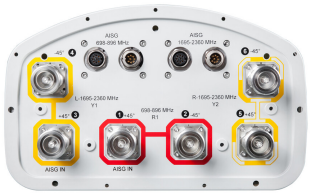
NHH-85C-R2B



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

Antenna Type	Sector
Band	Multiband
Color	Light Gray (RAL 7035)
Grounding Type	RF connector body grounded to reflector and mounting bracket
Performance Note	Outdoor usage | Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
Radome Material	Fiberglass, UV resistant
Radiator Material	Aluminum | Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	6

Remote Electrical Tilt (RET) Information

RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	2 female | 2 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 | Port 3
Internal RET	High band (1) | Low band (1)
Power Consumption, idle state, maximum	2 W
Power Consumption, normal conditions, maximum	13 W

NHH-85C-R2B

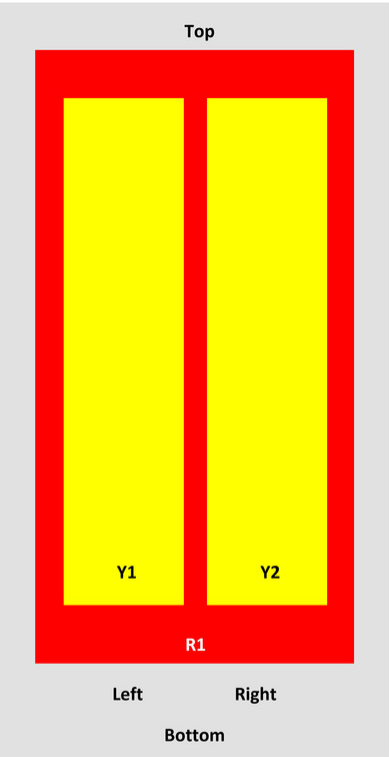
Protocol	3GPP/AISG 2.0 (Single RET)

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



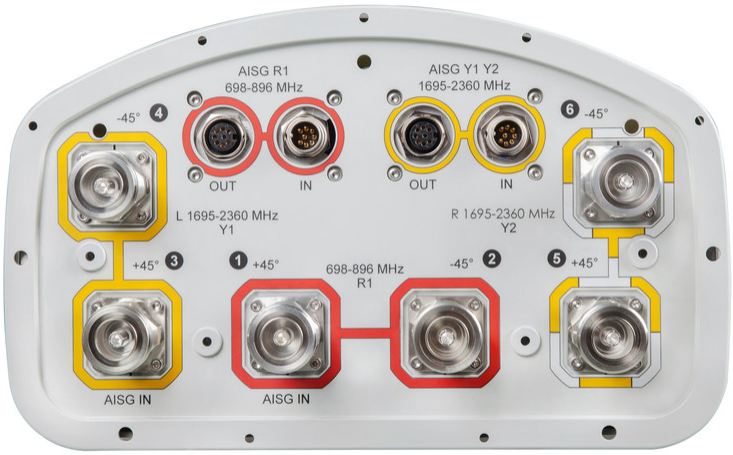
Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	ANxxxxxxxxxxxxxxx1
Y1	1695-2360	3-4	2	ANxxxxxxxxxxxxxxx2
Y2	1695-2360	5-6		

View from the front of the antenna

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

Port Configuration

NHH-85C-R2B



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**2300–2360**
Gain, dBi	15.5	15.6	17.1	17.5	17.9	17.9
Beamwidth, Horizontal, degrees	81.5	83	81.5	78	78	79.7
Beamwidth, Vertical, degrees	8.9	8.1	5.6	5.3	5	4.7
Beam Tilt, degrees	0–10	0–10	0–8	0–8	0–8	0–8
USLS (First Lobe), dB	17	17	15	18	19	18
Front-to-Back Ratio at 180°, dB	30	30	34	30	30	28
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	25	25	25	25
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0

PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250	200

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**2300–2360**
Gain by all Beam Tilts, average, dBi	15.4	15.4	16.6	17.3	17.6	17.7
Gain by all Beam Tilts Tolerance, dB	±0.2	±0.3	±0.6	±0.3	±0.4	±0.4
Gain by Beam Tilt, average, dBi	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
Beamwidth, Horizontal Tolerance, degrees	±1.7	±1.5	±4.5	±2.4	±3.2	±2
Beamwidth, Vertical Tolerance, degrees	±0.4	±0.4	±0.2	±0.2	±0.3	±0.3
USLS, beampeak to 20° above beampeak, dB	16	15	14	15	16	17
Front-to-Back Total Power at 180° ± 30°, dB	24	24	26	25.6	26	25
CPR at Boresight, dB	19	20	19	19	19	21
CPR at Sector, dB	13	15	12	12	11	7

Mechanical Specifications

Effective Projective Area (EPA), frontal	0.37 m² | 3.983 ft²
Effective Projective Area (EPA), lateral	0.31 m² | 3.337 ft²
Mechanical Tilt Range	0°–11°
Wind Loading @ Velocity, frontal	393.0 N @ 150 km/h (88.3 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	330.0 N @ 150 km/h (74.2 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	757.0 N @ 150 km/h (170.2 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	398.0 N @ 150 km/h (89.5 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	380 mm | 14.961 in
Depth, packed	295 mm | 11.614 in
Length, packed	2571 mm | 101.221 in

NHH-85C-R2B

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
ROHS	Compliant/Exempted
UK-ROHS	Compliant/Exempted

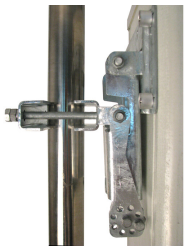
Included Products

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

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 www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

BSAMNT-3