PHASE | Evertz:
Multiviewers

MVP

The Most Expandable, Versatile and Robust Multi-Image Display Processor in the Industry

featuring X-LINK TECHNOLOGY

3G

VistaLINK PRO
SNMP MONITORING & CONTROL SOFTWARE

ThumbLINK™

IntelliGain

AFD READY

AMX

CERTIFIED CRESTRON Integrated Partner

DOLBY

evertz
MULTI-IMAGE PROCESSOR
3000MVP

A single MVP system can expand from 8 inputs with a single output, to as large as 1000+ inputs to more than 50 displays.

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Applications

Dynamic UMDs from router

Integrated up & down timers

PROGRAM

PREVIEW

Tally from Switcher

Master Clock with offsets

Head-End Monitoring

- Perfect solution for all head-end facilities, including IPTV, CABLE and SAT
- Monitor everything, view by exception
- Integrated signal monitoring
- 100% SNMP reporting and configuration

MVP™ Multi-Image Display & Monitoring System

The MVP™ revolutionizes the multi-display marketplace with a highly flexible, intuitive and simple yet comprehensive approach to virtual wall monitor applications. The possibility of displaying any input signal to any output monitor can now be realized without the need for DAs or upstream monitor routers.


The best image quality in the industry
- SCTE104 monitoring
- Nielsen Rating Display
- Remote SNMP Monitoring & Thumbnailing (VistaLINK® PRO)
- IntelliGain Loudness Monitoring
- 16 channels of audio per input
- Dynamic Clock Display
- High quality on-screen graphics & text
- Over 120 images per display
- On-screen Mouse & Keyboard Control

Inputs:
- DVI / VGA
- Analog
- SD-SDI
- HD-SDI
- 3Gb/s
- ASI
- IP
- HDMI

The most versatile mixed signal monitoring in the industry!

Key MVP™ Features & Benefits

- Highest quality video images - single pass processing
- Hardware based - no PC on board, no hard-drive
- RTOS - Real-Time Operating System
- Not a frame limited architecture - PLink™ interconnects and Ethernet control; does not exhibit PCI bandwidth limitations
- Expandable - frame not limited to a maximum number of inputs per system - cumulative bandwidth
- True hot-swappable, front-access input, output modules and PSU
- Fast power cycle recovery (45 seconds)
- Redundancy options for mission critical operations
- Fiber output option - single fiber (single or Multi-Mode) up to 10km support
- HD/SD serial output option
- "Out of the box" implementation - set-up is quick and easy
- 9:16 output aspect ratio support (WARP™)
- Flexible - usually 2-3 solutions from the same system with options for future growth
- User-friendly GUI - drag & drop control, fast preset recall and off-line development; real time display layout control
- Consolidated - scaling, signal sniffing (fault monitoring), routing and fan-out of inputs
- Supports many output display destinations
- Eliminates the need for a preview/monitor router to support multiple inputs to multiple displays
- Show multiple copies of the same BNC input across displays

- Monitor everything - View by Exception with VistaLINK® and display video inputs only when faults are detected through built-in signal monitoring
- Broadcast Facility Master Control
- Satellite Uplink/Downlink
- Cable Head End & IPTV Head End
- Production
- OB Vans
- Video Walls
- NOC Control Rooms
- Surveillance Security Information Displays
- Traffic & Transportation Applications
- Gaming & Entertainment
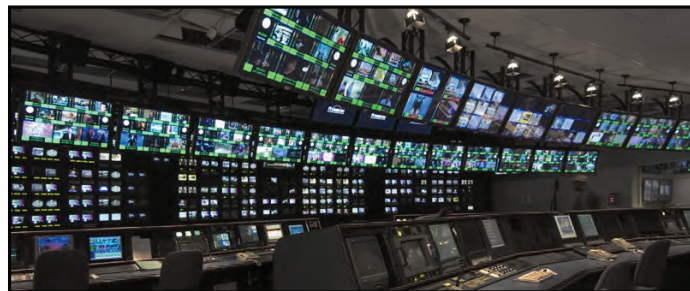
Multi-Input Format Display & Monitoring

NTSC • 4:3
HD • 16:9
3Gb/s (1080p)

HDMI
(with HDCP)

IP/ASI
(MPEG-2, H.264)

Computer Input
DVI/RGB

- Auto-sensing HD/SD/Analog video input on the same BNC
- DVI/RGB
- NTSC/PAL
- 525i/625i
- 1080i/60, 1080i/59.94, 1080i/50
- 1080p/60, 1080p/59.94, 1080p/50
- 1080p/24sF, 1080p/23.98sF
- 720p/60, 720p/59.94, 720p/50
- 480p/60, 480p/59.94
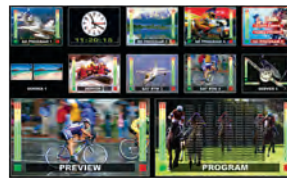- HDMI (with HDCP)
- IP/ASI (MPEG-2, H.264)

Flexible Output Options

Single Displays
Monitor all of your inputs
on a single display

Multiple Displays
Drive multiple displays uniquely,
redundantly or seamlessly

Virtual Walls
Output unique video signals over
2 or more display monitors

WARP™ Displays
Display your inputs vertically
(9:16) - perfect for limited spaces

Output Resolutions Supported:
- XGA (1024x768)
- WARP (768x1280)
- SXGA (1280x1024)
- 720p (1280x720)
- WARP 2 (768x1366)
- SXGA+ (1400x1050)
- 480p (720x480)
- WXGA (1280x768)
- UXGA (1600x1200)
- 576p (720x576)
- WXGA 2 (1366x768)
- HD (1920x1080)
- WUXGA (1920x1200)

Complete Ancillary Data Monitoring & Decode

Decode:
- XDS
- HD & SD VITC/Source ID
- WSS/AFD adjust/display
- Detect Encoded Audio (AC3/Dolby E)
- EIA-608 - SD Captions
- EIA-708 - HD Captions
- WST - World Standard Teletext
- Source standard

- Decode/Display Dolby E Metadata
- Monitor Dolby E Levels
- Nielsen Display (AMOL/NAES)
- OP47
- Decode/Display Dolby E Audio Data (OV-3G-8DEM)
- SCTE104 monitoring
- Subtitles

Extensive Graphic Components

- On-screen time of day clocks (analog and digital with external LTC reference and configurable offsets) and date display
- Up & down timers
- User-definable labels
- Dynamic UMDs & tally from routers and switchers
- Safe area markers
- Graphics logos and background

Next Generation IP Signal Monitoring

IP Distribution

WEB Based Streaming

Mobile Streaming
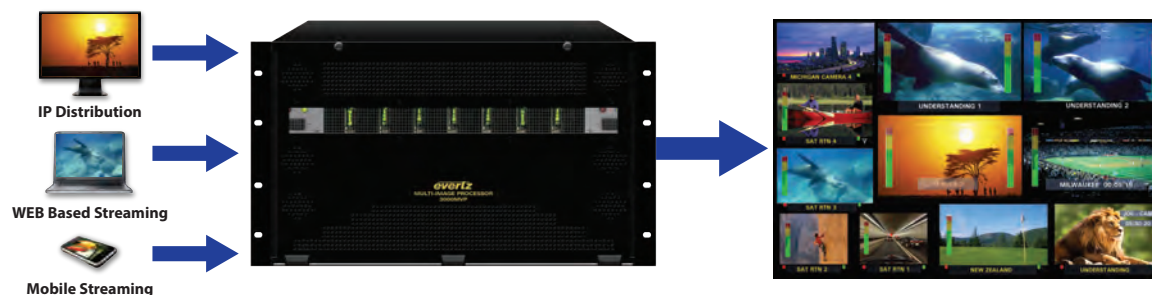
- MPEG-2 TS UDP/RTP (multicast or unicast)
- MPEG-2 TS over TCP
- RTMP (Flash)
- HTTP
- HLS (Apple)
- MMSH
- MMST
- VNC

Control

Maestro™ II

- Intuitive & user-friendly Maestro™ software is provided for real-time or offline display layout configurations
- Simple drag & drop interface allows for quick layout design
- You can trigger on-screen graphics, swap video windows and enable tallys through configuration control

MAGNUM VUE

MAGNUM VUE is a user customizable graphical application that visually unifies the MAGNUM control experience.

- Provides flexible and reliable control across all areas of broadcast operations from one user-friendly, touch screen interface
- Improves productivity and cost efficiency by enabling a single operator to manage an entire broadcasting infrastructure and operation, from content creation to distribution
- Provides integrated control of routing systems, multi-viewers, branding engines, master control, terminal equipment, and much more
- Using MAGNUM VUE's built-in widget layout and configuration engine enables users to create a customized workspace

CP-2232E/CP-2216E

- True "Complete Solution" control panel
- Preview layout on panel before recall
- Enables on-screen keyboard and mouse control
- Window source re-assignment
- Window select for audio monitoring

Signal Monitoring

Seeing is believing, but with so many video, audio and data details to look for, it's nice to know that user-configurable faults are detected and displayed by the MVP™ and can be further reported to and recorded by VistaLINK® PRO. Along with VistaLINK®, Evertz® provides the most comprehensive signal monitoring and image display solution.

Status Monitoring & Fault Trigger Parameters

- Loss of video
- Active picture levels
- EDH errors
- Frozen or black video
- Motion detection
- Video format detection
- Loss of audio channels
- Mono audio detection
- Phase reversal
- Audio too loud or too quiet
- Loss of closed captioning
- Loss of closed cap waveform
- Loss of program rating
- Source ID missing
- VITC missing
- Macro block detection (hardware specific)
- Loss of Nielsen data
- Loudness

System Specifications

Auto-detecting Video Inputs
Analog Video
• NTSC/PAL

Digital Video
• SD-SDI (SMPTE 259M-C)
• HD-SDI (SMPTE ST292, 1.5Gb/s)
• 3Gb/s (SMPTE ST424)
• Built-in embedded audio extraction
• HDMI (with HDCP)

HD Formats

• 1080i/60	• 1080p/50	• 480p/59.94
• 1080i/59.94	• 720p/60	• 720p/59.94
• 1080i/50	• 1080p/23.98sF	• 480p/60
• 1080p/60	• 1080p/24sF	

3G Formats

• 1080p/60	• 1080p/59.94	• 1080p/50

IP (MPEG-2, H.264)

• MPEG-2 TS UDP/RTP (multicast or unicast)	• RTMP (Flash)	• MPEG-2 TS over TCP
	• MMSH	• HLS (Apple)
	• HTTP	• VNC
	• MMST	

Computer Graphic Video Inputs
• Two or four input module
• From 640x480 (VGA) to 1920x1200 (WUXGA) resolution
• DVI or 15-pin D-sub via adapter

Audio
• Balanced/unbalanced AES
• Balanced analog stereo
• On-screen display of level and phase bars
• Audio monitoring output, 2 groups (AES/EBU)

AUX Inputs & Outputs
• Up to 64 GPI inputs and 44 GPO outputs
• LTC for clock/timer reference
• RS-232/422 serial interface

Frame
• 6RU, 15-module agnostic slots
• Rack mountable
• Front access
• Dual redundant PSU, hot-swappable

Electrical
• Dual redundant power supplies with separate AC inlets
• Auto-ranging voltage, 100-240V AC, 50/60Hz
• Maximum power dissipation: 625W
• Typical power dissipation: 350W, 8A

Genlock
• Separate NTSC (SMPTE 170M) and PAL (ITU624-4), color black via BNC

Front Panel Indicators
• PSU status LED and local error/failure LED

Tally Output (GROC)
• 4-pin terminal, relay N/O, N/C for status/fault alarm

Video Outputs
• Four outputs support for XGA up to HD resolution
• DVI-I connector, BNC and/or fiber interfaces (model dependent)

Configuration Control
• Maestro™ graphic interface for design and control
• DCP desktop control panel via Ethernet
• MAGNUM VUE
• CP-2116E & CP-2232E

Ordering Information

Contact your Evertz Sales Representative for more information.

3000MVP-HDMI8-AC3	• HDMI with HDCP decryption and AC3 decoding monitoring input solution for the MVP™ System
MVP-DEC32-4-IP	• Flexible bulk IP MPEG decoding/monitoring input solution for the MVP™ System
3000MVP-GI	• Dual (2) or Quad (4) computer video inputs per input module
3000MVP-AI	• Monitor up to 4 analog pairs or 4 AES/EBU audio channels per video input

For a multi-viewer in a smaller form factor, also ask about the VIP™ - the mini-MVP™ housed in our popular 7700 series frame.
With the MVP™ there are many different possible I/O combinations along with redundancy to meet your multi-signal monitoring & display needs.

Accessories

3000BHP-U	• 1RU breakout bulkhead panel to support unbalanced AES/EBU digital audio	**3000MKT-AUX**	• Rackmount panel for AUX breakout board
3000BHP-BAL	• 2RU breakout bulkhead panel to support either balanced stereo analog inputs or balanced AES/EBU audio	**3000DCP**	• Allows you to change your display's presets from a selection of possibilities
		CP-2232	• Advanced System Control Panel
		2431RX-2	• Dual Path Serial Digital to DVI Converter
3000BHP-AUX	• Breakout bulkhead panel for GPI/O, LTC input, and serial communications	**MAGNUM VUE**	• Customizable Graphical User Interface used to control broadcast operations
7700PTX-MVP	• Protocol Translator: Connect multiple serial input devices to the MVP™		

The MOST COMPLETE Multi-Image Product Line

The VIP Advanced is the most advanced compact multi-image display processor technology available. Offering the most density in terms of rack space in the industry, while maintaining the most advanced features and interfaces. You can rely on the VIP Advanced for your current needs and future plans.

Preview/program tallies

On-screen mouse control or router outputs

High quality monitoring

Up/down timers

Dynamic/static source labels

Automatic aspect ratio control with support of AFD/WSS

Extraction of time code from video signal

Display of source format

View same source multiple times

Auto-sensing inputs

Dynamic clock displays
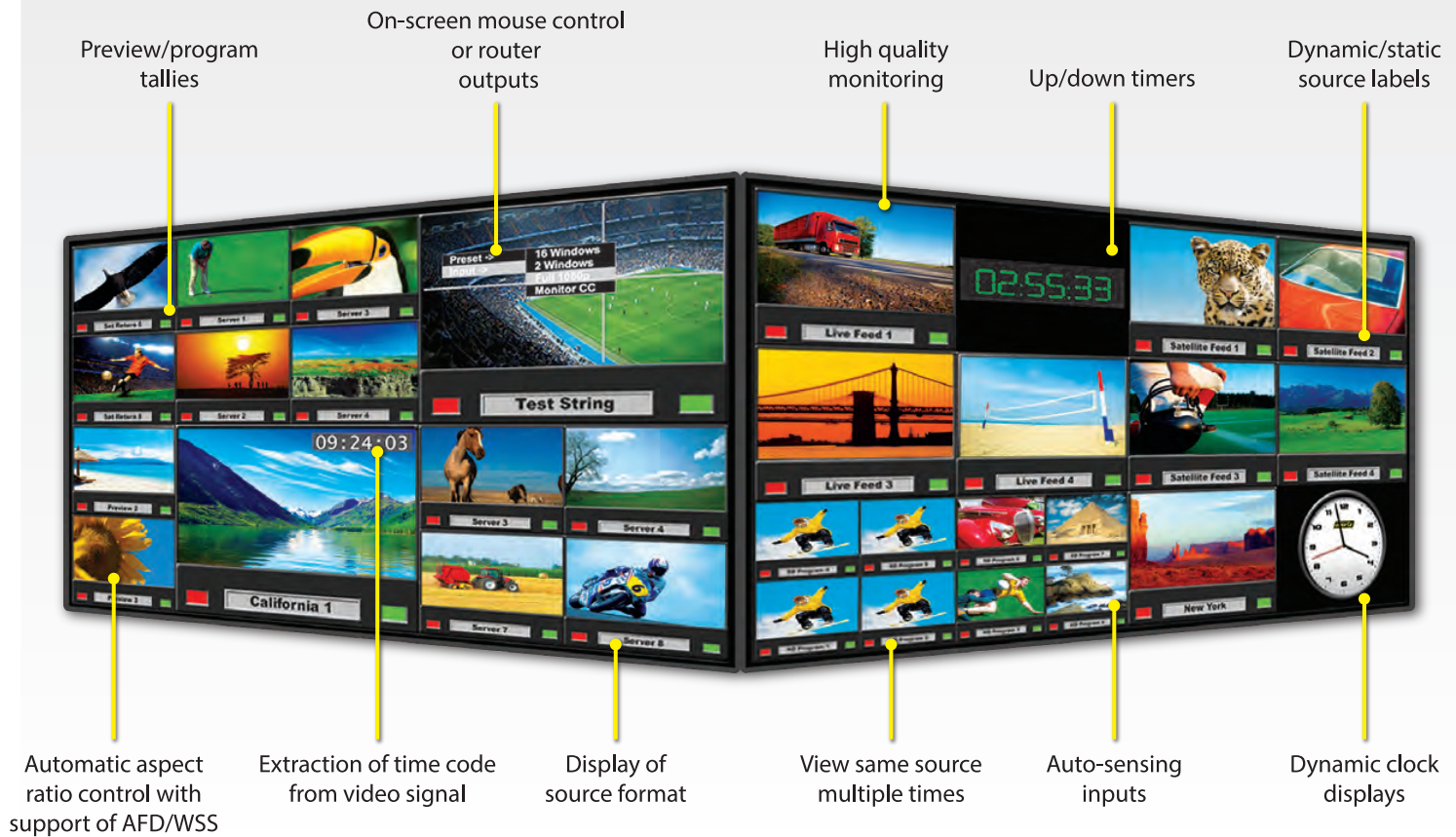
Standard Features & Benefits

- Widest range of inputs of any compact multi-image display system, from 8 up to 32
- High quality input reproduction, employs Evertz' next generation image processing technology
- Auto-sensing HD/SD, 3Gbps (SMPTE 424M) and analog inputs (module dependent)
- Supports display resolutions of up to 1920x1200 on both outputs simultaneously
- Allows for full screen viewing of any input on both outputs, view same input on both displays
- Supports seamless two display wall modes (1x2, 2x1)
- Supports all display types via DVI, HD-SDI outputs (all active simultaneously)
- Rotated outputs are supported both 90° and 270°
- Built-in SDI router feature, input routing possible via HD-SDI output BNC
- Provides support for dynamic under monitor displays and tallies via several supported protocols

- Supports advanced on screen graphics, including analog clocks, transparency control of objects, raised bezels and borders, drop shadows, and bitmap backgrounds
- Supports true type font including non-Latin alphabets
- Built-in graticule generator, user defined per window
- Enables the decoding and display of VITC/HD time code
- Devices can be easily cascaded together to expand the total number of images on the display
- Built-in video, audio, and data fault monitoring with on screen fault notification
- VistaLINK® capable for configuration and monitoring via SNMP
- Minimal processing delay (~1 frame)
- Real time control of display outputs via Maestro
- 365/24/7 hardware, hot swappable, ultra reliable, fast boot times
- Installed in Evertz 7800FR multi-frame, offering redundant power supplies plus the ability to hot swap all components from the front of the frame

7867VIPA32-DUO

The VIP Advanced 32 DUO offers 32 inputs with up to 2 outputs. All inputs are auto-sensing SD, HD, and 3Gbps (SMPTE 424M). VIP-A DUO inputs can be displayed in any size, position or aspect ratio on any display. Both display outputs from the VIP-A DUO are provided over DVI, and HD-SDI, which are all available simultaneously. The VIP-A DUO provides the best quality input reproduction, employing the latest in video processing technology that Evertz has developed for its renowned conversion products.

7867VIPA24-DUO

The VIP Advanced 24 DUO offers 24 inputs with up to 2 outputs. All inputs are auto-sensing SD, HD, and 3Gbps (SMPTE 424M). VIP-A DUO inputs can be displayed in any size, position or aspect ratio on any display. Both display outputs from the VIP-A DUO are provided over DVI, and HD-SDI, which are all available simultaneously. The VIP-A DUO provides the best quality input reproduction, employing the latest in video processing technology that Evertz has developed for its renowned conversion products.

7867VIPA18-DUO

The VIP Advanced 18 DUO offers 18 inputs with up to 2 outputs. All inputs are auto-sensing SD, HD, and 3Gbps (SMPTE 424M). VIP-A DUO inputs can be displayed in any size, position or aspect ratio on any display. Both display outputs from the VIP-A DUO are provided over DVI, and HD-SDI, which are all available simultaneously. The VIP-A DUO provides the best quality input reproduction, employing the latest in video processing technology that Evertz has developed for its renowned conversion products.

7867VIPA16-DUO

The VIP Advanced 16 DUO offers 16 inputs with up to 2 outputs. All inputs are auto-sensing SD, HD, and 3Gbps (SMPTE 424M). VIP-A DUO inputs can be displayed in any size, position or aspect ratio on any display. Both display outputs from the VIP-A DUO are provided over DVI, and HD-SDI, which are all available simultaneously. The VIP-A DUO provides the best quality input reproduction, employing the latest in video processing technology that Evertz has developed for its renowned conversion products.

7867VIPA8-DUO

The VIP Advanced 8 DUO offers 8 inputs with up to 2 outputs. All inputs are auto-sensing SD, HD, and 3Gbps (SMPTE 424M). VIP-A DUO inputs can be displayed in any size, position or aspect ratio on any display. Both display outputs from the VIP-A DUO are provided over DVI, and HD-SDI, which are all available simultaneously. The VIP-A DUO provides the best quality input reproduction, employing the latest in video processing technology that Evertz has developed for its renowned conversion products.

7867VIPA12-HSN

The VIP Advanced has 12 inputs auto-sensing HD, SD, and analog video. An input can be displayed in any size, position or aspect ratio, enabling transportation to any display technology using one of the various output formats available: DVI, VGA, and HD-SDI. With the highest resolution supported of any multi-image display device at up to 1920x1200, the VIP-A provides the best quality input reproduction, employing the latest in video processing technology that Evertz has developed for its renowned conversion products.

VIP-M

The VIPM series provides the latest advanced feature set available in the MVP series. This includes 16 channels of audio support per input, IntelliGain loudness measurement, Dolby-E Monitoring and more. The VIPM series also supports composite analog inputs in addition to SD/HD/3G, as well as discrete audio inputs (analog and AES). This makes the VIPM series ideal in applications where analog video or discrete audio is needed.

Features & Benefits

Please Note: The VIPM series' features are the same as the VIPA series with the addition of the following:

• Auto-sensing composite analog, SD/HD/3G inputs
• 16 channels of audio support per input
• IntelliGain loudness measurement
• Dolby® E audio monitoring with surround sound bar graph (1 per input)
• 16 balanced or unbalanced, analog or AES inputs per module
• Decoding and burn-in of ancillary data such as 608 and 708 captions and subtitles and teletext

7867VIPM8-DUO-3G: The VIPM 8 DUO offers 8 inputs with up to 2 outputs. All inputs are auto-sensing composite analog, SD, HD, and 3Gbps (SMPTE 424M). VIPM inputs can be displayed in any size, position or aspect ratio on any display. Both display outputs from the VIPM are provided over DVI, and HD-SDI, which are all available simultaneously. The VIPM provides the best quality input reproduction, employing the latest in video processing technology that Evertz has developed for its renowned conversion products.

7867VIPM16-DUO-3G: The VIPM 16 DUO offers 16 inputs with up to 2 outputs. All inputs are auto-sensing composite analog, SD, HD, and 3Gbps (SMPTE 424M). VIPM inputs can be displayed in any size, position or aspect ratio on any display. Both display outputs from the VIPM are provided over DVI, and HD-SDI, which are all available simultaneously. The VIPM provides the best quality input reproduction, employing the latest in video processing technology that Evertz has developed for its renowned conversion products.

VistaLINK® & ThumbLINK®

ThumbLINK™

ThumbLINK: All VIP modules in the series support ThumbLINK™ as a standard feature. ThumbLINK™ is a technology that enables the VIP to send an image capture of the input video over the network for the purpose of remotely monitoring the source.

VistaLINK PRO
SNMP MONITORING & CONTROL SOFTWARE

VistaLINK: All VIP modules in the series are VistaLINK® capable, offering remote monitoring, control and configuration capabilities via Simple Network Management Protocol from Evertz' own VistaLINK® PRO or a third party NMS.

ORDERING INFORMATION

VIP Advanced:

7867VIPA12-HSN — 12 inputs auto-sensing HD, SD, analog; single display output

7867VIPA8-DUO-3G — 8 inputs auto-sensing HD, SD, 3Gb/s; dual display output

7867VIPA8-DUO-HS — 8 inputs auto-sensing HD, SD; dual display output

7867VIPA16-DUO-3G — 16 inputs auto-sensing HD, SD, 3Gb/s; dual display output

7867VIPA16-DUO-HS — 16 inputs auto-sensing HD, SD; dual display output

7867VIPA16-DUO-HS-DIN — 16 inputs auto-sensing HD, SD; dual display output, uses DIN connectors

7867VIPA16-DUO-3G-DIN — 16 inputs auto-sensing HD, SD, 3Gb/s; dual display output, uses DIN connectors

7867VIPA18-DUO-3G-DIN — 18 inputs auto-sensing HD, SD, 3Gb/s; dual display output, uses DIN connectors

7867VIPA18-DUO-HS-DIN — 18 inputs auto-sensing HD, SD; dual display output, uses DIN connectors

7867VIPA24-DUO-3G-DIN — 24 inputs auto-sensing HD, SD, 3Gb/s; dual display output, uses DIN connector

7867VIPA24-DUO-HS-DIN — 24 inputs auto-sensing HD, SD; dual display output, uses DIN connectors

7867VIPA32-DUO-3G-DIN — 32 inputs auto-sensing HD, SD, dual output, uses DIN

7867VIPA32-DUO-HS-DIN — 32 inputs auto-sensing HD, SD, dual output, uses DIN

7867VIPM8-DUO-3G — 8 inputs auto-sensing analog, SD/HD/3G, dual display output

7867VIPM16-DUO-3G — 16 inputs auto-sensing analog, SD/HD/3G, dual display output

VIP Advanced Ordering Options:

+DL — Replaces two outputs with single Dual LINK DVI output, resolution support up to 2560x1600 Ultra High Resolution

+CSX — Closed Caption (608/708), Subtitle (WST/OP42/OP47), and XDS support

VIP Advanced Hardware Accessories:

DVI-EXTND-SC — Single Fiber DVI extension solution

7767RGBT-VIP-3G — RGBHV / DVI + 2 Analog Audio Coax Transmitter

2430RX-2 — Dual Path Serial Digital to DVI Converter

2430GDAC-WARP — GLink to DVI converter with WARP (provides landscape to portrait display orientation conversion support)

VIPM Accessories:

3000BHP-U — 1RU breakout bulkhead panel to support unbalanced AES/EBU digital audio

3000BHP-BAL — 2RU breakout bulkhead panel to support either balanced stereo analog inputs or balanced AES/EBU audio

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VIPX

The VIP-X simultaneously addresses two common challenges by combining a functional and highly reliable routing platform with a modular multi-image display system in one integrated package. Building your next control room will be simple using VIP-X, as it enables two complex items in the control room to function as a single system.

Complete Facility Solution

The VIP-X is the complete solution for your next control room or, better yet, your facility. Offering both a complete facility routing platform and industry-leading multi-image display technology in a single modular package, no control room or facility is too small. The advantage of the VIP-X is that none of the outputs from the router are wasted.

Monitoring: On-screen and Using SNMP

The VIP-X offers real-time monitoring both with visual on-screen alarms, and also via SNMP. The VIP-X continues Evertz® monitoring tradition, and offers all of the extensive alarming the industry has come to value, including monitoring for video loss, active picture level, audio loss, over, under etc.

Industry Standard User-Interface

The VIP-X multi-image display outputs are controlled using Maestro™ software, Evertz® industry standard graphical interface. Maestro™ is now installed in over 1000 locations world-wide, and has been used by tens of thousands of operators in the industry. In fact, MVP® layouts can be loaded on VIP-X displays, and VIP-X layouts on the MVP® as well.

Through it's use of simple drag-and-drop control, Maestro™ is simple to use and easy to learn. To simplify the control of VIP-X further, Evertz® has added on-screen mouse & keyboard control via the CP-2116E control panel.

3Gb/s Support

The VIP-X is a true 3Gb/s platform, with end-to-end support of SMPTE 424M HD-SDI content. The router is not only capable of passing 3Gb/s, but the multi-image display system can display 3Gb/s images also.

The product supports the complete range of SDI video content from 525i/625i SD-SDI, 720p/1080i to 3Gb/s, all handled seamlessly and auto-sensed at the inputs.

The VIP-X combines a multi-image display system with a purpose-built routing platform. The VIP-X provides routing and multi-viewer components for any project, without compromising size or functionality. The solution is perfect for any facility requiring high quality image display.

The Complete Control Room Solution

The VIP-X eliminates system complexity, saves space and is more economical compared to the traditional autonomous solutions. The VIP-X can be tailored for all control room signals and budget requirements.

It is available in several package sizes, from a 32 input system with up to 32 router outputs and as many as 24 multi-image displays, up to larger systems that accomodate up to 288 inputs and 288 router outputs and as many as 72 multi-image displays.

Highest Quality Image Reproduction

The VIP-X multi-image display modules use the latest scaling technology. The technology is Evertz® proprietary and borrowed from our industry renowned up/down conversion products.

The engine does not use image enhancement tricks to try and artificially enhance the input quality; it applies a single pass high quality scaling algorithm which provides the highest quality reproduction of the source content.

Any Input, Any Output, Any Display, Any Size...

The VIP-X continues Evertz® tradition of truly flexible multi-image display systems. Each input in the system can be displayed any number of times at any size, without compromise.

Systems of any size offer this flexibility - even the largest VIP-X system allows any input to be displayed on each & every display at a unique size.
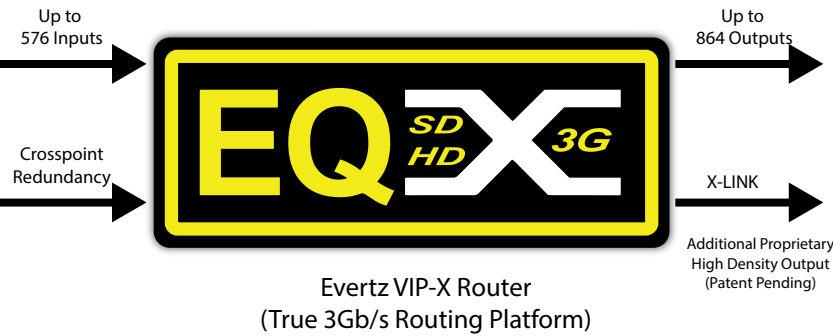
The Largest System in the Industry

The VIP-X offers the largest system footprint in the industry. With inputs in the thousands, and display outputs in the hundreds, it is guaranteed to meet the largest facility requirements without compromise or blocking restrictions.

VIP-X: Control Room Routing Platform & Modular Multi-Image Display System

Tally from Switcher

Dynamic Clock Display

On-Screen Mouse Control

Support for Timers

Dynamic Source Labels (UMD)

Image Replication Standard

Up to 576 Inputs

Crosspoint Redundancy

Up to 864 Outputs

X-LINK

Additional Proprietary High Density Output (Patent Pending)

Evertz VIP-X Router (True 3Gb/s Routing Platform)

Maestro™ Industry Standard Drag & Drop Layout Design Package

3rd Party Switcher

Keyboard & Mouse Control via CP-2116E Control Panel

EQX26-VIPX

Using the 26RU EQX router as the foundation platform, with up to 576 3G/HD/SD inputs and up to 576 outputs for signal routing, plus connectivity to multi-image display outputs using X-LINK Technology and the modular 7767VIP-X output cards.

EQX16-VIPX

Using the 16RU EQX router as the foundation platform, with up to 288 3G/HD/SD inputs and up to 288 outputs for signal routing, plus connectivity to multi-image display outputs using X-LINK Technology and the modular 7767VIP-X output cards.
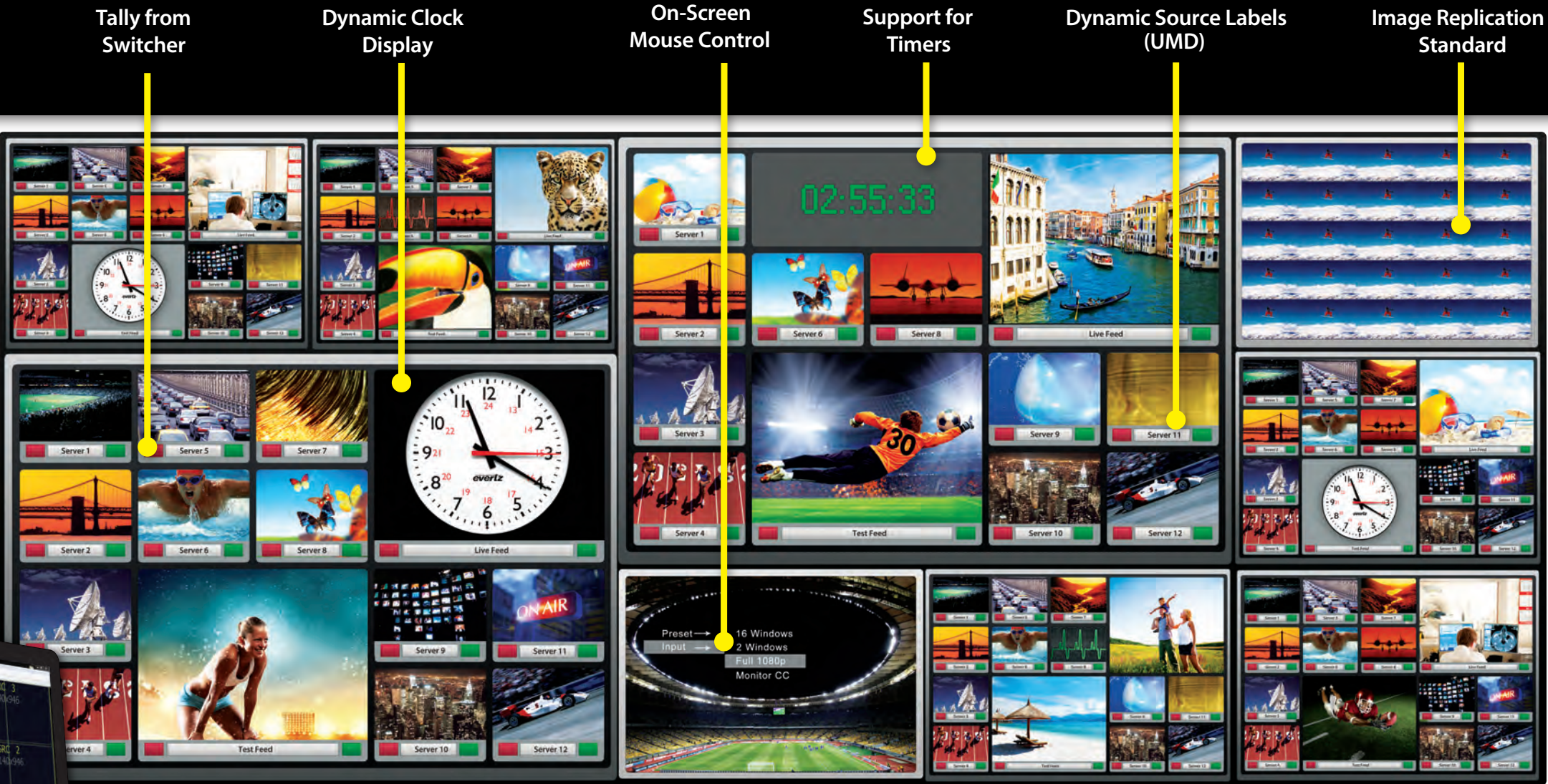
XE8-VIPX

Using the versatile 8RU Xenon router as the foundation platform, with up to 128 3G/HD/SD inputs and up to 128 outputs for source routing, plus connectivity to multi-image display outputs using X-LINK Technology and the modular 7767VIP-X output cards.

XE4-VIPX

Using the compact 4RU Xenon router as the foundation platform, with up to 64 3G/HD/SD inputs and up to 64 outputs for source routing, plus connectivity to multi-image display outputs using X-LINK Technology and the modular 7767VIP-X output cards.

Serial Video Inputs:

Standard:	3Gb/s (SMPTE ST 424), and/or HD-SDI (SMPTE ST 292-1), SD-SDI (SMPTE ST 259-1)
# of Inputs:	Router platform dependent
Connector:	BNC IEC 61169-8 Annex A
Input Impedance:	75Ω
Equalization:	Automatic to 100m (Belden 1694A)
Return Loss:	5mHz - 1485MHz 15dB typical
Embedded Audio:	SMPTE ST 272-1, SMPTE ST 299-1

Graphic inputs (RGBHV/DVI) Video Input:

Standard:	G-LINK™ (Evertz® proprietary) requires video to G-LINK™ formatter
# of Inputs:	Router platform dependent
Connector:	BNC IEC 61169-8 Annex A
Input Resolution:	640x480 (VGA) to 1600x1200 (UXGA)
Input Impedance:	75Ω

Serial Video Output:

Standard:	3Gb/s (SMPTE ST 424), and/or HD-SDI (SMPTE ST 292-1) SD-SDI (SMPTE ST 259-1)
# of Outputs:	Router platform dependent
Connector:	BNC IEC 61169-8 Annex A
Signal Level:	800mV nominal

DC Offset:	0V ±0.5V
Rise and Fall Time:	
HD:	200ps nominal
SD:	740ps nominal
Overshoot:	< 10% of amplitude

Multi-Image Display Video Output per VIPX card:

Standard:	VESA (DVI-D) up to WUXGA (1920x1200)
# of Outputs:	2
Connector:	DVI-I
Video:	1V p-p RGB, 60/50 Hz refresh
Impedance:	50Ω

Multi-Image Display Serial Video Output per VIPX card:

Standard:	3Gb/s (SMPTE ST 424), and/or HD-SDI (SMPTE ST 292-1) SD-SDI (SMPTE ST 259-1)
# of Outputs:	2
Connector:	BNC IEC 61169-8 Annex A
Impedance:	75Ω

Genlock Input:

Type:	NTSC/PAL color black
Level:	1V p-p nominal
Connector:	Uses 7800FR genlock BNC

General Purpose Interface I/O per VIPX card:

# of Inputs:	4
# of Outputs:	2
Type:	
GPI:	1 Opto-isolated, active low with internal pull-ups to +5V
GPO:	1 Relay closure to ground
Input Signal:	Closure to ground
Connector:	HD-15

Input/Output Serial Port per VIPX card:

Number of Ports:	1 RS-232 (pins 6,7) or 1 RS-422 (pins 1,2,6,7)
Connector:	HD-15
Baud Rate:	Up to 1Mbaud
Format:	Image Video, TSL

Ethernet:

Network Type:	Fast Ethernet 100 Base-TX 1EEE 802.3U standard for 100Mbps base band CSMA/CD local area network
Connector:	RJ-45 x2

Electrical VIPX card:

Voltage:	+12V DC
Power:	75W

PKGVIPX-XE4
PKGVIPX-XE4-3232S-2, 4, 6, 8, 10, 12
Xenon 4RU, 32 SD inputs, 32 SD outputs, plus 1 VIPX16x2 up to 6 VIPX16x2 displays

PKGVIPX-XE4-3232S-2, 4, 6, 8, 10, 12
Xenon 4RU, 32 HD inputs, 32 HD outputs, plus 1 VIPX16x2 up to 6 VIPX16x2 displays

PKGVIPX-XE8
PKGVIPX-XE8-3232S-2, 4, 6, 8, 10, 12
Xenon 8RU, 32 SD inputs, 32 SD outputs, plus 1 VIPX16x2 up to 12 VIPX16x2 displays

PKGVIPX-XE8-3232S-2, 4, 6, 8, 10, 12
Xenon 8RU, 32 HD inputs, 32 HD outputs, plus 1 VIPX16x2 up to 12 VIPX16x2 displays

EQX Sample Packages
PKGVIPX-EQX198x18-12/18-24
EQX 16RU, 198 HD inputs, 18 HD outputs, plus 6 VIPX16-2 displays/plus 12 VIPX16-2 displays

PKGVIPX-EQX198x108-12, 24
EQX 16RU, 198 HD inputs, 108 HD outputs, plus 6 or 12 VIPX16x2 displays

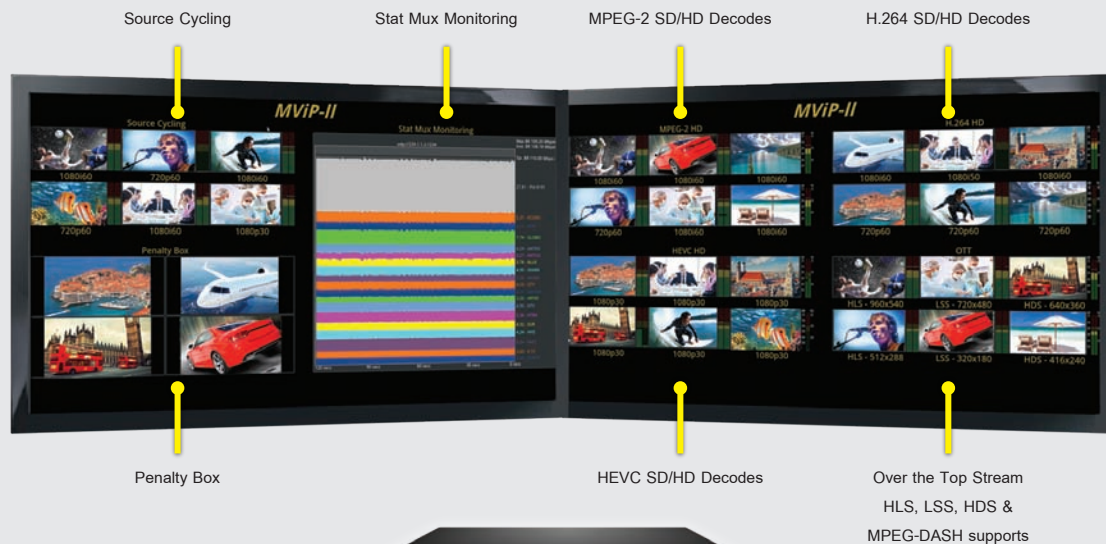**evertz**® **1-877-995-3700 • sales@evertz.com • www.evertz.com**

MViP-II
IP Based Multi-Image Display & Monitoring Solution

OVERVIEW

MViP-II improves on the first generation MVIP by offering all of the same features plus advance monitoring features including: loudness monitoring, Macroblock detection, and compliance monitoring. MViP-II also offers more simultaneous decodes with up to 64 MPEG-2/H.264 SD or 32 MPEG-2 HD or 16 H.264 HD. The MViP-II can be used to monitor both "main screen" encodes as well as "over the top" streams including: HLS, LSS, HDS and MPEG-DASH on top of standard MPEG-2 transport streams.

Source Cycling   Stat Mux Monitoring   MPEG-2 SD/HD Decodes   H.264 SD/HD Decodes

Penalty Box   HEVC SD/HD Decodes   Over the Top Stream HLS, LSS, HDS & MPEG-DASH supports

MViP-ll has been developed to be used as a tool for digital headends, IPTV networks, and sites using IP for distribution with a requirement to monitor and display audio and video along with fault information and transport details on a simple to configure system.

MViP-ll supports all major video compression standards including HEVC and therefore can be used in almost any application where video and audio are being transported over IP. MViP-ll is SNMP enabled which allows VistaLINK to configure and store all monitoring values and alarms.

Integration of MViP-ll and VistaLink allows Source Cycling, Penalty box, fault logging and reporting under single management system with ability to have multiple MViP-ll units or Evertz monitoring product as monitoring resource poll.

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FEATURES

- Supports all major transport: UDP, RTP, HLS, LSS, HDS, MPEG-DASH, MMSH, MMST, RTMP
- Supports video compression formats: MPEG-2, H.264/AVC, HEVC
- Supports audio compression formats: MPEG-1, MPEG-2, AC-3, AAC, Dolby E
- Up to 8 audio program decode Stereo or Dolby 5.1
- Dual output resolution up to 1920x1200
- Audio monitoring output
- Decoded video can be displayed multiple sizes up to full screen on the multiveiwer outputs
- Decoded and display up to 9 different DVB subtitle or caption per program.
- Simple and easy to use on screen user interface
- Stream capture based on fault
- Remote access using VNC software to MViP-II

Advance Monitoring:

- Video Monitoring: Black, Freeze, Macroblock detection
- Audio Monitoring: Low, High, Loudness monitoring
- Close captioning, DVB/teletext subtitling and XDS metadata decode and monitor

- MPTS/SPTS bandwidth information display
- Macroblock detection
- Loudness Monitoring
- SCTE-35 status monitoring
- TR101290 monitoring via 7880TSM-IP or 3480TSM-IP

Hardware:

- 2RU chassis
- Redundant power supply
- 2 xGigE ports (option to add 4 additional ports)
- Build on Linux OS platform

Additional Input Format:

- RF via 7780DM-LB+IP series
- ASI via 7880IP-ASI-IP and 3080ASI-IPGE series.
- Set-top-box via 160RM

SPECIFICATIONS

Physical Interface:

IP Inputs: 1Gbs RJ45 Ethernet connector x 4
(Management & Data)

Additional Input Format:

- RF via 7780DM-LB+IP series. (optional)
- ASI via 7880IP-ASI-IP and 3080ASI-IPGE series. (optional)
- Set-top-box via 160RM (optional)

USB Ports: USB 2.0 x 2 (Keyboard/Mouse & upgrades)
Outputs: DVI-D x 2
Resolution: XGA up to WUXGA (1920X1200) landscape or portrait
Audio Outputs: 3.5MM audio jack

Transport Protocols:

- MPEG transport stream MPTS or SPTS over UDP
Multicast or Unicast
- MPEG transport stream MPTS or SPTS over RTP/UDP
Multicast or Unicast
- TS over TCP
- RTMP (Flash streaming)
- HTTP (web based streaming)
- MMSH (Windows Media HTTP)
- MMST (Windows Media TCP/IP)

- VNC (remote desktop)
- HLS (Apple HTTP live Streaming)
- LSS (Microsoft Live Smooth Streaming)
- HDS (Adobe Live Streaming)

Multi-Cast Protocols:

- IGMP v2
- IGMP v3 with SSM

Video Decode Formats:

- MPEG-2 SD (MP@ML)
- MPEG-2 HD (MP@HL)
- MPEG-4 Part 2
- H.264/MPEG-4 AVC SD (MP@L3)
- H.264/MPEG-4 AVC HD (MP@L4)
- H,264/MPEG-4 AVC HD (High 4:2:2@L4.1)
- VC-1 (SMPTE ST 412)

Performance: Simultaneous decoding of 64
MPEG2/H.264 SD streams or 32
MPEG2 HD or 16 HD H.264

Audio Decode Formats:

- MPEG-1 L2 Audio
- AC3 Audio
- E-AC3 Audio
- AAC Audio
- Dolby E® Audio monitoring

Transport Stream Analysis:

- 7880TSM-IP (optional)
- 3480TSM-IP (optional)

Physical

Dimension: 27.56"D x17.72"W x 3.43"H
Rack Units: 2RU
Cooling: Front to back air flow

Electrical

Power Supply: 2 x 770 Watts
Voltage: 110/240V switching power supply
EMI/RFI: Complies with FCC Part 15, Class A.
EU EMC Directive

ORDERING INFORMATION

- MViP-II

MViP-II is an IP based multi-image display & monitoring solution. Decode monitor 64 SD MPEG-2/H.264 or 32 HD MPEG2 or 16 HD H.264, 2 DVI/HDMI outputs, 2 GigE ports redundant hot swappable power supplies. 2RU rack mounts chassis.

Ordering Options

+REC	Stream capture based on fault
+MBD	Macroblock detection*
+LGM	Loudness monitoring*
+ENC	H.264 Encoded output and HLS streaming (mirror copy of DVI outputs)

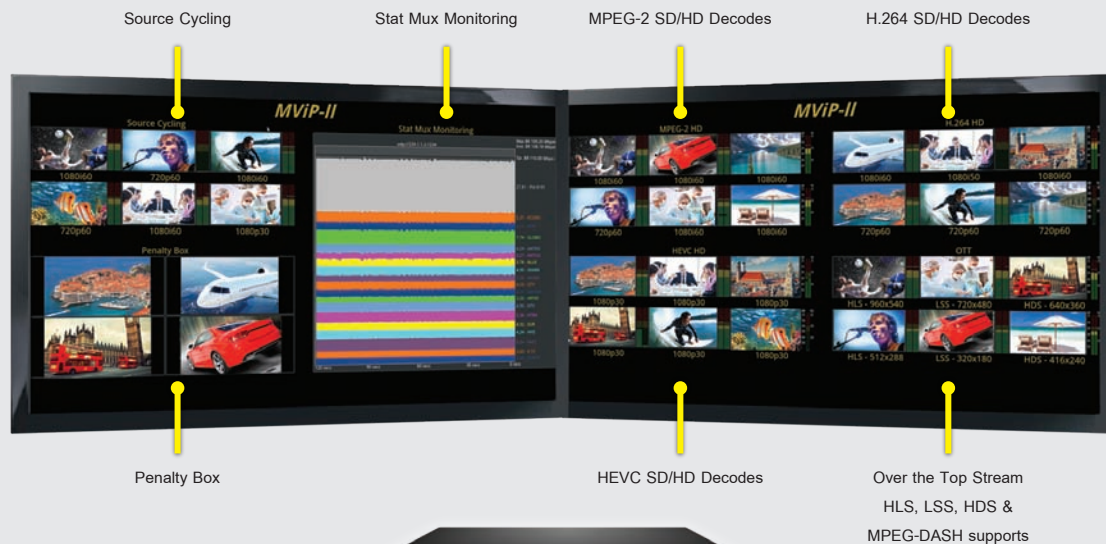* Check factory for option availability

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