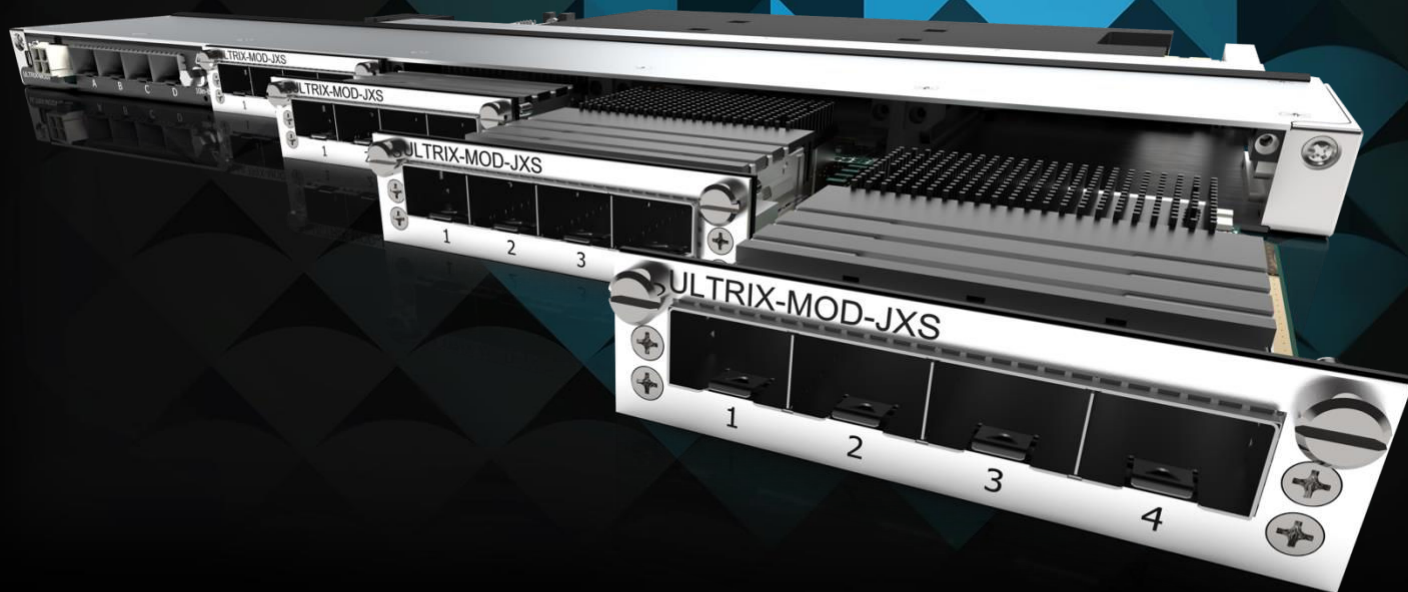


Ultrix



ULTRIX-MOD-JXS Native JPEG XS Transport for Ultrix

JPEG XS is designed for real-time video transport, delivering pristine visual quality with ultra-low latency while requiring only a fraction of the bandwidth of uncompressed video. With support for UHD and HDR, JPEG XS video looks and behaves like uncompressed content, but with the practical advantages of reduced IP infrastructure demands and more efficient use of available network capacity.

JPEG XS connects distributed studios, control rooms, intra-facilities, and OB units over managed ST 2110 networks where bandwidth is at a premium. With imperceptible latency and full alignment with the ST 2110 suite of standards, including support for PTP and NMOS control, operators can switch, mix, and produce live events as if working with uncompressed signals.



The ULTRIX-MOD-JXS integrates JPEG XS directly into the Ultrix platform, eliminating the need for external converters. JPEG XS feeds are managed just like any other within Ultrix, maximizing operator efficiency through a single, consistent workflow across all supported formats, including SDI, ST 2110, NDI, JPEG XS, and more, within the same format-agnostic system.

ULTRIX-MOD-JXS

The ULTRIX-MOD-JXS is a sub-module for the ULTRIX-MODX-IO modular I/O card, providing an easy way to add JPEG XS transport connectivity to Ultrix. Each module supports up to four video streams on both primary and secondary networks, configurable as:

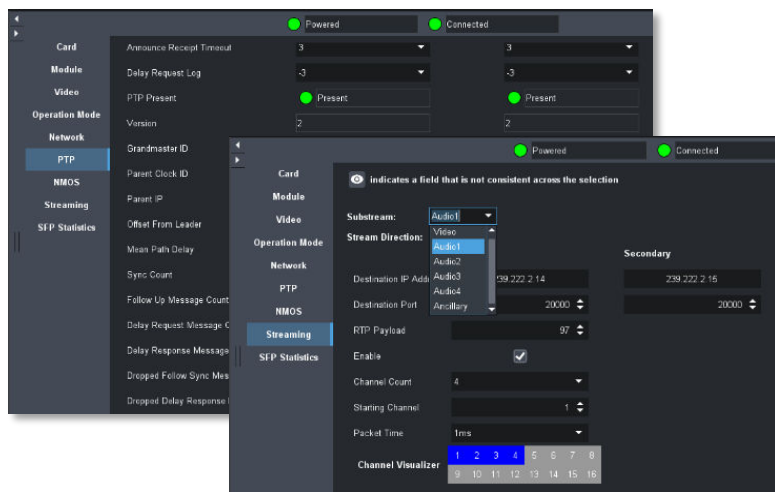
- 2 in (decodes) / 2 out (encodes)
- 4 in (decodes)
- 4 out (encodes)



This flexible design allows JPEG XS compression to be deployed exactly where needed, supporting workflows with any mix of encode and decode requirements. Up to four modules can be installed in a single ULTRIX-MODX-IO card, enabling 16+16 video streams across primary and secondary networks in any combination of modes.

Integrated Control and Configuration

All configuration for MOD-JXS modules and their I/O is available through DashBoard. IP media settings including multicast groups, NMOS configuration, PTP, and interface IP addressing plus key parameters such as audio channel assignment and video bandwidth are conveniently grouped for quick access. Multicast group addresses can be configured manually, or managed dynamically via NMOS IS-04/05 through an external control system using the shared media/NMOS control ports.





Technical Info

Supported Hardware

- Ultrix Frames: FR1-NS, FR2-NS, FR5, FR5-NS and FR12
- Ultrix I/O Cards: ULTRIX-MODX-IO

Interfaces

- 4 x SFP-28 cages (SFPs not included)
 - Dual media network support: 2x Network A + 2x Network B
 - 10 GbE Optical only, MSA

Video/Audio/ANC Support

Video Formats

- 10-bit, YUV, 4:2:2
- SDR, HDR and WCG support
- 720p 50/59.94/60
- 1080i 50/59.94/60
- 1080p 23.98/24/25/29.97/30/50/59.94/60
- 1080psf 23.98/24
- 2160p 23.98/24/25/29.97/30/50/59.94/60

ANC: Selectable flow profile (encoder only)

Audio

- 24-bit, 48 kHz
- Packet Times: 1ms, 500µs, 333µs, 250µs, 125µs
- Up to 16 channels per encoder/decoder
- Up to 4 audio streams per encoder/decoder
- 1, 2, 4, 8 or 16 channels assignable per stream

JPEG XS

- | | |
|--|--|
| <ul style="list-style-type: none"> • Adjustable compression ratio: 5:1 to 13:1 • Each MOD-JXS supports up to 4 video streams configurable as: <ul style="list-style-type: none"> • 2x in (decodes) 2x out (encodes), or • 4x in (decodes), or • 4x out (encodes) | <ul style="list-style-type: none"> • TR-08 <ul style="list-style-type: none"> • Video: ST 2110-22 • Audio: ST 2110-30 • ANC: ST 2110-40 |
|--|--|

Network/Control

- PTP: follower only, support for redundant PTP
- 2022-7, A+B media networks
- IGMP v3
- NMOS IS-04, -05, -08, -09; BCP-002-01
 - In-band only (single-plane)

Per Frame Capacities, Fully Equipped

MOD-JXS Modules

- FR1-NS: 4
- FR2-NS: 12
- FR5, FR5-NS: 36
- FR12: 64

JXS Video Steams, Total, A+B Networks

- FR1-NS: 16+16
- FR2-NS: 48+48
- FR5, FR5-NS: 144+144
- FR12: 256+256