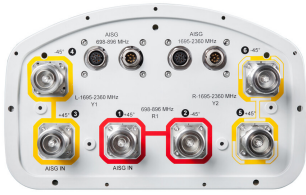


NHH-85B-R2B



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-85B-R2B

Protocol 3GPP/AISG 2.0 (Single RET)

Dimensions

Width 301 mm | 11.85 in

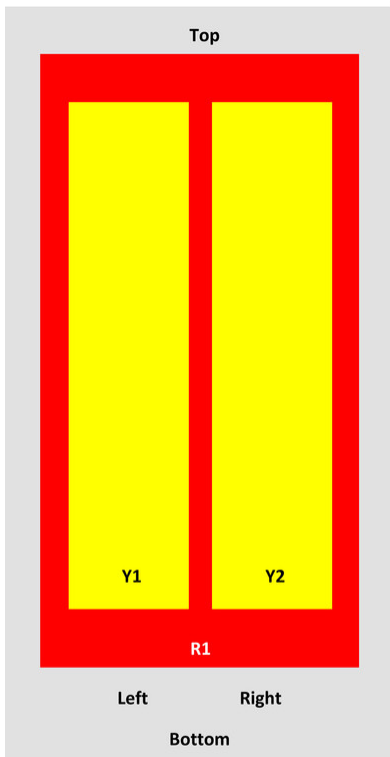
Depth 180 mm | 7.087 in

Length 1851 mm | 72.874 in

Net Weight, without mounting kit 19.8 kg | 43.651 lb

Array Layout

NHH



Array	Freq (MHz)	Comms	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)

Electrical Specifications

Impedance 50 ohm

Operating Frequency Band 1695 – 2360 MHz | 698 – 896 MHz

NHH-85B-R2B

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	14.4	14.4	17.1	17.6	17.9	18.1
Beamwidth, Horizontal, degrees	82.5	87	80	79.3	78	78
Beamwidth, Vertical, degrees	12.3	11.2	5.7	5.3	5	4.6
Beam Tilt, degrees	0–12	0–12	0–8	0–8	0–8	0–8
USLS (First Lobe), dB	18	16	14	16	17	18
Front-to-Back Ratio at 180°, dB	28	26	34	30	30	30
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	14.1	14.1	16.6	17.3	17.6	17.7
Gain by all Beam Tilts Tolerance, dB	±0.3	±0.5	±0.6	±0.4	±0.4	±0.4
Gain by Beam Tilt, average, dBi	0° 14.1 6° 14.2 12° 14.0	0° 14.0 6° 14.3 12° 13.8	0° 16.6 4° 16.6 8° 16.7	0° 17.3 4° 17.4 8° 17.3	0° 17.6 4° 17.6 8° 17.5	0° 17.6 4° 17.8 8° 17.6
Beamwidth, Horizontal Tolerance, degrees	±1.8	±2	±4.8	±4.0	±4.0	±2.6
Beamwidth, Vertical Tolerance, degrees	±0.8	±0.9	±0.2	±0.2	±0.3	±0.2
USLS, beampeak to 20° above beampeak, dB	18	16	14	15	16	17
Front-to-Back Total Power at 180° ± 30°, dB	22	22	27	26	25	26
CPR at Boresight, dB	21	22	19	19	19	22

NHH-85B-R2B

CPR at Sector, dB	20	20	15	17	17	16
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Mechanical Specifications

Effective Projective Area (EPA), frontal	0.27 m ² 2.906 ft ²
Effective Projective Area (EPA), lateral	0.22 m ² 2.368 ft ²
Mechanical Tilt Range	0°–15°
Wind Loading @ Velocity, frontal	283.0 N @ 150 km/h (63.6 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	234.0 N @ 150 km/h (52.6 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	545.0 N @ 150 km/h (122.5 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	287.0 N @ 150 km/h (64.5 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	1973 mm 77.677 in
Weight, gross	31.1 kg 68.564 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.
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* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance
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