

KVVSS-65A-R3



10-port sector antenna, 2x 617-960, 4x 1695-2690 and 4x 3100-4200 MHz, 65° HPBW, 3x RETs. Both high bands share the same electrical tilt.

- Small size ideal for deploying low band, mid band and 3.5 GHz in concealments and flagpoles

General Specifications

Antenna Type	Sector
Band	Multiband
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
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, mid band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	10

Remote Electrical Tilt (RET) Information

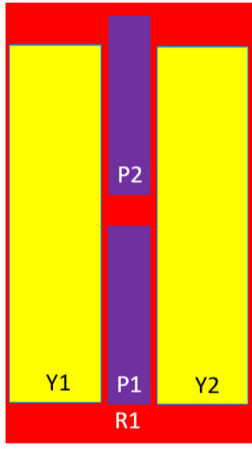
RET Hardware	CommRET v2
RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	1 female 1 male
Input Voltage	10–30 Vdc
Internal RET	High band (1) Low band (1) Mid band (1)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0 (Multi-RET)

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Dimensions

Width	301 mm 11.85 in
Depth	181 mm 7.126 in
Length	1219 mm 47.992 in
Net Weight, antenna only	16.1 kg 35.494 lb

Array Layout



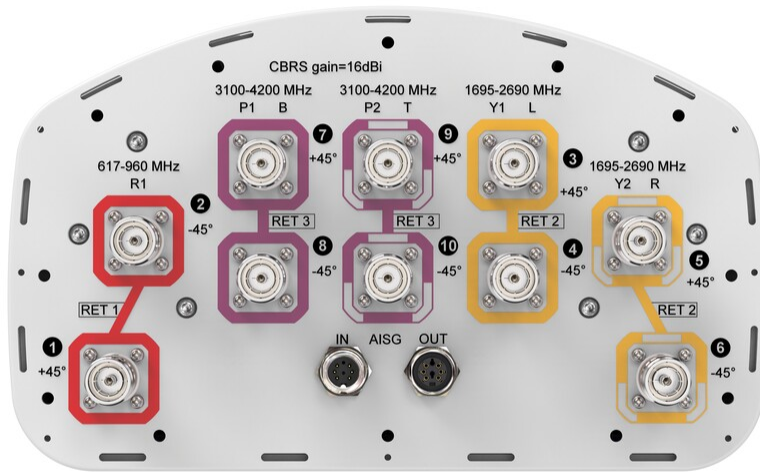
Array	Freq (MHz)	Conns	RET (MRET)	AISG RET UID
R1	617-960	1-2	1	CPxxxxxxxxxxxxxxxxMM.1
Y1	1695-2690	3-4	2	CPxxxxxxxxxxxxxxxxMM.2
Y2	1695-2690	5-6		
P1	3100-4200	7-8	3	CPxxxxxxxxxxxxxxxxMM.3
P2	3100-4200	9-10		

Left Bottom Right

(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	1695 – 2690 MHz 3100 – 4200 MHz 617 – 960 MHz
Polarization	±45°
Total Input Power, maximum	1,000 W @ 50 °C

Electrical Specifications

	R1	R1	R1	R1	Y1,Y2	Y1,Y2	Y1,Y2	Y1,Y2	Y1,Y2
Frequency Band, MHz	617–698	698–806	806–894	894–960	1695–1880	1850–1990	1920–2200	2300–2500	2500–2690
RF Port	1,2	1,2	1,2	1,2	3,4,5,6	3,4,5,6	3,4,5,6	3,4,5,6	3,4,5,6
Gain, dBi	12.9	13	13.2	13	16.4	16.9	17.1	16.5	17.3
Beamwidth, Horizontal, degrees	75	75	72	72	66	60	61	72	61
Beamwidth, Vertical, degrees	21.2	18.4	16.3	15.1	7.5	7	6.6	6	5.7
Beam Tilt, degrees	4–18	4–18	4–18	4–18	2–12	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	18	19	17	16	15	16	17	17	17
Front-to-Back Ratio at	27	34	32	31	33	35	32	33	33

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180°, dB

Isolation, Cross Polarization, dB	25	25	25	25	25	25	25	25	25
Isolation, Inter-band, dB	25	25	25	25	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	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	-150
Input Power per Port at 50°C, maximum, watts	250	250	250	250	200	200	200	200	200

Electrical Specifications, BASTA

Frequency Band, MHz	617-698	698-806	806-894	894-960	1695-1880	1850-1990	1920-2200	2300-2500	2500-2690
Gain by all Beam Tilts, average, dBi	12.7	12.7	12.9	12.7	15.8	16.5	16.7	16.1	16.8
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.3	±0.4	±0.6	±0.8	±0.5	±0.5	±0.6	±0.7
Beamwidth, Horizontal Tolerance, degrees	±2	±4	±3	±4	±6	±4	±7	±6	±11
Beamwidth, Vertical Tolerance, degrees	±1.4	±1.5	±1.2	±0.9	±0.6	±0.4	±0.5	±0.5	±0.6
USLS, beampeak to 20° above beampeak, dB				19	13	14	14	14	14
Front-to-Back Total Power at 180° ± 30°, dB	18	22	22	21	24	26	26	24	26
CPR at Boresight, dB	18	20	24	25	19	22	23	22	24
CPR at Sector, dB	8	13	10	7	4	4	4	6	7

Electrical Specifications

	P1,P2	P1,P2	P1,P2
Frequency Band, MHz	3100-3400	3400-3800	3700-4200
RF Port	7,8,9,10	7,8,9,10	7,8,9,10
Gain, dBi	16	15.5	15.6
Beamwidth, Horizontal, degrees	49	60	59
Beamwidth, Vertical, degrees	8.6	7.8	7.1
Beam Tilt, degrees	2-12	2-12	2-12
USLS (First Lobe), dB	18	16	15
Front-to-Back Ratio at 180°, dB	31	30	29

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Isolation, Cross Polarization, dB	25	25	25
Isolation, Inter-band, dB	25	25	25
VSWR Return loss, dB	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-145	-145	-145
Input Power per Port at 50°C, maximum, watts	100	100	100

Electrical Specifications, BASTA

Frequency Band, MHz	3100–3400	3400–3800	3700–4200
Gain by all Beam Tilts, average, dBi	15.4	15	15.1
Gain by all Beam Tilts Tolerance, dB	±0.9	±0.7	±0.8
Beamwidth, Horizontal Tolerance, degrees	±11	±10	±10
Beamwidth, Vertical Tolerance, degrees	±0.8	±0.9	±0.8
USLS, beampeak to 20° above beampeak, dB	12	13	12
Front-to-Back Total Power at 180° ± 30°, dB	25	24	24
CPR at Boresight, dB	17	14	15
CPR at Sector, dB	7	4	4

Mechanical Specifications

Wind Loading @ Velocity, frontal	173.0 N @ 150 km/h (38.9 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	142.0 N @ 150 km/h (31.9 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	334.0 N @ 150 km/h (75.1 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	176.0 N @ 150 km/h (39.6 lbf @ 150 km/h)
Wind Speed, maximum	241.4 km/h (150 mph)

Packaging and Weights

Width, packed	380 mm 14.961 in
Depth, packed	295 mm 11.614 in
Length, packed	1344 mm 52.913 in
Weight, gross	26.4 kg 58.202 lb

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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-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