NNH4-65A-R6D

12-port sector antenna, 4x 698-894 and 8x 1695-2360 MHz, 65° HPBW, 6x RET.

- Features broadband Low Band (698-894 MHz) and High Band (1695-2360 MHz) arrays for 4T4R (4X MIMO) capability for 700 and 850 MHz, AWS, PCS and WCS applications
- The Low Band array is diplexed, providing independent tilt for the 700 and 850 MHz bands for 4T4R (4X MIMO) capability when used with Dual Band radios
- Optimized SPR performance across all operating bands
- Excellent wind loading characteristics

This product will be discontinued on: December 31, 2025

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	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, mid band	0
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
Input Voltage	10–30 Vdc

©2025 ANDREW, an Amphenol company. All rights reserved. Amphenol and ANDREW are registered trademarks of Amphenol and/or its affiliates in the U.S. and other countries. All product names, trademarks and registered trademarks are property of their respective owners.
Revised: May 6, 2025

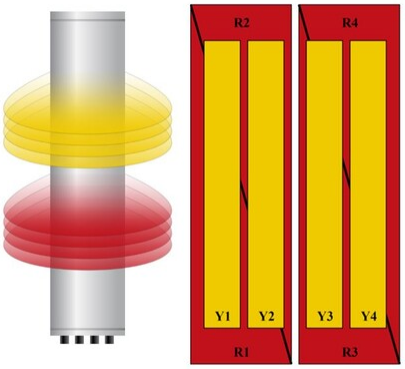
NNH4-65A-R6D

Internal RET	High band (4) | Low band (2)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	1499 mm | 59.016 in
Net Weight, antenna only	39.1 kg | 86.201 lb

Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (MRET)	AISG No.	AISG RET UID
R1	698-798	1 - 2	1	AISG1	CPxxxxxxxxxxxxMM.1
R3	698-798	3 - 4			
R2	824-894	1 - 2	2	AISG1	CPxxxxxxxxxxxxMM.2
R4	824-894	3 - 4			
Y1	1695-2360	5 - 6	3	AISG1	CPxxxxxxxxxxxxMM.3
Y2	1695-2360	7 - 8	4	AISG1	CPxxxxxxxxxxxxMM.4
Y3	1695-2360	9 - 10	5	AISG1	CPxxxxxxxxxxxxMM.5
Y4	1695-2360	11 - 12	6	AISG1	CPxxxxxxxxxxxxMM.6

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

Port Configuration

©2025 ANDREW, an Amphenol company. All rights reserved. Amphenol and ANDREW are registered trademarks of Amphenol and/or its affiliates in the U.S. and other countries. All product names, trademarks and registered trademarks are property of their respective owners.
Revised: May 6, 2025

NNH4-65A-R6D

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 698 – 798 MHz | 824 – 894 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

	R1,R3	R2,R4	Y1,Y2,Y3,Y4	Y1,Y2,Y3,Y4	Y1,Y2,Y3,Y4	Y1,Y2,Y3,Y4
Frequency Band, MHz	**698–798**	**824–894**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**
RF Port	1-4	1-4	5-12	5-12	5-12	5-12
Gain, dBi	12.5	12.9	16.3	17.1	17.6	18.2
Beamwidth, Horizontal, degrees	75	67	72	69	64	59
Beamwidth, Vertical, degrees	16.8	14.5	7.4	7	6.6	5.9
Beam Tilt, degrees	2–16	2–16	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	16	19	15	18	19	23
Front-to-Back Ratio at 180°, dB	28	27	32	34	35	35
Isolation, Cross Polarization,	25	25	25	25	25	25

©2025 ANDREW, an Amphenol company. All rights reserved. Amphenol and ANDREW are registered trademarks of Amphenol and/or its affiliates in the U.S. and other countries. All product names, trademarks and registered trademarks are property of their respective owners.
Revised: May 6, 2025

ANDREW®
an Amphenol company

NNH4-65A-R6D

dB						
Isolation, Inter-band, dB	25	25	25	25	25	25
VSWR | Return loss, dB	1.5 | 14.5	1.5 | 14.5	1.5 | 14.5	1.5 | 14.5	1.5 | 14.5	1.5 | 14.5
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150
Input Power per Port at 50°C, maximum, watts	150	150	250	250	250	200

Mechanical Specifications

Wind Loading @ Velocity, frontal	498.0 N @ 150 km/h (112.0 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	148.0 N @ 150 km/h (33.3 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	597.0 N @ 150 km/h (134.2 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	342.0 N @ 150 km/h (76.9 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	1686 mm | 66.378 in
Weight, gross	52.8 kg | 116.404 lb

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

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.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance

©2025 ANDREW, an Amphenol company. All rights reserved. Amphenol and ANDREW are registered trademarks of Amphenol and/or its affiliates in the U.S. and other countries. All product names, trademarks and registered trademarks are property of their respective owners.
Revised: May 6, 2025

ANDREW®
an Amphenol company