Saphyr - Ref. SPX450

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

**INPUT PLUGS**
- Universal Analog
- DVI-D
- HDMI
- 3G/SDI

**PROGRAM/OUTPUT #1**
- Universal Analog
- DVI-D
- HDMI
- 3G/SDI

**PREVIEW/OUTPUT #2**
- Universal Analog
- DVI-D
- HDMI
- 3G/SDI

**VIDEO OUT**
- SDI
- HDMI
- 3G/SDI

**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

**Saphyr at a glance**
- New 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
- New Deinterlacing processing
- 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)

**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

**Operating modes**
- 2 operating modes: Mixer and Native Matrix modes
- 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

*Available on www.analogway.com
Technical Specifications

- 10 inputs - 16 plugs
  4 Universal input plugs

  Analog inputs (All inputs #1 to #4)

  SD-TV
  • Composite, S.Video, YUV, RGBs or RGBs
  • NTSC: 15.75kHz/60Hz
  • PAL/SECAM: 15.625kHz/50Hz

  ED/HD-TV
  • RGBs, RGBs or YUV
  • 480/60 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 RGBs
  • 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 RGBs 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:
  • RGBs, RGBs or YUV and HD and 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 or 3G-SDI

- Operation Standards

  • 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 kOhms (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

- Connectors - rear panel

  • Input #1 to #2 connectors:
    - DVI-D Female: (Digital SD/ED/HD-TV and Computer)
    - HD15-F (Analogue SD/ED/HD-TV and Computer)
  • Input #3 to #4 connectors:
    - DVI-D Female: (Digital SD/ED/HD-TV and Computer)
    - HD15-F (Analogue 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-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-Y
  - 1 x BNC-F: (3G/HD/SD-SDI)

- Audio:

  - 5-pin MCO connectors: 4 for analog audio inputs and 2 for analog audio outputs
  - 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:

  • 5.3 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

Specifications subject to change without prior notice

All technical specifications are available on our website

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