Unprecedented Flexibility in IP Audio Transport

The Intraplex® NetXpress™ IP audio multiplexer has built its reputation for reliability at the heart of some of the world’s most complex and geographically widespread IP audio networks. Today, Harris introduces the NetXpress LX™ multiplexer — delivering the same high-performance IP audio platform in a scaled down, more affordable package.

Supporting both unicast and multicast, and compatible with the existing NetXpress, the NetXpress LX system opens up new possibilities in IP audio network design.

Existing T1/E1 Multiplexer Conversion to IP

Forget about retiring perfectly good Intraplex systems when moving from T1 or E1 to IP. The new NetXpress LX IP interface module, the CM-30, can replace the network interface module in existing Intraplex T1/E1 systems, converting them to IP while keeping the existing chassis with all of its audio, voice and data cards.

Intraplex Reliability

When the mission is critical, broadcasters turn to Harris® Intraplex audio transport systems — the standard-bearer for dependable, great-sounding audio links for “always on” applications.

Built upon the technology of the original NetXpress system, but with a form factor matching that of our T1/E1 systems, the NetXpress LX multiplexer provides the reliable and robust performance demanded by studio-to-transmitter link (STL) and other fixed, full-time inter-facility applications. Available in two sizes — a 3RU frame with capacity for up to 17 application modules and a compact 1RU frame that can hold five application modules — the NetXpress LX system can also work as an “edge” device along with the NetXpress multiplexer in large, multisite networks.

FEATURES

- CM-30 IP interface module; can convert existing T1/E1 systems to IP
- Compatible with Intraplex NetXpress systems
- Wide variety of audio, voice and data interface modules
- Optional echo cancellation for 2-wire voice circuits
- Transport of two contact closures in each direction
- Adjustable packet size
- Programmable jitter buffer depth
- Advanced Intraplex forward error correction
- Quality of Service (QoS) priority tagging
- Unidirectional or bidirectional unicast streaming
- Unidirectional multicast streaming
- Web browser user interface
- SNMP-controllable
- Current and previous software revision storage
- Network statistics monitoring
- Event logging

The NetXpress LX multiplexer provides the superior support and long-term value expected from Intraplex — broadcasting’s first choice for rock-solid, full-time operation of IP audio, T1/E1 and 950 MHz audio and data links.
**Specifications**

Specifications are subject to change without notice.

**General**

| Shelf Configurations | LX-100: 1RU shelf with 5 card slots for audio, voice and data modules  
LX-300: 3RU shelf with 17 card slots for audio, voice and data modules  
Each shelf comprises one chassis, one power supply, one CM-30 IP interface module and one MA-230 module adapter; the LX-100 contains a single AC power supply; the LX-300 contains one AC or one DC supply and can be equipped with a second power supply for hot-standby redundancy; audio, voice and data modules optional |

**Module Compatibility**

Accepts Intraplex plug-in audio, voice and data modules; see individual module specifications for details and applications

**Contact Closures**

Two contact closures in each direction  
Opto-isolated inputs and normally open relay outputs

**Network Interface**

| Ethernet Data Rate | 10/100Base-T (10 or 100 Mb/s)  
Full duplex  
Auto-negotiation with network |
| Network Connections | Port 1 — Management — RJ-45  
Port 2 — WAN — RJ-45 |
| Circuit Connection | Up to 32 streams/connections  
Point-to-point unidirectional  
Point-to-point bidirectional  
Point-to-point multipoint unidirectional multicast per IGMP v2  
Network Protocols |
| Supported | IP, TCP, UDP, RTP, DHCP, DNS, HTTP, FTP, Telnet, NTP, SNMP v2, RTCP, ARP, ICMP, IGMP v2 |
| Timing | Internal  
External, RS-422 clock input  
Adaptive to incoming program stream  
Timing out, RS-422 clock output |

**Stream Parameters (per stream)**

| Forward Error Correction | High, low, off, user-adjustable |
| Packet Optimization | Packet size/rate, allows control over the inherent tradeoff between overhead and delay  
Jitter buffer depth to 128 packets, provides compensation in excess of one second of network jitter  
User-adjustable |
| Quality of Service | IPv4 Type of Service (ToS) tagging  
Differentiated Service (Diffserv) |

**Status and Diagnostics**

| LED Indicators | Power, normal, alert, alarm  
Network performance |
| Statistics (per stream) | Packet loss, packets received, packets sent, packets dropped, packet count and delay variation |
| Loopbacks | Received stream loopback, equipment loopback |

**Remote Management**

Web browser user interface  
SNMP network management interface

**Physical and Environmental**

| Power Requirement | Universal AC 90 to 240 VAC, 50/60 Hz, 48 VDC, 24 VDC  
LX-300 only: optional 48 VDC, 24 VDC |
| Power Supply | LX-100: single 60 W AC  
LX-300: single or optional dual 60 W AC, 100 W AC, 50 W, 48 VDC, 50 W, 24 VDC |
| Power Consumption | Depends on number and type of channel modules installed:  
LX-100: less than 15 W typical  
LX-300: less than 40 W typical |
| Temperature | 32° to 122° F (0° to 50° C) operating (AC powered) |
| Humidity | 10% to 90% non-condensing |
| Dimensions (H x D x W) | LX-100: 1RU, 1.75 x 14.25 x 19 in. (4.45 x 36.2 x 48.3 cm)  
LX-300: 3RU, 5.25 x 14.25 x 19 in. (13.4 x 36.2 x 48.3 cm)  
Standard LX-100 shipping carton (contains one 1RU shelf): 4 x 18 x 20 7/8 in. (10 x 46 x 53 cm)  
Standard LX-300 shipping carton (contains one 3RU shelf): 15 x 20 x 22 in. (38 cm x 50 cm x 56 cm) |
| Shipping Weight | Depends on number and type of channel modules installed: LX-100: Less than 20 lbs (7.5 kg) typical  
LX-300: Less than 25 lbs (11.4 kg) typical |

**Regulatory Compliance**

CE compliant, FCC Part 15 Class A, UL 1950, RoHS compliant

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For more information, please visit www.broadcast.harris.com/intraplex.