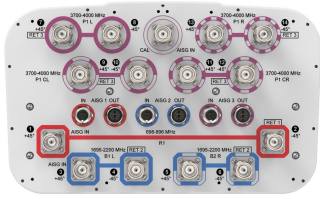


NHHS4-65A-R3B



14 Port Sector Antenna, 2x698-896 MHz, 4x1695-2200 MHz 65° 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

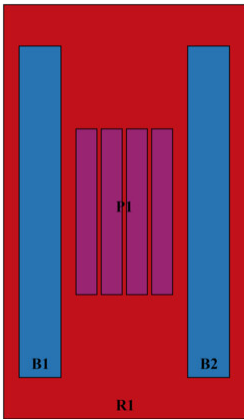
RET Hardware	CommRET v2
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	3 female 3 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Cal Port Port 1 Port 3
Internal RET	High band (1) Low band (1) Mid band (1)
Protocol	3GPP/AISG 2.0 (Single RET)

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Dimensions

Width	350 mm 13.78 in
Depth	208 mm 8.189 in
Length	1413 mm 55.63 in
Net Weight, antenna only	23 kg 50.706 lb

Array Layout

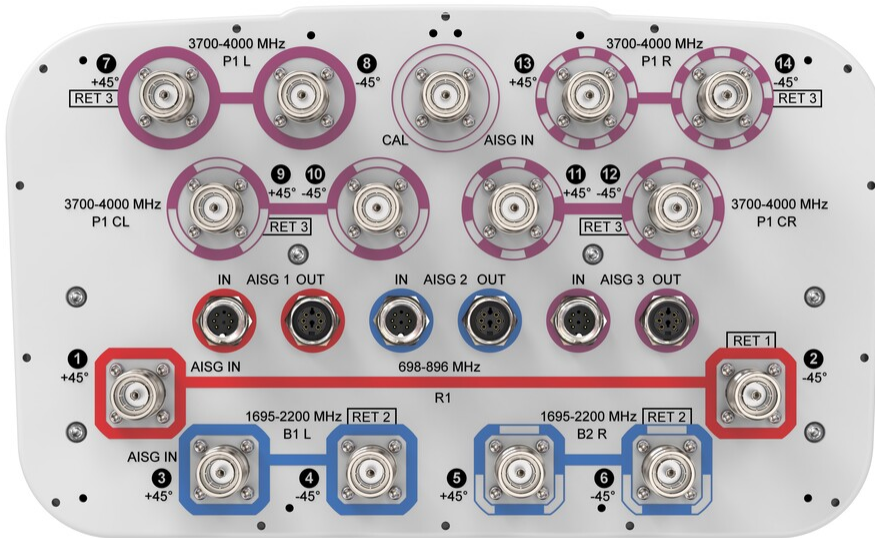


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG RET UID
R1	698-896	1 - 2	1	CPxxxxxxxxxxxxR1
B1	1695-2200	3 - 4	2	CPxxxxxxxxxxxxB1
B2	1695-2200	5 - 6		
P1	3700-4000	7 - 14	3	CPxxxxxxxxxxxxP1

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

Port Configuration

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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	13.9	14.2	16.7	17.1	17.1	16.4
Beamwidth, Horizontal, degrees	69	67	67	65	67	80
Beamwidth, Vertical, degrees	16.9	15.1	6.6	6.1	5.8	5.7
Beam Tilt, degrees	0–18	0–18	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	20	20	15	16	17	13
Front-to-Back Ratio at 180°, dB	39	35	32	40	37	30

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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
Isolation, Inter-band, dB	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
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-145
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250	75

Electrical Specifications, BASTA

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	3700–4000
Gain by all Beam Tilts, average, dBi	13.7	13.9	16.3	16.7	16.8	15.6
Gain by all Beam Tilts Tolerance, dB	± 0.4	± 0.5	± 0.7	± 0.3	± 0.4	± 1.1
Beamwidth, Horizontal Tolerance, degrees	± 3	± 2	± 7	± 5	± 4	± 22
Beamwidth, Vertical Tolerance, degrees	± 1	± 0.8	± 0.3	± 0.3	± 0.3	± 0.5
Front-to-Back Total Power at 180° \pm 30°, dB	26	25	25	28	29	23
CPR at Boresight, dB	23	23	21	23	23	14
CPR at Sector, dB	12	7	11	12	9	4

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	3700–4000
Gain, dBi	16.9
Beamwidth, Horizontal, degrees	65
Beamwidth, Vertical, degrees	5.7
Beamwidth, Vertical	± 0.3

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Tolerance, degrees

Front-to-Back Total Power at 180° ± 30°, dB	25
USLS (First Lobe), dB	14

Electrical Specifications, Envelope Pattern

Frequency Band, MHz	3700–4000
Gain, dBi	20.7

Electrical Specifications, Service Beam

Frequency Band, MHz	3700–4000
Steered 0° Gain, dBi	20.7
Steered 0° Gain Tolerance, dBi	±0.6
Steered 0° Beamwidth, Horizontal, degrees	22
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	29
Steered 0° Horizontal Sidelobe, dB	13
Steered 30° Gain, dBi	19.7
Steered 30° Gain Tolerance, dBi	±0.8
Steered 30° Beamwidth, Horizontal, degrees	28
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	27

Electrical Specifications, Soft Split

Frequency Band, MHz	3700–4000
Gain, dBi	19.1
Beamwidth, Horizontal, degrees	32
Front-to-Back Total Power at 180° ± 30°, dB	26
Horizontal Sidelobe, dB	16

Mechanical Specifications

Wind Loading @ Velocity, frontal	224.0 N @ 150 km/h (50.4 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	187.0 N @ 150 km/h (42.0 lbf @ 150 km/h)

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Wind Loading @ Velocity, maximum	474.0 N @ 150 km/h (106.6 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	237.0 N @ 150 km/h (53.3 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	448 mm 17.638 in
Depth, packed	355 mm 13.976 in
Length, packed	1557 mm 61.299 in
Weight, gross	33.4 kg 73.634 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-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.
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* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance
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