

## Specifications

Video Formats	3G: 1080/60p, 1080/59.94p, 1080/50p (Level-A/B*) 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)
*1Level-B: At 1920 x 1080 only	
Video Inputs	SDI/analog composite switching (Mix input, asynchronous acceptable) 75Ω BNC x 8**
3G/HD/SD-SDI	3G-SDI (Level A/B): 3 Gbps HD-SDI: 1.5 Gbps SD-SDI: 270 Mbps
Analog composite	Analog composite: 1.0 Vp-p Quantization: Y: 8-bit, C: 8-bit
DVI-I/HDMI/RGBHV*3 (Optional card: MV-4200HDMI)	DVI-I x 8 Quantization: R: 8-bit, G: 8-bit, B: 8-bit Refresh rate: 60 Hz
DVI-I	Resolution: PC (VESA DMT): 640 x 480p, 1024 x 768p, 1280 x 1024p, 1360 x 768p, 1366 x 768p, 1600 x 1200p, 1920 x 1200p*4, 1440 x 900p, 1680 x 1050p VIDEO (SMPTE): 1920 x 1080p, 1280 x 720p R/G/B: 0.7 V p-p H/V: TTL
HDMI*5 (HDCP-compliant)	Resolution: PC (VESA DMT): 640 x 480p, 1024 x 768p, 1280 x 1024p, 1360 x 768p, 1366 x 768p, 1600 x 1200p, 1920 x 1200p*4, 1440 x 900, 1680 x 1050p VIDEO (SMPTE): 1920 x 1080p, 1280 x 1080i, 1280 x 720p
*2 +20 channels per card when an optional card MV-4200SDI is used *3 Plug-and-play capable devices are recognized as HDMI-compatible monitors *4 Supports reduced blanking only *5 Using a DVI-I to HDMI cable	
Audio Input	
Embedded	Sampling frequency: 48 kHz (sync to input video signals) Quantization: 16 to 24-bit SDI: 16 channels per 3G*/HD/SD-SDI input signal (8 stereo pairs) HDMI: 8 channels per HDMI input signal (4 stereo pairs)
Analog (Optional card: MV-4200IF)	D-sub 25-pin (female**), balanced or unbalanced, 8 channels, inch screw Input impedance: 600Ω/Hi-Z Input level: -10 dBV/-3 dBu/0 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
AES (Optional card: MV-4200IF)	75Ω, BNC x 4, unbalanced, 8 channels Sampling frequency: 32/44.1/48 kHz Quantization: 16 to 24-bit
*6 3G-SDI (Level-B): supports Link A only *7 For unbalanced input, short Cold-Shield externally	
LTC input	BNC x 1 SMPTE-compatible timecode: within 1.0 Vp-p ± 6 dBm
Video Outputs	
HDMI (HDCP-compliant)	HDMI x 4 (Type A) Quantization: R: 8-bit, G: 8-bit, B: 8-bit Resolution: 1920 x 1080i/p, 1280 x 720p Frequency: 59.94 Hz, 50 Hz
SDI	75Ω, BNC x 4 3G-SDI (Level-A): 3 Gbps HD-SDI: 1.5 Gbps
Audio Output	
Analog	Stereo mini jack x 1 (stereo pair x 1/monaural x 2), unbalanced Output impedance: 100Ω or less Output level: -10 dBV Maximum output level: +5 dBV Sampling frequency: 48 kHz Quantization: 24-bit

Embedded (SDI)	Sampling frequency: 48 kHz Quantization: 24-bit SDI: 16 channels per 3G/HD/SD-SDI per output (8 stereo pairs) HDMI: 8 channels per HDMI output (4 stereo pairs)
Genlock Input (Optional card: MV-4200IF)	BB: NTSC 0.429 Vp-p/PAL 0.45 Vp-p, Tri-level sync: 0.6 Vp-p
Video Display	Standard system: 12 windows MV-4200SDI: Up to 34 windows MV-4200HDMI: Up to 10 windows
Clock Windows**8	Up to 8 screens
*8 Based on internal clock (accurate to within 15 seconds/month, at 25°C) or LTC time code. Time correction via GPI or SNTP.	
Count up/down Timer, Remaining Time Counter*9	Can be displayed in clock window. (Internal clock or LTC is selectable for remaining time counter.)
*9 Stopwatch/timer uses an internal crystal oscillator: ±50 ppm within operating temperature (0°C to 40°C)	
Background Display	Memory: two 4K background images / eight 2K background images per optional input card Max. size: 3840 x 2160 (4K), 1920 x 1080 (2K)
Logo Display	Memory: 8 / Display: Max 8 per output Max. size: 1024 x 512
Screen Layout	User customized layout Up to 68 layout patterns can be saved.
Title Display	Character limit: Max. 16 characters x 2 lines for each input channel Supported characters: Letters, numbers, symbols, Korean characters and Japanese kana/kanji (JIS 1 and 2)
Tally Display	Indicated as a frame (red/green/orange) or marker (red/green) on each input window. Colors are adjustable.
Audio Level Display	Up to 16 audio channels of audio level metering per input
Time Code Display Reader mode	Display for 3G/HD/SD-SDI Ancillary Timecode (ATC) Ancillary Timecode (ATC) is not passed through. Timecode input in LTC connector is not displayed.
Video Monitoring	Detects video loss, frozen frames*10, incorrect luminance/black level, and CRC error.
*10 Detected by calculating the active picture CRC for input signals to check whether this value remains the same for each frame.	
Audio Monitoring Interfaces**11	Detects audio loss, silence, and excessive audio levels. LAN: 100BASE-TX/1000BASE-T, RJ-45 x 1 (CAT 5e-compliant) RS-232C/RS-422/RS-485: D-sub 9-pin (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: 80-pin (female); up to 144-pin for input/output*12
*11 Interfaces other than Ethernet require installation of the MV-4200IF option. *12 Input and output selectable	
Layout Manager (Windows Software)	Enables layout creation, window switching, and more
Live Viewer (Windows software)	Software for video streaming
Data Backup	Stores settings internally to the memory (rewrite capacity: approx. 100,000)*13.
*13 Frequent setting changes may impair data retention.	
Temperature/Humidity	0°C to 40°C / 30% to 90% (no condensation)
Backup Battery	Internal lithium battery (to maintain time)
Power	100 VAC to 240 VAC ±10% 50 Hz/60 Hz
Power Consumption	461 VA (461 W) (at 100 to 120 VAC) 453 VA (444 W) (at 200 to 240 VAC)
Dimensions / Weight	EIA 2 RU 430 (W) x 88 (H) x 470 (D) mm / 16kg
Consumables	Cooling fans (to be replaced every 5 years) Power Unit (to be replaced every 5 years) Backup Battery (to be replaced every 5 years)
Accessories	Quick Setup Guide, AC cord, Rack mount brackets, CD-ROM (Layout Manager, Live Viewer, Layout File, Operation Manuals)
Options	MV-4200PS: Redundant power supply MV-4200IF: Interface card (GENLOCK/AES/Analog audio/RS-232C/422/485/GPIO) MV-4200SDI: SDI input card (3G/HD/SD/Analog x 20) MV-4200HDMI: DVI/HDMI input card (DVI-I x 8) MV-4200SNMP: SNMP-compatible software

**FOR.A**  
INNOVATIONS IN VIDEO and AUDIO TECHNOLOGY  
Head Office: 3-8-1 Ebisu, Shibuya-ku, Tokyo 150-0013, Japan

**FOR-A Corporation of America:** Tel: +1-714-894-3311  
11155 Knott Ave. Suite G&H, Cypress, CA 90630, U.S.A.  
**FOR-A Corporation of America East Coast Office:** Tel: +1-201-944-1120  
2 Executive Drive, Suite 670, Fort Lee Executive Park, Fort Lee NJ 07024, U.S.A.  
**FOR-A Corporation of America Distribution & Service Center:** Tel: +1-352-371-1505  
2400 N.E. Waldo Road, Gainesville, FL 32609, U.S.A.  
**FOR-A Corporation of America Miami Office:** Tel: +1-305-931-1700  
5200 Blue Lagoon Drive, Suite 760, Miami, FL 33126, U.S.A.  
**FOR-A Corporation of Canada:** Tel: +1-416-977-0343  
1131A, Leslie Street #209, Toronto, Ontario, M3C 3L8, CANADA  
**FOR-A Europe S.r.l.:** Tel: +39-039-879-778  
Via Volturmo, 37, 20861 Brugherio MB, Italy

ISO 9001 and 14001 certified (Sakura R&D)  
<http://www.for-a.com/>  
**FOR-A UK Limited:** Tel: +44-(0)20-3044-2935  
Trident Court, 1 Oakcroft Road, Chessington, KT9 1BD, UK  
**FOR-A Italia S.r.l.:** Tel: +39-039-881-086/103  
Via Volturmo, 37, 20861, Brugherio MB, Italy  
**FOR-A Corporation of Korea:** Tel: +82-(0)2-2637-0761  
1007, 57-5, Yangsan-ro, Yeongdeungpo-gu, Seoul 150-103, Korea  
**FOR-A China Limited:** Tel: +86-(0)10-8721-6023  
708B Huateng Building, No. 302, 3 District, Jingsong, Chaoyang, Beijing 100021, China  
**FOR-A Middle East-Africa Office:** Tel: +971-(0)4-551-5830  
Dubai Media City, Al Thuraya Tower 2, Office 1407, P.O. Box 502688, Dubai, UAE  
**Agiv (India) Private Limited (FOR-A India):** Tel: +91-22-2405-1258  
85, V.N. Purav Marg Sion-Chunabhatti (E) Mumbai - 400 022

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3G/HD/SD/Analog/HDMI/DVI/RGBHV Mixed High Resolution Multi Viewer  
(Up to 68 Inputs, 8-Monitor Outputs)

## MV-4200

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INNOVATIONS IN VIDEO  
and AUDIO TECHNOLOGY

3G/HD/SD/ANALOG/HDMI/DVI/RGBHV  
MIXED HIGH RESOLUTION MULTI VIEWER

# MV-4200



Lines shown for reference only



## 4K-Compatible, 68 Channels of Input, 8-monitor Output High Performance with Better Energy Efficiency

### Up to 68 channels of input with optional cards\*1

- Combine optional input cards—an MV-4200SDI card (3G/HD/SD-SDI, analog composite × 20) or MV-4200HDMI card (DVI-I/HDMI/RGBHV × 8)—or the MV-4200IF interface card (GPIO, serial control, and input of analog audio, AES audio, and genlock) as needed.

\*1 When using three MV-4200SDI cards.

### View up to 8 monitors in different layouts

- Up to 114 windows for 8 channels
- Up to 8 clocks for 8 channels
- Up to 8 logos and 1 background per output

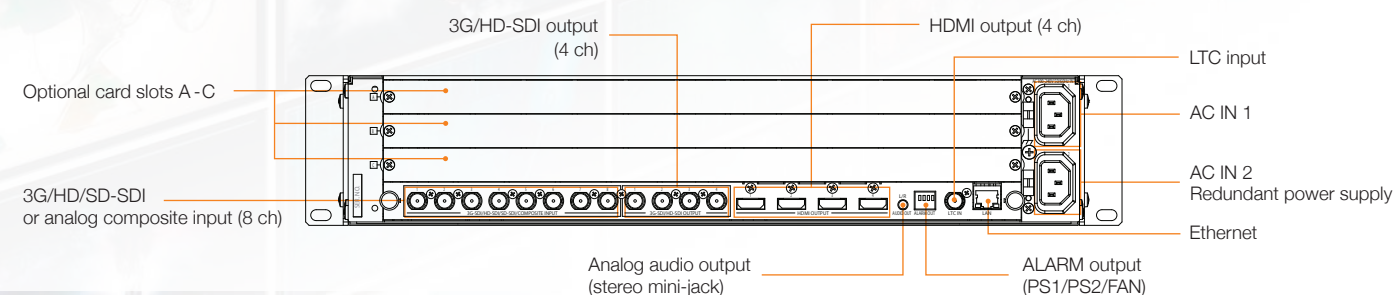


### Use 4K sources by using four 3G-SDI inputs

- Layout Manager enables easy layout of 4K video in a seamless display

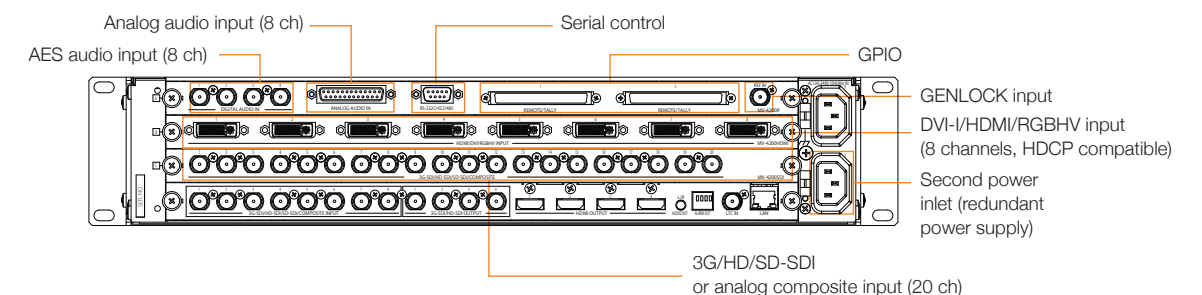


### Appearance without optional units



### Appearance with all optional units

When an MV-4200IF, MV-4200HDMI, and MV-4200SDI options are mounted



The MV-4200 is a 2U multi-viewer that accepts up to 68 channels of mixed 3G/HD/SD-SDI, analog composite, HDMI, DVI, or RGBHV signals for monitoring on 8 screens. Full-featured, this unit offers a customizable window layout, audio level meters, and AFD-compatible cropping.

### Main Features

#### Layout Manager

A Windows based application is provided for managing and creating screen layouts. Customize the layout on a computer by registering or changing layout patterns, adjusting title displays, and configuring other settings as needed. Store up to 68 layout patterns on the viewer. Saved layouts can be applied directly from the front panel control.

#### Video Streaming

In addition to computer-based layout management, you can also stream video from the viewer over Ethernet. The streaming video can be used for additional local computer displays or for remote monitoring applications.

#### Record Streamed Video

Take streaming a step further by capturing the video. Frames before and after errors or specified triggers are captured and can be saved to a Windows computer as a sequence of still-image files.

#### Versatile Mixed-Source Environment

Supports mixed signals as required, from 3G-SDI (Level-A/B), HD-SDI, SD-SDI, analog composite, HDMI, DVI, or RGBHV sources. Asynchronous input is also supported. The viewer accepts an array of formats and frame rates including NTSC, PAL, 1080/59.94i, 1080/50i, and 23.98/24/25/29.97/30 P or. PsF. (No frame rate conversion.)

#### HD Output of Source Signals

Up to 8 channels of output, each with HDMI and SDI interfaces available for HD monitoring support.

#### Audio Level

Monitor up to 16 channels embedded audio levels in each 3G/HD/SD-SDI or HDMI signal. Use Layout Manager to customize display positions, number of channels, and display groups.

#### Audio Monitoring Output

Audio from any channel can be monitored via HD-SDI, HDMI, or analog audio output.

#### Prominent Error Display

Indicates errors by full-screen display, flashing border, error icon, or error message prominently identifying the relevant frame.

#### Tally/Title/Timecode

- Tally: Choose from frame tally or marker tally display
- Titles: Identify each source channel with a title. Supports display of alphanumeric characters, symbols, and Korean characters (up to 16 letters), which can be displayed within or outside the picture
- Timecode: Ancillary Timecode in 3G/HD/SD-SDI signals can be displayed

#### Time and Timer Display

Supports clock time synchronization with the SNTP server. Up to 8 clocks can be displayed in analog or digital format. Date display is also available. This feature can be also used as a count up/down timer, or remaining time counter.

#### Logo/Background

Register up to 8 logos. Up to 2 in 4K size or 8 in 2K size background images can be registered. Add 8 logos in total and one background image per output, as required.