

# 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

<b>Antenna Type</b>	Sector
<b>Band</b>	Multiband
<b>Color</b>	Light Gray (RAL 7035)
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Radiator Material</b>	Aluminum   Low loss circuit board
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	8
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	12

## Remote Electrical Tilt (RET) Information


<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	2 female   2 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (4)   Low band (2)
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Power Consumption, normal conditions, maximum</b>	8 W
<b>Protocol</b>	3GPP/AISG 2.0 (Multi-RET)

# NNH4-85B-R6

## Dimensions

<b>Width</b>	498 mm   19.606 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	1828 mm   71.969 in
<b>Net Weight, without mounting kit</b>	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

<b>Impedance</b>	50 ohm
------------------	--------

# NNH4-85B-R6

<b>Operating Frequency Band</b>	1695 – 2360 MHz   694 – 894 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	694–806	806–894	1695–1880	1850–1990	1920–2180	2300–2360
<b>Gain, dBi</b>	14.5	14.8	15.9	16.8	17.4	17.9
<b>Beamwidth, Horizontal, degrees</b>	82	76	84	82	78	73
<b>Beamwidth, Vertical, degrees</b>	12.5	11.1	5.5	5.2	5	4.6
<b>Beam Tilt, degrees</b>	2–14	2–14	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	20	19	15	18	18	18
<b>Front-to-Back Ratio at 180°, dB</b>	33	27	28	30	30	29
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25	25	25
<b>VSWR   Return loss, dB</b>	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-150	-150	-150	-150	-150
<b>Input Power per Port at 50°C, maximum, watts</b>	250	250	200	200	200	200

## Electrical Specifications, BASTA

Frequency Band, MHz	694–806	806–894	1695–1880	1850–1990	1920–2180	2300–2360
<b>Gain by all Beam Tilts, average, dBi</b>	14	14.5	14.9	16.1	16.7	17.4
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.6	±0.5	±1.4	±0.8	±0.9	±0.7
<b>Gain by Beam Tilt, average, dBi</b>	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
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±10.2	±5.2	±8.9	±10.7	±10.2	±11.8
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.9	±0.7	±0.2	±0.3	±0.3	±0.2
<b>USLS, beampeak to 20° above beampeak, dB</b>	20	19	13	15	15	15
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	20	20	22	25	24	24

# NNH4-85B-R6

<b>CPR at Boresight, dB</b>	20	21	15	16	15	17
<b>CPR at Sector, dB</b>	11	8	10	11	11	8

## Mechanical Specifications

<b>Effective Projective Area (EPA), frontal</b>	0.64 m <sup>2</sup>   6.889 ft <sup>2</sup>
<b>Effective Projective Area (EPA), lateral</b>	0.22 m <sup>2</sup>   2.368 ft <sup>2</sup>
<b>Mechanical Tilt Range</b>	0°–17°
<b>Wind Loading @ Velocity, frontal</b>	685.0 N @ 150 km/h (154.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	232.0 N @ 150 km/h (52.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	889.0 N @ 150 km/h (199.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	564.0 N @ 150 km/h (126.8 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241.4 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	565 mm   22.244 in
<b>Depth, packed</b>	309 mm   12.165 in
<b>Length, packed</b>	2015 mm   79.331 in
<b>Weight, gross</b>	48.4 kg   106.704 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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 <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
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

<b>Performance Note</b>	Severe environmental conditions may degrade optimum performance
-------------------------	---

# BSAMNT-2F



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** 3.8 kg | 8.378 lb

## Material Specifications

**Material Type** Galvanized steel

## Packaging and Weights

**Included** Brackets | Hardware

**Packaging quantity** 1

**Weight, gross** 4 kg | 8.818 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 <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant

# BSAMNT-2F

---

