RUCKUS® P300

Smart 802.11ac 5GHz Outdoor Point-to-Point, Point-to-Multipoint Wireless Bridge

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Benefits

Wire-Like Throughput Over the Air
Based on the 802.11ac standard, the P300 supports RF data rates of up to 867 Mbps. With RUCKUS' purpose-built directional antenna, the P300 supports throughputs up to 500 Mbps and offers performance up to 100 Mbps at 8 km (LoS).*

* When used with optional external antenna

Easy Installation and Pairing
RUCKUS® P300 enables installers to deploy wireless bridges effortlessly. Lightweight and designed with simple and flexible mounting options.

Simple Positioning and Aiming
Precision aiming and optimized performance with 30-degree beamwidth antenna and sophisticated LED-based aiming software. P300 proactively finds and selects the best performing channel automatically using RUCKUS' patented ChannelFly® channel selection algorithms.

Secure and Scalable
The wireless bridge link is AES secure and can scale to support multiple networks segmented by VLANs.

10x Scalability with Wireless Multi-Node Bridging
Each root bridge is capable of supporting up to 10 receiving bridges.

Unmatched ROI
The wireless link offers much higher data throughput rates than T1/E1 or xDSL lines at only a fraction of the fixed line installation cost and without the recurring leased line cost. The P300 is also an ideal option for backhauling small cell cellular networks.

Environmentally-Friendly Design
The internal dual polarized antenna not only does away the need for installing an external antenna, further simplifying the installation procedure, but also offers an aesthetically pleasing look and feel.
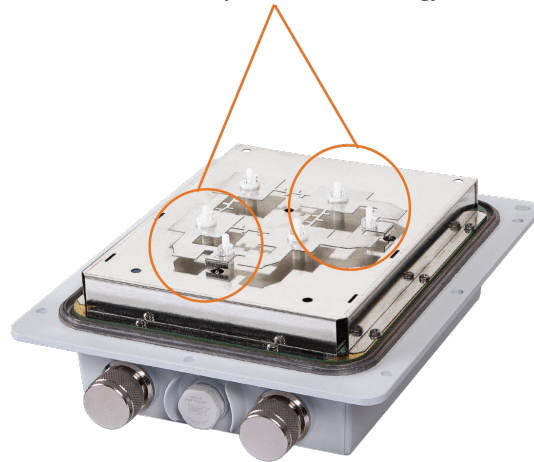
The RUCKUS® P300 is an outdoor point-to-point and point-to-multpoint bridge that unleashes the promise of 5GHz 802.11ac, delivering unparalleled backhaul throughput of over 500Mbps which opens opportunities to new business models, bridging remote locations and providing broadband services to locations not reachable previously, in an affordable way.

Designed for harsh outdoor conditions, the P300 is perfect for service providers looking to easily extend branded broadband services, backhaul small cell networks, offload data traffic from small cell networks, deploy multimedia hotspots, or offer wireless broadband services where fixed line access is limited.

The P300 is also ideal for hotels, schools, warehouses and other enterprises looking to extend managed wireless LANs (WLANs) across remote buildings and where Ethernet cabling is not possible.

Auto-pairing of wireless bridges, in addition to flexible mounting options, forgiving antenna pattern, and an easy-to-use aiming software, allows installers to deploy and optimize a wireless link in a short time, significantly increasing productivity and reducing deployment costs.

BeamFlex Adaptive Antenna Technology

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WI-FI	
Wi-Fi Standards	• IEEE 802.11a/n/ac • 5GHz operation
Supported Rates	• 802.11ac: 6.5 to 1167Mbps (MCS0 to MCS9, NSS = 1 to 2 for VHT20/40/80) • 802.11n: 6.5 Mbps to 600Mbps (MCS0 to MCS15) • 802.11a: 54, 48, 36, 24, 18, 12, 9, 6Mbps
Modulation	• OFDM
Radio Chains	• 2x2
Spatial Streams	• 2
Radio Chains and Streams	• 2x2:2
RF Power Output	• 22 dBm
Channelization	• 20, 40, 80MHz
Frequency Band	• IEEE 802.11ac: 5.15 – 5.875GHz
Security	• WPA2 AES
Certifications[1]	• U.S., Europe, Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Hong Kong, India, Indonesia, Israel, Japan, Korea, Malaysia, Mexico, Peru, Philippines, Russia, Saudi Arabia, Singapore, South Africa, and Taiwan • WEEE/RoHS compliance

RF	
Maximum EIRP	• Up to 36dBm
Physical Antenna Gain	• Up to 14dBi
Minimum RX Sensitivity	• Up to -96dBm

PERFORMANCE AND CAPACITY	
Peak PHY Rates	• 5GHz: 867Mbps
Target UDP Throughput[2]	• Up to 500Mbps • Up to 250Mbps at 2.6 km/1.6 mi • Up to 100Mbps at 8 km/5 mi[3]
Maximum Link Distance[4]	• 12 kilometers
Point-to-Multipoint	• 30 degrees of coverage from the one root bridge with internal antenna to many receiving bridges • 120 degrees of coverage when used with optional external antenna
Client Capacity	• 1-8 Client Bridges

MANAGEMENT	
Configuration	• Web User Interface (HTTP/S) • CLI (Telnet/SSH), SNMP v1, 2, 3

PHYSICAL CHARACTERISTICS	
Power	• 802.3af Power over Ethernet
Physical Size	• 18 cm (L), 15 cm (W), 8.6 cm (H) • 7" (L), 5.9" (W), 3.4" (H)
Weight	• 5.5 lbs (2.5kg) with adj bracket • 2.1 lbs (1kg) without adj bracket
Ethernet Ports	• 1 port, auto MDX, auto-sensing 10/100/1000 Mbps, RJ-45 • Power over Ethernet (802.3af)
Antenna	• 14 dBi internal directional antenna • 30 degree 3dB beamwidth • Two external N-Type antenna connectors
Lock Options	• Pad-Eye for locking devices
Environmental Conditions	• IP-67 rated
Operating Temperature	• -40°C to 65°C (-40°F to 149°F)
Power Draw	• Quiescent 6.5W • Typical 7.5W • Peak 11W

ORDERING INFORMATION	
P300 802.11ac 5GHz Outdoor Wireless Bridge	
901-P300-XX02	P300, Pre-Provisioned Pair, outdoor 802.11ac 2X2:2 bridge, 5GHz internal antenna, optional antenna support, one ethernet port, PoE input, includes mounting brackets and one year warranty. Does not include PoE injector, power adapters, optional external anteannas or optional external RF cables
901-P300-XX01	P300, single unit, outdoor 802.11ac 2X2:2 bridge, 5GHz internal antenna, optional antenna support, one ethernet port, PoE input, includes mounting brackets and one year warranty. Does not include PoE injector, power adapters, optional external anteannas or optional external RF cables

OPTIONAL ACCESSORIES	
902-0162-XXYY	• PoE injector (24W) (Sold in quantities of 1, 10 or 100)
902-0125-0000	• Secure articulating mounting bracket
911-2101-DP01	• 5 GHz dual polarized high gain 21dBi directional antenna
911-2401-DP01	• 5 GHz dual polarized high gain 24dBi directional antenna
911-1212-DP01	• 5 GHz directional antenna, dual-polarized 12.5dBi gain and 120 degrees 3dBm beamwidth

PLEASE NOTE: When ordering, you must specify the destination region by indicating -US, -WW For access points, -Z2 applies to the following countries: Algeria, Egypt, Israel, Morocco, Tunisia, and Vietnam

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[1] For current certification status please see price list.

[2] Throughputs and range may vary depending upon regulatory restrictions, operating band, channel width and interference environment.

[3] When used with 24 dBi external antennas.

[4] When used with internal directional antenna.

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CommScope pushes the boundaries of communications technology with game-changing ideas and ground-breaking discoveries that spark profound human achievement. We collaborate with our customers and partners to design, create and build the world's most advanced networks. It is our passion and commitment to identify the next opportunity and realize a better tomorrow. Discover more at commscope.com

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