

RRZZ2VV-6533D-R8



16-port sector/multibeam antenna 4x 694–960 MHz, 4x 1427–2690 MHz 65° HPBW and 8x 1695–2690 MHz 2x 2-Beam 33°HPBW, 8x RET

- Optional Mounting Kits with mechanical tilt capacity need to be ordered separately
- Innovative aerodynamic shape optimized for reduced wind loading in every direction
- "Green" packaging of reduced size and gross weight that uses less material and reduces shipping pollution
- GREEN and High Capacity Antenna Solution

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 |
| Reflector Material | Aluminum |
| RF Connector Interface | 4.3-10 Female |
| RF Connector Location | Bottom |
| RF Connector Quantity, mid band | 12 |
| RF Connector Quantity, low band | 4 |
| RF Connector Quantity, total | 16 |

Remote Electrical Tilt (RET) Information

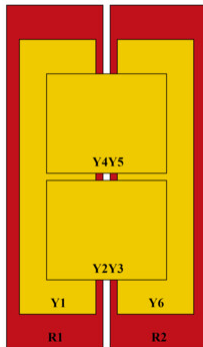
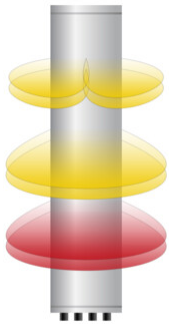
| | |
|---|-----------------------------------|
| RET Hardware | CommRET v2 |
| RET Interface | 8-pin DIN Female 8-pin DIN Male |
| RET Interface, quantity | 2 female 2 male |
| Input Voltage | 10–30 Vdc |
| Internal RET | Low band (2) Mid band (6) |
| Power Consumption, active state, maximum | 8 W |
| Power Consumption, idle state, maximum | 1 W |
| Protocol | 3GPP/AISG 2.0 (Single RET) |

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Dimensions

| | |
|---------------------------------|----------------------|
| Width | 498 mm 19.606 in |
| Depth | 197 mm 7.756 in |
| Length | 2577 mm 101.457 in |
| Net Weight, antenna only | 50 kg 110.231 lb |

Array Layout



| Array ID | Frequency (MHz) | RF Connector | HPBW | RET (SRET) | AISG No. | AISG RET UID |
|----------|-----------------|--------------|------|------------|----------|----------------------|
| R1 | 694-960 | 1 - 2 | 65° | 1 | AISG1 | CPxxxxxxxxxxxxxxxxR1 |
| R2 | 694-960 | 3 - 4 | 65° | 2 | AISG1 | CPxxxxxxxxxxxxxxxxR2 |
| Y1 | 1427-2690 | 5 - 6 | 65° | 3 | AISG1 | CPxxxxxxxxxxxxxxxxY1 |
| Y2 | 1695-2690 | 7 - 8 | 33° | 4 | AISG1 | CPxxxxxxxxxxxxxxxxY2 |
| Y3 | 1695-2690 | 9 - 10 | 33° | 5 | AISG1 | CPxxxxxxxxxxxxxxxxY3 |
| Y4 | 1695-2690 | 11 - 12 | 33° | 6 | AISG1 | CPxxxxxxxxxxxxxxxxY4 |
| Y5 | 1695-2690 | 13 - 14 | 33° | 7 | AISG1 | CPxxxxxxxxxxxxxxxxY5 |
| Y6 | 1427-2690 | 15 - 16 | 65° | 8 | AISG1 | CPxxxxxxxxxxxxxxxxY6 |

(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 694 – 960 MHz |
| Polarization | ±45° |
| Total Input Power, maximum | 1,700 W @ 50 °C |

Electrical Specifications

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| Frequency Band, MHz | 698–806 | 790–894 | 890–960 | 1427–1518 | 1695–1995 | 1920–2300 | 2300–2500 | 2490–2690 |
|--|------------|------------|------------|------------|------------|------------|------------|------------|
| RF Port | 1,2,3,4 | 1,2,3,4 | 1,2,3,4 | 5,6,15,16 | 5,6,15,16 | 5,6,15,16 | 5,6,15,16 | 5,6,15,16 |
| Gain at Mid Tilt, dBi | 15.4 | 15.6 | 15.8 | 15.2 | 16.9 | 17.8 | 18.5 | 18.9 |
| Beamwidth, Horizontal, degrees | 70 | 68 | 65 | 82 | 75 | 68 | 61 | 57 |
| Beamwidth, Vertical, degrees | 9.5 | 8.7 | 8 | 7.2 | 5.9 | 5.3 | 4.7 | 4.5 |
| Beam Tilt, degrees | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 | 2–12 |
| USLS (First Lobe), dB | 21 | 19 | 17 | 20 | 17 | 17 | 17 | 19 |
| Front-to-Back Ratio at 180°, dB | 29 | 29 | 31 | 31 | 32 | 30 | 32 | 33 |
| Front-to-Back Total Power at 180° ± 30°, dB | 21 | 21 | 20 | 22 | 23 | 23 | 24 | 23 |
| Isolation, Cross Polarization, dB | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| Isolation, Inter-band, dB | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 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 | -153 | -153 | -153 | -153 | -153 | -153 | -153 | -153 |
| Input Power per Port at 50°C, maximum, watts | 250 | 250 | 250 | 200 | 200 | 200 | 200 | 200 |

Electrical Specifications, BASTA

| Frequency | 698–806 | 790–894 | 890–960 | 1427–1518 | 1695–1995 | 1920–2300 | 2300–2500 | 2490–2690 |
|-----------|---------|---------|---------|-----------|-----------|-----------|-----------|-----------|
|-----------|---------|---------|---------|-----------|-----------|-----------|-----------|-----------|

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| | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|--|
| Band, MHz | | | | | | | | | |
| Gain by all Beam Tilts, average, dBi | 15.3 | 15.5 | 15.7 | 15.1 | 16.7 | 17.6 | 18.2 | 18.6 | |
| Gain by all Beam Tilts Tolerance, dB | ±0.5 | ±0.4 | ±0.4 | ±0.6 | ±0.7 | ±0.7 | ±0.4 | ±0.6 | |
| Beamwidth, Horizontal Tolerance, degrees | ±11 | ±9 | ±8 | ±5 | ±8 | ±7 | ±3 | ±4 | |
| Beamwidth, Vertical Tolerance, degrees | ±0.7 | ±0.6 | ±0.6 | ±0.4 | ±0.4 | ±0.4 | ±0.3 | ±0.3 | |
| CPR at Boresight, dB | 20 | 18 | 16 | 17 | 20 | 20 | 22 | 20 | |
| CPR at Sector, dB | 11 | 11 | 11 | 4 | 7 | 5 | 9 | 2 | |

Electrical Specifications

| Frequency Band, MHz | 1710–1995 | 1920–2300 | 2300–2500 | 2490–2690 |
|--|----------------------|----------------------|----------------------|----------------------|
| RF Port | 7,8,9,10,11,12,13,14 | 7,8,9,10,11,12,13,14 | 7,8,9,10,11,12,13,14 | 7,8,9,10,11,12,13,14 |
| Gain at Mid Tilt, dBi | 17.8 | 19 | 19.3 | 19.7 |
| Beamwidth, Horizontal, degrees | 35 | 32 | 29 | 26 |
| Beamwidth, Vertical, degrees | 7.2 | 6.5 | 5.8 | 5.3 |
| Beam Tilt, degrees | 2–12 | 2–12 | 2–12 | 2–12 |
| USLS (First Lobe), dB | 16 | 17 | 17 | 16 |
| Front-to-Back Ratio at 180°, dB | 34 | 36 | 34 | 33 |
| Front-to-Back Total Power at | 28 | 30 | 29 | 28 |

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**180° ± 30°,
dB**

| | | | | |
|--|----|----|----|----|
| Isolation, Cross Polarization, dB | 25 | 25 | 25 | 25 |
|--|----|----|----|----|

| | | | | |
|--|----|----|----|----|
| Isolation, Inter-band, dB | 25 | 25 | 25 | 25 |
|--|----|----|----|----|

| | | | | |
|--|----|----|----|----|
| Isolation, Beam to Beam, dB | 17 | 17 | 17 | 17 |
|--|----|----|----|----|

| | | | | |
|---------------------------------------|----------|----------|----------|----------|
| VSWR Return loss, dB | 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 |
|--|------|------|------|------|

| | | | | |
|---|-----|-----|-----|-----|
| Input Power per Port at 50°C, maximum, watts | 200 | 200 | 200 | 200 |
|---|-----|-----|-----|-----|

Electrical Specifications, BASTA

| Frequency Band, MHz | 1710–1995 | 1920–2300 | 2300–2500 | 2490–2690 |
|---|------------------|------------------|------------------|------------------|
| Gain by all Beam Tilts, average, dBi | 17.6 | 18.8 | 19.1 | 19.4 |
| Gain by all Beam Tilts Tolerance, dB | ±1.1 | ±0.9 | ±0.8 | ±0.7 |
| Beamwidth, Horizontal Tolerance, degrees | ±3 | ±3 | ±2 | ±2 |
| Beamwidth, Vertical Tolerance, degrees | ±0.6 | ±0.5 | ±0.3 | ±0.3 |
| CPR at Boresight, dB | 16 | 20 | 21 | 20 |

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| | | | | |
|---------------------------------|---|----|----|----|
| CPR at 10 dB | 9 | 12 | 13 | 12 |
| Horizontal Beamwidth, dB | | | | |

Mechanical Specifications

| | |
|---|---|
| Wind Loading @ Velocity, frontal | 899.0 N @ 150 km/h (202.1 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 278.0 N @ 150 km/h (62.5 lbf @ 150 km/h) |
| Wind Loading @ Velocity, maximum | 1,076.0 N @ 150 km/h (241.9 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 619.0 N @ 150 km/h (139.2 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 | 2764 mm 108.819 in |
| Weight, gross | 66 kg 145.505 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-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 |
|-------------------------|---|