

# R-85A-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)

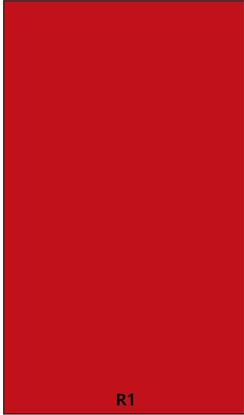
## Dimensions

<b>Width</b>	320 mm   12.598 in
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<b>Depth</b>	166 mm   6.535 in
<b>Length</b>	1495 mm   58.858 in
<b>Net Weight, antenna only</b>	12 kg   26.455 lb

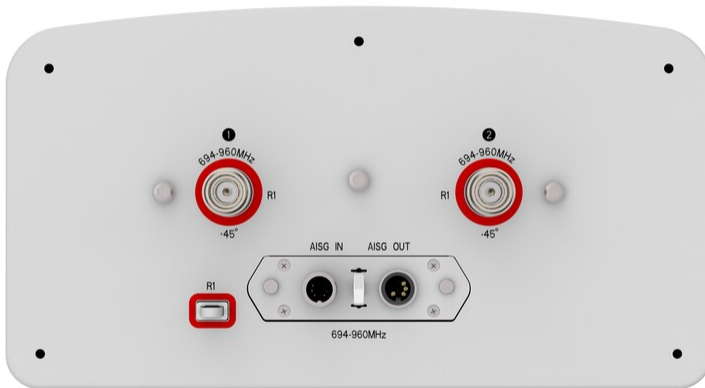
## Array Layout



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

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<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>	14.2	14.8	14.8
<b>Beamwidth, Horizontal, degrees</b>	81	77	75
<b>Beamwidth, Vertical, degrees</b>	14.4	13.1	12.1
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	17	18	18
<b>Front-to-Back Ratio, Copolarization 180° ± 30°, dB</b>	24	25	25
<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	14.4	14.6
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.3	±0.4	±0.4
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±2	±3	±2
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.8	±0.6	±0.5
<b>CPR at Boresight, dB</b>	21	23	22

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	604.0 N @ 150 km/h (135.8 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	200.0 N @ 150 km/h (45.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	662.0 N @ 150 km/h (148.8 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	200 km/h (124 mph)

## Packaging and Weights

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<b>Width, packed</b>	450 mm   17.717 in
<b>Depth, packed</b>	280 mm   11.024 in
<b>Length, packed</b>	1790 mm   70.472 in
<b>Weight, gross</b>	21.8 kg   48.061 lb

## Regulatory Compliance/Certifications

### Agency

ISO 9001:2015

UK-ROHS



### Classification

Designed, manufactured and/or distributed under this quality management system

Compliant

## \* Footnotes

### Performance Note

Severe environmental conditions may degrade optimum performance