

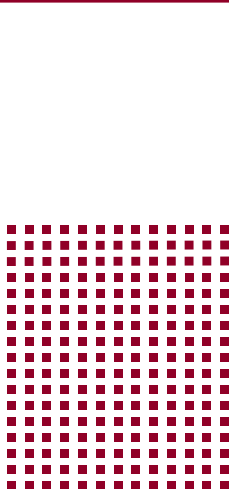
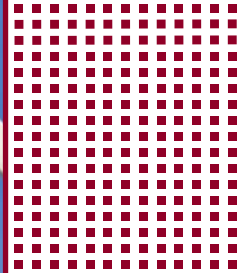
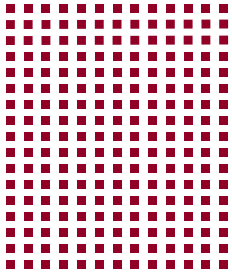
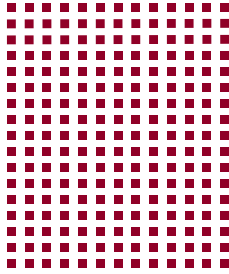
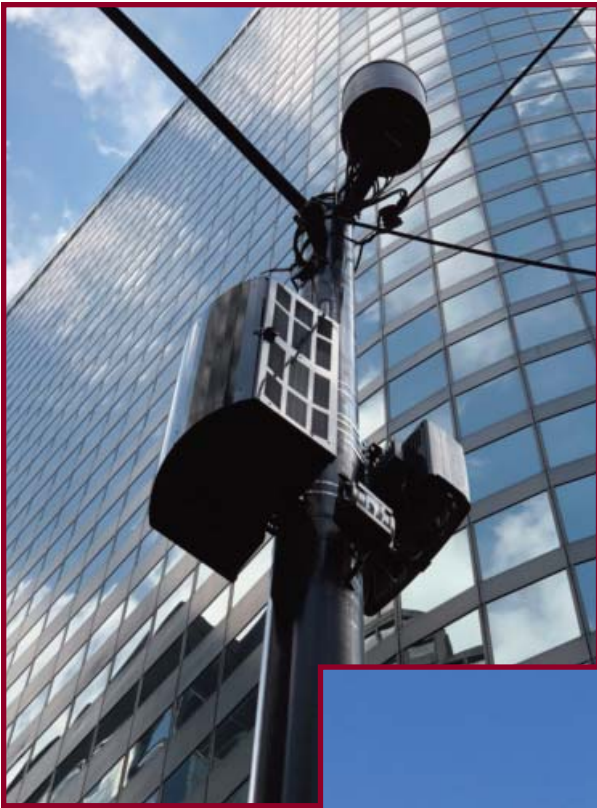


**Charles**<sup>®</sup>

An Amphenol Company

# Small Cell Concealment Solutions

Pole Shrouds • Antenna Mounts • Ground Furniture • Integrated & Standalone Poles



**Charles**  
An Amphenol Company

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# Committed to Your Concealment Needs



Charles Industries has a long history of providing Innovative Enclosed Solutions for communications networks. For more than 50 years, service providers have relied on us to protect their mission-critical infrastructure with robust environmental enclosures, and we have done so by working side-by-side with our customer partners to develop a broad range of passive equipment enclosures for all types of environments and applications.

Today's next generation Small Cell and Distributed Antenna Systems pose unique challenges for providers. 4G and 5G networks require many considerations for deployment. Municipalities often require service providers to meet local aesthetic and dimensional standards when deploying new equipment. Radios, antennas, power, and other equipment must blend into their surroundings as inconspicuously and unobtrusively as possible. Concealment shrouds and poles have become a vital component of network planning to meet these requirements.

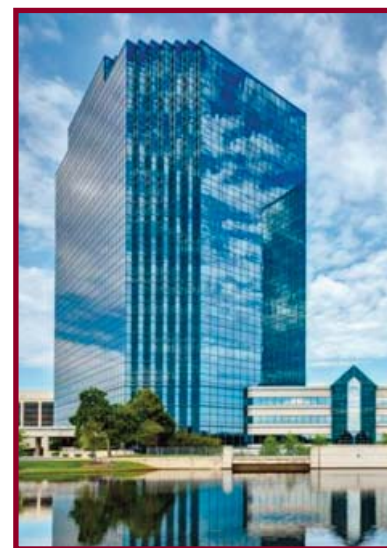
It can be a daunting task to choose the most effective and cost-efficient concealment enclosures for next generation networks. It helps to have a proven expert in this area to guide the way in navigating the many considerations that go into concealment solution selection – everything from broad considerations such as thermal analysis and material selection, to the little things like proper cable routing space and management. Charles' enclosure experts have the experience needed to help you make the right choices out of the gate, decisions that will speed your deployments and keep projects on schedule.

## About Charles Industries

Founded in 1968, Charles Industries, LLC is a diversified manufacturing and technology company with corporate headquarters in Schaumburg, Illinois and five U.S. based manufacturing centers. In April 2019, Charles was acquired by Amphenol Corporation, one of the world's largest designers, manufacturers and marketers of electrical, electronic and fiber optic connectors and interconnect systems; antennas; sensors and sensor-based products; and coaxial and high-speed specialty cable. Backed by Amphenol's capital, with access to global supply and manufacturing resources, Charles operates under the Amphenol RF Optics and Broadband (ARFOB) Group. Working synergistically with other ARFOB business units, Charles is aligned to offer integrated solutions including enclosures, cabling, thermal management solutions and third-party equipment integration.

Charles' North American manufacturing and engineering resources are positioned to effectively meet the fast-paced changes of providing customer partners with the latest enclosure solutions for deployment of next-gen networks. From prototypes to final production, our enclosure expertise allows us to minimize lead times and project schedules. With a broad range of concealment solutions, chances are that Charles has a deployed solution that meets your concealment requirements. In the event there isn't, Charles' experienced teams stand ready to work with you to design a solution tailored to your specific requirements.

Customer Satisfaction through Continuous Improvement (CSCI): it's both our guiding principle and our promise to you. Charles prides itself on industry-leading customer service and support pre- and post- sale. We will strive to provide you with attention, action and efficiency. We value long-term partnerships with our customers and are committed to your success.



**Charles**

An Amphenol Company

INNOVATIVE ENCLOSED SOLUTIONS™

# Concealment Capabilities... from Top to Bottom

Charles Small Cell Concealment Shrouds are proudly made in the USA. Our in-house Engineering team develops innovative concealment solutions from concept rendering to the productized offerings found in this catalog. All designs are thoroughly vetted by conducting both structural and thermal analyses to confirm that it will survive seismic and wind loading as well as keep all internal equipment within the allowable operating temperature range.

Charles manufactures all shroud products in our vertically integrated manufacturing facilities. Processes utilized include large scale turrets and brake presses for metal forming, robotic welding, Telcordia GR-487 certified powder coating, composite material fabrication, and thermoforming.

With aesthetic designs for pole top, pole side and pole adjacent radio and equipment shrouds, Charles is uniquely positioned to be your single source supplier of concealment solutions.



Pole Top



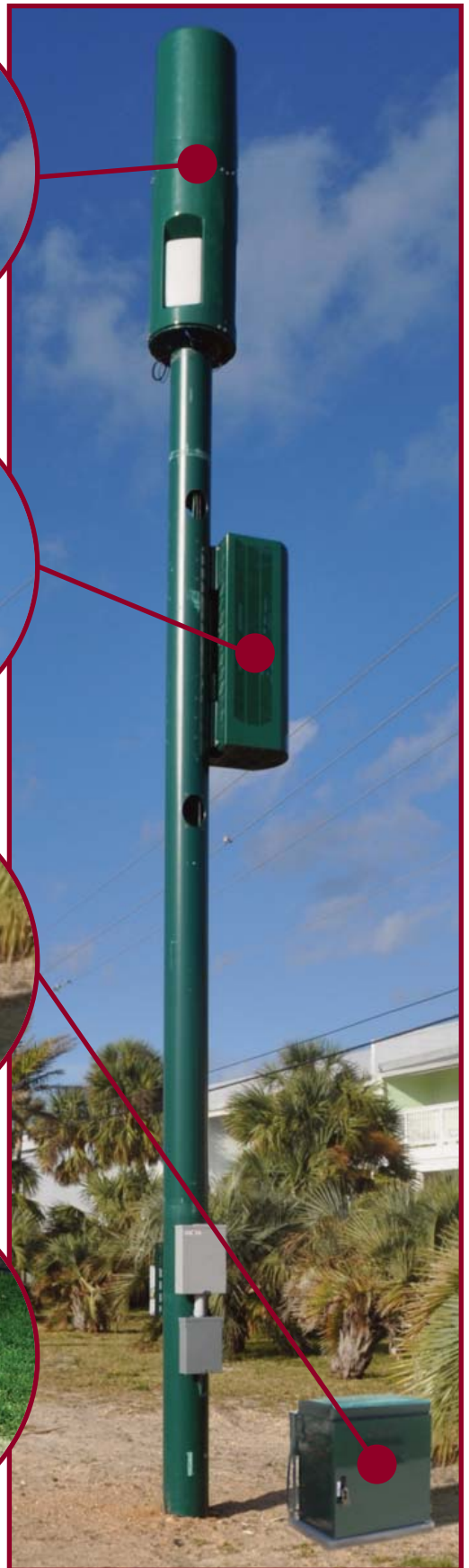
Pole Side



Ground Furniture



Power Demarcation



# Pole Top Shrouds

- Multiple diameters supporting 4G, 5G, and combination 4G/5G Small Cell nodes
- Optional FRP radome for 4G solutions to maintain continuous diameter
- Cutouts for mmWave 5G radios for optimum signal coverage – can be covered with shroud color matched 3M film, see page 29 for additional information
- Optional tapered skirt to streamline overall aesthetics
- Direct mount to metal flanged poles or with optional adapter plate
- Optional bolt through / band mount pole mount kits for wood poles and poles without top flanges
- Radios and cabling completely contained within shroud
- Available in multiple colors to match local requirements



## 4G Pole Top Shrouds



**SHRD1-2712**

### 12" Diameter

#### SHRD1-2712AGUxD

- (4) Ericsson 220x/440x
- 4G Center Pipe Mount Canister Antenna

#### SHRD1-2712AGUxF

- (4) Ericsson 220x/440x
- 4G Center Pipe Mount Canister Antenna
- (1) Smart Utility Meter

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

## 18" Diameter



**SHRD1-1218**

### SHRD1-1218AVCxX

- (1) Ericsson 220x/440x
- 4G Canister Antenna



**SHRD1-1518**

### SHRD1-1518AVCxX

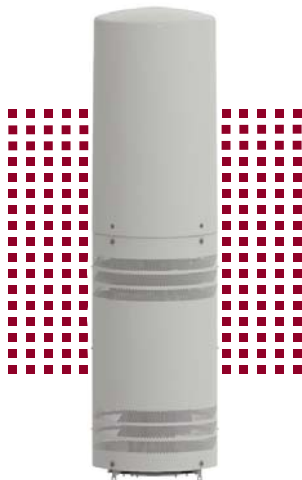
- (3) Ericsson 220x/440x
- 4G Canister Antenna



**SHRD1-2818**

### SHRD1-2818AVCxS

- (3) Ericsson 220x/440x or (3) Nokia Airscale Micro or Samsung LAA / CBRS
- 4G Canister Antenna



**SHRD1-3818**

### SHRD1-3818AVCxX

- (3) Ericsson 220x/440x or (3) Nokia Airscale Micro or Samsung LAA / CBRS
- 4G Canister Antenna
- Diplexer

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

# 5G Pole Top Shrouds



**SHRD5-2515**

## 15" Diameter

### SHRD5-2515RXUxH

- (4) Ericsson 220x/440x
- (2) Ericsson StreetMacro 6701



**SHRD5-2616**

## 16" Diameter

### SHRD5-2616RXUxG

- (3) Ericsson AIR 1281

### SHRD5-2616RXUxB

- (3) Ericsson StreetMacro 6701



**SHRD5-3922**

## 22" Diameter

### SHRD5-3922RXUxC

- (3) Samsung 5G NR AU

### SHRD5-3922RXUxB

- (3) Ericsson StreetMacro 6701



**SHRD5-3728**

## 28" Diameter

### SHRD5-3728RVUxN

- (3) Nokia AEUB / ASOD

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors



# 4G/5G Pole Top Shrouds

## 16" Diameter



**SHRD5-6016RAU**

### SHRD5-6016RAUxG

- (3) Ericsson AIR 1281
- 4G Canister Antenna

### SHRD5-6016RAUxB

- (3) Ericsson StreetMacro 6701
- 4G Canister Antenna



**SHRD5-6016RNU**

### SHRD5-6016RNUxA

- (1) Nokia AEWD
- (1) Nokia AEWE
- (1) Nokia Airscale Micro
- 4G Canister Antenna

## 18" Diameter



**SHRD5-7118**

### SHRD5-7118AG5xX

- (3) Ericsson 220x/440x
- (2) Samsung HT5H01
- 4G Canister Antenna

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

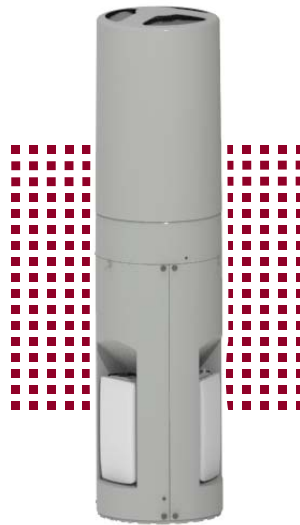
## 22" Diameter



SHRD5-7022

### SHRD5-7022RVAxE

- (3) Ericsson AIR 5331
- 4G Canister Antenna



SHRD5-9222

### SHRD5-9222RGUxC

- (3) Samsung 5G NR AU
- (2) Nokia Airscale Micro or Samsung LAA and CBRS
- 4G Canister Antenna

### SHRD5-9222RGUxJ

- (3) Ericsson StreetMacro 6701
- (3) Ericsson 220x/440x
- 4G Canister Antenna

## 28" Diameter



SHRD5-9228

### SHRD5-9228RGUxN

- (3) Nokia AEUB / ASOD
- (2) Nokia Airscale Micro
- 4G Canister Antenna

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

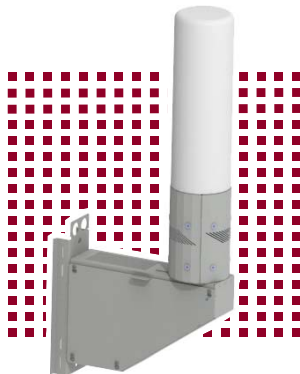
# Side Arm Mounts

- Support low power 4G, 5G, and combination 4G/5G Small Cell nodes
- Places antenna offset from pole for better RF coverage behind pole
- Ideal for when desired RAD centers are lower than pole height
- Small vertical height allows for utility pole climbing around unit
- Shrouded versions conceals cables and connections
- Can be through-bolted or banded to pole
- Multiple colors available to match local requirements



## 4G Side Arm Mounts

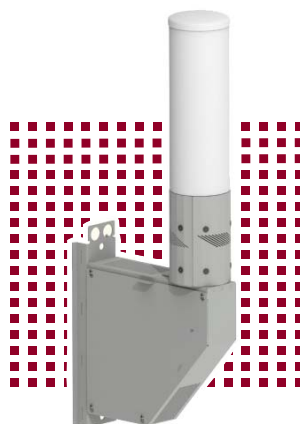
### 8" Diameter Antenna, 24" Offset



**SAM-1408**

#### **SAM-140824xEG11**

- (1) Ericsson 220x/440x
- 8" OD Gamma Nu 4G Canister Antenna



**SAM-2008**

#### **SAM-200824xNC11**

- (1) Nokia Airscale Micro
- 8" OD Commscope 4G Canister Antenna

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

## 10" Diameter Antenna, 24" Offset



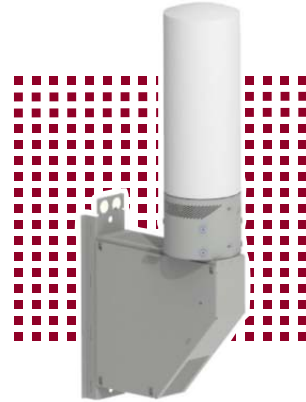
SAM-1410

### SAM-141024xEXX1

- (1) Ericsson 220x/440x
- 10" OD Pipe Mount 4G Canister Antenna

### SAM-201024xNXX1

- (1) Nokia Airscale Micro
- 10" OD Pipe Mount 4G Canister Antenna



SAM-2010

### SAM-201024xNA21

- (1) Nokia Airscale Micro
- 10" OD Acecom 4G Canister Antenna

## Multiple Diameter Antennas, 24" Offset



SAM-1416

### SAM-1416xERD1

- (1) Ericsson 220x/440x
- 8"-14" OD Gamma Nu / Pipe Mount Antenna

## Panel Antenna, 24" Offset



SAM-2014

### SAM-201424xNP11

- (1) Nokia Airscale Micro
- 4G Panel Antenna

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

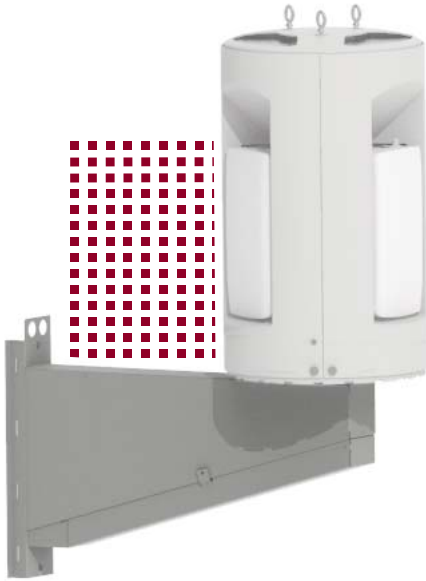
## 5G Side Arm Mounts

### Side Arm Bracket for SHRD1/5, 24" Offset

#### 97-002384x-A

- Bolt through or band mounting to pole
- Hidden cable trough for cable management
- Supports SHRD1 / SHRD5 pole top shrouds

*(shown with mounted radio shroud, not included)*

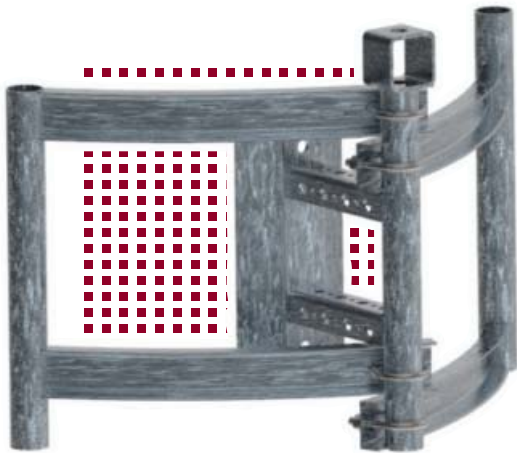


97-002384x-A

### Single Point 5G Mounting Bracket, 24" Offset

#### 97-5GWDMTHGN1-A

- Bolt through mounting to pole
- Fixed universal pipe mount for 5G Radio offset from mounting surface
- (2) pivoting arms with universal pipe mount for 5G radios
- Mounting for optional 4G canister antenna



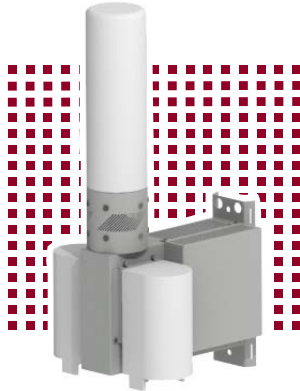
97-5GWDMTHGN1-A



97-5GWDMTHGN1-A installation with (3) customer-supplied 5G radios

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

## 4G/5G Side Arm Mounts



**SAM-1608**

### 8" Diameter Antenna, 24" Offset

#### **SAM-160824xEG11**

- (3) Ericsson 220x/440x
- (2) Samsung HT5H01 5G Radios
- 8" OD Gamma Nu 4G Canister Antenna



**SAM-1610**

### 10" Diameter Antenna, 24" Offset

#### **SAM-161024xAXX1**

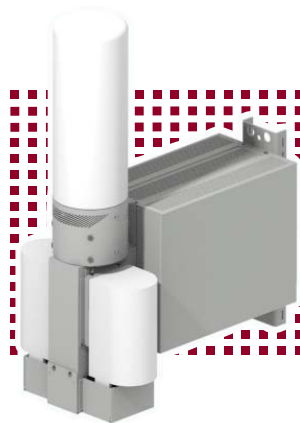
- (3) Ericsson 220x/440x
- (2) Samsung HT5H01 5G Radios
- 10" OD Pipe Mount 4G Canister Antenna

#### **SAM-161024xAA11**

- (3) Ericsson 220x/440x
- (2) Samsung HT5H01 5G Radios
- 10" OD Acecom 4G Canister Antenna

#### **SAM-221924xAXX1**

- (3) Nokia Airscale Micro
- (1) Nokia AEWD
- (1) Nokia AEWE
- 10" OD Pipe Mount 4G Canister Antenna



**SAM-2210**

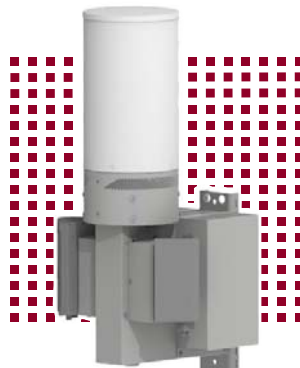
#### **SAM-161024xBG11**

- (3) Ericsson 220x/440x
- (3) Ericsson AIR 1281 5G Radios
- 10" OD Gamma Nu 4G Canister Antenna

### 10" Diameter Antenna, 37" Offset

#### **SAM-221037xAXX1**

- (4) Ericsson 220x/440x
- (2) Samsung HT5H01 5G Radios
- 10" OD Pipe Mount 4G Canister Antenna



**SAM-2214**

### 14" Diameter Antenna, 26" Offset

#### **SAM-221426xAXX1**

- (3) Nokia Airscale Micro
- (1) Nokia AEWD
- (1) Nokia AEWE
- 14" OD Pipe Mount 4G Canister Antenna

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

# Antenna Mounts

- Antenna mounts conceal cables and connections under 4G canister antenna
- Available with color matched FRP radome to maintain continuous color and diameter
- Available with leveling mechanism to properly align antenna
- Multiple colors available to match local requirements
- Direct mount to metal flanged poles or with optional adapter plate
- Optional bolt through / band mount pole mount kits for wood poles and poles without top flanges



## Poletop Antenna Mounts



**SHRD1-1016**

**16" Diameter**

### **SHRD1-1016RGCx0**

- Supports up to 14.5" OD Pipe Mount canister antenna
- FRP radome and optional tapered skirt

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors



**SHRD1-1218**

## 18" Diameter

### **SHRD1-1218AVCxX**

- Supports up to 16" OD canister antenna
- FRP radome and optional tapered skirt



**SHRD1-1420  
and  
SHRD1-2320**

## 20" Diameter

### **SHRD1-1420AUx0**

- Supports 14" OD canister antenna
- Reverse tapered skirt to hide cabling and connections

### **SHRD1-2320ALx0**

- Supports 14" OD canister antenna
- Reverse tapered skirt to hide cabling and connections
- Multi-direction leveling mechanism

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

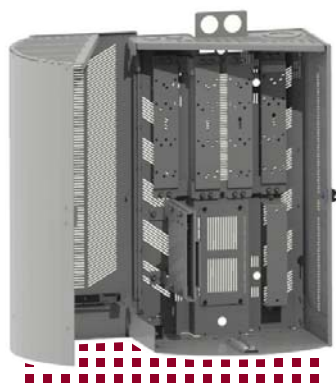


# Pole Side Shrouds

- Support low and high power 4G radios and ancillary equipment (PSUs, duplexers, fiber termination, power disconnect)
- Completely enclosed solutions for optimum protection and aesthetics of Small Cell nodes
- Allow for equipment installation / integration away from the pole to minimize bucket truck and lane closure time
- Mount to any type of pole with optional flush and offset pole mount kits
- Rear openings for cable ingress/egress when using hollow poles
- Multiple sizes available to match equipment needs and meet municipality size requirements
- Available in multiple colors to match local requirements



## 4G Pole Side Shrouds



SH60-301814

### 30"H x 18"W x 14"D Shrouds

#### SH60-301814xNEN

- (4) Ericsson 220x/440x or (4) Nokia Airscale Micro
- AC Disconnect



SH60-362018

### 36"H x 20"W x 18"D Shrouds

#### SH60-362018xNE5

- (1) Ericsson 8843 / 4449 / 4478 / 4426 / 4415
- (2) Ericsson 220x / 440x
- (1) Ericsson 6302 PSU or (2) Ericsson AC-08 PSUs

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

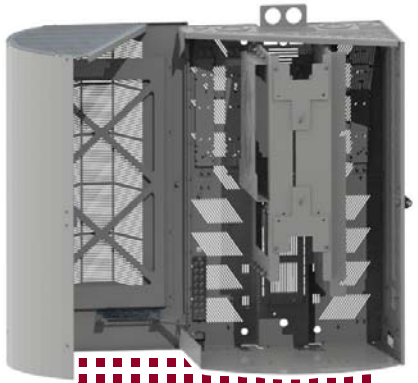
## 36"H x 23"W x 22"D Shrouds



SH60-362322xNE5

### SH60-362322xNE5

- (1) Ericsson 8843 / 4449 / 4478 / 4426 / 4415
- (2) Ericsson 220x / 440x
- (1) Ericsson 6302 PSU or (2) Ericsson AC-08 PSUs



SH60-362322xNN2

### SH60-362322xNN2

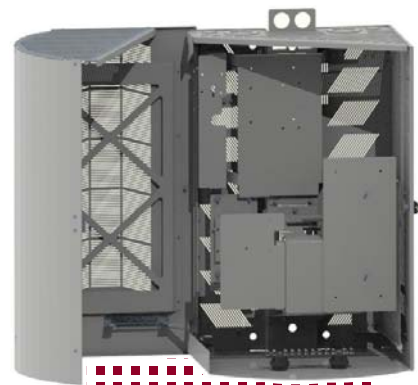
- (2) Nokia AHxxx 160W Dual Band Radio
- (2) Nokia APAF PSUs

#### ***(alternative configuration)***

- (1) Nokia AHxxx 160W Dual Band Radio
- (2) Nokia Airscale Micro
- (1) Nokia APAF PSUs

#### ***(alternative configuration)***

- (1) Nokia AHxxx 320W Dual Band Radio
- (1) Nokia Airscale Micro
- (1) Delta 2kW or ABB 1.6kW PSU



SH60-362322xNS1

### SH60-362322xNS1

- (1) Samsung 320W Dual Band
- (1) Samsung CBRS Radio
- (1) Delta 2kW or ABB 1.6kW PSU

#### ***(alternative configuration)***

- (1) Samsung 160W Dual Band
- (1) Samsung LAA Radio
- (1) Samsung CBRS Radio
- (1) Delta 2kW or ABB 1.6kW PSU

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors



**SH60-461414xNE1**

## 46"H x 14"W x 14"D Shrouds

### **SH60-461414xNE1**

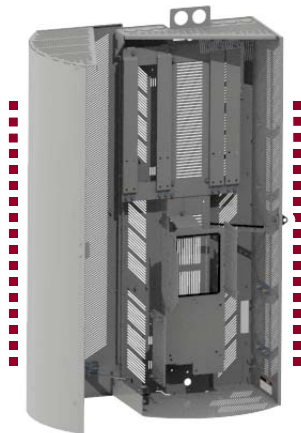
- (4) Ericsson 220x / 440x
- AC Disconnect

### **SH60-461414xNN1**

- (4) Nokia Airscale Micro
- AC Disconnect

### **SH60-461414xNP1**

- (1) Commscope ION-UH



**SH60-461814xNE2**

## 46"H x 18"W x 14"D Shrouds

### **SH60-461814xNE2**

- (8) Ericsson 220x / 440x
- AC Disconnect

### **SH60-461814xNEA**

- (1) Ericsson 4426
- (1) Ericsson 4415
- (2) Ericsson AC-08 PSUs

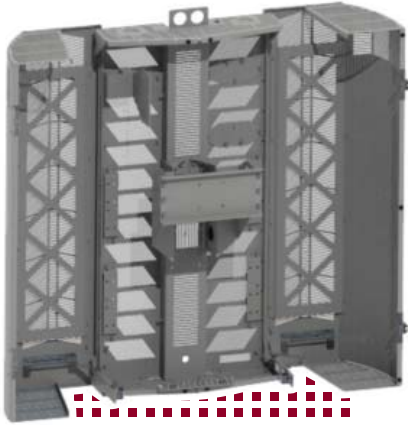
### **SH60-461814xNN7**

- (1) Nokia AHxxx 320W Dual Band Radio
- (1) Nokia Airscale Micro
- (1) CCI Twin 1.2kW PSU

### **SH60-461814xNP3**

- (1) Commscope CAP H

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors



**SH60-482415xNV2**

## 48"H x 24"W x 15"D Shrouds

### SH60-482415xNV2

- (1) Ericsson 4455
- (4) Ericsson 220x / 440x

## 48"H x 24"W x 20"D Shrouds

### SH60-482420xNN8

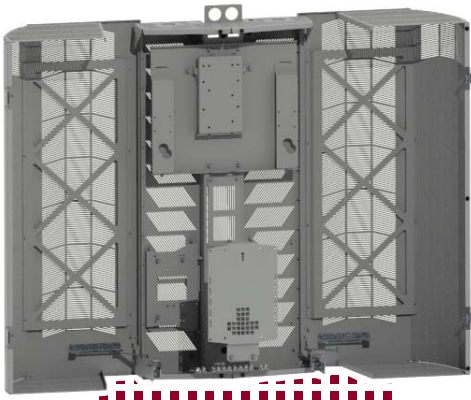
- (1) Nokia AHLBBA 370W Tri Band Radio
- (1) Nokia AHxxx 320W Dual Band Radio
- (2) Delta 2kW PSUs

### SH60-482420xNS1

- (1) Samsung 320W or 160W Dual Band Radio
- (1) Samsung CBRS
- (1) Samsung LAA
- (2) Delta 2kW PSUs

### SH60-482420xNV1

- (1) Nokia AHxxx 320W Dual Band Radio
- (1) Nokia Airscale Micro
- (1) Nokia ASOD 5G BBU
- (1) Delta 2kW PSU



**SH60-482420xNS1**

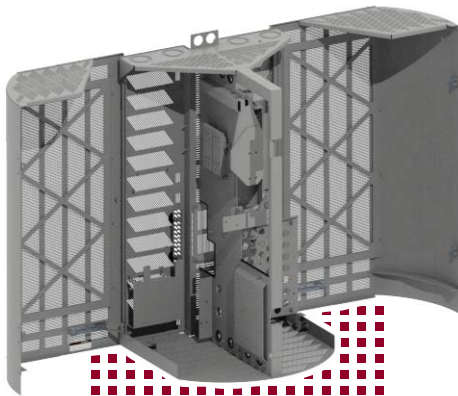
## 50"H x 30"W x 27"D Shrouds

### SH60-503027xNE7

- (1) Ericsson RUS32 or (1) Ericsson 4415
- (1) Ericsson 8843 or (1) Ericsson 4426
- (1) Ericsson RUS11/12 or (1) Ericsson 4449
- (1) Ericsson 220x / 440x
- (5) Ericsson AC-08 PSUs

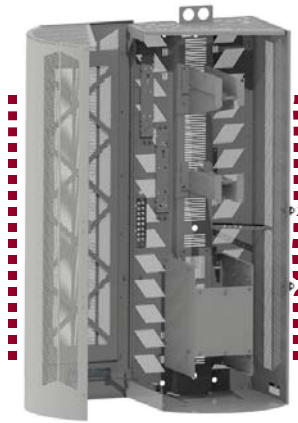
### SH60-503027xNE8

- (2) Ericsson RUS11/12
- (2) Ericsson 4415 / 4426
- (4) Ericsson AC-08 PSUs



**SH60-503027xNE7**

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors



**SH60-552019xNN5**

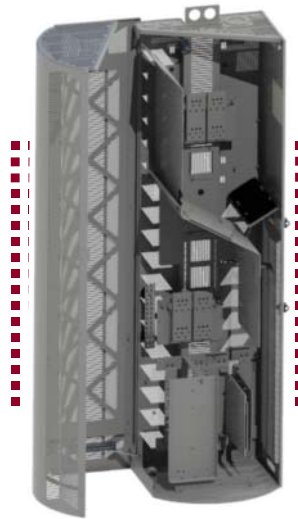
## 55"H x 20"W x 19"D Shrouds

### SH60-552019xNN5

- (2) Nokia AHxxx 320W Dual Band Radios
- (2) Delta 2kW or ABB 1.6kW PSUs

#### *(alternative configuration)*

- (1) Nokia AHxxx 320W Dual Band Radios
- (2) Nokia Airscale Micro
- (1) Delta 2kW or ABB 1.6kW PSUs



**SH60-702018xNE7**

## 70"H x 20"W x 18"D Shrouds

### SH60-702018xNE3

- (2) Ericsson RUS11/12
- (2) Ericsson AC-02 PSUs

### SH60-702018xNE4

- (2) Ericsson RUS32
- (2) Ericsson AC-08 PSUs

### SH60-702018xNE7

- (1) Ericsson 8843 / 4449 / 4478 / 4426 / 4415
- (1) Ericsson 4449 / 4478 / 4426 / 4415
- (2) Ericsson 220x / 440x
- (4) Ericsson AC-08 or (2) Ericsson 6302 PSUs

### SH60-702018xNN5

- (2) Nokia AHxxx 320W Dual Band Radios
- (2) Delta 2kW or ABB 1.6kW PSUs

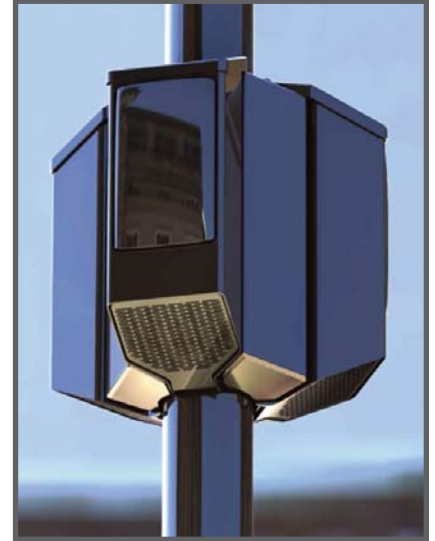
#### *(alternative configuration)*

- (1) Nokia AHxxx 320W Dual Band Radios
- (2) Nokia Airscale Micro
- (1) Delta 2kW or ABB 1.6kW PSUs

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

## 5G Pole Side Shrouds

- Discrete shroud per radio reduces overall deployment size while giving the flexibility to deploy a different number of radios at each node
- Full deployment is three radios spaced 120° apart
- Made of durable, lightweight ABS for minimizing overall impact on pole loading
- Decorative transition pieces to fill space between shrouds and conceal cabling, adjustable to accommodate different diameter poles
- Cutout for 5G antenna face for optimum RF transmission
- Can be color matched to pole with 3M film to color match exposed antenna face, see page 29 for additional information



**CLOK-351312xSAU**

### CLOK 5G Shrouds

#### **CLOK-261312xE12**

- (1) Ericsson AIR 1281

#### **CLOK-351312xSAU**

- (1) Samsung 5G NR AU

#### **CLOK-351312xE67**

- (1) Ericsson StreetMacro 6701

*Note: With all CLOK models, three (3) shrouds are required for a complete 360° installation around a pole diameter.*

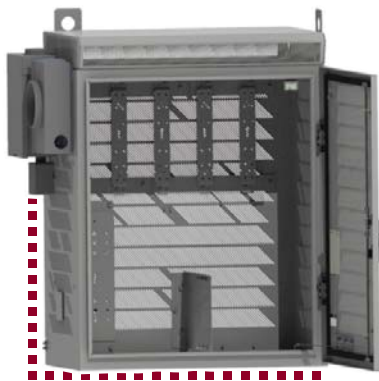
**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

# Ground Furniture

- 42”H x 32”W x 22”D ground mount shroud allows radios and equipment to be placed adjacent to a utility pole
- Supports either high power or low power radio configurations
- Diplexers and fiber enclosures are also supported
- Passively cooled vented solution
- 8 position AC load center and optional 100/200A meter socket
- Ring or Ringless type meter sockets available
- CPAD composite mounting pad available to provide a stable platform in any soil type, with cable slack storage



## Low Power Ground Mount Radio Shrouds



**SHRD56-051x8GB1**

### 42”H x 32”W x 22”D Shrouds

**SHRD56-051x8GB1 (Ring Type Meter Socket)**

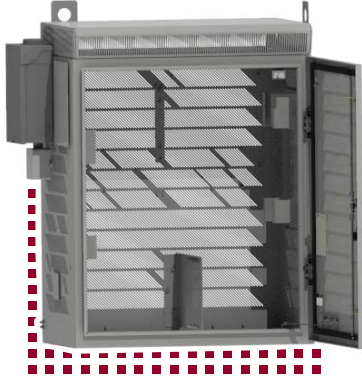
**SHRD56-051x8GB2 (No Meter Socket)**

- (5) Ericsson 220x / 440x or (5) Nokia Airscale Micro

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

# High Power Ground Mount Radio Shrouds

## 42"H x 32"W x 22"D Shrouds

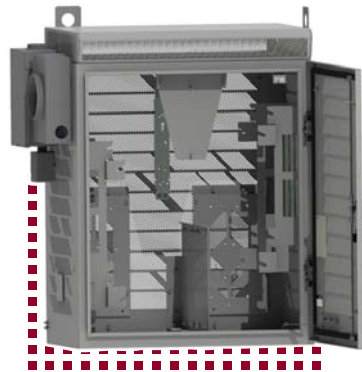


SHRD56-601x2GB2

**SHRD56-601x2GB1 (Ringless Meter Socket)**

**SHRD56-601x2GB2 (No Meter Socket)**

- (2) Ericsson RUS11/12 or (2) Ericsson RUS32
- (2) Ericsson AC-02/8 PSUs



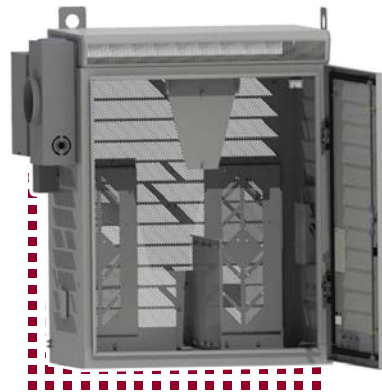
SHRD56-601x3GB3

**SHRD56-601x3GB1 (Ringless Meter Socket)**

**SHRD56-601x3GB3 (Ring Type Meter Socket)**

**SHRD56-601x3GB4 (AEP Ringless Meter Socket)**

- (2) Nokia AHxxx 160/320W Dual Band
- (1) Nokia Airscale Micro
- (2) Delta 2kW or (2) ABB 1.6kW PSUs

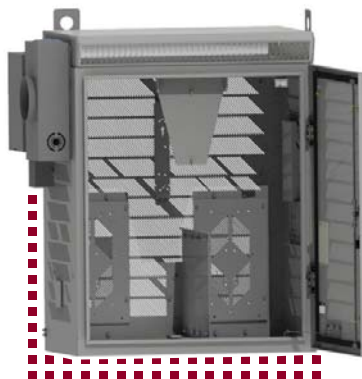


SHRD56-601xTGB1

**SHRD56-601xTGB1 (Ringless Meter Socket) /**

**SHRD56-601xTGB3 (Ring Type Meter Socket)**

- (2) High Power Ericsson radios, any combination of 8843 / 4449 / 4478 / 4426 / 4415
- (4) Ericsson AC-08 or (2) 6302 PSUs



SHRD56-601xWGB1

**SHRD56-601xWGB1 (Ringless Meter Socket) /**

**SHRD56-601xWGB5 (Ring Type Meter Socket)**

- (2) Samsung 320W Dual Band
- (1) Samsung CBRS
- (2) Delta 2kW or (2) ABB 1.6kW PSUs

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors



# Power Demarcation Shrouds

- Small shrouds to support power/fiber at 4G and 5G Small Cell nodes
- Meter socket for incoming utility service
- AC load center for power disconnect / distribution
- Models with internal mounting for AC-DC rectifiers for areas only allowing DC on poles
- Mounting for fiber enclosure
- Multiple colors available to meet local requirements
- CPAD composite mounting pad available to provide a stable platform in any soil type, with cable slack storage



## CNUB



CNUB-421211xBA1

### 42"H x 12"W x 11"D Shrouds

#### CNUB-421211xBA1

- Ringless meter socket

#### CNUB-421211xBB1

- Ring Type meter socket

#### CNUB-421211xBC1

- Ringless meter socket with horn bypass

## SHRDPW



SHRDPW-NN1xNGE1

### 42"H x 15"W x 15"D Shrouds

#### SHRDPW-NN1xNGE1

- Internal mounting for AC-DC rectifiers
- Ringless meter socket

#### SHRDPW-NN1xNGE2

- Internal mounting for AC-DC rectifiers
- Ring Type meter socket

**NOTE:** Small 'x' in part number to be replaced by letter for color code:  
See page 28 for available colors

# Standalone Poles

Charles Industries' complete Small Cell pole solutions offer everything needed for a Small Cell deployment:

- A standard straight or tapered pole, available in various heights and colors
- Optional faux fluting and decorative bases to match local requirements
- Built-in mounting for AC and fiber boxes
- Built-in mounting for Charles shroud products
- SHRD1/5 Pole Top
- SHRD60 Pole Side
- Multiple foundation options: Direct Bury, Concrete, Helical, Foam-in-Place

Standalone Poles are built to customer specific requirements. For ordering information, please contact Charles Industries at 847-806-6300.



# Integrated Poles

Charles Industries' Integrated Small Cell pole solutions offer everything needed for a Small Cell deployment:

- Ø12" OD pole to fit low power radio configurations
- Ø18" OD pole to fit high power, dual band radios
- Support meter socket/AC disconnect and fiber termination enclosure
- Multiple large doors to accommodate different equipment configurations
- Multiple locations for optional fans to manage internal temperatures
- Support up to four carriers in one pole
- Multiple options for pole top shrouds to house 5G radios and 4G canister antennas
- Available in multiple heights and colors to match local municipality requirements
- Optional light arms and decorative bases
- Multiple foundation options: Direct Bury, Concrete, Helical, Foam-in-Place

Integrated Poles are built to customer specific requirements. For ordering information, please contact Charles Industries at 847-806-6300.

## Example Configurations

Carrier	Radio Equipment
Carrier #1 (4G) ①	(1) Ericsson 8843 & (1) Ericsson 4449 & (4) Ericsson AC-08 PSU
Carrier #2 (4G) ②	(1) Nokia FWHR
Carrier #3 (4G) ③	(3) Ericsson 2203/4402
Carrier #4 (4G) ④	(3) Nokia Airscale Micro
Carrier #5 (5G) ⑤	(3) Ericsson 5331



# Shroud Color Options

Charles offers all of our Concealment Solutions in multiple colors to match the pole upon which it is being mounted, or to best blend into the surrounding environment. Color choices can at times help meet municipal codes for aesthetically-pleasing deployments.



Charles standard shroud colors are:



Off White



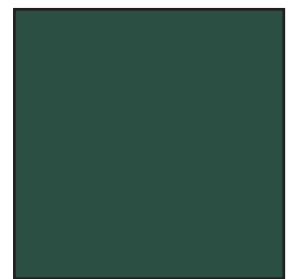
National Park  
Brown



RAL 7035  
Light Gray



Black



Hunt Club  
Green

Charles has many other custom colors that can be used on shroud products and a new custom color can be created for an additional cost.

Physical paint chips for any formulated color can be supplied for in field color matching.

Contact Charles at 847-806-6300 to discuss any custom color requirements.



# 3M™ Film for 5G Radios

To help service providers deploy the most aesthetically-pleasing deployments, Charles offers 3M vinyl film die cut to size to cover 5G radios, creating a color match to the pole or shroud to which they are mounted.

Charles 5G Concealment Shrouds use open windows for the antenna face for optimum signal transmission. 3M film does not interfere with signal transmission, and therefore can be used to make the entire deployment – including radios, shrouds and poles – the same color.

3M film is a cost-effective and user-friendly alternative to painting radios to match a shroud or pole. Film is easily applied without the mess or drying time of painting. If a radio has to be sent for repair, the film can be quickly removed so that the radio can be redeployed in any location.

With hundreds of available shades of film, virtually any color can be matched. For stadiums, amusement parks, advertising displays, and other venues with unique color requirements, 3M film provides the unique opportunity to blend 5G radio deployments seamlessly into the surroundings.

For more information about color-matched film possibilities with your 5G radio deployments, contact Charles at 847-806-6300 to discuss your project's specific requirements.



3M is a registered trademark of 3M Corporation.

# CONTACT CHARLES

PRODUCT INFORMATION & SALES SUPPORT

**(847) 806-6300**

TECHNICAL SUPPORT

**[charlesindustries.com/  
techserv.htm](http://charlesindustries.com/techserv.htm)**

WEBSITE

**[charlesindustries.com](http://charlesindustries.com)**

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