Air4Gp
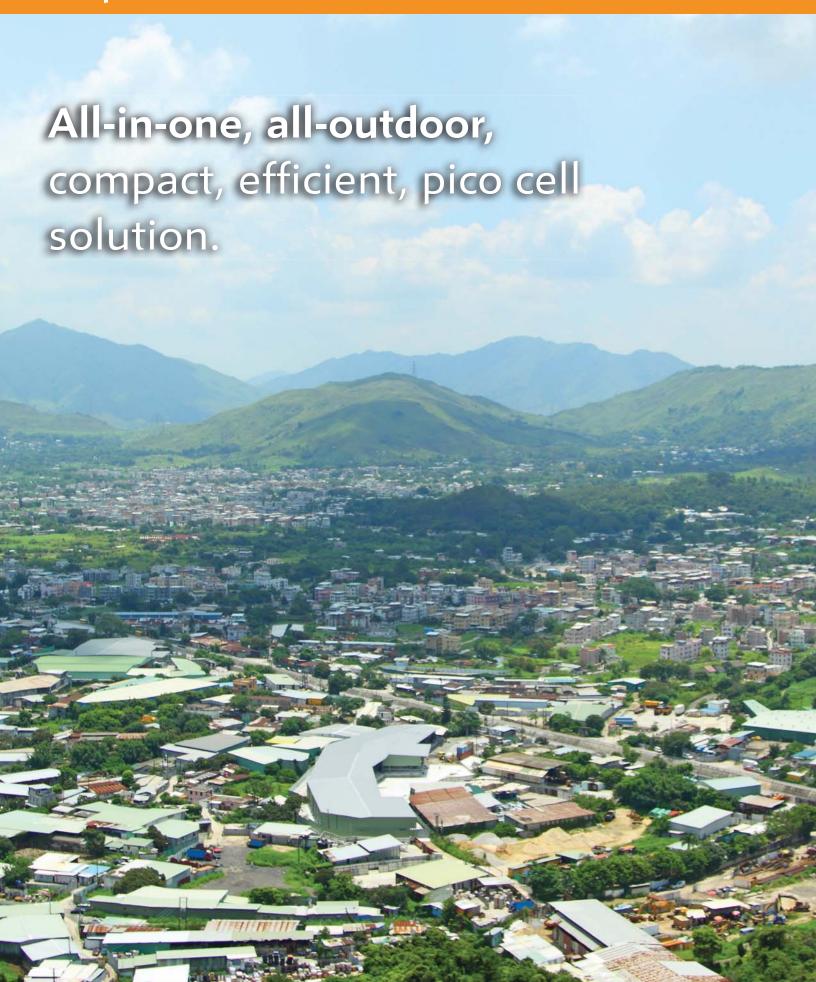
Power and Functionality in a Pico Cell

Compact, cost-optimized

Pico wireless base station solution for licensed and unlicensed bands

Airspan

All-in-one, all-outdoor, compact, efficient, pico cell solution.

Cost-Optimized Functionality in a Pico Base Station

Airspan Networks has a comprehensive suite of 4G products, enabling carriers and industrial network operators to access the equipment they need to best and most efficiently run their networks. With Airspan, reliable connectivity is delivered where it is needed most. With a combination of pico, micro and macro base stations, operators can deploy the right broadband wireless network equipment, at the right location, at the right price.

Air4Gp is one of the newer products in the Air4G family. Offering high-performance in a flexible pico form factor, Air4Gp enables operators to deploy 4G networks in both licensed and unlicensed bands. Air4Gp is an all-outdoor, all-in-one, small, light form factor that operates at an extremely attractive cost-to-performance ratio.

Air4Gp comprises two built-in radios, both with dual MAC/PHY capabilities. As such, it can support up to four carriers that can be deployed to cover a single sector or two distinct sectors. The pico cell base station is built to overcome harsh interference conditions with its 4x4 MIMO capability. The transmit power of the Air4Gp is designed to fully comply with unlicensed band regulations.

High Performance, Small Package

Air4Gp, as is the entire Air4G family, is an all-outdoor base station supporting both 3GPP LTE and IEEE mobile WiMAX platforms. The Air4Gp, allows operators to have several very flexible deployment options for running on up to 20 MHz channels and operating either 4G LTE, WiMAX or both simultaneously.

Air4Gp is designed to easily integrate into an existing Airspan powered network. Leveraging the existing infrastructure, Air4Gp utilizes the same core network, user devices and antennas, while being managed through the same powerful network management system, called Netspan.

> Air4Gp is a software defined radio (SDR) product allowing for simple, software-only updates and upgrades. The product is an all-in-one, all-outdoor solution mitigating additional housing and cooling costs associated with split architecture infrastructure. This design and its low power consumption significantly reduce operating and capital costs.

The Air4Gp has an optional built-in antenna, and can connect up to two external antennas, allowing for versatile deployment configurations. Additionally, Air4Gp operates with a large selection of Airspan end user devices and has proven interoperability with units of every type of form factor including outdoor CPEs, USB dongles, wireless modems and routers, and indoor CPEs with/without VoIP and Wi-Fi.

Air4Gp has a proven high level of integration with various core network products, enabling the highest level of control over the network and traffic. Air4Gp also has a unique powerful standalone mode where no ASN gateway or EPC are required.

The standalone mode can be used for fixed/nomadic applications when there is no need for true mobility features such as seamless handover and idle mode support.

Air4Gp has four transmit and receive paths with transmit power as high as 4x22 dBm, and boasts extensive MIMO capabilities for both LTE and WiMAX, including link budget and capacity improvements.

Comprehensive Solution - Heterogeneous Networks

The layering of small base stations into a macro cell coverage area, enables a significant increase in data throughput by filling in coverage gaps and addressing actual traffic distribution where demand is highest. These combined cell networks are called heterogeneous networks (HetNets). Air4Gp is ideal for these networks, delivering connectivity where needed most, whether at the macro cell edge or closer to the user base.

Airspan offers a large selection of base stations to match the data traffic demands of any network. With a HetNet, consisting of a mixture of micro, pico and macro base stations, an operator can maximize coverage while minimizing expenses and improving customer satisfaction.

Air4Gp can be perfectly combined with the Air4G macro base station and the Air4Gs micro base station to best optimize a network and offer an operator comprehensive network coverage, capacity and functionality. In addition, all base stations can be managed from the same core network, incorporating only one network management solution with minimized core network components and training.

Air4Gp supports Power over Ethernet (PoE) as its power source for easy connectivity and omitting the need for a power plug. This allows the unit to pass electrical power safely, along with data, on Ethernet cabling.

This pico base station leverages the most leading-edge technology to incorporate techniques to ensure the most efficient use of the frequency band, such as Fractional/Soft Frequency Reuse (FFR/SFR), as well as precise accuracy and synchronization of the device, through GPS and IEEE1588-2008. Together, the features offered by the Air4Gp allow for an affordable, high-performance pico base station that provides flexibility with enhanced coverage and capacity.

RADIO SPECIFICATIONS

RADIO INTERFACE

LTE Version:	3GPP Release 9
WiMAX Version:	IEEE 802.16e
Operational Frequency Bands:	150 MHz to 6 GHz
	(Please contact your regional Airspan sales representative for specific frequency inquiries)
Duplex:	TDD & FDD
Channel BW	
LTE:	1.4, 3, 5, 10, 15, 20 MHz
WiMAX:	3.5, 5, 7, 10 MHz
Dual WiMAX:	2 x 7 & 2 x 10 MHz
Max Transmit Power:	4 x 22 dBm
MCS Support:	QPSK, 16-QAM, 64-QAM
Synchronization:	GPS & IEEE1588-2008

KEY FEATURES

- Dual MAC/PHY
- 4x4 MIMO
- Dual sector
- 4x4 or dual 2x2 options
- IP and Ethernet CS (including VLAN tagging/ untagging)
- Soft and Fractional Frequency Reuse (SFR/FFR)
- Standalone mode
- Optional integrated antenna with 16 dBi gain

PHYSICAL SPECIFICATIONS

External Antenna Configurations:	Dual-slant 65/90° sector antennas, and Dual-slant Omni antennas with Manual Electric Tilt (MET)
Dimensions:	426 x 336 x 128 mm / 16.8 x 13.2 x 5 in
Weight:	10.5 kg / 23.1 lb
Power Consumption:	45 Watts nominal
Operating Temperature Range:	-40°C to +55°C / -40°F to 131°F
Operating Humidity:	5-95%, non-condensing
IP Rating:	IP66

Note: Specifications are subject to change without notice and are for information purposes only.

Small Package, Big Performance Uncompromised Functionality

Airspan

For more information about Airspan, its products and solutions, please visit our web site:

www.airspan.com

or email:

sales@airspan.com

Airspan has sales offices in the following countries

- Finland
- Poland
- Russia
- United Kingdom
- United States
- Australia
- India
- Indonesia
- Japan
- Philippines
- Sri Lanka
- Dubai
- South Africa

About Airspan

With over 500 customers in over 100 countries and as a top vendor for carrier-class broadband wireless solutions, Airspan is recognized as a leader and pioneer in 4G and broadband wireless technologies.

Providing an expansive product portfolio, Airspan offers customers the widest selection of 4G products in the industry with an unsurpassed level of technology to benefit their business case. Airspan has solutions spanning the 700 MHz to 6 GHz frequency bands.

Contact Airspan today!

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