

# NN-65C-HG-R2BD-V2



4-port Next Generation PerforMax™ sector antenna, 4x 698–896, 65° HPBW, 2x RETs

- Superior patterns for enhanced interference mitigation resulting in improved SINR, higher throughput, and more capacity
- Antenna optimized for higher gain with superior radiation efficiency
- Best in class PIM immunity
- Internal SBTs allow remote RET control from the radio over the RF jumper cable
- Powered by Andrew's SEED® technology (Sustainable Energy Efficient Design)
- Interleaved dipole technology results into an attractive, low wind load mechanical package
- The low band array is internally diplexed for an independent tilt at 700 MHz and 850 MHz

## General Specifications

|                                 |                                                                                  |
|---------------------------------|----------------------------------------------------------------------------------|
| Antenna Type                    | Sector with internal RET and bias tee                                            |
| 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                              |

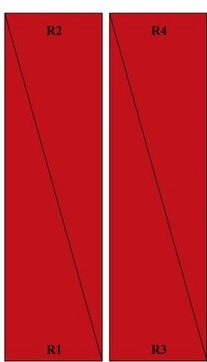
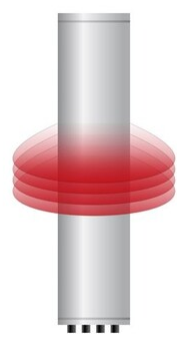
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|                                        |               |
|----------------------------------------|---------------|
| Power Consumption, idle state, maximum | 2 W           |
| Protocol                               | 3GPP/AISG 2.0 |

## Dimensions

|                                  |                     |
|----------------------------------|---------------------|
| Width                            | 640 mm   25.197 in  |
| Depth                            | 235 mm   9.252 in   |
| Length                           | 2438 mm   95.984 in |
| Net Weight, without mounting kit | 68 kg   149.914 lb  |

## Array Layout



| Array ID | Frequency (MHz) | RF Connector | RET (SRET) | AISG No. | SBT RF PORT | SBT No. | RET UID            |
|----------|-----------------|--------------|------------|----------|-------------|---------|--------------------|
| R1       | 698-798         | 1 - 2        | 1          | AISG1    | 1           | 1       | CPxxxxxxxxxxxxxxR1 |
| R2       | 824-894         | 1 - 2        | 2          | AISG1    |             |         | CPxxxxxxxxxxxxxxR2 |
| R3       | 698-798         | 3 - 4        | 1          | AISG1    |             |         | CPxxxxxxxxxxxxxxR1 |
| R4       | 824-894         | 3 - 4        | 2          | AISG1    |             |         | CPxxxxxxxxxxxxxxR2 |

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

## Port Configuration

# NN-65C-HG-R2BD-V2



## Electrical Specifications

|                            |               |
|----------------------------|---------------|
| Impedance                  | 50 ohm        |
| Operating Frequency Band   | 698 – 896 MHz |
| Polarization               | ±45°          |
| Total Input Power, maximum | 400 W @ 50 °C |

## Electrical Specifications

|                                 | R1,R2   | R1,R2   |
|---------------------------------|---------|---------|
| Frequency Band, MHz             | 698–798 | 824–894 |
| RF Port                         | 1-4     | 1-4     |
| Gain, Maximum, dBi              | 16.3    | 16.4    |
| Gain, dBi                       | 15.9    | 16.2    |
| Beamwidth, Horizontal, degrees  | 63      | 60      |
| Beamwidth, Vertical, degrees    | 8.9     | 8.1     |
| Beam Tilt, degrees              | 0–10    | 0–10    |
| USLS (First Lobe), dB           | 15      | 15      |
| Front-to-Back Ratio at 180°, dB | 32      | 33      |

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|                                              |            |            |
|----------------------------------------------|------------|------------|
| CPR at Boresight, dB                         | 20         | 18         |
| 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 | 986.0 N @ 150 km/h (221.7 lbf @ 150 km/h)   |
| Wind Loading @ Velocity, lateral | 291.0 N @ 150 km/h (65.4 lbf @ 150 km/h)    |
| Wind Loading @ Velocity, maximum | 1,256.0 N @ 150 km/h (282.4 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear    | 616.0 N @ 150 km/h (138.5 lbf @ 150 km/h)   |
| Wind Speed, maximum              | 241 km/h (150 mph)                          |

## Packaging and Weights

|                |                      |
|----------------|----------------------|
| Width, packed  | 752 mm   29.606 in   |
| Depth, packed  | 382 mm   15.039 in   |
| Length, packed | 3201 mm   126.024 in |
| Weight, gross  | 105 kg   231.485 lb  |

## Regulatory Compliance/Certifications

| Agency  | Classification |
|---------|----------------|
| UK-ROHS | Compliant      |

## Included Products

|           |                                                                                                                                                                    |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BSAMNT-9  | – 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-M9 | – 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 |
|------------------|-----------------------------------------------------------------|