

# NNH4SS-65B-R3BT8



16- Port sector antenna, 4x 698-896, 8x 1695-2360 and 4x 3550-3700MHz, 65° HPBW, 3x RETs and 3x SBTs

- Array configuration provides capability for 4T4R (4x MIMO) on Low band and Dual 4T4R (4x MIMO) on High band
- Excellent wind loading characteristics
- Features broadband Low Band (698-896 MHz) and High Band (1695-2360 MHz) arrays for 4T4R (4X MIMO) capability for Band 14, AWS, PCS and WCS applications
- 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

## General Specifications

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

## Remote Electrical Tilt (RET) Information

|                         |                                   |
|-------------------------|-----------------------------------|
| RET Hardware            | CommRET v2                        |
| RET Interface           | 8-pin DIN Female   8-pin DIN Male |
| RET Interface, quantity | 3 female   3 male                 |
| Input Voltage           | 10–30 Vdc                         |
| Internal RET            | Low band (1)   Mid band (2)       |

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Protocol3GPP/AISG 2.0

## Dimensions

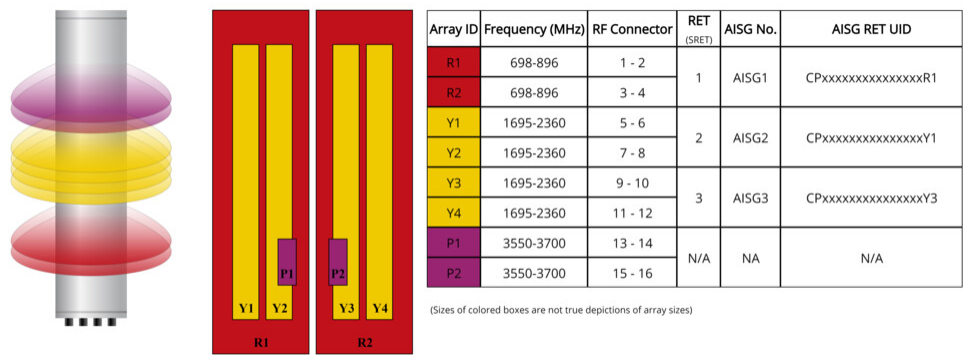
Width498 mm | 19.606 in

Depth197 mm | 7.756 in

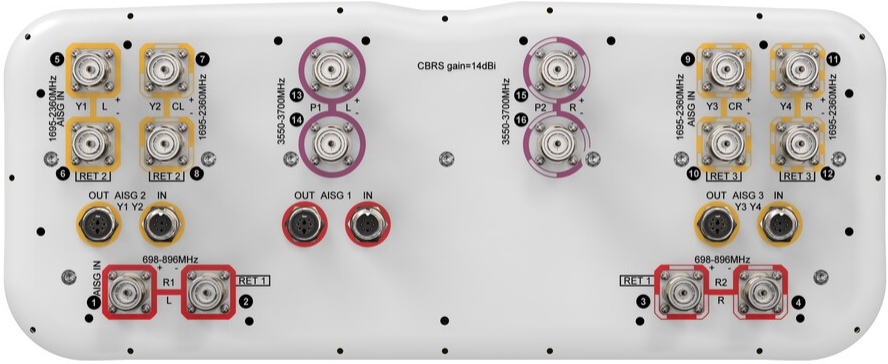
Length1848 mm | 72.756 in

Net Weight, without mounting kit34.9 kg | 76.941 lb

## Array Layout



## Port Configuration



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## Electrical Specifications

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

## Electrical Specifications

| Frequency Band, MHz                          | 698–806    | 806–896    | 1695–1880  | 1850–1990  | 1920–2180  | 2300–2360  | 3550–3700  |
|----------------------------------------------|------------|------------|------------|------------|------------|------------|------------|
| Gain, dBi                                    | 14.3       | 14.9       | 16.7       | 17.3       | 17.8       | 18.1       | 13.9       |
| Beamwidth, Horizontal, degrees               | 71         | 63         | 71         | 67         | 62         | 60         | 62         |
| Beamwidth, Vertical, degrees                 | 11.4       | 10.1       | 6.9        | 6.4        | 6.1        | 5.6        | 16.2       |
| Beam Tilt, degrees                           | 2–14       | 2–14       | 2–12       | 2–12       | 2–12       | 2–12       | 8          |
| USLS (First Lobe), dB                        | 16         | 17         | 15         | 17         | 18         | 20         | 15         |
| Front-to-Back Ratio at 180°, dB              | 30         | 28         | 36         | 35         | 34         | 36         | 33         |
| CPR at Boresight, dB                         | 24         | 26         | 23         | 22         | 21         | 21         | 18         |
| Isolation, Cross Polarization, dB            | 25         | 25         | 25         | 25         | 25         | 25         | 25         |
| Isolation, Inter-band, dB                    | 25         | 25         | 25         | 25         | 25         | 25         | 25         |
| VSWR   Return loss, dB                       | 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 |
| PIM, 3rd Order, 2 x 20 W, dBc                | -153       | -153       | -153       | -153       | -153       | -153       | -145       |
| Input Power per Port at 50°C, maximum, watts | 300        | 300        | 250        | 250        | 250        | 200        | 100        |

## Mechanical Specifications

|                                  |                                           |
|----------------------------------|-------------------------------------------|
| Wind Loading @ Velocity, frontal | 629.0 N @ 150 km/h (141.4 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 191.0 N @ 150 km/h (42.9 lbf @ 150 km/h)  |
| Wind Loading @ Velocity, maximum | 755.0 N @ 150 km/h (169.7 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear    | 433.0 N @ 150 km/h (97.3 lbf @ 150 km/h)  |
| Wind Speed, maximum              | 241 km/h (150 mph)                        |

## Packaging and Weights

|               |                    |
|---------------|--------------------|
| Width, packed | 599 mm   23.583 in |
| Depth, packed | 349 mm   13.74 in  |

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|                |                      |
|----------------|----------------------|
| Length, packed | 1989 mm   78.307 in  |
| Weight, gross  | 50.1 kg   110.451 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.andrew.com/ProductCompliance">www.andrew.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

|                  |                                                                 |
|------------------|-----------------------------------------------------------------|
| Performance Note | Severe environmental conditions may degrade optimum performance |
|------------------|-----------------------------------------------------------------|