

RRZZVVS4-65BR7NV4



20-port sector antenna, 4x 694-960, 4x 1427-2690, 4x 1695-2690 MHz, 65° HPBW and 8x 3300-3800 MHz, 90° HPBW, 7x 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
- Antenna shape optimized for wind load reduction
- Includes seven Internal RET's
- Retractable tilt indicator rods
- S4 array uses MQ cluster connectors

General Specifications

| | |
|---|--|
| Antenna Type | Sector- and beamforming |
| Band | Multiband |
| Calibration Connector Interface | MQ5 |
| 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 MQ4 MQ5 |
| 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) |

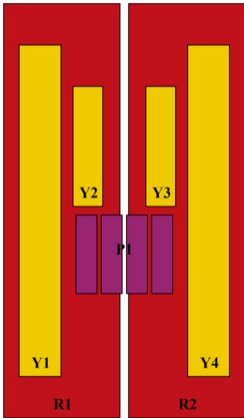
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| | |
|---|----------------------------|
| Power Consumption, active state, maximum | 8 W |
| Power Consumption, idle state, maximum | 1 W |
| Protocol | 3GPP/AISG 2.0 (Single RET) |

Dimensions

| | |
|---------------------------|---------------------|
| Width | 430 mm 16.929 in |
| Depth | 197 mm 7.756 in |
| Length | 2100 mm 82.677 in |
| TDD Column Spacing | 42 mm 1.654 in |

Array Layout

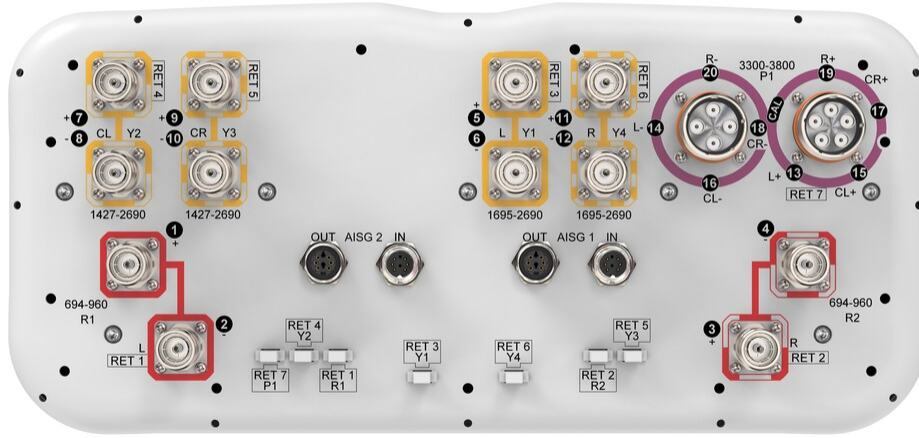


| Array ID | Frequency (MHz) | RF Connector | RET (SRET) | AISG No. | AISG RET UID |
|----------|-----------------|--------------|------------|----------|------------------|
| R1 | 694-960 | 1 - 2 | 1 | AISG1 | CPXXXXXXXXXXXXR1 |
| R2 | 694-960 | 3 - 4 | 2 | AISG1 | CPXXXXXXXXXXXXR2 |
| Y1 | 1695-2690 | 5 - 6 | 3 | AISG1 | CPXXXXXXXXXXXXY1 |
| Y2 | 1427-2690 | 7 - 8 | 4 | AISG1 | CPXXXXXXXXXXXXY2 |
| Y3 | 1427-2690 | 9 - 10 | 5 | AISG1 | CPXXXXXXXXXXXXY3 |
| Y4 | 1695-2690 | 11 - 12 | 6 | AISG1 | CPXXXXXXXXXXXXY4 |
| P1 | 3300-3800 | 13 - 20 | 7 | AISG1 | CPXXXXXXXXXXXXP1 |

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

Port Configuration

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Electrical Specifications

| | |
|-----------------------------------|---|
| Impedance | 50 ohm |
| Operating Frequency Band | 1427 – 2690 MHz 1695 – 2690 MHz 3300 – 3800 MHz 694 – 960 MHz |
| Polarization | ±45° |
| Total Input Power, maximum | 1,500 W @ 50 °C |

Electrical Specifications

| | R1,R2 | R1,R2 | R1,R2 | Y2,Y3 | Y2,Y3 | Y2,Y3 | Y1,Y4 | Y1,Y4 | P1 |
|--|----------------|----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Frequency Band, MHz | 694-790 | 790-890 | 890-960 | 1427-1518 | 1695-2200 | 2300-2690 | 1695-2200 | 2300-2690 | 3300-3800 |
| RF Port | 1,2,3,4 | 1,2,3,4 | 1,2,3,4 | 7-10 | 7-10 | 7-10 | 5,6,11,12 | 5,6,11,12 | 13-20 |
| Gain, dBi | 14.3 | 14.9 | 15.2 | 13.8 | 15.9 | 16.7 | 17.6 | 18.5 | 15.9 |
| Beamwidth, Horizontal, degrees | 72 | 62 | 58 | 67 | 63 | 59 | 69 | 64 | 83 |
| Beamwidth, Vertical, degrees | 10.7 | 9.5 | 8.5 | 9.8 | 7.6 | 6.1 | 5.2 | 4.3 | 6.2 |
| Beam Tilt, degrees | 2-12 | 2-12 | 2-12 | 2-12 | 2-12 | 2-12 | 2-12 | 2-12 | 2-12 |
| USLS (First Lobe), dB | 17 | 18 | 15 | 12 | 17 | 22 | 18 | 18 | 16 |
| Front-to-Back Ratio at 180°, dB | 31 | 31 | 30 | 34 | 34 | 32 | 34 | 33 | 28 |

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| | | | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 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 |
| Isolation, Cross Polarization, dB | 27 | 27 | 27 | 26 | 26 | 26 | 27 | 27 | 25 |
| Isolation, Inter-band, dB | 27 | 27 | 27 | 26 | 26 | 26 | 26 | 26 | 25 |
| Isolation, Co-polarization, dB | | | | | | | | | 19 |
| 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 | 1.5 14.0 |
| PIM, 3rd Order, 2 x 20 W, dBc | -153 | -153 | -153 | -153 | -153 | -153 | -153 | -153 | -130 |
| Input Power per Port at 50° C, maximum, watts | 250 | 250 | 250 | 200 | 200 | 150 | 200 | 150 | 75 |

Electrical Specifications, BASTA

| Frequency Band, MHz | 694–790 | 790–890 | 890–960 | 1427–1518 | 1695–2200 | 2300–2690 | 1695–2200 | 2300–2690 | 3300–3800 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Gain by all Beam Tilts, average, dBi | 13.8 | 14.6 | 14.8 | 13.5 | 15.2 | 16.3 | 17 | 18.2 | 15.1 |
| Gain by all Beam Tilts Tolerance, dB | ± 0.7 | ± 0.3 | ± 0.5 | ± 0.6 | ± 1.1 | ± 0.5 | ± 0.9 | ± 0.4 | ± 0.8 |
| Beamwidth, Horizontal Tolerance, degrees | ± 8 | ± 5 | ± 6 | ± 8 | ± 8 | ± 4 | ± 6 | ± 4 | ± 21 |
| Beamwidth, Vertical Tolerance, degrees | ± 0.8 | ± 0.6 | ± 0.6 | ± 0.8 | ± 0.9 | ± 0.5 | ± 0.5 | ± 0.3 | ± 0.6 |
| USLS, beampeak to 20° above beampeak, dB | 17 | 15 | 13 | 12 | 15 | 14 | 16 | 17 | 13 |
| Front-to-Back Total Power at 180° \pm 30°, dB | 21 | 22 | 21 | 23 | 28 | 26 | 26 | 26 | 22 |
| CPR at Boresight, dB | 22 | 21 | 23 | 13 | 18 | 18 | 18 | 20 | 15 |
| CPR at Sector, dB | 11 | 7 | 7 | 4 | 4 | 2 | 8 | 7 | 8 |

Electrical Specifications, Broadcast 65°

| | |
|------------------------|------------------|
| Frequency Band, MHz | 3300–3800 |
| Gain, dBi | 18.3 |
| Beamwidth, Horizontal, | 65 |

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degrees

Beamwidth, Vertical, degrees 6.2

Front-to-Back Total Power at 180° ± 30°, dB 26

USLS (First Lobe), dB 20

Electrical Specifications, Service Beam

Frequency Band, MHz **3300–3800**

Steered 0° Gain, dBi 20.6

Steered 0° Beamwidth, Horizontal, degrees 23

Steered 0° Front-to-Back Total Power at 180° ± 30°, dB 29

Steered 0° Horizontal Sidelobe, dB 15

Steered 30° Gain, dBi 19.3

Steered 30° Beamwidth, Horizontal, degrees 29

Steered 30° Front-to-Back Total Power at 180° ± 30°, dB 27

Electrical Specifications, Soft Split

Frequency Band, MHz **3300–3800**

Gain, dBi 19.5

Beamwidth, Horizontal, degrees 31

Front-to-Back Total Power at 180° ± 30°, dB 27

Horizontal Sidelobe, dB 17

Mechanical Specifications

Wind Loading @ Velocity, frontal 494.0 N @ 150 km/h (111.1 lbf @ 150 km/h)

Wind Loading @ Velocity, lateral 266.0 N @ 150 km/h (59.8 lbf @ 150 km/h)

Wind Loading @ Velocity, maximum 780.0 N @ 150 km/h (175.4 lbf @ 150 km/h)

Wind Loading @ Velocity, rear 319.0 N @ 150 km/h (71.7 lbf @ 150 km/h)

Wind Speed, maximum 241 km/h (150 mph)

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Packaging and Weights

| | |
|-----------------------|----------------------|
| Width, packed | 530 mm 20.866 in |
| Depth, packed | 349 mm 13.74 in |
| Length, packed | 2272 mm 89.449 in |
| Weight, gross | 53.2 kg 117.286 lb |
| Weight, net | 38.2 kg 84.216 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-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