

# MVW-100 Multiviewer



MVW-100 is a compact, high-resolution, modular multi-viewer built to streamline today's complex A/V monitoring workflow. One 1RU MVW-100 can simultaneously display the combined graphics of up to 16 channel video signals (CVBS, HD-SDI, SD-SDI, DVI, VGA) and 16 channel audio signals (embedded audio and analog audio).

### High Stability, Reliability and Security

MVW-100 uses a hardware design in order to avoid the instability, narrow BUS bandwidth, poor intellectual property protection and virus threat of PC-based architecture. The multi-view processor uses an industry-leading A/V processing chip for high-quality A/V output.

MVW-100 uses the industry standard frame for a variety of environments. The built-in cooling assembly greatly enhances the system's reliability. Redundant power supplies ensure 24/7 continuous operation.

Along with all of the physical characteristics, MVW-100 uses a set of detection methods including real-time alarming capabilities for still frame and SDI with embedded audio and digital audio loss.

### Flexible Modular Design

MVW-100 uses flexible modular design. Depending on the size of the frame, up to 4 input modules can be placed in 1RU frame. Input modules in different formats can be processed in the same frame, including auto-detecting CVBS, HD-SDI, SD-SDI, DVI and VGA. MVW-100 can monitor graphics from the first channel to the sixteenth channel. The output module has 1 channel HDMI output (1920x1080p) which can be displayed on an LCD/LED or PDP monitor. The output module also supports 1 channel HDMI with embedded audio outputs and analog stereo audio outputs. Each channel output audio can be from different audio input sources.

### Stable Working Mode, Flexible and Versatile Display Modes

Each input module in MVW-100 multi-viewer uses multi-bus parallel processing mode. Each video signal is processed individually, and then the processed signals are sent in a unified format to multi-viewer module for graphics combination.

Each input module has two audio input modes: SDI with embedded audio and analog stereo audio. The audio signals are processed through the input module for unifying their signal format and calculating their VU and PPM value, and the processed audio signals are output to multi-viewer combination module.

The multi-viewer combination module synchronizes the video signals from the 4 input modules, and output audio VU meter. The combination module can store 16 standard display templates and 16 user-defined display templates. Each display template can be configured to be displayed in a sub-window. Each sub-window signal can be from different video sources.

### Multi-function Integrity

MVW-100 supports TALLY indicator, UMD, VU/PPM meter, clock view and correction. TALLY indicator can be achieved through GPI/O. The input module provides each channel input video with TALLY signal input interface and dynamic UMD input interface. Users can choose the corresponding interface as needed. The UMD uses TSL protocol to support third-party router switch. Or UMD controller can directly drive MVW-100 to display the monitored signal's name through RS-232/422.

### Versatile Control Mode

The MVW-100 multi-viewer features a number of options for flexible operator control, including a front-panel LCD menu, RS-232/422 serial port and TCP/IP control. MVW-100's window control software can work either on-line or off-line. The control software has multiple functions: display template designing, real-time control and parameter setting.

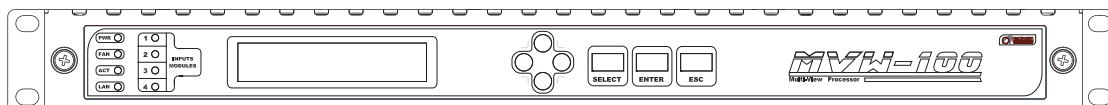
MVW-100 is ideal for broadcasting studios, master control rooms, OB trucks, and AV market.

# MVW-100 Multiviewer

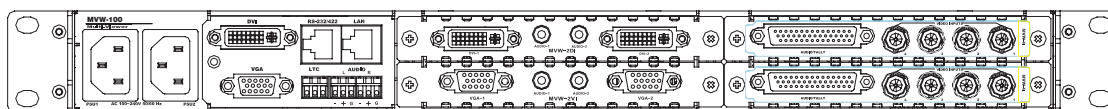
## FEATURES

- Modular, non PC-based architecture
- Redundant primary and backup power supplies, cooling system
- Multi-format video inputs: CVBS, HD-SDI, SD-SDI, DVI, VGA
- Displays audio VU/PPM meter and clock
- SDI with embedded audio input and analog stereo audio input
- Graphics combination of up to 16 channel video signals
- Tallies and UMDs (TSL protocol)
- LTC input clock correction
- High-quality HDMI video output interface, resolution up to 1920×1080p
- HDMI with embedded audio outputs for monitoring
- 1 channel stereo analog audio outputs for monitoring
- Real-time detection and alarm for video loss, black burst, still frame and audio loss
- Non-volatile memory
- Remote control panel for audio monitoring, quick selection of monitoring channel and graphics layout
- The PC software can work on-line or off-line

## FRONT VIEW



## REAR VIEW



## SPECIFICATIONS

### Mechanical

Width.....19 in. (483 mm)  
 Height.....1RU (44 mm)  
 Depth.....21 in. (531.5 mm)

### Electrical

Input Power Supply.....100 ~ 240 V AC (±10%),  
 47 Hz ~ 63 Hz  
 Power Consumption.....80 W

### Environmental

Operating Temperature.....32° ~ 104° F (0° ~ 40° C)  
 Relative Humidity.....10% ~ 90%

### Control Interfaces

RS-232/422 connector.....RJ-45 (×1)  
 Code Rate.....4800 ~ 115200 bps  
 Signal Standards.....EIA/TIA-232, EIA/TIA-422  
 LAN connector.....RJ-45 (×1)  
 Code Rate.....10/100 Mbps  
 Signal Standards.....IEEE802.3

## HD/SD/CVBS+Stereo Input Module

### CVBS Input

Signal System.....PAL, NTSC  
 Connector.....BNC (×4)  
 Impedance.....75 Ω  
 Return Loss.....>40 dB @ 5.5 MHz

### SDI (8 Channel Embedded Audio) Input

Signal System.....SMPTE-259M-C, SMPTE-425M,  
 SMPTE-424M, SMPTE-292M  
 Connector.....BNC (×4)  
 Impedance.....75 Ω  
 Return Loss.....>15 dB @ 270 MHz  
 >10 dB @ 1485 MHz

### Analog Audio Input

Signal Format.....Analog audio (balanced stereo)  
 Connector.....DB-44F (×1)  
 Level.....120 Ω Up to +20 dB  
 Frequency Response.....20 Hz ~ 20 kHz  
 Impedance.....>20 kΩ

### TALLY Input

Signal Standards.....EIA/TIA-422, EIA/TIA-485  
 Connector.....DB-44F (×1)  
 Impedance.....120 Ω  
 Number.....1×4

## DVI-Stereo Input Module

### Video Input

Signal Format.....	DVI
Signal System.....	DVI video
Connector.....	DVI-I (×2)
Resolution.....	1920×1080

### Analog Audio Input

Signal Format.....	Analog audio (unbalanced stereo)
Connector.....	DB-44F (×1)
Level.....	Up to +20 dB
Frequency Response.....	20 Hz ~ 20 kHz
Impedance.....	>20 kΩ

## VGA+Stereo Input Module

### Video Input

Signal Format.....	VGA
Signal System.....	VGA video
Connector.....	HD-15F (×2)
R, G, B Level.....	700 mV
R, G, B Impedance.....	75 Ω
H, V Level.....	TTL level
H, V Impedance.....	Hi-z
Resolution.....	1920×1080

### Analog Audio Input

Signal Format.....	Analog audio (unbalanced stereo)
Connector.....	DB-44F (×1)
Level.....	Up to +20 dB
Frequency Response.....	20 Hz ~ 20 kHz
Impedance.....	>20 kΩ

## Timecode Input (LTC)

Signal Standards.....	EIA/TIA-232, EIA/TIA-422
Connector.....	3Pin (×1)

### Video Output

Signal Format.....	DVI
Connector.....	DVI (×1)
Resolution.....	Up to 1920×1080p
Transmission Distance.....	49.18 ft (15 m)
Embedded Audio.....	2 channel stereo

### Audio Output

Signal Format.....	Balanced stereo
Connector.....	3Pin (×2)
Impedance.....	600 Ω
Frequency Response.....	20 Hz ~ 20 kHz
Level.....	Up to +20 dB
S/N Ratio.....	>75 dB

Signal Format.....	VGA
Connector.....	HD-15 (×1)
Resolution.....	Up to 1920×1080p

## ORDERING INFORMATION

MVW-FM	Multiviewer frame (UMD and TALLY supported)
MVW-PWR	PSU (redundant power supplies)
MVW-CB	Control and output module

### Options

MVW-4TI	Four-channel digital video + stereo audio input module
MVW-2DI	Four-channel analog video + stereo audio input module
MVW-2VI	Two-channel DVI/VGA + analog audio input module