VigorSwitch P1281x

24-Port Smart Gigabit PoE+ Switch, allowing you to easily power and connect multiple devices such as IP cameras, wireless access points, and VoIP phones

DrayTek

Product Overview

VigorSwitch P1281x is a smart switch with 24 x GbE PoE+ Ports (total of 140W output) and 4 additional independent SFP+ 10Gbps interfaces. Use the SFP+ interfaces for high-speed uplinks between switches, servers and network attached storage devices at up to 10Gbps per port.

Designed for centralised management, the VigorSwitch P1281x can be provisioned and monitored with the VigorACS management platform, the free VigorConnect single site management system or, with a DrayTek Vigor router's Central Switch Management. Easily provision VLAN configuration through the router and clone switch configurations. Drastically reduce the setup time required for a complex network and configure an entire DrayTek network remotely.

Key Features & Benefits

IP Camera Management

Manage IP Cameras easily with detection and management of ONVIF cameras. Use PoE Device Check, auto-generated IP Camera topology and Camera Snapshots to detect & troubleshoot problems.

Benefits: Easily configure, deploy & manage connected IP Cameras.

Smart Power over Ethernet

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

Benefits: Power and manage IP cameras, IP phones and Wireless APs.

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. This helps you reduce the risk of bottlenecks occurring in your network.

Benefits: Increase network throughput and meet demanding bandwidth requirements.

Automatic VLAN Assignment

Voice, Surveillance and MAC VLANs dynamically assign VLANs to IP Phones, IP Cameras and more. Ensures the same network setup and Quality of Service regardless of where devices are plugged in.

Benefits: Less time to install, move ports around without reconfiguring VLANs.

Great Security Features

Protect your network against unauthorised access and network problems with IP Conflict Prevention, Loop Protection, 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 RJ-45 Ethernet PoE+ Ports – 10/100/1000Mbps
- 4 x SFP+ 10GbE Ports for Uplink / Fibre
- PoE (Power-over-Ethernet) for IP phones, wireless access points, IP cameras etc.
- 140-watt Power-over-Ethernet budget
- Cloud Managed with VigorACS
- 802.1q VLANs with Dynamic MAC-based, Voice & Surveillance VLAN
- ONVIF IP Camera Surveillance Management with PoE Device Check
- Access Control List (ACL) for port & traffic level security
- Port Mirroring & Link Aggregation
- IGMP Snooping & Querying
- IPv4 and IPv6 Support with IP Conflict Prevention
- Centrally managed or standalone operation

VigorSwitch P1281x Model

UK Product Code	EAN	Product Name	Product Description
VSP1281X-K	4710484746801	VigorSwitch P1281x (UK/IE)	24 x GbE PoE+ ports & 4 x 10Gbps SFP+ smart switch. 140W PoE budget

Technical Specification (UK Hardware Spec.)

Physical Interfaces
- 24 RJ-45 Ethernet PoE+ Ports – 10/100/1000Mbps
- 4 SFP+ Ports – 1000Mbps/10Gbps
- Factory Reset Button

PoE Specification
- 24 Power over Ethernet LAN ports - PoE PSE
- IEEE 802.3af PoE & 802.3at PoE+ (High Power) compliant
- 140 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
  - Restart PoE PD if not responding to ping
  - Restart PoE IP Camera if not providing camera output

VLAN
- Up to 512 VLANs (out of 4096 VLAN IDs)
- 802.1q Tag-based VLAN
- Port-based and MAC-based VLANs
- Voice VLAN (OUI Mode)
- Surveillance VLAN (OUI Mode)
- Management VLAN

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
- Protected Port / Port Isolation
- Static Port Security
- 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)

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: 56 Gbps
- Forwarding Rate: 41.7 Mpps at 64 bytes
- MAC Addresses Supported: 8k
- Jumbo Frames up to 9KB
- Packet Buffer size: 4.2Mbit

Multicast
- IGMP Snooping V2/V3 (BISS)
- IGMP V2/V3 Querier

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
- Central Management
  - VigorACS*****
  - VigorConnect
  - Vigor Router Switch Management (requires router firmware support)
- Firmware Upgrade/Backup by HTTP/HTTPS
- Configuration Backup/Restore
- IPv4 & IPv6 Dual-Stack
- Factory Default
- System Reboot
- 2-level Admin Privileges
- Multiple Admin Accounts
- OpenVPN Client with Certificate-based auth
- SNMP v1, v2c, v3 (with Generic Traps)
- SNTP (Simple Network Time Protocol)
- LLDP(802.1ab) + MED

Diagnostics
- Port Status & Usage display
- 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

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+
- 802.3 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 (STP)
- 802.1w Rapid Spanning Tree (RSTP)
- 802.1ab Link Layer Discovery Protocol (LLDP)

Operating Requirements
- Power Input Requirements: 100-240VAC
- Power supply: Internal
- Maximum Input Power Consumption: 200W at 2.5A
- Cooling: Passively cooled
- 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 (W x D x H): 440 x 216 x 44 mm
- Weight (excluding SFP modules/cables): 3.25 kg
- 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 C3 3 Year Subscription: VCARE-C3
  - VigorCare C5 5 Year Subscription: VCARE-C5

Box Contents
- VigorSwitch P1281x Network Switch
- UK IEC13 Power Cable
- 1U Rack Mount Fittings
- Quick Start Guide

* - VigorACS subscription required
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.