

*The only routing solution  
for mission critical applications.*



**HIGH DENSITY ROUTING PLATFORM**



## The Only Routing Solution for Mission Critical Applications

The EQX platform is Evertz® flagship routing & 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.

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### 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, DVB-ASI and SMPTE310 digital video formats, as well as optical formats and other high data rate signals. In addition, the EQX supports four independent timing planes which provides independent SMPTE compliant switching for up to four different digital video signal formats.

#### Optical Routing

The EQX Router can accept optical signals at any data rate between 3Mb/s and 3Gb/s. Whether its SMPTE259M or 292M compliant signals over fiber, or proprietary optical signals such as Evertz's 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.

#### 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.

#### System Flexibility

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

#### Internal Splitting & Combining

Utilizing internal passive splitting technology the EQX can offer passive looping inputs that remain SMPTE compliant, while offering the flexibility to choose which cards will have looping and which will not. Utilizing the passive input splitting as well as passive output combining the EQX offers the ability to scale up to 1152x1152 without requiring complex, expensive and difficult to install and maintain external splitting and combining or active DAing of sources and switching of destinations.

#### High Density

With a full 576x576, or 576x864 using Double Density outputs available in 26RU and 288x288 or 288x576 using Double Density outputs available in 16RU the EQX is a very compact solution, perfect for trucks, mobile applications, or areas where space is a concern.

#### Multiview Processor Integration

The EQX now integrates X-Link on both 16 and 26RU models. X-Link is a high density interconnect to a wide variety of Evertz® Multiview Processors that DOES NOT use up standard router outputs. A 576x576 EQX will still have the full 576 outputs while supporting more than 200 additional outputs to a Multiview Processor. XLink technology is a unique Evertz® signal interconnect carrying a large block of signals over a single connector.

#### Audio Routing

The EQX supports the ability to DE-embed AES from any input signal deliver it as discrete AES, Analog Audio, MADI, or to be recombined with other AES channels, Analog inputs, Discrete AES inputs and RE-embedded on any output video. Any type of input: Embedded AES, Discrete AES, Analog to any type of output: Embedded AES, Discrete AES, Analog.

#### Comprehensive Control

The EQX provides comprehensive connectivity to suit 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. The optional advanced EQX control system makes enterprise installations with advanced tie-lines, automated pathfinding, and advanced control surfaces easy to implement and manage.

#### 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.

#### 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.

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### 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 cross-point 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.



## Key Features

### High Performance Format Agnostic Platform

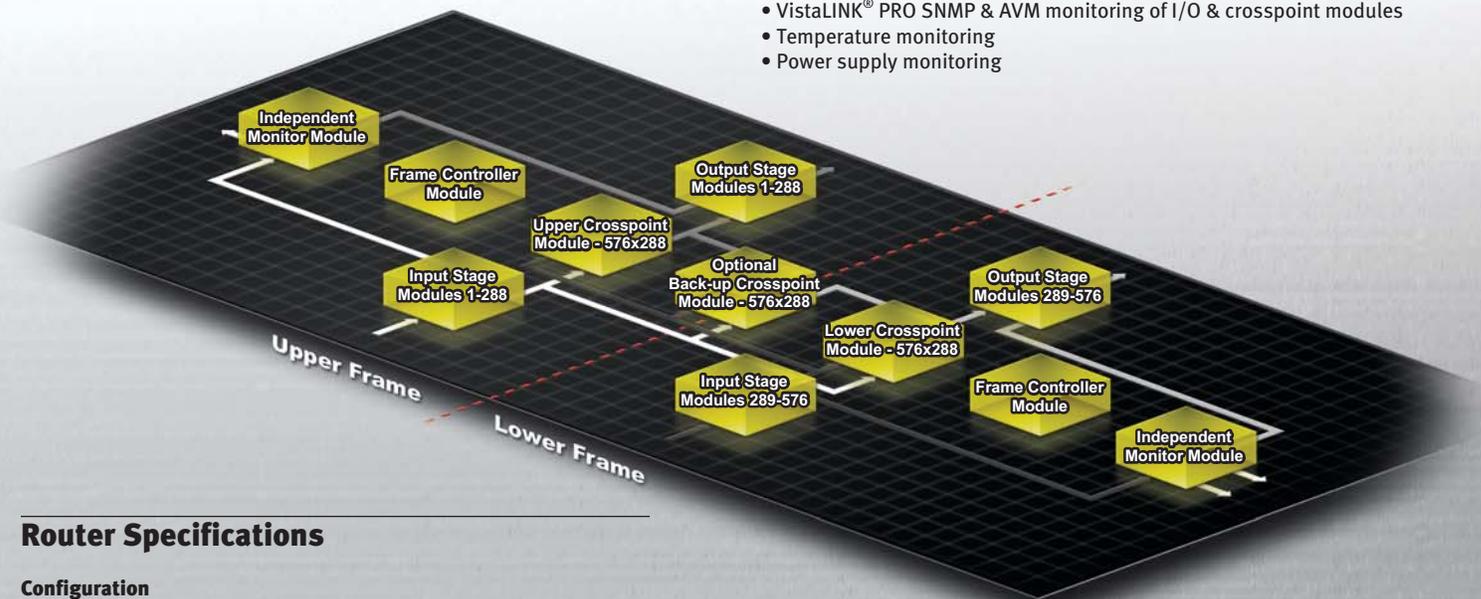
- SD-SDI, HD-SDI, DVB-ASI, SMPTE 310M and more!
- Any fiber optical signals from 3Mb/s up to 3Gb/s
- Scalable to 576x864 in a single 26RU frame
- Scalable to 288x576 in a single 16RU frame
- Input & output expansion in steps of 18
- Up to 1152x1152 in multiple frames
- Source-by-source intelligent auto-configuration:
  - Input equalization (On/Off)
  - Output reclocking (On/Off)
  - ASI Mode (On/Off)
  - Switch Point (Variable)

### Advanced System Control & Interfacing

- Supports the full range of Quartz remote control panels
- Full VistaLINK® PRO command & control, SNMP & AVM
- Full integration with 3rd party automation systems
- Supports a wide selection of control protocols
- Ethernet, Serial RS422/232, 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
- Redundant crosspoint
- 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



## Router Specifications

### Configuration

- 576x576 (864 available) in 26RU
  - PSU separate 1RU
- 288x288 (576 available) in 16RU
  - PSU separate 1RU
- Inputs & Outputs Selectable in blocks of 18

### Redundant Protection

- Redundant Crosspoint
- Redundant Frame Controller
- Redundant Power Supply
- Redundant Cooling Fans

### Video Inputs

- Formats SMPTE 259M, 292M, 310M, 424M, ASI
- Optical Formats SMPTE 292M, GLINK, any optical signal between 3Mb/s and 3Gb/s
- Signal Level 800mV p-p
- Impedance 75Ω terminating
- Return Loss > 15db typical (5-1500 MHz) / > 10db typical (1.5-3GHz)
- Cable Equalization Belden 1694 @ 270MHz 300m  
Belden 1694 @ 1.5GHz 100m
- Connectors BNC

### Video Outputs

- Signals Supported SMPTE 259M, 292M, 310M, 424M, ASI
- Reclocking Configurable
- Non-reclocking Configurable
- Impedance 75Ω 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

### Reference Timing

- Switching Reference Connector 2 BNC
- Signal Level 1V p-p ±3dB
- Impedance 75Ω terminating (active loop out optional)
- Reference Timing 4 independent timing planes, programmable output by output

### Control

- Q-Link 4 X 75Ω video cable (maximum length 500m)
- F-Link 2 X RJ45
- Serial Rs422/232 2 X D9 female
- Ethernet 10/100baseT, 2 X RJ45

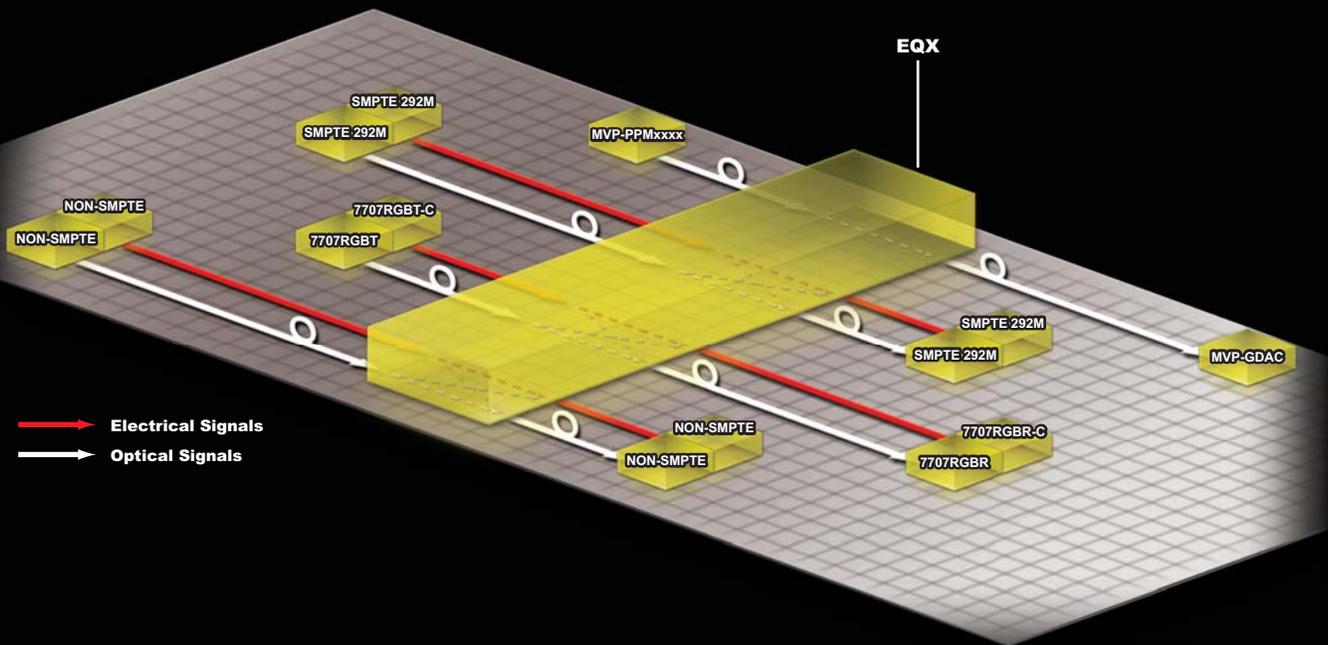
### Physical

- Height 45.5" (115.5cm), 26RU / 28" (49cm), 16RU
- 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
  - 3000W for fully loaded 576x576 configuration
  - 1500W for fully loaded 288x288 configuration
- Redundancy Separate 1RU frame with up to 4 PS modules for 1:1 redundancy available

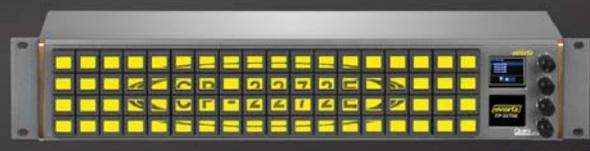
## Optical Routing with the EQX



## Advanced System Control



CP-2200E



CP-2272E

- Unlimited tielines
- Unlimited destinations
- Unlimited sources
- Unlimited pathfinding
- MVP/VIP/VIPX control
- SNMP terminal gear control

## EQX Ordering Information

<b>EQX26-18X18S</b>	18 input, 18 output SDI/ASI Video Router with single power supply
<b>EQX26-18X18H</b>	18 input, 18 output HD/SDI/ASI Video Router with single power supply
<b>EQX26-18X18-3G</b>	18 input, 18 output 3G/HD/SDI/ASI Video Router with single power supply
<b>EQX26-18X36-3G-F</b>	18 input, 36 output 3G/HD/SDI/ASI Video Router with Fiber I/O and single power supply
<b>EQX16-18X18S</b>	18 input, 18 output SDI/ASI Video Router with single power supply
<b>EQX16-18X18H</b>	18 input, 18 output HD/SDI/ASI Video Router with single power supply
<b>EQX16-18X18-3G</b>	18 input, 18 output 3G/HD/SDI/ASI Video Router with single power supply
<b>EQX16-18X36-3G-F</b>	18 input, 36 output 3G/HD/SDI/ASI Video Router with Fiber I/O and single power supply

## EQX Ordering Options

*to expand 26RU up to 576x576, 16RU up to 288x288*

<b>EQX-PS</b>	Additional Power Supply Module
<b>EQX-PS-FR</b>	1RU Frame for Power Supply Modules (holds up to 4 EQX-PS modules)
<b>EQX-FC</b>	Redundant Controller Module
<b>EQX-XPT-576x288</b>	Redundant Crosspoint Module
<b>EQX-XPT-288x288</b>	Redundant Crosspoint Module
<b>EQX-IP18S</b>	18 Input SDI/ASI Module
<b>EQX-IP18H</b>	18 Input HD/SDI/ASI Module
<b>EQX-IP18-3G</b>	18 Input 3G/HD/SDI/ASI Module
<b>EQX-OP18S</b>	18 Output SDI/ASI Module
<b>EQX-OP18H</b>	18 Output HD/SDI/ASI Module
<b>EQX-OP18-3G</b>	18 Output 3G/HD/SDI/ASI Module

**For Fiber Optic options, please contact factory**  
**For sizes greater than 576x576, please contact factory**



[www.evertz.com](http://www.evertz.com) • 1.877.995.3700

US & International Sales  
905.335.3700  
sales@evertz.com

US West Coast Sales  
818.558.3910  
LAsales@evertz.com

New York Sales  
newyorksales@evertz.com

Asia Pacific Sales  
asiapacificsales@evertz.com

Washington DC Sales  
703.330.8600  
dcsales@evertz.com

UK Sales  
011 44 118 935 0200  
uksales@evertz.com