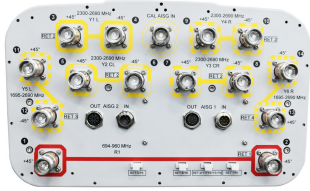


# RVVT4-65D-R4



14-port sector antenna, 2x 694–960, 4x 1695–2690 and 8x 2300–2690 MHz, 65° HPBW, 4x RET

- Combination of Tri-Band antenna and 2.4/2.6 GHz 8T8R beam forming antenna
- Internal SBT RET support via Calibration Port of 2.4/2.6 GHz array
- Optimized for Software Defined Split Six Sector applications on 2.4/2.6 GHz
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios

## General Specifications

<b>Antenna Type</b>	Sector
<b>Band</b>	Multiband
<b>Calibration Connector Interface</b>	4.3-10 Female
<b>Calibration Connector Quantity</b>	1
<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   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>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	12
<b>RF Connector Quantity, low band</b>	2
<b>RF Connector Quantity, total</b>	14

## 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>Internal Bias Tee</b>	Cal Port

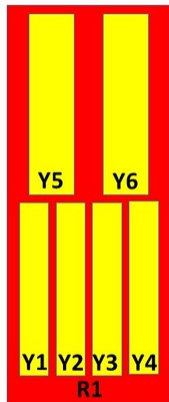
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<b>Internal RET</b>	High band (3)   Low band (1)
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Power Consumption, normal conditions, maximum</b>	8 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

## 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>	37.8 kg   83.335 lb
<b>TDD Column Spacing</b>	58 mm   2.283 in

## Array Layout



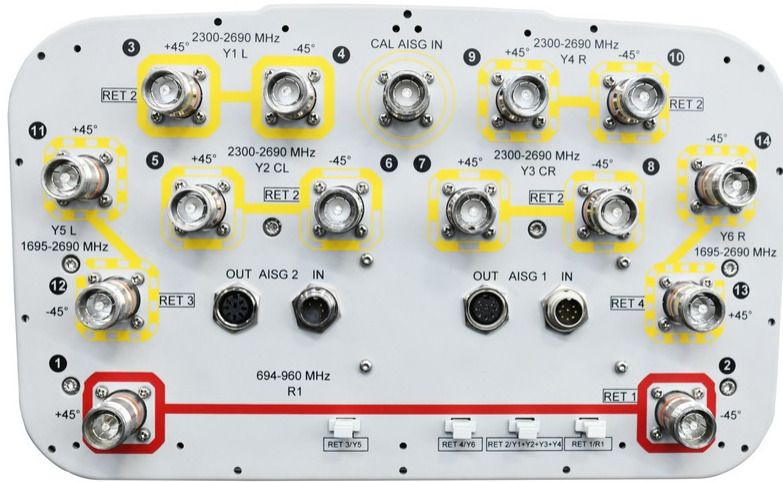
Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
<b>R1</b>	694-960	1-2	1	CPxxxxxxxxxxxxxxxxR1
<b>Y1</b>	2300-2690	3-4	2	CPxxxxxxxxxxxxxxxxY1
<b>Y2</b>	2300-2690	5-6		
<b>Y3</b>	2300-2690	7-8		
<b>Y4</b>	2300-2690	9-10		
<b>Y5</b>	1695-2690	11-12	3	CPxxxxxxxxxxxxxxxxY5
<b>Y6</b>	1695-2690	13-14	4	CPxxxxxxxxxxxxxxxxY6

Left Bottom Right

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

## Port Configuration

# RVVT4-65D-R4



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1695 – 2690 MHz   2300 – 2690 MHz   694 – 960 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

	R1	R1	R1	Y1-Y4	Y1-Y4	Y5-Y6	Y5-Y6	Y5-Y6
<b>Frequency Band, MHz</b>	<b>694–790</b>	<b>790–890</b>	<b>890–960</b>	<b>2300–2500</b>	<b>2490–2690</b>	<b>1695–1920</b>	<b>1920–2200</b>	<b>2300–2690</b>
<b>Gain, dBi</b>	16.6	17	17.3	16.4	16.3	16.8	17.3	17.6
<b>Beamwidth, Horizontal, degrees</b>	68	67	65	94	95	62	61	63
<b>Beamwidth, Vertical, degrees</b>	8.4	7.5	6.9	5.7	5.3	7.3	6.5	5.5
<b>Beam Tilt, degrees</b>	0–10	0–10	0–10	2–12	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	17	19	20	16	17	16	18	21
<b>Front-to-Back Ratio at 180°, dB</b>	30	32	35	31	30	34	38	33
<b>Coupling level, Amp, Antenna port to Cal port, dB</b>				26	26			
<b>Coupling level, max Amp Δ,</b>				±2	±2			

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## Antenna port to Cal port, dB

<b>Coupler, max Amp <math>\Delta</math>, Antenna port to Cal port, dB</b>				0.9	0.9			
<b>Coupler, max Phase <math>\Delta</math>, Antenna port to Cal port, degrees</b>				7	7			
<b>Isolation, Cross Polarization, dB</b>	28	28	28	28	28	28	28	28
<b>Isolation, Inter-band, dB</b>	30	30	30	20	20	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	1.5 14.0
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-150	-150	-150	-150	-150	-150	-150
<b>Input Power per Port at 50°C, maximum, watts</b>	250	250	250	150	150	200	200	150

## Electrical Specifications, BASTA

Frequency Band, MHz	694–790	790–890	890–960	2300–2500	2490–2690	1695–1920	1920–2200	2300–2690
<b>Gain by all Beam Tilts, average, dBi</b>	16.4	16.9	17.1	15.6	15.5	16.4	17	17.1
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.3	±0.3	±0.3	±1.1	±1	±0.7	±0.3	±0.6
<b>Gain by Beam Tilt, average, dBi</b>	0° 16.2 5° 16.5 10° 16.4	0° 16.6 5° 17.0 10° 16.9	0° 16.9 5° 17.2 10° 17.1	2° 15.3 7° 15.8 12° 15.4	2° 15.2 7° 15.7 12° 15.3	2° 16.2 7° 16.4 12° 16.2	2° 16.7 7° 17.1 12° 16.8	2° 16.9 7° 17.3 12° 16.9
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±1.1	±1.2	±0.8	±16.1	±10.8	±3.5	±2.2	±4.4
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.5	±0.4	±0.3	±0.4	±0.2	±0.6	±0.5	±0.4
<b>USLS, beampeak to 20° above beampeak, dB</b>	16	18	18	14	14	16	17	14
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	26	26	26	24	24	27	27	26
<b>CPR at Boresight, dB</b>	19	21	21	16	16	21	21	19
<b>CPR at Sector, dB</b>	13	12	13	10	11	10	12	8

## Electrical Specifications, Broadcast 65°

Frequency Band, MHz	2300–2500	2490–2690
<b>Gain, dBi</b>	17.2	17.1
<b>Beamwidth, Horizontal, degrees</b>	62	62
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±3.4	±3.7

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<b>Beamwidth, Vertical, degrees</b>	5.7	5.3
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.4	±0.2
<b>USLS (First Lobe), dB</b>	17	17

## Electrical Specifications, Service Beam

<b>Frequency Band, MHz</b>	<b>2300–2500</b>	<b>2490–2690</b>
<b>Steered 0° Gain, dBi</b>	21.3	21.2
<b>Steered 0° Gain Tolerance, dBi</b>	±0.4	±0.5
<b>Steered 0° Beamwidth, Horizontal, degrees</b>	26	25
<b>Steered 0° CPR over 10 dB Beamwidth, dB</b>	18	19
<b>Steered 0° Horizontal Sidelobe, dB</b>	13	11
<b>Steered 30° Gain, dBi</b>	20.6	20.5
<b>Steered 30° Gain Tolerance, dBi</b>	±0.4	±0.6
<b>Steered 30° Beamwidth, Horizontal, degrees</b>	27	26
<b>Steered 30° CPR over 10 dB Beamwidth, dB</b>	13	13

## Electrical Specifications, Soft Split

<b>Frequency Band, MHz</b>	<b>2300–2500</b>	<b>2490–2690</b>
<b>Gain, dBi</b>	20.3	20.3
<b>Beamwidth, Horizontal, degrees</b>	31	30
<b>Horizontal Sidelobe, dB</b>	21	19

## Mechanical Specifications

<b>Effective Projective Area (EPA), frontal</b>	0.45 m <sup>2</sup>   4.844 ft <sup>2</sup>
<b>Effective Projective Area (EPA), lateral</b>	0.38 m <sup>2</sup>   4.09 ft <sup>2</sup>
<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)

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**Wind Speed, maximum** 241 km/h (150 mph)

## Packaging and Weights

**Width, packed** 460 mm | 18.11 in  
**Depth, packed** 350 mm | 13.78 in  
**Length, packed** 2830 mm | 111.417 in  
**Weight, gross** 51.8 kg | 114.199 lb

## Regulatory Compliance/Certifications

Agency	Classification
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-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

# 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.

## Product Classification

**Product Type** Downtilt mounting kit

## General Specifications

**Application** Outdoor

**Color** Silver

## Dimensions

**Compatible Diameter, maximum** 115 mm | 4.528 in

**Compatible Diameter, minimum** 60 mm | 2.362 in

**Weight, net** 6.5 kg | 14.33 lb

## Material Specifications

**Material Type** Galvanized steel

## Packaging and Weights

**Included** Brackets | Hardware

**Packaging quantity** 1

## Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant

