



21-52-46
Data Link/UHF MUOS SATCOM
and VHF/UHF LOS Antenna
240 to 385, 30 to 512 MHz
and 960 to 2000 MHz

FEATURES

- **Suitable for helicopter, vehicular, fixed and mobile applications**
- **Covers UHF Satcom and MUOS as well as VHF/UHF Line of Sight (LOS), IFF, TACAN, MIDS, JTIDS and Data Link**
- **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 21-52-46 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 L-band systems such as IFF, MIDS and TACAN.

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

SPECIFICATIONS

Cooper Antennas Model 21-52-46

Data Link/UHF MUOS SATCOM and VHF/UHF LOS Antenna

ELECTRICAL

Frequency	Line of Sight (LOS) :	30 - 512 MHz
	Satcom :	240- 385 MHz
	L-band :	960-2000 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°.
	L-band :	≥ 0 dBi
	VSWR	LOS : 30-449 MHz ≤ 2.5:1; 450-512 MHz ≤ 3:1 Satcom : ≤ 2.0:1 L-band : ≤ 2.0:1 (≤ 2.5:1 1851-2000 MHz)
Impedance (nominal)		50 Ohms
Power	LOS :	50 Watts VHF
	Satcom :	200 Watts
	L-band :	100 Watts average, 2kW peak
Polarization	LOS :	Linear - vertical
	Satcom :	Right Hand Circular (maximum at zenith)
Antenna RF Connector	LOS :	TNC Female
	Satcom :	N Female
	L-band :	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 Black
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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.