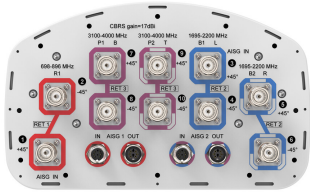


NHHSS-65A-R3B



10-port sector antenna, 2x 698–896, 4x 1695–2200 and 4x 3100–4000 MHz, 65° HPBW, 3x RETs and 2x SBTs, active RET on C-Band, 1.4m Length

- Perfect antenna to add 3.5GHz CBRS to macro sites
- Low band and mid band performance mirrors the performance of existing NHH hex port antennas
- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and mid band allow remote RET control from the radio over the RF jumper cable
- Both mid bands are controlled by the same RET to ensure same tilt level for 4x MIMO. The high band RET is controlled via the mid band RET bus

OBSOLETE

This product was discontinued on: March 30, 2024

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 |
| 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 |
|---------------------|------------|

NHHSS-65A-R3B

| | |
|---|---|
| RET Interface | 8-pin DIN Female 8-pin DIN Male |
| RET Interface, quantity | 2 female 2 male |
| 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 | 1413 mm 55.63 in |
| Net Weight, without mounting kit | 19.5 kg 42.99 lb |

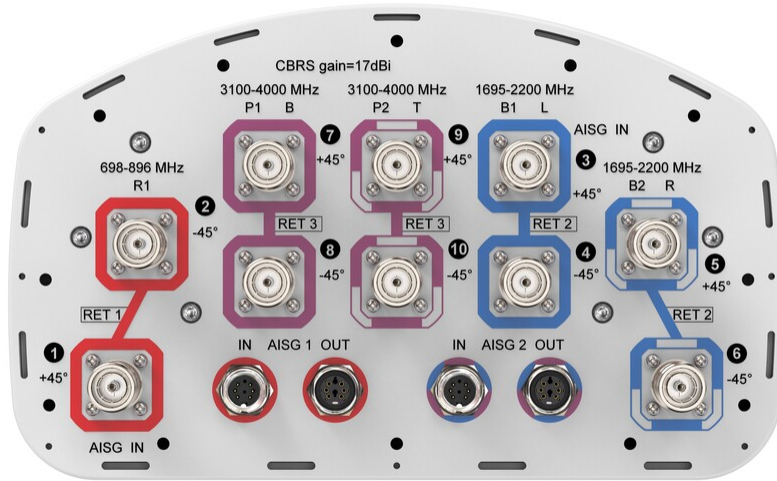
Array Layout

| Array | Freq (MHz) | Conns | RET (SRET) | AISG RET UID |
|-------|------------|-------|------------|----------------------|
| R1 | 698-896 | 1-2 | 1 | CPxxxxxxxxxxxxxxxxR1 |
| B1 | 1695-2200 | 3-4 | 2 | CPxxxxxxxxxxxxxxxxB1 |
| B2 | 1695-2200 | 5-6 | | |
| P1 | 3100-4000 | 7-8 | 3 | CPxxxxxxxxxxxxxxxxP1 |
| P2 | 3100-4000 | 9-10 | | |

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

Port Configuration

NHHSS-65A-R3B



Electrical Specifications

| | |
|-----------------------------------|---|
| Impedance | 50 ohm |
| Operating Frequency Band | 1695 – 2200 MHz 3100 – 4000 MHz 698 – 896 MHz |
| Polarization | ±45° |
| Total Input Power, maximum | 1,000 W @ 50 °C |

Electrical Specifications

| Frequency Band, MHz | 698–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2200 | 3100–3550 | 3550–3700 | 3700–4000 |
|--|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Gain, dBi | 13.8 | 13.9 | 16.2 | 16.7 | 16.9 | 16.9 | 16.7 | 16.7 |
| Beamwidth, Horizontal, degrees | 67 | 64 | 69 | 62 | 62 | 56 | 63 | 61 |
| Beamwidth, Vertical, degrees | 16.2 | 14.4 | 7 | 6.6 | 6.4 | 7.5 | 7 | 6.6 |
| Beam Tilt, degrees | 0–18 | 0–18 | 0–10 | 0–10 | 0–10 | 0–10 | 0–10 | 0–10 |
| USLS (First Lobe), dB | 16 | 16 | 17 | 16 | 17 | 16 | 18 | 19 |
| Front-to-Back Ratio at 180°, dB | 29 | 27 | 30 | 28 | 27 | 31 | 32 | 29 |
| Isolation, Cross Polarization, dB | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 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 |

NHHSS-65A-R3B

| | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|
| Input Power per Port at 50°C, maximum, watts | 300 | 300 | 300 | 300 | 300 | 100 | 100 | 100 |
|---|-----|-----|-----|-----|-----|-----|-----|-----|

Electrical Specifications, BASTA

| Frequency Band, MHz | 698–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2200 | 3100–3550 | 3550–3700 | 3700–4000 |
|--|----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Gain by all Beam Tilts, average, dBi | 13.4 | 13.6 | 15.7 | 16.4 | 16.6 | 16.4 | 16.2 | 16.3 |
| Gain by all Beam Tilts Tolerance, dB | ±0.5 | ±0.6 | ±0.7 | ±0.4 | ±0.3 | ±0.7 | ±0.5 | ±0.5 |
| Beamwidth, Horizontal Tolerance, degrees | ±2.2 | ±1.8 | ±8.3 | ±2.9 | ±4.1 | ±11.4 | ±7.3 | ±10.1 |
| Beamwidth, Vertical Tolerance, degrees | ±1.1 | ±0.8 | ±0.4 | ±0.4 | ±0.4 | ±0.6 | ±0.4 | ±0.5 |
| USLS, beampeak to 20° above beampeak, dB | | | 15 | 16 | 16 | 14 | 14 | 14 |
| Front-to-Back Total Power at 180° ± 30°, dB | 23 | 24 | 23 | 24 | 23 | 24 | 24 | 23 |
| CPR at Boresight, dB | 25 | 18 | 16 | 19 | 18 | 16 | 17 | 14 |
| CPR at Sector, dB | 11 | 8 | 10 | 10 | 9 | 7 | 6 | 6 |

Mechanical Specifications

| | |
|---|--|
| Wind Loading @ Velocity, frontal | 206.0 N @ 150 km/h (46.3 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 169.0 N @ 150 km/h (38.0 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 396.0 N @ 150 km/h (89.0 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 208.0 N @ 150 km/h (46.8 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

| | |
|-----------------------|---------------------|
| Width, packed | 441 mm 17.362 in |
| Depth, packed | 337 mm 13.268 in |
| Length, packed | 1558 mm 61.339 in |
| Weight, gross | 30.4 kg 67.02 lb |

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| CHINA-ROHS | Above maximum concentration value |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| ROHS | Compliant/Exempted |

NHHSS-65A-R3B

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

Performance Note Severe environmental conditions may degrade optimum performance