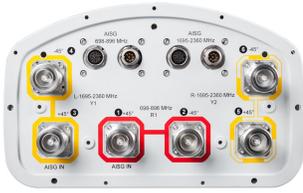


# NHH-85C-R2B



6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 85° HPBW, 2x RET. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- Separate RS-485 RET input/output for low and high band
- One RET for low band and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO

## General Specifications

|   |  |
|---|--|
| <b>Antenna Type</b>                     | Sector   |
| <b>Band</b>                             | Multiband  |
| <b>Color</b>                            | Light Gray (RAL 7035)  |
| <b>Grounding Type</b>                   | RF connector body grounded to reflector and mounting bracket   |
| <b>Performance Note</b>                 | Outdoor usage   Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN |
| <b>Radome Material</b>                  | Fiberglass, UV resistant   |
| <b>Radiator Material</b>                | Aluminum   Low loss circuit board  |
| <b>Reflector Material</b>               | Aluminum   |
| <b>RF Connector Interface</b>           | 7-16 DIN 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>  | 2  |
| <b>RF Connector Quantity, total</b>     | 6  |

## Remote Electrical Tilt (RET) Information

|   |                                   |
|---|-----------------------------------|
| <b>RET Interface</b>                          | 8-pin DIN Female   8-pin DIN Male |
| <b>RET Interface, quantity</b>                | 2 female   2 male                 |
| <b>Input Voltage</b>                          | 10–30 Vdc                         |
| <b>Internal Bias Tee</b>                      | Port 1   Port 3                   |
| <b>Internal RET</b>                           | High band (1)   Low band (1)      |
| <b>Power Consumption, idle state, maximum</b> | 2 W                               |

# NHH-85C-R2B

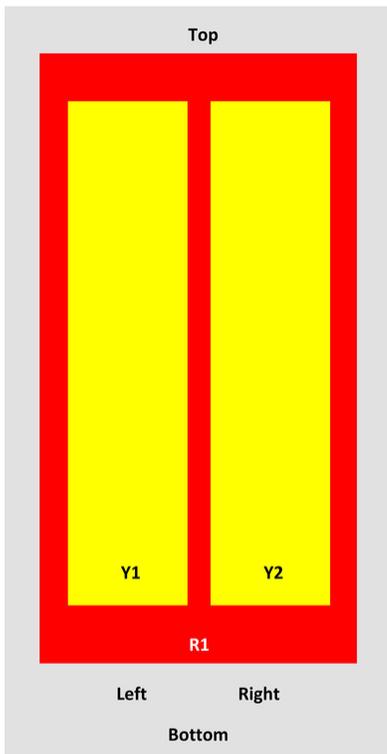
**Power Consumption, normal conditions, maximum** 13 W  
**Protocol** 3GPP/AISG 2.0 (Single RET)

## Dimensions

**Width** 301 mm | 11.85 in  
**Depth** 180 mm | 7.087 in  
**Length** 2438 mm | 95.984 in  
**Net Weight, without mounting kit** 23.1 kg | 50.927 lb

## Array Layout

**NHH**

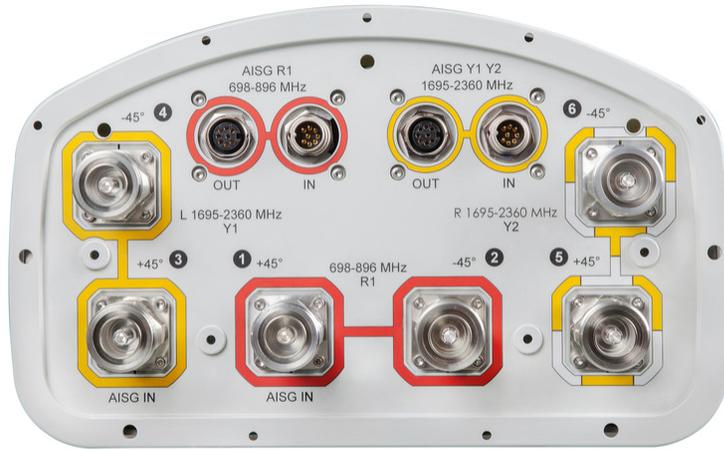


| Array | Freq (MHz) | Conns | RET (SRET) | AISG RET UID     |
|-------|------------|-------|------------|------------------|
| R1    | 698-896    | 1-2   | 1          | ANXXXXXXXXXXXXX1 |
| Y1    | 1695-2360  | 3-4   | 2          | ANXXXXXXXXXXXXX2 |
| Y2    | 1695-2360  | 5-6   |            |                  |

View from the front of the antenna  
(Sizes of colored boxes are not true depictions of array sizes)

## Port Configuration

# NHH-85C-R2B



## Electrical Specifications

|                                   |                                 |
|-----------------------------------|---------------------------------|
| <b>Impedance</b>                  | 50 ohm                          |
| <b>Operating Frequency Band</b>   | 1695 – 2360 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 | 1920–2200 | 2300–2360 |
|--|----------|----------|-----------|-----------|-----------|-----------|
| <b>Gain, dBi</b>                         | 15.5     | 15.6     | 17.1      | 17.5      | 17.9      | 17.9      |
| <b>Beamwidth, Horizontal, degrees</b>    | 81.5     | 83       | 81.5      | 78        | 78        | 79.7      |
| <b>Beamwidth, Vertical, degrees</b>      | 8.9      | 8.1      | 5.6       | 5.3       | 5         | 4.7       |
| <b>Beam Tilt, degrees</b>                | 0–10     | 0–10     | 0–8       | 0–8       | 0–8       | 0–8       |
| <b>USLS (First Lobe), dB</b>             | 17       | 17       | 15        | 18        | 19        | 18        |
| <b>Front-to-Back Ratio at 180°, dB</b>   | 30       | 30       | 34        | 30        | 30        | 28        |
| <b>Isolation, Cross Polarization, dB</b> | 25       | 25       | 25        | 25        | 25        | 25        |
| <b>Isolation, Inter-band, dB</b>         | 30       | 30       | 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  |

# NHH-85C-R2B

|   |      |      |      |      |      |      |
|---|------|------|------|------|------|------|
| <b>PIM, 3rd Order, 2 x 20 W, dBc</b>                | -153 | -153 | -153 | -153 | -153 | -153 |
| <b>Input Power per Port at 50°C, maximum, watts</b> | 300  | 300  | 250  | 250  | 250  | 200  |

## Mechanical Specifications

|   |   |
|---|---|
| <b>Effective Projective Area (EPA), frontal</b> | 0.37 m <sup>2</sup>   3.983 ft <sup>2</sup> |
| <b>Effective Projective Area (EPA), lateral</b> | 0.31 m <sup>2</sup>   3.337 ft <sup>2</sup> |
| <b>Mechanical Tilt Range</b>                    | 0°–11°                                      |
| <b>Wind Loading @ Velocity, frontal</b>         | 393.0 N @ 150 km/h (88.3 lbf @ 150 km/h)    |
| <b>Wind Loading @ Velocity, lateral</b>         | 330.0 N @ 150 km/h (74.2 lbf @ 150 km/h)    |
| <b>Wind Loading @ Velocity, maximum</b>         | 757.0 N @ 150 km/h (170.2 lbf @ 150 km/h)   |
| <b>Wind Loading @ Velocity, rear</b>            | 398.0 N @ 150 km/h (89.5 lbf @ 150 km/h)    |
| <b>Wind Speed, maximum</b>                      | 241 km/h (150 mph)                          |

## Packaging and Weights

|                       |                      |
|-----------------------|----------------------|
| <b>Width, packed</b>  | 380 mm   14.961 in   |
| <b>Depth, packed</b>  | 295 mm   11.614 in   |
| <b>Length, packed</b> | 2571 mm   101.221 in |
| <b>Weight, gross</b>  | 30.4 kg   67.02 lb   |

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>  |
|---------------|--|
| CHINA-ROHS    | Above 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.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a> |
| ROHS          | Compliant/Exempted   |
| UK-ROHS       | Compliant/Exempted   |



## 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

# NHH-85C-R2B

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

