



## data sheet

### BENEFITS

#### Breakthrough user performance, range and density

Advanced smart antenna array and Quality of Service (QoS) technology delivers 20 concurrent voice calls, 100 simultaneous data users or 20 Mbps of guaranteed user throughput for over 100 meters (line of sight)

#### Flexible deployment options enable myriad business models

L2TP tunneling and WISPr (future) traffic redirection capabilities enable support for a variety of architectures and business models while SNMP and TR-069 support provide robust remote management

#### Smart antenna array extends coverage, improves reliability

Directional, high-gain antennas dynamically combine to give hotspot operators and enterprises two- to four-times the coverage over typical consumer and enterprise APs

#### Hardened enclosure for harsh outdoor environments

IP-65 water and dust proof plastic enclosure with flexible mounting options ensures that no distortion of Wi-Fi signals is introduced

#### No RF expertise required

Smart antenna array eliminates AP placement issues and minimizes adjacent AP interference, while ZoneDirector controls dynamic channel assignment and power management

#### Channel selection optimizes throughput

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

# ZoneFlex™ 2741

## SMART WI-FI 802.11G OUTDOOR ACCESS POINT

### The First Outdoor AP with an Integrated Smart Antenna Array and Smart Wi-Fi Meshing

The Ruckus ZoneFlex 2741 is the first centrally-managed 802.11g Smart Wi-Fi access point (AP) with advanced capabilities, such as an integrated high-gain directional antenna array and smart wireless meshing, not found in any other outdoor wireless AP.

Designed for harsh outdoor conditions, the Ruckus ZoneFlex 2741 is perfect for service providers looking to easily and affordably extend branded broadband services, offload data traffic from congested 3G networks, deploy multimedia hotspots or offer wireless broadband services where fixed line access is limited.

The ZoneFlex 2741 is also ideal for hotels, schools, warehouses and other enterprises needing to extend managed wireless LANs (WLANs) outdoors where Ethernet cabling is not possible.

The ZoneFlex 2741 is capable of sustaining performance of up to 20 Mbps over 100 meters and up to 10 Mbps over 300 meters or more. The ZoneFlex 2741 can be deployed and managed as a standalone AP, as part of a distributed Wi-Fi network using the Ruckus FlexMaster™ system or as part of a managed WLAN using the Ruckus ZoneDirector Smart WLAN controller.

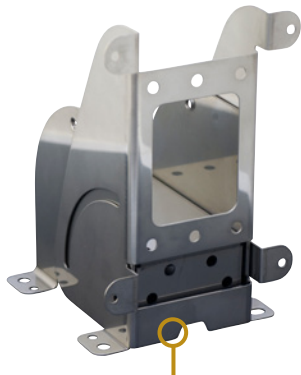
Each ZoneFlex 2741 integrates Ruckus-patented BeamFlex™ smart antenna technology that automatically adapts Wi-Fi signals to changing environmental conditions – enabling unprecedented multimedia support, ensuring stable user connectivity and delivering consistent performance at longer ranges.

Flexible deployment options using sophisticated tunneling and traffic redirection techniques, allow support for a number of hotspot business models. Advanced remote management includes support for Ruckus FlexMaster (using TR-069) remote WLAN management system as well as the ZoneDirector™ WLAN controller (using SNMP).

The ZoneFlex 2741 can be configured in minutes through a Web-based wizard on the Ruckus ZoneDirector controller. The Ruckus ZoneFlex 2741 simply plugs into any Ethernet network and automatically discovers the ZoneDirector.

# ZoneFlex™ 2741

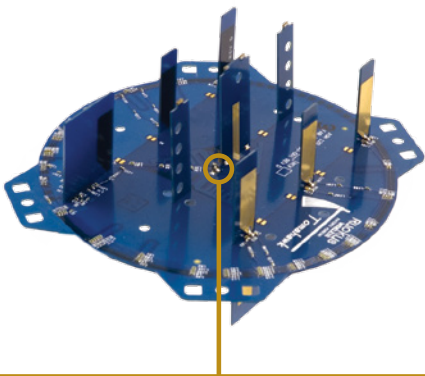
## SMART WI-FI 802.11G OUTDOOR ACCESS POINT



Flexible mounting options, including pole, ceiling or wall mounting.



With a sleek, purpose-built IP-65 enclosure, the ZoneFlex 2741 can be deployed in harsh environmental conditions ranging from -20°C - 65°C ( -4°F - 149°F)



A patented smart antenna array integrates six high-gain vertically and horizontally-polarized antenna elements. With BeamFlex, this enables up to 4096 potential antenna combinations and up to an additional 4 dB BeamFlex gain, delivering unprecedented range extension, signal reliability and higher data rates.

### Ultra high performance and cost effective

Unlike any other outdoor AP available today, each Ruckus ZoneFlex 2741 integrates a state-of-the-art intelligent antenna array that extends signal coverage and adapts to changes in the RF environment. Sophisticated expert control software constantly steers Wi-Fi signals over the best performing paths while mitigating interference – all in real time. This high-gain smart antenna array supports up to 100 simultaneous data users or 20 concurrent voice calls, and capable of sustaining 20 Mbps of performance over 100 meters (LOS) and up to 10 Mbps of sustained throughput up to 300 meters. Superior signal coverage reduces the number of APs required for any given area.

### Flexible deployment options and robust management

The ZoneFlex 2741 is ideally suited to help providers deliver consistent access policies and user experience across all locations using advanced tunneling or traffic redirection techniques. The ZoneFlex 2741 can be deployed and managed individually as a standalone AP using SNMP or remotely as part of a network of APs, leveraging using the TR-069 protocol supported by the Ruckus FlexMaster Smart Wi-Fi management platform. The ZoneFlex 2741 can also be deployed as part of a managed wireless LAN system using the ZoneDirector Smart WLAN controller.

### Simple configuration

Ruckus ZoneFlex 2741 APs are automatically configured by the Ruckus ZoneDirector. A network of APs can be centrally configured quickly and simply through the ZoneDirector's Web-based wizard. And with the self-optimizing Ruckus BeamFlex technology, the ZoneFlex 2741 can be installed without extensive site surveys and RF planning.

### Smart meshing increases flexibility, reduces costs

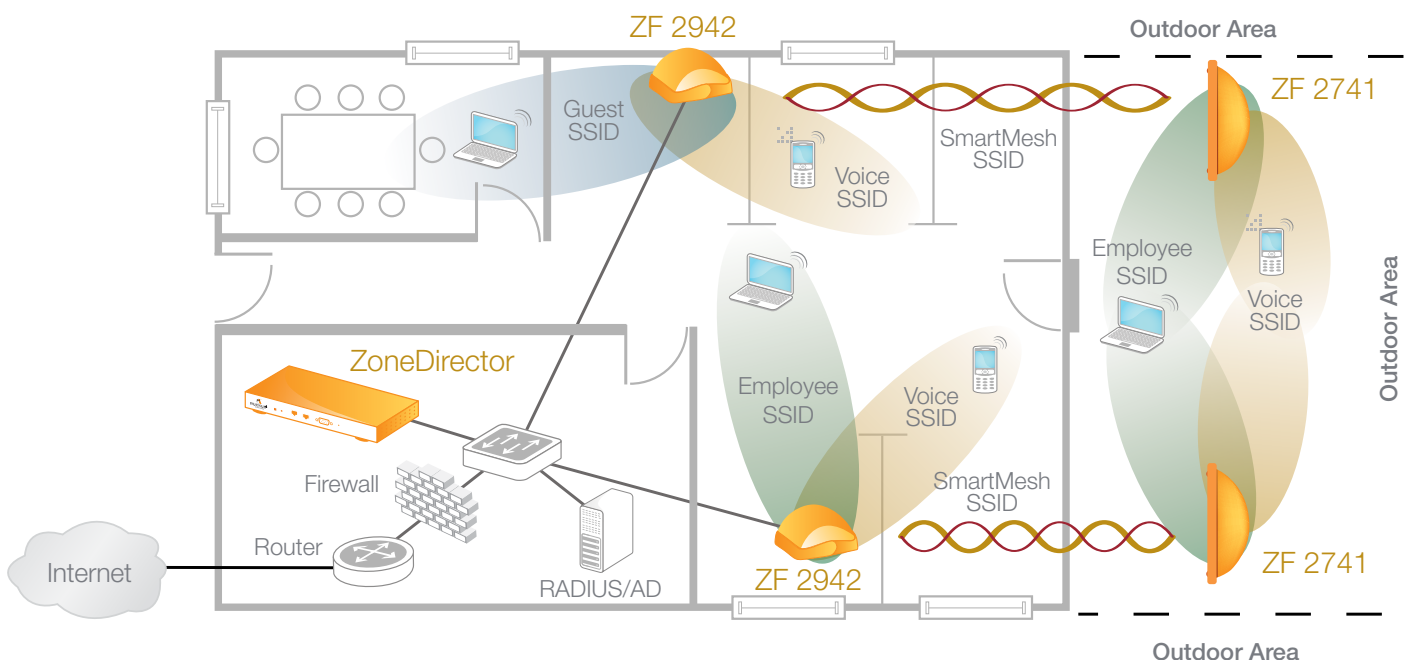
The ZoneFlex 2741 uniquely supports Ruckus Smart Mesh Networking technology. This enables providers and enterprises to easily extend Wi-Fi services to locations where cabling Ethernet is cost prohibitive or impossible. Smart Mesh Networking is self-organizing and self-healing allowing administrators to plug ZoneFlex 2741 APs into PoE injectors, then walk away. All configuration and management is delivered through the ZoneDirector Smart WLAN platform. Patented Ruckus Smart Wi-Fi technology provides extended range and dynamic signal controls between mesh nodes, minimizing inter-nodal hops that degrade performance. Dynamic RF routing between mesh nodes adapts ensures high reliability when the environment changes.

# ZoneFlex™ 2741

## SMART WI-FI 802.11G OUTDOOR ACCESS POINT

### ENTERPRISE WLAN EXTENSION

ZoneFlex 2741 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 2942 APs and controlled by the Ruckus ZoneDirector Smart WLAN controller.



### Business-class, smart multimedia hotspots

The ZoneFlex 2741 lets operators build a new class of multimedia hotspots. Equipped with a dual-polarized directional antenna system, the ZoneFlex 2741 delivers stable connectivity to any Wi-Fi-enabled handheld device and flicker-free support for concurrent video streams and voice over Wi-Fi calls.

### Differentiated services with multiple SSIDs

Up to eight discrete SSIDs can be configured within each Ruckus ZoneFlex 2741, each with unique broadcast, QoS, security and management parameters assigned. This enables hot-zone operators to easily offer tiered services to different user or traffic types. Enterprises can use this features to differentiate guest, contractor and employee access policies or to segment traffic types.

### Dynamic RF management

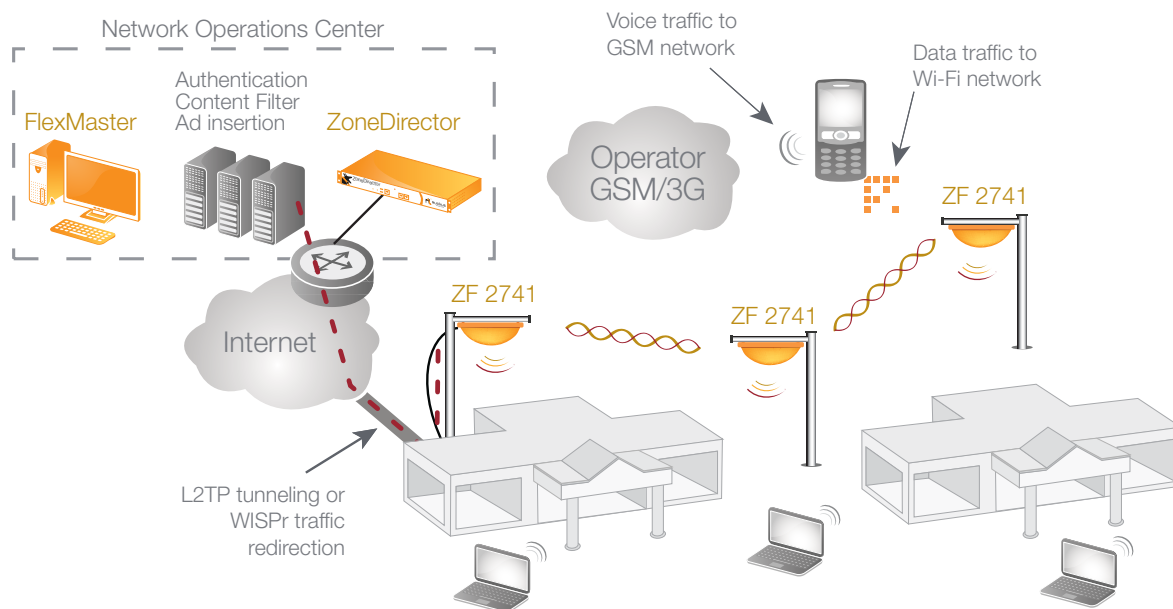
An integrated smart antenna system (BeamFlex) automatically coordinates local RF management – automatically steering Wi-Fi signals toward each receiver and away from noise. Unlike omni antennas, BeamFlex does not constantly radiate in all directions thereby minimizing adjacent AP interference. ChannelFly dynamic channel management and automatic transmit power control sets RF parameters to provide optimal client throughput without manual intervention.

# ZoneFlex™ 2741

## SMART WI-FI 802.11G OUTDOOR ACCESS POINT

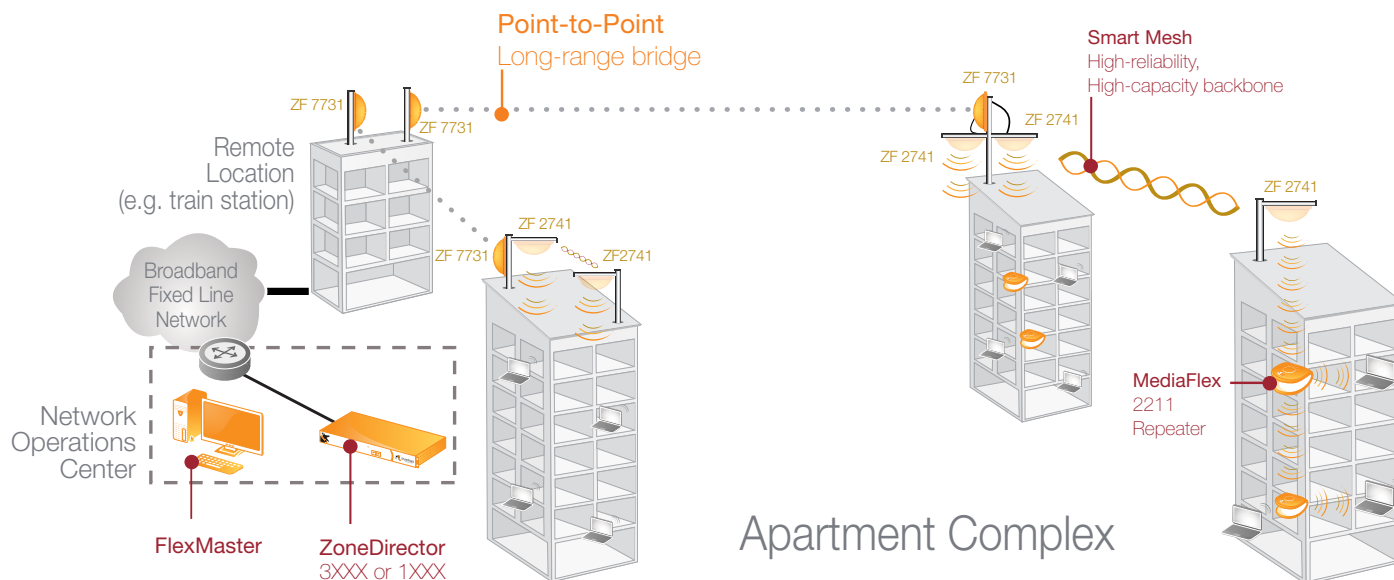
## SMARTER MULTIMEDIA HOTSPOTS (SMARTSPOTS)

Perfect for offloading data traffic from 3G networks, the ZoneFlex 2741 also supports L2TP tunneling and WISPR traffic redirection (future) providing the cost-effective extension of carrier-branded broadband services and creating more robust multimedia hotspots.



## WIRELESS BROADBAND ACCESS

A long-range, adaptive smart antenna system within each ZoneFlex 2741 allows providers to reliably deliver new wireless DSL services in areas where fixed line access is non-existent or cost prohibitive.



## Specifications

PHYSICAL CHARACTERISTICS	
POWER	<ul style="list-style-type: none"> <li>Power over Ethernet Class 0</li> <li>12V DC</li> </ul>
PHYSICAL SIZE	<ul style="list-style-type: none"> <li>27.1 cm (L), 17.2 cm (W), 13.1 cm (H)</li> </ul>
WEIGHT	<ul style="list-style-type: none"> <li>877g (1.93 lbs.)</li> <li>(no external mounting hardware)</li> </ul>
ANTENNA	<ul style="list-style-type: none"> <li>Internal software-configurable antenna array with directional and omni high-gain elements that provide up to 4,000 unique antenna patterns</li> <li>One external N-Type antenna port</li> </ul>
ETHERNET PORTS	<ul style="list-style-type: none"> <li>1 port, auto MDX, auto-sensing 10/100Mbps, RJ-45</li> <li>Power over Ethernet (802.3af)</li> </ul>
LOCK OPTION	<ul style="list-style-type: none"> <li>Integrated Kensington lock</li> </ul>
ENVIRONMENTAL CONDITIONS	<ul style="list-style-type: none"> <li>IP-65 rated</li> <li>Operating air temperature: -20°C - 65°C ( -4°F - 149°F)</li> </ul>
POWER DRAW	<ul style="list-style-type: none"> <li>10W (PoE)</li> <li>10W (12V DC)</li> </ul>

RF	
ANTENNA	<ul style="list-style-type: none"> <li>Adaptive antenna array that provides 4,000+ unique antenna patterns</li> </ul>
MAXIMUM EIRP	<ul style="list-style-type: none"> <li>2.4 GHz: 26 dBm</li> </ul>
PHYSICAL ANTENNA GAIN	<ul style="list-style-type: none"> <li>3 dBi</li> </ul>
BEAMFLEX* SINR TX GAIN	<ul style="list-style-type: none"> <li>Up to 4 dB</li> </ul>
INTERFERENCE MITIGATION	<ul style="list-style-type: none"> <li>Up to 10 dB</li> </ul>
MINIMUM RX SENSITIVITY	<ul style="list-style-type: none"> <li>Up to -98 dBm</li> </ul>

\*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

PERFORMANCE AND CAPACITY	
TARGET UDP THROUGHPUT	<ul style="list-style-type: none"> <li>15-20 Mbps (54 Mbps bursts) sustainable throughput for over 100 meters (line of sight)</li> </ul>
CONCURRENT STATIONS	<ul style="list-style-type: none"> <li>Up to 100</li> </ul>
SIMULTANEOUS VoIP CLIENTS	<ul style="list-style-type: none"> <li>Up to 20</li> </ul>

MANAGEMENT	
DEPLOYMENT OPTIONS	<ul style="list-style-type: none"> <li>Standalone (individually managed)</li> <li>Managed by ZoneDirector</li> <li>Managed by FlexMaster</li> </ul>
CONFIGURATION	<ul style="list-style-type: none"> <li>Web User Interface (HTTP/S)</li> <li>CLI (Telnet/SSH), SNMP v1, 2, 3</li> <li>TR-069 vis FlexMaster</li> </ul>

WI-FI	
STANDARDS	<ul style="list-style-type: none"> <li>802.11b/g</li> </ul>
SUPPORTED DATA RATES	<ul style="list-style-type: none"> <li>54,48,36,24,18,12,11,9,6,5.5,2,1 Mbps</li> </ul>
CHANNELS	<ul style="list-style-type: none"> <li>US/Canada: 1-11</li> <li>Europe (ETSI X30): 1-13</li> <li>Japan X41: 1-13</li> </ul>
AUTO CHANNEL SELECTION	<ul style="list-style-type: none"> <li>Supported</li> </ul>
RF POWER OUTPUT	<ul style="list-style-type: none"> <li>27 dBm for wireless-B*</li> <li>27 dBm for wireless-G*</li> </ul>
TRANSMIT POWER CONTROL	<ul style="list-style-type: none"> <li>Supported</li> </ul>
BSSID	<ul style="list-style-type: none"> <li>Up to eight</li> </ul>
POWER SAVE	<ul style="list-style-type: none"> <li>Supported</li> </ul>
WIRELESS SECURITY	<ul style="list-style-type: none"> <li>WEP, WPA-PSK, WPA-TKIP, WPA2 AES, 802.11i</li> <li>Authentication via 802.1X, local authentication database, support for RADIUS and ActiveDirectory</li> </ul>
CERTIFICATIONS	<ul style="list-style-type: none"> <li>U.S., Europe, Australia, Brazil, Canada, China, Columbia, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, Mexico, New Zealand, Philippines, Russia, Singapore, South Africa, Taiwan, Thailand, UAE, Vietnam</li> <li>WEEE/RoHS compliance</li> </ul>

\* Maximum power varies by country

## Product Ordering Information

MODEL	DESCRIPTION
<b>ZoneFlex 2741 802.11g Outdoor Access Point</b>	
901-2741-XX01	Centrally managed 802.11g outdoor access point, includes universal pole/wall/ceiling mounting bracket and power injector
<b>Optional Accessories</b>	
902-0166-0000	Flat mounting bracket
902-0159-XXYY	PoE injector (sold in quantities of 10 or 100)

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