

DA HD 8K L Series

8K HDMI DISTRIBUTION AMPLIFIERS



The Extron **DA HD 8K L** Series are two-output, four-output, and six-output HDCP 2.3-compliant distribution amplifiers for HDMI at resolutions up to 8K/60, including 5K for Microsoft® Teams® rooms. Some of the many integration-friendly features include automatic input cable equalization, Ethernet monitoring and control, and selectable output muting. They also feature Extron EDID Minder® Plus for support of additional memory blocks needed for advanced display features. The DA HD 8K L Series is ideal for environments that require reliable distribution of a high data rate HDMI source signal to multiple displays, from presentation spaces to esports venues.

- ▶ Supports resolutions up to 8K/60
- ▶ Supported HDMI 2.1 specification features include data rates up to 40.1 Gbps, HDR, Deep Color up to 12-bit, 3D, HD lossless audio formats, and CEC control
- ▶ EDID Minder® Plus automatically manages EDID communication between connected devices
- ▶ Key Minder® continuously verifies HDCP compliance
- ▶ HDCP 2.3 compliant
- ▶ Supports Ethernet monitoring and control
- ▶ Selectable output muting
- ▶ Provides +5 VDC, 250 mA power on each output for external peripheral devices
- ▶ Includes Extron Everlast® Power Supply

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DESCRIPTION

The Extron **DA HD 8K L Series** are two-output, four-output, and six-output HDCP 2.3-compliant distribution amplifiers for HDMI at resolutions up to 8K/60, including 5K for Microsoft Teams rooms. Each supports data rates up to 40.1 Gbps, HDR, Deep Color up to 12-bit, 3D, HD lossless audio formats, and CEC capability. The integration-friendly features include automatic input cable equalization, Ethernet monitoring and control, and selectable output muting. They also feature EDID Minder Plus for support of additional memory blocks needed for advanced display features and Key Minder, which ensures simultaneous distribution of HDCP-encrypted content. The DA HD 8K L Series is ideal for environments that require reliable distribution of a high data rate HDMI source signal to multiple displays, from presentation spaces to esports venues.

To enhance and simplify integration, each DA HD 8K L model provides many integrator-friendly features. 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. Color bit depth is automatically adjusted based on the display EDID, which prevents color compatibility conflicts between source and display. Also, outputs can be muted independently, allowing video and/or audio content to be previewed on a local monitor.

These distribution amplifiers provide immediate visual confirmation of HDCP authentication and signal presence for each port via front panel LED indicators. If HDCP-encrypted content is transmitted to a non-HDCP compliant display, a full-screen green signal provides immediate visual notification that protected content cannot be viewed on that display. HDCP authorization is user-selectable, allowing the unit to appear HDCP compliant or non-HDCP compliant to the connected source. This is beneficial if the source automatically encrypts all content when connected to an HDCP-compliant device. The DA HD 8K L distribution amplifiers also provide +5 VDC, 250 mA on each output for powering peripheral devices such as Extron HD Pro Plenum Series active, hybrid optical-copper cables that provide high-speed HDMI transmission over longer cable runs.

The DA2 HD 8K L two-output model is housed in a 1" (2.5 cm) high, quarter rack width metal enclosure and the DA4 HD 8K L four-output and DA6 HD 8K L six-output models are each housed in a 1" (2.5 cm) high, half rack width metal enclosure. They can be mounted in a rack or discreetly installed beneath a table or desk. The Extron external, universal power supply that ships with the unit ensures worldwide power compatibility.

KEY FEATURES

- ▶ **Supports computer and video resolutions up to 8K/60**
- ▶ **Supported HDMI 2.1 specification features include data rates up to 40.1 Gbps, HDR, Deep Color up to 12-bit, 3D, HD lossless audio formats, and CEC control**
- ▶ **CEC – Consumer Electronics Control capability** – Standard, built-in CEC commands can be triggered by a control system to operate displays or other AV devices connected over HDMI.

KEY FEATURES (Cont.)

- ▶ **HDCP 2.3 compliant** – Ensures display of content-protected media and interoperability with other HDCP-compliant devices.
- ▶ **Support for HDR – High Dynamic Range video** – Enables greater contrast range and wider color gamut by providing the necessary video bandwidth, color depth, and metadata interchange capability for HDR video.
- ▶ **Automatic input cable equalization** – Actively conditions incoming HDMI signals to compensate for signal loss when using long cables, low quality cables, or source devices with poor signal output.
- ▶ **Comprehensive EDID management** – Use PCS software to access EDID Minder for setting video input EDID, capturing EDID from connected displays, or uploading custom EDID files.
- ▶ **EDID Minder Plus automatically manages EDID communication between connected devices** – EDID Minder Plus supports additional memory blocks for displays that convey advanced features via both EDID and DisplayID for proper management of the extended EDID information required to reliably display and distribute 5K and 21:9 aspect ratio content.
- ▶ **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 multiple displays.
- ▶ **Selectable output muting** – Provides the capability to mute one or more outputs at any time for video, audio, and/or sync.
- ▶ **User-selectable HDCP authorization** – Allows the unit to appear HDCP compliant or non-HDCP compliant to the connected source, which is beneficial if the source automatically encrypts all content when connected to an HDCP-compliant device. Protected material is not passed in non-HDCP mode.
- ▶ **HDCP Visual Confirmation provides a green signal when encrypted content is sent to a non-compliant display**
- ▶ **Automatic color bit depth management** – Automatically adjusts color bit depth based on the display EDID, preventing color compatibility conflicts between source and displays.
- ▶ **HDCP authentication and signal presence LED indicators**
- ▶ **Provides +5 VDC, 250 mA power on each output for external peripheral devices**
- ▶ **Ethernet monitoring and control**
- ▶ **Supports 802.1X Authentication** – Provides support for the IEEE 802.1X authentication standard for port-based Network Access Control.
- ▶ **RS-232 control port** – Available only on the DA4 HD 8K L and DA6 HD 8K L models.
- ▶ **Easy setup and commissioning with Extron's PCS – Product Configuration Software**

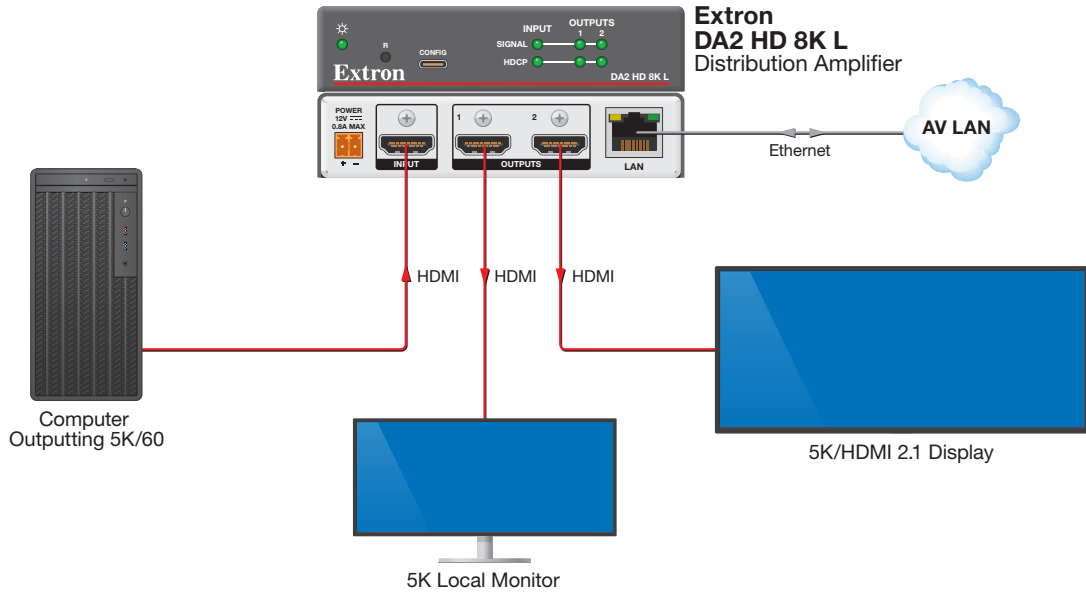
SPECIFICATIONS

TRUE 8K SPECIFICATION			
Max 8K Capabilities			
Resolution	Refresh Rate	Chroma Sampling	Max Bit Depth per Color
7680 x 4320	60 Hz	4:2:0	10 bit
	30 Hz	4:4:4	
Max 4K Capabilities			
Resolution	Refresh Rate	Chroma Sampling	Max Bit Depth per Color
4096 x 2160	60 Hz	4:4:4	12 bit
3840 x 2160			10 bit
3840 x 2160	120 Hz		
Frame 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, 10, or 12 bits per color		
Signal Type	HDMI 2.1, HDCP 1.4 and 2.3		
Max. video data rate	40.1 Gbps		
NOTE: ¹ Subject to the maximum data rate limit. Use our calculator (http://www.extron.com/8Kdatarate) to determine video parameters supported by this data rate.			

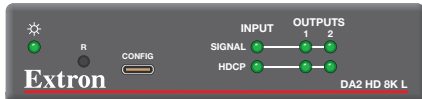
VIDEO	
Maximum data rate	40.1 Gbps
Maximum pixel clock	1.2 GHz
Resolution range	Up to 8K (7680x4320) @ 60 Hz, 5K (5120x2880) @ 60 Hz, 4K (4096x2160) @ 60 Hz, UHD (3840x2160) @ 120 Hz
Color bit depth	8, 10, or 12 bits — subject to the max data rate
Formats	RGB and YCbCr digital video
Standards	DVI 1.0*, HDMI 2.1, HDCP 1.x, HDCP 2.3
HDR	HDR10, HDR10+, and Dolby Vision
NOTE: *Appropriate DVI-D to HDMI cables or adapters are required for DVI signal input/output.	
VIDEO INPUT	
Number/signal type	1 single link HDMI (or DVI-D*)
Connectors	1 female 19-pin HDMI type A
Input cable length	Up to 15 feet (4.0 m)
Horizontal frequency	15 kHz to 270 kHz for resolutions up to 40.1 Gbps
Vertical frequency	24 Hz to 240 Hz for resolutions up to 40.1 Gbps
EDID emulation	128 - 512 byte EDID support (1 - 4 blocks)
VIDEO OUTPUT	
DA2 HD 8K L	
Number/signal type	2 single link HDMI (or DVI-D*)
Connectors	2 female 19-pin HDMI type A
DA4 HD 8K L	
Number/signal type	4 single link HDMI (or DVI-D*)
Connectors	4 female 19-pin HDMI type A
DA6 HD 8K L	
Number/signal type	6 single link HDMI (or DVI-D*)
Connectors	6 female 19-pin HDMI type A
AUDIO INPUT	
Number/signal type	1 HDMI, embedded
Connector	1 female 19-pin HDMI type A
HDMI pass-through	LPCM up to 7.1/24-bit/192 kHz, Dolby® Digital EX, Dolby Digital Plus™, Dolby Digital 5.1, Dolby Digital 2.0 Surround, Dolby Digital 2.0, Dolby TrueHD, Dolby Atmos™, DTS-HD Master Audio, DTS-X, DTS-HD, DTS-ES Discrete 6.1, DTS-ES Matrix 6.1, DTS-Digital Surround 5.1, DTS 2-Channel

AUDIO OUTPUT		
DA2 HD 8K L		
Number/signal type	2 Digital embedded audio on HDMI	
Connectors	2 female 19-pin HDMI type A	
DA4 HD 8K L		
Number/signal type	4 Digital embedded audio on HDMI	
Connectors	4 female 19-pin HDMI type A	
DA6 HD 8K L		
Number/signal type	6 Digital embedded audio on HDMI	
Connectors	6 female 19-pin HDMI type A	
COMMUNICATIONS — UNIT		
USB control port		
USB standards	1 front panel, female USB, type C USB 2.0 high speed	
Serial control port		
Ethernet data rate	1 RS-232, rear panel 3.5 mm captive screw connector, 3-pole (DA4 and DA6 only)	
LAN Ethernet port		
Ethernet protocol	1 RJ-45 connector 10/100Base-T, half/full duplex with autodetect ARP, DHCP, DNS, HTTP, HTTPS, ICMP (ping), IEEE 802.1X, NTP, SFTP, SMTP, SNMP, SSH, TCP/IP, Telnet, UDP/IP	
GENERAL		
Power supply		
Power consumption	External Input: 100-240 VAC, 50-60 Hz Output: 12 VDC, 1.5 A, 18 watts	
Power consumption		
DA2 HD 8K L		
Device	7.4 BTU/hr	
DA4 HD 8K L		
Device	TBD BTU/hr	
DA6 HD 8K L		
Device	TBD BTU/hr	
Thermal dissipation		
DA2 HD 8K L	29.6 BTU/Hr	
DA4 HD 8K L	TBD BTU/Hr	
DA6 HD 8K L	TBD BTU/Hr	
Mounting		
Rack mount	Yes, with optional rack shelf kit	
Enclosure dimensions		
DA2 HD 8K L	1.0" H x 4.3" W x 6.0" D (1 inch high, quarter rack wide) (25 mm H x 109 mm W x 152 mm D)	
DA4 HD 8K L	1.0" H x 8.75" W x 6.0" D (1 inch high, quarter rack wide) (25 mm H x 222 mm W x 152 mm D)	
DA6 HD 8K L	1.0" H x 8.75" W x 6.0" D (1 inch high, quarter rack wide) (25 mm H x 222 mm W x 152 mm D)	
Product warranty		
Everlast power supply warranty	3 years parts and labor 7 years parts and labor	
Model	Version Description	Part number
DA2 HD 8K L	Two Output 8K HDMI DA	60-1870-01
DA4 HD 8K L	Four Output 8K HDMI DA	60-1871-01
DA6 HD 8K L	Six Output 8K HDMI DA	60-1872-01

APPLICATION DIAGRAM



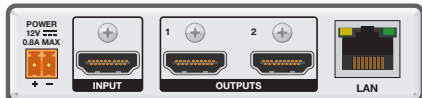
PANEL DRAWINGS



DA2 HD 8K L - Front



DA4 HD 8K L - Front



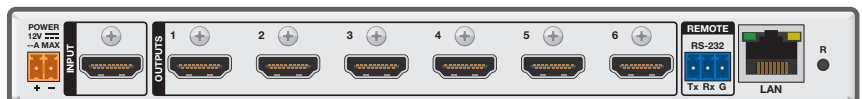
DA2 HD 8K L - Back



DA4 HD 8K L - Back



DA6 HD 8K L - Front



DA6 HD 8K L - Back

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