



21-50-156
Broadband Airborne Blade
Antenna
30 to 512 MHz & 960 to 1220 MHz

FEATURES

- **Frequency Selective Matching Network**
- **Passive design-requires no external tuning**
- **Fully Foamed to Provide High Environmental Integrity**
- **Advanced, one-piece moulded shell accepts high side loading**
- **Suitable for AN/ARC-210, AN/ARC-231 and Similar Multi-Mode Radios**
- **Complies with MIL-STD-810/DO160D**



The 21-50-156 is a high speed passive blade antenna providing full VHF, UHF and L-band performance in a double raked, low RCS design.

It is compatible with all airborne radios operating within the 30 to 512 MHz frequency range plus Link16, Tacan, IFF, JTIDS and other L-band systems.

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 aircraft operating at speeds in excess of Mach 1.0.

The element is DC grounded for high voltage transfer protection.

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

SPECIFICATIONS

Cooper Antennas Model 21-50-156 Broadband Airborne Blade Antenna

ELECTRICAL

Frequency	30 - 174 MHz 225 - 512 MHz 960 - 1220 MHz
Impedance (nominal)	50 Ohms
VSWR	30 - 88 MHz $\leq 2.5:1$ 108 - 174 MHz $\leq 2.5:1$ 225 - 400 MHz $\leq 2.5:1$ 400 - 512 MHz $\leq 3.0:1$ 960 - 1220 MHz ≤ 2.0 1000 - 1100 MHz ≤ 1.8
Radiation	Nominally omni-directional in azimuth. Similar to stub in elevation.
Gain	30 MHz ≥ -25 dBi 88 MHz ≥ -14 dBi 174 MHz ≥ -4 dBi 225-512 MHz ≥ 0 dBi average 960-1220 MHz ≥ 0 dBi average
Power	VHF/UHF - 25 Watts CW L-Band - 2 KW Peak 20 Watts CW
Connectors	N Female - L-Band TNC Female - V/UHF

MECHANICAL

Height	13 inches (330mm)
Weight	3 lbs (1.36kg)
Fixing Holes	8 x \varnothing 0.208 inches (5.3mm) holes, countersunk out to \varnothing 0.445 inches dia (11.3mm)

FINISH

Urethane Lusterless Grey

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.