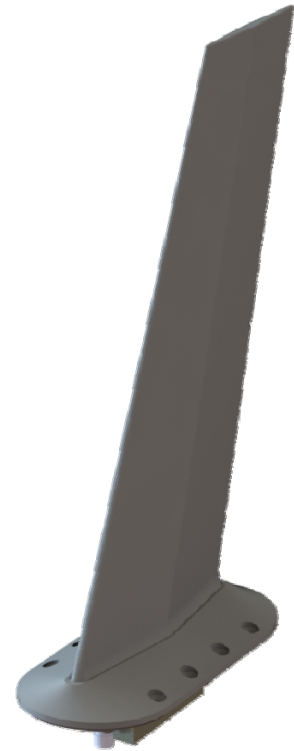




**21-50-102**  
VHF/UHF/L-Band  
Antenna  
108 to 400 MHz & 960 to 1220 MHz

## FEATURES

- **Swept back blade**
- **Isolated V/UHF and L-band outputs**
- **Suitable for Mach 2+**
- **Gain in UHF and L-band similar to stand-alone blades**
- **Excellent Omni pattern thru band**
- **Drop on replacement for existing UHF/L-Band Blades**
- **Designed to MIL-STD-810 environmental conditions**



The 21-50-102 is a high speed passive blade antenna providing full VHF, UHF and L-band performance in a double raked, low RCS design. Intended as a bolt on replacement for existing UHF/L-band and VHF/UHF/L-band antennas, this antenna is built using a high temperature resin/glass composite radome encapsulating a wide band, specially contoured radiating element. A high isolation diplexer is built into the machined aluminium base which is specifically designed to withstand direct lightning strike attachment. Lightning and P-static protection is further enhanced by all elements being DC grounded.

**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  
www.cooperantennas.com



**Australian Representatives**  
**ROJONE, PTY LTD.**  
Tel: 02 9829 1555  
E: sales@rojone.com.au  
www.rojone.com.au

# SPECIFICATIONS

## Cooper Antennas Model 21-50-102

### VHF/UHF/L-band Antenna

#### ELECTRICAL

Frequency	108-174 MHz 225-400 MHz 960-1220 MHz
Impedance (nominal)	50 Ohms
VSWR (typical)	108 - 174 MHz ≤ 2.5:1 225 - 375 MHz ≤ 2.5:1 375 - 400 MHz ≤ 2.7:1 960 - 1220 MHz ≤ 2:1 1000 - 1100 MHz ≤ 1.8:1
Radiation	Omni-directional in azimuth within ± 2.5 dB. Similar to stub in elevation.
Gain (typical)	118 MHz -2 dBi 174 MHz ≥ -1 dBi 225-400 MHz ≥ +1 dBi average 960-1220 MHz ≥ 0dBi average
Power	VHF/UHF : 45 Watts CW L-Band : 2 KW Peak at 0.004 duty cycle
Isolation	Between V/UHF and L-band (bi-directional) ≥ 50 dB
Connector	N Female L-band TNC Female V/UHF

#### MECHANICAL

Height	13.2 inches
Weight	2.6lbs
Mounting hole	11 hole

#### FINISH

Antenna	Urethane Matt Grey Fed-Std-595 36320
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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.