NNH4-45A-R3B-V1

12-port sector antenna, 4x 698–896 and 8x 1695–2360 MHz, 45° HPBW, 3x RET

- Features broadband Low Band (698-896 MHz) and High Band (1695-2360 MHz) arrays for 4T4R (4X MIMO) capability for Band 14, AWS, PCS and WCS applications
- Independent tilt for all arrays
- Optimized SPR performance across all operating bands
- 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	Aluminum | Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	8
RF Connector Quantity, low band	4
RF Connector Quantity, total	12

Remote Electrical Tilt (RET) Information

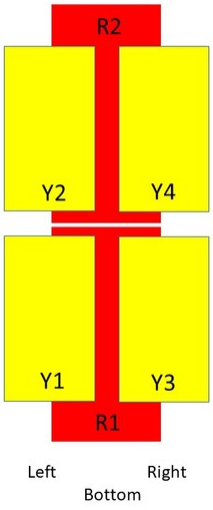
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	3 female | 3 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 | Port 3 | Port 5
Internal RET	High band (2) | Low band (1)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Protocol	3GPP/AISG 2.0 (Single RET)

NNH4-45A-R3B-V1

Dimensions

Width	457 mm | 17.992 in
Depth	178 mm | 7.008 in
Length	1399 mm | 55.079 in
Net Weight, without mounting kit	30.2 kg | 66.58 lb

Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	ANxxxxxxxxxxxxxxxx1
R2	698-896	3-4		
Y1	1695-2360	5-6	2	ANxxxxxxxxxxxxxxxx2
Y3	1695-2360	9-10		
Y2	1695-2360	7-8	3	ANxxxxxxxxxxxxxxxx3
Y4	1695-2360	11-12		

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

Port Configuration

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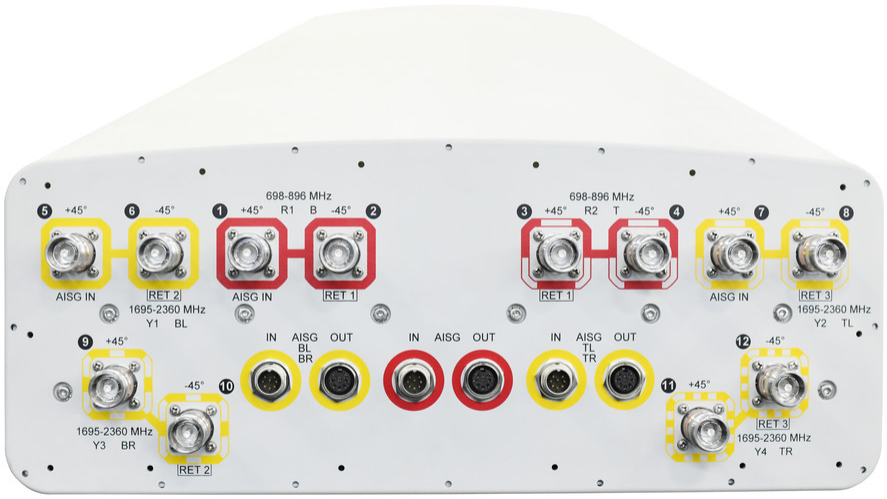


Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**
Gain, dBi	12.9	13.8	15.4	16	16.3	16.8
Beamwidth, Horizontal, degrees	49	43	44	43	41	38
Beamwidth, Vertical, degrees	35.5	30.4	15.2	13.9	13	11.6
Beam Tilt, degrees	2–18	2–18	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	16	17	16	15	15	15
Front-to-Back Ratio at 180°, dB	30	30	33	34	34	36
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 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**	**1920–2180**	**2300–2360**
Gain by all Beam Tilts, average, dBi	12.4	13.3	14.9	15.5	15.9	16.4
Gain by all Beam Tilts Tolerance, dB	±0.8	±0.7	±0.7	±0.6	±0.7	±0.7
Gain by Beam Tilt, average, dBi	2 ° | 12.4 10 ° | 12.5 18 ° | 12.2	2 ° | 13.5 10 ° | 13.5 18 ° | 13.0	2 ° | 15.1 7 ° | 14.9 12 ° | 14.7	2 ° | 15.6 7 ° | 15.5 12 ° | 15.3	2 ° | 16.0 7 ° | 16.0 12 ° | 15.6	2 ° | 16.7 7 ° | 16.4 12 ° | 16.0
Beamwidth, Horizontal Tolerance, degrees	±3.4	±3.8	±2.5	±1.4	±2.3	±2.2
Beamwidth, Vertical Tolerance, degrees	±3.1	±3	±1.2	±1.1	±1.3	±0.9
Front-to-Back Total Power at 180° ± 30°, dB	24	25	27	27	28	28
CPR at Boresight, dB	26	29	18	21	21	20
CPR at 10 dB Horizontal Beamwidth, dB	13	13	7	9	10	12

Mechanical Specifications

Effective Projective Area (EPA), frontal	0.74 m² | 7.965 ft²
Effective Projective Area (EPA), lateral	0.15 m² | 1.615 ft²
Mechanical Tilt Range	0°–22°
Wind Loading @ Velocity, frontal	788.0 N @ 150 km/h (177.1 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	159.0 N @ 150 km/h (35.7 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	788.0 N @ 150 km/h (177.1 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	692.0 N @ 150 km/h (155.6 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	526 mm | 20.709 in
Depth, packed	283 mm | 11.142 in
Length, packed	1566 mm | 61.654 in
Weight, gross	42.3 kg | 93.255 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

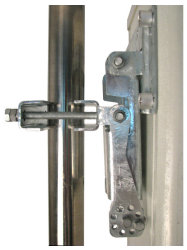
Included Products

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.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance

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.

Product Classification

Product Type	Downtilt mounting kit

General Specifications

Application	Outdoor
Color	Silver

Dimensions

Compatible Diameter, maximum	115 mm | 4.528 in
Compatible Diameter, minimum	60 mm | 2.362 in
Weight, net	6.2 kg | 13.669 lb

Material Specifications

Material Type	Galvanized steel

Packaging and Weights

Included	Brackets | Hardware
Packaging quantity	1
Weight, gross	6.4 kg | 14.11 lb

Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
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 www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

BSAMNT-3