NNH4-65C-R3

12-Port sector antenna, 4x 698-896 and 8x 1695-2360 MHz, 65° HPBW, 3xRET

- Features a downtilt range of 0-10° to provide for improved interference performance
- Features broadband Low Band (698-896 MHz) and High Band (1695-2360 MHz) arrays for 4T4R (4X MIMO) capability for Band 14, AWS, PCS and WCS applications
- 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

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	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	1 female | 1 male
Input Voltage	10–30 Vdc
Internal RET	Low band (1) | Mid band (2)

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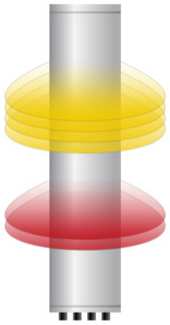
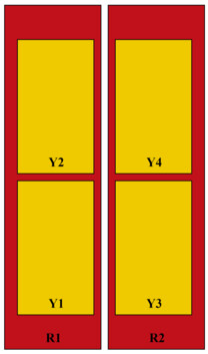
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	2438 mm | 95.984 in
Net Weight, antenna only	39.2 kg | 86.421 lb

Array Layout





Array ID	Frequency (MHz)	RF Connector	RET (MRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxMM.1
R2	698-896	3 - 4			
Y1	1695-2360	5 - 6	2	AISG1	CPxxxxxxxxxxxxMM.2
Y3	1695-2360	9 - 10			
Y2	1695-2360	7 - 8	3	AISG1	CPxxxxxxxxxxxxMM.3
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
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	15.5	15.9	16.8	17.5	17.7	17.7
Beamwidth, Horizontal, degrees	77	69	62	57	57	55
Beamwidth, Vertical, degrees	9.7	8.6	7.8	7.3	6.9	6.3
Beam Tilt, degrees	0–10	0–10	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	19	17	15	16	15	16
Front-to-Back Ratio at 180°, dB	27	30	34	36	37	33
Isolation, Cross Polarization, dB	25	25	25	25	25	25

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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	300	300	250	250	250	200

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	2625 mm | 103.347 in
Weight, gross	51.9 kg | 114.42 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

Included Products

BSAMNT-2F	–	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