

NHH-33B-R2B



6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 33° HPBW, 2x RETs and 2x SBTs

- Narrow beamwidth capacity antenna for higher level of densification and enhanced data throughput
- 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
- One LB RET and one HB RET. Both high bands are controlled by one RET to ensure same tilt level for 4x Rx or 4x MIMO

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 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 | 4 |
| RF Connector Quantity, low band | 2 |
| RF Connector Quantity, total | 6 |

Remote Electrical Tilt (RET) Information

| | |
|---|-----------------------------------|
| 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) |
| Power Consumption, idle state, maximum | 1 W |

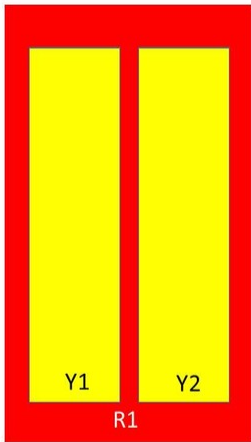
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| | |
|--|----------------------------|
| Power Consumption, normal conditions, maximum | 10 W |
| Protocol | 3GPP/AISG 2.0 (Single RET) |

Dimensions

| | |
|---|---------------------|
| Width | 640 mm 25.197 in |
| Depth | 235 mm 9.252 in |
| Length | 1830 mm 72.047 in |
| Net Weight, without mounting kit | 43 kg 94.799 lb |

Array Layout

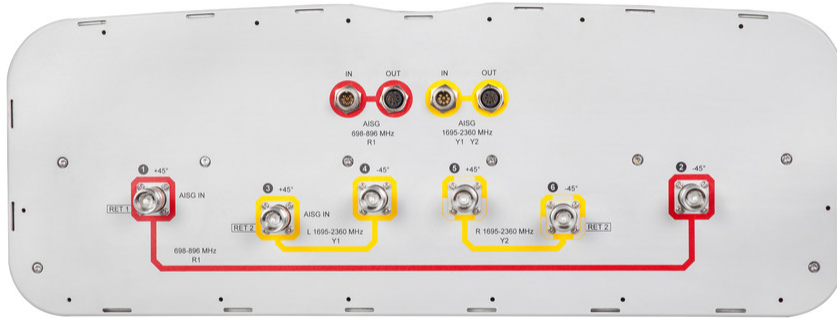


| Array | Freq (MHz) | Conns | RET (SRET) | AISG RET UID |
|-------|------------|-------|------------|----------------------|
| R1 | 698-896 | 1-2 | 1 | ANxxxxxxxxxxxxxxxxx1 |
| Y1 | 1695-2360 | 3-4 | 2 | ANxxxxxxxxxxxxxxxxx2 |
| Y2 | 1695-2360 | 5-6 | | |

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

Port Configuration

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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 | 1920–2200 | 2300–2360 |
|--|----------|----------|-----------|-----------|-----------|-----------|
| Gain, dBi | 17.6 | 18.3 | 19.6 | 20.2 | 20.8 | 21.6 |
| Beamwidth, Horizontal, degrees | 37 | 32 | 34 | 35 | 34 | 30 |
| Beamwidth, Vertical, degrees | 12.7 | 11.2 | 5.8 | 5.4 | 5.1 | 4.6 |
| Beam Tilt, degrees | 2–13 | 2–13 | 2–12 | 2–12 | 2–12 | 2–12 |
| USLS (First Lobe), dB | 21 | 22 | 18 | 19 | 20 | 20 |
| Front-to-Back Ratio at 180°, dB | 34 | 39 | 36 | 39 | 39 | 35 |
| Isolation, Cross Polarization, dB | 25 | 25 | 25 | 25 | 25 | 25 |
| Isolation, Inter-band, dB | 30 | 30 | 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 |

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| | | | | | | |
|---|------|------|------|------|------|------|
| PIM, 3rd Order, 2 x 20 W, dBc | -153 | -153 | -153 | -153 | -153 | -153 |
| Input Power per Port at 50°C, maximum, watts | 300 | 300 | 250 | 250 | 250 | 200 |

Electrical Specifications, BASTA

| Frequency Band, MHz | 698–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2200 | 2300–2360 |
|--|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Gain by all Beam Tilts, average, dBi | 17.2 | 18.1 | 19.2 | 19.9 | 20.4 | 21.3 |
| Gain by all Beam Tilts Tolerance, dB | ±0.5 | ±0.2 | ±0.6 | ±0.5 | ±0.5 | ±0.3 |
| Gain by Beam Tilt, average, dBi | 2° 17.2 7° 17.3 13° 17.1 | 2° 18.1 7° 18.2 13° 18.0 | 2° 18.9 7° 19.3 12° 19.4 | 2° 19.6 7° 20.0 12° 20.0 | 2° 20.0 7° 20.5 12° 20.4 | 2° 21.0 7° 21.5 12° 21.2 |
| Beamwidth, Horizontal Tolerance, degrees | ±2.8 | ±1.1 | ±1.7 | ±1.3 | ±1.7 | ±1.3 |
| Beamwidth, Vertical Tolerance, degrees | ±0.8 | ±0.6 | ±0.3 | ±0.2 | ±0.3 | ±0.2 |
| USLS, beampeak to 20° above beampeak, dB | 21 | 20 | 16 | 17 | 18 | 18 |
| Front-to-Back Total Power at 180° ± 30°, dB | 29 | 28 | 29 | 31 | 31 | 29 |
| CPR at Boresight, dB | 18 | 18 | 18 | 21 | 19 | 18 |
| CPR at Sector, dB | 12 | 13 | 13 | 14 | 14 | 11 |

Mechanical Specifications

| | |
|---|---|
| Effective Projective Area (EPA), frontal | 0.72 m ² 7.75 ft ² |
| Effective Projective Area (EPA), lateral | 0.24 m ² 2.583 ft ² |
| Mechanical Tilt Range | 0°–15° |
| Wind Loading @ Velocity, frontal | 765.0 N @ 150 km/h (172.0 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 251.0 N @ 150 km/h (56.4 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 1,041.0 N @ 150 km/h (234.0 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 788.0 N @ 150 km/h (177.1 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

| | |
|-----------------------|---------------------|
| Width, packed | 752 mm 29.606 in |
| Depth, packed | 387 mm 15.236 in |
| Length, packed | 1379 mm 54.291 in |

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Weight, gross

47.4 kg | 104.499 lb

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 www.commscope.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |



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. |
| BSAMNT-M | - | Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set. |

* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance

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.

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 6.2 kg | 13.669 lb

Material Specifications

Material Type Galvanized steel

Packaging and Weights

Included Brackets | Hardware

Packaging quantity 1

Weight, gross 6.4 kg | 14.11 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-3



BSAMNT-M



Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor 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 4.5 kg | 9.921 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 www.commscope.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |

