

NN-85C-HG-R2BD



4-port Next Generation PerforMax™ Superior Coverage and Capacity sector antenna, 4 x 698-894 MHz, 85° HPBW, 8 ft, 2x RETs



- Ideal 4T4R low band antenna for use with an FD mMIMO antenna
- Antenna optimized for higher gain with improved radiation efficiency
- Powered by Andrew's SEED® technology (Sustainable Energy Efficient Design)
- Superior patterns for enhanced interference mitigation resulting in improved SINR, higher throughput, and more capacity
- Best in class PIM immunity
- Internal SBT allows remote RET control from the radio over the RF jumper cable
- The low band array is internally diplexed for an independent tilt at 700 MHz and 850 MHz

General Specifications

| | |
|--|--|
| Antenna Type | Sector |
| Band | Single band |
| 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 |
| Reflector Material | Aluminum |
| RF Connector Interface | 4.3-10 Female |
| RF Connector Location | Bottom |
| RF Connector Quantity, low band | 4 |
| RF Connector Quantity, total | 4 |


Remote Electrical Tilt (RET) Information

| | |
|---|-----------------------------------|
| RET Hardware | CommRET v2 |
| RET Interface | 8-pin DIN Female 8-pin DIN Male |
| RET Interface, quantity | 1 female 1 male |
| Input Voltage | 10–30 Vdc |
| Internal Bias Tee | Port 1 |
| Internal RET | Low band (2) |
| Power Consumption, active state, maximum | 10 W |

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| | |
|---|---------------------|
| Power Consumption, idle state, maximum | 2 W |
| Protocol | 3GPP/AISG 2.0 |
| Dimensions | |
| Width | 498 mm 19.606 in |
| Depth | 197 mm 7.756 in |
| Length | 2438 mm 95.984 in |
| Net Weight, without mounting kit | 51 kg 112.436 lb |

Array Layout



| Array ID | Frequency (MHz) | RF Connector | RET (RET) | AISG No. | SBT RF PORT | SBT No. | RET UID |
|----------|-----------------|--------------|-----------|----------|-------------|---------|----------------------|
| R1 | 698-798 | 1 - 2 | 1 | AISG1 | 1 | 1 | CPxxxxxxxxxxxxxxxxR1 |
| R2 | 824-894 | 1 - 2 | 2 | | | | CPxxxxxxxxxxxxxxxxR2 |
| R3 | 698-798 | 3 - 4 | 1 | | | | CPxxxxxxxxxxxxxxxxR1 |
| R4 | 824-894 | 3 - 4 | 2 | | | | CPxxxxxxxxxxxxxxxxR2 |

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

Port Configuration



Electrical Specifications

| | |
|---------------------------------|-------------------------------|
| Impedance | 50 ohm |
| Operating Frequency Band | 698 – 798 MHz 824 – 894 MHz |
| Polarization | ±45° |

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Electrical Specifications

| | R1,R3 | R2,R4 |
|---|----------------|----------------|
| Frequency Band, MHz | 698–798 | 824–894 |
| RF Port | 1-4 | 1-4 |
| Gain, Maximum, dBi | 15.2 | 15.8 |
| Gain, dBi | 14.9 | 15.5 |
| Beamwidth, Horizontal, degrees | 84 | 78 |
| Beamwidth, Vertical, degrees | 8.6 | 7.6 |
| Beam Tilt, degrees | 0–10 | 0–10 |
| USLS (First Lobe), dB | 15 | 15 |
| Front-to-Back Ratio at 180°, dB | 35 | 36 |
| Front-to-Back Ratio, Copolarization 180° ± 30°, dB | 25 | 26 |
| CPR at Boresight, dB | 18 | 19 |
| Isolation, Cross Polarization, dB | 25 | 25 |
| Isolation, Inter-band, dB | 25 | 25 |
| VSWR Return loss, dB | 1.5 14.0 | 1.5 14.0 |
| PIM, 3rd Order, 2 x 20 W, dBc | -153 | -153 |
| Input Power per Port at 50°C, maximum, watts | 150 | 150 |

Mechanical Specifications

| | |
|---|---|
| Wind Loading @ Velocity, frontal | 865.0 N @ 150 km/h (194.5 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 268.0 N @ 150 km/h (60.2 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 1,037.0 N @ 150 km/h (233.1 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 595.0 N @ 150 km/h (133.8 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

| | |
|-----------------------|----------------------|
| Width, packed | 565 mm 22.244 in |
| Depth, packed | 309 mm 12.165 in |
| Length, packed | 2685 mm 105.709 in |
| Weight, gross | 71 kg 156.528 lb |

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|-----------------------|
|---------------|-----------------------|

NN-85C-HG-R2BD

UK-ROHS

Compliant

Included Products

- BSAMNT-4 – 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.
- BSAMNT-M4 – Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.

* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance