

NNH4-65B-HG-R3B



12-port Next Generation PerforMax™ sector antenna, 4x 698-896 and 8x 1695-2200 MHz, 65° HPBW, 3x RET, 3x SBT

- Antenna optimized for higher gain with superior radiation efficiency
- Superior patterns for enhanced interference mitigation resulting in improved SINR, higher throughput, and more capacity
- Interleaved dipole technology results into an attractive, low wind load mechanical package
- Internal SBTs allow remote RET control from the radio over the RF jumper cable
- Best in class PIM immunity
- Powered by Andrew's SEED® technology (Sustainable Energy Efficient Design)

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, mid band	8
RF Connector Quantity, low band	4
RF Connector Quantity, total	12

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
Internal Bias Tee	Port 1 Port 5 Port 9
Internal RET	Low band (1) Mid band (2)


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Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	498 mm 19.606 in
Depth	197 mm 7.756 in
Length	1848 mm 72.756 in
Net Weight, without mounting kit	37.5 kg 82.673 lb

Array Layout

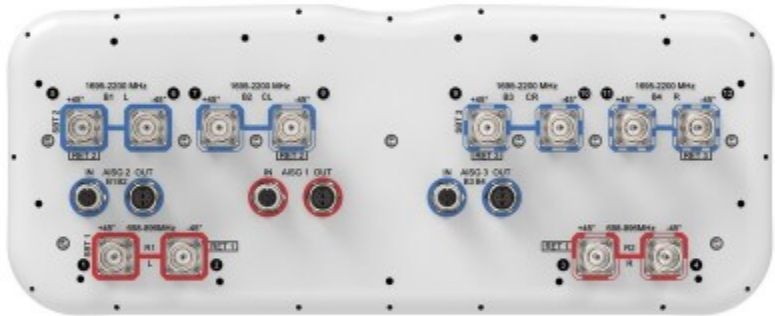


Array ID	Frequency (MHz)	RF Connector	RET (SART)	AISG No.	SBT RF PORT	SBT No.	RET UID
R1	698-896	1 - 2	1	AISG1	1	1	CPxxxxxxxxxxxxxxxxR1
R2	698-896	3 - 4					
B1	1695-2200	5 - 6	2	AISG2	5	2	CPxxxxxxxxxxxxxxxxB1
B2	1695-2200	7 - 8					
B3	1695-2200	9 - 10	3	AISG3	9	3	CPxxxxxxxxxxxxxxxxB3
B4	1695-2200	11 - 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 – 2200 MHz 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	1,440 W @ 50 °C

Electrical Specifications

	R1,R2	R1,R2	B1-B4	B1-B4	B1-B4
Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200
RF Port	1-4	1-4	5-12	5-12	5-12
Gain, Maximum, dBi	15.7	15.8	18.6	18.9	19.3
Gain, dBi	15.4	15.4	18.1	18.6	19
Beamwidth, Horizontal, degrees	70	68	70	67	62
Beamwidth, Vertical, degrees	11.5	10.4	5.4	5.1	4.8
Beam Tilt, degrees	2–12	2–12	0–10	0–10	0–10
USLS (First Lobe), dB	16	15	16	16	17
Front-to-Back Ratio at 180°, dB	30	30	35	37	37
CPR at Boresight, dB	26	21	21	21	22

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Isolation, Cross Polarization, dB	25	25	25	25	25
Isolation, Inter-band, dB	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
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250

Mechanical Specifications

Wind Loading @ Velocity, frontal	629.0 N @ 150 km/h (141.4 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	190.0 N @ 150 km/h (42.7 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	755.0 N @ 150 km/h (169.7 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	433.0 N @ 150 km/h (97.3 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	565 mm 22.244 in
Depth, packed	309 mm 12.165 in
Length, packed	2035 mm 80.118 in
Weight, gross	49.8 kg 109.79 lb

Regulatory Compliance/Certifications

Agency	Classification
UK-ROHS	Compliant

Included Products

BSAMNT-4	–	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

Performance Note	Severe environmental conditions may degrade optimum performance
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