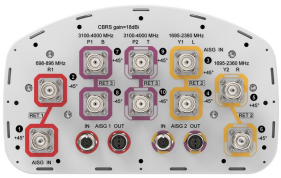
NHHSS-65B-R3B



10-port sector antenna, 2x 698–896, 4x 1695–2360 and 4x 3100-4000 MHz, 65° HPBW, 3x RETs and 2x SBTs, active RET on C-Band, 1.8m Length

- Perfect antenna to add 3.5GHz CBRS to macro sites
- Low band and mid band performance mirrors the performance of existing NHH hex port antennas
- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and mid band allow remote RET control from the radio over the RF jumper cable
- Both mid bands are controlled by the same RET to ensure same tilt level for 4x MIMO. The high band RET is controlled via the mid band RET bus

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 Material	Fiberglass, UV resistant
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, mid band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	10

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	2 female | 2 male
Input Voltage	10–30 Vdc
Internal RET	High band (1) | Low band (1) | Mid band (1)

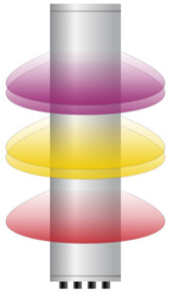
NHHSS-65B-R3B

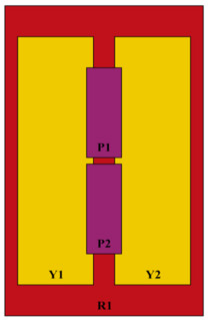
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	301 mm | 11.85 in
Depth	181 mm | 7.126 in
Length	1828 mm | 71.969 in

Array Layout

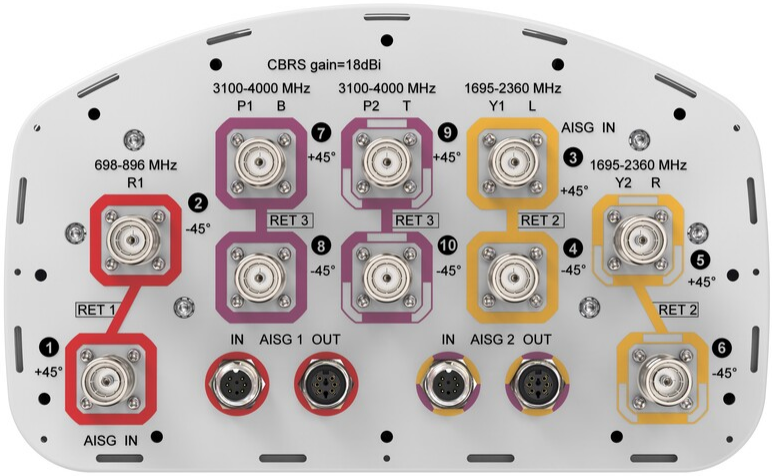




Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxR1
Y1	1695-2360	3 - 4	2	AISG2	CPxxxxxxxxxxxxxxY1
Y2	1695-2360	5 - 6			
P1	3100-4000	7 - 8	3	AISG2	CPxxxxxxxxxxxxxxP1
P2	3100-4000	9 - 10			

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

Port Configuration



NHHSS-65B-R3B

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 3100 – 4000 MHz | 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	1,000 W @ 50 °C

Electrical Specifications

	R1	R1	Y1,Y2	Y1,Y2	Y1,Y2	Y1,Y2	P1,P2	P1,P2	P1,P2
Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**2200–2360**	**3100–3550**	**3550–3700**	**3700–4000**
RF Port	1,2	1,2	3-6	3-6	3-6	3-6	7-10	7-10	7-10
Gain, dBi	14.8	15.2	17.5	17.7	17.9	17.8	17.8	17.5	17.8
Beamwidth, Horizontal, degrees	65	62	67	63	65	67	54	63	61
Beamwidth, Vertical, degrees	13	11.6	5.5	5.1	4.8	4.4	5.7	5.4	5
Beam Tilt, degrees	0–14	0–14	0–7	0–7	0–7	0–7	0–10	0–10	0–10
USLS (First Lobe), dB	15	15	16	17	18	14	16	17	18
Front-to-Back Ratio at 180°, dB	26	29	34	31	28	29	31	33	32
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25	25	25	28	28	28
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	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-145	-145	-145
Input Power per Port at 50° C, maximum, watts	300	300	300	300	300	300	100	100	100

Mechanical Specifications

Wind Loading @ Velocity, frontal	278.0 N @ 150 km/h (62.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	230.0 N @ 150 km/h (51.7 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	537.0 N @ 150 km/h (120.7 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	282.0 N @ 150 km/h (63.4 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

NHHSS-65B-R3B

Width, packed	380 mm | 14.961 in
Depth, packed	295 mm | 11.614 in
Length, packed	1956 mm | 77.008 in
Weight, gross	34.4 kg | 75.839 lb
Weight, net	23.1 kg | 50.927 lb

Regulatory Compliance/Certifications

Agency	Classification
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-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