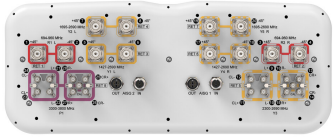


# RRZZVVT4S4-65DR8EC



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
- New aerodynamic endcaps for wind load optimization

## 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   Wind loading figures are validated by wind tunnel measurements described in EN1991-1-4 standard
<b>Radome Material</b>	Fiberglass, UV resistant
<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>	8
<b>RF Connector Quantity, mid band</b>	16
<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

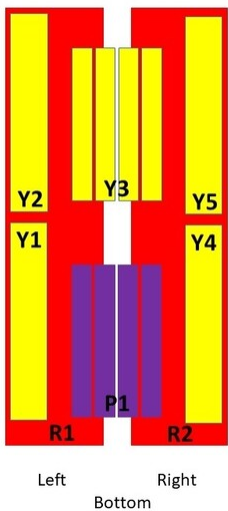
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<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (1)   Low band (2)   Mid band (5)
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Power Consumption, normal conditions, maximum</b>	8 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

## 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

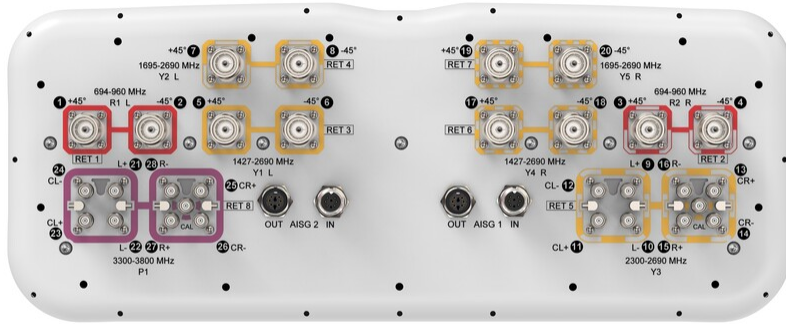


Array	Freq (MHz)	Conns	RET(sRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxR1
R2	694-960	3-4	2	CPxxxxxxxxxxxxR2
Y1	1427-2690	5-6	3	CPxxxxxxxxxxxxY1
Y2	1695-2690	7-8	4	CPxxxxxxxxxxxxY2
Y3	2300-2690	9-16	5	CPxxxxxxxxxxxxY3
Y4	1427-2690	17-18	6	CPxxxxxxxxxxxxY4
Y5	1695-2690	19-20	7	CPxxxxxxxxxxxxY5
P1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

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

## Port Configuration

# RRZZVVT4S4-65DR8EC



## 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

	<b>R1,R2</b>	<b>R1,R2</b>	<b>R1,R2</b>	<b>Y1,Y2,Y4,Y5</b>	<b>Y1,Y2,Y4,Y5</b>	<b>Y1,Y4</b>	<b>Y3</b>	<b>P1</b>
<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 port to Cal port, dB</b>							26	26
<b>Coupling level, max Amp Δ, Antenna port to Cal port, dB</b>							±2	±2
<b>Coupler, max Amp Δ, Antenna port to Cal port, dB</b>							0.9	0.9

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<b>Coupler, max Phase Δ, Antenna port to Cal port, degrees</b>							7	9
<b>Isolation, Cross Polarization, dB</b>	28	28	28	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	28	28	28	25	25	25	28	28
<b>Isolation, Co-polarization, dB</b>							20	20
<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	-145
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	300	250	200	250	150	75

## Electrical Specifications, Broadcast 65°

<b>Frequency Band, MHz</b>	<b>2300–2690</b>	<b>3300–3800</b>
<b>Gain, dBi</b>	17.4	16.4
<b>Beamwidth, Horizontal, degrees</b>	59	60
<b>Beamwidth, Vertical, degrees</b>	4.8	6.5
<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>Frequency Band, MHz</b>	<b>2300–2690</b>	<b>3300–3800</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>Frequency Band, MHz</b>	<b>2300–2690</b>	<b>3300–3800</b>
<b>Gain, dBi</b>	20.2	19.5

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<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>Wind Loading @ Velocity, frontal</b>	944.0 N @ 150 km/h (212.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	292.0 N @ 150 km/h (65.6 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	1,130.0 N @ 150 km/h (254.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	650.0 N @ 150 km/h (146.1 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>	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.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



## 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

# RRZZVVT4S4-65DR8EC

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**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

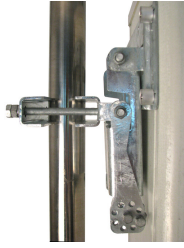
**Packaging quantity** 1

## 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.andrew.com/ProductCompliance">www.andrew.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.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant

