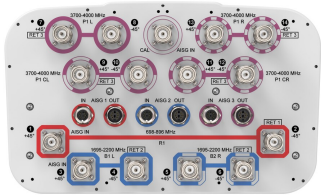


# NHHS4-65C-R3B



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

## General Specifications

Antenna Type	Sector and beamforming
Band	Multiband
Calibration Connector Interface	4.3-10 Female
Calibration Connector Quantity	1
Color	Light Gray (RAL 7035)
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage
Radome Material	Fiberglass, UV resistant
Radiator Material	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	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	14

## Remote Electrical Tilt (RET) Information

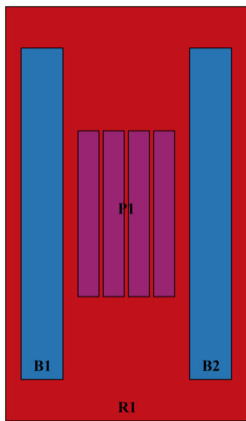
RET Hardware	CommRET v2
RET Interface	8-pin DIN Female   8-pin DIN Male
RET Interface, quantity	3 female   3 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Cal Port   Port 1   Port 3
Internal RET	High band (1)   Low band (1)   Mid band (1)
Protocol	3GPP/AISG 2.0

# NHHS4-65C-R3B

## Dimensions

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

## Array Layout

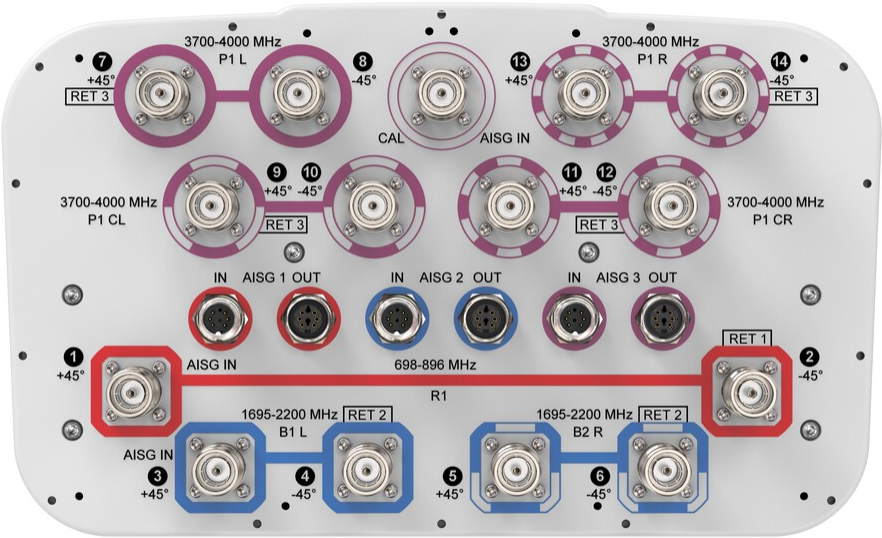


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG RET UID
R1	698-896	1 - 2	1	CPxxxxxxxxxxxxR1
B1	1695-2200	3 - 4	2	CPxxxxxxxxxxxxB1
B2	1695-2200	5 - 6		
P1	3700-4000	7 - 14	3	CPxxxxxxxxxxxxP1

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

## Port Configuration

# NHHS4-65C-R3B



## Electrical Specifications

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

## Electrical Specifications

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

# NHHS4-65C-R3B

Coupling level, Amp, Antenna port to Cal port, dB							26
Coupling level, max Amp Δ, Antenna port to Cal port, dB							±2
Coupler, max Amp Δ, Antenna port to Cal port, dB							0.5
Coupler, max Phase Δ, Antenna port to Cal port, degrees							5
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25	25	25	25
Isolation, Co-polarization, dB							19
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	1.5   14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-145
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250	250	75

## Electrical Specifications, Broadcast 65°

Frequency Band, MHz							3700–4000
Gain, dBi							17.1
Beamwidth, Horizontal, degrees							65
Beamwidth, Vertical, degrees							5.7
Beamwidth, Vertical Tolerance, degrees							±0.3
USLS (First Lobe), dB							15

## Electrical Specifications, Envelope Pattern

Frequency Band, MHz							3700–4000
Gain, dBi							20.8

## Electrical Specifications, Service Beam

Frequency Band, MHz							3700–4000
Steered 0° Gain, dBi							20.9
Steered 0° Gain Tolerance, dBi							±0.5
Steered 0° Beamwidth, Horizontal, degrees							22
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB							29

# NHHS4-65C-R3B

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

## Electrical Specifications, Soft Split

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

## Mechanical Specifications

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

## Packaging and Weights

Width, packed	456 mm   17.953 in
Depth, packed	357 mm   14.055 in
Length, packed	2585 mm   101.772 in
Weight, gross	46.5 kg   102.515 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.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

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