Total Access 850 VoDSL

Modular Integrated Access Device

Product Features

- Carrier Class integrated access device
- Modular network interface for VoDSL or VoATM compatibility
- Seamless voice and data integration over DSL or T1
- Up to 24 TR-57 compliant analog POTS interfaces
- ATM and Frame Relay support
- Compatible with industry-leading DSLAMs and Voice over Broadband gateways
- IP router for integrated data support and Internet access
- V.35 Nx56/64 DTE interface
- Full security and LAN protection
- NEBS and UL 1950 compliant
- Rugged metal chassis
- Industry-leading 10-year warranty

A component of the Total Access System, Total Access 850® is a completely modular Carrier Class integrated access device designed for cost-effective deployment and seamless integration of combined services at the customer's premises. The Total Access 850 provides enterprise users and integrated communications providers, such as CLECs, ILECs, and ISPs, a viable migration path from TDM to packet-based technologies, including VoATM and VoDSL.

The Total Access 850 has two common slots and eight access slots allowing the customer to combine a variety of voice and data services into a single platform. Two common cards, the power supply unit (PSU) and the router control unit (RCU), are required for operation. The RCU supports TDM-based applications and can be easily upgraded to support packet-based applications. The RCU activates several user interfaces on the Total Access 850 chassis including the network interface, the Nx56/64 V.35 interface for synchronous data applications, and the integral IP router. Up to six Quad FXS or Quad FXO access modules can be installed to provide support for up to 24 analog voice lines. These analog interfaces support the stringent design and full feature set required by today's carrier, including popular CLASS® features. The VoDSL and VoATM implementations found in the Total Access 850 are compatible with industry-leading VoBB Gateways. Access slots A and B are available for hardware options such as echo cancellation/ADPCM support.

The Total Access 850 is housed in a rugged metal chassis and provides the flexibility needed for quick turn-up in harsh environments. Easy access to modules, common cards, and power supplies simplifies maintenance procedures. Hot-swappable access modules can be replaced without disrupting service to the entire system. An optional ADTRAN battery backup system is available for added security.

The integrated IP router provides a powerful suite of performance and security features. For simultaneous access to the corporate network and the ISP the Total Access 850 offers multiple PVC configurations. Supporting NAT/PAT and packet filtering, the Total Access 850 secures the corporate network from unwanted intrusion.

In a compact, NEBS-compliant chassis, the Total Access 850 provides the added safety and reliability suitable for the customer premises or the central office. About the size of a standard piece of notebook paper, the 8.5-inch by 11-inch 2U chassis minimizes rackmount and wallmount space. Two Total Access 850 systems can be mounted side-by-side in either 19- or 23-inch racks. Pre-configured mounting packages are available. For network access, the Total Access 850 has a single T1 or DSL interface that is compatible with today's industry-leading DSLAMs. In addition to all of these features, the Total Access 850 is backed by an industry-leading 10-year warranty and ADTRAN's 24-hour technical support.

For more information on Total Access 850 TDM specifications, please refer to the Total Access 850 TDM data sheet.

ADTRAN

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Product Specifications

NETWORK InterfacE (RJ-48C)

T1
- **Line Rate:** 1.544 Mbps +/- 75bps
- **Framing:** D4 (SF)/ESF, AT&T 54016, ANSI T1.403
- **Line Code:** AMI / B8ZS
- **Input Signal:** 0 to -36 dB
- **Support** for TDM, Frame Relay, and ATM
- **Echo** cancellation/echo cancellation with ADPCM module (required for VoDSL)

SDSL (2B1Q Conexant-based)
- **Line Rate:** 168kbps to 2.3 Mbps
- **Training:** Conexant Autobaud capability
- **Support** includes echo cancellation and ADPCM

SHDSL (ITU G.991.2) (Future Addition)
- **Line Rate:** 192 kbps to 2.3 Mbps
- **Rate** adaptive, enhanced spectral compatibility
- **RCU** includes echo cancellation and ADPCM

ATM Support
- **AAL2** (voice), AAL5 (data and voice)
- **6 PVCs** (1 voice, 5 data)
- **RFC 1483** (multiprotocol over ATM)
- **PPPoA** (RFC 2364)
- **QoS Support:** VBR-rt (voice), UBR (data)
- **I.610** F5 OAM Loopback
- **ALS/G.168** echo cancellation, 8ms echo tail
- **Voice Codecs:** PCM (G.711), 32k ADPCM (G.726)
- **Idle** channel suppression

Frame Relay Support
- **RFC 1490** (multiprotocol over Frame Relay)
- **Copper** Mountain CE fragmentation support
- **FRF.5** and FRF.8 support

TR-57 Compliant Analog modules
- **Up to 24** analog FXS ports, 50-pin AMP
- **Supports** popular CLASS™ features
- **Modes:** FXS Loop Start, TR-08 signaling
- **Ringing:** Unbalanced

Routing Capability
Ethernet: 10BaseT (RJ-45)
- **IEEE** 802.3 and 802.1D (MAC Bridging)
- **IP Support:** TCP, RIP V1, RIP V2, UDP, ICMP, ARP, UDP Relay, SYSLOG
- **PPP Support:** LCP, IPCP, BCP
- **DHCP:** Server to LAN, DHCP from network (NAT)
- **RFC 1490, RFC 1483**

Security
- **PAP, CHAP, EAP** and Radius
- **Multipoint** to singlepoint (multipoint in the future)
- **PAT** with DHCP
- **Filtering** (Pattern, IP, Bridge)
- **Six** layer password protection

Management Options
Craft Interface
- **Front** or rear panel access
- **EIA-232,** physical RJ-48C or DB-9

Ethernet 10BaseT Port
- **VT** support
- **Full,** menu-driven TELNET access
- **Software** download via TFTP
- **Support** for VoDSL gateway management systems and firmware download

V.35 DTE Interface
- **Data Rate:** Nx56 or Nx64 kbps (N=1 to 24)
- **Electrical and Mechanical:** CCITT V.35, 34-pin
- **TDM** or Frame Relay (FRF.5, FRF.8 capable)

Environment
- **Operating Temperature:** 0° to 50°C, (32° to 113°F)
- **Storage Temperature:** -20 to 70°C, (-4 to 158° F)
- **Relative Humidity:** Up to 95%, non-condensing

Physical
- **Dimensions:** 3.5" H, 11" D, 8.5" W
- **Weight:** 8 lbs. (fully loaded)
- **Agency Approvals:** UL1950, CUL, FCC Part 15 (Class A), FCC Part 68

Power
- **DC Power:** 40-50 VDC, 50W Max
- **AC Power** (order 1175043L1): 90 -130 vAC, 60Hz, 50W max
- **Optional** eight-hour battery backup system

Ordering Information

Equipment	Part #
Total Access 850 Chassis	1200375L1
PSU	1175066L
T1 ATM RCU	4200376L1/ATM
Echo Canceller	1200384L1
Echo Canceller w/ADPCM	1200384L2
SHDSL RCU	1200381L1
SDSL RCU	1200377L1
AC Supply and Battery Charger	1175043L2
Battery Back-up System (Hinged)	1175044L2
Quad FXS Module	1175408L2