



# PIM-guard Solutions Ordering Guide

Rev. 04/19 | Second Edition

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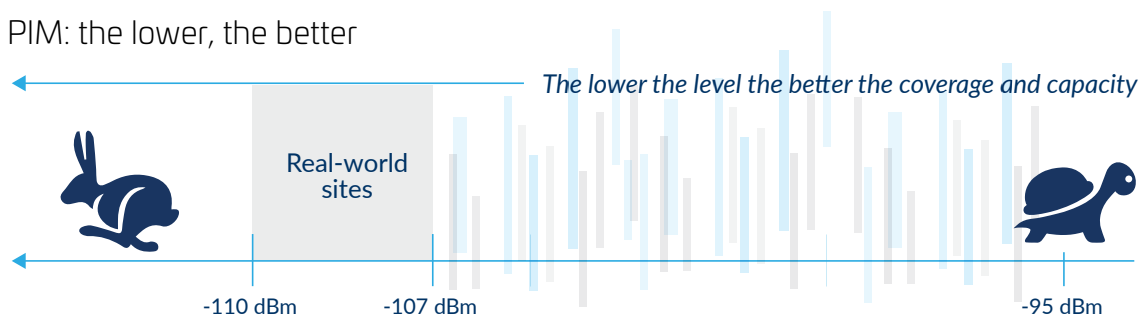
## External Passive Intermodulation (PIM)

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

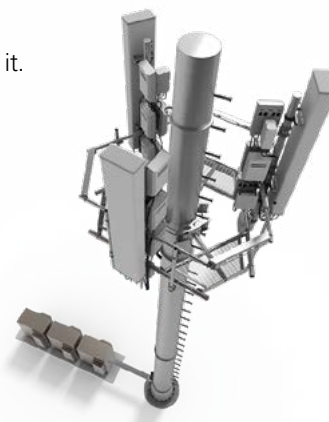


## Hi-Risk PIM Zone

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
- Five feet behind the antenna
- One hundred feet in front of 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.



## PIM-guard Solutions

To guard against the effects of PIM, CommScope offers the PIM-guard family of products specifically designed and tested to protect your network.

- Substitute composite for metal where possible
- Minimum number of parts and junctions
- Hot dipped galvanized steel for corrosion resistance
- High contact pressure junctions
- Rounded corners



Visit our website for additional information. [PIM-guard Solutions](#)

## SnapTak PIM-guard Adjustable Hangers

**Features:**

- PIM free cable attachment
- Eliminates grommet
- Reduces installation time by 2/3
- Reduces material and handling costs



### Ordering Information

Description	Cable Size Range (mm)	Example Cable Type	Part Number
<b>SnapTak PIM-guard Adjustable Hangers</b> Self adjusting, variable diameter, stackable up to 3 deep	4.0 to 7.0	FJ-2SM fiber jumpers	SSH-47
	7.1 to 10.0	RET Cables	SSH-710
	10.1 to 14.0	2-conductor power cables	SSH-1014
	14.1 to 16.0	½" LDF4 jumpers	SSH-1416



SSH-47



SSH-710



SSH-1014



SSH-1416  
\* NEW Version 1.1 \*



Hangers Installed with SA-1C

## SnapTak Hanger Removal Tool

### Ordering Information

Description	Part Number
<b>SnapTak Hanger Removal Tool</b> Pliers type tool makes SnapTak hanger removal easy. Black oxide finish with rubber grips.	STRT-1



STRT-1

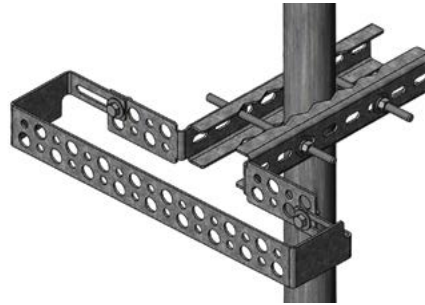
# PIM-guard Cable Support Brackets

## Ordering Information

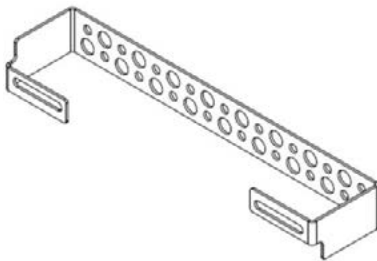
Description	Part Number
<b>PIM-guard Cable Support Brackets</b> Mount to 1.9" - 4.5" OD pipes	
8-Port antenna cable support bracket	PG-CS08
23-Port antenna cable support bracket	PG-CS23
<b>17-Port Cable Support Expansion Bracket</b> Expands PG-CS8 (8-port) to 23 ports	PG-CSEB17
<b>RRU Cable Support Bracket</b> 24-Port RRU and Antenna cable support bracket Includes new mounting feature to enable changing orientation of brackets for mounting under antennas	ACS-D24



Cable Support Bracket  
8-Port (PG-CS08)



Cable Support Bracket  
23-Port (PG-CS23)



Cable Support Expansion  
(PG-CSEB17)

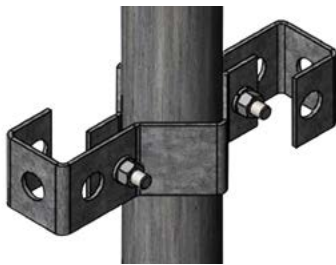


RRU Cable Support Bracket  
(ACS-D24)

## PIM-guard Tower Adapters

### Ordering Information

Description	Part Number
<b>PIM-guard Tower Adapters</b> 6-Port Adapter Brackets, Mount SnapTak hangers to round members 2-3/8" to 3-1/2" OD	PG-RM06
<b>Polymer Adapter Block</b> Use with cable ties or cable banding system to mount SnapTak hangers to round members	SA-1C
<b>Multifunction Polymer Adapter</b> Snaps into tower, provides 1-inch standoff, Threads onto 3/8" and 1/2" bolts to attach SnapTak hangers, Snaps between SnapTak hangers to provide full hanger rotation	SA-1TR



6-Port Adapter Bracket  
(PG-RM06)



Polymer Adapter Block  
(SA-1C)



Multifunction Adapter  
(SA-1TR)

### SA-1TR Multifunction Adapter Applications



SA-1TR on Tower  
as Spacer/Standoff



SA-1TR on Threaded Rod  
with SnapTak



SA-1TR Between SnapTaks  
for Full Rotation

## PIM-guard RRU Mounting

### RR-FA2 Fast Access RRU Mount

**Features:**

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



RR-FA2

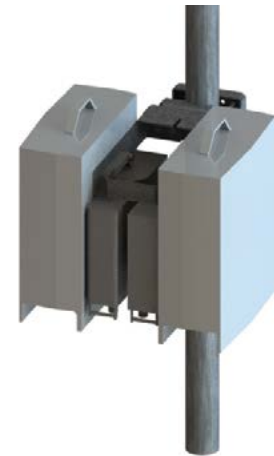
### Ordering Information

Description	Part Number
Fast Access RRU Mount	RR-FA2

### RR-B2B-AR Access Ready RRU Mount

**Features:**

- Fits 2 Radios + A2 Modules within the mount envelope minimizing footprint
- Suitable for Assembly right behind antenna – Minimizes radio wind-load
- Round legs 2 3/8" to 4 1/2" OD



RR-B2B-AR

### Ordering Information

Description	Part Number
Access Ready RRU Mount	RR-B2B-AR

## PIM-guard Roof-Top Cable Support

### Ordering Information

Description	Part Number
<b>PIM-guard Roof-Top Cable Support</b> 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

## PIM-guard Cable Banding and Cable Ties

### Ordering Information

Description	Part Number
<b>Cable Banding System</b>	
Bulk Banding; 1/2" x 50' reel	CB-12-50
Locking Heads; for cable banding (CB-12-50), qty. 25	CB-LH-25
Cable Banding Installation Tool; for cable banding (CB-12-50)	CB-IT
<b>Cable Ties</b> Heat stabilized, weather resistant nylon, 460 mm length, 100 pcs	CT-460-100



Cable Banding  
(CB-12-50)



Locking Head  
(CB-LH-25)



Cable Banding Installation Tool  
(CB-IT)



Cable Ties  
(CT-460-100)

### CommScope Contact Information

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