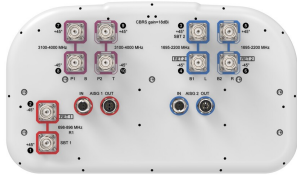


# NHHSS-55B-R2BT4



10-port sector antenna, 2x 698–896, 4x 1695–2200 and 4x 3100–4000 MHz, 55° HPBW, 2x RETs.

- Utilizes Pattern Shaping Technology to reduce cell overlap and maximize SINR (Signal to Interference and Noise Ratio)
- Superior SPR (Sector Power Ratio) for best-in-class data throughput rates
- Excellent pattern overlay across all bands
- Low band and mid band performance mirrors performance of the equivalent hex port antenna
- Internal SBTs on low and mid band allow remote RET control from the radio over the RF jumper cable
- One LB RET and one MB RET. Both mid band arrays are controlled by one RET to ensure same tilt level for best 4x4 MIMO performance
- Use optional BSAMNT-SBS-2-2 for side-by-side mounting of two hex and/or ten port 55° antennas

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

## Remote Electrical Tilt (RET) Information

<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	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:

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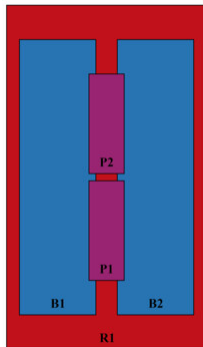
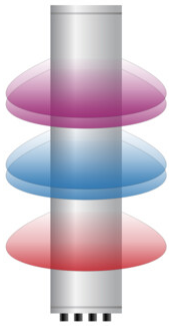
DC\_ Return

<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>	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>	395 mm   15.551 in
<b>Depth</b>	228 mm   8.976 in
<b>Length</b>	1828 mm   71.969 in

## Array Layout

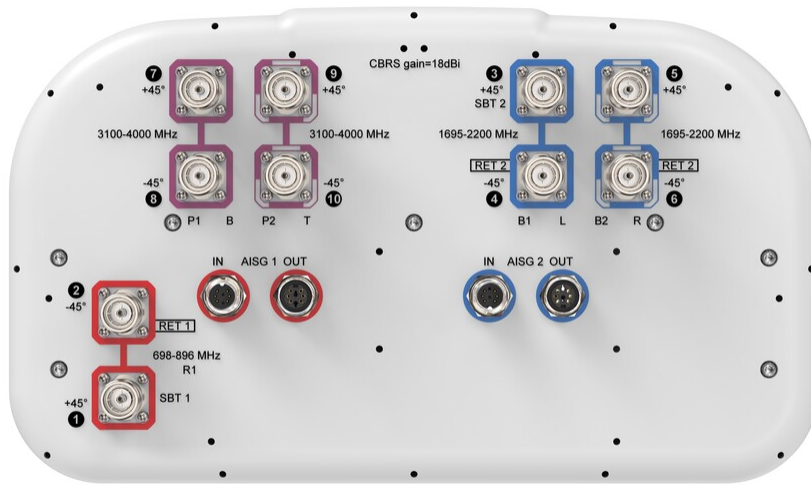


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	SBT RF PORT	SBT No.	RET UID
R1	698-896	1 - 2	1	AISG1	1	1	CPxxxxxxxxxxxxxxxxR1
B1	1695-2200	3 - 4	2	AISG2	3	2	CPxxxxxxxxxxxxxxxxB1
B2	1695-2200	5 - 6					
P1	3100-4000	7 - 8	N/A	NA			N/A
P2	3100-4000	9 - 10					

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

## Port Configuration

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## 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

	R1	R1	B1,B2	B1,B2	B1,B2	P1,P2	P1,P2	P1,P2
<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>3700–4000</b>
<b>RF Port</b>	1,2	1,2	3,4,5,6	3,4,5,6	3,4,5,6	7,8,9,10	7,8,9,10	7,8,9,10
<b>Gain, dBi</b>	15.1	15	18	18.4	18.5	16.4	17.3	17.4
<b>Beamwidth, Horizontal, degrees</b>	58	54	56	55	52	66	53	54
<b>Beamwidth, Vertical, degrees</b>	12.6	10.9	5.7	5.3	5	6	5.4	5.1
<b>Beam Tilt, degrees</b>	0–14	0–14	0–7	0–7	0–7	4	4	4
<b>USLS (First Lobe), dB</b>	16	15	17	17	15	15	17	15
<b>Front-to-Back Ratio at 180°, dB</b>	26	28	29	28	28	26	27	25
<b>Isolation, Cross Polarization,</b>	25	25	25	25	25	25	25	25

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## dB

<b>Isolation, Inter-band, dB</b>	25	25	25	25	25	30	30	30
<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
<b>Input Power per Port at 50°C, maximum, watts</b>	250	250	200	200	200	100	100	100

## Mechanical Specifications

<b>Effective Projective Area (EPA), frontal</b>	0.26 m <sup>2</sup>   2.799 ft <sup>2</sup>
<b>Effective Projective Area (EPA), lateral</b>	0.23 m <sup>2</sup>   2.476 ft <sup>2</sup>
<b>Wind Loading @ Velocity, frontal</b>	272.0 N @ 150 km/h (61.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	244.0 N @ 150 km/h (54.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	547.0 N @ 150 km/h (123.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	311.0 N @ 150 km/h (69.9 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	505 mm   19.882 in
<b>Depth, packed</b>	386 mm   15.197 in
<b>Length, packed</b>	1960 mm   77.165 in
<b>Weight, gross</b>	42.7 kg   94.137 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-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

# NHHSS-55B-R2BT4

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**Performance Note**

Severe environmental conditions may degrade optimum performance