

NNH4-85B-R6



12-port sector antenna, 4x 694–894 and 8x 1695–2360 MHz, 85° HPBW, 6x RETs

- Array configuration provides capability for 4T4R (4x MIMO) on Low band and High band
- Optimized SPR performance across all operating bands
- Excellent wind loading characteristics
- 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
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	Aluminum 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)
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Protocol	3GPP/AISG 2.0 (Multi-RET)

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Dimensions

Width	498 mm 19.606 in
Depth	197 mm 7.756 in
Length	1828 mm 71.969 in
Net Weight, without mounting kit	37.3 kg 82.232 lb

Array Layout



Array	Freq (MHz)	Conns	RET (MRET)	AISG RET UID
R1	694-894	1-2	1	CPxxxxxxxxxxxxxxxxmm.1
R2	694-894	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 Bottom

(Sizes of colored boxes are not true depictions of array sizes)

Port Configuration



Electrical Specifications

Impedance	50 ohm
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Operating Frequency Band	1695 – 2360 MHz 694 – 894 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	694–806	806–894	1695–1880	1850–1990	1920–2180	2300–2360
Gain, dBi	14.5	14.8	15.9	16.8	17.4	17.9
Beamwidth, Horizontal, degrees	82	76	84	82	78	73
Beamwidth, Vertical, degrees	12.5	11.1	5.5	5.2	5	4.6
Beam Tilt, degrees	2–14	2–14	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	20	19	15	18	18	18
Front-to-Back Ratio at 180°, dB	33	27	28	30	30	29
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	250	250	200	200	200	200

Electrical Specifications, BASTA

Frequency Band, MHz	694–806	806–894	1695–1880	1850–1990	1920–2180	2300–2360
Gain by all Beam Tilts, average, dBi	14	14.5	14.9	16.1	16.7	17.4
Gain by all Beam Tilts Tolerance, dB	±0.6	±0.5	±1.4	±0.8	±0.9	±0.7
Gain by Beam Tilt, average, dBi	2° 13.9 8° 14.0 14° 13.9	2° 14.4 8° 14.6 14° 14.3	2° 14.9 7° 15.1 12° 14.7	2° 16.0 7° 16.2 12° 15.9	2° 16.5 7° 16.8 12° 16.5	2° 17.6 7° 17.6 12° 16.8
Beamwidth, Horizontal Tolerance, degrees	±10.2	±5.2	±8.9	±10.7	±10.2	±11.8
Beamwidth, Vertical Tolerance, degrees	±0.9	±0.7	±0.2	±0.3	±0.3	±0.2
USLS, beampeak to 20° above beampeak, dB	20	19	13	15	15	15
Front-to-Back Total Power at 180° ± 30°, dB	20	20	22	25	24	24

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CPR at Boresight, dB	20	21	15	16	15	17
CPR at Sector, dB	11	8	10	11	11	8

Mechanical Specifications

Effective Projective Area (EPA), frontal	0.64 m ² 6.889 ft ²
Effective Projective Area (EPA), lateral	0.22 m ² 2.368 ft ²
Mechanical Tilt Range	0°–17°
Wind Loading @ Velocity, frontal	685.0 N @ 150 km/h (154.0 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	232.0 N @ 150 km/h (52.2 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	889.0 N @ 150 km/h (199.9 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	564.0 N @ 150 km/h (126.8 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	2015 mm 79.331 in
Weight, gross	48.4 kg 106.704 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.
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* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance
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