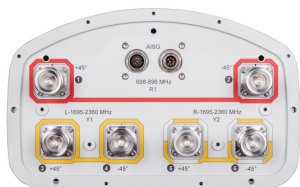


# SBNHH-1D85A



6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 85° HPBW, 3x RET

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Three internal RETs for independent tilt on all three bands
- The antenna is supplied with mounting kits that provide 0 degree of mechanical downtilt; optional downtilt mounting kits are available

This product will be discontinued on: December 31, 2025

## 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   Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN |
| Radome Material                  | Fiberglass, UV resistant   |
| Radiator Material                | Aluminum   Low loss circuit board  |
| Reflector Material               | Aluminum   |
| RF Connector Interface           | 7-16 DIN Female  |
| RF Connector Location            | Bottom   |
| RF Connector Quantity, high band | 4  |
| RF Connector Quantity, mid band  | 0  |
| RF Connector Quantity, low band  | 2  |
| RF Connector Quantity, total     | 6  |

## Remote Electrical Tilt (RET) Information

|                         |                                   |
|-------------------------|-----------------------------------|
| RET Interface           | 8-pin DIN Female   8-pin DIN Male |
| RET Interface, quantity | 1 female   1 male                 |
| Input Voltage           | 10–30 Vdc                         |
| Internal RET            | High band (2)   Low band (1)      |

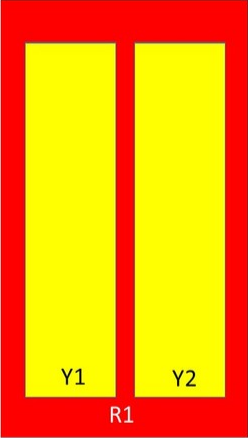
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|   |                           |
|---|---------------------------|
| Power Consumption, idle state, maximum        | 2 W                       |
| Power Consumption, normal conditions, maximum | 13 W                      |
| Protocol                                      | 3GPP/AISG 2.0 (Multi-RET) |

## Dimensions

|                                  |                     |
|----------------------------------|---------------------|
| Width                            | 301 mm   11.85 in   |
| Depth                            | 180 mm   7.087 in   |
| Length                           | 1219 mm   47.992 in |
| Net Weight, without mounting kit | 14.4 kg   31.747 lb |

## Array Layout



| Array | Freq (MHz) | Conns | RET (MRET) | AISG RET UID           |
|-------|------------|-------|------------|------------------------|
| R1    | 698-896    | 1-2   | 1          | ARxxxxxxxxxxxxxxxxxx.1 |
| Y1    | 1695-2360  | 3-4   | 2          | ARxxxxxxxxxxxxxxxxxx.2 |
| Y2    | 1695-2360  | 5-6   | 3          | ARxxxxxxxxxxxxxxxxxx.3 |

Left

Right

Bottom

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

## Electrical Specifications

|                          |                                 |
|--------------------------|---------------------------------|
| Impedance                | 50 ohm                          |
| Operating Frequency Band | 1695 – 2360 MHz   698 – 896 MHz |
| Polarization             | ±45°                            |

## Electrical Specifications

| Frequency Band, MHz            | 698–806 | 806–896 | 1695–1880 | 1850–1990 | 1920–2200 | 2300–2360 |
|--------------------------------|---------|---------|-----------|-----------|-----------|-----------|
| Gain, dBi                      | 13      | 13      | 15.9      | 16.6      | 16.8      | 17.1      |
| Beamwidth, Horizontal, degrees | 83.5    | 86.9    | 80.9      | 79        | 79.9      | 76.8      |
| Beamwidth, Vertical, degrees   | 18.9    | 17.1    | 7.9       | 7.3       | 6.9       | 6         |

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|  |            |            |            |            |            |            |
|--|------------|------------|------------|------------|------------|------------|
| Beam Tilt, degrees                           | 2–18       | 2–18       | 1–9        | 1–9        | 1–9        | 1–9        |
| USLS (First Lobe), dB                        | 15         | 15         | 14         | 15         | 15         | 14         |
| Isolation, Cross Polarization, dB            | 25         | 25         | 25         | 25         | 25         | 25         |
| Isolation, Inter-band, dB                    | 30         | 30         | 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 |
| PIM, 3rd Order, 2 x 20 W, dBc                | -153       | -153       | -153       | -153       | -153       | -153       |
| Input Power per Port at 50°C, maximum, watts | 300        | 300        | 250        | 250        | 250        | 200        |

## Mechanical Specifications

|  |  |
|--|--|
| Effective Projective Area (EPA), frontal | 0.16 m²   1.722 ft²                      |
| Effective Projective Area (EPA), lateral | 0.13 m²   1.399 ft²                      |
| Wind Loading @ Velocity, frontal         | 173.0 N @ 150 km/h (38.9 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral         | 142.0 N @ 150 km/h (31.9 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum         | 334.0 N @ 150 km/h (75.1 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear            | 176.0 N @ 150 km/h (39.6 lbf @ 150 km/h) |
| Wind Speed, maximum                      | 241 km/h (150 mph)                       |

## Packaging and Weights

|                |                     |
|----------------|---------------------|
| Width, packed  | 409 mm   16.102 in  |
| Depth, packed  | 299 mm   11.772 in  |
| Length, packed | 1339 mm   52.717 in |
| Weight, gross  | 22.4 kg   49.383 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

# SBNHH-1D85A

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|           |   |  |
|-----------|---|--|
| BSAMNT-2F | – | Mounting bracket for cylindrical pipe installations (60-115mm pipe diameter) for fix mechanical tilt applications. |
|-----------|---|--|

\* Footnotes

|                         |   |
|-------------------------|---|
| <b>Performance Note</b> | Severe environmental conditions may degrade optimum performance |
|-------------------------|---|