

XE4-64x64, XE8-128x128

Xenon Multi-Format Routers



The Complete Solution Provider



►Xenon: Excel Beyond Expectations

Xenon brings 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. In today's broadcast environment, a router must be reliable, resilient and cost-effective. The Xenon excels in all of these areas while offering the flexibility of multi-format operation, and the ability to add Signal Processing Technology.

Great care has been taken in designing Xenon to avoid single points of failure. Active assemblies are all hot-swappable from the front of the frame. Power, control, cooling and reference generation are available in redundant configurations.



►Features & Benefits

Configuration

The Xenon allows any mix of formats within a frame in independent blocks of 32x inputs or outputs. Any of the supported formats, 3G/HD/SD/AES/analog can be expanded to fill an entire 128x128 frame. Additionally the Xenon supports optical routing from 3Mb/s to 3Gb/s in blocks of 32x inputs or outputs.

Xenon is housed in a 4RU frame, switching up to 64x sources to 64x destinations, or in an 8RU frame switching upward of 128x sources to 128x destinations. Additional input and output modules can be installed into the router at any time.

Control

The Xenon router includes, as standard, an internal Frame Controller module which supports 4x Q-Link ports, 2x Ethernet ports and 2x Serial ports mounted on the rear of the router.

The Xenon has a number of control options:

Remote Control Panel: Any panel(s) from the entire range of Quartz remote control panels can be used with the Xenon router, connected via Q-Link.

External third party control: The Xenon router can be remotely controlled via an external third party control device — such as an automation system — when connected to the router's serial port.

Expansion

The input and output stages of the Xenon can be expanded in steps of 32x at any time by adding additional I/O modules. The Xenon can not be expanded beyond its frame size.

Power Supply

The power supplies for the Xenon are internal. The 4RU and 8RU frames can be fitted with an optional redundant power supply with separate AC power inlet and alarm output.

Designed for Performance Ultra Wide Band Routing

By offering a format-independent data path, the Xenon supports signals from 3Mb/s all the way up to 3Gb/s including SD-SDI, HD-SDI, 3G-SDI, DVB-ASI, SMPTE ST 310-1 digital video formats as well as optical formats and other high data rate signals.

Video

Xenon supports 3G, HD, SD and ASI video routing. It is available as 3G/HD/SD or HD/SD or SD only, offering cost savings for those who do not require 3G and or HD capability. For those applications requiring the signal to be reclocked, reclocking modules can be added in blocks of 8x outputs.

Audio

The Xenon router is a fully featured Stereo Audio router, supporting AES and Analog Audio routing. Balanced or unbalanced AES on BNCs are supported in any mixture in blocks of 32x inputs or outputs. Analog audio I/O is converted and routed as digital so that analog sources can route to AES destinations and AES sources can route to analog destinations. Analog blocks are in groups of 32x stereo pairs. The Xenon can optionally support Mono routing for AES and Analog audio by adding the +SS option. Additionally, the Xenon also supports MADI I/O as an option on all audio I/O cards. On input cards this adds a MADI connector for MADI input. Note that these inputs are in addition to the analog or AES base I/O. On output cards a MADI output connector is added. This too offers MADI outputs in addition to the base I/O card.

Signal and System Monitoring

Xenon supports SNMP signal monitoring and comprehensive system monitoring, including power supply voltages, interior temperatures and fan speeds. System status may also be monitored remotely by a network based remote connection over TCP/IP or a direct serial connection to a PC. User-configurable closing contacts are also provided for connection to an external alarm system.

X-LINK

X-LINK outputs are an additional set of outputs from Evertz' standard router platforms. They are for the purpose of providing connectivity to monitoring devices. X-LINK outputs do not reduce the number of outputs on the router, X-LINK outputs are in addition to the standard video router outputs.

Feature Summary

- Multiple signal formats within a single frame
- Optional output reclocking in blocks of 8x outputs
- All outputs can switch in one TV frame
- Dual reference inputs
- Advanced audio features including Soft Switching
- Dolby-E™ signal compatible
- Redundant internal controllers
- Q-Link, Ethernet and RS-485 control interfaces
- Deterministic switching
- SNMP and system monitoring
- Powerful and intuitive WinSetup software
- CleanSwitch option (SPT Module)

Specifications

Configuration:
Inputs and Outputs: Selectable in blocks of 32

Standard Definition:

SD Video Inputs:

Signals Supported: SMPTE ST 259-1 1997, ASI DVB standard
Signal Level: 800mV p-p nominal
Impedance: 75Ω terminating
Return Loss: 5-270MHz: 15dB typical
Cable Equalization: Belden 1694A, 250m
Connectors: BNC per IEC 61169-8 Annex A

SD Video Outputs:

Signal Level: 800mV p-p ±10%
Impedance: 75Ω terminating
Return Loss: 5-270MHz: 15dB typical
DC Offset: 0 ±0.5V
Connectors: BNC per IEC 61169-8 Annex A

Signal Path:

Rise/Fall Times: < 0.4ns
Path Length: 12ns, typical
Output Jitter: 0.2 UI p-p with < 250m input cable

High Definition:

HD Video Inputs:

Signals Supported: SMPTE ST 292-1, ST 424
Signal Level: 800mV p-p nominal
Impedance: 75Ω terminating
Return Loss: 5-1485MHz: 15dB typical
Cable Equalization: Belden 1694A, 90m
65m @ 2.97Gb/s
Connectors: BNC per IEC 61169-8 Annex A

HD Video Outputs:

Signal Level: 800mV p-p ±10%
Impedance: 75Ω terminating
Return Loss: 5-1485MHz: 15dB typical
DC Offset: 0 ±0.5V
Connectors: BNC per IEC 61169-8 Annex A

Signal Path:

Rise/Fall Times: < 0.4ns
Path Length: 12ns, typical
Output Jitter: 0.2 UI p-p with < 95m input cable

Fiber Inputs/Outputs:

SFP1T13-2: Dual optical SFP transmitter, up to 3Gb/s, 1310nm
Connector: LC/PC
Wavelengths: 1310nm
Output Power: -2dBm ±1dBm
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

Audio Inputs — AES:

Balanced Version (D50):

Sample rates: 32, 44.1, 48 and 96kHz
Standard: AES3-1992
Signal Level: 0.2-7V p-p
Impedance: 110Ω ±20% transformer coupled
DC on Input: ±50V
Connectors: D50 female carrying 16x signals

Unbalanced Version (BNC):

Standard: SMPTE ST 276-1
Impedance: 75Ω
Return Loss: 25dB, 0.1-6.0kHz
Connectors: BNC per IEC 61169-8 Annex A

Audio Outputs — AES:

Balanced Version (D50):

Signal Level: 2-5V p-p
Impedance: 110Ω transformer coupled
DC Isolation: ±50V
Rise/Fall Time: 3.5-10ns
Connectors: D50 female carrying 16x signals

Unbalanced Version (BNC):

Signal Level: 1.0V p-p ±50%
Impedance: 75Ω
Return Loss: 25dB, 0.1-6.0kHz
Jitter: Conforms to ANSI S4.40 - 1992
Connectors: BNC per IEC 61169-8 Annex A

Analog to Digital Audio Conversion:

Sampling Freq: 48 or 96kHz
Connectors: 50-way "D" type female
Freq Response: ± 0.05dB
Input Impedance: 12kΩ minimum
Signal Level: 0dBfs — 18dBu or 24dBu
Noise: -113dB A-weighted
THD+N: > 95dB (typically >98dB)
CMRR: > 85dB @1kHz
Crosstalk: < -95dB
I/O Delay: 0.85ms @48kHz or 0.43ms @96kHz

Digital to Analog Audio Conversion:

Sampling Freq: 48 or 96kHz
Connectors: 50-way "D" type female
Freq Response: ± 0.06dB
Output Impedance: 400Ω
Signal Level: 0dBfs — 18dBu or 24dBu
Noise: -115dB A-weighted
THD+N: > 95dB (typically >98dB)
DC Offset: > ±30mV
Crosstalk: < -95dB
I/O Delay: 1.3ms @48kHz or 0.66ms @96kHz
Dynamic Range: 24 bits

Analog Audio Performance:

Sampling Freq: 48 or 96kHz
Connectors: 50-way "D" type female
Freq Response: ± 0.08dB
Output Impedance: 400Ω
Input Impedance: 12kΩ minimum
Signal Level: 0dBfs — 18dBu or 24dBu
Noise: -110dB A-weighted
THD+N: > 95dB (typically >98dB)
DC Offset: > ±30mV
Crosstalk: < -95dB
I/O Delay: 1.3ms @48kHz or 0.66ms @96kHz
Dynamic Range: 24 bits

Switching Reference:

Ref Inputs:
SD: 2x, BNC, analog 525/625
HD/SD: Tri-level analog 625 or 525
Signal Level: 1V p-p ±3dB
Impedance: 75Ω terminating
Line Switching: Lines 6/319 (625), Lines 10/273 (525)
Line 7 (HD)
Connectors: BNC per IEC 61169-8 Annex A

Electrical:

Supply: Auto-ranging 100-240V AC 50/60Hz
Power:
4RU: Typical 150VA, max 250VA
8RU: Typical 300VA, max 500VA
Backup: Not including the SPT modules
Optional

Physical:

Height:
4RU: 7" (178mm)
8RU: 14" (355mm)
Width: 19" (483mm)
Depth: 17 3/4" (450mm)
Weight
4RU: 16kg (35lbs)
8RU: 31kg (68lbs)
Operating Temp: Spec. maintained to 30°C
Operation to 40°C
Ventilation: Fan cooled from the front to the rear of the left hand and right hand side of the router

Control:

Q-Link: 4x 75Ω video cable (max length 500m)
2x RJ-45
F-Link: Serial RS-422/232: 2x D9 female
Ethernet, 10baseT: 2x RJ-45

Compliance:

Safety: CSA listed to 60065; complies with CE low voltage directive
Complies with FCC Part 15, Class A
CE EMC Directive



XE4–64x64, XE8–128x128

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Ordering Information

XE4 up to 64x64 Base Systems:

XE4–3232SX	Xenon 4RU 32x32 SD router
XE4–3232SX+F	Xenon 4RU 32x32 SD router (fiber capable — no modules)
XE4–3232SX+XLINK	Xenon 4RU 32x32 SD router with 3x X–LINK outputs
XE4–3232HX	Xenon 4RU 32x32 HD/SD router
XE4–3232HX+F	Xenon 4RU 32x32 HD/SD router (fiber capable — no modules)
XE4–3232HX+XLINK	Xenon 4RU 32x32 HD/SD router with 3x X–LINK outputs
XE4–3232–3G	Xenon 4RU 32x32 3G/HD/SD router
XE4–3232–3G+F	Xenon 4RU 32x32 3G/HD/SD router (fiber capable — no modules)
XE4–3232–3G+XLINK	

Xenon 4RU 32x32 3G/HD/SD router with 3x X–LINK outputs

XE4–3232–AESB Xenon 4RU 32x32 digital audio router (balanced)

XE4–3232–AESB+MADI

Xenon 4RU 32x32 digital audio router (balanced)
with MADI expansion

XE4–3232–AESU Xenon 4RU 32x32 digital audio router (unbalanced)

XE4–3232–AESU+MADI

Xenon 4RU 32x32 digital audio router (unbalanced)
with MADI expansion

XE4–3232–AA Xenon 4RU 32x32 analog audio router

XE4–3232–AA+MADI Xenon 4RU 32x32 analog audio router with MADI expansion

XE8 up to 128x128 Base Systems

When ordering a Xenon 8RU base system, use the same part numbers as the 4RU base systems but substitute XE4 with XE8. All 8RU base systems ship in 32x32 configurations.

Base systems include a frame, non–redundant power supplies, a single controller module and a single reference module.

Ordering Options:

+2PS	Redundant power supply (1x required for 4RU frame, 2x required for 8RU)
+FU	Redundant controller module
+REF	Redundant reference module (only fitted on frames with 64x or more outputs)
+R8	Reclocking option for 8x HD/SD outputs
+R16	Reclocking option for 16x HD/SD outputs
+R24	Reclocking option for 24x HD/SD outputs
+R32	Reclocking option for 32x HD/SD outputs
+SS	Option to synchronize audio inputs (required for mono audio operation)
+SRC	Sample rate converters for AES audio

Accessories:

XE4–X–FRAME	Xenon 4RU router chassis
XE8–X–FRAME	Xenon 8RU router chassis
XE–IP32HX	32x HD/SD inputs
XE–IP32HX+F	32x HD/SD inputs (fiber capable)
XE–IP32–3G	32x 3G/HD/SD inputs
XE–IP32–3G–F1	32x 3G/HD/SD inputs (fiber capable)
XE–IP32–AESB	32x AES balanced inputs
XE–IP32–AESB–MADI	32x AES balanced inputs plus 2x MADI outputs via mini–BNC (DIN)
XE–IP32–AESU	32x AES unbalanced inputs
XE–IP32–AESU–MADI	32x AES unbalanced inputs plus 2x MADI outputs via mini–BNC (DIN)
XE–IP32–AA	32x Analog inputs
XE–IP32–AA–MADI	32x Analog inputs plus 2x MADI outputs via mini–BNC (DIN)
XE–OP32HX	32x HD/SD outputs
XE–OP32HX+F	32x HD/SD outputs (fiber capable)
XE–OP32HX–XLINK	32x HD/SD outputs via mini–BNC (DIN) plus 3x X–LINK outputs (only 1x card can fit in the 4RU frame and only 2x can fit in 8RU)
XE–OP32–3G	32x 3G/HD/SD outputs
XE–OP32–3G+F	32x 3G/HD/SD outputs (fiber capable)
XE–OP32–3G–XLINK	32x 3G/HD/SD outputs via mini–BNC (DIN) plus 3x X–LINK outputs (only 1x card can fit in the 4RU frame and only 2x can fit in the 8RU frame)
XE–SPT–AVP–H	HD/SD line synchronizer and audio soft switch module with video and audio processing functions
XE–SPT–AVP–3G	3G line synchronizer and audio soft switch module with video and audio processing functions
XE–OP32–AESB	32x AES balanced outputs
XE–OP32–AESB–MADI	32x AES balanced outputs plus 2x MADI inputs via mini–BNC (DIN)
XE–OP32–AESU	32x AES unbalanced outputs
XE–OP32–AESU–MADI	32x AES unbalanced outputs plus 2x MADI inputs via mini–BNC (DIN)
XE–OP32–AA	32x analog outputs
XE–OP32–AA–MADI	32x analog outputs plus 2x MADI inputs via mini–BNC (DIN)

Fiber Optic Modules:

SFP3T13–2	Dual optical 3G/HD/SD–SDI SFP transmitter, 1310 nm
SFP3R–2	Dual optical 3G/HD/SD–SDI SFP receiver

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Great care has been taken in the design of the Xenon to avoid single points of failure. Active assemblies are all hot-swappable from the front of the frame. Power, control, cooling and reference generation are available in redundant configurations.



►Features & Benefits

Configuration

The Xenon allows any mix of formats within a frame in independent blocks of 32 inputs or outputs. Any of the supported formats, 3G/HD/SD/AES/Analog can be expanded to fill an entire 128 x 128 frame. Additionally the Xenon supports optical routing from 3Mb/s to 3Gb/s in blocks of 32 inputs or outputs.

The Xenon is housed in a 4RU frame, switching up to 64 sources to 64 destinations, or in an 8RU frame switching up to 128 sources to 128 destinations. Additional input and output modules can be installed into the router at anytime.

Control

The Xenon router includes, as standard, an internal Frame Controller module which supports four Q-Link ports, two Ethernet ports and two Serial ports mounted on the rear of the router.

The Xenon has a number of control options, they are:

Remote Control Panel: Any panel(s) from the entire range of Quartz remote control panels can be used with the Xenon router connected via Q-Link.

External third party control: The Xenon router can be remotely controlled via an external third party control device, such as an automation system, when connected to the router's serial port.

Expansion

The input and output stages of the Xenon can be expanded in steps of 32 at any time by adding additional I/O modules. The Xenon can not be expanded beyond its frame size.

Power Supply

The power supplies for the Xenon are internal. The 4RU & 8RU frame can be fitted with an optional redundant power supply with separate AC power inlet & alarm output.

Designed for Performance Ultra Wide Band Routing

By offering a format independent data path, the Xenon supports signals from 3Mb/s all the way up to 3Gb/s including SD-SDI, HD-SDI, 3G-SDI, DVB-ASI, SMPTE ST 310-1 digital video formats as well as optical formats and other high data rate signals.

Video

Xenon supports 3G, HD, SD and ASI video routing. It is available as 3G/HD/SD or HD/SD or SD only, offering cost savings for those who do not require 3G and or HD capability. For those applications requiring the signal to be reclocked, reclocking modules can be added in blocks of eight outputs.

Audio

The Xenon router is a fully featured Stereo Audio router. Xenon supports AES and Analog Audio routing. Balanced AES or unbalanced AES on BNCs are supported in any mixture in blocks of 32 inputs or outputs. The Xenon also supports analog routing. Analog audio I/O is converted and routed as digital so that analog sources can route to AES destinations and AES sources can route to analog destinations. Analog blocks are in groups of 32 stereo pairs. The Xenon can optionally support Mono routing for AES and Analog audio by adding the +SS option. Additionally, the xenon also supports MADI I/O as an option on all audio i/o cards. On input cards this ADDS a MADI connector for MADI input. Note that these inputs are IN ADDITION TO the analog or AES base I/O. On output cards a MADI output connector is ADDED. This too offers MADI outputs IN ADDITION to the base I/O card.

Signal and System Monitoring

Xenon supports SNMP signal monitoring and comprehensive system monitoring, including power supply voltages, interior temperatures and fan speeds. System status may also be monitored remotely by a network based remote connection over TCP/IP or a direct serial connection to a PC. User-configurable closing contacts are also provided for connection to an external alarm system.

X-LINK

X-LINK outputs are an additional set of outputs from Evertz® standard router platforms. They are for the purpose of providing connectivity to monitoring devices. X-LINK outputs do not reduce the number of outputs on the router, X-LINK outputs are in addition to the standard video router outputs.

Feature Summary

- Multiple signal formats within a single frame
- Optional output reclocking in blocks of 8 outputs
- All outputs can switch in one TV frame
- Dual reference inputs
- Advanced audio features including Soft Switching
- Dolby-ETM signal compatible
- Redundant internal controllers
- Q-Link, Ethernet and RS-485 control interfaces
- Deterministic switching
- SNMP and system monitoring
- Powerful and intuitive WinSetup Software
- Clean switch option (SPT Module)



Specifications

Configuration: Inputs: Selectable in blocks of 32 Outputs: Selectable in blocks of 32		Audio Inputs - AES: Balanced version (D50): Sample rates: 32kHz, 44.1kHz, 48kHz, and 96kHz Standard: AES3-1992 Signal level: 0.2-7V p-p Impedance: 110Ω ±20% Transformer coupled DC on input: ±50V Connectors: D50 female carrying 16 signals Unbalanced Version (BNC): Standard: SMPTE ST 276-1 Impedance: 75Ω Return loss: 25dB, 0.1-6.0kHz Connectors: BNC per IEC 61169-8 Annex A		Analog Audio Performance: Sampling Freq: 48kHz or 96kHz Connectors: 50 way "D" type female Freq Response: ± 0.08dB Output Impedance: 400Ω Input Impedance: 12kΩ minimum Signal level: 0dBfs = 18dBu or 24dBu Noise: -110dB A-weighted THD+N: > 95dB (typically >98dB) DC Offset: > ±30mV Crosstalk: < -95dB I/O Delay: 1.3ms @48kHz or 0.66ms @96kHz Dynamic Range: 24 bits	
Standard Definition: SD Video Inputs: Signals supported: SMPTE ST 259-1 1997, ASI DVB standard Signal Level: 800mV p-p nominal Impedance: 75Ω terminating Return Loss: 5 - 270MHz: 15dB typical Cable equalization: Belden 1694A, 250m Connectors: BNC per IEC 61169-8 Annex A		Audio Outputs - AES: Balanced version (D50) Signal level: 2-5V p-p Impedance: 110Ω Transformer coupled DC isolation: ±50V Rise/fall time: 3.5-10ns Connectors: D50 female carrying 16 signals Unbalanced version (BNC): Signal level: 1.0V p-p ±50% Impedance: 75Ω Return loss: 25dB, 0.1-6.0kHz Jitter: Conforms to ANSI S4.40 - 1992 Connectors: BNC per IEC 61169-8 Annex A		Switching Reference: Ref inputs: SD: 2x, BNC, analog 525/625 HD/SD: Tri-level analog 625 or 525 Signal level: 1V p-p ±3dB Impedance: 75Ω terminating Line switching: Lines 6/319 (625), Lines 10/273 (525) Line 7 (HD) Connectors: BNC per IEC 61169-8 Annex A	
SD Video Outputs: Signal Level: 800mV p-p ±10% Impedance: 75Ω terminating Return Loss: 5 - 270MHz: 15dB typical DC Offset: 0 ±0.5V Connectors: BNC per IEC 61169-8 Annex A		Analog to Digital Audio Conversion: Sampling Freq: 48kHz or 96kHz Connectors: 50 way "D" type female Freq Response: ± 0.05dB Input Impedance: 12kΩ minimum Signal Level: 0dBfs - 18dBu or 24dBu Noise: -113dB A-weighted THD+N: > 95dB (typically >98dB) CMRR: > 85dB @1kHz Crosstalk: < -95dB I/O Delay: 0.85ms @48kHz or 0.43ms @96kHz		Electrical: Supply: Auto ranging 100 to 240V AC 50/60Hz Power: 4RU: Typical 150VA, Max 250VA 8RU: Typical 300VA, Max 500VA Not including the SPT modules Optional Physical: Height: 4RU: 7" (178mm) 8RU: 14" (355mm) Width: 19" (483mm) Depth: 17 3/4" (450mm) Weight 4RU: 16kg (35lbs) 8RU: 31kg (68lbs) Operating Temp: Spec. maintained to 30°C Operation to 40°C Ventilation: Fan cooled from the front to the rear of the left hand and right hand side of the router	
High Definition: HD Video Inputs: Signals supported: SMPTE ST 292-1, SMPTE ST 424 Signal Level: 800mV p-p nominal Impedance: 75Ω terminating Return Loss: 5 - 1485MHz: 15dB typical Cable equalization: Belden 1694A, 90m 65m @ 2.97Gb/s Connectors: BNC per IEC 61169-8 Annex A		Digital to Analog Audio Conversion: Sampling Freq: 48kHz or 96kHz Connectors: 50 way "D" type female Freq Response: ± 0.06dB Output Impedance: 400Ω Signal Level: 0dBfs - 18dBu or 24dBu Noise: -115dB A-weighted THD+N: > 95dB (typically >98dB) DC Offset: > ±30mV Crosstalk: < -95dB I/O Delay: 1.3ms @48kHz or 0.66ms @96kHz Dynamic Range: 24 bits		Control: Q-Link: 4x75Ω video cable (max length 500m) 2xRJ45 F-Link: 2xRJ45 Serial RS-422/232: 2xD9 female Ethernet, 10baseT: 2xRJ45 Compliance: Safety: CSA listed to 60065 Complies with CE low voltage directive Complies with FCC Part 15, Class A CE EMC Directive EMC:	
Signal Path: Rise/fall times: < 0.4ns Path Length: 12ns, typical Output jitter: 0.2 UI p-p with < 250m input cable		Fiber Inputs/Outputs: SFP1T13-2: Dual Optical SFP Transmitter, Up to 3Gb/s, 1310nm Connector: LC/PC Wavelengths: 1310nm Output Power: -2dBm ±1dBm 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			

XE4-64x64, XE8-128x128

Xenon Multi-Format Routers



Ordering Information

XE4 Up To 64x64 Base Systems

XE4-3232SX	Xenon 4RU 32x32 SD Router
XE4-3232SX+F	Xenon 4RU 32x32 SD Router (fiber capable - no modules)
XE4-3232SX+XLINK	Xenon 4RU 32x32 SD Router with 3 X-LINK outputs
XE4-3232HX	Xenon 4RU 32x32 HD/SD Router
XE4-3232HX+F	Xenon 4RU 32x32 HD/SD Router (fiber capable - no modules)
XE4-3232HX+XLINK	Xenon 4RU 32x32 HD/SD Router with 3 X-LINK outputs
XE4-3232-3G	Xenon 4RU 32x32 3G/HD/SD Router
XE4-3232-3G+F	Xenon 4RU 32x32 3G/HD/SD Router (fiber capable - no modules)
XE4-3232-3G+XLINK	Xenon 4RU 32x32 3G/HD/SD Router with 3 X-LINK outputs
XE4-3232-AESB	Xenon 4RU 32x32 Digital Audio Router (Balanced)
XE4-3232-AESB+MADI	Xenon 4RU 32x32 Digital Audio Router (Balanced) with MADI Expansion
XE4-3232-AESU	Xenon 4RU 32x32 Digital Audio Router (Unbalanced)
XE4-3232-AESU+MADI	Xenon 4RU 32x32 Digital Audio Router (Unbalanced) with MADI Expansion
XE4-3232-AA	Xenon 4RU 32x32 Analog Audio Router
XE4-3232-AA+MADI	Xenon 4RU 32x32 Analog Audio Router with MADI Expansion

XE8 Up To 128x128 Base Systems

When ordering a Xenon 8RU base system, use the same part numbers as the 4RU base systems but substitute XE4 with XE8. All 8RU base systems ship in 32x32 configurations.

Base systems include a frame, non-redundant power supplies, a single controller module and a single reference module.

Ordering Options

+2PS	Redundant Power Supply (1 required for 4RU Frame), (2 required for 8RU Frame)
+FU	Redundant Controller Module
+REF	Redundant Reference module (Can only be fitted on frames with 64 or more, outputs)
+R8	Reclocking option for 8 HD/SD outputs
+R16	Reclocking option for 16 HD/SD outputs
+R24	Reclocking option for 24 HD/SD outputs
+R32	Reclocking option for 32 HD/SD outputs
+SS	Option to synchronize audio inputs. <i>Note: This option is required for mono audio operation.</i>
+SRC	Sample Rate Converters for AES audio

Accessories

XE4-X-FRAME	Xenon 4RU Router Chassis
XE8-X-FRAME	Xenon 8RU Router Chassis
XE-IP32SX	32 SD inputs
XE-IP32SX+F	32 SD inputs (fiber capable)
XE-IP32HX	32 HD/SD inputs
XE-IP32HX+F	32 HD/SD inputs (fiber capable)
XE-IP32-3G	32 3G/HD/SD inputs
XE-IP32-3G-F1	32 3G/HD/SD inputs (fiber capable)
XE-IP32-AESB	32 AES Balanced inputs
XE-IP32-AESB-MADI	32 AES Balanced inputs, plus 2 MADI outputs via mini-BNC (DIN)

XE-IP32-AESU	32 AES Unbalanced inputs
XE-IP32-AESU-MADI	32 AES Unbalanced inputs, plus 2 MADI outputs via mini-BNC (DIN)

XE-IP32-AA	32 Analog inputs
XE-IP32-AA-MADI	32 Analog inputs, plus 2 MADI outputs via mini-BNC (DIN)

XE-OP32HX	32 HD/SD outputs
XE-OP32HX+F	32 HD/SD outputs (fiber capable)
XE-OP32HX-XLINK	32 HD/SD outputs via mini-BNC (DIN), plus 3 X-LINK outputs (only 1 card can be fitted in the 4RU frame and only 2 cards can be fitted in the 8RU frame)

XE-OP32SX	32 SD outputs
XE-OP32SX+F	32 SD outputs (fiber capable)
XE-OP32SX-XLINK	32 SD outputs via mini-BNC (DIN), plus 3 X-LINK outputs (only 1 card can be fitted in the 4RU frame and only 2 cards can be fitted in the 8RU frame)

XE-OP32-3G	32 3G/HD/SD outputs
XE-OP32-3G+F	32 3G/HD/SD outputs (fiber capable)
XE-OP32-3G-XLINK	32 3G/HD/SD outputs via mini-BNC (DIN), plus 3 X-LINK outputs (only 1 card can be fitted in the 4RU frame and only 2 cards can be fitted in the 8RU frame)

XE-SPT-AVP-H	HD/SD Line Synchronizer and Audio SoftSwitch module with video and audio processing functions
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XE-SPT-AVP-3G	3G Line Synchronizer and Audio SoftSwitch module with video and audio processing functions
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XE-OP32-AESB	32 AES Balanced outputs
XE-OP32-AESB-MADI	32 AES Balanced outputs, plus 2 MADI inputs via mini-BNC (DIN)
XE-OP32-AESU	32 AES Unbalanced outputs
XE-OP32-AESU-MADI	32 AES Unbalanced outputs, plus 2 MADI inputs via mini-BNC (DIN)
XE-OP32-AA	32 Analog outputs
XE-OP32-AA-MADI	32 Analog outputs, plus 2 MADI inputs via mini-BNC (DIN)

Fiber Optic Modules

SFP3T13-2	Dual optical 3G/HD/SD-SDI SFP Transmitter, 1310 nm
SFP3R-2	Dual optical 3G/HD/SD-SDI SFP Receiver

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