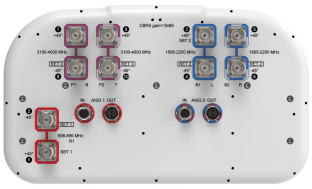
NHHSS-55C-HG-R3B



10-port Next Generation High Performance Sector Antenna, 2x 698–896, 4x 1695–2200 and 4x 3100-4000 MHz, 55° HPBW, 3x RETs.

- Designed to reduce SUB 1 alarm triggers with pattern consistency between low band and mid band
- Enhanced interference mitigation for improved SINR and throughput
- Interleaved dipole technology results into an attractive, low wind load mechanical package
- Internal SBTs allow remote RET control from the radio over the RF jumper cable
- Antenna optimized for higher gain with improved radiation efficiency
- Powered by ANDREW's next generation high-efficiency SEED® technology

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
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 Bias Tee	Port 1 | Port 3

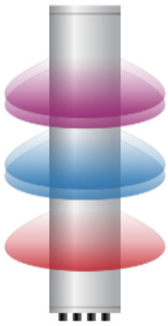
NHHSS-55C-HG-R3B

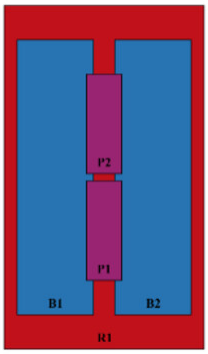
Internal RET	High band (1) | Low band (1) | Mid band (1)
Power Consumption, active state, maximum	10 W
Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	395 mm | 15.551 in
Depth	228 mm | 8.976 in
Length	2438 mm | 95.984 in
Net Weight, antenna only	36 kg | 79.366 lb

Array Layout



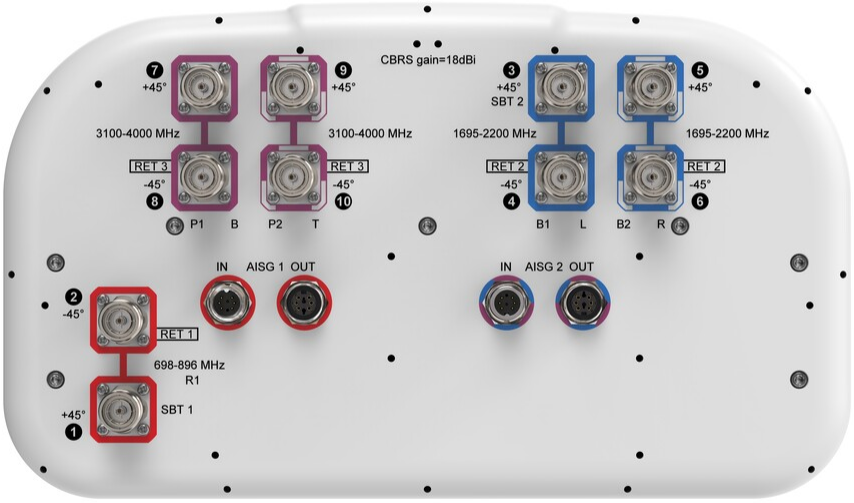


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	SBT RF PORT	SBT No.	RET UID
R1	698-896	1 - 2	1	AISG1	1	1	CPxxxxxxxxxxxxxxR1
B1	1695-2200	3 - 4	2	AISG2	3	2	CPxxxxxxxxxxxxxxB1
B2	1695-2200	5 - 6					
P1	3100-4000	7 - 8	3	AISG2	3	2	CPxxxxxxxxxxxxxxP1
P2	3100-4000	9 - 10					

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

Port Configuration

NHHSS-55C-HG-R3B



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2200 MHz | 3100 – 4000 MHz | 698 – 896 MHz
Polarization	±45°

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	17.2	17.1	18.9	19.2	19.3	16.9	17.1	17.2
Beamwidth, Horizontal, degrees	58	56	58	58	57	65	55	54
Beamwidth, Vertical, degrees	8.8	7.8	5.1	4.8	4.7	5.9	5.4	5.2
Beam Tilt, degrees	0–11	0–11	0–7	0–7	0–7	0–10	0–10	0–10
USLS (First Lobe), dB	16	17	16	16	16	15	16	16
Front-to-Back Ratio at 180°, dB	27	30	27	28	30	30	29	28

NHHSS-55C-HG-R3B

Isolation, Cross Polarization, 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	300	300	250	250	250	100	100	100

Mechanical Specifications

Wind Loading @ Velocity, frontal	382.0 N @ 150 km/h (85.9 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	346.0 N @ 150 km/h (77.8 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	768.0 N @ 150 km/h (172.7 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	437.0 N @ 150 km/h (98.2 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	2570 mm | 101.181 in
Weight, gross	51.5 kg | 113.538 lb

Regulatory Compliance/Certifications

Agency	**Classification**
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