



Ultrix & NDI – Scalability, flexibility & efficiency

Network Device Interface (NDI) offers flexible video delivery over standard IP networks, and Ultrix leverages its strengths to deliver an unparalleled solution. Ultrix bridges video formats including SDI, ST 2110, and now NDI. By converging the flexibility of NDI with broadcast-grade production, processing and control, Ultrix sets a new standard in broadcast and production technology.

Users can scale their infrastructure to accommodate anywhere from a few to hundreds of NDI streams, without the complexity of additional external conversion equipment. This simplifies infrastructure and operations, increasing efficiency and allowing users to focus on content creation rather than technical overhead.



ULTRIX-MODX-IO

The ULTRIX-MODX-IO is an I/O card designed for Ultrix, offering enhanced flexibility. By accommodating up to four ULTRIX-MOD series sub-modules featuring various I/O types and processing functionality, it allows for fine I/O granularity and maximum I/O utilization.



ULTRIX-MOD-NDI – Scalable NDI capability in Ultrix

The ULTRIX-MOD-NDI is a sub-module for ULTRIX-MODX-IO that supports up to four simultaneous encodes and decodes of NDI streams up to 1080p, scaling up to 16 NDI encodes/decodes per ULTRIX-MODX-IO card. This integration eliminates the need for external NDI conversion equipment, simplifying infrastructure. With the ability to scale up to 256 streams in a 12RU frame, Ultrix enables NDI requirements from a few sources and destinations to more expansive infrastructures.





Bridging media formats

Ultrix's ability to handle SDI, ST 2110, and NDI provides a transport-agnostic solution that aligns with industry trends toward hybrid and IP-based workflows. This flexibility allows users to leverage endpoint devices and infrastructures that utilize various standards and physical layers, selecting the best technology to fit their workflow needs, infrastructure, and budget. With Ultrix, users can combine the strengths of each format to create highly functional, scalable workflows. Modular I/O cards and sub-modules allow addition and changes to supported signal types as the need arises, protecting your investment for years to come.



Integrating NDI with professional production and Hyperconverged processing

Ultrix elevates NDI to a critical component in professional broadcast-grade production, smoothly integrating it with Ultrix Carbonite and Ultrix Acuity switcher hardware for live workflows. It also allows NDI to interact with Ultrix's rock-solid reliability and Hyperconverged features. Integrated multiviewers, video/audio synchronization, color correction, and more means incredible flexibility and power in pure NDI or hybrid workflows.



Streamlined control and workflow management

Ultrix offers user-friendly control solutions like DashBoard, Ultritouch, and Ultricore, simplifying workflow management in broadcast and production environments. Focused on ease of use, Ultrix provides tools tailored to professionals' operational needs. Since NDI streams appear as standard I/O ports within the control system, managing NDI sources and destinations becomes as straightforward as any other format, reducing the learning curve and enabling quick integration for efficient operation in hybrid and IP-based environments.





Technical Info

Supported Hardware

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

Interfaces

- 1x GigE RJ45

Video/Audio Support

- 720p, 1080i, 1080p at all field/frame rates supported by Ultrix, less Level B and pSF variants
- YUV 4:2:2, 8-bit
- Audio not yet supported

NDI

- Version 5.6
- Full bandwidth I-Frame compression (SpeedHQ2)

Network

- Unicast (Selectable from Auto, UDP, rUDP, TCP, Multi-TCP)
- Static IP and DHCP

Per Frame Capacities, Fully Equipped

MOD-NDI Modules

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

NDI Encodes/Decodes

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

Ordering

ULTRIX-MOD-NDI

NDI sub-module for ULTRIX-MODX-IO. 4x NDI encode/decode per sub-module.