COMMSCOPE®

Multibeam outdoor antennas: Add capacity—not cost

The world's reliance on mobile technology continues to increase, with data consumption rising exponentially. In high- and ultra-hightraffic areas where peaks in data use are reaching unsustainable levels, wireless operators are under intense pressure to add more network capacity. But their options are limited. Adding new spectrum is a significant investment involving regulatory approvals and can take years; increasing the efficiency of existing spectrum with higher-order QAM and MIMO is expensive and also means adding more antennas to towers that are already nearing their weight and wind load limits. Moreover, both options are typically effective only in areas of moderate data traffic.

There is a third option: Cell densification using multibeam antennas offers the scalability needed to meet the highest possible capacity demands without adding spectrum or equipment.

CommScope multibeam antennas help mobile networks solve their cell ultra-high capacity issues without adding spectrum or overloading already top-heavy towers. By reusing spectrum over multiple beams and containing the desired signal within the coverage area, operators can increase the capacity of their existing cells while delivering precise coverage and maximum throughput speed with minimal tower space.

Antennas are available in 2-, 4-, 6- and 18-beam configurations; more than multibeam, they are also multiband, with single-band, dual-band, and hybrid configurations designed for low-band, mid-band and 3 GHz applications.









Ideal for sector splitting and large public outdoor venue/event coverage

CommScope multibeam antennas address the two main ultra-high capacity use cases: high-density urban deployments and coverage and capacity to large public outdoor venues and events. In macro network sector-splitting applications, CommScope multibeam antennas replace traditional sector antennas with little to no impact on tower loading—extending the value of the existing site while enhancing user experience. For large public venues and events, the 6-beam antenna installs quickly on temporary masts to exponentially increase throughput and satisfy the capacity demands of the largest events. As a result, operators are able to optimize capacity, enhance network performance and maximize ROI.



Optimize capacity

- Splits one sector into up to six sub-sectors to enable higher-order sectorization
- Optimizes pattern performance and stability across all operating frequencies
- Delivers higher gain for a stronger signal in the most congested RF environments



Maximize ROI

- Simplified, compact design saves space and reduces install errors for faster, easier deployment
- Provides the equivalent of several narrow-beam macro antennas in one radome
- 6-beam antennas install on temporary masts and cell-on-wheels (COWs) perfect for events



Enhance network performance

- Provides stable beam peak positions across all operating frequencies, for consistent coverage
- Supports wideband performance
- Supports up to 4x4 MIMO capabilitie



Multiply the capacity of your existing spectrum with CommScope multibeam antennas

Designed by CommScope's Outdoor Wireless Network business segment, our multibeam antenna portfolio leverages 85+ years of outdoor wireless experience. We make "everything but the radio" to offer our customers a complete end-to-end RF portfolio that provides CommScope quality and reliability across the RF path.

For more information on the CommScope portfolio of outdoor multibeam antennas, contact your CommScope representative.

commscope.com Visit our website or contact your local CommScope representative for more information.

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