

NHHSS-45A-R2BT4



10-port sector antenna, 2x 698–896, 4x 1695–2200 MHz and 4x 3100–4200, 45° HPBW, 2x RETs and 2x SBTs. Both high bands share the same electrical tilt.

- 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
- 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
- Interleaved dipole technology providing for attractive, low wind load mechanical package
- One LB RET and one HB RET. Both high bands are controlled by one RET to ensure same tilt level for 4x MIMO

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 | 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 |

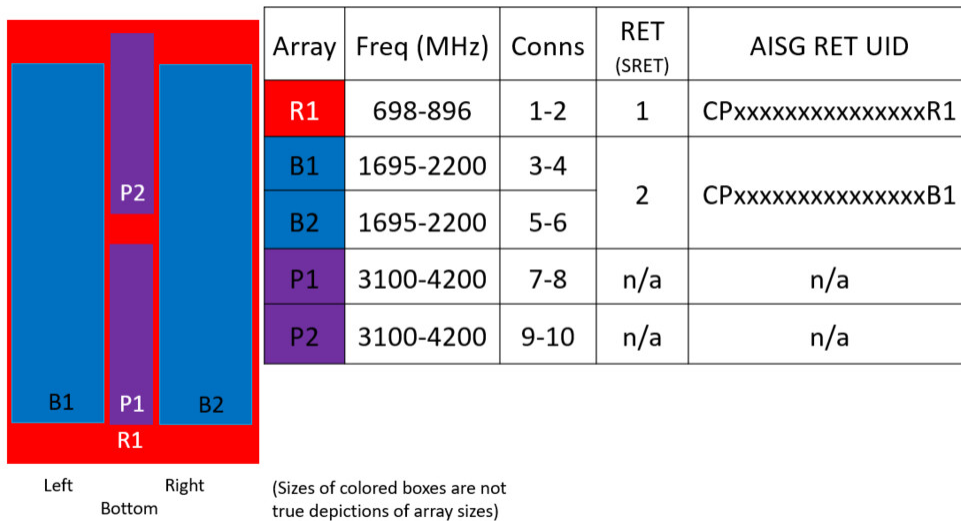
NHHSS-45A-R2BT4

| | |
|---|-----------------------------|
| Input Voltage | 10–30 Vdc |
| Internal RET | 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 |

Dimensions

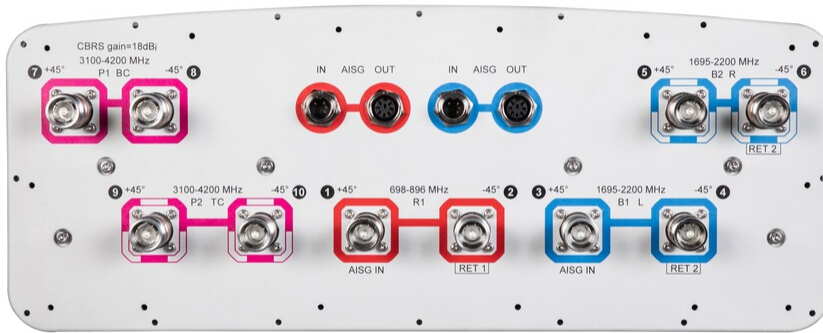
| | |
|---------------------------------|---------------------|
| Width | 457 mm 17.992 in |
| Depth | 178 mm 7.008 in |
| Length | 1220 mm 48.032 in |
| Net Weight, antenna only | 26.5 kg 58.422 lb |

Array Layout



Port Configuration

NHHSS-45A-R2BT4



Electrical Specifications

| | |
|-----------------------------------|---|
| Impedance | 50 ohm |
| Operating Frequency Band | 1695 – 2200 MHz 3100 – 4200 MHz 698 – 896 MHz |
| Polarization | ±45° |
| Total Input Power, maximum | 1,000 W @ 50 °C |

Electrical Specifications

| | R1 | R1 | B1,B2 | B1,B2 | B1,B2 | P1,P2 | P1,P2 | P1,P2 |
|--|----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Frequency Band, MHz | 698–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2200 | 3100–3550 | 3550–3700 | 3700–4200 |
| 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, dBi | 15.6 | 16.5 | 18 | 18.7 | 19.1 | 16.9 | 17.3 | 16.7 |
| Beamwidth, Horizontal, degrees | 46 | 41 | 46 | 44 | 41 | 48 | 43 | 44 |
| Beamwidth, Vertical, degrees | 18.7 | 16.7 | 7.7 | 7.2 | 6.8 | 9.7 | 9 | 8.4 |
| Beam Tilt, degrees | 2–18 | 2–18 | 1–9 | 1–9 | 1–9 | 4 | 4 | 4 |
| USLS (First Lobe), dB | 15 | 16 | 15 | 15 | 14 | 18 | 17 | 15 |
| Front-to-Back Ratio at 180°, dB | 29 | 32 | 33 | 33 | 33 | 33 | 34 | 32 |
| Isolation, Cross Polarization, dB | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |

NHHSS-45A-R2BT4

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|---|----------|----------|----------|----------|----------|----------|----------|----------|
| Isolation, Inter-band, dB | 30 | 30 | 28 | 28 | 28 | 28 | 28 | 28 |
| 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 | -140 | -140 | -140 |
| Input Power per Port at 50°C, maximum, watts | 250 | 250 | 250 | 250 | 250 | 100 | 100 | 100 |

Mechanical Specifications

| | |
|---|---|
| Wind Loading @ Velocity, frontal | 677.0 N @ 150 km/h (152.2 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 135.0 N @ 150 km/h (30.3 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 677.0 N @ 150 km/h (152.2 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 595.0 N @ 150 km/h (133.8 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

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|-----------------------|---------------------|
| Width, packed | 526 mm 20.709 in |
| Depth, packed | 283 mm 11.142 in |
| Length, packed | 1387 mm 54.606 in |
| Weight, gross | 38.3 kg 84.437 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 |
| 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. |
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* Footnotes

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