

VigorSwitch PQ2300xb

24-Port 2.5GbE 6 Ports 10Gbps SFP+ L2+ Managed Switch with PoE+/PoE++, Stacking and Power Backup Input

Datasheet



Product Overview

VigorSwitch PQ2300xb is a 2.5 Gigabit L2+ Managed switch with 8 PoE++ 2.5GbE ports, 16 PoE+ 2.5GbE ports (total of 400W output) and 6 additional independent SFP+ 10Gbps interfaces. Ideal for usage with devices where there are throughput demands beyond 1Gbps such as PoE Wi-Fi 6 access points, high bandwidth video or network attached storage.

Supported layer 3 features such as a DHCP Server and VLAN Routing help with network stability and efficiency. The VigorSwitch PQ2300xb can be managed in a standalone mode or provisioned and monitored through the VigorACS management platform or a DrayTek Vigor router's Central Switch Management. Easily provision the VLAN configuration through the router and clone switch configurations. Drastically reduce the setup time required for a complex network, with VLANs spanning multiple switches.

Key Features & Benefits

Future Proof multi-Gigabit Ethernet interfaces

24 2.5GbE Ethernet ports improve your core network speed while using existing CAT 5E or later cable infrastructure. Ideal for Wi-Fi 6 access point connections such as the VigorAP 1062C

Benefits: Faster LANs run on existing infrastructure.

Advanced Layer 2+ Routing Features

Expand your network with support for Layer 3 features. Static Routes, VLAN Routing and Multi-subnet DHCP server connect separate networks through the VigorSwitch

Benefits: Provides a fast and secure bridge between networks.

High Speed 10 Gigabit SFP+ Uplinks

6 SFP+ ports allow 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 power through Ethernet to the PoE enabled 2.5 Gigabit LAN ports. Up to 90W (PoE++) can be delivered to the each of the first 8 dedicated Ethernet ports. PoE scheduling and monitoring features ensure your PoE devices are powered and working

Benefits: Power a large number of IP cameras, IP phones, and Wi-Fi 6 access points.

Great Security Features

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

Benefits: Secure & control access to your network.

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 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 multi-Gigabit Ethernet Ports (2500/1000/100/10) with PoE (8 PoE++ / 16 PoE+)
- 6 x SFP+ 10GbE Ports for Uplink / Fibre
- PoE (Power-over-Ethernet) for IP phones, wireless access points, IP Cameras etc.
- 400-watt Power-over-Ethernet budget
- 802.1q VLANs with Dynamic MAC-based, Voice & Surveillance VLAN
- 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 & Querying
- IPv4 and IPv6 Support with IP Conflict Prevention
- Centrally managed or standalone operation
- Console Port

VigorSwitch PQ2300xb Models

UK Product Code	EAN	Product Name	Product Description
VSPQ2300XB-K	4710484748683	VigorSwitch PQ2300xb (UK/IE)	VigorSwitch PQ2300xb 30-Port PoE++ Layer 2+ Managed Switch with 24 x 2.5GbE ports (8 PoE++ / 16 PoE+) & 6 x 10Gbps SFP+ slots

Technical Specification (UK Hardware Spec.)

Physical Interfaces

- 24 RJ-45 Ethernet PoE (8 PoE++ / 16 PoE+) Ports – 10/100/1000/2500Mbps
- 6 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

- 24-ports 802.3af & 802.3at (High Power) PoE PSE
- 8 dedicated 802.3bt PoE++ (90W) Ethernet ports
- Up to 30 watts per port for remaining Ethernet interfaces
- 400 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
- 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

VLAN

- 802.1q Tag-based VLAN
- Port-based and MAC-based VLANs
- QinQ (Basic)
- GVRP – General VLAN Registration Protocol
- Up to 512 VLANs (out of 4096 VLAN IDs)
- 802.1v Protocol-Based VLAN
- Voice VLAN (OUI Mode)
- Surveillance VLAN (OUI Mode)
- 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 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 (STP)
- Rapid Spanning Tree Protocol (RSTP)
- Multiple Spanning Tree Protocol (MSTP)

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: 240 Gbps
- Forwarding Rate: 178.56 Mpps at 64 bytes
- MAC Addresses Supported: 32,000
- Jumbo Frames up to 12KB
- Packet Buffer size: 16Mbit

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

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

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
- sFlow
- IPv4 & IPv6 Dual-Stack
- LLDP(802.1ab) + MED
- Firmware Upgrade/Backup by HTTP/HTTPS
- Configuration Backup/Restore
- Factory Default
- System Reboot
- Dual Firmware Image (Active & Backup Firmware)
- OpenVPN Client with Certificate-based auth
- 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

Hardware Monitor

- Remote Monitoring through Web Interface & VigorACS*
- Hardware Monitor Data Recording & Graphing

Layer 3 Networking Features

- Static Route
- VLAN Routing

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

- 802.3af PoE
- 802.3at PoE+
- 802.3bt PoE++
- 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

Operating Requirements

- Power Input Requirements: 100-240VAC @ 6A
- Backup Power Input: DC 12V @ 4.8A & DC 54V @ 7.5A
- Power supply: Internal
- Maximum Input Power Consumption: 550W
- Cooling: Fan
- Operating Temperature: 0 °C to 50 °C
- Storage Temperature: -20 °C to 70 °C
- Operating Humidity: 10% to 90% (non-condensing)
- Storage Humidity: 5% to 90% (non-condensing)

Physical Specifications

- Dimensions: 440 x 281 x 44 mm (W x D x H)
- Weight: 4.52 kg (excluding SFP modules/cables)
- Rack mountable: 1U
 - Brackets included for rack or wall mounting

UKCA, ROHS & CE Compliant Warranty:

- 2 Year Manufacturer's RTB
- Software security updates
- 3 years after the EOL notification. Please note that this only applies to products sold in the UK
- Optional VigorCare Enhanced Warranty Available
 - VigorCare D3 3 Year Subscription: VCARE-D3
 - VigorCare D5 5 Year Subscription: VCARE-D5

Box Contents

- VigorSwitch PQ2300xb Network Switch
- UK IEC13 Power Cable
- 1U Rack Mount Fittings
- Console Cable (RJ-45)
- Quick Start Guide

* - VigorACS subscription required for cloud management.

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