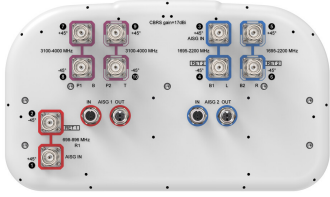


NHHSS-55A-R2BT4



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

- 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
- Utilizes Pattern Shaping Technology to reduce cell overlap and maximize SINR (Signal to Interference and Noise Ratio)
- 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	Aluminum Low loss circuit board
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, quantity	2 female 2 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 Port 3

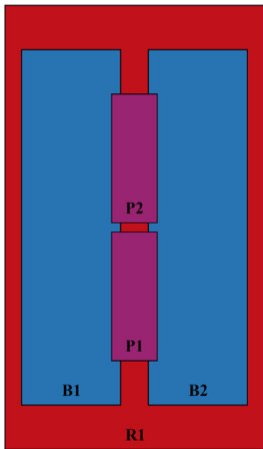
NHHSS-55A-R2BT4

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	1413 mm 55.63 in
Net Weight, antenna only	23.5 kg 51.809 lb

Array Layout

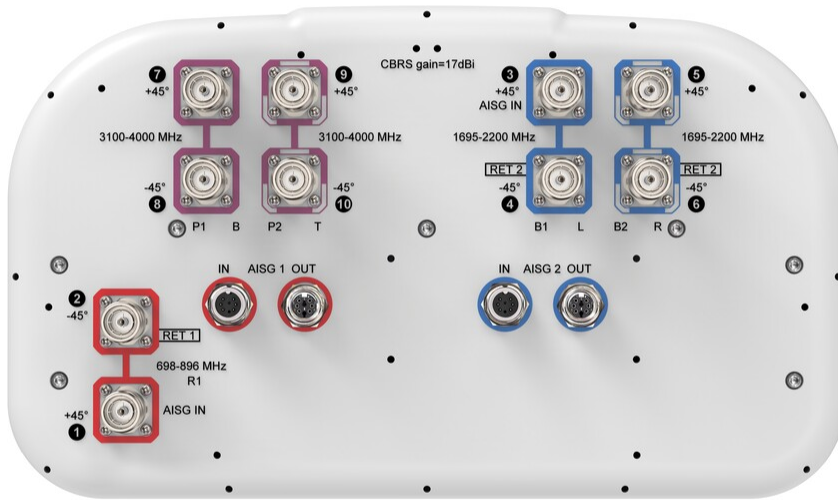


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	698-896	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
B1	1695-2200	3 - 4	2	AISG2	CPxxxxxxxxxxxxxxxxB1
B2	1695-2200	5 - 6			
P1	3100-4000	7 - 8	N/A	NA	N/A
P2	3100-4000	9 - 10			

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

Port Configuration

NHHSS-55A-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	14.2	14.1	17.1	17.3	17.6	15.9	16.7	16.9
Beamwidth, Horizontal,	58	54	56	58	58	64	55	45

NHHSS-55A-R2BT4

degrees

Beamwidth, Vertical, degrees	15.8	14.2	7	6.7	6.4	7.5	7	6.3
Beam Tilt, degrees	0–18	0–18	0–10	0–10	0–10	4	4	4
USLS (First Lobe), dB	15	15	15	15	15	15	15	15
Front-to-Back Ratio at 180°, dB	27	27	29	29	29	27	29	28
Isolation, Cross Polarization, dB	25	25	25	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25	25	25	25	25
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

Electrical Specifications, BASTA

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	3100–3550	3550–3700	3700–4000
Gain by all Beam Tilts, average, dBi	13.9	13.6	16.6	17.1	17.2	15.3	16.3	16.2
Gain by all Beam Tilts Tolerance, dB	±0.5	±0.6	±0.7	±0.3	±0.4	±1	±0.5	±1
Beamwidth, Horizontal Tolerance, degrees	±3	±3	±4	±4	±5	±11	±8	±11
Beamwidth, Vertical Tolerance, degrees	±1.3	±1	±0.3	±0.3	±0.4	±0.5	±0.4	±0.5
Front-to-Back Total Power at 180° ± 30°, dB	23	23	23	24	24	21	22	22
CPR at Boresight, dB	21	17	18	20	22	14	13	11

Mechanical Specifications

Wind Loading @ Velocity, frontal	203.0 N @ 150 km/h (45.6 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	180.0 N @ 150 km/h (40.5 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	232.0 N @ 150 km/h (52.2 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	1545 mm 60.827 in

NHHSS-55A-R2BT4

Weight, gross

35.7 kg | 78.705 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