



**21-50-71-2**

**Multi-function UHF/VHF, APC025,  
LINK16, Tacan, IFF &  
UHF Satcom Antenna  
30 to 1220 MHz, 240 to 400 MHz**

## FEATURES

- **Hi and Lo angle UHF Satcom coverage**
- **Full 30 - 1220 MHz LOS continuous coverage**
- **Wide Band Link16/IFF/Tacan**
- **PRC-117G, AN/ARC-210 & AN/ARC-231 compatible**
- **Low wingspan minimizes loading on aircraft structure**
- **Designed to MIL-STD-810 Environmental Requirements**



The 21-50-71-2 is a rugged multifunction VHF, UHF, C/D Band and UHF Satcom antenna designed for airborne applications. A high strength aerodynamic vertical shell houses a 30 - 1220 MHz three dimensional linear element that can be used for VHF, UHF, APC025 C/D-Band 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.

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# SPECIFICATIONS

## Cooper Antennas Model 21-50-71-2

### Multi-function UHF/VHF, APC025 LINK16, Tacan, IFF & Satcom Antenna

#### ELECTRICAL

Frequency	UHF Satcom Hi Angle :	240 - 400 MHz
	V/UHF/L-Band LOS:	30 - 1220 MHz (continuous coverage)
Gain (Typical)	UHF Satcom Hi Angle :	+5 dBiC @ Zenith
	LOS :	-26 dBi @ 30 MHz
		-15 dBi @ 88 MHz
		-6.5 dBi average @ 118 -174 MHz
		0 dBi average @ 225 - 1220 MHz
VSWR	UHF Satcom Hi Angle :	≤ 2.0:1
	LOS :	≤ 2.5:1
Impedance (nominal)	50 Ohms for all ports	
Power	UHF Satcom Hi Angle :	200 Watts CW
	LOS :	50 Watts (30-174 MHz)
		200 Watts (225-1220 MHz)
Polarization	UHF Satcom Hi Angle :	Right Hand Circular
	LOS :	Vertical
Antenna RF Connector	UHF Satcom Hi Angle :	N Female
	LOS :	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	8 lbs (3.6Kg)

#### ENVIRONMENTAL

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

Antenna: Urethane Lusterless Grey      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.