

21-50-74 Multi-function VHF/UHF LOS/Satcom & L-Band Antenna 30 to 600 MHz, 240 to 400MHz & 960 to 1220 MHz

FEATURES

- Hi angle UHF Satcom & MUOS coverage
- Lo Angle VHF/UHF LOS communications
- Isolated Outputs
- 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

The 21-50-74 is a rugged, multifunction VHF/UHF LOS, UHF Satcom and L-Band antenna designed for airborne applications. A high strength aerodynamic vertical shell houses a 30 to 600 MHz linear element that can be used for VHF/ UHF line of sight "LOS" communications or UHF Satcom at low angles of elevation as well as TACAN/IFF/LINK16 (L-band). 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.

The antenna is completely sealed and filled with closed cell foam for long term environmental protection and reliability.

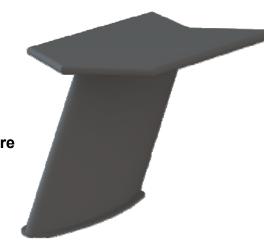
Internal filtering allows the antenna to operate simultaneously with Satcom or LOS and L-band (see over).

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SPECIFICATIONS Cooper Antennas Model 21-50-74

Multi-function VHF/UHF LOS/Satcom & L-Band Antenna

ELECTRICAL				
Frequency	UHF Hi Angle : VHF/UHF Lo Ang L-Band :	le :	240 - 400 MH 30 - 600 MH 960 to 1220	z
Gain (typical)	Hi Angle : Lo Angle :	30-6 108 225	5 dBiC 88 MHz -174 MHz -600 MHz -1220 MHz	-18.5 dBi to - 8 dBi -1 dBi average +1 dBi average +1 dBi average
VSWR	Hi Angle : Lo Angle VHF/UH L-Band :	IF :	≤ 2.0:1 ≤ 2.5:1 ≤ 2.0:1	
Impedance (nominal)	50 Ohms for all ports			
Power	UHF :	UHF : 200 Watts CW (LOS and Satcom)		
Isolation	VHF/UHF to L-band : 40 dB min L-band to Satcom : 30 dB min Note : depending upon system architecture, it may be necessary to provide increased isolation for simultaneous operation which can be adhered by 2 x 21-80-04-1 Low pass and 1 x 21-80-03-1 High pass external, in-line filters - see separate datasheets			
Polarization	UHF Hi Angle : VHF/UHF Lo Ang	le and l	L-Band :	Right Hand Circular Vertical
Antenna RF Connector	UHF Hi Angle : UHF Lo Angle : L-Band :	TNC	emale Female emale	
MECHANICAL				
Height	12 inches (305mm)			
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.