AIR ZEN

Software defined
Network Technology

HARDWARE TECH SPECS

Home & Business

AIRZEN NODES AT A GLANCE

Technical specifications

For mobile outdoor use, we recommend our Node M5 product line.

Model	**AirZen Node H6**	**AirZen Node B6**	**AirZen Node O6**
Type	WLAN Access Point & Router	WLAN Access Point & Router	WLAN Access Point & Router
Fields of use	Indoor Private, HomeOffice & Business	Indoor Business	Outdoor Private / Business
CPU & RAM	Dual-Core & DDR3	Dual-Core & DDR3	Dual-Core & DDR3
Ethernet	2x Gigabit Ethernet	2x Gigabit Ethernet	2x Gigabit Ethernet
WiFi module 1	1x WiFi 6 / 802.11ax 2.4 GHz / 574 Mbps	1x WiFi 6 / 802.11ax 2.4 GHz / 574 Mbps	1x WiFi 6 / 802.11ax 2.4 GHz / 574 Mbps
WiFi module 2	1x WiFi 6 / 802.11ax 5 GHz / 1201 Mbps	1x WiFi 6 / 802.11ax 5 GHz / 1201 Mbps	1x WiFi 6 / 802.11ax 5 GHz / 1201 Mbps
Antennas	4x4 Mu-MiMo & Beamforming	4x4 Mu-MiMo & Beamforming	6 external antenna connectors, N-Female Bulkhead
Interfaces	2x Ethernet, reset, service button & LED	2x Ethernet, reset button	2x Ethernet, reset button
Supply voltage	12 V/1 A	DC connector: 12 V/1 A, Power over Ethernet 48 V	Power over Ethernet
Dimensions	11 x 11 x 15.3 cm	11 x 11 x 15.3 cm	11 x 11 x 15.3 cm
Temperature range	0-40 °C	0-40 °C	-30 °C to +40 °C
Weight	450 Gram	450 Gram	1600 Gram
Scope of Delivery	1x AirZen Node H6, 1x 230 V AC to 12 V DC power supply, 1x 150 cm Gigabit textile design LAN cable	1 AirZen Node B6	1 AirZen Node O6, 1x indoor 230 V AC to PoE power supply, 1x LAN connector mounting kit

An active **AirZenOS licence subscription** and an **Internet connection** with a valid contract are required to use our service.

Configuration is done as a managed service via customer chat & support. CLI access is available upon request; App usage as of Q3/2023.

WIFI HIGHLIGHTS

Full WiFi 6 Support

The combination of new techniques in WiFi 6 (802.11ax) solves well-known WLAN problems in all relevant areas, creating an entirely new WLAN experience - especially in crowded environments with many devices.

Seamless Roaming

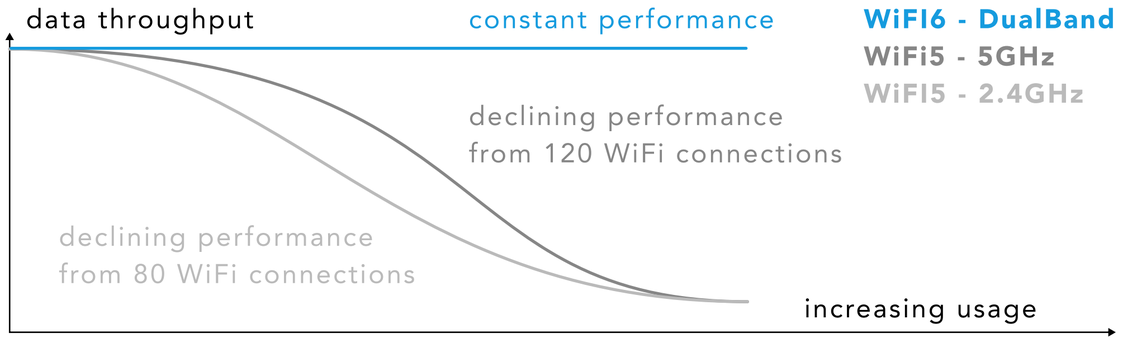
AirZen Nodes coordinate with each other via their shared protocol and support numerous standards of different end devices. This way, the WLAN end devices will always be connected to the node that can offer the best connection at any given time.

Automated Channel Adjustment

In an operating environment with many neighbouring networks, the AirZen Node continually looks for the channel that can provide the lowest latency and highest transmission bandwidth. Automatic wireless measurements are carried out for statistical data analysis. Based on these statistics, the AirZen nodes automatically change their settings in order to choose the best available channel.

Mesh Technology

The “AirZen MeshNode” process automatically connects all AirZen Nodes in the home office effortlessly without any further manual configuration. The mesh technology ensures full coverage at a stable transmission speed. The mesh decides on its own which AirZen Node provides the best performance for an end device - particularly for mobile end devices in the mesh zone.



OFDMA (Orthogonal Frequency Division Multiple Access) **& Mu-MiMo**
These methods drastically increase network efficiency by splitting the available radio frequency band into independent channels. This allows several terminals to be connected simultaneously while maintaining the data rate.

BSS Colouring - coloured WLAN
As a result of the rise in WLAN usage, interferences grow. As a result, crosstalk leads to loss of quality, reduced transmission speeds, or even data loss. BSS colouring assigns data packets to specific end devices, minimising packet loss and boosting performance.

1024-QAM (Quadrature Amplitude Modulation)
This advanced modulation technique dramatically raises the available transmission bandwidth on the WLAN. Spectral efficiency can thus be improved by up to 25 %.

TWT (Target Wake Time)
Using WLAN increases the energy consumption of your end devices (smartphones, laptops, etc.). This is because once the WiFi connection has been established, the radio module is continuously active and consumes energy. Thanks to WiFi 6, the node agrees on certain target wake times with the end device to increase the battery power by up to 50 % during WLAN use.

AIR ZEN

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Unlike traditional WiFi routers or access points, AirZen Nodes form a smart WiFi platform.

AirZen Nodes are always connected to the AirZen Cloud: This allows us to deliver daily security updates that guarantee high protection, especially against botnets or malware attacks.

AirZen Nodes also receive monthly software updates to keep the network devices up to date with the latest technology.