**ADTRAN®**

Data Sheet

Total Access

# 5000

## SM200 100G Switch Module
## (2 x 100G, 2 x 40G)

| FTTH | CE 2.0 Certified | SDN Enabled | 100 Gbps |
|------|------------------|-------------|----------|

## Benefits

- Increases uplink capacity to Nx100G
- Supports 40G/100G ERPS rings
- Supports a high density triple-play service deployments
- Increases access slot capacity to support high-capacity, unblocked, next-gen 10GPON (XGS-PON/NG-PON2) services
- Enhanced security to protect against "spoofing" attacks and service theft
- Class of Service (CoS) support for multi-service deployments, protecting video quality
- Allows Fiber-to-the-Premises (FTTP) convergence of both business Ethernet and residential Gigabit services on the same shelf
- Offers two QSFP+ (10G/40G) and two QSFP28 (40G/100G) interfaces - supporting simplex or redundant architectures
- Resilient ring protection via ERPS (G.8032) support

## Overview

**Upgrading FTTP networks to 10G Next-Gen Passive Optical Network (PON) provides network operators the performance to extend the life of their Optical Distribution Network (ODN) while providing an architecture that supports cost-effective business and backhaul services delivery at greater than Gigabit speeds.** The ADTRAN® Total Access® 5000 SM200 100G Switch Module enhances the already robust, carrier-class switching capability of the Total Access 5000 Multi-Service Access and Aggregation Platform (MSAP) by offering flexible 40G and 100G network and ring interfaces.

With the ability to be deployed in both Central Office (CO) and Remote Terminal (RT) locations, the SM200 100G Switch Module provides flexible network deployment options, easily scaling to support symmetric multi-Gigabit services for residential, business and mobile applications, triple-play services, Metro Ethernet, and service aggregation using 40G Network Interfaces and Ethernet Ring Protection Switching (ERPS) support for network transport.

The Total Access 5000 SM200 Switch Module provides four flexible interfaces on the faceplate which can be used in a variety of ways depending on application needs. The SM200 Switch Module has two Quad Small Form-Factor Pluggable+ (QSFP+) optical interfaces supporting 10G/40G rates, and two QSFP28 interfaces that support 40G/100G rates. 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 SM200 Switch Module supports ITU G.8032 ERPS which provides network operators with the ability to create resilient 10G, 40G or 100G 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 Next-Gen 10G PON (XGS-PON and NG-PON2) service delivery, the SM200 Switch Module supports high-capacity Nx100G switch fabric and provides non-blocking connectivity to every access module slot. The increased capacity of the switch fabric for the Total Access 5000 SM200 Switch Module allows operators to scale both network and subscriber bandwidth for years to come—without a forklift replacement. The SM200 Switch Module is supported in all currently deployed Total Access 5000 systems and is backward compatible with all existing Total Access 5000 access and line modules*.

Like all Total Access 5000 Switch Modules, the SM200 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.

*The Total Access 5000 SM200 requires the SMIO3 (1187055F1)

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The Total Access 5000 SM200 Switch Module can be managed via the ADTRAN Mosaic Cloud Platform, local command line interface (CLI) or remote management via Telnet or Simple Network Management Protocol (SNMP) using Virtual Local Area Networks (VLANs). The ADTRAN Advanced Operational Enviroment (AOE), a comprehensive management platform for the Total Access product line, also can be used to manage both the Total Access 5000 and the SM200 Switch Module.

## Product Specifications

### Interfaces

Network Interfaces
- Two 10G/40G QSFP+ Interfaces
- Two 40G/100G QSFP28 Interfaces
- ITU G.8032 ERPS Support Fast Failover
- IEEE 802.Tax Link Aggregation

### Physical
- Requires SMIO4 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
- ADTRAN AOE
- Mosaic Cloud Platform
- Via CLI and Web through SCM
- Via Telnet/SSH-HTTPS
- Remote management through SNMP
- 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 149°F (65°C), noncondensing

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

## Ordering Information

| Equipment | Part No. |
|---|---|
| Total Access SM200 | 1187045F1 |
| Total Access 5000 SMIO4 for SM200 | 1187055F1 |

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