

RRVVT4S4-65D-R6



24-port sector antenna, 4x 694–960 and 4x 1695-2690 MHz 65° HPBW, 8x 2300–2690 and 8x 3300-3800MHz, 90° HPBW, 6x RET

- Antenna Includes 1x 4-Column Array for 2300–2690MHz and a separate 1x 4-Column Array for 3300-3800MHz that support 8T8R beamforming operation. Column spacing optimized for Soft Split Beamforming
- Cluster connectors are used for beamforming 4-column arrays with separate calibration port for each band. Six Internal RET's provide independent electrical tilt control for each array
- Antenna includes 2x Single Column X-Pol Arrays for 694-960MHz and 2x Single Column X-Pol Arrays for 1695-2690MHz, suitable for 4x MIMO applications

General Specifications

| | |
|----------------------------------|--|
| Antenna Type | Sector |
| Band | Multiband |
| Calibration Connector Interface | M-LOC |
| Calibration Connector Quantity | 2 |
| 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 |
| Radiator Material | Low loss circuit board |
| Reflector Material | Aluminum |
| RF Connector Interface | 4.3-10 Female M-LOC |
| RF Connector Location | Bottom |
| RF Connector Quantity, high band | 20 |
| RF Connector Quantity, mid band | 0 |
| RF Connector Quantity, low band | 4 |
| RF Connector Quantity, total | 24 |

Remote Electrical Tilt (RET) Information

| | |
|-------------------------|-----------------------------------|
| RET Hardware | CommRET v2 |
| RET Interface | 8-pin DIN Female 8-pin DIN Male |
| RET Interface, quantity | 2 female 2 male |

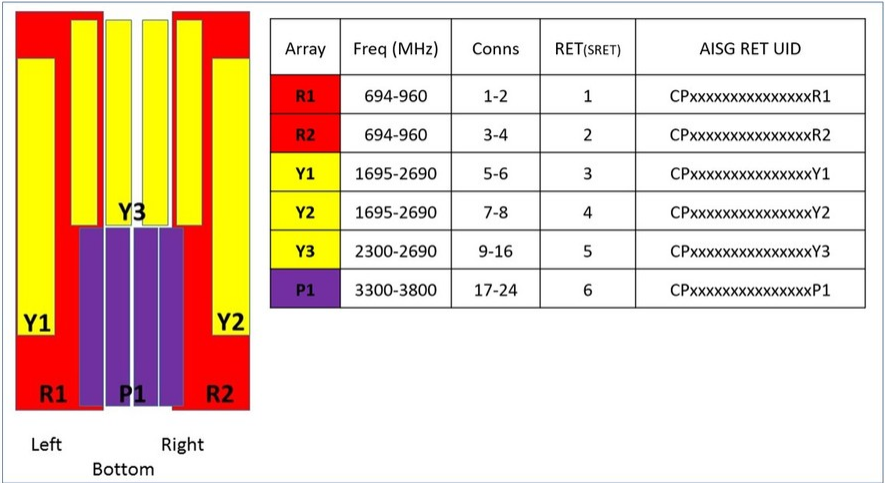
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| | |
|---|------------------------------|
| Input Voltage | 10–30 Vdc |
| Internal RET | High band (4) Low band (2) |
| Power Consumption, idle state, maximum | 1 W |
| Power Consumption, normal conditions, maximum | 8 W |
| Protocol | 3GPP/AISG 2.0 (Single RET) |

Dimensions

| | |
|----------------------------------|----------------------|
| Width | 498 mm 19.606 in |
| Depth | 197 mm 7.756 in |
| Length | 2688 mm 105.827 in |
| Net Weight, without mounting kit | 56.8 kg 125.222 lb |

Array Layout



Port Configuration

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Electrical Specifications

| | |
|----------------------------|---|
| Impedance | 50 ohm |
| Operating Frequency Band | 1695 – 2690 MHz 2300 – 2690 MHz 3300 – 3800 MHz 694 – 960 MHz |
| Polarization | ±45° |
| Total Input Power, maximum | 1,600 W @ 50 °C |

Electrical Specifications

| | R1-R2 | R1-R2 | R1-R2 | Y1-Y2 | Y1-Y2 | Y3 | P1 |
|---|---------|---------|---------|-----------|-----------|-----------|-----------|
| Frequency Band, MHz | 694–790 | 790–890 | 890–960 | 1695–2200 | 2300–2690 | 2300–2690 | 3300–3800 |
| Gain, dBi | 15.8 | 16.1 | 16.5 | 18.3 | 19.2 | 16 | 15.9 |
| Beamwidth, Horizontal, degrees | 71 | 65 | 62 | 70 | 60 | 93 | 88 |
| Beamwidth, Vertical, degrees | 8.9 | 8 | 7.3 | 5.1 | 4.2 | 4.9 | 6.6 |
| Beam Tilt, degrees | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 |
| USLS (First Lobe), dB | 14 | 18 | 21 | 14 | 19 | 18 | 16 |
| Front-to-Back Ratio at 180°, dB | 32 | 30 | 29 | 33 | 32 | 32 | 29 |
| Coupling level, Amp, Antenna port to Cal port, dB | | | | | | 26 | 26 |

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| | | | | | | | |
|---|------------|------------|------------|------------|------------|------------|------------|
| Coupling level, max Amp Δ, Antenna port to Cal port, dB | | | | | | ±2 | ±2 |
| Coupler, max Amp Δ, Antenna port to Cal port, dB | | | | | | 0.9 | 0.9 |
| Coupler, max Phase Δ, Antenna port to Cal port, degrees | | | | | | 7 | 9 |
| Isolation, Cross Polarization, dB | 28 | 28 | 28 | 25 | 25 | 25 | 25 |
| Isolation, Inter-band, dB | 28 | 28 | 28 | 25 | 25 | 20 | 20 |
| 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 | -145 |
| Input Power per Port at 50°C, maximum, watts | 300 | 300 | 300 | 250 | 200 | 150 | 75 |

Electrical Specifications, Broadcast 65°

| | | | |
|-----------------------------------|--|------------------|------------------|
| Frequency Band, MHz | | 2300–2690 | 3300–3800 |
| Gain, dBi | | 17.5 | 16.6 |
| Beamwidth, Horizontal, degrees | | 59 | 58 |
| Beamwidth, Vertical, degrees | | 4.9 | 6.6 |
| USLS (First Lobe), dB | | 19 | 16 |

Electrical Specifications, Service Beam

| | | | |
|---|--|------------------|------------------|
| Frequency Band, MHz | | 2300–2690 | 3300–3800 |
| Steered 0° Gain, dBi | | 20.9 | 20.5 |
| Steered 0° Beamwidth, Horizontal, degrees | | 26 | 24 |
| Steered 0° Front-to-Back Total Power at 180° ± 30°, dB | | 32 | 29 |
| Steered 0° Horizontal Sidelobe, dB | | 12 | 13 |
| Steered 30° Gain, dBi | | 20.4 | 19.8 |
| Steered 30° Beamwidth, Horizontal, degrees | | 28 | 27 |

Electrical Specifications, Soft Split

| | | | |
|------------------------|--|------------------|------------------|
| Frequency Band, MHz | | 2300–2690 | 3300–3800 |
| Gain, dBi | | 20.2 | 19.7 |
| Beamwidth, Horizontal, | | 31 | 30 |

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| | | |
|---|----|----|
| degrees | | |
| Front-to-Back Total Power at 180° ± 30°, dB | 33 | 29 |
| Horizontal Sidelobe, dB | 19 | 15 |

Mechanical Specifications

| | |
|----------------------------------|---|
| Mechanical Tilt Range | 0°–12° |
| Wind Loading @ Velocity, frontal | 1,070.0 N @ 150 km/h (240.5 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 375.0 N @ 150 km/h (84.3 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 1,385.0 N @ 150 km/h (311.4 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 880.0 N @ 150 km/h (197.8 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

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|----------------|----------------------|
| Width, packed | 565 mm 22.244 in |
| Depth, packed | 309 mm 12.165 in |
| Length, packed | 2935 mm 115.551 in |
| Weight, gross | 77.8 kg 171.519 lb |

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| 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-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. |
| BSAMNT-M4 | – | Middle Downtilt Mounting Kit for Long Antennas for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor bracket set. |

* Footnotes

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