



21-50-110-2
Combined VHF ATC
GNSS Airborne Blade Antenna
118 to 137 MHz & GPS/Galileo

FEATURES

- **Covers GPS and Galileo frequencies**
- **Integral Low Noise Amplifier (LNA)**
- **Efficient VHF ATC antenna**
- **Light weight, low profile**
- **Designed to MIL-STD-810 environmental requirements for helicopter and subsonic transport aircraft.**



The 21-50-110-2 is a combination, vertically polarized VHF communications and circularly polarized active GNSS 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 GNSS, 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 (GNSS) connectors are fitted to the aluminum base plate which is DC grounded for p-static protection.

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

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SPECIFICATIONS

Cooper Antennas Model 21-50-110-2

Combined VHF ATC GNSS Airborne Blade Antenna

ELECTRICAL

Frequency	118-137 MHz VHF 1164.45-1239.60 L5/L2 GP; E5 Galileo 1266.75-1290.75 E6 Galileo 1558.42-1592.42 L1 GPS; E1,E2 Galileo
Power	50 Watts (VHF)
Impedance	50 Ω (nominal)
VSWR	2.5:1 VHF 1.5:1 GNSS (Antenna)
Gain (typical) antenna	+1 dBi VHF average over band +4.3 dBiC GPS L1 1.4 dBiC - 2.5 dBiC Galileo and GPS L2/L5
Gain LNA	44 \pm 2 dB
Polarization	Vertical (VHF) Right Hand Circular (GNSS)
Connectors	N Type Female (VHF) TNC Female (GNSS)
DC Power for GNSS Pre-Amp	2.5 - 24 V \leq 50 mA (typical)

MECHANICAL

Height	11 inches (279mm)
Weight	3 lbs (1.36Kg) 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.**