



ATLAS 830

Integrated Access Device

Product Features

- Supports E1, T1, T3, ISDN PRI/BRI, IP Routing, and Frame Relay access, concentration, and switchings
- Eight-slot modular chassis includes two T1/PRI ports and a 10/100BaseT Ethernet port
- Supports voice and data over Frame Relay applications and offers optional Dial Backup
- Integral Switchboard and Dial Plan for intelligent call-by-call routing, number substitution, and protocol conversion
- Supports 1/0 Digital Cross Connect and multiplexing applications
- Ideal WAN access switch for videoconferencing
- Integral 10/100BaseT Ethernet for Telnet access and IP routing using PPP or Frame Relay Encapsulation
- All option modules are hot-swappable
- AC and -48 VDC versions
- Management support includes: SNMP, Telnet, and VT100, and N-Form (Web-based NMS)
- Optional redundant power supply available

The ATLAS 830 Integrated Access Device (IAD) is a multi-function, modular platform that provides voice, data, video, and Internet connectivity, as well as WAN access to reduce overall telecommunication expenses. The ATLAS 830 is designed to be installed between the network service provider's circuit(s) and customer premises equipment enabling many network devices to share WAN access and bandwidth. This flexible and modular platform functions as a T1/E1 bandwidth manager, ISDN PRI/BRI switch, Frame Relay switch, IP Router, NxT1 IMUX, and 1/0 DACS. It also includes intelligent call routing through the integral switchboard and dial plan that provides dynamic call-by-call switching based upon the called or calling phone number.

The ATLAS 830 is an eight slot, modular platform that supports up to 34 T1/PRI or 24 E1/PRA and offers a series of hot swappable option modules, allowing the system to satisfy many applications in either carrier or corporate networks. The ATLAS 830 chassis includes two independent software programmable network interfaces that can be configured for T1, DSX-1, or PRI operation. The ATLAS 830 provides DACS and grooming for E1 and T1 circuits in a small, economical footprint. Users can perform time slot interchange and reassign or crossconnect any DS0 from any circuit to any other circuit. The ATLAS 830 also provides dynamic circuit switching on the high-speed backplane. ISDN and voice switching are performed on a call-by-call basis for on-premises routing or least cost routing to the public network.

The ATLAS 830 supports video applications by providing multiple E1, T1, PRI, BRI, V.35, RS-449, EIA-530 and RS-366 interfaces for CODECs and gateways. By using the Nx56/64 Bonding Module, video calls ranging from 112 Kbps up to a full E1/PRA rate (1920 Kbps) can be supported.

For data applications, users can connect the ATLAS 830 directly to the LAN using the integral 10/100BaseT Ethernet interface and internal IP routing software. Users can also connect an external router or other device through one or more serial ports. The ATLAS 830 offers a variety of serial interface options including V.35, EIA-232, EIA-530, RS-449, X.21, and V.36. It includes Frame Relay software as well as an IP router and support for PPP applications.

Voice over Frame Relay (VoFR) is supported using one or more of the optional Voice Compression Modules to deliver high quality voice among Frame Relay sites. The ATLAS 830 can be configured to transport voice and data traffic within a single PVC, reducing monthly expenses. It can also be optioned to transport up to 64 compressed voice connections over a Frame Relay network. The ATLAS 830 also supports IP routing over public and private Frame Relay networks.

For network management, the ATLAS 830 supports N-Form and offers local and remote management capabilities using Telnet or VT100 connected to the built-in 10/100BaseT Ethernet interface. The ATLAS 830 also includes LEDs for complete indication of operational status.

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Product Specifications

Network Interface

- Two built-in T1/DSX-1/PRI ports;
- Full or Fractional E1/T1 support
- Connects to network or user equipment; software configurable
- Built-in CSU
- **Signaling ISDN D Channel, Robbed-Bit:** FXS and loop start, DID conversion between T1 and ISDN
- **E1/PRA Line Rate:** 2.048 Mbps
T1/PRI Line Rate: 1.544 Mbps
- **E1/PRA Physical Interface:** DB-15, BNC
T1/PRI Physical Interface: RJ-48C, modular 8-pin
- **E1/PRA Framing:** NFAS, FAS, TS16 MF and CRC-4
T1/PRI Framing: D4(SF)/ESF
- **E1/PRA Line Code:** HDB3
T1/PRI Line Code: AMI/B8ZS
- **E1/PRA Input Signal:** 0 to -30 dB
T1/PRI Input Signal: 0 to -36 dB

LAN Features

- Built-in 10/100BaseT Ethernet port

IP Router Features

- Integral IP router supports RIP v1, RIP v2, ICMP, ARP, IARP, UDP Relay

WAN Features

- Frame Relay with RFC 1490 encapsulation
- PPP

Link Management

- ANSI T1.617-D (Annex D)
- ITU-T Q.933-A (Annex A)
- LMI (group of four)
- Automatic link management protocol discovery

Congestion Control

- FECN/BECN, Discard Eligible (DE)

Quality of Service

- User configurable DLCI priorities
- G.723.1 voice compression (with optional module)

ISDN Switch Compatibility

- EURO ISDN, Lucent 4ESS/5ESS, Nortel DMS-100/250, NI-1 and NI-2

Management Features

- Configuration, Alarms, Statistics, and Tests via Telnet
- Trap/Alarm messages using SNMP
- SNMP, MIB II (RFC1213), DS-1 MIB (RFC1406) and Enterprise MIBs
- N-Form software provides extensive management including front/rear panel images, trap/alarm messages, and customizable reports
- Supports local and remote loopbacks, QRSS test patterns
- Alarm contacts

Frame Relay Performance Stats

- TX/RX packets, state changes, signaling errors, TX/RX full status, TX/RX link integrity status, FECN/BECN count, DE count
- Min/Max/Avg delay, dropped packets

Frame Relay Capacity

- 992 PVCs per system
- 7900 packets per second

Physical

- **Dimensions (cm):** 44.5 W x 31.8 D x 14.0 H
- **Weight:** 5.6 kg
- **Power:** 90/240 VAC; 50/60 Hz; 50 W (base unit); 200 W (max); -48VDC
- **Operation Temperature:** 0°C to 45°C
- **Storage Temperature:** -40°C to 70°C

Agency Approvals

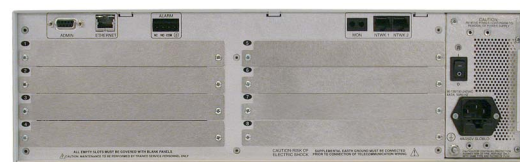
- CE Mark (AC only)
- UL EN60950, CUL
- FCC Part 15 (Class A) and FCC Part 68

Product Includes

- ADTRAN utilities software (includes TFTP server, VT100 client, and Telnet); two RJ-48C straight-through cables; one RJ-48C crossover cable; one RJ-48-to-DB-15 adapter; user manual; and 19" mounting brackets.

Ordering Information

Equipment	Part #
ATLAS 830, AC (90-240v)	1200780L1
ATLAS 830, DC	1200781L1
Quad E1/PRA Module	1200264L1
Quad E1/PRA Module (with BNC adapters)	4200264L1
Quad T1/PRI Module	1200185L3
Octal FXS Module	1200338L1
Octal BRI/U Module	1200186L2
Octal BRI/ST Module	1200343L1
Nx56/64 Bonding Module	1200262L1
Quad V.35 Module	1200184L1
HDLC Module	1200222L1
Quad Universal Serial Modules (USS) for RS-449, EIA-530, X.21/V.11, and EIA-232	4200261L1/2/3/4
Dual V.35, EIA-530, and RS-449 Video Modules with RS-366 Dialing Interface	4200773L1/2/3



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