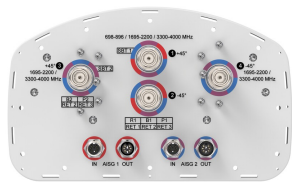


# NHHSS-65C-HGT-R3B



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

- Internal multiplexing reduces cable count from 10 cables to 4 cables per antenna, saving space on flag poles and reducing wind load on other applications
- Ideal for deploying low band, mid band and CBRS/C-Band in flagpoles and concealment solutions
- Antenna optimized for higher gain with superior radiation efficiency
- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBTs allow remote RET control from the radio over the RF jumper cable
- Powered by Andrew's SEED® technology (Sustainable Energy Efficient Design)
- 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
- Best in class PIM immunity

## 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            | Low loss circuit board                                       |
| Reflector Material           | Aluminum                                                     |
| RF Connector Interface       | 4.3-10 Female                                                |
| RF Connector Location        | Bottom                                                       |
| RF Connector Quantity, total | 4                                                            |

## Remote Electrical Tilt (RET) Information

|                         |                                                                                                                                                                    |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RET Hardware            | CommRET v2                                                                                                                                                         |
| RET Interface           | 4x 8 pin connector as per IEC 60130-9 Daisy chain in: Male / Daisy chain out: Female Pin3: RS485A(AISG_B), Pin5: RS485B(AISG_A), Pin6: DC 10~30V, Pin7: DC_ Return |
| RET Interface, quantity | 2 female   2 male                                                                                                                                                  |
| Input Voltage           | 10–30 Vdc                                                                                                                                                          |

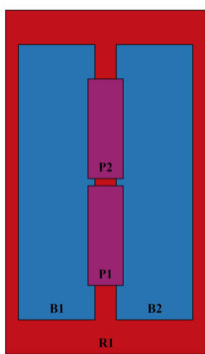
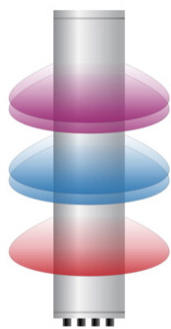
# NHHSS-65C-HGT-R3B

|                                          |                                             |
|------------------------------------------|---------------------------------------------|
| 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                           | 2588 mm   101.89 in |
| Net Weight, without mounting kit | 31.5 kg   69.446 lb |

## Array Layout

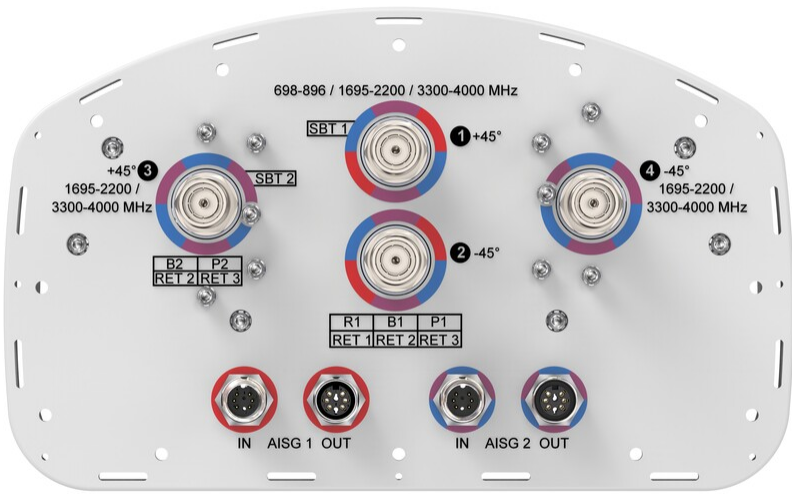


| Array ID | Frequency (MHz) | RF Connector | RET (SRET) | AISG No. | SBT RF PORT | SBT No. | RET UID            |
|----------|-----------------|--------------|------------|----------|-------------|---------|--------------------|
| R1       | 698-896         | 1 - 2        | 1          | AISG1    | 1           | 1       | CPxxxxxxxxxxxxxxR1 |
| B1       | 1695-2200       | 1 - 2        | 2          | AISG2    | 3           | 2       | CPxxxxxxxxxxxxxxB1 |
| B2       | 1695-2200       | 3 - 4        |            |          |             |         |                    |
| P1       | 3300-4000       | 1 - 2        | 3          | AISG2    | 3           | 2       | CPxxxxxxxxxxxxxxP1 |
| P2       | 3300-4000       | 3 - 4        |            |          |             |         |                    |

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

## Port Configuration

# NHHSS-65C-HGT-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     | 1-4       | 1-4       | 1-4       | 1-4       | 1-4       | 1-4       |
| Gain, Maximum, dBi              | 16.3    | 16.3    | 18.5      | 18.7      | 18.7      | 18.3      | 17.9      | 18.3      |
| Gain, dBi                       | 16.1    | 16      | 18.3      | 18.5      | 18.5      | 17.9      | 17.5      | 17.8      |
| Beamwidth, Horizontal, degrees  | 69      | 64      | 64        | 61        | 63        | 56        | 60        | 52        |
| Beamwidth, Vertical, degrees    | 8.7     | 7.6     | 5.2       | 5         | 4.8       | 5.6       | 5.3       | 5.2       |
| 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      | 16        | 16        | 17        | 17        | 17        | 18        |
| Front-to-Back Ratio at 180°, dB | 29      | 34      | 34        | 35        | 30        | 31        | 31        | 30        |
| CPR at Boresight, dB            | 24      | 18      | 24        | 23        | 24        | 17        | 17        | 16        |

# NHHSS-65C-HGT-R3B

|                                              |            |            |            |            |            |            |            |            |
|----------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Isolation, Inter-band, 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 | 250        | 250        | 150        | 150        | 150        | 150        | 150        | 150        |

## Mechanical Specifications

|                                  |                                           |
|----------------------------------|-------------------------------------------|
| Wind Loading @ Velocity, frontal | 422.0 N @ 150 km/h (94.9 lbf @ 150 km/h)  |
| Wind Loading @ Velocity, lateral | 356.0 N @ 150 km/h (80.0 lbf @ 150 km/h)  |
| Wind Loading @ Velocity, maximum | 813.0 N @ 150 km/h (182.8 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear    | 428.0 N @ 150 km/h (96.2 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 | 2720 mm   107.087 in |
| Weight, gross  | 43.5 kg   95.901 lb  |

## Regulatory Compliance/Certifications

|         |                |
|---------|----------------|
| Agency  | Classification |
| UK-ROHS | Compliant      |

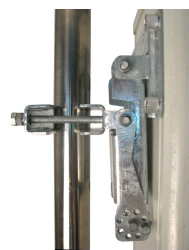
## Included Products

|          |   |                                                                                                                                                                  |
|----------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BSAMNT-4 | – | 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 |
|------------------|-----------------------------------------------------------------|

# BSAMNT-4



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** 6.5 kg | 14.33 lb

## Material Specifications

**Material Type** Galvanized steel

## Packaging and Weights

**Included** Brackets | Hardware

**Packaging quantity** 1

## 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                                                                                                                |

