

2RR2VV-33C-R4



16-port multibeam antenna, 8x 694–960 MHz, 2x 2-beam 33° HPBW and 8x 1695–2690 MHz, 2x 2-beam 33° HPBW, 4x RET

- Provides 4T4R capability in low and mid bands
- Twin beam patterns are optimized for minimum beam crossover providing for improved LTE data throughput
- GREEN and High Capacity Antenna Solution
- Innovative aerodynamic shape optimized for reduced wind loading in every direction
- Enhances network capacity through six sectors on high band while maintaining low band coverage layer through three sectors with only three antenna faces
- "Green" packaging of reduced size and gross weight that uses less material and reduces shipping pollution
- Optional Mounting Kits with mechanical tilt capacity need to be ordered separately

General Specifications

| | |
|--|--|
| Antenna Type | Multibeam |
| Band | Multiband |
| 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 |
| RF Connector Location | Bottom |
| RF Connector Quantity, mid band | 8 |
| RF Connector Quantity, low band | 8 |
| RF Connector Quantity, total | 16 |

Remote Electrical Tilt (RET) Information

| | |
|----------------------|-----------------------------------|
| RET Hardware | CommRET v2 |
| RET Interface | 8-pin DIN Female 8-pin DIN Male |
| Input Voltage | 10–30 Vdc |
| Internal RET | Low band (2) Mid band (2) |

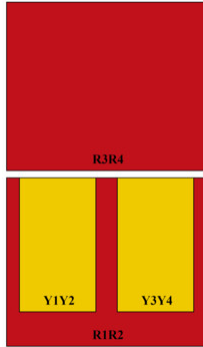
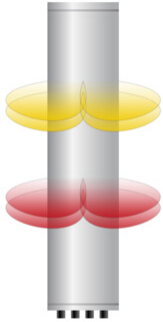
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| | |
|---|---------------------------|
| Power Consumption, active state, maximum | 10 W |
| Power Consumption, idle state, maximum | 2 W |
| Protocol | 3GPP/AISG 2.0 (Multi-RET) |

Dimensions

| | |
|---------------------------------|----------------------|
| Width | 640 mm 25.197 in |
| Depth | 235 mm 9.252 in |
| Length | 2235 mm 87.992 in |
| Net Weight, antenna only | 63.5 kg 139.993 lb |

Array Layout

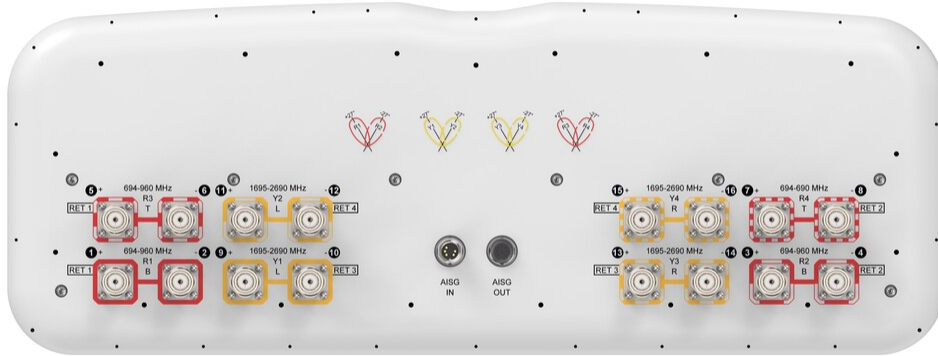


| Array ID | Frequency (MHz) | RF Connector | RET (SRET) | AISG No. | AISG RET UID |
|----------|-----------------|--------------|---------------|----------|------------------|
| R1 | 694-960 | 1 - 2 | 1 | AISG1 | CPxxxxxxxxxxxxR1 |
| R3 | 694-960 | 5 - 6 | | | |
| R2 | 694-960 | 3 - 4 | 2 | AISG1 | CPxxxxxxxxxxxxR2 |
| R4 | 694-960 | 7 - 8 | | | |
| Y1 | 1695-2690 | 9 - 10 | 3 | AISG1 | CPxxxxxxxxxxxxY1 |
| Y3 | 1695-2690 | 13 - 14 | | | |
| Y2 | 1695-2690 | 11 - 12 | 4 | AISG1 | CPxxxxxxxxxxxxY2 |
| Y4 | 1695-2690 | 15 - 16 | | | |

(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 | 1695 – 2690 MHz 694 – 960 MHz |
| Polarization | ±45° |
| Total Input Power, maximum | 1,500 W @ 50 °C |

Electrical Specifications

| | R1-R4 | R1-R4 | R1-R4 | Y1-Y4 | Y1-Y4 | Y1-Y4 | Y1-Y4 |
|--|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| Frequency Band, MHz | 698–806 | 790–896 | 890–960 | 1710–1990 | 1920–2300 | 2300–2500 | 2490–2690 |
| RF Port | 1-8 | 1-8 | 1-8 | 9-16 | 9-16 | 9-16 | 9-16 |
| Gain at Mid Tilt, dBi | 14.1 | 15.2 | 15.7 | 17.4 | 18.4 | 18.7 | 18.4 |
| Beamwidth, Horizontal, degrees | 40 | 37 | 34 | 34 | 31 | 28 | 25 |
| Beamwidth, Vertical, degrees | 19.4 | 17.6 | 16.2 | 7.8 | 7.2 | 6.3 | 5.9 |
| Beam Tilt, degrees | 2–16 | 2–16 | 2–16 | 2–12 | 2–12 | 2–12 | 2–12 |
| USLS (First Lobe), dB | 16 | 17 | 16 | 15 | 16 | 17 | 14 |
| Front-to-Back Ratio at 180°, dB | 28 | 33 | 32 | 33 | 34 | 32 | 30 |
| Isolation, Cross Polarization, | 25 | 25 | 25 | 25 | 25 | 25 | 25 |

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dB

| | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|
| Isolation, Inter-band, dB | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| Isolation, Beam to Beam, dB | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| 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 | -150 |
| Input Power per Port at 50°C, maximum, watts | 200 | 200 | 200 | 200 | 200 | 150 | 150 |

Electrical Specifications, BASTA

| Frequency Band, MHz | 698–806 | 790–896 | 890–960 | 1710–1990 | 1920–2300 | 2300–2500 | 2490–2690 |
|--|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| Gain by all Beam Tilts, average, dBi | 14.1 | 15.2 | 15.6 | 17.3 | 18.2 | 18.5 | 18.2 |
| Gain by all Beam Tilts Tolerance, dB | ±0.8 | ±0.9 | ±0.8 | ±1.1 | ±0.7 | ±0.9 | ±0.8 |
| Beamwidth, Horizontal Tolerance, degrees | ±3 | ±2 | ±3 | ±3 | ±2 | ±2 | ±3 |
| Beamwidth, Vertical Tolerance, degrees | ±0.4 | ±0.2 | ±0.5 | ±0.2 | ±0.2 | ±0.2 | ±0.2 |
| USLS, beampeak to 20° above beampeak, dB | 23 | 20 | 19 | 12 | 15 | 15 | 14 |
| Front-to-Back Total Power at 180° ± 30°, dB | 22 | 26 | 26 | 27 | 28 | 27 | 25 |
| CPR at Boresight, dB | 17 | 17 | 18 | 17 | 19 | 20 | 16 |
| CPR at 10 dB Horizontal Beamwidth, dB | 5 | 8 | 9 | 11 | 12 | 9 | 6 |

Mechanical Specifications

| | |
|---|---|
| Wind Loading @ Velocity, frontal | 895.0 N @ 150 km/h (201.2 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 262.0 N @ 150 km/h (58.9 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 1,140.0 N @ 150 km/h (256.3 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 558.0 N @ 150 km/h (125.4 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

| | |
|-----------------------|----------------------|
| Width, packed | 744 mm 29.291 in |
| Depth, packed | 346 mm 13.622 in |
| Length, packed | 2364 mm 93.071 in |
| Weight, gross | 79.5 kg 175.267 lb |

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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-3F – Mounting bracket for cylindrical pipe installations (60-115mm pipe diameter) for fix mechanical tilt applications.

* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance