

NNH4-45B-R6



12-port sector antenna, 4x 698–896 and 8x 1695–2360 MHz, 45° HPBW, 6x RET

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Array configuration provides capability for 4T4R (4x MIMO) on Low band and Dual 4T4R (4x MIMO) on 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 Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN |
| 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 | 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 | 1 female 1 male |
| Input Voltage | 10–30 Vdc |
| Internal RET | High band (4) Low band (2) |
| Power Consumption, idle state, maximum | 1 W |

NNH4-45B-R6

| | |
|--|---------------------------|
| Power Consumption, normal conditions, maximum | 8 W |
| Protocol | 3GPP/AISG 2.0 (Multi-RET) |

Dimensions

| | |
|---|---------------------|
| Width | 457 mm 17.992 in |
| Depth | 178 mm 7.008 in |
| Length | 1848 mm 72.756 in |
| Net Weight, without mounting kit | 36.4 kg 80.248 lb |

Array Layout



Left Right
Bottom

| Array | Freq (MHz) | Conns | RET (MRET) | AISG RET UID |
|-------|------------|-------|------------|------------------------|
| R1 | 698-896 | 1-2 | 1 | CPxxxxxxxxxxxxxxxxmm.1 |
| R2 | 698-896 | 3-4 | 2 | CPxxxxxxxxxxxxxxxxmm.2 |
| Y1 | 1695-2360 | 5-6 | 3 | CPxxxxxxxxxxxxxxxxmm.3 |
| Y2 | 1695-2360 | 7-8 | 4 | CPxxxxxxxxxxxxxxxxmm.4 |
| Y3 | 1695-2360 | 9-10 | 5 | CPxxxxxxxxxxxxxxxxmm.5 |
| Y4 | 1695-2360 | 11-12 | 6 | CPxxxxxxxxxxxxxxxxmm.6 |

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

Port Configuration

NNH4-45B-R6



Electrical Specifications

| | |
|-----------------------------------|---------------------------------|
| Impedance | 50 ohm |
| Operating Frequency Band | 1695 – 2360 MHz 698 – 896 MHz |
| Polarization | ±45° |
| Total Input Power, maximum | 900 W @ 50 °C |

Electrical Specifications

| Frequency Band, MHz | 698–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2360 |
|--|----------|----------|-----------|-----------|-----------|-----------|
| Gain, dBi | 13.9 | 14.9 | 16.9 | 17.5 | 18 | 18.7 |
| Beamwidth, Horizontal, degrees | 49 | 42 | 44 | 42 | 41 | 37 |
| Beamwidth, Vertical, degrees | 24.4 | 21.7 | 10.6 | 10 | 9.5 | 8.4 |
| Beam Tilt, degrees | 0–16 | 0–16 | 0–10 | 0–10 | 0–10 | 0–10 |
| USLS (First Lobe), dB | 20 | 21 | 17 | 18 | 18 | 19 |
| Front-to-Back Ratio at 180°, dB | 35 | 33 | 35 | 36 | 36 | 34 |
| 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 |

NNH4-45B-R6

| | | | | | | |
|---|------|------|------|------|------|------|
| PIM, 3rd Order, 2 x 20 W, dBc | -150 | -150 | -150 | -150 | -150 | -150 |
| Input Power per Port at 50°C, maximum, watts | 150 | 150 | 300 | 250 | 300 | 300 |

Electrical Specifications, BASTA

| Frequency Band, MHz | 698–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2360 |
|--|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Gain by all Beam Tilts, average, dBi | 13.6 | 14.6 | 16.5 | 17.1 | 17.6 | 18.3 |
| Gain by all Beam Tilts Tolerance, dB | ±0.4 | ±0.4 | ±0.5 | ±0.5 | ±0.6 | ±0.4 |
| Gain by Beam Tilt, average, dBi | 0° 13.6 8° 13.6 16° 13.5 | 0° 14.6 8° 14.6 16° 14.4 | 0° 16.5 5° 16.6 10° 16.5 | 0° 17.0 5° 17.1 10° 17.1 | 0° 17.5 5° 17.6 10° 17.6 | 0° 18.3 5° 18.4 10° 18.2 |
| Beamwidth, Horizontal Tolerance, degrees | ±1.9 | ±3.2 | ±2.1 | ±1.6 | ±2.2 | ±2.1 |
| Beamwidth, Vertical Tolerance, degrees | ±1.5 | ±1.5 | ±0.6 | ±0.4 | ±0.7 | ±0.4 |
| USLS, beampeak to 20° above beampeak, dB | 8 | 10 | 18 | 19 | 17 | 18 |
| Front-to-Back Total Power at 180° ± 30°, dB | 25 | 24 | 28 | 29 | 30 | 28 |
| CPR at Boresight, dB | 23 | 24 | 16 | 19 | 20 | 21 |
| CPR at 10 dB Horizontal Beamwidth, dB | 12 | 13 | 7 | 8 | 11 | 14 |

Mechanical Specifications

| | |
|---|--|
| Effective Projective Area (EPA), frontal | 1.01 m ² 10.872 ft ² |
| Effective Projective Area (EPA), lateral | 0.21 m ² 2.26 ft ² |
| Mechanical Tilt Range | 0°–15° |
| Wind Loading @ Velocity, frontal | 1,077.0 N @ 150 km/h (242.1 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 222.0 N @ 150 km/h (49.9 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 1,077.0 N @ 150 km/h (242.1 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 946.0 N @ 150 km/h (212.7 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

| | |
|----------------------|--------------------|
| Width, packed | 608 mm 23.937 in |
| Depth, packed | 346 mm 13.622 in |

NNH4-45B-R6

Length, packed 1991 mm | 78.386 in

Weight, gross 49.3 kg | 108.688 lb

Regulatory Compliance/Certifications

Agency

CHINA-ROHS

ISO 9001:2015

ROHS

UK-ROHS

Classification

Above maximum concentration value

Designed, manufactured and/or distributed under this quality management system

Compliant/Exempted

Compliant



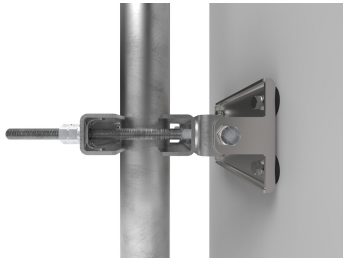
Included Products

BSAMNT-3F – Mounting bracket for cylindrical pipe installations (60-115mm pipe diameter) for fix mechanical tilt applications.

* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance

BSAMNT-3F



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

Product Classification

Product Type Fixed tilt 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 5.6 kg | 12.346 lb

Material Specifications

Material Type Galvanized steel

Packaging and Weights

Included Brackets | Hardware

Packaging quantity 1

Weight, gross 5.8 kg | 12.787 lb

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| CE | Compliant with the relevant CE product directives |
| 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 www.commscope.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |

BSAMNT-3F

