

# RRZZHHTT-65A-R6H4



16-port sector antenna, 4x 694–960, 4x 1427–2690, 4x 1695–2180 and 4x 2490–2690 MHz, 65° HPBW, 6x RET

- 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
- New endcap designs provide improved wind loading performance

## General Specifications

<b>Antenna Type</b>	Sector
<b>Band</b>	Multiband
<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>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, mid band</b>	12
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	16

## Remote Electrical Tilt (RET) Information

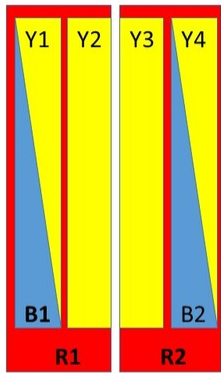
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	Low band (2)   Mid band (4)
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

## Dimensions

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<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, antenna only</b>	33.9 kg   74.737 lb

## Array Layout

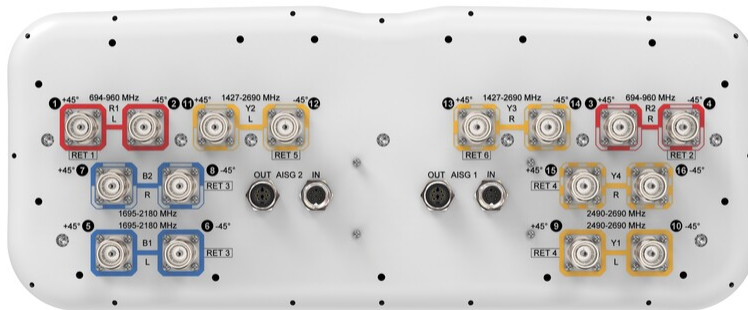


Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
<b>R1</b>	694-960	1-2	1	CPxxxxxxxxxxxxxxxxR1
<b>R2</b>	694-960	3-4	2	CPxxxxxxxxxxxxxxxxR2
<b>B1</b>	1695-2180	5-6	3	CPxxxxxxxxxxxxxxxxB1
<b>B2</b>	1695-2180	7-8		
<b>Y1</b>	2490-2690	9-10	4	CPxxxxxxxxxxxxxxxxY1
<b>Y4</b>	2490-2690	15-16		
<b>Y2</b>	1427-2690	11-12	5	CPxxxxxxxxxxxxxxxxY2
<b>Y3</b>	1427-2690	13-14	6	CPxxxxxxxxxxxxxxxxY3

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

Left Right  
Bottom

## Port Configuration



## Electrical Specifications

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<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1427 – 2690 MHz   1695 – 2180 MHz   2490 – 2690 MHz   694 – 960 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

Frequency Band, MHz	694–790	790–890	890–960	1695–2180	2490–2690	1427–1518	1695–2180	2300–2690
<b>Gain, dBi</b>	13.2	13.5	13.7	16.9	17.8	15.3	17.4	18.3
<b>Beamwidth, Horizontal, degrees</b>	70	68	64	68	56	69	63	58
<b>Beamwidth, Vertical, degrees</b>	16.8	14.9	13.9	6.6	5.2	8.8	6.8	5.2
<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>	16	15	17	19	18	17	16	20
<b>Front-to-Back Ratio at 180°, dB</b>	30	28	28	31	29	33	32	34
<b>Isolation, Cross Polarization, dB</b>	27	27	27	27	27	26	26	26
<b>Isolation, Inter-band, dB</b>	27	27	27	27	27	27	27	27
<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	150	250	250	200

## Electrical Specifications, BASTA

Frequency Band, MHz	694–790	790–890	890–960	1695–2180	2490–2690	1427–1518	1695–2180	2300–2690
<b>Gain by all Beam Tilts, average, dBi</b>	12.9	13.1	13.4	16.3	17.3	14.9	16.5	17.7
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.4	±0.7	±0.6	±0.9	±0.6	±0.5	±1	±0.8
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±9.1	±7.5	±5.1	±10.8	±5	±8.7	±7.1	±8.6
<b>Beamwidth, Vertical Tolerance, degrees</b>	±1.1	±1.5	±1.3	±0.7	±0.2	±0.6	±0.8	±0.4
<b>USLS, beampeak to 20° above beampeak, dB</b>			16	12	14	14	15	16
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	21	22	22	24	23	25	25	27
<b>CPR at Boresight, dB</b>	23	20	20	19	20	14	18	19

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CPR at Sector, dB                      11                      10                      12                      7                      4                      8                      4                      5

## Mechanical Specifications

<b>Effective Projective Area (EPA), frontal</b>	0.47 m <sup>2</sup>   5.059 ft <sup>2</sup>
<b>Effective Projective Area (EPA), lateral</b>	0.14 m <sup>2</sup>   1.507 ft <sup>2</sup>
<b>Wind Loading @ Velocity, frontal</b>	503.0 N @ 150 km/h (113.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	150.0 N @ 150 km/h (33.7 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	604.0 N @ 150 km/h (135.8 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	346.0 N @ 150 km/h (77.8 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	288 km/h (179 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>	46.8 kg   103.176 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