NNH4-85B-R6-V1

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
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage
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 (2) | Mid band (4)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in

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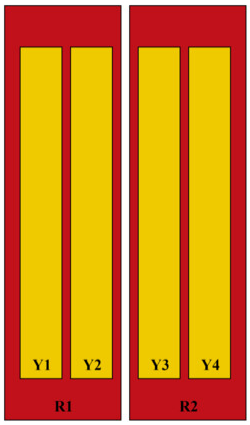
Length	1828 mm | 71.969 in
Net Weight, antenna only	39 kg | 85.98 lb

Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-894	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxR1
R2	698-894	3 - 4	2	AISG1	CPxxxxxxxxxxxxxxR2
Y1	1695-2360	5 - 6	3	AISG1	CPxxxxxxxxxxxxxxY1
Y2	1695-2360	7 - 8	4	AISG1	CPxxxxxxxxxxxxxxY2
Y3	1695-2360	9 - 10	5	AISG1	CPxxxxxxxxxxxxxxY3
Y4	1695-2360	11 - 12	6	AISG1	CPxxxxxxxxxxxxxxY4

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

Port Configuration

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 694 – 894 MHz

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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**
RF Port	1-4	1-4	5-12	5-12	5-12	5-12
Gain, dBi	14.5	14.8	15.9	16.8	17.4	17.9
Beamwidth, Horizontal, degrees	82	76	84	82	77	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	153	153	153	153	153	153
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	15	16.1	16.7	17.5
Gain by all Beam Tilts Tolerance, dB	±0.6	±0.5	±1.5	±0.7	±1	±0.6
Beamwidth, Horizontal Tolerance, degrees	±10	±5	±8	±10	±10	±11
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	16	15
Front-to-Back Total Power at 180° ± 30°, dB	20	20	22	25	24	24
CPR at Boresight, dB	23	22	16	16	16	17
CPR at Sector, dB	11	8	10	11	11	8

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Mechanical Specifications

Wind Loading @ Velocity, frontal	622.0 N @ 150 km/h (139.8 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	188.0 N @ 150 km/h (42.3 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	746.0 N @ 150 km/h (167.7 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	428.0 N @ 150 km/h (96.2 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	2015 mm | 79.331 in
Weight, gross	50 kg | 110.231 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-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