



**21-50-83**  
**Multi-Band VHF/UHF,  
Communications Antenna**  
**30 to 174 MHz, 225 to 512 MHz**

## FEATURES

- **Aero-dynamic design**
- **Light weight/ high strength**
- **Fully environmentally sealed**
- **Internal VHF/UHF filters**
- **Full 30-512 MHz LOS communications**
- **AN/ARC-210, AN/ARC-231, ARC164 & SINCGARS compatible.**
- **Designed to MIL-STD-810 Environmental Conditions**



The 21-50-83 is a rugged multifunction VHF/UHF communications antenna designed for airborne applications. A high strength vertical shell houses 30 - 174 and 225 - 512MHz linear elements to be used with separate VHF & UHF line of sight “LOS” communications radios. Footprint is compatible with Collins 437S-1H and Chelton 12-437 series antennas.

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# SPECIFICATIONS

## Cooper Antennas Model 21-50-83

### Multi-Band, Communications Antenna

#### ELECTRICAL

<b>Frequency</b>	<b>30-174 MHz / 225-512 MHz</b>
<b>Gain</b>	<b>≥ -19 dBi @30 MHz</b> <b>≥ -7 dBi @88 MHz</b> <b>≥ -1 dBi (average) over 118 -174 MHz</b> <b>≥ 0 dBi to +3 dBi over 225 - 512 MHz</b>
<b>VSWR</b>	<b>≤ 2.5:1</b>
<b>Impedance (nominal)</b>	<b>50 Ohms</b>
<b>Power</b>	<b>50 Watts (30 – 88 MHz)</b> <b>50 Watts (118 - 174 MHz )</b> <b>100 Watts (225 - 512 MHz)</b>
<b>Polarization</b>	<b>Vertical,</b>
<b>Antenna RF Connector</b>	<b>UHF : N Female</b> <b>VHF : TNC Female</b>

#### MECHANICAL

<b>Height</b>	<b>13 inches max (330 mm)</b>
<b>Mounting Hole</b>	<b>8 x Ø 0.205 inches (5mm) holes, counter bore Ø 0.43 inch (10.9mm)</b>
<b>Weight</b>	<b>6.5 lbs (2.95 kg)</b>

#### FINISH

<b>Antenna</b>	<b>Urethane lusterless Black</b>
<b>Base Plate</b>	<b>Unpainted</b>

**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.**