

# RRZZT4-65A-R5



16-port sector antenna, 4x 694–960, 4x 1427–2690 MHz 65° HPBW and 8x 2300–2690 MHz, 90° HPBW, 5x RET

- Includes 2x Single Column X-Pol Arrays for 694-960MHz and 2x Single Column X-Pol Arrays for 1427-2690MHz, suitable for 4x MIMO applications
- Also includes 1x 4-Column Array for 2300-2690 MHz with calibration port. Column spacing optimized to support Soft Split Beamforming
- A calibration port is provided for the 4-Column Array
- 5 Internal RET's provide independent electrical tilt control for each array
- 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, mid band</b>	0
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	16

## Remote Electrical Tilt (RET) Information

<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male

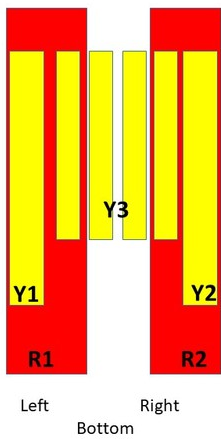
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<b>RET Interface, quantity</b>	2 female   2 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (3)   Low band (2)
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Power Consumption, normal conditions, maximum</b>	8 W
<b>Protocol</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>	1499 mm   59.016 in
<b>Net Weight, without mounting kit</b>	36.5 kg   80.469 lb
<b>TDD Column Spacing</b>	58 mm   2.283 in

## Array Layout

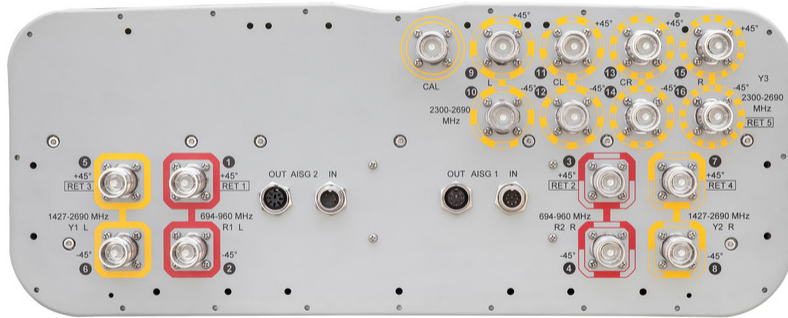


Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxxxxxR1
R2	694-960	3-4	2	CPxxxxxxxxxxxxxxxxR2
Y1	1427-2690	5-6	3	CPxxxxxxxxxxxxxxxxY1
Y2	1427-2690	7-8	4	CPxxxxxxxxxxxxxxxxY2
Y3	2300-2690	9-16	5	CPxxxxxxxxxxxxxxxxY3

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

## Electrical Specifications

	R1-R2	R1-R2	R1-R2	Y1-Y2	Y1-Y2	Y1-Y2	Y3	Y3
<b>Frequency Band, MHz</b>	<b>694–790</b>	<b>790–890</b>	<b>890–960</b>	<b>1427–1518</b>	<b>1695–2180</b>	<b>2300–2690</b>	<b>2300–2500</b>	<b>2490–2690</b>
<b>Gain, dBi</b>	13.2	13.4	13.5	15.4	17.1	18.3	16.5	16.5
<b>Beamwidth, Horizontal, degrees</b>	70	66	63	68	73	55	95	94
<b>Beamwidth, Vertical, degrees</b>	17	15.3	13.9	8.9	6.9	5.2	5.3	5
<b>Beam Tilt, degrees</b>	2–16	2–16	2–16	2–12	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	20	22	16	21	17	19	17	19
<b>Front-to-Back Ratio at 180°, dB</b>	31	29	26	33	30	31	34	31
<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>	27	27	27	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	27	27	27	25	25	25	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	-150
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	300	250	250	200	200	200

## Electrical Specifications, Broadcast 65°

<b>Frequency Band, MHz</b>							<b>2300–2500</b>	<b>2490–2690</b>
<b>Gain, dBi</b>							18.3	18.2
<b>Beamwidth, Horizontal, degrees</b>							60	60
<b>Beamwidth, Horizontal Tolerance, degrees</b>							±3.2	±5.2
<b>Beamwidth, Vertical, degrees</b>							5.2	5
<b>Beamwidth, Vertical Tolerance, degrees</b>							±0.2	±0.2
<b>USLS (First Lobe), dB</b>							18	19

## Electrical Specifications, Service Beam

<b>Frequency Band, MHz</b>							<b>2300–2500</b>	<b>2490–2690</b>
<b>Steered 0° Gain, dBi</b>							21.4	21.4
<b>Steered 0° Beamwidth, Horizontal, degrees</b>							26	25
<b>Steered 0° Horizontal Sidelobe, dB</b>							12	10
<b>Steered 30° Gain, dBi</b>							21.3	20.9
<b>Steered 30° Beamwidth, Horizontal, degrees</b>							28	30

## Electrical Specifications, Soft Split

<b>Frequency Band, MHz</b>							<b>2300–2500</b>	<b>2490–2690</b>
<b>Gain, dBi</b>							20.9	20.8

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<b>Beamwidth, Horizontal, degrees</b>	32	33
<b>Horizontal Sidelobe, dB</b>	21	17

## Mechanical Specifications

<b>Mechanical Tilt Range</b>	0°–15°
<b>Wind Loading @ Velocity, frontal</b>	549.0 N @ 150 km/h (123.4 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	183.0 N @ 150 km/h (41.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	712.0 N @ 150 km/h (160.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	452.0 N @ 150 km/h (101.6 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>	1686 mm   66.378 in
<b>Weight, gross</b>	49.2 kg   108.467 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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-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

# 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.

## 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** 6.2 kg | 13.669 lb

## Material Specifications

**Material Type** Galvanized steel

## Packaging and Weights

**Included** Brackets | Hardware

**Packaging quantity** 1

**Weight, gross** 6.4 kg | 14.11 lb

## Regulatory Compliance/Certifications

Agency	Classification
CE	Compliant with the relevant CE product directives
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-3

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