

# NNH4-65C-R6H4



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

- Optimized for rooftop applications – Heavily suppressed lower sidelobes for elevation pattern
- 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

## 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>	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

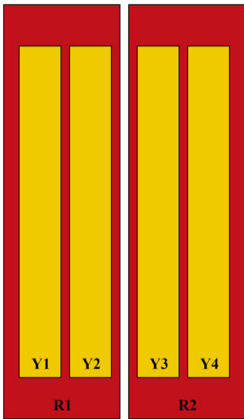
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (8)   Low band (4)
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle state,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

# NNH4-65C-R6H4

## Dimensions

<b>Width</b>	498 mm   19.606 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	2438 mm   95.984 in
<b>Net Weight, antenna only</b>	48.4 kg   106.704 lb

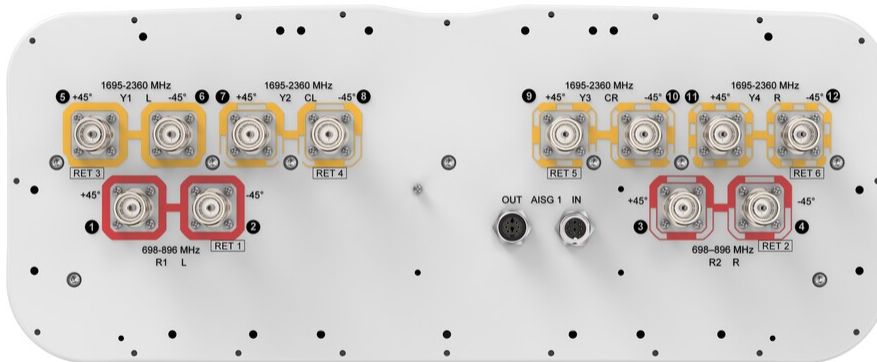
## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG RET UID
R1	698-896	1 - 2	1	ANxxxxxxxxxxxxx1
R2	698-896	3 - 4	2	ANxxxxxxxxxxxxx2
Y1	1695-2360	5 - 6	3	ANxxxxxxxxxxxxx3
Y2	1695-2360	7 - 8	4	ANxxxxxxxxxxxxx4
Y3	1695-2360	9 - 10	5	ANxxxxxxxxxxxxx5
Y4	1695-2360	11 - 12	6	ANxxxxxxxxxxxxx6

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

## Port Configuration



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2360 MHz   698 – 896 MHz

# NNH4-65C-R6H4

<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

	<b>R1,R2</b>	<b>R1,R2</b>	<b>Y1,Y2,Y3,Y4</b>	<b>Y1,Y2,Y3,Y4</b>	<b>Y1,Y2,Y3,Y4</b>	<b>Y1,Y2,Y3,Y4</b>
<b>Frequency Band, MHz</b>	<b>698–806</b>	<b>806–896</b>	<b>1695–1880</b>	<b>1850–1990</b>	<b>1920–2180</b>	<b>2300–2360</b>
<b>RF Port</b>	1-4	1-4	5-12	5-12	5-12	5-12
<b>Gain, dBi</b>	14.9	15.6	17.1	17.7	18.2	18.3
<b>Beamwidth, Horizontal, degrees</b>	71	65	69	67	63	58
<b>Beamwidth, Vertical, degrees</b>	11	9.2	5.6	5.2	5	4.5
<b>Beam Tilt, degrees</b>	0–10	0–10	0–10	0–10	0–10	0–10
<b>USLS (First Lobe), dB</b>	12	11	19	20	22	24
<b>Front-to-Back Ratio at 180°, dB</b>	31	30	35	35	36	35
<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>	300	300	300	250	250	200

## Electrical Specifications, BASTA

	<b>698–806</b>	<b>806–896</b>	<b>1695–1880</b>	<b>1850–1990</b>	<b>1920–2180</b>	<b>2300–2360</b>
<b>Frequency Band, MHz</b>	<b>698–806</b>	<b>806–896</b>	<b>1695–1880</b>	<b>1850–1990</b>	<b>1920–2180</b>	<b>2300–2360</b>
<b>Gain by all Beam Tilts, average, dBi</b>	14.5	15.3	16.7	17.2	17.7	17.9
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.6	±0.5	±0.6	±0.6	±0.6	±0.5
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±7	±2	±8	±8	±6	±5
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.9	±0.6	±0.3	±0.2	±0.3	±0.1
<b>USLS, beampeak to 20° above beampeak, dB</b>	12	11	16	16	16	14
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	23	23	27	26	27	28
<b>CPR at Boresight, dB</b>	21	23	20	21	20	18

# NNH4-65C-R6H4

CPR at Sector, dB                      11                      10                      9                      8                      8                      6

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	954.0 N @ 150 km/h (214.5 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	331.0 N @ 150 km/h (74.4 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	1,235.0 N @ 150 km/h (277.6 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	785.0 N @ 150 km/h (176.5 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>	2625 mm   103.347 in
<b>Weight, gross</b>	63.1 kg   139.112 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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



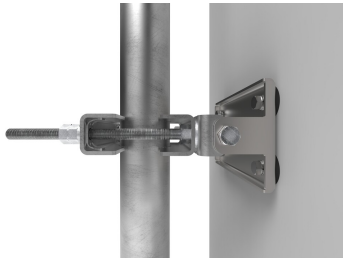
## Included Products

BSAMNT-3F	–	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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# BSAMNT-3F



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** 5.6 kg | 12.346 lb

## Material Specifications

**Material Type** Galvanized steel

## Packaging and Weights

**Included** Brackets | Hardware

**Packaging quantity** 1

**Weight, gross** 5.8 kg | 12.787 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-3F

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