit Deep Color, 3D, Lip Sync, and HD lossless audio formats. The HDCP-compliant distribution amplifiers support HDTV 1080p/60, 2K, and PC resolutions up to 1920x1200. The HDMI DA Series features two Extron-exclusive technologies: EDID Minder, which maintains continuous EDID communication between connected devices, and Key Minder, which continuously authenticates HDCP encryption between all devices, ensuring the simultaneous distribution of source content to all displays. The HDMI DA Series is ideal for applications that require the distribution of an HDMI source signal to multiple displays.

To enhance and simplify integration, the HDMI DA Series offers integrator-friendly features including automatic input cable equalization, automatic color bit depth management, selectable output muting, indicators for monitoring and troubleshooting, as well as peripheral device power on each output. The DAs provide automatic input cable equalization up to 50 feet at 1080p/60 with 8-bit color on Extron HDMI Pro Series cables. Input cable equalization restores and reshapes incoming HDMI signals, reducing the need for additional signal conditioning equipment by compensating for weak source signals or signal loss from a long input cable. The HDMI DA Series automatically adjusts color bit depth based on the display EDID, preventing color compatibility conflicts between source and display. Outputs can be muted independently via RS-232, allowing content to be previewed on a local monitor. The distribution amplifiers provide immediate visual confirmation for each port via front panel LED indicators. The HDMI DA Series also provides +5 VDC, 250 mA on each output for powering peripheral devices such as an HDMI 101 Plus cable equalizer.

The HDMI DA2 is housed in a 1-inch (2.5 cm) high, quarter rack width metal enclosure that can be mounted in a rack or discreetly installed beneath a desk or behind a display. It includes an external, universal power supply for worldwide power compatibility. The HDMI DA4 and HDMI DA6 are housed in rack-mountable 1U high, half rack width metal enclosures, and are equipped with internal universal power supplies.

FEATURES

▸ **EDID Minder automatically manages EDID communication between connected devices** – EDID Minder ensures that the source powers up properly and reliably outputs content for display.

▸ **Key Minder continuously verifies HDCP compliance** – Key Minder authenticates and maintains continuous HDCP encryption between all input and output devices to enable simultaneous distribution of a single source signal to two or more displays.

▸ **HDCP compliant**

▸ **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**

▸ **Automatic input cable equalization to 50 feet at 1080p/60 with 8-bit color when used with Extron HDMI Pro Series cable**

▸ **Automatic color bit depth management** – The HDMI DA Series automatically adjusts color bit depth based on the display EDID, preventing color compatibility conflicts between source and displays.

▸ **HDMI to DVI Interface Format Correction** – Automatically reformats HDMI source signals for output to a connected DVI display.

▸ **Output muting via RS-232** – Provides the capability to mute one or all outputs at any time. This allows content to be viewed on a local monitor prior to appearing on the main presentation display.

▸ **EDID status, HDCP authentication, and signal presence LED indicators**

▸ **Provides +5 VDC, 250 mA power on each output for external peripheral devices**

▸ **Rack-mountable, metal enclosure** – HDMI two output model features a 1" (2.5 cm) high, quarter rack width enclosure. Four and six output models feature a 1U high, half rack width enclosure.

▸ **Includes LockIt® HDMI cable lacing brackets**

▸ **Worldwide power compatibility** – HDMI DA Series two output model comes standard with an energy-efficient external universal power supply, replacement part # 70-775-01. Four and six output models come with 100-240 VAC, 50/60 Hz, internal universal power supply.
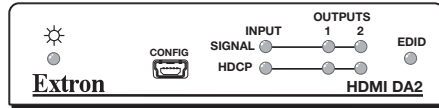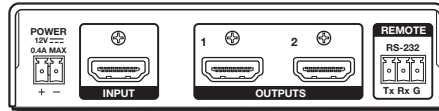
SPECIFICATIONS

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

VIDEO

Maximum data rate	6.75 Gbps (2.25 Gbps per color)
Maximum pixel clock	165 MHz
Resolution range	Up to 1920x1200 or 1080p @ 60 Hz, 12-bit color
Formats	RGB and YCbCr digital video
Standards	DVI 1.0, HDMI, HDCP

VIDEO INPUT

Number/signal type	1 single link HDMI (or DVI-D*)
Connectors	1 female 19-pin HDMI type A

VIDEO OUTPUT

Number/signal type	
HDMI DA2	2 single link HDMI (or DVI-D*)
HDMI DA4	4 single link HDMI (or DVI-D*)
HDMI DA6	6 single link HDMI (or DVI-D*)
Connectors	
HDMI DA2	2 female 19-pin HDMI type A
HDMI DA4	4 female 19-pin HDMI type A
HDMI DA6	6 female 19-pin HDMI type A

CONTROL/REMOTE

Serial control port	RS-232, 3.5 mm, 3-pole captive screw connector
Baud rate and protocol	9600 baud, 8 data bits, 1 stop bit, non-parity
Serial control pin configuration	1 = Tx, 2 = Rx, 3 = GND
USB control port	1 front panel, female, mini USB B
USB standards	USB 2.0, low speed
Program control	Extron Simple Instruction Set (SIS™)

GENERAL

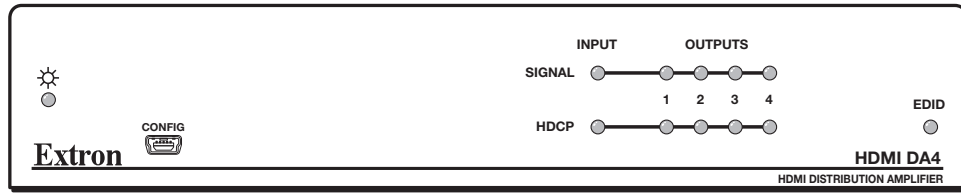|	
Power	
HDMI DA2	External
	Input: 100-240 VAC, 50-60 Hz
	Output: 12 VDC, 1 A, 12 watts
HDMI DA4 and HDMI DA6	Internal
	Input: 100-240 VAC, 50-60 Hz
Power consumption	
HDMI DA2	
Device	4 watts
Device and power supply	5.3 watts
HDMI DA4 and HDMI DA6	7.7 watts

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, vents on top
Thermal dissipation	
HDMI DA2	
Device	13.1 BTU/hr
Device and power supply	17.5 BTU/hr
HDMI DA4 and HDMI DA6	18.2 BTU/hr
Mounting	
Rack mount	Yes, with optional rack shelf kit
Enclosure type	Metal
Enclosure dimensions	
HDMI DA2	1.0" H x 4.3" W x 3.0" D (one quarter rack wide)
	2.5 cm H x 10.9 cm W x 7.6 cm D (Depth excludes connectors)
HDMI DA4 and HDMI DA6	1.75" H x 8.75" W x 6.0" D (half rack wide)
	4.4 cm H x 22.2 cm W x 15.2 cm D (Depth excludes connectors)
Product weight	
HDMI DA2	0.35 lbs (0.2 kg)
HDMI DA4 and HDMI DA6	1.6 lbs (0.7 kg)
Shipping weight	
HDMI DA2	2 lbs (1 kg)
HDMI DA4 and HDMI DA6	3 lbs (2 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 the appropriate requirements of RoHS, WEEE.
Warranty	3 years parts and labor

NOTE: All nominal levels are at ±10%.

Model	Version Description	Part number
HDMI DA2	Two Output HDMI	60-997-01
HDMI DA4	Four Output HDMI	60-998-01
HDMI DA6	Six Output HDMI	60-999-01

PANEL DRAWINGS
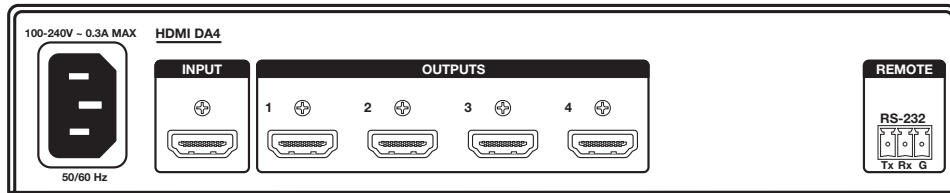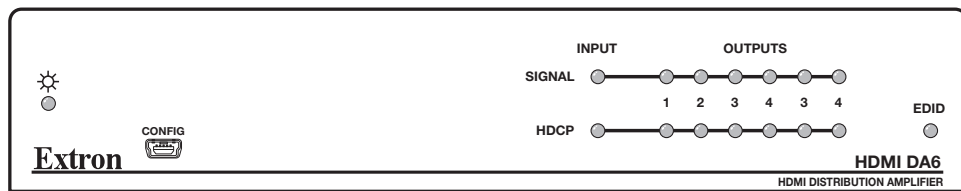
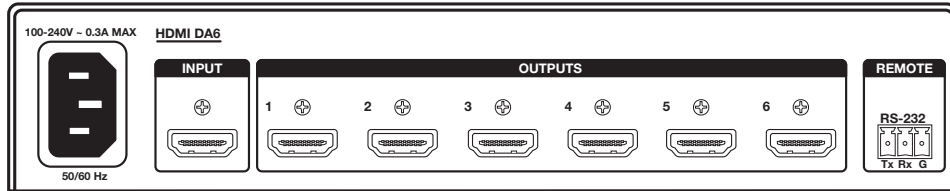**HDMI DA2 - Front**

HDMI DA2 - Back

HDMI DA4 - Front

HDMI DA4 - Back

HDMI DA6 - Front

HDMI DA6 - Back

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