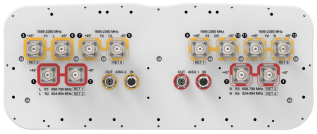
NNH4-65C-R8D



8 ft, 12-Port Multiband Antenna, 4 x 698-894, 8 x 1695-2360 MHz, independent tilt for the 700 and 850 MHz bands through diplexing of the low band arrays, 8 x RETs

- 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, 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

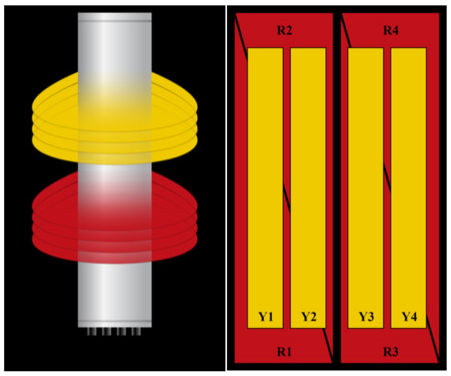
NNH4-65C-R8D

Protocol	3GPP/AISG 2.0 (Multi-RET)

Dimensions

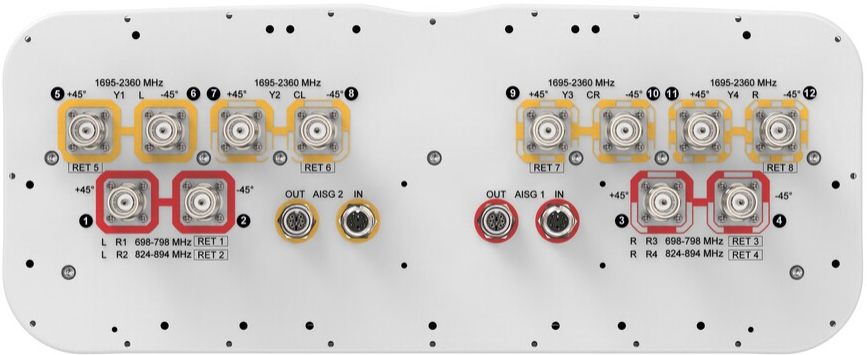
Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	2438 mm | 95.984 in
Net Weight, antenna only	59.5 kg | 131.175 lb

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

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	1,2,3,4	1,2,3,4	5,6,7,8,9,10,11,12	5,6,7,8,9,10,11,12	5,6,7,8,9,10,11,12	5,6,7,8,9,10,11,12
Gain, dBi	14.9	15.2	17.3	18	18.7	19
Beamwidth, Horizontal, degrees	58	61	68	67	61	58
Beamwidth, Vertical, degrees	9.5	8.4	5.7	5.2	4.9	4.4
Beam Tilt, degrees	0–10	0–10	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	20	18	19	18	17	19
Front-to-Back Ratio at 180°, dB	30	29	34	32	32	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

Electrical Specifications, BASTA

Frequency Band, MHz	**698–798**	**824–894**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**
Gain by all Beam Tilts, average, dBi	14.5	14.7	16.9	17.6	18.3	18.7
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.5	±0.7	±0.6	±0.7	±0.4
Beamwidth, Horizontal Tolerance, degrees	±5	±7	±8	±8	±6	±3
Beamwidth, Vertical Tolerance, degrees	±0.6	±0.5	±0.3	±0.2	±0.3	±0.1
USLS, beampeak to 20° above beampeak, dB	19	16	17	17	17	18
Front-to-Back Total Power at 180° ± 30°, dB	21	23	27	27	27	28
CPR at Boresight, dB	23	20	21	22	23	18

CPR at Sector, dB	11	10	8	7	7	9

Mechanical Specifications

Effective Projective Area (EPA), frontal	0.9 m² | 9.688 ft²
Effective Projective Area (EPA), lateral	0.31 m² | 3.337 ft²
Wind Loading @ Velocity, frontal	954.0 N @ 150 km/h (214.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	331.0 N @ 150 km/h (74.4 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,235.0 N @ 150 km/h (277.6 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	785.0 N @ 150 km/h (176.5 lbf @ 150 km/h)
Wind Speed, maximum	241.4 km/h (150 mph)

Packaging and Weights

Width, packed	565 mm | 22.244 in
Depth, packed	309 mm | 12.165 in
Length, packed	2625 mm | 103.347 in
Weight, gross	74 kg | 163.142 lb

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.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant/Exempted

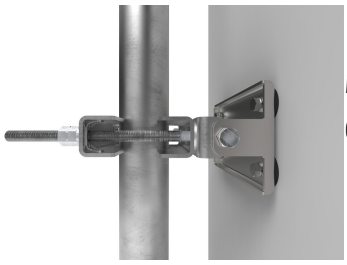
Included Products

BSAMNT-3F	–	Mounting bracket for cylindrical pipe installations (60-115mm pipe diameter) for fix mechanical tilt applications.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance

BSAMNT-3F



Mounting bracket for cylindrical pipe installations (60-115mm pipe diameter) for fix mechanical tilt applications.

Product Classification

Product Type	Fixed tilt mounting kit

General Specifications

Application	Outdoor
Color	Silver

Dimensions

Compatible Diameter, maximum	115 mm | 4.528 in
Compatible Diameter, minimum	60 mm | 2.362 in
Weight, net	5.6 kg | 12.346 lb

Material Specifications

Material Type	Galvanized steel

Packaging and Weights

Included	Brackets | Hardware
Packaging quantity	1
Weight, gross	5.8 kg | 12.787 lb

Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
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.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

BSAMNT-3F