

RRZZVVQ4-65B-R7



20-port sector antenna, 4x 694-960 MHz (R1-R2), 4x 1427-2690 MHz (Y2-Y4) and 4x 1695-2690 (Y1-Y3) MHz 65° HPBW, 8x 2300-3800 MHz (P1), 90° HPBW, 7x RET

- Includes 1x 4-Column Array for 2300-3800MHz and calibration port. Column spacing optimized to support Soft Split Beamforming
- Q4 array uses M-LOC cluster connectors
- Seven internal RETs control the antenna arrays
- New aerodynamic endcaps for wind load optimization

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)

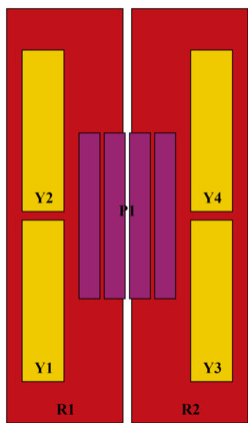
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Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	498 mm 19.606 in
Depth	197 mm 7.756 in
Length	2100 mm 82.677 in
Net Weight, antenna only	40 kg 88.185 lb

Array Layout

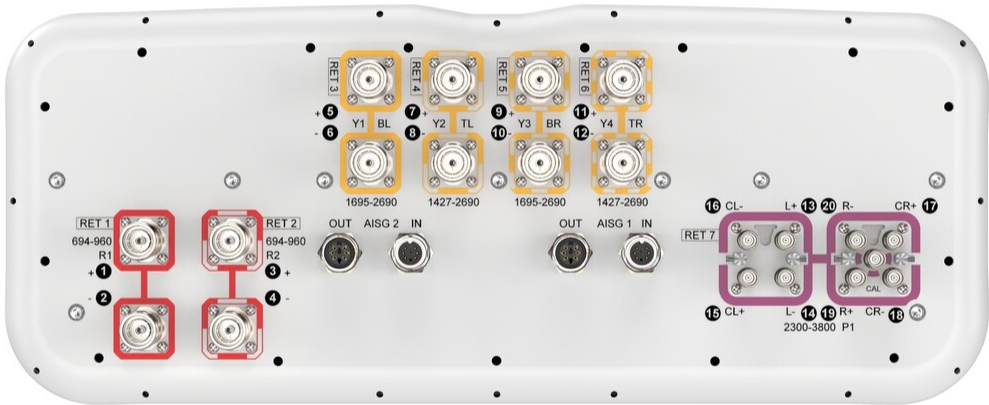


Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	694-960	1 - 2	1	AISG1	CPxxxxxxxxxxxxR1
R2	694-960	3 - 4	2	AISG1	CPxxxxxxxxxxxxR2
Y1	1695-2690	5 - 6	3	AISG1	CPxxxxxxxxxxxxY1
Y2	1427-2690	7 - 8	4	AISG1	CPxxxxxxxxxxxxY2
Y3	1695-2690	9 - 10	5	AISG1	CPxxxxxxxxxxxxY3
Y4	1427-2690	11 - 12	6	AISG1	CPxxxxxxxxxxxxY4
P1	2300-3800	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 2300 – 3800 MHz 694 – 960 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

	R1,R2	R1,R2	R1,R2	Y2,Y4	Y2,Y4	Y2,Y4	Y1,Y3	Y1,Y3	P1	P1
Frequency Band, MHz	694–790	790–890	890–960	1427–1518	1695–2200	2300–2690	1695–2200	2300–2690	2300–2690	3300–3800
RF Port	1-4	1-4	1-4	7,8,11,12	7,8,11,12	7,8,11,12	5,6,9,10	5,6,9,10	13-20	13-20

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Gain at Mid Tilt, dBi	15	15.5	15.8	14.4	16.2	17.3	15.7	17.1	15	15.8
Beamwidth, Horizontal, degrees	65	61	61	64	56	57	61	58	95	66
Beamwidth, Vertical, degrees	10.7	9.5	8.7	9.9	7.8	6	8.6	6.9	5.8	5.5
Beam Tilt, degrees	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12
USLS (First Lobe), dB	19	16	15	17	17	20	14	19	15	14
Front-to-Back Ratio at 180°, dB	29	28	29	31	29	29	30	28	31	28
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
Isolation, Cross Polarization, dB	28	28	28	25	25	25	25	25	23	23
Isolation, Inter-band, dB	25	25	25	25	25	25	25	25	25	25
Isolation, Co-polarization, dB									20	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	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150	-150	-150	-140	-140
Input Power per Port at 50°C, maximum, watts	300	300	300	250	250	200	250	200	75	75

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	2300-26903300-3800									
Gain, dBi									17.5	17.1
Beamwidth, Horizontal at 3 dB,									65	65

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degrees		
Beamwidth, Horizontal at 10 dB, degrees	117	108
Beamwidth, Vertical, degrees	5.8	5.5
Front-to-Back Total Power at 180° ± 30°, dB	28	25
USLS (First Lobe), dB	15	14

Electrical Specifications, Envelope Pattern

Frequency Band, MHz	2300–26903300–3800	
Gain, dBi	20.4	21.2
Beamwidth, Horizontal at 10 dB, degrees	126	121
Beamwidth, Vertical at 3 dB, degrees	5.8	5.4
Front-to-Back Total Power at 180° ± 30°, dB	28	26
USLS (First Lobe), dB	16	16

Electrical Specifications, Service Beam

Frequency Band, MHz	2300–26903300–3800	
Steered 0° Gain, dBi	20.4	21.4
Steered 0° Beamwidth, Horizontal, degrees	25	18
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	31	29
Steered 0° Horizontal Sidelobe, dB	13	13
Steered 30° Gain,	20	18.9

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dBi		
Steered 30° Beamwidth, Horizontal, degrees	28	23
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	29	25

Electrical Specifications, Soft Split

Frequency Band, MHz	2300–2690	
Gain, dBi	19.8	
Beamwidth, Horizontal, degrees	31	
Front-to-Back Total Power at 180° ± 30°, dB	29	
Horizontal Sidelobe, dB	19	
USLS (First Lobe), dB	17	

Mechanical Specifications

Wind Loading @ Velocity, frontal	728.0 N @ 150 km/h (163.7 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	223.0 N @ 150 km/h (50.1 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	873.0 N @ 150 km/h (196.3 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	501.0 N @ 150 km/h (112.6 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	565 mm 22.244 in
Depth, packed	309 mm 12.165 in
Length, packed	2287 mm 90.039 in
Weight, gross	54.3 kg 119.711 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

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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

Performance Note	Severe environmental conditions may degrade optimum performance
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