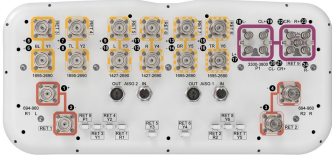


# RRZZV4S4-65D-R9N43



24-port sector antenna, 4x 694-960, 4x 1427-2690, 8x 1695-2690 MHz, 65° HPBW and 8x 3300-3800 MHz, 90° HPBW, 9x RET.

- All Internal RET actuators are connected in "Cascaded SRET" configuration
- Cluster connectors for the beam-forming array, including eight RF ports plus one calibration port
- Antenna shape optimized for wind load reduction
- Retractable tilt indicator rods
- Includes nine internal RET's
- S4 array uses MLOC cluster connectors

## General Specifications

<b>Antenna Type</b>	Sector- and beamforming
<b>Band</b>	Multiband
<b>Calibration Connector Interface</b>	M-LOC
<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
<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>	12
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	24

## 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 (1)   Low band (2)   Mid band (6)

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<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

<b>Width</b>	430 mm   16.929 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	2769 mm   109.016 in
<b>TDD Column Spacing</b>	42 mm   1.654 in

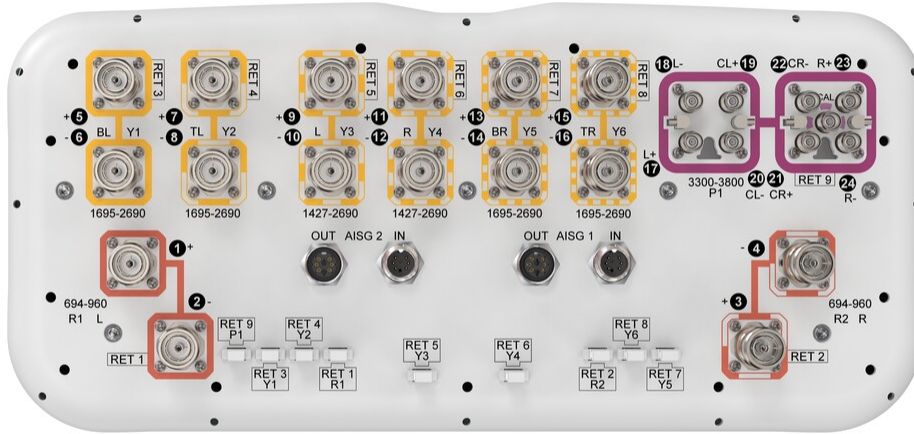
## Array Layout

Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	694-960	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
R2	694-960	3 - 4	2	AISG1	CPxxxxxxxxxxxxxxxxR2
Y1	1695-2690	5 - 6	3	AISG1	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	7 - 8	4	AISG1	CPxxxxxxxxxxxxxxxxY2
Y3	1427-2690	9 - 10	5	AISG1	CPxxxxxxxxxxxxxxxxY3
Y4	1427-2690	11 - 12	6	AISG1	CPxxxxxxxxxxxxxxxxY4
Y5	1695-2690	13 - 14	7	AISG1	CPxxxxxxxxxxxxxxxxY5
Y6	1695-2690	15 - 16	8	AISG1	CPxxxxxxxxxxxxxxxxY6
P1	3300-3800	17 - 24	9	AISG1	CPxxxxxxxxxxxxxxxxP1

(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   3300 – 3800 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	Y3,Y4	Y3,Y4	Y3,Y4	Y1,Y2,Y5,Y6	Y1,Y2,Y5,Y6	P1
Frequency Band, MHz	694-790	790-890	880-960	1427-1518	1695-2200	2300-2690	1695-2200	2300-2690	3300-3800
<b>RF Port</b>	1-4	1-4	1-4	9-12	9-12	9-12	5-8,13-16	5-8,13-16	17-24
<b>Gain, dBi</b>	15.6	16.2	16.4	15.5	17.3	18.3	17.1	17.9	15.8
<b>Beamwidth, Horizontal, degrees</b>	62	56	53	64	68	59	68	61	83
<b>Beamwidth, Vertical, degrees</b>	7.7	6.9	6.3	7	5.5	4.4	6.1	4.9	6.3
<b>Beam Tilt, degrees</b>	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12
<b>USLS (First Lobe), dB</b>	15	16	16	18	17	19	15	18	16

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Front-to-Back Ratio at 180°, dB	34	33	31	32	32	32	30	32	28
Coupling level, Amp, Antenna port to Cal port, dB									26
Coupling level, max Amp Δ, Antenna port to Cal port, dB									±2
Coupler, max Amp Δ, Antenna port to Cal port, dB									0.9
Coupler, max Phase Δ, Antenna port to Cal port, degrees									7
Isolation, Cross Polarization, dB	27	27	27	26	26	26	27	27	25
Isolation, Inter-band, dB	27	27	27	25	26	26	27	27	25
Isolation, Co-polarization, dB									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	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-153	-153	-140
Input Power per Port at 50° C, maximum, watts	250	250	250	200	200	150	200	150	75

## Electrical Specifications, BASTA

Frequency Band, MHz	694–790	790–890	880–960	1427–1518	1695–2200	2300–2690	1695–2200	2300–2690	3300–3800
Gain by all Beam Tilts, average, dBi	15.2	15.9	16.2	15.1	16.5	17.8	16.3	17.5	15
Gain by all Beam Tilts Tolerance, dB	±0.6	±0.4	±0.3	±0.7	±1.2	±0.6	±1.2	±0.5	±0.7
Beamwidth, Horizontal Tolerance, degrees	±7	±4	±4	±11	±9	±4	±9	±5	±20
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.4	±0.3	±0.3	±0.6	±0.2	±0.8	±0.3	±0.6
USLS, beampeak to 20° above beampeak, dB	15	16	16	16	16	18	14	15	13
Front-to-Back Total Power at 180° ± 30°, dB	23	23	23	23	26	26	25	25	22
CPR at Boresight, dB	28	26	23	17	17	17	20	20	16

## Electrical Specifications, Broadcast 65°

Frequency Band, MHz	<b>3300–3800</b>
Gain, dBi	18

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<b>Beamwidth, Horizontal, degrees</b>	65
<b>Beamwidth, Vertical, degrees</b>	6.3
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	25
<b>USLS (First Lobe), dB</b>	20

## Electrical Specifications, Service Beam

<b>Frequency Band, MHz</b>	<b>3300–3800</b>
<b>Steered 0° Gain, dBi</b>	20.8
<b>Steered 0° Beamwidth, Horizontal, degrees</b>	24
<b>Steered 0° Front-to-Back Total Power at 180° ± 30°, dB</b>	29
<b>Steered 0° Horizontal Sidelobe, dB</b>	15
<b>Steered 30° Gain, dBi</b>	19.6
<b>Steered 30° Beamwidth, Horizontal, degrees</b>	29
<b>Steered 30° Front-to-Back Total Power at 180° ± 30°, dB</b>	27

## Electrical Specifications, Soft Split

<b>Frequency Band, MHz</b>	<b>3300–3800</b>
<b>Gain, dBi</b>	19.7
<b>Beamwidth, Horizontal, degrees</b>	31
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	27
<b>Horizontal Sidelobe, dB</b>	18

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	651.0 N @ 150 km/h (146.4 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	351.0 N @ 150 km/h (78.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	1,028.0 N @ 150 km/h (231.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	421.0 N @ 150 km/h (94.6 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

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## Packaging and Weights

<b>Width, packed</b>	530 mm   20.866 in
<b>Depth, packed</b>	356 mm   14.016 in
<b>Length, packed</b>	2897 mm   114.055 in
<b>Weight, gross</b>	75 kg   165.347 lb
<b>Weight, net</b>	53.8 kg   118.609 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. |
| 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