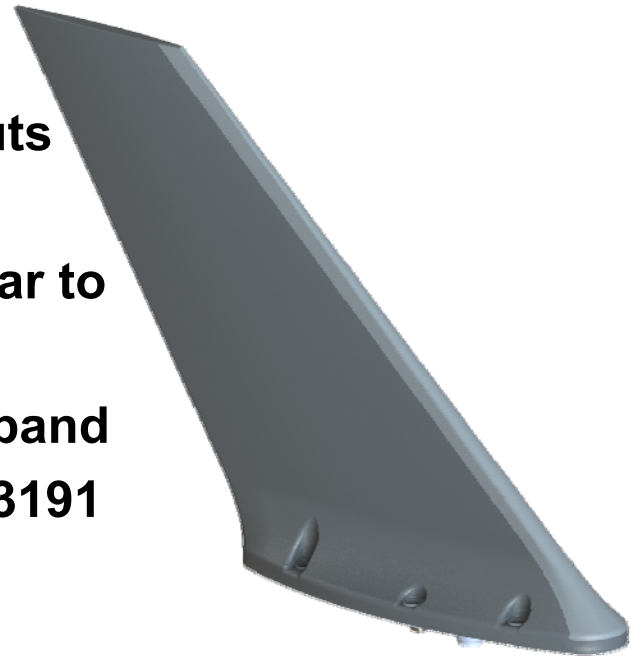




**21-50-123**  
VHF/UHF/L-Band  
Antenna  
30 to 512 MHz & 960 to 2500 MHz

## FEATURES

- **Swept back blade**
- **Dual V/UHF and L-band outputs**
- **Suitable for Mach 2**
- **Gain in UHF and L-band similar to stand-alone blades**
- **Nominally Omni pattern thru band**
- **Footprint replacement for AS3191**
- **Designed to MIL-STD-810 environmental conditions**



The 21-50-123 is a high speed passive blade antenna providing full VHF, UHF and L-band performance in a double raked design.

It can be used as a footprint replacement for a number of existing V/UHF and VHF/UHF/L-band antennas including AS3191, this antenna is built using a high strength resin/glass composite radome encapsulating a wide band, specially contoured radiating element.

Used in conjunction with Cooper Antennas Ltd 21-80-04, 21-80-03 filters and/or 21-80-71 diplexer, this antenna can provide separate V/UHF, MIDS/JTIDS and Data link outputs for simultaneous operation of all three systems (see over).

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Tel: +44 (0) 1628 482 360  
Email: sales@cooperantennas.com  
www.cooperantennas.com



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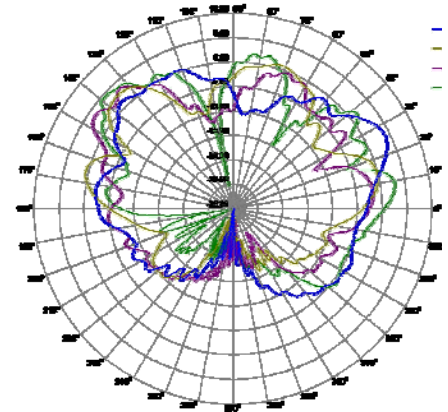
# SPECIFICATIONS

## Cooper Antennas Model 21-50-123 VHF/UHF/L-band Antenna

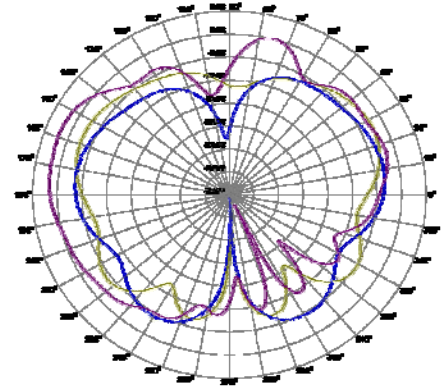
### ELECTRICAL

Frequency	30-174 MHz 225-512 MHz 960-2500 MHz
Impedance (nominal)	50 Ohms
VSWR (typical)	30 - 88 MHz $\leq 2.7$ 108 - 174 MHz $\leq 2.7$ 225 - 360 MHz $\leq 2.0$ 360 - 410 MHz $\leq 2.2$ 410 - 512 MHz $\leq 3.5$ 960 - 2500 MHz $\leq 2.0$
Gain (typical)	30 MHz $\geq -26$ dBi 88 MHz $\geq -14$ dBi 174 MHz $\geq -4$ dBi 225-410 MHz 0 dBi average 960-2500 MHz 0 dBi average
Radiation Patterns	Nominally Omni-directional in azimuth, see typical plots on 20" radius fuselage section
Power	VHF/UHF : 25 Watts CW 100 Watts peak L-Band : 2 KW Peak at 0.004 duty cycle
Connector	N Female L-Band TNC Female V/UHF

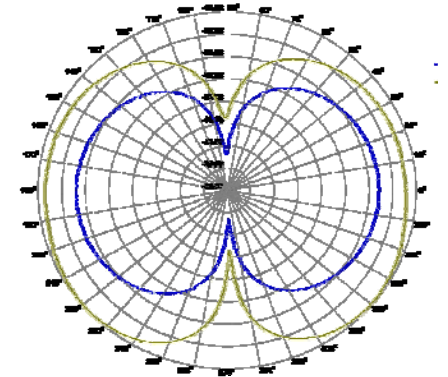
Pitch Plane  
0.96 GHz  
1.3 GHz  
1.8 GHz  
2.5 GHz



Pitch Plane  
0.13 GHz  
0.225 GHz  
0.4 GHz



Pitch Plane  
0.03 GHz  
0.088 GHz



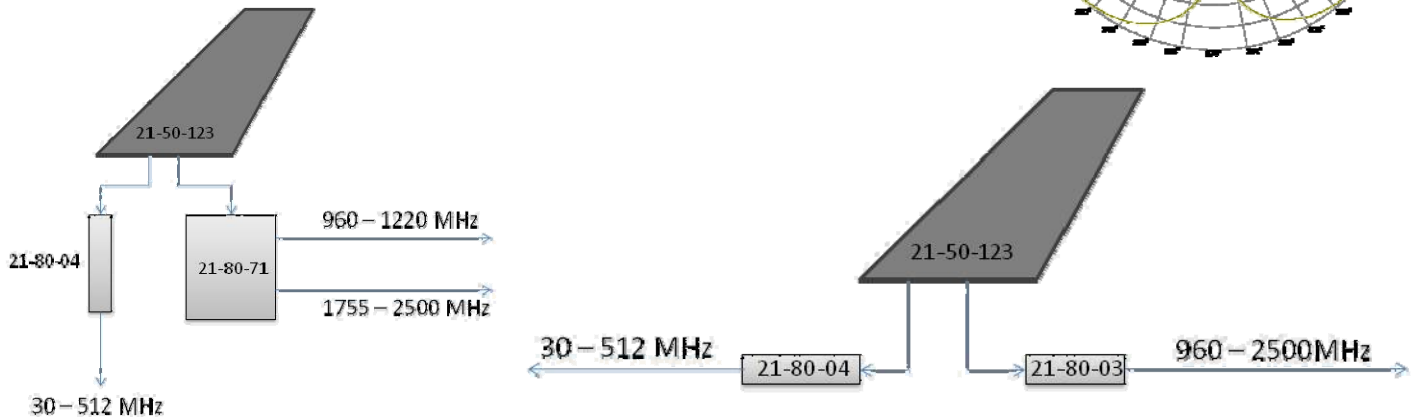
### MECHANICAL

Height	13 inches (330mm) maximum
Weight	3 lbs (1.36kg) maximum
Mounting hole	6 hole

### FINISH

Antenna Urethane Matt Grey Fed-Std-595 36320

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.**