

ZoneFlex™ 7731

Smart 802.11n 5GHz Outdoor Point-to-Point,
Point-to-Multipoint Wireless Bridge



Centrally Managed, High Performance 802.11n 5GHz Outdoor Wireless Bridge

The Ruckus ZoneFlex 7731 is the first centrally-managed, outdoor point-to-point and point-to-multipoint bridge that unleashes the promise of 5GHz 802.11n, delivering unparalleled throughput. Backhaul throughput of over 100 Mbps opens opportunities to new business models, bridging remote locations and providing broadband services to locations not reachable before, in an affordable way.

Designed for harsh outdoor conditions, the Ruckus ZoneFlex 7731 is perfect for service providers looking to easily extend branded broadband services, backhaul 3G networks, offload data traffic from 3G networks, deploy multimedia hotspots, or offer wireless broadband services where fixed line access is limited.

The ZoneFlex 7731 is also ideal for hotels, schools, warehouses and other enterprises looking to extend managed wireless LANs (WLANs) across remote buildings and where Ethernet cabling is not possible.

Auto-pairing of wireless bridges, in addition to flexible mounting options, forgiving antenna pattern, and an easy-to-use aiming software, allows installers to deploy and optimize a wireless link in a short time, significantly increasing productivity and reducing deployment costs.

The ZoneFlex 7731 can be managed through its own WebGUI or is centrally managed by Ruckus FlexMaster, providing a complete view of the entire wireless network including ZoneDirector and other indoor and outdoor ZoneFlex APs.

BENEFITS

Wire-like throughput over the air

Based on the 802.11n standard, the ZoneFlex 7731 supports data rates up to 300 Mbps. With Ruckus' purpose-built directional antenna, the ZoneFlex 7731 supports up to 190 Mbps at 1.5 kilometers, and offers performance up to 50 Mbps at 10 km (LoS).

Easy installation and pairing

Lightweight and designed with simple and flexible mounting options, the ZoneFlex 7731 enables installers to deploy the wireless bridges effortlessly.

Simple positioning and aiming

With a 30-degree, 3dB beamwidth antenna and sophisticated LED-based aiming software, aiming and optimizing performance has never been easier. And with Auto Channel Selection and Dynamic Channel Management, ZoneFlex 7731 finds and selects the best performing channel automatically.

Secure and scalable

AES-based, the wireless bridge link is secure and can scale to support multiple networks segmented by VLANs.

Centrally managed network

The Ruckus ZoneFlex 7731 bridge can be fully managed by FlexMaster and supports standard-based SNMP and HTTPS/XML/SOAP allowing operators to easily configure and manage the bridges as part of the larger network.

Unmatched ROI

The wireless link offers much higher data throughput rates than T1/E1 or xDSL lines at only a fraction of the fixed line installation cost and without the recurring leased line cost. The ZoneFlex 7731 is also an ideal option for backhauling 3G networks.

Environmentally-friendly design

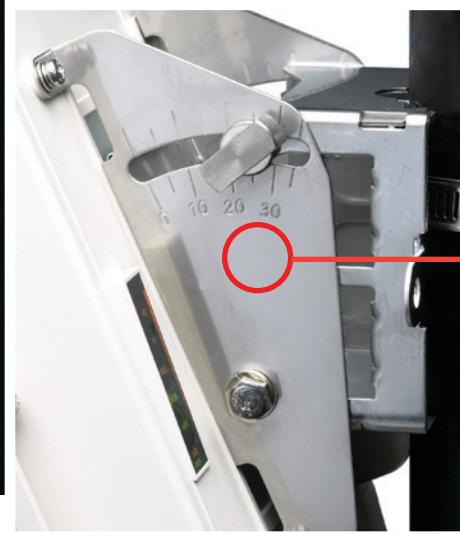
The internal dual polarized antenna not only does away the need for installing an external antenna, further simplifying the installation procedure, but also offers an aesthetically pleasing look and feel.

ZoneFlex 7731

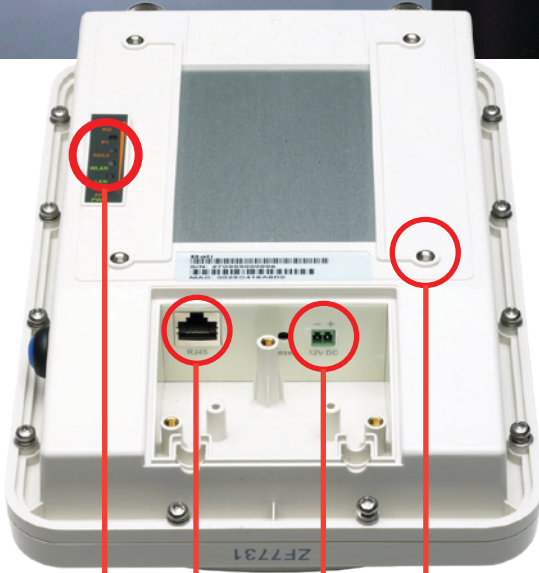
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Aiming button



Easy to install, flexible mounting bracket



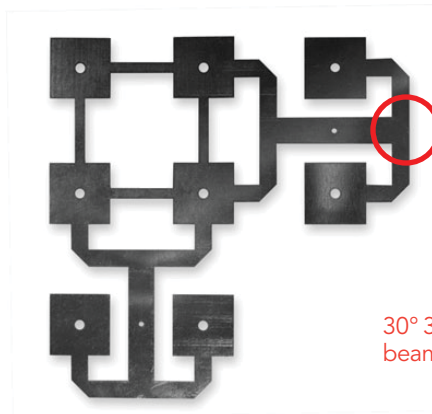
10/100/1000 Mbps PoE port

Bracket mounting points

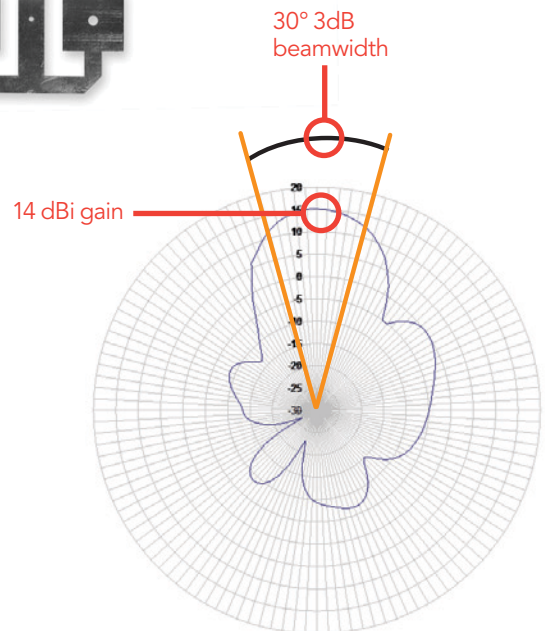
12V DC external power



System LEDs



Dual polarized directional smart antenna

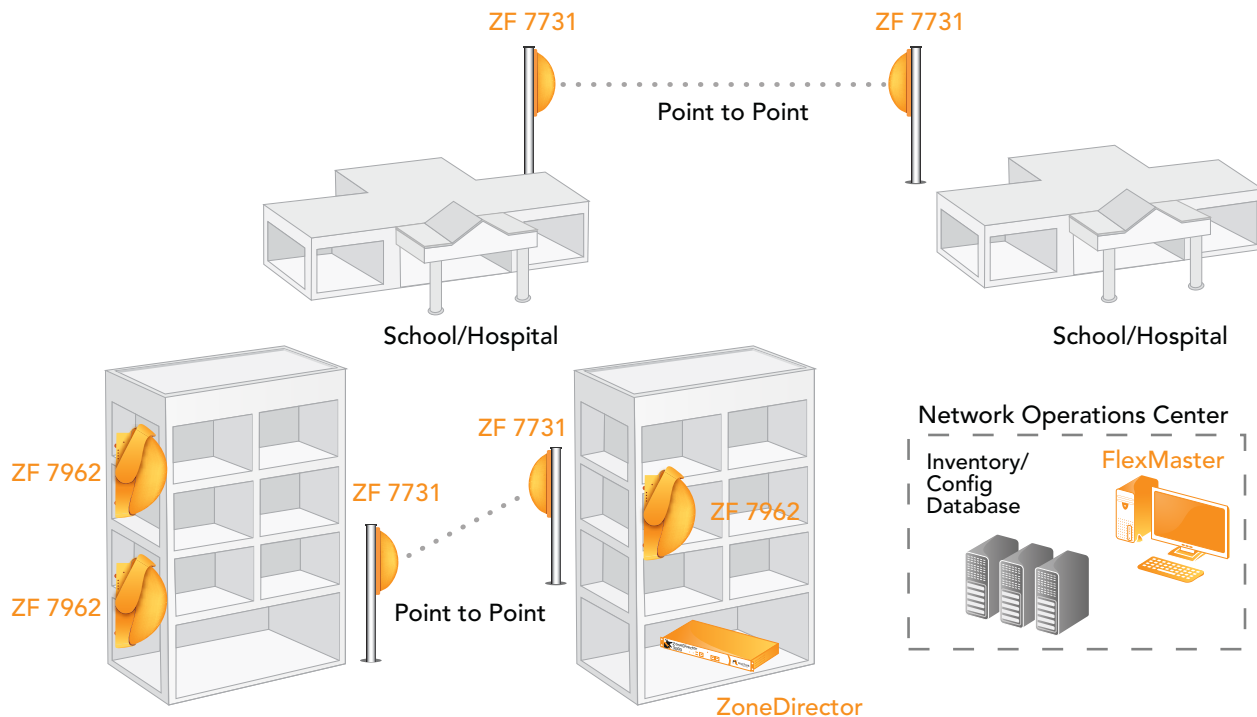


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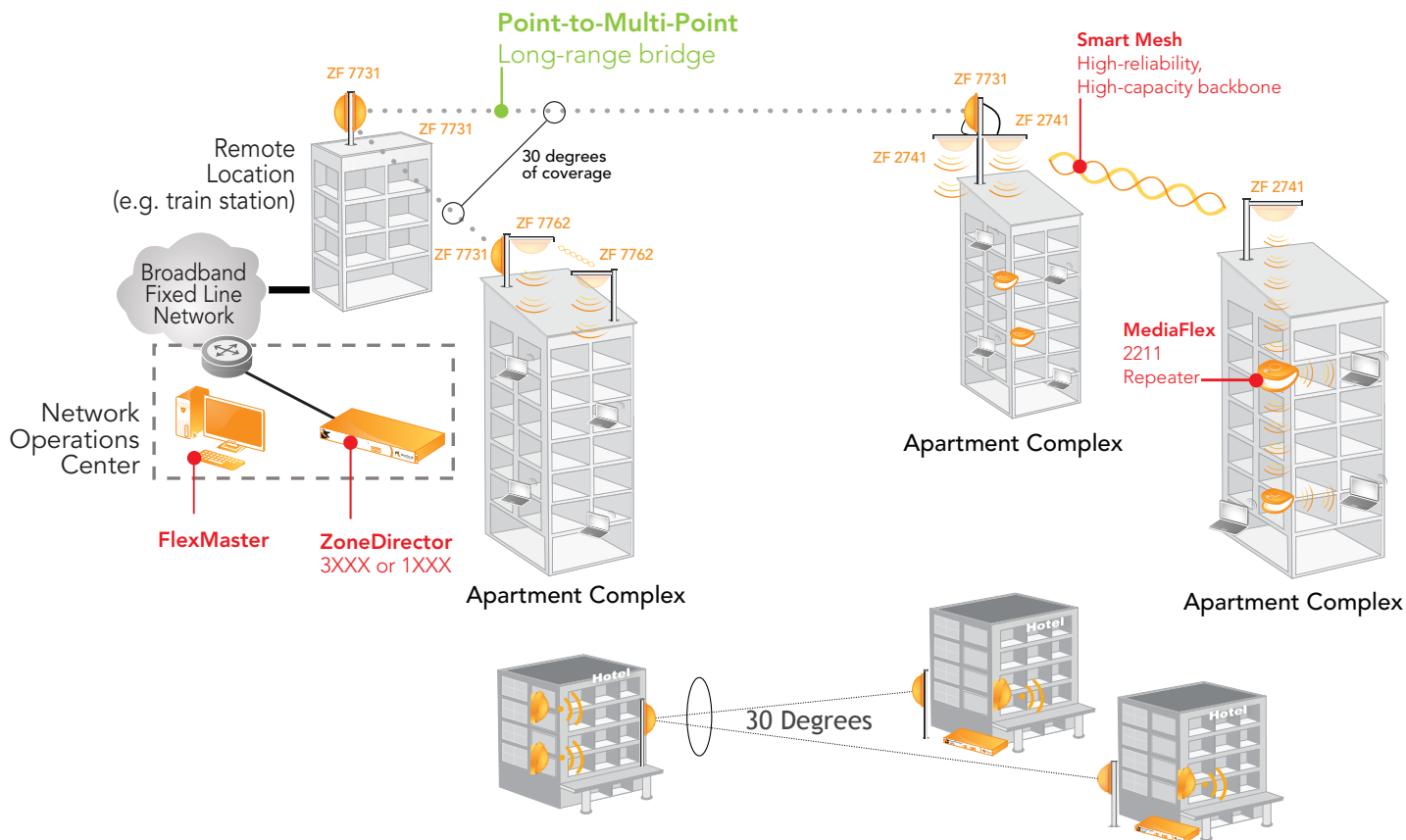
BUILDING TO BUILDING BRIDGING

ZoneFlex 7731 provides an ideal solution for either the primary link or the redundant link between the two LANs in different buildings.



WIRELESS BROADBAND ACCESS

ZoneFlex 7731 allows providers to reliably deliver new wireless broadband services in areas where fixed line access is non-existent or cost-prohibitive.



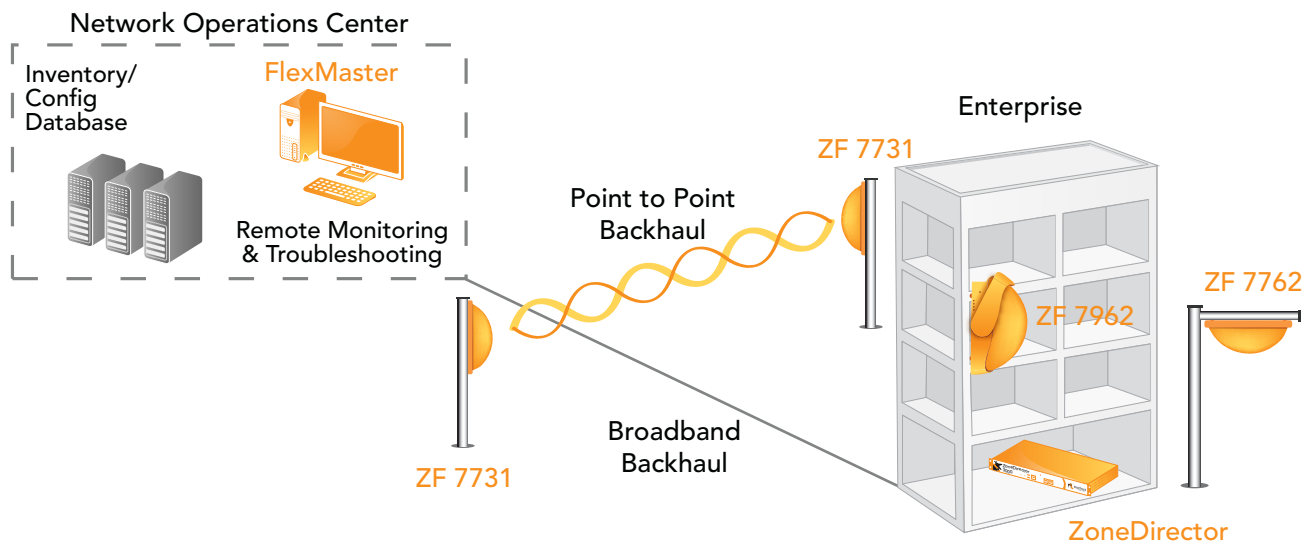
3G BACKHAUL AND OFFLOAD

ZoneFlex 7731 offers cost-effectiveness, reliability and better performance for 3G network offload and backhaul.



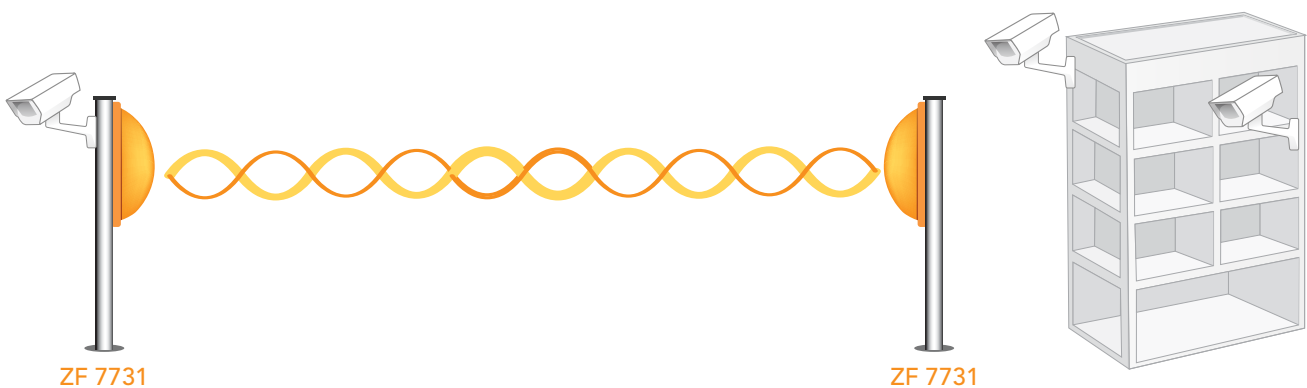
BACKUP LINK FOR DISASTER RECOVERY

ZoneFlex 7731 serves as a high performance back up link for enterprise disaster recovery.



VIDEO SURVEILLANCE

ZoneFlex 7731 offers reliable wireless streaming of surveillance video back to a central post.



Specifications

PHYSICAL CHARACTERISTICS	
POWER	• Power over Ethernet and 12VDC
PHYSICAL SIZE	• 27.1 cm (L), 17.2 cm (W), 13.15 cm (H)
WEIGHT	• 877 grams (1.93 lbs.) (no external mounting hardware)
ANTENNA	• 14 dBi internal directional antenna • 30 degree 3dB beamwidth • Two external N-Type antenna connectors
ETHERNET PORTS	• 1 port, auto MDX, auto-sensing 10/100/1000 Mbps, RJ-45 • Power over Ethernet (802.3af)
LOCK OPTION	• Integrated Kensington lock
ENVIRONMENTAL CONDITIONS	• IP-65 rated • Operating air temperature: -40°C – 65° C (-40°F – 149°F)
POWER DRAW	• 7W without heating • 12W with heating

PERFORMANCE AND CAPACITY	
TARGET UDP THROUGHPUT	• Up to 190 Mbps at 1.5 km/1 mi • Up to 165 Mbps at 3 km/2 mi • Up to 100 Mbps at 5 km/3 mi • Up to 50 Mbps at 10 km/6 mi
MAXIMUM LINK DISTANCE	• 15 kilometers
POINT-TO-MULTIPOINT	• 30 degrees of coverage from the one root bridge with internal antenna to many receiving bridges

APPLICATIONS	
HOTSPOT	• WISPr
VOICE	• 802.11e/WMM • U-APSD

NETWORK ARCHITECTURE	
IP	• IPv4, IPv6, dual-stack
VLANs	• 802.1Q (1 per BSSID or dynamic, per user based on RADIUS) • Port-based
802.1X FOR ETHERNET PORTS	• Authenticator • Supplicant
TUNNELING	• L2TP, PPPoE

MULTIMEDIA AND QUALITY OF SERVICE	
802.11e/WMM	• Supported
SOFTWARE QUEUES	• Per traffic type (4), per client
TRAFFIC CLASSIFICATION	• Automatic, heuristics and TOS based or VLAN-defined
RATE LIMITING	• Dynamic, per-user or per-WLAN

MANAGEMENT	
DEPLOYMENT OPTIONS	• Standalone (individually managed) • Managed by FlexMaster
CONFIGURATION	• Web User Interface (HTTP/S) • CLI (Telnet/SSH), SNMP v1, 2, 3 • TR-069 vis FlexMaster
AUTO AP SOFTWARE UPDATES	• FTP or TFTP, remote auto available

WI-FI	
STANDARDS	• IEEE 802.11a/n • 5GHz operation
SUPPORTED DATA RATES	• 802.11n: 6.5Mbps – 130Mbps (20MHz) 6.5Mbps – 300Mbps (40MHz) • 802.11a: 54, 48, 36, 24, 18, 12, 9 and 6Mbps
MODULATION	• OFDM
RADIO CHAINS	• 2 x 2
SPATIAL STREAMS	• 2
RF POWER OUTPUT	• 22 dBm*
CHANNELIZATION	• 20MHz and/or 40MHz
FREQUENCY BAND	• IEEE 802.11n: 5.15 – 5.875 GHz • IEEE 802.11a: 5.15 – 5.875 GHz
OPERATING CHANNELS	• 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, 169, 173
WIRELESS SECURITY	• WPA2 AES, 802.11i
CERTIFICATIONS	• U.S., Europe, Australia, Brazil, Canada, China, Hong Kong, India, Korea, Mexico, New Zealand, Philippines, Singapore, South Africa, Taiwan, Thailand, UAE, Vietnam • WEEE/RoHS compliance

* Maximum power varies by country

Product Ordering Information

MODEL	DESCRIPTION
ZoneFlex 7731 802.11n 5 GHz Outdoor Wireless Bridge	
901-7731-XX02	Pre-Provisioned Pair of Two 802.11n 5 GHz Outdoor Wireless Bridges†
901-7731-XX01	Single unit of 802.11n 5 GHz Outdoor Wireless Bridge†
901-7731-XX32	Pre-Provisioned Pair of Two Outdoor Bridges and Two 922-2101-DP01 21 dBi Directional Antennas‡
901-7731-XX42	Pre-Provisioned Pair of Two Outdoor Bridges and Two 922-2101-DP01 24 dBi Directional Antennas‡
Optional Accessories	
911-2101-DP01	5 GHz high gain directional antenna, dual-polarized 21 dBi gain and 10 degrees 3 dBm beam width†
911-2401-DP01	High gain directional antenna, dual-polarized 24.5 dBi V gain/23.5 dBi H gain and 7-9 degrees 3 dBm beam width†
911-1212-DP01	5 GHz directional antenna, dual-polarized 12.5 dBi gain and 120 degrees 3 dBm beam width†
902-0168-0000	Universal pole/wall/ceiling mounting bracket, spare
902-0162-XXYY	Power injector, spare (sold in quantities of 10 or 100)

† includes universal pole/wall/ceiling mounting kit and power injector

‡ including one dual plane adjustable wall/pole mounting kit and two 1m RF cables with N-Type connectors.

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 FX.

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