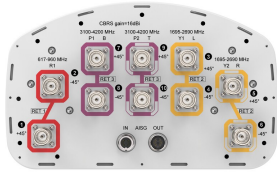


# KVVSS-65A-R3-V1



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

<b>Antenna Type</b>	Sector
<b>Band</b>	Multiband
<b>Color</b>	Light Gray (RAL 7035)
<b>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Reflector Material</b>	Aluminum
<b>RF Connector Interface</b>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, high band</b>	4
<b>RF Connector Quantity, mid band</b>	4
<b>RF Connector Quantity, low band</b>	2
<b>RF Connector Quantity, total</b>	10

## Remote Electrical Tilt (RET) Information

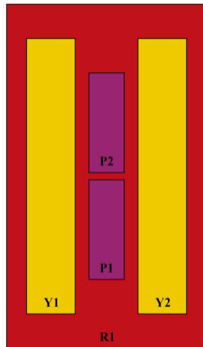
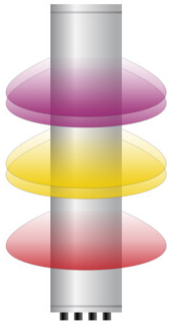
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	1 female   1 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	High band (1)   Low band (1)   Mid band (1)
<b>Power Consumption, active state, maximum</b>	10 W
<b>Power Consumption, idle state, maximum</b>	2 W
<b>Protocol</b>	3GPP/AISG 2.0 (Multi-RET)

## Dimensions

# KVVSS-65A-R3-V1

<b>Width</b>	301 mm   11.85 in
<b>Depth</b>	181 mm   7.126 in
<b>Length</b>	1219 mm   47.992 in
<b>Net Weight, antenna only</b>	17.5 kg   38.581 lb

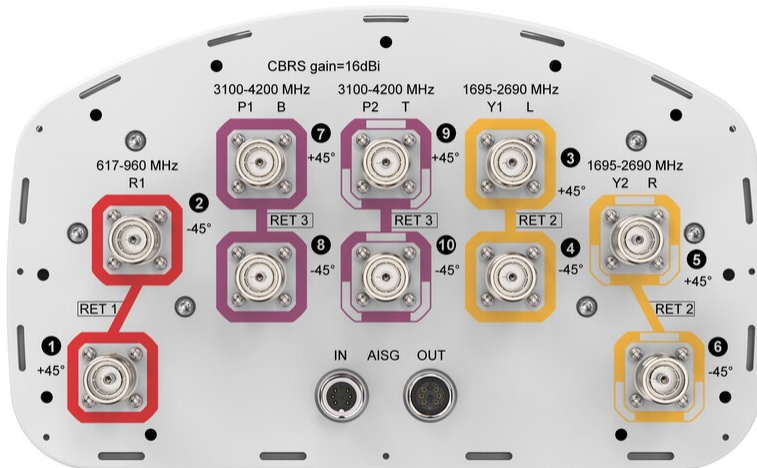
## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (MRET)	AISG No.	AISG RET UID
R1	617-960	1 - 2	1	AISG1	CPxxxxxxxxxxxxMM.1
Y1	1695-2690	3 - 4	2	AISG1	CPxxxxxxxxxxxxMM.2
Y2	1695-2690	5 - 6	2	AISG1	CPxxxxxxxxxxxxMM.2
P1	3100-4200	7 - 8	3	AISG1	CPxxxxxxxxxxxxMM.3
P2	3100-4200	9 - 10	3	AISG1	CPxxxxxxxxxxxxMM.3

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

## Port Configuration



## Electrical Specifications

<b>Impedance</b>	50 ohm
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# KVVSS-65A-R3-V1

<b>Operating Frequency Band</b>	1695 – 2690 MHz   3100 – 4200 MHz   617 – 960 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	1,000 W @ 50 °C

## Electrical Specifications

	<b>R1</b>	<b>R1</b>	<b>R1</b>	<b>R1</b>	<b>Y1,Y2</b>	<b>Y1,Y2</b>	<b>Y1,Y2</b>	<b>Y1,Y2</b>	<b>Y1,Y2</b>
<b>Frequency Band, MHz</b>	<b>617–698</b>	<b>698–806</b>	<b>806–894</b>	<b>894–960</b>	<b>1695–1880</b>	<b>1850–1990</b>	<b>1920–2200</b>	<b>2300–2500</b>	<b>2500–2690</b>
<b>RF Port</b>	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
<b>Gain at Mid Tilt, dBi</b>	12.7	13.2	13.3	13.2	16.3	16.6	16.9	16.8	17.1
<b>Beamwidth, Horizontal, degrees</b>	77	74	73	71	67	62	62	72	63
<b>Beamwidth, Vertical, degrees</b>	21	18.5	16.4	15.2	7.6	7	6.6	6	5.7
<b>Beam Tilt, degrees</b>	4–18	4–18	4–18	4–18	2–12	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	18	19	19	18	17	17	18	17	17
<b>Front-to-Back Ratio at 180°, dB</b>	27	34	34	34	33	35	33	30	32
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25	25	25	25	25	25	25
<b>VSWR   Return loss, dB</b>	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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-150	-150	-150	-150	-150	-150	-150	-150
<b>Input Power per Port at 50°C, maximum, watts</b>	250	250	250	250	200	200	200	200	200

## Electrical Specifications, BASTA

	<b>617–698</b>	<b>698–806</b>	<b>806–894</b>	<b>894–960</b>	<b>1695–1880</b>	<b>1850–1990</b>	<b>1920–2200</b>	<b>2300–2500</b>	<b>2500–2690</b>
<b>Frequency Band, MHz</b>	<b>617–698</b>	<b>698–806</b>	<b>806–894</b>	<b>894–960</b>	<b>1695–1880</b>	<b>1850–1990</b>	<b>1920–2200</b>	<b>2300–2500</b>	<b>2500–2690</b>
<b>Gain by all Beam Tilts, average, dBi</b>	12.4	12.9	13	12.9	15.8	16.3	16.5	16.3	16.8
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.4	±0.3	±0.4	±0.5	±0.7	±0.4	±0.5	±0.6	±0.7
<b>USLS, beampeak to 20° above beampeak, dB</b>	18	19	18	15	14	14	15	14	15
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	19	23	23	22	24	26	27	25	25
<b>CPR at Boresight, dB</b>	17	22	25	26	20	23	23	22	22
<b>CPR at Sector, dB</b>	12	12	12	7	5	5	5	7	7

# KVVSS-65A-R3-V1

## Electrical Specifications

	<b>P1,P2</b>	<b>P1,P2</b>	<b>P1,P2</b>
<b>Frequency Band, MHz</b>	<b>3100-3400</b>	<b>3400-3800</b>	<b>3700-4200</b>
<b>RF Port</b>	7,8,9,10	7,8,9,10	7,8,9,10
<b>Gain at Mid Tilt, dBi</b>	15.5	15.5	15.6
<b>Beamwidth, Horizontal, degrees</b>	50	59	59
<b>Beamwidth, Vertical, degrees</b>	8.5	7.9	7.3
<b>Beam Tilt, degrees</b>	2-12	2-12	2-12
<b>USLS (First Lobe), dB</b>	18	16	15
<b>Front-to-Back Ratio at 180°, dB</b>	31	30	29
<b>Isolation, Cross Polarization, dB</b>	25	25	25
<b>Isolation, Inter-band, dB</b>	25	25	25
<b>VSWR   Return loss, dB</b>	1.5   14.0	1.5   14.0	1.5   14.0
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-145	-145	-145
<b>Input Power per Port at 50°C, maximum, watts</b>	100	100	100

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>3100-3400</b>	<b>3400-3800</b>	<b>3700-4200</b>
<b>Gain by all Beam Tilts, average, dBi</b>	15.1	14.8	15
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.7	±0.5	±0.9
<b>USLS, beampeak to 20° above beampeak, dB</b>	11	10	11
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	26	24	24
<b>CPR at Boresight, dB</b>	16	16	16
<b>CPR at Sector, dB</b>	7	4	4

## Mechanical Specifications

<b>Effective Projective Area (EPA), frontal</b>	0.16 m <sup>2</sup>   1.722 ft <sup>2</sup>
<b>Effective Projective Area (EPA), lateral</b>	0.13 m <sup>2</sup>   1.399 ft <sup>2</sup>

# KVVSS-65A-R3-V1

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<b>Wind Loading @ Velocity, frontal</b>	173.0 N @ 150 km/h (38.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	142.0 N @ 150 km/h (31.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	334.0 N @ 150 km/h (75.1 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	176.0 N @ 150 km/h (39.6 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	565 mm   22.244 in
<b>Depth, packed</b>	342 mm   13.465 in
<b>Length, packed</b>	1362 mm   53.622 in
<b>Weight, gross</b>	23 kg   50.706 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Below maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



## \* Footnotes

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