### NNH4-65C-R3



# 12-Port sector antenna, 4x 698-896 and 8x 1695-2360 MHz, 65° HPBW, 3xRET

- Features a downtilt range of 0-10° to provide for improved interference performance
- Features broadband Low Band (698-896 MHz) and High Band (1695-2360 MHz) arrays for 4T4R (4X MIMO) capability for Band 14, AWS, PCS and WCS applications
- 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

#### 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 MaterialFiberglass, UV resistantRadiator MaterialLow loss circuit board

Reflector Material Aluminum

**RF Connector Interface** 4.3-10 Female

RF Connector Location Bottom

RF Connector Quantity, high band 0
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** 1 female | 1 male

Input Voltage 10–30 Vdc

Internal RET Low band (1) | Mid band (2)



### NNH4-65C-R3

**Power Consumption, active state, maximum** 10 W

Power Consumption, idle state, maximum 2 W

Protocol 3GPP/AISG 2.0

**Dimensions** 

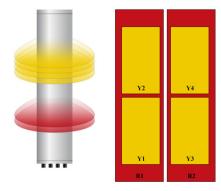
 Width
 498 mm | 19.606 in

 Depth
 197 mm | 7.756 in

 Length
 2438 mm | 95.984 in

Net Weight, antenna only 39.2 kg | 86.421 lb

#### Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (MRET)	AISG No.	AISG RET UID	
R1	698-896	1 - 2	1	NICCI	6D	
R2	698-896	3 - 4		AISG1	CPxxxxxxxxxxxxMM.1	
Y1	1695-2360	5 - 6	2		CPxxxxxxxxxxxMM.2	
Y3	1695-2360	9 - 10	2	AISG1		
Y2	1695-2360	7 - 8	-	AISG1	60	
Y4	1695-2360	11 - 12	3		CPxxxxxxxxxxxxMM.3	

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

### Port Configuration



### **Electrical Specifications**

**Impedance** 50 ohm

**Operating Frequency Band** 1695 – 2360 MHz | 698 – 896 MHz

Total Input Power, maximum  $900~\mathrm{W} \ @ \ 50~\mathrm{^{\circ}C}$ 

### **Electrical Specifications**

	R1-R2	R1-R2	Y1-Y4	Y1-Y4	Y1-Y4	Y1-Y4
Frequency Band, MHz	698-806	806-896	1695-1880	1850-1990	1920-2180	2300-2360
RF Port	1-4	1-4	5-12	5-12	5-12	5-12
Gain, dBi	15.5	15.9	16.8	17.5	17.7	17.7
Beamwidth, Horizontal, degrees	77	69	62	57	57	55
Beamwidth, Vertical, degrees	9.7	8.6	7.8	7.3	6.9	6.3
Beam Tilt, degrees	0-10	0-10	0-10	0-10	0-10	0-10
USLS (First Lobe), dB	19	17	15	16	15	16
Front-to-Back Ratio at 180°, dB	27	30	34	36	37	33
Isolation, Cross Polarization, dB	25	25	25	25	25	25



### NNH4-65C-R3

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	300	300	250	250	250	200

#### Mechanical Specifications

 Wind Loading @ Velocity, frontal
 865.0 N @ 150 km/h (194.5 lbf @ 150 km/h)

 Wind Loading @ Velocity, lateral
 268.0 N @ 150 km/h (60.2 lbf @ 150 km/h)

 Wind Loading @ Velocity, maximum
 1,037.0 N @ 150 km/h (233.1 lbf @ 150 km/h)

 Wind Loading @ Velocity, rear
 595.0 N @ 150 km/h (133.8 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
 2625 mm | 103.347 in

 Weight, gross
 51.9 kg | 114.42 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.

#### \* Footnotes

**Performance Note** Severe environmental conditions may degrade optimum performance

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## 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

ApplicationOutdoorColorSilver

**Dimensions** 

Compatible Diameter, maximum115 mm | 4.528 inCompatible Diameter, minimum60 mm | 2.362 inWeight, net3.8 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 www.andrew.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant



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