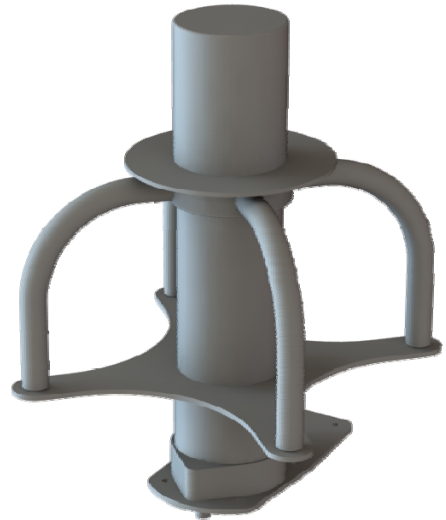




**21-50-48-1**  
**APCO-25/UHF MUOS SATCOM**  
**and VHF/UHF LOS Antenna**  
**240 to 385, 30 to 512 MHz**  
**and 500 to 941 MHz**

## FEATURES

- **Suitable for helicopter, vehicular, fixed and mobile applications**
- **Covers UHF Satcom and MUOS as well as VHF/UHF Line of Sight (LOS) and APCO-25**
- **Wide Angle pattern coverage without Hi-Lo switching**
- **200 Watts CW Power handling for Satcom**
- **Designed to MIL-STD-810**
- **SINGARS performance comparable to AS-3191 per MIL-DTL- 85670C**



Combining highly efficient “droopy dipoles” with a wide band, line-of-sight linear element, the 21-50-48-1 provides Hi-Lo angle UHF Satcom from a single connector plus a separate VHF/UHF/EPLRS element in a single airborne antenna. In addition, this antenna includes a vertically polarized discone element for APCO-25 systems covering 500-941 MHz..

Element shaping and matching of the circularly polarized dipoles provides UHF Satcom coverage right through the UHF and MUOS band with useable radiation and gain typically from zenith down to 20 degrees above the horizon.

The robust design is suitable for helicopter and fixed wing aircraft operating up to 450 knots.

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# SPECIFICATIONS

## Cooper Antennas Model 21-50-48-1 APCO-25/ UHF MUOS SATCOM and VHF/UHF LOS Antenna

### ELECTRICAL

Frequency	Line of Sight (LOS) :	30 - 512 MHz
	Satcom :	240- 385 MHz
	APCO-25 :	500-941 MHz
Gain (typical)	LOS:	≥ -22.5dBi @ 30 MHz ≥ -9 dBi @ 80 MHz -2 dBi (average) 118 - 174 MHz +3 dBi (average) 225 - 512 MHz
	Satcom:	≥ +5 dBiC @ Zenith ≥ 0 dBiC @ elevation angles above +30°.
	APCO-25 :	≥ +2 dBi (average)
VSWR	LOS :	30-449 MHz ≤ 2.5:1; 450-512 MHz ≤ 3:1
	Satcom :	≤ 2.0:1
	APCO-25 :	≤ 2.5:1
Impedance (nominal)		50 Ohms
Power	APCO-25 & LOS :	50 Watts VHF
	Satcom :	200 Watts
Polarization	LOS :	Linear - vertical
	Satcom :	Right Hand Circular (maximum at zenith)
Antenna RF Connector	LOS :	TNC Female
	Satcom :	N Female
	APCO-25 :	TNC Female
Operational Temperature		-54°C to +71°C

### MECHANICAL

Overall Height (max)	13.5 inches (343mm)
Weight (max)	6.5 lbs (2.9kg)

### FINISH

Standard	Urethane Lusterless Grey FED-STD 595 36173
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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.