



SMP-XX MULTIVIEWER

FULLY FEATURED MODULAR MULTIVIEWER
WITH UP TO 16 INPUTS & INTERNAL 16X16 SDI ROUTER OPTION



The SMP-xx is a high quality, innovative MultiViewer designed for the serious AV and broadcast user. The optional SMP-Rxx frame features an integrated 16x16 3G HD-SDI router providing a highly powerful and capable device for small installations. These high resolution, multiformat devices provide considerable flexibility having full audio support, browser configuration and control, together with sophisticated alarms reporting.

FEATURES

CONTROL

- Front panel menu for system health monitoring and IP setup
- Comprehensive user-friendly setup via system menus or any GUI browser

BUILT-IN ROUTER (SMP-RXX ONLY)

- Integrated 3G HD-SDI routing switcher with 16 outputs providing full source routing capability

SUPERIOR IMAGE QUALITY

- Ultimate image quality using state-of-the art image processing algorithms for de-interlacing and scaling
- HDMI MultiViewer outputs up to 4K/30Hz output resolution for use with the highest quality displays
- SDI outputs supporting up to 6G (4K/30Hz) output resolution
- Genlocked inputs for flicker-free and full frame operation

COMPREHENSIVE ALARMS AND ON-SCREEN STATUS

- Alarms for video, audio and metadata with outputs to tallies, GPIs/GPOs, LAN and SNMP traps, allowing connection of the SMP-xx with external monitoring systems
- Under Monitor Displays (UMDs) via keyboard, LAN or serial cable supporting TSL and Open protocol
- Clock display receiving time information via NTP network protocol or LTC
- Teletext, subtitles, AFD, WSS, VITC decoding and monitoring

FLEXIBLE

- Up to 16 video inputs, choose from; 3G/HD/SD-SDI, HDMI, RGBHV (525/625 lines Video level), YUV & Composite: The perfect solution for compact monitoring in smaller OB vans, editing suites, master control or digital layout facilities
- Fully customizable display tiles allowing picture-in-picture on a chosen background, graphical, plain color or external video source

AUDIO

- Up to 256 channels of embedded audio may be displayed as industry standard bargraphs with a choice of scales/ballistics and a loudness display option
- Up to 128 channels of external audio, analog or digital (AES/EBU) may be displayed with optional cards
- Optional VIP-3D scaler card offers metering (but not decoding) of Dolby E metadata
- Audio monitoring via SDI and HDMI
- Front Panel headphone jack for audio monitoring with level control

ROBUST AND RELIABLE

- 1RU compact lightweight modular design, ideal for OB vans and other space restricted installations
- Intelligent fan control to regulate system temperature
- Redundant hot swappable power supply
- All audio/video input/output cards are hot-swappable



1. SDI INPUT (RMP-SD4)

- 4 x BNC
- 1 x D Type (GPI/O 8 in 4 out)
- Input 1 & 2 also accept composite



2. HDMI INPUT (RMP-HM4)

- 4 x HDMI
- 1 x D Type (GPI/O 8 in 4 out)



3. LOOP THROUGH INPUT (RMP-SL4)

- 4 x DIN 1.0/2.3 Inputs
- 4 x DIN 1.0/2.3 Active Loop through outputs
- 1 x D Type (GPI/O 8 in 4 out)



4. ROUTER IN & OUT (RMP-SR4)

- 4 x DIN 1.0/2.3 Inputs
- 4 x DIN 1.0/2.3 Router relocked outputs
- 1 x D Type (GPI/O 8 in 4 out)



5. MULTIVIEWER OUTPUT (RMP-MVC-3G)

- 2 x Independent HDMI Outputs each with a parallel HD-SDI output
- 1 x RJ45 Ethernet



6. CONTROL (RMP-NET)

- 1 x LTC Input
- 1 x Video Reference Input (Black/Burst or SDI)
- 1 x RS232/422
- 1 x D Type (GPI/O 8 in 4 out)
- 1 x RJ45 Ethernet (for future use)



NEW 4K/30HZ MULTIVIEWER OUTPUT CARD (RMP-MVC-6G)

- 2 x Independent HDMI Outputs each with a parallel HD-SDI output capable of 4K/30Hz (6G-SDI)
- 1 x RJ45 Ethernet



RMP-A32

A range of Analog and AES input and output cards use the rear module RMP-A32. These provide additional flexibility for audio monitoring in many different environments:

- AIP32A Analog Audio Input Card, 32ch
- AIP32D Digital Audio Input Card, 32ch
- AIP32AD Analog Audio, 32ch and Digital Audio, 32ch input card
- AOP32D Digital Audio Output Card, 32ch



In addition to Analog, AES and Embedded monitoring capability the VIP-3D card features optional DolbyE level metering. Smart metering automatically detects presence of DolbyE or PCM and highlights accordingly. The meter shows peak and RMS levels from the Dolby Metadata.

The SMP-Sxx platform is modular and offers a choice of video and audio input cards and rears. There are six card slots in the MultiViewer. Two of these are reserved for the Control card and Output card with their associated rear modules. The product is fully modular and cards may be added or swapped at a later date. A range of rear modules allows for complete flexibility in choice of I/O format. This makes the SMP-xx extremely flexible for a wide range of application markets.

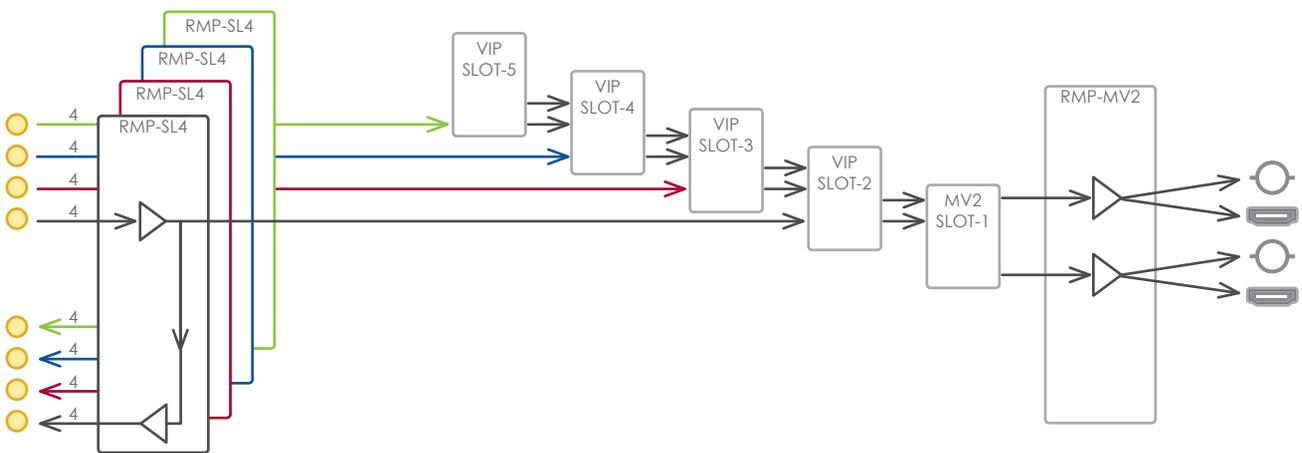
In Digital Playback, SDI outputs may be used for the playout chain and HDMI may be used to monitor return feeds from STBs and viewed as a PIP in the main TX output.

The audio input cards provide great capability in Studios and OB to visualize multiple audio sources. In small OB environments, where space and cost is at a premium, the loop through rears (RMP-SL4) mean DAs or router outputs may be avoided.

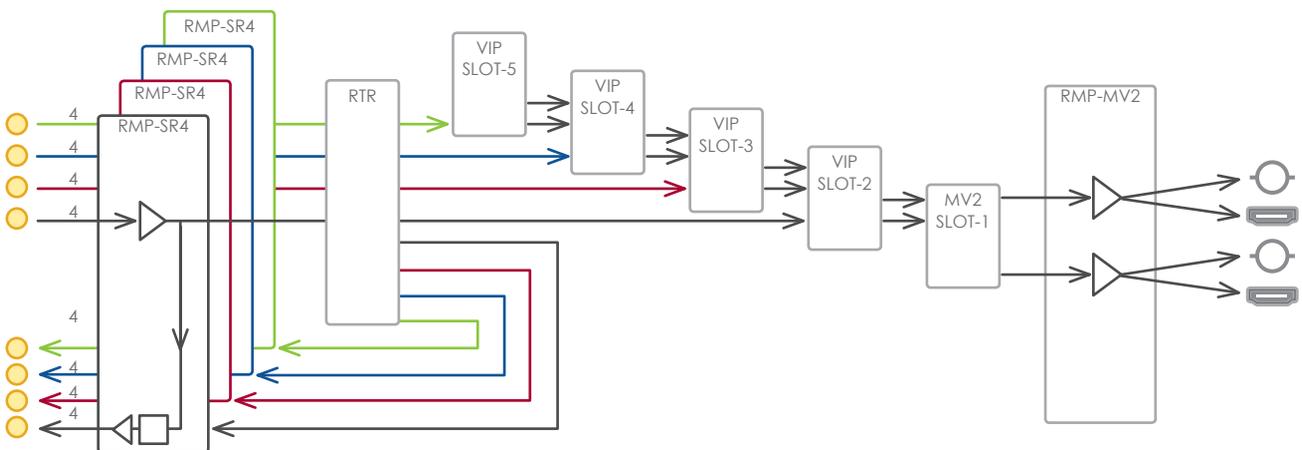
The SMP-Rxx features an integrated SDI router. When using the router rear panels (RMP-SR4), a 1x6 SDI video router complements the fully featured MultiViewer.

Where space is constrained, such as small OB or SNG trucks, this provides great combined functionality and flexibility in a compact easy-to-use 1RU form factor. As with the SMP-Sxx, the SMP-Rxx is fully configurable with a range of card and rear panel options.

SMP-SXX MULTIVIEWER



SMP-RXX MULTIVIEWER WITH INTEGRATED ROUTER



HDMI rear (RMP-HM4): 2 HDMI inputs only are available on the corresponding input card when this is used in the SMP-Rxx router frame. Full control of the router is available using the browser.

FEATURES

INPUTS

- Video, up to 16 auto-sense (HDMI/3G/HD-SDI/SDI/Composite) video inputs (4 inputs per video input card)
- HD-SDI (SMPTE292M, SMPTE424M Level A Mapping)
- SD-SDI (SMPTE259M 270Mb): 525/60, 625/60
- SD-Analog: Composite (CBVS 1V P-P), card: PAL, PAL-M, NTSC, NTSC-4.43, SECAM (two Composite inputs per card)
- HDMI input: up to 1920x1200@60Hz (only two inputs with SMP-Rxx variant)
- Internal audio inputs:
 - Embedded audio, up to 16 channels per video feed, 256 channels total
 - Dolby E level metering (optional – VIP3D cards only)
- External audio (option, uses one slot per card):
 - Analog Input, up to 32 channels (16 pairs)
 - AES/EBU Input, up to 32 channels (16 pairs)

OUTPUTS

- 2 x HDMI (1.4A) outputs supporting resolutions up to 4K/30Hz
 - Compatible with displays handling XGA TG, XGA, 720p60, 720p50, SXGA, SXGA+, 1080p50, 1080p60 and 4K/30Hz (with new 4K output card and rear)
 - HDCP material can be viewed on HDMI output
- 2 x SDI outputs (Up to 3G using standard output card, or up to 6G using new 4K/30Hz output card and rear)
- Video sources fully scalable and displayed in native format, 4:3 or 16:9
- Audio bar graphs may be superimposed on the video, placed outside of the video or displayed in a dedicated file
- External audio (option, uses one slot per card):
 - Analog Output, up to 32 channels (16 pairs)

- AES/EBU Output, up to 32 channels (16 pairs)

ALARMS

- On video inputs: Video sync loss, Black, Freeze-frame
- On metadata inputs: VITC loss, Teletext loss, Subtitles loss, V-chip loss
- On audio inputs: Embedded audio loss, External audio loss, Over level, Out of phase, DolbyE (When using VIP-3D)
- With outputs to Tallies, Borders, GPIs/GPOs, LAN, SNMP traps

OTHER FEATURES

- UMD via
 - Keyboard (USB connector on front panel)
 - LAN via browser
 - RS-232/422 supporting TSL or Open "Hydra" Protocol
- Clock inputs via NTP or LTC
- Up to 4 bitmap files can be uploaded and may be displayed simultaneously
- GPI/GPO (8 inputs and 4 outputs per VIP and Control card)

HARDWARE

- 1RU compact modular design
- Intelligent CPU fan control to regulate system temperature
- Control and configuration using browser software via the LAN
- Hot-swappable Input and Output cards
- Hot-swappable External redundant PSU (option)
- Power supply and fan failure LED indicators on front panel

ORDER INFORMATION

MULTIVIEWER MODELS

- **SMP-Sxx:** Dual Head MultiViewer, 1RU Frame. Includes: PSU, Front Panel, Network and Output cards with rears
- **SMP-Rxx:** Dual Head MultiViewer with integrated SDI Router, 1RU Frame. Includes: PSU, Front Panel, Network and Output cards with rears

CARDS

- **MPX-MVC-3G:** 1080p/60Hz MultiViewer Controller Output card
- **MPX-MVC-6G:** 4K/30Hz MultiViewer Controller Output card
- **VIP3:** 4 channel video processing module
- **VIP3D:** 4 channel video processing module with DolbyE monitoring
- **AIP32A:** Analog Audio input module 32CH
- **AIP32D:** Digital Audio input module 32CH
- **AIP32AD:** Analog Audio, 32ch and Digital Audio, 32ch input card
- **AOP32D:** Digital Audio Output module 32CH

REARS

- **RMP-MVC-3G:** 2 x HDMI outputs (to 1080p/60Hz)
2 x HD-SDI outputs (on BNC) (to 3G HD-SDI)
- **RMP-MVC-6G:** 2 x HDMI outputs (to 4K/30Hz)
2 x HD-SDI outputs (on 1.0/2.3 connectors) (to 6G HD-SDI)
- **RMP-SD4:** 4 x BNC 3G/HD/SDI Inputs,
1 x D-Type GPI/O (8 in, 4 out)
- **RMP-SL4:** 4 x DIN 1.0/2.3 3G/HD/SDI/Composite¹ Inputs,
4 x DIN 1.0/2.3 active loop through outputs,
1 x D-Type GPI/O (8 in, 4 out)
- **RMP-HM4:** 4 x HDMI video inputs,
1 x D-Type GPI/O (8 in, 4 out)
- **RMP-SR4:** 4 x DIN 1.0/2.3 3G/HD/SDI,
4 x DIN 1.0/2.3 3G/HDSDI router outputs,
1 x 1 x D-Type GPI/O (8 in, 4 out)
(use with SMP-Rx)
- **RMP-A32:** 32 x Analog/Digital Audio Inputs/Output

REDUNDANT POWER SUPPLY

- **POWER-XX:** External 1RU Redundant PSU (includes Frame, PSU and cable to connect to SMP-xx)

1. Inputs 1,2 are composite.

2. 4 HDMI inputs with SMP-Sxx; 2 HDMI inputs with SMP-Rxx.



www.KramerAV.com

© 2016 Sierra Video. All rights reserved. Sierra Video is a Kramer Electronics Brand.