



21-50-97-1
High Power Broadband
Airborne Blade Antenna
30 to 520 MHz

FEATURES

- **High Strength**
- **Frequency Selective Passive Matching Network**
- **Fully Foamed for High Environmental Integrity**
- **Aluminum Alloy Retaining Collar Accepts High Side Loading**
- **160 Watts Power Handling**
- **Drop-on Replacement for AT-1108 and AS3191**
- **Complies with MIL-STD-810**
- **Meets Lightning Protection requirements of AS3191**



The 21-50-97-1 is vertically polarized, omni-directional antenna, compatible with all popular airborne radios operating within the 30 to 520 MHz frequency range. The antenna can handle 160 Watts of power, requires no external tuning and is designed as a high power, extended frequency coverage antenna to operate with latest JTRS radios.

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

Use of a surface deposited radiating element optimizes efficiency and the radiating element is DC grounded for static protection.

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SPECIFICATIONS

Cooper Antennas Model 21-50-97-1 Broadband Airborne Blade Antenna

ELECTRICAL

Frequency	30 - 520 MHz continuous
Gain	-22.5 dBi @ 30 MHz rising approximately linearly to +2 dBi average thru UHF Gain is equal or better than AS3191 as defined in MIL-DTL-85670B
VSWR	≤ 2.75:1
Impedance (nominal)	50 Ohms
Power	160 Watts CW
Polarization	Vertical
Radiation	Azimuth : Omni-directional Elevation : As stub
Antenna RF Connector	TNC Female

MECHANICAL

Antenna Shell Type	High density foam filled epoxy/fiber glass shell set in aluminum alloy base collar
Height	15.5 inches max (394mm)
Weight	4.5 lbs max (2.05 kg)
Side Loading	≥8 psi ultimate
Base Plate Shape	Tear drop
Fixing Holes	6 x Ø 0.234 inches (5.9mm) holes, counter sunk at 100° Ø 0.39 inches (9.9mm)

FINISH

Antenna	Lusterless Black Urethane
Baseplate	Unpainted

Other finish options are available. Please specify required finish 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.