

Specifications

| | | | |
|--|---|--|---|
| Video Formats | 3G: 1080/60p, 1080/59.94p, 1080/50p (LEVEL A) HD: 1080/60i, 1080/59.94i, 1080/50i, 720/60p, 720/59.94p, 720/50p, 1080/30p, 1080/29.97p, 1080/25p, 1080/24p, 1080/23.98p, 720/24p, 720/23.98p, 1080/30Psf, 1080/29.97Psf, 1080/25Psf, 1080/24Psf, 1080/23.98Psf, 1035/60i, 1035/59.94i SD: 525/60 (NTSC), 625/50 (PAL) | Audio Output | Analog Audio: RCA pin jack x 2 (1 stereo pair, or 2 mono channels), unbalanced Output impedance: 100Ω or below, Output level: -10 dBV Maximum output level: +5 dBV, Sampling frequency: 48 kHz Quantization: 24-bit Embedded Audio (when an MV-32HDO option is installed): Group x 4 (8 stereo pairs) Sampling frequency: 48 kHz, Quantization: 24-bit |
| Video Inputs | Accepts the following signals (Mix input, asynchronous acceptable): 3G-SDI: 3 Gbps, 75Ω BNC HD-SDI: 1.5 Gbps, 75Ω BNC SD-SDI: 270 Mbps, 75Ω BNC Quantization: Y: 10-bit, C: 10-bit, Number of inputs: 8 inputs per MV-32HSDI card | Genlock Input | BB: NTSC 0.429 Vp-p/PAL 0.45 Vp-p, Tr: 0.6 Vp-p |
| Analog Composite Input Card (MV-32AI) | Analog Composite: 1.0 Vp-p, 75Ω BNC Quantization: Y: 10-bit, C: 10-bit, Number of inputs: 8 inputs per MV-32AI card | I/O Delay | 1 to 1.5 frames (with an interlaced SDI video input) |
| Analog Composite Input Card (MV-32ALL) | Analog composite: 1.0 Vp-p loop-through or 75Ω termination (manually selectable) BNC Quantization: Y: 10-bit, C: 10-bit, Number of inputs: 4 inputs per MV-32ALL card | Video Window | Up to 32 windows per output card. * Up to 32 total windows for 2 outputs. *Full: 5/32, 1/4; 15/32, 1/16; 12/32 (Output resolution: Max. Window No.) |
| DVI (Digital and Analog RGB) Input Card (MV-32PCI) | <Analog RGB> DVI-H connectors Quantization: R: 8-bit, G: 8-bit, B: 8-bit, Input resolution: PC (VESA DMT) 640x480, 1024x768, 1280x1024, 1360x768, 1600x1200, 1920x1200, 1440x900, 1680x1050 *1920x1200 is supported only for Reduced Blanking VIDEO (SMPT)E: 1920x1080p, 1280x720p Refresh rate: 60 Hz, R/G/B: 0.7 Vp-p, HV: TTL * Support progressive video only. <DVI> DVI-H connectors Quantization: R: 8-bit, G: 8-bit, B: 8-bit, Input resolution: PC (VESA DMT) 640x480, 1024x768, 1280x1024, 1360x768, 1600x1200, 1920x1200, 1440x900, 1680x1050, 1366 x 768 * 1920x1200 is supported only for Reduced Blanking VIDEO (SMPT)E: 1920x1080p, 1280x720p Refresh rate: 60Hz, HDCP not supported * Support progressive video only. * Plug-and-play devices such as computers that are connected to the DVI output connectors are recognized as DVI-D compatible monitors. Number of inputs: 3 inputs per MV-32PCI card | Clock Window | Up to 4 windows per output card. * Up to 4 total windows for 2 outputs. Internal clock or LTC time code selectable *Accuracy within ±10 seconds per month (at 25°C) |
| Audio Input | HD-SDI/SD-SDI Input Card (MV-32HSDI) | Count up/down timer and remaining time counter display | Displayed in clock window. (Internal clock or LTC is selectable for remaining time counter.) Count up/down timer uses an internal crystal oscillator: Temperature characteristic within ±50PPM (0°C to 40°C) |
| Analog Audio Input Card (MV-32AA) | Analog Audio signal, Balanced or unbalanced, 25-pin D-sub (female) x 2 (inch screw) * The circuit between COLD and SHIELD pins must be shorted outside the unit for an unbalanced input. Input impedance: 600Ω or Hi-Z, Input level: -10 dBV/3 dBu/4 dBu Maximum input level (with +4 dBu input level): +24 dBu (balanced), +18 dBu (unbalanced) Rated input power (with 600Ω termination): +24 dBm Sampling frequency: 48 kHz, Quantization: 24-bit Number of inputs: 16 channels per MV-32AA card (8 stereo pairs) | Background Display | 1 image per output can be saved and displayed. Max. image size: 1920x1200 |
| AES Audio Input Card (MV-32DAI) | AES Audio signal, Unbalanced, 75Ω BNC x 8 Sampling frequency: 32/44.1/48 kHz, Quantization: 16 to 24-bit Number of inputs: 16 channels per MV-32DAI card (8-stereo pairs) | Logo Display | 2 Images per output can be saved and displayed. Max. image size: 480x480 |
| LTC Input | 1 input, SMPTE time code 1.0 Vp-p within ±6 dB | Screen Layout | User customized layout, Up to 32 layout patterns can be saved. |
| Video Outputs | DVI: (Outputs digital and analog outputs at the same time), DVI-H connector x 2 -- Quantization: R: 8-bit, G: 8-bit, B: 8-bit -- Resolution: 1920x1200, 1600x1200, 1280x1024, 1360x768, 1440x900, 1680x1050, 1920x1080, 1280x720 -- Refresh Rate: 60 Hz, 59.94 Hz, 50 Hz *No input/output frame rate converter. A frame rate difference between input and output may result in a repeat frame or drop frame. | Title Display | Character limit: Max. 16 characters x 2 lines for each input channel Character types: Alphanumeric characters and symbols |
| SDI output (when an MV-32HDO option is installed) | 75Ω BNC x 2, Output modes of DVI Layout and Routing Switcher are selectable for each output separately. Quantization: Y: 10-bit, C: 10-bit (Normal), Y: 8-bit, C: 8-bit (MV-32RT vertical rotation) DVI Layout mode: 3G-SDI: 3Gbps, 1080/59.94p, 1080/50p (Level A) HD-SDI: 1.5 Gbps, 1080/59.94i, 1080/50i, 720/59.94p, 720/50p * Blue matte background for other than 1080p or 720p. Routing Switcher mode: SD (270 Mbps), HD (1.5 Gbps), 3G (3 Gbps) *The same as inputs. * Inputs in the MV-32PCI are recognized as 3G signals (1920x1080/59.94p Level A). 1920x1200 input signals will be resized to 1920x1080. Signals of other resolutions will be displayed in the original size at the center of 1920x1080. * In the Routing Switcher mode, input signal changes cause switching noises. Signal switching using switching point is not supported. | Tally Indication | Square indicator (red or green) or frame (red, green) for each input |
| | | Audio Level Metering | Up to 16 audio channels of embedded audios per input (MV-32AAI and MV-32DAI options for other audio level metering support.) |
| | | Time Code Display | Time code reader display for embedded 3G (Level A)/ HD/SD-SDI ancillary time code (ATC) * Ancillary Time Codes (ATC) are not passed through. * Time code input in LTC connector is not displayed. |
| | | Video Monitoring | Video loss, Freeze*, Illegal luminance level detection * When calculated active picture CRC values are equal. |
| | | Audio Monitoring | Audio loss, Silence, Over level detection |
| | | Interfaces | RS-232C/RS-422/RS-485: 9-pin D-sub (male) x 1 Baud rate: 9,600/19,200/38,400/57,600/115,200 bps, data length 8-bit, stop bit 1-bit, parity NONE/ODD/EVEN GPIO: 50-pin D-sub (female), 6/50 pins are input/output compatible. Up to 48 inputs (up to 96 inputs with 2 output card options) Input: Layout patterns 1 - 32 Input switching of CHs 1 - 32 for windows 1 - 4 Audio switching of CHs 1 - 32 for audio monitors 1 and 2 Red/green tally inputs CHs 1 - 32* (TTL negative logic level signal or make contact)* Time correction input, Alarm reset input, Count up/down timer start/stop/reset Video source switching for SDI OUT 1 and 2 (TTL negative logic pulse signal or make contact) except * Output: Open collector, negative logic max. load: 24 V DC 40 mA (equivalent to 74LS06) Alarm output: FAN, video signal loss, video freeze, luminance level, black level, audio over level, audio silence level, audio loss Status output: Power units 1 and 2, GENLOCK, Timers, Time correction output LAN: 100BASE-TX/1000BASE-T, RJ-45 (Category 5) x 1 |
| | | Layout Editor | Edit size and position of windows in multi-channel screen (Windows software) |
| | | Remote Control Software | Switch multi-channel screen layouts (Windows software) |
| | | Live Viewer | Software for video transmission (Windows software) |
| | | Logo Registry Software | Registers background image and logo data (Windows software) |
| | | Data Backup | Stores the setting data to the memory (Rewrite capacity: approx. one hundred thousand times) *Frequent changes of display settings may result in being unable to retain data. |
| | | Temperature/Humidity | 0°C to 40°C / 30% to 90% (no condensation) |
| | | Backup battery | Internal lithium battery (to maintain time) |
| | | Power Consumption | Max. 333 VA (326 W) (at 100 V AC), Max. 328 VA (314 W) (at 200 V AC) |
| | | Power | 100 V AC to 240 V AC ±10%, 50/60 Hz |
| | | Weight | 14.6kg (MV-3200MF x 1, MV-32HSDI x 4, MV-32PCDO x 2, MV-32PS x 1) |
| | | Dimensions | 430 (W) x 88 (H) x 510 (D) mm, EA 2 RU |
| | | Accessories | Operation manual, AC cord, Rack mount brackets, CD-ROM (Layout Editor, Remote Control Software, Live Viewer, Logo Registry Software) |
| | | Options | MV-32PS: Redundant power supply unit / MV-32FP: Front control panel MV-32RT: 90° rotation display / MV-32SNMP: SNMP support MV-32HDO: HD-SDI output. (SD-SDI is not supported) |



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3G/HD/SD/Analog/PC Mixed High Resolution Multi Viewer (Max. 32-Split, 4 Outputs)

MV-3200

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and AUDIO TECHNOLOGY

3G/HD/SD/ANALOG/PC MIXED HIGH RESOLUTION MULTI VIEWER MV-3200



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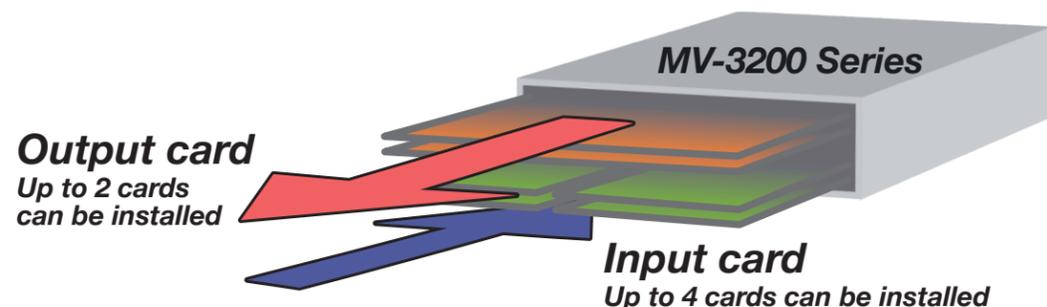
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Up to 32 Inputs with 4-Screen Outputs

The MV-3200 series is a multi viewer offering a multi-monitor display environment suited to your system by selecting and installing the required input and output cards on a 2U frame. Up to 4 input and 2 output cards can be installed on the frame, for a multi viewer with a maximum of 32 inputs and 4 outputs. Supports mixed input of HD-SDI, SD-SDI, analog composite and DVI (analog and digital) signals.

Input/Output Image



Input card

| | |
|-----------|---|
| MV-32HSDI | 3G-SDI (LEVEL-A), HD-SDI or SD-SDI: 8 inputs |
| MV-32AI | Analog composite: 8 inputs |
| MV-32AIL | Analog composite: 4 inputs *Allows loophrough for each input |
| MV-32PCI | DVI-I: 3 inputs *Digital or analog can be selected. |
| MV-32AAI | Enables analog audio 16 channel input. D-sub 25 pin (female) x 2 8 stereo channels, balanced and unbalanced |
| MV-32DAI | Enables AES audio 16 channel input. BNC x 8 8 stereo channels, unbalanced |

Output card

| | |
|-----------|--|
| MV-32PCDO | DVI-I output 2 channels Can display maximum of 32 video windows and 4 clock windows with 2 channels together for DVI-I output |
|-----------|--|

Options

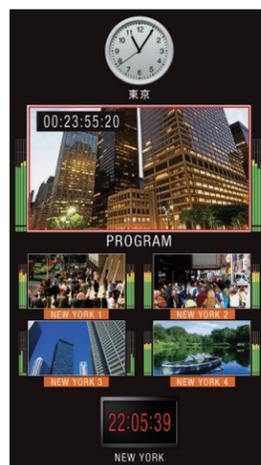
| | |
|-----------|--|
| MV-32PS | Redundant Power supply unit |
| MV-32FP | Front control panel |
| MV-32RT | 90 degree rotated output |
| MV-32HDO | 3G-SDI (LEVEL-A), HD-SDI output *SD-SDI is not supported) |
| MV-32SNMP | SNMP support |

Frame

| | |
|-----------|--|
| MV-3200MF | 2U size frame allowing installation of up to 4 input cards and 2 output cards. |
|-----------|--|



MV-32FP: Front control panel



MV-32RT: Rotated output image

Features

Supports Mixed Input of Various Signals

Supports mixed input of analog composite, SD-SDI, HD-SDI and DVI signal by combining input cards (asynchronous input allowed).

The lineup includes multiple cards to support your types and number of input signals (see table on the left). You can select a single optimal unit to suit your system size and input signal type.

Video Window Display of Each Output

Enables up to 32 video windows for each output card. The input video of your choice can be selected for each video window and the same input video can be displayed on multiple windows.

Tally Display/ Title Display

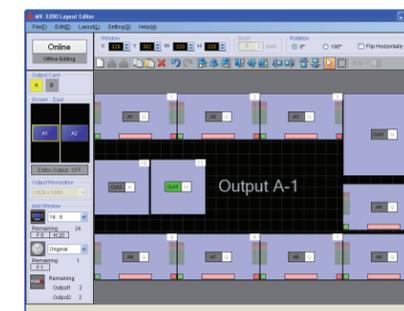
- Tally display: Can be selected from frame tally or marker tally indicator. Two tally indicators can be set per window.
- Title display: Up to two strings of text can be displayed for each input. Supports display of alphanumeric characters and symbols (up to 16 letters), which can be displayed within or outside the picture.

Audio Level Display

A function is provided to display the level of the embedded audio signal that is superimposed on HD/SD-SDI. Also, by installing an analog audio or AES/EBU audio card into an input card slot, their levels also can be displayed.

Layout Editor

The layout editor, which operates on a PC, comes standard, letting you change various settings such as split patterns and title display freely from a PC. The layout screen can be saved on the main unit memory in up to 32 patterns. By using the dedicated remote control software, layout patterns saved on the main unit can be recalled easily.



Layout Editor

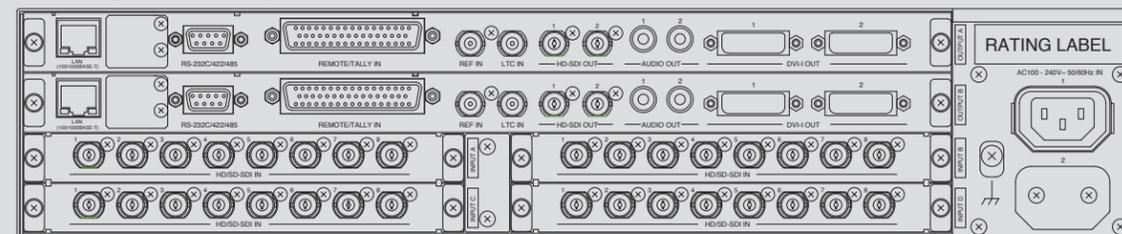
Time Display, Count Up/Down Timer, Remaining Time Counter

A maximum of 4 clocks can be displayed for each output card. Also, if not used as a clock display, it can be used as a count-up/count-down timer and remaining time counter.

Output card Independent Operation

Up to 2 output cards can be installed on a 2U frame, each operating independently. If one card malfunctions, the other one can display 32 inputs.

Rear Panel (w/ I/O cards)



External Dimensions

