



21-50-110-1
VHF/Active GPS Antenna
118 to 137 & L1/L2

FEATURES

- **Covers VHF ATC and Active GPS L1/L2**
- **Small size only 10.5 inches height.**
- **25 watts power handling in VHF**
- **Requires no external tuning.**
- **Embedded 33 dB GPS LNA**
- **Designed to MIL-STD-810 environmental requirements for helicopter and subsonic transport aircraft.**



The 21-50-110-1 is a combination, vertically polarized VHF communications and circularly polarized active 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 with integral low noise amplifier (LNA) 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.

Power for the LNA is fed via the GPS coaxial cable.

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SPECIFICATIONS

Cooper Antennas Model 21-50-110-1 VHF/Active GPS Antenna

ELECTRICAL

Frequency	VHF 118-137 MHz GPS 1565-1586 and 1217-1238 MHz
Impedance	50 Ω (nominal)
VSWR	VHF $\leq 2.5:1$ GPS $\leq 1.5:1$ (antenna)
Polarization	Vertical (VHF) RH Circular (GPS)
Gain (typical)	+1 dBi (VHF) +3 dBiC @ Zenith (GPS antenna) + 33 dB (LNA)
Power Handling	25 Watts (VHF) 1 Watt (GPS)
Connectors	N Type Female (VHF) TNC Female (GPS)
DC Power for GPS Pre-Amp	2.5 - 24 V \leq 50 mA (typical)

MECHANICAL

Height	10.5 inches (267mm)
Weight	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.**