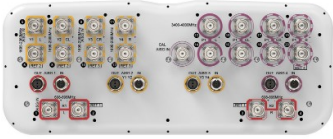


# NNH4S4-65B-R4B-V1



20-port sector antenna, 4x 698-896 and 8x 1695-2360 MHz, 65° HPBW, and 8 x 3400-4000 MHz, 90° HPBW, 4 x RET

- Multi-band FDD antenna featuring C-Band 8T8R functionality
- Includes a separate RET for C-band array
- Feature the same dimensions as existing 8 and 12-port FDD capable antennas
- New endcap designs provide improved wind loading performance

## General Specifications

<b>Antenna Type</b>	Sector & beamforming
<b>Band</b>	Multiband
<b>Calibration Connector Interface</b>	4.3-10 Female
<b>Calibration Connector Quantity</b>	1
<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>	8
<b>RF Connector Quantity, mid band</b>	8
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	20

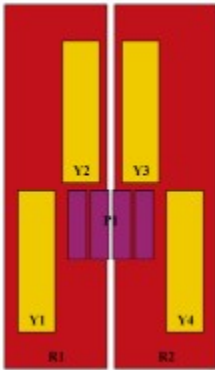
## Remote Electrical Tilt (RET) Information

<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	4 female   4 male
<b>Input Voltage</b>	10-30 Vdc
<b>Internal RET</b>	High band (1)   Low band (2)

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<b>Protocol</b>	3GPP/AISG 2.0
<b>Dimensions</b>	
<b>Width</b>	498 mm   19.606 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	1848 mm   72.756 in
<b>Net Weight, antenna only</b>	41.1 kg   90.61 lb

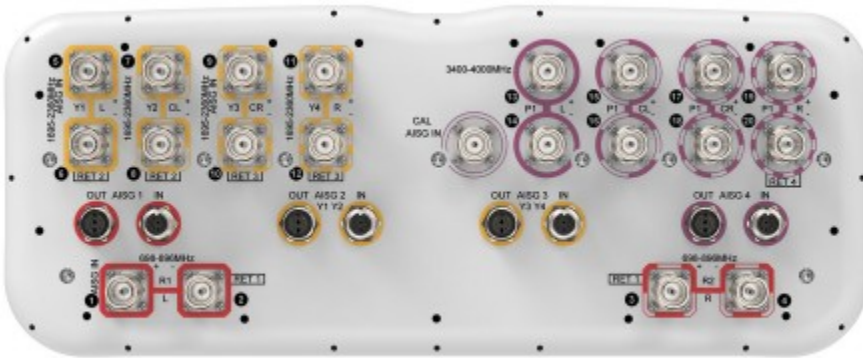
## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
R2	698-896	3 - 4			
Y1	1695-2360	5 - 6	2	AISG2	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2360	7 - 8			
Y3	1695-2360	9 - 10	3	AISG3	CPxxxxxxxxxxxxxxxxY3
Y4	1695-2360	11 - 12			
P1	3400-4000	13 - 20	4	AISG4	CPxxxxxxxxxxxxxxxxP1

(Size of colored boxes are not true depictions of array size)

## Port Configuration



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2360 MHz   3400 – 4000 MHz   698 – 896 MHz
<b>Polarization</b>	±45°

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Total Input Power, maximum

1,500 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2180	2300–2360	3400–3550	3700–4000
Gain, dBi	14.3	15	15.5	16	16.5	16.7	15.6	16.3
Beamwidth, Horizontal, degrees	73	65	67	66	62	60	91	74
Beamwidth, Vertical, degrees	12.1	10.5	9.2	8.7	8.3	7.4	6.2	5.6
Beam Tilt, degrees	2–14	2–14	2–12	2–12	2–12	2–12	0–10	0–10
USLS (First Lobe), dB	19	18	17	17	18	21	16	15
Front-to-Back Ratio at 180°, dB	30	27	34	34	36	36	30	31
Coupling level, Amp, Antenna port to Cal port, dB							26	26
Coupling level, max Amp Δ, Antenna port to Cal port, dB							±2	±2
Coupler, max Amp Δ, Antenna port to Cal port, dB							0.9	0.9
Coupler, max Phase Δ, Antenna port to Cal port, degrees							7	7
CPR at Boresight, dB	21	23	19	18	20	20	14	14
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25	25	25	19	19
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	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-145	-145
Input Power per Port at 50°C, maximum, watts	300	300	300	250	250	200	75	75

## Electrical Specifications, Broadcast 65°

Frequency Band, MHz	3400–3550	3700–4000
Gain, dBi	17.2	18.4
Beamwidth, Horizontal, degrees	65	65
Beamwidth, Vertical, degrees	6.1	5.7
USLS (First Lobe), dB	18	21

## Electrical Specifications, Envelope Pattern

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<b>Frequency Band, MHz</b>	<b>3400–3550</b>	<b>3700–4000</b>
<b>Gain, dBi</b>	20.6	21

## Electrical Specifications, Service Beam

<b>Frequency Band, MHz</b>	<b>3400–3550</b>	<b>3700–4000</b>
<b>Steered 0° Gain, dBi</b>	20.6	20.9
<b>Steered 0° Beamwidth, Horizontal, degrees</b>	24	24
<b>Steered 0° Front-to-Back Total Power at 180° ± 30°, dB</b>	30	31
<b>Steered 0° Horizontal Sidelobe, dB</b>	13	12
<b>Steered 30° Gain, dBi</b>	19.1	20
<b>Steered 30° Beamwidth, Horizontal, degrees</b>	32	26

## Electrical Specifications, Soft Split

<b>Frequency Band, MHz</b>	<b>3400–3550</b>	<b>3700–4000</b>
<b>Gain, dBi</b>	18.9	19.9
<b>Beamwidth, Horizontal, degrees</b>	37	27
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	27	29
<b>Horizontal Sidelobe, dB</b>	14	12

## Mechanical Specifications

<b>Effective Projective Area (EPA), frontal</b>	0.59 m <sup>2</sup>   6.351 ft <sup>2</sup>
<b>Effective Projective Area (EPA), lateral</b>	0.18 m <sup>2</sup>   1.938 ft <sup>2</sup>
<b>Wind Loading @ Velocity, frontal</b>	629.0 N @ 150 km/h (141.4 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	191.0 N @ 150 km/h (42.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	755.0 N @ 150 km/h (169.7 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	433.0 N @ 150 km/h (97.3 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	565 mm   22.244 in
<b>Depth, packed</b>	309 mm   12.165 in

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**Length, packed** 2035 mm | 80.118 in

**Weight, gross** 54.9 kg | 121.034 lb

## Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
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
ROHS	Compliant
UK-ROHS	Compliant



# BSAMNT-3

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