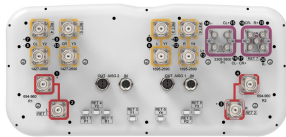


# RRZZVVS4-65B-R7N43



20-port sector antenna, 4x 694-960, 4x 1427-2690, 4x 1695-2690 MHz, 65° HPBW and 8x 3300-3800 MHz, 90° HPBW, 7x 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
- M-LOC cluster connector for 3.3-3.8GHz, equipped with calibration port
- Includes seven Internal RET's
- Retractable tilt indicator rods

## General Specifications

Antenna Type	Sector and beamforming
Band	Multiband
Calibration Connector Interface	M-LOC
Calibration Connector Quantity	1
Color	Light Gray (RAL 7035)
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage
Radome Material	Fiberglass, UV resistant
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female   M-LOC
RF Connector Location	Bottom
RF Connector Quantity, high band	8
RF Connector Quantity, mid band	8
RF Connector Quantity, low band	4
RF Connector Quantity, total	20

## Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female   8-pin DIN Male
RET Interface, quantity	2 female   2 male
Input Voltage	10–30 Vdc
Internal RET	High band (1)   Low band (2)   Mid band (4)

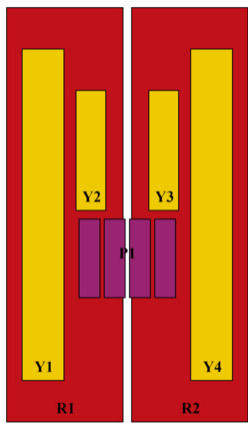
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Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0 (Single RET)

## Dimensions

Width	430 mm   16.929 in
Depth	197 mm   7.756 in
Length	2100 mm   82.677 in
Net Weight, antenna only	38.2 kg   84.216 lb
TDD Column Spacing	42 mm   1.654 in

## Array Layout

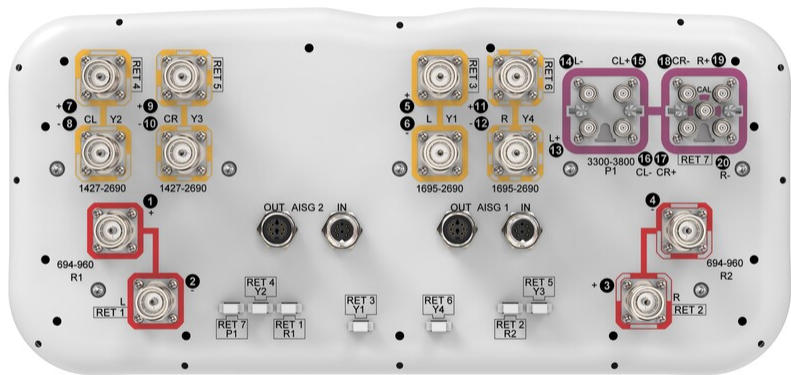


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	694-960	1 - 2	1	AISG1	CPxxxxxxxxxxxxR1
R2	694-960	3 - 4	2	AISG1	CPxxxxxxxxxxxxR2
Y1	1695-2690	5 - 6	3	AISG1	CPxxxxxxxxxxxxY1
Y2	1427-2690	7 - 8	4	AISG1	CPxxxxxxxxxxxxY2
Y3	1427-2690	9 - 10	5	AISG1	CPxxxxxxxxxxxxY3
Y4	1695-2690	11 - 12	6	AISG1	CPxxxxxxxxxxxxY4
P1	3300-3800	13 - 20	7	AISG1	CPxxxxxxxxxxxxP1

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

## Port Configuration

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## Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1427 – 2690 MHz   1695 – 2690 MHz   3300 – 3800 MHz   694 – 960 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

## Electrical Specifications

	R1,R2	R1,R2	R1,R2	Y2,Y3	Y2,Y3	Y2,Y3	Y2,Y3	Y2,Y3
Frequency Band, MHz	698–806	790–896	890–960	1427–1518	1695–1990	1920–2300	2300–2500	2490–2690
RF Port	1,2,3,4	1,2,3,4	1,2,3,4	7,8,9,10	7,8,9,10	7,8,9,10	7,8,9,10	7,8,9,10
Gain at Mid Tilt, dBi	14	14.7	14.9	13.6	15	15.8	16.6	16.5
Beamwidth, Horizontal, degrees	71	62	58	67	62	62	59	59
Beamwidth, Vertical, degrees	10.5	9.3	8.5	9.8	7.9	7.1	6.4	6
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	17	18	15	12	16	19	22	22
Front-to-Back Ratio at 180°, dB	32	31	30	34	34	33	31	33
CPR at Boresight, dB	22	22	23	13	18	18	23	17
Isolation, Cross Polarization,	27	27	27	26	26	26	26	26

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dB								
Isolation, Inter-band, dB	27	27	27	26	26	26	26	26
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
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	250	250	250	200	200	200	150	150

## Electrical Specifications

	Y1,Y4	Y1,Y4	Y1,Y4	Y1,Y4
Frequency Band, MHz	1695–1990	1920–2300	2300–2500	2490–2690
RF Port	5,6,11,12	5,6,11,12	5,6,11,12	5,6,11,12
Gain at Mid Tilt, dBi	16.7	17.6	18.3	18.4
Beamwidth, Horizontal, degrees	70	67	64	64
Beamwidth, Vertical, degrees	5.3	4.9	4.4	4.2
Beam Tilt, degrees	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	18	18	18	18
Front-to-Back Ratio at 180°, dB	34	34	35	32
CPR at Boresight, dB	18	20	22	20
Isolation, Cross Polarization, dB	27	27	27	27
Isolation, Inter-band, dB	26	26	26	26
VSWR   Return loss, dB	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
Input Power per Port at 50°C, maximum, watts	200	200	150	150

## Electrical Specifications

	P1	P1
Frequency Band, MHz	3300–3600	3600–3800
RF Port	13-20	13-20
Gain at Mid Tilt, dBi	15.1	15.6
Beamwidth, Horizontal, degrees	85	81
Beamwidth, Vertical, degrees	6.4	6
Beam Tilt, degrees	2–12	2–12
USLS (First Lobe), dB	17	15

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Front-to-Back Ratio at 180°, dB	29	29
Coupling level, Amp, Antenna port to Cal port, dB	26	26
Coupling level, max Amp Δ, Antenna port to Cal port, dB	±2	±2
Coupler, max Amp Δ, Antenna port to Cal port, dB	0.9	0.9
Coupler, max Phase Δ, Antenna port to Cal port, degrees	7	7
CPR at Boresight, dB	17	16
Isolation, Cross Polarization, dB	25	25
Isolation, Inter-band, dB	25	25
Isolation, Co-polarization, dB	19	19
VSWR   Return loss, dB	1.5   14.0	1.5   14.0
PIM, 3rd Order, 2 x 20 W, dBc	-140	-140
Input Power per Port at 50°C, maximum, watts	75	75

## Electrical Specifications, Broadcast 65°

Frequency Band, MHz	3300–3600	3600–3800
Gain, dBi	18.2	18.5
Beamwidth, Horizontal at 3 dB, degrees	65	65
Beamwidth, Horizontal at 10 dB, degrees	111	102
Beamwidth, Vertical, degrees	6	6
Front-to-Back Total Power at 180° ± 30°, dB	25	26
USLS (First Lobe), dB	21	20

## Electrical Specifications, Service Beam

Frequency Band, MHz	3300–3600	3600–3800
Steered 0° Gain, dBi	20.6	20.8
Steered 0° Beamwidth, Horizontal, degrees	25	22
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	28	29

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Steered 0° Horizontal Sidelobe, dB	13	13
Steered 30° Gain, dBi	19.3	19.4
Steered 30° Beamwidth, Horizontal, degrees	30	28
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	26	28

## Electrical Specifications, Soft Split

Frequency Band, MHz	3300–3600	3600–3800
Gain, dBi	19.4	19.7
Beamwidth, Horizontal, degrees	32	29
Front-to-Back Total Power at 180° ± 30°, dB	26	27
Horizontal Sidelobe, dB	14	15

## Mechanical Specifications

Wind Loading @ Velocity, frontal	494.0 N @ 150 km/h (111.1 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	266.0 N @ 150 km/h (59.8 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	780.0 N @ 150 km/h (175.4 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	319.0 N @ 150 km/h (71.7 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

## Packaging and Weights

Width, packed	530 mm   20.866 in
Depth, packed	349 mm   13.74 in
Length, packed	2272 mm   89.449 in
Weight, gross	53.2 kg   117.286 lb

## Regulatory Compliance/Certifications

Agency	Classification
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

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## Included Products

- |          |   |   |
|----------|---|---|
| BSAMNT-3 | – | Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members.<br>Kit contains one scissor top bracket set and one bottom bracket set. |
|----------|---|---|

## \* Footnotes

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