



Product Features

- Full local switching capability
- T1, SHDSL and ADSL line interface support
- Remotely manageable
- Suitable for Remote Terminal and Central Office applications
- UNI3.1 and TM 4.0 compliant
- Full QoS (CBR, VBRrt, VBRnrt, UBR)
- Policing and queuing
- Oversubscription available for sustained services
- Full ATM address space
- Industry-leading, 10-year warranty

128-Port CSM

Total Access® 3000 128-Port Cell Switch Module

From Voice-over-DSL (VoDSL) and high-speed data to network-edge concentration and switching, the ADTRAN® Total Access 128-Port Cell Switch Module (CSM) provides the industry's best solution for ATM-based deployments. The ADTRAN CSM provides local switching capability for ADTRAN's Total Access 3000 multiservice access platform. The 128-Port CSM provides ATM switching for up to 128-physical ATM ports and up to 500-virtual circuits. With a variety of subscriber line interfaces, the CSM offers an unmatched degree of flexibility in network design and scalability.

The CSM occupies a single position in the Total Access 3000 and can be used with ATM DS3, T1, SHDSL, ADSL, Circuit Emulation, and T1 IMA subscriber line units to address the majority of today's DSL applications. The CSM-equipped Total Access 3000 functions as an ATM switch. Adding a second CSM to the

existing shelf provides switching redundancy. ADSL, Circuit Emulation, T1 IMA, and SHDSL line cards can be used to provide DSLAM services. T1 interfaces can be used for business-based voice and data services that are terminated by Integrated Access Devices (IADs) or routers. The Total Access 3000 system can function as the loop access platform, concentration platform, or switch in remote terminal, remote central office, or hub central office locations due to its small size, high density, and temperature-hardened design.

The CSM can be managed through SNMP, Telnet, or local craft interface with VT100 terminal emulation. ADTRAN's Total Access EMS provides the management platform for the Total Access 3000 system for Operations Support Systems requiring Telecommunications Management Network (TMN) support or mediation services for various protocols.



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ADTRAN is an ISO 9001, ISO 14001 and a TL 9000 certified supplier.

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128-Port CSM



Total Access® 3000 128-Port Cell Switch Module

Product Specifications

Front Panel Features

- Power LED
- Status LED
- Test LED
- ATM LED
- Clock LED
- Lockout LED
- On Line LED

Mechanical

- Single Total Access 3000 multiplexer slot

Interface

Network

- Received through the access modules
- Supports DSX-1, SHDSL, ADSL, ADSL2+, and DS1 IMA access modules

Subscriber

- Default 16 VCs per interface
- ATM UNI 3.1/4.0 compliance
- Direct mapped ATM cells
- Payload scrambler per subscriber on by default (can be disabled through management interface)
- Single-bit header error correction option (on per system basis)

Electrical

- -42 VDC to -56 VDC input voltage range
- Fully operational with either A or B power feed

Regulatory Standards

- NEBS Level 3
- GR-1089-CORE, Issue 3
- NRTL Safety Listed

Management

- Supports AIS, RDI, CC, CC Activate/Deactivate OAM cells
- OAM&P interface
- TL1 and SNMP management support through SCU
- Supported by Total Access EMS management systems
- Synchronized PM and provisioning between active and standby units
- QoS reporting and management

Automatic Protection Switching (APS)

- 1:1 equipment protection
- Front panel manual APS control switch

Timing

- External BITS, line, or local timing modes

ATM Switching

- Supports ATM traffic classes
 - CBR
 - VBRrt
 - VBRnrt
 - UBR
- Per VC queuing and scheduling

Environmental

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

Ordering Information

Equipment	Part #
128-Port Cell Switch Module	1181041L4

- Fully hot-swappable (ESD wrist strap required)
- Full feature set available when a single multiplexer installed

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