

# PIM-GUARD® APPLICATIONS

PROVIDING END-TO-END PIM SUPPORT

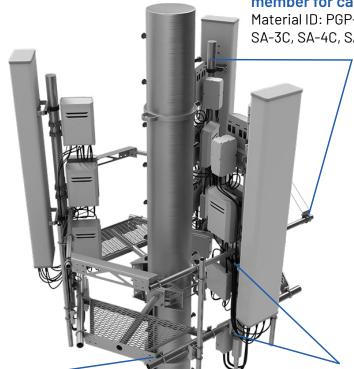
PIM-Guard solutions, reduce PIM where it matters most, the high-risk PIM zone exists in close proximity to the antenna: in front, above, below and even behind it.

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-series cable support brackets, SA-3C, SA-4C, SA-1C, UHA-3C, FBR-COIL-S



Mounting to angle Iron for cable support

Material ID: UA-3C, SA-3C, SA-4C, UHA-3C, FBR-COIL-S

Supporting fiber, power and coax cables

Material ID:

SSH-411, SSH-1117, SSH-1724, SSH-2630, SSH-3642, SWH-200-10, SA-ISO,

FBR-COIL-S

# PIM-GUARD® ANTENNA AND RADIO CABLE SUPPORT BRACKETS

ANDREW® developed the industry's first all-resin PIM-Guard antenna and radio cable support brackets to provide PIM-fighting interference protection in the high-risk zone around the antenna. Recyclable, lightweight and weatherproof, these "PIM-Fighter" brackets were designed to work with our PIM-Guard SnapTak® hangers—enabling higher cable densities and leaving PIM nowhere to hide!

ANDREW has developed several exciting new additions to this popular PIM-Guard family. We created new designs to address wider antennas with expanded 22-inch brackets and also models with reverse orientation for back-to-back RRU mount applications. These new models feature the same PIM-fighting and durable environmental performance of our PIM-Guard line and were specifically designed to address expanded mounting scenarios.





### HELIAX° SnapTak° Adjustable Hangers (kits of 10)

| Material ID     | Description                           | Application   | Use with  | ANDREW Cable series   |
|-----------------|---------------------------------------|---|---|---|
| SSH-411         | Polymer snap-in<br>adjustable hangers | Support cables<br>from 4.0mm<br>to 11.0mm in<br>diameter  | 3/4" stamped holes, PGP-series cable support brackets, UA-3C, SA-3C, SA-4C, SA-1TR, SA-1C, UHA-3C       | DFJ-2S123   FJ-1S,2S,3S,4S,6S,8S, 12S   DFJ-2S320   FHBDW-H2   FJ-4MM   DFJ   FJ-2SM, 4SM   FJ-1SM   FSJ1   PTS1   DFJ-12S   RFFT   ATCB-B01 (RET data cable) |
| <u>SSH-1117</u> | Polymer snap-in<br>adjustable hangers | Support cables<br>from 11.0mm<br>to 17.0mm in<br>diameter | 3/4" stamped holes, PGP-series cable<br>support brackets, UA-3C, SA-3C, SA-4C,<br>SA-1TR, SA-1C, UHA-3C | PWRT-212-S LS2 PWRT-312-SC <br>PWRT-208-L  PWRT-210-S FSJ4 <br>HL4 AL4 LDF4 <br>PWRT-208-S  |
| SSH-1724        | Polymer snap-in<br>adjustable hangers | Support cables<br>from 17.0mm<br>to 24.0mm in<br>diameter | 3/4" stamped holes, PGP-series cable<br>support brackets, UA-3C, SA-3C, SA-4C,<br>SA-1TR, SA-1C, UHA-3C | HFA206-1 to 6S   HFT410-1 to 4S  <br>PWRT-608-S   PWRT-606-S  |
| SSH-2630        | Polymer snap-in<br>adjustable hangers | Support cables<br>from 26.0mm<br>to 30.0mm in<br>diameter | 3/4" stamped holes, PGP-series cable<br>support brackets, UA-3C, SA-3C, SA-4C,<br>SA-1TR, SA-1C, UHA-3C | HFT206-8S PWRT-604-S AVA5   |
| SSH-3642        | Polymer snap-in<br>adjustable hangers | Support cables<br>from 36.0mm<br>to 42.0mm in<br>diameter | 3/4" stamped holes, PGP-series cable support brackets, UA-3C, SA-3C, SA-4C, SA-1TR, SA-1C, UHA-3C       | HFT1206   AVA6  |





#### HELIAX® SnapWrap adjustable hanger (kits of 10)



| Material ID | Description                                  | Application  | Use with  |
|-------------|--|--|---|
| SWH-200-10  | Polymer snap-in<br>adjustable wrap<br>hanger | Bundle multiple cable<br>types and sizes into<br>a 1/2" (12.7mm) to 2"<br>(50.8mm) bundle. | 3/4" stamped holes, PGP-series cable support brackets, UA-3C, SA-3C, SA-4C, SA-1TR, SA-1C, UHA-3C |



<u>Installation Bulletin</u>

## HELIAX® angle adapter (kits of 10)



| Material ID  | Description                    | Application   | Use with                           |
|--------------|--------------------------------|---|------------------------------------|
| <u>UA-3C</u> | Polymer two hole angle adapter | Angle member attachment. Includes torque stop set bolt to ensure proper attachment force. Two 3/4" holes for Snap-in style hangers. | All SnapTak hangers,<br>SWH-200-10 |



<u>Installation Bulletin</u>

#### HELIAX® standoff adapters (kits of 10)



| Material ID  | Description                               | Application   | Use with                           |
|--------------|---|---|------------------------------------|
| <u>SA-3C</u> | Polymer three<br>hole standoff<br>adapter | Two sets of slots for round member attachment. 3/8" holes for bolt down attachment. Three 3/4" holes for Snap-in style hangers. | All SnapTak hangers,<br>SWH-200-10 |



<u>Installation Bulletin</u>



| Material ID  | Description                               | Application  | Use with                           |
|--------------|---|--|------------------------------------|
| <u>SA-4C</u> | Polymer three<br>hole standoff<br>adapter | Two sets of slots for round member attachment. 3/8" holes for bolt down attachment. Four 3/4" holes for Snap-in style hangers. | All SnapTak hangers,<br>SWH-200-10 |



<u>Installation Bulletin</u>



| Material II | Description   | Application   | Use with   |
|-------------|---|---|--|
| SA-1TR      | Polymer multi-<br>function one hole<br>standoff adapter | Threads into 3/8" & 1/2" bolts & U-bolts or snaps into 3/4" holes. One 3/4" hole for Snap-in style hangers. | All SnapTak hangers,<br>SWH-200-10, 3/8" &<br>1/2" bolts |



Installation Bulletin



| Material ID  | Description                       | Application   | Use with                           |
|--------------|-----------------------------------|---|------------------------------------|
| <u>SA-1C</u> | Polymer one hole standoff adapter | Round member attachment. One 3/4" hole for Snap-in style hangers. | All SnapTak hangers,<br>SWH-200-10 |



<u>Installation Bulletin</u>



| Material ID | Description  | Application   | Use with  |
|-------------|--|---|---|
| UHA-3C      | Polymer<br>universal three<br>hole standoff<br>adapter | Round member or angle member attachment.<br>Three 3/4" holes for snap-in hangers, or<br>locations to mount three grommets or has a<br>3/8" holes for threaded rod attachment. | All SnapTak<br>hangers, MCLICK<br>hangers, cable<br>grommets,<br>SWH-200-10 |



<u>Installation Bulletin</u>

## HELIAX® SnapStak isolator (kits of 10)



| Material ID | Description  | Application   | Use with  |
|-------------|--|---|---|
| SA-ISO      | Polymer one hole<br>isolator for snap-<br>in adjustable<br>hangers | Snaps in between hanger and mounting surface, and between stacked hangers to remove metal to metal contact. | 3/4" stamped holes,<br>all SnapStak <sup>®</sup><br>hangers |

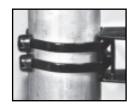


<u>Installation Bulletin</u>

#### **Banding**



| Material ID                            | Description  | Application   | Use with                       |
|--|--|---|--------------------------------|
| CB-12-16LH<br>CB-12-18LH<br>CB-12-27LH | Heat-stabilized weather resistant acetal cable banding, 1/2 in x 16 in, 18 in and 27 in length with attached locking head, 50, 100, 25 pcs | Round member or angle<br>member attachment for<br>polymer angle adapters and<br>standoffs | SA-3C, SA-4C, SA-1C,<br>UHA-3C |





| Material ID | Description                                 | Application   | Use with                                |
|-------------|---|---|---|
| CB-12-50    | Cable banding, bulk,<br>1/2 in x 50 ft Reel | Round member or angle<br>member attachment for<br>polymer angle adapters,<br>standoffs and excess cable<br>management coilers | All Standoff adapters<br>and FBR-COIL-S |
|             |   |   |   |





| Material ID     | Description                                      | Application                            | Use with |
|-----------------|--|--|----------|
| <u>CB-LH-25</u> | Locking heads for cable banding CB-12-50, 25 pcs | Installation of CB-12-50 cable banding | CB-12-50 |
| Material ID     | Description                                      | Application                            | Use with |



|       |   | The production of the producti |                          |
|-------|---|--|--------------------------|
| CB-IT | Installation tool for cable<br>banding CB-12-50 and locking<br>heads CB-LH-25 | Installation and trim cutting of cable banding CB-12-50  | CB-12-50 and<br>CB-LH-25 |

#### Excess cable management



| Material ID | Description                           | Application  | Use with           |
|-------------|---------------------------------------|--|--------------------|
| FBR-COIL-S  | Engineered plastic fiber coiling reel | Round member or angle<br>member attachment.<br>Accommodates 16' (5M) of<br>excess 7mm fiber. | 5-7mm fiber cables |



**Installation Bulletin** 

Please contact your local ANDREW representative or email <a href="mailto:steelproducts@andrew.com">steelproducts@andrew.com</a> for more information.