

2VV-33C-R4-V5



8-port multibeam antenna, 8x 1695–2690 MHz, 4x 33° HPBW, 4x RET

- Enhances network capacity and spectrum utilization when used in six sector applications
- Reduces antenna count to minimize Cap-Ex and Op-Ex costs – 3 antennas required for 6 sector configurations
- Utilizes RET-PMOD-A20-4A08

General Specifications

| | |
|---|--|
| Antenna Type | Multibeam |
| Band | Single band |
| 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 | 7-16 DIN Female |
| RF Connector Location | Bottom |
| RF Connector Quantity, high band | 8 |
| RF Connector Quantity, total | 8 |

Remote Electrical Tilt (RET) Information

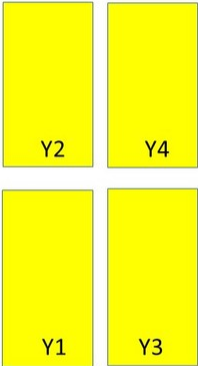
| | |
|--|--|
| RET Hardware | CommRET v2 |
| RET Interface | 2x 8 pin connector as per IEC 60130-9 Daisy chain in: Male / Daisy chain out: Female Pin3: RS485A(AISG_B), Pin5: RS485B(AISG_A), Pin6: DC 10~30V, Pin7: DC_ Return |
| RET Interface, quantity | 1 female 1 male |
| Internal RET | High band (4) |
| Power Consumption, idle state, maximum | 1 W |
| Power Consumption, normal conditions, maximum | 10 W |
| Protocol | 3GPP/AISG 2.0 (Single RET) |

Dimensions

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| | |
|---|---------------------|
| Width | 395 mm 15.551 in |
| Depth | 228 mm 8.976 in |
| Length | 2499 mm 98.386 in |
| Net Weight, without mounting kit | 30.5 kg 67.241 lb |

Array Layout



| Array | Freq (MHz) | Conns | RET (SRET) | AISG RET UID |
|-------|------------|-------|------------|----------------------|
| Y1 | 1695-2690 | 1-2 | 1 | CPXXXXXXXXXXXXXXXXY1 |
| Y2 | 1695-2690 | 3-4 | 2 | CPXXXXXXXXXXXXXXXXY2 |
| Y3 | 1695-2690 | 5-6 | 3 | CPXXXXXXXXXXXXXXXXY3 |
| Y4 | 1695-2690 | 7-8 | 4 | CPXXXXXXXXXXXXXXXXY4 |

Bottom (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 |
| Polarization | ±45° |
| Total Input Power, maximum | 1,200 W @ 50 °C |

Electrical Specifications

| Frequency Band, MHz | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2500 | 2500–2690 |
|--|-----------|-----------|-----------|-----------|-----------|
| Gain, dBi | 19.2 | 19.4 | 19.7 | 19.9 | 20.1 |
| Beam Centers, Horizontal, degrees | ±27 | ±27 | ±27 | ±27 | ±27 |
| Beamwidth, Horizontal, degrees | 38 | 38 | 37 | 34 | 31 |
| Beamwidth, Vertical, degrees | 7.8 | 7.4 | 7 | 6.2 | 5.8 |
| Beam Tilt, degrees | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 |
| USLS (First Lobe), dB | 18 | 17 | 18 | 23 | 23 |
| Front-to-Back Ratio at 180°, dB | 32 | 37 | 37 | 37 | 36 |
| Isolation, Cross Polarization, dB | 30 | 30 | 30 | 30 | 30 |

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| | | | | | |
|---|----------|----------|----------|----------|----------|
| Isolation, Inter-band, dB | 30 | 30 | 30 | 30 | 30 |
| VSWR Return loss, dB | 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 |
| Input Power per Port at 50°C, maximum, watts | 200 | 200 | 200 | 200 | 200 |

Electrical Specifications, BASTA

| Frequency Band, MHz | 1695–1880 | 1850–1990 | 1920–2180 | 2300–2500 | 2500–2690 |
|--|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Gain by all Beam Tilts, average, dBi | 18.8 | 19 | 19.3 | 19.5 | 19.7 |
| Gain by all Beam Tilts Tolerance, dB | ±0.6 | ±0.4 | ±0.5 | ±0.5 | ±0.5 |
| Gain by Beam Tilt, average, dBi | 2° 18.9 7° 18.8 12° 18.6 | 2° 19.2 7° 19.1 12° 18.7 | 2° 19.4 7° 19.4 12° 19.0 | 2° 19.6 7° 19.6 12° 19.3 | 2° 19.8 7° 19.8 12° 19.5 |
| Beamwidth, Horizontal Tolerance, degrees | ±2 | ±1.7 | ±2.4 | ±2.4 | ±1.8 |
| Beamwidth, Vertical Tolerance, degrees | ±0.4 | ±0.3 | ±0.5 | ±0.3 | ±0.2 |
| USLS, beampeak to 20° above beampeak, dB | 17 | 16 | 16 | 18 | 18 |
| Front-to-Back Total Power at 180° ± 30°, dB | 23 | 27 | 28 | 29 | 27 |
| CPR at Boresight, dB | 24 | 28 | 23 | 22 | 20 |
| CPR at 10 dB Horizontal Beamwidth, dB | 12 | 12 | 12 | 9 | 9 |

Mechanical Specifications

| | |
|---|---|
| Effective Projective Area (EPA), frontal | 0.49 m ² 5.274 ft ² |
| Effective Projective Area (EPA), lateral | 0.36 m ² 3.875 ft ² |
| Mechanical Tilt Range | 0°–12° |
| Wind Loading @ Velocity, frontal | 525.0 N @ 150 km/h (118.0 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 386.0 N @ 150 km/h (86.8 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 898.0 N @ 150 km/h (201.9 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 540.0 N @ 150 km/h (121.4 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

| | |
|----------------------|--------------------|
| Width, packed | 505 mm 19.882 in |
|----------------------|--------------------|

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|-----------------------|----------------------|
| Depth, packed | 386 mm 15.197 in |
| Length, packed | 2631 mm 103.583 in |
| Weight, gross | 44.5 kg 98.106 lb |

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 |



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