



PIM-Guard™ Solutions Product Selection Guide

From the top of the tower to the bottom line, PIM-Guard protects

February 2024

COMMScope®

Now PIM Has Nowhere To Hide

PIM-Guard solutions extend CommScope's industry-leading PIM protection to non-RF path installation accessories. PIM-Guard components—cable support brackets, hangers, RRU mounts, roof mounts, cable bands, cable ties, tower adapters—are optimized to reduce PIM while maximizing structural integrity. From materials selection and corrosion resistance to the exterior contours and profile, PIM-Guard reflects CommScope's experience and understanding of PIM's sources and solutions. When combined with CommScope's PIM-fighting RF path components, PIM-Guard accessories provide an end-to-end strategy, enabling network contractors and installers to improve the RF efficiency in their customers' evolving and complex networks.

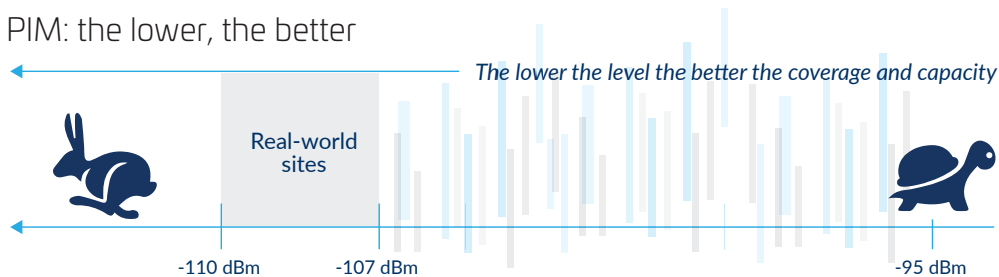
External Passive Intermodulation (PIM) Explained

PIM occurs when two or more wireless signals mix together and create additional frequencies that cause interference and deteriorate network performance.

Common Causes:

- Loose metal-to-metal contacts
- Poor quality components that rust or corrode
- Metal shavings or other site contamination
- Nearby frequency sources (power lines/equipment)
- Obstacles in the RF path including supports for stealth enclosures

PIM: the lower, the better

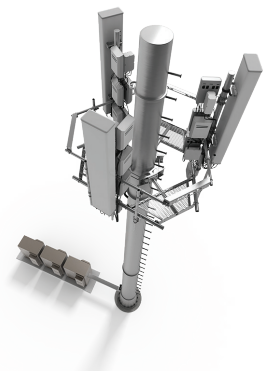


Hi-Risk PIM Zone

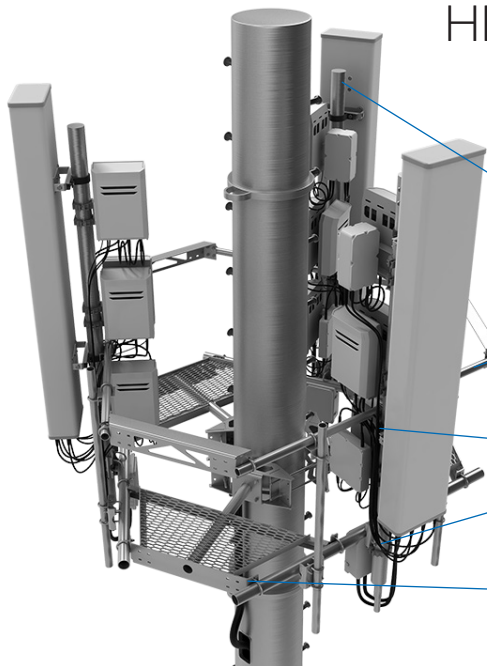
The Hi-Risk PIM zone exists in close proximity to the antenna; in front, above, below, and even behind it. The zone is defined as:

- Ten feet directly above or below the antenna
- One hundred feet in front of the antenna
- Five feet behind the antenna

Standard installation practices and products must be modified within the Hi-Risk zone to avoid PIM. Many traditional installation products including metal cable hangers, hose clamps, poor quality components with rust or corrosion and loose hardware or brackets have been identified as being PIM generators and must be eliminated.



HELIAX® PIM Guard Applications



PIM Guard Accessories, reduce the PIM where it matters most, the Hi-Risk PIM zone exists in close proximity to the antenna; in front, above, below, and even behind it. The zone is defined as:

- 10' (3M) directly above or below the antenna
- 5' (1.5M) behind the antenna
- 100' (30M) in front of the antenna

Mounting to Round Member for cable support

Material ID: PGP-CS04, PGP-CS08, PGP-CS10, PGP-CS12, PGP-CS16, PGP-CS18, SA-3C, SA-1C, RA-38C, UHA-3C, F

Supporting Fiber / Power / Coax cables

Material ID: SSH-411, SSH-1117, SSH-1014, SSH-1416, SSH-47, SSH-710, SWH-200-10, SA-ISO

Mounting to Angle Iron for cable support

Material ID: UA-3C, SA-3C, RA-38C, UHA-3C, FBR-COIL-S

SnapTak Adjustable Hangers



Description	Use with	Material ID
Polymer Snap-in Adjustable Hangers	3/4" stamped holes, PGP-CS04, PGP-CS08, PGP-CS10, PGP-CS12, PGP-CS16, PGP-CS18, UA-3C, SA-3C, SA-1TR, SA-1C, RA-38C, UHA-3C	SSH-411 , SSH-1117 , SSH-1014 , SSH-1416 , SSH-47 , SSH-710

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SnapWrap Adjustable Hanger



Description	Use with	Material ID
Polymer Snap-in Adjustable Wrap Hanger	3/4" stamped holes, PGP-CS04, PGP-CS08, PGP-CS10, PGP-CS12, PGP-CS16, PGP-CS18, UA-3C, SA-3C, SA-1TR, SA-1C, RA-38C, UHA-3C	SWH-200-10

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Cable Support Brackets



Description	Use with	Material ID
Polymer 4 to 18 position cable support brackets	All SnapStak and SnapTak hangers, SWH-200-10	PGP-CS04 , PGP-CS08 , PGP-CS10 , PGP-CS12 , PGP-CS16 , PGP-CS18

Angle Adapter



Description	Use with	Material ID
Polymer two hole angle adapter	All SnapStak and SnapTak hangers, SWH-200-10	UA-3C

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Standoff Adapters



Description	Use with	Material ID
Polymer three hole standoff adapter	All SnapTak hangers, MCLICK Hangers, SWH-200-10	SA-3C

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Description	Use with	Material ID
Polymer multifunction one hole standoff adapter	All SnapTak hangers, MCLICK hangers, SWH-200-10	SA-1TR

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Description	Use with	Material ID
Polymer one hole standoff adapter	All SnapTak hangers, SWH-200-10	SA-1C

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Description	Use with	Material ID
Polymer multifunction one hole standoff adapter	All SnapTak hangers, MCLICK hangers, SWH-200-10	RA-38C

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Description	Use with	Material ID
Polymer universal three hole standoff adapter	All SnapTak hangers, MCLICK hangers, cable grommets, SWH-200-10	UHA-3C

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SnapStak Isolator



Description	Use with	Material ID
Polymer one hole isolator for Snap-in Adjustable Hangers	3/4" stamped holes, all SnapStak hangers	SA-ISO

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Excess Cable Management



Description	Use with	Material ID
Engineered plastic fiber coiling reel	5-7mm fiber cables	FBR-COIL-S

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PIM-Guard Cable Support Brackets

PIMguard cable support brackets will support up to 69 cables with SnapTak hangers under high port count devices. Their low PIM design is ideal for PIM mitigation work or new installations alike.

Features:

- Minimum number of parts and junctions
- High contact pressure junctions
- Hot dipped galvanized steel for corrosion resistance
- Rounded corners

PIM-Guard RRU Mounting

RR-FA2 Fast Access RRU Mount

Features:

- Fast-Access Design
- Round legs up to 5-5/8" OD
- Removable brackets allow mounting to RRU then insertion into clamps for ease of installation
- 60 Degree Angle legs up to 6"
- 90 Degree Angle legs up to 4 1/2"



RR-FA2

Ordering Information

Description	Part Number
Fast Access RRU Mount	RR-FA2

PIM-Guard Roof-Top Cable Support

Ordering Information

Description	Part Number
PIM-Guard Roof-Top Cable Support PVC roof sleeper	
For 4 coaxial cable runs	MT-F1598
For 8 coaxial cable runs	MT-F1599
For 12 coaxial cable runs	MT-F1600



Roof-Top Cable Support



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