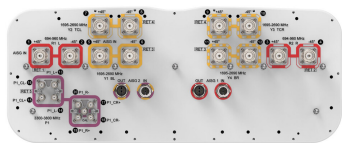


RRV4S4-65D-R5



- 20-port sector antenna, 4x 694–960, 8x 1695–2690 MHz, 65° HPBW and 8x 3300–3800 MHz, 90° HPBW, 5x RET
- All Internal RET actuators are connected in “Cascaded SRET” configuration
 - Cluster connectors for the beam-forming array, including eight RF ports plus one calibration port

General Specifications

| | |
|----------------------------------|--|
| Antenna Type | Sector and beamforming |
| Band | Multiband |
| Calibration Connector Interface | M-LOC |
| Calibration Connector Quantity | 1 |
| 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 M-LOC |
| RF Connector Location | Bottom |
| RF Connector Quantity, high band | 8 |
| RF Connector Quantity, mid band | 8 |
| RF Connector Quantity, low band | 4 |
| RF Connector Quantity, total | 20 |

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 |
| Input Voltage | 10–30 Vdc |
| Internal Bias Tee | Port 1 Port 5 |
| Internal RET | High band (1) Low band (2) Mid band (2) |
| Power Consumption, active state, maximum | 8 W |

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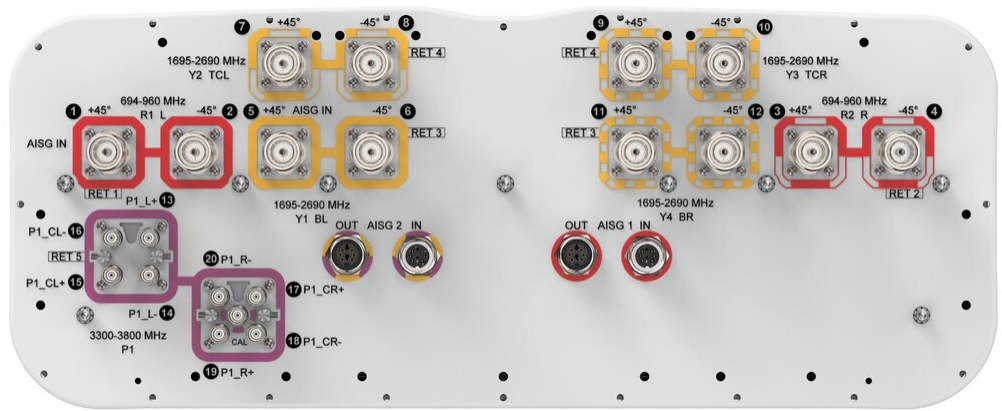
| | |
|--|----------------------------|
| Power Consumption, idle state, maximum | 1 W |
| Protocol | 3GPP/AISG 2.0 (Single RET) |
| Dimensions | |
| Width | 498 mm 19.606 in |
| Depth | 197 mm 7.756 in |
| Length | 2688 mm 105.827 in |
| Net Weight, without mounting kit | 52.5 kg 115.743 lb |
| TDD Column Spacing | 42 mm 1.654 in |

Array Layout

| RF Connector | Array ID | Frequency (MHz) | RET (SRET) | AISG RET UID |
|--------------|----------|-----------------|------------|------------------|
| 1 - 2 | R1 | 694-960 | 1 | CPxxxxxxxxxxxxR1 |
| 3 - 4 | R2 | 694-960 | 2 | CPxxxxxxxxxxxxR2 |
| 5 - 6 | Y1 | 1695-2690 | 3 | CPxxxxxxxxxxxxY1 |
| 11 - 12 | Y4 | 1695-2690 | 4 | CPxxxxxxxxxxxxY2 |
| 7 - 8 | Y2 | 1695-2690 | | |
| 9 - 10 | Y3 | 1695-2690 | | |
| 13 - 20 | P1 | 3300-3800 | 5 | CPxxxxxxxxxxxxP1 |

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

Port Configuration



Electrical Specifications

RRV4S4-65D-R5

| | |
|--------------------------|---|
| Impedance | 50 ohm |
| Operating Frequency Band | 1695 – 2690 MHz 3300 – 3800 MHz 694 – 960 MHz |
| Polarization | ±45° |

Electrical Specifications

| Frequency Band, MHz | 694–790 | 790–890 | 880–960 | 1695–1920 | 1920–2180 | 2300–2500 | 2500–2690 | 3300–3800 |
|---|------------|------------|------------|------------|------------|------------|------------|------------|
| Gain, dBi | 16 | 16 | 16.5 | 17.1 | 17.5 | 17.9 | 17.6 | 16.2 |
| Beamwidth, Horizontal, degrees | 72 | 65 | 62 | 64 | 66 | 63 | 63 | 88 |
| Beamwidth, Vertical, degrees | 8.8 | 8 | 7.3 | 6.6 | 5.9 | 5.2 | 5 | 6.1 |
| Beam Tilt, degrees | 1–11 | 1–11 | 1–11 | 0–10 | 0–10 | 0–10 | 0–10 | 2–12 |
| USLS (First Lobe), dB | 18 | 19 | 21 | 20 | 20 | 20 | 17 | 15 |
| Front-to-Back Ratio at 180°, dB | 32 | 32 | 38 | 32 | 31 | 33 | 31 | 29 |
| Coupling level, Amp, Antenna port to Cal port, dB | | | | | | | | 26 |
| Coupling level, max Amp Δ, Antenna port to Cal port, dB | | | | | | | | ±2 |
| Coupler, max Amp Δ, Antenna port to Cal port, dB | | | | | | | | 0.9 |
| Coupler, max Phase Δ, Antenna port to Cal port, degrees | | | | | | | | 7 |
| CPR at Boresight, dB | 23 | 21 | 20 | 15 | 17 | 20 | 20 | 17 |
| Isolation, Cross Polarization, dB | 28 | 28 | 28 | 25 | 25 | 25 | 25 | 25 |
| Isolation, Inter-band, dB | 28 | 28 | 28 | 25 | 25 | 25 | 25 | 25 |
| Isolation, Co-polarization, dB | | | | | | | | 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 | 1.5 14.0 |
| PIM, 3rd Order, 2 x 20 W, dBc | -150 | -150 | -150 | -150 | -150 | -150 | -150 | -145 |
| Input Power per Port at 50°C, maximum, watts | 300 | 300 | 300 | 250 | 250 | 250 | 200 | 75 |

Electrical Specifications, Broadcast 65°

| | |
|--------------------------------|-----------|
| Frequency Band, MHz | 3300–3800 |
| Gain, dBi | 16.7 |
| Beamwidth, Horizontal, degrees | 64 |

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| | |
|------------------------------|-----|
| Beamwidth, Vertical, degrees | 6.1 |
| USLS (First Lobe), dB | 17 |

Electrical Specifications, Service Beam

| | |
|---|-----------|
| Frequency Band, MHz | 3300–3800 |
| Steered 0° Gain, dBi | 21.1 |
| Steered 0° Beamwidth, Horizontal, degrees | 24 |
| Steered 0° Front-to-Back Total Power at 180° ± 30°, dB | 27 |
| Steered 30° Gain, dBi | 20.1 |
| Steered 30° Beamwidth, Horizontal, degrees | 29 |
| Steered 30° Front-to-Back Total Power at 180° ± 30°, dB | 29 |

Electrical Specifications, Soft Split

| | |
|---|-----------|
| Frequency Band, MHz | 3300–3800 |
| Gain, dBi | 20.1 |
| Beamwidth, Horizontal, degrees | 31 |
| Front-to-Back Total Power at 180° ± 30°, dB | 28 |

Mechanical Specifications

| | |
|----------------------------------|---|
| Wind Loading @ Velocity, frontal | 1,041.0 N @ 150 km/h (234.0 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 360.0 N @ 150 km/h (80.9 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 1,346.0 N @ 150 km/h (302.6 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 857.0 N @ 150 km/h (192.7 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 | 2935 mm 115.551 in |
| Weight, gross | 73.5 kg 162.04 lb |

Regulatory Compliance/Certifications

RRV4S4-65D-R5

| 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

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