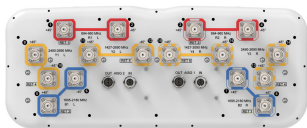


# RRZZHHTT65DR6MR



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

- 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
- All internal RET actuators are connected in “Cascaded MRET” configuration

## 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   Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN |
| Radome Material                  | Fiberglass, UV resistant                                                                                             |
| Radiator Material                | 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  | 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                 |

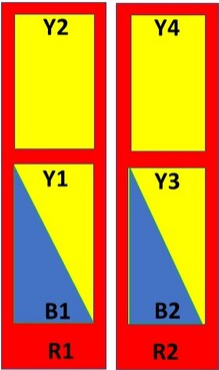
# RRZZHHTT65DR6MR

|                                          |                             |
|------------------------------------------|-----------------------------|
| 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 (Multi-RET)   |

## Dimensions

|                          |                      |
|--------------------------|----------------------|
| Width                    | 498 mm   19.606 in   |
| Depth                    | 197 mm   7.756 in    |
| Length                   | 2688 mm   105.827 in |
| Net Weight, antenna only | 50.7 kg   111.774 lb |

## Array Layout

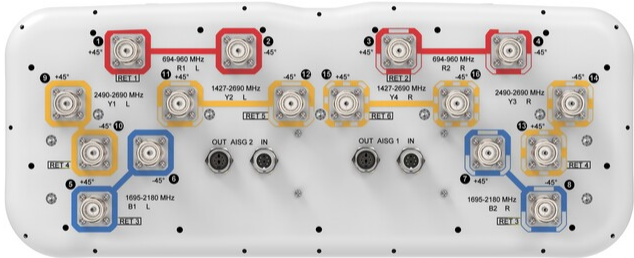


| Array | Freq (MHz) | Conns | RET (SRET) | AISG RET UID       |
|-------|------------|-------|------------|--------------------|
| R1    | 694-960    | 1-2   | 1          | CPxxxxxxxxxxxxxxR1 |
| R2    | 694-960    | 3-4   | 2          | CPxxxxxxxxxxxxxxR2 |
| Y2    | 1427-2690  | 11-12 | 5          | CPxxxxxxxxxxxxxxY2 |
| Y4    | 1427-2690  | 15-16 | 6          | CPxxxxxxxxxxxxxxY4 |
| B1    | 1695-2180  | 5-6   | 3          | CPxxxxxxxxxxxxxxB1 |
| B2    | 1695-2180  | 7-8   |            |                    |
| Y1    | 2490-2690  | 9-10  | 4          | CPxxxxxxxxxxxxxxY1 |
| Y3    | 2490-2690  | 13-14 |            |                    |

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

## Port Configuration

# RRZZHHTT65DR6MR



## Electrical Specifications

|                            |                                                                     |
|----------------------------|---------------------------------------------------------------------|
| 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   | B1,B2     | B1,B2     | Y1,Y3      | Y2,Y4       | Y2,Y4       | Y2,Y4       |
|-----------------------------------|---------|---------|-----------|-----------|------------|-------------|-------------|-------------|
| Frequency Band, MHz               | 694–862 | 880–960 | 1695–1880 | 1920–2180 | 2490–2690  | 1427–1518   | 1695–2180   | 2300–2690   |
| RF Port                           | 1-4     | 1-4     | 5-8       | 5-8       | 9,10,13,14 | 11,12,15,16 | 11,12,15,16 | 11,12,15,16 |
| Gain, dBi                         | 16.2    | 16.7    | 16.8      | 17.3      | 16.9       | 15.1        | 16.9        | 17.3        |
| Beamwidth, Horizontal, degrees    | 68      | 61      | 58        | 60        | 68         | 67          | 59          | 62          |
| Beamwidth, Vertical, degrees      | 8.1     | 7       | 7.6       | 6.8       | 5.7        | 9.6         | 7.3         | 5.6         |
| Beam Tilt, degrees                | 2–12    | 2–12    | 2–12      | 2–12      | 2–12       | 2–12        | 2–12        | 2–12        |
| USLS (First Lobe), dB             | 18      | 20      | 18        | 20        | 17         | 16          | 17          | 19          |
| Front-to-Back Ratio at 180°, dB   | 31      | 32      | 35        | 36        | 32         | 33          | 38          | 31          |
| CPR at Boresight, dB              | 24      | 24      | 18        | 21        | 16         | 17          | 21          | 19          |
| Isolation, Cross Polarization, dB | 28      | 28      | 28        | 28        | 28         | 28          | 28          | 28          |
| Isolation, Inter-band, dB         | 30      | 30      | 30        | 30        | 30         | 30          | 30          | 30          |

# RRZZHHTT65DR6MR

|                                                     |            |            |            |            |            |            |            |            |
|-----------------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <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 |
| <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        |

## Mechanical Specifications

|                                                 |                                             |
|-------------------------------------------------|---------------------------------------------|
| <b>Effective Projective Area (EPA), frontal</b> | 0.89 m²   9.58 ft²                          |
| <b>Effective Projective Area (EPA), lateral</b> | 0.27 m²   2.906 ft²                         |
| <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>                                                          |
| 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

# RRZZHHTT65DR6MR

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