NNH4-65A-R3B-V1

12-port sector antenna, 4x 698–896 and 8x 1695–2360 MHz, 65° HPBW, 3x RET, 3x SBT.

- Features broadband Low Band (698-896 MHz) and High Band (1695-2360 MHz) arrays for 4T4R (4X MIMO) capability for 700 and 850 MHz, AWS, PCS and WCS applications
- Non-stacked high band array design provides higher gain and narrower vertical beamwidth than traditional antenna designs
- Independent RET for each pair of Arrays
- Array configuration provides capability for 4T4R (4x MIMO) on Low band and Dual 4T4R (4x MIMO) on High band
- Optimized SPR performance across all operating bands
- Excellent wind loading characteristics
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light Gray (RAL 7035)
Grounding Type	RF connector body grounded to reflector and mounting bracket
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, 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

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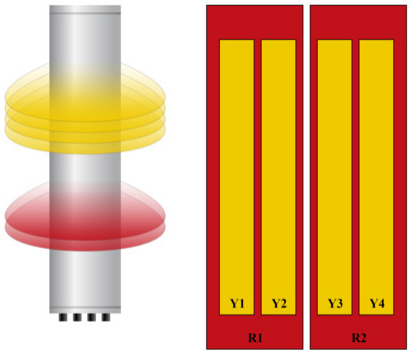
Internal RET	Low band (1) | Mid band (2)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	1499 mm | 59.016 in
Net Weight, antenna only	33 kg | 72.752 lb

Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxR1
R2	698-896	3 - 4			
Y1	1695-2360	5 - 6	2	AISG2	CPxxxxxxxxxxxxxxY1
Y2	1695-2360	7 - 8			
Y3	1695-2360	9 - 10	3	AISG3	CPxxxxxxxxxxxxxxY3
Y4	1695-2360	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 – 2360 MHz | 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

	R1-R2	R1-R2	Y1-Y4	Y1-Y4	Y1-Y4	Y1-Y4
Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**
RF Port	1-4	1-4	5-12	5-12	5-12	5-12
Gain, dBi	13.3	13.3	16.3	17	17.5	18.2
Beamwidth, Horizontal, degrees	71	67	71	68	63	58
Beamwidth, Vertical, degrees	17.4	15.7	7.5	7	6.6	6
Beam Tilt, degrees	2–16	2–16	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	18	19	15	17	18	22
Front-to-Back Ratio at 180°, dB	35	32	35	37	34	32
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	-153	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	300	300	300	250	250	200

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**
Gain by all Beam Tilts, average, dBi	12.8	13.1	15.8	16.6	17.1	17.8
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.4	±0.6	±0.5	±0.5	±0.5
Beamwidth, Horizontal Tolerance, degrees	±5	±2	±6	±7	±6	±3
Beamwidth, Vertical Tolerance, degrees	±1.4	±1.4	±0.5	±0.3	±0.4	±0.2
USLS, beampeak to 20° above beampeak, dB	19	21	14	16	16	17
Front-to-Back Total Power at 180° ± 30°, dB	24	23	27	26	26	26
CPR at Boresight, dB	25	24	24	26	25	22
CPR at Sector, dB	13	10	10	7	7	8

Mechanical Specifications

Effective Projective Area (EPA), frontal	0.47 m² | 5.059 ft²
Effective Projective Area (EPA), lateral	0.14 m² | 1.507 ft²
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	46.4 kg | 102.294 lb

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Regulatory Compliance/Certifications

Agency	Classification
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.