

# SBNHH-1D85C



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

This product will be discontinued on: March 30, 2024

## General Specifications

<b>Antenna Type</b>	Sector
<b>Band</b>	Multiband
<b>Color</b>	Light Gray (RAL 7035)
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage   Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Radiator Material</b>	Aluminum   Low loss circuit board
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	7-16 DIN Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	4
<b>RF Connector Quantity, low band</b>	2
<b>RF Connector Quantity, total</b>	6

## Remote Electrical Tilt (RET) Information

<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (2)   Low band (1)
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Power Consumption, normal conditions, maximum</b>	13 W

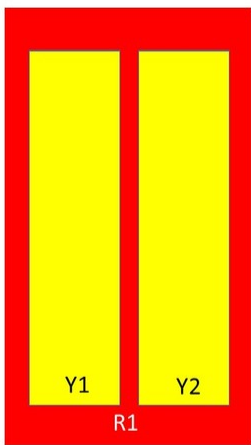
# SBNHH-1D85C

**Protocol** 3GPP/AISG 2.0 (Multi-RET)

## Dimensions

**Width** 301 mm | 11.85 in  
**Depth** 180 mm | 7.087 in  
**Length** 2438 mm | 95.984 in  
**Net Weight, without mounting kit** 22.5 kg | 49.604 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
<b>Gain, dBi</b>	15.6	15.6	17	17.6	17.9	17.8
<b>Beamwidth, Horizontal, degrees</b>	81.5	83	81.5	79	79	79.7
<b>Beamwidth, Vertical, degrees</b>	8.9	8.1	5.6	5.2	5	4.6
<b>Beam Tilt, degrees</b>	0–10	0–10	0–8	0–8	0–8	0–8
<b>USLS (First Lobe), dB</b>	16	17	14	14	14	15

# SBNHH-1D85C

<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	30	30	25	25	25	25
<b>VSWR   Return loss, dB</b>	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153	-153	-153
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	300	300	300	250

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>698–806</b>	<b>806–896</b>	<b>1695–1880</b>	<b>1850–1990</b>	<b>1920–2200</b>	<b>2300–2360</b>
<b>Gain by all Beam Tilts, average, dBi</b>	15.4	15.4	16.6	17.3	17.6	17.6
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.2	±0.3	±0.6	±0.2	±0.4	±0.3
<b>Gain by Beam Tilt, average, dBi</b>	0° 15.2 5° 15.5 10° 15.5	0° 15.1 5° 15.4 10° 15.5	0° 16.6 4° 16.6 8° 16.4	0° 17.3 4° 17.4 8° 17.2	0° 17.6 4° 17.7 8° 17.5	0° 17.5 4° 17.7 8° 17.3
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±2.3	±1.4	±4.5	±2.4	±2.9	±2.6
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.5	±0.5	±0.3	±0.2	±0.3	±0.2
<b>USLS, beampeak to 20° above beampeak, dB</b>	17	18	15	16	16	17
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	22.5	24	27.4	25.6	25	27
<b>CPR at Boresight, dB</b>	20	20	21	22	18	24.8
<b>CPR at Sector, dB</b>	13.7	16	12.5	12	11	6.1

## Mechanical Specifications

<b>Effective Projective Area (EPA), frontal</b>	0.37 m <sup>2</sup>   3.983 ft <sup>2</sup>
<b>Effective Projective Area (EPA), lateral</b>	0.31 m <sup>2</sup>   3.337 ft <sup>2</sup>
<b>Wind Loading @ Velocity, frontal</b>	393.0 N @ 150 km/h (88.3 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	330.0 N @ 150 km/h (74.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	757.0 N @ 150 km/h (170.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	398.0 N @ 150 km/h (89.5 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	409 mm   16.102 in
----------------------	--------------------

# SBNHH-1D85C

---

<b>Depth, packed</b>	299 mm   11.772 in
<b>Length, packed</b>	2561 mm   100.827 in
<b>Weight, gross</b>	32.6 kg   71.871 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



## Included Products

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
-------------------------	---