



## FEATURES

- Hi angle UHF Satcom & MUOS coverage
- Lo Angle UHF LOS communications
- Covers L1 and L2 GPS Frequencies
- EPLRS compatible
- Suitable for TACAN/IFF/LINK 16
- Low wingspan minimizes loading on aircraft structure
- Fixing holes compatible with 437S1-H
- Designed to MIL-STD-810 Environmental Requirements
- Erosion protection over all leading edge surfaces



21-50-73

Multi-function UHF LOS/Satcom,  
L-Band and GPS Antenna  
225 to 450 MHz & 240 to 400MHz,  
960 to 1220 MHz  
1564 to 1587/1216 to 1239 MHz

The 21-50-73 is a rugged multifunction UHF LOS, UHF Satcom, L-Band and GPS antenna designed for airborne applications. A high strength aerodynamic vertical shell houses a 225 to 450 MHz linear element that can be used for UHF line of sight “LOS” communications or UHF Satcom at low angles of elevation. This vertical shell also supports a “Bat-Wing” shape horizontal element containing a pair of cross dipoles, connected to provide high angle, right hand circularly polarized UHF Satcom coverage and an L1/L2 active GPS antenna.

A high power grounded L-Band element is integrated into the antenna base. The antenna is completely sealed and filled with closed cell foam for long term environmental protection and reliability.

**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)

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

# SPECIFICATIONS

## Cooper Antennas Model 21-50-73

### Multi-function UHF/LOS/Satcom, L-Band and GPS Antenna

#### ELECTRICAL

Frequency	UHF Hi Angle :	240 - 400 MHz
	UHF Lo Angle :	225 - 450 MHz
	L-Band :	960 to 1220 MHz
	GPS:	1564 - 1587 / 1216 - 1239 MHz
Gain (typical)	Hi Angle :	+6.5 dBiC
	Lo Angle :	+2.0 dBi average @ 225 - 450 MHz
	GPS:	+3.0 dBiC @ Zenith + 30 dB amplifier
VSWR	Hi Angle :	≤ 2.0:1
	Lo Angle :	≤ 2.5:1 225-400 MHz
	L-Band :	≤ 2.0:1
	GPS :	≤ 2.0:1
Impedance (nominal)	50 Ohms for all ports	
Power	UHF :	200 Watts CW
	L-Band :	2 KW Peak, 200 Watts CW
	GPS:	1 Watt
Polarization	UHF Hi Angle :	Right Hand Circular
	UHF Lo Angle and L-Band :	Vertical
	GPS :	Right Hand Circular
Antenna RF Connector	UHF Hi Angle :	N Female
	UHF Lo Angle :	TNC Female
	L-Band :	N Female
	GPS:	TNC Female

#### MECHANICAL

Height	12 inches (305mm) max
Wingspan	13 inches (330mm) max
Mounting Hole Configuration	8 holes each 0.208 - 0.234 dia. Inches (5.28 - 5.94mm)
Weight	9.7lbs (4.4Kg)

#### ENVIRONMENTAL

Designed to Environmental	MIL-E-5400 Class 2 / MIL-STD-810
---------------------------	----------------------------------

#### FINISH

Antenna: Urethane Lusterless Black	Baseplate: Unpainted, Alocrom
------------------------------------	-------------------------------

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.