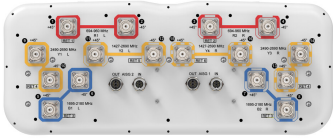


# RRZZHHTT-65D-R6



16-port, sector antenna, RF port assignments are as follows: R1+R2 = 694–960, Y2+Y4 = 1427–2690MHz, B1+B2 = 1695–2180 and Y1+Y3 = 2490–2690 MHz, 65° horizontal beamwidth, 6x Internal RET. B1+B2 and Y1+Y3 share common RET, 2.7m

- All Internal RET actuators are connected in “Cascaded SRET” configuration
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios
- A common electrical tilt setting is shared by RF Ports B1+B2 and Y1+Y3
- Electrical tilt settings applicable to RF Ports R1, R2, Y2, Y4 can be set independently (See Array Layout and RET Table below)
- New endcap designs provide improved wind loading performance

## 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   Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
<b>Radome Material</b>	Fiberglass, UV resistant
<b>Radiator Material</b>	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, mid band</b>	12
<b>RF Connector Quantity, low band</b>	4
<b>RF Connector Quantity, total</b>	16

## 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

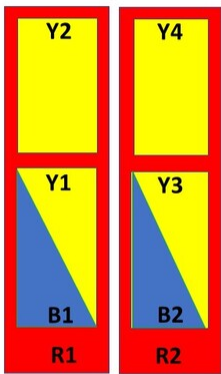
# RRZZHHTT-65D-R6

<b>Internal RET</b>	Low band (2)   Mid band (4)
<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)

## Dimensions

<b>Width</b>	498 mm   19.606 in
<b>Depth</b>	197 mm   7.756 in
<b>Length</b>	2688 mm   105.827 in
<b>Net Weight, antenna only</b>	50.7 kg   111.774 lb

## Array Layout

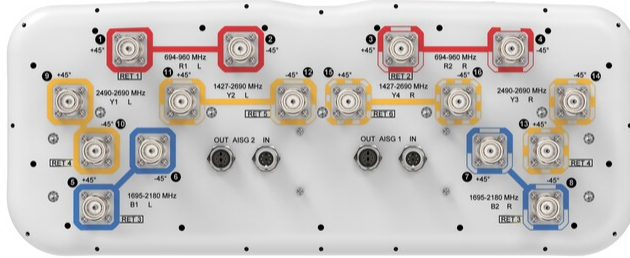


Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	694-960	1-2	1	CPxxxxxxxxxxxxxxxxR1
R2	694-960	3-4	2	CPxxxxxxxxxxxxxxxxR2
Y2	1427-2690	11-12	5	CPxxxxxxxxxxxxxxxxY2
Y4	1427-2690	15-16	6	CPxxxxxxxxxxxxxxxxY4
B1	1695-2180	5-6	3	CPxxxxxxxxxxxxxxxxB1
B2	1695-2180	7-8		
Y1	2490-2690	9-10	4	CPxxxxxxxxxxxxxxxxY1
Y3	2490-2690	13-14		

Left Right Bottom (Sizes of colored boxes are not true depictions of array sizes or location)

## Port Configuration

# RRZZHHTT-65D-R6



## Electrical Specifications

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

## Electrical Specifications

	R1,R2	R1,R2	B1,B2	B1,B2	Y1,Y3	Y2,Y4	Y2,Y4	Y2,Y4
<b>Frequency Band, MHz</b>	<b>694–862</b>	<b>880–960</b>	<b>1695–1880</b>	<b>1920–2180</b>	<b>2490–2690</b>	<b>1427–1518</b>	<b>1695–2180</b>	<b>2300–2690</b>
<b>RF Port</b>	1-4	1-4	5-8	5-8	9,10,13,14	11,12,15,16	11,12,15,16	11,12,15,16
<b>Gain, dBi</b>	16.2	16.7	16.8	17.3	16.9	15.1	16.9	17.3
<b>Beamwidth, Horizontal, degrees</b>	68	61	58	60	68	67	59	62
<b>Beamwidth, Vertical, degrees</b>	8.1	7	7.6	6.8	5.7	9.6	7.3	5.6
<b>Beam Tilt, degrees</b>	2–12	2–12	2–12	2–12	2–12	2–12	2–12	2–12
<b>USLS (First Lobe), dB</b>	18	20	18	20	17	16	17	19
<b>Front-to-Back Ratio at 180°, dB</b>	31	32	35	36	32	33	38	31
<b>Isolation, Cross Polarization, dB</b>	28	28	28	28	28	28	28	28
<b>Isolation, Inter-band, dB</b>	30	30	30	30	30	30	30	30
<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

# RRZZHHTT-65D-R6

<b>PIM, 3rd Order, 2 x 20 W, dBc</b>	-150	-150	-150	-150	-150	-150	-150	-150
<b>Input Power per Port at 50°C, maximum, watts</b>	300	300	250	250	150	250	250	200

## Electrical Specifications, BASTA

<b>Frequency Band, MHz</b>	<b>694–862</b>	<b>880–960</b>	<b>1695–1880</b>	<b>1920–2180</b>	<b>2490–2690</b>	<b>1427–1518</b>	<b>1695–2180</b>	<b>2300–2690</b>
<b>Gain by all Beam Tilts, average, dBi</b>	15.8	16.4	16.4	17	16.4	14.5	16.4	16.8
<b>Gain by all Beam Tilts Tolerance, dB</b>	±0.5	±0.5	±0.6	±0.4	±0.6	±0.8	±0.7	±0.7
<b>Beamwidth, Horizontal Tolerance, degrees</b>	±3.5	±5.1	±4.1	±2.9	±5.4	±3.9	±4.6	±7.4
<b>Beamwidth, Vertical Tolerance, degrees</b>	±0.9	±0.4	±0.4	±0.6	±0.3	±0.9	±0.9	±0.5
<b>USLS, beampeak to 20° above beampeak, dB</b>	15	16	14	17	16	14	16	13
<b>Front-to-Back Total Power at 180° ± 30°, dB</b>	20	23	30	29	25	27	30	26
<b>CPR at Boresight, dB</b>	24	24	18	21	16	17	21	19

## Mechanical Specifications

<b>Effective Projective Area (EPA), frontal</b>	0.89 m <sup>2</sup>   9.58 ft <sup>2</sup>
<b>Effective Projective Area (EPA), lateral</b>	0.27 m <sup>2</sup>   2.906 ft <sup>2</sup>
<b>Wind Loading @ Velocity, frontal</b>	944.0 N @ 150 km/h (212.2 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, lateral</b>	292.0 N @ 150 km/h (65.6 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, maximum</b>	1,130.0 N @ 150 km/h (254.0 lbf @ 150 km/h)
<b>Wind Loading @ Velocity, rear</b>	650.0 N @ 150 km/h (146.1 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>	309 mm   12.165 in
<b>Length, packed</b>	2935 mm   115.551 in
<b>Weight, gross</b>	71.7 kg   158.071 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
---------------	-----------------------

# RRZZHHTT-65D-R6

---

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-4  | - | 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. |
| BSAMNT-M4 | - | Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set.                            |

## \* Footnotes

**Performance Note** Severe environmental conditions may degrade optimum performance