NNH4SS-45B-R3BT8

16-port sector antenna, 4x 698–896, 8x 1695–2360 and 4x 3550- 3700 MHz, 45° HPBW, 3x RETs and 3x SBTs.

- Features broadband Low Band (698-896 MHz), Mid Band(1695-2360 MHz) and High Band (3550-3700 MHz) arrays for 4T4R (4X MIMO) capability for bands 5, 13, 25, 66 and 48. Also covers bands 12, 14, 29, and 30
- Perfect antenna to add 3.5GHz CBRS to macro sites
- Non-stacked mid band array design provides higher gain and narrower vertical beamwidth than traditional antenna designs
- Array configuration provides capability for 4T4R (4X MIMO) on Low Band, dual 4T4R (4X MIMO) on Mid Band and 4T4R (4X MIMO) on High Band
- Excellent wind loading characteristics

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light Gray (RAL 7035)
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage
Radome Material	Fiberglass, UV resistant
Radiator Material	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, mid band	8
RF Connector Quantity, low band	4
RF Connector Quantity, total	16

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	3 female | 3 male
Input Voltage	10–30 Vdc

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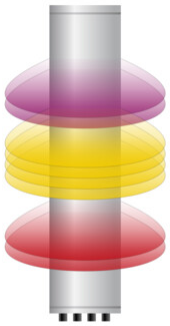
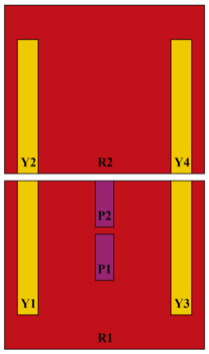
Internal Bias Tee	Port 1 | Port 5 | Port 7
Internal RET	Low band (1) | Mid band (2)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0

Dimensions

Width	457 mm | 17.992 in
Depth	178 mm | 7.008 in
Length	1848 mm | 72.756 in
Net Weight, without mounting kit	37.5 kg | 82.673 lb

Array Layout

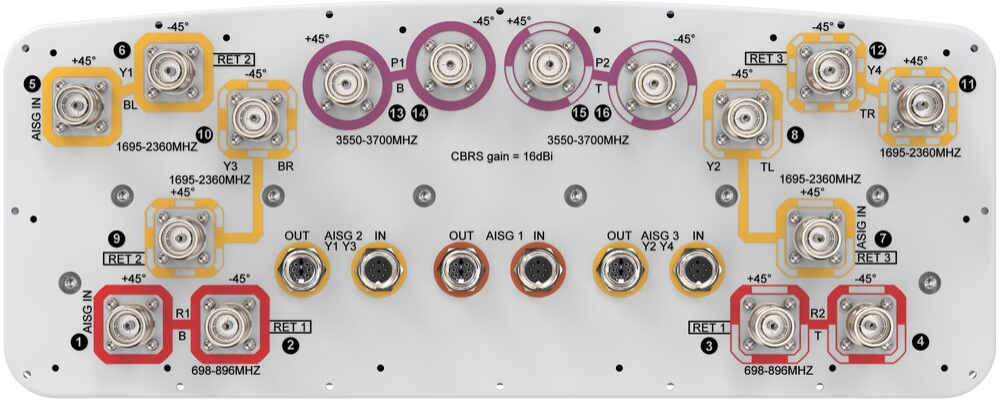




Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxR1
R2	698-896	3 - 4			
Y1	1695-2360	5 - 6	2	AISG2	CPxxxxxxxxxxxxxxY1
Y3	1695-2360	9 - 10			
Y2	1695-2360	7 - 8	3	AISG3	CPxxxxxxxxxxxxxxY2
Y4	1695-2360	11 - 12			
P1	3550-3700	13 - 14	N/A	NA	N/A
P2	3550-3700	15 - 16			

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

Port Configuration



NNH4SS-45B-R3BT8

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 3550 – 3700 MHz | 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	1,600 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**	**3550–3700**
Gain, dBi	14.1	14.8	16.7	17.1	17.4	17.9	15.1
Beamwidth, Horizontal, degrees	47	42	43	41	40	38	43
Beamwidth, Vertical, degrees	25	22	10.5	9.7	9.2	8.4	15
Beam Tilt, degrees	2–18	2–18	0–10	0–10	0–10	0–10	8
USLS (First Lobe), dB	15	19	16	17	16	19	15
Front-to-Back Ratio at 180°, dB	32	32	33	35	34	30	37
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25
Isolation, Inter-band, dB	25	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	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-145
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250	200	100

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**	**3550–3700**
Gain by all Beam Tilts, average, dBi	13.7	14.5	16.1	16.7	17.1	17.5	14.8
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.6	±0.8	±0.4	±0.6	±0.4	±0.4
Front-to-Back Total Power at 180° ± 30°, dB	23	24	24	26	26	25	30
CPR at Boresight, dB	19	22	15	18	18	22	15

Mechanical Specifications

Wind Loading @ Velocity, frontal	1,077.0 N @ 150 km/h (242.1 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	222.0 N @ 150 km/h (49.9 lbf @ 150 km/h)

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Wind Loading @ Velocity, maximum	1,077.0 N @ 150 km/h (242.1 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	946.0 N @ 150 km/h (212.7 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	608 mm | 23.937 in
Depth, packed	346 mm | 13.622 in
Length, packed	1991 mm | 78.386 in
Weight, gross	59 kg | 130.073 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
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.
BSAMNT-M	–	Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance