DrayTek

VigorSwitch P2500

Fully Managed 50 Port Gigabit Switch with 44 PoE+ Ports

Product Overview

The DrayTek VigorSwitch P2500 is a high port density, high-performance, managed Gigabit Ethernet switch with PoE+ that can be managed locally or centrally.

Key Features & Benefits

Designed for Centralised Management

Can be configured and monitored instantly through both the VigorACS cloud management platform and/or, a DrayTek Vigor router's central switch management.

Benefits: **Saves time and money. Easily provision, monitor and manage remote sites without on-site IT or dedicated staff.**

405W PoE Power Budget

Provides ample power through Ethernet, to each of its 44 PoE / PoE+ enabled Gigabit LAN ports.

Benefits: **It can easily power a large number of IP cameras, IP phones, wireless APs and other PoE devices.**

Security

DHCP Snooping: Limit DHCP server responses to only a specified port.
IP Source Guard: Protects against address spoofing.
Access Control List: Controls which packet types (IPv4, IPv6 & MAC) should pass between ports on the switch.

Voice VLAN & Surveillance VLAN

Automatically assign VLANs and QoS configuration to devices with matching MAC address OUI upon connection to the switch.

Benefits: **Allows easy prioritisation of VoIP and IP Camera traffic and more control when implementing security policies.**

Energy-Efficient PoE

Smart power management & IEEE 802.3az compliant. If a non-PoE device is connected, that port's PoE power is turned off to avoid any potential damage to non-compliant devices.

Benefits: **Reduces power consumption.**

Hardware Monitoring

It monitors and controls the switch's temperature, voltages and fan status. Integrated email notification alerts for voltage anomalies, fan failure, temperature alarms, or PoE budget issues.

Benefits: **Prevents network failure. Ensures high availability.**

Premium. Reliable. Affordable

VigorSwitch P2500 delivers robust performance, and simplifies your growing networks.
Ideal for business networks with many PoE devices.

Perfect with:

VigorACS cloud management software

Any DrayTek router

DrayTek VigorSwitch P2500

Physical Interfaces/Controls:
- 44 10/100/1000BaseT Ethernet Ports (RJ-45 IEEE 802.3/3u/ab)
- 4 Selectable Ports (Nos. 45-48), use as either:
    - 10/100/1000BaseT (Gigabit) Ethernet or
    - SFP (802.3z)
- 2 SFP Ports (100mbps / 1gbps)
- Console Port (RJ-45 physical, RS-232 electrical)

PoE Specification:
- 44-ports 802.3af & 802.3at (High Power) PoE PSE
- 405 Watts Total Power Budget for PoE
- Auto Detection of Powered Device (PD) and Consumption Levels
- Per Port PoE Status LED Indicators
- Alert LED for high PoE Usage
- Port Power Consumption Monitoring via Web Interface & CLI
- PoE PD Scheduling (per port)
- PoE PD Priority (per port)
- PoE PD Status / Ping monitoring - restart PoE PD port on no connectivity (per port)
- Circuit Protection to Prevent Power Interference between Ports

VLAN:
- 802.1q Tag-based VLAN
- Port-based and MAC-based VLANs
- QinQ (Basic)
- GVRP
- Up to 4K VLANs (out of 4096 VLAN IDs)
- 802.1v Protocol-Based VLAN
- Voice VLAN (OUI Mode)
- Surveillance VLAN (OUI Mode)
- Protocol VLAN
- MAC-based VLAN
- Management VLAN

QoS:
- Support 8 priority queues
- Port-Based rate control
- Priority queue schedule (WRR or Strict Priority)
- Class of Service:
    - 802.1p CoS SFP (802.3z)
    - DSCP
    - CoS-DSCP
    - IP Precedence (ToS)
- Rate Limit

Network Security:
- Access Control Lists (ACL)
    - Up to 512 ACL Entries
    - Source and destination MAC
    - VLAN ID
    - IPv4/v6 address
    - Protocol
    - TCP/UDP port
- IP Source Guard
- Storm Control (Broadcast, Unknown Multicast, Unknown Unicast)
- DoS Attack protection
- AAA Authentication
- MAC Authentication
- Protected Port / Port Isolation
- Static Port Security
- Dynamic ARP Inspection
- DHCP Snooping with Option 82
- Loop Detection & Prevention

Spanning Tree:
- Spanning Tree Protocol
- Rapid Spanning Tree Protocol
- Multiple Spanning Tree Protocol

Link Aggregation:
- Combine multiple ports to increase bandwidth
- 16 Aggregation Groups
- Up to 8 ports in each group
- LACP or Static setup
- Supports traffic load balancing

Networking Performance:
- Switching Capacity: 100Gbps
- Forwarding Rate: 74.4Mpps
- MAC Addresses Supported: 16K
- Jumbo Frames up to 12KB
- Packet Buffer size: 12M

Multicast:
- Up to 256 multicast groups
- IGMP Snooping V2/V3 (BISS)
- IGMP V2/V3 Querier
- MLD Snooping V1/V2
- Multicast VLAN registration

AAA:
- 802.1x – Single / Multiple
    - Port based
    - Mac Based
- Guest VLAN
- RADIUS / TACACS+ Authentication for Management

Management:
- IPv4 & IPv6 Dual-Stack
- LLDP(802.1ab) + MED
- Web User Interface (HTTP or HTTPS)
- Firmware Upgrade/Backup by HTTP/HTTPS
- HTTP (Non-TLS) can be disabled for increased security
- Configuration Backup/Restore
- Factory Default
- System Reboot
- Dual Firmware Image (Active & Backup Firmware)
- Command Line Interface (CLI) via SSH/Telnet
- Console Port (RJ45) for CLI management
- DrayTek Switch Management support via router (requires router firmware support)
- VigorACS Compatible (TR-069)
- SNMP v1, v2c, v3 (with Generic Traps)
- RMON Groups 1, 2, 3, 9 (History, Statistics, Alarms, Events)
- SNTP (Simple Network Time Protocol)

Diagnostics:
- Port Status & Usage display
- PoE active display
- CPU/RAM Usage display
- Event Log via Syslog
- Port Mirroring
- Ping
- Port-based Cable Test

Hardware Monitor:
- Remote Monitoring through VigorACS & Web Interface
- Data Recording & Graphing
- Supports Email & LED alert on Fan failure
- Temperature Monitoring
- Voltage Monitoring
- Fan Control
- Fan Test Mode
- Power Saving Mode

IPv4 Features:
- DHCP
- DNS Client

IPv6 Features:
- Auto Configuration
- Static IPv6 Address & Prefix Length
- Static IPv6 Default Gateway
- IPv6 Neighbour Discovery (ND)
- IPv6 Duplicate Address Detection
- ICMPv6
- DHCPv6 Client

General IEEE Standards Compliance:
- 802.3 10Base-T
- 802.3u 100Base-T
- 802.3ab 1000Base-T
- 802.3x Flow Control Capability
- 802.3 Auto-negotiation
- 802.1Q VLAN
- 802.1p Class of Service
- 802.1d Spanning Tree
- 802.1w Rapid Spanning Tree
- 802.1s Multiple Spanning Tree
- 802.1x Port Based Network Access Control
- 802.1ab Link Layer Discovery Protocol (LLDP)
- 802.3ad Port trunk with LACP
- 802.3az Energy Efficient Ethernet
- 802.3af PoE
- 802.3at PoE+

Operating Requirements
- Power Input Requirements: 220-240VAC
- Power supply: Internal
- Maximum Input Power Consumption: 453.3 Watts
- Operating Temperature:~0 °C to ~45 °C
- Storage Temperature:~20 °C to ~70 °C
- Operating Humidity: 10% to 90% RH (non-condensing)

Physical Specifications:
- Dimensions: 441 x 330 x 45 mm (W x D x H)
- Rack mountable: 1U
- Brackets included for rack or wall mounting
- Weight: 6.75Kg (excluding SFP modules/cables)
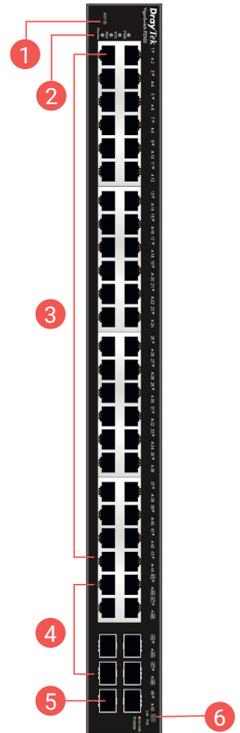
1. Reset button
2. LED indicator
3. 44x Gigabit Ethernet
4. 4x Gigabyte Ethernet/SFP Combo
5. 2x SFP Slot
6. Link/PoE LED Slide Switch
7. Console Port
8. Power Socket

DrayTek VigorSwitch P2500

DrayTek's range of Vigor Switches run a dedicated Switch OS specifically designed to help businesses keep their network running smoothly and to provide the network engineers with the management tools they need to quickly investigate and troubleshoot network issues.

IP Conflict Prevention
- Improves network stability by preventing IP conflicts caused by a misconfigured or malicious host
- Helps administrators to spot port conflicts and IP clashes quickly so that they can take action.
- Protection for both IPv6 and IPv4

PoE Device Check
- Enables ping monitoring of all PoE devices with configurable actions on no response
- Cycles power on a PoE port and sends an e-mail alert if the device stops responding

PoE Time Scheduling
- Set up schedule to turn PoE ports on/off periodically or at certain times of the day
- Use it to save power or to apply time-based access controls by turning off the device

PoE Management
- Can limit the maximum usage on each port
- Set power priority for important PoE devices

Hardware Monitor
- Dedicated built-in sensor monitors the voltage supply and temperature of the CPU, board, and case.
- Dynamically changes the fan speed according to the temperature to keep noise to a minimum and reduce power consumption
- Provides statistics and real-time graphics
- Gives alerts via email or the LED front panel

Multiple Admin Accounts
- Create multiple admin accounts and set two levels of admin privilege
- Use internal user accounts, or centrally through RADIUS or TACACS+

QoS (Quality of Service)
- Prioritise important traffic using CoS, DSCP and IP Precedence tags

Auto Surveillance VLAN
- Automatically recognises traffic from IP Cameras and IP Phones to automatically add QoS prioritsation

IPv6 Support
- MDL Snooping to control and route traffic more efficiently
- IPv6 ACL so that IPv6 isn't a security blind spot on the network
- IPv6 DNS resolver

Network and Access Security
- Access Control List via IPv4 / IPv6 / MAC
- 802.1x port access control to block unauthorised devices

Central Management
- Monitoring
- Provisioning
- Centralised hierarchy View of multiple switches
- Reboot device remotely
- Scheduled Maintenance
- Reports

Link Aggregation – Port Trunking
- Use two or more 1Gbps ports to connect the VigorSwitch to another switch or server. Traffic can be shared between the two ports, effectively doubling the bandwidth of the uplink and providing resilience should one of the links fail.

Diagnostics tools to help the network engineer including cable tests, ping tests, syslog and port status.