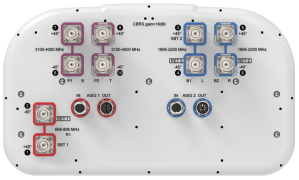
NHHSS-55B-R2BT4



10-port sector antenna, 2x 698–896, 4x 1695–2200 and 4x 3100-4000 MHz, 55° HPBW, 2x RETs.

- Utilizes Pattern Shaping Technology to reduce cell overlap and maximize SINR (Signal to Interference and Noise Ratio)
- Superior SPR (Sector Power Ratio) for best-in-class data throughput rates
- Excellent pattern overlay across all bands
- Low band and mid band performance mirrors performance of the equivalent hex port antenna
- Internal SBTs on low and mid band allow remote RET control from the radio over the RF jumper cable
- One LB RET and one MB RET. Both mid band arrays are controlled by one RET to ensure same tilt level for best 4x4 MIMO performance
- Use optional BSAMNT-SBS-2-2 for side-by-side mounting of two hex and/or ten port 55° antennas

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
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	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	4x 8 pin connector as per IEC 60130-9 Daisy chain in: Male / Daisy chain out: Female Pin3: RS485A(AISG_B), Pin5: RS485B(AISG_A), Pin6: DC 10~30V, Pin7:

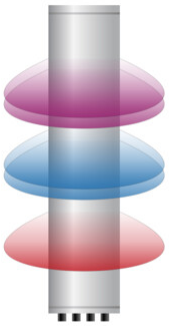
NHHSS-55B-R2BT4

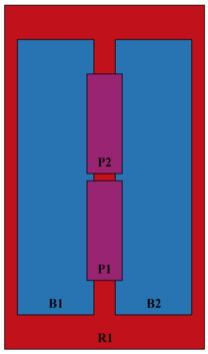
	DC_ Return
RET Interface, quantity	2 female | 2 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 | Port 3
Internal RET	Low band (1) | Mid band (1)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	395 mm | 15.551 in
Depth	228 mm | 8.976 in
Length	1828 mm | 71.969 in

Array Layout



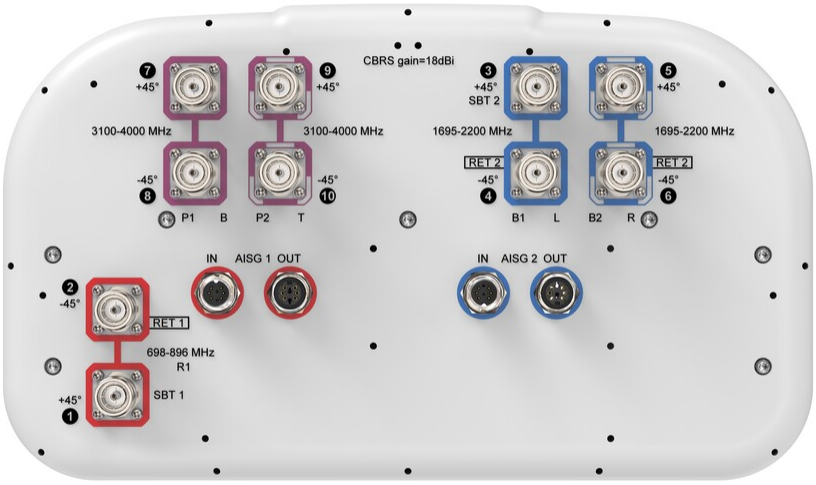


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	SBT RF PORT	SBT No.	RET UID
R1	698-896	1 - 2	1	AISG1	1	1	CPxxxxxxxxxxxxxxR1
B1	1695-2200	3 - 4	2	AISG2	3	2	CPxxxxxxxxxxxxxxB1
B2	1695-2200	5 - 6					
P1	3100-4000	7 - 8	N/A	NA			N/A
P2	3100-4000	9 - 10					

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

Port Configuration

NHHSS-55B-R2BT4



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2200 MHz | 3100 – 4000 MHz | 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	1,000 W @ 50 °C

Electrical Specifications

	R1	R1	B1,B2	B1,B2	B1,B2	P1,P2	P1,P2	P1,P2
Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**3100–3550**	**3550–3700**	**3700–4000**
RF Port	1,2	1,2	3,4,5,6	3,4,5,6	3,4,5,6	7,8,9,10	7,8,9,10	7,8,9,10
Gain, dBi	15.1	15	18	18.4	18.5	16.4	17.3	17.4
Beamwidth, Horizontal, degrees	58	54	56	55	52	66	53	54
Beamwidth, Vertical, degrees	12.6	10.9	5.7	5.3	5	6	5.4	5.1
Beam Tilt, degrees	0–14	0–14	0–7	0–7	0–7	4	4	4
USLS (First Lobe), dB	16	15	17	17	15	15	17	15
Front-to-Back Ratio at 180°, dB	26	28	29	28	28	26	27	25
Isolation, Cross Polarization,	25	25	25	25	25	25	25	25

NHHSS-55B-R2BT4

dB								
Isolation, Inter-band, dB	25	25	25	25	25	30	30	30
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
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-145	-145	-145
Input Power per Port at 50°C, maximum, watts	250	250	200	200	200	100	100	100

Mechanical Specifications

Effective Projective Area (EPA), frontal	0.26 m² | 2.799 ft²
Effective Projective Area (EPA), lateral	0.23 m² | 2.476 ft²
Wind Loading @ Velocity, frontal	272.0 N @ 150 km/h (61.1 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	244.0 N @ 150 km/h (54.9 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	547.0 N @ 150 km/h (123.0 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	311.0 N @ 150 km/h (69.9 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	505 mm | 19.882 in
Depth, packed	386 mm | 15.197 in
Length, packed	1960 mm | 77.165 in
Weight, gross	42.7 kg | 94.137 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Above maximum concentration value
ROHS	Compliant/Exempted
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.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance