

Small cells are a new part of the 5G platform that increase network capacity and speed, while also having a lower deployment cost than macrocells. The compact size of a small cell requires that all components - especially power converters - provide high efficiency, better thermals and eventually the best power density possible.

A cell tower (also called a macrocell) is a huge umbrella used to provide radio signals to thousands of users in large areas with minimal obstructions. To extend the coverage of a macrocell, distributive antenna systems (DASs) are used in conjunction with the cell tower.

The trend in 5G radio applications is to use higher frequencies and shorter wavelengths. Increasing the frequency increases the speed of sending/receiving signals and helps shrink the size of the antenna, which in turn shrinks the size of the cell.

5G can help realize the future of Internet of Things(IoT),connected cars and smart cities through higher speeds (up to 10 Gbps),better coverage (capacity expansion by a factor of 1,000) and improved reliability (by leveraging ultra-wide bandwidth and throughput).

The traditional wireless infrastructure approach to 5G has certain limitations, however, including penetration ability and signal reach due to a higher spectrum. That's where small cells come in. Small cells increase the amount of traffic that can be handled in an area while also increasing speed.

Today,we are marching into the era of 5G. Internet usage has gone up over 200% in the last decade ,and is expected to more than double through 2025 as more devices connect to the internet.

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