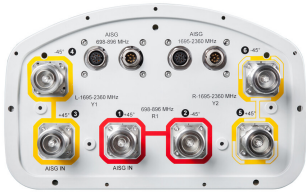


# NHH-85C-R2B



6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 85° HPBW, 2x RET. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- 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
- One RET for low band and one RET for both high bands to ensure same tilt level for 4x Rx or 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 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>	Aluminum   Low loss circuit board
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	7-16 DIN Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	4
<b>RF Connector Quantity, low band</b>	2
<b>RF Connector Quantity, total</b>	6

## Remote Electrical Tilt (RET) Information

<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>	High band (1)   Low band (1)
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Power Consumption, normal conditions, maximum</b>	13 W

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**Protocol** 3GPP/AISG 2.0 (Single RET)

## Dimensions

**Width** 301 mm | 11.85 in

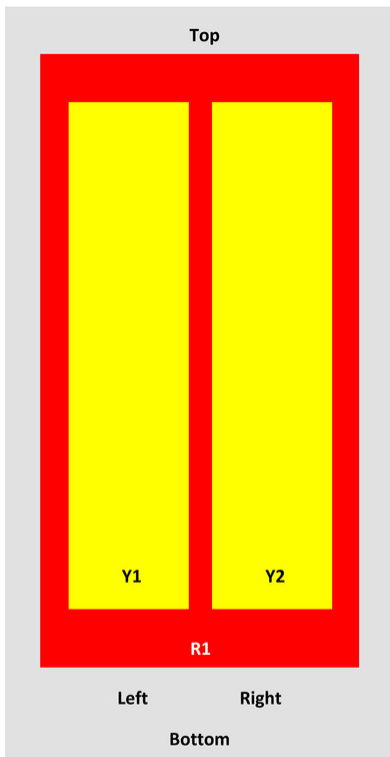
**Depth** 180 mm | 7.087 in

**Length** 2438 mm | 95.984 in

**Net Weight, without mounting kit** 23.1 kg | 50.927 lb

## Array Layout

NHH



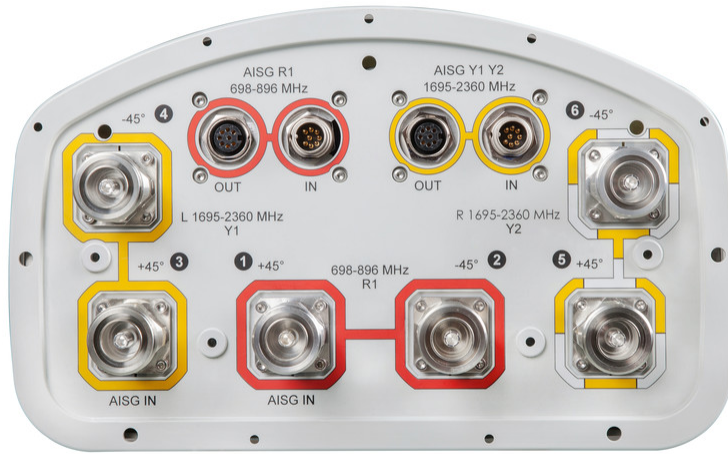
Array	Freq (MHz)	Coms	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	ANXXXXXXXXXXXXX1
Y1	1695-2360	3-4	2	ANXXXXXXXXXXXXX2
Y2	1695-2360	5-6		

View from the front of the antenna

(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>	900 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
<b>Gain, dBi</b>	15.5	15.6	17.1	17.5	17.9	17.9
<b>Beamwidth, Horizontal, degrees</b>	81.5	83	81.5	78	78	79.7
<b>Beamwidth, Vertical, degrees</b>	8.9	8.1	5.6	5.3	5	4.7
<b>Beam Tilt, degrees</b>	0–10	0–10	0–8	0–8	0–8	0–8
<b>USLS (First Lobe), dB</b>	17	17	15	18	19	18
<b>Front-to-Back Ratio at 180°, dB</b>	30	30	34	30	30	28
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	30	30	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

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<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

## 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>2300–2360</b>
<b>Gain by all Beam Tilts, average, dBi</b>	15.4	15.4	16.6	17.3	17.6	17.7
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.2	±0.3	±0.6	±0.3	±0.4	±0.4
<b>Gain by Beam Tilt, average, dBi</b>	0°   15.2 5°   15.4 10°   15.4	0°   15.1 5°   15.5 10°   15.6	0°   16.6 4°   16.6 8°   16.4	0°   17.3 4°   17.3 8°   17.2	0°   17.6 4°   17.7 8°   17.5	0°   17.6 4°   17.8 8°   17.4
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±1.7	±1.5	±4.5	±2.4	±3.2	±2
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.4	±0.4	±0.2	±0.2	±0.3	±0.3
<b>USLS, beampeak to 20° above beampeak, dB</b>	16	15	14	15	16	17
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	24	24	26	25.6	26	25
<b>CPR at Boresight, dB</b>	19	20	19	19	19	21
<b>CPR at Sector, dB</b>	13	15	12	12	11	7

## Mechanical Specifications

<b>Effective Projective Area (EPA), frontal</b>	0.37 m <sup>2</sup>   3.983 ft <sup>2</sup>
<b>Effective Projective Area (EPA), lateral</b>	0.31 m <sup>2</sup>   3.337 ft <sup>2</sup>
<b>Mechanical Tilt Range</b>	0°–11°
<b>Wind Loading @ Velocity, frontal</b>	393.0 N @ 150 km/h (88.3 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	330.0 N @ 150 km/h (74.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	757.0 N @ 150 km/h (170.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	398.0 N @ 150 km/h (89.5 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	380 mm   14.961 in
<b>Depth, packed</b>	295 mm   11.614 in
<b>Length, packed</b>	2571 mm   101.221 in

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**Weight, gross**

30.4 kg | 67.02 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

REACH-SVHC

Compliant as per SVHC revision on [www.commscope.com/ProductCompliance](http://www.commscope.com/ProductCompliance)

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.

## \* Footnotes

**Performance Note**

Severe environmental conditions may degrade optimum performance