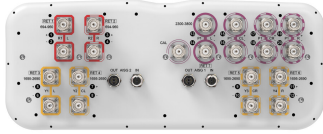


RRV4Q4-65D-R7V2



20-port sector antenna, 4 x 694-960 MHz (R1-R2), and 8 x 1695-2690 MHz (Y1-Y4) 65° HPBW, 8 x 2300-3800 MHz (P1), 90° HPBW, 7 x RET

- Includes 1x 4-Column Array for 2300-3800MHz and calibration port. Column spacing optimized to support Soft Split Beamforming
- Seven internal RETs control the antenna arrays
- New aerodynamic endcaps for wind load optimization
- Q4 array uses 4.3-10 female connectors including calibration port

General Specifications

| | |
|---|--|
| Antenna Type | Sector- and beamforming |
| Band | Multiband |
| Calibration Connector Interface | 4.3-10 Female |
| 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 |
| 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 RET | High band (1) Low band (2) Mid band (4) |
| Power Consumption, active state, maximum | 8 W |

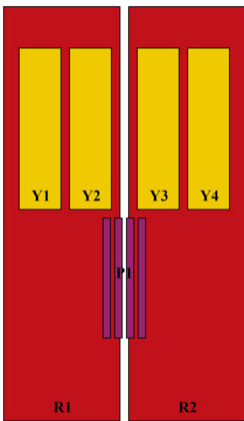
RRV4Q4-65D-R7V2

Power Consumption, idle state, maximum 1 W
Protocol 3GPP/AISG 2.0

Dimensions

Width 498 mm | 19.606 in
Depth 197 mm | 7.756 in
Length 2688 mm | 105.827 in
Net Weight, antenna only 45 kg | 99.208 lb
TDD Column Spacing 58 mm | 2.283 in

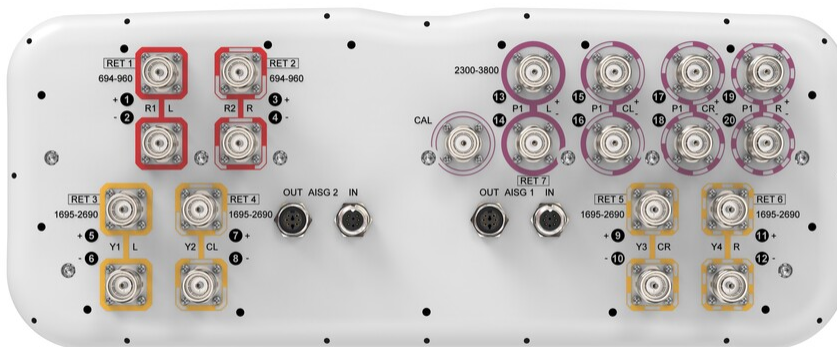
Array Layout



| Array ID | Frequency (MHz) | RF Connector | RET (SRET) | AISG No. | AISG RET UID |
|----------|-----------------|--------------|------------|----------|----------------------|
| R1 | 694-960 | 1 - 2 | 1 | AISG1 | CPxxxxxxxxxxxxxxxxR1 |
| R2 | 694-960 | 3 - 4 | 2 | AISG1 | CPxxxxxxxxxxxxxxxxR2 |
| Y1 | 1695-2690 | 5 - 6 | 3 | AISG1 | CPxxxxxxxxxxxxxxxxY1 |
| Y2 | 1695-2690 | 7 - 8 | 4 | AISG1 | CPxxxxxxxxxxxxxxxxY2 |
| Y3 | 1695-2690 | 9 - 10 | 5 | AISG1 | CPxxxxxxxxxxxxxxxxY3 |
| Y4 | 1695-2690 | 11 - 12 | 6 | AISG1 | CPxxxxxxxxxxxxxxxxY4 |
| P1 | 2300-3800 | 13 - 20 | 7 | AISG1 | CPxxxxxxxxxxxxxxxxP1 |

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

Port Configuration



RRV4Q4-65D-R7V2

Electrical Specifications

| | |
|-----------------------------------|---|
| Impedance | 50 ohm |
| Operating Frequency Band | 1695 – 2690 MHz 2300 – 3800 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 | P1 | P1 |
|--|----------------|----------------|----------------|------------------|------------------|------------------|------------------|------------------|
| Frequency Band, MHz | 694–790 | 790–890 | 890–960 | 1695–1920 | 1920–2200 | 2300–2690 | 2300–2690 | 3400–3800 |
| RF Port | 1-4 | 1-4 | 1-4 | 5-12 | 5-12 | 5-12 | 13-20 | 13-20 |
| Gain, dBi | 15.8 | 16.2 | 16.4 | 15.8 | 17 | 17.6 | 15.9 | 16.6 |
| Beamwidth, Horizontal, degrees | 71 | 64 | 63 | 70 | 62 | 59 | 88 | 64 |
| Beamwidth, Vertical, degrees | 8.9 | 8 | 7.3 | 7.4 | 6.5 | 5.4 | 6 | 5.1 |
| Beam Tilt, degrees | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 |
| USLS (First Lobe), dB | 16 | 16 | 16 | 16 | 16 | 16 | 14 | 14 |
| Front-to-Back Ratio at 180°, dB | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 28 |
| Coupling level, Amp, Antenna port to Cal port, dB | | | | | | | 26 | 26 |
| 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 | 7 |
| Isolation, Cross Polarization, dB | 28 | 28 | 28 | 25 | 25 | 25 | 23 | 23 |
| Isolation, Inter-band, dB | 28 | 28 | 28 | 25 | 25 | 25 | 25 | 25 |
| Isolation, Co-polarization, dB | | | | | | | 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 | 1.5 14.0 |
| PIM, 3rd Order, 2 x 20 W, dBc | -150 | -150 | -150 | -150 | -150 | -150 | -140 | -140 |
| Input Power per Port at 50°C, maximum, watts | 300 | 300 | 300 | 250 | 250 | 200 | 75 | 75 |

Electrical Specifications, BASTA

RRV4Q4-65D-R7V2

| Frequency Band, MHz | 694–790 | 790–890 | 890–960 | 1695–1920 | 1920–2200 | 2300–2690 | 2300–2690 | 3400–3800 |
|---|---------|---------|---------|-----------|-----------|-----------|-----------|-----------|
| Gain by all Beam Tilts, average, dBi | 15.5 | 15.8 | 16.1 | 15.4 | 16.5 | 17.1 | 15.1 | 15.9 |
| Gain by all Beam Tilts Tolerance, dB | ±0.4 | ±0.4 | ±0.4 | ±0.5 | ±0.7 | ±0.6 | ±1.1 | ±1 |
| Beamwidth, Horizontal Tolerance, degrees | ±6 | ±4 | ±3 | ±5 | ±7 | ±6 | ±18 | ±12 |
| Beamwidth, Vertical Tolerance, degrees | ±0.4 | ±0.6 | ±0.3 | ±0.5 | ±0.6 | ±0.4 | ±0.5 | ±0.3 |
| USLS, beampeak to 20° above beampeak, dB | 16 | 17 | 17 | 15 | 16 | 16 | 11 | 11 |
| Front-to-Back Total Power at 180° ± 30°, dB | 22 | 22 | 22 | 26 | 25 | 26 | 24 | 23 |
| CPR at Boresight, dB | 20 | 20 | 18 | 19 | 21 | 20 | 16 | 16 |
| CPR at Sector, dB | 12 | 9 | 12 | 8 | 6 | 3 | 8 | 5 |

Electrical Specifications, Broadcast 65°

| Frequency Band, MHz | 2300–2690 | 3400–3800 |
|---|-----------|-----------|
| Gain, dBi | 17.7 | 17.4 |
| Beamwidth, Horizontal, degrees | 37 | 59 |
| Beamwidth, Vertical, degrees | 5.9 | 5.1 |
| Front-to-Back Total Power at 180° ± 30°, dB | 28 | 25 |
| USLS (First Lobe), dB | 14 | 15 |

Electrical Specifications, Envelope Pattern

| Frequency Band, MHz | 2300–2690 | 3400–3800 |
|---|-----------|-----------|
| Gain, dBi | 20.4 | 21.8 |
| Beamwidth, Horizontal at 10 dB, degrees | 125 | 120 |
| Beamwidth, Vertical at 3 dB, degrees | 5.9 | 5.1 |
| Front-to-Back Total Power at 180° ± 30°, dB | 28 | 27 |
| USLS (First Lobe), dB | 15 | 15 |

Electrical Specifications, Service Beam

| Frequency Band, MHz | 2300–2690 | 3400–3800 |
|----------------------|-----------|-----------|
| Steered 0° Gain, dBi | 20.5 | 21.8 |

RRV4Q4-65D-R7V2

| | | |
|--|----|------|
| Steered 0° Beamwidth, Horizontal, degrees | 24 | 18 |
| Steered 0° Front-to-Back Total Power at 180° ± 30°, dB | 30 | 29 |
| Steered 0° Horizontal Sidelobe, dB | 12 | 13 |
| Steered 30° Gain, dBi | 20 | 19.9 |
| Steered 30° Beamwidth, Horizontal, degrees | 28 | 22 |
| Steered 30° Front-to-Back Total Power at 180° ± 30°, dB | 30 | 25 |

Electrical Specifications, Soft Split

| | |
|--|------------------|
| Frequency Band, MHz | 2300–2690 |
| Gain, dBi | 19.7 |
| Beamwidth, Horizontal, degrees | 30 |
| Front-to-Back Total Power at 180° ± 30°, dB | 30 |
| Horizontal Sidelobe, dB | 18 |

Mechanical Specifications

| | |
|---|---|
| Wind Loading @ Velocity, frontal | 944.0 N @ 150 km/h (212.2 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 292.0 N @ 150 km/h (65.6 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 1,130.0 N @ 150 km/h (254.0 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 650.0 N @ 150 km/h (146.1 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 | 65.5 kg 144.403 lb |

Regulatory Compliance/Certifications

| | |
|---------------|--|
| Agency | Classification |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |

RRV4Q4-65D-R7V2



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.
- BSAMNT-M – 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

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.

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 mm | 2.362 in

Weight, net 6.2 kg | 13.669 lb

Material Specifications

Material Type Galvanized steel

Packaging and Weights

Included Brackets | Hardware

Packaging quantity 1

Weight, gross 6.4 kg | 14.11 lb

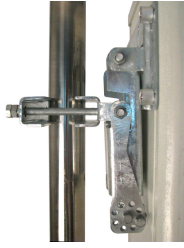
Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| CE | Compliant with the relevant CE product directives |
| 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.commscope.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |

BSAMNT-3



BSAMNT-M



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.

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 mm | 2.362 in

Weight, net 4.5 kg | 9.921 lb

Material Specifications

Material Type Galvanized steel

Packaging and Weights

Included Brackets | Hardware

Packaging quantity 1

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.commscope.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |

