



Product Name: Draytek Vigor 2865Lac Multi-WAN Firewall VPN Router with AC1300 Wireless and 4G/LTE

(V2865LAC-K)

Manufacturer: Draytek

Model Number: V2865LAC-K

Draytek Vigor 2865Lac Multi-WAN Firewall VPN Router with AC1300 Wireless and 4G/LTE (V2865LAC-K)

The DrayTek V2865LAC-K is an AC1300 Wireless and 4G/LTE VDSL Router that provides a reliable, flexible, and secure networking solution, that's ideal for Home Offices, Small Business and Satellite Offices.

DrayTek V2865LAC-K Key Features

าั¿½ VDSL2 (Superfast Fibre) and Gigabit Ethernet WAN Router

าั¿½ Up to 950Mbps Firewall Throughput for Ethernet WAN

ï¿1/2 5+1 Gigabit RJ-45 LAN Ports

12.1/2 Up to 800Mbps VPN Throughput with IPsec acceleration

12.1/2 32 LAN-to-LAN & Teleworker VPN Tunnels

� 16 DrayTek SSL VPN or OpenVPN Tunnels

آذِيًٰ 4G/LTE with dual-SIMs for second backup telco ('L' models)

� AC1300 - 11ac 'Wave 2' Dual Band Wireless with Mesh ('ac' models)

آذِر 8 LAN Subnets with VLANs (Port-based / 802.1q)

ï¿1/2 SPI Firewall and Content Filtering

� Optional VigorCare Available

ïപ് Compatible with VigorACS central management platform

DrayTek V2865LAC-K - Technical Specifications Physical Interfaces:

� WAN1: VDSL2 / VDSL2 35b / ADSL2+, RJ-11

آذِرًا WAN2/LAN Switchable Port: 1x Gigabit Ethernet (1G/100M/10M), RJ-45

าั¿½ LAN Ports: 5x Gigabit Ethernet (1G/100M/10M), RJ-45

าั¿½ 2x USB 2.0 Ports for 3G/4G Modem, thermometer or Printer

تز½ or 1x USB 2.0 Port ('L' models)

� 2x Removable Wireless antennas (wireless models)

آذًا 2x Removable 4G/LTE Wireless antennas ('L' models)

� Wireless On / Off / WPS button

� Recessed Factory Reset button

### Performance:

Ti2½ 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

Ti2/2 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:

ï¿1/2 WAN1: VDSL2 / VDSL2 35b / ADSL2+

� WAN2: Gigabit Ethernet

� WAN3: 2.4GHz Wireless WAN ('ac' models)

ı̈¿½ WAN4: 5GHz Wireless WAN ('ac' models)

ī¿1/2 WAN5: 4G/LTE USB Modem (not included) or Integrated 4G/LTE Category 6 Modem

('L' models only)

آزٰ WAN6: 4G/LTE USB Modem (not included)

#### Internet Connection:

17:1/2 Load Balancing: IP-based, Session-based

� Hardware Acceleration

� 802.1p/q Multi-VLAN Tagging

ï¿⅓ Multi-VLAN/PVC

تزير 2.4GHz & Simultaneous Wireless WAN (& Isquo; ac' models only)

រ៉េ្ស WAN Active on Demand: Link Failure, Traffi c Threshold

آذِر Connection Detection: PPP, ARP Detect, Ping Detect

ï¿⅓ WAN Data Budget

� Dynamic DNS

Title DrayDDNS – with automated LetsEncrypt Certificates – New!

آذِرُ Full Feature-set Hardware Acceleration:- Hardware Accelerated Quality of Service -

Multi-WAN Data Budget - Traffic Graph & Data Flow Monitor - Bandwidth Limit

آذِرُ IPv4 Connection Types: PPPoE, PPPoA, MPoA, DHCP, Static IP, PPTP/ L2TP

Ti21/2 IPv6 Connection Types:- DSL & DSL & Amp; Ethernet: PPP, DHCPv6, Static IPv6, TSPC, AICCU,

6rd, 6in4 Static Tunnel - 4G/LTE Modem & amp; USB 4G/LTE Modem: TSPC, AICCU

#### VDSL & amp; ADSL Features

i¿½ BT Infinity Option 1 & Definity Option 2 Compatible

ï¿1/2 Compliant with Openreach SIN 498

า๊¿½ Auto Detection of VDSL and ADSL line modes

ï¿1/2 Support for G.INP & amp; Vectoring

� 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 - 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+

ī¿½ 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

រ៉េ្ស 4G LTE Category 6 Modem with fallback to 3G / GPRS

آذِرُ Unlocked to any network (BT, EE, 3, O2, Vodafone, Eircom)

آذِيًٰ 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

ï¿1/2 4G LTE (TDD) Bands: 38, 40, 41

ï¿1/2 3G (WCDMA/HSPA+/UMTS) Bands: 1, 3, 5, 8

12/2 2x LTE Antennas included with 1m extension cables

� Per-SIM-Card WAN Data Budget

� 2x Standard-Size SIM-Card Slots

� Removable SIM slot cover

تزير SMS Inbox - Send & Receive SMS text messages

ī సైస్ట్ 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 - 2.4GHz: 2x2 MIMO with 2 dBi Antenna Gain - 5GHz: 2x2 MU-MIMO with 4 dBI Antenna Gain - Backwards 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

Ti21/2 Mesh Root support with DrayTek VigorAP Mesh Nodes – New! (requires f/w 4.3.0)

آذِ2 Up to 4 SSIDs per radio band

� Extended 5Ghz Band - Channels 36-48, 52-64, 100-140

าั¿½ Wireless Optimisation: Airtime Fairness, AP-Assisted Mobility, Band Steering

� Bandwidth Management (Per Station / Per SSID)

� WMM (Wireless MultiMedia)

ï¿1/2 WPS - WiFi Protected Setup

īస్ట్ Station Control - Time limited wireless connectivity per Station (e.g. 1 hour)

าั¿½ EAPOL Key Retry - Disable EAPOL Key Retry to protect unpatched WLAN clients from KRACK

### Wireless Security

� WPA2

� WPA3 – New! (requires f/w 4.3.0)

� Pre-Shared Key authentication

� Enterprise 802.1x authentication

� WEP/WPA for Legacy Clients

آذِرُ Access Control – Blacklist / Whitelist client MAC addresses per SSID

### Firewall & amp; Content Filtering

� IP-based or User-based Firewall Policy

ï¿1/2 User-based Time Quota

� DoS Attack Defence

ï¿1/2 Spoofing Defence

تزير Content Filtering:- Application Content Filter - URL Content Filter - DNS Keyword Filter - Web Features - Web Category Filter (requires GlobalView subscription)

#### **NAT Features**

� NAT Port Redirection

ï¿⅓ Open Ports



� Port Triggering

ï¿⅓ DMZ Host

� UPnP

าั¿½ ALG (Application Layer Gateway): SIP, RTSP, FTP, H.323

าั¿1/2 VPN Pass-Through: PPTP, L2TP, IPsec

### LAN Management

ï¿1/2 802.1q Tag-based, Port-based VLAN

آذِالِدُ Up to 8 LAN Subnets (NAT or Routing mode selectable per LAN interface)

ï¿⅓ Up to 16 VLANs

ï¿⅓ DMZ Port

 $\ddot{i}_{\dot{c}}$  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

آذِ1⁄2 LAN IP Alias

� Wired 802.1x Port Authentication

� Port Mirroring

� Local DNS Server

� Conditional DNS Forwarding

� Hotspot Web Portal

تزغ Hotspot Authentication: Click-Through, Social Login, SMS PIN, Voucher PIN, RADIUS,

External Portal Server

### **Networking Features**

آذِرُ Policy-based Routing: Protocol, IP Address, Port, Domain/Hostname, Country

آز 1/2 High Availability: Active-Standby, Hot-Standby

� DNS Security (DNSSEC)

� Local RADIUS server

آزاء SMB File Sharing (Requires external storage)

آزا Multicast: IGMP Proxy, IGMP Snooping & East Leave, Bonjour

าั¿½ Routing Features: IPv4 & Dv6 Static Routing, Inter-VLAN Routing, RIP v1/v2/ng, BGP

## **VPN** Features

าั¿½ Up to 32 active VPN tunnels - including up to 16 SSL VPN or OpenVPN Tunnels

آزا Up to 16 Hardware Accelerated 800Mb/s IPsec tunnels – New!

า๊ะ่ LAN-to-LAN - Dial-In VPN Server & Dial-Out VPN Client

17.1/2 Teleworker-to-LAN – Dial-In VPN Server

ī స్ట్రీ User Authentication: Local, RADIUS, LDAP, TACACS+, mOTP

17:1/2 IKE Authentication: Pre-Shared Key and Digital Signature (X.509)

ï¿1/2 Encryption: MPPE, DES, 3DES, AES (128/192/256)

ï¿1/2 Authentication: SHA-256, SHA-1

าั¿½ VPN Trunk (Redundancy): Load Balancing, Failover

� Dead Peer Detection (DPD)

� IPsec NAT-Traversal (NAT-T)

าั¿½ Virtual IP Mapping – Resolve VPN IP subnet/range conflicts

� DHCP over IPsec

าั¿½ 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



#### **Bandwidth Management**

ï¿1/2 IP-based Bandwidth Limit

� IP-based Session Limit

ï¿1/2 User-based Data Quota

آزار QoS (Quality of Service):- Classify via TOS, DSCP, 802.1p, IP Address, Service Type - 4

Priority Queues - App QoS - VoIP Prioritization

### Management

آزئ Local Service: HTTP, HTTPS, Telnet, SSH, FTP, TR-069

تزر Config File Export & Export & Import

� Import Config from Vigor 2862

าั¿½ Auto Backup Config to USB Storage – New!

آز 1/2 Firmware Upgrade via TFTP, HTTP, TR-069

� 2-Level Administration Privilege

ī సైస్ట్ Access Control Features: Access List, Brute Force Protection

آز½ Syslog

ï¿⅓ SMS, E-mail Notification Alert

ï¿⅓ SNMP: v1, v2c, v3

T¿½ 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! (requires f/w 4.3.0)

### Operating Requirements

� Rack Mountable (Optional Vigor RM1 mounting bracket required)

าั¿1/2 Wall or Shelf Mountable with included fittings

� Temperature Operating: 0 °C ~ 45 °C

ï¿1/2 Storage: -25 °C ~ 70 °C

� Humidity 10% ~ 90% (non-condensing)

าั¿½ Power Consumption: 24 watts maximum ('ac' model)

� Weight: 620g ('ac' model)

آزًا $^{1}$  Dimensions: 241mm Width x 165mm Depth x 44mm Height

آذِيً Operating Power: DC 12V (via external PSU, supplied)

ï¿⅓ Warranty : Two (2) Years RTB

12.1/2 Power Requirements: 220-240VAC

### **Box Contents**

� Vigor 2865 series router

� Quick Start Guide

� Screws & amp; wall plugs for wall mounting

� 2m Cat-5e RJ-45 Network Cable

تزرير 2x Detachable Wireless LAN Antennas ('ac' models)

าั¿½ 2x Detachable LTE Antennas ('L' models)

� 2x 1m LTE Extension Base ('L' models)

12.1/2 DC 12V Power Supply with UK Plug



Price: £498.80