

# NHH-45A-R2B



6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 45° HPBW, 2x RETs and 2x SBTs. Both high bands share the same electrical tilt.

- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- Narrow beamwidth capacity antenna for higher level of densification and enhanced data throughput
- One LB RET and one HB RET. Both high bands are controlled by one RET to ensure same tilt level for 4x Rx or 4x MIMO
- Separate RS-485 RET input/output for low and high band

## General Specifications

<b>Antenna Type</b>	Sector
<b>Band</b>	Multiband
<b>Color</b>	Light Gray (RAL 7035)
<b>Grounding Type</b>	RF connector body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage   Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Radiator Material</b>	Copper   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>	0
<b>RF Connector Quantity, low band</b>	2
<b>RF Connector Quantity, total</b>	6

## 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

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<b>Internal Bias Tee</b>	Port 1   Port 3
<b>Internal RET</b>	High band (1)   Low 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>	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>	21 kg   46.297 lb

## Array Layout

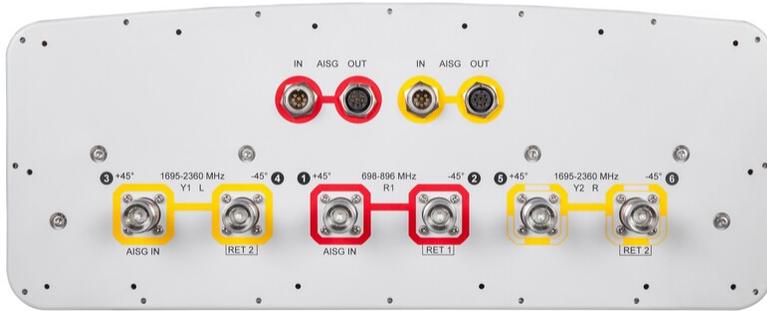


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
Y1	1695-2360	3 - 4	2	AISG2	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2360	5 - 6			

(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 – 2360 MHz   698 – 896 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	800 W @ 50 °C

## Electrical Specifications

	<b>R1</b>	<b>R1</b>	<b>Y1-Y2</b>	<b>Y1-Y2</b>	<b>Y1-Y2</b>	<b>Y1-Y2</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>2300–2360</b>
<b>RF Port</b>	1-2	1-2	3-6	3-6	3-6	3-6
<b>Gain, dBi</b>	15.5	16.2	18.3	19	19.2	20
<b>Beamwidth, Horizontal, degrees</b>	48	44	44	44	43	39
<b>Beamwidth, Vertical, degrees</b>	18.5	16.8	7.9	7.3	6.8	6
<b>Beam Tilt, degrees</b>	2–18	2–18	1–9	1–9	1–9	1–9
<b>USLS (First Lobe), dB</b>	16	17	17	16	15	15
<b>Front-to-Back Ratio at 180°, dB</b>	32	33	36	36	36	35
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25

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<b>Isolation, Inter-band, dB</b>	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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153	-153	-153
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	250	250	250	200

## 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>	32.8 kg   72.312 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
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a>
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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