

# NNH4SS-45C-R3BT8



16-port sector antenna, 4x 698–896, 8x 1695–2360 and 4x 3550- 3700 MHz, 45° HPBW, 3x RETs and 3x SBTs.

- Features broadband Low Band (698-896 MHz), Mid Band (1695-2360 MHz) and High Band (3550-3700 MHz) arrays for 4T4R (4X MIMO) capability for bands 5, 13, 25, 66 and 48. Also covers bands 12, 14, 29, and 30
- Perfect antenna to add 3.5GHz CBRS to macro sites
- Non-stacked high band array design provides higher gain and narrower vertical beamwidth than traditional antenna designs
- Array configuration provides capability for 4T4R (4X MIMO) on Low Band, dual 4T4R (4X MIMO) on Mid Band and 4T4R (4X MIMO) on High Band
- Excellent wind loading characteristics

## General Specifications

|                                         |                                                                                  |
|-----------------------------------------|----------------------------------------------------------------------------------|
| <b>Antenna Type</b>                     | Sector                                                                           |
| <b>Band</b>                             | Multiband                                                                        |
| <b>Color</b>                            | Light Gray (RAL 7035)                                                            |
| <b>Grounding Type</b>                   | RF connector inner conductor and body grounded to reflector and mounting bracket |
| <b>Performance Note</b>                 | Outdoor usage                                                                    |
| <b>Radome Material</b>                  | Fiberglass, UV resistant                                                         |
| <b>Radiator Material</b>                | Low loss circuit board                                                           |
| <b>Reflector Material</b>               | Aluminum                                                                         |
| <b>RF Connector Interface</b>           | 4.3-10 Female                                                                    |
| <b>RF Connector Location</b>            | Bottom                                                                           |
| <b>RF Connector Quantity, high band</b> | 4                                                                                |
| <b>RF Connector Quantity, mid band</b>  | 8                                                                                |
| <b>RF Connector Quantity, low band</b>  | 4                                                                                |
| <b>RF Connector Quantity, total</b>     | 16                                                                               |

## Remote Electrical Tilt (RET) Information

|                                |                                   |
|--------------------------------|-----------------------------------|
| <b>RET Hardware</b>            | CommRET v2                        |
| <b>RET Interface</b>           | 8-pin DIN Female   8-pin DIN Male |
| <b>RET Interface, quantity</b> | 3 female   3 male                 |
| <b>Input Voltage</b>           | 10–30 Vdc                         |

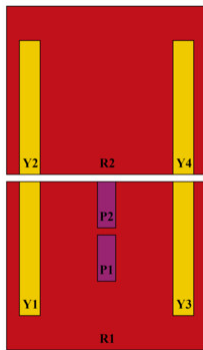
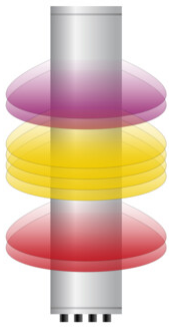
# NNH4SS-45C-R3BT8

|                                                 |                             |
|-------------------------------------------------|-----------------------------|
| <b>Internal Bias Tee</b>                        | Port 1   Port 5   Port 7    |
| <b>Internal RET</b>                             | Low band (1)   Mid band (2) |
| <b>Power Consumption, active state, maximum</b> | 10 W                        |
| <b>Power Consumption, idle state, maximum</b>   | 2 W                         |
| <b>Protocol</b>                                 | 3GPP/AISG 2.0               |

## Dimensions

|                                         |                     |
|-----------------------------------------|---------------------|
| <b>Width</b>                            | 457 mm   17.992 in  |
| <b>Depth</b>                            | 178 mm   7.008 in   |
| <b>Length</b>                           | 2437 mm   95.945 in |
| <b>Net Weight, without mounting kit</b> | 42 kg   92.594 lb   |

## Array Layout

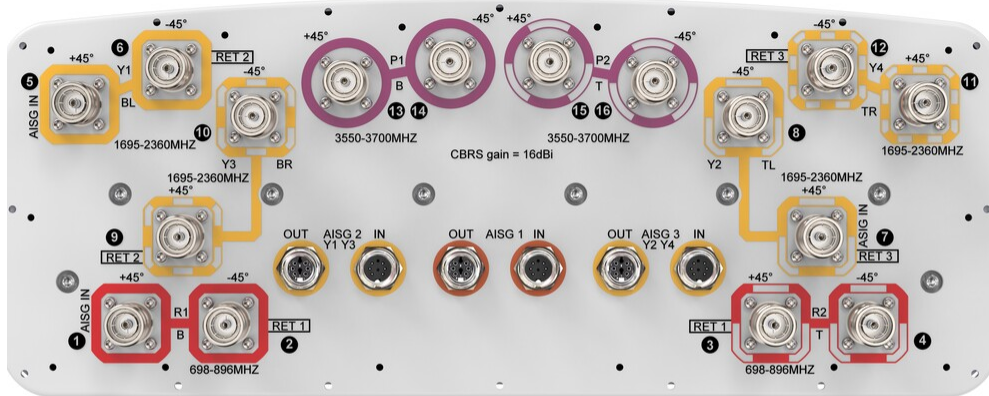


| Array ID | Frequency (MHz) | RF Connector | RET (SRET) | AISG No. | AISG RET UID         |
|----------|-----------------|--------------|------------|----------|----------------------|
| R1       | 698-896         | 1 - 2        | 1          | AISG1    | CPxxxxxxxxxxxxxxxxR1 |
| R2       | 698-896         | 3 - 4        |            |          |                      |
| Y1       | 1695-2360       | 5 - 6        | 2          | AISG2    | CPxxxxxxxxxxxxxxxxY1 |
| Y3       | 1695-2360       | 9 - 10       |            |          |                      |
| Y2       | 1695-2360       | 7 - 8        | 3          | AISG3    | CPxxxxxxxxxxxxxxxxY2 |
| Y4       | 1695-2360       | 11 - 12      |            |          |                      |
| P1       | 3550-3700       | 13 - 14      | N/A        | NA       | N/A                  |
| P2       | 3550-3700       | 15 - 16      |            |          |                      |

(Sizes of colored boxes are not true depictions of array sizes)

## Port Configuration

# NNH4SS-45C-R3BT8



## Electrical Specifications

|                                   |                                                   |
|-----------------------------------|---------------------------------------------------|
| <b>Impedance</b>                  | 50 ohm                                            |
| <b>Operating Frequency Band</b>   | 1695 – 2360 MHz   3550 – 3700 MHz   698 – 896 MHz |
| <b>Polarization</b>               | ±45°                                              |
| <b>Total Input Power, maximum</b> | 1,600 W @ 50 °C                                   |

## Electrical Specifications

| Frequency Band, MHz                      | 698–806  | 806–896  | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2360 | 3550–3700 |
|------------------------------------------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| <b>Gain, dBi</b>                         | 14.9     | 15.4     | 17.6      | 18.2      | 18.6      | 19.3      | 15.4      |
| <b>Beamwidth, Horizontal, degrees</b>    | 48       | 44       | 44        | 41        | 41        | 37        | 44        |
| <b>Beamwidth, Vertical, degrees</b>      | 20.3     | 17.9     | 8.2       | 7.5       | 7.1       | 6.3       | 15.8      |
| <b>Beam Tilt, degrees</b>                | 2–18     | 2–18     | 0–10      | 0–10      | 0–10      | 0–10      | 8         |
| <b>USLS (First Lobe), dB</b>             | 18       | 20       | 17        | 18        | 17        | 18        | 17        |
| <b>Front-to-Back Ratio at 180°, dB</b>   | 33       | 37       | 33        | 32        | 35        | 34        | 34        |
| <b>Isolation, Cross Polarization, dB</b> | 25       | 25       | 25        | 25        | 25        | 25        | 25        |
| <b>Isolation, Inter-band, dB</b>         | 25       | 25       | 25        | 25        | 25        | 25        | 25        |
| <b>VSWR   Return loss, dB</b>            | 1.5 14.0 | 1.5 14.0 | 1.5 14.0  | 1.5 14.0  | 1.5 14.0  | 1.5 14.0  | 1.5 14.0  |
| <b>PIM, 3rd Order, 2 x 20 W, dBc</b>     | -153     | -153     | -153      | -153      | -153      | -153      | -145      |
| <b>Input Power per Port at 50°C,</b>     | 300      | 300      | 300       | 250       | 250       | 200       | 100       |

# NNH4SS-45C-R3BT8

maximum, watts

## Electrical Specifications, BASTA

| Frequency Band, MHz                         | 698–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2360 | 3550–3700 |
|---------------------------------------------|---------|---------|-----------|-----------|-----------|-----------|-----------|
| Gain by all Beam Tilts, average, dBi        | 14.6    | 15.2    | 17.1      | 17.8      | 18.3      | 19        | 15        |
| Gain by all Beam Tilts Tolerance, dB        | ±0.4    | ±0.5    | ±0.7      | ±0.5      | ±0.6      | ±0.5      | ±0.4      |
| Front-to-Back Total Power at 180° ± 30°, dB | 26      | 24      | 24        | 27        | 29        | 27        | 30        |
| CPR at Boresight, dB                        | 24      | 23      | 15        | 19        | 19        | 20        | 16        |
| CPR at Sector, dB                           | 13      | 2       | 2         | 3         | 5         | 13        | 9         |

## Mechanical Specifications

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| Wind Loading @ Velocity, frontal | 1,485.0 N @ 150 km/h (333.8 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 315.0 N @ 150 km/h (70.8 lbf @ 150 km/h)    |
| Wind Loading @ Velocity, maximum | 1,485.0 N @ 150 km/h (333.8 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear    | 1,304.0 N @ 150 km/h (293.2 lbf @ 150 km/h) |
| Wind Speed, maximum              | 241 km/h (150 mph)                          |

## Packaging and Weights

|                |                      |
|----------------|----------------------|
| Width, packed  | 563 mm   22.165 in   |
| Depth, packed  | 355 mm   13.976 in   |
| Length, packed | 2610 mm   102.756 in |
| Weight, gross  | 61.8 kg   136.246 lb |

## Regulatory Compliance/Certifications

| Agency        | Classification                                                                                                                 |
|---------------|--------------------------------------------------------------------------------------------------------------------------------|
| CHINA-ROHS    | Below maximum concentration value                                                                                              |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system                                                 |
| REACH-SVHC    | Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a> |
| ROHS          | Compliant                                                                                                                      |
| UK-ROHS       | Compliant                                                                                                                      |



# NNH4SS-45C-R3BT8

---

## Included Products

- BSAMNT-3 – Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.
- BSAMNT-M – Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

## \* Footnotes

**Performance Note** Severe environmental conditions may degrade optimum performance

# BSAMNT-3



Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

## Product Classification

**Product Type** Downtilt mounting kit

## General Specifications

**Application** Outdoor

**Color** Silver

## Dimensions

**Compatible Diameter, maximum** 115 mm | 4.528 in

**Compatible Diameter, minimum** 60 mm | 2.362 in

**Weight, net** 6.2 kg | 13.669 lb

## Material Specifications

**Material Type** Galvanized steel

## Packaging and Weights

**Included** Brackets | Hardware

**Packaging quantity** 1

**Weight, gross** 6.4 kg | 14.11 lb

## Regulatory Compliance/Certifications

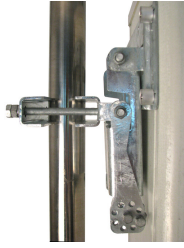
| Agency        | Classification                                                                                                                 |
|---------------|--------------------------------------------------------------------------------------------------------------------------------|
| CE            | Compliant with the relevant CE product directives                                                                              |
| CHINA-ROHS    | Below maximum concentration value                                                                                              |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system                                                 |
| REACH-SVHC    | Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a> |
| ROHS          | Compliant                                                                                                                      |
| UK-ROHS       | Compliant                                                                                                                      |

# BSAMNT-3

---



# BSAMNT-M



Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

## Product Classification

**Product Type** Downtilt mounting kit

## General Specifications

**Application** Outdoor

**Color** Silver

## Dimensions

**Compatible Diameter, maximum** 115 mm | 4.528 in

**Compatible Diameter, minimum** 60 mm | 2.362 in

**Weight, net** 4.5 kg | 9.921 lb

## Material Specifications

**Material Type** Galvanized steel

## Packaging and Weights

**Included** Brackets | Hardware

**Packaging quantity** 1

## Regulatory Compliance/Certifications

| Agency        | Classification                                                                                                                 |
|---------------|--------------------------------------------------------------------------------------------------------------------------------|
| CHINA-ROHS    | Below maximum concentration value                                                                                              |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system                                                 |
| REACH-SVHC    | Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a> |
| ROHS          | Compliant                                                                                                                      |
| UK-ROHS       | Compliant                                                                                                                      |

