

# RRZZHHTT-65AR7N43F



16-port sector antenna, 4x 694–960, 4x 1427–2690, 4x 1695–2180 and 4x 2490–2690 MHz, 65° HPBW, 7x 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
- Array configuration provides capability for 4T4R (4x MIMO) on Low band and High band
- Retractable tilt indicator rods
- Antenna shape optimized for wind load reduction

This product will be discontinued on: December 31, 2025

## 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>Reflector Material</b>               | Aluminum   |
| <b>RF Connector Interface</b>           | 4.3-10 Female  |
| <b>RF Connector Location</b>            | Bottom   |
| <b>RF Connector Quantity, high band</b> | 0  |
| <b>RF Connector Quantity, mid band</b>  | 12   |
| <b>RF Connector Quantity, low band</b>  | 4  |
| <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                         |

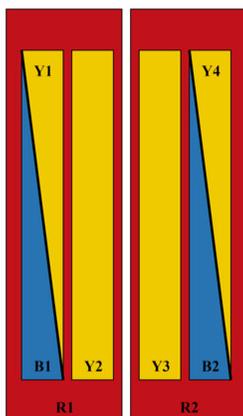
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|   |                             |
|---|-----------------------------|
| <b>Internal RET</b>                             | Low band (2)   Mid band (5) |
| <b>Power Consumption, active state, maximum</b> | 8 W                         |
| <b>Power Consumption, idle state, maximum</b>   | 1 W                         |
| <b>Protocol</b>                                 | 3GPP/AISG 2.0 (Single RET)  |

## Dimensions

|                                 |                     |
|---------------------------------|---------------------|
| <b>Width</b>                    | 430 mm   16.929 in  |
| <b>Depth</b>                    | 197 mm   7.756 in   |
| <b>Length</b>                   | 1599 mm   62.953 in |
| <b>Net Weight, antenna only</b> | 33.2 kg   73.193 lb |

## Array Layout

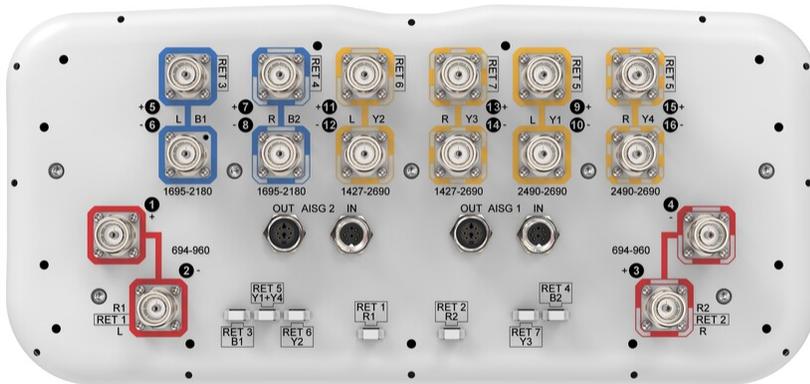


| Array ID | Frequency (MHz) | RF Connector | RET<br>(SRET) | AISG No. | AISG RET UID         |
|----------|-----------------|--------------|---------------|----------|----------------------|
| R1       | 694-960         | 1 - 2        | 1             | AISG1    | CPxxxxxxxxxxxxxxxxR1 |
| R2       | 694-960         | 3 - 4        | 2             | AISG1    | CPxxxxxxxxxxxxxxxxR2 |
| B1       | 1695-2180       | 5 - 6        | 3             | AISG1    | CPxxxxxxxxxxxxxxxxB1 |
| B2       | 1695-2180       | 7 - 8        | 4             | AISG1    | CPxxxxxxxxxxxxxxxxB2 |
| Y1       | 2490-2690       | 9 - 10       | 5             | AISG1    | CPxxxxxxxxxxxxxxxxY1 |
| Y4       | 2490-2690       | 15 - 16      |               |          |                      |
| Y2       | 1427-2690       | 11 - 12      | 6             | AISG1    | CPxxxxxxxxxxxxxxxxY2 |
| Y3       | 1427-2690       | 13 - 14      | 7             | AISG1    | CPxxxxxxxxxxxxxxxxY3 |

(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>   | 1427 – 2690 MHz   1695 – 2180 MHz   2490 – 2690 MHz   694 – 960 MHz |
| <b>Polarization</b>               | ±45°  |
| <b>Total Input Power, maximum</b> | 900 W @ 50 °C   |

## Electrical Specifications

|                                       | R1,R2   | R1,R2   | R1,R2   | Y2,Y3       | Y2,Y3       | Y2,Y3       | Y2,Y3       | Y2,Y3       | Y2,Y3       | B1,B2     | B1,B2     | Y1,Y4      |
|---------------------------------------|---------|---------|---------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|------------|
| <b>Frequency Band, MHz</b>            | 698–806 | 790–896 | 890–960 | 1427–1518   | 1695–1990   | 1920–2300   | 2300–2500   | 2490–2690   | 1695–1990   | 1920–2180 | 2490–2690 |            |
| <b>RF Port</b>                        | 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 | 11,12,13,14 | 5,6,7,8   | 5,6,7,8   | 9,10,15,16 |
| <b>Gain at Mid Tilt, dBi</b>          | 13.4    | 13.5    | 13.8    | 14.6        | 16.1        | 17.1        | 18          | 18          | 18          | 15.9      | 16.7      | 17         |
| <b>Beamwidth, Horizontal, degrees</b> | 59      | 56      | 58      | 71          | 68          | 63          | 59          | 56          | 56          | 71        | 65        | 61         |
| <b>Beamwidth, Vertical, degrees</b>   | 13.4    | 12      | 11.2    | 7.8         | 6.2         | 5.6         | 5           | 4.7         | 4.7         | 6.1       | 5.6       | 4.7        |
| <b>Beam Tilt, degrees</b>             | 2–16    | 2–16    | 2–16    | 2–12        | 2–12        | 2–12        | 2–12        | 2–12        | 2–12        | 2–12      | 2–12      | 2–12       |

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|   |          |          |          |          |          |          |          |          |          |          |          |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>USLS (First Lobe), dB</b>                        | 14       | 15       | 14       | 12       | 13       | 14       | 16       | 16       | 17       | 16       | 21       |
| <b>Front-to-Back Ratio at 180°, dB</b>              | 25       | 24       | 25       | 31       | 33       | 33       | 32       | 32       | 31       | 31       | 29       |
| <b>Front-to-Back Total Power at 180° ± 30°, dB</b>  | 18       | 19       | 21       | 23       | 26       | 26       | 27       | 27       | 24       | 24       | 22       |
| <b>CPR at Boresight, dB</b>                         | 21       | 19       | 22       | 17       | 19       | 18       | 20       | 18       | 18       | 17       | 17       |
| <b>CPR at Sector, dB</b>                            | 5        | 7        | 7        | 9        | 5        | 5        | 8        | 3        | 8        | 9        | 7        |
| <b>Isolation, Cross Polarization, dB</b>            | 26       | 26       | 26       | 26       | 26       | 26       | 26       | 26       | 27       | 27       | 27       |
| <b>Isolation, Inter-band, dB</b>                    | 26       | 26       | 26       | 26       | 26       | 26       | 26       | 26       | 26       | 26       | 27       |
| <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 | 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     | -153     | -153     | -153     | -153     | -153     | -153     |
| <b>Input Power per Port at 50°C, maximum, watts</b> | 300      | 300      | 300      | 250      | 250      | 250      | 200      | 200      | 250      | 250      | 150      |

## Mechanical Specifications

|   |   |
|---|---|
| <b>Wind Loading @ Velocity, frontal</b> | 376.0 N @ 150 km/h (84.5 lbf @ 150 km/h)  |
| <b>Wind Loading @ Velocity, lateral</b> | 203.0 N @ 150 km/h (45.6 lbf @ 150 km/h)  |
| <b>Wind Loading @ Velocity, maximum</b> | 594.0 N @ 150 km/h (133.5 lbf @ 150 km/h) |
| <b>Wind Loading @ Velocity, rear</b>    | 243.0 N @ 150 km/h (54.6 lbf @ 150 km/h)  |
| <b>Wind Speed, maximum</b>              | 241 km/h (150 mph)                        |

## Packaging and Weights

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|                       |                     |
|-----------------------|---------------------|
| <b>Width, packed</b>  | 530 mm   20.866 in  |
| <b>Depth, packed</b>  | 349 mm   13.74 in   |
| <b>Length, packed</b> | 1771 mm   69.724 in |
| <b>Weight, gross</b>  | 43 kg   94.799 lb   |

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>  |
|---------------|--|
| CHINA-ROHS    | Below maximum concentration value  |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system   |
| REACH-SVHC    | Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a> |
| ROHS          | Compliant  |
| UK-ROHS       | Compliant  |



## \* Footnotes

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