ZoneFlex™
7762 Series
DUAL-BAND 802.11N SMART WI-FI OUTDOOR AP

World’s First Concurrent 2.4/5GHz 802.11n Access Point with Adaptive Antenna Technology and Smart Wi-Fi Meshing

The ZoneFlex 7762 Series is the first dual-band 802.11n outdoor access point (AP) to integrate adaptive antenna 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 Series 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 Series 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 Series 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 Series implements Ruckus-patented BeamFlex™ smart antenna technology that enables consistent, high-performance, extended coverage and multimedia support. Ruckus ChannelFly dynamic channel management optimizes client throughput by selecting the best channel to operate on. A Web-based wizard allows any computer user to configure ZoneFlex 7762 Series through the ZoneDirector™ — creating a secure and sophisticated WLAN in a matter of minutes.

BENEFITS

Best in class channel selection technology
ChannelFly dynamic channel management, based on throughput measurements, not just interference, chooses the best channel to give users the highest throughput.

Environmentally hardened with AC power
Enables fast and easy mounting to street lights, traffic controls and other street furniture. Includes hardened enclosures for outdoor deployment with IP-67 rated enclosure.

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 including carrier grade 3GPP, I-WLAN core networks and future 4G/LTE core.

Unmatched Wi-Fi range and reliability
Adaptive antenna technology combined with unique interference mitigation technology delivers up to 6 dB of added signal gain and up to 15 dB of interference mitigation and support for up to 500 clients in the AC.

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 wireless backhaul for small cell cluster, and mobile data offload.
ZoneFlex™ 7762 Series
DUAL-BAND 802.11N SMART WI-FI OUTDOOR AP

ZoneFlex 7762

- Dual-band 802.11n 3:3x2, 600 Mbps
- Smart antenna for 2.4/5 GHz
  - 19 elements, +4000 patterns
  - 360° coverage, optional external 5 GHz antennas
- Optimized for enterprise apps
- Ideal for dual-band environments (e.g., most clients are laptops)

ZoneFlex 7762-S

- Dual-band 802.11n 3:3x2, 600 Mbps
- Smart antenna for 2.4 GHz
  - 12 elements, 24 patterns, 120° coverage, 5 GHz external antennas
- Optimized for 3G offload
- Best 2.4 GHz coverage and capacity at 120°
- Ideal for poles, exterior walls

ZoneFlex 7762-T

- Dual-band 802.11n 3:3x2, 600 Mbps
- Smart antenna for 2.4 GHz
  - 12 elements, +4000 patterns, 360° coverage, 5 GHz external antennas
- Optimized for 3G offload
- Ideal for poles, street corners, areas where 3 APs cannot be mounted

ZoneFlex 7762-AC, ZoneFlex 7762-S-AC

- Dual-band 802.11n 3:3x2, 600 Mbps
- Smart antenna for 2.4 GHz
  - 12 elements, +4000 patterns, 360° coverage, 5 GHz external antennas
- Optimized for 3G offload
- Ideal for poles, street corners, areas where 3 APs cannot be mounted
- AC power for flexible deployment
- 16 BSSIDs 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
- 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
ZoneFlex™ 7762 Series

DUAL-BAND 802.11N SMART WI-FI OUTDOOR AP

- First dual-band 802.11n smart outdoor AP with adaptive antenna array
- Designed for extreme conditions
- Smart channel selection
- Concurrent dual-band 802.11n
- 360° coverage
- 19 elements, +4000 patterns
- IP-67 rated, -40°C – 65°C
- Standalone or centrally managed by ZoneDirector or FlexMaster

- First smart sector 802.11n AP
- Optimized for horizontal, long-range coverage and high-density user environments
- Smart channel selection
- Concurrent dual-band 802.11n
- 120° smart sector 2.4GHz antenna for longer range
- External 5GHz antennas
- IP-67 rated, -40°C – 65°C
- Standalone or centrally managed by ZoneDirector or FlexMaster

- Smart antenna optimized for 2.4GHz
- 360° coverage
- 12 elements, +4000 patterns
- Smart channel selection
- 5GHz external antennas
- Concurrent dual-band 802.11n
- IP-67 rated, -40°C – 65°C
- Managed by ZoneDirector and FlexMaster

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

Flexible mounting options including pole, ceiling or wall mounting (universal mounting bracket 902-0165-0000) for standard series models
**Specifications (7762, 7762-S, 7762-T)**

### 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**
- ZF 7762: Internal software-configurable dual band antenna array with directional and omni high-gain elements that provide over 4,000 unique antenna patterns
- ZF 7762-S: Internal software-configurable 2.4GHz antenna array with directional high-gain elements that provide over 24 unique antenna patterns (requires external antenna for 5GHz operations)
- ZF 7762-T: Internal software-configurable 2.4GHz antenna array with directional and omni high-gain elements that provide over 4,096 unique antenna patterns (requires external antenna for 5 GHz operations)

**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, -20°C when heater disabled
- Operating humidity: 5% to 100% condensing

**POWER DRAW**
- 12.95W (PoE)
- 15W (12V DC)

**RF (7762, 7762-S)**
- Adaptive antenna array that provides 4,000+ unique antenna patterns (24 for the sectorized version)

**PHYSICAL ANTENNA GAIN**
- ZF 7762: 3 dBi (2.4 GHz)
- ZF 7762-S: 3dBi internal; Up to 5dBi external (5GHz)
- ZF 7762-S: 7 dBi (2.4 GHz)
- ZF 7762-S: 5 dBi (5 GHz)

**RF POWER OUTPUT**
- 28 dBm (2.4 GHz)
- 26 dBm (5 GHz)

**BEAMFLEX® SINR TX GAIN**
- Up to 6 dB

**BEAMFLEX® SINR RX GAIN**
- Up to 4 dB

**INTERFERENCE MITIGATION**
- Up to 15 dB

**MINIMUM RX SENSITIVITY**
- Up to -95 dBm

**MANAGEMENT**
- Standalone (individually managed)
- Managed by ZoneDirector
- Managed by FlexMaster

**CONFIGURATION**
- Web User Interface (HTTPS)
- CLI (Telnet/SSH), SNMP v1, 2, 3
- TR-069 vis FlexMaster

**Wi-Fi**
- 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)
- 54, 48, 36, 24, 18, 12, 9 and 6 Mbps
- IEEE 802.11a: 11, 5.5, 2 and 1 Mbps
- IEEE 802.11g: 54, 48, 36, 24, 18, 12, 9 and 6 Mbps

**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

**BSID**
- Up to eight per radio (16 total)

**WIRELESS SECURITY**
- WEP, WPA-PSK, WPA2-PSK, WPA2-AES, 802.11i
- Authentication via 802.1X, local authentication database, support for RADIUS and ActiveDirectory

**CERTIFICATIONS**
- U.S., Europe, Australia, Brazil, Canada, China, Egypt, Hong Kong, India, Japan, Korea, Malaysia, Mexico, New Zealand, Philippines, Singapore, South Africa, Taiwan, Thailand, UAE, Vietnam
- WEEE/RoHS compliance
- Wi-Fi Alliance Certification (Wi-Fi Certified®)

### Product Ordering Information

#### ZoneFlex 7762 Series 802.11n Outdoor Access Points

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>901-7762-XX01</td>
<td>7762: Centrally managed concurrent dual band 802.11n outdoor access point, includes universal pole/ceiling mounting bracket (902-0165-0000) and power injector.</td>
</tr>
<tr>
<td>901-7762-XX91</td>
<td>7762-T: Centrally managed concurrent dual band 802.11n outdoor access point, includes universal pole/ceiling mounting bracket (902-0165-0000) and power injector.</td>
</tr>
<tr>
<td>901-7762-XXS1</td>
<td>7762-S: Centrally managed concurrent dual band 802.11n outdoor access point, includes universal pole/ceiling mounting bracket (902-0165-0000) and power injector.</td>
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**Optional Accessories**

<table>
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<tr>
<th>MODEL</th>
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<tr>
<td>911-1212-DP01</td>
<td>5 GHz directional antenna, dual-polarized 12.5 dBi gain and 120 degrees 3 dBm beam width*</td>
</tr>
<tr>
<td>911-0636-VP01</td>
<td>5 GHz Omni-directional antenna, vertically polarized, 5.5 dBi</td>
</tr>
<tr>
<td>911-0536-HP01</td>
<td>5 GHz Omni-directional antenna, horizontally polarized, 5 dBi</td>
</tr>
<tr>
<td>911-0636-VH01</td>
<td>Bundle of one 911-0636-VP01 and one 911-0536-HP01</td>
</tr>
<tr>
<td>902-0165-0000</td>
<td>Universal pole/ceiling mounting bracket, spare (sold in quantities of 10)</td>
</tr>
<tr>
<td>902-0166-0000</td>
<td>Flat mounting bracket</td>
</tr>
<tr>
<td>902-0180-X000</td>
<td>PoE injector, spare (sold in quantities of 10 or 100)</td>
</tr>
</tbody>
</table>

PLEASE NOTE: When ordering you must specify the destination region by indicating -US, -WW, or -IL.
## Specifications (7762-S-AC & 7762-AC)

### PHYSICAL CHARACTERISTICS

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<tr>
<th>POWER</th>
<th>- Power over Ethernet and 100-240 VAC, 50/60Hz</th>
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<tr>
<td>PHYSICAL SIZE</td>
<td>- 23.9 cm (L), 19.5 cm (W), 14.1 cm (H)</td>
</tr>
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<td>WEIGHT</td>
<td>- 2177 grams (4.8 lbs.)</td>
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</table>
| ANTENNA | - ZF 7762-AC: Internal software-configurable dual band antenna array with directional and omni high-gain elements that provide over 4,000 unique antenna patterns.  
- ZF 7762-S-AC: Internal software-configurable 2.4 GHz antenna array with directional high-gain elements that provide over 24 unique antenna patterns (requires external antenna for 5 GHz operations) |
| ETHERNET PORTS | - 10/100/1000 Mbps Power over Ethernet (802.3af) input  
- 10/100 Mbps Power over Ethernet (802.3af) output |
| ENVIRONMENTAL CONDITIONS | - IP-67 rated  
- Operating air temperature: -40°C – 65°C  
- Operating humidity: 5% to 100% condensing |
| POWER DRAW | - 12.95W (PoE)  
- 14W typical / 43W peak (AC) |
| RF (7762-AC) | - Adaptive antenna array that provides 4,000+ unique antenna patterns |
| RF (7762-S-AC) | - Adaptable antenna array that provides 24 unique antenna patterns |
| PHYSICAL ANTENNA GAIN | - 3dBi internal; Up to 5dBi external (5GHz) |
| RF POWER OUTPUT** | - 28 dBm (2.4 GHz)  
- 26 dBm (5 GHz) |
| BEAMFLEX* SINR TX GAIN | - Up to 6 dB |
| BEAMFLEX* SINR RX GAIN | - Up to 4 dB |
| INTERFERENCE MITIGATION | - Up to 15 dB |
| MINIMUM RX SENSITIVITY | - Up to -95 dBm |

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

**Maximum power varies by country**

### POWER DRAW

- **AC:** 14W typical / 43W peak  
- **PoE:** 12.95W

### ENVIRONMENTAL CONDITIONS

- **Operational air temperature:** -40°C to 65°C  
- **Operating humidity:** 5% to 100% condensing

### ANTENNA

- **RF POWER OUTPUT:**
  - 28 dBm (2.4 GHz)  
  - 26 dBm (5 GHz)

### INTERFERENCE MITIGATION

- **Up to 15 dB**

### MINIMUM RX SENSITIVITY

- **Up to -95 dBm**

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

**Maximum power varies by country.**

### MANAGEMENT

**DEPLOYMENT OPTIONS**

- Standalone (individually managed)
- Managed by ZoneDirector
- Managed by FlexMaster

**CONFIGURATION**

- Web User Interface (HTTPS)
- CLI (Telnet/SSH), SNMP v1, 2, 3
- TR-069 via FlexMaster

### 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

**FREQUENCY BAND**

- **802.11n:** 2.4 – 2.484 GHz and 5.15 – 5.85 GHz
- **IEEE 802.11a:** 2.4 – 2.484 GHz

**RSSI**

- **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, Brazil, Canada, China, Egypt, Hong Kong, India, Japan, Korea, Malaysia, Mexico, New Zealand, Philippines, Singapore, South Africa, Taiwan, Thailand, UAE, Vietnam
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<tr>
<td><strong>901-7762-XX03</strong></td>
<td>7762-AC: Centrally managed concurrent dual band 802.11n outdoor access point, includes any angle pole/wall mounting bracket (902-0182-0003)</td>
</tr>
<tr>
<td><strong>901-7762-XX53</strong></td>
<td>7762-S-AC: Centrally managed concurrent dual band 802.11n outdoor access point, includes any angle pole/wall mounting bracket (902-0182-0003)</td>
</tr>
</tbody>
</table>

**Optional Accessories**

- **902-0182-0003** | Spare outdoor mounting bracket, bare metal, any angle |
- **902-0180-XX00** | 60W PoE injector 10/100/1000 Mbps with country-specific power cord |
- **902-0183-0000** | Spare data connector with weatherizing cable gland |
- **902-0185-0000** | Spare weatherized AC connector |

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