



COMMSCOPE®

4G/5G Outdoor Small Cell Solutions

Performance you can't miss
from solutions you won't notice

The small cell challenge: growing networks, shrinking footprints

Denser LTE and emerging 5G networks both demand more sites—and less visibility.

Your small cell network needs to meet customers where they are—on their residential streets, in their crowded commercial areas, and everywhere they live, work, and play.

Add in the thousands of various local zoning codes governing the size, location and appearance of your small cell sites, and it

becomes clear that your network needs a comprehensive solution that solves for all these variables at the same time.

Your small cell choice needs to be compact, attractive, flexible and future ready. In other words, your small cell choice needs to be CommScope's Metro Cell solution.



Metro Cell: the complete solution that solves the total challenge.



CommScope's Metro Cell solution is a complete small cell platform that helps you deploy quickly, economically and compliantly, in virtually any small cell situation.

Unlike cobbled-together solutions built from multiple vendors, CommScope's Metro Cell solutions are built as a complete answer to your small cell challenges, with single-source antennas, combiners, power management, backhaul and more all combined into a variety of attractive, customizable, code-compliant concealment options.

When you work with CommScope and our Metro Cell solutions, your deployment arrives ready to install

You'll receive:

- Superior active and passive thermal management options
- Compatibility with all major manufacturers' radios
- A wide range of bottom-, middle-, top-of-pole, and integrated pole designs
- Customizable technical and aesthetic configuration choices
- CommScope's global distribution, installation and integration support
- Able to scale and meet multiple simultaneous large deployments



CommScope innovation unlocks the potential of your network.

For over 40 years, CommScope has been a global leader in pioneering RF technologies. With a manufacturing footprint that spans North America, Europe and Asia, CommScope delivers consistent quality and breakthrough innovation on a scale (and on a schedule) that empowers the world's most important networks to grow and evolve.

Wherever networks face challenges, you can count on CommScope to help your network stay ahead of the curve by helping you solve both the technical and business challenges that could limit your network's potential. We are CommScope—and we believe in the power of progress.

Built to perform, virtually invisibly







Integrated straight pole

- Contains everything needed for a low-power LTE, 5G or combined LTE/5G network site
- 12-inch diameter radio and power concealment modules
- Pole-top concealment module accommodates 5G or licensed assisted access (LAA)/CBRS radios
- GR-487 compliant thermal performance standards
- Variety of luminaire arms and other configuration options
- mmWave module included as standard



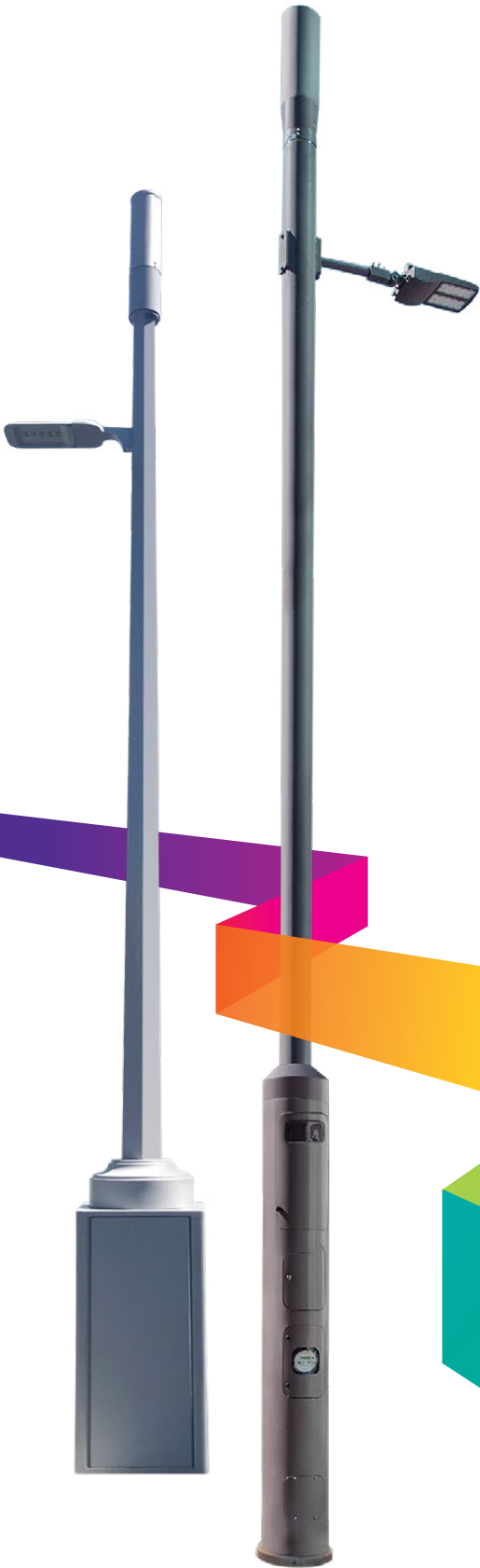
GREENWICH AV

ONE WAY

ALL TRAFFIC
→

STANDING
time

THE PROTON ENGINE
CORPORATION



Integrated pole base

- Contains everything needed for a low-power LTE/5G network site
- 12-inch or 18-inch diameter power concealment and radio concealment modules
- 26- or 30-inch square base accommodates low- to high-power single/dual-band radios
- Pole-top concealment module accommodates 5G or LAA/CBRS radios
- GR-487 compliant thermal performance standards
- Variety of luminaire arms and other configuration options
- mmWave module included as standard



Shroud options that fit any situation

The Metro Cell portfolio also offers a vast array of other concealment solutions for the top, middle or bottom of existing street furniture, with or without luminaires, of several diameters. These solutions deploy quickly and disappear into the urban landscape.



12-inch pole top

- 12-inch pole top (shown with mmwave module)
- Includes mounting for Raycap OVP
- Variety of pole mounting kits available
- Accepts various antenna models
- GR-487 thermally compliant



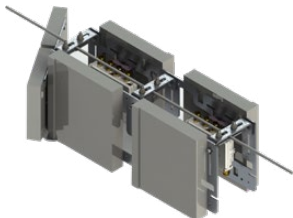
18-inch pole top

- Accommodates Nokia pico radios with mounting for future LAA
- Variety of pole mounting kits available
- Accepts various antenna models
- GR-487 thermally compliant



Mid-pole enclosure for pico/micro radios

- Lockable and accommodates a variety of Ericsson and Nokia radios
- Micro version accommodates two high-powered radios
- Configurable to include diplexers, splitters and AC disconnect
- Mounts easily to tapered and non-tapered wood or composite poles
- GR-487 thermally compliant
- Available for mounting on metal, wood and concrete



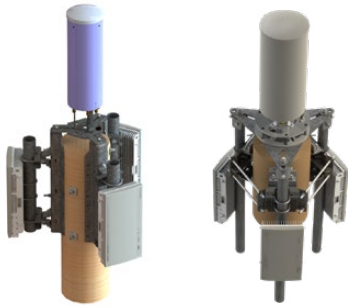
Strand mounts

- Density without changes to the visual space
- Capable of holding 2-4 small cell radios, 2 diplexers and 2 antennas
- Allows for use of existing capital investments
- Meets all weight requirements placed on strand mounted small cells
- Completely flat pack for more efficient shipping and maneuverability

Antenna mount options for flexible deployments

CommScope's wide range of Metro Cell options gives your network more ways to grow.

Adding bands often means adding antennas. CommScope's diverse portfolio of Metro Cell solutions includes a range of pole mount options that let your network grow where and how it needs.



LTE/5G mmWave mounts

- One mount accommodates both LTE and 5G antennas
- Single-point contact for wood or metal poles up to 21 inches OD
- Built for 150 mph wind survivability
- Jumper mounting holes simplify cable management
- Through-mounting and banding attachment options



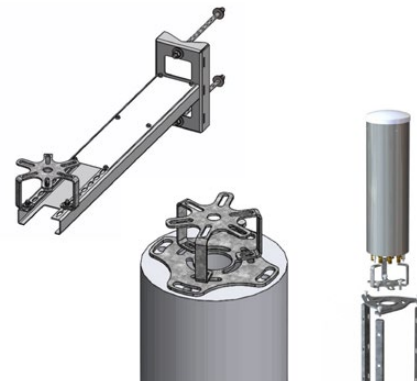
Spool Mounting

- Universal mounting pipe for all OEMs and OEM Models of mmWave products
- Low profile mmWave mounts provided to minimize outer diameter
- Accommodates mmWave concealment shrouds with or without down tilt brackets
- Mounting kits for wood, metal, and concrete poles



Small cell side mounts

- Multiple side-mount, through-mount and banded solutions
- Made for wood or metal poles up to 13 inches OD
- Fully compatible with a wide range of antenna types
- Various stand-off options, with adjustable multi-antenna options
- Includes options for panel antennas



Pole-top mounts

- Direct mount and pole-top standoff options
- Choice of pole diameter
- Choice of leg length/stand-off distance
- Fully compatible with a wide range of antenna types



Integration services that help your network grow quickly

CommScope doesn't just build the flexible solutions you need—we also make it easy to deploy them

Offering the flexible, customizable Metro Cell solution your network needs is only half the value. CommScope also provides best-in-class integration services to help your network deploy those solutions quickly and confidently.

CommScope's Metro Cell solutions are built as a complete platform, helping you avoid the unforeseen deployment challenges that can come from multi-vendor solutions and cobbled-together technologies. Metro Cell solutions deliver everything you need—antennas, combiners, power management, backhaul and more, all preconfigured and factory tested—in your choice of attractive, code-compliant concealment designs.

CommScope makes it easy, because...

- Complete Metro Cell sites can be ordered by a single part number.
- Each solution arrives fully kitted, with antennas, diplexers, combiners, and more.
- Integrated pole solutions include foundation and structural calculations for quick deployment.
- From the smallest bracket to the largest integrated site, you'll have zoning-compliant options.

For over 40 years, CommScope has been a complete partner to the world's most important wireless networks—because we understand that your technical challenges are only part of the picture. You can also count on CommScope's quality assurance, global manufacturing footprint, simple ordering and fast shipping to help your Metro Cell perform its best on day one, and for years to come.

Metro Cell—the complete solution that’s completely configurable

We build the technology that powers every solution we ship.

No other manufacturer offers a small cell solution that provides so many options, arrives so complete, or offers such configuration flexibility as does CommScope. That’s because CommScope builds world-class solutions covering every connection in modern RF networks—both cellular and Wi-Fi.



We build Metro Cell as a complete solution because only CommScope offers such total expertise.

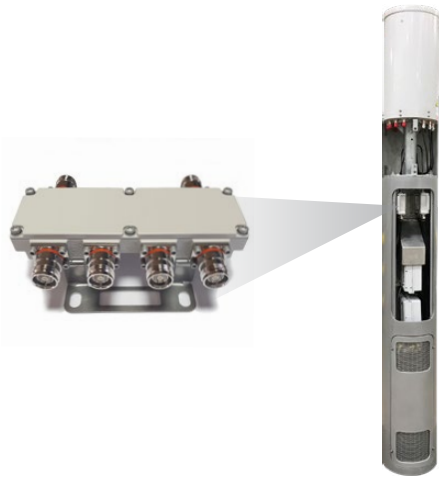
Small cell antennas

- Incredibly compact form factor and clean appearance designed to meet zoning requirements
- High-performance, high-efficiency operation
- Available in 10-, 14- and 16-port designs
- Multiband multiport designs support 4X MIMO, carrier aggregation and licensed assisted access (LAA) for CBRS bands

Rugged and durable for harsh environments

Wireless access points (APs)

- CommScope’s Ruckus portfolio of Wi-Fi 6-certified provides unbeatable outdoor coverage
- Proprietary BeamFlex+ technology provides superior coverage and capacity by dynamically shifting channels
- Available multi-user MIMO (MU-MIMO) dramatically improves RF efficiency and overall throughput with fewer APs
- Options allow daisy-chaining of other IP-connected devices, such as video cameras



Ultra-compact multiband combiners

- Solutions support multiple bands to simplify RF path connectivity between antennas and radios
- Allows the deployment of more bands to support denser LTE and new 5G networks
- Equipped with super-compact, PIM-reducing 4.3-10 connectors for easy installations and reliable connections
- 40 to 60 percent smaller—and lighter—than traditional combiners
- Designed for tight spaces in small cells, including Metro Cell integrated poles



Small cell RF jumpers

- High-efficiency coaxial jumpers deliver 1/2-inch cable performance in a 3/8-inch form factor for easier cable installation and management
- Guaranteed PIM performance at -119 dBm for D-class
- Ruggedized outdoor construction
- Wide band support, including for 5G networks
- Available with 4.3-10 or NEX10 connectors



Fiber jumpers

- A vital, high-performance link between wired and wireless networks
- Compatible with a range of OEM radios, including 5G radios
- Flexible applications support multiple RRU configurations
- Plug-and-play installation for quick, confident installation
- Available in hardened and non-hardened varieties



Wireline connectivity and fiber backhaul

- Fiber drop cables for ultra-efficient performance
- Fiber handoff solutions that speed connectivity and allow test access and the integration of WDM fiber optimization
- Wave division multiplexers (WDMs) that multiply network bandwidth on fiber backhaul without adding more infrastructure
- Fiber-optic splice closures that provide gel-sealed protection from the elements for vital fiber components at the entry point

Power Solutions for Metro Cell Sites

- **Integrated power option:** Use AC grid power with an integrated rectifier—either mounted on the pole or in-line—with an available battery backup option
- **Distributed power option:** A single cabinet contains power supply, rectifier and battery backups to supply reliable power to one or multiple small cells



Get the complete solution from CommScope

Your small cell network needs to grow now—talk with us for a better way forward.

Metro Cell integrated pole solutions are built for the way LTE and 5G small cell networks need to grow—quickly, simply and efficiently—so your network can meet your customers where they are...and do it virtually invisibly.

Count on CommScope to help your network evolve to win. Learn more about Metro Cells [here](#) or **contact your CommScope representative** to see how Metro Cell integrated pole solutions can unlock the potential of your small cell network.

[Learn more](#)

CommScope pushes the boundaries of communications technology with game-changing ideas and ground-breaking discoveries that spark profound human achievement. We collaborate with our customers and partners to design, create and build the world's most advanced networks. It is our passion and commitment to identify the next opportunity and realize a better tomorrow. Discover more at commscope.com

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commscope.com

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

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