

ZoneFlex R600

Dual-Band 802.11ac 3X3:3 Smart Wi-Fi Access Points



DATA SHEET



BENEFITS

EXTENDED RANGE REQUIRES FEWER APs

Adaptive antenna technology delivers up to 2x 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 and a range of mounting options

CHANNEL SELECTION OPTIMIZES THROUGHPUT

ChannelFly dynamic channel management, based on throughput measurements, not just interference, chooses the best channel to give users the highest possible throughput

SUPER SIMPLE CONFIGURATION AND MANAGEMENT

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

FLEXIBLE DEPLOYMENT OPTIONS

Standalone or controller-based migration

ADAPTIVE POLARIZATION DIVERSITY (PD-MRC)

Dual-polarized antennas that are dynamically selected provide better reception for hard to hear clients and more consistent performance as clients constantly change orientation

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

802.11AC HIGH PERFORMANCE MID-RANGE 3X3:3 SMART WI-FI ACCESS POINTS WITH ADAPTIVE ANTENNA TECHNOLOGY

The Ruckus ZoneFlex R600 delivers high-performance and reliable 802.11ac wireless networking at a competitive price point for medium density venues such as in K-12 or Higher ED..

The ZoneFlex R600 combines patented adaptive antenna technology and automatic interference mitigation to deliver consistent, predictable performance at extended ranges with up to an additional 6dB of BeamFlex gain on top of the physical antenna gain and up to 15dB of interference mitigation.

The R600 is ideal for wireless networks servicing mobile devices with dual-polarized antennas that adapt in real time to maximize performance for the mobile enterprise.

Performance is further enhanced as the ZoneFlex R600 integrates Ruckus' patented BeamFlex, a software-controlled, high gain adaptive antenna technology. The ZoneFlex R600 automatically selects channels for highest throughput potential using Ruckus ChannelFly dynamic channel management, adapting to environmental changes.

A sleek and low-profile design, the ZoneFlex R600 was purpose-built for small-medium enterprises requiring reliable high speed client connectivity. It is ideal for a variety of medium density enterprise and hotspot environments including SMB's such as independent hotels, local retailers and non-franchise restaurants.

PATENTED BEAMFLEX™ TECHNOLOGY EXTENDS SIGNAL RANGE, IMPROVES STABILITY OF CLIENT CONNECTIONS

All ZoneFlex R600 Wi-Fi access points integrate a software-controlled smart antenna with PD-MRC (polarization diversity) that delivers up to an additional 6dB of BeamFlex gain and 15dB of interference mitigation. This is especially beneficial to enhance the performance of mobile devices which are constantly in motion and changing orientation.

ADVANCED WLAN APPLICATIONS

Each ZoneFlex R600 supports a wide range of value-added applications such as guest networking, Dynamic PSK, hotspot authentication, wireless intrusion detection and many more. In a controller-less configuration, the ZoneFlex R600 works with a wide range of authentication servers including Microsoft's Active Directory, and AAA/RADIUS.

FLEXIBLE DEPLOYMENT OPTIONS

Ruckus 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.

COMPLETE LOCAL AND REMOTE MANAGEMENT

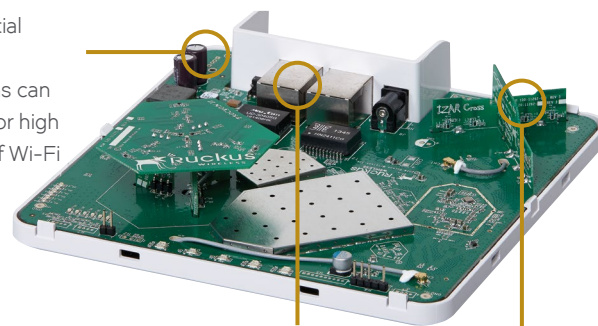
Each ZoneFlex R600 can be managed as a standalone AP through a Web-based GUI, using SNMP or through the Ruckus SCI or FlexMaster. Local management can also be performed using Ruckus' Smart WLAN controllers. FlexMaster is a LINUX-based software platform that uses industry standard protocols to perform bulk configuration, fault detection, monitoring and a wide range of trouble-shooting capabilities over a wire area connection. The controllers enable local management and control of APs, adding value-added services such as transmit power control and guest networking.



FEATURES

- Dual-band concurrent (2.4GHz/5GHz)
- Adaptive antenna technology and advanced RF management
- Up to an additional 6dB BeamFlex gain / 15dB interference mitigation / 3dBi physical antenna gain
- Automatic interference mitigation, optimized for high-density environments
- Integrated smart antenna technology
- Standard 802.3af Power over Ethernet (PoE)
- DHCP services
- IP multicast video streaming support
- 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
- BYOD, Zero-IT and Dynamic PSK
- Admission control/load balancing
- Band steering and airtime fairness support
- Rich and customizable guest access services
- Application recognition and control
- Bonjour gateway
- SecureHotspot
- Band balancing
- SmartMesh
- SPoT location services

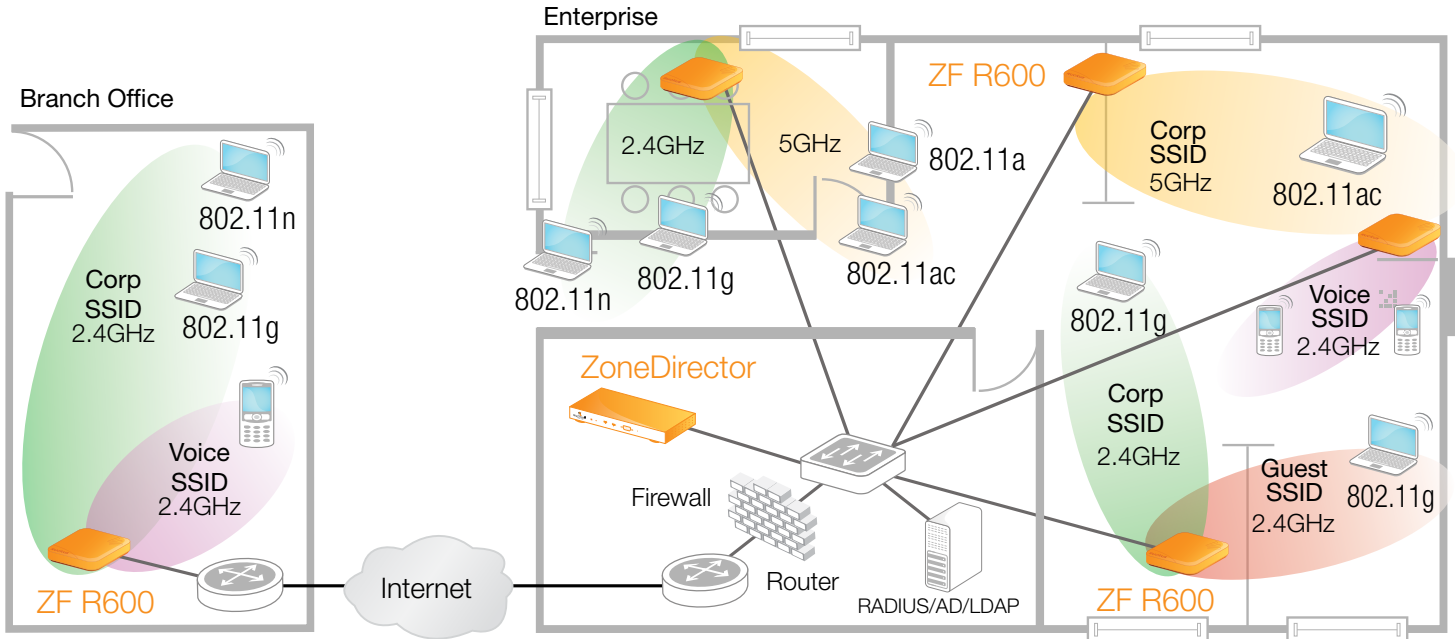
Many potential antenna combinations can be chosen for high availability of Wi-Fi



Two 10/100/1000 Mbps ports; one with PoE

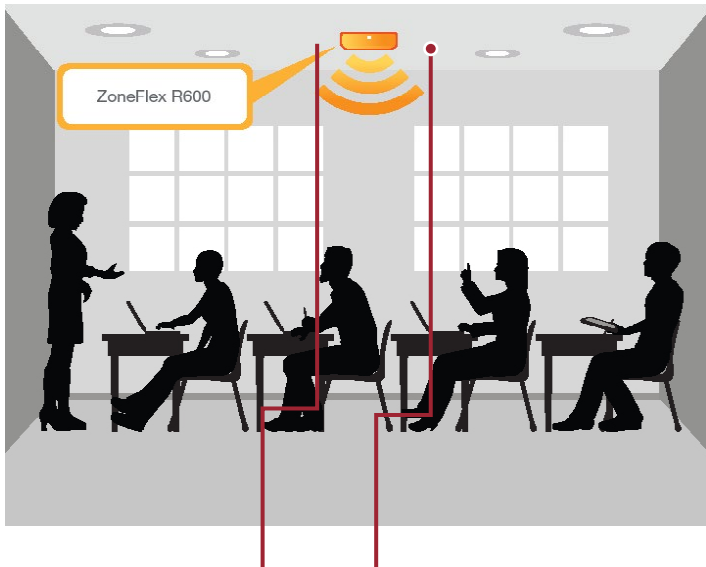
High-gain directional antenna elements not only delivers signal gain but also interference mitigation for range extension, reliability and high data rates

The ZoneFlex R600 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 mid-range enterprise and branch office applications.



DEPLOYMENTS FOR CLASSROOMS AND LIBRARIES

The ZoneFlex R600 is ideal for deployment in education common areas providing high quality wireless access in high density locations



Dual-band (2.4/5GHz) support allows for concurrent Internet and IP-based video services

Sleek, elegant design easily concealed

DEPLOYMENT FOR RETAIL/BRANCH OFFICES

The ZoneFlex R600 is ideal for deployment in retail stores to provide inconspicuous wireless connection to high quality video, wireless IP phones and data access for handheld PoS barcode scanners



Wired ports to connect devices such as cash registers, printers, etc.

Multiple SSIDs for differentiated user services (e.g., guest Wi-Fi, point of sale, voice)

Reliable Wi-Fi connectivity for point of sale devices

5GHz band and smart antenna system ideal for 802.11ac clients

PHYSICAL CHARACTERISTICS	
Power	<ul style="list-style-type: none"> DC Input: 12 VDC 1.0A Power over Ethernet 802.3 af
Physical Size	<ul style="list-style-type: none"> 15.8 cm x 15.8 cm x 4 cm (6.2 in x 6.2 in x 1.57 in)
Weight	<ul style="list-style-type: none"> 364 g (0.8 lb.)
Data Ports	<ul style="list-style-type: none"> 2 auto MDX, auto-sensing 10/100/1000 Mbps, RJ-45, POE port (on one port)
Lock Options	<ul style="list-style-type: none"> Hidden latching mechanism Kensington Lock Hole T-bar Torx Bracket (902-0108-0000) Torx screw & padlock (sold separately)
Environmental Conditions	<ul style="list-style-type: none"> Operating Temperature: 0°C - 40°C Operating Humidity: 10% - 95% non-condensing
Power Draw	<ul style="list-style-type: none"> Idle: 4W Typical: 6.2W Peak: 11.2W

PERFORMANCE AND CAPACITY	
Concurrent Stations	<ul style="list-style-type: none"> Up to 512 clients per AP
Simultaneous Voip Clients	<ul style="list-style-type: none"> Up to 30 clients per AP

RF	
ANTENNA	<ul style="list-style-type: none"> Adaptive antenna that provides up to 512 unique antenna patterns per radio Full omnidirectional polarization diversity
PHYSICAL ANTENNA GAIN	<ul style="list-style-type: none"> Up to 3dBi
BEAMFLEX* SINR TX GAIN	<ul style="list-style-type: none"> Up to 6dB
BEAMFLEX* SINR RX GAIN	<ul style="list-style-type: none"> 3-5dB (PD-MRC)
INTERFERENCE MITIGATION	<ul style="list-style-type: none"> Up to 15dB
MINIMUM RX SENSITIVITY	<ul style="list-style-type: none"> Up to -101dBm

* 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	
Deployment Options	<ul style="list-style-type: none"> Standalone (individually managed) Managed by ZoneDirector (9.8.1 & Above) Managed by SmartZone (3.0 & above) Managed by FlexMaster Managed by SmartCell™ Gateway 200 (2.5 & above)
Configuration	<ul style="list-style-type: none"> Web User Interface (HTTP/S) CLI (Telnet/SSH), SNMP v1, 2, 3 TR-069 vis FlexMaster
Auto Ap Software Updates	<ul style="list-style-type: none"> FTP or TFTP, remote auto available

WI-FI	
Standards	<ul style="list-style-type: none"> IEEE 802.11a/b/g/n/ac 2.4GHz and 5GHz
Supported Data Rates	<ul style="list-style-type: none"> 802.11n/ac: 6.5Mbps - 260Mbps (20MHz) 13.5Mbps - 600Mbps (40MHz) 29.3Mbps - 1300Mbps (80MHz) 802.11a: 54, 48, 36, 24, 18, 12, 9 and 6Mbps 802.11b: 11, 5.5, 2 and 1 Mbps 802.11g: 54, 48, 36, 24, 18, 12, 9 and 6Mbps
Radio Chains	<ul style="list-style-type: none"> 3 x 3
Spatial Streams	<ul style="list-style-type: none"> 3
RF POWER OUTPUT (Aggregate)	<ul style="list-style-type: none"> 28 dBm for 2.4GHz† 27 dBm for 5GHz†
Channelization	<ul style="list-style-type: none"> 20MHz, 40MHz, 80MHz
Operating Channels	<ul style="list-style-type: none"> US/Canada: 1-11, Europe (ETSI X30): 1-13, Japan X41: 1-13 5 GHz channels: Country dependent
Frequency Band	<ul style="list-style-type: none"> IEEE 802.11 b/g/n: 2.4 - 2.484GHz IEEE 802.11a/ac: 5.15 - 5.25GHz; 5.25 - 5.35GHz; 5.47 - 5.725 GHz; 5.725 - 5.85GHz
Power Save	<ul style="list-style-type: none"> Supported
Wireless Security	<ul style="list-style-type: none"> WPA-PSK, WPA-TKIP, WPA2 AES, 802.11i Authentication via 802.1X with the ZoneDirector, local authentication database, support of RADIUS, and ActiveDirectory
Certifications**	<ul style="list-style-type: none"> US, Europe, Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Egypt, Hong Kong, India, Indonesia, Israel, Japan, Korea, Malaysia, Mauritius, Mexico, New Zealand, Pakistan, Peru, Philippines, Russia, Saudi Arabia, Singapore, South Africa, Taiwan, Thailand & UAE. WEEE/RoHS compliance EN-60601-1-2 (Medical) Wi-Fi Alliance EN50121-1 Railway EMC EN50121-4 Railway Immunity IEC 61373 Railway Shock & Vibration UL 2043 plenum rated 5GHz UNII-1 (2014)

† Maximum power varies by country

** For current certification status please see price list

PRODUCT ORDERING INFORMATION

MODEL	DESCRIPTION
ZoneFlex R600 Smart Wi-Fi 802.11ac Access Point	
901-R600-XX00	Concurrent dual band 802.11ac Access Point, no power adapter
Optional Accessories	
902-0108-0000	Spare, Accessory Mounting Bracket
902-0173-XXYY	Power Adapter, AC/DC wall plug,100-240Vac 50/60Hz
902-0162-XXYY	PoE injector (sold in quantities of 10 or 100)

PLEASE NOTE: When ordering ZoneFlex Indoor APs, you must specify the destination region by indicating -US, -WW, or -Z2 instead of XX. When ordering PoE injectors or power supplies, you must specify the destination region by indicating -US, -EU, -AU, -BR, -CN, -IN, -JP, -KR, -SA, -UK, or -UN instead of -XX.

For access points, -Z2 applies to the following countries: Algeria, Egypt, Israel, Morocco, Tunisia, and Vietnam

Warranty: Sold with a limited lifetime warranty.

For details see: <http://support.ruckuswireless.com/warranty>