

T4-90A-R1-V2



Planar Array Antenna, 2300–2690 MHz, 90° HPBW, 1xIntRET

- For use in beamforming system, includes a calibration port
- Planar array antenna – 4 columns
- Single internal RET control for all four antenna arrays
- Optimized for software defined split six sector applications

Alternative products available:

T4-90A-R1-V6 Planar Array Antenna, 2300–2690 MHz, 90° HPBW, 1xIntRET

General Specifications

| | |
|---|--|
| Antenna Type | Sector |
| Band | Single band |
| Calibration Connector Interface | N Female |
| 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 | PVC, 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, high band | 8 |
| RF Connector Quantity, mid band | 0 |
| RF Connector Quantity, low band | 0 |
| RF Connector Quantity, total | 8 |

Remote Electrical Tilt (RET) Information

| | |
|----------------------|-----------------------------------|
| RET Hardware | CommRET v1 |
| RET Interface | 8-pin DIN Female 8-pin DIN Male |

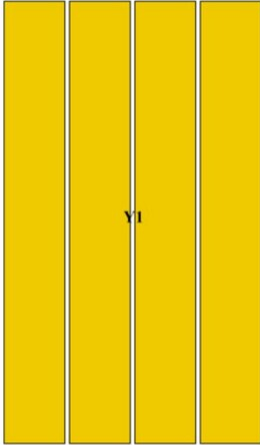
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| | |
|--|----------------------------|
| RET Interface, quantity | 1 female 1 male |
| Input Voltage | 10–30 Vdc |
| Internal Bias Tee | Cal Port |
| Internal RET | High band (1) |
| Power Consumption, idle state, maximum | 1 W |
| Power Consumption, normal conditions, maximum | 8 W |
| Protocol | 3GPP/AISG 2.0 (Single RET) |

Dimensions

| | |
|---|---------------------|
| Width | 307 mm 12.087 in |
| Depth | 118 mm 4.646 in |
| Length | 1610 mm 63.386 in |
| Net Weight, without mounting kit | 15.6 kg 34.392 lb |
| TDD Column Spacing | 58 mm 2.283 in |

Array Layout



| Array ID | Frequency (MHz) | RF Connector | RET (SRET) | AISG No. | AISG RET UID |
|----------|-----------------|--------------|------------|----------|--------------------|
| Y1 | 2300-2690 | 1 - 8 | 1 | AISG1 | CPxxxxxxxxxxxxxxY1 |

(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 | 2300 – 2690 MHz |
| Polarization | ±45° |

Electrical Specifications

| Frequency Band, MHz | 2300–2400 | 2496–2690 |
|---|------------|------------|
| Beam Tilt, degrees | 2–12 | 2–12 |
| 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, Antenna port to Cal port, degrees | 7 | 7 |
| Isolation, Cross Polarization, dB | 24 | 24 |
| Isolation, Co-polarization, dB | 20 | 20 |
| VSWR Return loss, dB | 1.5 14.0 | 1.5 14.0 |
| PIM, 3rd Order, 2 x 20 W, dBc | 150 | 150 |
| Input Power per Port at 50°C, maximum, watts | 150 | 150 |

Electrical Specifications, Broadcast 65°

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| Frequency Band, MHz | 2300–2400 | 2496–2690 |
|--|-----------|-----------|
| Gain, dBi | 18.8 | 19.2 |
| Beamwidth, Vertical, degrees | 5 | 4.6 |
| CPR at Boresight, dB | 20 | 17 |
| Front-to-Back Total Power at $180^\circ \pm 30^\circ$, dB | 32 | 32 |
| USLS (First Lobe), dB | 19 | 17 |

Electrical Specifications, Service Beam

| Frequency Band, MHz | 2300–2400 | 2496–2690 |
|---|-----------|-----------|
| Steered 0° Gain, dBi | 21.9 | 22.3 |
| Steered 0° Gain Tolerance, dBi | ± 0.4 | ± 0.6 |
| Steered 0° Beamwidth, Horizontal, degrees | 27 | 26 |
| Steered 0° CPR at Beampeak, dB | 24 | 20 |
| Steered 0° Front-to-Back Total Power at $180^\circ \pm 30^\circ$, dB | 35 | 35 |
| Steered 30° Gain, dBi | 21 | 21.4 |
| Steered 30° Gain Tolerance, dBi | ± 0.5 | ± 0.7 |
| Steered 30° Beamwidth, Horizontal, degrees | 30 | 28 |
| Steered 30° CPR at Beampeak, dB | 20 | 19 |
| Steered 30° Front-to-Back Total Power at $180^\circ \pm 30^\circ$, dB | 32 | 33 |

Electrical Specifications, Single Column

| Frequency Band, MHz | 2300–2400 | 2496–2690 |
|--|-----------|-----------|
| Gain, dBi | 16.4 | 16.4 |
| Beamwidth, Horizontal, degrees | 90 | 90 |
| Beamwidth, Vertical, degrees | 5.1 | 4.7 |
| Beamwidth, Vertical Tolerance, degrees | ± 0.2 | ± 0.3 |
| CPR at Sector, dB | 11 | 8 |

Electrical Specifications, Soft Split

| Frequency Band, MHz | 2300–2400 | 2496–2690 |
|--|-----------|-----------|
| Gain, dBi | 20.8 | 21.1 |
| Beamwidth, Horizontal, degrees | 35 | 33 |
| CPR at Beampeak, dB | 22 | 20 |
| Front-to-Back Total Power at $180^\circ \pm 30^\circ$, dB | 32 | 31 |

Mechanical Specifications

Wind Loading @ Velocity, frontal 586.0 N @ 150 km/h (131.7 lbf @ 150 km/h)

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| | |
|---|---|
| Wind Loading @ Velocity, lateral | 123.0 N @ 150 km/h (27.7 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 709.0 N @ 150 km/h (159.4 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

| | |
|-----------------------|---------------------|
| Width, packed | 413 mm 16.26 in |
| Depth, packed | 257 mm 10.118 in |
| Length, packed | 1740 mm 68.504 in |
| Weight, gross | 25.5 kg 56.218 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

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.

Product Classification

Product Type Downtilt mounting kit

General Specifications

Application Outdoor

Color Silver

Dimensions

Compatible Diameter, maximum 115 mm | 4.528 in

Compatible Diameter, minimum 60 mm | 2.362 in

Weight, net 6.2 kg | 13.669 lb

Material Specifications

Material Type Galvanized steel

Packaging and Weights

Included Brackets | Hardware

Packaging quantity 1

Weight, gross 6.4 kg | 14.11 lb

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| CE | Compliant with the relevant CE product directives |
| 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.andrew.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |

BSAMNT-3

