ZoneFlex™ 7762
Dual-Band 802.11n Smart Wi-Fi Outdoor AP

World's First Concurrent 2.4/5GHz 802.11n Access Point with Dynamic Beamforming and Smart Wi-Fi Meshing

The Ruckus ZoneFlex 7762 represents a completely new class of outdoor Wi-Fi product that unleashes the promise of 802.11n — delivering unparalleled simplicity, throughput, range and reliability at a fraction of the cost of conventional alternatives.

The ZoneFlex 7762 is the first dual-band 802.11n outdoor access point (AP) to integrate dynamic beamforming technology to enable much longer range signals, better signal penetration inside buildings, and more resilient mesh connections that automatically adapt to interference and changing environmental conditions.

Supporting advanced Smart Mesh Networking, the Ruckus ZoneFlex 7762 is perfect for service providers looking to quickly and economically expand branded broadband services, offload data traffic from congested 3G networks, deploy multimedia hotspots or offer wireless broadband services where fixed line access is limited. Separate radios for access and backhaul traffic deliver high-throughput to clients throughout the mesh network.

The ZoneFlex 7762 is also ideal for hotels, resorts, multi-dwelling units, schools, warehouses and other enterprises needing to deliver broadband access from the outside in or to extend managed wireless LANs (WLANs) outdoors where Ethernet cabling is not possible.

The ZoneFlex 7762 can be centrally managed by the ZoneDirector Smart WLAN controller as part of a unified indoor/outdoor wireless LAN or deployed as a standalone AP and managed individually or through the FlexMaster remote Wi-Fi management system.

The ZoneFlex 7762 implements Ruckus-patented BeamFlex™ smart antenna technology that enables consistent, high-performance, extended coverage and multimedia support. A Web-based wizard allows any computer user to configure ZoneFlex 7762s through the ZoneDirector™ — creating a secure and sophisticated WLAN in a matter of minutes.

Ruckus ZoneFlex 7762s simply plug into any Ethernet network and automatically discover the ZoneDirector. No RF tuning, no client configuration needed. A true plug-and-play outdoor WLAN that is ready to use.

BENEFITS

Unprecedented outdoor Wi-Fi performance
Advanced smart Wi-Fi design with concurrent 802.11n radios delivers 150 Mbps of sustained throughput between mesh APs 300 meters apart and 50 Mbps of sustained throughput to clients 150 meters away

Unified, centralized Wi-Fi management eases administration
ZoneDirector and/or FlexMaster provide a detailed view into and control over both indoor and outdoor Smart Wi-Fi APs enabling seamless and system-wide administration of the entire wireless environment

Unmatched Wi-Fi range and reliability
Automatic dynamic beamforming combined with unique interference avoidance technology delivers up to 7dBi of signal gain and -15dB of interference rejection

Simplicity and elegance make deployment a breeze
A sleek, lightweight design hiding external antennas is combined with ultra-simple, Wizard-based configuration to make configuration and installation as simple as it gets, performed in minutes, not hours

Extended coverage means fewer APs
Directional, high-gain antennas dynamically combine to deliver two- to four-times the coverage over typical outdoor APs

Proven support for IP-based voice and video over Wi-Fi
A directional antenna array and expert QoS software optimize delay-sensitive, IP video and high-density voice over Wi-Fi (VoFi) applications and PoE output allows connecting other devices such as an IP camera

Smart meshing streamlines costly and complex deployment
Integrated Smart Mesh Networking technology automates deployment and eliminates running expensive cables to every outdoor AP

Hardened enclosure for outdoor deployment
IP-67 water and dust proof plastic enclosure with flexible mounting options ensures that no distortion of Wi-Fi signals is introduced

Enables a myriad of new services and service opportunities
Smart Wi-Fi applied outdoors now enables new revenue-generating services such as community Wi-Fi, IP-video applications, multimedia hotspots, extended WLAN services outdoors and 3G data offloading
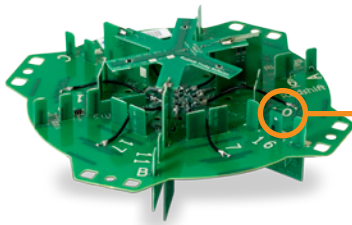
An automatic signal optimizer modifies RF transmissions based on the orientation of the access point

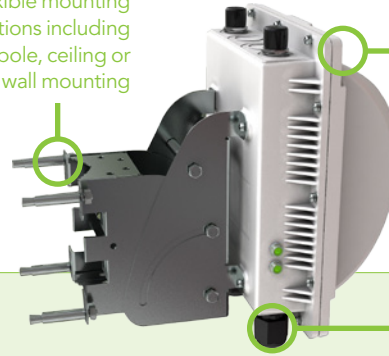Simple wall-mounting options make deployment fast and easy

Pole-mounting can be performed in minutes with all configuration and management performed centrally

A patented smart antenna array in each Ruckus Smart Wi-Fi outdoor AP integrates horizontally and vertically polarized high-gain, directional antenna elements to provide over 4000 potential signal paths to any given end device while delivering up to 7dBi in signal gain and up to -15dB of interference avoidance for unprecedented range extension, signal reliability and higher data rates.

Flexible mounting options including pole, ceiling or wall mounting

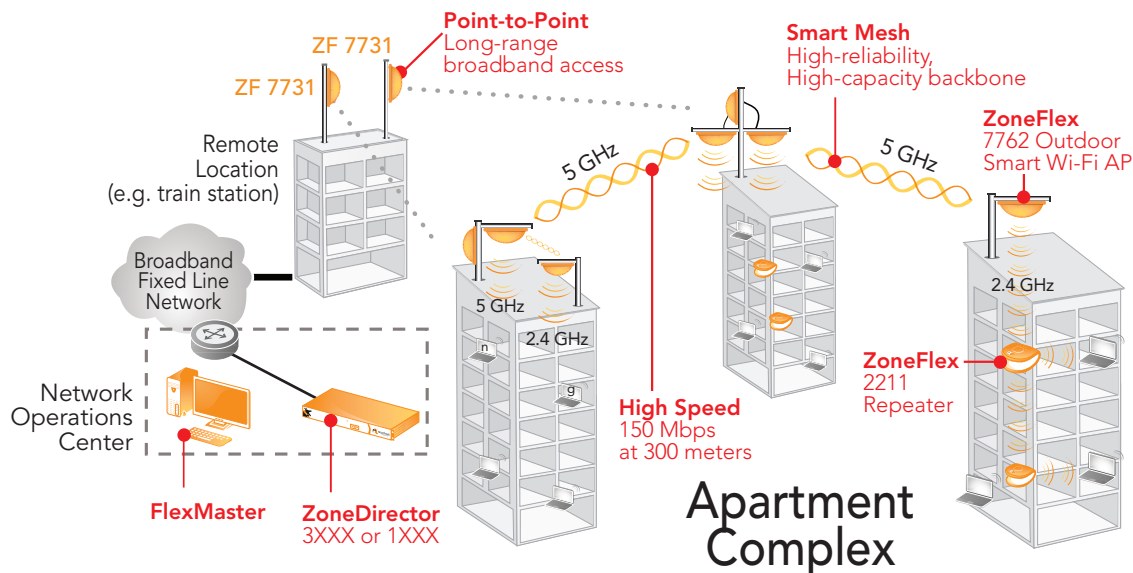ZoneFlex 7762 can be deployed in harsh environmental conditions ranging from -40°C – 65°C (-40°F – 149°F)

Power over Ethernet (PoE) output for surveillance camera

- 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/at Power over Ethernet (PoE)
- Ruckus custom high power PoE injector included
- Standard 802.3af output for surveillance camera
- Wall, pole or ceiling mountable
- Built-in heater for cold climate (-40° C)
- 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
- Advanced QoS packet classification and automatic priority for latency-sensitive traffic
- 16 BSSIDs with unique QoS and security policies
- WEP, WPA-PSK (AES), 802.1X support for RADIUS and Active Directory*
- Smart Mesh Networking*
- Zero-IT and Dynamic PSK*
- Admission control/load balancing*
- Band steering and airtime fairness support
- Captive portal and guest accounts *

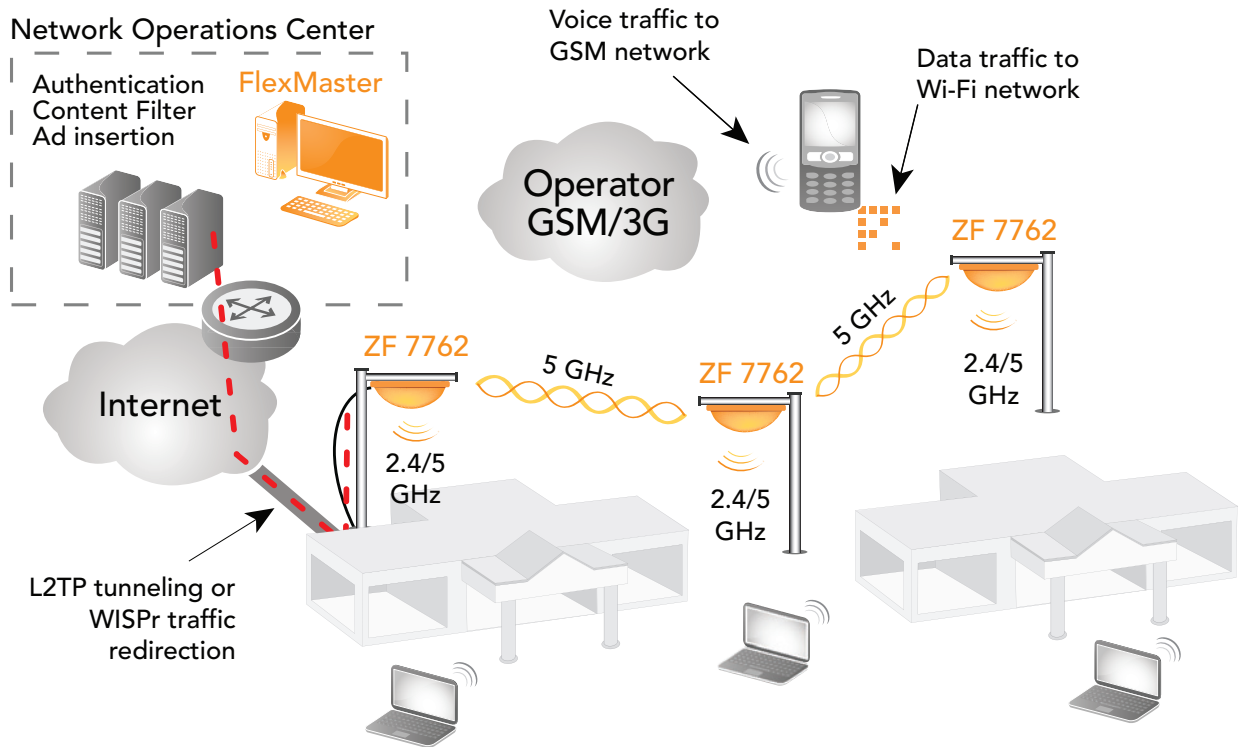*when used with Ruckus ZoneDirector controller

WIRELESS BROADBAND ACCESS

A long-range, adaptive smart antenna system within each ZoneFlex 7762 allows providers to reliably deliver new wireless broadband access services in areas where fixed line access is non-existent or cost prohibitive.

Point-to-Point
Long-range broadband access

Smart Mesh
High-reliability, High-capacity backbone

ZF 7731

ZF 7731

Remote Location (e.g. train station)

ZoneFlex
7762 Outdoor Smart Wi-Fi AP

5 GHz

5 GHz

2.4 GHz

Broadband Fixed Line Network

5 GHz

2.4 GHz

n

g

High Speed
150 Mbps at 300 meters

ZoneFlex
2211 Repeater

Network Operations Center

FlexMaster

ZoneDirector
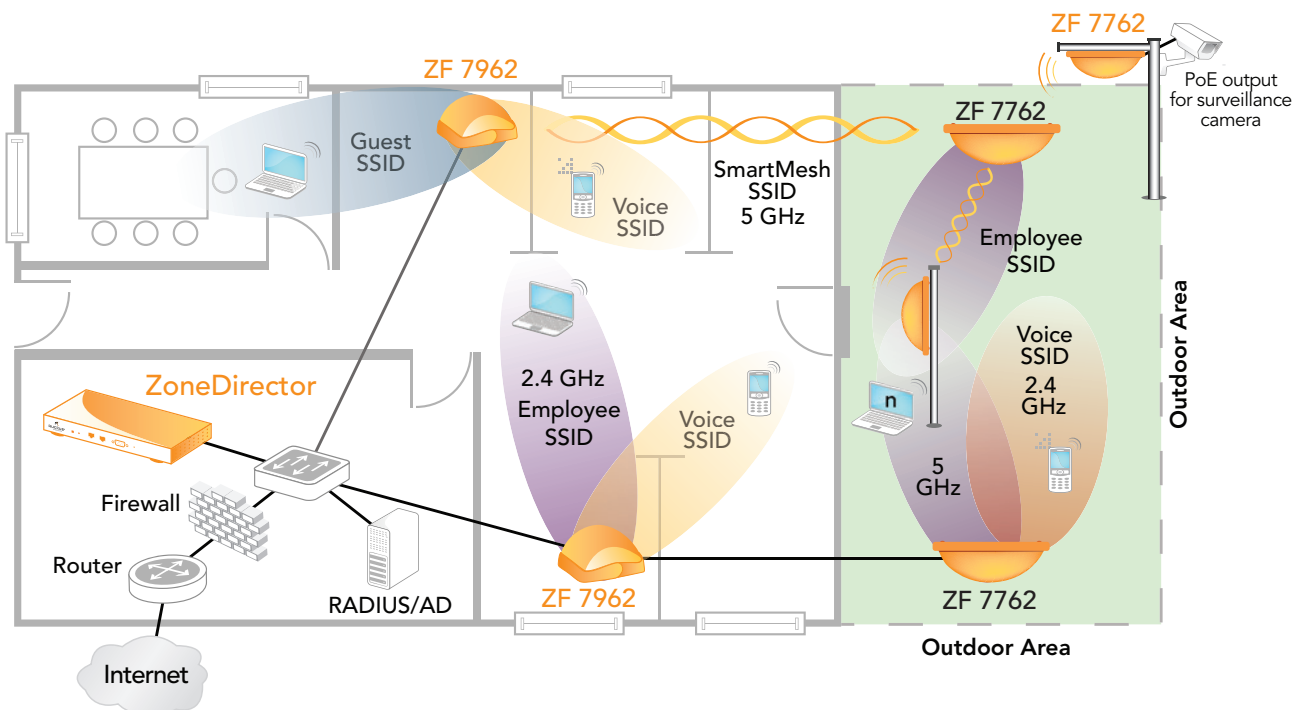3XXX or 1XXX

Apartment Complex

SMARTER MULTIMEDIA HOTSPOTS (SMARTSPOTS)

Perfect for offloading data traffic from 3G networks, the ZoneFlex 7762 allows the cost-effective extension of carrier-branded broadband services and creating more robust multimedia hotspots.

ENTERPRISE WLAN EXTENSION

ZoneFlex 7762 Smart Wi-Fi access points can be deployed as a seamless extension (meshed or wired) to a managed wireless LAN working in concert with indoor ZoneFlex 7962 APs and controlled by the Ruckus ZoneDirector Smart WLAN controller.

Specifications

PHYSICAL CHARACTERISTICS

POWER	• Power over Ethernet and 12V DC
PHYSICAL SIZE	• 23.9 cm (L), 19.5 cm (W), 14.1 cm (H)
WEIGHT	• 1900 grams (4.19 lbs.)
ANTENNA	• Internal software-configurable antenna array with directional and omni high-gain elements that provide over 4,000 unique antenna patterns
ETHERNET PORTS	• 2 ports, auto MDX, auto-sensing RJ-45 • 10/100/1000 Mbps Power over Ethernet (802.3at) input • 10/100 Mbps Power over Ethernet (802.3af) output
ENVIRONMENTAL CONDITIONS	• IP-67 rated • Operating air temperature: -40°C – 65° C (-40°F – 149°F) -20C when heater disabled
POWER DRAW	• 12.95W (PoE) • 15W (12V DC)

PERFORMANCE AND SUPPORTED CONFIGURATIONS

CONCURRENT STATIONS	• Up to 100/radio
TARGET UDP THROUGHPUT	• Up to 150 Mbps sustained throughput over 300 meters between mesh nodes • Up to 50 Mbps sustained throughput over 150 meters to client devices
SIMULTANEOUS Vo-Fi CLIENTS	• Up to 20

TRAFFIC MANAGEMENT AND QUALITY OF SERVICE

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

DEPLOYMENT

OPTIONS	• Managed by ZoneDirector • Individually managed • Managed by FlexMaster
PoE INJECTOR	• Ruckus custom high power PoE injector included

MANAGEMENT

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

WI-FI

STANDARDS	• IEEE 802.11a/b/g/n • 2.4GHz and 5GHz concurrent operation
SUPPORTED DATA RATES	• **802.11n:** 6.5Mbps – 130Mbps (20MHz) 6.5Mbps – 300Mbps (40MHz) • **802.11a:** 54, 48, 36, 24, 18, 12, 9 and 6 Mbps • **802.11b:** 11, 5.5, 2 and 1 Mbps • **802.11g:** 54, 48, 36, 24, 18, 12, 9 and 6 Mbps
RADIO CHAINS	• 3 x 3
SPATIAL STREAMS	• 2
RF POWER OUTPUT	• 28 dBm/600 mW
CHANNELIZATION	• 20 MHz and/or 40 MHz
FREQUENCY BAND	• IEEE 802.11n: 2.4 – 2.484 GHz and 5.15 – 5.85 GHz • IEEE 802.11a: 5.15 – 5.875 GHz • IEEE 802.11b: 2.4 – 2.484 GHz
OPERATING CHANNELS	• 2.4 GHz channels: US/Canada: 1-11, Europe (ETSI X30): 1-13 • 5 GHz 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, 169, 173
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, local authentication database, support for RADIUS and ActiveDirectory
CERTIFICATIONS	• U.S., Europe, Australia, Canada, China, Hong Kong, India, Malaysia, Mexico, New Zealand, Philippines, Taiwan, Thailand, Vietnam • WEEE/RoHS compliance • Wi-Fi Alliance Certification (Wi-Fi Certified™)

Product Ordering Information

Model

ZoneFlex 7762 802.11n Outdoor Access Point

901-7762-XX01	Centrally managed concurrent dual band 802.11n outdoor access point, includes universal pole/wall/ceiling mounting bracket and power injector.

Optional Accessories

902-0165-0000	Universal pole/wall/ceiling mounting bracket, spare (sold in quantities of 10)
902-0166-0000	Flat mounting bracket
902-0163-XXYY	PoE injector, spare (sold in quantities of 10 or 100)

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

ruckus WIRELESS™

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