Monitoring & Control
Fiber Optics
Master Control & Branding
Management Software
Time Code
Distribution & Conversion
Routing Systems
Processors
Digital Signage
Closed Captioning / EAS
Production
Post-Production
Multiviewers
L-Band & RF Products
Compressed DTV Products

SEVERE STORM WARNINGS:
POWER IS CURRENTLY OUT FOR BUSINESSES IN THE ENTIRE NORTH END BUT SHOULD BE BACK U
SCHOOL CLOSURES:
WEST PARK PUBLIC SCHOOL, OAK RIDGE PUBLIC SCHOOL, ENSBOROUGH ACADEMY FOR GIRLS, S

ON DECK

3 PM
RIDING HIGH

4PM
VEGAS 500

6PM
TO THE EXTREME

A. Thomas
- 0.022

MLB: TOR 12, BOS 3...K.C 6, CHICAGO 5 (11)...DET 9, TEX 4...SE

evertz
Quartz

evertz

THE COMPLETE SOLUTION PROVIDER

Fiber Optics

Using Evertz® fiber optic product line, a practical link for almost any conceivable signal type or group of signals can be easily implemented. Supported video formats include both analog video (NTSC and PAL) and digital video (SDTV, HDTV, DVB-ASI, SDTI, SMPTE 310M). Audio formats include both analog audio and AES/EBU audio. Control formats include bi-directional RS-232, RS-422 and GPI/GPO. Datacom formats include bi-directional Ethernet (10/100 BaseT), Gigabit Ethernet, and Fiber Channel. Other formats include SONET/SDH, DS3, T1/E1/J1, L-Band & 70/140Mhz I/F signals. Using VistaLINK® - capable modules provides the user with advanced features such as pre-emptive warnings and on-board signal and level monitoring through SNMP.

7705 & 7707 Series

RF Distribution & Routing

Evertz® offers modular RF signal matrices for routing and monitoring L-band and IF signals within a satellite communications facility. Built on a modular architecture, all active components are hot-swappable and front-loading ensuring ease of maintenance and matrix expansion. Advanced features such as automatic gain control, salvo operations, monitoring and alarm reporting of critical signal parameters such as input signal presence and signal level provide flexible RF signal management. Additionally, this flexible routing matrix can be controlled, configured and monitored via serial control and/or SNMP control over Ethernet. Matrices run from 16x16 up to 64x64 and beyond. In addition, Evertz® offers RF transmit, receive modules, passive splitters and combiners.

XRF1, XRF6, 7702 & 7703LT/R Series

Master Sync, Clocks & Generator

The 5600MSC is a Master SPG, Master Clock and Master Time Code Generator all in one box. It provides analog black and HDTV tri-level sync signals and solves the problem of locking the in-house master clock system to the master video sync pulse generator. The separate 5600ACO Automatic Changeover Unit completes the package.

The 5600ACO and 5600ACO2 Automatic Changeovers are intended for use with two 5600MSC Master Clock/Sync Generators. The systems use latching relays to ensure maximum reliability and minimal disruption in the event of any failure. The complete system provides the highest level of security for television station video and time synchronization systems.

5600MSC & 5600ACO2

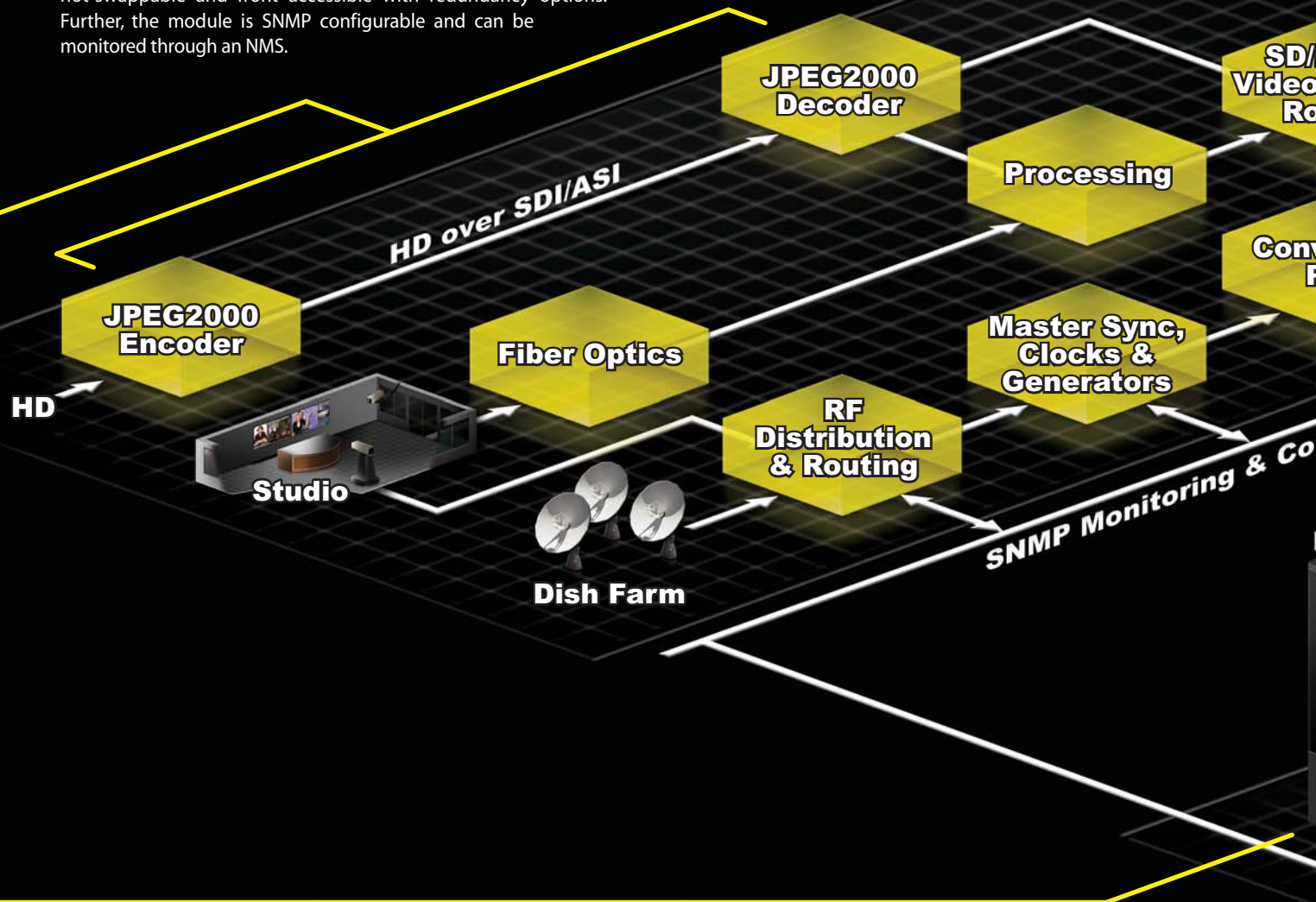# Conversion/Processing & Distribution

HDTV is here and so is Evertz®, providing a complete solution for your broadcast, cable, satellite and IPTV facility needs. Offering modular solutions for A/D, D/A, up, down & cross conversion, aspect ratio conversion, frame synchronizers, audio embedders & de-embedders, Dolby encoders & decoders, keying & logo insertion, captioning using the 7700 series products, and the highest density distribution through the *exponent*™ series, Evertz® infrastructure products help bring your DTV/HDTV plans to reality!

CDM/CD2, CEM/CE2, UC, XUDC & 500 *exponent*™ Series

The Complete Solution...

JPEG2000

Evertz® offers a pair of JPEG2000 SD/HD encoders & decoders outputting over SDI/ASI. The solution is a modular product utilizing J2K wavelet compression which offers the highest quality compression (4:2:2 10 bit processing) of the HD signal to move over a SDI/ASI line. Unlike the DCT-based MPEG compression techniques, J2K does not show pixelization effects if/when frames are lost during the transmission. It also offers full VANC support, as well as support for 8 AES inputs. Given that it is modular, it also means that it is hot-swappable and front accessible with redundancy options. Further, the module is SNMP configurable and can be monitored through an NMS.
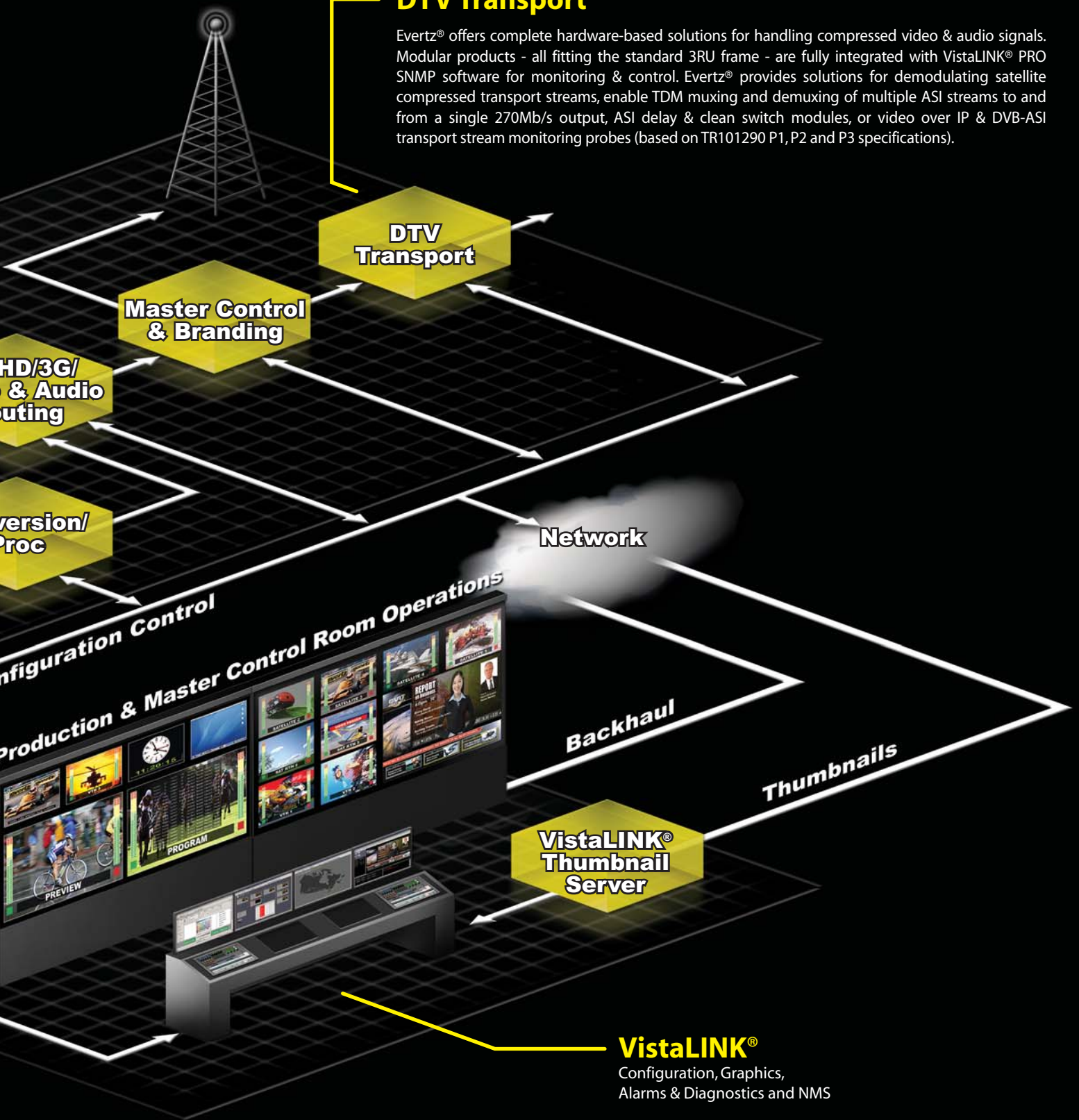
JPEG2000 Decoder

SD/ Video Ro

Processing

HD over SDI/ASI

JPEG2000 Encoder

Conv F

Fiber Optics

Master Sync, Clocks & Generators

HD

Studio

RF Distribution & Routing

SNMP Monitoring & Co

Dish Farm

MVP™
Multi-Image Display & Monitoring System

VIP™
Compact Multi-Image Display & Monitoring System

VIPX™
Signal Routing with Built-in Monitoring & Display

The Con

DTV Transport

Evertz® offers complete hardware-based solutions for handling compressed video & audio signals. Modular products - all fitting the standard 3RU frame - are fully integrated with VistaLINK® PRO SNMP software for monitoring & control. Evertz® provides solutions for demodulating satellite compressed transport streams, enable TDM muxing and demuxing of multiple ASI streams to and from a single 270Mb/s output, ASI delay & clean switch modules, or video over IP & DVB-ASI transport stream monitoring probes (based on TR101290 P1, P2 and P3 specifications).

DTV Transport

Master Control & Branding

...HD/3G/ ...& Audio ...uting

...version/ ...Proc

Network

...figuration Control

...Production & Master Control Room Operations

Backhaul

Thumbnails

VistaLINK® Thumbnail Server

VistaLINK®
Configuration, Graphics, Alarms & Diagnostics and NMS

...mplete Solution Provider evertz

SD/HD/3G & Audio Routing

The EQX platform is Evertz® flagship routing and distribution solution designed for high availability by adopting extensive redundancy for all critical system elements. With this, and the ability to route up to 576x576 signals, the EQX is ideal for mission critical and demanding 24/7 environments including network local broadcaster, mobile production, cable, military, government and corporate applications.

Xenon and Topaz routing lines bring many advanced new capabilities to the world of routing switchers, building on a new generation design that starts with a solid multi-format router core.

Topaz, Xenon & EQX Series, Modular & Bypass Routers

Master Control & Channel Branding

Master control is the heart of any broadcast facility, and demands for reliability, serviceability, and signal protection are essential. Equally essential is a Master Control that can be expanded to provide for future growth as facilities migrate from analog to SD to HD. Many broadcasters look at master control as a major long-term investment.

Trusted by the networks and production facilities worldwide, the Evertz® family of Channel Branding products offers a wide range of capabilities and features that meet the needs of the modern broadcast facility. The lineup of Keyers, Logo and Media Inserters provide the solutions for your HD, SD and Analog branding requirements.

QMC-2, QMG and 9725LG/LGA Series

Monitoring & Control

The MVP™ & VIP™ revolutionize the multi-display marketplace with a highly flexible, intuitive, simple yet comprehensive approach to virtual wall monitor applications.

The MVP™ is the next generation of Multi-Image Display Processor Technology, boasting the most flexible & feature-rich platform available, making it ideal for all applications where video/audio monitoring & display are required. The MVP™ architecture is revolutionary in its approach, as it does NOT use a PC platform at the core of its operation. The VIP™ provides a feature-rich yet cost-effective signal monitoring and display solution displaying up to WUXGA (1920x1200) resolution.

MVP™, VIP™, MWP™ & Quattro™ HD

VistaLINK® PRO Software

With effective and simple-to-use graphics, unparalleled drill-down information, external notification tools and a network of efficient SNMP monitoring & configuration architecture, VistaLINK® and VistaLINK® PRO PLUS provide you with all the details!

From a simple module setup and configuration tool to an advanced level monitor/control element manager and everything in between, VistaLINK® PRO covers all of your application needs.

VistaLINK® PRO & VistaLINK® PRO PLUS = 100% SNMP

Evertz® Around the World

New York, NY

United Kingdom

Corporate Head Office
Burlington, Canada

South East Europe

Burbank, CA

Hong Kong (Asia Pacific)

Washington, DC

The Evertz® Corporate Head Office is located in Burlington, Ontario, Canada. We also have United States offices located in Washington DC and Burbank CA, as well as International Offices located in London UK, South East Europe and Hong Kong.

Evertz® supports over 80 local dealers, who deliver our products, solutions, and expertise. Dealers know your local market and provide the customer service that sets us apart from the competition. If you need advice about selecting or using an Evertz® product, set-up or servicing needs, your local dealer can answer your questions and even put you in touch with a regional Evertz® office. To locate your Evertz® representative, visit http://www.evertz.com/contact/international-dealers for a list of our authorized dealers.

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EQ SD HD X 3G
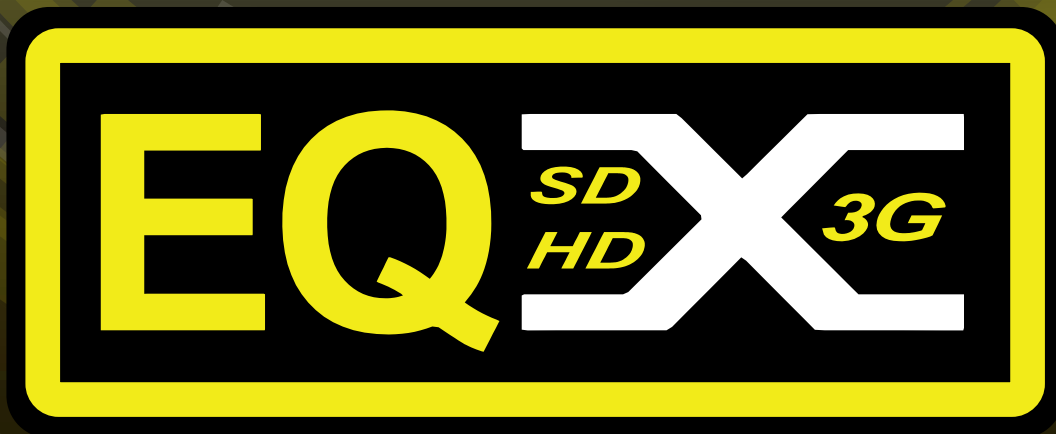
HIGH DENSITY ROUTING PLATFORM

evertz

| Overview |

The #1 Routing Solution for Mission Critical Applications

The EQX platform is Evertz® flagship routing & distribution solution designed for high availability by adopting extensive industry leading redundancy for all critical system elements. With its proven robustness and redundancy, the EQX is ideal for mission critical and demanding 24/7 environments including network and local broadcasters, mobile production, cable, military, government and corporate applications.

Key Features

High Performance Format Agnostic Platform

- 3G-SDI, SD-SDI, HD-SDI, DVB-ASI, SMPTE 310M
- Any fiber optical signals from 3Mb/s up to 3Gb/s
- 10GE Video over IP Gateway interface
- Scalable to 1152x1152 in a single 40RU frame
- Scalable to 576x1152 in a single 26RU frame
- Scalable to 288x576 in a single 16RU frame
- Scalable to 180x180 in a single 10RU frame
- Input & output expansion in increments of 18
- Up to 2304x2304 with redundancy in multiple frames
- Source-by-source intelligent auto-configuration:
    - Input equalization (On/Off)
    - Output reclocking (On/Off)
    - ASI Mode (On/Off)
    - Switch Point (Variable)

### Advanced System Control & Interfacing

- MAGNUM Unified Control System
- VUE user interface
- CP-2232/2116 Advanced Control Panels
- Supports the full range of Quartz remote control panels
- Full VistaLINK® PRO command & control, SNMP & AVM
- Ethernet, Serial RS-422/232, F-Link and Q-Link port

High Availability, 24/7 Design

- Full modular design
- All modules are hot swappable
- Passive I/O
- Full redundant design
- Path by path crosspoint redundancy
- Redundant frame controller
- Redundant power supply (separate 1RU)
- Redundant cooling fans
- Comprehensive system monitoring bus
- VistaLINK® PRO SNMP
    - AVM Monitoring of I/O & crosspoint modules
    - Temperature monitoring
    - Power supply monitoring

EQX Family

The EQX offers four different frame sizes to choose from in order to meet the requirements of any application. Our new smaller 10RU frame supports 180x180 or 180x360 using Double Density outputs (plus X-LINK outputs). The half 16RU frame supports 288x288 or 288x576 using Double Density outputs (plus X-LINK outputs). The full 26RU frame will support 576x576, or 576x1152 using Double Density outputs (plus X-LINK outputs). The traditional EQX is a very compact solution, perfect for trucks, mobile applications, or areas where space is a concern. However, the new EQXM was designed with large systems in mind. A single frame supports 1152x1152 with full path redundancy and options for audio embed and de-embedding. Using multi-frame the I/O can be expand into further square and rectangular sizes. Using multi-frame the I/O can be expanded into further square and rectangular sizes. For larger 2304x2304 matrices, using the EQXM is more economical in terms of space and cost than using the 26RU EQX.

NEW

10RU
180x180

EQX10

NEW

16RU
288x288

EQX16

26RU
576x576

EQX26

NEW

40RU
1152x1152

EQXM
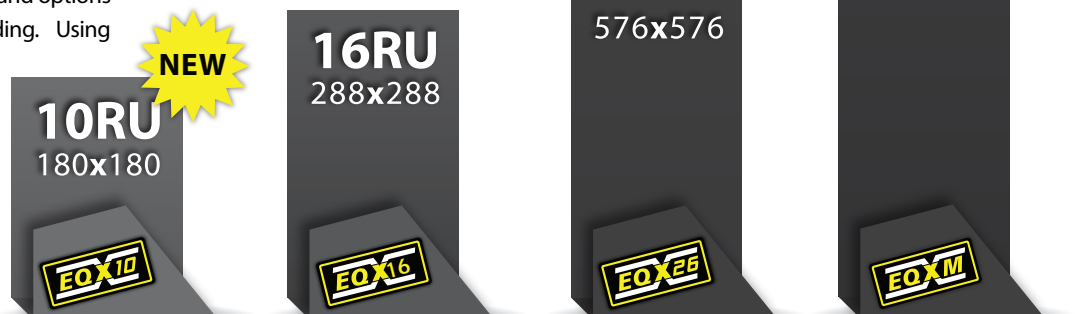
Designed for Performance

Ultra Wide Band Routing

By offering a format independent data path, the EQX supports signals from 3Mb/s all the way up to 3Gb/s, including SD-SDI, HD-SDI, 3G-SDI, DVB-ASI and SMPTE310 digital video formats, as well as Media IP Gateway (IPG) cards for SDVN™ Hybrid Routing solutions, optical formats and other high data rate signals. In addition, the EQX supports four independent timing planes which will provide independent SMPTE compliant switching for up to four different digital video signal formats.

Green Technology

With the Flexibility of the EQX frame where all I/O and XPT active parts are modular and hot swappable from the front of the router we have been able to take advantage of new technology that allows for reduced power consumption and heat dissipation in the input, output and XPT module. This provides a more efficient router with quieter fans, while still maintaining the industry leading performance of the EQX router platform.

System Flexibility

The inspired modular approach of the EQX design provides excellent in-service expansion capabilities. In convenient increments of 18, the number of inputs and/or outputs can be increased from the base size of 18x18 up to 576x576 and beyond, with square and non-square configurations.

Input and Output Flexibility

The EQX offers a large number of Input and output options to meet the many different requirements in a facility or mobile applications. We have options for audio embedding and de-embedding, Frame Sync, IP video and line sync outputs for soft/quiet switching to name a few. Contact the factory with your specific router needs for a precise router system solution.
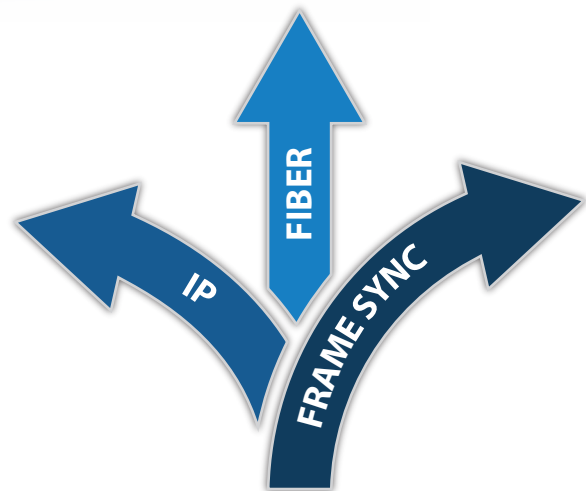
Multiview Processor Integration

The EQX integrates X-LINK on the 10, 16 and 26RU models. X-LINK is a high density interconnection used on a wide variety of Evertz® Multiviewer processors that DOES NOT use up standard router outputs. A 576x576 EQX will still have the full 576 outputs while supporting more than 500 additional outputs to a Multiview Processor. X-LINK technology is a unique Evertz® signal interconnection carrying 32 uncompressed baseband signals over a single connector.

Intelligent Auto-configuration

The EQX has an exceptional source-by-source intelligent auto configuration facility allowing the path to each destination to be independently and instantly reconfigured to suit the requirements of the source being switched. This includes auto selecting the reclocking/non-reclocking circuitry and the ASI mode, as well as selecting the correct switch point.

Simple Maintenance

The advanced design of the EQX ensures that all active components including input / output / crosspoint modules, frame controllers, cooling fans and power supplies are accessible from the front of the frame and can be hot swapped at any time for maintenance.
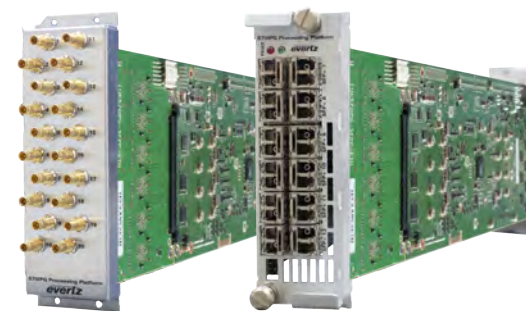
Hybrid IP Routing SDVN

The Evertz® IP Video Media Gateway family includes modules that fit into any EQX frame, enabling all traditional EQX systems to operate in collaboration with Evertz®' new format agnostic IP switch fabrics. The traditional routing control is preserved in this Hybrid solution through the use of Evertz® MAGNUM unified control system.
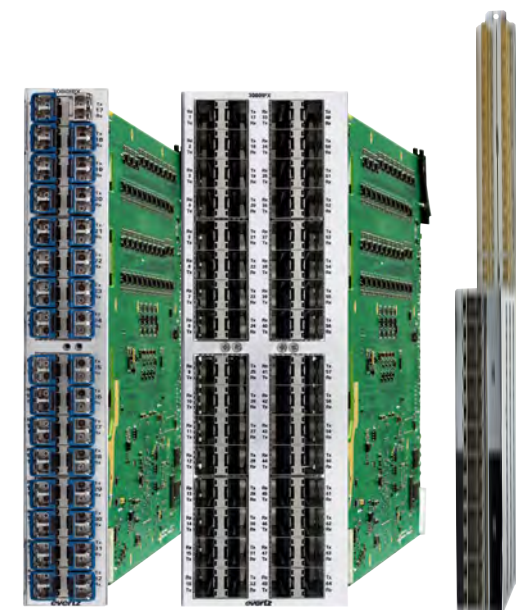
Independent Monitoring

The EQX provides extensive signal monitoring of both inputs & outputs, power supply voltages, interior temperatures and fan speeds. All monitored data is available through SNMP for facility-wide monitoring systems such as VistaLINK® PRO.
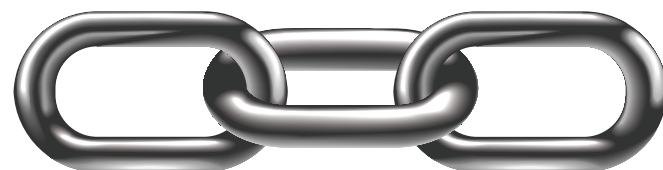
Outstanding Redundant Protection

The EQX is the ultimate design in terms of system availability.

The EQX architecture contains redundant protection for all of the critical system elements. This architecture provides redundant crosspoint configurations, redundant frame controllers, external redundant load sharing power supplies, redundant easy-access cooling fans and a dedicated monitoring bus that is independent of the system cross-points.

In the event of a failure, manual or automatic re-routing of signals on an output-by-output, path-by-path basis is fully supported by the system software. Using the EQX monitoring capabilities, output quality can be verified prior to switching to redundant signal paths. The EQX is a fully SNMP-enabled system and supports seamless integration with VistaLINK® PRO command & control systems.
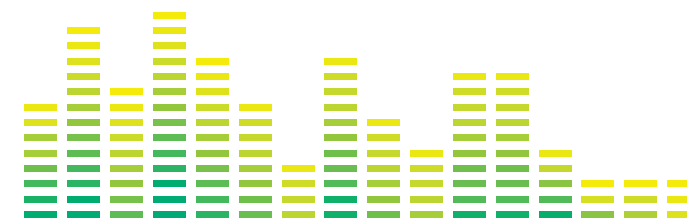
Audio Routing

The EQX has superior audio routing capabilities. It supports the ability to de-embed AES from any input signal and deliver it as discrete AES, Analog Audio, MADI, or Studer A-LINK signals. It can also re-embed (in any order) audio with other de-embedded AES channels, Analog inputs, Discrete AES, MADI, and/or Studer A-LINK inputs on any output video.

Comprehensive Control

The EQX provides comprehensive connectivity to accommodate the most demanding installations. The internal frame controllers provide complete connectivity to any number of remote control panels and 3rd party control devices such as automation systems via multiple Q-Link, F-Link, Ethernet and Serial ports.

MAGNUM bridges all of the major components within the broadcast path under a single point of control enabling broadcasters to simplify facility workflow and gain efficiency while reducing operational costs

MAGNUM from a core routing perspective provides a superior, unified control / interfacing to Evertz® EQX and other Evertz® routing SDI products. MAGNUM can configure and manage systems ranging from a single router system (with hundreds of sources /destinations) to large enterprise sized system (with thousands of sources / destinations that utilize tie-lines). Based on MAGNUM's Router control module, MAGNUM-SE has been designed and released to support and manage smaller routing systems.

MAGNUM, as a SDVN orchestration and controller, controls both Hybrid SDI and IP applications. MAGNUM provides seamless integration of SDI and High Bandwidth Ethernet switch fabrics for video applications by providing operators with the same control interfaces (source/destination/take) found in legacy SDI facilities.

MAGNUM Unified Control System

Evertz®' MAGNUM Unified Control System addresses the ever-growing challenges broadcasters face as facilities become larger, more complex and distributed. MAGNUM has been designed to unify the control and operation of the routing core, master control, production switching, MAGNUM-SVDN and multiviewer.

Optical Routing

The EQX Router can accept optical signals at any data rate between 3Mb/s and 3Gb/s. Whether it is SMPTE259M or 292M compliant signals over fiber or proprietary optical signals such as Evertz® G-LINK or from a 3rd party, the EQX will accept the signals, route them through the digital core and re-launch them on fiber. The EQX can also take in digital signals via coax and launch them on fiber or accept optical signals and send them out electrically via coax.

| SDI/10GE Hybrid Infrastructure |

mediator content management

MAGNUM

VistaLINK PRO SNMP MONITORING & CONTROL SOFTWARE
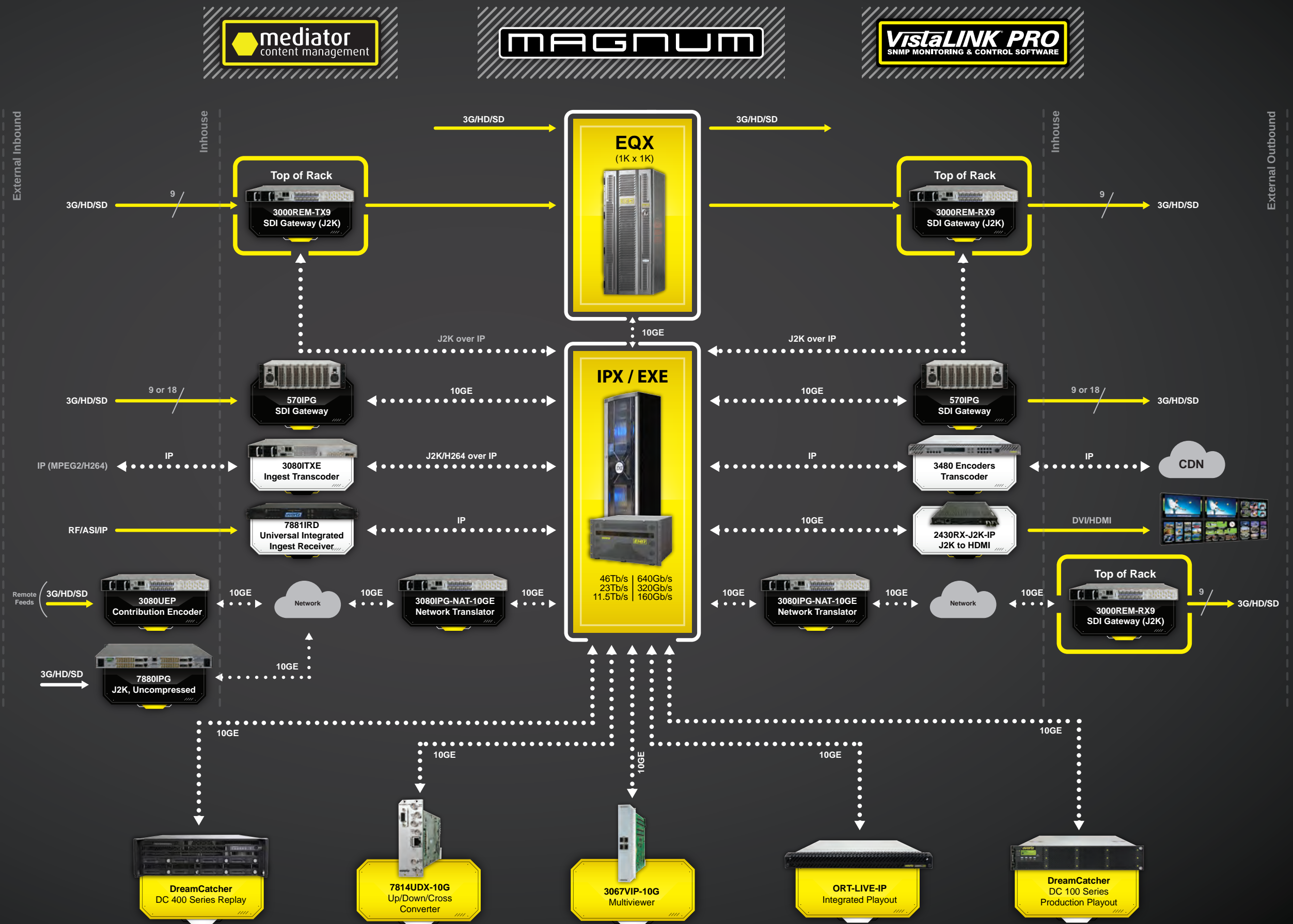
Evertz® Software Defined Video Neworking (SDVN) leverages MAGNUM to bridge legacy SDI based facilities and IP-based facilities. MAGNUM provides orchestration and control of SDVN components that include Evertz® 10/100GE high capacity switch fabrics, media IP gateways, and Evertz® traditional SDI products such as the EQX family of 3G/HD/SD-SDI routers. Evertz®' SDVN offers broadcasters, content distributors and service providers a flexible, format agnostic and scalable infrastructure for SD, HD, 3G, and Ultra HD (4K and 8K) video

For Evertz® SDVN, the EQX family of routers offer a Video IP Gateway input module that takes 18 3G/HD/SD-SDI inputs and encapsulates the signals onto 10GbE. The Video IP Gateway module provides a union of traditional baseband EQX system and format agnostic IP switch fabrics.

Through its intelligent utilization of extreme bandwidth switching, the SDVN™ solution allows media organizations to harness the true potential of a 10GE /100GE IP-Ethernet network. Evertz®' SDVN™ solution provides unprecedented scalability, highly efficient workflows, and a reduction in capital and operational costs.

SDVN

External Inbound — Inhouse — Inhouse — External Outbound

Top of Rack
3000REM-TX9
SDI Gateway (J2K)

EQX
(1K x 1K)

Top of Rack
3000REM-RX9
SDI Gateway (J2K)

3G/HD/SD
3G/HD/SD
3G/HD/SD
3G/HD/SD
3G/HD/SD
9
9

IPX / EXE

46Tb/s | 640Gb/s
23Tb/s | 320Gb/s
11.5Tb/s | 160Gb/s

J2K over IP
J2K over IP
10GE

570IPG
SDI Gateway

570IPG
SDI Gateway

3G/HD/SD
9 or 18
10GE
10GE
9 or 18
3G/HD/SD

3080ITXE
Ingest Transcoder

3480 Encoders
Transcoder

IP (MPEG2/H264)
IP
J2K/H264 over IP
IP
IP
CDN

7881IRD
Universal Integrated
Ingest Receiver

2430RX-J2K-IP
J2K to HDMI

RF/ASI/IP
IP
10GE
DVI/HDMI

3080UEP
Contribution Encoder

Remote Feeds
3G/HD/SD
10GE
Network
10GE
3080IPG-NAT-10GE
Network Translator
10GE
10GE
3080IPG-NAT-10GE
Network Translator
10GE
Network
10GE

Top of Rack
3000REM-RX9
SDI Gateway (J2K)
9
3G/HD/SD

7880IPG
J2K, Uncompressed

3G/HD/SD
10GE

10GE
10GE
10GE
10GE
10GE
10GE

DreamCatcher
DC 400 Series Replay

7814UDX-10G
Up/Down/Cross
Converter

3067VIP-10G
Multiviewer

ORT-LIVE-IP
Integrated Playout

DreamCatcher
DC 100 Series
Production Playout

Specifications

Configuration (excluding frame Xlink outputs)
576x576 (1152 available) in 26RU: PSU separate 1RU
288x288 (576 available) in 16RU: PSU separate 1RU
180x180 (360 available) in 10RU: PSU separate 1RU
Inputs & Outputs: Selectable in blocks of 18

Video Inputs
Formats:	SMPTE 259M, 292M, 310M, 424M, ASI, 10G
Optical Formats:	SMPTE 292M, G-LINK, any optical signal between 3Mb/s and 3Gb/s
Signal Level:	800mV p-p
Impedance:	75ohms terminating
Return Loss:	> 15db typical (5-1500 MHz) / > 10db typical (1.5-3GHz)
Cable Equalization:	Belden 1694A @ 270MHz 300m to 500m Belden 1694A @ 1.5GHz 100m to 200m Belden 1694A @ 3GHz 90m to 150m
Connectors:	BNC IEC 61169.8 Annex A

Video Outputs
Signals Supported:	SMPTE 259M, 292M, 310M, 424M, ASI, 10G
Reclocking:	Configurable
Non-reclocking:	Configurable
Impedance:	75ohms terminating
Return Loss:	> 15db typical (5-1500 MHz) / > 10db typical (1.5-3GHz)
DC Offset:	0 ±0.5V
Output Jitter:	0.2 UI
Connectors:	BNC IEC 61169.8 Annex A

Fiber Inputs/Outputs
SFP1R-2:	Dual Optical SFP Receiver, Up to 3Gb/s
Connector:	LC/PC
Operating Wavelength:	1270nm to 1610nm
Maximum Input Power:	-1dBm
Optical Sensitivity:	-21dBm+/-1dBm
SFP1T13-2:	Dual Optical SFP Transmitter, Up to 3Gb/s, 1310nm
Connector:	LC/PC
Wavelengths:	1310nm
Output Power:	-2dBm ±1dBm

Reference Timing
Switching Reference:	Analog 525/625/tri-level HD looping connections
Connector:	2 BNC IEC 61169.8 Annex A
Signal Level:	1V p-p ±3dB
Impedance:	75ohms terminating (active loop out optional)
Reference Timing:	4 independent timing planes, programmable output by output

Control
Q-Link:	4 X 75OHM video cable (maximum length 500m)
F-Link:	2 X RJ45
Serial RS-422/232:	2 X D9 female
Ethernet:	10/100baseT, 2 X RJ45

Physical
Height:	45.5" (115.5cm), 26RU / 28" (71.1cm), 16RU / 17.5"(44.5cm), 10RU
Width:	19" (48.3cm), 19" Rack Mount
Depth:	19.4" (49.3cm) over hinges and BNCs
Operating Temp.:	0°C to -40°C
Cooling:	Fan cooled, front to rear

Power
Voltage:	Auto ranging 100 to 240V 50/60Hz Up to 4 load sharing PS modules in 1RU frame Separate main input for each module or external 48V DC
Power:	1200W per PS module 2000W for a Green 26RU populated as a 576x576 1100W for a Green 16RU populated as a 288x288 700W for a Green 10RU populated as a 180x180
Redundancy:	Separate 1RU frame with up to 4 PS modules for 1:1 redundancy available

Ordering Information

EQX Ordering Information for Base EQX packages

EQX10G-18X18-3G — 18 input, 18 output 3G/HD/SDI/ASI/IP Video Router with potential for 6-Xlink, 1 Frame controller, 1 Crosspoint board includes I/O with power & noise reduction

EQX10G-18X18-3G-XLINK — 18 input, 18 output 3G/HD/SDI/ASI/IP Video Router with potential for 15-Xlink, 1 Frame controller, 1 Crosspoint board includes I/O with power & noise reduction

EQX10G-18X18H — 18 input, 18 output HD/SDI/ASI/IP Video Router with potential for 6-Xlink, 1 Frame controller, 1 Crosspoint board includes I/O with power & noise reduction

EQX10G-18X18H-XLINK — 18 input, 18 output HD/SDI/ASI/IP Video Router with potential for 15-Xlink, 1 Frame controller, 1 Crosspoint board includes I/O with power & noise reduction

EQX16G-18X18-3G — 18 input, 18 output 3G/HD/SDI/ASI Video Router, 1 Frame controller, 1 Crosspoint board includes I/O with power & noise reduction

EQX16G-18X18-3G-F1 — 18 input, 18 output 3G/HD/SDI/ASI Video Router, 1 Frame controller, 1 Crosspoint board includes I/O with Fiber SFPs power & noise reduction

EQX16G-18X18-3G-XLINK — 18 input, 18 output 3G/HD/SDI/ASI Video Router with Xlink, 1 Frame controller, 1 Crosspoint board includes I/O with power & noise reduction

EQX16G-18X18H — 18 input, 18 output HD/SDI/ASI Video Router, 1 Frame controller, 1 Crosspoint board includes I/O with single power & noise reduction

EQX16G-18X18H-XLINK — 18 input, 18 output HD/SDI/ASI Video Router with Xlink, 1 Frame controller, 1 Crosspoint board includes I/O with power & noise reduction

EQX26G-18X18-3G — 18 input, 18 output 3G/HD/SDI/ASI Video Router, 1 Frame controller, 1 Crosspoint board includes I/O with power & noise reduction

EQX26G-18X18H — 18 input, 18 output HD/SDI/ASI Video Router, 1 Frame controller, 1 Crosspoint board includes I/O with power & noise reduction

EQX Ordering Options

EQX-PS	Additional Power Supply Module
EQX-PS-FR-B	1RU Frame for Power Supply Modules (holds up to 4 EQX-PS modules)
EQX-FC	Frame Controller Module
EQX-XPTG-576x576	Green Crosspoint Module
EQX-XPTG-576x288	Green Crosspoint Module
EQX10-XPTG-180x288	Green Crosspoint Module, made compact for the EQX10
EQX-GX-OP18H	18 Output HD/SDI/ASI Module
EQX-GX-OP18-3G	18 Output 3G/HD/SDI/ASI Module
EQX-IP18FSAD-3G	18 Input Frame Sync and Audio de-embed Module
EQX-IP18-IPG	18 Input IP Video Gateway module (Frame Sync and Audio de -embed Module)

More ordering option are available please contact the factory

For Hybrid SVDN options, Fiber Optic options, and for sizes greater than 576x576, please contact factory

SDVN™

Software Defined
Video Networking

PHASE®

evertz

www.evertz.com

Overview

Evertz is leading the IP Revolution with its Software Defined Video Network (SDVN™) solution for the new media and broadcast industries. SDVN is an exciting new architecture developed around a 10/100GE core. SDVN offers broadcasters, content distributors and providers a flexible, format agnostic and scalable infrastructure for SD, HD, and Ultra HD (4K and 8K) video.

Evertz broad range of SDVN™ products includes the EXE and IPX 10/100GE high capacity switch fabrics, a series of Media/Video/Audio Gateway devices, the DreamCatcher 10GE enabled instant replay system and the VIP10G multi-image display processor. SDVN™ is powered by MAGNUM, Evertz' award winning control system, which enables operators to use the same familiar work surfaces while taking advantage of video over IP.

Through its intelligent utilization of extreme bandwidth switching, the SDVN solution allows media organizations to harness the true potential of a 10/100GE IP-Ethernet network. Evertz' SDVN™ solution provides unprecedented scalability, highly efficient workflows, and a reduction in capital and operational costs.

Key Features

Software Defined Network
Leading the IP Revolution
Evertz utilizes an SDN architecture which provides all the flexibility of a network based solution with all the reliability of baseband video routing.

10/100 Gigabit Ethernet
Scalable Architecture
SDVN™ takes full advantage of 10/100 Gigabit Ethernet, with unprecedented scalability.

Orchestration & Control
Flexible Reliable Control
SDVN™ can be controlled from virtually any surface, offering a variety of options from hardware control panels to third party touch surfaces.

Deterministic Routing
Simple SRC to DST Philosophy
SDVN™ is powered by Evertz' MAGNUM unified control system which takes the most complex configuration and makes it very easy to use.

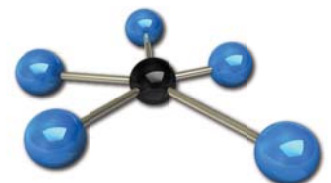## Format Agnostic
Compressed & Uncompressed
The unique scalable architecture of SDVN™ allows for any resolution and format to be routed and visualized.

8K UHD
4K UHD
HDTV

Pooled Resources
Quick & Efficient Deployment
SDVN™ allows resources to be shared more efficiently thereby reducing the overall cost of ownership in projects.

Orchestration & Management

MAGNUM

Evertz' MAGNUM unified facility control system is at the orchestration and control layer of the SDVN™ solution. MAGNUM manages the signal flow of video, audio and data packets over a network consisting of Evertz 10/100GE EXE and 3080IPX switch fabrics, a series of IP media gateways including 570IPG and 3000REM, and Evertz traditional SDI products such as EQX and 7812 series.

MAGNUM gives the operator full control over the switching and routing of signal flows. MAGNUM bridges the control between legacy SDI and next generation IP systems to provide seamless control across all platforms. Leveraging existing physical router control surfaces and/or VUE (Evertz customizable control interface), MAGNUM enables operators to interact with SDI/IP hybrid infrastructures or exclusively IP solutions to execute the source to destination operations performed in traditional baseband environments. MAGNUM is truly the heart and brains of Evertz SDVN™ solution.
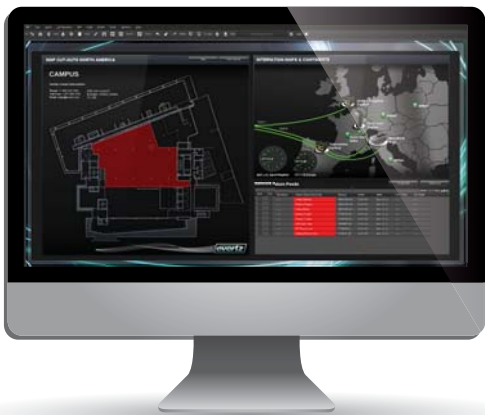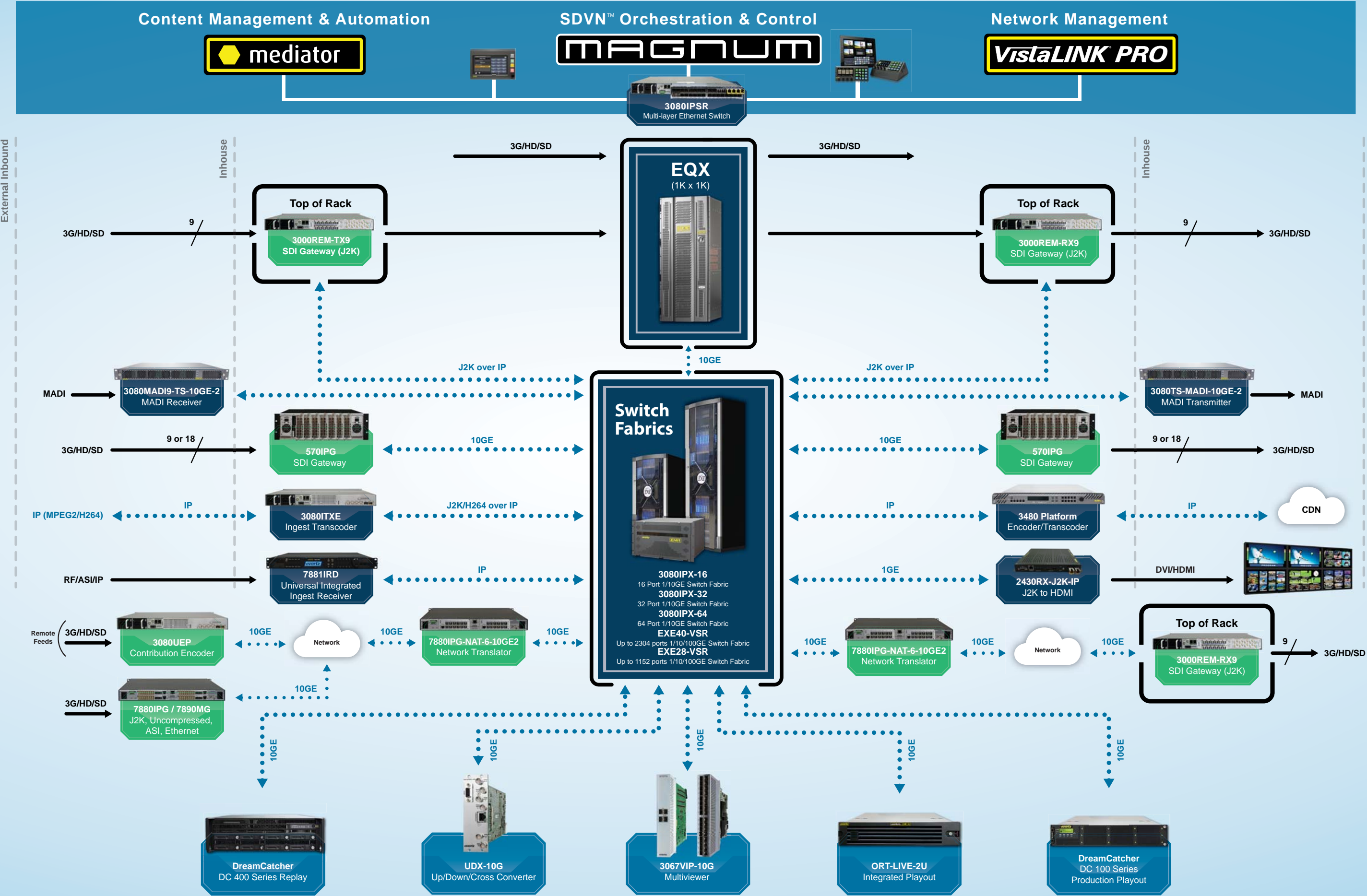
VistaLINK PRO
SNMP MONITORING & CONTROL SOFTWARE

All of the SDVN™ hardware elements are SNMP enabled and monitored through Evertz VistaLINK® SNMP networked monitoring software. VistaLINK® is an enterprise grade SNMP management solution that monitors, controls and automatically analyzes failures in the system. VistaLINK® PRO's graphical web client allows for intuitive visualization of a system with intuitive fault notification. The SDVN™ components report their status to VistaLINK® PRO where from a single workstation the health of the entire system can be monitored and observed.

ASPEN

ASPEN (Adaptive Sample Picture ENcapsulation) was developed to meet the real world requirements of an IP-centric facility while leveraging proven MPEG2-TS standards. ASPEN offers a robust format for encapsulating uncompressed Ultra HD/3G/HD/SD over MPEG-2 transport streams (TS). When combined with existing SMPTE standards such as SMPTE ST 302 (audio over TS), SMPTE ST 2038 (ancillary data over TS) and the SMPTE 2022 family of IP standards, ASPEN provides broadcasters with a framework for transporting video, audio, and data over scalable IP networks. Ultra low latency with independent video, audio and ancillary data flows also makes ASPEN ideal for use in production environments and work flows. ASPEN is an open framework that has been submitted to SMPTE and is being supported by a number of vendors.

SYSTEM DIAGRAM

Content Management & Automation

mediator

SDVN™ Orchestration & Control

MAGNUM

Network Management

VistaLINK PRO

3080IPSR
Multi-layer Ethernet Switch

External Inbound | Inhouse | Inhouse | External Outbound

EQX
(1K x 1K)

3G/HD/SD → EQX → 3G/HD/SD

Top of Rack

3000REM-TX9
SDI Gateway (J2K)

3G/HD/SD 9

Top of Rack

3000REM-RX9
SDI Gateway (J2K)

9 3G/HD/SD

10GE

Switch Fabrics

J2K over IP

J2K over IP

3080MADI9-TS-10GE-2
MADI Receiver

MADI

3080TS-MADI-10GE-2
MADI Transmitter

MADI

570IPG
SDI Gateway

3G/HD/SD 9 or 18

10GE

570IPG
SDI Gateway

10GE

9 or 18 3G/HD/SD

3080ITXE
Ingest Transcoder

J2K/H264 over IP

IP (MPEG2/H264) IP

3480 Platform
Encoder/Transcoder

IP

IP

CDN

7881IRD
Universal Integrated
Ingest Receiver

RF/ASI/IP IP

IP

2430RX-J2K-IP
J2K to HDMI

1GE

DVI/HDMI

3080IPX-16
16 Port 1/10GE Switch Fabric
3080IPX-32
32 Port 1/10GE Switch Fabric
3080IPX-64
64 Port 1/10GE Switch Fabric
EXE40-VSR
Up to 2304 ports 1/10/100GE Switch Fabric
EXE28-VSR
Up to 1152 ports 1/10/100GE Switch Fabric

3080UEP
Contribution Encoder

Remote Feeds 3G/HD/SD

10GE

Network

10GE

7880IPG-NAT-6-10GE2
Network Translator

10GE

10GE

7880IPG-NAT-6-10GE2
Network Translator

10GE

Network

10GE

Top of Rack

3000REM-RX9
SDI Gateway (J2K)

9 3G/HD/SD

7880IPG / 7890MG
J2K, Uncompressed,
ASI, Ethernet

3G/HD/SD

10GE

10GE | 10GE | 10GE | 10GE | 10GE | 10GE

DreamCatcher
DC 400 Series Replay

UDX-10G
Up/Down/Cross Converter

3067VIP-10G
Multiviewer

ORT-LIVE-2U
Integrated Playout

DreamCatcher
DC 100 Series
Production Playout

High Capacity Switch Fabrics

EXE40-VSR / EXE28-VSR

The EXE provides unmatched flexibility and scalability for video transport over IP. The EXE40-VSR features up to 46Tb/s of switching capacity and supports 2304 10GE ports in a single 40RU chassis. Using SMPTE 2022-6 and/or ASPEN, the EXE non-blocking switch fabric supports up to 13,800 uncompressed HD-SDI signals. When compression technology (JPEG2000, H.264, or MPEG-2) is utilized, the number of video streams can reach in the millions. The EXE28-VSR features over 23Tb/s of switching capacity and 1152 ports of 10GE signal processing in a single 28RU chassis.

3080IPX-64/32/16-10G

The 3080IPX is built with 1/10GE ports and offers 16, 32 and 64 port options from 320Gb/s to 1.2Tb/s bandwidth configurations. It performs low latency fast switching which makes it an ideal solution for video environments.

Video IP Gateways

570IPG

With direct conversion of up to 18 3G/HD/SD signals to IP, using SMPTE 2022-6 or ASPEN formatting, the 570IPG-3G18-SFPP12 series delivers unparalleled processing densities. The 570IPG also supports up to 2 audio TDM ports for carrying discrete audio over IP in addition to the primary video.

Video/Media IP Gateway

7880IPG8-10GE2

The 7880IPG8-10GE2 is the optimal Media Gateway video interface access card for video transport applications. With direct conversion of up to 6 signals to direct mezzanine compression via JPEG2000, the 7880IPG8-10GE2 series delivers unparalleled processing densities. 7880IPG8-10GE2 port 7 & 8 also support up to 2 dedicated signal paths which could carry ASI.

Multi-Layer Ethernet Switch

3080IPSR

The 3080IPSR is a hybrid layer 2 / layer 3 Ethernet switch that facilitates control and file based workflows. It can be used for building IP device management LANs or deployed alongside other packet based Evertz products, in context of multimedia delivery applications.

IP to HDMI

2430RX2-J2K-IP

The 2430RX-J2K-IP is a versatile video over IP to HDMI/DVI gateway. This self contained module accepts up to two JPEG2000 over IP streaming inputs. It decodes, processes, color corrects and converts the output to a DVI / HDMI signal. With integrated auto scaling the 2430RX-J2K-IP device can drive resolutions up to WUXGA (1920x1200).

Multiviewer

3067VIP10G-J2K-HW / 3067VIP10G-3G-HW

The new VIP-10G Advanced Multi-Image Display Processors offer multiviewer functionality with up to 32 inputs and up to 2 outputs, all via 10GE. The 3067VIP10G series displays inputs at any size, aspect ratio and position. The 3067VIP10G supports JPEG2000 (-J2k version) and SMPTE 2022-6/ASPEN (-3G version).

Software Defined Accelerated Encoding / Transcoding Platform

3480TXE Series

Evertz' 3480TXE is a high quality video processing system that provides video and audio encoding/transcoding for both file workflows as well as live streaming to various media platforms. The platform's flexible architecture utilizes both software and hardware acceleration to allow for superior video quality and density, while maintaining flexibility.

Audio IP Gateways

7890AESM-8-IP / 7890AESD-8-IP

The 7890AESM-8-IP/7890AESD-8-IP provide eight input/output ports that transport balanced / unbalanced AES signals over dual Gigabit Ethernet trunks. These modules facilitate connection to redundant IP trunks and provide automatic switching between a pair of IP links.

3080MADI9-TS-10GE-2, 3080TS-MADI9-10GE-2

The 3080MADI9-TS-10GE-2, 3080TS-MADI9-10GE-2 form the optimal MADI interface access points for next generation Hybrid Baseband / IP broadcast infrastructures. Features direct easy to follow mapping of 9 MADI signals to/from 144 TS output streams over 10GE.

Media IP Gateways

7890MG-10GE2

The 7890MG-10GE2 provides up to 10 input and output interfaces which can be auto sensed as ASI/SD/HD/3G/1GE. To meet SLA requirements, each interface port can also provide automatic, hitless switching between the dual links. In the event of failure or errors of one link, continuity of service remains uninterrupted.

Universal Ingest Transcoding

3080iTXE

The 3080ITXE is built with modern hardware technology, leveraging experience in transport stream processing, MPEG and JPEG2000 codecs. The new modular Ingest Encoder supports 3G/HD/SD SDI or IP/ASI MPEG-2/H.264/JPEG2000 inputs which makes it an ideal component for building content ingest platforms for MSO, DTH, IPTV, Broadcast, Data Centers.

High Density Network Address Translator

7880IPG-NAT-6-10GE2

The 7880IPG-NAT-6-10GE2 is a high-density, multi-port, multi-flow hardware Network Address Translation (NAT) engine with enhanced features allowing service providers to seamlessly bridge across networks in multi-tenant environments. The 7880IPG-NAT-6-10GE2 is conceptually organized as 6 WAN-side ports + 6 LAN-side ports, with a packet processing core between each WAN-LAN pair.

Ordering Information

SDVN Orchestration & Control

MAGNUM-SDVN
Unified Facility Control

High Capacity Switch Fabrics

EXE40-VSR
46Tb/s EXE Video Service Routing Platform

EXE28-VSR
23Tb/s EXE Video Service Routing Platform

3080IPX-16-10G
Integrated Switching Fabric, 16 10GE port with 600Gb/s fabric bandwidth

3080IPX-32-10G
Integrated Switching Fabric, 32 10GE port with 600Gb/s fabric bandwidth

3080IPX-64-10G
Integrated Switching Fabric, 64 10GE port with 1.5Tb/s fabric bandwidth

Ethernet Switch

3080IPSR
Multi-layer Ethernet Switch

Audio IP Gateways

7890AESM-8-IP
Eight Channel AES Encapsulating IP Gateway

7890AESD-8-IP
Eight Channel AES De-Encapsulating IP Gateway

7820IPG-MADI
Dual Channel MADI from TS and dual MADI to TS Adapter

3080MADI9-TS-10GE-2
Hybrid Baseband/Ethernet Infrastructure – Top of Rack MADI Interface module

3080TS-MADI9-10GE-2
Hybrid Baseband/Ethernet Infrastructure – Top of Rack MADI Interface module

Media IP Gateways

3080IPG-ASI16-IPGE
IP En/De-Capsulator with 16 ASI I/O and 4x SFP 1GE

3080IPG-ASI24-IPGE
IP En/De-Capsulator with 24 ASI I/O and 4x SFP 1GE

3080IPG-ASI32-IPGE
IP En/De-Capsulator with 32 ASI I/O and 4x SFP 1GE

7890MG-10GE2
Universal Media over IP Gateway for up-to 10x Bidirectional ASI/SD/HD/3G/GbE

7880IP-ASI-IP
ASI/SDI IP Encapsulator

7880IPG8-10GE2
Hybrid Baseband/Ethernet Infrastructure – Media Gateway

Video IP Gateways

570IPG-3G18-SFPP12
18 3G/HD/SD IP Media Gateway

EQX-IP18-IPG
EQX Input and IP Gateway Module

EQX-OP18-IPG
EQX Output and IP Gateway Module

7880IPG8-10GE2
Hybrid Baseband/Ethernet Infrastructure – Media Gateway

Network Address Translation

7880IPG-NAT-6-10GE2
High Density Network Address Translator

Multiviewer

3067VIP10G-J2K-HW
10GE JPEG2000 Multi-Image Display Processor Hardware

3067VIP10G-3G-HW
10GE Multi-Image Display Processor Hardware

Monitoring

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

TSMIP-10GE-2RU
IP Transport Stream Monitor

IP to HDMI

2430RX-J2K-IP
Dual JPEG2000 to HDMI Converter

2430RX2-10G
SMPTE 2022-6 / ASPEN to HDMI Converter

Remote Interfacing

3000REM-TX9-10GE2
9 Baseband Input REMote Hybrid Interface Processing Module

3000REM-RX9-10GE2
9 Baseband Output REMote Hybrid Interface Processing Module

Universal Ingest Transcoding

3080ITXE-HW-P60-UDC
Multiformat Integrated Trancoding Encoder

IP Playout

OVRT-LIVE-2U
Integrated Playout Engine with IP input/output

Main & Multi-Screen Transcoding & Compression

3480TXE
Software Defined Accelerated Transcoding Platform

3480MXPA-FRG
Multiscreen Bulk Packager, Integrated Transcoder Packager

7880SLKE-H264HD
HD/SD-SDI StreamLINK™ H.264/AVC Encoder

Contribution Encoding

7880IPG8-10GE2
Hybrid Baseband/Ethernet Infrastructure – Media Gateway

7882ENC-H264HD-IPASI
Professional HD/SD-SDI H.264 and MPEG-2 Encoding Platform

3480TXE
Software Defined Accelerated Encoding Platform

3080UEP
OUTBOUND Contribution Universal Encoding Platform

5782ENC-H264HD-IPASI
Professional Contribution H.264 and MPEG-2 Encoder

IP Clean Switch

7880R2x1-IP-CS
MPEG TS over IP Clean Switch Module with Single Clean Switch

Network Management System

VistaLINK Enterprise NMS
Network Management System for Enterprise

Content Management and Automation

Mediator
Content Management and Workflow Platform

Production Playout and Replay

DC-400
DreamCatcher Live Production Replay System

DC-100
DreamCatcher Content Playout

For product ordering information please contact the appropriate sales office listed below

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