EMR-288X288-V

High Density Modular Video Router (3G, HD, SD, ASI)

The EMR is a multi-format modular router that provides a high density solution without compromising functionality. The EMR provides a unified platform for routing video as well as other formats. The EMR uses a proprietary X-Link interface to produce a video router that is both cost effective and powerful.

A single 6RU frame can accommodate 128x128 video signals, and expansion beyond this is as easy as adding another frame. With two 6RU frames, the EMR can accommodate 256x256 video signals with full redundancy.

The modular design of the EMR means that there are no limitations to the signal formats that can be added to the router, or limitations to the size at which it can be expanded to. Other products that can be combined with the EMR are audio routing, master controllers, multi-viewers and more.

Configuration
The EMR allows any mix of formats within a frame. The inputs and outputs are scalable in blocks of 32. A system consists of the input stage, the crosspoint, and the output stage. Each input and output device is connected to the crosspoint through a proprietary X-Link connection. It is the use of this connection that provides the flexibility for the system to scale and evolve with changing needs.

Scalability
The EMR can be scaled well beyond a single frame. A single crosspoint module can support up to 9 input modules and 9 output modules, allowing a system to scale to 288x288 video signals.

Redundancy
Each input and output card in the EMR contains multiple X-Link interfaces that allow connections to multiple crosspoints. Each input card provides two X-Link outputs that can be used for redundant connections, and each output card provides two X-Link inputs that can be setup to automatically failover if the primary connection fails. The redundancy structure of the EMR minimizes the chances of any failure to the system.

Control
Control of the EMR is via two redundant frame controllers. When combined with the EQX server, the EMR can be controlled using a wide range of control panels and interfaces. The EMR also provides a SNMP interface to control various configuration options.

Comprehensive Monitoring
When combined with MVPX and VIPX multi-viewers, the EMR provides an abundant of options to monitor the integrity of video signals. Each crosspoint module contains 9 X-Link outputs that are available to feed video signals directly to Evertz multi-viewers. This provides a cost effective, and implementation effective way to monitor the router inputs without sacrificing router outputs.

Features & Benefits

Video Routing
- Support for 3G-SDI, HD-SDI, SD-SDI, DVB-ASI, SMPTE 310M and more
- Scalable to 128x128 in a single 6RU frame
- Scalable to 288x288 in two 6RU frames
- Input expansion in steps of 32
- Output expansion in steps of 32
- Source-by-source intelligent auto configuration
- Input equalization (on/off)
- Output reclocking (on/off)
- ASI mode (on/off)
- Variable switch point

Advanced system control & interfacing
- Supports the full range of Quartz remote control panels
- Full VistaLINK® PRO command & control, SNMP & AVM
- Supports a wide selection of control protocols
- Ethernet, Serial RS-422/RS-232 connections
- Full integration with 3rd party automation systems
- High availability, 24/7 design
- Full modular design
- All modules are hot swappable
- All components are front accessible
- Passive I/O
- External MI connection
- Redundant frame controller
- Redundant crosspoint
- Redundant power supply
- VistaLINK® PRO SNMP monitoring of I/O modules

The Complete Solution Provider

Specifications

Configuration:

Inputs	Selectable in blocks of 32
Outputs	Selectable in blocks of 32

Video Inputs:

Formats	SMPTE 259M, SMPTE 292M, SMPTE 310M, SMPTE 424M, ASI
Signal Level	800mV p-p
Impedance	75Ω terminating
Return Loss	> 15dB typical (5-1500MHz) >10dB typical (1.5-3GHz)
Cable Equalization	Belden 1855A, 300m @ 270MHz Belden 1855A, 100m @ 1.5GHz
Connectors	DIN 1.0/2.3

Video Outputs:

Formats	Same as input
Reclocking	Configurable
Non-Reclocking	Configurable
Signal Level	800mV p-p ±10%
Impedance	75Ω terminating
Return Loss	> 15dB typical (5-1500MHz) > 10dB typical (1.5-3GHz)
DC Offset	0±0.5V
Output Jitter	0.2UI
Connectors	DIN 1.0/2.3

Switching Reference:

Reference Inputs	2x BNC, analog 525/625/tri-level HD
Reference Timing	2 independent timing planes, programmable per output
Signal Level	1V p-p ±3dB
Impedance	75Ω terminating
Connectors	BNC per IEC 61169-8 Annex A

Control:

Ethernet	2x RJ45
Serial	
RS-232/RS-422	2x D15 female

Electrical:

Supply	Auto ranging, 100 - 240VAC, 50/60Hz
Power Consumption	
EMX6-FR	650w
EMX3-FR	360w
Redundant PSU	Optional

Physical:

EMX6-FR:	
Height	10.5” (266 mm)
Width	19.0” (483 mm)
Depth	15.75” (400 mm)
Module Capacity	15 single slot EMR series modules
Weight	Approx. 17.4 lbs (7.9 kg) with 2 power supplies, no slots occupied Approx. 32.0 lbs (14.5 kg) with 2 power supplies, all slots occupied
EMX3-FR:	
Height	5.25” (133 mm)
Width	19.0” (483 mm)
Depth	15.75” (400 mm)
Module Capacity	5 single slot EMR series modules
Weight	Approx. 17.4 lbs (7.9 kg) with 2 power supplies, no slots occupied Approx. 32.0 lbs (14.5 kg) with 2 power supplies, all slots occupied

Ordering Information

EMX6-FR	EMX 6RU Router Chassis with 15 slots
EMX3-FR	EMX 3RU Router Chassis with 5 slots
EMX-FC	EMX frame controller
SC-2000	2RU System Controller
SC-2000-R	Redundant System Controller (fits into SC-2000 chassis)
EMR-IP32-3G	32 3G/HD/SD inputs with 2 X-Link outputs
EMR-IP32H	32 HD/SD inputs with 2 X-Link outputs
EMR-IP32S	32 SD inputs with 2 X-Link outputs
EMR-OP32-3G	32 3G/HD/SD outputs with 2 X-Link inputs
EMR-OP32H	32 HD/SD outputs with 2 X-Link inputs
EMR-OP32S	32 SD outputs with 2 X-Link inputs
EMR-XPT-288X288	Crosspoint with 9 X-Link inputs and 9 X-Link outputs
EMR-XPT-144X144	Crosspoint with 4.5 X-Link inputs and 4.5 X-Link outputs

Ordering Options

+PS	Redundant Power Supply
+FC	Redundant Controller Module

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