

# RRZZHHTT-65B-R6H4



16-port sector antenna, 4x 694–960, 4x 1427–2690, 4x 1695–2180 and 4x 2490–2690 MHz, 65° HPBW, 6x RET

- 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
- New endcap designs provide improved wind loading performance

## 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, mid band | 12                                                                               |
| RF Connector Quantity, low band | 4                                                                                |
| RF Connector Quantity, total    | 16                                                                               |

## Remote Electrical Tilt (RET) Information

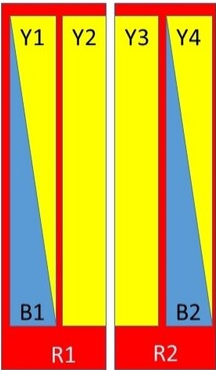
|                                          |                                   |
|------------------------------------------|-----------------------------------|
| RET Hardware                             | CommRET v2                        |
| RET Interface                            | 8-pin DIN Female   8-pin DIN Male |
| RET Interface, quantity                  | 2 female   2 male                 |
| Input Voltage                            | 10–30 Vdc                         |
| Internal RET                             | Low band (2)   Mid band (4)       |
| Power Consumption, active state, maximum | 8 W                               |
| Power Consumption, idle state, maximum   | 1 W                               |
| Protocol                                 | 3GPP/AISG 2.0 (Single RET)        |

## Dimensions

# RRZZHHTT-65B-R6H4

|                          |                     |
|--------------------------|---------------------|
| Width                    | 498 mm   19.606 in  |
| Depth                    | 197 mm   7.756 in   |
| Length                   | 2100 mm   82.677 in |
| Net Weight, antenna only | 42.3 kg   93.255 lb |

## Array Layout

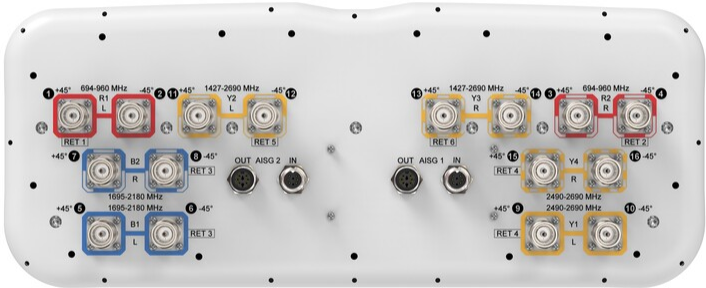


| Array | Freq (MHz) | Conns | RET (SRET) | AISG RET UID       |
|-------|------------|-------|------------|--------------------|
| R1    | 694-960    | 1-2   | 1          | CPxxxxxxxxxxxxxxR1 |
| R2    | 694-960    | 3-4   | 2          | CPxxxxxxxxxxxxxxR2 |
| B1    | 1695-2180  | 5-6   | 3          | CPxxxxxxxxxxxxxxB1 |
| B2    | 1695-2180  | 7-8   |            |                    |
| Y1    | 2490-2690  | 9-10  | 4          | CPxxxxxxxxxxxxxxY1 |
| Y2    | 2490-2690  | 11-12 |            |                    |
| Y3    | 1427-2690  | 13-14 | 5          | CPxxxxxxxxxxxxxxY3 |
| Y4    | 1427-2690  | 15-16 | 6          | CPxxxxxxxxxxxxxxY4 |

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

Left Right  
Bottom

## Port Configuration



## Electrical Specifications

# RRZZHHTT-65B-R6H4

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

## Electrical Specifications

|                                              | R1,R2      | R1,R2      | R1,R2      | Y2,Y3       | Y2,Y3       | Y2,Y3       | Y2,Y3       | Y2,Y3       |
|----------------------------------------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|
| Frequency Band, MHz                          | 698–806    | 790–896    | 890–960    | 1427–1518   | 1695–1990   | 1920–2180   | 2300–2500   | 2490–2690   |
| RF Port                                      | 1,2,3,4    | 1,2,3,4    | 1,2,3,4    | 11,12,13,14 | 11,12,13,14 | 11,12,13,14 | 11,12,13,14 | 11,12,13,14 |
| Gain, dBi                                    | 15.1       | 15.4       | 15.6       | 15.1        | 16.7        | 17.2        | 17.6        | 17.6        |
| Beamwidth, Horizontal, degrees               | 70         | 64         | 62         | 66          | 64          | 60          | 58          | 58          |
| Beamwidth, Vertical, degrees                 | 10.3       | 9          | 8.3        | 9.3         | 7.6         | 6.9         | 5.9         | 5.4         |
| Beam Tilt, degrees                           | 2–12       | 2–12       | 2–12       | 2–12        | 2–12        | 2–12        | 2–12        | 2–12        |
| USLS (First Lobe), dB                        | 16         | 16         | 16         | 20          | 18          | 20          | 21          | 23          |
| Front-to-Back Ratio at 180°, dB              | 32         | 32         | 31         | 33          | 35          | 35          | 33          | 31          |
| CPR at Boresight, dB                         | 21         | 19         | 18         | 18          | 18          | 18          | 17          | 18          |
| Isolation, Cross Polarization, dB            | 28         | 28         | 28         | 26          | 27          | 27          | 26          | 28          |
| Isolation, Inter-band, dB                    | 28         | 28         | 28         | 27          | 27          | 27          | 28          | 28          |
| 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  |
| PIM, 3rd Order, 2 x 20 W, dBc                | -150       | -150       | -150       | -150        | -150        | -150        | -150        | -150        |
| Input Power per Port at 50°C, maximum, watts | 300        | 300        | 300        | 250         | 250         | 250         | 200         | 200         |

## Electrical Specifications

|                                | B1,B2     | B1,B2     | Y1,Y4      |
|--------------------------------|-----------|-----------|------------|
| Frequency Band, MHz            | 1695–1990 | 1920–2180 | 2490–2690  |
| RF Port                        | 5,6,7,8   | 5,6,7,8   | 9,10,15,16 |
| Gain, dBi                      | 18        | 18.4      | 18.6       |
| Beamwidth, Horizontal, degrees | 66        | 61        | 60         |
| Beamwidth, Vertical, degrees   | 5.3       | 4.9       | 4.1        |
| Beam Tilt, degrees             | 2–12      | 2–12      | 2–12       |
| USLS (First Lobe), dB          | 17        | 17        | 24         |

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|                                              |            |            |            |
|----------------------------------------------|------------|------------|------------|
| Front-to-Back Ratio at 180°, dB              | 33         | 33         | 29         |
| CPR at Boresight, dB                         | 20         | 22         | 20         |
| Isolation, Cross Polarization, dB            | 28         | 28         | 28         |
| Isolation, Inter-band, dB                    | 28         | 28         | 28         |
| VSWR   Return loss, dB                       | 1.5   14.0 | 1.5   14.0 | 1.5   14.0 |
| PIM, 3rd Order, 2 x 20 W, dBc                | -150       | -150       | -150       |
| Input Power per Port at 50°C, maximum, watts | 250        | 250        | 150        |

## Mechanical Specifications

|                                          |                                           |
|------------------------------------------|-------------------------------------------|
| Effective Projective Area (EPA), frontal | 0.68 m²   7.319 ft²                       |
| Effective Projective Area (EPA), lateral | 0.21 m²   2.26 ft²                        |
| Wind Loading @ Velocity, frontal         | 714.0 N @ 150 km/h (160.5 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral         | 187.0 N @ 150 km/h (42.0 lbf @ 150 km/h)  |
| Wind Loading @ Velocity, maximum         | 949.0 N @ 150 km/h (213.3 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear            | 491.0 N @ 150 km/h (110.4 lbf @ 150 km/h) |
| Wind Speed, maximum                      | 288 km/h (179 mph)                        |

## Packaging and Weights

|                |                      |
|----------------|----------------------|
| Width, packed  | 565 mm   22.244 in   |
| Depth, packed  | 309 mm   12.165 in   |
| Length, packed | 2287 mm   90.039 in  |
| Weight, gross  | 56.6 kg   124.781 lb |

## 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

# RRZZHHTT-65B-R6H4

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|          |   |                                                                                                                                                                     |
|----------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BSAMNT-4 | – | Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members.<br>Kit contains one scissor top bracket set and one bottom bracket set. |
|----------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|

\* Footnotes

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