NetVanta

# 1560 Series

## Layer 3 Gigabit Ethernet Switches with PoE+

Gigabit | VoIP | PoE Capable

## Benefits

- 8, 24, or 48 10/100/1000 Base-T ports
- Up to four SFP+ ports with support for 10 Gbps
- RJ-45 console port and micro USB port for management
- Non-blocking Layer 2 and Layer 3 switching capacity up to 176 Gbps
- Fully managed (Web GUI, CLI, SNMP, JSON-RPC)
- Industry standard CLI and config
- 802.3at (POE+), 802.3af (PoE) and Legacy PoE
- Feature-rich ADTRAN switch engine for enterprise Ethernet switching
- Supports 802.1q VLANs and trunking, STP, IGMP
- Supports ERPS for high-level redundancy and up-time protection
- Advanced smart switching features (ACLs, L2/L3/L4 DiffServ, QoS policies, LACP link aggregation, broadcast control, denial of service protection)
- Faster VoIP deployments with VoIP VLAN and discovery
- Port queue-level policing and shaping

## Overview

**The NetVanta 1560 Series of enterprise-class, fully managed Gigabit PoE+ switches are the best switches for supporting highly resilient IoT, cloud applications, and Voice over IP (VoIP).** They are purpose built for enterprises looking to upgrade their networks with high-performance, reliable, scalable and easy-to-manage switching solutions. NetVanta 1560 switches offer advanced multilayer switching, high-bandwidth capabilities, voice-aware features, and the right functionality to enable scaling from small business to enterprise-sized networks.

### Best VoIP Switch, Period.

The NetVanta 1560s are the best switches for VoIP, delivering high voice fidelity, faster VoIP deployment, ease of management, and maximum network uptime.

- **Voice Fidelity:** These switches provide 12, 24 or 48 GigE ports with 10 Gpbs SFP+ ports, delivering up to 80 Gbps of uplink capacity to support a greater number of HD voice connections, video streaming, Wi-Fi® and other bandwidth-intensive applications.
- **Faster Deployment and Ease of Use:** Custom VLAN Organization Unique Identifier (OUI) assignment simplifies VoIP deployments. The switches offer flexible management options including Web GUI and Command Line Interface (CLI).
- **Maximum Uptime:** NetVanta 1560 Series switches include an industry standard warranty, world-class product support, advanced hardware replacement, and optional ProCare Service minimizing business risk.

### Security

NetVanta 1560 Series of Gigabit switches offer a variety of data security features including Denial of Service (DoS) protection, MAC-based port security, 802.1x port authentication, multilevel user passwords, Secure Shell (SSH), ARP Inspection and Secure Socket Layer (SSL) for encrypted user login. Additionally, these switches support Authentication, Authorization and Accounting (AAA) for authentication with RADIUS and TACACS+.

### Redundancy and Convergence

These switches support common Ethernet protocols like Spanning Tree, Rapid Spanning Tree, Multiple Spanning Tree, and for even faster convergence, the G.8032 Ethernet Ring Protection Switching (ERPS). ERPS delivers subsecond failover capabilities to enterprise networks while ensuring interoperability based on a universal ITU specification.

### Administration

The ADTRAN switch engine offers both a CLI and an intuitive Web-based GUI. To automate setup and configuration, NetVanta 1560 switches enable DHCP out of the box that provides the ability to discover and provision the switch configuration. Tools such as network forensics, cable and SFP diagnostics simplify troubleshooting.

NetVanta 1560s can be remotely managed by the ADTRAN n-Command® MSP platform. ADTRAN n-Command offers the ability to discover devices, make mass configuration changes or firmware upgrades, backup/restore configurations, and generate inventory reports for asset management. ADTRAN n-Command MSP also offers VoIP VQM and reporting, as well as an industry-leading, easy-to-use, GUI.

# NETVANTA 1560 SERIES

## Product Specifications

### Physical Interfaces

Ethernet Ports
- **NetVanta 1560-08 (65W & 150W):**
  - 10 x 10/100/1000Base-T
  - 2 x 1Gbps SFP Port
- **NetVanta 1560-24 (370W & 740W):**
  - 24 x 10/100/1000Base-T
  - 2 x 10 Gbps SFP+ Ports
- **NetVanta 1560-48 (370W & 740W):**
  - 48 x 10/100/1000Base-T
  - 4 x 10 Gbps SFP+ Ports

Console Port
- RJ-45
- Micro USB

### Switching Performance
- Non-blocking Layer 2/3 Switching
- 32,000 MAC addresses
- 4,095 VLANs
- Up to 176 Gbps forwarding bandwidth

### Layer 2 Support
- 802.1q VLAN switching and Trunking
- 802.1d Spanning Tree
- 802.1w Rapid STP
- 802.1s Multiple STP
- ERPS G.8032 supporting up to 100 rings
- 802.3ad Link Aggregation
- Jumbo Frames (10240)
- IGMP v1/v2/v3 Snooping/Querier/Proxy
- MLD v1/v2 Snooping
- 802.3x Flow Control
- GVRP/MRP/MVRP
- Loop Protection

### Layer 3 Support
- DHCP relay
- UPnP
- 1000 ARP Entries
- 128 Static Routes (IPv4 and IPv6)

### Diagnostics
- Port and Flow Mirroring
- Uni Directional Link Protection
- LLDP (802.1ab)
- LLDP-MED
- Ping, Traceroute
- sFlow
- Cable Diagnostics

### Front Panel Status LEDs
- Status
- LAN: Link, Activity
- LED Port Button: Toggle Port LEDs between Link, Activity, and POE Status

### Quality of Service
- 802.1p, Drop Precedence Level, DSCP, Priority Code Point
- Eight hardware queues per port
- Classification and remarking ACLs
- Strict Priority Scheduling
- Weighted Round Robin (WRR)
- Policing and Shaping per port
- Port and Queue based
- WRED
- QoS Control List
- Drop Eligible Indicator
- Ingress and Egress Maps
- Storm Policing

### VLAN
- 4K VLANs simultaneously
- Port-based VLANs
- 802.1Q Tagged Trunked VLANs
- Voice VLANs
- MAC-based VLAN
- Management VLAN
- Q-in-Q VLAN
- Private VLANs
- Protocol-based VLAN

## Security

- 802.1x Port Authentication
- L2 VLAN client isolation
- Port Security
- IP source guard
- RADIUS/TACACS+
- DoS Protection
- DHCP Snooping
- Hardware ACLs
- Users and Privilege Levels
- ARP Inspection

## Administration

- CLI (Console/Telnet/ SSH)
- SNMP v1,v2c,v3
- Web-based GUI
- Dual image
- SYSLOG
- RMON
- sFlow
- RADIUS
- TACACS+
- NTP
- n-Command Support
- JSON-RPC

## PoE

- 802.3af (PoE), 802.3at (PoE+) and Legacy PoE
- Max 30 Watts per Port
- 802.3az Energy Efficient Ethernet
- Power Management
- PoE Scheduling

## Environment

- **Operating Temperature:** 0° to 50°C (32° to 122°F)
- **Storage Temperature:** -20° to 70°C (-40° to 158°F)
- **Relative Humidity:** Up to 95%, non-condensing

## Physical and Power

### NetVanta 1560-08 (65W & 150W)

- **Chassis:** 1U Metal Enclosure,
- **Desktop, Wall and Rackmountable**
- **Dimensions:** 1.73 in. x 8.66 in. x 9.53 in. (4.4 cm x 22 cm x 24.2 cm) (H x W x D)
- **Weight:** 4.63 lbs (2.1 Kg)
- **Voltage:** 100-240 VAC, 50/60 Hz
- **Max Power:** 170 Watts
- **PoE Power:** 65W & 150W

### NetVanta 1560-24 (370W & 740W)

- **Chassis:** 1U, 19in. (48.26cm)
- **Rackmountable**
- **Dimensions:** 1.73 in. x 17.4 in. x 8.31 in. (4.4 cm x 44.2 cm x 21.1 cm) (H x W x D)
- **Weight:** 8.6 lbs. (3.9 kg)
- **Voltage:** 100-240 VAC, 50/60 Hz
- **Max Power:** 900 Watts
- **PoE Power:** 370W & 740W

### NetVanta 1560-48 (370W & 740W)

- **Chassis:** 1U, 19in. (48.26cm)
- **Rackmountable**
- **Dimensions:** 1.73 in. x 17.4 in. x 14.76 in. (4.4 cm x 44.2 cm x 37.5 cm) (H x W x D)
- **Weight:** 12.35 lbs. (5.6 kg)
- **Voltage:** 100-240 VAC, 50/60 Hz
- **Max Power:** 900 Watts
- **PoE Power:** 370W & 740W

## Agency Approvals

- FCC Part 15 Class A
- IECS-003 Class A
- ETSI EN 300 386
- UL/CSA 60950-1 and IEC60950-1
- CE Marking
- RoHS Compliant
- RCM mark for Australia and New Zealand

## Warranty

- Limited Lifetime Warranty
  - ◆ Includes access to phone product support

# NETVANTA 1560 SERIES

## Ordering Information

| Equipment | Part No. |
|---|---|
| Chasis | |
| NetVanta 1560-08-65W | 17101561PF2 |
| NetVanta 1560-08-150W | 17108108PF2 |
| NetVanta 1560-24-370W | 17101564PF2 |
| NetVanta 1560-24-740W | 17108124PF2 |
| NetVanta 1560-48-370W | 17101568PF2 |
| NetVanta 1560-48-740W | 17108148PF2 |
| Brackets | |
| 19" Rackmount Bracket – 8 Port | 1700518F1 |
| 19" Rackmount Bracket – 24/48 Port | 1700519F1 |
| Wallmount Bracket – 24 Port | 1700520F1 |
| SFPs | |
| 1000Base-SX 850nm SFP | 1200480E1 |
| 1000Base-LX 1310nm SFP | 1200481E1 |
| 1000BaseT Copper SFP | 1200485G1 |
| 2.5 Gbps Multimode SFP | 1200482G1 |
| 2.5 Gbps Singlemode SFP | 1200483G1 |
| 10G Base-SR 850nm SFP+ | 1700485F1 |
| 10G Base-LR 1310nm SFP+ | 1700486F1 |
| Interconnect Cables | |
| SFP+ (1 meter) | 1710484F1 |
| SFP+ (3 meter) | 1710484F3 |
| SFP+ (5 meter) | 1710484F5 |

ADTRAN Certified Supplier
ISO 9001
ISO 14001
TL 9000

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TL19.1270

TL 9000 TELECOMMUNICATIONS ISO 9000 QUALITY ISO 14001 ENVIRONMENT