Model: WR3000P 1.0

AX3000 2.5G Mesh Wi-Fi 6 PoE Router



Datasheet

Highlights

A PoE-powered WiFi 6 router with 2.5 Gbps internet connectivity, ideal for connecting a large number of devices and reducing latency. It features a USB ports, enabling fire sharing or third-party device powering.

- 1.3 GHz Dual-Core CPU
- 512 MB RAM
- 4-Stream Dual-Band Wi-Fi 6
- 2402 Mbps + 574 Mbps Wi-Fi
- 1× 2.5GbE and 4× GbE
- 1× USB 2.0
- 802.3at/af, Passive PoE, DC
- Covers 130 m² (1,400 ft²)
- 200 Connected Devices
- Cudy App, Cloud Control

Actual wireless data throughput will vary as a result of network conditions, client limitations, and environmental factors including building layout, obstacles, and client location.

The wireless coverage claim serves as a reference only. Coverage performance will vary due to environmental factors including building layout, obstacles, traffic volume and density, and device location. For optimal coverage, please place the device in a central location within the area requiring Wi-Fi.

Actual performance for multiple devices may be affected by the types of applications used, the total available bandwidth, and the capabilities of your devices. Connecting older Wi-Fi devices (legacy standards) may reduce overall efficiency. Using efficiency features requires compatible client devices that also support those features. Find more information about supported efficiency features in the software section of the Specs spreadsheet.

Package Content

- WR3000P
- Power Adapter
- Ethernet Cable
- Installation Guide

Hardware Specs

Model Version	WR3000P 1.0	
CPU	CPU Details	1.3 GHz Dual-Core, ARM Cortex-A53
Memory/Storage	Flash/ROM	128 MB (1 Gbit) NAND
	DDR/RAM	512 MB (4 Gbit) DDR4
Wireless	5 GHz Wi-Fi Speed	2402 Mbps
	2.4 GHz Wi-Fi Speed	574 Mbps
	5 GHz Wi-Fi Streams	2 Spatial Streams with 3T3R
	2.4 GHz Wi-Fi Streams	2 Spatial Streams
	Wi-Fi Antennas	4× Fixed
	FEM or PA/LNA	5 GHz: 3× Internal, 2.4 GHz: 2× Internal
	Beamforming	True

Wireless	Range Performance	Max: 220 m (722 ft) Tested in open-space environments with minimal interference. Actual WiFi range may vary depending on layout and wall materials. Refer to the Wall Performance specifications for placement suggestions.
	Wall Performance	Two wooden walls with thickness < 10 cm (4") One concrete wall with thickness < 20 cm (7") or two concrete walls with thickness < 10 cm (4")
Interfaces	2.5G RJ45 Ports	1
	Gigabit RJ45 Ports	4
	Ethernet Notes	The 2.5G port is WAN port and accepts PoE powering, the Gigabit ports are LAN ports
	USB-A 2.0 Ports	1

Hardware Specs

Buttons and LEDs	LED	System, Internet, 2.4 GHz Wi-Fi, 5 GHz Wi-Fi, WAN, LAN, USB
	Physical Buttons	Power On/Off Button, WPS Button, Reset Button
Power	Power Input Type	• DC Jack • PoE via Ethernet Port
	Power Methods	• DC • 802.3at/af PoE
	Power Input	12V⎓1.5A
	Max Power Consumption (W)	11.5w
	Idle Power Consumption (W)	4.2w
	Power Adapter In the Box	Input: 100-240V~, 50/60Hz Output: 12V⎓1.5A

Reliability	Environment	• Operating Temperature: 0 ℃ ~ 40 ℃ (32 ℉ ~104 ℉) • Storage Temperature: -40 ℃ ~ 70 ℃ (-40 ℉ ~ 158 ℉) • Humidity: 10% ~ 90% non-condensing • Storage Humidity: 5% ~ 95% non-condensing
Certifications	FCC, CE	
Mechanical	Installation	• Desktop • Wall-mount
	Dimension	Main Part: 173×123.8×33 mm 6.81×4.87×1.3 inches Antenna: 171 mm 6.73 inches
	Product Weight	360.6 g (12.72 oz.)
Package Content	• WR3000P • Power Adapter • Ethernet Cable • Installation Guide	

Hardware Specs

Ordering Information	Retail Package Weight	EU: 748.6 g (26.41 oz.)
	Retail Package Dimension	EU/US: 304×268×54 mm 11.97×10.55×2.13 inches
	Units per Carton	EU/US: 20
	Carton Dimension	EU/US: 55.6×55.5×32.5 cm 21.89×21.85×12.8 inches
	Carton Gross Weight	EU: 17.0 kg (37.48 lbs)
	Carton Net Weight	EU: 15.7 kg (34.61 lbs)

Software Specs

Model Version	WR3000P 1.0	
Wireless	Wi-Fi Standards	Wi-Fi 6
	Max Wi-Fi Modulation	1024-QAM
	Wi-Fi Efficiency	• OFDMA • MU-MIMO • BSS Color
	Max Capacity	512
	Recommended Client Upper Limit	200
	Wi-Fi Channel Width	Auto/20/40/80/160 MHz
	Wi-Fi Security	WPA/WPA2/WPA3
	Guest Network	2.4 GHz, 5 GHz
	Separate Client	True
	WPS	True

Software Specs

General	Operation Modes	• Wi-Fi Router • Access Point • Range Extender • WISP • Client
	Mesh	Cudy Mesh
	Mesh Backhaul	• Wireless Backhaul • Wired Backhaul
	Multi-Band Backhaul	True
	WAN Mode	• DHCP • Static IP • PPPOE • PPTP • L2TP
Network	QoS	• Per-User Rate Limiting • Guest Network Rate LImiting
	DHCP	• Address Reservation • DHCP Client List • Server
	IP Versions	IPv4/IPv6

Network	IPv6 Protocols	• Relay • Dynamic (SLAAC/DHCPv6) • Static (Fixed IP) • Passthrough • 464XLAT • MAP-E • DS-Lite
	Multicast	True
	IPTV/VLAN	• Bridge • Tag VLAN • VoIP VLAN • IPTV VLAN
	TTL Customization	• Extend • Spoof • Custom
	IGMP	• IGMP Proxy • IGMP Snooping
	Forwarding	• Port Forwarding • Port Triggering • UPnP • DMZ

Software Specs

Network	Firewall	• SPI Firewall • DoS Protection • Block PING
	Application Layer Gateway	• IPSec Passthrough • L2TP Passthrough • PPTP Passthrough • FTP Passthrough • TFTP Passthrough • H323 Passthrough • SIP Passthrough • RTSP Passthrough
Utilities	VPN Server	• WireGuard • OpenVPN • IPsec • Zerotier • PPTP • L2TP
	VPN Client	• WireGuard • OpenVPN • IPsec • Zerotier • PPTP • L2TP

Utilities	VPN Performance	• OpenVPN Client (UL/DL): 90 / 120 Mbps • OpenVPN Server (UL/DL): 180 / 160 Mbps • WireGuard Client (UL/DL): 224 / 230 Mbps • WireGuard Server (UL/DL): 360 / 314 Mbps
	DNS Options	• DNS over TLS • Manual DNS • Rebind Protection • Override Clients' DNS
	DNS over TLS Providers	• Cloudflare • Google • Quad9 • Custom
	Captive Portal	True
	Wake on LAN	True
	Online Detection	True

Software Specs

Management	Parental Controls	• Profiles Settings • Offline Time • Online Time • Pause the Internet • Web Filter
	All Devices Management	• Wi-Fi Time Schedule • MAC Filter • IP/MAC Binding
	Per-Devices Management	• Internet On/Off • VPN On/Off • Online Time Schedule • Device Rename
	Content Management	• Domain Filtering • IP Filtering
System	LED Control	True
	Local Control Method	• Config Web Page • App Control
	Remote Control Method	• Config Page via HTTPS • App Control • TR069/TR098/TR111/TR143/TR181/TR369

System	Firmware Upgrade	• Local Update • App (Over the Air) • Online Update
	Reliability	• Timed Reboot • Backup and Restore
	Diagnostic Tools	• Diagnosis • Ping • Traceroute • NSLookup • System Log

Software Specs

System	Languages	• English • Bengali • Catalan • Czech • German • Greek • Spanish • French • Hebrew • Croatian • Hungarian • Italian • Japanese • Khmer • Korean • Dutch • Norwegian • Polish • Portuguese • Romanian • Russian • Slovak • Swedish • Thai • Turkish • Ukrainian • Vietnamese • Simplified Chinese • Traditional Chinese

Dashboard	Panel	• Internet Status • Mesh Status • Devices Management • WAN Status • LAN Status • WISP Status • Wi-Fi Status • VPN Status • DHCP Server Status • System Version
	Charts	• Mesh Topology • Internet Speed • WISP Speed • Wi-Fi Speed