



**21-50-27-1**  
**Dual band VHF/UHF**  
**Airborne Blade Antenna**  
**116-174 and 225-512 MHz**

## FEATURES

- **High Strength**
- **High isolation between VHF and UHF outputs**
- **Fully Foamed for High Environmental Integrity**
- **Aluminum Alloy Retaining Collar Accepts High Side Loading**
- **Drop-on Replacement for AT-1108, 37R-2U and Chelton 12-17-4**
- **Designed to MIL-STD-810**
- **Excellent omnidirectional azimuth pattern**



The 21-50-27-1 is a vertically polarized, omni-directional antenna, compatible with airborne radios operating within the 116 to 174 and 225 to 512 MHz frequency ranges. The antenna can handle 25 watts of power, requires no external tuning and is designed as a drop on replacement for AT1108/37R-2U types but having greater isolation between bands and better omni-directivity.

This dual band antenna is suited to military and civil aircraft applications where its rugged design ensures reliability in world wide conditions of service at speeds up to Mach 0.95.

The radiating element is DC grounded for static protection.

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**Cooper Antennas Ltd is Accredited to: ISO9001, AS9100, ISO14001 and MAA Approved**

# SPECIFICATIONS

## Cooper Antennas Model 21-50-27-1 Dual band VHF/UHF Airborne Blade Antenna

### ELECTRICAL

Frequency	116-174 MHz (VHF) & 225 - 512 MHz (UHF)
Gain	0 dBi average VHF +2 dBi average UHF
VSWR	≤ 2.5 VHF ≤ 2.25 UHF (2.5:1 460-512 MHz)
Impedance (nominal)	50 Ohms
Power	25 Watts CW
Isolation between UHF and VHF	≥ 40 dB
Polarization	Vertical
Radiation	Azimuth : Omni-directional Elevation : Similar to stub
Antenna RF Connector	TNC Female UHF BNC Female VHF

### MECHANICAL

Antenna Shell Type	High density foam filled epoxy/fiberglass shell set in aluminum alloy base collar
Height	14.65 inches max (372mm)
Weight	4.0 lbs max (1.82kg)
Side Loading	≥8 psi ultimate
Base Plate Shape	Tear drop
Fixing Holes	6 x Ø 0.234 inches (5.9mm) holes, counter bored top side Ø 0.39 inches (9.9mm)

### FINISH

Antenna	Urethane Lusterless Black
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.