



21-50-124
Wide-band VHF/UHF Airborne
Blade Antenna
108-156 and 225-400 MHz

FEATURES

- **High Strength Broadband Blade Antenna**
- **Less than 10 inches height**
- **Passive Matching Network**
- **Requires no external tuning**
- **Fully Foamed for High Environmental Integrity**
- **Suitable for Mach 2.5+**
- **Designed to MIL-STD-810**



The 21-50-124 is a vertically polarized, omni-directional antenna, compatible with airborne transceivers operating within the 108 to 400 MHz frequency range. This antenna is passively matched and requires no external tuning.

This wideband, multi-function antenna developed by Cooper Antennas Ltd provides excellent performance within a small physical package of less than 10 inches in height. Rugged design ensures reliability in world wide conditions of service on helicopters and supersonic aircraft operating at Mach 2.5+

Use of frequency selective matching optimizes efficiency and provides omni-directional radiation throughout the operating frequency range. Unique element shaping preserves elevation pattern throughout frequency band.

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SPECIFICATIONS

Cooper Antennas Model 21-50-124 Wide-band VHF/UHF Airborne Blade Antenna

ELECTRICAL

Frequency	108-156 MHz and 225-400 MHz	
Gain (typical)	108 MHz	-9.5 dBi
	118 MHz	-8.5 dBi
	156 MHz	-3.5 dBi
	225-400 MHz	+2 dBi average
VSWR	108-118 MHz ≤ 3.0:1	
	118-156 MHz ≤ 2.0:1	
	225-400 MHz ≤ 2.0:1	
Impedance (nominal)	50 Ohms	
Power	35 Watts CW	
Polarization	Vertical	
Radiation	Azimuth:	Omni-directional
	Elevation:	As stub
Antenna RF Connector	N Female	

MECHANICAL

Antenna Shell Type	High density foam filled epoxy/fiber glass shell set onto aluminum alloy base.
Height	9.85 inches (250mm) max
Weight	3.5 lbs (1.6kg)
Base Plate Shape	Approximately Elliptical
Fixing Holes	10 x Ø 0.208 inch (5.3mm) holes, counter bored Ø 0.48 inches (12.2mm)

FINISH

Antenna Lusterless White Urethane

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.