

Intraplex[®] NetXpress[™]

IP Multiplexer



A New Level of Performance

The Intraplex[®] NetXpress[™] IP multiplexer takes voice, data and program audio transport to a new level of performance and reliability by providing transport over packet networks for a wide range of real-time applications critical to public safety. As the industry's best platform for public safety systems requiring transport over IP, this multiplexer offers system-level resiliency, sophisticated network monitoring and excellent bandwidth management.

Superior Communications Solution

Transporting voice, data and video over 10/100 Base-T networks, the NetXpress multiplexer provides a superior communications solution for public safety applications such as land mobile radio systems, video surveillance, confidence monitoring of remote sites and emergency circuit backup. The NetXpress multiplexer can be equipped with the SynchroCast3[™] simulcast system, increasing coverage over T1/E1 or IP networks. Widely deployed and established LAN/WAN connections offer lower cost and higher-bandwidth alternatives to dedicated full-time links.

Multiple-Service Transport in Multiple Streams

The NetXpress system accepts a variety of existing Intraplex plug-in modules for voice, data, audio and video transport. Flexibility in creating streams gives users the ability to maximize network efficiency.

Cost-Effective Migration to IP

The NetXpress multiplexer provides easy migration from dedicated circuits to IP-based networks. Simultaneous use of T1/E1 ports alongside IP and the ability to repurpose the existing base of Intraplex modules create a cost-effective and easily managed transition to IP networks.

Data Transport Reliability

With built-in forward error correction, packet delay jitter compensation and low-delay packet processing, the NetXpress system offers high-quality, robust streaming that overcomes anomalies commonly associated with packet networks and assures successful data transport.

FEATURES

- Voice, data and video transport over 10/100 Base-T networks
- Compatible with SynchroCast3 simulcast system over IP
- Use of existing communications infrastructures
- Smooth migration to packet-switched networks
- Built-in forward error correction
- Transport of multiple services in one or more streams
- Internal, external and adaptive stream timing
- Support for simple and complex networks
- Web browser user interface
- Redundant Network Interface Module (NIM)
- Redundant power supplies

Simple and Complex Networks

Accommodating up to 32 simultaneous streams (half-duplex or duplex, unicast or multicast), the NetXpress system lets users configure and utilize multiple paths as needed to support complex network topologies. Both a Web browser interface and SNMP-based management permit either centralized or decentralized control.

Quality and Economy

The NetXpress IP multiplexer delivers the quality of Intraplex and the economy of IP in one solution.

Specifications

Specifications are subject to change without notice.

General

The base system includes the chassis with one network interface module (NIM), one module interface unit (MIU) and one power supply; hot-standby redundant power supply is optional

Module Compatibility	Accepts Intraplex plug-in audio, voice, data and video modules; see individual module specifications for details and applications
Voice Support	4-Wire E&M 4-Wire ADPCM E&M 2-Wire FXO/FXS 2-Wire ADPCM FXO/FXS
Data Support	Ethernet LAN bridging Synchronous and asynchronous serial data, RS-232, RS-449, V.35, X.21

Network Interfaces

Ethernet (IP) Ports	Port 1: Management LAN — RJ-45 Port 2: WAN — RJ-45 Port 3: LAN — RJ-45
Ethernet Data Rate	10/100 Base-T (10 or 100 Mb/s) Full duplex Auto-negotiation with network
T1/E1 Ports	Two RJ-45
T1/E1 Data Rate	T1: 1.544 Mb/s E1: 2.048 Mb/s
Circuit Connection	Up to 32 streams/connections Point-to-point unidirectional Point-to-point bidirectional Point-to-multipoint unidirectional multicast (IGMP v2)
Network Protocols	IP, TCP, UDP, RTP, DHCP, DNS, HTTP, FTP, Telnet, NTP, SNMP v2c, RTP, ARP, ICMP

Timing

Internal	Locally generated T1 or E1 reference
External	RS-422/RS-485 clock input
Stream	Adaptive to incoming program stream
Timing Out	RS-422 clock output

Stream Performance

Forward Error Correction (FEC)	High, low, off, user-selectable
Packet Optimization	Programmable jitter buffer depth to 128 packets (provides compensation in excess of one second of network jitter)
Quality Of Service	Adjustable packet size/rate IPv4 Type of Service (ToS) tagging Differentiated Service (DiffServ)

Alarm and Indicators

LED Indicators	Normal, major alarm, minor alert, alarm cutoff (ACO), LAN link status, LAN 100 MB, LAN activity, external timing, internal timing, adaptive timing, network status
Alarm Reporting	Major/minor alarms, NO/NC relay contacts, SNMP traps, alarm logs, off-site server storage for log files

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

Power

Power Supply	Single or redundant 80 or 200 W universal AC 150 W 48 V or 150 W 24 V DC
Power Consumption	15 W or less with no channel modules installed

Environmental and Physical

Temperature	32° to 122° F (0° to 50° C) operating
Humidity	10 to 90% non-condensing
Physical: 3RU (H x D x W)	5.25 x 14.25 x 19 in. (13.4 x 36.2 x 48.3 cm)
Weight	11 lb (5 kg) approximate, without channel modules installed; maximum weight depends on number and type of modules installed

Regulatory Compliance

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

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

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