

# NNH4-65A-R6



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

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- 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
- 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 body grounded to reflector and mounting bracket
Performance Note	Outdoor usage   Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
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, mid band	0
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	High band (4)   Low band (2)

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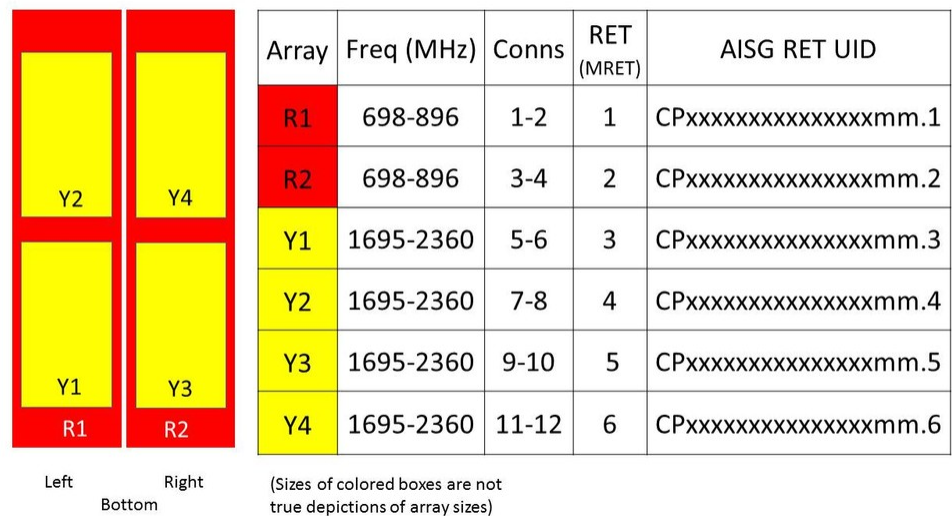
Power Consumption, idle state, maximum	1 W
Power Consumption, normal conditions, maximum	8 W
Protocol	3GPP/AISG 2.0 (Multi-RET)

## Dimensions

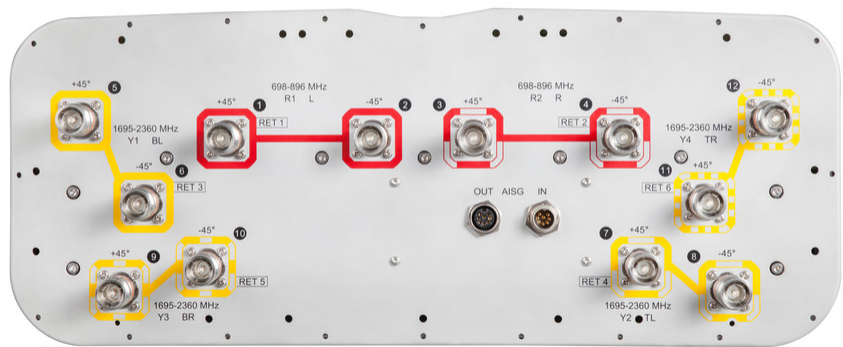
Width	498 mm   19.606 in
Depth	197 mm   7.756 in
Length	1400 mm   55.118 in
Net Weight, without mounting kit	33.5 kg   73.855 lb

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## Array Layout



## Port Configuration



## Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz   698 – 896 MHz

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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	13.2	13.8	14	14.7	14.8	15.2
Beamwidth, Horizontal, degrees	72	63	59	60	62	59
Beamwidth, Vertical, degrees	16.4	14.9	15.7	14.6	13.9	12.4
Beam Tilt, degrees	2–16	2–16	2–16	2–16	2–16	2–16
USLS (First Lobe), dB	15	19	16	18	17	18
Front-to-Back Ratio at 180°, dB	29	30	34	35	34	35
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	250	250	250	200

## Mechanical Specifications

Effective Projective Area (EPA), frontal	0.48 m²   5.167 ft²
Effective Projective Area (EPA), lateral	0.16 m²   1.722 ft²
Mechanical Tilt Range	0°–15°
Wind Loading @ Velocity, frontal	509.0 N @ 150 km/h (114.4 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	169.0 N @ 150 km/h (38.0 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	660.0 N @ 150 km/h (148.4 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	419.0 N @ 150 km/h (94.2 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

## Packaging and Weights

Width, packed	608 mm   23.937 in
Depth, packed	352 mm   13.858 in
Length, packed	1582 mm   62.283 in

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**Weight, gross** 41 kg | 90.389 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 <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.
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## \* Footnotes

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