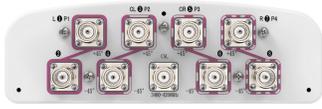


S4-90T-F-V2



8-port Planar Array Antenna, 3400–4200 MHz, 90° HPBW

- Planar array antenna – 4 columns
- Designed for beamforming, includes calibration port
- Optimized for software defined split six sector applications
- Compact form factor with reduced size and weight

General Specifications

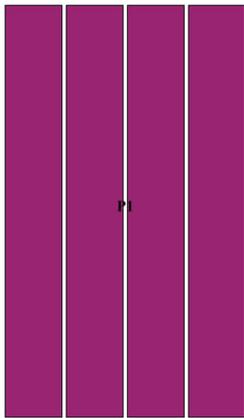
| | |
|---|--|
| Antenna Type | Sector |
| Band | Single band |
| Calibration Connector Interface | 4.3-10 Female |
| Calibration Connector Quantity | 1 |
| Color | Light Gray (RAL 7035) |
| Grounding Type | RF connector inner conductor and body grounded to reflector and mounting bracket |
| Performance Note | Outdoor usage |
| Radome Material | ASA |
| 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 |

Dimensions

| | |
|---|--------------------|
| Width | 280 mm 11.024 in |
| Depth | 85 mm 3.346 in |
| Length | 400 mm 15.748 in |
| Net Weight, without mounting kit | 4 kg 8.818 lb |

Array Layout

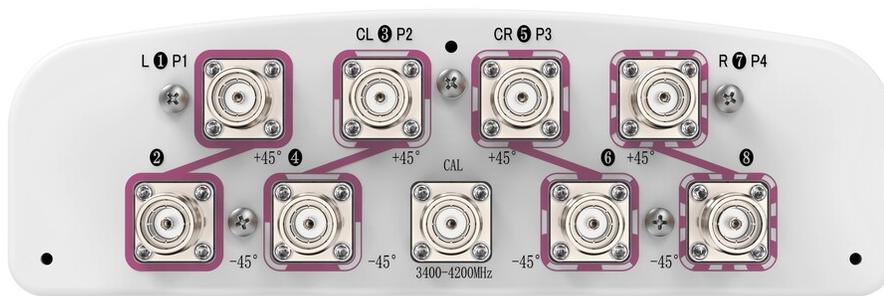
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| Array ID | Frequency (MHz) | RF Connector | RET (N/A) | AISG RET UID |
|----------|-----------------|--------------|--------------|--------------|
| P1 | 3400-4200 | 1 - 8 | N/A | N/A |

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

Port Configuration



Electrical Specifications

| | |
|-----------------------------------|-----------------|
| Impedance | 50 ohm |
| Operating Frequency Band | 3400 – 4200 MHz |
| Polarization | ±45° |
| Total Input Power, maximum | 400 W |

Electrical Specifications

| Frequency Band, MHz | 3400–3600 | 3600–3800 | 3800–4200 |
|---------------------------------------|-----------|-----------|-----------|
| Gain, dBi | 12.5 | 12.7 | 12.9 |
| Beamwidth, Horizontal, degrees | 108 | 102 | 90 |

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| | | | |
|--|------------|------------|------------|
| Beamwidth, Vertical, degrees | 15.4 | 14.7 | 14.1 |
| Beam Tilt, degrees | 6 | 6 | 6 |
| USLS (First Lobe), dB | 14 | 16 | 17 |
| Coupling level, Amp, Antenna port to Cal port, dB | 26 | 26 | 26 |
| Coupling level, max Amp Δ , Antenna port to Cal port, dB | ± 2 | ± 2 | ± 2 |
| Coupler, max Amp Δ , Antenna port to Cal port, dB | 0.9 | 0.9 | 0.9 |
| Coupler, max Phase Δ , Antenna port to Cal port, degrees | 7 | 7 | 7 |
| Isolation, Cross Polarization, dB | 25 | 25 | 25 |
| Isolation, Inter-band, dB | 25 | 25 | 25 |
| Isolation, Cross Polarization, port to port, dB | 25 | 25 | 25 |
| Isolation, Cross Polarization, port to port, between two columns, dB | 25 | 25 | 25 |
| Isolation, Co-polarization, port to port, dB | 19 | 19 | 19 |
| VSWR Return loss, dB | 1.5 14.0 | 1.5 14.0 | 1.5 14.0 |
| PIM, 3rd Order, 2 x 20 W, dBc | -145 | -145 | -145 |
| Input Power per Port, maximum, watts | 150 | 150 | 150 |

Electrical Specifications, Broadcast 65°

| Frequency Band, MHz | 3400–3600 | 3600–3800 | 3800–4200 |
|--|-----------|-----------|-----------|
| Gain, dBi | 14 | 14.5 | 14.9 |
| Beamwidth, Horizontal, degrees | 65 | 64 | 61 |
| Beamwidth, Horizontal Tolerance, degrees | ± 6.7 | ± 6.6 | ± 5.2 |
| Beamwidth, Vertical, degrees | 14.8 | 13.9 | 12.9 |
| USLS (First Lobe), dB | 14 | 13 | 16 |

Electrical Specifications, Service Beam

| Frequency Band, MHz | 3400–3600 | 3600–3800 | 3800–4200 |
|--|-----------|-----------|-----------|
| Steered 0° Gain, dBi | 18.2 | 18.8 | 19.2 |
| Steered 0° Beamwidth, Horizontal, degrees | 26 | 24 | 22 |
| Steered 0° CPR at Beampeak, dB | 20 | 18 | 19 |
| Steered 0° CPR over 10 dB Beamwidth, dB | 25.8 | 24.1 | 22.2 |
| Steered 0° Front-to-Back Total Power at 180° \pm 30°, dB | 32 | 30 | 27 |
| Steered 0° Horizontal Sidelobe, dB | 13 | 13 | 13 |
| Steered 13° CPR at Beampeak, dB | 32 | 30 | 27 |

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| | | | |
|---|------|------|------|
| Steered 13° CPR over 10 dB Beamwidth, dB | 13 | 13 | 13 |
| Steered 30° Gain, dBi | 17.4 | 17.8 | 18.2 |
| Steered 30° CPR at Beampeak, dB | 20 | 18 | 20 |

Electrical Specifications, Single Column

| Frequency Band, MHz | 3400–3600 | 3600–3800 | 3800–4200 |
|---|------------------|------------------|------------------|
| Gain, dBi | 13 | 13.6 | 13.9 |
| Beamwidth, Horizontal, degrees | 96 | 89 | 81 |
| Beamwidth, Horizontal Tolerance, degrees | ±8 | ±5 | ±8 |
| Beamwidth, Vertical, degrees | 14.9 | 14.1 | 13.1 |
| CPR at Sector, dB | 11 | 11 | 10 |
| USLS (First Lobe), dB | 14 | 14 | 16 |
| Input Power per Port, maximum, watts | 100 | 100 | 100 |

Electrical Specifications, Soft Split

| Frequency Band, MHz | 3400–3600 | 3600–3800 | 3800–4200 |
|--|------------------|------------------|------------------|
| Gain, dBi | 17.3 | 17.8 | 18.2 |
| Beamwidth, Horizontal, degrees | 32 | 30 | 27 |
| CPR at Beampeak, dB | 21 | 18 | 20 |
| Front-to-Back Total Power at 180° ± 30°, dB | 30 | 29 | 27 |
| Horizontal Sidelobe, dB | 19 | 18 | 16 |

Mechanical Specifications

| | |
|---|--|
| Wind Loading @ Velocity, frontal | 86.0 N @ 150 km/h (19.3 lbf @ 150 km/h) |
| Wind Loading @ Velocity, lateral | 27.0 N @ 150 km/h (6.1 lbf @ 150 km/h) |
| Wind Loading @ Velocity, rear | 107.0 N @ 150 km/h (24.1 lbf @ 150 km/h) |
| Wind Speed, maximum | 241 km/h (150 mph) |

Packaging and Weights

| | |
|-----------------------|--------------------|
| Width, packed | 388 mm 15.276 in |
| Depth, packed | 189 mm 7.441 in |
| Length, packed | 629 mm 24.764 in |
| Weight, gross | 8.3 kg 18.298 lb |
| Weight, net | 4 kg 8.818 lb |

Regulatory Compliance/Certifications

S4-90T-F-V2

| 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

- | | | |
|--------|---|---|
| DB390 | - | Pipe Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Use for narrow panel antennas. Includes two pipe mounts. |
| DB5098 | - | Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members |

* Footnotes

Performance Note Severe environmental conditions may degrade optimum performance

DB390



Pipe Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Use for narrow panel antennas. Includes two pipe mounts.

Product Classification

Product Type Pipe mounting kit

General Specifications

Application Outdoor

Color Silver

Dimensions

Compatible Diameter, maximum 114.3 mm | 4.5 in

Compatible Diameter, minimum 61 mm | 2.402 in

Weight, net 2 kg | 4.409 lb

Material Specifications

Material Type Galvanized steel

Packaging and Weights

Included Brackets | Hardware

Packaging quantity 1

Weight, gross 2.1 kg | 4.63 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.andrew.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |



DB5098



Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members

Product Classification

Product Type Downtilt mounting kit

General Specifications

Application Outdoor

Color Silver

Dimensions

Compatible Diameter, maximum 114.3 mm | 4.5 in

Compatible Diameter, minimum 61 mm | 2.402 in

Weight, net 0.7 kg | 1.543 lb

Material Specifications

Material Type Galvanized steel

Packaging and Weights

Included Brackets | Hardware

Packaging quantity 1

Weight, gross 0.8 kg | 1.764 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.andrew.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |



