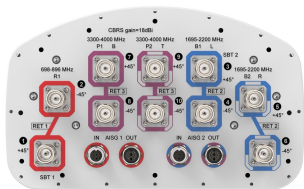


# NHHSS-65C-HG-R3B



10-port Next Generation PerforMax™ sector antenna, 2x 698–896, 4x 1695–2200 and 4x 3300–4000 MHz, 65° HPBW, 3x RETs and 2x SBTs

- Designed to reduce SUB 1 alarm triggers with pattern consistency between low band, mid band and high band
- Superior patterns for enhanced interference mitigation resulting in improved SINR, higher throughput, and more capacity
- Interleaved dipole technology results into an attractive, low wind load mechanical package
- Internal SBTs allow remote RET control from the radio over the RF jumper cable
- Antenna optimized for higher gain with superior radiation efficiency
- Powered by Andrew's SEED® technology (Sustainable Energy Efficient Design)
- Best in class PIM immunity
- Ideal for deploying low band, mid-band and CBRS/C-Band in flagpoles and concealment solutions

## General Specifications

|                                  |                                                              |
|----------------------------------|--------------------------------------------------------------|
| Antenna Type                     | Sector                                                       |
| Band                             | Multiband                                                    |
| Color                            | Light Gray (RAL 7035)                                        |
| Grounding Type                   | RF connector body grounded to reflector and mounting bracket |
| Performance Note                 | Outdoor usage                                                |
| Radome Material                  | Fiberglass, UV resistant                                     |
| Radiator Material                | Aluminum   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  | 4                                                            |
| RF Connector Quantity, low band  | 2                                                            |
| RF Connector Quantity, total     | 10                                                           |

## Remote Electrical Tilt (RET) Information

|                         |                                   |
|-------------------------|-----------------------------------|
| RET Hardware            | CommRET v2                        |
| RET Interface           | 8-pin DIN Female   8-pin DIN Male |
| RET Interface, quantity | 2 female   2 male                 |

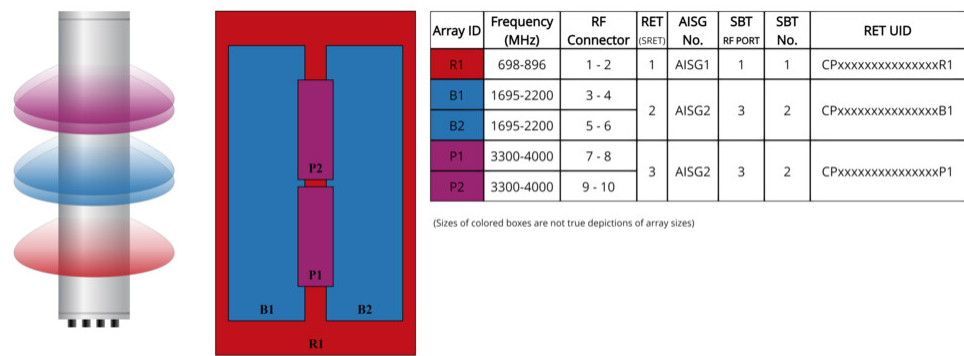
# NHHSS-65C-HG-R3B

|                                          |                                             |
|------------------------------------------|---------------------------------------------|
| Input Voltage                            | 10–30 Vdc                                   |
| Internal Bias Tee                        | Port 1   Port 3                             |
| Internal RET                             | High band (1)   Low band (1)   Mid band (1) |
| Power Consumption, active state, maximum | 10 W                                        |
| Power Consumption, idle state, maximum   | 2 W                                         |
| Protocol                                 | 3GPP/AISG 2.0 (Single RET)                  |

## Dimensions

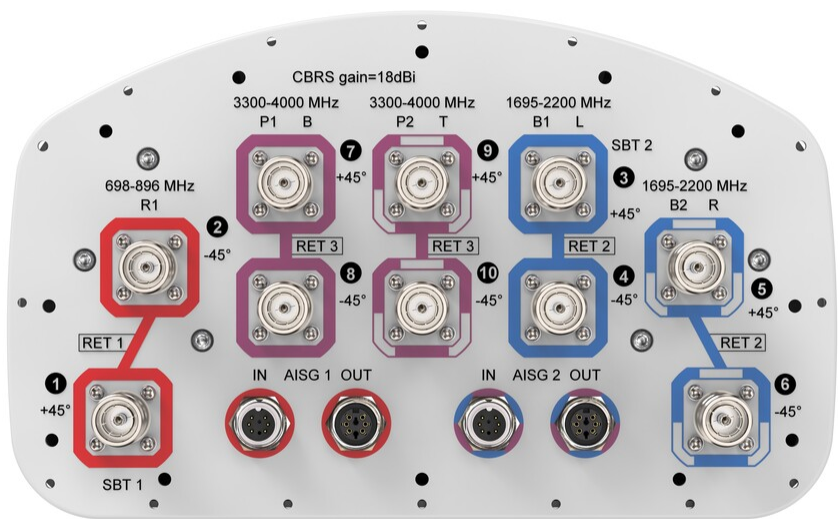
|                                  |                     |
|----------------------------------|---------------------|
| Width                            | 301 mm   11.85 in   |
| Depth                            | 181 mm   7.126 in   |
| Length                           | 2438 mm   95.984 in |
| Net Weight, without mounting kit | 30 kg   66.139 lb   |

## Array Layout



## Port Configuration

# NHHSS-65C-HG-R3B



## Electrical Specifications

|                          |                                                   |
|--------------------------|---------------------------------------------------|
| Impedance                | 50 ohm                                            |
| Operating Frequency Band | 1695 – 2200 MHz   3300 – 4000 MHz   698 – 896 MHz |
| Polarization             | ±45°                                              |

## Electrical Specifications

|                                 | R1      | R1      | B1,B2     | B1,B2     | B1,B2     | P1,P2     | P1,P2     | P1,P2     |
|---------------------------------|---------|---------|-----------|-----------|-----------|-----------|-----------|-----------|
| Frequency Band, MHz             | 698–798 | 824–896 | 1695–1880 | 1850–1990 | 1920–2200 | 3300–3550 | 3550–3700 | 3700–4000 |
| RF Port                         | 1,2     | 1,2     | 3,4,5,6   | 3,4,5,6   | 3,4,5,6   | 7,8,9,10  | 7,8,9,10  | 7,8,9,10  |
| Gain, Maximum, dBi              | 16.8    | 16.7    | 18.8      | 19.1      | 19.4      | 18.5      | 18.5      | 18.7      |
| Gain, dBi                       | 16.5    | 16.5    | 18.5      | 18.9      | 19.1      | 18        | 18.1      | 18.3      |
| Beamwidth, Horizontal, degrees  | 67      | 63      | 64        | 61        | 62        | 55        | 60        | 56        |
| Beamwidth, Vertical, degrees    | 8.6     | 7.6     | 5.1       | 4.8       | 4.7       | 5.6       | 5.1       | 5         |
| Beam Tilt, degrees              | 0–11    | 0–11    | 0–7       | 0–7       | 0–7       | 0–10      | 0–10      | 0–10      |
| USLS (First Lobe), dB           | 16      | 15      | 17        | 18        | 18        | 18        | 19        | 20        |
| Front-to-Back Ratio at 180°, dB | 30      | 32      | 33        | 35        | 30        | 34        | 30        | 29        |
| CPR at Boresight, dB            | 24      | 21      | 24        | 25        | 25        | 17        | 16        | 15        |

# NHHSS-65C-HG-R3B

|                                              |            |            |            |            |            |            |            |            |
|----------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Isolation, Cross Polarization, dB            | 25         | 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 | 1.5   14.0 |
| PIM, 3rd Order, 2 x 20 W, dBc                | -153       | -153       | -153       | -153       | -153       | -145       | -145       | -145       |
| Input Power per Port at 50°C, maximum, watts | 300        | 300        | 250        | 250        | 250        | 100        | 100        | 100        |

## Mechanical Specifications

|                                  |                                           |
|----------------------------------|-------------------------------------------|
| Wind Loading @ Velocity, frontal | 393.0 N @ 150 km/h (88.3 lbf @ 150 km/h)  |
| Wind Loading @ Velocity, lateral | 330.0 N @ 150 km/h (74.2 lbf @ 150 km/h)  |
| Wind Loading @ Velocity, maximum | 757.0 N @ 150 km/h (170.2 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear    | 398.0 N @ 150 km/h (89.5 lbf @ 150 km/h)  |
| Wind Speed, maximum              | 241 km/h (150 mph)                        |

## Packaging and Weights

|                |                      |
|----------------|----------------------|
| Width, packed  | 380 mm   14.961 in   |
| Depth, packed  | 295 mm   11.614 in   |
| Length, packed | 2571 mm   101.221 in |
| Weight, gross  | 42.5 kg   93.696 lb  |

## Regulatory Compliance/Certifications

| Agency     | Classification                                                                                                           |
|------------|--------------------------------------------------------------------------------------------------------------------------|
| CHINA-ROHS | Below maximum concentration value                                                                                        |
| 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 |
|------------------|-----------------------------------------------------------------|