PHASE®

EQX SD HD 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

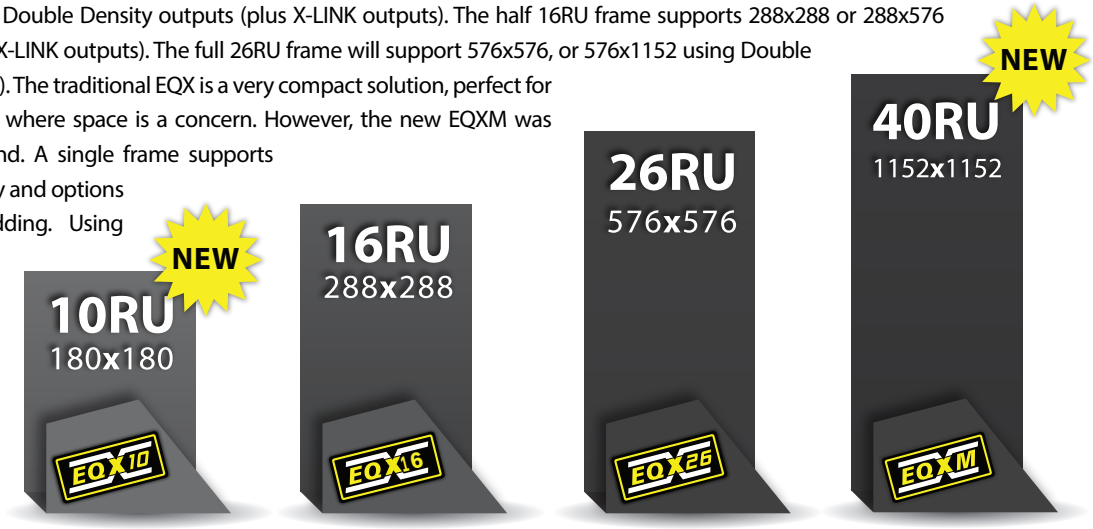
- MAGNUM Unified Control System
- VUE user interface
- CP-2232/2116 Advanced Control Panels
- Supports the full range of Quartz remote control panels
- Full VistaLINK® PRO command & control, SNMP & AVM
- Ethernet, Serial RS-422/232, F-Link and Q-Link port

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.



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

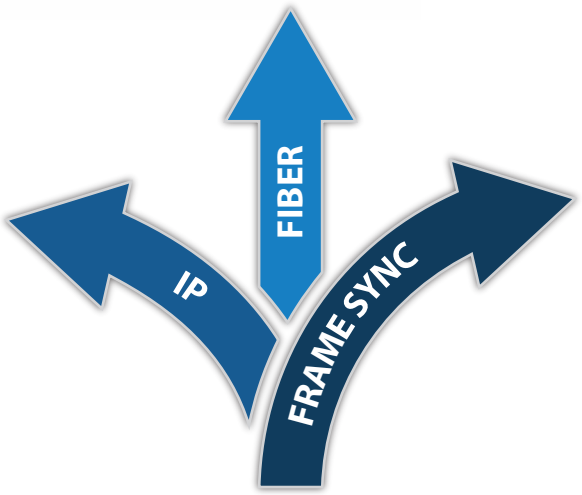
With the Flexibility of the EQX frame where all I/O and XPT active parts are modular and hot swappable from the front of the router we have been able to take advantage of new technology that allows for reduced power consumption and heat dissipation in the input, output and XPT module. This provides a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

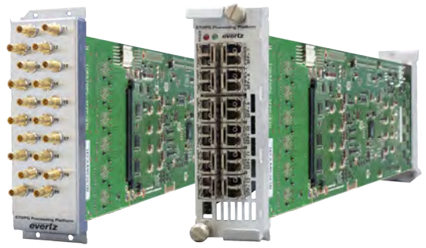
The EQX integrates X-LINK on the 10, 16 and 26RU models. X-LINK is a high density interconnection used on a wide variety of Evertz® Multiviewer processors that DOES NOT use up standard router outputs. A 576x576 EQX will still have the full 576 outputs while supporting more than 500 additional outputs 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.

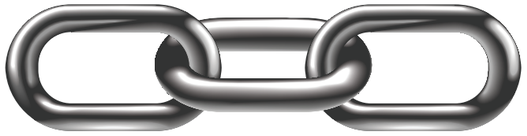


Hybrid IP Routing SDVN

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.

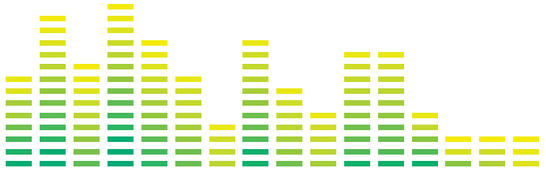


Outstanding Redundant Protection

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.

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.

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.

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.

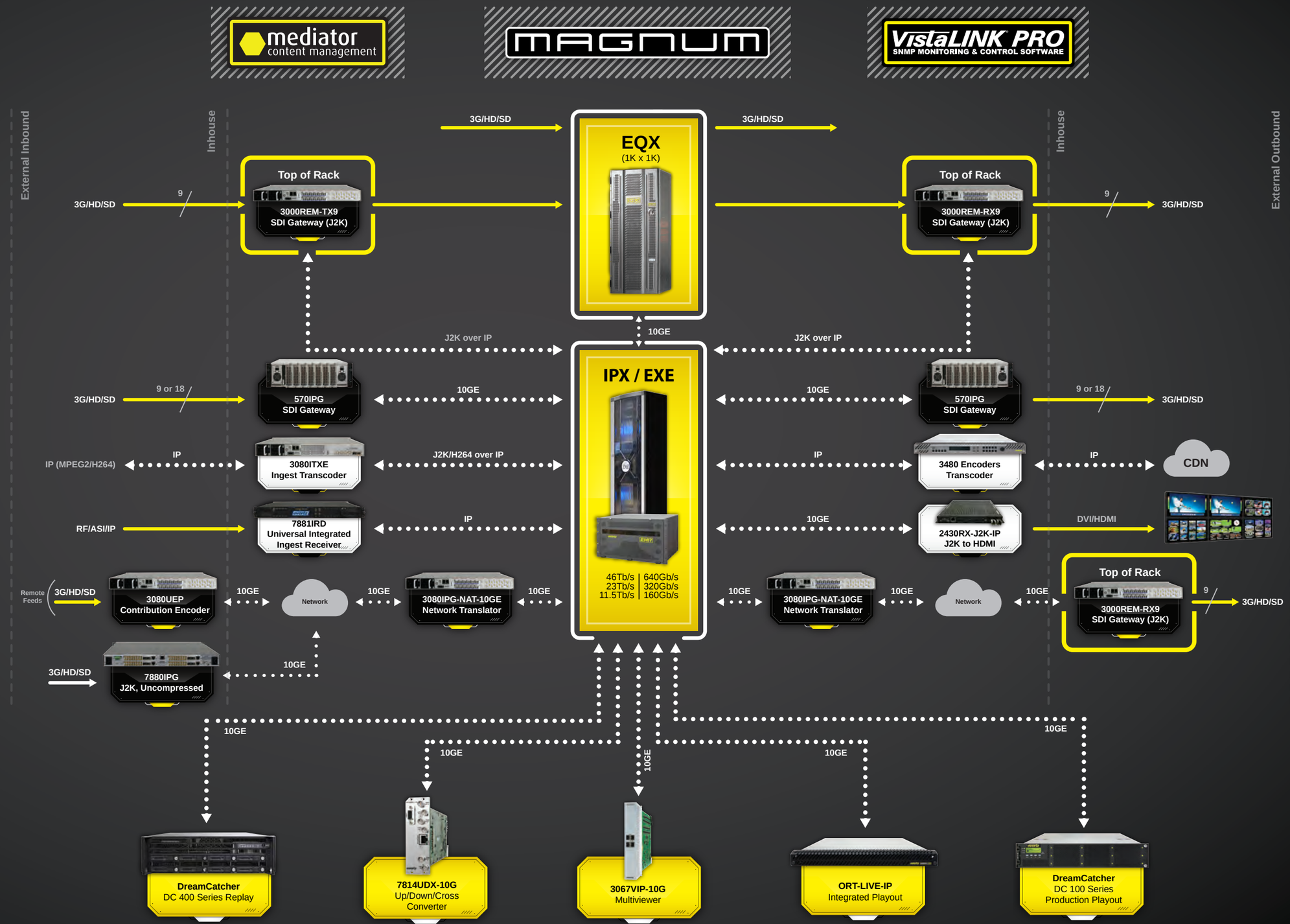
SDI/10GE Hybrid Infrastructure

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



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

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XRF series

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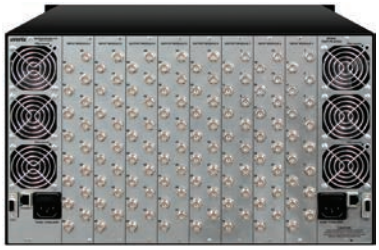
Designed for mission-critical applications, the XRF Series RF routers act as the heart of any RF infrastructure, allowing flexible routing, control and monitoring of RF signals. Industry leading form-factor, performance and reliability are combined with advanced monitoring & control. With years of rock-solid performance at premier installations worldwide, the Evertz® XRF Series is the industry's most field-proven high-density RF router platform, asserting a proud track record of reliability.

XRF6 Modular RF Router



The XRF6 is a modular RF router for systems ranging in size from 16x16 to 64x64 in a single 6RU frame. Expansion within the frame is in increments of 16 inputs or outputs. For matrix sizes up to 512x512, multiple frames and SRF Series external passive splitters and combiners are used. This scalable architecture allows systems to meet any immediate requirements, with the ability to expand in the future as capacity needs grow.

A design focused on reliability is further enhanced by redundant controllers and power supplies. These, as well as all other active components, are front-accessible and hot-swappable. This modular design also allows for simple, in-service system expansion to meet future capacity needs.

XRF6 Features

- *Future-proof with 40-2250MHz operation for 70/140MHz IF, extended L-Band and off-air DTV - all in one platform*
- *Highest density in the industry conserving rack space: 64x64 in 6RU*
- *High isolation (> 70dB IN/IN, OUT/OUT, > 60dB IN/OUT)*
- *All active components are hot-swappable and front accessible for low MTTR and easy expansion*
- *Redundant power supplies and controllers ensure uninterrupted power and control of the router*
- *RF power metering on all input channels with adjustable SNMP alarm levels*
- *Non-blocking, full fan-out architecture allowing multipoint distribution*
- *Extensive control capabilities over each input signal including gain, attenuation and AGC level adjustment*
- *Configuration, monitoring & alarm reporting via SNMP/VistaLINK®, Evertz® Advanced Control Panels, MAGNUM, and RS-232/RS-422 or 3rd party software*

XRF1A 8x8 and 16x16 RF Routers

Available in 8x8 and 16x16 matrix sizes, the XRF1A is a feature-packed RF router in a compact 1RU package. Each input channel has individual adjustments for gain & attenuation, AGC mode and power monitoring alarm thresholds.

An optional built-in LNB power supply provides 13/17V DC, individually selectable on each input channel. An optional built-in control panel allows user-friendly control of all router functions, while an optional internal redundant power supply enhances reliability. XRF1A 16x16 expansion capability also allows square matrix sizes up to 32x32, or non-square to 16x64 or 64x16 using SRF Series external passive splitters & combiners.

XRF1 Features

- *Future-proof with 40-2250MHz operation for 70/140MHz IF, extended L-Band and off-air DTV - all in one product*
- *Highest density in the industry conserving rackspace: 16x16 in 1RU*
- *High isolation (> 70dB IN/IN, OUT/OUT, > 60dB IN/OUT)*
- *Optional built-in LNB power supply with selectable 13/17V DC*
- *RF power metering on all input channels with adjustable SNMP alarm levels*
- *Non-blocking, full fan-out architecture allowing multipoint distribution*
- *Extensive control capabilities over each input signal including gain, attenuation and AGC level adjustment*
- *Configuration, monitoring & alarm reporting via SNMP/VistaLINK®, Evertz® Advanced Control Panels, MAGNUM, and RS-232/RS-422 or 3rd party software*

2307LR Miniature Wideband/L-Band Fiber Receiver

The 2307LR is a miniature fiber optic receiver that connects to the inputs of the XRF6 or XRF1A. By making a connection with no intermediate coaxial cabling required, it effectively provides a direct optical input to the router. This eliminates the need for external fiber receivers and associated frames, saving cost and rack space.

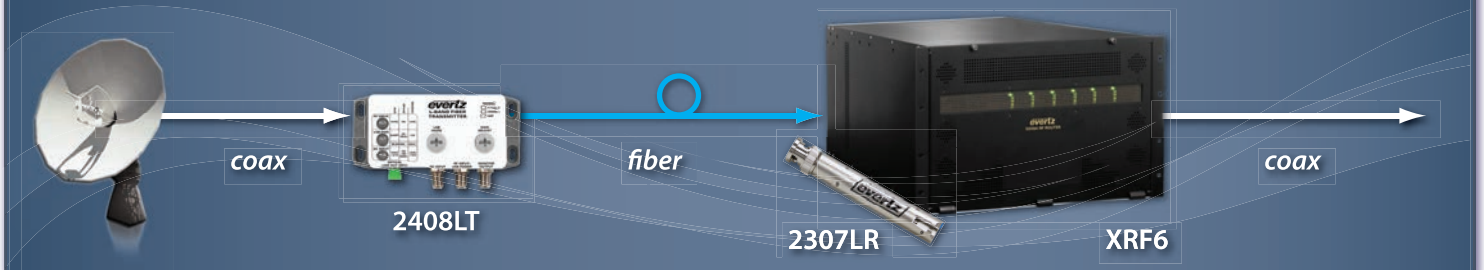
The 2307LR is powered at the RF connector, and may be used with the XRF1A with LNB power option, or with the XRF6 when equipped with the appropriate optional input cards.

2307LR Features

- *Connects to the inputs of XRF series routers, providing direct optical inputs*
- *Saves rack space and cost by not requiring external fiber receiver cards and associated frames*
- *The industry's smallest, most efficient and effective solution for optical RF infrastructures incorporating RF routers*
- *Optical power and SmartMON™ data monitoring are available when connected to XRF6 routers with appropriately equipped input cards*
- *Minimizes the use of coax between the LNB and router, maximizing signal quality*
- *Powered by the connector - no external cabling or power adapters required*
- *Compatible with all Evertz® 2408LT, 7706LT, 7807LT and 7708LT series L-Band/Wideband fiber transmitters*

2307LR Technology

The 2307LR is a complete fiber optic receiver for L-Band/Wideband signals in a revolutionary compact form-factor. Requiring no intermediate cabling, it connects directly to the inputs of appropriately equipped XRF1A or XRF6 routers. This saves cost and rack space while maximizing performance by reducing coaxial cable requirements. The 2307LR leverages the adjustable gain and AGC features of the XRF routers to provide signal level adjustment capabilities comparable to discrete card-based fiber receivers.



SRF Series Splitters/Combiners

The SRF Series splitters/combiners are used for creating multi-chassis XRF router systems. With an entirely passive design, they are a high-reliability system building block.

In comparison to utilizing active splitters and combiners for creating large router systems, the SRF Series does not negatively contribute to system MTBF or present a single point of failure along the signal path.

SRF Series Features

- *High reliability, completely passive design*
- *High isolation (> 55dB) between individual splitters*
- *Requires minimum rack space (e.g. 64 1x2 splitters/combiners are housed in 3RU)*
- *Shallow depth allows mounting directly behind router frames in deep racks, conserving vertical rack space*
- *Monitoring port (-20dB) on each input*

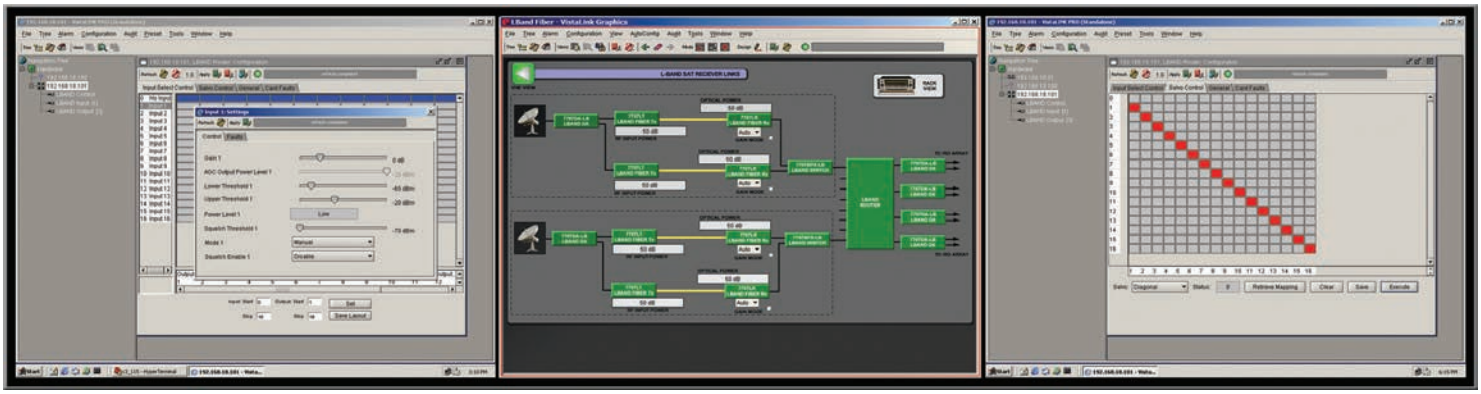
Advanced Control Panels

The CP-2116E and CP-2232E represent the most user friendly, capable and customizable control panels available. The panels are equipped with high resolution touch-screen displays, assignable dynamic LCD buttons and rotary controls which all work together intelligently, automatically updating as different operations are selected. Crosspoint changes are presented in an intuitive, user friendly manner with advanced search functions allowing for accurate, quick and easy changes. The accessibility of controls such as gain adjustment, and monitoring parameters such as input power level, are completely customizable. This allows optimization of the parameters presented to suit the requirements of the facility and its users. The control capabilities of the CP-2116E and CP-2232E go beyond Evertz XRF routers to include Evertz® broadcast routers, multiviewers and SNMP-enabled equipment, allowing a single powerful panel to control multiple devices in the signal chain.

The CP-2116E provides a single LCD touch screen and 16 LCD buttons. The CP-2232E provides dual LCD touch screens with 32 LCD buttons. Multiple panels may be connected to an XRF router system, allowing control at multiple points in a facility. Conversely, a single control panel may also be used to control multiple XRF routers.

VistaLINK® PRO SNMP NMS

The XRF Series of routers is fully SNMP enabled for monitoring and control via third-party SNMP packages or Evertz® own VistaLINK® PRO. The VistaLINK® PRO product suite unites all Evertz® SNMP-based products as well as third-party systems under a single control, configuration and monitoring platform.



VistaLINK® PRO-C software is provided free to users for unlimited configuration of the XRF routers and all other Evertz® VistaLINK®-capable products.

Alarm & event monitoring and notification are available with VistaLINK PRO®. Event logging allows time stamping of system events as well as acknowledgements and correction times. Comprehensive alarm management allows alarm definition and notification in the form of audible alerts and "smart" email notification.

The optional autoresponse/scheduler system allows the programming of the routers and other hardware changes to be triggered by incoming alarms or exceeded parameter thresholds. Routines and Boolean logic can be combined to create multifaceted automated logic response actions. These powerful functions can be used to enhance facility reliability by automatically performing actions in the event of hardware or signal failure, or to increase efficiency through the scheduling and automation of routine functions.

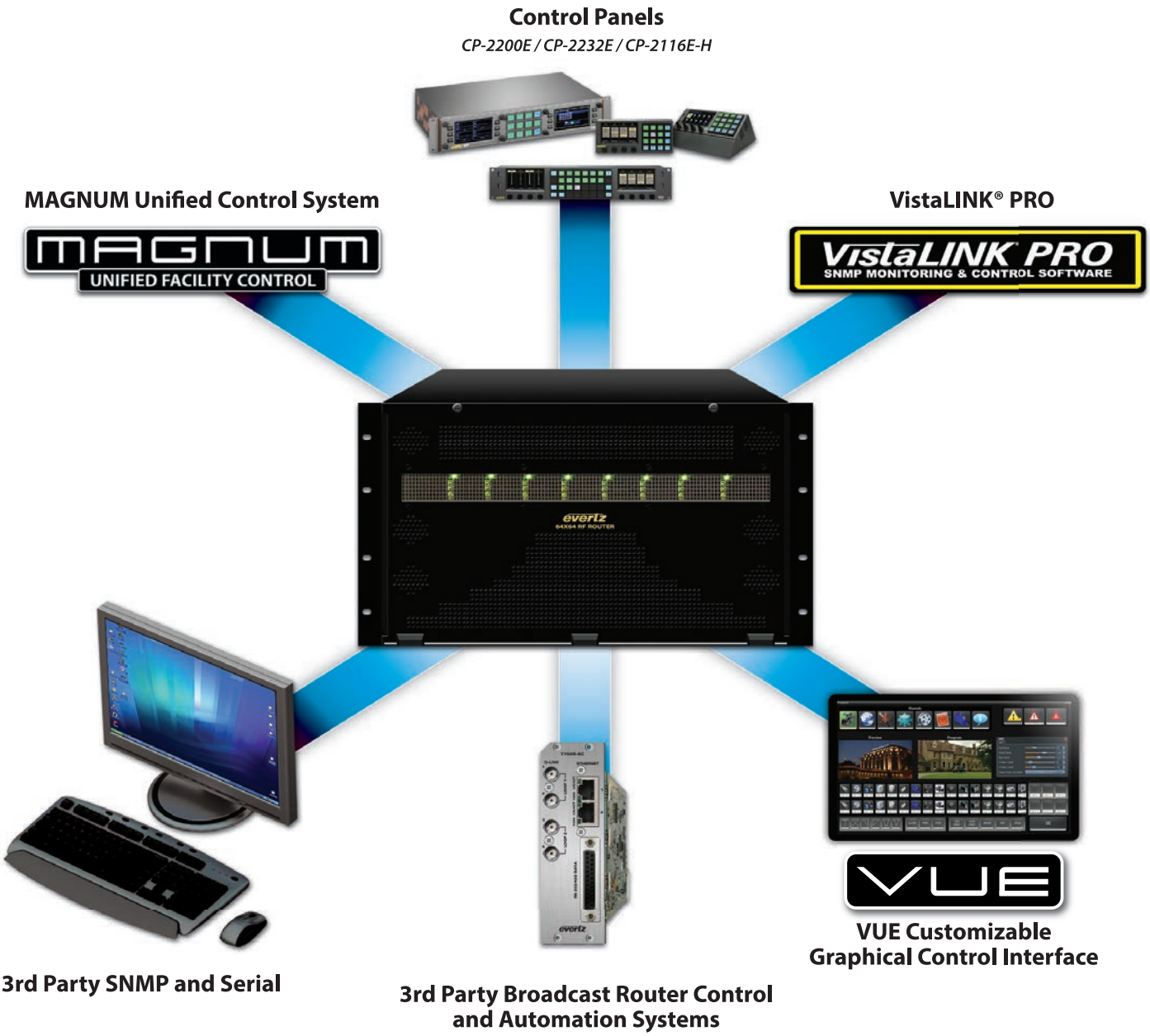
VistaLINK® PRO PLUS provides user configurable graphical or pictorial renditions of the facility. Global views with "drill down" capability facilitate intuitive and straightforward access to all SNMP equipment in the facility.

Unified and Third-Party Control Solutions

XRF Series routers have RS-232/RS-422 interfaces supporting multiple serial control protocols. The routers may also be controlled over Ethernet using TCP/IP or SNMP. Many third-party control systems provide support for both XRF1A and XRF6 series routers.

Evertz® also offers readily available options for interfacing to numerous third-party broadcast router protocols, including NVision, Pro-Bel, GVG, Philips and others. This provides the flexibility to bring XRF routers under the umbrella of existing or legacy broadcast router control and/or automation infrastructures – a powerful feature which is available only from Evertz®.

Evertz® also offers the MAGNUM Unified Control System for broadcast facilities. MAGNUM unifies the control and operation of the XRF router, video router, master control, production switcher, infrastructure and multi-viewer. MAGNUM bridges all the major components within the broadcast path under a single control point.



This approach allows administrators to simplify their facility and gain better efficiency from their operations and engineering while reducing costs. Workflow is simplified by grouping the facility into manageable pools of functionality and controlling the interaction between these pools.

Also available is VUE, which is a graphical control solution that unifies all connected devices under MAGNUM. Supporting technologies such as touch screens, single and multi-touch interfacing and widgets, VUE provides a highly efficient and effective control surface. VUE's completely customizable layout and modern, familiar interface work together to maximize the effectiveness of operators to efficiently control multiple facets of the facility using fewer operations.

XRF6 Router Specifications

System:

Matrix Sizes:	16x16 to 64x64 in a 6RU frame, 512x512 maximum expanded system size
System Expansion:	Inputs or outputs are expandable in increments of 16. Expansion beyond 64x64 is accomplished with additional frames and external SRF series splitters/combiners
Impedance:	75Ω(50Ωoptional)
Connector Type:	BNC per IEC 61169-8 Annex A (SMA, F-type optional)
Gain Range (Manual):	-6 to +20dB in 1dB steps
Output AGC Level:	-20 to -50dBm
Overall Bandwidth:	40 to 2250MHz contiguous

RF Specifications - L-Band (850 to 2250MHz*):

Freq. Response:	±1.5dB over specified BW, ±0.5dB over any 36MHz channel
Isolation:	> 60dB input to output, > 70dB output to output, and input to input
RF Input Power:	-10 to -70dBm
Max. RF Output Power:	-10dBm
Noise Figure:	6dB (1500MHz, Gain = +20dB) typ 20dB (1500MHz, Gain = 0dB) typ
Return Loss:	> 15dB (input and output)

RF Specifications - IF (40 to 200MHz*):

Freq. Response:	±0.5dB over 50-90MHz and 120-160MHz
Isolation:	> 60dB input to output, > 70dB output to output, and input to input
RF Input Power:	-15 to -70dBm
Max. RF Output Power:	-10dBm
Return Loss:	> 13dB (input), > 15dB (output)

Communication and Control:

Serial:	RS-232/RS-422
Ethernet:	SNMP and TCP/IP over IEEE 802.3/U (10/100 BaseTx)
Control:	Evertz® Control Panels, VistaLINK®, MAGNUM, VUE or third party SNMP or serial interfaces

Electrical:

AC Input:	Auto ranging 100 to 250V AC, 50/60Hz
Max. Pwr. Consumption:	350W (Fully Loaded Frame)

Physical:

Dimensions:	19"W x 10.5"H x 20.5"D 483mm x 266mm x 520mm

XRF1A Router Specifications

System:

Matrix Sizes:	8x8 or 16x16 in a single 1RU chassis, up to 32x32 square, or 16x64 or 64x16 non-square using the 16x16 model with SRF series external splitters/combiners
Impedance:	75Ω (50Ω BNC optional)
Connector Type:	BNC per IEC 61169-8 Annex A (F-Type connector optional)
Gain Range (Manual):	-10 to +12dB in 1dB steps
Output AGC Level:	-20 to -50dBm
Overall Bandwidth:	40-2250MHz contiguous

RF Specifications - L-Band (850 to 2250MHz*):

Freq. Response:	±1.5dB over specified BW, ±0.5dB over any 36MHz channel
Isolation:	> 60dB input to output, > 70dB output to output, and input to input
RF Input Power:	-10 to -70dBm
Max. RF Output Power:	-10dBm
Noise Figure:	6dB (1500MHz, Gain = +12dB) typ 15dB (1500MHz, Gain = 0dB) typ
Return Loss:	> 13dB (input), > 15dB (output)
LNB Bias (-LNB Version):	Voltage: +13V DC/+17V DC ±5% (selectable) @ 400mA max (overload/ short circuit protected)

RF Specifications - IF (40 to 200MHz*):

Freq. Response:	±0.5dB over 50-90MHz and 120-160MHz
Isolation:	> 60dB input to output, > 70dB output to output, and input to input
RF Input Power:	-15 to -70dBm
Max. RF Output Power:	-10dBm
Return Loss:	> 13dB (input), > 15dB (output)

Communication and Control:

Serial:	RS-232/RS-422
Ethernet:	SNMP and TCP/IP over IEEE 802.3/U (10/100 BaseTx)
Control:	Evertz® Control Panels, VistaLINK®, MAGNUM, VUE or third party SNMP or serial interfaces

Electrical:

AC Input:	Auto ranging 100 to 250V AC, 50/60Hz
Power Consumption:	40W max. without LNB power option 175W max. with LNB power option

Physical:

Dimensions:	19"W x 1.75"H x 18.75"D 483mm x 45mm x 477mm

Ordering Information and Sample Systems

XRF1A-8x8	1RU 8x8 RF Router
XRF1A-8x8-LNB	1RU 8x8 RF Router with LNB power
XRF1A-16x16	1RU 16x16 RF Router
XRF1A-16x16-LNB	1RU 16x16 RF Router with LNB Power
CP-2116E	2RU Full Width Remote Control Panel
CP-2116H	Half Width Remote Control Panel
CP-2232E	2RU Remote Control Panel
PKGXRF6L-16x16	Base 16x16 RF Routing System
PKGXRF6S-16x16	Base 16x16 RF Routing System

Evertz® will configure a 16x16 to 512x512 RF router system with options tailored to your application. Please contact Evertz® technical sales to request a configuration for your specific requirements.

All specifications over specified bandwidth unless noted.

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