

AirHarmony 4000/4200/4400

AirHarmony 4x are Compact and versatile outdoor 4G LTE Macro/Micro Base Stations providing the outdoor layer of a Heterogeneous LTE-Advanced network deployment (HetNet) Advanced Release 12 feature sets include support for SON and advanced interference mitigation techniques which enables N=1 frequency re-use with other layers. The cooperative QoS over the Backhaul interface ensures the Quality of Experience (QoE) from the eNodeB matches the experience of a Macro cell.

Physical Specifications:

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| Antenna Configurations: | SBA – Dynamic antenna beam, Front mount X-Polar External antenna X-Polar External antenna Quad X-Polar for AirHarmony 4400 |
| Data Interface: | 2x Fiber Optic (via SFP) and 2x Copper |
| Unit Weight: | 19 kg / 42 lb |
| Power Consumption: | 110 Watts |
| Power Consumption (with WiFi): | 265 Watts |
| Operating Temperature Range: | -40°C to +55°C / -40°F to +130°F |
| IP Rating: | IP66 |



AirHarmony 4000/4200/4400 3GPP LTE-Advanced Access Specifications

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| Version: | AirHarmony 4x Release 12 Feature Sets (SW upgradeable for 3GPP R11, R12 and beyond) | Key Features: Advanced Antenna Techniques <ul style="list-style-type: none"> • 2 x 2 MIMO: SM and TxD • 4 x 2 MIMO: 4Rx2Tx by AH 4400 • SU-MIMO • MU-MIMO |
| Operational Frequency Bands: | Band 40 (2.3-2.4 GHz) Band 41 (2.6GHz) Band 42 (3.5GHz) Band 3 (1.8GHz) Band 28 (700MHz) Band 26 (800MHz) | System Features: <ul style="list-style-type: none"> • Inter-RAT Mobility • RAN Sharing • Automatic Neighbor Relation (ANR) • eICIC, ABS and CRE • Embedded SON • LTE + WiFi link aggregation (LWA) |
| Duplex: | FDD & TDD | |
| Max Channel BW: | Up to 2x 20 MHz with CA | |
| Max Transmit Power: | +43 dBm per Tx channel | |
| MCS Support: | Up to 64-QAM | |
| Synchronization: | GNSS (GPS) & IEEE1588 PTPv2 | |



AirHarmony 4x: Key Features

Release 12 LTE-Advanced

AirHarmony enriches the Macro layer by adding a compact and easy to install base stations to this layer or by adding an additional layer to the Heterogeneous LTE-Advanced network deployment (HetNet). Advanced Release 12 feature sets include support for SON and advanced interference mitigation techniques which enables N=1 frequency re-use with other layers. The cooperative QoS over the Backhaul interface ensures the Quality of Experience (QoE) from the Micro eNodeB matches the experience from the Macro cell.

The Power of HETNETS

Delivers high data rates where needed most, whether at the macro cell edge or closer to the user base, maximizing coverage and customer satisfaction.

Broadband Access

AirHarmony supports 3GPP LTE Broadband access technologies; Airspan's 3GPP LTE implementation is compliant with the 3GPP standards and has interoperable S1 and X2 interfaces and supports commercial GCF tested UE devices, including Smartphones, Dongles and Tablet computers.

Integrated Wireless Backhaul

AirHarmony supports various backhaul alternatives including multiple fiber / copper interfaces which enables various network topologies including daisy chain and ring. AirHarmony also supports tight integration with iRelay or iBridge, Airspan's wireless backhaul products. AirHarmony plus iRelay or iBridge creates a single install process for LTE Access and Backhaul, and enables our "Just add Power" plug and play deployment method saving deployment CAPEX and OPEX.

Sustainable Deployment

AirHarmony Mini-Macro Cells can be installed on traditional tower sites, or on existing street furniture (lamp posts or utility poles) which are either OPEX free, or have nominal on-going expenses, thus avoiding the recurring costs associated with a traditional Macro site acquisition. The unit can be painted to blend with the environment and fit the pole colour.

Plug & Play

AirHarmony supports automated configuration from the management system, simplifying the installation of each base station. Full plug-and-play functionality, out-of-box to fully operational, within 20 minutes.

Reduced CAPEX/OPEX

AirHarmony is a compact all-outdoor 3GPP LTE Mini- Macro Base Station, which can be installed without conventional Indoor infrastructure and associated power and air-conditioning systems. The integration of wireless backhaul reduces the equipment installed per site, as separate backhaul infrastructure is not required. This in turn reduces spares holding and inventories. The iRelay/iBridge backhaul supports self-healing, allowing the network to automatically recover in the event of failure. This increases overall service availability and customer satisfaction.

Radio Planning With SON

AirHarmony is designed to integrate with standardized LTE Access SON solutions. Airspan's SON solution is layered and consists of both integrated eNodeB SON technology and a standardized SON interface for centralized SON. The products self-configure, self-connect, and self-optimize.

In addition, unlike conventional mobile network planning and design, expansion of the coverage area can be optimized and adapted depending on the local need.