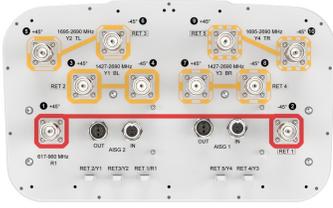


# KZZVV-65D-R5



10-port sector antenna, 2x 617–960, 4x 1427–2690 MHz and 4x 1695–2690 MHz, 65° HPBW, 5x RET with tilt indicators

- All Internal RET actuators are connected in “Cascaded SRET” configuration
- Uses the 4.3-10 connector which is 40 percent smaller than the 7-16 DIN connector
- Wind Loading; Frontal / Lateral / Rear – 477 / 409 / 506 N @ 150km/h
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios

## 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>Radiator Material</b>	Aluminum   Low loss circuit board
<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>	8
<b>RF Connector Quantity, mid band</b>	0
<b>RF Connector Quantity, low band</b>	2
<b>RF Connector Quantity, total</b>	10

## Remote Electrical Tilt (RET) Information

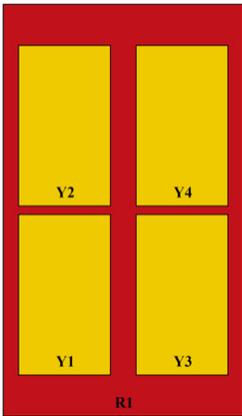
<b>RET Hardware</b>	CommRET v2
<b>RET Interface, quantity</b>	2 female   2 male
<b>Input Voltage</b>	10–30 Vdc
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle state, maximum</b>	1 W
<b>Protocol</b>	3GPP/AISG 2.0 (Single RET)

# KZZVV-65D-R5

## Dimensions

<b>Width</b>	350 mm   13.78 in
<b>Depth</b>	208 mm   8.189 in
<b>Length</b>	2688 mm   105.827 in
<b>Net Weight, antenna only</b>	33.6 kg   74.075 lb

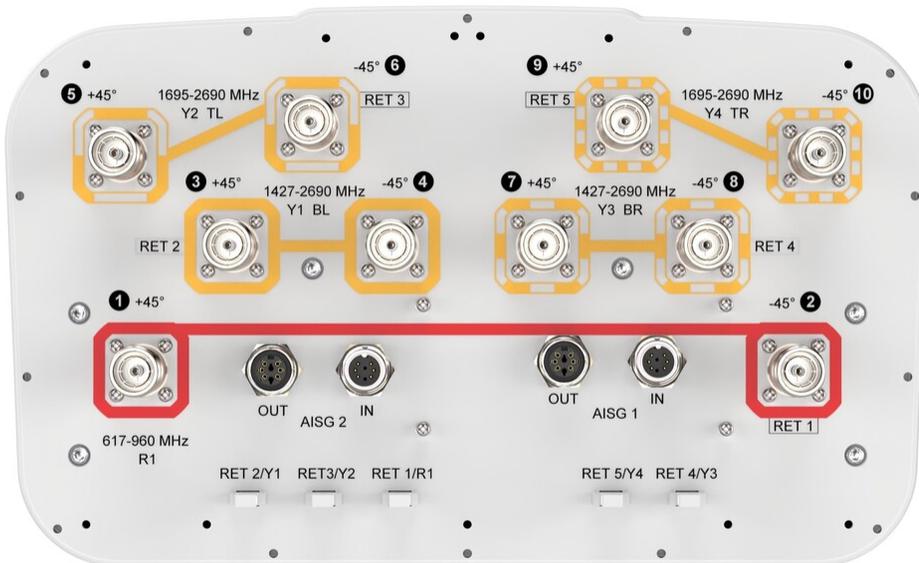
## Array Layout



Array ID	Frequency (MHz)	RF Connector	RET (SRET)	AISG No.	AISG RET UID
R1	617-960	1 - 2	1	AISG1	CPxxxxxxxxxxxxxxxxR1
Y1	1427-2690	3 - 4	2	AISG1	CPxxxxxxxxxxxxxxxxY1
Y2	1695-2690	5 - 6	3	AISG1	CPxxxxxxxxxxxxxxxxY2
Y3	1427-2690	7 - 8	4	AISG1	CPxxxxxxxxxxxxxxxxY3
Y4	1695-2690	9 - 10	5	AISG1	CPxxxxxxxxxxxxxxxxY4

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

## Port Configuration



# KZZVV-65D-R5

## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1427 – 1518 MHz   1695 – 2690 MHz   617 – 960 MHz
<b>Polarization</b>	±45°

## Electrical Specifications

Frequency Band, MHz	617–690	690–790	790–890	890–960	1427–1518	1695–1920	1930–2200
<b>Gain, dBi</b>	16	16	16.5	16.5	15	16.8	17.2
<b>Beamwidth, Horizontal, degrees</b>	73	73	70	71	71	58	56
<b>Beamwidth, Vertical, degrees</b>	9.3	8.4	7.5	6.9	9.4	7.7	6.8
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	19	20	18	18	15	15	15
<b>Front-to-Back Ratio at 180°, dB</b>	26	29	32	34	32	38	35
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25	25	25	25
<b>Isolation, Inter-band, dB</b>	28	28	28	28	28	28	28
<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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-150	-150	-150	-150	-150	-150
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	300	300	250	250	250

## Electrical Specifications

Frequency Band, MHz	2300–2500	2500–2690	1695–1920	1930–2200	2300–2500	2500–2690
<b>Gain, dBi</b>	17.4	17.3	16.5	17.2	17.5	17.5
<b>Beamwidth, Horizontal, degrees</b>	66	62	61	60	62	60
<b>Beamwidth, Vertical, degrees</b>	5.8	5.4	7.5	6.6	5.8	5.4
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	17	17	16	16	19	18
<b>Front-to-Back Ratio at 180°, dB</b>	31	29	38	37	32	32
<b>Isolation, Cross Polarization, dB</b>	25	25	28	28	28	28
<b>Isolation, Inter-band, dB</b>	28	28	28	28	28	28
<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

# KZZVV-65D-R5

<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-150	-150	-150	-150	-150
<b>Input Power per Port at 50°C, maximum, watts</b>	200	200	250	250	200	200

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	477.0 N @ 150 km/h (107.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	409.0 N @ 150 km/h (91.9 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	506.0 N @ 150 km/h (113.8 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

## Packaging and Weights

<b>Width, packed</b>	460 mm   18.11 in
<b>Depth, packed</b>	350 mm   13.78 in
<b>Length, packed</b>	2830 mm   111.417 in
<b>Weight, gross</b>	47.5 kg   104.719 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.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



## 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.
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## \* Footnotes

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