

Total Access 5000 SM40 4x10GE

Switch Module

IP/Ethernet is rapidly advancing as the primary protocol for delivering voice, video and data services in the network.

The ADTRAN® Total Access® 5000 SM40 4x10 Gigabit Ethernet (10GE) Switch Module enhances the already robust, carrier-class switching capability of the ADTRAN Total Access 5000 Multi-Service Access and Aggregation Platform (MSAP) by offering multiple 10GE network and ring interfaces.

With the ability to be deployed in both Central Office (CO) and Remote Terminal (RT) locations, the SM40 4x10GE Switch Module provides flexible network deployment options, easily scaling to support applications such as Enhanced Broadband, IPTV, Voice over IP (VoIP), Metro Ethernet and service aggregation using 10G Network Interfaces and Ethernet Ring Protection Switching (ERPS) support for network transport.

The Total Access 5000 SM40 4x10GE Switch Module provides four flexible interfaces on the faceplate which can be used in a variety of ways depending on application needs. All four interfaces are innovative Small Form Factor Pluggable Plus (SFP+) optical standard supporting both 1GE and 10GE rates based upon the appropriate SFP in use. In addition, ports of the same speed may be configured to support (IEEE 802.1AX link aggregation) to increase the bandwidth between nodes or toward the core network.

The Total Access 5000 SM40 supports ITU G.8032 ERPS which provides network operators with the ability to create resilient 1 Gbps or 10 Gbps Ethernet rings with multiple Total Access 5000 Nodes. ERPS gives operators the ability to increase their network footprint and size while maintaining a single access point to their IP/Ethernet core.

To support the increased capacity of the technologies being used in the access slots of the Total Access 5000, such as GPON and Active Ethernet, the SM40 4x10GE Switch Module supports high capacity switch fabric and provides non-blocking connectivity to every access module slot. The increased capacity of the switch fabric for the Total Access 5000 SM40 4x10GE Switch Module allows operators to scale both network and subscriber bandwidth for years to come—without a forklift replacement. The SM40 4x10GE Switch Module is supported in all currently deployed Total Access 5000 and Total Access 5006 systems and is backward compatible with all existing Total Access 5000 access and line modules.

Like all Total Access 5000 Switch Modules, the SM40 4x10GE provides traffic management features to support differentiated quality of service as well as enhanced security features to protect user data from external attacks. This switch module can be deployed either simplex or redundant, with sub-100 ms failover times to support even the most critical traffic.

Local Command-line Interface (CLI) and menu management is achieved through Ethernet or VT100 terminal emulation (RS-232) using the System Controller Module (SCM). Remote management is available through Telnet or SNMP using management Virtual Local Area Networks (VLANs). The ADTRAN Advanced Operational Environment (AOE), a comprehensive management platform for the Total Access product line, also can be used to manage both the Total Access 5000 and the SM40 4x10GE Switch Module.



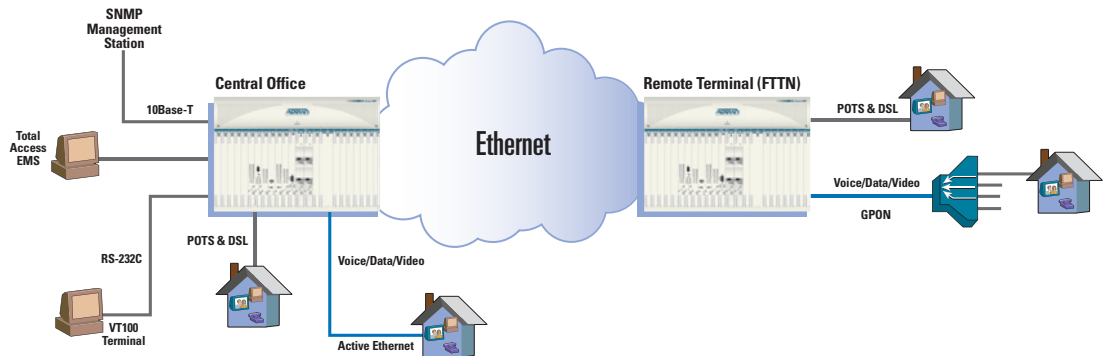
Product Features

- Supports a high density of triple-play service deployments
- Increases access slot capacity to support high-capacity, unblocked, FTTH services.
- Enhanced security to protect against “spoofing” attacks and service theft.
- Class of Service support for multi-service deployments, protecting video quality
- Allows Fiber-to-the-Premises (FTTP) convergence of both business Ethernet and residential broadband services on the same shelf
- Flexible uplink via four SFP+ provisionable (1GE or 10GE) optics supporting simplex or redundant architecture
- Resilient ring protection via ERPS (G.8032) support



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ADTRAN, Inc.
901 Explorer Boulevard
Huntsville, AL 35806

P.O. Box 140000
Huntsville, AL 35814-4000

256 963-8000
256 963-8030 fax

General Information
800 9ADTRAN
info@adtran.com
www.adtran.com

**Pre-Sales
Technical Support**
888 423-8726
application.engineer@adtran.com
www.adtran.com/pre-sales

Where to Buy
877 280-8416
www.adtran.com/where2buy

**Post-Sales
Technical Support**
888 423-8726
support@adtran.com
www.adtran.com/support

Regional Offices
Dallas, TX
972 830-9070
Denver, CO
303 471-9150
Kansas City, KS
800 471-8649
Newark, NJ
800 471-8656
Ontario, Canada
416 290-0585
Quebec, Canada
877 923-8726
San Antonio, TX
888 223-7671

Global Inquiries
256 963-8000
256 963-6300 fax
www.adtran.com/support
international@adtran.com



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

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Product Specifications

Interfaces

Network Interfaces

- Four 10GE or 1GE interfaces via SFP+ connectors
- ITU G.8032 ERPS support fast failover
- IEEE 802.1AX Link Aggregation

Physical

- Requires SMIO3 Switch Module Input/Output

Quality of Service Management and Security

- IEEE 802.1p priority bits
- IEEE 802.1Q VLAN tagging
- Eight strict priority queues
- Full range of VLAN ID support
- Support for 1:1 and N:1 VLAN topologies
- Network and subscriber proxy ARP
- MAC address to port binding
- PPPoE with Intermediate Agent
- Layer 2 DHCP Relay with Option 82

Video Support

- Support for 1:1 and N:1 VLAN topologies
- Multicast packet replication for IPTV applications
- IGMP v2, v3 and MLDv2 Support

Regulatory Standards

- NEBS Level 3
- GR-1089 CORE
- GR-63 CORE
- NRTL Listed
- FCC Part 15

Management

- System CLI and Web through system controller module
- Remote management through SNMP and TL1
- Supported by ADTRAN AOE/EMS

Environmental

- **Operating Temperature:** -40°F to 149°F (-40°C to +65°C)
- **Storage Temperature:** -40°F to 185°F (-40°C to +85°C)
- **Relative Humidity:** Up to 95% at 122°F (50°C), noncondensing

Mechanical

- **Dimensions:** 9.25 in H x 0.97 in W x 9.25 in D

Ordering Information

Equipment	Part #
Total Access 5000 SM40 4x10G No RG	1187040F1
Total Access 5000 SMIO3 I/O	1187051G1
Total Access 5006 SMIO3 I/O	1187052G1

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