

# 6VV-10A-R6



24-port multibeam antenna, 24x 1695–2690 MHz, 6x 10-14° HPBW, 6x RET

- Provides 6 beams covering 1.695-2.69 GHz in 16 deg sectors
- Covers the entire mid-band, including bands 1,3,7,25,66,30,38,40,41
- Increases capacity density for maximum throughput
- Novel design produces stable beam peak positions at mid band
- Each beam supports 4x4 MIMO for high capacity at venues or special events
- 6 RETs available to control independently e-tilt for each beam to balance traffic between beams and optimize coverage

## General Specifications

|  |  |
|--|--|
| <b>Antenna Type</b>                    | Multi-beam   |
| <b>Band</b>                            | Single band  |
| <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  |
| <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> | 24   |
| <b>RF Connector Quantity, total</b>    | 24   |

## 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>                  | 1 female   1 male                 |
| <b>Input Voltage</b>                            | 10–30 Vdc                         |
| <b>Internal RET</b>                             | Mid band (6)                      |
| <b>Power Consumption, active state, maximum</b> | 10 W                              |
| <b>Power Consumption, idle state, maximum</b>   | 2 W                               |

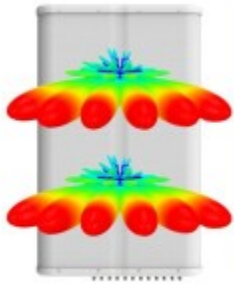
# 6VV-10A-R6

**Protocol** 3GPP/AISG 2.0 (Single RET)

## Dimensions

**Width** 970 mm | 38.189 in  
**Depth** 235 mm | 9.252 in  
**Length** 1600 mm | 62.992 in  
**Net Weight, without mounting kit** 66.7 kg | 147.048 lb

## Array Layout



| Array ID | Frequency (MHz) | RF Connector | RET (dB) | AISG No. | RET UID          |
|----------|-----------------|--------------|----------|----------|------------------|
| Y1       | 1695-2690       | 1 - 2        | 1        | AISG1    | A1XXXXXXXXXXXXY1 |
| Y2       | 1695-2690       | 3 - 4        |          |          |                  |
| Y3       | 1695-2690       | 5 - 6        | 2        | AISG1    | A1XXXXXXXXXXXXY2 |
| Y4       | 1695-2690       | 7 - 8        |          |          |                  |
| Y5       | 1695-2690       | 9 - 10       | 3        | AISG1    | A1XXXXXXXXXXXXY3 |
| Y6       | 1695-2690       | 11 - 12      |          |          |                  |
| Y7       | 1695-2690       | 13 - 14      | 4        | AISG1    | A1XXXXXXXXXXXXY4 |
| Y8       | 1695-2690       | 15 - 16      |          |          |                  |
| Y9       | 1695-2690       | 17 - 18      | 5        | AISG1    | A1XXXXXXXXXXXXY5 |
| Y10      | 1695-2690       | 19 - 20      |          |          |                  |
| Y11      | 1695-2690       | 21 - 22      | 6        | AISG1    | A1XXXXXXXXXXXXY6 |
| Y12      | 1695-2690       | 23 - 24      |          |          |                  |

(Color of colored boxes are not true depictions of array color)

## Port Configuration



## Electrical Specifications

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|                                   |                 |
|-----------------------------------|-----------------|
| <b>Impedance</b>                  | 50 ohm          |
| <b>Operating Frequency Band</b>   | 1695 – 2690 MHz |
| <b>Polarization</b>               | ±45°            |
| <b>Total Input Power, maximum</b> | 2,000 W         |

## Electrical Specifications

|   | <b>Y1-Y12</b>    | <b>Y1-Y12</b>    | <b>Y1-Y12</b>    | <b>Y1-Y12</b>    | <b>Y1-Y12</b>    |
|---|------------------|------------------|------------------|------------------|------------------|
| <b>Frequency Band, MHz</b>                  | <b>1695–1880</b> | <b>1850–1990</b> | <b>1920–2180</b> | <b>2300–2500</b> | <b>2500–2690</b> |
| <b>RF Port</b>                              | 1-24             | 1-24             | 1-24             | 1-24             | 1-24             |
| <b>Gain, dBi</b>                            | 21.9             | 22.4             | 23.1             | 23.8             | 23.4             |
| <b>Beam Centers, Horizontal, degrees</b>    | ±8<br>±24<br>±40 | ±8<br>±24<br>±40 | ±8<br>±24<br>±40 | ±8<br>±24<br>±40 | ±8<br>±24<br>±40 |
| <b>Beam Crossover, dB</b>                   | 7                | 8                | 9                | 10               | 13               |
| <b>Beamwidth, Horizontal, degrees</b>       | 12               | 11               | 10               | 9                | 9                |
| <b>Beamwidth, Vertical, degrees</b>         | 11.9             | 11.2             | 10.5             | 9.1              | 8.4              |
| <b>Beam Tilt, degrees</b>                   | 4–10             | 4–10             | 4–10             | 4–10             | 4–10             |
| <b>USLS (First Lobe), dB</b>                | 11               | 10               | 11               | 13               | 12               |
| <b>CPR at Boresight, dB</b>                 | 14               | 18               | 18               | 15               | 17               |
| <b>Isolation, Cross Polarization, dB</b>    | 25               | 25               | 25               | 25               | 25               |
| <b>Isolation, Beam to Beam, dB</b>          | 19               | 19               | 19               | 19               | 18               |
| <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         |
| <b>PIM, 3rd Order, 2 x 20 W, dBc</b>        | -153             | -153             | -153             | -153             | -153             |
| <b>Input Power per Port, maximum, watts</b> | 200              | 200              | 200              | 200              | 200              |

## Mechanical Specifications

|   |   |
|---|---|
| <b>Wind Loading @ Velocity, frontal</b> | 1,983.0 N @ 150 km/h (445.8 lbf @ 150 km/h) |
| <b>Wind Loading @ Velocity, lateral</b> | 606.0 N @ 150 km/h (136.2 lbf @ 150 km/h)   |
| <b>Wind Loading @ Velocity, rear</b>    | 1,983.0 N @ 150 km/h (445.8 lbf @ 150 km/h) |
| <b>Wind Speed, maximum</b>              | 241 km/h (150 mph)                          |

## Packaging and Weights

|                      |                     |
|----------------------|---------------------|
| <b>Width, packed</b> | 1122 mm   44.173 in |
|----------------------|---------------------|

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|                       |                     |
|-----------------------|---------------------|
| <b>Depth, packed</b>  | 561 mm   22.087 in  |
| <b>Length, packed</b> | 1866 mm   73.465 in |
| <b>Weight, gross</b>  | 92 kg   202.825 lb  |

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b> |
|---------------|-----------------------|
| UK-ROHS       | Compliant             |

## Included Products

|          |   |  |
|----------|---|--|
| BSAMNT-9 | – | 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

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