

# RRZZV6-65B-R10H4



20-port sector antenna, 4x694-960 4x1427-2690 and 12 x 1695-2690 MHz , 65° HPBW, 10xRET

- 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

## 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>	16
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	20

## Remote Electrical Tilt (RET) Information

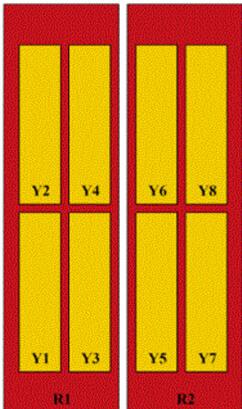
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	AISG1 8-pin DIN Female   AISG1 8-pin DIN Male
<b>RET Interface, quantity</b>	2 female   2 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	Low band (2)   Mid band (8)
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle 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>	2100 mm   82.677 in
<b>Net Weight, antenna only</b>	45.7 kg   100.751 lb

## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG RET UID
R1	694-960	1 - 2	1	CPxxxxxxxxxxxxxxxxR1
R2	694-960	3 - 4	2	CPxxxxxxxxxxxxxxxxR2
Y1	1695-2690	5 - 6	3	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	7 - 8	4	CPxxxxxxxxxxxxxxxxY2
Y3	1695-2690	9 - 10	5	CPxxxxxxxxxxxxxxxxY3
Y4	1427-2690	11 - 12	6	CPxxxxxxxxxxxxxxxxY4
Y5	1695-2690	13 - 14	7	CPxxxxxxxxxxxxxxxxY5
Y6	1427-2690	15 - 16	8	CPxxxxxxxxxxxxxxxxY6
Y7	1695-2690	17 - 18	9	CPxxxxxxxxxxxxxxxxY7
Y8	1695-2690	19 - 20	10	CPxxxxxxxxxxxxxxxxY8

## Port Configuration



## Electrical Specifications

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

## Electrical Specifications

Frequency Band, MHz	698–806	790–896	890–960	1695–1990	1920–2300	2300–2500	2490–2690
<b>Beamwidth, Horizontal, degrees</b>	67	63	61	69	62	59	60
<b>Beamwidth, Vertical, degrees</b>	11.3	10.1	9.4	9.7	8.8	7.9	7.5
<b>Beam Tilt, degrees</b>	2–14	2–14	2–14	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	17	20	20	16	16	17	17
<b>Front-to-Back Ratio at 180°, dB</b>	32	29	28	31	31	32	31
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	21	21	22	25	25	26	25
<b>CPR at Boresight, dB</b>	20	20	19	19	20	21	20
<b>CPR at Sector, dB</b>	11	8	12	8	7	8	7
<b>Isolation, Cross Polarization, dB</b>	28	28	28	25	25	25	25
<b>Isolation, Inter-band, dB</b>	28	28	28	25	25	25	25
<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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153	-153	-153	-153
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	300	250	250	200	200

## Electrical Specifications, BASTA

Frequency Band, MHz	698–806	790–896	890–960	1695–1990	1920–2300	2300–2500	2490–2690
<b>Gain by all Beam Tilts, average, dBi</b>	14.7	15.2	15.3	15.4	16.3	16.7	16.7
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.4	±0.6	±0.5	±0.6	±0.7	±0.5	±0.6
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±6.6	±3.2	±4	±6.9	±8.6	±4.8	±6.6
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.9	±1	±0.4	±0.9	±0.9	±0.6	±0.5
<b>USLS, beampeak to 20° above beampeak, dB</b>	16	17	18	15	15	15	16

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## Electrical Specifications

Frequency Band, MHz	1427–1518	1695–1990	1920–2300	2300–2500	2490–2690
Beamwidth, Horizontal, degrees	72	66	60	58	59
Beamwidth, Vertical, degrees	10.2	8.4	7.6	6.7	6.3
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	16	15	16	18	16
Front-to-Back Ratio at 180°, dB	34	33	37	31	30
Front-to-Back Total Power at 180° ± 30°, dB	24	27	28	26	26
CPR at Boresight, dB	19	20	20	25	25
CPR at Sector, dB	9	9	6	4	2
Isolation, Cross Polarization, dB	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25	25
VSWR   Return loss, dB	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	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	250	250	250	200	200

## Electrical Specifications, BASTA

Frequency Band, MHz	1427–1518	1695–1990	1920–2300	2300–2500	2490–2690
Gain by all Beam Tilts, average, dBi	14.5	15.7	16.5	17.1	16.8
Gain by all Beam Tilts Tolerance, dB	±0.6	±0.4	±0.7	±0.5	±0.5
Beamwidth, Horizontal Tolerance, degrees	±7.6	±4.2	±5.5	±4.3	±5.8
Beamwidth, Vertical Tolerance, degrees	±0.7	±0.7	±0.7	±0.3	±0.3
USLS, beampeak to 20° above beampeak, dB	16	15	14	13	11

## Mechanical Specifications

Wind Loading @ Velocity, frontal	714.0 N @ 150 km/h (160.5 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	187.0 N @ 150 km/h (42.0 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	949.0 N @ 150 km/h (213.3 lbf @ 150 km/h)

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<b>Wind Loading @ Velocity, rear</b>	491.0 N @ 150 km/h (110.4 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>	2287 mm   90.039 in
<b>Weight, gross</b>	60.1 kg   132.498 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-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.
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## \* Footnotes

<b>Performance Note</b>	Severe environmental conditions may degrade optimum performance
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