



**21-150-202**  
**Fast Tune**  
**VHF/UHF Antenna**  
**30 - 600 MHz**

### FEATURES

- Radio silent tuning within typically 60µs
- Only 9 inches (228mm) height
- Latest FPGA logic converter unit technology
- Excellent radiation diagram throughout entire frequency band
- Rugged design has no forward facing projections for ground handling and in-flight safety
- Designed for helicopters and subsonic fixed wing aircraft to MIL-STD-810 environmental conditions
- -54° to +55°C (operating)
- -54° to +71°C (short term)



21-151/171 series Logic Converter Unit

The 21-150-202 is the latest in a series of high gain, digitally tuned VHF/UHF antennas providing outstanding performance in a physically small package of just 9” in height. Latest p-i-n diode technology for VHF band combined with a passive susceptance corrected element for UHF provides excellent omnidirectional azimuthal radiation patterns throughout the entire frequency range.

A separate, lightweight logic converter unit (LCU) accepts data from the VHF/ UHF radio, and using the latest FPGA technology, provided tuning codes for the antenna. Tuning time is typically 60µs seconds and 100% radio silent.

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# SPECIFICATIONS

## Cooper Antennas Model 21-150-202

### Fast Tune VHF/UHF Antenna

#### ELECTRICAL

<b>Frequency</b>	<b>30-174 MHz 225-600 MHz</b>
<b>Gain (typical)</b>	<b>≥ -11 dBi (30 MHz) ≥ -5 dBi (88 MHz) ≥ -1 dBi average (118-174 MHz) ≥ +2 dBi average (225-500 MHz) ≥ 0 dBi average (500-600 MHz)</b>
<b>VSWR</b>	<b>≤ 2.5:1 VHF/UHF (except ≤ 3.5:1 88.025-117.975 MHz)</b>
<b>Impedance (nominal)</b>	<b>50 Ohms</b>
<b>Power</b>	<b>30 Watts CW (up to 35 Watts CW for 2 mins)</b>
<b>Tuning Time</b>	<b>Less than 60μ seconds</b>
<b>Polarization (nominal)</b>	<b>Vertical (when vertically mounted)</b>
<b>Antenna RF Connector</b>	<b>TNC Female</b>
<b>Antenna DC Connector</b>	<b>Multi pin PTO 12-10P to MIL-C-26482</b>
<b>LCU part number</b>	<b>Dependant upon Radio choice but up to 4 different data formats can be accepted. CAL will advise</b>

#### MECHANICAL

<b>Height</b>	<b>9 inches (228mm)</b>
<b>Weight</b>	<b>Antenna 3.5 lbs (1.59kg)</b>
<b>Fixing Holes</b>	<b>10 x Ø 0.208 inch holes for 10:32 UNF holes or similar</b>
<b>Operating Speed</b>	<b>Up to Mach 0.85</b>

#### FINISH

<b>Antenna</b>	<b>Urethane Lusterless Black</b>
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**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.**