

NNH4-85B-R6-V1



12-port sector antenna, 4x 694–894 and 8x 1695–2360 MHz, 85° HPBW, 6x RETs

- Array configuration provides capability for 4T4R (4x MIMO) on Low band and High band
- Optimized SPR performance across all operating bands
- Excellent wind loading characteristics
- The antenna is supplied with mounting kits that provide 0 degree of mechanical downtilt; optional downtilt mounting kits are available

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 | Aluminum Low loss circuit board |
| Reflector Material | Aluminum |
| RF Connector Interface | 4.3-10 Female |
| RF Connector Location | Bottom |
| RF Connector Quantity, high band | 0 |
| RF Connector Quantity, mid band | 8 |
| RF Connector Quantity, low band | 4 |
| RF Connector Quantity, total | 12 |

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 |
| Input Voltage | 10–30 Vdc |
| Internal RET | High band (4) Low band (2) |
| Power Consumption, active state, maximum | 8 W |
| Power Consumption, idle state, maximum | 1 W |

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Protocol 3GPP/AISG 2.0 (Single RET)

Dimensions

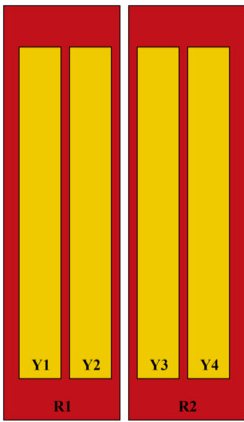
Width 498 mm | 19.606 in

Depth 197 mm | 7.756 in

Length 1828 mm | 71.969 in

Net Weight, antenna only 37.3 kg | 82.232 lb

Array Layout



| ArrayID | Frequency(MHz) | RF Connector | RET (SRET) | AISG No. | RET UID |
|---------|----------------|--------------|------------|----------|----------------------|
| R1 | 694-894 | 1 - 2 | 1 | AISG1 | CPxxxxxxxxxxxxxxxxR1 |
| R2 | 694-894 | 3 - 4 | 2 | AISG1 | CPxxxxxxxxxxxxxxxxR2 |
| Y1 | 1695-2360 | 5 - 6 | 3 | AISG1 | CPxxxxxxxxxxxxxxxxY1 |
| Y2 | 1695-2360 | 7 - 8 | 4 | AISG1 | CPxxxxxxxxxxxxxxxxY2 |
| Y3 | 1695-2360 | 9 - 10 | 5 | AISG1 | CPxxxxxxxxxxxxxxxxY3 |
| Y4 | 1695-2360 | 11 - 12 | 6 | AISG1 | CPxxxxxxxxxxxxxxxxY4 |

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

Port Configuration



Electrical Specifications

Impedance 50 ohm

Operating Frequency Band 1695 – 2360 MHz | 694 – 894 MHz

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| | |
|-----------------------------------|---------------|
| Polarization | ±45° |
| Total Input Power, maximum | 900 W @ 50 °C |

Electrical Specifications

| Frequency Band, MHz | 694–806 | 806–894 | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2360 |
|---|----------------|----------------|------------------|------------------|------------------|------------------|
| RF Port | 1-4 | 1-4 | 5-12 | 5-12 | 5-12 | 5-12 |
| Gain, dBi | 14.5 | 14.8 | 15.9 | 16.8 | 17.4 | 17.9 |
| Beamwidth, Horizontal, degrees | 82 | 76 | 84 | 82 | 78 | 73 |
| Beamwidth, Vertical, degrees | 12.5 | 11.1 | 5.5 | 5.2 | 5 | 4.6 |
| Beam Tilt, degrees | 2–14 | 2–14 | 2–12 | 2–12 | 2–12 | 2–12 |
| USLS (First Lobe), dB | 20 | 19 | 15 | 18 | 18 | 18 |
| Front-to-Back Ratio at 180°, dB | 33 | 27 | 28 | 30 | 30 | 29 |
| Isolation, Cross Polarization, dB | 25 | 25 | 25 | 25 | 25 | 25 |
| Isolation, Inter-band, dB | 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 |
| PIM, 3rd Order, 2 x 20 W, dBc | -153 | -153 | -153 | -153 | -153 | -153 |
| Input Power per Port at 50°C, maximum, watts | 250 | 250 | 200 | 200 | 200 | 200 |

Mechanical Specifications

| | |
|---|---|
| Effective Projective Area (EPA), frontal | 0.64 m ² 6.889 ft ² |
| Effective Projective Area (EPA), lateral | 0.22 m ² 2.368 ft ² |
| Wind Loading @ Velocity, frontal | 685.0 N @ 150 km/h (154.0 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 232.0 N @ 150 km/h (52.2 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 889.0 N @ 150 km/h (199.9 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 564.0 N @ 150 km/h (126.8 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

| | |
|-----------------------|----------------------|
| Width, packed | 565 mm 22.244 in |
| Depth, packed | 309 mm 12.165 in |
| Length, packed | 2015 mm 79.331 in |
| Weight, gross | 48.4 kg 106.704 lb |

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Regulatory Compliance/Certifications

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



Included Products

| | | |
|-----------|---|--|
| BSAMNT-2F | - | Mounting bracket for cylindrical pipe installations (60-115mm pipe diameter) for fix mechanical tilt applications. |
|-----------|---|--|

* Footnotes

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