

Smaller Components

With 5G networks being deployed worldwide, network designers must achieve optimal system performance at a low cost while meeting strict deployment schedules. A leading component and integrated solutions partner, Microlab's readily available 5G ultra-wideband (UWB) products are here to overcome the diverse challenges that can interfere with the success of 5G network densification, which is achieved, in part, due to Microlab's smaller solutions that meet complex mechanical design needs of small cells.

Small form factors enable better concealment for small cells, which is required for network densification, as well as for in-building networks for aesthetically pleasing network deployments within ceilings. Enclosures utilizing compact components that occupy less space can use the extra room for radios to add frequency bands or deploy higher order MIMO solutions to improve capacity, as well as deliver an optimal 5G user experience. Additionally, thermal management within densely packed electronic enclosures presents considerable design issues since there is a very limited space to safely dissipate generated heat. Components with a compact form factor provide more room for efficient heat dissipation, which is especially critical for small cells enclosures or shrouds deployed in outdoor environments. Overall, Microlab's 5G UWB components minimize volume and footprint to enable more flexibility in mechanical designs.

Incorporating compact solutions for 5G small cells may also positively impact the total cost of ownership (TCO) of deployments. Regulatory approvals from local, city, and federal agencies are required at small cell sites, and using products with minimal footprints have the potential to quicken the regulatory approval process due to its increased mechanical design flexibility that enables better concealment. As a result, 5G deployment schedules are maintained and lengthy approval timeframes that increase TCO are avoided.

For more than 70 years, Microlab has provided high-performance and trusted RF and microwave products to support wide-ranging applications, such as distributed antenna systems (DAS), high-quality radio coverage for public safety networks, high-powered signal combining and distribution, high-level monitoring and signal conditioning, and now 5G network deployments. Backed by application engineering consultation, a variety of customization options are available to deliver specialized solutions for specific customer requirements. To support emerging 5G needs, Microlab is a trusted solutions provider to help designers overcome their 5G deployment challenges with its smaller components. To browse through Microlab's 5G UWB product categories and learn more about its 5G solutions, visit <https://microlabtech.com/5g>.