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 TypeRF 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



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Internal RET High band (1) | Low band (1) | Mid band (1)

Power Consumption, active state, maximum $10~\mathrm{W}$ Power Consumption, idle state, maximum $2~\mathrm{W}$

Protocol 3GPP/AISG 2.0 (Single RET)

Dimensions

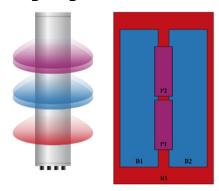
 Width
 395 mm | 15.551 in

 Depth
 228 mm | 8.976 in

 Length
 2438 mm | 95.984 in

 Net Weight, antenna only
 36 kg | 79.366 lb

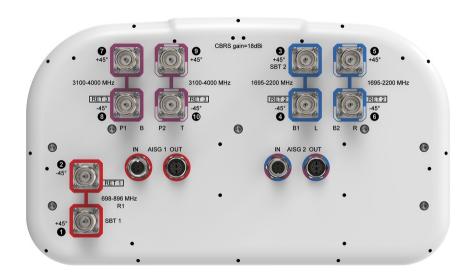
Array Layout



| 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 | CPxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx | | |
| B1 | 1695-2200 | 3 - 4 | _ | AISG2 | 3 | 2 | CD | | |
| B2 | 1695-2200 | 5 - 6 | 2 | | | | CPxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx | | |
| P1 | 3100-4000 | 7 - 8 | | AISG2 | 3 | 2 | CPxxxxxxxxxxxxxxxP1 | | |
| P2 | 3100-4000 | 9 - 10 | 3 | | | | | | |

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

Port Configuration



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 |

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| 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

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

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

