NNH4-65B-R8D

6 ft, 12-port, low band diplexed antenna, 4x 698–894 and 8x 1695–2360 MHz, 65° HPBW, 8x 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
- Low Band RET assigned to AISG1, Mid Band RET assigned to AISG2

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light Gray (RAL 7035)
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	0
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	2 female | 2 male
Input Voltage	10–30 Vdc
Internal RET	Low band (4) | Mid band (4)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W

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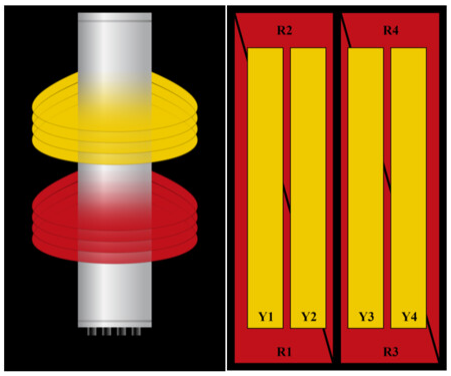
Protocol	3GPP/AISG 2.0 (Multi-RET)

Dimensions

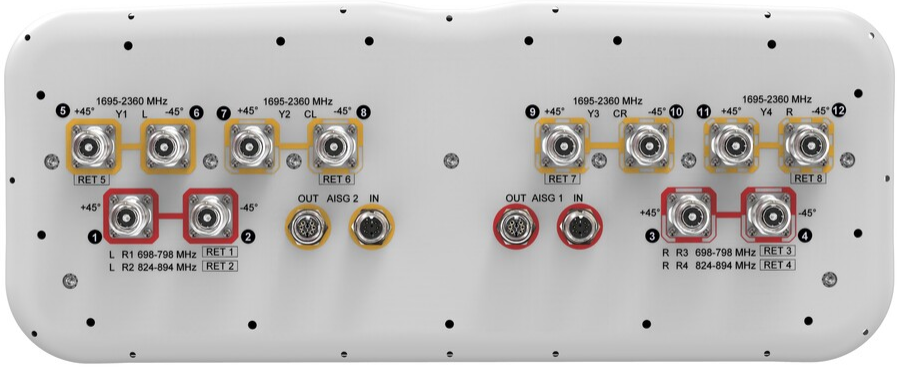
Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	1828 mm | 71.969 in
Net Weight, without mounting kit	46 kg | 101.413 lb

Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (MRET)	AISG No.	AISG RET UID
R1	698-798	1 - 2	1	AISG1	CPxxxxxxxxxxxxMM.1
R2	824-894	1 - 2	2	AISG1	CPxxxxxxxxxxxxMM.2
R3	698-798	3 - 4	3	AISG1	CPxxxxxxxxxxxxMM.3
R4	824-894	3 - 4	4	AISG1	CPxxxxxxxxxxxxMM.4
Y1	1695-2360	5 - 6	5	AISG2	CPxxxxxxxxxxxxMM.5
Y2	1695-2360	7 - 8	6	AISG2	CPxxxxxxxxxxxxMM.6
Y3	1695-2360	9 - 10	7	AISG2	CPxxxxxxxxxxxxMM.7
Y4	1695-2360	11 - 12	8	AISG2	CPxxxxxxxxxxxxMM.8

Port Configuration



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 698 – 798 MHz | 824 – 894 MHz

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Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	**698–798**	**824–894**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**
Gain, dBi	13.8	14.2	16.7	17.2	17.8	18
Beamwidth, Horizontal, degrees	63	61	69	67	62	62
Beamwidth, Vertical, degrees	12	10.5	6.9	6.5	6.1	5.5
Beam Tilt, degrees	0–10	0–10	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	15	15	16	18	18	18
Front-to-Back Ratio at 180°, dB	30	28	32	33	33	33
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
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

Effective Projective Area (EPA), frontal	0.58 m² | 6.243 ft²
Effective Projective Area (EPA), lateral	0.18 m² | 1.938 ft²
Wind Loading @ Velocity, frontal	622.0 N @ 150 km/h (139.8 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	188.0 N @ 150 km/h (42.3 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	746.0 N @ 150 km/h (167.7 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	428.0 N @ 150 km/h (96.2 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	565 mm | 22.244 in
Depth, packed	368 mm | 14.488 in
Length, packed	2014 mm | 79.291 in
Weight, gross	60.3 kg | 132.939 lb

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Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.andrew.com/ProductCompliance
ROHS	Compliant
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.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance