

What you need to know about HELIAX® Modular FTTA solutions

Fiber-to-the-antenna (FTTA) solutions are an important piece of the capacity puzzle for mobile network operators. FTTA deployments have been accelerating as operators add capacity to 4G networks and roll out 5G in more markets, and by now it may be tempting to think of FTTA as an undifferentiated commodity—but CommScope has continued to evolve our FTTA solutions to augment network performance gains with other advantages that make FTTA easier and less costly to deploy, less punishing on the tower structure, and simpler to upgrade and expand. Here are some of the questions I've received about CommScope's latest FTTA solutions, and the answers as well.



CommScope's newest HELIAX Modular FTTA solutions tackle every major deployment challenge at once—and wins across the board. This portfolio of power, fiber and hybrid cables, along with the innovative SkyBlox™ stackable breakout solution, are more compact, flexible and lightweight than ever, completely customizable and streamlined to simplify cable management, reduce inventory SKUs, accelerate installations and mitigate PIM in the RF path

The HELIAX Modular FTTA solutions portfolio also solves related challenges facing wireless network operators in the course of their network deployments, such as helping



them meet environmental sustainability mandates or internal sustainability goals, because the solutions include a substantial percentage of recyclable material. The solution is also CPR Cca rated, making them a regulation-friendly way to add FTTA capacity and performance to almost any macro or small cell deployment.

How do these improvements set the Modular FTTA solution apart?

As a portfolio, the HELIAX Modular FTTA solution and its SkyBlox stackable breakout solution together deliver a simpler, more streamlined FTTA solution that increases the number of locations where FTTA can be a practical option.

First, this is due to its highly customizable configurations that can provide a specified number of power conductors and/or fibers, each individually sheathed in lightweight mesh cladding.

Second, the slim, lightweight and flexible design of both the cabling and the breakout solution reduce the amount of weight on a macro tower or small cell site by as much as 50 percent, thereby reducing installation and lease costs, helping operators shorten time to revenue.

Lastly, the quality construction of CommScope's small-bend radius fiber and the elimination of metal shielding means quality connections and fewer opportunities for PIM, which could otherwise cripple FTTA performance.

What about future-readiness—upgradability and expandability?

SkyBlox is designed for total flexibility, both at installation and when expansion is needed. SkyBlox is fiber agnostic, so you can install its compact, lightweight breakout solution to support today's multimode fiber, and use the same breakout to connect your singlemode fiber when it's time to upgrade the network in that location. The same thinking applies to its power connectivity, since one connector can accommodate all conductor cable sizes.

SkyBlox also simplifies expansion due to its low-profile, stackable design. Adding 5G to an existing 4G site? Adding more antennas for MIMO? No problem—simply add a second (or third) SkyBlox breakout module to the existing one for hassle-free expansion.

The HELIAX Modular FTTA solution is designed to scale effortlessly—whether power, fiber or hybrid. Because it can be delivered with the fiber counts you specify, it's simple and economical to bundle additional fibers for use in later site expansion, all kept secure from weather thanks to IP68 connectors. Likewise, it accommodates power conductor cables up to 25 mm², leaving plenty of room to grow as the site's power needs grow.

And, because the HELIAX Modular FTTA solution offers a slender, lightweight cable with a tighter bend radius, it frees up tower load budget for the addition of cabling and/or antennas.



Henry Wang
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Henry leads the strategic direction of a cross-functional team under CommScope's HELIAX business unit.

With over 20 years of experience in product management, business development, marketing and sales, Henry has been deeply invested in the most advanced technologies in both the mobile wireless and data communication industries, including the latest FTTA technologies.

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