

# VigorSwitch P2282x and G2282x

**L2+ Managed 24-Port Gigabit Switch with 4 x 10GbE SFP+ Ports and Power Backup Input**

**Datasheet**



## Product Overview

The VigorSwitch 2282x Series is a feature rich, high performance, L2+ managed Gigabit Ethernet switch with 24 1-Gigabit RJ-45 LAN ports and 4 10-Gigabit Ethernet SFP+ ports. Use the SFP+ interfaces for high-speed uplinks between switches, servers and network attached storage devices at up to 10Gbps per port.

Our cutting-edge networking switch with power redundancy options allows seamless operation and minimized downtime. This versatile switch comes equipped with both DC and AC power options, providing ultimate flexibility to cater to your unique power requirements.

The PoE VigorSwitch P2282x comes with 24 Power over Ethernet (PoE) ports, allowing you to easily power and connect multiple devices such as IP cameras, wireless access points, and VoIP phones.

With a total power output of 400 watts, ensures stable and efficient power distribution, eliminating the need for additional power cables and adapters. The switch is also equipped with advanced management features, including VLAN support, QoS prioritization, and remote monitoring, making it ideal for use in small to medium-sized businesses and enterprise environments.

## Key Features & Benefits

### High Speed 10 Gigabit SFP+ Uplinks

4 SFP+ ports allow your network to utilise 10Gbps ports to link Switches, Servers and Networked Storage with more bandwidth.

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

### Advanced Layer 2+ Routing Features

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

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

### 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. Check the features sections for more information

**Benefits:** Secure and control access to your network.

### IP Conflict Prevention

Use DrayTek's IP Conflict Prevention wizard to lock in the network setup, protecting against ARP spoofing and unknown DHCP servers.

**Benefits:** Improves network security. Quickly and easily determine the cause of network issues if they occur.

### 400W PoE Power Budget

The VigorSwitch P2282x provides power through Ethernet to each of the 24 PoE / PoE+ enabled Gigabit LAN ports. PoE scheduling, priority and 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 router, or directly via the device's Web interface.

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

## Key Specification

- 24 x RJ-45 Gigabit Ethernet Ports
- 4 x SFP+ 10GbE Ports for Uplink / Fibre
- VigorSwitch P2282x only: PoE+ on all RJ-45 ports
- VigorSwitch P2282x only: 400-watt Power-over-Ethernet budget
- 802.1q VLANs (Tag, Port & MAC-based)
- VLAN Routing & Static Route with DHCP server / relay
- 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 Monitoring
- Centrally managed or standalone operation
- Console Port

## DrayTek VigorSwitch G2282x / P2282x Specification

UK Product Code	EAN	Product Name	Product Description
VSG2282x-K	4710484746436	VigorSwitch G2282x (UK/IE)	10GbE Gigabit Switch with 24 Gigabit Ports and 4 10GbE SFP+ Uplink Ports and Power Redundancy
VSP2282x-K	4710484746405	VigorSwitch P2282x (UK/IE)	10GbE Gigabit Switch with 24 PoE Gigabit Ports and 10GbE SFP+ Uplink Ports and Power Redundancy

## Technical Specification (UK Hardware Spec.)

### Physical Interfaces

- 24 RJ-45 Ethernet Ports – 10/100/1000Mbps
- 4 SFP+ Ports – 1000Mbps/10Gbps
- Console Port (RJ-45 physical, RS-232 electrical)
- Factory Reset Button
- Stacking Scan Button – NEW!
- AC Power Socket
- DC Backup Power Input – NEW!

### PoE Specification (VigorSwitch P2282x only)

- 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
- Circuit Protection to Prevent Power Interference between Ports
- PoE PD Monitoring & Maintenance Features (per port)
  - Scheduling
  - PoE PD Priority
  - Restart PoE PD if not responding to ping
  - Restart PoE IP Camera if not providing camera output

### Layer 3 Networking Featured

- Static Route
- VLAN Routing

### 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)
- Rate Limit
- Class of Service
  - 802.1p CoS
  - DSCP
  - CoS-DSCP
  - IP Precedence ToS

### Network Performance

- Switching Capacity: 128Gbps
- Forwarding Rate: 95.2Mpps
- MAC Addresses Supported: 16,000
- Jumbo Frames up to 12KB
- Packet Buffer size: 12Mbit
- Layer 3 Routing Table: Up to 500 Entries

## Multicast

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

## Network Security

- 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
- Access Control Lists (ACL)
  - Up to 512 ACL Entries
  - Source and destination MAC
  - VLAN ID
  - IPv4/v6 address
  - Protocol
  - TCP/UDP port

## Spanning Tree

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

## 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

## AAA

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

## ONVIF Surveillance Management

- Discovery of ONVIF-compliant IP Cameras
- Surveillance Topology
- Real-Time Video Streaming
- ONVIF Device Maintenance
  - Device Information
  - Network Settings Configuration
  - Time Settings
  - Reboot
  - Reset to Factory Default Settings
  - Ping Check with Mail Alert on disconnection

## Hardware Monitor

- Remote Monitoring through Web Interface & VigorACS\*
- Hardware Monitor Data Recording & Graphing
- Email & LED alert on voltage high/low and overheat (P2282x)
- Temperature Monitoring
- Voltage Monitoring
- Smart Fan Control for low noise operation

## Management

- Web User Interface (HTTP or HTTPS)
- HTTP (non-TLS) can be disabled for increased security
- Command Line Interface (CLI) via SSH/Telnet
- Console Port (RJ45) for CLI management
- Central Management
  - VigorACS
  - VigorConnect
  - Vigor Router Switch Management (requires router firmware support)
- Running/Startup/Backup Configuration
- Configuration Backup/Restore
- Factory Default
- System Reboot
- sFlow
- IPv4 & IPv6 Dual-Stack
- Virtual Stacking – Single IP Management ^
- LLDP(802.1ab) + MED
- Firmware Upgrade/Backup by HTTP/HTTPS
- Dual Firmware Image (Active & Backup Firmware)
- OpenVPN Client with Certificate-based auth
- ONVIF – IP Camera Management
- 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
- CPU/RAM Usage display
- MAC Address Table
- Device Check
- Syslog
- Mail Alert
  - Port Status
  - Port Speed Change
  - System Restart
  - Device Check
  - IP Conflict
  - ONVIF IP Camera Snapshot
- Port Mirroring
- Ping Diagnostics
- Port-based Cable Test

## 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
- 802.1q 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
- VigorSwitch P2282x only: 802.3af PoE
- VigorSwitch P2282x only: 802.3at PoE+

## Operating Requirements

- AC Power Input Requirements: 100-240VAC
- AC Power supply: Internal
- Power backup input:
  - VigorSwitch G2282x: DC +12V @ 3A
  - VigorSwitch P2282x: DC +12V @ 5A & DC +54V @ 7.4A
- Maximum Input Power Consumption:
  - VigorSwitch G2282x: 36 Watts
  - VigorSwitch P2282x: 460.4 Watts
- Cooling:
  - VigorSwitch G2282x: Passively cooled
  - VigorSwitch P2282x: Smart Fan
- Operating Temperature: 0 °C to 50 °C
- Storage Temperature: -20 °C to 70 °C
- Operating Humidity: 10% to 90% RH (non-condensing)
- Storage Humidity: 5% to 90% RH (non-condensing)

## Physical Specifications

- Dimensions (W x D x H):
  - VigorSwitch G2282x: 440 x 205 x 44 mm
  - VigorSwitch P2282x: 440 x 281 x 44 mm
- Weight (excluding SFP modules/cables):
  - VigorSwitch G2282x: 2.69 kg
  - VigorSwitch P2282x: 4.26 kg
- Rack mountable: 1U
  - Brackets included for rack mounting

## Box Contents

- VigorSwitch G2282x / P2282x Network Switch
- UK IEC13 Power Cable
- 1U Rack Mount Fittings
- Console Cable
- Quick Start Guide

## ROHS, UKCA and Compliant Warranty:

- Standard: Two (2) Year, RTB
- VigorCare Extended Warranty
  - VigorCare D3 3 Year Subscription: VCARE-D3
  - VigorCare D5 5 Year Subscription: VCARE-D5

\* - VigorACS subscription required.

^ - available in a future firmware release.

All specifications are subject to change without notice. The throughput figures are maximum, based on DrayTek internal testing with optimal conditions. The actual performance may vary depending on the different network conditions and applications activated.