# RRZZ-65B-R4

## 8-port sector antenna, 4x 694–960 and 4x 1427–2690 MHz, 65° HPBW, 4x RET

- 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
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios

## General Specifications

| | |
|---|---|
| **Antenna Type** | Sector |
| **Band** | Multiband |
| **Grounding Type** | RF connector inner conductor and body grounded to reflector and mounting bracket |
| **Performance Note** | Outdoor usage \| Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN |
| **Radome Material** | Fiberglass, UV resistant |
| **Radiator Material** | Aluminum \| Low loss circuit board |
| **Reflector Material** | Aluminum |
| **RF Connector Interface** | 4.3-10 Female |
| **RF Connector Location** | Bottom |
| **RF Connector Quantity, high band** | 0 |
| **RF Connector Quantity, mid band** | 4 |
| **RF Connector Quantity, low band** | 4 |
| **RF Connector Quantity, total** | 8 |

## Remote Electrical Tilt (RET) Information

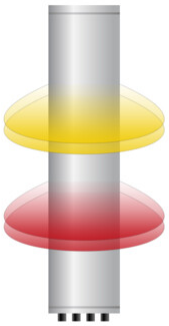
| | |
|---|---|
| **RET Hardware** | CommRET v2 |
| **RET Interface** | 8-pin DIN Female \| 8-pin DIN Male |
| **RET Interface, quantity** | 2 female \| 2 male |
| **Input Voltage** | 10–30 Vdc |
| **Internal RET** | Low band (2) \| Mid band (2) |
| **Power Consumption, active state, maximum** | 8 W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

# RRZZ-65B-R4

## Dimensions

| | |
|---|---|
| **Width** | 498 mm \| 19.606 in |
| **Depth** | 197 mm \| 7.756 in |
| **Length** | 1828 mm \| 71.969 in |
| **Net Weight, antenna only** | 30.8 kg \| 67.902 lb |

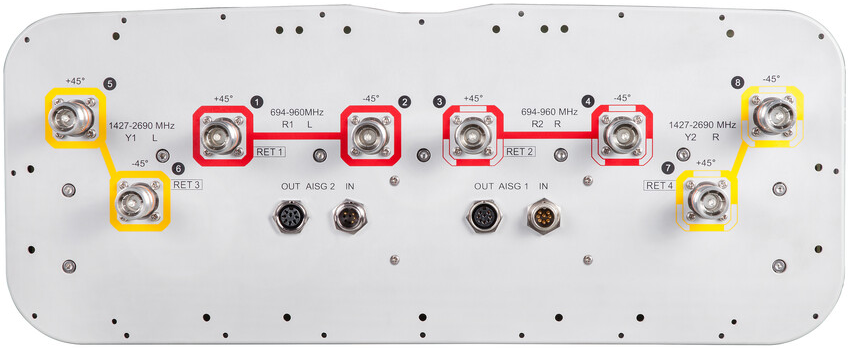
## Array Layout




| Array ID | Frequency (MHz) | RF Connector | RET (SRET) | AISG No. | AISG RET UID |
|---|---|---|---|---|---|
| R1 | 694-960 | 1 - 2 | 1 | AISG1 | CPxxxxxxxxxxxxxxR1 |
| R2 | 694-960 | 3 - 4 | 2 | AISG1 | CPxxxxxxxxxxxxxxR2 |
| Y1 | 1427-2690 | 5 - 6 | 3 | AISG1 | CPxxxxxxxxxxxxxxY1 |
| Y2 | 1427-2690 | 7 - 8 | 4 | AISG1 | CPxxxxxxxxxxxxxxY2 |

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

## Port Configuration




## Electrical Specifications

# RRZZ-65B-R4

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

## Electrical Specifications

| | R1,R2 | R1,R2 | R1,R2 | Y1,Y2 | Y1,Y2 | Y1,Y2 | Y1,Y2 | Y1,Y2 |
|---|---|---|---|---|---|---|---|---|
| **Frequency Band, MHz** | **694–790** | **790–890** | **890–960** | **1427–1518** | **1695–1920** | **1920–2180** | **2300–2500** | **2500–2690** |
| **RF Port** | 1-4 | 1-4 | 1-4 | 5-8 | 5-8 | 5-8 | 5-8 | 5-8 |
| **Gain, dBi** | 14.4 | 14.7 | 15.1 | 15.4 | 17.4 | 17.7 | 18.1 | 17.6 |
| **Beamwidth, Horizontal, degrees** | 68 | 64 | 59 | 68 | 58 | 60 | 60 | 68 |
| **Beamwidth, Vertical, degrees** | 11.8 | 10.6 | 9.7 | 8.7 | 7.3 | 6.4 | 5.5 | 5.1 |
| **Beam Tilt, degrees** | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 |
| **USLS (First Lobe), dB** | 16 | 18 | 18 | 17 | 17 | 17 | 18 | 18 |
| **Front-to-Back Ratio at 180°, dB** | 33 | 32 | 31 | 30 | 39 | 38 | 32 | 29 |
| **Front-to-Back Total Power at 180° ± 30°, dB** | 20 | 21 | 22 | 25 | 31 | 27 | 26 | 26 |
| **CPR at Boresight, dB** | 20 | 21 | 24 | 17 | 18 | 20 | 18 | 19 |
| **Isolation, Cross Polarization, dB** | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| **Isolation, Inter-band, dB** | 28 | 28 | 28 | 28 | 28 | 28 | 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** | -153 | -153 | -153 | -153 | -153 | -153 | -153 | -153 |
| **Input Power per Port at 50°C, maximum, watts** | 300 | 300 | 300 | 250 | 250 | 250 | 200 | 200 |

## Mechanical Specifications

| | |
|---|---|
| **Wind Loading @ Velocity, frontal** | 685.0 N @ 150 km/h (154.0 lbf @ 150 km/h) |
| **Wind Loading @ Velocity, lateral** | 232.0 N @ 150 km/h (52.2 lbf @ 150 km/h) |
| **Wind Loading @ Velocity, maximum** | 889.0 N @ 150 km/h (199.9 lbf @ 150 km/h) |
| **Wind Loading @ Velocity, rear** | 564.0 N @ 150 km/h (126.8 lbf @ 150 km/h) |
| **Wind Speed, maximum** | 241 km/h (150 mph) |

## Packaging and Weights

# RRZZ-65B-R4

| | |
|---|---|
| **Width, packed** | 565 mm \| 22.244 in |
| **Depth, packed** | 309 mm \| 12.165 in |
| **Length, packed** | 2015 mm \| 79.331 in |
| **Weight, gross** | 44.3 kg \| 97.665 lb |

## Regulatory Compliance/Certifications

| Agency | Classification |
|---|---|
| CE | Compliant with the relevant CE product directives |
| 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-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. |

## * Footnotes

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