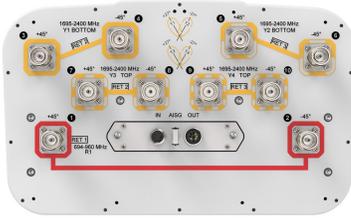


# R2HH-6533C-R3



10-port sector/multibeam antenna, 2x 694–960 sector and 8x 1695–2400 multibeam, 65° sector and 33° 4x multibeam, 3x 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

## General Specifications

|   |  |
|---|--|
| <b>Antenna Type</b>                     | Multibeam  |
| <b>Band</b>                             | Multiband  |
| <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>                | Copper   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, high band</b> | 8  |
| <b>RF Connector Quantity, mid band</b>  | 0  |
| <b>RF Connector Quantity, low band</b>  | 2  |
| <b>RF Connector Quantity, total</b>     | 10   |

## 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>                             | High band (2)   Low band (1)      |
| <b>Power Consumption, active state, maximum</b> | 10 W                              |
| <b>Power Consumption, idle state, maximum</b>   | 2 W                               |
| <b>Protocol</b>                                 | 3GPP/AISG 2.0 (Single RET)        |

## Dimensions

# R2HH-6533C-R3

|                                 |                     |
|---------------------------------|---------------------|
| <b>Width</b>                    | 350 mm   13.78 in   |
| <b>Depth</b>                    | 208 mm   8.189 in   |
| <b>Length</b>                   | 2438 mm   95.984 in |
| <b>Net Weight, antenna only</b> | 30.3 kg   66.8 lb   |

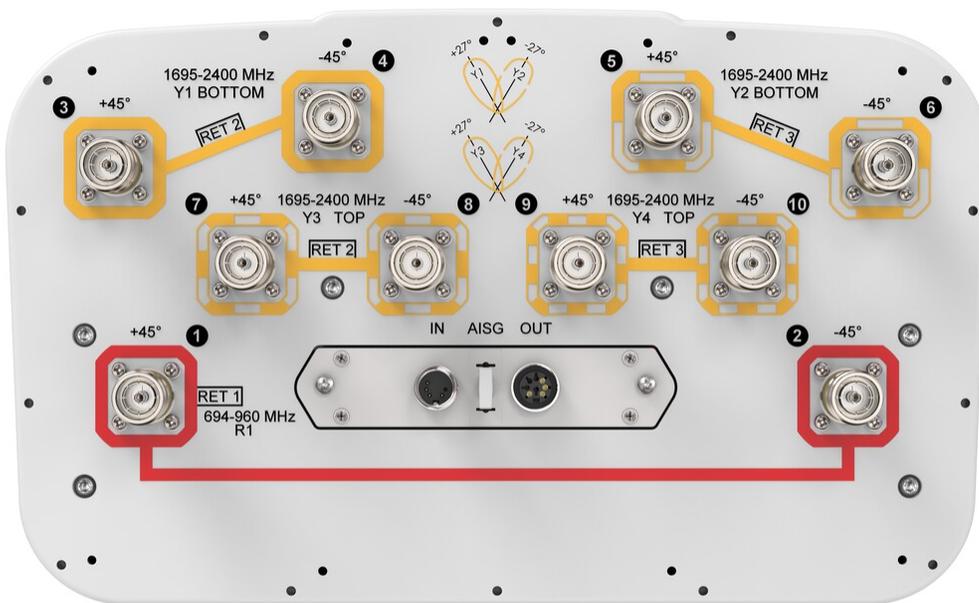
## Array Layout



| Array ID | Frequency (MHz) | RF Connector | RET (SRET) | AISG RET UID     |
|----------|-----------------|--------------|------------|------------------|
| R1       | 694-960         | 1 - 2        | 1          | CPxxxxxxxxxxxxR1 |
| Y1       | 1695-2400       | 3 - 4        | 2          | CPxxxxxxxxxxxxY1 |
| Y3       | 1695-2400       | 7 - 8        |            |                  |
| Y2       | 1695-2400       | 5 - 6        | 3          | CPxxxxxxxxxxxxY2 |
| Y4       | 1695-2400       | 9 - 10       |            |                  |

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

## Port Configuration



# R2HH-6533C-R3

## Electrical Specifications

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Impedance</b>                | 50 ohm                          |
| <b>Operating Frequency Band</b> | 1695 – 2400 MHz   694 – 960 MHz |
| <b>Polarization</b>             | ±45°                            |

## Electrical Specifications

| <b>Frequency Band, MHz</b>                          | <b>694–790</b> | <b>790–890</b> | <b>880–960</b> | <b>1695–1880</b> | <b>1850–1990</b> | <b>1920–2180</b> | <b>2300–2400</b> |
|---|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| <b>Gain, dBi</b>                                    | 16.1           | 16.6           | 16.8           | 17.5             | 18.5             | 19.2             | 19.4             |
| <b>Beamwidth, Horizontal, degrees</b>               | 71             | 68             | 67             | 34               | 32               | 32               | 30               |
| <b>Beamwidth, Vertical, degrees</b>                 | 9.6            | 8.6            | 8              | 8.1              | 7.4              | 7                | 6.3              |
| <b>Beam Tilt, degrees</b>                           | 2–10           | 2–10           | 2–10           | 2–10             | 2–10             | 2–10             | 2–10             |
| <b>USLS (First Lobe), dB</b>                        | 17             | 20             | 19             | 16               | 16               | 18               | 19               |
| <b>Front-to-Back Ratio at 180°, dB</b>              | 29             | 30             | 29             | 30               | 30               | 31               | 36               |
| <b>Isolation, Cross Polarization, dB</b>            | 27             | 27             | 27             | 25               | 25               | 25               | 25               |
| <b>Isolation, Inter-band, dB</b>                    | 30             | 30             | 30             | 30               | 30               | 30               | 30               |
| <b>Isolation, Beam to Beam, dB</b>                  |                |                |                | 16               | 16               | 16               | 16               |
| <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         |
| <b>PIM, 3rd Order, 2 x 20 W, dBc</b>                | -150           | -150           | -150           | -150             | -150             | -150             | -150             |
| <b>Input Power per Port at 50°C, maximum, watts</b> | 300            | 300            | 300            | 200              | 200              | 200              | 200              |

## Mechanical Specifications

|   |   |
|---|---|
| <b>Wind Loading @ Velocity, frontal</b> | 425.0 N @ 150 km/h (95.5 lbf @ 150 km/h)  |
| <b>Wind Loading @ Velocity, lateral</b> | 361.0 N @ 150 km/h (81.2 lbf @ 150 km/h)  |
| <b>Wind Loading @ Velocity, maximum</b> | 899.0 N @ 150 km/h (202.1 lbf @ 150 km/h) |
| <b>Wind Loading @ Velocity, rear</b>    | 451.0 N @ 150 km/h (101.4 lbf @ 150 km/h) |
| <b>Wind Speed, maximum</b>              | 241 km/h (150 mph)                        |

## Packaging and Weights

|                       |                      |
|-----------------------|----------------------|
| <b>Width, packed</b>  | 456 mm   17.953 in   |
| <b>Depth, packed</b>  | 357 mm   14.055 in   |
| <b>Length, packed</b> | 2585 mm   101.772 in |

# R2HH-6533C-R3

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**Weight, gross**

44 kg | 97.003 lb

## Regulatory Compliance/Certifications

**Agency**

**Classification**

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 [www.andrew.com/ProductCompliance](http://www.andrew.com/ProductCompliance)

ROHS

Compliant

UK-ROHS

Compliant



## 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