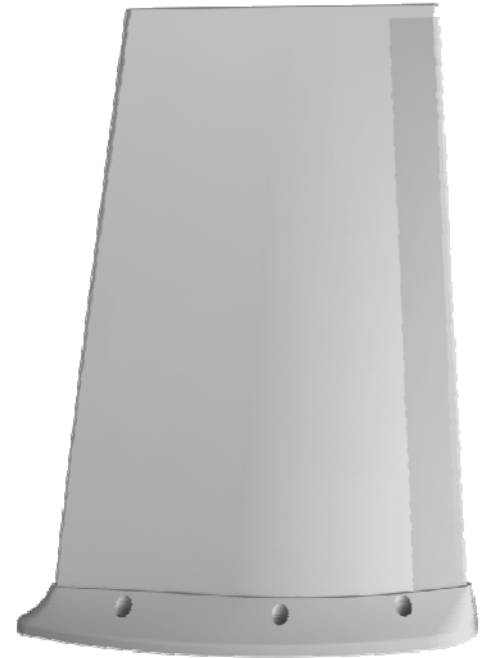




**21-50-56-6**  
**Combined VHF/L-Band**  
**Blade Antenna**  
**118-152 MHz & 960-1215 MHz**

### FEATURES

- **Suitable for VHF ATC, IFF/SSR-ATC and DME/TACAN**
- **Passive design - requires no external tuning**
- **Isolated VHF and L-Band outputs**
- **Fully sealed internally foamed high strength blade design**
- **Drop on replacement for AT-1108 and AS3191 mounting hole pattern**
- **Environmental design to MIL-STD-810, -55°C to +71°C, 50,000 feet**
- **Meets DO160E Lightning Indirect Effects (LITS) requirements**



The 21-50-56-6 is a combined VHF/L-Band blade antenna suitable for use with VHF ATC and IFF/DME/TACAN systems fitted to helicopters and fixed wing aircraft operating up to Mach 0.9. Construction comprises a high strength, glass epoxy radome set into an aluminum alloy base collar with internal 'foamed-in-place' radiating, matching and filtering elements. RF design insures good azimuthal omni-directivity and minimal interaction between VHF and L-Band elevation patterns. This antenna has DC grounded elements for P-Static and indirect lightning strike effects protection.

**Cooper Antennas Ltd for non-USA customers**  
Thames Industrial Estate, Unit K, Fieldhouse Lane,  
Buckinghamshire SL7 1TB, UK  
Tel: +44 (0) 1628 482 360  
Email: [sales@cooperantennas.com](mailto:sales@cooperantennas.com)  
[www.cooperantennas.com](http://www.cooperantennas.com)



**Australian Representatives**  
**ROJONE, PTY LTD.**  
Tel: 02 9829 1555  
E: [sales@rojone.com.au](mailto:sales@rojone.com.au)  
[www.rojone.com.au](http://www.rojone.com.au)

# SPECIFICATIONS

## Cooper Antennas Model 21-50-56-6 Combined VHF/L-Band Blade Antenna

### ELECTRICAL

Frequency	118 - 152 MHz and 960 - 1215 MHz
Gain	118-152 MHz     ≥ -1 dBi average 960-1215 MHz   ≥ +2 dBi average
VSWR	≤ 2:1     118 - 152 MHz ≤ 2:1     960 - 1215 MHz
Impedance (nominal)	50 Ohms
Power	VHF     50 Watts CW L-band  1 kW Peak
Isolation	≥ 50 dB (L-Band to VHF) ≥ 25 dB (VHF to L-Band)
Polarization	Essentially vertical (when mounted vertically)
Radiation	Nominally omni-directional in azimuth and Co-sinusoidal in elevation
Antenna RF Connector	VHF - TNC Female L-Band - N Female

### MECHANICAL

Antenna Shell Type	High density foam filled epoxy/fiber glass shell set in aluminum alloy base collar
Height	14.75 inches (375mm)
Weight	3.75 lbs (1.7kg)
Side Loading	≥8 psi ultimate
Base Plate Shape	Tear drop
Fixing Holes	6 x Ø 0.200 inches (5mm) holes, counter bore Ø 0.39 inches (9.9mm)

### FINISH

21-50-56-6	Lusterless Grey Urethane
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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.