

NNH4-65C-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)

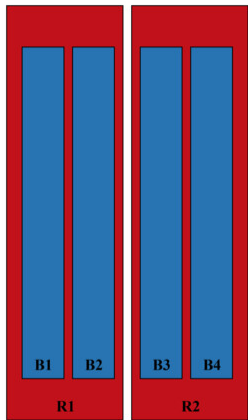
NNH4-65C-HG-R3B

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	2438 mm 95.984 in
Net Weight, without mounting kit	42 kg 92.594 lb

Array Layout

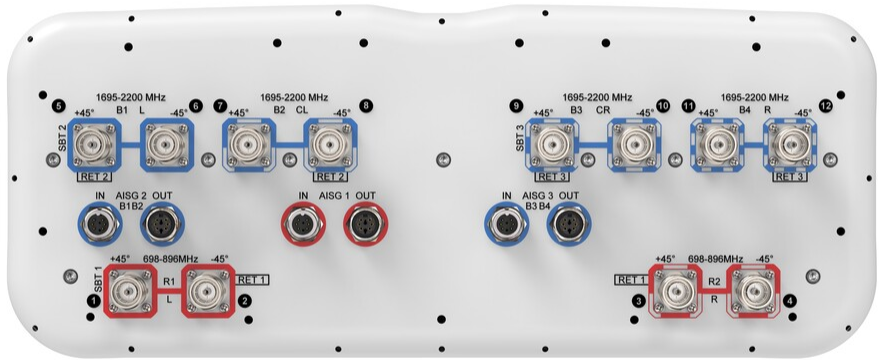


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	SBT RF PORT	SBT No.	RET UID
R1	698-896	1 - 2	1	AISG1	1	1	CPxxxxxxxxxxxxxR1
R2	698-896	3 - 4					
B1	1695-2200	5 - 6	2	AISG2	5	2	CPxxxxxxxxxxxxxB1
B2	1695-2200	7 - 8					
B3	1695-2200	9 - 10	3	AISG3	9	3	CPxxxxxxxxxxxxxB3
B4	1695-2200	11 - 12					

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

Port Configuration

NNH4-65C-HG-R3B



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	16.6	16.7	18.9	19.3	20.1
Gain, dBi	16.3	16.5	18.4	19	19.6
Beamwidth, Horizontal, degrees	66	64	71	66	62
Beamwidth, Vertical, degrees	9	8	5.3	5	4.7
Beam Tilt, degrees	0–10	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	17	15	16	17	18
Front-to-Back Ratio at 180°,	31	32	32	35	36

NNH4-65C-HG-R3B

dB					
CPR at Boresight, dB	24	24	21	21	21
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	865.0 N @ 150 km/h (194.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	268.0 N @ 150 km/h (60.2 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,037.0 N @ 150 km/h (233.1 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	595.0 N @ 150 km/h (133.8 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	2685 mm 105.709 in
Weight, gross	61.9 kg 136.466 lb

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
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.
BSAMNT-M	–	Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance
------------------	---