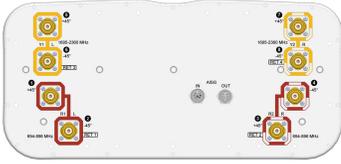


# NNHH-65B-R4N17



8-port sector antenna, 4x 694–896 and 4x 1695–2360 MHz, 65° HPBW, 4x RETs

- Array configuration provides capability for 4T4R (4x MIMO) on Low band and High band
- Optimized SPR performance across all operating bands
- Excellent wind loading characteristics

## Alternative products available:

8P-4L4M-B4

8-port sector antenna, 4x 694–960 and 4x 1695–2690 MHz, 65°HPBW, 4x RET

## 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>  | 0  |
| <b>RF Connector Quantity, low band</b>  | 4  |
| <b>RF Connector Quantity, total</b>     | 8  |

## 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                         |

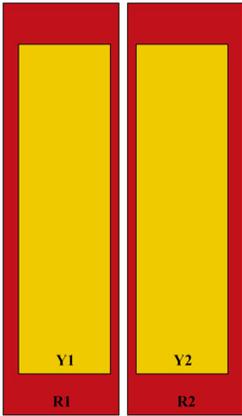
# NNHH-65B-R4N17

|   |                              |
|---|------------------------------|
| <b>Internal RET</b>                             | High band (2)   Low 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 (Multi-RET)    |

## Dimensions

|   |                     |
|---|---------------------|
| <b>Width</b>                            | 430 mm   16.929 in  |
| <b>Depth</b>                            | 197 mm   7.756 in   |
| <b>Length</b>                           | 1848 mm   72.756 in |
| <b>Net Weight, without mounting kit</b> | 28.4 kg   62.611 lb |

## Array Layout



| Array ID | Frequency (MHz) | RF Connector | RET (MRET) | AISG RET UID       |
|----------|-----------------|--------------|------------|--------------------|
| R1       | 694-896         | 1 - 2        | 1          | CPxxxxxxxxxxxxMM.1 |
| R2       | 694-896         | 3 - 4        | 2          | CPxxxxxxxxxxxxMM.2 |
| Y1       | 1695-2360       | 5 - 6        | 3          | CPxxxxxxxxxxxxMM.3 |
| Y2       | 1695-2360       | 7 - 8        | 4          | CPxxxxxxxxxxxxMM.4 |

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

## Port Configuration

# NNHH-65B-R4N17



## Electrical Specifications

|                                   |                                 |
|-----------------------------------|---------------------------------|
| <b>Impedance</b>                  | 50 ohm                          |
| <b>Operating Frequency Band</b>   | 1695 – 2360 MHz   694 – 896 MHz |
| <b>Polarization</b>               | ±45°                            |
| <b>Total Input Power, maximum</b> | 900 W @ 50 °C                   |

## Electrical Specifications

| Frequency Band, MHz                      | 694–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2360 |
|--|---------|---------|-----------|-----------|-----------|-----------|
| <b>Gain, dBi</b>                         | 13.9    | 14.6    | 16.6      | 17.2      | 17.6      | 18.2      |
| <b>Beamwidth, Horizontal, degrees</b>    | 61      | 57      | 65        | 65        | 63        | 59        |
| <b>Beamwidth, Vertical, degrees</b>      | 12.5    | 10.9    | 7         | 6.6       | 6.2       | 5.6       |
| <b>Beam Tilt, degrees</b>                | 2–14    | 2–14    | 2–12      | 2–12      | 2–12      | 2–12      |
| <b>USLS (First Lobe), dB</b>             | 21      | 18      | 15        | 14        | 14        | 14        |
| <b>Front-to-Back Ratio at 180°, dB</b>   | 30      | 31      | 32        | 35        | 33        | 31        |
| <b>Isolation, Cross Polarization, dB</b> | 25      | 25      | 25        | 25        | 25        | 25        |
| <b>Isolation, Inter-band, dB</b>         | 25      | 25      | 25        | 25        | 25        | 25        |

# NNHH-65B-R4N17

|   |            |            |            |            |            |            |
|---|------------|------------|------------|------------|------------|------------|
| <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 |
| <b>PIM, 3rd Order, 2 x 20 W, dBc</b>                | -150       | -150       | -150       | -150       | -150       | -150       |
| <b>Input Power per Port at 50°C, maximum, watts</b> | 300        | 300        | 250        | 250        | 250        | 200        |

## Mechanical Specifications

|   |   |
|---|---|
| <b>Wind Loading @ Velocity, frontal</b> | 471.0 N @ 150 km/h (105.9 lbf @ 150 km/h) |
| <b>Wind Loading @ Velocity, lateral</b> | 241.0 N @ 150 km/h (54.2 lbf @ 150 km/h)  |
| <b>Wind Loading @ Velocity, maximum</b> | 762.0 N @ 150 km/h (171.3 lbf @ 150 km/h) |
| <b>Wind Loading @ Velocity, rear</b>    | 444.0 N @ 150 km/h (99.8 lbf @ 150 km/h)  |
| <b>Wind Speed, maximum</b>              | 241 km/h (150 mph)                        |

## Packaging and Weights

|                       |                     |
|-----------------------|---------------------|
| <b>Width, packed</b>  | 530 mm   20.866 in  |
| <b>Depth, packed</b>  | 349 mm   13.74 in   |
| <b>Length, packed</b> | 2020 mm   79.528 in |
| <b>Weight, gross</b>  | 41.1 kg   90.61 lb  |

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>  |
|---------------|--|
| 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  |



## 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 |
|-------------------------|---|