

# RV4-65D-R5-V9



10-port sector antenna, 2x 694–960 and 8x 1695–2690 MHz, 65° HPBW, 5x RET with tilt indicators

- 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

## OBSOLETE

This product was discontinued on: November 30, 2023

## 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>	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>	8
<b>RF Connector Quantity, low band</b>	2
<b>RF Connector Quantity, total</b>	10

## 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
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Power Consumption, normal conditions, maximum</b>	8 W

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**Protocol** 3GPP/AISG 2.0 (Single RET)

## Dimensions

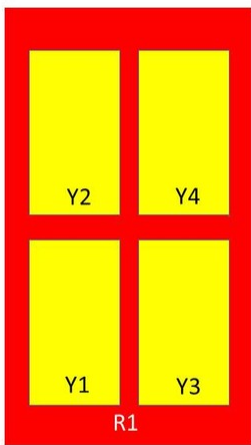
**Width** 350 mm | 13.78 in

**Depth** 208 mm | 8.189 in

**Length** 2688 mm | 105.827 in

**Net Weight, without mounting kit** 31.8 kg | 70.107 lb

## Array Layout



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxxxxxR1
Y1	1695-2690	3-4	2	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	5-6	3	CPxxxxxxxxxxxxxxxxY2
Y3	1695-2690	7-8	4	CPxxxxxxxxxxxxxxxxY3
Y4	1695-2690	9-10	5	CPxxxxxxxxxxxxxxxxY4

Left Right  
Bottom

(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>	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	1695–1880	1920–2200	2300–2500	2500–2690
<b>Gain, dBi</b>	16.3	16.7	16.9	16.9	17.5	17.6	17.1
<b>Beamwidth, Horizontal, degrees</b>	70	68	67	62	61	61	62
<b>Beamwidth, Vertical, degrees</b>	8.2	7.4	6.8	7.4	6.4	5.6	5.2
<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	19	16	17	16	17
<b>Front-to-Back Ratio at 180°, dB</b>	26	30	32	33	38	35	32
<b>Isolation, Cross Polarization, dB</b>	28	28	28	25	25	25	25
<b>Isolation, Inter-band, dB</b>	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

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<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>1695–1880</b>	<b>1920–2200</b>	<b>2300–2500</b>	<b>2500–2690</b>
<b>Gain by all Beam Tilts, average, dBi</b>	16	16.5	16.6	16.3	17	16.9	16.6
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.3	±0.3	±0.4	±0.8	±0.6	±0.8	±0.7
<b>Gain by Beam Tilt, average, dBi</b>	0°   15.9 5°   16.1 10°   16.0	0°   16.3 5°   16.5 10°   16.5	0°   16.4 5°   16.8 10°   16.5	2°   16.2 7°   16.4 12°   16.2	2°   16.8 7°   17.1 12°   17.0	2°   16.7 7°   17.0 12°   16.7	2°   16.4 7°   16.8 12°   16.3
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±1	±1.2	±1	±4.0	±2.2	±3.5	±4.1
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.5	±0.4	±0.4	±0.4	±0.4	±0.3	±0.2
<b>USLS, beampeak to 20° above beampeak, dB</b>	16	18	16	14	16	14	13
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	22	24	24	26	29	25	24
<b>CPR at Boresight, dB</b>	15	16	15	17	19	17	14
<b>CPR at Sector, dB</b>	10	10	11	10	9	10	9

## Mechanical Specifications

<b>Mechanical Tilt Range</b>	0°–12°
<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>	460 kg   1,014.125 lb

## Regulatory Compliance/Certifications

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**Agency**

ISO 9001:2015

**Classification**

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

## 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