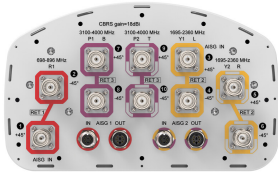


# NHHSS-65B-R3B



10-port sector antenna, 2x 698–896, 4x 1695–2360 and 4x 3100-4000 MHz, 65° HPBW, 3x RETs and 2x SBTs, active RET on C-Band, 1.8m 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

## 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
<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 RET</b>	High band (1)   Low band (1)   Mid band (1)

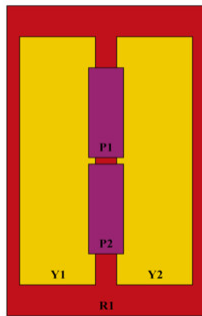
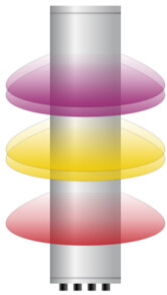
# NHHSS-65B-R3B

<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>	1828 mm   71.969 in
<b>Net Weight, without mounting kit</b>	23.1 kg   50.927 lb

## Array Layout

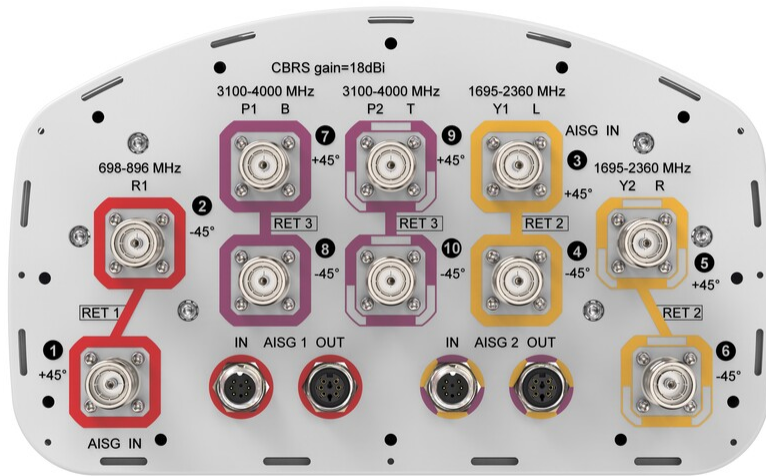


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
Y1	1695-2360	3 - 4	2	AISG2	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2360	5 - 6			
P1	3100-4000	7 - 8	3	AISG2	CPxxxxxxxxxxxxxxxxP1
P2	3100-4000	9 - 10			

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

## Port Configuration

# NHHSS-65B-R3B



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2360 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	2200–2360	3100–3550	3550–3700	3700–4000
<b>Gain, dBi</b>	14.8	15.2	17.5	17.7	17.9	17.8	17.8	17.5	17.8
<b>Beamwidth, Horizontal, degrees</b>	65	62	67	63	65	67	54	63	61
<b>Beamwidth, Vertical, degrees</b>	13	11.6	5.5	5.1	4.8	4.4	5.7	5.4	5
<b>Beam Tilt, degrees</b>	0–14	0–14	0–7	0–7	0–7	0–7	0–10	0–10	0–10
<b>USLS (First Lobe), dB</b>	15	15	16	17	18	14	16	17	18
<b>Front-to-Back Ratio at 180°, dB</b>	26	29	34	31	28	29	31	33	32
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25	25	25	28	28	28

# NHHSS-65B-R3B

<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	1.5 14.0
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153	-153	-153	-145	-145	-145
<b>Input Power per Port at 50° C, maximum, watts</b>	300	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>2200–2360</b>	<b>3100–3550</b>	<b>3550–3700</b>	<b>3700–4000</b>
<b>Gain by all Beam Tilts, average, dBi</b>	14.6	14.8	17.1	17.5	17.7	17.5	17.3	17	17.1
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.4	±0.4	±0.5	±0.2	±0.3	±0.4	±0.7	±0.8	±0.8
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±1.7	±1.3	±6.2	±2.7	±6.2	±5.5	±10.3	±8.1	±10.9
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.8	±0.8	±0.2	±0.2	±0.3	±0.2	±0.4	±0.3	±0.3
<b>USLS, beampeak to 20° above beampeak, dB</b>	15	15	14	15	17	14	14	16	14
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	22	25	24	25	24	24	26	25	24
<b>CPR at Boresight, dB</b>	24	17	18	23	21	19	15	16	13
<b>CPR at Sector, dB</b>	12	6	12	10	8	8	8	8	5

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	278.0 N @ 150 km/h (62.5 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	230.0 N @ 150 km/h (51.7 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	537.0 N @ 150 km/h (120.7 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	282.0 N @ 150 km/h (63.4 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>	1973 mm   77.677 in
<b>Weight, gross</b>	35.1 kg   77.382 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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# NHHSS-65B-R3B

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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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# 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 <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant

# BSAMNT-3

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