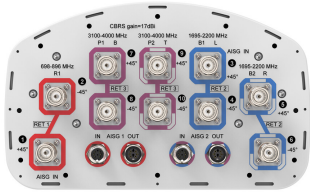


# NHHSS-65A-R3B



10-port sector antenna, 2x 698–896, 4x 1695–2200 and 4x 3100–4000 MHz, 65° HPBW, 3x RETs and 2x SBTs, active RET on C-Band, 1.4m Length

- 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 mid band allow remote RET control from the radio over the RF jumper cable
- Both mid bands are controlled by the same RET to ensure same tilt level for 4x MIMO. The high band RET is controlled via the mid band RET bus

**OBSOLETE**

This product was discontinued on: **March 30, 2024**

## 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>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
<b>RF Connector Quantity, total</b>	10

## Remote Electrical Tilt (RET) Information

<b>RET Hardware</b>	CommRET v2
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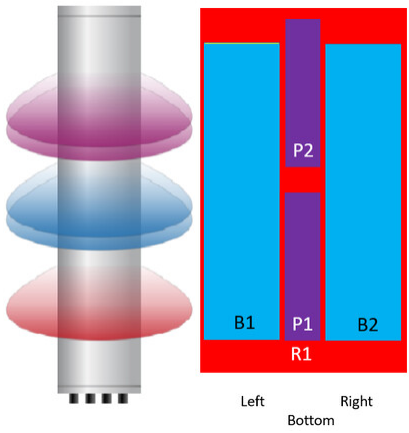
# NHHSS-65A-R3B

<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	2 female   2 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal Bias Tee</b>	Port 1   Port 3
<b>Internal RET</b>	High band (1)   Low band (1)   Mid band (1)
<b>Power Consumption, active state, maximum</b>	10 W
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

## Dimensions

<b>Width</b>	301 mm   11.85 in
<b>Depth</b>	181 mm   7.126 in
<b>Length</b>	1413 mm   55.63 in
<b>Net Weight, without mounting kit</b>	19.5 kg   42.99 lb

## Array Layout

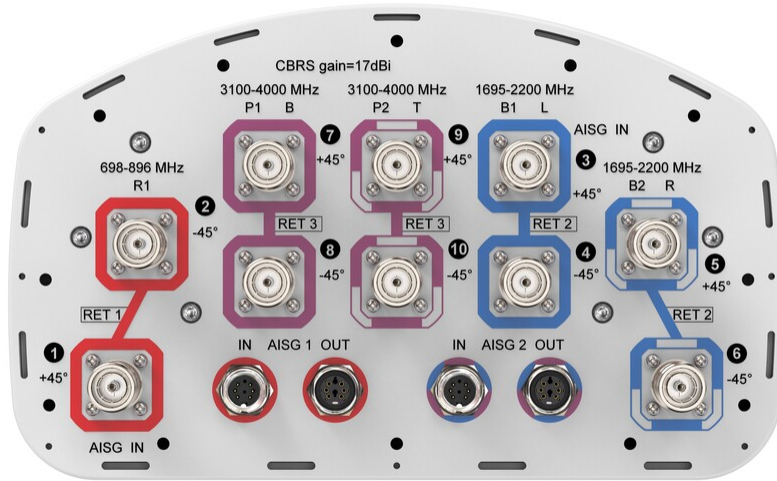


Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	CPxxxxxxxxxxxxxxxxR1
B1	1695-2200	3-4	2	CPxxxxxxxxxxxxxxxxB1
B2	1695-2200	5-6		
P1	3100-4000	7-8	3	CPxxxxxxxxxxxxxxxxP1
P2	3100-4000	9-10		

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

## Port Configuration

# NHHSS-65A-R3B



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2200 MHz   3100 – 4000 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	3700–4000
<b>Gain, dBi</b>	13.8	13.9	16.2	16.7	16.9	16.9	16.7	16.7
<b>Beamwidth, Horizontal, degrees</b>	67	64	69	62	62	56	63	61
<b>Beamwidth, Vertical, degrees</b>	16.2	14.4	7	6.6	6.4	7.5	7	6.6
<b>Beam Tilt, degrees</b>	0–18	0–18	0–10	0–10	0–10	0–10	0–10	0–10
<b>USLS (First Lobe), dB</b>	16	16	17	16	17	16	18	19
<b>Front-to-Back Ratio at 180°, dB</b>	29	27	30	28	27	31	32	29
<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	-145	-145	-145

# NHHSS-65A-R3B

<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	300	300	300	100	100	100
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## 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	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-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.
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## \* Footnotes

<b>Performance Note</b>	Severe environmental conditions may degrade optimum performance
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