

NNHH-65B-R2



8-port sector antenna, 4x 698–896 and 4x 1695–2360 MHz, 65° HPBW, 2x RETs

- Array configuration provides capability for 4T4R (4x MIMO) on Low band and Mid 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 | Low loss circuit board |
| Reflector Material | Aluminum |
| RF Connector Interface | 4.3-10 Female |
| RF Connector Location | Bottom |
| RF Connector Quantity, mid band | 4 |
| RF Connector Quantity, low band | 4 |
| RF Connector Quantity, total | 8 |

Remote Electrical Tilt (RET) Information

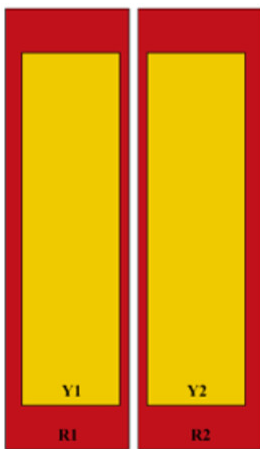
| | |
|---|-----------------------------------|
| RET Hardware | CommRET v2 |
| RET Interface | 8-pin DIN Female 8-pin DIN Male |
| RET Interface, quantity | 1 female 1 male |
| Input Voltage | 10–30 Vdc |
| Internal RET | Low band (1) Mid band (1) |
| Power Consumption, active state, maximum | 10 W |
| Power Consumption, idle state, maximum | 2 W |
| Protocol | 3GPP/AISG 2.0 (Multi-RET) |

NNHH-65B-R2

Dimensions

| | |
|---------------------------------|---------------------|
| Width | 498 mm 19.606 in |
| Depth | 197 mm 7.756 in |
| Length | 1828 mm 71.969 in |
| Net Weight, antenna only | 31 kg 68.343 lb |

Array Layout



| Array ID | Frequency (MHz) | RF Connector | RET (MRET) | AISG No. | AISG RET UID |
|----------|-----------------|--------------|---------------|----------|--------------------|
| R1 | 698-896 | 1 - 2 | 1 | AISG1 | CPxxxxxxxxxxxxMM.1 |
| R2 | 698-896 | 3 - 4 | | | |
| Y1 | 1695-2360 | 5 - 6 | 2 | AISG1 | CPxxxxxxxxxxxxMM.2 |
| Y2 | 1695-2360 | 7 - 8 | | | |

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

Port Configuration



Electrical Specifications

| | |
|---------------------------------|---------------------------------|
| Impedance | 50 ohm |
| Operating Frequency Band | 1695 – 2360 MHz 698 – 896 MHz |

NNHH-65B-R2

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

Electrical Specifications

| | R1,R2 | R1,R2 | Y1,Y2 | Y1,Y2 | Y1,Y2 | Y1,Y2 |
|---|----------------|----------------|------------------|------------------|------------------|------------------|
| | 698–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2360 |
| Frequency Band, MHz | 698–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2360 |
| RF Port | 1,2,3,4 | 1,2,3,4 | 5,6,7,8 | 5,6,7,8 | 5,6,7,8 | 5,6,7,8 |
| Gain, dBi | 14.6 | 15 | 17 | 17.3 | 17.5 | 17.9 |
| Beamwidth, Horizontal, degrees | 66 | 64 | 58 | 61 | 63 | 59 |
| Beamwidth, Vertical, degrees | 11.9 | 10.3 | 7.4 | 6.9 | 6.4 | 5.7 |
| Beam Tilt, degrees | 2–14 | 2–14 | 0–10 | 0–10 | 0–10 | 0–10 |
| USLS (First Lobe), dB | 17 | 19 | 14 | 19 | 16 | 18 |
| Front-to-Back Ratio at 180°, dB | 30 | 31 | 35 | 38 | 37 | 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 |
| PIM, 3rd Order, 2 x 20 W, dBc | -150 | -150 | -150 | -150 | -150 | -150 |
| Input Power per Port at 50°C, maximum, watts | 300 | 300 | 250 | 250 | 250 | 200 |

Electrical Specifications, BASTA

| | 698–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2360 |
|--|----------------|----------------|------------------|------------------|------------------|------------------|
| Frequency Band, MHz | 698–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2360 |
| Gain by all Beam Tilts, average, dBi | 14.2 | 14.7 | 16.4 | 16.9 | 17 | 17.5 |
| Gain by all Beam Tilts Tolerance, dB | ±0.5 | ±0.5 | ±0.9 | ±0.4 | ±0.5 | ±0.5 |
| Beamwidth, Horizontal Tolerance, degrees | ±10.7 | ±6.5 | ±6.7 | ±5.6 | ±6.9 | ±7.5 |
| Beamwidth, Vertical Tolerance, degrees | ±0.8 | ±0.8 | ±0.8 | ±0.4 | ±0.7 | ±0.2 |
| USLS, beampeak to 20° above beampeak, dB | 17 | 19 | 14 | 17 | 15 | 17 |
| Front-to-Back Total Power at 180° ± 30°, dB | 21 | 21 | 30 | 31 | 27 | 27 |
| CPR at Boresight, dB | 21 | 22 | 16 | 17 | 18 | 17 |

NNHH-65B-R2

| | | | | | | |
|--------------------------|---|---|---|---|---|----|
| CPR at Sector, dB | 9 | 6 | 9 | 9 | 8 | 12 |
|--------------------------|---|---|---|---|---|----|

Mechanical Specifications

| | |
|---|---|
| Effective Projective Area (EPA), frontal | 0.58 m ² 6.243 ft ² |
| Effective Projective Area (EPA), lateral | 0.18 m ² 1.938 ft ² |
| Wind Loading @ Velocity, frontal | 622.0 N @ 150 km/h (139.8 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 188.0 N @ 150 km/h (42.3 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 746.0 N @ 150 km/h (167.7 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 428.0 N @ 150 km/h (96.2 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 | 42.6 kg 93.917 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-2F | – | 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-2F



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 3.8 kg | 8.378 lb

Material Specifications

Material Type Galvanized steel

Packaging and Weights

Included Brackets | Hardware

Packaging quantity 1

Weight, gross 4 kg | 8.818 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-2F

