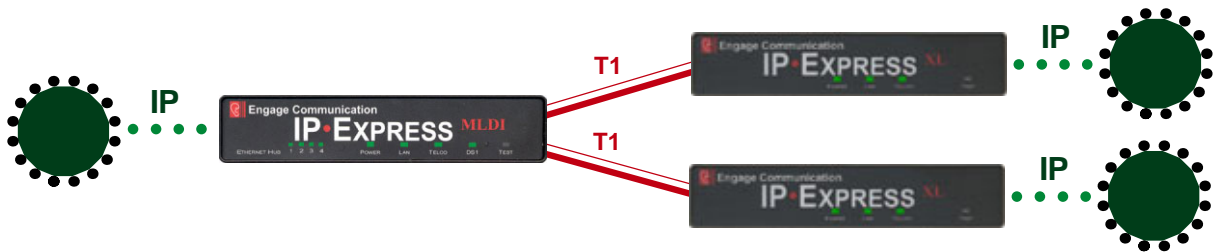


• IP WAN Router with Integrated T1 DSU/CSUs •

IP•Express•MLBH•T1 is a Wide Area Network router that routes the Internet Protocol through integrated T1 WAN ports. The T1 WAN ports supports **Point to Point** and **Frame Relay** Wide Area Networking Protocols with 24/7 proven interoperability.

The **IP•Express•MLBH•T1** is a very reliable, high performance and cost effective IP WAN Router for interconnecting two remote LANs and for high performance MPEG IP Video delivery. The Integration of the T1 CSUs provides for a complete solution with a straight forward configuration. It is great for:

- Shared Internet Access • Branch Office Connections
- Education District Networking • Multimegabyte File Transfers
- MPEG Video Distribution



Inverse Packet Multiplexing

Inverse **P**acket **M**ultiplexing is a feature of the **IP•Express•MLBH•T1•IPM**. **IPM** delivers 3 Megabits of interconnectivity over Dedicated T1 WANs. Built in T1 line fault detection provides for automatic bandwidth backup for Mission Critical Fault Tolerant Interconnects.

MPEG IP Multicast Streaming Video Delivery

IP•Express•MLBH•T1•IPM models delivers MPEG IP Streaming Video over Inverse Multiplexed T1s. The Inverse Packet Multiplexor provides the bandwidth necessary for the delivery of broadcast quality Streaming IP Video.

IP Multicast is a standard feature of the **IP•Express** and is utilized to distribute MPEG video simultaneously to multiple decoders.

REDundant IP Video configuration that automatically switches from the primary to a secondary Encoder's IP Video Stream for mission critical broadcasts and is only available with the **IP•Express•MLBH•T1•IPM•RED**.

MPEG Encoder Primary



MPEG Encoder Secondary

Inverse Packet Multiplexed T1s
3 Mega Bits Per Second



MPEG Decoder

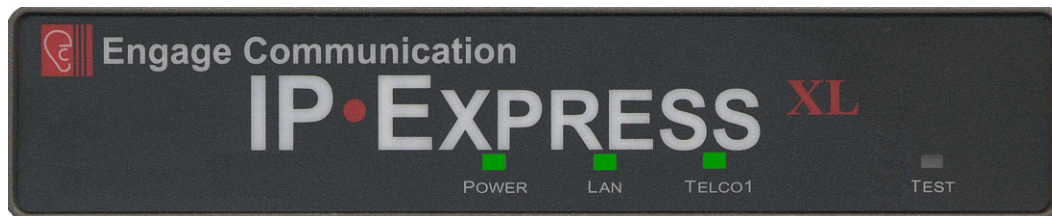


MPEG Decoder

IP Multicast

PEXpress•MLBH•T1

• IP WAN Router with Integrated T1 DSU/CSUs •



Bit Error Rate Tester is a standard feature. The **BERT** capability in combination with the diagnostic test loops provides for T1 physical layer qualification. An integrated Four Port 10BaseT Ethernet Hub provides a complete T1 Branch Office solution.

Management of the **IP•EXPRESS•MLBH** models is accomplished with a Command Line Interface that is accessed through a Console or Telnet connection. Templates of the most common configuration provide for an Edit and Paste configuration.

Technical Specifications

LAN Network Interface:

- 10BaseT Four Port Ethernet Hub

LAN Network Protocols Supported:

- IP, TCP, UDP, RIP, ICMP, BOOTP
- IP Multicast support
- IP Video Stream Redundancy (Optional)
- AppleTalk (Configuration Only: EngageView)

WAN Network Interfaces:

- Two T1/FracT1 CSU/DSU ports
- Inverse Packet Multiplexing (Optional)

WAN Network Protocols Supported:

- PPP (RFC 1548, RFC 1332, RFC 1334, PAP)
- Frame Relay (ANSI ANNEX D, LMI, RFC 1420)

T1/Fractional T1 Specifications:

- Framing - ESF or D4
- Coding - B8ZS or AMI
- Supports DS0 assignments from 1 to 24 (64Kbps to 1.536Mbps)

T1 Diagnostic:

- Loopback Test
- Network, Internal, Framer, Payload
- Bert Tests
2E07,2E11,2E15,QRSS

TFTP Online Upgrade Capable (FLASH ROMs)

- IPEXpressXLT1 is fully operational during upgrade

Network Security

- Full On Source, Destination Address; Port and Flag IP Packet filtering
- Network, Device and Application Layers.

Management:

- Telnet support with Edit and Paste Template Files
- Console Port for Out of Band Management
- SNMP support (MIB I, MIB II)
- Remote configuration, monitoring, & reset

Regulatory:

- Safety - IEC60950
- EMC - CFR 47 Part 15 Sub Part B:2002
EN55022:1994+A1&A2
EN55024, ICES-003 1997
CISPR 22 Level A
- Telecom - Part68

Power:

- 12-36 VDC, 1.0A;
International Adapters Available

Dimensions:

- 9" (L) x 7.3" (W) x 1.50" (H)

DC Powered Back Panel

Telco1: T1 Telecom Circuit Interface RJ48S Telco2: T1 Telecom Circuit Interface RJ48S



Console Port Connector
• RJ 45 to DB 9 Male Adapter provided

Four Port 10BaseT Ethernet Hub

12-36VDC, 1.0A