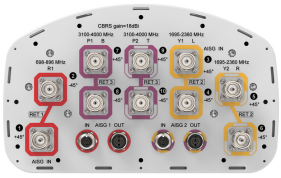
NHHSS-65B-R3B



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)

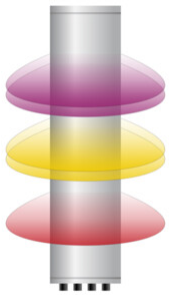
NHHSS-65B-R3B

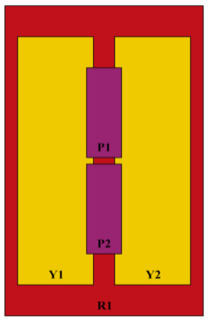
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	301 mm | 11.85 in
Depth	181 mm | 7.126 in
Length	1828 mm | 71.969 in
Net Weight, without mounting kit	23.1 kg | 50.927 lb

Array Layout



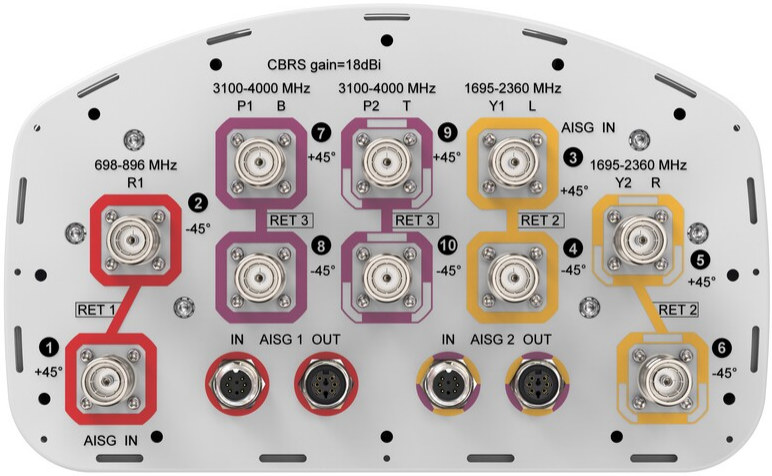


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxR1
Y1	1695-2360	3 - 4	2	AISG2	CPxxxxxxxxxxxxxxY1
Y2	1695-2360	5 - 6			
P1	3100-4000	7 - 8	3	AISG2	CPxxxxxxxxxxxxxxP1
P2	3100-4000	9 - 10			

(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

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**2200–2360**	**3100–3550**	**3550–3700**	**3700–4000**
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

NHHSS-65B-R3B

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

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**2200–2360**	**3100–3550**	**3550–3700**	**3700–4000**
Gain by all Beam Tilts, average, dBi	14.6	14.8	17.1	17.5	17.7	17.5	17.3	17	17.1
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.4	±0.5	±0.2	±0.3	±0.4	±0.7	±0.8	±0.8
Beamwidth, Horizontal Tolerance, degrees	±1.7	±1.3	±6.2	±2.7	±6.2	±5.5	±10.3	±8.1	±10.9
Beamwidth, Vertical Tolerance, degrees	±0.8	±0.8	±0.2	±0.2	±0.3	±0.2	±0.4	±0.3	±0.3
USLS, beampeak to 20° above beampeak, dB	15	15	14	15	17	14	14	16	14
Front-to-Back Total Power at 180° ± 30°, dB	22	25	24	25	24	24	26	25	24
CPR at Boresight, dB	24	17	18	23	21	19	15	16	13
CPR at Sector, dB	12	6	12	10	8	8	8	8	5

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

Width, packed	441 mm | 17.362 in
Depth, packed	337 mm | 13.268 in
Length, packed	1973 mm | 77.677 in
Weight, gross	35.1 kg | 77.382 lb

Regulatory Compliance/Certifications

Agency	**Classification**

NHHSS-65B-R3B

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

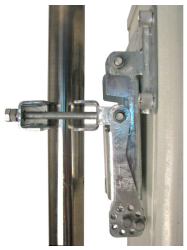
Included Products

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

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 www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

BSAMNT-3