

Total Access 5000 Series

SM200

Nx100GE Switch Module



FTTH

100
Gbps

SDN

Enabled



Benefits

- Increases Uplink Capacity to Nx100G
- Supports 40GE/100GE ERPS Rings
- Supports High Density Triple-Play Service Deployments
- Increases Access Slot Capacity to Support High-Capacity, Unblocked, Next-Gen 10G PON (XGS-PON) Services
- Enhanced Security to Protect Against “Spoofing” Attacks and Service Theft
- CoS Support for Multi-Service Deployments, Protecting Video Quality
- FTTP Convergence of Both Business Ethernet and Residential Gigabit Services on the Same Shelf
- Offers Two QSFP+ (10GE/40GE) and Two QSFP28 (40GE/100GE) Interfaces Supporting Simplex or Redundant Architectures
- Resilient Ring Protection via ERPS (G.8032) Support

Overview

The Adtran Total Access® 5000 SM200 100G Switch Module enhances the already robust, carrier-class switching capability of the Total Access 5000 Fiber Access, Aggregation, and Transport platform. Offering 2x40 and 2x100 Gigabit Ethernet (40GE/100GE) network and ring interfaces, the SM200 switch module simplifies upgrading FTTP networks to 10G Next-Gen PON. Additionally, it enables operators to extend the life of their ODN while providing an architecture that supports cost-effective business and backhaul services delivery at multigigabit speeds.

With the ability to be deployed in both Central Office and Remote Terminal 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/100G 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 face-plate 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 Combo PON) 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 to support even the most critical traffic.

SM200

Product Specifications

Interfaces

- Two 40GE QSFP+ Uplinks
 - 10GE or 40GE Configurable
- Two 100GE QSFP28 Uplinks
 - 40GE or 100GE Configurable

Features

- Redundant or Non-Redundant Operation
- 802.3ah Ethernet OAM Connectivity Fault Management
- 802.1p Class of Service (CoS)
- 802.1Q VLAN Tagging
- 802.1ad Q-in-Q VLAN Topologies
- 802.3ad Link Aggregation (LACP)
- ITU G.8032 Ethernet Ring Protection (ERPS)
- 1:1, N:1, and Hybrid N+1:1 VLAN Topologies
- Multicast Packet Replication for IPTV Applications
- Network and Subscriber Proxy ARP
- IGMP Version 2 Proxy and Snooping
- IGMP Version 3 LITE
- VoIP Protocols, SIP/MGCP, or Traditional Voice Gateway Functionality (GR-303)
- IGMP v2, v3 and MLDv2 Support

Management

- Mosaic Software Suite
- Advanced Operational Environment (AOE)
- Remote Management Through SNMP, CLI, and Web-Service APIs (HTTPS)
- Ethernet Interface on SCM for Web and Telnet/SSH Access (In-Band or Out-of-Band)
- Craft and Ethernet Interfaces on SCM

Physical

- Requires SMIO4 (Switch Module Input/Output)
- Dimensions: 9.5 in. x 0.75 in. x 9.0 in (241 mm x 19 mm x 228 mm) (H x W x D)

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%, Non-condensing

Regulatory Standards

- NEBS Level 3
 - GR-1089-CORE
 - GR-63-CORE
- CE Marking (EMC and Low Voltage Directive)
 - ETSI EN 300 386
 - IEC 62368-1
- FCC Part 15 Class A
- UL/CUL 62368-1
- AS/NZS 62368.1

Ordering Information

Equipment

Total Access 5000 SM200 2x40GE (QSFP+)/2x100GE (QSFP28)

Part No.

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