

ADTRAN

1748F 10G

Ethernet Switch, ToR/Aggregation Switch



Benefits

- 48x10G SFP+ interfaces
- 4x40G QSFP+ interfaces
- Non-blocking switching capacity up to 1.28 Tbps
- Multi-layer (Layer 2 and Layer 3) switching
- Hot-swappable, Redundant AC power supply and fans for continuous operation
- Fully managed (CLI)
- 2xRJ-45 (management and console) and USB port (to load switch configurations)

Overview

ADTRAN's 1700 series data-center class Ethernet switches are ideal for businesses and large enterprises looking to deploy a scalable, resilient and high-performance network to support growing bandwidth demands across the organization. ADTRAN's 1748F 10 Gigabit Ethernet switches deliver advanced multi-layer switching, higher bandwidth, performance, and resiliency with hot-swappable components.

High-Performance, Scalable Switching

The ADTRAN 1748F 10G Ethernet switch is ideal either as a Top-of-Rack (ToR) core switch or high-bandwidth aggregation switch in datacenter environments.

The switch provides 48x10G SFP+ and 4x40G QSFP+ interfaces with full L2/L3 line rate switching capacity up to 1.28 Tbps. Link Aggregation allows grouping of up to 4 10G ports into one 40G port (at the physical layer) for high-bandwidth aggregation.

Feature-rich, High-Availability, Resilient

The ADTRAN 1748F 10G Ethernet Switch is a feature-rich system offering multi-layer (Layer 2 and Layer3) switching, IPv6, advanced Quality-of-Service (QoS), multi-cast, and Border Gateway Protocol 4 (BGP4) support.

The switch is designed for high-availability data-center type environments with a high port-density. The switch includes redundant, hot-swappable, load-sharing AC Power Supply Units (PSUs), and hot-swappable fan-tray, ensuring non-stop, continuous operations for critical datacenter environments.

Security

The ADTRAN 1700 series 10G Ethernet switches offer a variety of data security features including Denial of Service (DoS) protection, MAC-based port security, 802.1x port authentication, multi-level user passwords, Secure Shell (SSH) and Secure Socket Layer (SSL) for encrypted user login. In addition, the switches support Authentication, Authorization and Accounting (AAA) for authentication with RADIUS and TACACS+.



PRODUCT SPECIFICATIONS

Front Panel Interfaces

- **Switch Ports:**
 - 48 x 10/1G SFP+ Interfaces
 - 4 x 40/10G QSFP+ Interfaces
- **Management Ports:**
 - 1 x RJ-45 serial console
 - 1 x RJ-45 100/1000BASE-T management
 - 1 x USB Type A storage port

Performance

- Up to 1.28 Tbps bi-directional downstream throughput
- Line rate L2/L3 forwarding
- MAC addresses: 64K
- Jumbo frames (9K)

Layer 2 Support

- 802.1d Spanning Tree
- 802.3ad Link Aggregation
- Jumbo frames (9K)
- 802.3x Flow Control
- 802.1QinQ
- IGMP Snooping/ Querier
- Rapid Spanning Tree Protocol
- Storm Control

Layer 3 Support

- Static Routes
- OSPF
- VRRP
- 256 Layer3 interfaces
- 2K unicast routes
- RIP V1/V2
- BGP
- UDP relay
- 6,000 ARP entries

Network Management and Monitoring

- Telnet/SSH / HTTP / SNMPs
- TFTP/Xmodem/FTP
- Port Mirroring
- Industry-standard CLI

Regulatory Agency Approvals

- FCC Part 15 Class A
- CE Mark (EN55022 Class A)
- UL / CUL
- F CB, EN 60950
- IEC68-2-14
- ISTA 2A
- RoHS-6 Compliant

Physical

- **Dimensions:** 17.3 x 18.6 x 1.7 inches (43.9 x 47.2 x 4.3 cm) (W x D x H)
- **Weight:** 18.74 lbs (8.5 kg), with two installed power supply modules

Power Supply:

- 2 x PSUs (redundant, hot-swappable, AC)
- 100-240 VAC, 50-60Hz, auto-sensing; hot-pluggable 400 Watts@ 100/240V per module
- 165 Watts max (AC)
- 100-250V at 50 or 60 Hz

Redundancy:

- Hot swappable, redundant power supplies
- Hot swappable fan tray with 3+1 redundant fans

Operating Temperature:

0C to 40C (32F to 104F)

Storage Temperature:

-40C to 70C (-40F to 158F)

Humidity:

5% to 95% non-condensing

Warranty

- 1 year warranty

ORDERING OPTIONS

| Equipment | Part No. |
|---|-----------|
| ADTRAN 1748F 10G Ethernet Switch | 1700558F1 |
| NetVanta 10GBase-SR SFP+ | 1700485F1 |
| NetVanta 10GBase-LR SFP+ | 1700486F1 |
| NetVanta SFP+ Direct Attached Cable (1 meter) | 1710484F1 |
| NetVanta SFP+ Direct Attached Cable (3 meter) | 1710484F3 |
| NetVanta SFP+ Direct Attached Cable (5 meter) | 1710484F5 |

ADTRAN, Inc.
901 Explorer Boulevard
Huntsville, AL 35806
256 963-8000

General Information
800 9ADTRAN
www.adtran.com/contactus

International Customer Service
+1 256 963 8716

Canada Headquarters – Toronto, Ontario
+1 877 923 8726
+1 905 625 2515
sales.canada@adtran.com

Canada – Montreal, Quebec
+1 877 923 8726
+1 514 940 2888
sales.canada@adtran.com

Mexico and Central America
+1 256 963 3321
+1 52 55 5280 0265 Mexico
sales.cala@adtran.com

South America
+1 256 963 3185
sales.brazil@adtran.com
sales.latam@adtran.com

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