

# NHHSS-45B-R2BT4



10-port sector antenna, 2x 698–896, 4x 1695–2200 and 4x 3100–4200 MHz, 45° HPBW, 2x RETs and 2x SBTs

- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable

## 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>	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>	Low band (1)   Mid band (1)
<b>Power Consumption, active state, maximum</b>	10 W
<b>Power Consumption, idle state, maximum</b>	2 W

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**Protocol** 3GPP/AISG 2.0

## Dimensions

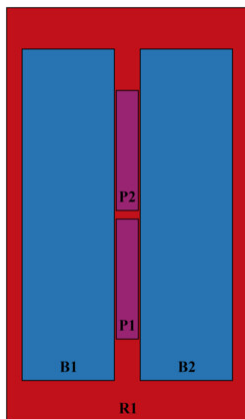
**Width** 457 mm | 17.992 in

**Depth** 178 mm | 7.008 in

**Length** 1828 mm | 71.969 in

**Net Weight, antenna only** 34.9 kg | 76.941 lb

## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG RET UID
R1	698-896	1 - 2	1	CPxxxxxxxxxxxxR1
B1	1695-2200	3 - 4	2	CPxxxxxxxxxxxxB1
B2	1695-2200	5 - 6		
P1	3100-4200	7 - 8	N/A	N/A
P2	3100-4200	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 – 4200 MHz   698 – 896 MHz
<b>Polarization</b>	±45°

## Electrical Specifications

	<b>R1</b>	<b>R1</b>	<b>B1,B2</b>	<b>B1,B2</b>	<b>B1,B2</b>	<b>P1,P2</b>	<b>P1,P2</b>	<b>P1,P2</b>
<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>RF Port</b>	1,2	1,2	3-6	3-6	3-6	7-10	7-10	7-10
<b>Gain, dBi</b>	17	17.9	19.1	19.7	20.4	16.9	17.5	17.2
<b>Gain at Mid Tilt, dBi</b>	16.7	17.7	18.9	19.5	20	16.5	17.2	16.5
<b>Beamwidth, Horizontal, degrees</b>	45	40	44	42	41	49	43	40
<b>Beamwidth, Vertical, degrees</b>	12.2	10.8	5.8	5.4	5.1	9.7	9.1	8.5
<b>Beam Tilt, degrees</b>	2-14	2-14	0-8	0-8	0-8	4	4	4
<b>USLS (First Lobe), dB</b>	19	20	17	17	18	18	18	14
<b>Front-to-Back Ratio at 180°, dB</b>	31	35	34	33	33	31	32	26
<b>Front-to-Back Ratio, Copolarization 180° ± 30°, dB</b>	31	32	31	28	28	28	29	23

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<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	30	30	28	28	28	28	28	28
<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	250	250	250	100	100	100

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	1,065.0 N @ 150 km/h (239.4 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	220.0 N @ 150 km/h (49.5 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	1,065.0 N @ 150 km/h (239.4 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	935.0 N @ 150 km/h (210.2 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	526 mm   20.709 in
<b>Depth, packed</b>	283 mm   11.142 in
<b>Length, packed</b>	1996 mm   78.583 in
<b>Weight, gross</b>	52.8 kg   116.404 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.
- BSAMNT-M – Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

## \* Footnotes

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**Performance Note**

Severe environmental conditions may degrade optimum performance

