

Saphyr - Ref. SPX450

Multi-Layer Hi-Resolution Mixer Seamless Switcher with 10 inputs and Native Matrix mode



INPUT PLUGS



PROGRAM/ OUTPUT #1



PREVIEW/ OUTPUT #2



VIDEO OUT



FEATURES



Saphyr at a glance

- ▶ Midra™ platform
- ▶ New Remote Control Software: RCS² (Windows, Mac & Linux)
- ▶ Very fast processing and true Seamless switching
- ▶ Low frame delay
- ▶ 2 operating modes: Mixer and Native Matrix modes
- ▶ Up to 3 layers on Frame Background
- ▶ Full audio digital compliant on DVI-D & HDMI Plugs
- ▶ Advanced Audio Management with the RCS²
- ▶ Audio fast Routing mode
- ▶ Quick Frame mode
- ▶ New EDID management on 6 inputs
- ▶ Ability to read and display the output EDIDs
- ▶ New Deinterlacing processing
- ▶ Custom output formats
- ▶ Ability to modify the Program in real time without using the Preview
- ▶ New Freeze features (Input/layer/screen)
- ▶ New Dynamic Fit
- ▶ Capability to switch between any input plugs (16 plugs available)
- ▶ New 3D filter for SDTV composite sources
- ▶ Outputs fully resizable
- ▶ Capability to crop the Frames and Logos
- ▶ New Mosaic Preview
- ▶ New OSD for the Preview (numerous information)
- ▶ Video output (CVBS, YPbPr, 3G-SDI)

To Control Saphyr

- ▶ RCS²: Remote Control Software*
- ▶ VRC300: High-End Remote Controller Vertige™ (available early 2016)
- ▶ ORC50: Remote Controller Orchestra
- ▶ RK-350: Remote Keypad
- ▶ SB-80: Shot Box
- ▶ Crestron's Modules: 2 or 3-Series*
- ▶ AMX's Modules*

Key features

- 10 Seamless inputs
- 2 outputs (Program and Preview)
- 16 input plugs available (4 x DVI-D, 4 x HDMI, 4 x Universal Analog & 4 x 3G/HD/SD-SDI)
- Computer formats up to 2K/ 2048x1152
- All live layers: Fully resizable
- Layer: Pan & Zoom resizing up to 1000%
- Layer: Open/Close animation
- Layer: Border and Shadow (Edge: 1 Color, 1 Width, 1 Height)
- Transitions: Fade (Dissolve), Cut, Wipe and Slide
- Dynamic layer (Moving from A to B) with Flying, Zooming or Cropping
- All audio inputs can be embedded or de-embedded on all plugs
- Audio breakaway mode
- Audio Top layer mode
- Audio Fast Routing mode
- Audio Delay Compensation
- Balanced stereo audio on all outputs
- 2 S/PDIF inputs and 2 S/PDIF outputs
- Internal test patterns
- Chroma/Luma Key and Titling
- 8 Memory Presets per output (64 via RCS²)
- 8 Full Frames, 8 Logo Memories & 1 animated Logo
- HDCP Compliant
- Mosaic Preview mode: 1 live image and 9 images refreshed as fast as possible or 10 images refreshed as fast as possible

Operating modes

- 2 operating modes: Mixer and Native Matrix modes
- Seamless switching with full Preview in Mixer mode with 1 layer in Preview
- Seamless switching in Native Matrix mode
- 1 Title on Live Background in Mixer or Native Matrix mode
- 1 Title + 1 layer on Still Background in Mixer or Native Matrix mode
- 1 layer on Still Background in Mixer or Native Matrix mode
- 1 layer on Live Background in Mixer or Native Matrix mode
- 2 layers on Live Background in Mixer mode
- 3 layers on Still Background in Mixer mode

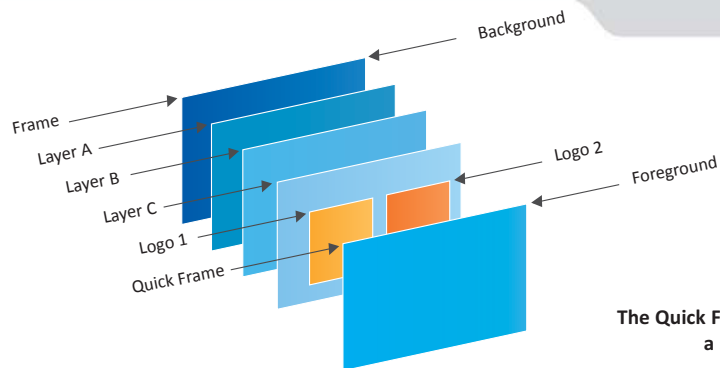


Training video available on YouTube or on www.analogway.com

*Available on www.analogway.com



ANALOG WAY®
Pioneer in Analog. Leader in Digital



The Quick Frame feature instantly allows to display a stored Frame above all layers.

Technical Specifications

▶ 10 inputs - 16 plugs

4 Universal input plugs

Analog inputs (All inputs #1 to #4) SD-TV

- Composite, S.Video, YUV, RGB or RGbS
- NTSC: 15.735kHz/60Hz
- PAL/SECAM: 15.625kHz/50Hz

ED/HD-TV

- RGsB, RGbS or YUV
- 480p/60 Hz – 576p/50 Hz – 720p, 1080i, 1035i/50 or 60Hz – 1080p/24, 25, 30, 50 or 60 Hz – 1080psF/24, 25 or 30 Hz

Computer

- RGBHV, RGbS or RGsB
- Resolution up to 1600x1200/60 Hz, 1920x1200/60 Hz or 2048x1080/60 Hz
- Horizontal frequency from 31.5 to 130 kHz
- Vertical frequency up to 120 Hz
- FpxMax = 165MHz

▶ 12 Digital input plugs

- DVI-D (Input #1 to #4)(HDMI compliant): SD-TV, ED-TV, HD-TV and Computer formats
- HDMI (Input #3 to #6): SD-TV, ED-TV, HD-TV and Computer formats
- SDI (Input #7 to #10): SD-TV & HD-TV – YUV/10bits/4:2:2, 3G-SDI
- Automatic synchronization detection

▶ Program and Preview outputs

Computer Digital and Analog:

- RGBHV, RGbS or RGsB and DVI
- Resolution up to 1600x1200/60 Hz, 1920x1200/60 Hz or 2048x1080/60 Hz
- Vertical frequency 50, 60, 72 or 75 Hz depending on Output format
- FpxMax = 165MHz

HD-TV:

- RGsB, RGbS or YUV, DVI and HD-SDI, or 3G-SDI
- 720p, 1080i, 1035i/50 or 60Hz – 1080p/24, 25, 30, 50 or 60Hz – 1080psF/24, 25 or 30 Hz

▶ Video outputs

- Analog and Digital SD/HD-TV
- SD-TV: NTSC/PAL, S.Video, RGB/YUV, DVI-D and SDI
- HD-TV: RGB/YUV, DVI-D and HD-SDI, or 3G-SDI

▶ Operation Standards

SMPT: ST 259:2008, ST 260:1999, ST 274:2008, ST 292-1:2012, ST 296:2012, ST 424:2012, ST 428-19:2010
VESA: GTF1.1, CVT 1.1, DMT1.0 rev.12

▶ Audio Stereo inputs

- **DVI (as HDMI)/HDMI/Audio de-embedding:**
 - 1 stereo pair
- **Analog inputs:**
 - 4 Audio stereo inputs
 - Balanced/Unbalanced
 - Vi = +15dBu
 - Zi = 20 kOhms (Unbalanced)/40 Ohms (Balanced)
 - Adjustable Level per input
- **S/PDIF inputs:**
 - 2 inputs, AES3id compatible
 - Zi = 75 Ohms
 - Input Level Min: 200mVpp
 - Input Level Max: 2,8Vpp
 - Protocol: AES3 or S/PDIF sub-code format

▶ Audio Stereo outputs

- **DVI (as HDMI) Audio de-embedding:**
 - 1 stereo pair per output
- **Analog inputs:**
 - 2 independent outputs
 - Balanced/Unbalanced
 - Vo = +9 dBu/300 Ohms (Unbalanced)
 - Vo = +15 dBu/600 Ohms (Balanced)
- **S/PDIF inputs:**
 - 2 outputs, AES3id compatible
 - Zi = 75 Ohms
 - Output Level: 0,5Vpp(S/PDIF mode) or 1Vpp (AES3 mode)
 - Input Level Max: 2,8Vpp
 - Protocol: AES3 or S/PDIF sub-code format

▶ User Controls - front panel

- Standby On/Off
- Input, Layer and Logo direct access
- Freeze/Black
- Matrix mode output selection
- User defined layer properties adjustments
- User defined effect keys

- Preset Recall shortcuts
- Quick Frame, Step Back, Take
- Large Graphic VFD screen with control knob and buttons for easy and fast access to menus and adjustments

▶ Connectors - rear panel

- **Input #1 to #2 connectors:**
 - DVI-D Female: (Digital SD/ED/HD-TV and Computer)
 - HD15-F (Analog SD/ED/HD-TV and Computer)
- **Input #3 to #4 connectors:**
 - DVI-D Female: (Digital SD/ED/HD-TV and Computer)
 - HD15-F (Analog SD/ED/HD-TV and Computer)
 - HDMI Female: (Digital SD/ED/HD-TV and Computer)
- **Input #5 to #6 connectors:**
 - HDMI Female: (Digital SD/ED/HD-TV and Computer)
- **Input #7 to #10 connectors:**
 - BNC: (3G/HD/SD-SDI)
- **Program and Preview output connectors:**
 - Each output is fitted with:
 - DVI-I Female: (Digital and Analog) RGB or YUV
 - HD15 Female: RGB or YUV
- **Video Out:**
 - 1 x BNC-F: Composite Video NTSC/PAL,
 - 3 x BNC-F: Y-Pb-Pr
 - 1 x BNC-F: (3G/HD/SD-SDI)
- **Audio:**
 - 5-pin MCO connectors: 4 for analog audio inputs and 2 for analog audio outputs
 - 4 RCA connectors: 2 for S/PDIF audio inputs and 2 for S/PDIF audio outputs
- **Miscellaneous:**
 - DB9: RS232 for remote control
 - RJ45: Ethernet connection
 - AC main connector with fuse and On/Off switch

Dimensions:

- ▶ D 15.75" x W 17.3" x H 3.46"
- ▶ D 400 mm x W 440 mm x H 88 mm

Weight:

- ▶ 6,3 kg
- ▶ 13.9 lbs

Power Supply:

100-240 VAC ; 2.5A ; 50/60Hz ; 110W

Supplied with:

- ▶ 1 x Power Supply Cord
- ▶ 1 x Ethernet crossover cable
- ▶ 1 x Remote Control Software (RCS²)*
- ▶ 1 x Set of 6 audio 5-pin screw terminals
- ▶ 1 x Front Rack Ears
- ▶ 1 x User Manual (PDF)*
- ▶ 1 x Quick Start Guide*

Warranty:

3-year warranty on parts and labor back to factory.



* User Manuals, Quick Start Guides and the RCS² are also available on www.analogway.com



Training video available on YouTube or on www.analogway.com



Specifications subject to change without prior notice

All technical specifications are available on our website