## RV4-65D-R5-V9



## 10-port sector antenna, 2x 694-960 and 8x 1695-2690 MHz, 65º HPBW, 5x RET with tilt indicators

- 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


## OBSOLETE

This product was discontinued on: November 30, 2023

## General Specifications

## Antenna Type

## Band

## Grounding Type

## Performance Note

## Radome Material

Radiator Material
Reflector Material
RF Connector Interface
RF Connector Location
RF Connector Quantity, high band
RF Connector Quantity, low band
RF Connector Quantity, total

Sector
Multiband
RF connector inner conductor and body grounded to reflector and mounting bracket

Outdoor usage | Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN

Fiberglass, UV resistant
Low loss circuit board
Aluminum
7-16 DIN Female
Bottom

8

2

10

## Remote Electrical Tilt (RET) Information

## RET Hardware

RET Interface
RET Interface, quantity
Input Voltage
Power Consumption, idle state, maximum
Power Consumption, normal conditions, maximum

CommRET v2
8-pin DIN Female | 8-pin DIN Male
2 female | 2 male
$10-30 \mathrm{Vdc}$
1 W
8 W

## RV4-65D-R5-V9

Protocol
3GPP/AISG 2.0 (Single RET)

## Dimensions

| Width | $350 \mathrm{~mm} \mid 13.78 \mathrm{in}$ |
| :--- | :--- |
| Depth | $208 \mathrm{~mm} \mathrm{\mid} 8.189 \mathrm{in}$ |
| Length | $2688 \mathrm{~mm} \mathrm{\mid} 105.827 \mathrm{in}$ |
| Net Weight, without mounting kit | $31.8 \mathrm{~kg} \mathrm{\mid} 70.107 \mathrm{lb}$ |

Array Layout

| Y2 |  | Array | Freq (MHz) | Conns | $\begin{aligned} & \text { RET } \\ & \text { (SRET) } \end{aligned}$ | AISG RET UID |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Y4 | R1 | 694-960 | 1-2 | 1 | CPxxxxxxxxxxxxxxxR1 |
|  |  | Y1 | 1695-2690 | 3-4 | 2 | CPxxxxxxxxxxxxxxxy1 |
| Y1 | Y3 | Y2 | 1695-2690 | 5-6 | 3 | CPxxxxxxxxxxxxxxxy 2 |
|  |  | Y3 | 1695-2690 | 7-8 | 4 | CPxxxxxxxxxxxxxxxy 3 |
|  |  | Y4 | 1695-2690 | 9-10 | 5 | CPxxxxxxxxxxxxxxxy 4 |
| Left | Right | (Sizes o true dep | colored boxes are ctions of array sizes) |  |  |  |

## Port Configuration

## RV4-65D-R5-V9



## Electrical Specifications

Impedance
Operating Frequency Band

## Polarization

Total Input Power, maximum

50 ohm
$1695-2690 \mathrm{MHz}$ | $694-960 \mathrm{MHz}$
$\pm 45^{\circ}$
800 W @ $50^{\circ} \mathrm{C}$

## Electrical Specifications

| Frequency Band, MHz | 694-790 | 790-890 | 890-960 | 1695-1880 | 1920-2200 | 2300-2500 | 2500-2690 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gain, dBi | 16.3 | 16.7 | 16.9 | 16.9 | 17.5 | 17.6 | 17.1 |
| Beamwidth, Horizontal, degrees | 70 | 68 | 67 | 62 | 61 | 61 | 62 |
| Beamwidth, Vertical, degrees | 8.2 | 7.4 | 6.8 | 7.4 | 6.4 | 5.6 | 5.2 |
| Beam Tilt, degrees | 0-10 | 0-10 | 0-10 | 2-12 | 2-12 | 2-12 | 2-12 |
| USLS (First Lobe), dB | 18 | 24 | 19 | 16 | 17 | 16 | 17 |
| Front-to-Back Ratio at $18 \mathbf{0}^{\circ}$, dB | 26 | 30 | 32 | 33 | 38 | 35 | 32 |
| Isolation, Cross Polarization, dB | 28 | 28 | 28 | 25 | 25 | 25 | 25 |
| Isolation, Inter-band, dB | 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| VSWR \| Return loss, dB | 1.5\|14.0 | 1.5\|14.0 | $1.5 \mid 14.0$ | 1.5\|14.0 | $1.5 \mid 14.0$ | $1.5 \mid 14.0$ | 1.5\|14.0 |

RV4-65D-R5-V9

| PIM, 3rd Order, $2 \times 20$ W, dBc | -150 | -150 | -150 | -150 | -150 | -150 | -150 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Input Power per Port at $50^{\circ} \mathrm{C}$, maximum, watts | 250 | 250 | 250 | 200 | 200 | 200 | 200 |

## Electrical Specifications, BASTA

| Frequency Band, MHz | 694-790 | 790-890 | 890-960 | 1695-1880 | 1920-2200 | 2300-2500 | 2500-2690 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gain by all Beam Tilts, average, dBi | 16 | 16.5 | 16.6 | 16.3 | 17 | 16.9 | 16.6 |
| Gain by all Beam Tilts Tolerance, dB | $\pm 0.3$ | $\pm 0.3$ | $\pm 0.4$ | $\pm 0.8$ | $\pm 0.6$ | $\pm 0.8$ | $\pm 0.7$ |
| Gain by Beam Tilt, average, dBi | $\begin{aligned} & 0^{\circ} \mid 15.9 \\ & 5^{\circ} \mid 16.1 \\ & 10^{\circ} \mid 16.0 \end{aligned}$ | $\begin{aligned} & 0^{\circ} \mid 16.3 \\ & 5^{\circ} 16.5 \\ & 10^{\circ} \mid 16.5 \end{aligned}$ | $\begin{aligned} & 0^{\circ} 16.4 \\ & 5^{\circ} 16.8 \\ & 10^{\circ} \mid 16.5 \end{aligned}$ | $\begin{aligned} & 2^{\circ} 16.2 \\ & 7^{\circ} 16.4 \\ & 12^{\circ} \mid 16.1 \end{aligned}$ | $\begin{aligned} & 2^{\circ} \mid 16.8 \\ & 7^{\circ} \mid 17.1 \\ & 12^{\circ} \mid 177.0 \end{aligned}$ | $\begin{aligned} & 2^{\circ} \mid 16.7 \\ & 7^{\circ} 117.0 \\ & 1^{\circ} \mid 16.7 \end{aligned}$ | $\begin{aligned} & 2^{\circ} \mid 16.4 \\ & 7^{\circ} \mid 16.8 \\ & 1^{\circ} \mid 16.3 \end{aligned}$ |
| Beamwidth, Horizontal Tolerance, degrees | $\pm 1$ | $\pm 1.2$ | $\pm 1$ | $\pm 4.0$ | $\pm 2.2$ | $\pm 3.5$ | $\pm 4.1$ |
| Beamwidth, Vertical Tolerance, degrees | $\pm 0.5$ | $\pm 0.4$ | $\pm 0.4$ | $\pm 0.4$ | $\pm 0.4$ | $\pm 0.3$ | $\pm 0.2$ |
| USLS, beampeak to $20^{\circ}$ above beampeak, dB | 16 | 18 | 16 | 14 | 16 | 14 | 13 |
| Front-to-Back Total Power at $180^{\circ} \pm 30^{\circ}$, dB | 22 | 24 | 24 | 26 | 29 | 25 | 24 |
| CPR at Boresight, dB | 15 | 16 | 15 | 17 | 19 | 17 | 14 |
| CPR at Sector, dB | 10 | 10 | 11 | 10 | 9 | 10 | 9 |

## Mechanical Specifications

## Mechanical Tilt Range

Wind Loading @ Velocity, frontal
Wind Loading @ Velocity, lateral
Wind Loading @ Velocity, maximum
Wind Loading @ Velocity, rear
Wind Speed, maximum

$$
0^{\circ}-12^{\circ}
$$

477.0 N @ 150 km/h (107.2 lbf @ 150 km/h)
409.0 N @ 150 km/h (91.9 lbf @ 150 km/h)

1,010.0 N @ 150 km/h (227.1 lbf @ 150 km/h)
506.0 N @ 150 km/h (113.8 Ibf @ 150 km/h)

241 km/h (150 mph)

## Packaging and Weights

Width, packed
Depth, packed
Length, packed
Weight, gross

## Regulatory Compliance/Certifications

## Agency

ISO 9001:2015

## Classification

Designed, manufactured and/or distributed under this quality management system

## 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


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.

## Product Classification

## Product Type

Downtilt mounting kit

## General Specifications

| Application | Outdoor |
| :--- | :--- |
| Color | Silver |
| Dimensions |  |
| Compatible Diameter, maximum | 115 mm \| 4.528 in |
| Compatible Diameter, minimum | $60 \mathrm{~mm} \mathrm{\mid} 2.362 \mathrm{in}$ |
| Weight, net | $6.2 \mathrm{~kg} \mathrm{\mid} 13.669 \mathrm{lb}$ |

## Application

Outdoor
Silver

115 mm | 4.528 in
60 mm | 2.362 in
$6.2 \mathrm{~kg} \mathrm{\mid} 13.669 \mathrm{lb}$

## Material Specifications

## Material Type

Galvanized steel

## Packaging and Weights

## Included

Brackets | Hardware

## Packaging quantity

1
Weight, gross
$6.4 \mathrm{~kg} \mathrm{\mid} 14.11 \mathrm{lb}$

## Regulatory Compliance/Certifications

## Agency

CE
CHINA-ROHS
ISO 9001:2015
REACH-SVHC
ROHS
UK-ROHS

## Classification

Compliant with the relevant CE product directives
Below maximum concentration value
Designed, manufactured and/or distributed under this quality management system
Compliant as per SVHC revision on www.commscope.com/ProductCompliance
Compliant
Compliant

## BSAMNT-3

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