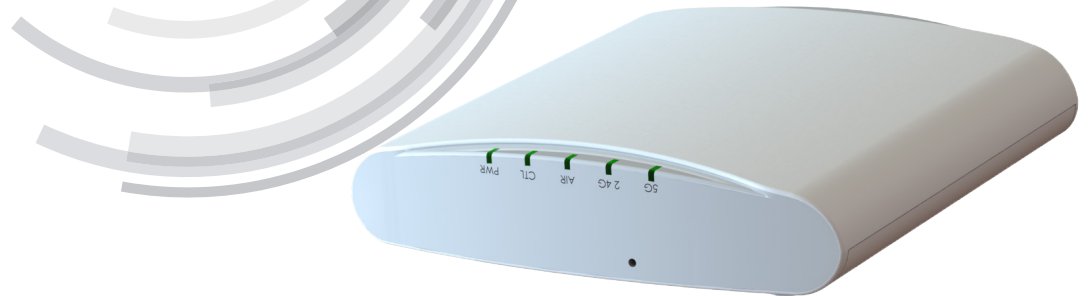




## data sheet



### BENEFITS

#### Unleash The Performance

In the Unleashed version, the ZoneFlex R310 is capable of supporting controller-less deployments for up to 25 access points and 100 concurrent devices per AP

#### Extended range requires fewer APs

Adaptive antenna technology delivers a 2x to 4x increase in Wi-Fi signal coverage minimizing the number of APs required to service any area

#### Sleek, low profile enclosure for ease-of-deployment

Aesthetically-pleasing design fits almost anywhere. Powerful 802.11ac technology that literally fits in the palm of your hand for easy deployment

#### Channel selection optimizes throughput

ChannelFly dynamically chooses the best channel, giving users the highest possible throughput even in highly congested environments

#### Intuitive configuration and management

The industry's simplest configuration and management through a Web-based wizard and automated deployment capabilities

#### Hassle free migration to higher speed Wi-Fi

Support for standard 802.3af power over Ethernet allows enterprises to use existing PoE switches without costly upgrades

# ZoneFlex™ R310 Unleashed

## DUAL-BAND 802.11AC SMART WI-FI ACCESS POINTS

### High Performance, 802.11ac Smart Wi-Fi Access Points with Adaptive Antenna Technology

Ruckus R310 Unleashed enables controller-less Wi-Fi architecture for small business environments with superior performance, lower costs and simplified management. Separate controllers and access point licenses are no longer needed, significantly reducing upfront costs. Set-up is also easy, thanks to a simplified web interface that helps businesses configure Wi-Fi in just 60 seconds.

Unlike any other 802.11ac wireless solution in its class, the ZoneFlex R310 Unleashed combines patented adaptive antenna technology and automatic interference mitigation to deliver consistent, predictable performance at extended ranges with up to 4dB of statistical BeamFlex gain and up to 10dB of interference mitigation.

Additional performance enhancements to signal gain can be attributed to the chip-based transmit beamforming capability adding 3 dB when associated to a compatible client.

Each ZoneFlex R310 Unleashed integrates Ruckus-patented BeamFlex, a software-controlled, high gain antenna array that continually forms and directs each 802.11ac packet over the best performing signal path. The ZoneFlex R310 Unleashed automatically selects channels for highest throughput potential using Ruckus ChannelFly dynamic channel management, adapting to environmental changes. Once deployed, enterprises never have to worry about constant site surveys as the environment changes.

# ZoneFlex™

## R310 Unleashed

### DUAL-BAND 802.11AC

### SMART WI-FI ACCESS POINTS

#### Patented BeamFlex™ Technology Extends Signal Range, Improves Stability of Client Connections

All ZoneFlex R310 Unleashed Smart Wi-Fi access points integrate a software-controlled smart antenna array that delivers up to an additional 4 dB of BeamFlex gain and 10 dB of interference mitigation.

#### Advanced WLAN Applications

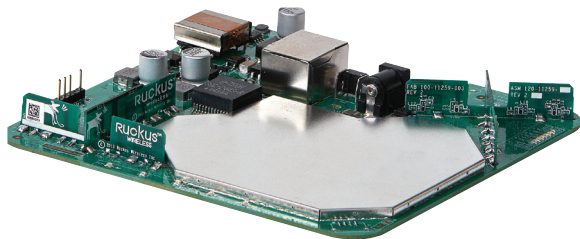
Each ZoneFlex R310 Unleashed supports a wide range of value-added applications such as guest networking, DynamicPSK, hotspot authentication, wireless intrusion detection and many more. In a controller-less configuration, the ZoneFlex R310 Unleashed works with a wide range of authentication servers including Microsoft's Active Directory, and AAA/RADIUS.

#### Flexible Migration Options

Ruckus Unleashed is custom-designed to help small business owners grow their business, deliver an excellent customer experience and manage costs while supporting Wi-Fi and a variety of mobile devices with minimal IT staff. Unleashed access points have built-in controller capabilities, including user access controls, guest networking functions, advanced Wi-Fi security and traffic management. As businesses grow to multiple sites or a larger scale deployment, Ruckus offers an easy migration path to controller based Wi-Fi, using the same Wi-Fi access points.

#### Complete Local and Remote Management

ZoneFlex R310 Unleashed can be securely managed from anywhere at anytime using any browser on any device.



#### FEATURES

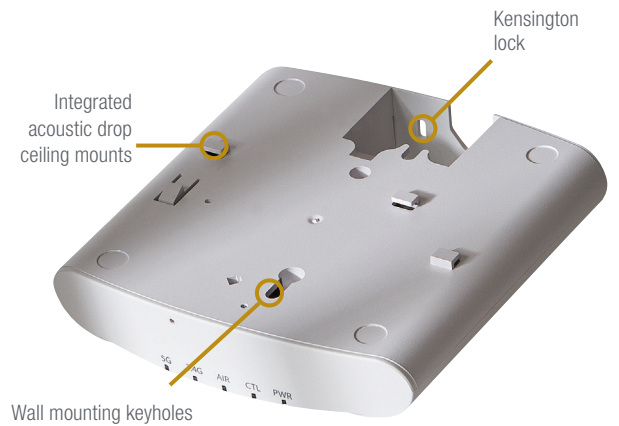
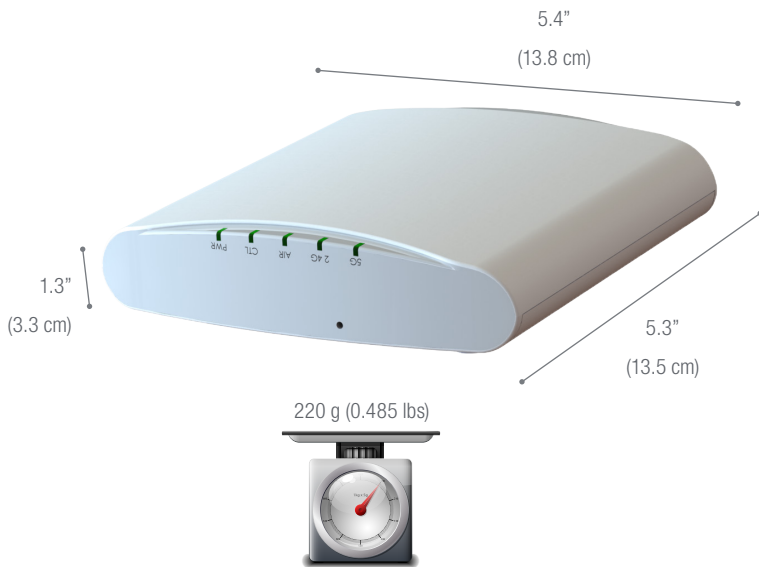
- Blazing fast 802.11ac speeds at the lowest cost in its class
- Dual-band concurrent (2.4GHz/5GHz) 802.11ac
- Adaptive antenna technology and advanced RF management
- Up to an additional 4dB BeamFlex gain / 10dB interference mitigation
- Automatic interference mitigation, optimized for congested environments
- Integrated smart antenna technology
- Standard 802.3af Power over Ethernet (PoE)
- 2 to 4 times extended range and coverage
- IP multicast video streaming support
- Up to 8 BSSIDs per radio (16 BSSIDs per access point) with unique QoS and security policies
- Advanced QoS packet classification and automatic priority for latency-sensitive traffic
- Dynamic, per-user rate-limiting for hotspot WLANs
- WPA-PSK (AES), 802.1X support for RADIUS and Active Directory
- Ethernet 802.1x port-based authentication (authenticator and supplicant)
- BYOD, Zero-IT and Dynamic PSK
- Admission control/load balancing
- Bandsteering and airtime fairness
- Captive portal and guest accounts
- Guest access services
- Application Recognition and Control
- Wall, desktop or ceiling mountable
- Limited lifetime warranty

# ZoneFlex™ R310 Unleashed

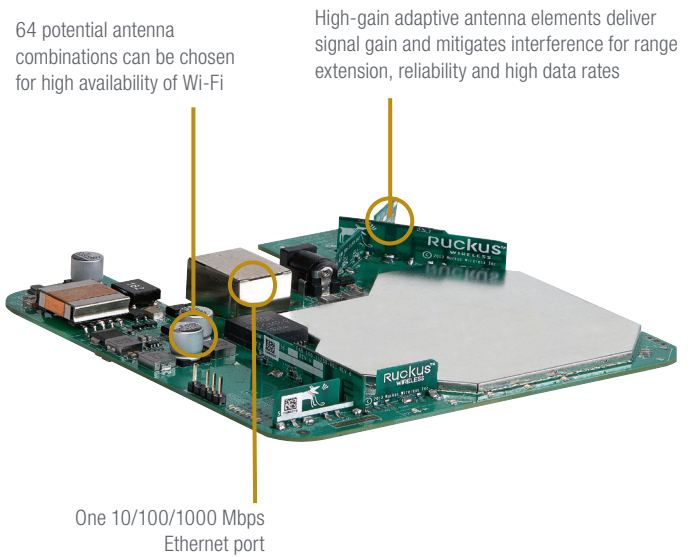
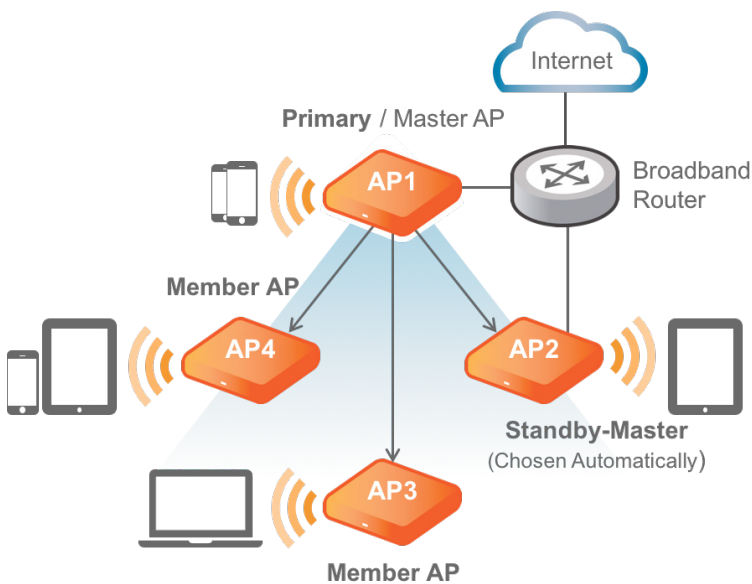
## DUAL-BAND 802.11AC SMART WI-FI ACCESS POINTS

Small lightweight form factor with integrated mounting options for easy deployment.

The ZoneFlex R310 installs & mounts seamlessly, making it ideal for quick and effective set up for carrier & enterprise deployments.



The ZoneFlex R310 Unleashed integrates with your existing network infrastructure, delivering best-in-class 802.11ac performance and reliability at a competitive price—making it the ideal wireless solution for small business environments.



## Specifications

PHYSICAL CHARACTERISTICS	
<b>POWER</b>	<ul style="list-style-type: none"> <li>DC Input: 12 VDC 1.0A</li> <li>Power over Ethernet 802.3 af</li> </ul>
<b>PHYSICAL SIZE</b>	<ul style="list-style-type: none"> <li>13.8cm (L), 13.5cm (W), 3.3cm (H)</li> <li>5.4 in (L), 5.3 in (W), 1.3 in (H)</li> </ul>
<b>WEIGHT</b>	<ul style="list-style-type: none"> <li>220 gms (0.485 lbs)</li> </ul>
<b>ETHERNET PORTS</b>	<ul style="list-style-type: none"> <li>1 auto MDX, auto-sensing 10/100/1000 Mbps, RJ-45, POE port</li> </ul>
<b>LOCK OPTIONS</b>	<ul style="list-style-type: none"> <li>Hidden latching mechanism</li> <li>Kensington Lock Hole</li> <li>T-bar Torx</li> </ul>
<b>ENVIRONMENTAL CONDITIONS</b>	<ul style="list-style-type: none"> <li>Operating Temperature: 0°C - 40°C</li> <li>Operating Humidity: 10% - 95% non-condensing</li> </ul>
<b>POWER DRAW</b>	<ul style="list-style-type: none"> <li>DC Input                             <ul style="list-style-type: none"> <li>Idle: 6W</li> <li>Typical: 7.1W</li> <li>Peak: 9W</li> </ul> </li> <li>Power over Ethernet Input                             <ul style="list-style-type: none"> <li>Idle: 6W</li> <li>Typical: 7.8W</li> <li>Peak: 11W</li> </ul> </li> </ul>

PERFORMANCE AND CAPACITY	
<b>MAX PHY RATE</b>	<ul style="list-style-type: none"> <li>300 Mbps (2.4GHz)</li> <li>867 Mbps (5GHz)</li> </ul>
<b>CONCURRENT STATIONS</b>	<ul style="list-style-type: none"> <li>Up to 100 clients per AP</li> </ul>
<b>SIMULTANEOUS VoIP CLIENTS</b>	<ul style="list-style-type: none"> <li>Up to 30</li> </ul>
RF	
<b>ANTENNA</b>	<ul style="list-style-type: none"> <li>Adaptive antenna that provides up to 128 unique antenna patterns</li> <li>64 patterns per band</li> </ul>
<b>RF POWER OUTPUT (Aggregated)</b>	<ul style="list-style-type: none"> <li>23 dBm for 2.4GHz†</li> <li>24 dBm for 5GHz†</li> </ul>
<b>PHYSICAL ANTENNA GAIN</b>	<ul style="list-style-type: none"> <li>Up to 3 dBi per spatial stream</li> </ul>
<b>BEAMFLEX* SINR TX GAIN</b>	<ul style="list-style-type: none"> <li>Up to 4 dB</li> </ul>
<b>INTERFERENCE MITIGATION</b>	<ul style="list-style-type: none"> <li>Up to 10 dB</li> </ul>
<b>MINIMUM RX SENSITIVITY</b>	<ul style="list-style-type: none"> <li>Up to -99 dBm</li> </ul>

\*BeamFlex gains are statistical system level effects translated to enhanced SINR based on observations over time in real-world conditions with multiple APs and many clients

MANAGEMENT	
<b>DEPLOYMENT OPTIONS</b>	<ul style="list-style-type: none"> <li>Ruckus Unleashed, controller-less*</li> </ul>
<b>CONFIGURATION</b>	<ul style="list-style-type: none"> <li>Basic SNMP support</li> </ul>

\*SmartMesh not supported

WI-FI	
<b>STANDARDS</b>	<ul style="list-style-type: none"> <li>IEEE 802.11a/b/g/n/ac</li> <li>2.4GHz and 5GHz</li> </ul>
<b>SUPPORTED DATA RATES</b>	<ul style="list-style-type: none"> <li>802.11n/ac: 6.5Mbps – 173.4Mbps (20MHz)</li> <li>13.5Mbps – 400Mbps (40MHz)</li> <li>29.3Mbps - 867Mbps (80MHz)</li> <li>802.11a: 54, 48, 36, 24, 18, 12, 9 and 6Mbps</li> <li>802.11b: 11, 5.5, 2 and 1 Mbps</li> <li>802.11g: 54, 48, 36, 24, 18, 12, 9 and 6 Mbps</li> </ul>
<b>RADIO CHAINS</b>	<ul style="list-style-type: none"> <li>2 x 2</li> </ul>
<b>SPATIAL STREAMS</b>	<ul style="list-style-type: none"> <li>2</li> </ul>
<b>CHANNELIZATION</b>	<ul style="list-style-type: none"> <li>20MHz, 40MHz, 80MHz</li> </ul>
<b>FREQUENCY BAND</b>	<ul style="list-style-type: none"> <li>IEEE 802.11 b/g/n: 2.4 – 2.484 GHz</li> <li>IEEE 802.11a/n/ac: 5.15 – 5.25 GHz; 5.25 – 5.35</li> </ul>
<b>OPERATING CHANNELS</b>	<ul style="list-style-type: none"> <li>US/Canada: 1-11, Europe ( ETSI X30): 1-13, Japan X41: 1-13</li> <li>5 GHz channels: Country dependent</li> </ul>
<b>BSSID</b>	<ul style="list-style-type: none"> <li>Up to 8 per radio (16 per AP)</li> </ul>
<b>POWER SAVE</b>	<ul style="list-style-type: none"> <li>Supported</li> </ul>
<b>WIRELESS SECURITY</b>	<ul style="list-style-type: none"> <li>WPA-PSK and WPA2 AES, 802.11i</li> <li>Authentication via 802.1X, local authentication database, support for RADIUS, ActiveDirectory, and DPSK</li> </ul>
<b>CERTIFICATIONS**</b>	<ul style="list-style-type: none"> <li>U.S., Europe, Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Ecuador, Egypt, Hong Kong, India, Indonesia, Israel, Japan, Jordan, Kenya, Korea, Malaysia, Mexico, New Zealand, Peru, Philippines, Russia, Saudi Arabia, Singapore, South Africa, Taiwan, Thailand, UAE, Vietnam</li> <li>WEEE/RoHS2 compliance</li> <li>EN 60601-1-2 (Medical)</li> <li>Wi-Fi Alliance</li> <li>WFA</li> <li>Industry Canada</li> <li>EU/EFTA</li> <li>CB Scheme Certificate</li> </ul>

† Maximum power varies by country

\*\* For current certification status please see price list

## Product Ordering Information

MODEL	DESCRIPTION
<b>ZoneFlex R310 Smart Wi-Fi 802.11ac Access Point</b>	
<b>9U1-R310-XX02</b>	Concurrent dual band 802.11ac Unleashed AP, no power adapter
<b>Optional Accessories</b>	
<b>902-0120-0000</b>	Universal secure mounting bracket fits multiple ZoneFlex AP's including R310 Unleashed. Mounts to Hard Wall, Ceiling, Pole & Truss. Fits without pad-lock support.
<b>902-0173-XX10</b>	Power Adapter, AC/DC wall plug,100-240Vac 50/60Hz
<b>902-0162-XXYY</b>	PoE Adapter

**PLEASE NOTE:** When ordering ZoneFlex Indoor APs, you must specify the destination region by indicating -US or -WW instead of XX.



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