



**21-50-110**  
**VHF/GPS Antenna**  
**118 to 137 & L1/L2**

## FEATURES

- **Covers VHF ATC and GPS L1/L2**
- **Small size only 10.5 inches height.**
- **25 watts power handling in VHF**
- **Passive design does not require external tuning.**
- **Designed to MIL-STD-810 environmental requirements for helicopter and subsonic transport aircraft.**



The 21-50-110 is a combination, vertically polarized VHF communications and circularly polarized GPS antenna suitable for mounting on the upper surfaces of helicopters and subsonic fixed wing aircraft.

Designed as a short, top loaded monopole for VHF communications and having a top mounted patch antenna for GPS, this antenna has separate decoupled feeds to allow for simultaneous operation of both systems.

Mechanical construction uses a glass reinforced thermoplastic shell with foamed-in-place internal elements. N-type (VHF) and TNC (GPS) connectors are fitted to the aluminum base plate which is DC grounded for p-static protection.

**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](mailto:sales@cooperantennas.com)  
[www.cooperantennas.com](http://www.cooperantennas.com)



**Australian Representatives**  
**ROJONE, PTY LTD.**  
Tel: 02 9829 1555  
E: [sales@rojone.com.au](mailto:sales@rojone.com.au)  
[www.rojone.com.au](http://www.rojone.com.au)

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

# SPECIFICATIONS

## Cooper Antennas Model 21-50-110

### VHF/GPS Antenna

#### ELECTRICAL

<b>Frequency</b>	VHF 118-137 MHz GPS 1565-1586 and 1217-1238 MHz
<b>Impedance</b>	50 $\Omega$ (nominal)
<b>VSWR</b>	VHF $\leq 2.5:1$ GPS $\leq 2.0:1$
<b>Polarization</b>	Vertical (VHF) RH Circular (GPS)
<b>Gain (typical)</b>	+1 dBi (VHF) +3 dBic @ Zenith (GPS)
<b>Power Handling</b>	25 Watts (VHF) 1 Watt (GPS)
<b>Connectors</b>	N Type Female (VHF) TNC Female (GPS)

#### MECHANICAL

<b>Height</b>	10.5 inches (267mm)
<b>Weight</b>	2.75 lbs (1.25Kg) max

#### FINISH

**Urethane Lusterless Black**

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.