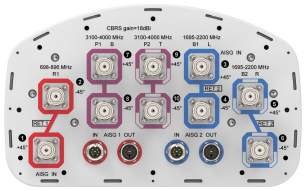
# NHHSS-65B-R2BT4-V1



10-port sector antenna, 2x 698–896, 4x 1695–2200 and 4x 3100-4000 MHz, 65° HPBW, 2x RETs and 2x SBTs. Both high bands share the same electrical tilt.

## 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** | 4 |
| **RF Connector Quantity, mid band** | 4 |
| **RF Connector Quantity, low band** | 2 |
| **RF Connector Quantity, total** | 10 |

## Remote Electrical Tilt (RET) Information

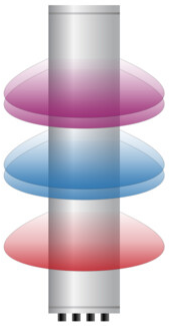
| | |
|---|---|
| **RET Hardware** | CommRET v2 |
| **RET Interface** | 4x 8 pin connector as per IEC 60130-9 Daisy chain in: Male / Daisy chain out: Female Pin3: RS485A(AISG_B), Pin5: RS485B(AISG_A), Pin6: DC 10~30V, Pin7: DC_ Return |
| **RET Interface, quantity** | 2 female \| 2 male |
| **Input Voltage** | 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 |

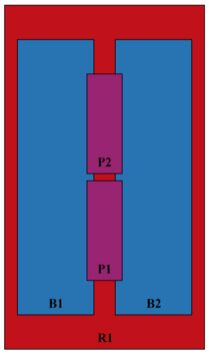
# NHHSS-65B-R2BT4-V1

## Dimensions

| | |
|---|---|
| **Width** | 301 mm \| 11.85 in |
| **Depth** | 181 mm \| 7.126 in |
| **Length** | 1828 mm \| 71.969 in |
| **Net Weight, antenna only** | 25.5 kg \| 56.218 lb |

## Array Layout

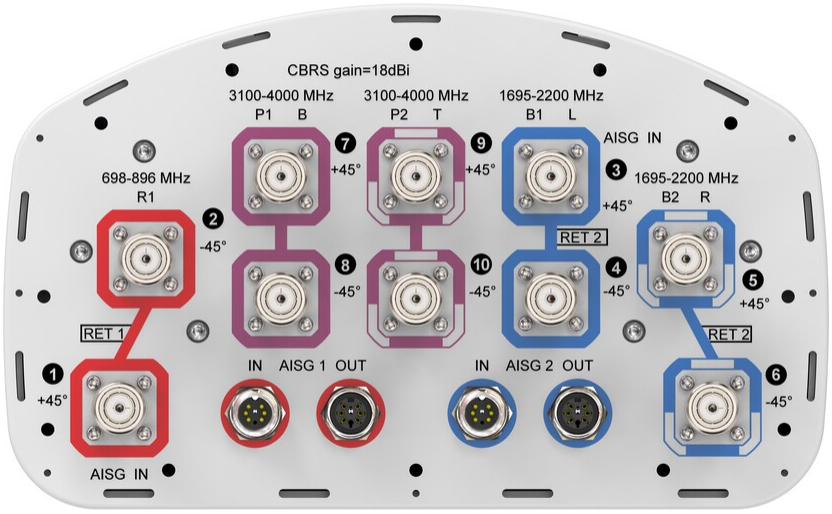





| Array ID | Frequency (MHz) | RF Connector | RET (SRET) | AISG No. | AISG RET UID |
|---|---|---|---|---|---|
| R1 | 698-896 | 1 - 2 | 1 | AISG1 | CPxxxxxxxxxxxxxxR1 |
| B1 | 1695-2200 | 3 - 4 | 2 | AISG2 | CPxxxxxxxxxxxxxxB1 |
| B2 | 1695-2200 | 5 - 6 | | | |
| P1 | 3100-4000 | 7 - 8 | N/A | NA | N/A |
| P2 | 3100-4000 | 9 - 10 | | | |

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

## Port Configuration




## Electrical Specifications

# NHHSS-65B-R2BT4-V1

| | |
|---|---|
| **Impedance** | 50 ohm |
| **Operating Frequency Band** | 1695 – 2200 MHz \| 3100 – 4000 MHz \| 698 – 896 MHz |
| **Polarization** | ±45° |
| **Total Input Power, maximum** | 1,000 W @ 50 °C |

## Electrical Specifications

| **Frequency Band, MHz** | **698–806** | **806–896** | **1695–1880** | **1850–1990** | **1920–2200** | **3100–3550** | **3550–3700** | **3700–4000** |
|---|---|---|---|---|---|---|---|---|
| **Gain at Mid Tilt, dBi** | 14.7 | 14.8 | 17.1 | 17.6 | 17.7 | 17.1 | 17.1 | 17.5 |
| **Beamwidth, Horizontal, degrees** | 66 | 63 | 67 | 62 | 65 | 55 | 61 | 56 |
| **Beamwidth, Vertical, degrees** | 13.1 | 11.5 | 5.5 | 5.1 | 4.8 | 5.7 | 5.4 | 5 |
| **Beam Tilt, degrees** | 0–14 | 0–14 | 0–7 | 0–7 | 0–7 | 4 | 4 | 4 |
| **USLS (First Lobe), dB** | 18 | 19 | 17 | 18 | 18 | 18 | 19 | 19 |
| **Front-to-Back Ratio at 180°, dB** | 30 | 35 | 35 | 34 | 29 | 34 | 37 | 34 |
| **Isolation, Cross Polarization, dB** | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| **Isolation, Inter-band, dB** | 25 | 25 | 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 | 1.5 \| 14.0 | 1.5 \| 14.0 |
| **PIM, 3rd Order, 2 x 20 W, dBc** | -153 | -153 | -153 | -153 | -153 | -145 | -145 | -145 |
| **Input Power per Port at 50°C, maximum, watts** | 300 | 300 | 300 | 300 | 300 | 100 | 100 | 100 |

## Mechanical Specifications

| | |
|---|---|
| **Wind Loading @ Velocity, frontal** | 278.0 N @ 150 km/h (62.5 lbf @ 150 km/h) |
| **Wind Loading @ Velocity, lateral** | 230.0 N @ 150 km/h (51.7 lbf @ 150 km/h) |
| **Wind Loading @ Velocity, maximum** | 537.0 N @ 150 km/h (120.7 lbf @ 150 km/h) |
| **Wind Loading @ Velocity, rear** | 282.0 N @ 150 km/h (63.4 lbf @ 150 km/h) |
| **Wind Speed, maximum** | 241 km/h (150 mph) |

## Packaging and Weights

| | |
|---|---|
| **Width, packed** | 560 mm \| 22.047 in |
| **Depth, packed** | 337 mm \| 13.268 in |
| **Length, packed** | 1973 mm \| 77.677 in |
| **Weight, gross** | 31.8 kg \| 70.107 lb |

# NHHSS-65B-R2BT4-V1

## Regulatory Compliance/Certifications

| Agency | Classification |
| --- | --- |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |

## * Footnotes

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