RRZZVVT4S4-65B-R8

28-port sector antenna, 4x 694-960, 4x 1427-2690 and 4x 1695-2690 MHz 65° HPBW, 8x 2300-2690 and 8x 3300-3800MHz, 90° HPBW, 8x RET

- Also includes 1x 4-Column Array for 2300-2690 MHz and a separate 1x 4-Column Array for 3300-3800MHz. Column spacing optimized to support Soft Split Beamforming
- Includes eight Internal RET's
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios
- New end cap shape for additional wind load reduction
- 4 M-LOC cluster connectors for the two planar beamforming arrays

General Specifications

Antenna Type	Sector and beamforming
Band	Multiband
Calibration Connector Interface	M-LOC
Calibration Connector Quantity	2
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	16
RF Connector Quantity, mid band	8
RF Connector Quantity, low band	4
RF Connector Quantity, total	28

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	AISG1 8-pin DIN Female | AISG1 8-pin DIN Male
RET Interface, quantity	2 female | 2 male

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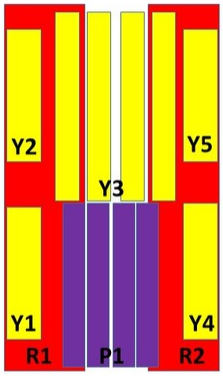
Input Voltage	10–30 Vdc
Internal RET	High band (2) | Low band (2) | Mid band (4)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	2180 mm | 85.827 in
Net Weight, antenna only	48 kg | 105.822 lb

Array Layout

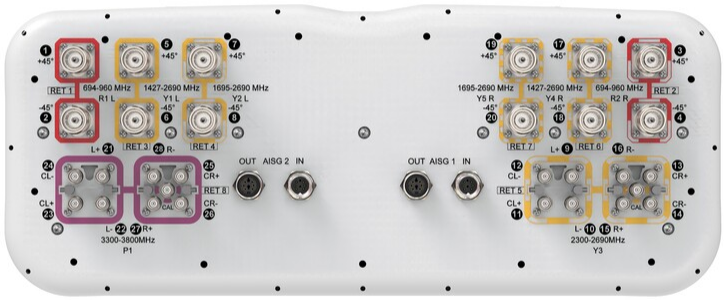


Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxxxR1
R2	694-960	3-4	2	CPxxxxxxxxxxxxxxR2
Y1	1427-2690	5-6	3	CPxxxxxxxxxxxxxxY1
Y2	1695-2690	7-8	4	CPxxxxxxxxxxxxxxY2
Y3	2300-2690	9-16	5	CPxxxxxxxxxxxxxxY3
Y4	1427-2690	17-18	6	CPxxxxxxxxxxxxxxY4
Y5	1695-2690	19-20	7	CPxxxxxxxxxxxxxxY5
P1	3300-3800	21-28	8	CPxxxxxxxxxxxxxxP1

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

Port Configuration

RRZZVVT4S4-65B-R8



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1427 – 2690 MHz | 1695 – 2690 MHz | 2300 – 2690 MHz | 3300 – 3800 MHz | 694 – 960 MHz
Polarization	±45°
Total Input Power, maximum	2,200 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	**698–806**	**790–896**	**890–960**
Gain at Mid Tilt, dBi	14.9	15.3	15.5
Beamwidth, Horizontal, degrees	69	63	61
Beamwidth, Vertical, degrees	10.2	9.3	8.6
Beam Tilt, degrees	2–12	2–12	2–12
USLS (First Lobe), dB	17	19	20
Front-to-Back Ratio at 180°, dB	31	29	29
Front-to-Back Total Power at 180° ± 30°, dB	21	21	23

CPR at Boresight, dB	20	20	21
CPR at Sector, dB	11	10	12
Isolation, Cross Polarization, dB	28	28	28
Isolation, Inter-band, dB	28	28	28
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150
Input Power per Port at 50°C, maximum, watts	300	300	300

Electrical Specifications

Frequency Band, MHz	**1427–1518**	**1695–1990**	**1920–2300**	**2300–2500**	**2490–2690**
Gain at Mid Tilt, dBi	14.3	15.8	16.3	17	17
Beamwidth, Horizontal, degrees	82	69	68	63	63
Beamwidth, Vertical, degrees	10.1	8.2	7.2	6.3	5.7
Beam Tilt, degrees	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	15	15	18	17	17
Front-to-Back Ratio at 180°, dB	31	32	28	33	33
Front-to-Back Total Power at 180° ± 30°, dB	25	25	23	26	25
CPR at Boresight, dB	18	18	20	17	14
CPR at Sector, dB	9	7	4	6	-1
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	-150	-150	-150	-150	-150
Input Power per Port at 50°C, maximum, watts	250	250	250	200	200

Electrical Specifications

Frequency Band, MHz	**1695–1990**	**1920–2300**	**2300–2500**	**2490–2690**
Gain at Mid Tilt, dBi	14.3	15.4	16.5	16.5
Beamwidth, Horizontal, degrees	76	70	59	57
Beamwidth, Vertical, degrees	9.3	8.3	7.3	6.8

Beam Tilt, degrees	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	15	16	18	18
Front-to-Back Ratio at 180°, dB	32	31	31	30
Front-to-Back Total Power at 180° ± 30°, dB	23	24	26	23
CPR at Boresight, dB	16	19	22	18
CPR at Sector, dB	6	6	7	4
Isolation, Cross Polarization, dB	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25
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	-150	-150	-150	-150
Input Power per Port at 50°C, maximum, watts	250	250	200	200

Electrical Specifications

Frequency Band, MHz	**2300–2500**	**2490–2690**	**3300–3600**	**3600–3800**
Gain at Mid Tilt, dBi	14.9	14.9	15.5	15.7
Beamwidth, Horizontal, degrees	92	90	93	87
Beamwidth, Vertical, degrees	5.8	5.4	6.3	5.9
Beam Tilt, degrees	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	16	17	17	16
Front-to-Back Ratio at 180°, dB	32	30	30	30
Front-to-Back Total Power at 180° ± 30°, dB	22	22	23	23
Coupling level, Amp, Antenna port to Cal port, dB	-26	-26	-26	-26
Coupling level, max Amp Δ, Antenna port to Cal port, dB	±2	±2	±2	±2
Coupler, max Amp Δ, Antenna port to Cal port, dB	0.9	0.9	0.9	0.9
Coupler, max Phase Δ, Antenna port to Cal port, degrees	7	7	7	7
CPR at Boresight, dB	16	16	17	17
CPR at Sector, dB	12	8	9	6

Isolation, Cross Polarization, dB	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25
Isolation, Co-polarization, dB	20	20	20	20
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	-140	-140	-140	-140
Input Power per Port at 50°C, maximum, watts	150	150	75	75

Electrical Specifications, Broadcast 65°

Frequency Band, MHz	**2300–2500**	**2490–2690**	**3300–3600**	**3600–3800**
Gain, dBi	17.6	17.8	18.5	18.5
Beamwidth, Horizontal, degrees	65	65	65	65
Beamwidth, Vertical, degrees	5.9	5.5	6.4	6
Front-to-Back Total Power at 180° ± 30°, dB	26	26	27	27
USLS (First Lobe), dB	17	19	23	21

Electrical Specifications, Service Beam

Frequency Band, MHz	**2300–2500**	**2490–2690**	**3300–3600**	**3600–3800**
Steered 0° Gain, dBi	20.4	20.4	21	20.9
Steered 0° Beamwidth, Horizontal, degrees	26	25	25	24
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	30	31	31	29
Steered 0° Horizontal Sidelobe, dB	14	14	14	13
Steered 30° Gain, dBi	19.4	19.8	20	20.2
Steered 30° Beamwidth, Horizontal, degrees	30	27	29	25
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	28	29	28	28

Electrical Specifications, Soft Split

Frequency Band, MHz	**2300–2500**	**2490–2690**	**3300–3600**	**3600–3800**
Gain, dBi	19.3	19.4	19.9	20.3
Beamwidth, Horizontal, degrees	34	32	32	28

Front-to-Back Total Power at 180° ± 30°, dB	29	30	27	28
Horizontal Sidelobe, dB	17	17	17	18

Mechanical Specifications

Wind Loading @ Velocity, frontal	741.0 N @ 150 km/h (166.6 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	194.0 N @ 150 km/h (43.6 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	985.0 N @ 150 km/h (221.4 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	510.0 N @ 150 km/h (114.7 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	565 mm | 22.244 in
Depth, packed	368 mm | 14.488 in
Length, packed	2359 mm | 92.874 in
Weight, gross	61.9 kg | 136.466 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

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.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance