21-50-220

Wide Band Receiving Antenna
20 to 512 MHz

FEATURES

- **Very wide continuous band width**
- **Strong, aerodynamic composite blade**
- **Internal matching and radiating elements require no tuning**
- **Suitable for use up to Mach 0.9**
- **Single ‘N’ type connector**
- **Designed to MIL-STD-810 environmental conditions**
- **Footprint interchangeable with AS-3191**

The 21-50-220 is a passive airborne blade antenna designed for receive only applications on helicopters and subsonic aircraft operating up to Mach 0.9. Electrical design is a “fan” radiating element with selective resistive loading to provide a VSWR match of better than 3:1. The blade is constructed from a high strength, glass loaded moulding containing the radiating elements, is fully sealed and filled with closed cell foam for long term reliability. The single RF connector is supported by an aluminum alloy base plate which should make good electrical contact to the conducting surface upon which the antenna is installed.

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

SPECIFICATIONS

Cooper Antennas Model 21-50-220

Wide Band Receiving Antenna

ELECTRICAL	
Frequency	**20 – 512 MHz**
Gain	**≥-40 dBi @ 20 MHz** **≥-10 dBi @ 88 MHz** **≥-5 dBi @ 118 MHz** **≥ 0 dBi @ 174 MHz** **≥ 0 dBi @ average over 225 - 512 MHz**
VSWR	**≤ 3.0:1**
Impedance (nominal)	**50 Ohms**
Polarization	**Essentially vertical when vertically mounted**
Pattern	**Nominally omnidirectional in azimuth**
Antenna RF Connector	**N type Female**

MECHANICAL	
Antenna Shell Type	**High density foam filled glass loaded shell**
Height	**14.7 inches max**
Weight	**3.5 lbs max**
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.

Issue A