

# VigorSwitch P2100 & G2100

**DrayTek**

8-Port Gigabit Layer 2+ Managed Switch with 2 SFP Uplink Ports

Premium. Reliable. Affordable.

Datasheet



## Product Overview

The VigorSwitch P2100 & G2100 are high-performance, Layer 2+ Managed Ethernet switches. With 8 RJ-45 Gigabit LAN ports, they are ideal for adding network ports to a DrayTek Vigor router. The enterprise-level features allow businesses to improve network stability and security.

The VigorSwitch P2100 is able to power your network devices via Power over Ethernet, with a generous 140-watt power budget to provide power to each of its 8 PoE / PoE+ enabled Gigabit LAN ports.

The VigorSwitch G2100 & P2100 work superbly in standalone mode, but designed for remote management, and can be provisioned and monitored by one of DrayTek's central management platforms. These platforms include the VigorACS management platform, VigorConnect on-site management and DrayTek's router-based switch management. Each contain tools that allow users to drastically reduce the setup time required for a complex network and configure an entire DrayTek network remotely.

## Key Features & Benefits

### Great Security Features

Protect your network against unauthorised access and network problems with DrayTek's IP Conflict Prevention, 802.1X port authentication, DHCP Snooping, and Access Control Lists. Check the features sections for more information.

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

### Smart Power over Ethernet

The VigorSwitch P2100 provides ample power through Ethernet to each of its 8 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.

### 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.

### 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.

### Rack Mountable & Silent

Fit the VigorSwitch G2100 & P2100 with the included rack mounting kit into any standard 19" rack. Fanless and silent, these switches are ideal for use in a quiet office or home environment.

**Benefits:** Flexible installation. Quiet in operation.

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

Compatible with VigorACS Centralised Management Platform



## Key Specification

- 8 x RJ-45 Gigabit Ethernet Ports
- VigorSwitch P2100 only: PoE+ on all RJ-45 ports
- VigorSwitch P2100 only: 140-watt Power-over-Ethernet budget
- 2 x SFP Gigabit Ports for Uplink / Fibre
- Cloud Managed with VigorACS, or standalone operation
- ONVIF IP Camera Surveillance Management with Device Check
- 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
- Access Control List (ACL) Port Security
- IPv4 and IPv6 Support with DrayTek's IP Conflict Prevention system
- Console Port
- Rack mountable with fittings included



## Technical Specification (UK Hardware Spec.)

### Physical Interfaces

- 8 RJ-45 Ethernet Ports – 10/100/1000Mbps
- 2 SFP Ports – 1000Mbps
- Console Port (RJ-45 physical, RS-232 electrical)
- Factory Reset Button

### PoE Specification (VigorSwitch P2100 only)

- 8 Power over Ethernet LAN ports - PoE PSE Mode A
- 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 and Mail Alert 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 256 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 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: 20Gbps
- Forwarding Rate: 14.88Mpps (64 bytes)
- Jumbo Frames up to 9KB
- Packet Buffer size: 4.1Mbit

### 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 (Authentication, Authorisation, Accounting)

- 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

## Technical Specification (UK Hardware Spec.)

- 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

- Central Management
  - VigorACS
  - VigorConnect
  - Vigor Router Switch Management (requires router firmware support)
- 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
- Command Line Interface (CLI) via SSH/Telnet
- Console Port (RJ45) for CLI management
- 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

### Layer 3 Networking Features

- Static Route
- VLAN Routing
- DHCP Server (from firmware 2.6.8)

### IPv4 Features

- DHCP Client
- DNS Client
- DHCP Server (from firmware 2.6.8)
  - Up to 8 subnets
  - 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+
- 802.3 10Base-T
- 802.3u 100Base-T
- 802.3ab 1000Base-T
- 802.3x Flow Control
- 802.3 Auto-Negotiation
- 802.1q Tag-based VLAN
- 802.1p Class of Service
- 802.1d STP
- 802.1w RSTP
- 802.1s MSTP
- 802.3ad LACP
- 802.1ad QinQ
- 802.1x Port Access Control
- 802.1AB LLDP
- 802.3az EEE

### Operating Requirements

- Power Input Requirements: 100-240VAC
- Power supply: Internal
- Maximum Input Power Consumption:
  - VigorSwitch G2100: 18 Watts
  - VigorSwitch P2100: 164.3 Watts
- Cooling: Passively cooled
- Operating Temperature: 0 °C to 50 °C
- Storage Temperature: -20 °C to 70 °C
- Operating Humidity: 5% to 90% RH (non-condensing)

### Physical Specifications

- Rack mountable: 1U
- Dimensions:
  - VigorSwitch G2100: 270 x 181 x 44 mm (W x D x H)
  - VigorSwitch P2100: 319 x 208 x 44 mm (W x D x H)
- Weight:
  - VigorSwitch G2100: 1.78 kg (3lb)
  - VigorSwitch P2100: 2.61kg (5lb)

### Box Contents

- VigorSwitch G2100 / P2100 Network Switch
- UK IEC13 Power Cable
- 1U Rack Mount Fittings
- Quick Start Guide

### ROHS & CE Compliant

### Warranty : 2 Year Manufacturer's RTB

UK Product code	EAN	Product name	Product description
VSG2100-K	4710484742964	VigorSwitch G2100 (UK/IE)	8-port Gigabit L2+ Managed switch with 2 SFP Uplink ports
VSP2100-K	4710484742896	VigorSwitch P2100 (UK/IE)	8-port Gigabit L2+ Managed PoE+ switch with 2 SFP Uplink ports