

## FlexNET - A flexible platform for point to point and Wi-Fi Hotzone applications.

Airspan's FlexNET is a highly flexible outdoor 802.11a/b/g base station platform which can be configured for point to point, repeater and Wi-Fi Hotzone deployments. Built within a robust weatherproof enclosure FlexNET withstands harsh environmental conditions and temperature fluctuations. These conditions are normally associated with remote outdoor backhaul and repeater sites, as well as urban Wi-Fi Hotzone access locations

Used in conjunction with Airspan's RoamNET software, it provides network-wide seamless Wi-Fi handoff between access locations within a Wi-Fi Hotzone.

FlexNET houses up to two radio transceivers plus a single integrated 5 GHz directional antenna. External 2.4 GHz or 5 GHz can be connected for configurations requiring dual radio units and Wi-Fi Hotzone applications.

### FlexNET Outdoor Unit



### Backhaul Applications

FlexNET can be deployed as part of a high capacity IP backhaul network. It utilises 64-OFDM technology to provide robust performance in near line of sight and line of sight conditions. FlexNET supports single or dual radios to provide single link, repeater and dual link deployment configurations

### Wi-Fi Hotzone Access Applications

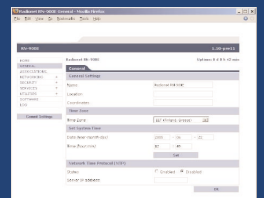
FlexNET, in conjunction with Airspan's RoamNET hand over protocol, provides a robust platform for deploying urban outdoor Wi-Fi Hotzones. Dual band radio units provide the ability to run 802.11a or 802.11b/g Wi-Fi Hotzone networks in single or dual RF configurations.

### Typical Unit Configurations

- Single Point to Point: 1x RF + Integrated Antenna
- Full Duplex Point to Point: 2x RF + External Antennas
- Repeater: 2x RF + Integrated & External Antenna Combinations
- Wi-Fi Hotzone Access Point: 2x RF + External Sector Antennas

### Advanced Technology

- Flexible, cost effective solutions combining Hotzone and link applications from a single unit.
- Single & Full Duplex Point to point for data rates up to 2x 54Mbps
- Point to point applications up to 25km.
- Repeater Applications
- Outdoor Wi-Fi Access Seamless Handoff with Wi-Fi Hotzone deployments.
- Extends, replaces and backs up existing backbone infrastructure.



Easy to use, web browser based configuration

# Technical Specification

## Radio Technology

<b>Application area:</b>	City wide and enterprise outdoor network, point-to-point, repeater		
<b>Radio and modulation type:</b>	IEEE 802.11b DSSS, IEEE 802.11a/g OFDM		
<b>Sensitivity:</b>	-88, -87, -86, -85, -82, -78, -73, -69 dBm @ 5.80 GHz, -91, -89, 97, 85 and -88, -87, -86, -85, -82, -78, -73, -69 dBm @ 2.40 Ghz		
<b>Data transfer rates:</b>	6, 9, 12, 18, 24, 36, 48, 54 Mbps @ 5.8 GHz, 1, 2, 5.5, 11 and @ 6, 9, 12, 18, 24, 36, 48, 54 @ 2.40 Ghz		
<b>Output Power Control:</b>	0, 7, 10, 13, 16 dBm at antenna port.		
	<b>United Kingdom</b>	<b>North America</b>	<b>Europe</b>
<b>Frequency bands:</b>	5.725-5.850 GHz 4 non-overlapping channels, and 2.400-2.485 Ghz, 13 channels ETSI	5.725-5.850 GHz, 5 channels, and 2.400-2.485 Ghz, 11 channels FCC	5.470-5.725 GHz, 11 non-overlapping channels and 2.400-2.485 Ghz, 13 channels ETSI
<b>Dynamic Frequency Selection (DFS):</b>	Yes	Not Applicable	Yes
<b>Transmit Power Control (TPC):</b>	Yes	Yes - with integrated antenna- (Max power output 36 dBm (4 W E.I.P.), 16 dBm + 20/22 dBi antennas)	Yes
<b>Effective link range distances:</b>	Point-to-point mode 6-23 km (integral antenna), 8-29 km with external antenna, In Pont-to-Multipoint mode 3-16 km with external antenna. Depending on throughput	Point-to-point mode 7-26 km (integral antenna), 9-34 km with external antenna, In Pont-to-Multipoint mode 4-19 km with external antenna. Depending on throughput	Point-to-point mode 4-20 km (integral antenna), 7-25 km with external antenna, In Pont-to-Multipoint mode 2-13 km with external antenna. Depending on throughput
<b>Antenna:</b>	For 2.4 GHz 12 dBi 90 ° beamwidth sector antenna, Max 100 mW (20 dBm) output power"  For 5.8 GHz: three options: 20 dBi integral antenna narrow beamwidth (15 °) link antenna, 22 dBi external link antenna, 14 dBi external 90 ° sector antenna, max 2 W (33 dBm) output power at 5.8 GHz, at 5.470-5.725 max 1W (30 dBm)	For 2.4, external GHz 12 dBi 90 ° beamwidth sector antenna, Max 1 W EIRP (30 dBm) output power,  For 5.8 GHz: three options: 20 dBi integral antenna narrow beamwidth (15 °) link antenna, 22 dBi external link antenna, 14 dBi external 90 ° sector antenna, max 4 W (36 dBm) output power at 5.8 GHz	For 2.4 GHz 12 dBi 90 ° beamwidth sector antenna, Max 100 mW (20 dBm) output power"  For 5.470-5.725 GHz: three options: 20 dBi integral antenna narrow beamwidth (15 °) link antenna, 22 dBi external link antenna, 14 dBi external 90 ° sector antenna, at 5.470-5.725 max 1W (30 dBm)

## Networking & Security

<b>Link Mode:</b>	<b>Access Mode:</b>
Wireless Bridge Dynamic routing (OSPFv2) WPA-PSK (AES, Advanced Encryption VPN passthrough	Static routing DHCP server and Relay RoamNET (Wi-Fi connection handover protocol) Bandwidth management Mac address based authentication VPN passthrough

## Management

Wireless, Ethernet Web based (HTTP, HTTPS) , Encrypted (SSH2) command-line interface, Multiple administrative classes, Central web based (HTTPS) via network controller, UserID/password authentication, SNMP v2c, MIB II, traps, Remote software and settings update

## Security

Mac address based authentication, VPN passthrough, WPA-PSK (AES, Advanced Encryption Standard) on links

## Mechanical & Electrical Specifications

<b>Interfaces:</b>	2 * Ethernet interfaces (10/100 Base T), Two N-connectors
<b>Physical dimensions:</b>	258mm x 426mm x 131mm (W & H & D), weight 3kg
<b>Electrical specifications:</b>	(Power consumption max 33W, 12-30VDC, outdoor proof power supply included 110 - 240VAC in, 24VDC out)
<b>Mounting:</b>	Brackets included for poles up to Ø65mm

## Environmental Specifications

10...90 % relative humidity (non-condensing) -40°C to +55°C, IP65.

## Standards Compliance

IEEE 802.11 a/b/g, IEEE 802.3, EN 300 328, EN 301 893, EN 301 489: 1& 17, IEC 60068, IEC/EN 60950 with USA and IC Canadian CB certificate, FCC 15.C, IC RSS 210, cTUVus certificate,



**Worldwide Headquarters;**  
**Airspan Networks Inc.**  
777 Yamato Road, Suite 105,  
Boca Raton, FL 33431-4408, USA  
Tel: +1 561 893 8670  
Fax: +1 561 893 8671

**Main Operations;**  
**Airspan Communications Limited**  
Cambridge House, Oxford Road,  
Uxbridge, Middlesex, UB8 1UN, UK  
Tel: +44 (0) 1895 467 100  
Fax: +44 (0) 1895 467 101

**Airspan Networks Oy;**  
**Airspan Communications Limited**  
Valkjärventie 7  
FIN - 02130 Espoo  
Tel. +358 (0)9 4392 1070  
Fax +358 (0) 412 6762

[www.airspan.com](http://www.airspan.com)