

Is PIM holding you back from maximum performance?

The CommScope PIM-Guard® polymer cable support is here to help you take it up a level

Passive intermodulation (PIM) is a challenge in every RF path. PIM is the result when two or more signals combine to create unwanted interfering frequencies that can cripple network capacity. Every connection and interface is a possible source of PIM-producing discontinuity. A common element contributing to this has been the metallic cable supports—until now! Poor bracket surface contact or corrosion can lead to PIM and diminish your network’s capacity, efficiency and profitability, and each support presents this PIM risk.

CommScope’s new addition to our PIM-Guard family is the “PIM-Fighter” polymer cable support, solving the PIM problem with cable supports. The revolutionary all-resin, PIM-free design provides interference protection—even around the antenna. Recyclable, lightweight and weatherproof, these supports work with our PIM-Guard SnapTak™ hangers to deliver higher cabling densities and lower PIM interference.

In the following Q&A, CommScope’s Jared Haines explains how PIM-Guard helps operators fight PIM on the tower.



Q. Why has CommScope developed the PIM-Guard polymer cable support?

A. The polymer PIM-Guard support is our latest effort to help wireless network operators reduce the costs of PIM in their increasingly complex networks, while simultaneously simplifying the SKU list required to deploy or upgrade sites.

Q. Specifically, how can PIM-Guard supports minimize PIM?

A. Because they significantly reduce the metal-on-metal contact with the tower, their polymer construction supports common hangers to attach a variety of components to structures without introducing new opportunities for PIM to develop.

Q. Does PIM-Guard reduce the number of different products required to build out a site?

A. Absolutely. PIM-Guard currently offers four to 16 positions for stackable hangers, depending on your configuration. So, for instance, if you are running along a round member on a sector frame, the base configuration acts as a pipe clamp providing four stackable hanger positions, where otherwise you would use round member adapters with standoffs or traps—a much more complex proposition.

PIM-Guard supports can also secure jumpers at the bottom of the antenna. You can use the PGP-CS10, which has the same base unit as the PGP-CS04 and uses two of the holes to snap in an extension arm and support bracket for eight hanger positions.

We designed PIM-Guard as a premium next-generation step to fighting PIM, and it complements an already robust variety of other components—simplifying BoM and inventory management by reducing it to a few individual SKUs.

Q. How well can PIM-Guard secure components?

A. PIM-Guard was developed to use the same diameter holes used for a stackable hanger, and this can support components just as well as those hangers. We use a proprietary simple (but robust) design in the retention leg tabs that “snaps in,” so it’s possible to connect different components simply by snapping them together. The only bolts required are used in the base unit clamping mechanism, clamping polymer to polymer.

Q. How does PIM-Guard differ in terms of its weight?

A. Because they are of polymer construction, PIM-Guard supports are lighter than comparable metallic options. This is an extra bonus for wireless network operators who are always under pressure to reduce tower weight any way they can.

Q. What environmental sustainability advantages does PIM-Guard offer?

A. In addition to requiring no metal content—except its bolts—the polymer used in the construction of PIM-Guard supports is also recyclable. This is something our customers have taken a serious interest in, and CommScope is committed to helping them meet their own green goals. PIM-Guard is one of our latest methods of supporting more sustainable networks.

Q. How does PIM-Guard perform in the environment?

A. Extremely well. CommScope continues to be the innovator in the industry, leading the way with polymer solutions. We have been deploying polymer solutions for nearly a decade now! CommScope rigorously tests all our products for survivability and durability in the elements, and it’s suitable in even the harshest climates.

CommScope’s PIM-Guard polymer cable support brackets are part of our complete, end-to-end Outdoor Wireless Network portfolio. To learn more about PIM-Guard, visit our website or contact your local CommScope representative today.



Jared Haines
Product Line Director
CommScope

Jared Haines is currently the Director of Product Line Management at CommScope for Structures and Small Cell business units. Jared has over 20 years of experience in the telecom industry. He started his career as an entry level tower technician while also being a full-time student at SUNY Oswego where he completed his undergraduate degree. Over the years he has held more senior roles on the business side to help develop solutions for CommScope both in the United States as well as abroad.

Today, as a director of product line management, he leads the teams for Structures and Metro Cell (Small Cell) business, applying his experience from his early years in the field to the product portfolio throughout the product lifecycle.



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