AIR-R300-4G-PRO
COMMANDO AirPRO, 300Mbps, Cloud Enterprise 4G Router
Data Sheet

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Product Overview

COMMANDO AIR-R300-4G-PRO, Cloud Base Multi-Functional 4G Wireless Router, is designed for remote home/enterprise customers, unmanned containers, chain stores and other users with LTE network signal coverage, which is convenient for mobile phones or any other wireless devices to access the LTE network. It also has wireless access point with built-in cellular modem that supports all kinds of networks, 2G, 3G and 4G (LTE) connections. It is integrated with a 2T2R, IEEE802.11b/g/n RF chip and supports Wi-Fi transmission rate up to 300Mbps, and also provides 3 *10/100 Mbps RJ45 ports, with 2* 10/100 Mbps LAN ports and 1* 10/100 Mbps WAN port by default along with 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 Multi-functional device having feature like WAN and 4G traffic load balancer with auto failover mechanism, Firewall, VPN, Wireless Controller, Cloud based authentication, configuration and monitoring, Enterprise 4G Wireless Router. Wireless 4G/3G/2G provides redundancy by falling back or non-available WAN connectivity if the primary WAN link fails. This ensures uninterrupted services to network clients. It provides flexibility of connecting users with consistent Network Uptime and reliable Internet Connectivity features with Load Sharing & Link Backup with wired and wireless connectivity.

It is very easy to install, easy to use and simple to maintain suitable for home customers, business customers and SME, but also widely used in medical, transportation and logistics and other industries.

Product Highlights

- Built-in All Networks 4G communication module.

- Supports TD-LTE/TD-SCDMA mode.

- Supports 4G/3G/2G and WAN port dual link access, along with auto Failover, reducing bandwidth cost and downtime.

- Inbuilt AP with IEEE802.11 b/g/n with a maximum 300Mbps wireless transmission rate.

- 3 *10/100 Mbps Ports (2*LAN & 1*WAN).

- WAN Failover to 4G/3G/2G along with Load Balance with 4G/3G/2G connectivity.

- Supports device working status LED indication with LAN1, LAN2, WAN, 4G/3G, WLAN and Power indication.

- 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

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

- Supports VPN, private network with encrypted communication to ensure remote access security for Encrypted Communication.

- 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.

- IPsec, PPTP and L2TP VPN QoS and Bandwidth Management for optimal bandwidth usage.

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

Commercial Scenarios.

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

- 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

- Routing: Static and Default.

- Client & Server: DHCP, DDNS, IGMP.

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

- 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 and MAC filters.

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

- 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 AIR-R300-4G-PRO integrates functions such as DPI flow control, load balancing, Inbuilt AP, 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 4G Wireless Router supports wireless and wired 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 load Balancing and Application Offloading to offload Core Applications.

Secure Wired and Wireless Connections

Inbuilt Firewall to prevent potential unwanted intrusions from Internet, WPA-PSK / WPA2-PSK /WPA-PSK+WPA2-PSK wireless encryption keeps your wireless network secure and network traffic safe, allowing securely share 4G/3G/2G connections without worrying about unauthorized users access in network.

Cloud Base 4G Wireless Router

It has 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

Load balancing with auto Fail over Mechanism

Support WAN(Wired) and 4G/3G/2G (Wireless) 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. The 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 10/100Mbps 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 DC 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 AIR-R300-4G-PRO Series 4G wireless 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 or 100Mbps) and smartly adjusts for compatibility and optimal performance. Its compact size makes it ideal for desktops 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 DC 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 AIR-R300-4G-PRO Cloud Base Multi-Functional 4G Wireless 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

Feature	Feature Description
	Supports IPv4 and IPv6 protocol
	Supports PPPoE, static IP, DHCP access methods
	Supports LAN/WAN custom settings, support VLAN
	Supports bandwidth overlay
	Supports load balancing based on IP, port, number of connections, and traffic
	Line backup: one as main and one backup line.

Routing Function	Data diversion: Automatic line allocation according to source/destination IP/port, domain, application protocol, or number of Internet users, and supports uplink and downlink separation and diversion.
	Provides access to different LTE operators and supports custom LTE operators. Support policy routing to solve the bottleneck problem of network access between different operators; support static routing
	Supports multi-dialing and WAN extension
	Supports port mapping, DMZ, UPnP, NAT rules
	Supports SD-WAN networking, and PPTP VPN function.
Flow Control	Supports IP and MAC based flow control
	Supports global connection limit based on time and IP
	Supports defense against ARP attacks and improves intranet security.
	Supports DDOS defense and traffic attack defense, support internal and external network Ping prohibition, prohibits internal Tracert
	Supports ACL rules based on IP, protocol, port, time period, data direction, and interface
WEB Authentication	Supports cloud platform portal authentication, support various authentication methods
	Supports configuration backup on cloud
	View device name, status, user data, and online duration in the cloud
	Supports dynamic domain names, including 3322, oray, dnspod, aliyun, huaweicloud.com, cloudflare.com
	Wake on LAN
	Supports router self-check-up, network health monitoring, subnet conversion
	Supports Telnet, ssh, http, https management

System Management	Supports Ping, Tracert
	Supports multi-level login account permission settings
	Supports scheduled restart,
	Supports user log, function log, system log record

Hardware

Solid performance with non-blocking architecture

- CPU MTK7620.

- All ports capable of Fast 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 3 x 10/100Mbps RJ45 Ethernet Ports with separate ports 2 GE(RJ-45) LAN and 1 GE(RJ-45) WAN. LAN can be configured to 3 GE(RJ-45) LAN ports.

- LED Indicators: Power,LAN1, LAN2, WAN, 4G/3G, WLAN

Extra Long operational life

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

- Support temperature range -10℃-40℃

- 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.

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	128MB
Flash	32MB
Interface	3* 10/100Mbps Ports
User Capacity	10
Reset	Hardware Reset button
Power	External DC 12V 1A
Power Consumption	≤6W
SIM Slot	1
Antenna	2*5dBi (External Fixed) +2*5dBi (External Removable)

Transmit Power	20dBm
Dimension	170mm*100mm*28mm
Working Temperature	-10℃-40℃
Storage Temperature	-40℃-70℃
Working Humidity	10%~90% (Non-Condensing)
Warranty Period	1 Year
Indicator light	Power,LAN1, LAN2, WAN, 4G/3G, WLAN

Specifications

COMMANDO AIR-R300-4G-PRO Cloud Base Multi-Functional 4G Wireless Router with 3*10/100Mbps Ports, with maximum 3 configurable LAN ports along with, 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 4G Wireless Router.

Table 3. Specification

Specification	Information
Interface	3 * 10/100Mbps Port
RAM	128MB
Flash	32MB
Power	External DC 12V 1A
Max Power Consumption	≤6W
Wi-Fi technology	IEEE802.11b/g/n
User Capacity	10
Wi-Fi transmission rate	Up to 300Mbps
LTE	TD-LTE/TD-SCDMA mode
TD-LTE Band	Support Band 38 (2570 - 2620MHz) Support Band 39 (1880 - 1920MHz) Support Band 40 (2300 - 2400MHz) Support Band 41 (2575 - 2635MHz) Note: TD-LTE Support Bandwidth of 5MHz, 10MHz, 15MHz, 20MHz.
TD-SCDMA Band	Support Band 34 (2010 – 2025MHz) Support Band 39 (1880 – 1920MHz)
Downlink MIMO Transmission	Supports single antenna transmission (mode1) Supports downlink 2-antenna transmit diversity (mode 2) Supports downlink 2-antenna open-loop spatial multiplexing (mode 3) Supports downlink 2-antenna closed-loop spatial

	multiplexing (mode 4) Supports downlink single stream beamforming (mode7) Supports downlink dual-stream beamforming (mode 8)
Uplink MIMO Transmission Mode	Supports single antenna port (antenna port 0) transmission. Supports closed-loop transmit antenna selection diversity. Supports open-loop transmit antenna selection diversity.
CPE Capacity	Supports Category 3, the peak rate of uplink and downlink reaches UL/DL: 50 Mbps/100Mbps capability. Supports Category 4, the peak rate of uplink and downlink reaches UL/DL: 50 Mbps/150Mbps capability.
Indicator light	Power,LAN1, LAN2, WAN, 4G/3G, WLAN

Included in the bundle/box

All COMMANDO AIR-R300-4G-PRO are made available for use globally along with accessories in the bundle to facilitate for enhance operations.

The COMMANDO AIR-R300-4G-PRO box comes included with the following accessories:
1×   AIR-R300-4G-PRO 4G 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 4. Support and Warranty

Warranty and Support	
Products covered	COMMANDO AIR-R300-4G-PRO, Cloud Base Multi-Functional, 4G Wireless Router w/ Cloud, Captive portal
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 5 lists ordering information for the COMMANDO AIR-R300-4G-PRO. To place an order, please contact your local reseller/distributor or COMMANDO Sales Representative at www.commandonetworks.com/rfq

Table 5. 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