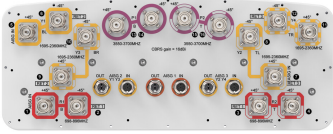


# NNH4SS-45A-R3BT8



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
- 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
- Non-stacked mid band array design provides higher gain and narrower vertical beamwidth than traditional antenna designs

## General Specifications

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

## Remote Electrical Tilt (RET) Information

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

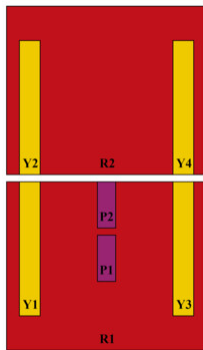
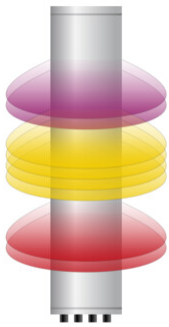
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<b>Internal Bias Tee</b>	Port 1   Port 5   Port 7
<b>Internal RET</b>	Low band (1)   Mid band (2)
<b>Power Consumption, active state, maximum</b>	10 W
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Protocol</b>	3GPP/AISG 2.0

## Dimensions

<b>Width</b>	457 mm   17.992 in
<b>Depth</b>	178 mm   7.008 in
<b>Length</b>	1399 mm   55.079 in
<b>Net Weight, antenna only</b>	29.5 kg   65.036 lb

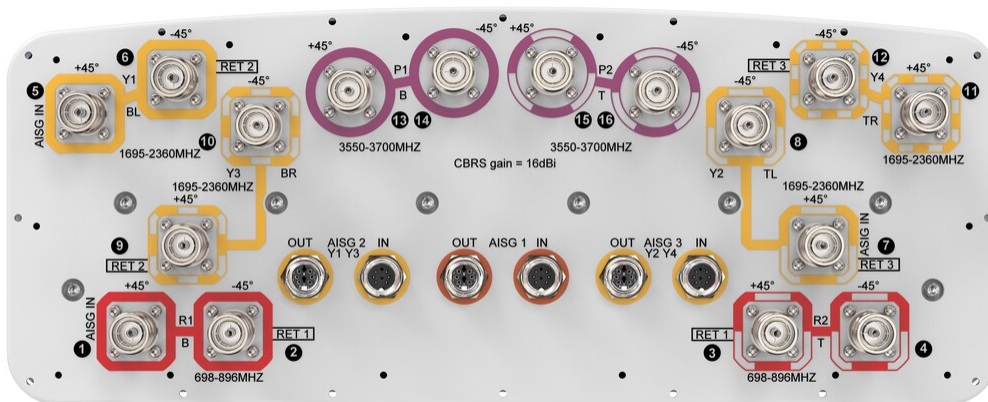
## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxR1
R2	698-896	3 - 4			
Y1	1695-2360	5 - 6	2	AISG2	CPxxxxxxxxxxxxY1
Y3	1695-2360	9 - 10			
Y2	1695-2360	7 - 8	3	AISG3	CPxxxxxxxxxxxxY2
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



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## Electrical Specifications

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

## Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2180	2300–2360	3550–3700
<b>Gain, dBi</b>	12.7	13.3	15.3	15.7	16.3	16.5	15
<b>Beamwidth, Horizontal, degrees</b>	48	44	44	41	39	37	45
<b>Beamwidth, Vertical, degrees</b>	36	30.4	14.5	13.6	12.8	11.1	15.6
<b>Beam Tilt, degrees</b>	2–18	2–18	0–10	0–10	0–10	0–10	8
<b>USLS (First Lobe), dB</b>	19	17	16	17	16	15	16
<b>Front-to-Back Ratio at 180°, dB</b>	33	30	31	32	31	30	31
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25	25	25	25
<b>VSWR   Return loss, dB</b>	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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153	-153	-153	-145
<b>Input Power per Port at 50°C, maximum, watts</b>	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
<b>Gain by all Beam Tilts, average, dBi</b>	12.1	13	14.7	15.3	15.8	16	14.5
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.8	±0.5	±0.8	±0.6	±0.7	±0.6	±1.6
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±3	±2.8	±3.7	±2.5	±3.1	±3	±4.3
<b>Beamwidth, Vertical Tolerance, degrees</b>	±3.5	±2.6	±1.1	±0.8	±1	±0.7	±1.2
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	25	23	23	25	25	25	32
<b>CPR at Boresight, dB</b>	20	20	17	18	18	20	14

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<b>CPR at 10 dB Horizontal Beamwidth, dB</b>	14	12	7	9	10	11	10
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## Mechanical Specifications

<b>Effective Projective Area (EPA), frontal</b>	0.74 m <sup>2</sup>   7.965 ft <sup>2</sup>
<b>Effective Projective Area (EPA), lateral</b>	0.15 m <sup>2</sup>   1.615 ft <sup>2</sup>
<b>Wind Loading @ Velocity, frontal</b>	788.0 N @ 150 km/h (177.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	159.0 N @ 150 km/h (35.7 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	788.0 N @ 150 km/h (177.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	692.0 N @ 150 km/h (155.6 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	563 mm   22.165 in
<b>Depth, packed</b>	355 mm   13.976 in
<b>Length, packed</b>	1572 mm   61.89 in
<b>Weight, gross</b>	42 kg   92.594 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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 <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



## 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

<b>Performance Note</b>	Severe environmental conditions may degrade optimum performance
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