# ZoneFlex<sup>™</sup>7962

Dual-Band 802.11n Smart Wi-Fi Access Point



## The first enterprise dual-band 802.11n Smart Wi-Fi AP with dynamic antenna beamforming

The Ruckus ZoneFlex 7962 is the first affordable, dual-band 802.11n access point that delivers ultra-high speed, reliable and long-range client connectivity within challenging RF environments.

The ZoneFlex 7962 is based on dynamic RF beamforming technology that extends signal range two to four times while minimizing packet loss by constantly routing Wi-Fi transmissions over the best performing signal paths.

The world's only enterprise-class AP that concurrently supports spatial multiplexing, automatic interference rejection and dynamic beamforming, the ZoneFlex 7962 delivers the industry's most solid 802.11n performance at range. It's also the only 802.11n product purpose-built for hotels, schools and enterprises that enables high-definition IPTV, video-on-demand and other video applications while supporting data applications for guests and employees.

Ideal for multimedia and dense user and environments, the ZoneFlex 7962 can be deployed as a standalone access point or as part of centrally-controlled Smart Wireless LAN with the Ruckus ZoneDirector. Smart Mesh Networking, another unique feature, makes the ZoneFlex 7962 perfect for reliably extending wireless LAN services to areas where cabling Ethernet isn't possible or economical - saving time and money.

The ZoneFlex 7962 is also perfect for service providers interested in delivering high-performance multimedia hotspots, hotzones and managed services. Coupled with the Ruckus FlexMaster Wi-Fi management platform, the ZoneFlex 7962 opens the door for extending branded broadband services and new revenuegenerating services.

Automated deployment keeps configuration and installation super simple - even for large enterprise deployments. And support for standard 802.3af Power Over Ethernet (PoE) eliminates migration pains by leveraging existing PoE switches.

Because the ZoneFlex 7962 is able to constantly find the best RF paths for each packet, once deployed, enterprises never have to worry about constant site surveys as the environment changes.

#### **BENEFITS**

#### Consistent performance at range

Dynamic beamforming enables Wi-Fi signals to be constantly formed and directed over the best performing signal paths thereby ensuring the lowest packet loss and highest performance at range.

#### Wire-like reliability

Advanced smart antenna array and Quality of Service (QoS) technology combined to delivers the industry's most reliable and highest performing 802.11n system available.

#### Investment protection for legacy Wi-Fi networks

As a smarter dual-band 802.11n AP, the ZoneFlex 7962 gives enterprises protection over their wireless investments by enhancing performance and range for legacy 802.11a/b/g clients.

#### Concurrent support for IP video, voice and data

A directional, high-gain antenna finds the best path for any given transmission allowing unprecedented support for picture perfect video, crystal clear voice and high speed data.

#### 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.

#### Distributed forwarding architecture eliminates bottlenecks

Used as a centrally-managed WLAN with the ZoneDirectors, traffic is not forced through the controller thereby eliminating any single point of failure or performance bottleneck.

#### Automated deployment keeps things ultra simple

Configuration and ongoing management is radically simplified through a Web-based wizard and automated deployment capabilities

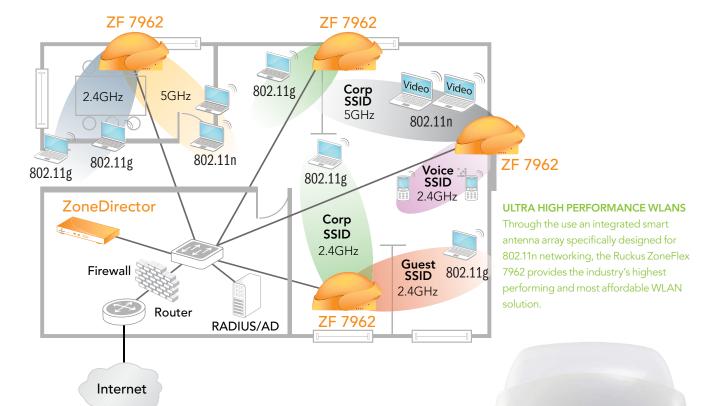
#### Enables new class of provider hotspots services

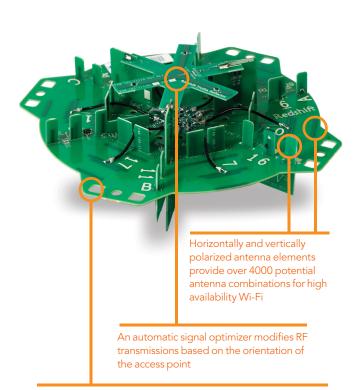
New revenue opportunities for operators such as Voice-over-WLAN services, extended enterprise access, IP video applications and tiered service classes.

#### Simple extension of WLAN services

Integrated support for Smart Mesh Networking gives enterprise the power to easily extend WLAN services wherever needed and without having to run costly and cumbersome Ethernet cabling to every AP.







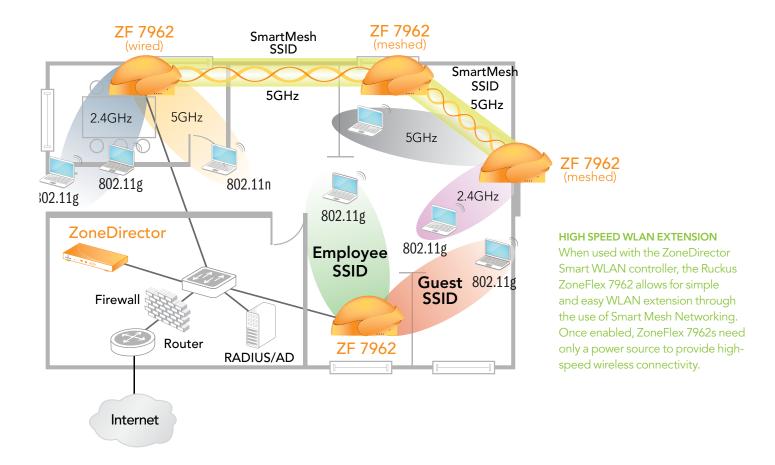
A patented smart antenna array integrates high-gain, directional antenna elements deliver up to 7dBi in signal gain and up to -15dB of interference avoidance for unprecedented range extension, signal reliability and higher data rates.

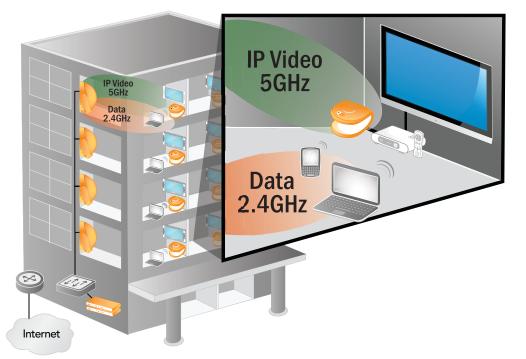
#### **FEATURES**

- Concurrent dual-band (5GHz/2.4GHz) support
- Dynamic beamforming and advanced RF management
- Up to 7dBi signal gain / -15dB interference rejection
- Automatic interference avoidance, optimized for high-density environments
- Integrated smart antenna array with over 4,000 unique patterns for ultra reliability
- Standard 802.3af Power over Ethernet (PoE)
- 2 to 4 times extended range and coverage
- Multicast IP video streaming
- 600 Mbps of user throughput (300 Mbps/radio)
- Four queues per client station
- 16 BSSIDs with unique QoS and security policies
- WEP, WPA-PSK (AES), 802.1X support
- Smart Mesh Networking\*\*
- Zero-IT and Dynamic PSK\*
- Admission control/load balancing\*
- Captive portal and guest accounts \*
- RADIUS and Active Directory support\*
- Wall or ceiling mountable

<sup>\*</sup>when used with Ruckus ZoneDirector controller.

<sup>\*\*</sup>next release





#### **CONCURRENT IP VIDEO AND DATA**

With integrated quality of service mechanisms and an intelligent multi-element antenna array, the ZoneFlex 7962 stands alone as the only dual-band 802.11n system capable of supporting picture perfect transmission of IP-based streaming video concurrently with high-performance data traffic.

### **Specifications**

PHYSICAL CHARACTERISTICS	
POWER	<ul> <li>External power adapter</li> <li>Input: 110-240V AC</li> <li>Output: 12V DC, 1.5A</li> <li>Power over Ethernet Class 0</li> </ul>
PHYSICAL SIZE	• 19.43cm (L), 14.43cm (W), 12.38cm (H)
WEIGHT	• 680 grams (1.5 lbs.)
ANTENNA	Internal software-configurable antenna array with directional and omni high-gain elements that provide over 4,000 unique antenna patterns
ETHERNET PORTS	<ul><li>2 ports, auto MDX, auto-sensing 10/100/1000 Mbps, RJ-45</li><li>Power over Ethernet (802.3af)</li></ul>
LOCK OPTION	Integrated Kensington lock
ENVIRONMENTAL CONDITIONS	• Operating Temperature: 32°F (0°C) - 122°F (50°C)
	<ul> <li>Operating Humidity: 15% - 95% non-condensing</li> </ul>

PERFORMANCE AND SUPPORTED CONFIGURATIONS	
CONCURRENT STATIONS	• Up to 200
TARGET UDP THROUGHPUT	150-200 Mbps (300 Mbps bursts) sustainable throughput for a 5000 sq. foot (460 sq meter) area for each radio for each band
SIMULTANEOUS Vo-Fi CLIENTS	• Up to 20

TRAFFIC MANAGEMENT AND QUALITY OF SERVICE	
CLASSES OF SERVICE	<ul> <li>Voice, video, best effort and background</li> </ul>
SOFTWARE QUEUES	• Four per station
802.11e	• Supported
AUTOMATIC TRAFFIC CLASSIFICATION	<ul> <li>Automatic type of service tagging for multicast video packets</li> </ul>
RATE LIMITING	• Supported
VLAN SUPPORT	• 802.1Q
HEURISTIC CLASSIFICATION	• Supported

DEPLOYMENT	
OPTIONS	Managed by ZoneDirector
	<ul> <li>Individually managed</li> </ul>
	<ul> <li>Managed by FlexMaster</li> </ul>

MANAGEMENT	
CONFIGURATION	<ul> <li>Web user interface, CLI (Telnet), SSH HTTP/S, SNMP via ZoneDirector, TR-069 via FlexMaster</li> </ul>
STATISTICS	<ul> <li>LAN, wireless and associated stations (accessible via Web UI)</li> </ul>
AUTO AP SOFTWARE UPDATES	FTP or TFTP, remote auto available

WI-FI	
STANDARDS	<ul><li>IEEE 802.11a/b/g/n</li><li>2.4Ghz and 5Ghz concurrent operation</li></ul>
SUPPORTED DATA RATES	<ul> <li>802.11n: 6.5Mbps – 130Mbps (20MHz) 6.5Mbps – 270Mbps (40MHz)</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>
RADIO CHAINS	• 3 x 3
SPATIAL STREAMS	• 2
CHANNELIZATION	• 20MHz and/or 40MHz
FREQUENCY BAND	<ul> <li>IEEE 802.11n: 2.4 – 2.484 GHz and 5.15 – 5.85 GHz</li> <li>IEEE 802.11a: 5.15 – 5.85 GHz</li> <li>IEEE 802.11b: 2.4 – 2.484 GHz</li> </ul>
OPERATING CHANNELS	• US/Canada: 1-11 • Europe ( ETSI X30): 1-13
	<ul> <li>Japan X41: 1-13</li> <li>5GHz channels: Country dependent for the following channel ranges: 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 149, 153, 157, 161, 165</li> </ul>
BSSID	Up to eight per radio (16 total)
POWER SAVE	Supported
WIRELESS SECURITY	WEP, WPA-PSK, WPA-TKIP, WPA2 AES, 802.11i     Authentication via 802.1X with the ZoneDirector, local authentication database, support for RADIUS, LDAP, and ActiveDirectory
CERTIFICATIONS	<ul> <li>U.S., Europe, Canada, Australia, India, Hong Kong</li> <li>WEEE/RoHS compliance</li> </ul>

#### **Product Ordering Information**

Model	Description
ZoneFlex 7962 Dual Band 802.11n Access Point	
901-7962-XX01	Centrally managed concurrent dual band 802.11n access point

**PLEASE NOTE:** When ordering you must specify the destination region by indicating -US, -EU, -UK, -UN, -AU, -UU or -IN instead of XX.

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