16-Port Bonded SHDSL

Total Access® 3000 SHDSL High-Density Modules

The ADTRAN® Total Access 16-Port SHDSL modules provide high-density, low-cost deployment of 16 industry-standard e.SHDSL interfaces. SHDSL is the most functional, standards-based Digital Subscriber Line (DSL) technology developed to date. Resulting from the convergence of the best features of traditional DSL technologies, SHDSL incorporates rate/range adaptability, spectral compatibility, impairment tolerance, and high-speed symmetric deployment.

SHDSL is particularly suited for business-based voice and data applications such as multiple voice-line delivery, Internet access, Ethernet extension, and remote LAN access. The 16-port SHDSL modules are another addition to ADTRAN’s Total Access DSLAM architecture. The Total Access DSLAM utilizes the System Controller Unit (SCU) and a complement of ATM or Ethernet switches. These are configured in the same chassis as ADTRAN’s field-proven Total Access Broadband Platform. The Ethernet or ATM switch receives and routes traffic from the network to the SHDSL module for transmission over the loop.

Each 16-port e.SHDSL module occupies two slots in the Total Access DSLAM shelf allowing 224 subscribers per single chassis. Each SHDSL port is individually configurable and supports rates from 192kbp/s to 5.7Mbps over a single copper pair. ADTRAN currently offers three different 16-port SHDSL modules. First, a 2-wire/4-wire version that provides SHDSL and e.SHDSL for single and two-pair operation. Second, an IMA version which provides up to eight pairs of SHDSL or e.SHDSL to be bonded together using Ethernet in the First Mile (EFM) to deliver up to 45Mbps to the customer. The Total Access 3000 EFM solution is certified to MEF (Metro Ethernet Forum) four and fourteen.

The front panel is equipped with an LED for each port to quickly determine circuit status. Each SHDSL circuit utilizes the Trellis Coded Pulse Amplitude Modulation (TC PAM) line code scheme ensuring spectral compatibility with existing binder group services. ADTRAN’s SHDSL module is 100 percent compliant with the ITU Standard for SHDSL transmission (G.991.2) for interoperability with other standards-based SHDSL products. The Total Access system offers several methods for user-friendly operation, administration, maintenance, and provisioning of the entire SHDSL circuit. SNMP management using ADTRAN’s Total Access Element Management System (EMS) or other SNMP-based systems is provided via the 10BaseT or inband connection on the Total Access DSLAM shelf. A VT100 interface on the front of the SCU provides easy access to the module menu screens.

ADTRAN also offers a variety of CPE to terminate SHDSL, including the Total Access 238, 832, and 838. The Total Access 238 terminates up to eight pairs of e.SHDSL bonded using IMA protocol. The Total Access 832 and 838 terminate two and eight pairs respectively bonded using EFM. Each of these devices provide multiple 10/100 Ethernet interfaces to the customer premises.
16-Port Bonded SHDSL

Total Access 3000 SHDSL High-Density Module

Product Specifications

Front Panel Features
- Power LED
- Sixteen (16) SHDSL port indicators

Mechanical
- Dimensions: 5.35 in. H x 0.66 in. W x 10.2 in. D
- Weight: Less than 2 lb.
- Mounting: Occupies two access module slots in the Total Access 3000/3010 chassis

Interfaces
- Network Interface: Ethernet or ATM upstream
- Subscriber Interface: SHDSL

Electrical
- Power Requirements: -42 VDC to -56 VDC input range

Regulatory Standards
- NEBS Level 3
- GR-1089-CORE
- UL 60950

Management
- Craft interface, SNMP, TL1

Environmental
- Operating: -40°C to +65°C
- Storage: -40°C to +85°C
- Relative Humidity: Up to 95 percent, noncondensing

Ordering Information

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<tr>
<td>Total Access 3000 2-wire/4-wire SHDSL</td>
<td>1181422L1</td>
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