

# R-85B-R1VB



2-port sector antenna, 2x 694–960 MHz, 85° HPBW, 1x RET

- Uses the 4.3-10 connector which is 40 percent smaller than the 7-16 DIN connector

## General Specifications

<b>Antenna Type</b>	Sector
<b>Band</b>	Single band
<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
<b>Radome Material</b>	PVC, UV resistant
<b>Radiator Material</b>	Aluminum
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, low band</b>	2
<b>RF Connector Quantity, total</b>	2

## Remote Electrical Tilt (RET) Information

<b>RET Hardware</b>	CommRET v2
<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>	Low band (1)
<b>Power Consumption, active state, maximum</b>	10 W
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

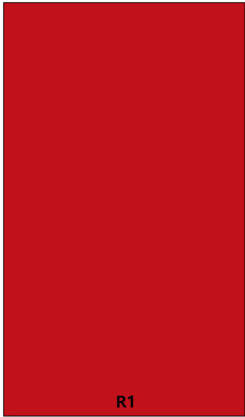
## Dimensions

<b>Width</b>	320 mm   12.598 in
--------------	--------------------

# R-85B-R1VB

<b>Depth</b>	166 mm   6.535 in
<b>Length</b>	1980 mm   77.953 in
<b>Net Weight, antenna only</b>	14.6 kg   32.187 lb

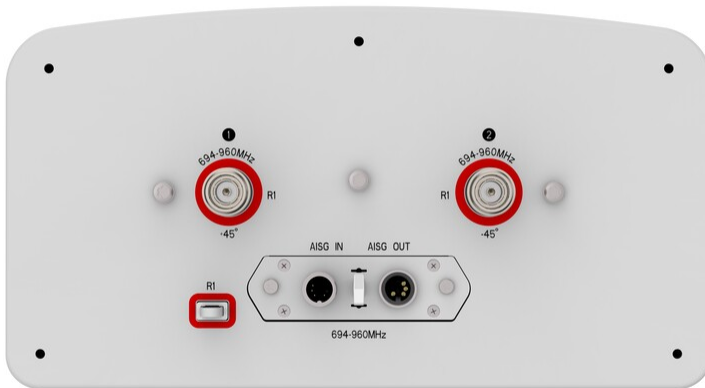
## Array Layout



Array ID	Frequency (MHz)	RF Connector	HPBW	RET (SRET)	AISG No.	AISG RET UID
R1	694-960	1 - 2	85°	1	AISG1	CPxxxxxxxxxxxxxxxxR1

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

## Port Configuration



## Electrical Specifications

# R-85B-R1VB

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	694 – 960 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	400 W

## Electrical Specifications

	<b>R1</b>	<b>R1</b>	<b>R1</b>
<b>Frequency Band, MHz</b>	<b>698–806</b>	<b>790–894</b>	<b>890–960</b>
<b>RF Port</b>	1,2	1,2	1,2
<b>Gain, dBi</b>	14.8	15.3	15.3
<b>Beamwidth, Horizontal, degrees</b>	82	79	76
<b>Beamwidth, Vertical, degrees</b>	12.1	11	10.3
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	16	18	18
<b>Front-to-Back Ratio, Copolarization 180° ± 30°, dB</b>	23	25	26
<b>Isolation, Cross Polarization, dB</b>	25	25	25
<b>VSWR   Return loss, dB</b>	1.5   14.0	1.5   14.0	1.5   14.0
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-150	-150
<b>Input Power per Port, maximum, watts</b>	200	200	200

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>698–806</b>	<b>790–894</b>	<b>890–960</b>
<b>Gain by all Beam Tilts, average, dBi</b>	14.5	14.9	15
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.4	±0.4	±0.5
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±3	±3	±2
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.6	±0.7	±0.3
<b>CPR at Boresight, dB</b>	24	24	22

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	831.0 N @ 150 km/h (186.8 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	275.0 N @ 150 km/h (61.8 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	910.0 N @ 150 km/h (204.6 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	200 km/h (124 mph)

## Packaging and Weights

# R-85B-R1VB

---

<b>Width, packed</b>	450 mm   17.717 in
<b>Depth, packed</b>	280 mm   11.024 in
<b>Length, packed</b>	2275 mm   89.567 in
<b>Weight, gross</b>	26.2 kg   57.761 lb

## Regulatory Compliance/Certifications

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



## Included Products

BSAMNT-B98-01	-	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.
---------------	---	--

## \* Footnotes

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