

# NHHSS-45A-R2BT4



10-port sector antenna, 2x 698–896, 4x 1695–2200 MHz and 4x 3100–4200, 45° 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
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- Separate RS-485 RET input/output for low and high band
- Interleaved dipole technology providing for attractive, low wind load mechanical package
- One LB RET and one HB RET. Both high bands are controlled by one RET to ensure same tilt level for 4x MIMO

## 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

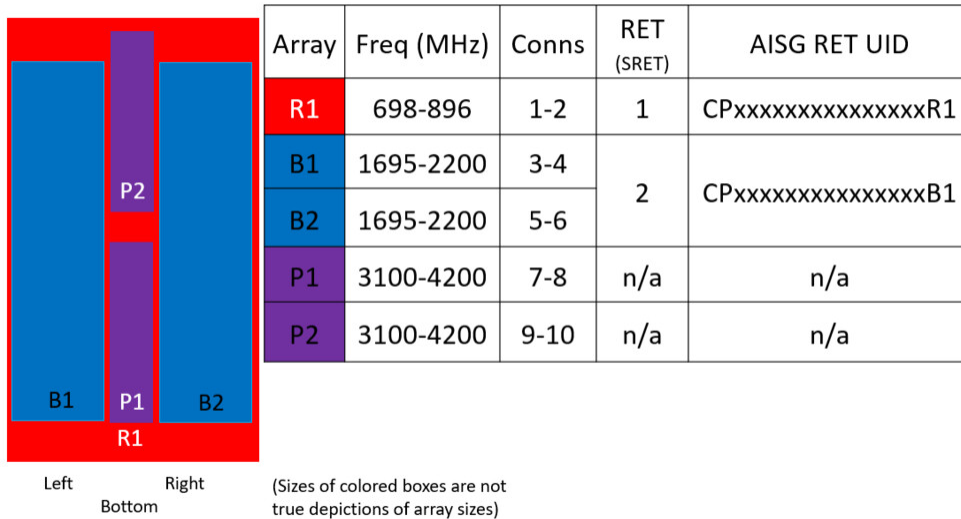
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<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	Low band (1)   Mid band (1)
<b>Power Consumption, active state, maximum</b>	10 W
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Protocol</b>	3GPP/AISG 2.0

## Dimensions

<b>Width</b>	457 mm   17.992 in
<b>Depth</b>	178 mm   7.008 in
<b>Length</b>	1220 mm   48.032 in
<b>Net Weight, antenna only</b>	26.5 kg   58.422 lb

## Array Layout



## 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°
<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>3700–4200</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>	15.6	16.5	18	18.7	19.1	16.9	17.3	16.7
<b>Beamwidth, Horizontal, degrees</b>	46	41	46	44	41	48	43	44
<b>Beamwidth, Vertical, degrees</b>	18.7	16.7	7.7	7.2	6.8	9.7	9	8.4
<b>Beam Tilt, degrees</b>	2–18	2–18	1–9	1–9	1–9	4	4	4
<b>USLS (First Lobe), dB</b>	15	16	15	15	14	18	17	15
<b>Front-to-Back Ratio at 180°, dB</b>	29	32	33	33	33	33	34	32
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25	25	25

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<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	-140	-140	-140
<b>Input Power per Port at 50°C, maximum, watts</b>	250	250	250	250	250	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>	15.3	16.2	17.6	18.3	18.7	16.2	17	16.3
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.5	±0.4	±0.8	±0.5	±0.6	±0.6	±0.5	±0.6
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±2	±2	±3	±2	±2	±7	±3	±3
<b>Beamwidth, Vertical Tolerance, degrees</b>	±1.1	±1.1	±0.5	±0.3	±0.5	±0.7	±0.4	±0.6
<b>USLS, beampeak to 20° above beampeak, dB</b>			14	14	14	16	16	14
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	22	23	24	26	27	26	27	23
<b>CPR at Boresight, dB</b>	18	19	16	18	17	14	15	16
<b>CPR at Sector, dB</b>	10	11	3	3	4	6	7	6

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	677.0 N @ 150 km/h (152.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	135.0 N @ 150 km/h (30.3 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	677.0 N @ 150 km/h (152.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	595.0 N @ 150 km/h (133.8 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>	1387 mm   54.606 in
<b>Weight, gross</b>	38.3 kg   84.437 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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# NHHSS-45A-R2BT4

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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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