VigorSwitch P2540x & G2540X

DrayTek

48-Port Gigabit Layer 2+ Managed Switch with 6 SFP+ Uplink Ports

Premium. Reliable. Affordable.

Datasheet

Product Overview

The VigorSwitch P2540x & G2540X are high-performance, Layer 2+ Managed Ethernet switches. With 48 RJ-45 Gigabit LAN ports, they are ideal for adding network ports to a DrayTek Vigor router. The enterprise-level features allow your business to improve network stability and security. The VigorSwitch P2540X is able to power your network devices via Power over Ethernet, with a generous 400 watt power budget to provide power to each of its 48 PoE / PoE+ enabled Gigabit LAN ports.

The VigorSwitch G2540X & P2540X work superbly in standalone mode, but designed for centralised management, they can be provisioned and monitored by one of DrayTek's central management platforms. These include the VigorACS management platform, VigorConnect on-site management and DrayTek's router-based switch management These platforms allow you 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 P2540X provides ample power through Ethernet to each of its 48 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. IP Camera Management

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. Manage Centrally or Stand-Alone

Rack Mountable & Silent

Fit the VigorSwitch G2540X & P2540X with the included rack mounting kit into any standard 19" rack. Dual Smart Fan makes these switches ideal for use in a busy office or home dedicated comms room.

Benefits: Flexible installation. Smart Fan monitoring 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

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Key Specification

- 48 x RJ-45 Gigabit Ethernet Ports
- VigorSwitch P2540X only: PoE+ on all RJ-45 ports
- VigorSwitch P2540X only: 400-watt Power-over-Ethernet budget
- 6 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

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Technical Specification (UK Hardware Spec.)

Physical Interfaces
- 48 RJ-45 Ethernet Ports – 10/100/1000Mbps
- 6 SFP+ Ports – 10Gbps
- Console Port (RJ-45 physical, RS-232 electrical)
- Factory Reset Button
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PoE Specification (VigorSwitch P2540X only)
- 48 Power over Ethernet LAN ports - PoE PSE Mode A
- IEEE 802.3af PoE & 802.3at PoE+ (High Power) compliant
- 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 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: 216Gbps
- Forwarding Rate: 160.7Mpps (64 bytes)
- Jumbo Frames up to 12KB
- Packet Buffer size: 16Mbit
- Layer 3 Routing Table up to 2000 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

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
- sFlow
- 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
- 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
  - 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
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Operating Requirements
- Power Input Requirements: 100-240VAC
- Power supply: Internal
- Maximum Input Power Consumption:
  - VigorSwitch G2540X: 52 Watts
  - VigorSwitch P2540X: 478 Watts
- Cooling: Dual Smart Fan
- Operating Temperature: 0 °C to 50 °C
- Storage Temperature: -20 °C to 70 °C
- Operating Humidity: 10% to 90% RH (non-condensing)

Physical Specifications
- Rack mountable: 1U
- Dimensions:
- VigorSwitch G2540X: 441 x 270 x 45 mm (W x D x H)
- VigorSwitch P2540X: 441 x 330 x 45 mm (W x D x H)

Weight:
- VigorSwitch G2540X: 3.97 kg
- VigorSwitch P2540X: 5.66 kg

Box Contents
- VigorSwitch G2540X / P2540X Network Switch
- UK IEC13 Power Cable
- 1U Rack Mount Fittings
- RJ-45 to RS-232 Console Cable Adapter
- Console Cable (RJ-45)
- Quick Start Guide

ROHS & CE Compliant

Warranty : 2 Year Manufacturer's RTB

UK Product code	EAN	Product name	Product description
VSG2540X-K	4710484741462	VigorSwitch G2540X (UK/IE)	48-port Gigabit L2+ Managed switch with 6 SFP+ Uplink ports
VSP2540X-K	4710484741127	VigorSwitch P2540X (UK/IE)	PoE 48-port Gigabit L2+ Managed switch with 6 SFP+ Uplink ports