Total Access 5000 Series

MSM20

TA5004 Nx10G Switch Module

| ⌂ FTTH | **10** Gbps | **SDN** Enabled | **CE 2.0** Compliant |

Benefits

- Supports 1G/10G ERPS Rings
- Supports High-Density Triple-Play Service Deployments
- Increases Access Slot Capacity to Support High-Capacity, Unblocked, Next-Gen 10GPON (XGS-PON) Services
- Enhanced Security To Protect Against "Spoofing" Attacks and Service Theft
- Allows Fiber-to-the-Premises (FTTP) Convergence of Both Business Ethernet and Residential Gigabit Services on the Same Shelf
- Offers Two SFP+ (1GE/10GE) Interfaces Supporting Simplex or Redundant Architectures
- Resilient Ring Protection Via ERPS (G.8032) Support

Overview

The ADTRAN® Total Access® 5004 MSM20 is a high-capacity switching and service aggregation module. It enhances the carrier-class switching capability of the ADTRAN TA5004 10G Fiber Access and Aggregation Platform by offering multiple 10GE network and ring interfaces simplifying upgrading FTTP networks to 10G Next-Gen PON. This enables operators to extend the life of their Optical Distribution Network while providing an architecture that supports cost-effective business and backhaul services delivery at greater than Gigabit speeds.

With the ability to be deployed in a Central Office, remote cabinet, or compact Total Access 5004 Microcabinet, the temperature-hardened MSM20 2x10GE Switch Module provides a flexible network deployment option, easily scaling to support symmetric multigigabit services for residential, business, and mobile applications; triple-play services; Metro Ethernet; service aggregation using 10G Network Interfaces; and Ethernet Ring Protection Switching (ERPS) support for network transport.

The Total Access 5004 MSM20 Switch Module provides two flexible interfaces on the faceplate, which can be used in various ways depending on application needs. It has two Small Form-Factor Pluggable+ optical interfaces supporting 1G/10G 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 5004 MSM20 Switch Module supports ITU G.8032 ERPS, which provides network operators with the ability to create resilient 1G or 10G Ethernet rings with multiple Total Access 5000 Series Nodes. ERPS gives operators the ability to increase their network footprint and size while maintaining a single access point to the IP/Ethernet core.

To support Next-Gen 10G PON (XGS-PON and Combo PON) service delivery, the MSM20 Switch Module supports high-capacity Nx10G switch fabric. In addition, it provides non-blocking connectivity to every access module slot. The increased capacity of the switch fabric for the Total Access 5004 MSM20 Switch Module allows operators to scale both network and subscriber bandwidth for years to come – without a forklift replacement. In addition, the MSM20 Switch Module is supported in all currently deployed Total Access 5004 systems and is backward compatible with all existing Total Access 5004 access and line modules.

Like all Total Access 5000 Series Switch Modules, the MSM20 provides traffic management features to support differentiated Quality of Service and enhanced security features to protect user data from external attacks. Additionally, this switch module can be deployed either simplex or redundant to support even the most critical traffic.

TOTAL ACCESS 5000 SERIES

Product Specifications

Interfaces

- Two SFP+ Interfaces
- ITU G.8032 ERPS
- IEEE 802.ax Link Aggregation

Quality of Service 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

Management

- Mosaic Cloud Platform
- Mosaic One
- 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

Video Support

- Support for 1:1 and N:1 VLAN Topologies
- Multicast Packet Replication for IPTV Applications
- IGMP v2, v3 and MLDv2

Physical

- **Dimensions:** 5.21in x 0.96in x 10.12in (132mm x 24mm x 257mm) (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)
- **Storage Temperature:** Up to 95%, Non-condensing

Regulatory Standards

- Applicable UL/CUL Standards
- Applicable EN/IEC/AS/NZS Standards
- FCC Part 15 Class A
- CE Mark (meets applicable safety, EMC, energy efficiency directives)
- NEBS Level 3

Ordering Information

Equipment	Part No.
Total Access 5004 MSM20 2x10GE (SFP+)	1187016F1

ADTRAN Certified Supplier

ISO 9001
ISO 14001
TL 9000

TL9000
TL 19.1270