

# JJAAH4-65B-R6



6 ft, 16-port, low band diplexed antenna, 4 x 698-798 MHz, 4 x 824-894 MHz and 8 x 1695-2360 MHz, 65° HPBW, 6 x RET

- Excellent wind loading characteristics
- Features broadband Low Band (698-894 MHz) and High Band (1695-2360 MHz) arrays for 4T4R (4X MIMO) capability for 700 and 850 MHz, AWS, PCS and WCS applications
- The Low Band array is diplexed, providing independent tilt for the 700 and 850 MHz bands for 4T4R (4X MIMO) capability allowing the antenna to be used with 700 MHz and 850 MHz radios simultaneously
- Optimized SPR performance across all operating bands

## 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  |
| <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> | 8  |
| <b>RF Connector Quantity, low band</b> | 8  |
| <b>RF Connector Quantity, total</b>    | 16   |

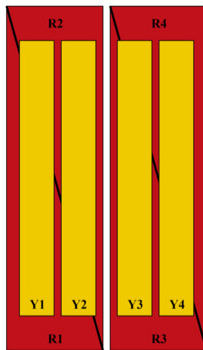
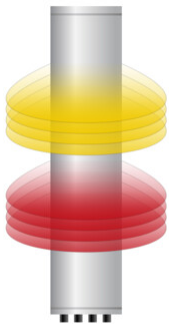
## Remote Electrical Tilt (RET) Information

|   |                                   |
|---|-----------------------------------|
| <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                         |
| <b>Internal RET</b>                             | Low band (2)   Mid band (4)       |
| <b>Power Consumption, active state, maximum</b> | 8 W                               |

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|   |                     |
|---|---------------------|
| <b>Power Consumption, idle state, maximum</b> | 1 W                 |
| <b>Protocol</b>                               | 3GPP/AISG 2.0       |
| <b>Dimensions</b>                             |                     |
| <b>Width</b>                                  | 498 mm   19.606 in  |
| <b>Depth</b>                                  | 197 mm   7.756 in   |
| <b>Length</b>                                 | 1828 mm   71.969 in |
| <b>Net Weight, antenna only</b>               | 43.6 kg   96.121 lb |

## Array Layout



| Array ID | Frequency (MHz) | RF Connector | RET (MRET) | AISG No. | AISG RET UID       |
|----------|-----------------|--------------|------------|----------|--------------------|
| R1       | 698-798         | 1 - 2        | 1          | AISG1    | CPxxxxxxxxxxxxMM.1 |
| R3       | 698-798         | 5 - 6        |            |          |                    |
| R2       | 824-894         | 3 - 4        | 2          | AISG1    | CPxxxxxxxxxxxxMM.2 |
| R4       | 824-894         | 7 - 8        |            |          |                    |
| Y1       | 1695-2360       | 9 - 10       | 3          | AISG1    | CPxxxxxxxxxxxxMM.3 |
| Y2       | 1695-2360       | 11 - 12      | 4          | AISG1    | CPxxxxxxxxxxxxMM.4 |
| Y3       | 1695-2360       | 13 - 14      | 5          | AISG1    | CPxxxxxxxxxxxxMM.5 |
| Y4       | 1695-2360       | 15 - 16      | 6          | AISG1    | CPxxxxxxxxxxxxMM.6 |

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

## Port Configuration



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## Electrical Specifications

|                                   |   |
|-----------------------------------|---|
| <b>Impedance</b>                  | 50 ohm  |
| <b>Operating Frequency Band</b>   | 1695 – 2360 MHz   698 – 798 MHz   824 – 894 MHz |
| <b>Polarization</b>               | ±45°  |
| <b>Total Input Power, maximum</b> | 1,280 W @ 50 °C                                 |

## Electrical Specifications

| <b>Frequency Band, MHz</b>                          | <b>698–798</b> | <b>824–894</b> | <b>1695–1880</b> | <b>1850–1990</b> | <b>1920–2180</b> | <b>2300–2360</b> |
|---|----------------|----------------|------------------|------------------|------------------|------------------|
| <b>Gain, dBi</b>                                    | 13.4           | 14.1           | 16.3             | 16.9             | 17.5             | 17.9             |
| <b>Beamwidth, Horizontal, degrees</b>               | 61             | 59             | 69               | 67               | 62               | 61               |
| <b>Beamwidth, Vertical, degrees</b>                 | 11.7           | 10.5           | 6.9              | 6.4              | 6.1              | 5.5              |
| <b>Beam Tilt, degrees</b>                           | 0–10           | 0–10           | 0–10             | 0–10             | 0–10             | 0–10             |
| <b>USLS (First Lobe), dB</b>                        | 18             | 17             | 18               | 19               | 20               | 18               |
| <b>Front-to-Back Ratio at 180°, dB</b>              | 30             | 27             | 33               | 33               | 33               | 35               |
| <b>Front-to-Back Total Power at 180° ± 30°, dB</b>  | 22             | 22             | 26               | 25               | 24               | 27               |
| <b>CPR at Boresight, dB</b>                         | 20             | 19             | 21               | 22               | 23               | 21               |
| <b>CPR at Sector, dB</b>                            | 12             | 10             | 7                | 6                | 5                | 6                |
| <b>Isolation, Cross Polarization, dB</b>            | 25             | 25             | 25               | 25               | 25               | 25               |
| <b>Isolation, Inter-band, dB</b>                    | 25             | 25             | 25               | 25               | 25               | 25               |
| <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         |
| <b>PIM, 3rd Order, 2 x 20 W, dBc</b>                | -150           | -150           | -150             | -150             | -150             | -150             |
| <b>Input Power per Port at 50°C, maximum, watts</b> | 150            | 150            | 250              | 250              | 250              | 200              |

## Mechanical Specifications

|   |   |
|---|---|
| <b>Effective Projective Area (EPA), frontal</b> | 0.58 m <sup>2</sup>   6.243 ft <sup>2</sup> |
| <b>Effective Projective Area (EPA), lateral</b> | 0.18 m <sup>2</sup>   1.938 ft <sup>2</sup> |
| <b>Wind Loading @ Velocity, frontal</b>         | 622.0 N @ 150 km/h (139.8 lbf @ 150 km/h)   |
| <b>Wind Loading @ Velocity, lateral</b>         | 188.0 N @ 150 km/h (42.3 lbf @ 150 km/h)    |
| <b>Wind Loading @ Velocity, maximum</b>         | 746.0 N @ 150 km/h (167.7 lbf @ 150 km/h)   |
| <b>Wind Loading @ Velocity, rear</b>            | 428.0 N @ 150 km/h (96.2 lbf @ 150 km/h)    |

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**Wind Speed, maximum** 241 km/h (150 mph)

## Packaging and Weights

**Width, packed** 565 mm | 22.244 in  
**Depth, packed** 309 mm | 12.165 in  
**Length, packed** 2015 mm | 79.331 in  
**Weight, gross** 57.4 kg | 126.545 lb

## Regulatory Compliance/Certifications

| Agency        | Classification   |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |

## 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.

## \* Footnotes

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