



21-50-37
High Power VHF/UHF Airborne
Blade Antenna
100 to 500 MHz

FEATURES

- **High Strength Broadband Top-loaded Blade Antenna**
- **Frequency Selective passive Matching Network**
- **Requires no external tuning**
- **Fully Foamed for High Environmental Integrity**
- **Complies with MIL-STD-810**
- **Drop on replacement for AS3191**



The 21-50-37 is a vertically polarized, omni-directional antenna, compatible with high power airborne radios operating within the 100 to 500 MHz frequency range. This antenna can handle up to 100 Watts of power and requires no external tuning.

This wideband, multi-function antenna developed by Cooper Antennas Ltd is particularly suited to tactical military communications. Rugged design ensures reliability in world wide conditions of service on helicopters and subsonic aircraft, operating to 40,000 ft and up to speeds of M0.8.

Use of a top loading element optimizes efficiency in VHF and the antenna provides omni-directional radiation throughout the operating frequency range. The element is DC grounded for voltage transient protection. Unique element shaping preserves elevation pattern throughout frequency band.

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SPECIFICATIONS

Cooper Antennas Model 21-50-37 High Power Airborne Blade Antenna

ELECTRICAL

Frequency	100 - 500 MHz
Gain	≥ 0 dBi average
VSWR	≤ 2.5:1 over 90% of band, 3:1 max
Impedance (nominal)	50 Ohms
Power	100 Watts CW
Polarization	Vertical
Radiation	Azimuth : Omni-directional Elevation : Similar to stub
Antenna RF Connector	N type Female

MECHANICAL

Antenna Shell Type	High density foam filled epoxy/fiber glass shell with aluminum alloy top-tube set in aluminum alloy base.
Height	14.75 inches (375mm)
Weight	5 lbs (2.27kg)
Base Plate Shape	Tear drop
Fixing Holes	6 x Ø 0.2 inches (5mm) holes, counter sunk at 100° Ø 0.39 inches (9.9mm)

FINISH

Antenna	Urethane Lusterless Black
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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.