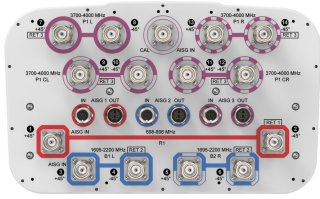


# NHHS4-65C-R3B



14 Port Sector Antenna, 2x698-896 MHz, 4x1695-2200 MHz 65 deg HPBW, and 8x3700-4000 MHz Beamformer, 3XRET

## General Specifications

<b>Antenna Type</b>	Sector and beamforming
<b>Band</b>	Multiband
<b>Calibration Connector Interface</b>	4.3-10 Female
<b>Calibration Connector Quantity</b>	1
<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, mid band</b>	4
<b>RF Connector Quantity, low band</b>	2
<b>RF Connector Quantity, total</b>	14

## Remote Electrical Tilt (RET) Information

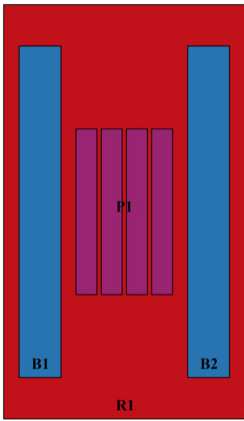
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	3 female   3 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal Bias Tee</b>	Cal Port   Port 1   Port 3
<b>Internal RET</b>	High band (1)   Low band (1)   Mid band (1)
<b>Protocol</b>	3GPP/AISG 2.0

# NHHS4-65C-R3B

## Dimensions

<b>Width</b>	350 mm   13.78 in
<b>Depth</b>	208 mm   8.189 in
<b>Length</b>	2438 mm   95.984 in
<b>Net Weight, antenna only</b>	32.7 kg   72.091 lb

## Array Layout

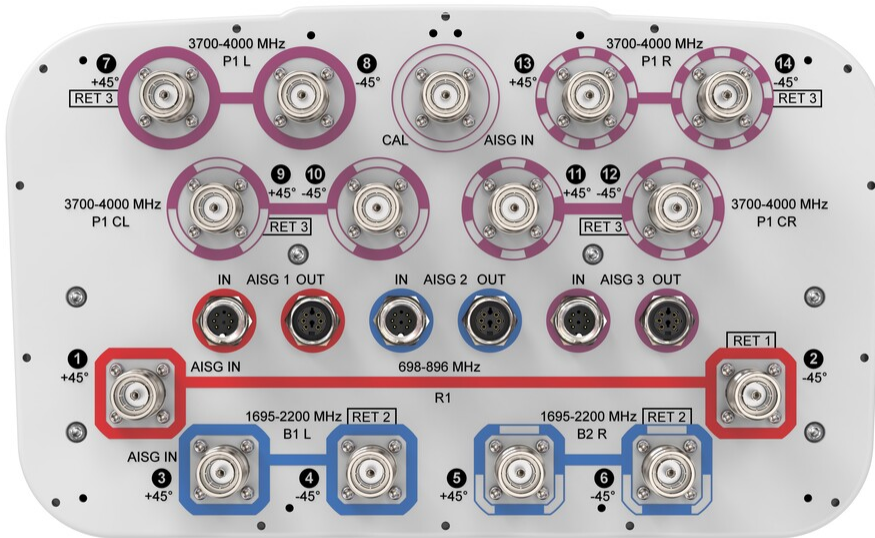


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG RET UID
R1	698-896	1 - 2	1	CPxxxxxxxxxxxxR1
B1	1695-2200	3 - 4	2	CPxxxxxxxxxxxxB1
B2	1695-2200	5 - 6		
P1	3700-4000	7 - 14	3	CPxxxxxxxxxxxxP1

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

## Port Configuration

# NHHS4-65C-R3B



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2200 MHz   3700 – 4000 MHz   698 – 896 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	1,040 W @ 50 °C

## Electrical Specifications

	<b>R1</b>	<b>R1</b>	<b>B1,B2</b>	<b>B1,B2</b>	<b>B1,B2</b>	<b>P1</b>
<b>Frequency Band, MHz</b>	<b>698–806</b>	<b>806–896</b>	<b>1695–1880</b>	<b>1850–1990</b>	<b>1920–2200</b>	<b>3700–4000</b>
<b>RF Port</b>	1-2	1-2	3-6	3-6	3-6	7-14
<b>Gain, dBi</b>	16	16	17.8	18.2	18.2	16.3
<b>Beamwidth, Horizontal, degrees</b>	65	63	62	61	65	79
<b>Beamwidth, Vertical, degrees</b>	9.6	8.6	5.5	5.2	5	5.7
<b>Beam Tilt, degrees</b>	0–11	0–11	0–10	0–10	0–10	0–10
<b>USLS (First Lobe), dB</b>	20	19	19	22	24	13
<b>Front-to-Back Ratio at 180°, dB</b>	39	31	33	37	37	31

# NHHS4-65C-R3B

<b>Coupling level, Amp, Antenna port to Cal port, dB</b>						26
<b>Coupling level, max Amp <math>\Delta</math>, Antenna port to Cal port, dB</b>						$\pm 2$
<b>Coupler, max Amp <math>\Delta</math>, Antenna port to Cal port, dB</b>						0.5
<b>Coupler, max Phase <math>\Delta</math>, Antenna port to Cal port, degrees</b>						5
<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>Isolation, Co-polarization, dB</b>						19
<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>	-153	-153	-153	-153	-153	-145
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	250	250	250	75

## Electrical Specifications, Broadcast 65°

<b>Frequency Band, MHz</b>	<b>3700–4000</b>
<b>Gain, dBi</b>	17.1
<b>Beamwidth, Horizontal, degrees</b>	65
<b>Beamwidth, Vertical, degrees</b>	5.7
<b>Beamwidth, Vertical Tolerance, degrees</b>	$\pm 0.3$
<b>USLS (First Lobe), dB</b>	15

## Electrical Specifications, Envelope Pattern

<b>Frequency Band, MHz</b>	<b>3700–4000</b>
<b>Gain, dBi</b>	20.8

## Electrical Specifications, Service Beam

<b>Frequency Band, MHz</b>	<b>3700–4000</b>
<b>Steered 0° Gain, dBi</b>	20.9
<b>Steered 0° Gain Tolerance, dBi</b>	$\pm 0.5$
<b>Steered 0° Beamwidth, Horizontal, degrees</b>	22
<b>Steered 0° Front-to-Back Total Power at 180° <math>\pm</math> 30°, dB</b>	29

# NHHS4-65C-R3B

<b>Steered 0° Horizontal Sidelobe, dB</b>	13
<b>Steered 30° Gain, dBi</b>	19.8
<b>Steered 30° Gain Tolerance, dBi</b>	±0.8
<b>Steered 30° Beamwidth, Horizontal, degrees</b>	27
<b>Steered 30° Front-to-Back Total Power at 180° ± 30°, dB</b>	28

## Electrical Specifications, Soft Split

<b>Frequency Band, MHz</b>	<b>3700–4000</b>
<b>Gain, dBi</b>	19.2
<b>Beamwidth, Horizontal, degrees</b>	32
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	28
<b>Horizontal Sidelobe, dB</b>	16

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	425.0 N @ 150 km/h (95.5 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	361.0 N @ 150 km/h (81.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	899.0 N @ 150 km/h (202.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	451.0 N @ 150 km/h (101.4 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	456 mm   17.953 in
<b>Depth, packed</b>	357 mm   14.055 in
<b>Length, packed</b>	2585 mm   101.772 in
<b>Weight, gross</b>	46.5 kg   102.515 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.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a>

# NHHS4-65C-R3B

---

ROHS Compliant  
UK-ROHS Compliant/Exempted



## Included Products

BSAMNT-3 – Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

## \* Footnotes

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

# BSAMNT-3



Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

## Product Classification

**Product Type** Downtilt 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** 6.2 kg | 13.669 lb

## Material Specifications

**Material Type** Galvanized steel

## Packaging and Weights

**Included** Brackets | Hardware

**Packaging quantity** 1

**Weight, gross** 6.4 kg | 14.11 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.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant

# BSAMNT-3

---

