R80-8GP-PRO

COMMANDO RoutePRO, 8GP+1, SD-WAN, Multi-WAN,
LB/FW/VPN/WLC, Cloud Enterprise PoE Router
Data Sheet

Contents

Product Overview

COMMANDO R80-8GP-PRO, Cloud Base Multi-Functional Wired Router, 9*10/100/1000M Gigabit Ethernet, Configurable LAN/WAN Ports, with PoE/PoE+ IEEE 802.3af/at (15.4W, 30W) on LAN ports, Wireless Roaming Mechanism (802.11r), Load Balancing, Authentication Server to Integrate and Simplify the Traditional Networking Mode, AC Management, Portal Authentication, Deep Packet Inspection (DPI) Seven-Layer flow Control, Supports Intelligent Networking (SD-WAN), 3000+ Application Protocol Identification.

It is 5 in 1 Multi-functional device having feature like Multi WAN load balancer with auto failover mechanism, Firewall, VPN, Wireless Controller, Cloud based authentication, configuration and monitoring , Enterprise Wired Router.

Product Highlights

- 9 *10/100/1000Mbps configurable LAN/WAN Ports.

- WLAN controller can manage up to 32 APs & 80 users, with Discovery, Configuration, and Monitoring Functions.

- Standard Wireless Roaming Mechanism (802.11r).

- WAN: Multiple WANs, Failover/ Load Balance, Configurable Ethernet with PoE/PoE+.

- DPI (Deep Packet Inspection) with Seven Layer Flow Control.

- Support One Click Flow Control and Manual Flow Control

- 3000+ Application Protocol Identification, for more Accurate Flow Control, Improved Bandwidth Utilization

- Access Point Management via console and Could-based Portal Authentication.

- PoE/PoE+ capability on LAN ports, IEEE 802.2af/at (15.4W, 30W) compliant Gigabit Ethernet with power budget up to 120W.

- AC Intelligent Management Functions work together with COMMANDO Access Points, easy Access Point Management.

- Support COMMANDO Platform Management, Centralized Management and Maintenance via Cloud base account.

- VPN for Encrypted Communication, Ensure Remote Access Security.

- Support Multi-Vendor WAN Line simultaneous Access, WAN load balancing by Different ISP, Rational use, Load Balancing, Reduce Bandwidth Costs.

- Wireless Marketing Function, High Authentication Methods to meet the needs of Different Users and Scenarios.

- Tag based and port based VLANs to group control and relocate traffic pattern.

- Fully protocol stack for both IPv4 and IPv6, afford to 80 concurrent users and 100,000 concurrent sessions.

- IPsec, PPTP and L2TP VPN support up to 64 concurrent tunnels with max

500Mbps throughput (IPsec).

- Built-in High-Performance Processor Suitable for Deployment of Large Scale Commercial Scenarios.

- QoS and Bandwidth Management for optimal bandwidth usage.

- Affordable, Easy-to-Use router for Small Business Networks, with Zero Configuration Required

- High Availability for mission critical application with muti-WAN load balance and VPN tunnel failover, also VRRP for device redundancy.

- User certification by X.509 and authentication by Radius/AD/LDAP server for user and group management.

- Ethernet: Dynamic IP, Static IP, PPPoE, PPTP, L2TP

- IPv6: Dual Stack, 6-in-4, 6-to-4, Dynamic, Static, PPPoE.

- VLAN: Port Based, Tag- based.

- NAT: ALG, Special AP, DMZ Host, Virtual Server/ Computer, PPTP/ L2TP/IPSec Pass-through, Up to 100,000 Sessions.

- Routing: Static and Default.

- Client & Server: DHCP, DDNS, IGMP.

- Management Features with Web, Simple Telnet CLI, SNMP.

- AP: Auto Discovery, Monitoring & Alerting, Profile based Configuration, AP Load balance.

- User Accounts, User Grouping, Bound Services.

- Firewall: SPI Firewall with Stealth Mode, IPS.

- Access Control with Packet Filters, URL Blocking, Web Content Filters, Application Filters, MAC.

- Support One Click Smart Flow Control and Manual Flow Control.

- Access Point Management and Portal Authentication.

- AC Intelligent Management Functions work together with COMMANDO Access

Points, easy Access Point Management.

- With Zero Touch Provisioning: Plug and play and no setup.

- Comes with one-year default warranty – optionally extendable up to 3 years.

Features and Benefits

Multi-functional

The R80-8GP-PRO integrates functions such as DPI flow control, load balancing, AC, VPN, and authentication server to integrate and simplify the traditional networking mode. It is equivalent to integrating multiple devices and a unified network management platform into one device, greatly reducing User networking and maintenance costs.

Deep Packet Inspection

COMMANDO Wired Router supports Multi-line, Each line is backed up with Each other. It cooperates with a new Generation of DPI-based Traffic Identification Mechanism, and Fine Traffic Control with Link Balancing and Application Offloading to offload Core Applications.

AC Wireless Access Point Controller

Built-in AC controller, support COMMANDO AP centralized management, AP can be regarded as virtual antenna without any configuration, automatically read wireless configuration after accessing the network, AP zero-based networking, expansion at any time; support standard wireless roaming mechanism (802.11r) To achieve seamless roaming between APs, and the business of games, video, voice, etc. is uninterrupted.

Cloud Base Wired Router

It is 9* 10/100/1000M configurable and interchangeable LAN/WAN Port which support up to 32 AP & 80 Users with standard Wireless Roaming Mechanism (802.11r) with DPI (Deep Packet Inspection) Seven Layer Flow Control along with Portal based web access from anyone having credential via internet from any place. Support COMMANDO Platform Management, Centralized Management and Maintenance VPN for Encrypted Communication, Ensure Remote Access Security

Multi-WAN load balancing with auto Fail over Mechanism

Support up to 5 configurable WAN Multi Line Access, Simultaneous access by different Operators with all used at a time via load balancing and preventing network outage automatically via fail-over mechanism , Rational use, Reduce Bandwidth Costs.

Wireless Marketing Function

High Authentication Methods via cloud based , time based, ticket based to meet the needs of Different Users and Scenarios, Multi-functional Fusion. COMMANDO Integrates Functions Such as DPI Flow Control, Load Balancing, AC Controller, VPN, and Authentication Server to Integrate and Simplify the Traditional Networking Mode. Equivalent to Integrating Multiple Devices and a Unified Network Management Platform into one Device, greatly reducing Networking and Maintenance costs.

Network Security

Built-efficient Behavior Management Routing and Firewall Modules, Support Flexible user Access Control Policies, Network Security, Network security to meet Different Customer needs.

VPN　（Virtual Private Network）

Support IPsec, PPTP, L2TP and Open VPN, Allowing Offices in Different Regions of the Enterprise to Access ERP, CRM, Internal Server, and other Production Systems of the company's Local Area Network at Any Time to Improve Work Efficiency. Out-of-office Employees can Access the Company's internal Network Resources through Secure Channels anytime and anywhere.

Auto MDIX Capabilities

Auto sensing/Auto PoE/PoE+, 10/100/1000Mbps RJ45 Ports with auto MDIX capabilities which also removes speed and duplex mismatches automatically as well as covers larger physical distance with copper pairs compared to other brands.

Compact and Silent Performance

It comes fanless models with Small form-factor, operates quietly, making it ideal for use in virtually any room or office. Perfect for noise sensitive environments.

Support uninterrupted critical network infrastructure

It has AC input power which protect from power surges through their inline power supply automatically and have in build Surge protection of ±4KV. With this feature

protect on cost and the impact to your business by losing these network devices and thus the users/servers connected to them.

Easy to Use

COMMANDO R80-8GP-PRO Series router are easy to use and manage. All router ports are Plug-and-Play devices that requires zero configuration, so setup is simple and hassle-free. Auto MDI/MDI-X crossover on all ports eliminate the need for crossover cables or uplink ports. Auto-Negotiation on each port senses the link speed of a network device (Either 10, 100 or 1000Mbps) and smartly adjusts for compatibility and optimal performance. Its compact size makes it ideal for desktops as well as rackmount with limited space. Dynamic LED lights provide real-time work status display and basic fault diagnosis.

Cost Efficient

State of art quality product that can serve on real time high-speed Performance with AC input power, highly reliable, conformance to international open standards, durable, serviceable, aesthetics, perceived quality, enhanced performance leads to value to money.

Green Technology

It features the energy-efficient Ethernet that can save power. It automatically adjusts power consumption according to the link status to limit the carbon footprint of your network. It also complies with RoHS, prohibiting the use of certain hazardous materials. Besides that, most of the packaging material can be recycled and reused.

Software

COMMANDO R80-8GP-PRO Cloud Base Multi-Functional Wired Router supports software functions as follows.

Monitoring-->Interface, Terminal, Protocol, Policy, System, Flow Control.

System Setup-->Basic Setting, Disk management, Cloud Account, Advanced Settings like ALG Set, Administration, Upgrading, Reboot.

Network-->Interfaces, DHCP, DNS, IP/MAC Group, Static Routes, VLAN, VPN Client, UPNP, NAT, Port Mapping, IPv6, IGMP Agent.

Flow Control-->Multi-WAN features Load Balancing/Protocol/Port Forward/Domain Name/Upload/Download, Smart Flow Control, IP/MAC Limiters, Protocol Library.

Access Controller-->Wireless overview, AP Configuration, AP group, AP Firmware Upgrades, Wireless blacklist and whitelist, User Information.

Authentication--> Captive Portal, VPN Server, Auth Account, Push Notification.

Behavior-->Behavior Audit with Mark MAC Address, MAC Control, Website Control, URL Control, Application Protocol Control, Secondary Routing, QQ, Blacklist/Whitelist.

Firewall-->ACL Rules, ARP binding, Connection Limiter, Advanced Firewall.
Advanced application-->Dynamic DNS, SNMP, Application across three layers, Wake on LAN, FTP Server, HTTP Server, UDPXY Set.

Services-->Ping Test, Capture Packet, Trace Route, IP Subnetting, Speed Test, Diagnostics, Watchdog.

Log-->User Logs, Function Logs, System Logs.

Table 1. Software functions

Function	Functional Description
	Support IPv4 and IPv6 dual protocol stack
	The interface supports PPPoE, static IP, and DHCP access modes
	Support LAN/WAN customization settings, support VLAN
	Support bandwidth overlay and access multiple WANs at the same time to achieve bandwidth overlay
	Support load balancing based on IP, port number of connections, and traffic
	Line backup: one main line and one spare line
	Support for multi-line multi-line and wan expansion
	Support port mapping, DMZ, UPnP
	Support PPTP/L2TP/IPSec VPN/Open VPN function
	Support for gateway and bypass deployment
	Support acceleration mode, greatly improve routing and forwarding performance.
	Data offload: Line assignment based on source IP, destination IP, source port, destination port, domain name, and application protocol
	Supports flow control based on source IP, port,domain name, and time for line time.
	Flow control module: It can accurately identify more than 3000+ application protocols, assign priorities and line orientations to various application protocols, and the database supports real-time online update to achieve precise flow control based on application protocols.
	One-button intelligent flow control: Only need to select the flow control scenario and set the WAN bandwidth.
	Support network share control, such as secondary routing
	Support behavior management log viewing, including URL logs, IM software online and offline records, terminal online and offline Records.
	Supports time and packet-based PC and mobile APP application management policies, support for domain name blacklist and whitelists, URL jumps, URL keywords and parameter substitution.

Authentication and Billing	Support multiple device authentication roaming
	Support for authentication-free settingsbased on mac, IP, and domain name.
	Supports local PPPoE Server and supports docking third-party authentication servers.
	Support multiple authentication template selections, support custom scrolling images and logos.
	Support batch import and export, support custom packages, support coupon management, support account password self-modification password.
	Support cloud platform authentication, support 10 kinds of authentication methods, including WeChat, mobile phone, QQ, Microblog, user, password, countdown, coupon, trial, one-click authentication.
	Supports defense against ARP attacks and improves intranet security.
	Support global connection limit and can be set separately based on time and IP
	Supports ACL rules based on IP, protocol,port, time period, data direction, and interface
	Support DDOS defense and traffic attack defense, support internal and external network ban ping, prohibit intranet client Tracert.
	Support for configuring cloud backup
	Unified configuration and delivery of managed gateway devices and APs through cloud configuration and management
	View information such as device name,device online status, user data, online duration, and number of terminals under through device through the cloud.
	Supports batch delivery of wireless rules inthe cloud, including SSID, SSID hiding and isolation, AP equalization mode, and wireless security settings.
	Support for setting AP isolation, SSID isolation
	Support wireless blacklist and whitelist
	Support for viewing the online/offline status of the AP

AC Management	Supports upgrade, restart, and factory reset for APs, supports RF timing shutdown, and AP scheduled restart
	Automatically discover wireless devices in thenetwork, and manage the network through the wireless controller.
	Supports network wake up
	Support dynamic domain names, including3322, oray, dnspod, aliyun
	Support line test, route check, healthmonitoring, subnet conversion
	Support cross-layer applications, supportcross-layer authentication, mac address filtering, etc.
	Support for scheduled restart ,Support Ping, Tracert
	Support SNMP, Telnet, http, https management
	Support user logs, function logs, system log records

Hardware

Solid performance with non-blocking architecture

- CPU Dual Core having frequency 500 MHz.

- All ports capable of Gigabit Ethernet speed. Full speed of data transferring with (Auto-Negotiation/Auto MDI/MDIX)

- Solid performance with non-blocking architecture

Physical Ports and Networking Interfaces

- Up to 9 x 10/100/1000 Mbps RJ45 Ethernet Ports with separate ports 8 GE(RJ-45) LAN with PoE/PoE+ and with Max. 5 WAN and Max. 8 LAN port configurable.

- LED Indicators :Power, Link/Act, SYS

Extra Long operational life

- High Quality PCB Circuit Board and PCB Surface Treatment Using Gold Sinking Process.

- Support temperature range -20℃ +50℃

- Surge protection up to ±4KV to designed to automatically protect router from surge events by limiting transient voltages and diverting surge currents.

- Long life electrolytic capacitance to increase the operational life of router. RJ45 Gold plated with 3U thickness.

- Desktop, Rack and Wall mount design that enables to mounts in an EIA-Standard 19-inch telco rack or equipment cabinet along with Rack-mounting kit available with device. Which enables horizontal surface mounting, wall mounting and also having durable robust metal body.

Noise-free Operation

- The ports support reduced power modes so that ports not in use can move into

a lower power utilization state. Small form-factor, fanless for silent operation. Perfect for noise sensitive environments.

Enterprise High reliability design and high quality product

- Very high Quality as for all Mean Time Before Failure of system, MTBF >2,00,000 hours

- Stability: 64-bit packet, time delay < 10us, packet loss rate: 0

- Restorability of Network shaking or device breakdown, restart (recovery) time < 60sec.

- RoHS Compliant with most of the packaging material can be recycled and reused.

Table 2. Hardware Specifications

HARDWARE SPECIFICATION	
RAM	256MB
Flash	128MB
Interface	9* 10/100/1000Mbps Ports
Reset	Hardware Reset button
Power	AC 100-240V
Power Consumption	≤120W (Including POE)

Throughput	500Mbps
Protection Level	IP30
User Capacity	80
Dimension	232*152*44mm
Working Temperature	-20℃~ +50℃
Working Humidity	5%～90%RH（Non-condensing）
Warranty Period	1 Year
Indicator light	Power, SYS, Link/ACT

Specifications

COMMANDO R80-8GP-PRO Cloud Base Multi-Functional Wired Router with 9* 10/100/1000 Mbps configurable LAN/WAN Ports, with maximum 8*PoE/PoE+ configurable LAN ports and 5 configurable WAN ports along with Standard Wireless Roaming Mechanism (802.11r), Load Balancing, Authentication Server to Integrate and Simplify the Traditional Networking Mode, AC Management, Portal Authentication, Deep Packet Inspection (DPI) Seven-Layer flow Control, Supports Intelligent Networking (SD-WAN), 3000+ Application Protocol Identification, 5 in 1 Multi-functional router with Firewall, VPN, Wireless Controller, Cloud Enabled, Enterprise Wired Router.

Table 3. Specification

Specification	Information
Interface	9 * 10/100/1000Mbps Port
Throughput	500Mbps
RAM	256MB
Flash	128MB
Power	AC 100-240V
Max Power Consumption	≤120W (Including POE)
Packet Forwarding Rate	35kpps
User Capacity	80
AP Capacity	32
Protection Level	IP30
Indicator light	Power, SYS, Link/ACT
	The interface supports PPPoE, static IP, and DHCP access modes.
	Support LAN/WAN customization settings, support VLAN
	Support bandwidth overlay and access multiple WANs at the same time to achieve bandwidth overlay
	Support load balancing based on IP, port, number of connections, and traffic
	Line backup: one main line and one spare line
	Support for multi-line and wan expansion
	Support port mapping, DMZ, UPnP

	Support PPTP/L2TP/IPSec VPN/Open VPN function
	Support for gateway and bypass deployment
	Data offload: line assignment based on source IP, destination IP, source port, destination port, domain name, and application protocol
	Supports flow control based on source IP, port, domain name, and time for line time.
	Flow control module: It can accurately identify more than 3000+ application protocols, assign priorities and line orientations to various application protocols, and the database supports real-time online update to achieve precise flow control based on application protocols.
	One-button intelligent flow control: only need to select the flow control scenario and set the WAN bandwidth.
	Support network share control, such as secondary routing
	Support behavior management log viewing, including URL logs, IM software online and offline records, terminal online and offline records
	Supports time and packet-based PC and mobile APP application management policies, support for domain name blacklist and whitelists, URL jumps, URL keywords and parameter substitution.
	Support multiple device authentication roaming
	Support for authentication-free settings based on mac, IP, and domain name
	Supports local PPPoE Server and supports docking third-party authentication servers
	Support multiple authentication template selections, support custom scrolling images and logos
	Support batch import and export, support custom packages, support coupon management, support account password self-modification password.
	Support cloud platform authentication, support 10 kinds of authentication methods, including WeChat, mobile phone, QQ, Microblog, user, password, countdown, coupon, trial, one-click authentication.

Authentication and Billing	Supports defense against ARP attacks and improves intranet security.
	Support global connection limit and can be set separately based on time and IP
	Supports ACL rules based on IP, protocol, port, time period, data direction, and interface
	Support DDOS defense and traffic attack defense, support internal and external network ban ping, prohibit intranet client Tracert.
	Support for setting AP isolation, SSID isolation
	Support wireless blacklist and whitelist
	Support for viewing the online/offline status of the AP
	Supports upgrade, restart, and factory reset for APs, supports RF timing shutdown, and AP scheduled restart
	Automatically discover wireless devices in the network and manage the network through the wireless controller.
	Support for configuring cloud backup
	Unified configuration and delivery of managed gateway devices and APs through cloud configuration and management
	View information such as device name, device online status, user data, online duration, and number of terminals under the device through the cloud.
	Supports batch delivery of wireless rules in the cloud, including SSID, SSID hiding and isolation, AP equalization mode, and wireless security settings.
	Supports network wake up
	Support dynamic domain names, including 3322, oray, dnspod, aliyun
	Support line test, route check, health monitoring, subnet conversion
	Support cross-layer applications, support cross-layer authentication, mac address filtering, etc.
	Support for scheduled restart ,Support Ping, Tracert
	Support SNMP, Telnet, http, https management

	Support user logs, function logs, system log records
Working Temperature	-20℃- +50℃
Working Humidity	5%～90%RH（Non-condensing）
Dimension	232*152*44mm

Table 4. LED Indication

LED Indication	LED Status
Power	**Green OFF:** No Power Supply. **Green ON:** The router is powered ON.
Link/Act	**LINK/ACT bi-color LED:** **OFF:** Port disconnected or link fail. **Green ON:** 1000Mbps connected. **Amber ON:** 10/100Mbps connected. **Green Flashing:** 1000Mbps connected and Data in transit **Amber Flashing:** 10/100Mbps connected and Data in transit
System	**Green OFF:** The system is starting, please wait **Green ON:** The system is up and running

Included in the bundle/box

All COMMANDO R80-8GP-PRO are made available for use globally along with accessories in the bundle to facilitate for enhance operations.

COMMANDO R80-8GP-PRO box comes included with the following accessories:
1×	R80-8GP-PRO PoE Router
1x	Power cable
1x	Console Cable

1x   Rack/Wall mountable kit

Support and Warranty

- Same-day assistance.
- Comprehensive 24-hour support using common communication/chat platforms, Email and Telephone.
- Provide FAQs and troubleshooting help online (self-service) through cloud-based solutions.
- Highly technical and trained representatives to resolve issues.
- One-year default warranty with option of warranty extension up to 3 years

Table 5.   Support and Warranty

Warranty and Support	
Products covered	COMMANDO RoutePRO, 8GP+1, SD-WAN, Multi-WAN, LB/FW/VPN/WLC, Cloud Enterprise PoE Router
Warranty duration	One Year RTB (Return To Base) replacement warranty – optionally extendable up to 3 years.
Hardware replacement	COMMANDO, its resellers, or its service center will use commercially reasonable efforts to replace the product subject to stock availability. Otherwise, a replacement will be arranged within 15 working days after receipt of the Return Materials Authorization (RMA) request.
End-of-life policy	In case of discontinuation of the product, support is limited to 3 years from announcement date.
Effective date	Hardware warranty commences from the date of shipment to customer (and in case of resale by a COMMANDO reseller, not more than 90 days after original shipment by COMMANDO).
Support duration	2 Years
COMMANDO Care	COMMANDO will provide 24x7 support for basic configuration, diagnosis, and troubleshooting of device-level problems for up to one year from the date of shipment of the originally purchased product. This support does not include solution or network-level support beyond the specific device under consideration.
Online Portal Access	Warranty allows guest access to commandonetworks.com for all available technical queries.

Ordering Information

Table 6 lists ordering information for COMMANDO R80-8GP-PRO. To place an order, please contact your local reseller/distributor or COMMANDO Sales Representative at www.commandonetworks.com/rfq

Table 6. Ordering Information

Ordering Information	
Product Code	Description
R60-4GP-PRO	COMMANDO RoutePRO, 4GP+1, SD-WAN, Multi-WAN, LB/FW/VPN/WLC, Cloud Enterprise PoE Router
R80-8GP-PRO	COMMANDO RoutePRO, 8GP+1, SD-WAN, Multi-WAN, LB/FW/VPN/WLC, Cloud Enterprise PoE Router
R100-PRO	COMMANDO RoutePRO, R100-PRO, Cloud Enterprise Multi-Functional Router w/ Captive portal
AIR-R300-4G-PRO	COMMANDO RoutePRO, 300Mbps, Cloud Enterprise 4G Router
AIR-R1200-4G-PRO	COMMANDO RoutePRO, 1167Mbps, Dual Band, Cloud Enterprise 4G Gigabit Router
AIR-R3000AX-PRO	COMMANDO AirPRO, 2976Mbps, SD-WAN, Multi-WAN, LB/FW/VPN/WLC, Cloud Enterprise WiFi-6 Wireless Router

Document History

Release	New or Revision	Described in	Date
Release 1	First Release	First Release	December 24, 2023