



21-50-133
Wide-band VHF/UHF Airborne
Blade Antennas
30 to 512 MHz

FEATURES

- **High Strength Broadband Top-loaded Blade Antenna**
- **Frequency Selective passive Matching Network**
- **Requires no external tuning**
- **Fully Foamed for High Environmental Integrity**
- **Suitable for AN/ARC-182, AN/ARC-210 and Similar Multi-Mode Radios**
- **Complies with MIL-STD-810**
- **Suitable for operation at 120°C**
- **Continuous frequency coverage from 30-512 MHz**



The 21-50-133 is a vertically polarized, omni-directional antenna, compatible with all popular airborne radios operating within the 30 to 512 MHz frequency range. This antenna can handle up to 50 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.

Use of proprietary matching techniques optimizes efficiency and provides omni-directional radiation throughout the operating frequency range. The element is DC grounded for lightning protection.

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SPECIFICATIONS

Cooper Antennas Model 21-50-133

Broadband Airborne Blade Antennas

ELECTRICAL

Frequency	30 - 512 MHz (continuous coverage)
Gain	30 MHz ≥ - 22 dBi 88 MHz ≥ - 14.0 dBi 108 to 174 MHz ≥ - 3 dBi average 225 - 512 MHz ≥ 0 dBi average
VSWR	≤ 2.5:1
Impedance (nominal)	50 Ohms
Power	50 Watts CW
Polarization	Vertical
Radiation	Azimuth : Nominally omni-directional Elevation : Similar to a stub
Antenna RF Connector	TNC Female

MECHANICAL

Antenna Shell Type	High density foam filled epoxy/fiber glass shell with aluminum alloy top-tube set in aluminum alloy base.
Height	9 inches (229 mm)
Weight	4.5 lbs (2.04 kg)
Base Plate Shape	Oval
Fixing Holes	10 x Ø 0.208 inch (5.3mm) holes, counter bored Ø 0.48 inches (12.2mm)

FINISH

Antenna	Lusterless Black Urethane
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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.