

# RRZZVVT4S4-65D-R8



28-port sector antenna, 4x 694–960, 4x 1427–2690 and 4x 1695–2690 MHz 65° HPBW, 8x 2300–2690 and 8x 3300–3800MHz, 90° HPBW, 8x RET

- Includes two planar arrays with separate calibration ports for each array for use in beamforming systems covering all TDD bands
- Optimized for software defined split six sector applications
- Eight internal RETs control the antenna arrays
- 4 M-LOC cluster connectors for the two planar beamforming arrays

## General Specifications

<b>Antenna Type</b>	Sector
<b>Band</b>	Multiband
<b>Calibration Connector Interface</b>	M-LOC
<b>Calibration Connector Quantity</b>	2
<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>	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   M-LOC
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	24
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	28

## 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 RET</b>	High band (6)   Low band (2)

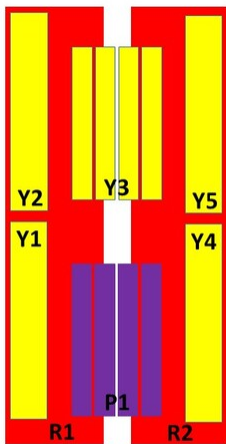
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<b>Power Consumption, idle state, maximum</b>	1 W
<b>Power Consumption, normal conditions, maximum</b>	8 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

## Dimensions

<b>Width</b>	498 mm   19.606 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	2688 mm   105.827 in
<b>Net Weight, antenna only</b>	59.4 kg   130.954 lb

## Array Layout



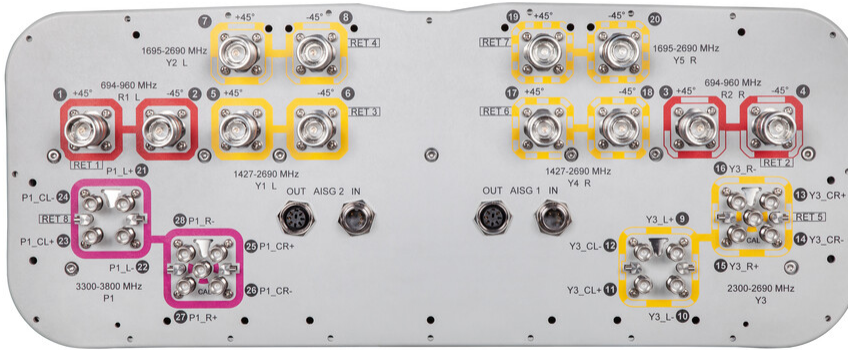
Array	Freq (MHz)	Conns	RET(sRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxR1
R2	694-960	3-4	2	CPxxxxxxxxxxxxR2
Y1	1427-2690	5-6	3	CPxxxxxxxxxxxxY1
Y2	1695-2690	7-8	4	CPxxxxxxxxxxxxY2
Y3	2300-2690	9-16	5	CPxxxxxxxxxxxxY3
Y4	1427-2690	17-18	6	CPxxxxxxxxxxxxY4
Y5	1695-2690	19-20	7	CPxxxxxxxxxxxxY5
P1	3300-3800	21-28	8	CPxxxxxxxxxxxxP1

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>	1427 – 2690 MHz   1695 – 2690 MHz   2300 – 2690 MHz   3300 – 3800 MHz   694 – 960 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	1,900 W @ 50 °C

## Electrical Specifications

	R1,R2	R1,R2	R1,R2	Y1,Y2,Y4,Y5	Y1,Y2,Y4,Y5	Y1,Y4	Y3	P1
<b>Frequency Band, MHz</b>	<b>694–790</b>	<b>790–890</b>	<b>890–960</b>	<b>1695–2180</b>	<b>2300–2690</b>	<b>1427–1518</b>	<b>2300–2690</b>	<b>3300–3800</b>
<b>RF Port</b>	1-4	1-4	1-4	5-8,17-20	5-8,17-20	5,6,17,18	9-16	21-28
<b>Gain, dBi</b>	15.7	16	16.1	16.8	17.8	14.9	16.3	15.9
<b>Beamwidth, Horizontal, degrees</b>	72	66	63	70	60	79	90	89
<b>Beamwidth, Vertical, degrees</b>	8.8	7.8	7.2	7.1	5.5	9.2	4.8	6.5
<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>	17	19	23	21	23	25	19	16
<b>Front-to-Back Ratio at 180°, dB</b>	34	30	29	32	31	35	31	29
<b>Coupling level, Amp, Antenna</b>							26	26

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port to Cal port, dB

Coupling level, max Amp  $\Delta$ , Antenna port to Cal port, dB  $\pm 2$   $\pm 2$

Coupler, max Amp  $\Delta$ , Antenna port to Cal port, dB 0.9 0.9

Coupler, max Phase  $\Delta$ , Antenna port to Cal port, degrees 7 9

Isolation, Cross Polarization, dB 28 28 28 25 25 25 25 25

Isolation, Inter-band, dB 28 28 28 25 25 25 28 28

Isolation, Co-polarization, dB 20 20

VSWR | Return loss, dB 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

PIM, 3rd Order, 2 x 20 W, dBc -150 -150 -150 -150 -150 -150 -150 -145

Input Power per Port at 50°C, maximum, watts 300 300 300 250 200 250 150 75

## Electrical Specifications, BASTA

Frequency Band, MHz	694–790	790–890	890–960	1695–2180	2300–2690	1427–1518	2300–2690	3300–3800
Gain by all Beam Tilts, average, dBi	15.4	15.7	15.9	16.1	17.3	14.6	15.7	15.2
Gain by all Beam Tilts Tolerance, dB	$\pm 0.4$	$\pm 0.4$	$\pm 0.3$	$\pm 0.9$	$\pm 0.5$	$\pm 0.5$	$\pm 0.7$	$\pm 1$
Beamwidth, Horizontal Tolerance, degrees	$\pm 6$	$\pm 3$	$\pm 4$	$\pm 8$	$\pm 6$	$\pm 7$	$\pm 12$	$\pm 22$
Beamwidth, Vertical Tolerance, degrees	$\pm 5.7$	$\pm 0.6$	$\pm 0.3$	$\pm 0.9$	$\pm 0.5$	$\pm 0.4$	$\pm 0.3$	$\pm 0.6$
USLS, beampeak to 20° above beampeak, dB	15	14	15	16	15	15	16	13
Front-to-Back Total Power at 180° $\pm$ 30°, dB	22	21	21	25	25	26	23	21
CPR at Boresight, dB	18	19	19	19	19	18	15	16
CPR at Sector, dB	11	7	10	5	3	6	9	7

## Electrical Specifications, Broadcast 65°

Frequency Band, MHz	2300–2690	3300–3800
Gain, dBi	17.4	16.4
Beamwidth, Horizontal, degrees	59	60
Beamwidth, Vertical, degrees	4.8	6.5

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<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	28	24
<b>USLS (First Lobe), dB</b>	18	16

## Electrical Specifications, Service Beam

	<b>2300–2690</b>	<b>3300–3800</b>
<b>Frequency Band, MHz</b>		
<b>Steered 0° Gain, dBi</b>	21.2	20.3
<b>Steered 0° Beamwidth, Horizontal, degrees</b>	25	24
<b>Steered 0° Front-to-Back Total Power at 180° ± 30°, dB</b>	32	28
<b>Steered 0° Horizontal Sidelobe, dB</b>	13	12
<b>Steered 30° Gain, dBi</b>	20.4	19.7
<b>Steered 30° Beamwidth, Horizontal, degrees</b>	29	27
<b>Steered 30° Front-to-Back Total Power at 180° ± 30°, dB</b>	31	27

## Electrical Specifications, Soft Split

	<b>2300–2690</b>	<b>3300–3800</b>
<b>Frequency Band, MHz</b>		
<b>Gain, dBi</b>	20.2	19.5
<b>Beamwidth, Horizontal, degrees</b>	32	30
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	33	29
<b>Horizontal Sidelobe, dB</b>	21	16

## Mechanical Specifications

<b>Effective Projective Area (EPA), frontal</b>	1 m <sup>2</sup>   10.764 ft <sup>2</sup>
<b>Effective Projective Area (EPA), lateral</b>	0.35 m <sup>2</sup>   3.767 ft <sup>2</sup>
<b>Wind Loading @ Velocity, frontal</b>	1,070.0 N @ 150 km/h (240.5 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	375.0 N @ 150 km/h (84.3 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	1,385.0 N @ 150 km/h (311.4 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	880.0 N @ 150 km/h (197.8 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

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<b>Width, packed</b>	565 mm   22.244 in
<b>Depth, packed</b>	309 mm   12.165 in
<b>Length, packed</b>	2935 mm   115.551 in
<b>Weight, gross</b>	80.4 kg   177.251 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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/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. |
| BSAMNT-M4 | - | Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor 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

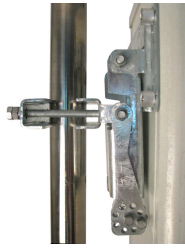
**Packaging quantity** 1

## 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



# BSAMNT-M4



Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor 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** 4.6 kg | 10.141 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

