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.

- Narrow beamwidth capacity antenna for higher level of densification and enhanced data throughput
- 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 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

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light gray
Effective Projective Area (EPA), frontal	0.64 m^2 | 6.889 ft^2
Effective Projective Area (EPA), lateral	0.13 m^2 | 1.399 ft^2
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, General

RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	2 female | 2 male

Dimensions

Width	457 mm | 17.992 in

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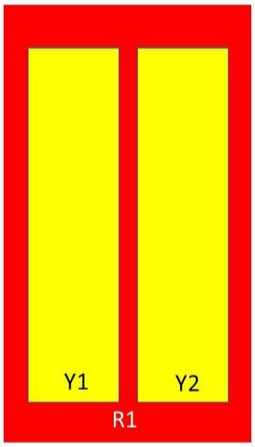
Length	1220 mm | 48.032 in
Depth	178 mm | 7.008 in

Array Layout



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

Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	ANxxxxxxxxxxxxxxxx1
Y1	1695-2360	3-4	2	ANxxxxxxxxxxxxxxxx2
Y2	1695-2360	5-6		

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 698 – 896 MHz
Polarization	±45°

Remote Electrical Tilt (RET) Information, Electrical

Protocol	3GPP/AISG 2.0 (Single RET)
Power Consumption, idle state, maximum	1 W

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Power Consumption, normal conditions, maximum	10 W
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 | Port 3
Internal RET	High band (1) | Low band (1)

Electrical Specifications

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**2300–2360**
Gain, dBi	15.5	16.2	18.3	19	19.2	20
Beamwidth, Horizontal, degrees	48	44	44	44	43	39.2
Beamwidth, Vertical, degrees	18.5	16.8	7.9	7.3	6.8	6
Beam Tilt, degrees	2–18	2–18	1–9	1–9	1–9	1–9
USLS (First Lobe), dB	16	17	17	16	15	15
Front-to-Back Ratio at 180°, dB	32	33	36	36	36	35
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	25	25	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, maximum, watts	350	350	350	350	350	350

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	15.1	15.9	17.9	18.7	19	19.8
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.4	±0.6	±0.4	±0.3	±0.4
Gain by Beam Tilt, average, dBi	2 ° | 15.2 10 ° | 15.1 18 ° | 14.9	2 ° | 16.1 10 ° | 16.0 18 ° | 15.6	1 ° | 17.9 5 ° | 17.9 9 ° | 17.8	1 ° | 18.8 5 ° | 18.8 9 ° | 18.6	1 ° | 19.1 5 ° | 19.1 9 ° | 18.8	1 ° | 19.9 5 ° | 19.9 9 ° | 19.5
Beamwidth, Horizontal Tolerance, degrees	±1.8	±3	±1.9	±1.3	±2.1	±1.6
Beamwidth, Vertical Tolerance, degrees	±1	±0.9	±0.3	±0.3	±0.5	±0.2
USLS, beampeak to 20° above beampeak, dB	17	22	12	13	14	15
Front-to-Back Total Power at 180° ± 30°, dB	24	24	27	29	30	30
CPR at Boresight, dB	24	25	15	18	19	20

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CPR at Sector, dB	18	17	11	13	15	16

Mechanical Specifications

Wind Loading at Velocity, frontal	677.0 N @ 150 km/h
Wind Loading at Velocity, lateral	135.0 N @ 150 km/h
Wind Loading at Velocity, maximum	152.2 lbf @ 150 km/h | 677.0 N @ 150 km/h
Wind Speed, maximum	241 km/h | 149.75 mph

Packaging and Weights

Width, packed	567 mm | 22.323 in
Depth, packed	311 mm | 12.244 in
Length, packed	1342 mm | 52.835 in
Net Weight, without mounting kit	22.6 kg | 49.824 lb
Weight, gross	34.3 kg | 75.618 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

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