



## FEATURES

- Suitable for helicopter and vehicular installations.
- Light weight/ high strength
- Fully environmentally sealed
- Hi and Lo angle UHF Satcom coverage plus Active GPS
- Full 30-512 MHz LOS communications
- AN/ARC-210, AN/ARC-231, DAGR compatible
- Designed to MIL-STD-810 environmental Conditions.
- 200 watt power handling for UHF Satcom

**21-50-129**  
**Multi-Band Satcom,**  
**Communications & GPS Antenna**  
**240 to 400 MHz, 30 to 512 MHz**  
**& L1/L2 GPS**



The 21-50-129 is a rugged multifunction VHF/UHF Satcom and GPS antenna designed for helicopter and vehicular applications. A high strength vertical shell houses 30 - 512MHz linear elements that can be used for V/ UHF line of sight "LOS" communications or UHF Satcom at low angles of elevation. An active GPS element, DC powered through the coaxial connector provides circular polarization for both L1 & L2 frequency bands. The vertical shell also supports a pair of horizontal elements containing crossed dipoles connected to provide high angle, circularly polarized UHF Satcom coverage.

**Cooper Antennas Ltd for non-USA customers**  
Thames Industrial Estate, Unit K, Fieldhouse Lane,  
Buckinghamshire SL7 1TB, UK  
Tel: +44 (0) 1628 482 360  
Email: sales@cooperantennas.com  
www.cooperantennas.com



**Australian Representatives**  
**ROJONE, PTY LTD.**  
Tel: 02 9829 1555  
E: sales@rojone.com.au  
www.rojone.com.au

# SPECIFICATIONS

## Cooper Antennas Model 21-50-129

### Multi-Band Satcom, Communication & GPS Antenna

#### ELECTRICAL

<b>Frequency</b>	Hi Angle : 240 - 400 MHz Lo Angle : 30 - 88 MHz, 108 - 174 MHz & 225 - 512MHz GPS: 1565-1586/ 1217-1238 MHz
<b>Gain</b>	Hi Angle : +6 dBiC @ zenith Lo Angle : ≥ -22 dBi @30 MHz ≥ -8 dBi @88 MHz ≥ -2 dBi (average) over 118 -174 MHz ≥ 0 dBi to +3 dBi over 225 - 512 MHz GPS: ≥ 33 dB (pre-amp) ≥ +3dBiC @ Zenith (Antenna)
<b>VSWR</b>	Hi Angle : ≤ 1.75:1 Lo Angle : ≤ 2.5:1 (30 - 450 MHz) ≤ 3.0:1 (450 - 512 MHz) GPS: ≤ 1.5:1 (Antenna)
<b>Impedance</b>	50 Ohms (nominal)
<b>Power</b>	Hi Angle : 200 Watts (240 - 400 MHz ) Lo Angle : 50 Watts (30 – 88 MHz) 50 Watts (118 - 174 MHz ) 200 Watts (225 - 512 MHz) GPS: 1 watt
<b>Polarization</b>	Hi Angle : Right Hand Circular Lo Angle : Vertical, Linear GPS: Right hand Circular
<b>Antenna RF Connector</b>	Hi Angle : N Female Lo Angle : TNC Female GPS: TNC Female
<b>DC Power for GPS Pre-Amp</b>	2.5 - 24 V < 50 milliamps Typical

#### MECHANICAL

<b>Height</b>	12 inches (305mm)
<b>Wingspan</b>	20 inches max (508mm)
<b>Mounting Hole</b>	4 x Ø 0.205 inches (5mm) holes, counter bore Ø 0.43 inch (10.9mm)
<b>Weight</b>	3.5 lbs (1.6 kg)

#### FINISH

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

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.**