

# NetVanta 1235P

## Layer 3 Lite Fast Ethernet Switch with ActivReach Ethernet

### Product Features

- 28-port multi-layer Fast Ethernet switch
- 24 10/100Base-T or ActivReach Ethernet and four SFP optical ports
- Two standard 1 Gbps SFP ports and two enhanced 2.5 Gbps SFP ports
- 802.3af (PoE), Legacy PoE, and PoE over ActivReach
- Non-blocking, up to 18.8 Gbps switching capacity
- Layer 2 and Layer 3 Lite capabilities
- Desktop security audit
- DHCP network forensics
- 802.1Q VLANs, Private VLANs and VLAN assignment via 802.1x
- Advanced QoS with support for 802.1p and DiffServ prioritization with four queues per egress port
- Automate actions with Port Scheduler and TCL scripting
- VoIP ready with LLDP/LLDP-MED and voice VLANs
- Business-class security with RADIUS, TACACS+, 802.1x and port security
- Wi-Fi® access controller for centralized management of NetVanta Wireless Access Points (WAPs)
- Cable and SFP diagnostics provides easy to use troubleshooting tools for copper and fiber cable
- Familiar CLI and Web GUI
- Next business day advance replacement
- Limited Lifetime Warranty

The NetVanta® 1235P is a managed, 28-port, Power over Ethernet (PoE), Layer 3 Lite, Fast Ethernet switch with ActivReach Ethernet technology designed for ease-of-deployment, as well as fast, secure, cost-effective Local Area Network (LAN) switching. Through its innovative design, the NetVanta 1235P allows for ultimate flexibility utilizing standard 10/100Base-T Ethernet or ActivReach Ethernet for PoE and connectivity in a variety of cabling environments. In addition, this scalable, full-featured business-class switch was designed with Voice-over-IP (VoIP) applications in mind with the ability to supply Legacy PoE, 802.3af (PoE), or PoE over ActivReach to power IP phones, as well as 10/100Base-T data connectivity to desktops or other PoE and non-PoE endpoints. Experience the ease of management with an easy-to-use Web-based Graphical User Interface (GUI) and familiar Command Line Interface (CLI).

#### ActivReach Ethernet Technology

In addition to standard 10/100Base-T capabilities, the NetVanta 1235P features ADTRAN's ActivReach Ethernet technology which allows speeds of 10/100 Mbps native Ethernet over voice-grade copper and over significant distances. Configurable per-port, ActivReach Ethernet is capable of delivering up to 15.4 W of PoE, as well as 10/100 Mbps of full-duplex link connectivity utilizing four-pair, two-pair or even a single-pair of CAT3 or higher cabling at distances of up to 1,600 feet. With ActivReach, the NetVanta 1235P is designed to easily deploy cutting-edge VoIP and UC technologies utilizing a building's existing voice-grade wiring. In addition, with speeds up to 100 Mbps, ActivReach Ethernet also provides an extremely cost-effective means for desktop connectivity where CAT5 cabling does not already exist.

#### Hardware

The NetVanta 1235P rackmount switch provides 24 Fast Ethernet ports, consisting of 24 fixed ports capable of 10/100Base-T Ethernet or ActivReach Ethernet and four Small Formfactor Pluggable (SFP) ports. Together the four SFP ports can provide up to 14 Gbps of bandwidth between interconnected NetVanta 1235P switches. When using ActivReach mode, a Media Converter is used at the end-point to terminate ActivReach Ethernet and convert it to standard 10/100Base-T Ethernet and 802.3af (PoE) or Legacy PoE on the device-side. The Media Converter is powered using PoE over ActivReach and requires no external power supply.

#### Multi-layer Switching

The NetVanta 1235P supports advanced multilayer (Layer 2 and Layer 3 Lite) switching with up to 16 static routes allowing it to easily scale from SMBs to enterprise-size networks.

#### Standards Protocols

Based on the ADTRAN® Operating System (AOS), this device supports Link Layer Discovery Protocol (LLDP) which auto-discovers neighboring Ethernet devices, simplifying integration into multi-vendor environments.

#### VoIP Ready

The NetVanta 1235P has been designed specifically for VoIP. The ability to automatically configure IP phones using LLDP-MED, and the ability to separate voice traffic onto voice VLANs, helps ease the deployment of VoIP.



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## Quality of Service

NetVanta switches also support QoS to prioritize mission-critical traffic like VoIP and control network congestion. The NetVanta 1235P offers 802.1p and DiffServ Class of Service (CoS). It also supports frame tagging, as well as enforcement of tagged traffic received from trusted sources. Four egress queues (per port) are available for assigning traffic priorities using Weighted Round Robin (WRR) and Strict Priority Scheduling.

## PoE

The NetVanta 1235P provides standards-based 802.3af (PoE) and Legacy PoE for powering IP phones, Wireless Access Points (WAPs), or other devices requiring LAN power. In addition, PoE over ActivReach is supported to power devices over voice-grade cabling and over greater distances when used with the ActivReach Media Converter.

## Security

Rest assured, with the NetVanta 1235P your network is protected. This product offers a variety of data security features including DoS protection, MAC-based port security, multilevel user passwords, Secure Shell (SSH) and Secure Socket Layer (SSL) for encrypted user login, and Access Authentication and Authorization (AAA) for authentication with RADIUS and TACACS+. With features such as 802.1x and port security, administrators can be assured that only authorized users are allowed access to the network.

AOS also features desktop auditing using DHCP in conjunction with Microsoft Network Access Protection (NAP) to monitor the health of client computers. The two protocols work together to ensure that systems connected to the network are using appropriate corporate policies, such as firewall settings and antivirus settings.

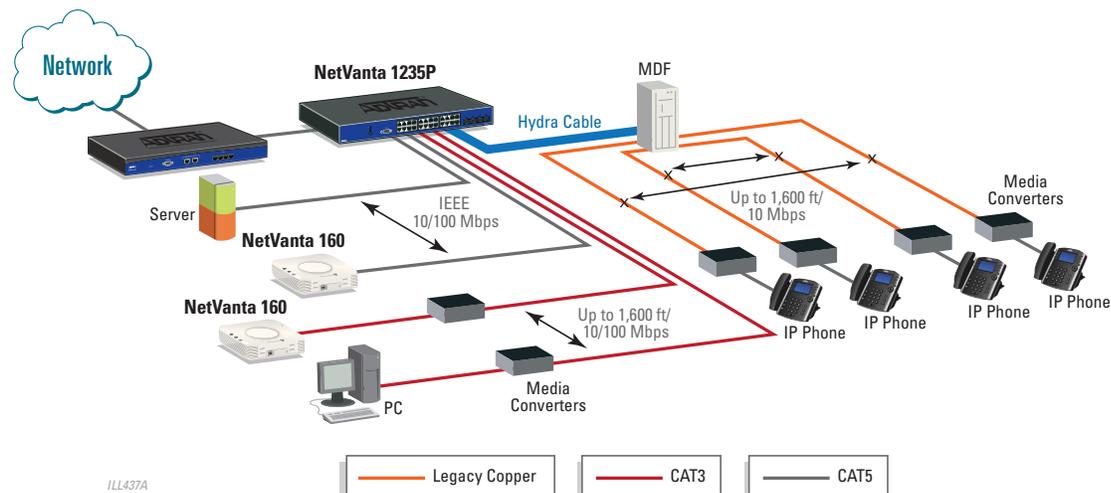
## Port Scheduler

The NetVanta 1235P allows ports to be enabled or disabled based on time of day. This ability to schedule available ports allows for added security and reduces power consumption during off hours saving on utility cost.

## Administration

AOS offers both a CLI that mimics the widely deployed, industry *de facto* standard and an intuitive Web-based GUI with step-by-step configuration wizards. For automating setup and configuration, the NetVanta 1235P supports Auto-Config which provides the ability to automatically obtain the switch configuration via DHCP.

AOS also offers network forensics to aid in troubleshooting network problems by allowing network administrators to easily locate devices on the network by MAC or IP address.



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## Product Specifications

### Physical Interface

Ethernet Ports

- 24 –10/100Base-T or ActivReach Ethernet
- 2–Standard 1 Gbps SFP ports
- 2–Enhanced 1.0/2.5 Gbps SFP Ports
- Auto rate/duplex/MDI/MDI-X

Console Port

- DB-9, RS-232

### Switching Performance

- Non-blocking Layer 2/3 Switching

### Maximum Forwarding Bandwidth

- 18.8 Gbps

### Layer 2 Support

- 802.1D Spanning Tree
- 802.1w Rapid STP
- 802.3ad Link Aggregation
- 8,000 MAC Addresses
- Jumbo Frames (9K)
- IGMP Snooping
- 802.3x Flow Control

### Layer 3 Support

- 16 Static Routes
- 8 Layer 3 Interfaces
- UDP Relay
- 225 ARP Entries
- IPv6 Management

### Diagnostics

- Port Mirroring
- LLDP (802.1AB)
- LLDP-MED
- Cable Diagnostics
- SFP Diagnostics
- Troubleshooting Page

Front Panel Status LEDs

- Power Status
- LAN: link, activity

### Port Statistics

- Number of TX/RX Frames, Collisions, Errors

### Quality of Service

- 802.1p and DiffServ
- Four output queues per egress port
- Weighted Round Robin (WRR)
- Strict Priority Scheduling

### VLAN

- Port-based VLANs
- 802.1Q tagged trunked VLANs
- Voice VLANs
- Private VLAN Edge
- Dynamic 802.1x assigned VLANs
- Support for up to 255 active VLANs





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## Product Specifications

### Storm Control

- Broadcast, Unicast, and Multicast

### PoE

- 802.3af (PoE), Legacy PoE, and PoE over ActivReach
- 370 Watts (Total)

### Administration

- CLI (Console/Telnet/SSH)
- SNMP v3
- Web-based GUI (HTTP/SSL)
- SYSLOG
- n-Command support
- Email Alerts
- RADIUS
- TACACS+
- TCL Scripting
- Auto Config
- Port Scheduler Forensics
- DHCP Network

### Security

- Port authentication (802.1x)
- Port Security
- DoS Protection
- Hardware ACLs
- Microsoft Desktop Auditing

### Wi-Fi Controller

- Controls up to 24 NetVanta WAPs

## Ordering Information

Equipment	Part No.
NetVanta 1235P	1700595G10
NetVanta ActivReach Media Converter	1702595G12
NetVanta 36" Hydra Cable (for 10 Mbps applications)	1702595G14
NetVanta 1131 RPS/EPS	1700530F1
NetVanta 1131 2M RPS Cable	4700531F1
NetVanta 1131 2M EPS Cable	4700532F1
NetVanta 1000BaseSX SFP Transceiver	1200480E1
NetVanta 1000BaseLX SFP Transceiver	1200481E1
NetVanta 2.5 Gbps Multimode SFP Transceiver	1200482G1
NetVanta 2.5 Gbps Singlemode SFP Transceiver	1200483G1
NetVanta 1 Meter SFP Interconnect Cable	1200484G1
NetVanta 3 Meter SFP Interconnect Cable	1200484G3

### NetVanta 1235P Chassis

#### Environment

- **Operating temperature:** 32 °F to 122 °F (0 °C to 50 °C)
- **Storage temperature:** -4 °F to 158 °F (-20 °C to 70 °C)
- **Relative humidity:** Up to 95% non-condensing

#### Physical

- **Chassis:** 1U, 19-in. Rackmountable Metal Enclosure
- **Dimensions:** 1.7 in x 17.2 in x 12.8 in (H x W x D) (43 mm x 437 mm x 325 mm)
- **Weight:** 9.5 lbs (4.3 kg)
- **AC Power:** 110-230 VAC, 50/60 Hz
- **Power:** 500 Watts, 4.9 A Max

### ActivReach Media Converter

#### Environment

- **Operating temperature:** 32 °F to 104 °F (0 °C to 40 °C)
- **Storage temperature:** -4 °F to 158 °F (-20 °C to 70 °C)
- **Relative humidity:** Up to 95% non-condensing

#### Physical

- **Dimensions:** 2.1 in x 3.6 in x 1.2 in (H x W x D) (53 mm x 92 mm x 31 mm)
- **Weight:** 3.52 oz (0.1 kg)
- **Power:** 1.8 W (ActivReach only) Agency

### Agency Approvals

- FCC Part 15 Class A (NetVanta 1235P) and Class B (ActivReach Media Converter); UL 1950/CSA, RoHS