

# RRZZHHTTVV65CR10V3



20-port sector antenna, 4x 694–960 , 4x 1427–2690, 4x 1695–2180, 4x 2490–2690 and 4x 1695–2690MHz, 65° HPBW, 10x RET

- 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>Grounding Type</b>	RF connector inner conductor and body grounded to reflector and mounting bracket
<b>Performance Note</b>	Outdoor usage
<b>RF Connector Interface</b>	4.3-10 Female
<b>RF Connector Location</b>	Bottom
<b>RF Connector Quantity, mid band</b>	16
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	20

## Remote Electrical Tilt (RET) Information

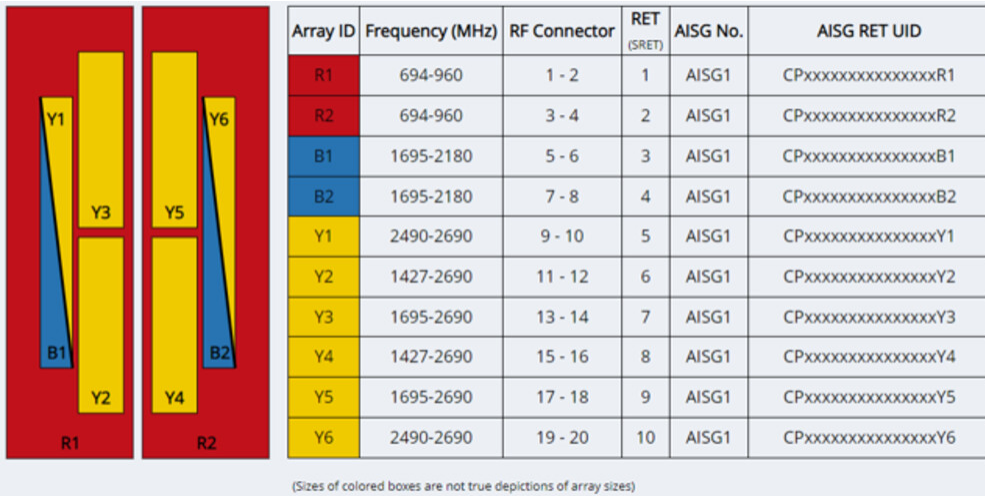
<b>RET Hardware</b>	CommRET v2
<b>RET Interface</b>	8-pin DIN Female   8-pin DIN Male
<b>RET Interface, quantity</b>	2 female   2 male
<b>Input Voltage</b>	10–30 Vdc
<b>Internal RET</b>	Low band (2)   Mid band (8)
<b>Power Consumption, active state, maximum</b>	8 W
<b>Power Consumption, idle state, maximum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

## Dimensions

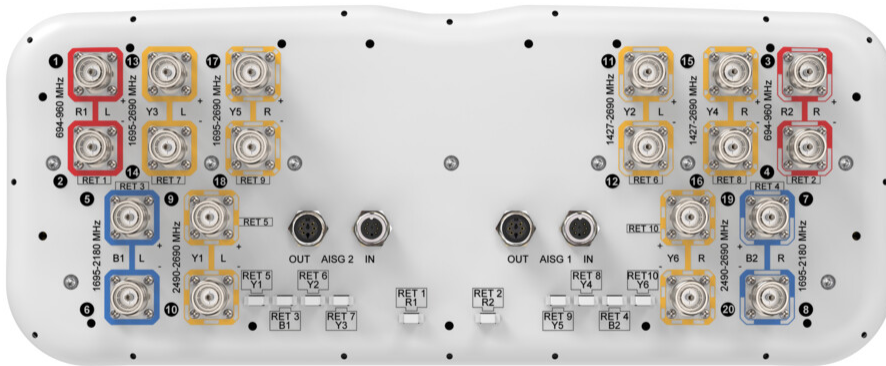
<b>Width</b>	498 mm   19.606 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	2258 mm   88.898 in
<b>Net Weight, antenna only</b>	41.4 kg   91.271 lb

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## Array Layout



## Port Configuration



## Electrical Specifications

<b>Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	1427 – 2690 MHz   1695 – 2180 MHz   1695 – 2690 MHz   2490 – 2690 MHz   694 – 960 MHz
<b>Polarization</b>	±45°
<b>Total Input Power, maximum</b>	900 W @ 50 °C

## Electrical Specifications

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	<b>R1,R2</b>	<b>R1,R2</b>	<b>R1,R2</b>	<b>B1,B2</b>	<b>B1,B2</b>	<b>Y1,Y6</b>	<b>Y2,Y4</b>
<b>Frequency Band, MHz</b>	<b>698–806</b>	<b>790–894</b>	<b>890–960</b>	<b>1695–1995</b>	<b>1920–2180</b>	<b>2490–2690</b>	<b>1427–1518</b>
<b>RF Port</b>	1-4	1-4	1-4	5-8	5-8	9,10,19,20	11,12,15,16
<b>Gain at Mid Tilt, dBi</b>	15.2	15.8	15.7	17.4	18.2	18.3	14.8
<b>Beamwidth, Horizontal, degrees</b>	72	64	66	69	65	57	72
<b>Beamwidth, Vertical, degrees</b>	9.8	8.6	7.8	5.6	5	4.2	10.4
<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>	18	17	17	17	17	17	15
<b>Front-to-Back Ratio at 180°, dB</b>	31	31	31	32	30	32	33
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	21	21	21	27	26	27	23
<b>Isolation, Cross Polarization, dB</b>	26	26	26	25	25	25	25
<b>Isolation, Inter-band, dB</b>	26	26	26	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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153	-153	-153	-153
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	300	250	250	200	250

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	<b>698–806</b>	<b>790–894</b>	<b>890–960</b>	<b>1695–1995</b>	<b>1920–2180</b>	<b>2490–2690</b>	<b>1427–1518</b>
<b>Frequency Band, MHz</b>	<b>698–806</b>	<b>790–894</b>	<b>890–960</b>	<b>1695–1995</b>	<b>1920–2180</b>	<b>2490–2690</b>	<b>1427–1518</b>
<b>Gain by all Beam Tilts, average, dBi</b>	15.1	15.6	15.6	17.3	18	17.9	14.8
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.5	±0.5	±0.5	±0.7	±0.4	±0.5	±0.4
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±7	±6	±9	±4	±6	±3	±10
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.6	±0.8	±0.5	±0.4	±0.3	±0.3	±0.9
<b>USLS, beampeak to 20° above beampeak, dB</b>				15	15	14	14
<b>CPR at Boresight, dB</b>	21	21	18	20	21	19	17
<b>CPR at Sector, dB</b>	10	6	7	8	7	2	8

## Electrical Specifications

	<b>Y2,Y4</b>	<b>Y2,Y4</b>	<b>Y2,Y4</b>	<b>Y2,Y4</b>
<b>Frequency Band, MHz</b>	<b>1695–1995</b>	<b>1920–2300</b>	<b>2300–2500</b>	<b>2490–2690</b>

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<b>RF Port</b>	11,12,15,16	11,12,15,16	11,12,15,16	11,12,15,16
<b>Gain at Mid Tilt, dBi</b>	16.6	17.3	18	18.2
<b>Beamwidth, Horizontal, degrees</b>	65	61	56	54
<b>Beamwidth, Vertical, degrees</b>	8.3	7.4	6.4	6
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	17	18	18	18
<b>Front-to-Back Ratio at 180°, dB</b>	33	33	32	32
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	30	29	28	28
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25
<b>Isolation, Inter-band, dB</b>	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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153
<b>Input Power per Port at 50°C, maximum, watts</b>	250	250	200	200

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>1695–1995</b>	<b>1920–2300</b>	<b>2300–2500</b>	<b>2490–2690</b>
<b>Gain by all Beam Tilts, average, dBi</b>	16.5	17.2	17.8	18
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.8	±0.5	±0.5	±0.4
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±7	±4	±4	±3
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.8	±0.7	±0.3	±0.3
<b>USLS, beampeak to 20° above beampeak, dB</b>	14	16	15	14
<b>CPR at Boresight, dB</b>	22	22	22	20
<b>CPR at Sector, dB</b>	8	5	5	3

## Electrical Specifications

	<b>Y3,Y5</b>	<b>Y3,Y5</b>	<b>Y3,Y5</b>	<b>Y3,Y5</b>
<b>Frequency Band, MHz</b>	<b>1695–1995</b>	<b>1920–2300</b>	<b>2300–2500</b>	<b>2490–2690</b>
<b>RF Port</b>	13,14,17,18	13,14,17,18	13,14,17,18	13,14,17,18
<b>Gain at Mid Tilt, dBi</b>	16.5	17.4	17.8	18

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<b>Beamwidth, Horizontal, degrees</b>	65	58	56	57
<b>Beamwidth, Vertical, degrees</b>	8.6	7.6	6.6	6.3
<b>Beam Tilt, degrees</b>	2-12	2-12	2-12	2-12
<b>USLS (First Lobe), dB</b>	16	16	16	19
<b>Front-to-Back Ratio at 180°, dB</b>	33	33	33	33
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	30	30	30	29
<b>Isolation, Cross Polarization, dB</b>	25	25	25	25
<b>Isolation, Inter-band, dB</b>	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
<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-153	-153	-153	-153
<b>Input Power per Port at 50°C, maximum, watts</b>	250	250	200	200

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>1695-1995</b>	<b>1920-2300</b>	<b>2300-2500</b>	<b>2490-2690</b>
<b>Gain by all Beam Tilts, average, dBi</b>	16.4	17.3	17.6	17.9
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.7	±0.5	±0.3	±0.4
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±7	±5	±5	±4
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.7	±0.6	±0.3	±0.3
<b>USLS, beampeak to 20° above beampeak, dB</b>	16	16	16	17
<b>CPR at Boresight, dB</b>	21	23	21	20
<b>CPR at Sector, dB</b>	10	8	7	5

## Mechanical Specifications

<b>Wind Loading @ Velocity, frontal</b>	768.0 N @ 150 km/h (172.7 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	201.0 N @ 150 km/h (45.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	1,020.0 N @ 150 km/h (229.3 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	528.0 N @ 150 km/h (118.7 lbf @ 150 km/h)
<b>Wind Speed, maximum</b>	241 km/h (150 mph)

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## Packaging and Weights

<b>Width, packed</b>	565 mm   22.244 in
<b>Depth, packed</b>	309 mm   12.165 in
<b>Length, packed</b>	2445 mm   96.26 in
<b>Weight, gross</b>	52.6 kg   115.963 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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-2F	-	Mounting bracket for cylindrical pipe installations (60-115mm pipe diameter) for fix mechanical tilt applications.
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## \* Footnotes

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