

# SmartMatrix<sup>2</sup> - Ref. SMX250

NEW

10x2 Seamless Matrix Scaler with Native Hi-Resolution outputs



## INPUT PLUGS



## OUTPUT #1



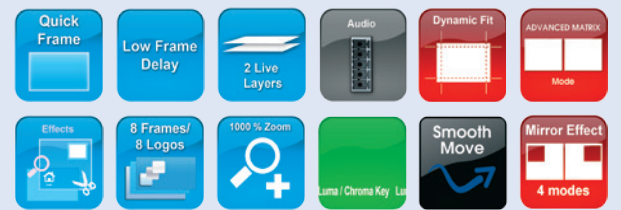
## OUTPUT #2



## VIDEO OUT



## FEATURES



### SmartMatrix<sup>2</sup> at a glance

- ▶ New Midra™ platform
- ▶ New Remote Control Software: RCS<sup>2</sup> (Windows, Mac & Linux)
- ▶ Very fast processing and switching
- ▶ Low frame delay
- ▶ Full audio digital compliant on DVI-D & HDMI Plugs
- ▶ Advanced Audio Management with the RCS<sup>2</sup>
- ▶ Quick Frame mode
- ▶ New EDID management on 6 inputs (12 plugs)
- ▶ Ability to read and display the output EDIDs
- ▶ New Deinterlacing processing
- ▶ Custom output formats
- ▶ Asynchronous true Seamless Scaled Matrix
- ▶ Independent management per output (Take Control)
- ▶ New Dynamic Fit
- ▶ Capability to switch between any input plug (16 plugs available)
- ▶ New 3D filter for SDTV composite sources
- ▶ Outputs fully resizable
- ▶ Video output (CVBS + YbrPb + 3G-SDI)
- ▶ New Freeze features (Input/layer/screen)
- ▶ New Routing mode for audio signals
- ▶ Capability to crop the Frames and Logos

### Key features

- 10 Seamless inputs
- 2 outputs (Output #1 and Output #2)
- 16 input plugs available (4 x DVI-D, 4 x HDMI, 4 x Universal Analog & 4 x 3G/HD/SD-SDI)
- Video out: SD/HD-TV Analog & 3G/HD/SD-SDI (Zoom 50 to 400%)
- Computer formats up to 2K/2048x1152
- Resizable Live Background
- Transitions: Fade (Dissolve), Cut, Wipe, Slide, Stretch, Depth, Circle & Flip
- Smooth Move effect
- Mirror effect
- Dynamic layer (Moving from A to B) with Flying, Zooming or Cropping
- Layer: Pan & Zoom resizing up to 1000%
- Layer: Open/Close animation
- Layer: Border and Shadow (Edge: 1 Color, 1 Width, 1 Height)
- All audio inputs can be embedded or de-embedded on all plugs
- Audio breakaway mode
- Audio Top layer 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 RCS<sup>2</sup>)
- 8 Full Frames, 8 Logo Memories & 1 animated Logo
- HDCP Compliant

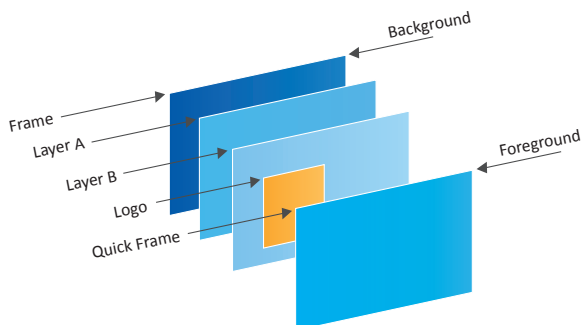
### Operating modes

- 1 operating mode: Native Matrix mode
- Seamless switching on each output with 1 layer
- 1 Title on Live Background on each output
- 1 layer on Still Background
- 1 layer on Live Background
- 1 layer with Title on Still Background
- 2 layers on Still Background

### To Control SmartMatrix<sup>2</sup>

- ▶ RCS<sup>2</sup>: Remote Control Software\*
- ▶ VRC300: High-End Remote Controller Vertige (available in second semester 2014)
- ▶ ORC50: Remote Controller Orchestra (compatible first semester 2014)
- ▶ RK-350: Remote Keypad
- ▶ Crestron's Modules: 2 or 3-Series\*
- ▶ AMX's Modules\*

\*Available on [www.analogway.com](http://www.analogway.com)

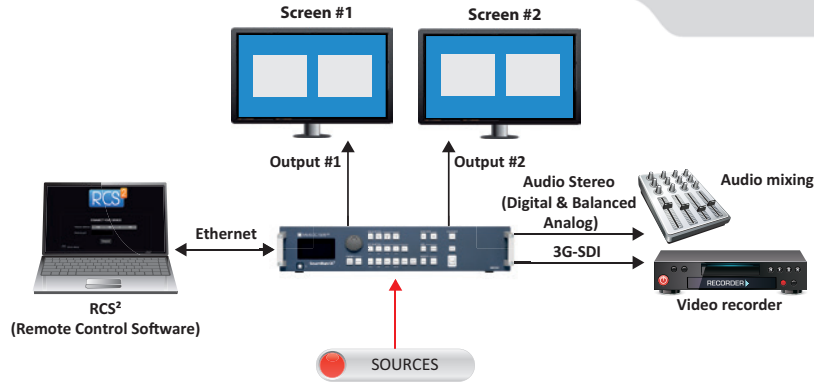


The Quick Frame feature instantly allows to display a stored Frame above all layers.



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## ► Matrix configuration



## Technical Specifications

### ► 10 inputs - 16 plugs

#### 4 Universal input plugs

#### Analog inputs (All inputs #1 to #4)

##### SD-TV

- Composite, S.Video, YUV, RGsB 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

### ► Output #1 & Output #2

#### 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 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
- **Video Out SDI audio embedding :**
  - Up to 2 stereo pairs (Matrix mode)
- **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
- Preset and Effect menu shortcuts
- User defined effect keys
- 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)

- **Output #1 and Output #2 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 version)\*
- 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](http://www.analogway.com)

**i** Specifications subject to change without prior notice

All technical specifications are available on our website