VigorSwitch P2280x

10-Gigabit Fully Managed Switch with four 10Gb SFP+ ports and 24 Gb PoE+ ports

Premium. Reliable. Affordable.

Product Overview

The DrayTek VigorSwitch P2280x is a 10-Gigabit, high-performance, fully managed Gigabit Ethernet switch with four 10Gb SFP+ ports and 24 Gb PoE+ that can be managed locally or centrally.

Key Features & Benefits

High Speed 10 Gigabit SFP+ Uplinks

Four SFP+ ports allows your network to utilise 10Gbps ports to link Switches, Servers and Networked Storage with more bandwidth. This helps you reduce the risk of bottlenecks occurring in your network.

Benefits: **Easily increase network throughput and meet demanding bandwidth requirements.**

400W PoE Power Budget

Provides ample power through Ethernet to each of the 24 PoE / PoE+ enabled Gigabit LAN ports. PoE scheduling, priority & monitoring features ensure your PoE devices are powered and working.

Benefits: **Power a large number of IP cameras, IP phones, wireless APs and other PoE devices.**

Manage Centrally or Stand-Alone

Configure and monitor the switch through the VigorACS cloud management platform, DrayTek's Central Switch Management for Vigor routers, or directly via the devices Web Interface.

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

Advanced Layer 2+ Routing Features

Expand your network with support for Layer 3 features such as Static Routes and VLAN Routing, to connect separate networks through the VigorSwitch.

Benefits: **Provides a fast and secure bridge between networks.**

Hardware Monitoring & Smart Fan Control

Monitor switch temperature, power supply and fan status to ensure stable & constant operation. The switch's fans run quieter with Smart fan control.

Benefits: **Email notification alerts for power loss, downtime or configuration changes.**

Great Security Features

Protect your network against unauthorised access and network problems with 802.1X port authentication, DHCP Snooping, IP Source Guard and Access Control Lists.

Benefits: **Secure & control access to your network. remotely.**

Voice VLAN & Surveillance VLAN

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

Benefits: **Reduce broadcast traffic and allow 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.**

Key Specification

- 24 x RJ-45 Gigabit Ethernet Ports with PoE+
- 4 x SFP+ 10GbE Ports for Uplink / Fibre
- PoE (Power-over-Ethernet) for IP phones, wireless access points, IP Cameras etc.
- Generous Power budget (400W total)
- 802.3af (PoE) and 802.3at (High Power PoE)
- 802.1q VLANs (Tag, Port & MAC-based)
- VLAN Routing & Static Route with DHCP server / relay
- Virtual Router Redundancy Protocol
- QoS for Application traffic prioritisation

- 802.1x RADIUS / TACACS+ Port Authentication with Accounting
- Voice VLAN for QoS (OUI Mode)
- Access Control List (ACL)
- Port Mirroring & Link Aggregation
- IGMP Snooping/Querier (Up to 256 Multicast Groups)
- IPv4 and IPv6 Support
- Hardware Monitor with smart fan control
- Centrally managed or standalone operation
- Console Port

Full Specifications

Physical Interfaces:
- 24 RJ-45 Ethernet Ports – 10/100/1000Mbps
- 4 SFP+ Ports – 1000Mbps/10Gbps
- Console Port (RJ-45 physical, RS-232 electrical)

PoE Specification:
- 24-ports 802.3af & 802.3at (High Power) PoE PSE
- 400 Watts Total Power Budget for PoE
- Up to 30 watts per port
- 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 Monitoring & Maintenance Features (per port)
  - Scheduling
  - PoE PD Priority
  - PoE PD Status / Ping monitoring - restart PoE PD port if no response
- Circuit Protection to Prevent Power Interference between Ports

VLAN:
- 802.1q Tag-based VLAN
- Port-based and MAC-based VLANs
- QinQ (Basic)
- GVRP – General VLAN Registration Protocol
- Up to 255 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
- Port Isolation

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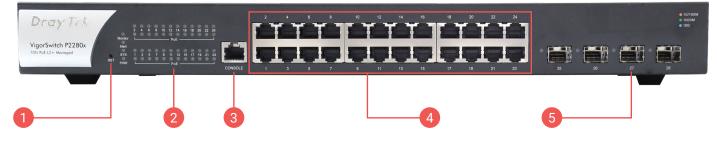- Rate Limit
- Class of Service

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 with ARP inspection
- 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

1 Reset Button	2 PoE & Activity LED Indicators	3 Console Port	
4 24x PoE Gigabit Ethernet	5 4x 10Gb or Gigabit SFP+	6 Power Input	

Full Specifications

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

Networking Performance:
- Switching Capacity: 128Gbps
- Forwarding Rate: 95.24Mpps
- MAC Addresses Supported: 16,000
- Jumbo Frames up to 12KB
- Packet Buffer size: 12Mbit
- Layer 3 Routing Table: Up to 1000 Entries

Multicast:
- Up to 256 multicast groups
- Multicast Group Filtering / Throttling
- IGMP Snooping V2/V3 (BISS)
- IGMP V2/V3 Querier
- MLD Snooping V1/V2
  - Immediate Leave
  - Report Suppression
  - IGMP/MLD Querier
- Multicast VLAN registration

AAA:
- RADIUS / TACACS+ Authentication for Management
- Multiple AAA Server
- MAC / Inaccessible Authentication bypass
- RADIUS Authentication 802.1X
  - Multiple AAA Server
  - Accounting
  - Guest VLAN
  - Port based Authorisation
    - 802.1X Single/Multi
    - MAC-based
    - Web-based
  - Attribute Assignment
    - User Privilege
    - VLAN
  - TACACS+ Authentication
    - Port Authorisation
    - Accounting

Management:
- Virtual Stacking – Single IP Management *
- OpenVPN Client
- ONVIF – IP Camera Management
- Running/Startup/Backup Configuration
- sFlow
- 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 activity display
- CPU/RAM Usage display
- Event Log via Syslog or email
- Port Mirroring
- Ping Diagnostics
- Port-based Cable Test

Hardware Monitor:
- Remote Monitoring through Web Interface & VigorACS *
- Hardware Monitor Data Recording & Graphing
- Email & LED alert on Fan failure, voltage high/low and overheat
- Temperature Monitoring
- Voltage Monitoring
- Smart Fan Control for low noise operation
- Power Saving Mode

Layer 3 Networking Features:
- Static Route
- VLAN Routing
- Virtual Router Redundancy (VRRP) Protocol *

IPv4 Features:
- DHCP Client
- DNS Client
- DHCP Server *
  - Option 82, 66, 67
  - DHCP Relay
  - DHCP Snooping
  - DHCP IP Source Guard

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
- 802.3ae 10GBase-T
- 802.3x Flow Control Capability
- 802.3 Auto-negotiation
- 802.3ad Port trunk with LACP
- 802.3az Energy Efficient Ethernet
- 802.3af PoE
- 802.3at PoE+
- 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)
- 802.1ad QinQ

Operating Requirements:
- Power Input Requirements: 100-240VAC
- Power supply: Internal
- Maximum Input Power Consumption: 480 Watts
- Cooling: Dual Smart Fan
- 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 270 x 45 mm (W x D x H)
- Rack mountable: 1U
- Weight: 4.32Kg (excluding SFP modules/cables)
- Brackets included for rack or wall mounting

ROHS & CE Compliant

Warranty: 2 Year Manufacturer's RTB

* – Not available in initial release firmware but will be available in a later firmware update.