

Vigor 2865Lax-5G

The Ideal DSL Router for business with 5G broadband and Wi-Fi 6



Datasheet

Product Overview

DrayTek's Vigor 2865 series Multi-WAN Firewall VPN routers are well-suited for Superfast VDSL Broadband and Ethernet-based FTTP Fibre Broadband. Offering Gigabit throughput, Quality of Service, VPN client/server, comprehensive Firewall, and Content Filtering controls, the 2865 series stands out as one of the most versatile devices on the market, compatible with various network requirements.

The new Vigor 2865Lax-5G model integrates a 5G/LTE modem, enabling users to leverage mobile broadband effectively, whether for failover or load-balanced broadband connections. Additionally, its Wi-Fi 6 module ensures rapid and efficient wireless connectivity with DrayTek VigorAP access points and end devices.

Key Features & Benefits

VDSL and Ethernet Load Balancer

Connect the Vigor 2865 to Superfast Fibre with the integrated VDSL modem. Use the Ethernet WAN with Cable and Ultrafast FTTP. Load Balance multiple connections to boost performance.

Benefits: Fully utilise Fibre Broadband. High performance DSL & Gigabit CPE with flexible application.

Robust SMB VPN Router

Quickly and securely connect remote sites with up to 32 VPN tunnels. Enable remote workers to access resources with DrayTek SSL VPN and OpenVPN support.

Benefits: Securely encrypt network access for remote workers and working from home.

5G/LTE Router with Dual Sim Slot

Integrated 5G/LTE modem on '5G' models supporting LTE Category 19. Unlocked to any network. Backward compatible with 4G/LTE.

Benefits: Faster 5G/LTE Mobile Broadband. Ensure constant connectivity

5+1 Gigabit LAN Ports

Link Server, Computers, and Network Attached Storage directly, with up to 6 Gigabit LAN ports. VLANs allow for as many as 8 separate networks, with options for Hotspot Captive Portal.

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

Wi-Fi 6 - AX3000 Performance

Wi-Fi 6 wireless provides gigabit Wi-Fi with reliable throughput. Ideal for time-sensitive video conferencing, low latency gaming and handling 4K Ultra-HD streaming, without buffering.

Benefits: Improved wireless performance. Built with the latest technologies.

VigorACS SD-WAN Central Management

Manage the Vigor 2865 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.

Key Specification

- VDSL2 (Superfast Fibre) and Gigabit Ethernet WAN 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
- 5G / LTE with dual-SIMs for second backup telco – New!
- AX3000 – Wi-Fi 6 Dual Band Wireless
- 8 LAN Subnets with VLANs (Port-based / 802.1q)
- SPI Firewall and Content Filtering
- Optional VigorCare Available
- Compatible with VigorACS central management platform

Vigor 2865Lax-5G Router Models

UK Product Code	EAN	Product Name	Product Description
V2865-K	4710484741257	Vigor 2865 (UK/IE)	Vigor 2865 wired VDSL router
V2865AC-K	4710484741240	Vigor 2865ac (UK/IE)	Vigor 2865ac AC1300 wireless VDSL router
V2865AX-K	4710484743862	Vigor 2865ax (UK/IE)	Vigor 2865ax VDSL router with Wi-Fi 6 AX3000 wireless
V2865L-5G-K	4712909127400	Vigor 2865L 5G (UK/IE)	Vigor 2865L 5G wired VDSL router with 5G/LTE modem
V2865LAC-K	4710484741233	Vigor 2865Lac (UK/IE)	Vigor 2865Lac AC1300 wireless VDSL router with 4G/LTE modem
V2865VAC-K	4710484743206	Vigor 2865Vac (UK/IE)	Vigor 2865Vac AC1300 wireless VDSL router with VoIP
V2865LAX-5G-K	4712909127370	Vigor 2865Lax-5G (UK/IE)	Vigor 2865Lax-5G AX3000 wireless VDSL router with integrated 5G modem

Technical Specification (UK Hardware Spec.)

Physical Interfaces

- WAN1: 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
- 1x USB 2.0 Ports for 3G/4G Modem, thermometer, or Printer
- 2x Removable Wireless LAN antennas
- 4x Removable 5G Wireless antennas
- Wireless On / Off / WPS button
- Recessed Factory Reset button

Antenna Specifications

- Wireless Antennas:
 - 2x External Dipole
 - 5GHz Gain: 4.5 dBi
 - 2.4GHz Gain: 5 dBi
 - RP-SMA fitting antenna connectors
- LTE Antennas:
 - 4x External Dipole
 - 4x 1m extension base included
 - Gain: 4.37 dBi
 - SMA fitting antenna connectors

Performance

- Router Performance:
 - 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
 - 1.3Gb/s Total Mult-WAN NAT Throughput
 - 800 Mb/s NAT Throughput per WAN without Hardware Acceleration
 - 60,000 NAT Sessions
 - MU-MIMO
- VPN Performance:
 - 300 Mb/s IPsec (AES256) VPN Performance
 - 800 Mb/s Hardware Accelerated IPsec VPN Performance
 - 130 Mb/s SSL VPN Performance
 - Max. 32 Concurrent VPN Tunnels
 - Max. 16 Concurrent SSL VPN / OpenVPN Tunnels

WAN Interfaces

- WAN1: VDSL2 / VDSL2 35b / ADSL2+
- WAN2: Gigabit Ethernet
- 5G-NR: Integrated 5G/LTE Modem
- 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
- 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, PPPoA, MPoA, DHCP, Static IP, PPTP/L2TP
- IPv6 Connection Types:
 - DSL & Ethernet: PPP, DHCPv6, Static IPv6, TSPC, AICCU, 6rd, 6in4 Static Tunnel
 - 5G/4G Modem & USB 4G/LTE Modem: TSPC, AICCU

VDSL & ADSL Features

- BT Infinity Option 1 & Option 2 Compatible
- Compliant with Openreach SIN 498
- Auto Detection of VDSL and ADSL line modes
- Support for G.INP & Vectoring
 - 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
 - USO Supported
 - Loop Diagnostic Mode
 - DSL Forum WT-114
- ADSL Standards:
 - 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+
- 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 5G Modem Features ('5G' models) – New!

- Dual-SIM Failover
- 5G LTE Category 19 (DL) Modem with fallback to 4G/LTE
- Unlocked to any network (BT, EE, 3, O2, Vodafone, Eircom)
- 5G Max Data Rates:
 - Please note that the maximum real-world throughput speed is estimated to be approximately 600Mbps. Below are the theoretical maximum data link rates for 5G New Radio Standalone (NR SA) and 5G New Radio Non-standalone (NR NSA) for the device.
- 5G NR SA
 - 2.4Gbps Downlink (Category 19)
 - 900Mbps Uplink (Category 18)
- 5G NR NSA
 - 2.8Gbps Downlink (Category 19)
 - 555Mbps Uplink (Category 18)
- User Authentication:
- 5G NR Sub-6 SA Bands: 1, 3, 7, 8, 20, 28, 38, 40, 77, 78
- 5G NR Sub-6 NSA Bands: 1, 3, 7, 8, 20, 28, 38, 40, 77, 78
- 4G LTE (FDD) Bands: 1, 3, 7, 8, 20, 28
- 4G LTE (TDD) Bands: 38, 40
- 3G (WCDMA) Bands: 1, 8
- 4x 5G 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

Wireless Features

- AX3000 Wi-Fi 6 wireless ('ax' models):
 - 802.11ax 2x2 wireless access point
 - Compatible with 802.11a/b/g/n/ac wireless
 - Dual-band (2.4/5GHz) simultaneous wireless
 - Up to 2400Mbps PHY rate at 160MHz with 5GHz
 - Up to 574Mbps PHY rate at 40MHz with 2.4GHz
 - Channel Bandwidth: 20/40MHz for 2.4GHz, 20/40/80/160MHz for 5GHz
 - OFDMA
 - MU-MIMO
 - Tx Beamforming
 - 1024-QAM
- Mesh Root support with DrayTek VigorAP Mesh Nodes^
- 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
 - 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*

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
- 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

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

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
- 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, TOTP - **New!**
- 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
- VPN Protocols:
 - IPsec IKEv1, IKEv2, IKEv2 EAP
 - IPsec-XAuth
 - DrayTek SSL VPN
 - OpenVPN
 - WireGuard - **New!**
 - GRE over IPsec
 - PPTP
 - L2TP, L2TP over IPsec

Management

- Local Service: HTTP, HTTPS, Telnet, SSH, FTP, TR-069
- Config File Export & Import
- Import Config from Vigor 2862
- 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^

Bandwidth Management

- IP-based Bandwidth Limit
- IP-based Session Limit
- User-based Data Quota
- QoS (Quality of Service):
 - Classify via TOS, DSCP, 802.1p, IP Address, Service Type
 - 4 Priority Queues
 - App QoS
 - VoIP Prioritization

Operating Requirements

- Power Requirements: 100-240VAC
- Power Consumption: 31.2 watts maximum
- Temperature Operating: 0 °C ~ 45 °C
- Storage: -25 °C ~ 70 °C
- Humidity 10% ~ 90% (non-condensing)
- Operating Power: DC 12V (via external PSU, supplied)
- Rack Mountable (Optional Vigor RM1 mounting bracket required)
- Wall Mountable

Physical Specifications

- Dimensions:
 - 241mm Width
 - 165mm Depth
 - 44mm Height
- Weight: 670g

Box Contents

- Vigor 2865Lax-5G router
- Quick Start Guide
- Screws & wall plugs for wall mounting
- 2m Cat-5e RJ-45 Network Cable
- 2x Detachable Wireless LAN Antennas
- 4x Detachable LTE Antennas
- 4x 1m LTE Extension Base
- DC 12V Power Supply with UK Plug

ROHS, UKCA & CE Compliant

Warranty:

- Standard: Two (2) Year, RTB
- VigorCare Extended Warranty
 - VigorCare B3 3 Year Subscription: VCARE-B3
 - VigorCare B5 5 Year Subscription: VCARE-B5

* - subscription required

^ - visit the DrayTek Mesh Model Compatibility page for mesh compatibility details