

NNH4-65C-R6N17



12-port sector antenna, 4x 698–896 and 8x 1695–2360 MHz, 65° HPBW, 6x RET.

- 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
- Independent tilt for all 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
- The antenna is supplied with mounting kits that provide 0 degree of mechanical downtilt; optional downtilt mounting kits are available

General Specifications

Antenna Type	Sector
Band	Multiband
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, 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	High band (4) Low band (2)

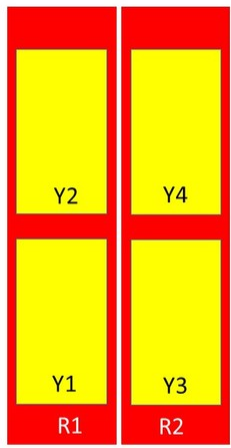
NNH4-65C-R6N17

Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Protocol	3GPP/AISG 2.0 (Multi-RET)

Dimensions

Width	430 mm 16.929 in
Depth	197 mm 7.756 in
Length	2438 mm 95.984 in
Net Weight, without mounting kit	42.2 kg 93.035 lb

Array Layout



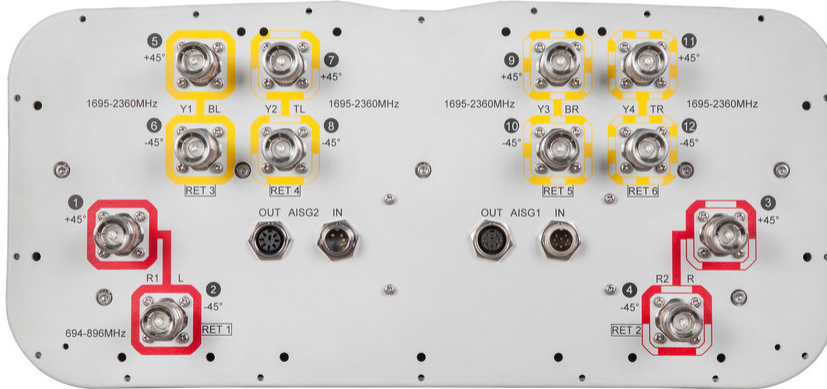
Array	Freq (MHz)	Conns	RET (MRET)	AISG RET UID
R1	698-896	1-2	1	CPxxxxxxxxxxxxxxxxmm.1
R2	698-896	3-4	2	CPxxxxxxxxxxxxxxxxmm.2
Y1	1695-2360	5-6	3	CPxxxxxxxxxxxxxxxxmm.3
Y2	1695-2360	7-8	4	CPxxxxxxxxxxxxxxxxmm.4
Y3	1695-2360	9-10	5	CPxxxxxxxxxxxxxxxxmm.5
Y4	1695-2360	11-12	6	CPxxxxxxxxxxxxxxxxmm.6

Left Bottom Right

(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

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2180	2300–2360
Gain, dBi	14.9	15.7	16.4	17.2	17.6	17.7
Beamwidth, Horizontal, degrees	59	55	65	64	62	63
Beamwidth, Vertical, degrees	9.7	8.5	8	7.4	7	6.2
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	18	19	16	16	18	22
Front-to-Back Ratio at 180°, dB	29	29	32	34	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

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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

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	14.5	15.4	15.7	16.8	17.1	17.4
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.3	±0.8	±0.7	±0.5	±0.5
Gain by Beam Tilt, average, dBi	2° 14.5 7° 14.6 12° 14.4	2° 15.3 7° 15.5 12° 15.3	2° 15.5 7° 15.9 12° 15.7	2° 16.5 7° 16.9 12° 16.7	2° 16.9 7° 17.3 12° 17.0	2° 17.2 7° 17.4 12° 17.4
Beamwidth, Horizontal Tolerance, degrees	±8.6	±5.5	±7.1	±4.9	±5.4	±5.9
Beamwidth, Vertical Tolerance, degrees	±0.7	±0.5	±0.5	±0.4	±0.6	±0.2
USLS, beampeak to 20° above beampeak, dB	17	17	13	15	16	15
Front-to-Back Total Power at 180° ± 30°, dB	22	22	27	29	29	27
CPR at Boresight, dB	25	24	16	21	20	19
CPR at Sector, dB	12	10	9	10	8	11

Mechanical Specifications

Effective Projective Area (EPA), frontal	0.61 m ² 6.566 ft ²
Effective Projective Area (EPA), lateral	0.32 m ² 3.444 ft ²
Mechanical Tilt Range	0°–12°
Wind Loading @ Velocity, frontal	651.0 N @ 150 km/h (146.4 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	339.0 N @ 150 km/h (76.2 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	1,052.0 N @ 150 km/h (236.5 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	1,182.0 N @ 150 km/h (265.7 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	530 mm 20.866 in
Depth, packed	349 mm 13.74 in
Length, packed	2620 mm 103.15 in

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Weight, gross

55.2 kg | 121.695 lb

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-3F

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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