



Roll out to 600 MHz

And watch your revenue roll in sooner

COMMScope®

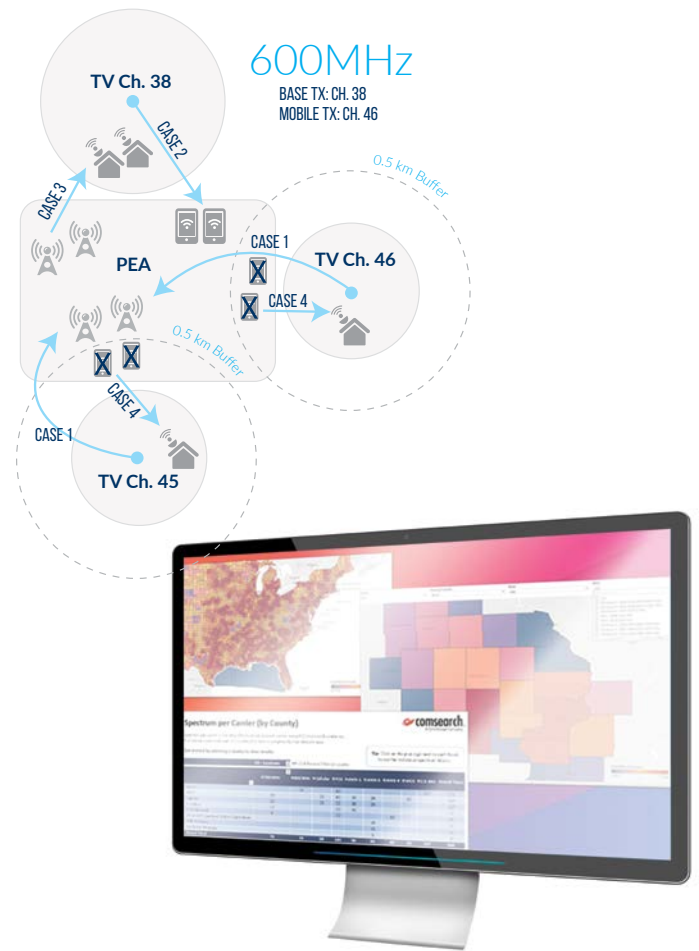


Plan and deploy your 600 MHz spectrum rollout with proven RF path solutions from CommScope

You've recently acquired new 600 MHz spectrum to increase your network capacity and you're starting to plan for the rollout. Choosing the right partners and solutions can make the difference in how quickly, efficiently and effectively you deploy as these bands free up from broadcasters.

But adding new spectrum to your network drives a number of new considerations. Fitting new equipment into already overloaded sites; supporting existing bands while adding new carriers to support the new 600 MHz bands; getting the best performance to optimize capacity; and deploying efficiently to save time and cost must all be carefully evaluated—and best practices must be followed—to achieve the greatest success.

Finding a trusted partner who can help you simplify the rollout with the right solutions up front can lighten the load and help you prepare for 600 MHz early to get new revenue flowing sooner and maximize the return on your network spectrum investment.



Plan now to use freed-up TV spectrum

The relocation (or repackaging) of TV stations is organized into 10 phases that begin in September 2018 and finish in July 2020. However, some spectrum that is not being used by protected TV stations is already becoming available to wireless operators once radios and antennas are available.



CommScope is ready now to help you achieve 600 MHz success, with more than 70 years of combined RF path experience and proven expertise in new frequency deployments. CommScope is the first to offer a full suite of RF path solutions—all precision-engineered to improve network performance and increase spectral efficiency for maximum return on your investment.

Equipment selection



- Use pre-tested, PIM-certified cable assemblies. Connector-related PIM is the most common form of interference.
- Many older devices (antennas, duplexers, and so forth) were not designed to meet today's higher PIM standards. Specify new, PIM-certified devices with weather-resistant connections.
- Verify that your suppliers' testing protocols include environmental stress screening and PIM testing in both static and dynamic conditions. Nothing is worse than static at the top of a tower.

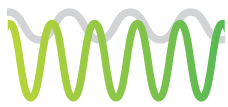
Our solutions can:

- Simplify complex site architectures for smooth, efficient implementation
- Reduce the amount of equipment needed
- Save space
- Lower CapEx and OpEx
- Improve network efficiency



CommScope RF path technologies help you overcome the challenges of new spectrum deployment

Operators are spending millions of dollars to acquire 600 MHz spectrum, adding 35 MHz in both uplink and downlink capacity to extend their reach in suburban and rural areas and improve in-building penetration. CommScope RF path solutions maximize the value of your 600 MHz investment—overcoming new spectrum deployment challenges to help you operate the new spectrum as efficiently and productively as possible.

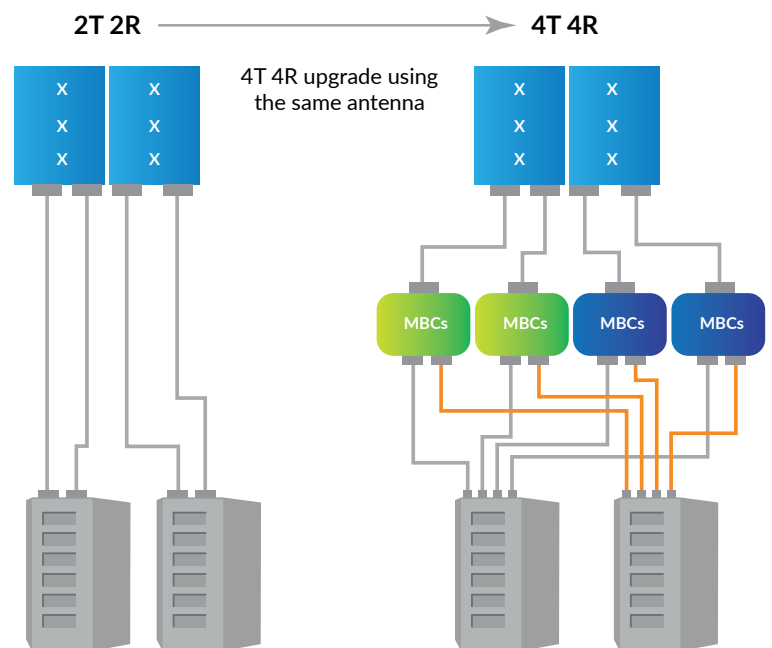


Manage interference

Even a small amount of interference can have a crippling effect on your network. That's why CommScope builds interference management into almost every active and passive RF path component design. Innovative technologies used to shape and control antenna beams and filter out unwanted signals help prevent interference between sectors and sites, boosting capacity. Passive intermodulation (PIM) and reliability testing—exceeding industry standards—is performed on all antenna, filter and cable designs to ensure the signal quality meets specifications even in harsh environments. To help in PIM avoidance, CommScope offers a Universal Band and Block PIM calculator—available at commscope.com. We also offer a comprehensive [TVclearSM solution](#) that includes software and project management services from Comsearch® to help identify and address potential interference issues between 600 MHz broadcast sites and existing nearby cell sites.

Reduce complexity

Adding spectrum often increases the complexity of spectrum arrangement, especially when considering the number of paths required to support each singleband radio. Whether you are adding new carriers or migrating to higher-order MIMO architectures, space is limited—making it difficult to configure the multiple paths needed to support the new spectrum rollout. CommScope's multiband antenna and combining systems simplify the job by streamlining connections and reducing the number of antennas and cables needed. The auto-sensing technology used in many CommScope combining systems intelligently routes DC/AISG signals to the correct port, eliminating the time required to manually repair incorrectly routed cables. And miniaturization is incorporated into CommScope's antenna and combining designs, offering smaller profiles and connectors to save space and enable easier access to make connections.





Minimize installation errors

Whenever numerous connections are required in the RF path, the chances for connector damage or errors during installation increase. These risks can be lowered by reducing the amount of equipment on the tower using CommScope solutions that support multiple ports, multiple bands, and plug-and-play hybrid fiber systems. CommScope also has tools and accessories to secure and protect coaxial, hybrid and fiber cable connections while enabling precise, fast and efficient installation: 4.3-10 and 7-16 DIN tools and adapters, hoisting grips, weatherproofing enclosures, cable entry systems, grounding kits, surge arrestors, and our new SnapStak Plus adjustable cable hangers that cut cable installation time by two-thirds.

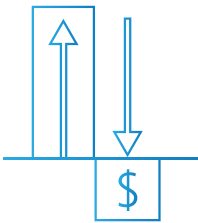


Deliver power efficiently

Getting power to the top of the tower is critical to your 600 MHz deployment. CommScope's HELIAX® fiber-to-the-antenna (FTTA) hybrid cable solution combines fiber and power feeds in a single cable run to simplify installation and reduce cable clutter. Our PowerShift® intelligent, plug-and-play dc power supply solution optimizes electrical draw by adjusting voltage dynamically to match your exact RRU power requirements, eliminating the need for a tower-top converter. PowerShift also increases the amount of time your battery backup can run, allowing your RRUs to stay active up to 30 percent longer in case of a power outage. And, once the power gets to the top, HELIAX FiberFeed® FTTA breakout systems simplify distributing power to the radios with minimal cable lengths and easy installation.

Deploy faster, at lower cost

CommScope offers solutions at the top and the base of the tower to enable faster, more cost-effective deployment. CommScope's G2® series tower mounts are designed for increased tower-top antenna and radio loading—an optimized frame designed specifically to not only support today's 4G requirements, but also the future evolution of LTE and 5G architectures. A full line of cable management and radio mounting accessories is also available to ensure proper support of equipment and help prevent outdoor elements from affecting critical network connections. For plug-and-play convenience at the base of the tower, CommScope offers a fully factory-assembled and -tested integrated platform deployment solution (IPDS) that can be off the truck, installed and turned up in as little as four hours. The IPDS can be customized with a wide array of options, ranging from cabinets and generators to telco and load centers. As the manufacturer of the platform, cabinets and most of the components, only CommScope can deliver such a complete factory-integrated platform solution.



Patent-pending Filter Products PIM test delivers twice the intensity of standard industry tests.

Portfolio overview for 600 MHz RF path equipment

Click below to view product details.

1	Base station antennas	
2	Cables and cable assemblies	<ul style="list-style-type: none"> • Wireless cables • Wireless transmission assemblies • Wireless connectors • Hybrid cable assemblies for FTTA • Power jumpers and cables for FTTA
3	RF conditioning equipment	<ul style="list-style-type: none"> • Multiband combiners • Tower mounted amplifiers • Interference mitigation filters*
4	Tools and accessories	
5	Structural supports	

*Contact CommScope to discuss your requirements.



CommScope developed and released the world's first 600 MHz base station antennas, supporting 600/700 MHz bands plus high bands.



Partner with CommScope to optimize your 600 MHz spectrum investment

CommScope is the RF path expert—the first company to offer a complete, end-to-end RF path solution to optimize your 600 MHz spectrum investment. We provide everything you need to build complete, high-performing networks, with these unique advantages:

- Assured quality and reliability with pre-assembled solutions and extensive in-house testing of all components
- Global reach, with more than 30 facilities for manufacturing, R&D and distribution
- A commitment to innovation, with an annual R&D investment of more than \$200 million and nearly 10,000 patents and pending applications

Partnering with CommScope ensures that your journey to 600 MHz will begin and end on the right track, with innovative RF path solutions that deliver exceptional reliability and performance today and in the future.

Contact CommScope today for a full RF path proposal or to schedule a meeting and discuss your most challenging cell site architectures.



To learn more about RF path solutions, read CommScope's eBooks: [LTE Best Practices](#) and [Understanding the RF Path](#).



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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