

# MVS-X 1U Compact Module Multi-Viewer System

The MVS Series is a high-quality, multi-view display system with features such as multi-format input, audio monitoring, waveform display, real-time monitoring with voice alarm warnings, and dynamic UMD & tally from routers. Its module-based architecture provides 4 input format selections (CVBS/SDSDI/HDSDI/HDMI) with a 4xSD input card (auto-sensing CVBS/SDI/ASI), a 4xHD input card (auto-sensing HD/SD), and a 4xHDMI input card. Users can select different input formats and create up to a 21-image display system. The MVS Series supports HDMI/VGA or HDMI/HDSDI output with a max output resolution of 1920x1200P@60Hz. It also can accept LTC/EBU, TSL and tally control information. SNMP and RS-232 control protocol are also built into the machine, allowing all configuration and operations to be done in 4 ways: web browser, SNMP, RS-232 or remote control panel. With its flexible, feature-rich platform, the MVS Series is widely-used in broadcasting and production editing studios and is ideal for many applications where video/audio monitoring and display are required!

## Key Features

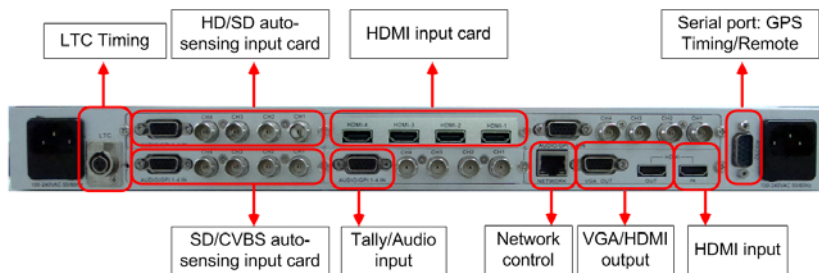
- Flexible multi-format input options: CVBS/SDSDI/HDSDI/HDMI
- Three kinds of input cards: CVBS/SDI auto-sensing input card, HD/SD /CVBS auto-sensing input card, and HDMI input card
- Flexible output options: 4:3, 16:9, customized aspect ratio
- Up to 1920x1200P@60HZ output resolution
- Selectable air timer and countdown timers (analog and digital)
- Dynamic UMDs & Tally from routers and switchers
- Supports format display of input signal and AFD information display
- Supports audio monitoring and full-screen video output
- Alarm messages for frozen video, video loss, and audio loss
- Built-in WEBSERVER via RJ45
- SNMP, TSL, GPS serial timing
- Standard 1U frame with Dural power supply



# MVS-X

## 1U Compact Module Multi-viewer system

Any Source Input  
CVBS/SDSDI/HDSDI/HDMI



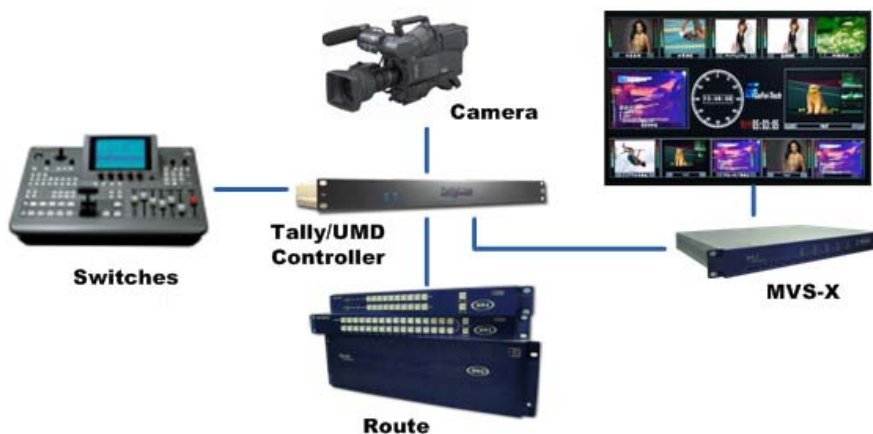
Up to 3 \*4ch output  
CVBS/SDSDI/HDSDI/HDMI



Output resolution up to 1920\*1200P

- Output Resolution
- 1920x1080x60p
  - 1024x768x60p
  - 1280x720x60p
  - 1280x768x50p
  - 1280x768x60p
  - 1280x1024x60p
  - 1360x768x60p
  - 1366x768x60p
  - 1400x1050x60p
  - 1600x1200x60p
  - 1920x1080x50p
  - 1920x1080x60p
  - 1920x1200x60p

Support TSL protocol  
Dynamic UMD & Tally



# MVS-X 1U Compact Module Multi-viewer system

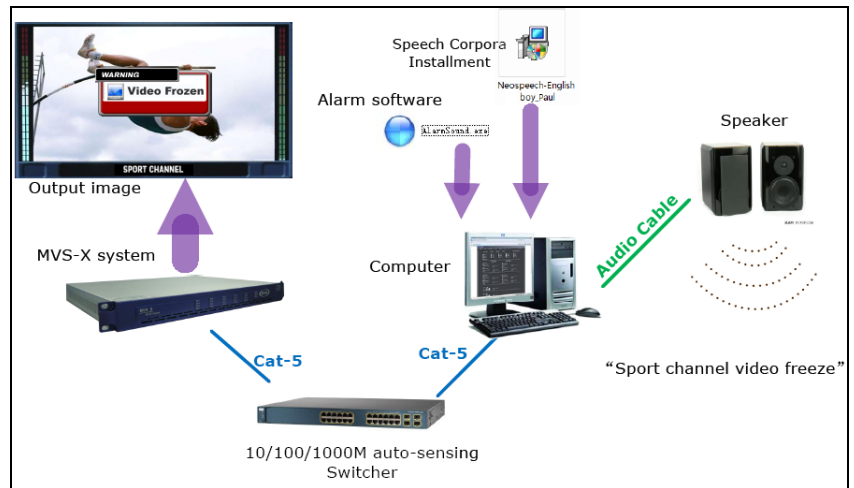
**Display Waveform**  
Show Y waveform, PbPr waveform, vector, audio phase and audio waveform



**Displays AFD information & video format of input signal**



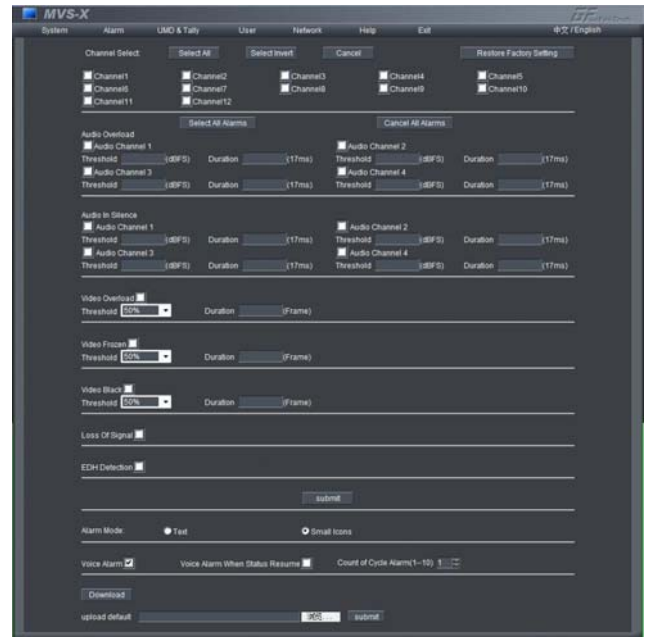
**Supports SNMP Protocol  
Voice Alarm**



Two kinds of alarm messages:  
Alarm text and icon  
Alarm threshold, set by web

Video Black

Audio In Silence



Customizable Layout



Two kinds of remote panels:

MVS-X

MVS-X-SRCP and MVS-X-RCP

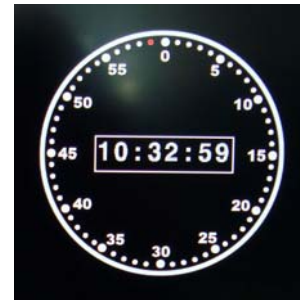
**MVS-X-SRCP: to call layouts**



**MVS-X-RCP: to call layouts, audio monitoring, full screen and so on**



Serial Timing Mechanisms: LTC,  
GPS and NTP timing  
Serial Clocks and Timers: Digital  
Timer, and analog clock,  
countdown timer and air timer



### HDMI Input Module



**Signal Input:**

Interface: 4\*HDMI inputs, Type A

**Format:**

720p 23.98/24/25/29.97/30/50/59.94/60;

1080i 50/59.94/60;

1080p 23.98/24/25/29.97/30/50/59.94/60;

Support HDMI signal with embedded audio and indicate

4 audio channels of Group1.

Support HDCP protocol.

### SD Input Module



The rear of input module



The mini audio and tally input module

### Signal Video Input:

Interface: 4\*CVBS/SD-SDI, BNC

### CVBS input:

Impedance: 75 ohms

Return Loss: >40 dB to 5.8 MHz

Standard: NTSC/Pal

### SDI Input

Impedance: 75 ohms

Signal type: SMPTE295M (525/625 lines)

Return Loss: >15 dB to 270 MHz

Signal Level: 800mV  $\pm$ 10%

Overshoot: < 80mV

Jitter: < 740ps

Rising and Falling Time: < 1500ps

Rising and Falling Time Different: < 500ps

DC Level: 0V  $\pm$  500mV

### Audio Input

Input interface: 3-pin connector balanced

Input impedance: 600 $\Omega$

Maximum input level: +24dBu (odBFs)

Sampling: 48 KHz

Frequency response: <  $\pm$ 0.04dB @ 20Hz to 20 KHz

SNR: >80dB

### Tally input:

Input interface: 3-pin

## HD Input Module



The rear of input module



The mini audio and tally input module

### Video Signal Input:

Interface: 4\*HD/SD-SDI/CVBS, BNC

### HD-SDI Input:

Impedance: 75 ohms

HD: SMPTE 292M; 1.485, 1.485/1.001Gb/s  
 SMPTE-425; 2.970Gps

720p 23.98/24/25/29.97/30/50/59.94/60;

1080i 50/59.94/60; 1080p 23.98/24/25/29.97/30/50/59.94/60;

Return Loss: > 15dB, 5MHz to 1.5GHz

### SD-SDI Input

Impedance: 75 ohms

Signal type: SMPTE295M (525/625 lines)

Return Loss: >15 dB to 270 MHz

Signal Level: 800mV  $\pm$ 10%

Overshoot: < 80mV

Jitter: < 740ps

Rising and Falling Time: < 1500ps

Rising and Falling Time Different: < 500ps

DC Level: 0V  $\pm$  500mV

### CVBS input:

Impedance: 75 ohms

Return Loss: >40 dB to 5.8 MHz

Standard: NTSC/Pal

### Audio Input

Input interface: 3-pin connector balanced

Input impedance: 600 $\Omega$

Maximum input level: +24dBu (0dBFS)

Sampling: 48 KHz

Frequency response:  $\leq \pm 0.04$ dB @ 20Hz to 20 KHz

SNR: >80dB

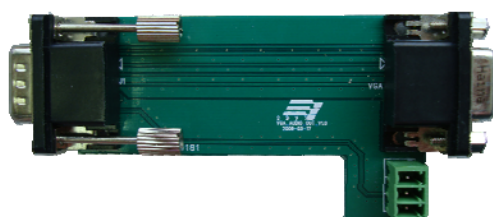
### Tally input:

Input interface: 3-pin

### VGA+HDMI Output Module



The rear of output module



The mini VGA and audio output module

#### Video Signal Input:

Interface: 1\*HDMI, type A

#### Format:

720p 23.98/24/25/29.97/30/50/59.94/60;

1080i 50/59.94/60;

1080p 23.98/24/25/29.97/30/50/59.94/60;

Support HDMI signal with embedded audio and indicate 4 audio channels of Group1.

Support HDCP protocol.

#### HDMI Output:

Interface: 1\*HDMI, type A

#### Output resolutions:

1024x768x60p, 1280x720x60p, 1280x768x50p

1280x768x60p, 1280x1024x60p, 1360x768x60p

1366x768x60p, 1400x1050x60p, 1680x1050x60p

1600x1200x60p, 1920x1080x50p, 1920x1080x60p,

1920x1200x60p

The HDMI output signal doesn't contain embedded audio, just video signal.

#### VGA Output

Interface: 1\*VGA, DB15

Type: RGB

#### Output resolutions:

1024x768x60p, 1280x720x60p, 1280x768x50p

1280x768x60p, 1280x1024x60p, 1360x768x60p

1366x768x60p, 1400x1050x60p, 1680x1050x60p

1600x1200x60p, 1920x1080x50p, 1920x1080x60p,

1920x1200x60p

#### Audio Output

Audio signal: 1\*analog audio stereo

Input interface: 3-pin connector balanced

Input impedance: 600Ω

Maximum input level: +24dBu (odBFS)

Sampling: 48 KHz

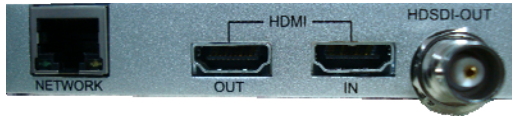
For embedded SDI signal input, it monitors 2 channels. For analog audio input, it monitors 1 channel. The audio channels can be selected on the Web server to monitor.

#### Control

Interface: 1\*RJ45

Type: 10/100/1000M auto-adapting

### HDSDI+HDMI Output Module



The rear of output module

#### Signal Video Input:

Interface: 1\*HDMI, type A

#### Format:

720p 23.98/24/25/29.97/30/50/59.94/60;

1080i 50/59.94/60;

1080p 23.98/24/25/29.97/30/50/59.94/60;

Support HDMI signal with embedded audio and indicate 4 audio channels of Group1.

Support HDCP protocol.

#### HDMI Output:

Interface: 1\*HDMI, type A

#### Output resolutions:

1024x768, 1280x720, 1280x768

1280x1024, 1360x768, 1400x1050

1600x1200, 1680x1050, 1920x1080, 1920x1200

Frequency: 50/60Hz

Two channel HD/SD-SDI audio signals, eight channel HDMI audio signals, or one channel analog audio can be embedded into the HDMI output signal. The audio channels can be selected on the Web server to monitor.

#### HDSDI Output

Interface: 1\*HD/SD-SDI, BNC

Impedance: 75 ohms

Format: SMPTE295M (525/625 lines)

SMPTE 292M: 1.485, 1.485/1.001Gb/s

SMPTE-425: 2.970Gps

625i, 525i

720p 50/60;

1080i 50/60;

1080p 50/60;

Return Loss: > 15dB, 5MHz to 1.5GHz

The video and embedded audio signals are the same as HDMI output.

#### Control

Interface: 1\*RJ45

Type: 10/100/1000M auto-adapting

## Ordering Information

Model	Description
<b>MVS-1U-CASE</b> 1U chassis	1RU/ smart network ready, dual power supplies (120W), 6 slots
<b>MVS-WUXGA</b> MVS output module	1 HDMI (up to 1080P) input, 1 HDMI (up to 1920x1200P 60Hz) + VGA/DVI outputs +audio monitoring, 10/100/1000M Ethernet, built-in Web Service and SNMP Protocol support.
<b>MVS-DWUXGA</b> MVS output module	1 HDMI (up to 1080P) input, 1 HDMI (up to 1920x1200P 60Hz) + HD/SD-SDI outputs (up to 1080P), 10/100/1000M Ethernet, built-in Web Service and SNMP Protocol support.
<b>MVS-SD</b> MVS SD input module	4SDI/Composite (auto switching) video and 4 ch. Analog audio inputs, Tally interface, audio absence/silence/out-of-range detection, video freezing detection, EDH detection
<b>MVS-HD</b> MVS HD input module	4 HD-SDI/SDI (auto switching) video and 4 ch. Analog audio inputs, Tally interface, audio absence/silence/out-of-range detection, video freezing detection