

# NNV4-45A-R6



12-port sector antenna, 4x 698–896 and 8x 1695–2690 MHz, 45° HPBW, 6x RET

- Independent tilt for all arrays
- Array configuration provides capability for 4T4R (4x MIMO) on Low band and Dual 4T4R (4x MIMO) on Mid band
- Optimized SPR performance across all operating bands
- 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>Reflector Material</b>              | Aluminum   |
| <b>RF Connector Interface</b>          | 4.3-10 Female  |
| <b>RF Connector Location</b>           | Bottom   |
| <b>RF Connector Quantity, mid band</b> | 8  |
| <b>RF Connector Quantity, low band</b> | 4  |
| <b>RF Connector Quantity, total</b>    | 12   |

## Remote Electrical Tilt (RET) Information

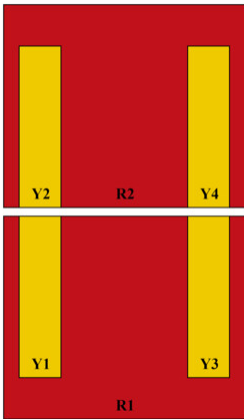
|   |                                   |
|---|-----------------------------------|
| <b>RET Hardware</b>                             | CommRET v2                        |
| <b>RET Interface</b>                            | 8-pin DIN Female   8-pin DIN Male |
| <b>RET Interface, quantity</b>                  | 1 female   1 male                 |
| <b>Input Voltage</b>                            | 10–30 Vdc                         |
| <b>Internal RET</b>                             | Low band (2)   Mid band (4)       |
| <b>Power Consumption, active state, maximum</b> | 8 W                               |
| <b>Power Consumption, idle state, maximum</b>   | 1 W                               |
| <b>Protocol</b>                                 | 3GPP/AISG 2.0 (Single RET)        |

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## Dimensions

|   |                     |
|---|---------------------|
| <b>Width</b>                            | 457 mm   17.992 in  |
| <b>Depth</b>                            | 178 mm   7.008 in   |
| <b>Length</b>                           | 1399 mm   55.079 in |
| <b>Net Weight, without mounting kit</b> | 27.2 kg   59.966 lb |

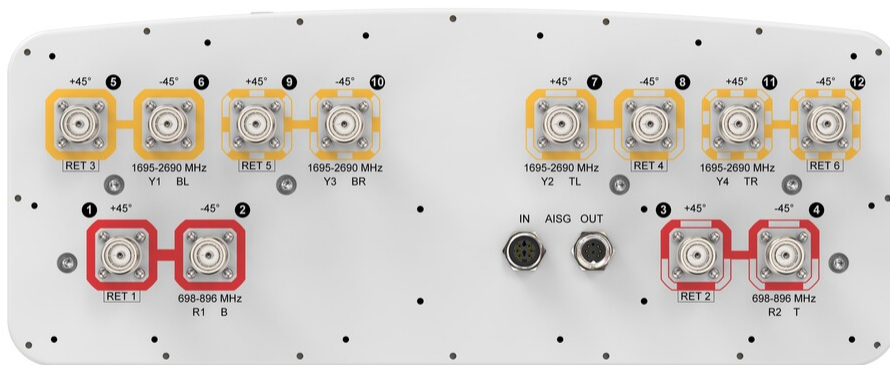
## Array Layout



| 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        | 2          | AISG1    | CPxxxxxxxxxxxxxxxxR2 |
| Y1       | 1695-2690       | 5 - 6        | 3          | AISG1    | CPxxxxxxxxxxxxxxxxY1 |
| Y2       | 1695-2690       | 7 - 8        | 4          | AISG1    | CPxxxxxxxxxxxxxxxxY2 |
| Y3       | 1695-2690       | 9 - 10       | 5          | AISG1    | CPxxxxxxxxxxxxxxxxY3 |
| Y4       | 1695-2690       | 11 - 12      | 6          | AISG1    | CPxxxxxxxxxxxxxxxxY4 |

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

## Port Configuration



# NNV4-45A-R6

## Electrical Specifications

|                                   |                                 |
|-----------------------------------|---------------------------------|
| <b>Impedance</b>                  | 50 ohm                          |
| <b>Operating Frequency Band</b>   | 1695 – 2690 MHz   698 – 896 MHz |
| <b>Polarization</b>               | ±45°                            |
| <b>Total Input Power, maximum</b> | 900 W @ 50 °C                   |

## Electrical Specifications

| Frequency Band, MHz                                 | 698–806  | 806–896  | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2500 | 2300–2690 |
|---|----------|----------|-----------|-----------|-----------|-----------|-----------|
| <b>Gain, dBi</b>                                    | 12.6     | 13.5     | 15.4      | 16        | 16.7      | 17.1      | 17.1      |
| <b>Beamwidth, Horizontal, degrees</b>               | 49       | 45       | 44        | 43        | 40        | 34        | 34        |
| <b>Beamwidth, Vertical, degrees</b>                 | 36       | 31       | 15        | 14        | 13        | 11        | 11        |
| <b>Beam Tilt, degrees</b>                           | 2–18     | 2–18     | 2–12      | 2–12      | 2–12      | 2–12      | 2–12      |
| <b>USLS (First Lobe), dB</b>                        | 17       | 17       | 19        | 17        | 17        | 17        | 16        |
| <b>Front-to-Back Ratio at 180°, dB</b>              | 33       | 34       | 35        | 35        | 33        | 32        | 31        |
| <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>                | -150     | -150     | -150      | -150      | -150      | -150      | -150      |
| <b>Input Power per Port at 50°C, maximum, watts</b> | 300      | 300      | 250       | 250       | 250       | 200       | 200       |

## Electrical Specifications, BASTA

| Frequency Band, MHz                                | 698–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2500 | 2300–2690 |
|--|---------|---------|-----------|-----------|-----------|-----------|-----------|
| <b>Gain by all Beam Tilts, average, dBi</b>        | 12.2    | 13.2    | 14.9      | 15.5      | 16.1      | 16.6      | 16.6      |
| <b>Gain by all Beam Tilts Tolerance, dB</b>        | ±0.6    | ±0.6    | ±0.9      | ±0.7      | ±1        | ±0.8      | ±0.8      |
| <b>Beamwidth, Horizontal Tolerance, degrees</b>    | ±2.2    | ±2.7    | ±4        | ±2.6      | ±3        | ±3.5      | ±3.1      |
| <b>Beamwidth, Vertical Tolerance, degrees</b>      | ±2.8    | ±3.1    | ±1.4      | ±1.1      | ±1.2      | ±1.2      | ±1.3      |
| <b>Front-to-Back Total Power at 180° ± 30°, dB</b> | 24      | 24      | 26        | 28        | 28        | 26        | 25        |
| <b>CPR at Boresight, dB</b>                        | 20      | 21      | 16        | 18        | 19        | 20        | 21        |

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|  |    |    |   |   |    |   |   |
|--|----|----|---|---|----|---|---|
| <b>CPR at 10 dB Horizontal Beamwidth, dB</b> | 10 | 10 | 7 | 8 | 11 | 9 | 7 |
|--|----|----|---|---|----|---|---|

## Mechanical Specifications

|   |   |
|---|---|
| <b>Wind Loading @ Velocity, frontal</b> | 788.0 N @ 150 km/h (177.1 lbf @ 150 km/h) |
| <b>Wind Loading @ Velocity, lateral</b> | 157.0 N @ 150 km/h (35.3 lbf @ 150 km/h)  |
| <b>Wind Loading @ Velocity, maximum</b> | 788.0 N @ 150 km/h (177.1 lbf @ 150 km/h) |
| <b>Wind Loading @ Velocity, rear</b>    | 692.0 N @ 150 km/h (155.6 lbf @ 150 km/h) |
| <b>Wind Speed, maximum</b>              | 241 km/h (150 mph)                        |

## Packaging and Weights

|                       |                     |
|-----------------------|---------------------|
| <b>Width, packed</b>  | 563 mm   22.165 in  |
| <b>Depth, packed</b>  | 355 mm   13.976 in  |
| <b>Length, packed</b> | 1572 mm   61.89 in  |
| <b>Weight, gross</b>  | 38.8 kg   85.539 lb |

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>  |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |

## 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. |
|----------|---|--|

## \* Footnotes

|                         |   |
|-------------------------|---|
| <b>Performance Note</b> | 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

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