

In-building Wireless Market by Offering (Infrastructure (DAS, Small Cells), Services), Business Model, Building Size, End User (Commercial Campuses, Transportation & Logistics, Entertainment & Sports Venues) and Region - Global Forecast to 2029

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Abstracts

The in-building wireless market is estimated to be USD 20.0 billion in 2024 to USD 35.5 billion in 2029 at a CAGR of 12.1% from 2024 to 2029. The rollout of 5G technology is driving growth in the in-building wireless market. With the deployment of 5G networks, businesses are looking to upgrade their indoor wireless infrastructure to support 5G connectivity. 5G offers faster speeds, lower latency, and enhanced capacity, making it ideal for bandwidth-intensive applications. In-building wireless solutions play a crucial role in enabling 5G connectivity indoors, thereby supporting the adoption of 5G technology and enhancing the overall wireless experience for users.

“The DAS infrastructure segment will contribute the largest market share in the in-building wireless market during the forecast period.”

In a distributed antenna system, multiple antennas are strategically placed throughout a building or other indoor environment to distribute a single signal source, typically from a cellular network. This approach allows for more comprehensive coverage and better signal strength than a single antenna. DAS technology is commonly deployed in densely populated areas such as office buildings, residential complexes, shopping centers, and stadiums to ensure reliable cellular network coverage indoors.

The distributed antenna system has emerged as an essential component of carrier cellular networks and enterprise infrastructure. It is a vendor-agnostic solution that supports multicarrier network connectivity. Vendors provide single and multicarrier

distributed antenna systems to support several telecom operators in the same buildings. For instance, a multicarrier distributed antenna system in the US supports multiple telecom operators such as AT&T, Verizon, and T-Mobile.

“The transportation & logistics end user segment is expected to register the highest CAGR in the in-building wireless market during the forecast period.”

In the transportation & logistics sector, specialized in-building wireless solutions are indispensable for optimizing operations and ensuring efficient communication across critical facilities like airports, train stations, subway stations, warehouses, and distribution centers. These tailored systems are vital for maintaining seamless connectivity and enhancing safety for passengers, commuters, and personnel.

Airports, train stations, and warehouses rely heavily on continuous connectivity for various operations. Distributed antenna systems (DAS) and small cells are crucial in these large areas with limited cellular coverage. They ensure seamless connectivity for passengers, staff, and operations personnel, enhancing safety and efficiency. DAS extends cellular coverage in airports, while it enables real-time transit updates and emergency notifications in train stations. Similarly, DAS facilitates inventory tracking and IoT connectivity in warehouses, optimizing operations and productivity.

‘Asia Pacific will register the highest growth rate during the forecast period.’

The Asia Pacific region is set to undergo significant growth opportunities in the coming years, with countries like India, China, Australia, and New Zealand expected to experience high growth rates. As countries in Asia Pacific continue to undergo rapid industrialization and urbanization, there is a growing recognition of in-building wireless solutions. Robust growth in this market segment is driven by escalating demand for seamless connectivity within buildings across diverse sectors. This surge is propelled by the widespread adoption of smartphones, IoT devices, and data-intensive applications, necessitating reliable indoor wireless infrastructure. The market's expansion is further fueled by technological innovations like Distributed Antenna Systems (DAS) and Small Cells, which bolster coverage and capacity, alongside the accelerating deployment of 5G technology. Moreover, the region's rapid urbanization and smart building initiatives contribute to market growth, supported by government regulations and initiatives promoting wireless technology adoption. Nonetheless, persistent challenges such as high deployment costs and interoperability issues underscore the need for continued innovation and regulatory backing to fully unleash the potential of in-building wireless solutions in the Asia Pacific.

Breakdown of primaries

The study contains insights from various industry experts, from solution vendors to Tier 1 companies. The break-up of the primaries is as follows:

By Company Type: Tier 1 – 35%, Tier 2 – 40%, and Tier 3 – 25%

By Designation: C-level –35%, Managers – 25%, and Others – 40%

By Region: North America – 30%, Europe – 35%, Asia Pacific – 25%, Rest of the World- 10%.

The major players in the in-building wireless market are CommScope (US), Corning (US), Ericsson (Sweden), Huawei (China), Nokia (Finland), Comba Telecom (Hong Kong), Samsung (South Korea), ZTE (China), SOLiD (US), Dali Wireless (US), Zinwave (UK), ADRF (US), Airspan (US), Contela (South Korea), Fujitsu (Japan), NEC (Japan), BTI Wireless (US), Casa Systems (US), Sercomm (Taiwan), PCTEL (US), Huber+Suhner (Switzerland), Baicells Technologies (US), Qucell (South Korea), CommAgility (UK), Galtronics (US), PBE Axell (US), Microlab (US), Nextivity (US), JMA Wireless (US), Whoop Wireless (US), and SignalBoosters.com (US). These players have adopted various growth strategies, such as partnerships, agreements and collaborations, new product launches, product enhancements, and acquisitions to expand their in-building wireless product footprint.

Research Coverage

The market study covers the in-building wireless market size across different segments. It aims to estimate the market size and the growth potential across various segments, including offering, business model, building size, end user, and regions. The study includes an in-depth competitive analysis of the leading market players, their company profiles, key observations related to product and business offerings, recent developments, and market strategies.

Key Benefits of Buying the Report

The report will help the market leaders/new entrants with information on the closest approximations of the global in-building wireless market's revenue numbers and

subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. Moreover, the report will provide insights for stakeholders to understand the market's pulse and provide them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key drivers (increasing demand for network coverage and capacity, demand for modern and sustainable concepts of construction, need for supporting mission-critical applications, lack of investments from carriers in large venues, public safety requirements in buildings, and rapid technological advancements), restraints (cost constraints, and backhaul connectivity issues), opportunities (deployment of 5G networks, and rise of IoT and smart buildings) and challenges (integration in-building wireless systems with existing infrastructure, security and privacy concerns, and interference and signal degradation) influencing the growth of the in-building wireless market. Product Development/Innovation: Detailed insights on upcoming technologies, research and development activities, and new product and service launches in the in-building wireless market. Market Development: Comprehensive information about lucrative markets – the report analyses various regions' in-building wireless markets. Market Diversification: Exhaustive information about new products and services, untapped geographies, recent developments, and investments in the in-building wireless market. Competitive Assessment: In-depth assessment of market shares, growth strategies, and service offerings of leading players like CommScope (US), Corning (US), Ericsson (Sweden), Huawei (China), Nokia (Finland), Comba Telecom (Hong Kong), Samsung (South Korea), ZTE (China), SOLiD (US), Dali Wireless (US), Zinwave (UK), ADRF (US), Airspan (US), Contela (South Korea), Fujitsu (Japan), NEC (Japan), BTI Wireless (US), Casa Systems (US), Sercomm (Taiwan), PCTEL (US), Huber+Suhner (Switzerland), Baicells Technologies (US), Qucell (South Korea), CommAgility (UK), Galtronics (US), PBE Axell (US), Microlab (US), Nextivity (US), JMA Wireless (US), Whoop Wireless (US), and SignalBoosters.com (US).

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10.4.5.1 Growing usage of smartphones and connected devices to spur demand for in-building wireless services

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TABLE 269 INDIA: IN-BUILDING WIRELESS MARKET, BY SERVICE, 2019–2023

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TABLE 270 INDIA: IN-BUILDING WIRELESS MARKET, BY SERVICE, 2024–2029

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