

NHH-65A-R2B

6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 65° 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

Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain, dBi	13.4	13.5	16.4	16.5	17.1	17.5
Beamwidth, Horizontal, degrees	66	61	69	64	61	61
Beamwidth, Vertical, degrees	17.8	16.2	7.1	6.5	6.1	5.5
Beam Tilt, degrees	0–18	0–18	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	18	16	18	17	16	15
Front-to-Back Ratio at 180°, dB	29	26	33	32	30	32
Isolation, dB	25	25	25	25	25	25
Isolation, Intersystem, dB	30	30	30	30	30	30
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, maximum, watts	350	350	300	300	300	250
Polarization	±45°	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

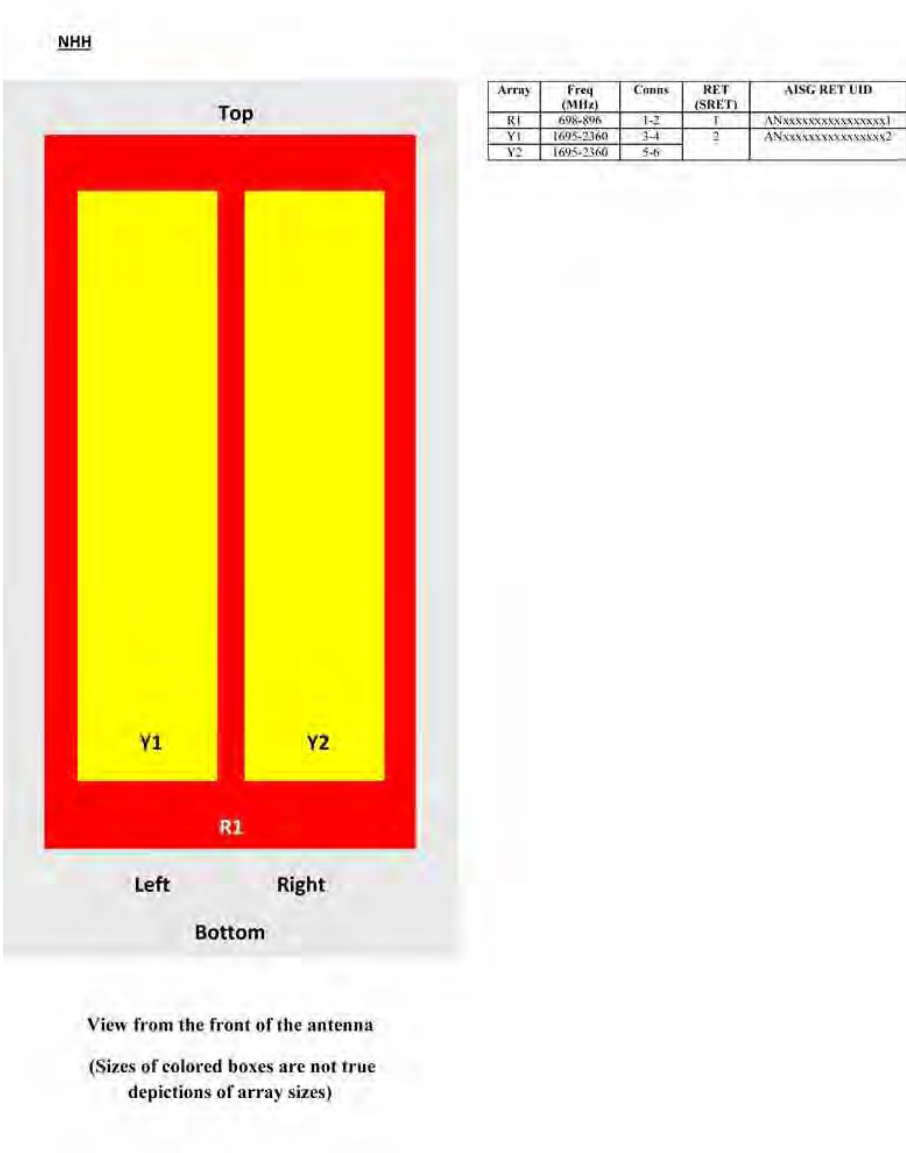
Electrical Specifications, BASTA*

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain by all Beam Tilts, average, dBi	13.1	13.2	16.1	16.3	16.6	17.1
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.5	±0.4	±0.4	±0.6	±0.5
	0 ° 13.3	0 ° 13.4	0 ° 16.0	0 ° 16.1	0 ° 16.4	0 ° 17.0
Gain by Beam Tilt, average, dBi	9 ° 13.2	9 ° 13.4	5 ° 16.1	5 ° 16.3	5 ° 16.7	5 ° 17.2
	18 ° 13.8	18 ° 12.7	10 ° 16.0	10 ° 16.3	10 ° 16.4	10 ° 16.7
Beamwidth, Horizontal Tolerance, degrees	±2.8	±3.6	±3.9	±3.5	±6.6	±4.6
Beamwidth, Vertical Tolerance, degrees	±1.5	±1.3	±0.3	±0.4	±0.5	±0.3
USLS, beampeak to 20° above beampeak, dB	15	16	12	13	13	14
Front-to-Back Total Power at 180° ± 30°, dB	24	23	27	26	23	26
CPR at Boresight, dB	18	19	20	22	21	22
CPR at Sector, dB	10	5	12	9	5	2

* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs.](#)

Array Layout

NHH-65A-R2B



General Specifications

Operating Frequency Band	1695 – 2360 MHz 698 – 896 MHz
Antenna Type	Sector
Band	Multiband
Performance Note	Outdoor usage
Total Input Power, maximum	900 W @ 50 °C

Mechanical Specifications

RF Connector Quantity, total	6
RF Connector Quantity, low band	2
RF Connector Quantity, high band	4
RF Connector Interface	7-16 DIN Female
Color	Light gray

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Grounding Type	RF connector body grounded to reflector and mounting bracket
Radiator Material	Aluminum Low loss circuit board
Radome Material	Fiberglass, UV resistant
Reflector Material	Aluminum
RF Connector Location	Bottom
Wind Loading, frontal	446.0 N @ 150 km/h 100.3 lbf @ 150 km/h
Wind Loading, lateral	145.0 N @ 150 km/h 32.6 lbf @ 150 km/h
Wind Loading, rear	525.0 N @ 150 km/h 118.0 lbf @ 150 km/h
Wind Speed, maximum	241 km/h 150 mph

Dimensions

Length	1413.0 mm 55.6 in
Width	301.0 mm 11.9 in
Depth	180.0 mm 7.1 in
Net Weight, without mounting kit	15.9 kg 35.1 lb

Remote Electrical Tilt (RET) Information

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	2.0 W
Power Consumption, normal conditions, maximum	13.0 W
Protocol	3GPP/AISG 2.0 (Single RET)
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	2 female 2 male

Packed Dimensions

Length	1532.0 mm 60.3 in
Width	409.0 mm 16.1 in
Depth	299.0 mm 11.8 in
Shipping Weight	26.8 kg 59.1 lb

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
China RoHS SJ/T 11364-2006	Above Maximum Concentration Value (MCV)
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system



Included Products

NHH-65AR2B

BSAMNT-1 — 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
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