



INTRAPLEX® NETXPRESS LX™

Digital Audio Transport System for IP Networks

Unprecedented Flexibility in IP Audio Transport

Intraplex NetXpress LX™ IP audio multiplexer delivers a high-performance IP audio platform in a scaled-down, 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.



Intraplex® NetXpress LX™ Product Features

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 Intraplex audio transport systems — the standardbearer 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.

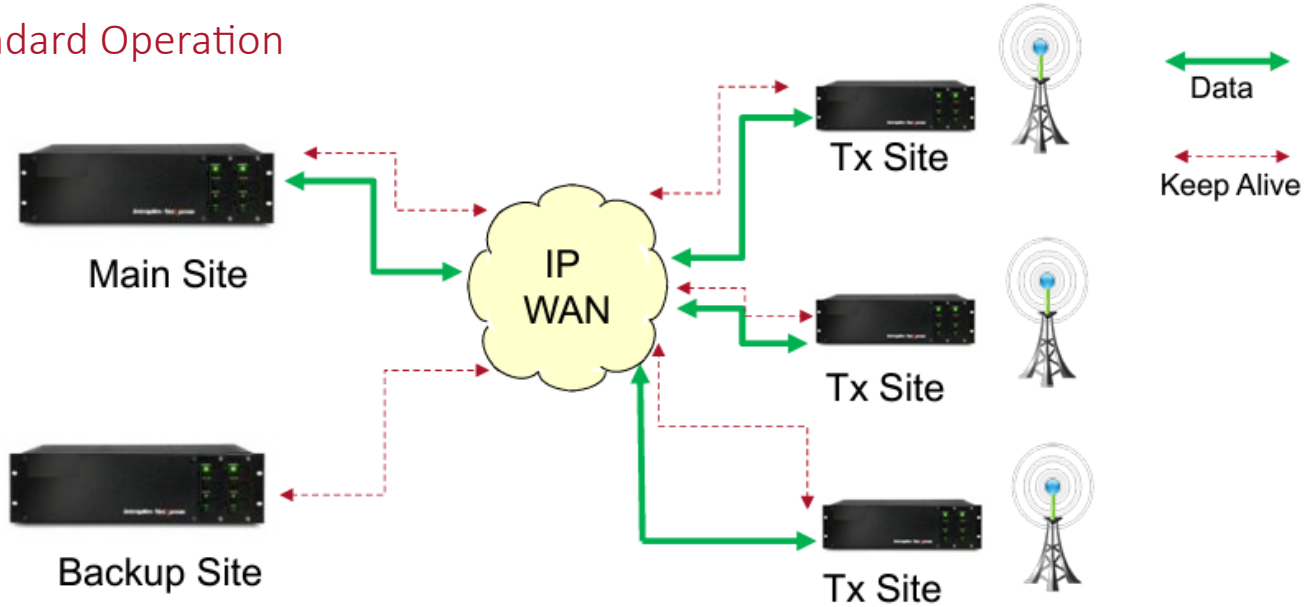
The NetXpress LX multiplexer provides the superior support and long-term value expected from Intraplex — broadcasting’s first choice for robust, full-time operation of IP audio, T1/E1 and 950 MHz audio and data links.

- 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 two-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

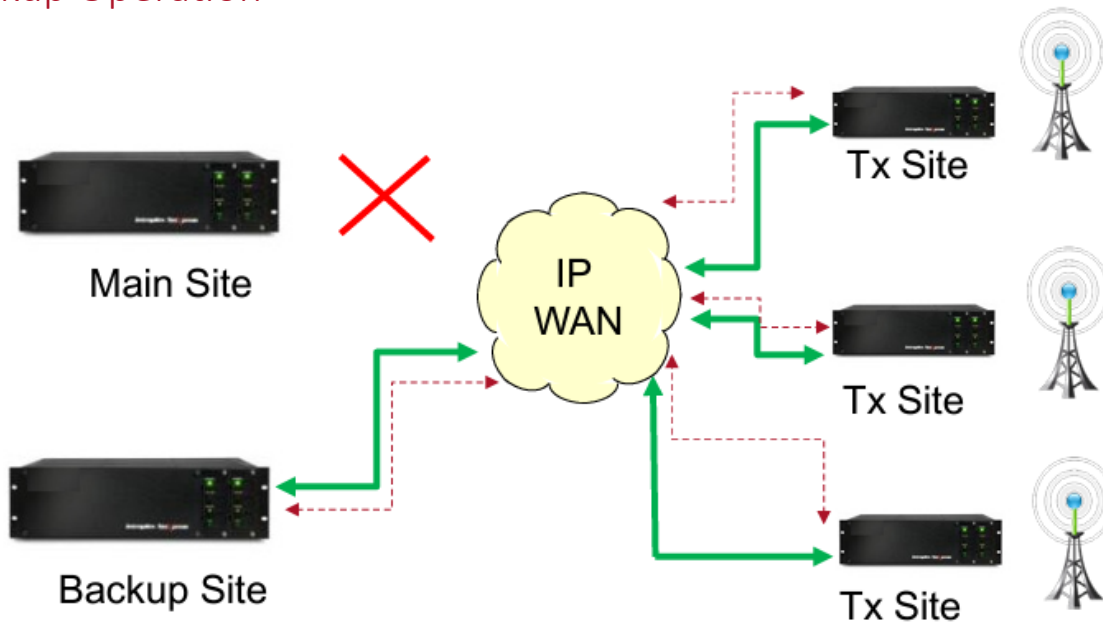
Intraplex® NetXpress LX™

Redundant Command System*

Standard Operation



Backup Operation



* Intraplex NetXpress shown in diagrams. Same redundancy features available in NetXpress LX.

Intraplex[®] NetXpress LX[™]

Specifications

Specifications and designs are subject to change without notice

General	
Shelf Configurations	<ul style="list-style-type: none">• 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 1 chassis, 1 power supply, 1 CM-30 IP interface module and 1 MA-230 module adapter; the LX-100 contains a single AC power supply; the LX-300 contains 1 AC or 1 DC supply and can be equipped with a second power supply for hot-standby redundancy; audio, voice and data modules optional
Module Compatibility	<ul style="list-style-type: none">• Accepts Intraplex plug-in audio, voice, data and video modules• See individual module specifications for details and applications
Contact Closures	<ul style="list-style-type: none">• 2 contact closures in each direction• Opto-isolated inputs and normally open relay outputs
Network Interface	
Ethernet Data Rate	<ul style="list-style-type: none">• 10/100Base-T (10 or 100 Mb/s)• Full duplex• Auto-negotiation with network
Network Connections	<ul style="list-style-type: none">• Port 1: management, RJ45• Port 2: WAN, RJ45
Circuit Connection	<ul style="list-style-type: none">• 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, HTTP (on port 80), FTP (on port 21), Telnet, NTP, SNMP v1/SNMP v2 (requests on port 161 and traps on port 162), RTCP, ARP, ICMP, IGMP v2
Timing	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• IPv4 Type of service (ToS) tagging• Differentiated service (DiffServ)
Status and Diagnostics	
LED Indicators	<ul style="list-style-type: none">• Power, normal, alert, alarm• Network performance
Statistics (per stream)	Packet loss, packets received, packets sent, packets dropped, packet count and delay variation
Loopbacks	<ul style="list-style-type: none">• Received stream loopback• Equipment loopback
Remote Management	<ul style="list-style-type: none">• Web browser user interface• SNMP network management interface

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Physical and Environmental	
Power Requirement	<ul style="list-style-type: none">• Universal AC 90 to 240 VAC, 50/60 Hz, 48 VDC or 24 VDC• LX-300 only: optional 48 VDC or 24 VDC
Power Supply	<ul style="list-style-type: none">• 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: <ul style="list-style-type: none">• 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 W x D)	<ul style="list-style-type: none">• LX-100: 1RU, 1.75 x 19 x 14.25 in. (4.45 x 48.3 x 36.2 cm) EIA rack mountable• LX-300: 3RU, 5.25 x 19 x 14.25 in. (13.4 x 48.3 x 36.2 cm) EIA rack mountable• Standard LX-100 shipping carton (contains one 1RU shelf): 4 x 20 7/8 x 18 in. (10 x 53 x 46 cm)• Standard LX-300 shipping carton (contains one 3RU shelf): 15 x 22 x 20 in. (38 cm x 56 cm x 50 cm)
Shipping Weight	Depends on number and type of channel modules installed: <ul style="list-style-type: none">• 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