Eikos 4K

Ref. EKS-4K

ANALOG WAY®
Pioneer in Analog, Leader in Digital

4K60 multi-layer video mixer and seamless presentation switcher, with ten inputs, two PGM outputs with hard/soft edge support and one dedicated Multiviewer

Versatile 4K Connectivity

The **Eikos 4K** is a powerful 4K60 multi-layer mixer and seamless presentation switcher equipped with ten inputs, including eight 4K60 inputs and two 1080p inputs with user-selectable connectors. The **Eikos 4K** has two 4K60 mirrored HDMI and SDI outputs that can be configured as hard/soft edge Program, or as two independent Program outputs or as Program and AUX. In addition, the **Eikos 4K** has a dedicated multiviewer to monitor your Program & Preview screens and your inputs.

Quality without Compromise

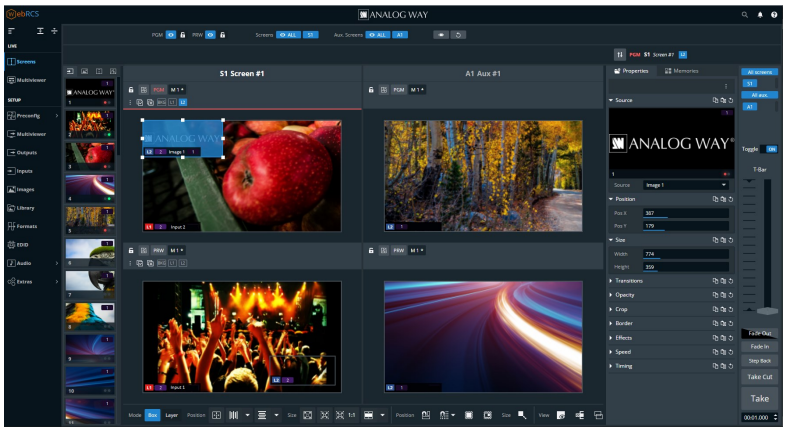
Based on the extremely robust and reliable **Midra™ 4K** platform as well as on the 5th generation scaling engine inherited from the LivePremier™ series, the **Eikos 4K** features ultra-low latency 4K60 10-bit 4:4:4 image processing, uncompromising video quality, seamless switching, HDR support and HDCP 2.2 compatibility, which makes it an ideal solution for your small to medium-sized live events and fixed installations.

Smart Functionalities

The **Eikos 4K** offers dozens of powerful functionalities that will help you to produce elegant AV presentations: edge-blending, custom output formats, IP Streaming of any Input or Output, Luma/Chroma keying, AOI, HFR up to 144Hz… It also allows to de-embed or embed digital audio on all the inputs and outputs. An audio option is available to add Dante™ audio networking support to the **Eikos 4K**.

Powerful and Flexible Control Options

The **Eikos 4K** has been designed to be entirely operated from the easy-to-use front panel. You can also use the on-board intuitive HTML5-based user interface, the Web RCS, designed to allow for the ease of setup and to ensure flawless control of your presentations. The **Eikos 4K** also features Ethernet control via a standard TCP/IP socket connection supported by all major third-party control systems. The **Eikos 4K** can also be controlled by the free Crestron® driver as well as by AW VideoCompositor, a unique drag and drop customizable Crestron® user interface. Additionally, the **Eikos 4K** can be operated by a comprehensive range of remote control panel options such as the powerful event controller RC400T or the compact Control Box[2] and Shot Box[2]. The **Eikos 4K** is also compatible with various control software such as Universe or Companion.



10 Inputs	2 PGM outputs	4K60 4:4:4 10-bit	1 Multi-viewer	HDR	IP Stream	Live back-ground	up to 4 layers 4K	HDMI 2.0	DP 1.2	12G-SDI

Eikos 4K at a glance

- Compact 2RU rugged chassis
- Ten inputs (8x 4K60 + 2x 1080p inputs) + two 4K60 multiplug outputs
- 3 modes: Hard/Soft Edge, Matrix (2 PGM) or Switcher (1 PGM + 1 AUX)
- Dedicated multiviewer with resizable widgets
- Real-time 10-bit 4:4:4 video processing compliant with HDR10 & HLG
- Live background + up to four 4K split layers (or two 4K mixing layers)
- IP RTMP-based streaming of any Input or Output
- Intuitive HTML5-based user interface with live source thumbnails
- Advanced audio processing and dynamic routing
- Optional analog and Dante™ audio networking card (32x32 channels)

Midra™ 4K models	QuickVu 4K	QuickMatrix 4K	Pulse 4K	Eikos 4K
Inputs	10	10	10	10
Mirrored outputs (HDMI + SDI)	2	2	2	2
Dedicated multiviewer	✓	✓	✓	✓
Mixer mode (1x PGM + 1x AUX)	✓		✓	✓
Matrix mode (2x PGM)		✓	✓	✓
Hard/Soft Edge mode (1x PGM)				✓
Background layer	image	image	live source	live source
4K split layers per system	2	4	4	4
4K foreground layer (still image)	✓	✓	✓	✓
IP RTMP Streaming	✓	✓	✓	✓

Eikos 4K

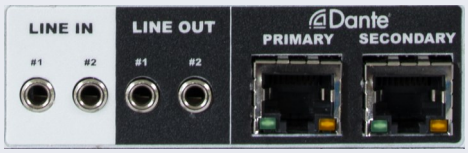
Key features

- 10 inputs including 8x 4K60 inputs and 2x 2K60 inputs
- Two 4K60 PGM outputs with mirrored 12G-SDI and HDMI 2.0 plugs
- **Mixer mode**:
  - 1 PGM output up to 4K60, with 1 live background + 2 mixing 4K layers (or 4 split layers) + 1 foreground 4K image layer
  - 1 AUX output up to 1080p60
- **Matrix mode**:
  - 2 PGM outputs up to 4K60, with 1 live background + 1 mixing 4K layer (or 2 split layers) + 1 foreground 4K image layer per output
- **Hard/Soft Edge mode**:
  - 1 hard/soft edge PGM (Horizontal or Vertical) with 2 outputs up to 4K60, with live background + 2 mixing 4K layers (or 4 split layers) + 1 foreground 4K image layer
- 1 dedicated multiviewer with resizable widgets, including clocks, countdown and timers (max. resolution 2560x1600@60)
- 4K60 10-bit 4:4:4 processing - ultra low latency (16 msec @60Hz)
- Compliant with HDR10 and HLG - Built-in SDR/HDR converters [(1)]
- Seamless crossfade on all live sources
- RTMP-based IP Streaming of any input or output
- Versatile 4K connectivity: HDMI 2.0, DP1.2, 12G-SDI
- 8x 4K concurrent still images with alpha channel support
- Advanced EDID management
- Compatible with HDCP 1.4 and HDCP 2.2
- Web RCS: highly intuitive HTLM5-based user interface
- Live video thumbnails shown on GUI
- Fully configurable and operable from the front panel
- Advanced audio processing and dynamic routing
- Innovative 'Quick Preset' feature
- Custom output formats for non-standard display applications
- Area of Interest feature to customize active areas of outputs
- Easily create and recall memories on your screen and AUX outputs
- Fully functional simulator for offline configuration and practice
- Quiet: 45dB average noise at 1m
- Dedicated BNC with loop for Genlock, Blackburst and tri-level sync
- Remote services and maintenance
- Backup and restore functions

(1) HDR is not yet available.

Optional Analog and Dante™ audio networking card

- De-embed audio from sources and route directly to Dante™ network
- Re-embed audio from external audio processor for sending to display
- 32x32 Dante™ channels @48 kHz
- Dual redundancy Ethernet ports
- 2 analog stereo mini jack line inputs 1/8'' (3.5 mm)
- 2 analog stereo mini jack line outputs 1/8'' (3.5 mm)

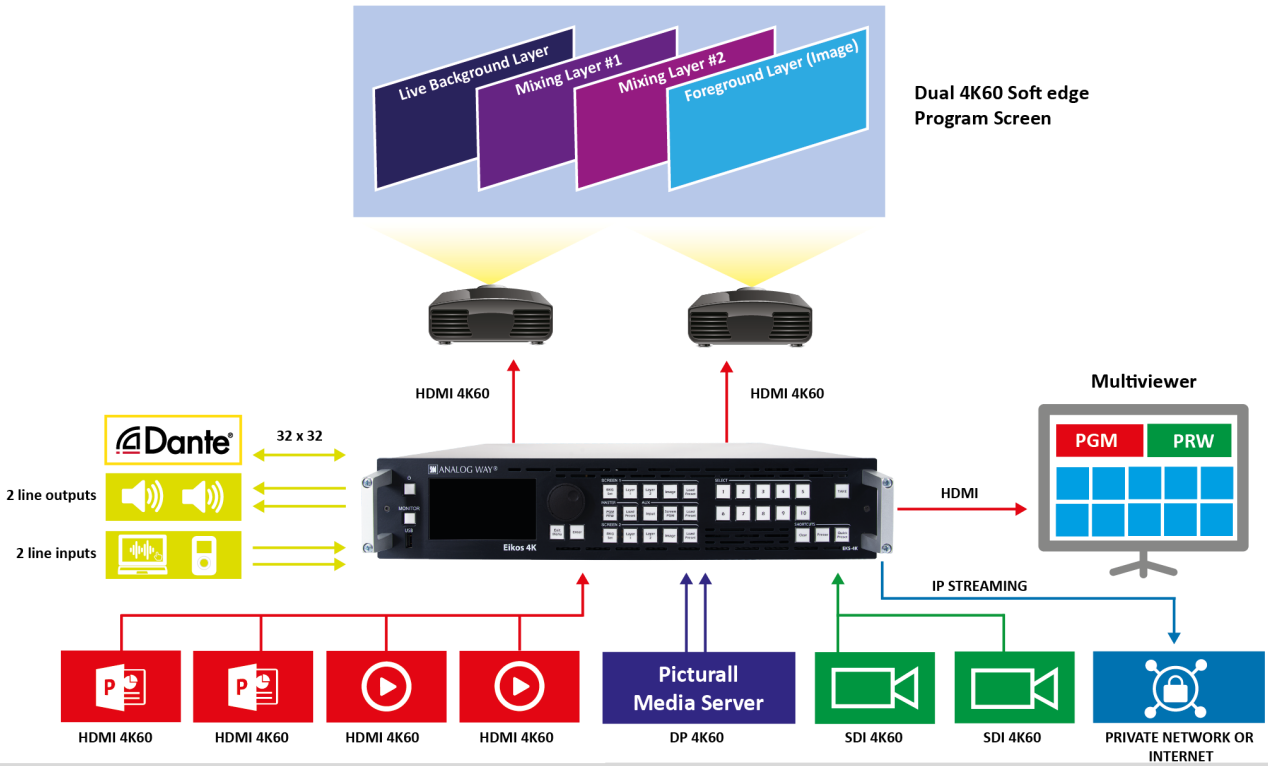


The Eikos 4K has an extensive ecosystem for control and management

Some controllers or drivers might not be available. Contact your sales manager for more information.

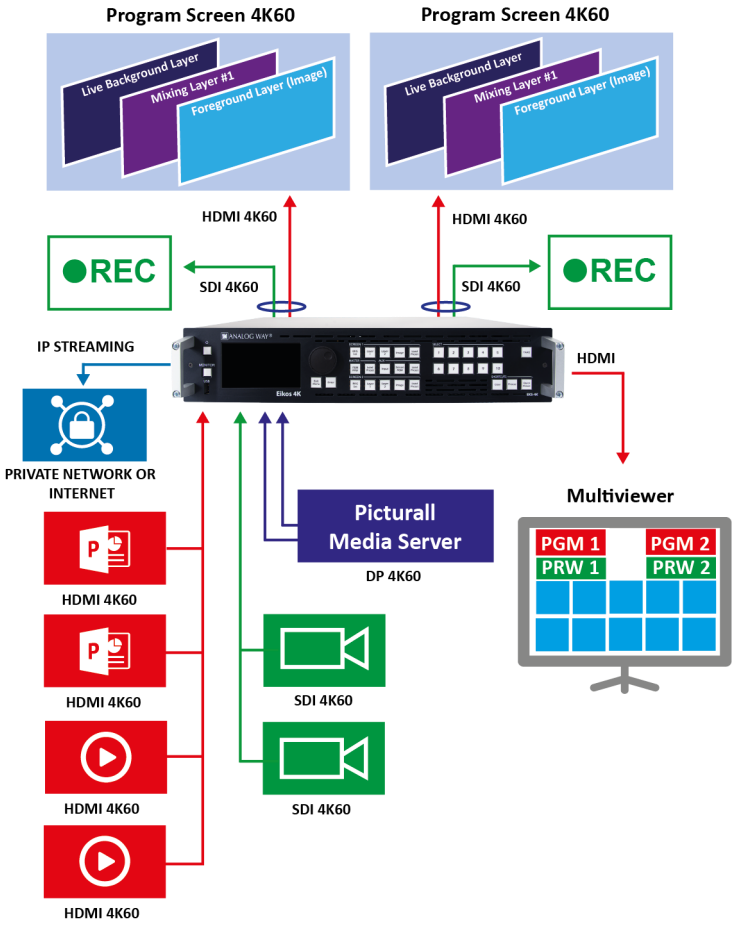
Eikos 4K - Hard/Soft Edge mode

with Dante audio option



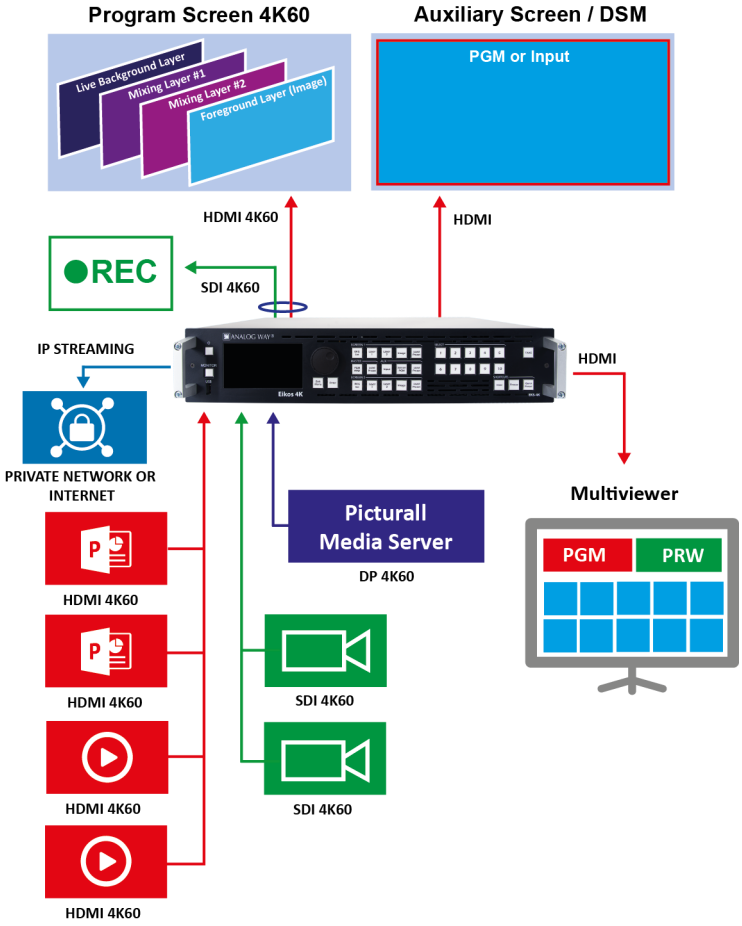
Eikos 4K - Matrix mode

with Dante audio option



Eikos 4K - Mixer mode

with Dante audio option



Eikos 4K

Technical specifications

10 INPUTS

4x HDMI 2.0
- ▸ up to 4K60 8-bit 4:4:4 or 4K60 12-bit 4:2:2

2x DisplayPort 1.2
- ▸ up to 4K60 10-bit 4:4:4 or 4K60 12-bit 4:2:2

2x 12G/6G/3G-SDI (level A & B)
- ▸ up to 4K60 10-bit 4:2:2

2x HDMI 1.4 or 3G-SDI (user selectable input plug)
- ▸ up to 2K60 10-bit 4:4:4 (HDMI) or 2K60 10-bit 4:2:2 (SDI)

Support custom input formats up to 4096 width / height (1)

2 HDMI OUTPUTS + 2 MIRRORED SDI OUTPUTS

2x HDMI 2.0 + 2x mirrored 12G/6G/3G-SDI (level A & B) connectors
- ▸ up to 4K60 8-bit 4:4:4 or 4K60 12-bit 4:2:2 (HDMI)
- ▸ up to 4K60 10-bit 4:2:2 (SDI)

Support custom output formats up to 4096 width / height (1)

1 MULTIVIEWER OUTPUT

1x HDMI 1.4 + 1x mirrored 3G-SDI up to 2560x1600@60 8-bit 4:2:2

17 resizable widgets - customizable layouts with 20 memories

Monitor the Program and Preview screens and all the inputs

Built-in clocks, countdown and timers

IP STREAMING

RTMP/RTMPS IP Streaming of inputs, outputs or Multiviewer

Compatible with various Web video platform (Youtube, Facebook,

Compatible with local clients, such as OBS sofware

Video encoded in H.264 at 720p30, up to 6 Mbps

Embed any Audio stereo channels (AAC encoding)

PROCESSING

Live layer processing based on Analog Way exclusive 5th generation scaling engine

Ultra low latency (16msec @60Hz)

BT.601; BT.709; BT.2020 color spaces support

Split layers mode: double the live layer count (no crossfade effect)

Advanced EDID management

Keying, Area of Interest and advanced output/screen test patterns

Compliant with HDR10 and HLG - Built-in SDR/HDR converters

Compatible with HDCP 1.4 and HDCP 2.2

TRANSITIONS & EFFECTS

Seamless transitions for mixing layers

Layer border effects and colors with separate shadow

Multiple transition effects

Layer effects: H/V Flip, Transparency, Crop and Mask

Color effects: B&W, Negative, Sepia and Solarize

STILL IMAGES

4x 4K concurrent still images for the foreground layer

4x 4K concurrent still images for the background

Alpha-channel support

Still image library with 50 memories

Multi-file download/upload via Web RCS

Capture live content from any input or output

(1) in the limit of the plug capacity

ADVANCED AUDIO PROCESSING

De-embed/embed audio channels on all inputs/outputs (PCM)
- ▸ 8 channels per HDMI 2.0, 12G-SDI or DisplayPort 1.2 input
- ▸ 4 channels per 3G-SDI input and 2 channels per HDMI 1.4 input
- ▸ 8 channels per active output

Level control, Mute, Balance, Delay, 1kHz Sinus Pattern features

Fixed or dynamic routing (breakaway or top layer)

Optional Analog and Dante™ audio networking card
- ▸ 2 analog stereo mini jack line in and line out 1/8'' (3.5 mm)
- ▸ 32x32 Dante™ audio channels @48kHz
- ▸ Dual redundancy Ethernet ports - AES67 support

QUICK PRESET FUNCTION

3 Quick Preset modes : Fade to Black, Image or Master Preset

Audio routing configurable to follow the Quick Preset mode

CONTROL

Full-featured Front Panel with 480x272 color LCD screen

Web RCS: on-board intuitive web-based user interface

HTTPS for secure connection with downloadable certificate and key

Shot Box² / Control Box²: Cost effective control solutions

RC400T: Ergonomic event controller

Compatible with Companion and Universe control solutions

Simple REST API (HTTP/S) and advanced JSON TCP protocol

Creston drivers & AW VideoCompositor (Premium Creston GUI)

OTHER FEATURES

Live monitoring of inputs & PGM on the large color TFT LCD display

200 user definable screen memories and 50 master memories

Dedicated BNC with loop for Genlock, Blackburst and tri-level sync

I/O connector status LEDs for easy troubleshooting

USB host type A: firmware update, configuration import/export...

Fully functional simulator for offline configuration & practice

Gigabit Ethernet via Neutrik RJ45

Dimension (in Rack Units – RU)
- ▸ 2RU

Dimension (without rack ears & mounting)
- ▸ W 17.32'' x H 3.46'' x D 17.08''
- ▸ L 440 mm x H 88 mm x P 434 mm

Dimension (with handles)
- ▸ W 19'' x H 3.46'' x D 18.66''
- ▸ L 482.5 mm x H 88 mm x P 474 mm

Weight without accessories
- ▸ 7.60 kg / 15.43 lbs

Shipping weight (accessories included)
- ▸ 10.60 kg / 22.04 lbs

Operating conditions
- ▸ Temperature: 0 to 40°C (32 to 104°F)
- ▸ Humidity: 10% to 80%, non condensing

Noise (@1,6m height @25°C)
- ▸ Front: 45 DBa@1m
- ▸ Rear: 45 DBa@1m

Thermal dissipation
- ▸ 273 BTU/hr

Warranty
- ▸ 3-year warranty on parts and labor back to factory

Power Supply
- ▸ 100-240 VAC, 3A 50/60Hz
- ▸ Fuse cartridge F4A 250VAC 5x20mm
- ▸ Max consumption: 80 W

Safety compliance
- ▸ IEC/UL/EN 62368-1, CSA22.2#62368-1, UL Listed E359143)

EMC & Environmental Compliance
- ▸ EN55032, EB55024, EN61000, FCC part15, ICES

Supplied with
- ▸ 1x Power supply cord
- ▸ 1x Remote Control Software (Web RCS)
- ▸ 1x Rackmount kit
- ▸ 1x Ethernet cross-cable
- ▸ 1x User Manual (pdf)
- ▸ 1x Quick Start Guide including safety instructions

Specifications subject to change without prior notice

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