

MULTI VIEWER MV-3240



1 RU-sized multi viewer which supports 12G*/6G*/3G/HD/SD-SDI and HDMI. Up to 32 inputs and 5 outputs. Freely layout up to 25 windows for one 4K or up to 40 windows for four 2K. M-JPEG stream output for LiveViewer and/or alarm recording function are installed as a standard. Thanks to its front air intake and rear exhaust, the MV-3240 can be installed in many environments.

* 12G/6G-SDI inputs are optional, to be supported.

Inputs/Outputs

- Inputs: Up to 32 inputs for 3G/HD/SD-SDI (including up to 16 inputs for 12G/6G-SDI¹.)
- Outputs: 4 outputs for 3G/HD-SDI or 1 output for 12G-SDI and 1 HDMI output².
- Expandable number of inputs with low latency thanks to a cascaded connection scenario.
- Freely layout up to 25 windows for one 4K or up to 40 windows for four 2K.

¹ Optional, 2 MV-1640SDI-12G are required to support 16 12G/6G-SDI inputs, to be supported. ² HDMI outputs same video of SDI output.

Layout Manager and On-screen Monitoring

- Customizes layouts, using the software in Windows® to adjust image size, position, title display, and other settings.
- Stores layouts on the viewer.
- Recalls saved layouts directly from the front panel control.
- Logo display in title areas: Stores and displays 4 logo images.
- Tally, Title, and Timecode Display.
- Time of day, Timer, and Information Display.
- Can display time based on a 30-hour clock.
- Registers up to 24 schedule timers per day for 1 week.



M-JPEG Stream Output and Cropping

- An integrated M-JPEG streaming video output serves as a simple way to monitor signals outside of the control room, with users accessing the signal from any web-enabled device.
- Dedicated APP for Windows®:
 - Monitor the M-JPEG streaming output on an app for Windows®.
 - Pre-alarm recording allows footage to be stored on PC HDD and reviewed when error occurs.
- Cropping:
 - Specifies areas to crop in pixels or by percent.
 - Background image is shown outside cropped areas.
 - Aspect ratio also maintained after partial cropping (of one side, for example).



Up/Down-resizing

- Resize from HD to 4K and from 4K to 2K.



Audio

- Audio Level Display.
- Audio Monitoring Output.

Controls and Error Detection

- Supports external interfaces and control protocols (including monitoring), SNMP function.
- Detects frozen frames (Y/C and Y only).
- View error logs or user text in the Information Display.
- Flashing borders or error icons/messages to identify screens with errors.
- Pre-alarm recording allows footage to be stored on PC HDD and reviewed.

Options

■ MV-1640IF: Interface option

MV-1640IF allows the MV-1640IP to control screen outputs, tally inputs, time correction, and alarm resets using up to 45 contact closure inputs to the GPI-IO connector on the rear of the unit.

■ MV-1640PS: Redundant power supply

■ HVS-AUX16A/16B/16C/16D/32A/64A²: Auxiliary unit

■ MV-1640SDI-12G¹: 8 12G-SDI input optional via software

Enables 12G/6G support for 8 of 32 3G/HD/SD-SDI inputs. Up to 2 MV-1640SDI-12G can be installed, and up to 16 12G/6G inputs can be supported.



HVS-AUX16A
(16-buttons)



HVS-AUX16B
(16-buttons, table-top model)



HVS-AUX16C
(16-buttons with OLED displays)



HVS-AUX16D
(16-buttons with OLED display,
table-top model)



HVS-AUX32A
(32-buttons)



HVS-AUX64A
(64-buttons)

¹To be supported. ²Connectable max. 4 units.

MV-3240 Datasheet

1. Specifications

Basic specifications

Temperature	0°C to 40°C
Humidity	30% to 90% (no condensation)
Power	100 V AC to 240 V AC \pm 10%, 50/60 Hz
Consumption	193VA (189W) at 100V AC to 120V AC 211VA (177W) at 200V AC to 240V AC
Dimensions	430 (W) x 44 (H) x 500 (D) mm EIA 1RU 480 (W) (Including rack mount brackets)
Weight	8.90 kg
Consumables (at 24-hour operation)	Cooling fan: Replace every 5 years Power Supply: Replace every 5 years

Technical specifications

Video format		
SDI signal	12G-SDI (*8)	2160/60p, 2160/50p
	6G-SDI (*8)	2160/30p, 2160/29.97p, 2160/25p, 2160/24p, 2160/23.98p
	3G-SDI	1080/60p, 1080/59.94p, 1080/50p (Level-A/B)
	HD-SDI	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-SDI	525/59.94i, 625/50i
	* PsF signals are internally processed as interlaced. Flicker may be noticeable in some images.	
Video input	Supports SDI 32 inputs (Asynchronous inputs are possible)	
SDI input	HD-BNC x 32 3G-SDI: 3.0 Gbps (Up to 5C-FB 70 m) HD-SDI: 1.5 Gbps (Up to 5C-FB 100 m) SD-SDI: 270 Mbps (Up to 5C-2V 200 m) ·Quantization: Y: 10-bit, C: 10-bit	
Audio input		
SDI signal Embedded	·Sampling frequency: 48 kHz (Synchronized to input video) ·Quantization: 16-bit to 24-bit ·16 channels for each SDI (*1) input (4 groups, 8 stereo pairs)	
LTC input (MV-1640IF option)	BNC x1 SMPTE-compliant timecode: within 1.0 Vp-p \pm 6 dBm	

Video output	
HDMI	<p>HDMI (TYPE A): 1 output</p> <ul style="list-style-type: none"> •Quantization: Y: 10-bit, C: 10-bit (4: 4: 4) or Y: 8-bit, C: 8-bit (4: 2: 0) or R: 8-bit, G: 8-bit, B: 8-bit (4: 4: 4) •Resolution: 3840 x 2160, 1920 x 1080 •Frequency: 59.94 Hz •Range: Limited •HDMI2.0 Level B output mode (Enables 4K output with one HDMI cable)
12G/3G/HD-SDI	<p>75Ω BNC (4K output supported in SQD or 2SI display of 3840 x 2160 signals) Quantization: Y: 10-bit, C: 10-bit (4: 2: 2)</p> <ul style="list-style-type: none"> •BNC x 1 (12G-SDI or 3G/HD-SDI) •HD-BNC x 3 (3G/HD-SDI) -12G-SDI: 12 Gbps 2160/59.94p, 2160/50p -3G-SDI: 3 Gbps 1080/59.94p, 1080/50p Level-A -HD-SDI: 1.5 Gbps 1080/59.94i, 1080/50i, 720/59.94p, 720/50p
Audio output	
Embedded (SDI)	<ul style="list-style-type: none"> - Number of outputs: 16 channels, 4 groups (8 stereo pairs) per output - Sampling frequency: 48 kHz - Quantization: 24-bit
Embedded (HDMI)	<ul style="list-style-type: none"> - Number of outputs: 8 channels, 4 stereo pairs per output - Sampling frequency: 48 kHz - Quantization: 24-bit
Genlock input	<ul style="list-style-type: none"> •REF IN (MV-1640IF option) BB: 0.429 V (p-p) (NTSC), 0.45 V (p-p) (PAL) Tri-level sync.: 0.6 V (p-p) 75Ω BNC •INPUT LOCK (SDI input 1 only.) 1080/59.94p, 1080/50p(Level-A/B), 1080/59.94i, 1080/50i, 720/59.94p, 720/50p, 525/60, 625/50
Video input/output delay (*2)	<p>HDMI/SDI output <SDI1-4/HDMI Out> 0.5 frame (Field mode) Minimum value 1 frame (Frame mode) Minimum value</p>
Video Window display	<p>4K mode: 25 windows Breakdown: 2K widow x 9, 1K window x 12 Video/Clock shared 2K window x 2 Video/Clock shared 1K window x 2</p> <p>2K mode: 40 windows Breakdown: 2K window x 8, 1K window x 23, 1K mirror window x 5 Video/Clock shared 2K window x 2 Video/Clock shared 1K window x 2</p>
Clock/ Count up timer/ Count down timer (*3), Schedule timer	<p>Can be displayed in information window. (Internal clock or LTC is selectable for schedule timer.) Max. number: 4</p>
Background display	<p>Store and display background images</p> <ul style="list-style-type: none"> - [3840 x 2160] x 1 (4K layout mode) - [1920 x 1080] x 4 (2K layout mode)

Logo display	Store and display logo images - Max. size: 1024 x 512 (Max. 8 logos can be registered. Max. 4 logos can be displayed.)
Screen layout	User customized layout - Layouts for each output can be saved on the viewer up to 16 layouts.
Title display	Character limit: Max. 16 characters x 2 lines for each input channel Supported characters: - Letters, numbers, symbols and Japanese kana/kanji (JIS 1 and 2)
Tally display	Indicated as a frame (red/green/amber) or marker (red/green/amber) on each input window.
Audio level display (*7)	Up to 16 audio channels of audio level metering per input
Time code display	- Display for 12G/6G(*8)/3G/HD/SD-SDI ancillary timecode (ATC) (*4) - Reader mode (*5)
Video monitoring	Detects video loss, frozen frames, incorrect luminance/black level, and CRC error.
Audio monitoring	Detects audio loss, silence, and excessive audio levels.
Interface	LAN1: 100BASE-TX/1000BASE-T, RJ-45 x 1 (CAT 5-compliant)
GPI-IO (MV-1640IF option)	50 pin D-sub (female) x1 · up to 45-pin for input/ 23-pin for output (selectable, and can be used for input and output)
Layout Manager	Software for customizing window sizes and positions, switching windows, and registering backgrounds and logos (Windows® software)
Live Viewer	Software for video streaming and pre-alarm recording to a PC. (Windows® software)
Data backup	Stores settings internally to the memory (rewrite capacity: approx. 100,000 times) (*6) Time information is held by a super capacitor.
Daytime accuracy	Monthly difference within ±15 seconds Accuracy duration when power is off: 60 hours

(*1) For 3G-SDI Level-B, only Link-A audio is supported, not Link-B.

(*2) Using interlaced input

(*3) Count up/down timer uses an internal crystal oscillator: ±50 ppm within operating temperature.
(0°C to 40°C)

(*4) Ancillary time code (ATC) is not passed through.

(*5) Time code from LTC input is not displayed.

(*6) Frequent setting changes may impair data retention.

(*7) When input audio frequency is under 60Hz, audio level may not be displayed correctly.

(*8) To be supported in the future.

Options

MV-1640PS	Redundant power supply (Includes an AC adaptor and AC cord)
MV-1640IF	Interface option

Other Option

HVS-AUX16A/16B/16C/16D/32A/64A (*)	Auxiliary unit (Ethernet LAN Connection)
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(*) Connectable max. 4 units

Accessories

AC Cord, EIA Rack Mount Brackets, Rubber Feet, HDMI cable lacing bracket, CD-ROM

2. External Dimensions

(All dimensions in mm.)

