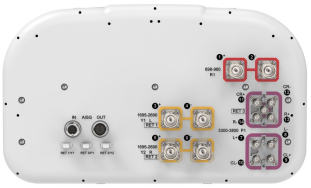
RVVS4-65S-R3



14-port sector antenna, 2x 698-960(R1), 4x 1695-2690(Y1&Y2) MHz, 65° HPBW and 8x 3300-3800(P1) MHz, 90° HPBW, 4x RET.

- All Internal RET actuators are connected in “Cascaded SRET” configuration
- M-LOC cluster connector for 3.3-3.8GHz, equipped with calibration port
- Combination of FDD MIMO antenna and 3.5GHz 8T8R TDD beam forming antenna, all in one for 5G ready

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	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	14

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	1 female | 1 male
Input Voltage	10–30 Vdc
Internal RET	High band (1) | Mid band (2)
Power Consumption, active state, maximum	10 W

RVVS4-65S-R3

Power Consumption, idle state, maximum	2 W
Protocol	3GPP/AISG 2.0

Dimensions

Width	395 mm | 15.551 in
Depth	228 mm | 8.976 in
Length	800 mm | 31.496 in
Net Weight, antenna only	16.6 kg | 36.597 lb

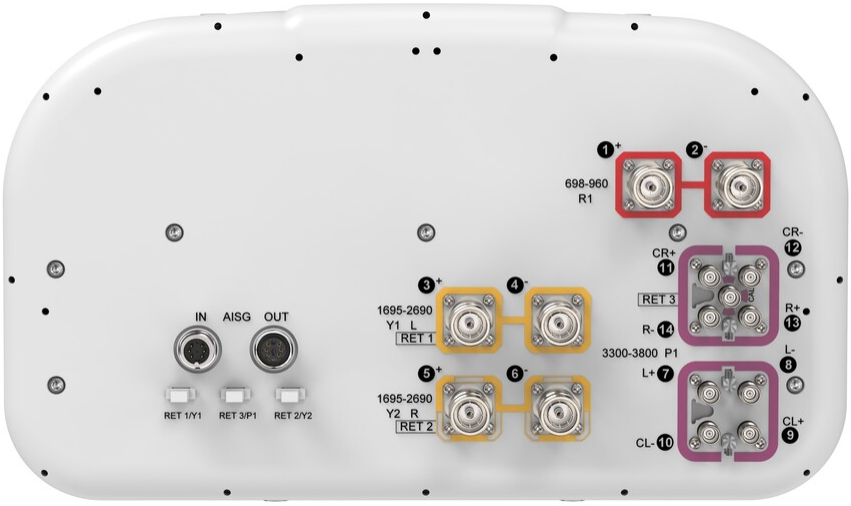
Array Layout

Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-960	1-2	NA	NA
Y1	1695-2690	3-4	1	CPxxxxxxxxxxxxxxxY1
Y2	1695-2690	5-6	2	CPxxxxxxxxxxxxxxxY2
P1	3300-3800	7-14	3	CPxxxxxxxxxxxxxxxP1

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

Port Configuration

RVVS4-65S-R3



Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2690 MHz | 3300 – 3800 MHz | 698 – 960 MHz
Polarization	±45°
Total Input Power, maximum	800 W @ 50 °C

Electrical Specifications

	R1	R1	Y1,Y2	Y1,Y2	Y1,Y2
Frequency Band, MHz	**698–862**	**880–960**	**1695–1920**	**1920–2200**	**2300–2690**
RF Port	1,2	1,2	3-6	3-6	3-6
Gain at Mid Tilt, dBi	11.5	11.7	14.2	14.4	15.1
Beamwidth, Horizontal, degrees	70	68	70	71	63
Beamwidth, Vertical, degrees	27.7	22.8	13.2	12	10.3
Beam Tilt, degrees	12	12	2–12	2–12	2–12
USLS (First Lobe), dB	14	13	16	15	15
Front-to-Back Ratio at 180°, dB	32	33	33	34	31
Front-to-Back Total Power at 180° ± 30°, dB	21	22	26	28	27
CPR at Boresight, dB	20	23	22	24	19

CPR at Sector, dB	10	10	15	11	8
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	200	200	200	200	150

Electrical Specifications

	P1	**P1**
Frequency Band, MHz	**3300–3600**	**3600–3800**
RF Port	7-14	7-14
Gain at Mid Tilt, dBi	14.5	14.9
Beamwidth, Horizontal, degrees	81	74
Beamwidth, Vertical, degrees	7.2	6.8
Beam Tilt, degrees	0–10	0–10
USLS (First Lobe), dB	15	14
Front-to-Back Ratio at 180°, dB	29	29
Front-to-Back Total Power at 180° ± 30°, dB	20	22
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	14	15
CPR at Sector, dB	7	6
Isolation, Cross Polarization, dB	25	25
Isolation, Inter-band, dB	25	25
Isolation, Co-polarization, dB	20	20
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	17.6	17.8
Beamwidth, Horizontal, degrees	65	65
Beamwidth, Vertical, degrees	7.1	6.6
Front-to-Back Total Power at 180° ± 30°, dB	26	28
USLS (First Lobe), dB	19	17

Electrical Specifications, Envelope Pattern

Frequency Band, MHz	**3300–3600**	**3600–3800**
Gain, dBi	19.5	19.7
Beamwidth, Horizontal at 10 dB, degrees	119	111
Front-to-Back Total Power at 180° ± 30°, dB	26	28
USLS (First Lobe), dB	19	19

Electrical Specifications, Service Beam

Frequency Band, MHz	**3300–3600**	**3600–3800**
Steered 0° Gain, dBi	19.5	19.7
Steered 0° Beamwidth, Horizontal, degrees	24	22
Steered 0° Front-to-Back Total Power at 180° ± 30°, dB	29	30
Steered 0° Horizontal Sidelobe, dB	13	13
Steered 30° Gain, dBi	18.2	18.9
Steered 30° Beamwidth, Horizontal, degrees	29	26
Steered 30° Front-to-Back Total Power at 180° ± 30°, dB	27	28

Mechanical Specifications

Wind Loading @ Velocity, frontal	110.0 N @ 150 km/h (24.7 lbf @ 150 km/h)

Wind Loading @ Velocity, lateral	93.0 N @ 150 km/h (20.9 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	220.0 N @ 150 km/h (49.5 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	126.0 N @ 150 km/h (28.3 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h (150 mph)

Packaging and Weights

Width, packed	509 mm | 20.039 in
Depth, packed	386 mm | 15.197 in
Length, packed	941 mm | 37.047 in
Weight, gross	26.1 kg | 57.541 lb

Regulatory Compliance/Certifications

Agency	**Classification**
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

Included Products

BSAMNT-3	–	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