

# RUCKUS® P300

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



## 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.

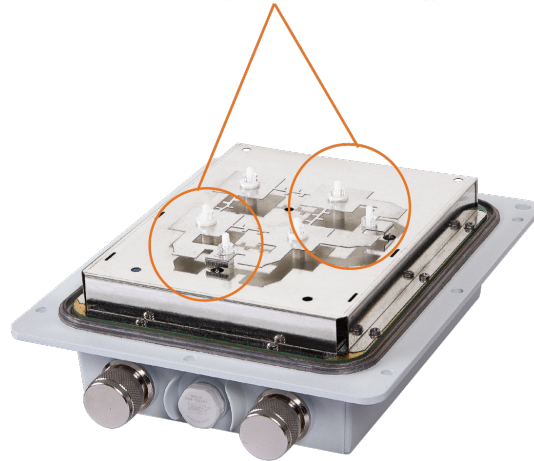
**The RUCKUS® P300 is an outdoor point-to-point and point-to-multipoint bridge that unleashes the promise of 5GHz 802.11ac, delivering unparalleled backhaul throughput of over 500Mbps which opens opportunities to new business models, bridging remote locations and providing broadband services to locations 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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## Smart 802.11ac 5GHz Outdoor Point-to-Point, Point-to-Multipoint Wireless Bridge

WI-FI	
Wi-Fi Standards	<ul style="list-style-type: none"> <li>IEEE 802.11a/n/ac</li> <li>5GHz operation</li> </ul>
Supported Rates	<ul style="list-style-type: none"> <li>802.11ac: 6.5 to 1167Mbps (MCS0 to MCS9, NSS = 1 to 2 for VHT20/40/80)</li> <li>802.11n: 6.5 Mbps to 600Mbps (MCS0 to MCS15)</li> <li>802.11a: 54, 48, 36, 24, 18, 12, 9, 6Mbps</li> </ul>
Modulation	<ul style="list-style-type: none"> <li>OFDM</li> </ul>
Radio Chains	<ul style="list-style-type: none"> <li>2x2</li> </ul>
Spatial Streams	<ul style="list-style-type: none"> <li>2</li> </ul>
Radio Chains and Streams	<ul style="list-style-type: none"> <li>2x2:2</li> </ul>
RF Power Output	<ul style="list-style-type: none"> <li>22 dBm</li> </ul>
Channelization	<ul style="list-style-type: none"> <li>20, 40, 80MHz</li> </ul>
Frequency Band	<ul style="list-style-type: none"> <li>IEEE 802.11ac: 5.15 – 5.875GHz</li> </ul>
Security	<ul style="list-style-type: none"> <li>WPA2 AES</li> </ul>
Certifications <sup>1</sup>	<ul style="list-style-type: none"> <li>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</li> <li>WEEE/RoHS compliance</li> </ul>

RF	
Maximum EIRP	<ul style="list-style-type: none"> <li>Up to 36dBm</li> </ul>
Physical Antenna Gain	<ul style="list-style-type: none"> <li>Up to 14dBi</li> </ul>
Minimum RX Sensitivity	<ul style="list-style-type: none"> <li>Up to -96dBm</li> </ul>

PERFORMANCE AND CAPACITY	
Peak PHY Rates	<ul style="list-style-type: none"> <li>5GHz: 867Mbps</li> </ul>
Target UDP Throughput <sup>2</sup>	<ul style="list-style-type: none"> <li>Up to 500Mbps</li> <li>Up to 250Mbps at 2.6 km/1.6 mi</li> <li>Up to 100Mbps at 8 km/5 mi<sup>3</sup></li> </ul>
Maximum Link Distance <sup>4</sup>	<ul style="list-style-type: none"> <li>12 kilometers</li> </ul>
Point-to-Multipoint	<ul style="list-style-type: none"> <li>30 degrees of coverage from the one root bridge with internal antenna to many receiving bridges</li> <li>120 degrees of coverage when used with optional external antenna</li> </ul>
Client Capacity	<ul style="list-style-type: none"> <li>1-8 Client Bridges</li> </ul>

MANAGEMENT	
Configuration	<ul style="list-style-type: none"> <li>Web User Interface (HTTP/S)</li> <li>CLI (Telnet/SSH), SNMP v1, 2, 3</li> </ul>

PHYSICAL CHARACTERISTICS	
Power	<ul style="list-style-type: none"> <li>802.3af Power over Ethernet</li> </ul>
Physical Size	<ul style="list-style-type: none"> <li>18 cm (L), 15 cm (W), 8.6 cm (H)</li> <li>7" (L), 5.9" (W), 3.4" (H)</li> </ul>
Weight	<ul style="list-style-type: none"> <li>5.5 lbs (2.5kg) with adj bracket</li> <li>2.1 lbs (1kg) without adj bracket</li> </ul>
Ethernet Ports	<ul style="list-style-type: none"> <li>1 port, auto MDX, auto-sensing 10/100/1000 Mbps, RJ-45</li> <li>Power over Ethernet (802.3af)</li> </ul>
Antenna	<ul style="list-style-type: none"> <li>14 dBi internal directional antenna</li> <li>30 degree 3dB beamwidth</li> <li>Two external N-Type antenna connectors</li> </ul>
Lock Options	<ul style="list-style-type: none"> <li>Pad-Eye for locking devices</li> </ul>
Environmental Conditions	<ul style="list-style-type: none"> <li>IP-67 rated</li> </ul>
Operating Temperature	<ul style="list-style-type: none"> <li>-40°C to 65°C (-40°F to 149°F)</li> </ul>
Power Draw	<ul style="list-style-type: none"> <li>Quiescent 6.5W</li> <li>Typical 7.5W</li> <li>Peak 11W</li> </ul>

ORDERING INFORMATION	
<b>P300 802.11ac 5GHz Outdoor Wireless Bridge</b>	
<b>901-P300-XX02</b>	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 antenannas or optional external RF cables
<b>901-P300-XX01</b>	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 antenannas or optional external RF cables

OPTIONAL ACCESSORIES	
<b>902-0162-XXYY</b>	PoE injector (24W) (Sold in quantities of 1, 10 or 100)
<b>902-0125-0000</b>	Secure articulating mounting bracket
<b>911-2101-DP01</b>	5 GHz dual polarized high gain 21dBi directional antenna
<b>911-2401-DP01</b>	5 GHz dual polarized high gain 24dBi directional antenna
<b>911-1212-DP01</b>	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

<sup>1</sup> For current certification status please see price list.

<sup>2</sup> Throughputs and range may vary depending upon regulatory restrictions, operating band, channel width and interference environment.

<sup>3</sup> When used with 24 dBi external antennas.

<sup>4</sup> When used with internal directional antenna.

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