

# RRZZ-65B-R4



8-port sector antenna, 4x 694–960 and 4x 1427–2690 MHz, 65° HPBW, 4x RET

- All Internal RET actuators are connected in “Cascaded SRET” configuration
- Uses the 4.3-10 connector which is 40 percent smaller than the 7-16 DIN connector
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios

This product will be discontinued on: November 30, 2024

Replaced By:

RRZZ-65B-R4N43V2      8-port sector antenna, 4 x 694–960 and 4 x 1427–2690 MHz, 65° HPBW, 4x RET

## General Specifications

<b>Antenna Type</b>	Sector
<b>Band</b>	Multiband
<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>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, mid band</b>	4
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	8

## 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>	2 female   2 male
<b>Input Voltage</b>	10–30 Vdc

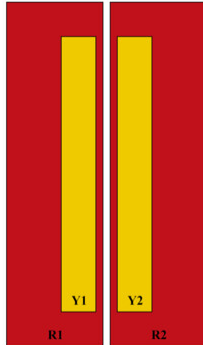
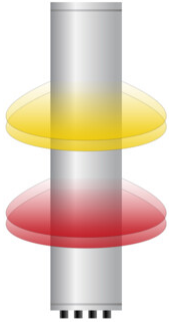
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<b>Internal RET</b>	Low band (2)   Mid band (2)
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Protocol</b>	3GPP/AISG 2.0

## Dimensions

<b>Width</b>	498 mm   19.606 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	1828 mm   71.969 in
<b>Net Weight, antenna only</b>	30.8 kg   67.902 lb

## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	694-960	1 - 2	1	AISG1	CPxxxxxxxxxxxxR1
R2	694-960	3 - 4	2	AISG1	CPxxxxxxxxxxxxR2
Y1	1427-2690	5 - 6	3	AISG1	CPxxxxxxxxxxxxY1
Y2	1427-2690	7 - 8	4	AISG1	CPxxxxxxxxxxxxY2

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

## Port Configuration

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## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1427 – 2690 MHz   694 – 960 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

	R1,R2	R1,R2	R1,R2	Y1,Y2	Y1,Y2	Y1,Y2	Y1,Y2	Y1,Y2
<b>Frequency Band, MHz</b>	<b>694–790</b>	<b>790–890</b>	<b>890–960</b>	<b>1427–1518</b>	<b>1695–1920</b>	<b>1920–2180</b>	<b>2300–2500</b>	<b>2500–2690</b>
<b>RF Port</b>	1-4	1-4	1-4	5-8	5-8	5-8	5-8	5-8
<b>Gain, dBi</b>	14.4	14.7	15.1	15.4	17.4	17.7	18.1	17.6
<b>Beamwidth, Horizontal, degrees</b>	68	64	59	68	58	60	60	68
<b>Beamwidth, Vertical, degrees</b>	11.8	10.6	9.7	8.7	7.3	6.4	5.5	5.1
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	16	18	18	17	17	17	18	18
<b>Front-to-Back Ratio at 180°, dB</b>	33	32	31	30	39	38	32	29
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	20	21	22	25	31	27	26	26

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<b>Isolation, Cross Polarization, dB</b>	28	28	28	28	28	28	28	28
<b>Isolation, Inter-band, dB</b>	28	28	28	28	28	28	28	28
<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	1.5 14.0	1.5 14.0
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153	-153	-153	-153	-153
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	300	250	250	250	200	200

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>694–790</b>	<b>790–890</b>	<b>890–960</b>	<b>1427–1518</b>	<b>1695–1920</b>	<b>1920–2180</b>	<b>2300–2500</b>	<b>2500–2690</b>
<b>Gain by all Beam Tilts, average, dBi</b>	14.1	14.4	14.9	15.1	16.9	17.4	17.7	17.1
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.4	±0.5	±0.4	±0.5	±0.8	±0.5	±0.5	±0.7
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±4	±4	±5	±5	±6	±3	±9	±8
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.8	±0.8	±0.7	±0.4	±0.8	±0.6	±0.3	±0.3
<b>USLS, beampeak to 20° above beampeak, dB</b>	16	18	17	14	16	15	16	14
<b>CPR at Boresight, dB</b>	20	21	24	17	18	20	18	19
<b>CPR at Sector, dB</b>	9	6	8	6	8	5	7	7

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	685.0 N @ 150 km/h (154.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	232.0 N @ 150 km/h (52.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	889.0 N @ 150 km/h (199.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	564.0 N @ 150 km/h (126.8 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	565 mm   22.244 in
<b>Depth, packed</b>	309 mm   12.165 in
<b>Length, packed</b>	2015 mm   79.331 in
<b>Weight, gross</b>	44.3 kg   97.665 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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CE	Compliant with the relevant CE product directives
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-3 | - | 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

**Performance Note** Severe environmental conditions may degrade optimum performance