

AIRSPAN NETWORKS BROCHURE

Private Networks

Bridging Industry and Homes
Through Private Networks

Airspan

Best-in-Class Performance & Reliability

Welcome to Airspan, your trusted partner in 4G/5G RAN solutions. We're not just a provider, but a pioneer in the realm of private networks. Leveraging our state-of-the-art RAN hardware and software, coupled with a robust ecosystem of partners, we deliver comprehensive, end-to-end networking solutions.



A U.S. BASED COMPANY

350 Employees
Worldwide



END-TO-END SOLUTIONS

Multiple Generations of
Award-Winning Products



FULL PORTFOLIO OF PRODUCTS

Disruptive Technologies
Backed by Patents



OVER 20 YEARS OF EXPERIENCE

Developing RAN
Hardware and Software



What are Private Networks?

Designed using 4G and 5G technology, private networks provide connectivity to a defined set of private users in a specific indoor or outdoor area. The security, reliability, performance, and privacy of this type of network make it desirable for many companies and enterprises.



Why Private Networks?



Security and data control with full separation from wider public mobile networks and sensitive data located at customer premises



Access to services in locations not reachable by public networks—usually in indoors (where 80% of data is consumed), underground, or remote areas



Flexibility allows mobile networks to be used in dynamic environments where equipment needs to move, or be placed around fixed cabling (also provides lower TCO)



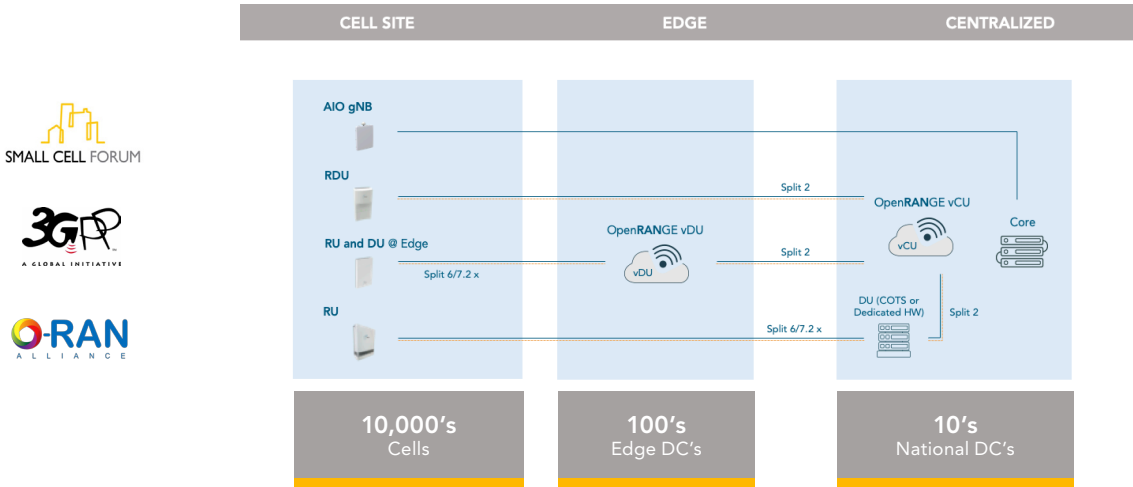
Improved QoS where license-exempt technologies, such as WiFi, cannot meet capacity, reliability, latency, failover, or throughput requirements



Customization of the network parameters can be configured at anytime to meet an organization's exact specifications

No Silver Bullet: Split Architecture Options

- Split architecture options, such as 2, 6, 7.2, or all-in-one gNB enable multi-vendor operation to future-proof TCO
- Based on open interfaces such as O-RAN, Small Cell Forum (nFAPI), 3GPP F1, and ONAP orchestration
- Breaks the chains of traditional supply chains, revolutionizing the way networks are built today



A Perfect Fit for Vertical Market Needs



Airspan's private network solutions significantly improve productivity and responsiveness, which leads to increased revenue and cost savings.

What challenges do vertical markets face?

- Connectivity
- Real-Time Analysis
- Remote Configuration
- Latency
- Reliability
- Security
- Energy Efficiency

What do vertical markets need?

- Flexibility
- Efficiency
- Agility
- Low Cost
- Sustainability
- Safety
- Security

What can Airspan's private networks provide?

- Enhanced Performance
- Interoperability
- Higher Spectrum Efficiency
- Increased Responsiveness
- Increased Security
- Accelerated Innovation Through Lower Costs

Private Networks Key Markets

Industry 4.0



Airspan, along with its partners, has successfully deployed hundreds of Private Networks, providing comprehensive end-to-end solutions that simplify deployment and address practical use cases beyond the reach of existing technologies.

Neutral Host Networks



Recognizing the rising demand for indoor coverage, Airspan empowers property owners with control through Neutral Host Networks. We've aligned with leading system integrators, certified by top-tier carriers, to facilitate seamless access to public networks.

5G FWA mmWave



Airspan tackles the imminent saturation of sub-6GHz bands with pioneering mmWave spectrum solutions. Our technology surges past bandwidth constraints and coverage limitations, delivering a fiber-like speed experience to satisfy the bandwidth needs of tomorrow.

Utilities



Our end-to-end modular approach is crafted with Utilities in mind, offering extensive coverage in critical sub-1GHz bands. Featuring a smart, compact design, our solutions are effortlessly deployable and seamlessly managed via our cloud platform.

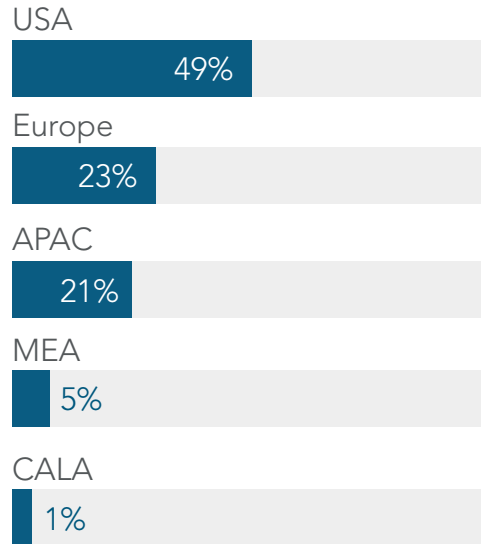
Mastering Private Networks: Airspan's Journey

EXPERIENCE

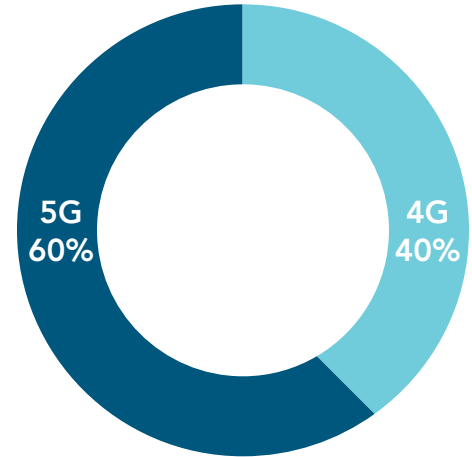
500

Private Network
Deployment

REGIONS



4G VS. 5G



2024 New Products

Utilities



AiRU 2720

- 4G
- Dual-band B20 + B28
- Single-band (B28, B8, B31, B72, B87)
- 2T4R, 2x 40W
- Split 7.2 RU

Private Networks



AirSpeed 2920

- 5G
- Bands: n77, n78, n48, n79, n41
- 4T4R, 4 x 15W
- AIO

mmWave FWA

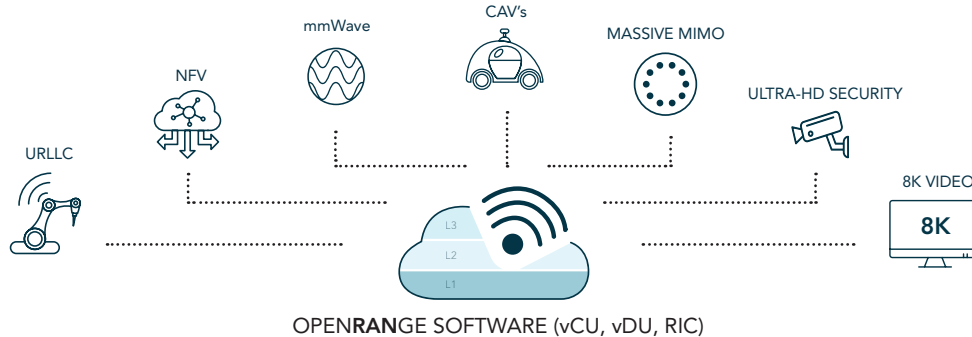


Air5G 9200 / 10200

- 5G
- Bands: n257, n258, n259, n260, n261
- 256/512 Antennas 61/64 dBm EIRP
- AIO

OpenRANGE Software

With over 20 years of experience on all three layers of radio software, and over 1,000,000 cells deployed, Airspan's OpenRANGE software is an evolution of our field-proven experience from LTE software to a containerized, cloud-native, architecture delivering innovation, scalability, high-service availability, and fast time-to-market. It is based on open technical specifications from 3GPP, O-RAN Alliance, and Small Cell Forum. Airspan's modular approach allows software to be embedded in a single radio (All-in-One) or disaggregated in vCU and vDU.



5G Hardware Solutions



Air5G 7200

- Outdoor
- RDU
- mmWave
- MU-MIMO
- Integrated Antenna Array



AirSpeed

- Outdoor
- vRAN or All-in-One
- Sub-6 GHz
- Single or Dual Sector
- Single or Dual Carrier



AirVelocity

- Indoor
- vRAN or All-in-One
- Sub-6 GHz/mmWave
- Integrated or External Antenna Array

4G Hardware Solutions



AirHarmony

- Outdoor
- Mini Macro
- Long Range
- Dual Sector/
Dual Carrier



AirSpeed

- Outdoor
- Base Station
- Dual Sector
- Integrated Backhaul
- Smart Beam Antennas



AirVelocity

- Indoor
- Base Station
- Wireline Backhaul
- Wall/Ceiling Mount

5G Global Partners



5G Core Networks Successfully Integrated

ALTRAN

amarisoft

ATHONET

ATTOCORE

BLUEARCUS

CISCO

COCUS

Druid

EXIUM

Hewlett Packard
Enterprise

HIGHWAY
9
NETWORKS

HyperBlox

MAVENIR

Microsoft

NERAGON

NOKIA

Open5GS

Polaris
Networks
a Motorola Solutions Company

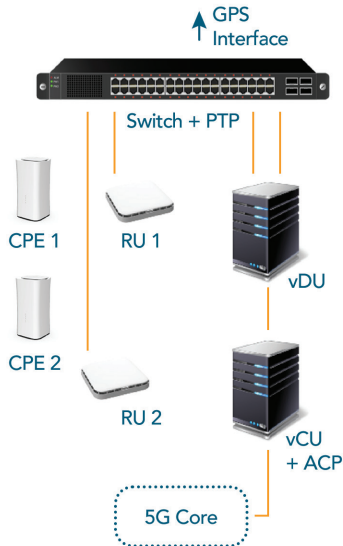
Get Started with the Starter Kit

Experience it to believe it. Airspan's NPN/private network, end-to-end, 5G, SA, network in a box makes it easy to get started. This complete kit will get you off the ground to experience the full benefits of this type of network. **Get started today by contacting sales@airspan.com.**



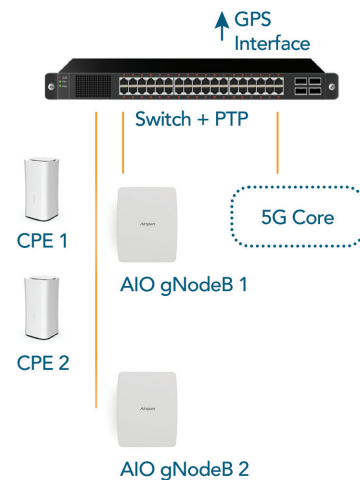
Disaggregated in vCU and vDU

- ✓ Indoor RU's
- ✓ Full Open RAN SW (Pre-Installed):
 - Air5G DU (vDU)
 - Air5G CU (vCU-UP + vCU-CP)
 - Airspan Control Platform (ACP)
- ✓ Servers to Host Open RAN SW
- ✓ Switch + PTP
- ✓ Indoor 5G CPE + SIM Cards
- Optional: 5G SA



Single Radio (All-in-One)

- ✓ Indoor AIO gNBs
- ✓ Airspan control Platform (ACP)
- ✓ Switch + PTP
- ✓ Indoor 5G CPE + SIM Cards
- Optional: 5G SA



The Airspan Advantage



100% PURE PLAY WIRELESS focus with an end-to-end portfolio of award-winning products



BASED ON OPEN TECHNICAL SPECIFICATIONS from 3GPP, O-RAN Alliance, and Small Cell Forum



CUSTOM SOLUTIONS address diverse needs of diverse customers



PRACTICALLY ZERO TIME TO MARKET to get up and running



U.S.-BASED with over 20 years of HW/SW experience and over one million cells deployed

Awards and Recognitions



OUTSTANDING CONTRIBUTION TO EMERGING TECHNOLOGY, ARCHITECTURE & OPEN NETWORKS



ONGO NEUTRAL HOST ARCHITECTURE/ SOLUTION: AWARDED TO CTS (WITH AIRSPAN, DRUID)



JUDGE'S CHOICE: AWARDED TO BEARCOM (WITH ATHONET, AIRSPAN, AND BEC)



EXCELLENCE IN COMMERCIAL DEPLOYMENT BY A PRIVATE NETWORK



EXCELLENCE IN COMMERCIAL DEPLOYMENT BY A MOBILE NETWORK OPERATOR



OUTSTANDING CONTRIBUTION TO NEW SMALL CELL BUSINESS CASES



2X INNOVATION AWARDS WINNER: DIGITAL DIVIDE (FWA) & PRIVATE NETWORKS



BEST MOBILE TECHNOLOGY BREAKTHROUGH



EXCELLENCE IN COMMERCIAL DEPLOYMENT Open RAN



EXCELLENCE IN RESIDENTIAL DEPLOYMENT Urban



EXCELLENCE IN RESIDENTIAL DEPLOYMENT Urban



EXCELLENCE IN RESIDENTIAL DEPLOYMENT Residential



Case Studies



Airports

Solutions for airports require ubiquitous, reliable, low-latency, high-speed, and secure connectivity to digitize and automate operations, assist airlines and other partners, and offer a tailored customer experience.

The private 5G network delivered the required connectivity to support many existing and new use cases in the terminals, ramp, airfield, and cargo areas. The highest priority use cases include: assets & baggage tracking, security & safety, check-in & boarding.

Allowing increased control over the network architecture, coverage, performance, security, and technology evolution with private 5G networks than public 5G networks. Allowing for more efficiency handling business-critical applications with a dedicated spectrum.



In-Building Coverage

This Private Network solution will improve the hotel guest experience by providing excellent indoor and outdoor high-speed voice and data coverage and hotspot capabilities on property, including connectivity to Public Networks from main carriers. With the exponential growth of video conferencing, 5G eliminates the typical problems related to virtual meetings. Additionally, hotel operators can streamline operations with rapid communication between different systems. The new technology allows for faster automated check-in and check-out procedures for Hilton Honors loyalty members, which cuts labor costs and eliminates lines that are irritating for guests. With 5G, all systems are interconnected and communicate seamlessly in real-time.



Ports

Working with a consortium of partners including ADVA, AttoCore, Cellnex, and Unmanned Life, as well as research groups from the University of Bristol and Cardiff University, Airspan turned the port area into a testing ground for a range of advanced use cases. These included security, using drones equipped with video surveillance technology to monitor the perimeter boundary of the site. The feed is analysed in real time to identify breaches and threats. Airspan also explored inventory tracking, using RFID tags and sensors. We even looked at managing traffic. Ports are busy places, with lots of lorries transporting cargo. By installing 5G routers in vehicle cabs, we were able to create a central traffic management system where lorries communicate autonomously, signalling their approach to junctions. The management system will give priority where needed, reducing congestion.

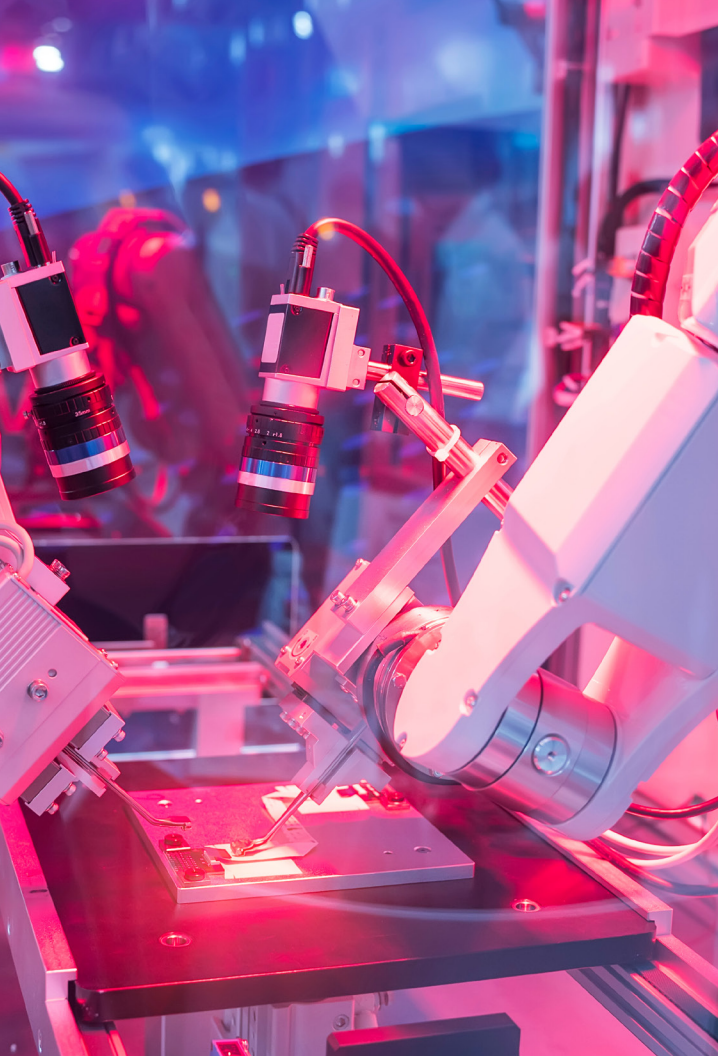


Connected Vehicles

Airspan is part of the Dense Air-led project for connected autonomous vehicles (CAV's) that is hosted at UTAC, formerly known as Millbrook Proving Ground. It is a unique development program for 5G technology and is based on small cells that operate on a neutral host basis, in a dense area with ultra-fast speeds.

Other Partners in the consortium include Telefonica/O2, Atkins, Blu Wireless, Real Wireless, the University of Surrey's 5G Innovation Centre, and the R&D arm of motorsport racing team McLaren.





Industry 4.0

Industry 4.0 is a tech-powered revolution with the capacity to bring manufacturing anywhere. The automation which sits at the core of the movement can concentrate supply lines closer to customers, reduce the need for manual labor in manufacturing, drive new business models and refine traditional business models to deliver next level goods and services. The high speed and low latency of private 5G networks, combined with strong security protocols, enable IoT deployments that drive manufacturing, warehousing and other environments to stronger productivity gains and optimal efficiency.



Smart Buildings

Offering higher capacity, increased coverage, and better security, Airspan's private networks are ideal for businesses looking for a faster, more reliable and secure network. Small footprint indoor and outdoor gNodeB's provide constant connectivity and ensures seamless wireless connections in high-demand environments that utilize technologies such as autonomous robots, augmented reality, internet of things (IoT), AI, machine learning, and more. Minimal latency allows real-time communication to boost production and drive growth.



Air To Ground, Inflight Connectivity

Current inflight connectivity solutions have high installation and service costs, and even higher latency. They simply do not deliver the performance required to satisfy current demands. While satellite systems are the only method to provide connectivity for long, overwater routes, they are inherently limited in capacity over dense terminal areas. The Air5G air-to-ground (A2G) solution leverages a high-performance, 5G standalone system using state-of-the-art, vRAN base station technology and massive MIMO antenna arrays. Utilizing advanced beamforming and tracking techniques, the system is capable of communicating to an aircraft traveling in excess of 1200 km/h, at a maximum range of 300 km at enhanced mobile broadband speeds. The system is built on the same technology as the Air5G OpenRANGE product line, which is based on 3GPP, O-RAN standards.



Healthcare

Traditionally, WiFi has been the transport of choice for all wireless communication in healthcare. With heavy reliance on handheld devices recently, there has been a decline in adoption, as WiFi fails to perform well. We have seen smart devices traded out for walkie talkies and pagers just to get as close as possible to 100% message delivery. The better and more reliable solution is NPN or private networks. In partnership with a well-known broadband systems integrator, Airspan delivered a secure end-to-end, carrier class, low latency, voice-first wireless network designed to increase staff efficiency and real-time response to critical patient care at multiple facilities.

For more information about our any of products or solutions, please visit airspan.com or contact sales@airspan.com to get in touch with a representative from one of our offices.



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A MEMBER OF

