



21-50-300
Broadband Airborne Blade
Antenna
100 to 500 MHz

FEATURES

- **High Strength Broadband Blade Antenna**
- **Frequency Selective Matching Network**
- **Fully Foamed to Provide High Environmental Integrity**
- **Designed to MIL-DTL-85670B Specification**
- **Drop-on Replacement for AT-1108**
- **Complies with MIL-STD-810**



The 21-50-300 is vertically polarized, omni-directional antenna, compatible with all popular airborne radios operating within the 100 to 500 MHz frequency range. The antenna can handle 75 Watts of power and requires no external tuning.

This wideband multifunction antenna developed by Cooper Antennas Ltd is particularly suited to tactical military communications. Rugged design ensures reliability in world wide conditions of service on aircraft operating at speeds up to Mach 0.95.

The radiating element is DC grounded for static protection.

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SPECIFICATIONS

Cooper Antennas Model 21-50-300 Broadband Airborne Blade Antenna

ELECTRICAL

| | |
|----------------------|--|
| Frequency | 100 - 500 MHz |
| Gain | 100 MHz ≥ -8 dBi 108 MHz ≥ -7 dBi 130 MHz ≥ -7 dBi 174 MHz ≥ -1 dBi 225 MHz ≥ 0 dBi 300 MHz ≥ 0 dBi 400 MHz ≥ +1 dBi 500 MHz ≥ +1 dBi |
| VSWR | 100 - 174 MHz ≤ 2.5:1 225 - 400 MHz ≤ 2.25:1 400 - 450 MHz ≤ 2.5:1 450 - 500 MHz ≤ 3.0:1 |
| Impedance (nominal) | 50 Ohms |
| Power | 75 Watts CW 100 - 500 MHz |
| Polarization | Vertical |
| Radiation (typical) | Azimuth : Omni-directional Elevation : As stub |
| Antenna RF Connector | TNC Female |

MECHANICAL

| | |
|--------------------|---|
| Antenna Shell Type | High density foam filled epoxy/fiber glass shell with aluminum alloy base plate |
| Height | 11.8 inches (300 mm) |
| Weight | 3.5 lbs (1.6 kg) |
| Side Loading | ≥8 psi ultimate |
| Base Plate Shape | Tear drop |
| Fixing Holes | 6 x Ø 0.234 inches (5.9 mm) holes, counter bore Ø 0.39 inches (9.9mm) |

FINISH

| | |
|-----------|-------------|
| Antenna | Gloss White |
| Baseplate | Unpainted |

Other finish options are available. Please specify finish required when ordering.

Note: Cooper Antennas Ltd has a policy of continuous product improvement and data herein is therefore subject to change.
Please check with Cooper Antennas Ltd that this data sheet is at latest issue before initiating contract activity.