

28-port sector antenna, 4x 694–960, 4x 1427-2690 and 4x 1695- 2690 MHz 65° HPBW, 8x 2300–2690 and 8x 3300-3800MHz, 90° HPBW, 8x RET

- Also includes 1x 4-Column Array for 2300-2690 MHz and a separate 1x 4-Column Array for 3300-3800MHz. Column spacing optimized to support Soft Split Beamforming
- Includes MQ4/MQ5 type cluster connector(s)
- Includes eight Internal RET's
- Supports re-configurable antenna sharing capability enabling control of the internal RET system using up to two separate RET compatible OEM radios
- New end cap shape for additional wind load reduction

This product will be discontinued on: December 31, 2025 Replaced By:

RRZZVVT4S4-65DR8EC 28-port sector antenna, 4x 694–960, 4x 1427-2690 and 4x 1695-2690 MHz 65° HPBW, 8x 2300–2690 and 8x 3300-3800MHz, 90° HPBW, 8x RET

General Specifications

RF Connector Quantity, total

Antenna Type Sector and beamforming

Band Multiband

Calibration Connector Interface MQ5

Calibration Connector Quantity 2

Color Light Gray (RAL 7035)

Grounding TypeRF connector inner conductor and body grounded to reflector and mounting

bracket

28

Performance Note Outdoor usage

Radome Material Fiberglass, UV resistant

Reflector Material Aluminum

RF Connector Interface 4.3-10 Female | MQ4 | MQ5

RF Connector Location

RF Connector Quantity, high band

RF Connector Quantity, mid band

RF Connector Quantity, low band

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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 (2) | Low band (2) | Mid band (4)

Power Consumption, active state, maximum 8 WPower Consumption, idle state, maximum 1 W

Protocol 3GPP/AISG 2.0 (Single RET)

Dimensions

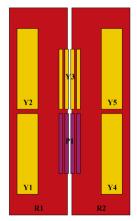
 Width
 498 mm | 19.606 in

 Depth
 197 mm | 7.756 in

 Length
 2688 mm | 105.827 in

 Net Weight, without mounting kit
 59.4 kg | 130.954 lb

Array Layout



| Array ID | Frequency (MHz) | RF Connector | RET (SRET) | AISG No. | AISG RET UID |
|----------|-----------------|--------------|---------------|----------|---------------------|
| R1 | 694-960 | 1 - 2 | 1 | AISG1 | CPxxxxxxxxxxxxxR1 |
| R2 | 694-960 | 3 - 4 | 2 | AISG1 | CPxxxxxxxxxxxxxxxR2 |
| Y1 | 1427-2690 | 5 - 6 | 3 | AISG1 | CPxxxxxxxxxxxxxY1 |
| Y2 | 1695-2690 | 7 - 8 | 4 | AISG1 | CPxxxxxxxxxxxxxY2 |
| Y3 | 2300-2690 | 9 - 16 | 5 | AISG1 | CPxxxxxxxxxxxxxXY3 |
| Y4 | 1427-2690 | 17 - 18 | 6 | AISG1 | CPxxxxxxxxxxxxxY4 |
| Y5 | 1695-2690 | 19 - 20 | 7 | AISG1 | CPxxxxxxxxxxxxxY5 |
| P1 | 3300-3800 | 21 - 28 | 8 | AISG1 | CPxxxxxxxxxxxxxxP1 |

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

Port Configuration





Electrical Specifications

Impedance 50 ohm

Operating Frequency Band 1427 – 2690 MHz | 1695 – 2690 MHz | 2300 – 2690 MHz | 3300 – 3800

MHz | 694 – 960 MHz

Polarization ±45°

Total Input Power, maximum 1,900 W @ 50 °C

Electrical Specifications

| Frequency Band, MHz | 694-790 | 790-890 | 890-960 | 1427-151 | 8 1695-218 | 0 2300-269 | 0 2300-269 | 0 3300-3800 |
|---|---------|---------|---------|----------|------------|------------|------------|-------------|
| Gain, dBi | 15.7 | 16 | 16.1 | 14.9 | 16.8 | 17.8 | 16.3 | 15.9 |
| Beamwidth, Horizontal, degrees | 72 | 66 | 63 | 79 | 70 | 60 | 90 | 89 |
| Beamwidth, Vertical, degrees | 8.8 | 7.8 | 7.2 | 9.2 | 7.1 | 5.5 | 4.8 | 6.5 |
| Beam Tilt, degrees | 2-12 | 2-12 | 2-12 | 2-12 | 2-12 | 2-12 | 2-12 | 2-12 |
| USLS (First Lobe), dB | 17 | 19 | 23 | 25 | 21 | 23 | 19 | 16 |
| Front-to-Back Ratio at 180°, dB | 34 | 30 | 29 | 35 | 32 | 31 | 31 | 29 |
| 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 , | | | | | | | 7 | 9 |

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| | | | | | | | | | _ |
|--|------------|------------|------------|------------|------------|------------|------------|--------------|---|
| Antenna port to Cal port, degrees | | | | | | | | | |
| CPR at Boresight, dB | 18 | 19 | 19 | 18 | 19 | 19 | 15 | 16 | |
| Isolation, Cross Polarization, dB | 28 | 28 | 28 | 25 | 25 | 25 | 25 | 25 | |
| Isolation, Inter-band, dB | 28 | 28 | 28 | 25 | 25 | 25 | 28 | 28 | |
| 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 | -130 | -130 | |
| Input Power per Port at 50°C, maximum, watts | 300 | 300 | 300 | 250 | 250 | 200 | 150 | 75 | |
| Electrical Specificati | ons, Bro | oadcast | 65° | | | | | | |
| Frequency Band, MHz | | | | | | | 2300-26 | 90 3300-3800 | |
| Gain, dBi | | | | | | | 18.2 | 17.9 | |
| Beamwidth, Horizontal, degrees | | | | | | | 65 | 65 | |
| Beamwidth, Vertical, degrees | | | | | | | 4.9 | 6.5 | |
| Front-to-Back Total Power at 180° ± 30°, dB | | | | | | | 27 | 25 | |
| USLS (First Lobe), dB | | | | | | | 18 | 17 | |
| Electrical Specificati | ons, Se | rvice Be | eam | | | | | | |
| Frequency Band, MHz | | | | | | | 2300-26 | 90 3300-3800 | |
| Steered 0° Gain, dBi | | | | | | | 21.2 | 20.3 | |
| Steered 0° Beamwidth, Horizontal, degrees | | | | | | | 25 | 24 | |
| Steered 0° Front-to-Back Total Power at 180° ± 30°, dB | | | | | | | 32 | 28 | |
| Steered 0° Horizontal Sidelobe, dB | | | | | | | 13 | 12 | |
| Steered 30° Gain, dBi | | | | | | | 20.4 | 19.7 | |
| Steered 30° Beamwidth, Horizontal, degrees | | | | | | | 29 | 27 | |
| Steered 30° Front-to-Back Total Power at 180° ± 30°, dB | | | | | | | 31 | 27 | |
| Electrical Specificati | ons, So | ft Split | | | | | | | |
| Frequency Band, MHz | | | | | | | 2300-26 | 90 3300-3800 | |
| | | | | | | | | | |

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| Gain, dBi | 20.2 | 19.5 |
|---|------|------|
| Beamwidth, Horizontal, degrees | 32 | 30 |
| Front-to-Back Total Power at 180° ± 30°, dB | 33 | 29 |
| Horizontal Sidelobe, dB | 21 | 16 |

Mechanical Specifications

 Wind Loading @ Velocity, frontal
 970.0 N @ 150 km/h (218.1 lbf @ 150 km/h)

 Wind Loading @ Velocity, lateral
 304.0 N @ 150 km/h (68.3 lbf @ 150 km/h)

 Wind Loading @ Velocity, maximum
 1,162.0 N @ 150 km/h (261.2 lbf @ 150 km/h)

 Wind Loading @ Velocity, rear
 667.0 N @ 150 km/h (149.9 lbf @ 150 km/h)

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

Packaging and Weights

 Width, packed
 597 mm | 23.504 in

 Depth, packed
 349 mm | 13.74 in

 Length, packed
 2829 mm | 111.378 in

 Weight, gross
 80 kg | 176.37 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

