Vigor 2866 Series

G.Fast VPN Router for Small Business and Remote Working

Premium. Reliable. Affordable.

DrayTek

Product Overview

The Vigor 2866 series is DrayTek's G.Fast / VDSL and Ethernet Multi-WAN Firewall VPN router. Ideally suited to connect directly to Ultrafast G.Fast broadband and Superfast VDSL. Providing advanced Firewall and Content Filtering, Quality of Service and VPN with Gigabit throughput.
Wi-Fi is available on 'ac' models and the integrated 4G+ LTE modem on 'Lac' models takes full advantage of mobile broadband. The Vigor 2866 series provides a reliable, flexible, and secure networking solution, that's ideal for Home Offices, Small Business and Satellite Offices.

Key Features & Benefits

G.Fast and Ethernet Load Balancer

Connect the Vigor 2866 to Ultrafast G.fast and Superfast VDSL2 FTTC with integrated DSL modem. Load Balance with Ethernet WAN and more for greater resiliency and higher throughput.

Benefits: Future Proof DSL Router. High speed DSL & Gigabit CPE with flexible application.

High-Performance VPN Router for SMB

Securely connect remote sites at high speed, up to 32 VPN tunnels. Connect remote workers to network resources and secure connectivity, with DrayTek SSL VPN and OpenVPN support.

Benefits: Fast and Secure network access to enable working from home and remote work.

Dual-SIM 4G+ LTE Modem

Provide resilient Internet connectivity and VPN with integrated high speed 4G+/LTE Category 6 modem on 'L' models. Plan for Mobile network outages with Dual-SIM Failover.

Benefits: Fast and Convenient Mobile Broadband. Ensures a reliable connection.

5+1 Gigabit LAN Ports with VLANs

Link Computers, Server and Network Storage directly with up to 6 Gigabit LAN ports. VLANs can serve as many as 8 separate networks, with options Hotspot Captive Portal & guest networks.

Benefits: Improve quality of service for private and guest data traffic. Connect more devices.

Feature Packed Router

Take advantage of DrayTek's rich feature set and useful functionality such as Quality of Service, Route Policy, Hotspot Web Portal, VPN Matcher, DrayDDNS and more.

Benefits: Advanced DrayTek router functionality solves many complex networking issues.

VigorACS SD-WAN Central Management

Manage the Vigor 2866 remotely and utilise DrayTek's powerful SD-WAN features with the VigorACS 3 management platform. Centrally manage & provision whole networks across multiple sites.

Benefits: Save time and money. Provision, manage and monitor remote sites easily, without on-site IT or dedicated staff.

Compatible with VigorACS Centralised Management Platform

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Key Specification

- G.fast (Ultrafast Fibre), VDSL2 (Superfast Fibre), ADSL and Ethernet Router
- Multi-WAN Gigabit Performance Router with Load-Balancing & Failover
- Up to 950Mbps Firewall Throughput for Ethernet WAN
- 5+1 Gigabit RJ-45 LAN Ports
- Up to 800Mbps VPN Throughput with IPsec acceleration
- 32 LAN-to-LAN & Remote Teleworker VPN Tunnels
- 16 DrayTek SSL VPN or OpenVPN Tunnels
- 4G/LTE with dual-SIMs for second backup telco ('L' models)
- AC1300 - 11ac 'Wave 2' Dual Band Wireless with Mesh ('ac' models)
- 8 LAN Subnets with VLANs (Port-based / 802.1q)
- SPI Firewall and Content Filtering
- Optional VigorCare Available
- Compatible with VigorACS central management platform

Technical Specification (UK Hardware Spec.)

Physical Interfaces
- WAN1: G.fast / VDSL2 / VDSL2 35b / ADSL2+, RJ-11
- WAN2/LAN Switchable Port: 1x Gigabit Ethernet (1G/100M/10M), RJ-45
- LAN Ports: 5x Gigabit Ethernet (1G/100M/10M), RJ-45
- 2x USB 2.0 Ports for 3G/4G Modem, thermometer or Printer
- or 1x USB 2.0 Port ('L' models)
- 2x Removable Wireless antennas (wireless models)
- 2x Removable 4G/LTE Wireless antennas ('L' models)
- Wireless On / Off / WPS button
- Recessed Factory Reset button

Antenna Specifications
- Wireless Antennas (wireless 'ac' models):
  - 2x External Dipole Antennas
  - 5GHz Gain: 4.5 dBi
  - 2.4GHz Gain: 5 dBi
  - RP-SMA fitting antenna connectors
- LTE Antennas ('L' models):
  - 2x External Dipole
  - 2x 1m extension base included
  - Gain: 3 dBi
  - SMA fitting antenna connectors

Performance
- NAT Performance:
  - 1.3Gb/s Max Sync Rate with G.fast (dependant on ISP & Exchange equipment)
  - 100 Mb/s Max Sync Rate with VDSL2
  - 300 Mb/s Max Sync Rate with VDSL2 35b
  - 950 Mb/s NAT Throughput for Ethernet WAN with Hardware Acceleration
  - 1.8Gb/s Total Multi-WAN NAT Throughput
  - 700 Mb/s NAT Throughput per WAN without Hardware Acceleration
  - 60,000 NAT Sessions
  - 8000 Hardware Accelerated NAT Sessions
- VPN Performance:
  - 300 Mb/s IPsec (AES256) VPN Performance
  - 800 Mb/s Hardware Accelerated IPsec VPN Performance - New!
  - 130 Mb/s SSL VPN Performance
  - Max. 32 Concurrent VPN Tunnels
  - Max. 16 Concurrent SSL VPN / OpenVPN Tunnels

WAN Interfaces
- WAN1: G.fast / VDSL2 / VDSL2 35b / ADSL2+
- WAN2: Gigabit Ethernet
- WAN3: 2.4GHz Wireless WAN ('ac' models)
- WAN4: 5GHz Wireless WAN ('ac' models)
- WAN5: 4G/LTE USB Modem (not included)
- or Integrated 4G/LTE Category 6 Modem ('L' models only)
WAN6: 4G/LTE USB Modem (not included)

Internet Connection
- Load Balancing: IP-based, Session-based
- Hardware Acceleration
- 802.1p/q Multi-VLAN Tagging
- Multi-VLAN/PVC
- 2.4GHz & 5GHz Simultaneous Wireless WAN ('ac' models only)
- WAN Active on Demand: Link Failure, Traffic Threshold
- Connection Detection: PPP, ARP Detect, Ping Detect
- WAN Data Budget
- Dynamic DNS
- DrayDDNS – with automated LetsEncrypt Certificates – **New!**
- Full Feature-set Hardware Acceleration:
  - Hardware Accelerated Quality of Service
  - Multi-WAN Data Budget
  - Traffic Graph & Data Flow Monitor
  - Bandwidth Limit
- IPv4 Connection Types: PPPoE, DHCP, Static IP, PPTP/L2TP
- IPv6 Connection Types:
  - DSL & Ethernet: PPP, DHCPv6, Static IPv6, TSPC, AICCU, 6rd, 6in4 Static Tunnel
  - 4G/LTE Modem & USB 4G/LTE Modem: TSPC, AICCU

G.Fast, VDSL & ADSL Features
- BT Infinity Option 1 & Option 2 Compatible
- Compliant with Openreach SIN 527 & SIN 498
- Auto Detection of G.fast, VDSL and ADSL line modes
- Support for G.INP & Vectoring

G.Fast Standards
- ITU-T G.9700, G.9701 G.fast
- Profile: 212MHz & 106MHz

VDSL Standards
- ITU-T G.993.1 VDSL
- ITU-T G.993.2, G.997.1 VDSL2
- Band Plan: G.998, G.997
- Annex A, Annex B, Annex C
- VDSL2 Profile: 8a, 8b, 8c, 8d, 12a, 12b, 17a, 35b
- OLR, UPBO, DPBO Supported
- US0 Supported
- Loop Diagnostic Mode
- DSL Forum WT-114

ADSL Standards
- Annex A
- ANSI T1.413 Issue2
- ITU-T G.992.1 G.dmt (ADSL)
- ITU-T G.992.2 G.lite
- ITU-T G.992.3 ADSL2
- ITU-T G.992.5 ADSL2+

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ATM Protocols
- RFC-2684/RFC-1483 Multiple Protocol over AAL5
- RFC-2516 PPP over Ethernet
- RFC-2364 PPP over AAL5
- Support for RFC4638 for MTU up to 1500

Integrated 4G LTE Modem Features ('L' models)
- Dual-SIM Failover (1 SIM online at a time)
- 4G LTE Category 6 Modem with fallback to 3G / GPRS
- Unlocked to any network (BT, EE, 3, O2, Vodafone, Eircom)
- 4G LTE Max Data Rates:
    - 300Mbps Downlink (Category 6)
    - 50Mbps Uplink (Category 6)
- 4G LTE (FDD) Bands: 1, 3, 5, 7, 8, 20, 28, 32
- 4G LTE (TDD) Bands: 38, 40, 41
- 3G (WCDMA/HSPA+/UMTS) Bands: 1, 3, 5, 8
- 2x LTE Antennas included with 1m extension cables
- Per-SIM-Card WAN Data Budget
- 2x Standard-Size SIM-Card Slots
- Removable SIM slot cover
- SMS Inbox - Send & Receive SMS text messages
- SMS Router Commands - Status Report, Reboot via text message
- LTE Bridge – **New!**

Wireless Features ('ac' models)
- AC1300 - 11ac 'Wave 2' Dual Band Wireless ('ac' models):
    - 802.11ac 2x2 wireless access point
    - Compatible with 802.11a/b/g/n wireless
    - Dual-band (2.4/5Ghz) simultaneous wireless
    - Up to 866Mbps PHY rate at 80MHz with 5GHz
    - Up to 400Mbps PHY rate at 40MHz with 2.4GHz (256-QAM)
    - Channel Bandwidth: 20/40MHz for 2.4GHz, 20/40/80MHz for 5GHz
    - MU-MIMO
    - Tx Beamforming
- Mesh Root support with DrayTek VigorAP Mesh Nodes – **New!**
- Up to 4 SSIDs per radio band
- Extended 5Ghz Band - Channels 36-48, 52-64, 100-140
- Wireless Optimisation: Airtime Fairness, AP-Assisted Mobility, Band Steering
- Bandwidth Management (Per Station / Per SSID)
- WMM (Wireless MultiMedia)
- WPS - WiFi Protected Setup
- Station Control - Time limited wireless connectivity per Station (e.g. 1 hour)
- EAPOL Key Retry - Disable EAPOL Key Retry to protect unpatched WLAN clients from KRACK
- Wireless Security:
    - WPA2
    - WPA3 – New!
    - Pre-Shared Key authentication
    - Enterprise 802.1x authentication
    - WEP/WPA for Legacy Clients
    - Access Control – Blacklist / Whitelist client MAC addresses per SSID

Firewall & Content Filtering
- IP-based or User-based Firewall Policy
- User-based Time Quota
- DoS Attack Defence
- Spoofing Defence
- Content Filtering:
    - Application Content Filter
    - URL Content Filter
    - DNS Keyword Filter
    - Web Features
    - Web Category Filter (requires GlobalView subscription)

NAT Features
- NAT Port Redirection
- Open Ports
- Port Triggering
- DMZ Host
- UPnP
- ALG (Application Layer Gateway): SIP, RTSP, FTP, H.323
- VPN Pass-Through: PPTP, L2TP, IPsec

LAN Management
- 802.1q Tag-based, Port-based VLAN
- Up to 8 LAN Subnets (NAT or Routing mode selectable per LAN interface)
- Up to 16 VLANs
- DMZ Port
- DHCP Server:
    - Multiple IP Subnet
    - Custom DHCP Options
    - Bind-IP-to-MAC
    - DHCP Pool Count up to 1022 addresses for LANs 1-3
    - DHCP Pool Count up to 253 addresses for LANs 4-8
    - DHCP Relay per LAN
- LAN IP Alias
- Wired 802.1x Port Authentication
- Port Mirroring
- Local DNS Server
- Conditional DNS Forwarding
- Hotspot Web Portal
- Hotspot Authentication: Click-Through, Social Login, SMS PIN, Voucher PIN, RADIUS, External Portal Server

Networking Features
- Policy-based Routing: Protocol, IP Address, Port, Domain/Hostname, Country
- High Availability: Active-Standby, Hot-Standby
- DNS Security (DNSSEC)
- Local RADIUS server
- SMB File Sharing (Requires external storage)
- Multicast: IGMP Proxy, IGMP Snooping & Fast Leave, Bonjour
- Routing Features: IPv4 & IPv6 Static Routing, Inter-VLAN Routing, RIP v1/v2/ng, BGP

VPN Features
- Up to 32 active VPN tunnels - including up to 16 SSL VPN or OpenVPN Tunnels
- Up to 16 Hardware Accelerated 800Mb/s IPsec tunnels – **New!**
- LAN-to-LAN - Dial-In VPN Server & Dial-Out VPN Client
- Teleworker-to-LAN – Dial-In VPN Server
- User Authentication: Local, RADIUS, LDAP, TACACS+, mOTP
- IKE Authentication: Pre-Shared Key and Digital Signature (X.509)
- Encryption: MPPE, DES, 3DES, AES (128/192/256)
- Authentication: SHA-256, SHA-1
- VPN Trunk (Redundancy): Load Balancing, Failover
- Dead Peer Detection (DPD)
- IPsec NAT-Traversal (NAT-T)
- Virtual IP Mapping – Resolve VPN IP subnet/range conflicts
- DHCP over IPsec
- DrayTek VPN Matcher – Connect to a VPN router that's behind NAT/CG-NAT - **New!**
- VPN Protocols:
    - IPsec IKEv1, IKEv2, IKEv2 EAP
    - IPsec-XAuth
    - DrayTek SSL VPN
    - OpenVPN
    - GRE over IPsec
    - PPTP
    - L2TP, L2TP over IPsec

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Bandwidth Management
- IP-based Bandwidth Limit
- IP-based Session Limit

User-based Data Quota

Quality of Service (QoS)
- Classify via TOS, DSCP, 802.1p, IP Address, Service Type
- 4 Priority Queues
- App QoS
- VoIP Prioritization
- Class-based Outbound Traffic Tagging: DSCP & IP Precedence

Management
- Local Service: HTTP, HTTPS, Telnet, SSH, FTP, TR-069
- Config File Export & Import
- Import Config from Vigor 2862 and Vigor 2860
- Auto Backup Config to USB Storage – **New!**
- Firmware Upgrade via TFTP, HTTP, TR-069
- 2-Level Administration Privilege
- Access Control Features: Access List, Brute Force Protection
- Syslog
- SMS, E-mail Notification Alert
- SNMP: v1, v2c, v3
- Managed by VigorACS

Router Central Management Features
- AP Management: Up to 20 VigorAP access points
- Switch Management: Up to 10 VigorSwitch network switches
- VPN Management: Up to 8 Vigor routers
- DrayTek Mesh: Up to 7 VigorAP access points – **New!**

Operating Requirements
- Rack Mountable (Optional Vigor RM1 mounting bracket required)
- Wall or Shelf Mountable with included fittings
- Temperature Operating: 0 °C ~ 45 °C
- Storage: -25 °C ~ 70 °C
- Humidity 10% ~ 90% (non-condensing)
- Power Consumption: 24 watts maximum ('ac' model)
- Operating Power: DC 12V (via external PSU, supplied)
- Power Requirements: 100-240VAC
- Weight: 620g ('ac' model)
- Dimensions:
  - 241mm Width
  - 165mm Depth
  - 44mm Height

Warranty
- Two (2) Year Manufacturer's RTB
- Optional VigorCare Enhanced Warranty Available
  - VigorCare B3 3 Year Subscription: **VCARE-B3**
  - VigorCare B5 5 Year Subscription: **VCARE-B5**

Box Contents
- Vigor 2866 series router
- Quick Start Guide
- Screws & wall plugs for wall mounting
- 2m Cat-5e RJ-45 Network Cable
- 2x Detachable Wireless LAN Antennas ('ac' models)
- 2x Detachable LTE Antennas ('L' models)
- 2x 1m LTE Extension Base ('L' models)
- DC 12V Power Supply with UK Plug

Vigor 2866 series Router Models

UK Product code	EAN	Product name	Product description
V2866-K	4712909128308	Vigor 2866 (UK/IE)	Vigor 2866 wired G.fast/DSL & Ethernet router
V2866AC-K	4710484743244	Vigor 2866ac (UK/IE)	Vigor 2866ac G.fast/DSL & Ethernet router with AC1300 wireless
V2866LAC-K	4710484740434	Vigor 2866Lac (UK/IE)	Vigor 2866Lac G.fast/DSL & Ethernet router with AC1300 wireless and integrated 4G/LTE modem