

# RV3-65D-R4-V2



8-port sector antenna, 2x 694–960 and 6x 1695–2690 MHz, 65° HPBW, 4x IntRET

- All Internal RET actuators are connected in “Cascaded SRET” configuration
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios
- Retractable tilt indicator rods

This product will be discontinued on: November 30, 2024

Replaced By:

RV3-65D-R4-V3

8-port sector antenna, 2x 694–960 and 6x 1695–2690 MHz, 65° HPBW, 4x IntRET. Antenna rear wind loading 506N @ 150km/h

## 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>	7-16 DIN Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	6
<b>RF Connector Quantity, low band</b>	2
<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

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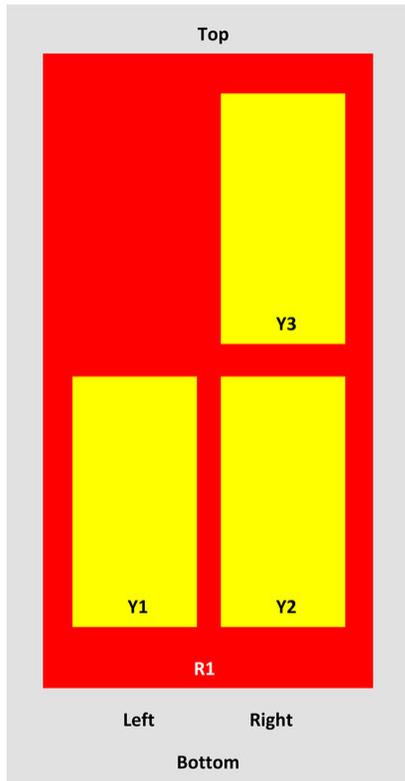
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (3)   Low band (1)
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Power Consumption, normal conditions, maximum</b>	8 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

## Dimensions

<b>Width</b>	350 mm   13.78 in
<b>Depth</b>	208 mm   8.189 in
<b>Length</b>	2688 mm   105.827 in
<b>Net Weight, without mounting kit</b>	32.5 kg   71.65 lb

## Array Layout

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Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	ANXXXXXXXXXXXXX1
Y1	1695-2690	3-4	2	ANXXXXXXXXXXXXX2
Y2	1695-2690	5-6	3	ANXXXXXXXXXXXXX3
Y3	1695-2690	7-8	4	ANXXXXXXXXXXXXX4

View from the front of the antenna

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

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## Port Configuration



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2690 MHz   694 – 960 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	800 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	694–790	790–890	890–960	1695–1920	1920–2200	2300–2500	2500–2690
<b>Gain, dBi</b>	16.5	17.3	17.4	17	17.5	18.2	18.2
<b>Beamwidth, Horizontal, degrees</b>	67	64	61	63	63	63	62
<b>Beamwidth, Vertical, degrees</b>	8.2	7.4	6.8	7.3	6.4	5.6	5.3
<b>Beam Tilt, degrees</b>	0–10	0–10	0–10	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	18	24	23	16	17	16	16
<b>Front-to-Back Ratio at 180°, dB</b>	31	33	34	35	37	37	37
<b>Isolation, Cross Polarization, dB</b>	28	28	28	28	28	28	28

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<b>Isolation, Inter-band, dB</b>	30	30	30	30	30	30	30
<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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-150	-150	-150	-150	-150	-150
<b>Input Power per Port at 50°C, maximum, watts</b>	250	250	250	200	200	200	200

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>694–790</b>	<b>790–890</b>	<b>890–960</b>	<b>1695–1920</b>	<b>1920–2200</b>	<b>2300–2500</b>	<b>2500–2690</b>
<b>Gain by all Beam Tilts, average, dBi</b>	16.3	17	17.3	16.5	17.1	17.8	17.7
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.3	±0.4	±0.3	±0.8	±0.6	±0.6	±0.6
<b>Gain by Beam Tilt, average, dBi</b>	0° 16.1 5° 16.4 10° 16.3	0° 16.7 5° 17.0 10° 17.0	0° 17.1 5° 17.4 10° 17.3	2° 16.3 6° 16.6 12° 16.4	2° 16.8 6° 17.2 12° 17.1	2° 17.3 6° 17.9 12° 17.7	2° 17.4 6° 17.9 12° 17.4
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±1.1	±1.9	±1.4	±3.9	±2.7	±3.4	±3.5
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.4	±0.4	±0.3	±0.6	±0.5	±0.3	±0.3
<b>USLS, beampeak to 20° above beampeak, dB</b>	15	17	18	12	14	13	12
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	26	25	25	28	28	29	28
<b>CPR at Boresight, dB</b>	17	20	21	18	20	19	17
<b>CPR at Sector, dB</b>	11	10	10	11	11	7	7

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	477.0 N @ 150 km/h (107.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	409.0 N @ 150 km/h (91.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	1,010.0 N @ 150 km/h (227.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	506.0 N @ 150 km/h (113.8 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	460 mm   18.11 in
<b>Depth, packed</b>	350 mm   13.78 in
<b>Length, packed</b>	2830 mm   111.417 in
<b>Weight, gross</b>	46.5 kg   102.515 lb

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## Regulatory Compliance/Certifications

### Agency

CE  
ISO 9001:2015

### Classification

Compliant with the relevant CE product directives  
Designed, manufactured and/or distributed under this quality management system



## Included Products

- BSAMNT-4 – 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