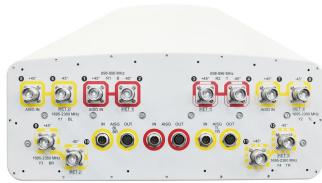


NNH4-45A-R3B-V1



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

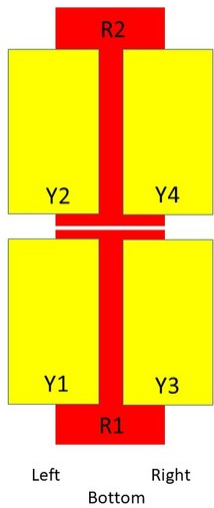
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	3 female 3 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 Port 3 Port 5
Internal RET	High band (2) Low band (1)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Protocol	3GPP/AISG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

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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

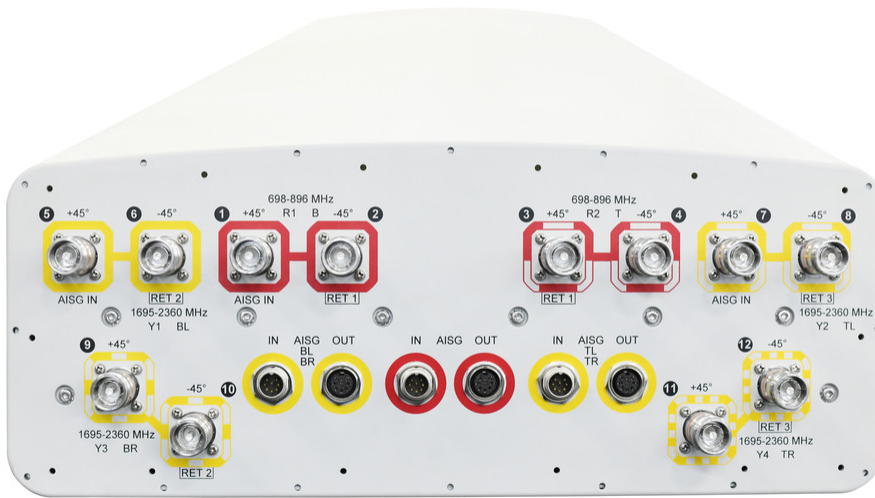


Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	ANxxxxxxxxxxxxxxxxx1
R2	698-896	3-4		
Y1	1695-2360	5-6	2	ANxxxxxxxxxxxxxxxxx2
Y3	1695-2360	9-10		
Y2	1695-2360	7-8	3	ANxxxxxxxxxxxxxxxxx3
Y4	1695-2360	11-12		

(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

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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 m ² 7.965 ft ²
Effective Projective Area (EPA), lateral	0.15 m ² 1.615 ft ²
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	608 mm 23.937 in
Depth, packed	346 mm 13.622 in
Length, packed	1542 mm 60.709 in
Weight, gross	43.2 kg 95.24 lb

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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