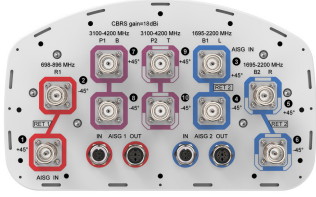


# NHHSS-65A-R2BT2



10-port sector antenna, 2x 698–896, 4x 1695–2200 and 4x 3100–4200 MHz, 65° HPBW, 2x RETs and 2x SBTs. Both high bands share the same electrical tilt.

- Perfect antenna to add 3.5GHz CBRS to macro sites
- Low band and mid band performance mirrors the performance of existing NHH hex port antennas
- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- One LB RET and one HB RET. Both high bands are controlled by one RET to ensure same tilt level for 4x MIMO

## OBSOLETE

This product was discontinued on: **March 30, 2023**

### Replaced By:

NHHSS-65A-R2BT4      10-port sector antenna, 2x 698–896, 4x 1695–2200 and 4x 3100–4200 MHz, 65° HPBW, 2x RETs and 2x SBTs. Both high bands share the same electrical tilt.

## General Specifications

<b>Antenna Type</b>	Sector
<b>Band</b>	Multiband
<b>Color</b>	Light Gray (RAL 7035)
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Radiator Material</b>	Aluminum   Low loss circuit board
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	4
<b>RF Connector Quantity, mid band</b>	4
<b>RF Connector Quantity, low band</b>	2

# NHHSS-65A-R2BT2

**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 Bias Tee** Port 1 | Port 3

**Internal RET** Low band (1)

**Power Consumption, active state, maximum** 10 W

**Power Consumption, idle state, maximum** 2 W

**Protocol** 3GPP/AISG 2.0 (Single RET)

## Dimensions

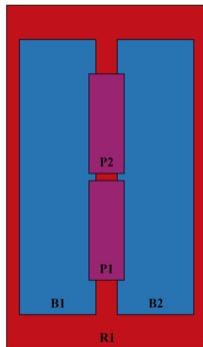
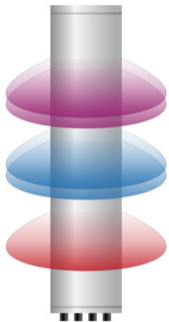
**Width** 301 mm | 11.85 in

**Depth** 181 mm | 7.126 in

**Length** 1413 mm | 55.63 in

**Net Weight, without mounting kit** 19.5 kg | 42.99 lb

## Array Layout

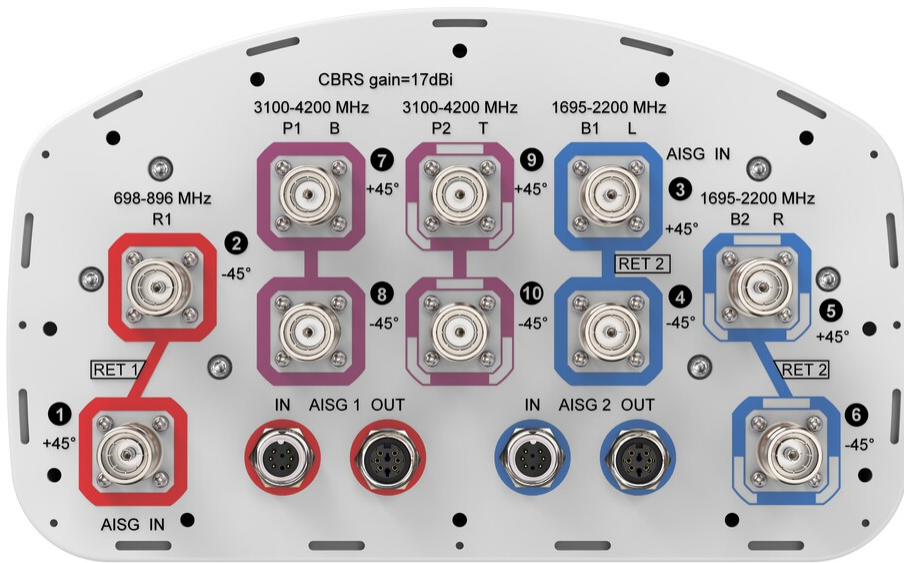


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
B1	1695-2200	3 - 4	2	AISG2	CPxxxxxxxxxxxxxxxxB1
B2	1695-2200	5 - 6			
P1	3100-4200	7 - 8	N/A	NA	N/A
P2	3100-4200	9 - 10			

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

## Port Configuration

# NHHSS-65A-R2BT2



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2200 MHz   3100 – 4200 MHz   698 – 896 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	1,000 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	3100–3550	3550–3700	3700–4200
<b>Gain, dBi</b>	13.8	13.9	16.2	16.7	16.9	16.8	16.2	16.7
<b>Beamwidth, Horizontal, degrees</b>	67	64	69	62	62	56	66	62
<b>Beamwidth, Vertical, degrees</b>	16.2	14.4	7	6.6	6.4	7.4	6.8	6.3
<b>Beam Tilt, degrees</b>	0–18	0–18	0–10	0–10	0–10	2	2	2
<b>USLS (First Lobe), dB</b>	16	16	17	16	17	17	19	20
<b>Front-to-Back Ratio at 180°, dB</b>	29	27	30	28	27	31	33	28
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25	25	25	25	25
<b>VSWR   Return loss, dB</b>	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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153	-153	-140	-140	-140

# NHHSS-65A-R2BT2

<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	300	300	300	100	100	100
---	-----	-----	-----	-----	-----	-----	-----	-----

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>698–806</b>	<b>806–896</b>	<b>1695–1880</b>	<b>1850–1990</b>	<b>1920–2200</b>	<b>3100–3550</b>	<b>3550–3700</b>	<b>3700–4200</b>
<b>Gain by all Beam Tilts, average, dBi</b>	13.4	13.6	15.7	16.4	16.6	16.4	16	16.3
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.5	±0.6	±0.7	±0.4	±0.3	±0.6	±0.4	±0.5
<b>Gain by Beam Tilt, average, dBi</b>	0° 13.6 9° 13.5 18° 13.2	0° 13.8 9° 13.6 18° 12.7	0° 15.9 5° 16.0 10° 15.7	0° 16.4 5° 16.6 10° 16.4	0° 16.6 5° 16.7 10° 16.5			
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±2.2	±1.8	±8.3	±2.9	±4.1	±12.3	±4.7	±9.7
<b>Beamwidth, Vertical Tolerance, degrees</b>	±1.1	±0.8	±0.4	±0.4	±0.4	±0.6	±0.4	±0.5
<b>USLS, beampeak to 20° above beampeak, dB</b>			15	16	16	13	14	14
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	23	24	23	24	23	24	25	23
<b>CPR at Boresight, dB</b>	25	18	16	19	18	16	18	14
<b>CPR at Sector, dB</b>	11	8	10	10	9	7	8	7

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	206.0 N @ 150 km/h (46.3 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	169.0 N @ 150 km/h (38.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	396.0 N @ 150 km/h (89.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	208.0 N @ 150 km/h (46.8 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	441 mm   17.362 in
<b>Depth, packed</b>	337 mm   13.268 in
<b>Length, packed</b>	1558 mm   61.339 in
<b>Weight, gross</b>	30.4 kg   67.02 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Below maximum concentration value

# NHHSS-65A-R2BT2

---

REACH-SVHC Compliant as per SVHC revision on [www.commscope.com/ProductCompliance](http://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.

## \* Footnotes

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