E2 VR series

4K screen management systems with 3D stereo support

MODULAR **SCALABLE** **LED COMPATIBLE** **HDCP COMPLIANT**

FX ULTRA **DISPLAYPORT** **HDMI™ COMPATIBLE** **3D READY**

MULTIVIEWER **BLENDING** **BARCOLINK** **ATHENA SCALING**

9 LAYERS **6G READY** **12 BIT** **4K 4096X2160**

- **Full system control in a single box**

- **Native 4K input and output supported**

- **Intuitive user interface**

Raising the bar for live screen management, the E2 Event Master system provides superior image quality, exceptional input and output density, great expandability and durability. Supporting native 4K input and output, it was the first screen management system on the market that can manage a 4K projector blend with refresh rates up to 60Hz.

The VR version of the E2 answers the rise of 4K sources with 3D stereo content. With the E2 VR, you add 3D stereo capability to the Event Master product portfolio while benefiting from the unprecedented performance, expandability and reliability of the Event Master product family. Combining multiple 3D stereo and mono images onto one or multiple high resolution displays has never been more straightforward.

Native 4K input and output

With native 4K input and output, the E2 VR provides impressive pixel processing power. Whether native or scaled inputs, two connectors or four, this HDCP-compliant system manages it all. With 28 inputs and 14 outputs (eight PGM, two Multi-viewer and four scaled Aux outputs), the E2 VR system offers full control, including eight independent PIP mixers and a dedicated Multiviewer. Thanks to its linkable chassis, it can easily expand beyond these eight outputs without the need for additional external processing and routing to distribute the signals. As its inputs and layers can also be expanded, the E2 VR will be capable of managing a blended screen with up to 32 4K projectors in the future. Furthermore, the ability to process up to 12 bits per color, enables to have more details in the shown images.

Simple servicing and control

The E2 VR comes with a straightforward cross-platform user interface that provides touchscreen ergonomics. As the presets are stored on the chassis it enables easy

BARCO

The E2 VR comes with a straightforward cross-platform user interface that provides touchscreen ergonomics. As the presets are stored on the chassis it enables easy control via third-party systems. Multiple users can control the system simultaneously, and the API allows third-party developers to create custom control programs and interfaces. The low processing latency and fast switching ensure a direct on-screen response of your actions. Thanks to its modular design, users can simply add a new input or output card to support future signal interfaces. This modularity also ensures great serviceability, as users can easily swap a specific input or output card in the case of damage, without needing to ship or replace the entire box.

Layers, layers, layers

The E2 VR offers an extremely flexible layer management system. The E2 VR starts with a pixel perfect, full resolution, unscaled background layer that is the same resolution as the screen destination. As an unscaled mixing background layer it does not use any of the valuable scaling layers. With up to 32 layers available in HD, the E2 VR can customize the layer configuration to meet the needs of your application. The layers provide pip effects, and can be configured for HD, Dual Link (2560x1600 or 3840x1200 max), or 4K resolutions. Each destination gets dedicated layers, so you know exactly how many resources are available. The layers can also be configured as single layers with cut transitions, or two of the scalers can be combined to create a mixing layer. Each destination can support a combination of mixers, single layers, pips, keys, and various sizes of layers, all to create a single composited image on the screen.

E2 VR Jr

Bringing the same performance and features as the E2 VR, the E2 VR Jr model is ideally suited for applications that do not require the full capacity of the E2VR brother. E2 VR grows with your needs so you can easily upgrade the E2 VR Jr to a fully loaded E2 VR system at any time. Simply purchase and install additional cards into your system.

Inputs

8x Input card slots supporting up to 4K resolution per slot. Each card slot will accommodate either 4x HD inputs, 2x 2,560 x 1,600 inputs, or 1x 4K input.

HDMI/DisplayPort input card

- 2x HDMI 1.4 connectors

- 2x DisplayPort 1.1 connectors

- 2x Dual Link DVI-D connectors

- 4x BNC connector supporting 6G SDI

- 2x BNC connector (Input and loop output)

- Supports Black burst and trilevel analog signals

Rental configuration will include 2x 6GSDI card, 2x DVI card, 4x HDMI/DP card

Outputs

3x Output Card slots for PGM and Aux outputs supporting up to 4K resolution per slot.

HDMI output card

- 4x HDMI 1.4

- 4x BNC connector supporting 6G SDI

1x Multi-viewer card slot

HDMI Multi-viewer card

- 4x HDMI 1.4 connectors

Rental configuration will include:

- 14 Outputs via 4 Output cards   Up to 3 x 4K Outputs - each Output card supports up to 4K@60 out

- Up to 3 x 4K Outputs - each Output card supports up to 4K@60 out   4 x SD/HD/3G SDI (6G ready)

- 4 x SD/HD/3G SDI (6G ready)   8 x HDMI 1.4 (297 Mpix/sec max)

- 8 x HDMI 1.4 (297 Mpix/sec max)   2 x HDMI 1.4 for Multiviewer (297 Mpix/sec max)

- 2 x HDMI 1.4 for Multiviewer (297 Mpix/sec max)

- Eight (8) Program Outputs configurable as single screens or tiled/blended widescreens   Configurable from 8 x 2,048 x 1x200@60 max to 2 x 4, 096 x 2,400@60 max

- Configurable from 8 x 2,048 x 1x200@60 max to 2 x 4,096 x 2,400@60 max

User interface
- GUI based configuration and control application

- Cross platform (Mac/Windows)

Processing and latency
12 bits/color 36 bits/pixel 1 frame processing latency for progressive sources

PIP layers (per chassis)
- 2K mode: 8x seamless PiP or key overlay

- DL mode: 4x seamless PiP or key overlay

- 4K mode: 2x seamless PiP or key overlay

Background mixer
- Any live input type can be a background source

- Matte color generator

- Still store as background

Destinations (single chassis)
Program screens

- 4K Output   2x single screens

- 2x single screens   1x blended (2 outputs)

- 1x blended (2 outputs)

- Dual Link output   4x single screens

- 4x single screens   2x blended

- 2x blended

- HD (2K) Output   8x single screens

- 8x single screens   4x 2 output blended (2 output per blend) up to 1x 8 output blended

- 4x 2 output blended (2 output per blend) up to 1x 8 output blended

Auxilliary Outputs

User definable from 4 x 2,048x1,200@60 to 1 x 4K@60

4K output

- 1x Scaled Aux output

- 2x Scaled Aux output

HD (2K) output

- 4x Scaled Aux output

4K output

- 1x Multi-viewer output

- 2x Multi-viewer output

HD (2K) output

- 2x Multi-viewer output

Still stores
User-assigned still stores

- Live capture

- Loaded via PNG file

Presets
1,000 user defineable presets

Expandability (available 2015)
16x E2 chassis per system

4K output

- 32 projector blend

Dual Link output

- 64 projector blend

HD (2K) output

- 128 projector blend

Chassis
4RUDual Redundant PSUModular field swappable processing and I/O cardsVariable flow coolingRugged steel chassis

Product specificaties	E2 VR SERIES

Video inputs

HDMI
- per HDMI 1.4a specification
- on HDMI connector (Type A)
- formats up to 2,560x1,600@60 and 3,840x1,200@60 (30 bits)
- 4K/UHD Supported:
  - 3,840x2,160/23.98/24/25/29.97/30 input via 1x HDMI, 2x HDMI (L and R half) or 4x HDMI (quadrants)
  - 3,840x2,160/50/59.94/60 input via 2x HDMI (L and R half) or 4x HDMI (quadrants)
  - 4,096x2,160/23.98/24/25/29.97/30 input via 1x HDMI, 2x HDMI (L and R half) or 4x HDMI (quadrants)
  - 4,096x2,160/50/59.94/60 input via 2x HDMI (L and R half) or 4x HDMI (quadrants)
- EDID version 1.3 compatible
- HDCP version 1.4 compatible

DisplayPort
- per Displayport 1.1a specification
- on Displayport connector
- formats up to 2,560x1,600@60 and 3,840x1,200@60 (30 bits)
- 4K/UHD Supported:
  - 3,840x2,160/23.98/24/25/29.97/30 via 1x DP, 2x DP (L and R half) or 4x DP (quadrants)
  - 3,840x2,160/50/59.94/60 via 2x DP (L and R half) or 4x DP (quadrants)
  - 4,096x2,160/23.98/24/25/29.97/30 via 2x DP (L and R half) or 4x DP (quadrants)
  - 4,096x2,160/50/59.94/60 via 2x DP (L and R half) or 4x DP (quadrants)
  - 4,096x2,400/23.98/24/25/29.97/30/50/59.94/60 via 2x DP (L and R half) or 4x DP (quadrants)
- EDID version 1.3 compatible
- HDCP version 1.4 compatible

DVI
- DVI 1.0 specification
- DVI Digital video on DVI-I connector
- All single-link DVI formats up to 165 MHz
- All dual-link DVI formats up to 330 MHz
- Maximum H Active: 4,096, Maximum V Active: 3,072
- 4K/UHD Supported:
  - 3,840x2,160/23.98/24/25/29.97/30 input via 1x DVI-DL, 2x DVI-SL (L and R half) or 4x DVI-SL (quadrants)
  - 3,840x2,160/50/59.94/60 input via 2x DVI-DL (L and R half) or 4x DVI-SL (quadrants)
  - 4,096x2,160/23.98/24/25/29.97/30 input via 2x DVI-SL (L and R half) or 4x DVI-SL (quadrants)
  - 4,096x2,160/50/59.94/60 input via 2x DVI-DL (L and R half) or 4x DVI-SL (quadrants)
  - 4,096x2,400/23.98/24/25/29.97/30 input via 2x DVI-SL (L and R half) or 4x DVI-SL (quadrants)
  - 4,096x2,400/50/59.94/60 input via 2x DVI-DL (L & R half) or 4x DVI-SL (quadrants)
- EDID version 1.3 compatible
- HDCP version 1.4 compatible

SDI

Optional
- SD/HD/3G SDI (6G ready) on BNC connector
- Formats:
  - SD Formats: SD-SDI per SMPTE 259M-C (NTSC/PAL resolution)
  - HD Formats: HD-SDI per SMPTE 274M, 296M, 2048
  - 3G Formats: 3G-SDI per SMPTE 424M, Barcolink
- 6G Ready (via future firmware upgrade)
- 4K/UHD Supported:
  - 3,840x2,160/23.98/24/25/29.97/30 input via 4x HD-SDI (quadrants)
  - 3,840x2,160/50/59.94/60 input via 4x 3G-SDI (quadrants)
  - 4,096x2,160/23.98/24/25/29.97/30 input via 4x HD-SDI (quadrants)
  - 4,096x2,160/50/59.94/60 input via 4x 3G-SDI (quadrants)

Video outputs

SDI

Optional
- SD/HD/3G SDI (6G ready) on BNC connector
- Formats:
  - SD Formats: SD-SDI per SMPTE 259M-C (NTSC/PAL resolution)
  - HD Formats: HD-SDI per SMPTE 274M, 296M, 2048
  - 3G Formats: 3G-SDI per SMPTE 424M, Barcolink
- 6G Ready (via future firmware upgrade)
- 4K/UHD Supported:
  - 3,840x2,160/23.98/24/25/29.97/30 input via 4x HD-SDI (quadrants)
  - 3,840x2,160/50/59.94/60 input via 4x 3G-SDI (quadrants)
  - 4,096x2,160/23.98/24/25/29.97/30 input via 4x HD-SDI (quadrants)
  - 4,096x2,160/50/59.94/60 input via 4x 3G-SDI (quadrants)

Product specificaties	E2 VR SERIES

HDMI	- per HDMI 1.4a specification - formats up to 2,560x1,600@60 and 3,840x1,200@60 (30 bits) 4K/UHD Supported:
	  - 3,840x2,160/23.98/24/25/29.97/30 output via 1x HDMI, 2x HDMI (L and R half) or 4x HDMI (quadrants)
	  - 3,840x2,160/50/59.94/60 output via 2x HDMI (L and R half);or 4x HDMI (quadrants)
	  - 4,096x2,160/23.98/24/25/29.97/30 output via 1x HDMI, 2x HDMI (L and R half) or 4x HDMI (quadrants)
	  - 4,096x2,160/50/59.94/60 output via 2x HDMI (L and R half);or 4x HDMI (quadrants) - EDID version 1.3 compatible - HDCP version 1.4 compatible

Other

Genlock	Genlock: Reference Input/Loop on BNC connectors; Analog Bi-level and Blackburst at SD and Tri-level at HD S3D Sync: 4x Input Din connector, 2x Output Din connector
Communicatie	Ethernet RJ-45, 1000/100/10 Mbps autosense
Afmetingen	- Height: 17.8 cm (7.0 in) - 4 RU Rackmount - Width: 43.2 cm (17.0 in)- without chassis handles, 48.3 cm (19 in) with chassis handles attached - Depth: 56.9 cm (22.4 in) from front panel to rear panel, 62.2 cm (24.5 in) overall
Gewicht	31 kg (68 lbs)
Ingangsvermogen	Power 100-240 VAC, 47-63 Hz, auto-selecting 8.8A at 100 VAC
Omgevingstemperatuur	0-40° Celsius
Omgevingsvochtigheid	0-95% noncondensing
Garantie	Full three year parts and labor standard, extended warranty and support available.

General specifications

Model	NGS-4U NGS-4U BTO

www.barco.com

BARCO