

RRV4-65A-R6-V2



12-port sector antenna, 4x 694–960 and 8x 1695–2690 MHz, 65° HPBW, 6x RET

- All Internal RET actuators are connected in "Cascaded SRET" configuration
- Array configuration provides capability for 4T4R (4x MIMO) on Low band and Dual 4T4R (4x MIMO) on High band
- Non-stacked high band array design provides higher gain and narrower vertical beamwidth than traditional antenna designs

General Specifications

| | |
|--|--|
| Antenna Type | Sector |
| Band | Multiband |
| Color | Light Gray (RAL 7035) |
| Grounding Type | RF connector inner conductor and body grounded to reflector and mounting bracket |
| Performance Note | Outdoor usage |
| Radome Material | Fiberglass, UV resistant |
| Reflector Material | Aluminum |
| RF Connector Interface | 4.3-10 Female |
| RF Connector Location | Bottom |
| RF Connector Quantity, mid band | 8 |
| RF Connector Quantity, low band | 4 |
| RF Connector Quantity, total | 12 |

Remote Electrical Tilt (RET) Information

| | |
|---|-----------------------------------|
| RET Hardware | CommRET v2 |
| RET Interface | 8-pin DIN Female 8-pin DIN Male |
| RET Interface, quantity | 1 female 1 male |
| Input Voltage | 10–30 Vdc |
| Internal RET | Low band (2) Mid band (4) |
| Power Consumption, active state, maximum | 8 W |
| Power Consumption, idle state, maximum | 1 W |
| Protocol | 3GPP/AISG 2.0 (Single RET) |

RRV4-65A-R6-V2

Dimensions

| | |
|---------------------------------|---------------------|
| Width | 498 mm 19.606 in |
| Depth | 197 mm 7.756 in |
| Length | 1499 mm 59.016 in |
| Net Weight, antenna only | 28.5 kg 62.832 lb |

Array Layout



| Array | Freq (MHz) | Conns | RET (SRET) | AISG RET UID |
|-------|------------|-------|------------|----------------------|
| R1 | 694-960 | 1-2 | 1 | CPxxxxxxxxxxxxxxxxR1 |
| R2 | 694-960 | 3-4 | 2 | CPxxxxxxxxxxxxxxxxR2 |
| Y1 | 1695-2690 | 5-6 | 3 | CPxxxxxxxxxxxxxxxxY1 |
| Y2 | 1695-2690 | 7-8 | 4 | CPxxxxxxxxxxxxxxxxY2 |
| Y3 | 1695-2690 | 9-10 | 5 | CPxxxxxxxxxxxxxxxxY3 |
| Y4 | 1695-2690 | 11-12 | 6 | CPxxxxxxxxxxxxxxxxY4 |

Left Right
Bottom

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

Port Configuration

RRV4-65A-R6-V2



Electrical Specifications

| | |
|-----------------------------------|---------------------------------|
| Impedance | 50 ohm |
| Operating Frequency Band | 1695 – 2690 MHz 694 – 960 MHz |
| Polarization | ±45° |
| Total Input Power, maximum | 900 W @ 50 °C |

Electrical Specifications

| | R1-R2 | R1-R2 | R1-R2 | Y1-Y4 | Y1-Y4 | Y1-Y4 | Y1-Y4 |
|--|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| Frequency Band, MHz | 694–790 | 790–890 | 880–960 | 1695–1920 | 1920–2180 | 2300–2500 | 2500–2690 |
| RF Port | 1-4 | 1-4 | 1-4 | 5-12 | 5-12 | 5-12 | 5-12 |
| Gain, dBi | 13.5 | 13.9 | 14.1 | 16.4 | 17.5 | 18.1 | 18.3 |
| Beamwidth, Horizontal, degrees | 61 | 59 | 58 | 70 | 61 | 59 | 59 |
| Beamwidth, Vertical, degrees | 17.3 | 15.9 | 14.8 | 7.4 | 6.6 | 5.6 | 5.3 |
| Beam Tilt, degrees | 2–16 | 2–16 | 2–16 | 2–12 | 2–12 | 2–12 | 2–12 |
| USLS (First Lobe), dB | 17 | 17 | 15 | 15 | 17 | 20 | 22 |
| Front-to-Back Ratio at 180°, dB | 32 | 29 | 29 | 33 | 32 | 31 | 31 |
| Isolation, Cross Polarization, dB | 25 | 25 | 25 | 25 | 25 | 25 | 25 |

RRV4-65A-R6-V2

| | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|
| Isolation, Inter-band, dB | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| VSWR Return loss, dB | 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 |
| PIM, 3rd Order, 2 x 20 W, dBc | -150 | -150 | -150 | -150 | -150 | -150 | -150 |
| Input Power per Port at 50°C, maximum, watts | 300 | 300 | 300 | 250 | 250 | 200 | 200 |

Electrical Specifications, BASTA

| Frequency Band, MHz | 694–790 | 790–890 | 880–960 | 1695–1920 | 1920–2180 | 2300–2500 | 2500–2690 |
|--|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| Gain by all Beam Tilts, average, dBi | 13.2 | 13.5 | 13.8 | 16 | 17.1 | 17.8 | 17.9 |
| Gain by all Beam Tilts Tolerance, dB | ±0.4 | ±0.5 | ±0.4 | ±0.8 | ±0.6 | ±0.4 | ±0.5 |
| Beamwidth, Horizontal Tolerance, degrees | ±6 | ±6 | ±5 | ±4 | ±6 | ±4 | ±5 |
| Beamwidth, Vertical Tolerance, degrees | ±1 | ±1 | ±0.8 | ±0.6 | ±0.5 | ±0.3 | ±0.2 |
| USLS, beampeak to 20° above beampeak, dB | 17 | 13 | 13 | 14 | 16 | 15 | 15 |
| Front-to-Back Total Power at 180° ± 30°, dB | 21 | 21 | 22 | 27 | 27 | 26 | 25 |
| CPR at Boresight, dB | 21 | 22 | 24 | 23 | 24 | 20 | 20 |
| CPR at Sector, dB | 11 | 9 | 12 | 8 | 6 | 6 | 4 |

Mechanical Specifications

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|---|---|
| Wind Loading @ Velocity, frontal | 583.0 N @ 150 km/h (131.1 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 188.0 N @ 150 km/h (42.3 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 818.0 N @ 150 km/h (183.9 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 462.0 N @ 150 km/h (103.9 lbf @ 150 km/h) |
| 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 | 1686 mm 66.378 in |
| Weight, gross | 41.2 kg 90.83 lb |

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|-----------------------|
|---------------|-----------------------|

RRV4-65A-R6-V2

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|---------------|--|
| CHINA-ROHS | Above maximum concentration value |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| ROHS | Compliant/Exempted |
| UK-ROHS | Compliant/Exempted |



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

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|-------------------------|---|
| Performance Note | Severe environmental conditions may degrade optimum performance |
|-------------------------|---|