



# Total Access 612/616/624

## Fixed-Port Integrated Access Devices

### Product Features

- Seamless voice and data integration over T1 or packet-based architectures
- Up to 24 analog POTS interfaces
- TDM, ATM and next-generation packet support
- Compatible with industry-leading DSLAMs and voice gateways
- Integral IP router for data support and Internet access
- V.35 Nx56/64 DTE interface
- Optional DSX-1 for PBX connectivity
- Rugged metal case
- Optional battery backup
- Industry-leading 10-year North American warranty

**With millions of small- to medium-sized enterprises existing today, the requirement for carriers to provide integrated voice and data solutions is growing at a rapid rate.**

ADTRAN™ delivers with the industry-leading Total Access® Integrated Access Devices (IADs). The Total Access 612, 616, and 624 are three cost-effective, fixed-port, IADs designed to support either TDM or emerging packet architectures. These IADs offer enterprise users and integrated communications providers, such as CLECs, ILECs, and ISPs, a means to offer combined voice and data traffic over a single network interface terminating at the customer's premises.

The Total Access 612 provides 12 fixed analog voice interfaces, while the Total Access 616 provides 16 fixed analog voice interfaces, and the Total Access 624 provides a full 24-port voice capacity for large voice applications. These analog FXS interfaces support the stringent design and full feature set required by today's carriers. Total Access 600 series IADs provide a built-in IP router and Nx56/64 V.35 port for synchronous data applications, allowing the customer to combine a broad variety of voice and data services into a single platform. Total Access IADs are compatible with industry-leading DSLAMs and voice gateways for packet-based applications. The FXS interfaces support all popular CLASS™ features. For PBX connectivity these IADs are also available with a built-in DSX-1 interface for digital voice applications, depending on the part number selected.

Built with the carrier in mind, the Total Access 600 IADs are housed in a rugged metal case and provide the flexibility needed for quick turn-up in harsh environments. Wall and desktop mounting options are available for ease of installation. An optional ADTRAN battery backup system is available for added security.

The integral IP router provides a powerful suite of performance and security features. Each Total Access 600 IAD offers multiple PVC configurations for simultaneous access to the corporate network and the ISP. Supporting NAPT and packet filtering, Total Access 600 IADs secure the corporate network from unwanted intrusion. All configuration options, testing parameters, and passwords are accessed through an easy-to-use VT100 terminal interface or a TELNET session using the 10/100BaseT port.

Using local or remote inband management, the service provider can turn features, functions, and access ports on and off. For network access, the Total Access 600 IADs have a single T1, SDSL, or SHDSL interface that is compatible with today's industry-leading DSLAMs. In addition to all of these features, the Total Access 600 IADs are backed by an industry-leading 10-year warranty and ADTRAN's 24-hour technical support. For applications requiring four or eight FXS analog ports refer to the Total Access 604 and 608 datasheet.



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# Total Access 612/616/624

## Fixed-Port Integrated Access Devices

### Product Specifications

#### Network Interface

- Physical Interface: RJ-48C

#### T1

- Line Rate: 1.544 Mbps +/- 75 bps
- Framing: D4 (SF)/ESF, AT&T 54016, ANSI T1.403
- Line Code: AMI/B8ZS

#### SHDSL (ITU G.991.2)

- Line Rate: 192 kbps to 2.3 Mbps
- Rate-adaptive, enhanced spectral compatibility

#### SDSL (2B1Q Conexant-based)

- Line Rate: 160 kbps to 2.3 Mbps
- Training: Conexant autobaud capable

#### ATM Support

- AAL2 (voice), AAL5 (data, 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
- G.165/G.168 echo cancellation, 8ms echo tail
- Voice Codes: PCM (G.711), 32k ADPCM (G.726)
- Idle channel suppression

#### Frame Relay Support

- Copper Mountain CE fragmentation support
- FRF.5 and FRF.8 support (V.35)

#### Analog Ports

- 12, 16, or 24 analog FXS ports per TR-57, 50-pin amp
- Supports popular CLASS™ features
- Modes: FXS Loop Start, Ground Start
- Assured Dialtone™ Lifeline POTS port
- Ringling: unbalanced, 20 REN, continuous, output ring voltage 105 Vrms, nominal

#### Routing Capability

##### Ethernet: 10/100BaseT (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)
- Copper Mountain compatible

#### Security

- PAP, CHAP, EAP and Radius
- NAT with multi-point to single-point
- Future support for NAT multi-point to multi-point
- PAT with DHCP
- Filtering (Pattern, IP, Bridge)
- Password protection

#### Management Options

##### Craft Interface

- EIA-232, physical RJ-48C

##### Ethernet 10/100BaseT Port

- SNMP V1 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
- 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: 1.75" H x 8.5" D x 17.0" W
- Weight: 7 lbs.
- Agency Approvals: EN55022, EN50082-1, EN60950, ETSI 300-386-2, UL 1950, CUL, FCC Part 15 (Class A), FCC Part 68

#### Power

- AC Power: 90-130 VAC, 60 Hz, IEC connector, TA 612: 28 W, TA 616: 32 W, TA 624: 40 W
- Optional eight-hour battery backup system

## Ordering Information

Equipment	Part #
<b>Total Access 612</b>	
T1 TDM Network Interface	4200612L1#TDM
T1 TDM with DSX-1	4213612L1#TDM
T1 ATM Network Interface	4200612L1#ATM
T1 ATM with DSX-1	4213612L1#ATM
SDSL Network Interface	4200612L2
SHDSL Network Interface	4200612L3
T1 TDM with Echo Cancellation and ADPCM Module	4200612L2#TDM
<b>Total Access 616</b>	
T1 TDM Network Interface	4200616L1#TDM
T1 TDM with DSX-1	4213616L1#TDM
T1 ATM Network Interface	4200616L1#ATM
T1 ATM with DSX-1	4213616L1#ATM
SDSL Network Interface	4200616L2
SHDSL Network Interface	4200616L3
T1 TDM with Echo Cancellation and ADPCM Module	4200616L2#TDM
<b>Total Access 624</b>	
T1 TDM Network Interface	4200624L1#TDM
T1 TDM with DSX-1	4213624L1#TDM
T1 ATM Network Interface	4200624L1#ATM
T1 ATM with DSX-1	4213624L1#ATM
SDSL Network Interface	4200624L2
SHDSL Network Interface	4200624L3
T1 TDM with Echo Cancellation and ADPCM Module	4200624L2#TDM
T1 TDM, FXS+FXO	4200624L3#TDM
Optional 8 hour Battery Backup System	1175044L1



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