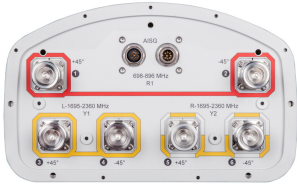


# SBNHH-1D85A



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

## 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

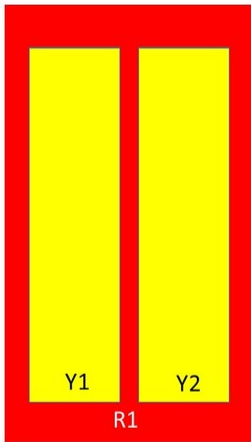
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (2)   Low band (1)
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Power Consumption, normal conditions, maximum</b>	13 W
<b>Protocol</b>	3GPP/AISG 2.0 (Multi-RET)

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## Dimensions

<b>Width</b>	301 mm   11.85 in
<b>Depth</b>	180 mm   7.087 in
<b>Length</b>	1219 mm   47.992 in
<b>Net Weight, without mounting kit</b>	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 Bottom Right

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

## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2360 MHz   698 – 896 MHz
<b>Polarization</b>	±45°

## Electrical Specifications

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
<b>Gain, dBi</b>	13	13	15.9	16.6	16.8	17.1
<b>Beamwidth, Horizontal, degrees</b>	83.5	86.9	80.9	79	79.9	76.8
<b>Beamwidth, Vertical, degrees</b>	18.9	17.1	7.9	7.3	6.9	6
<b>Beam Tilt, degrees</b>	2–18	2–18	1–9	1–9	1–9	1–9
<b>USLS (First Lobe), dB</b>	15	15	14	15	15	14
<b>Isolation, Cross Polarization,</b>	25	25	25	25	25	25

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dB

<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	250	250	250	200

## Electrical Specifications, BASTA

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
<b>Gain by all Beam Tilts, average, dBi</b>	12.8	12.8	15.4	16.3	16.5	16.9
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.2	±0.3	±0.7	±0.3	±0.3	±0.3
<b>Gain by Beam Tilt, average, dBi</b>	2° 12.9 10° 12.8 18° 12.6	2° 12.8 10° 12.8 18° 12.4	1° 15.3 5° 15.4 9° 15.4	1° 16.2 5° 16.3 9° 16.2	1° 16.4 5° 16.6 9° 16.4	1° 16.9 5° 17.0 9° 16.7
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±2.3	±1.9	±3.9	±3.3	±4.4	±3.5
<b>Beamwidth, Vertical Tolerance, degrees</b>	±1.1	±1.2	±0.4	±0.3	±0.5	±0.2
<b>USLS, beampeak to 20° above beampeak, dB</b>	16	17	14	16	16	14
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	22	22	26	27	26	25
<b>CPR at Boresight, dB</b>	20	19	17	17	18	20
<b>CPR at Sector, dB</b>	15	11	10	11	9	7

## Mechanical Specifications

<b>Effective Projective Area (EPA), frontal</b>	0.16 m <sup>2</sup>   1.722 ft <sup>2</sup>
<b>Effective Projective Area (EPA), lateral</b>	0.13 m <sup>2</sup>   1.399 ft <sup>2</sup>
<b>Wind Loading @ Velocity, frontal</b>	173.0 N @ 150 km/h (38.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	142.0 N @ 150 km/h (31.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	334.0 N @ 150 km/h (75.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	176.0 N @ 150 km/h (39.6 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
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<b>Depth, packed</b>	299 mm   11.772 in
<b>Length, packed</b>	1339 mm   52.717 in
<b>Weight, gross</b>	22.4 kg   49.383 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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

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

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