



Mosina, 3.03.2015

IK.0003.39.2015

**Burmistrz Gminy
Mosina****Sz.P.****Małgorzata Kaptur****Przewodnicząca Rady Miejskiej****w Mosinie**

Dotyczy: Wniosku Radnego Michała Kleibra nr BR.0003.50.2015 z dnia 27.02.2015 r.

W odpowiedzi na kierowane obawy dotyczące potencjalnych zagrożeń dla zdrowia powodowanych przez instalowane w ramach realizacji projektu "Przeciwdziałanie wykluczeniu cyfrowemu na terenie Gminy Mosina" urządzenia radiowe, przesyłam informacje w niniejszym zakresie.

Montowane w ramach inwestycji urządzenia radiowe Ruckus ZF7731 są urządzeniami pracującymi w standardzie WiFi spełniającymi wszystkie regulacje i ograniczenia dotyczące mocy nadawania i pracy w pasmach 2,4 GHz oraz 5GHz, wynikające z regulacji prawa polskiego. Urządzenia te są certyfikowane przez organizację WiFi Alliance (<http://www.wi-fi.org/wi-fi-and-health>), która dopuszcza urządzenia do użytku i daje im możliwość pracy w pasmach sieci WiFi. W załączeniu przesyłam karty katalogowe urządzeń, potwierdzające ich zgodność z "WiFi Alliance".

Jednocześnie informuję, iż sieci WiFi pracujące w wymienionych pasmach są powszechnie stosowane, a sama szkoła jest w zasięgu wielu innych sieci WiFi, chociażby poprzez wykorzystanie w sąsiedztwie domowych routerów WiFi, które są objęte identycznymi ograniczeniami jak wzmocnione routery montowane w ramach realizacji projektu: "Przeciwdziałanie wykluczeniu cyfrowemu na terenie Gminy Mosina".

Ponadto Światowa Organizacja Zdrowia (WHO), opublikowała artykuł w którym nie stwierdzono zagrożeń ww. urządzeń dla zdrowia (<http://www.who.int/pehemf/publications/facts/fs304/en3> z).

Dzięki zamontowaniu anteny z routerami WiFi na budynku, szkoła uzyska dostęp do bezprzewodowego Internetu, dzięki czemu dzieci będą mogły uczyć się przy wykorzystaniu najnowszych technologii informacyjnych. Jednocześnie informujemy, iż w ramach projektu „Przeciwdziałanie wykluczeniu cyfrowemu na terenie Gminy Mosina” Szkoła Podstawowa w Krośnie otrzyma 12 szt. nowoczesnych komputerów.

Z poważaniem,

BURMISTRZ
mgr inż. Jerzy Rys

Otrzymują

1. IK. a/a
2. Adresat
3. Radny Michał Kleiber

Załączniki:

1. karta katalogowa urządzenia

Sprawę prowadzi:

Katarzyna Lewandowska, tel. 8 109 537, e-mail: euro@mosina.pl



data sheet

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

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

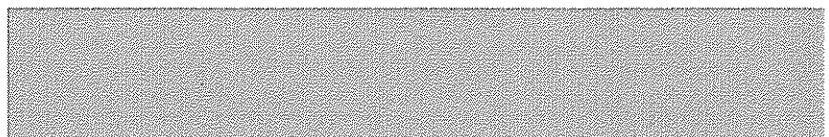
The ZoneFlex 7762 Series is the first dual-band 802.11n outdoor access point (AP) to integrate adaptive antenna technology to enable much longer range signals, better signal penetration inside buildings, and more resilient mesh connections that automatically adapt to interference and changing environmental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

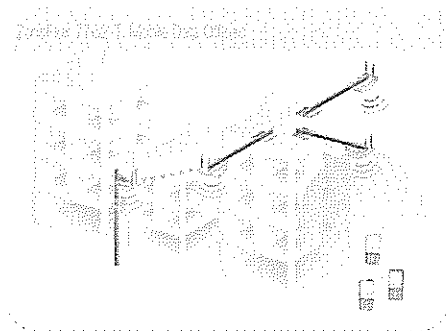
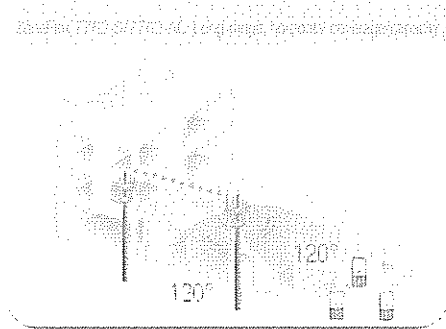
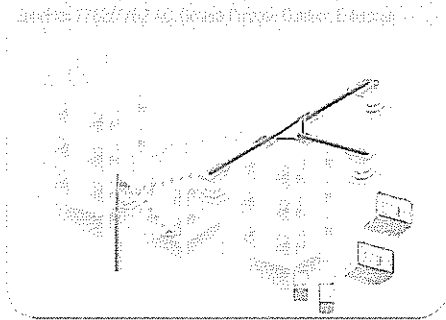
The ZoneFlex 7762 Series can be centrally managed by the ZoneDirector Smart WLAN controller as part of a unified indoor/outdoor wireless LAN or deployed as a standalone AP and managed individually or through the FlexMaster remote Wi-Fi management system.

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.

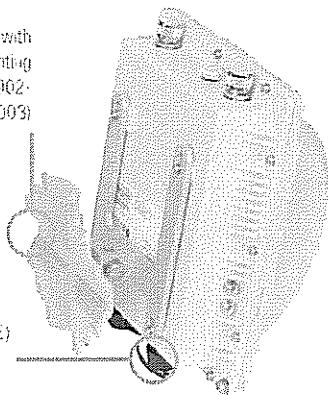


ZoneFlex™ 7762 Series

DUAL-BAND 802.11N SMART WI-FI OUTDOOR AP



Low profile bracket with "Any Angle" mounting bracket for AC models (902-0162-0003)



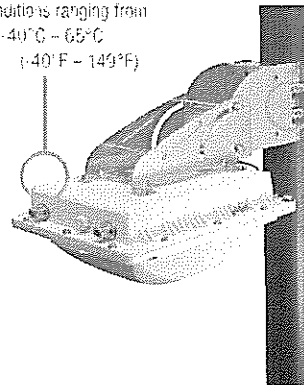
Power over Ethernet (PoE) output for metro picocell base station

- 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-S-AC & 7762-AC)

PHYSICAL CHARACTERISTICS	
POWER	<ul style="list-style-type: none"> Power over Ethernet and 100-240 VAC, 50/60Hz
PHYSICAL SIZE	<ul style="list-style-type: none"> 23.9 cm (L), 19.5 cm (W), 14.1 cm (H)
WEIGHT	<ul style="list-style-type: none"> 2177 grams (4.8 lbs.)
ANTENNA	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 12.95W (PoE) 14W typical / 43W peak (AC)
RF (7762-AC)	
ANTENNA	<ul style="list-style-type: none"> Adaptive antenna array that provides 4,000+ unique antenna patterns
PHYSICAL ANTENNA GAIN	<ul style="list-style-type: none"> Up to 3 dBi (2.4 GHz) Up to 5 dBi (5 GHz)
RF POWER OUTPUT**	<ul style="list-style-type: none"> 28 dBm (2.4 GHz) 26 dBm (5 GHz)
BEAMFLEX* SINR TX GAIN	<ul style="list-style-type: none"> Up to 6 dB
BEAMFLEX* SINR RX GAIN	<ul style="list-style-type: none"> Up to 4 dB
INTERFERENCE MITIGATION	<ul style="list-style-type: none"> Up to 15 dB
MINIMUM RX SENSITIVITY	<ul style="list-style-type: none"> 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

RF (7762-S-AC)	
ANTENNA	<ul style="list-style-type: none"> Adaptive antenna array that provides 24 unique antenna patterns
PHYSICAL ANTENNA GAIN	<ul style="list-style-type: none"> Up to 7 dBi (2.4 GHz) Up to 5 dBi (5 GHz)
RF POWER OUTPUT**	<ul style="list-style-type: none"> 28 dBm (2.4 GHz) 26 dBm (5 GHz)
BEAMFLEX* SINR TX GAIN	<ul style="list-style-type: none"> Up to 6 dB
BEAMFLEX* SINR RX GAIN	<ul style="list-style-type: none"> Up to 4 dB
INTERFERENCE MITIGATION	<ul style="list-style-type: none"> Up to 15 dB
MINIMUM RX SENSITIVITY	<ul style="list-style-type: none"> 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

CAPACITY	
CLIENT SUPPORT	<ul style="list-style-type: none"> 500
SIMULTANEOUS VoIP CLIENTS	<ul style="list-style-type: none"> Up to 20

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

WI-FI	
STANDARDS	<ul style="list-style-type: none"> IEEE 802.11a/b/g/n 2.4GHz and 5GHz concurrent operation
SUPPORTED DATA RATES	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 3 x 3:2
FREQUENCY BAND	<ul style="list-style-type: none"> 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
BSSID	<ul style="list-style-type: none"> Up to eight per radio (16 total)
POWER SAVE	<ul style="list-style-type: none"> Supported
WIRELESS SECURITY	<ul style="list-style-type: none"> WEP, WPA-PSK, WPA-TKIP, WPA2 AES, 802.11i Authentication via 802.1X, local authentication database, support for RADIUS and ActiveDirectory
CERTIFICATIONS	<ul style="list-style-type: none"> 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

MODEL	DESCRIPTION
ZoneFlex 7762-AC and 7762-S-AC 802.11n Outdoor Access Points	
901-7762-XX03	7762-AC: Centrally managed concurrent dual band 802.11n outdoor access point, includes any angle pole/wall mounting bracket (902-0182-0003)
901-7762-XX53	7762-S-AC: Centrally managed concurrent dual band 802.11n outdoor access point, includes any angle pole/wall mounting bracket (902-0182-0003)
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

PLEASE NOTE: When ordering you must specify the destination region by indicating -US, -WW, or -IL

