



**21-150-10**  
**Combined Passive/Digitally Tuned**  
**VHF/UHF Antenna**  
**30 - 960 MHz**

## FEATURES

- **Frequency Hopping - fast tune**
- **Less than 14" height**
- **Tuning Controlled by Separate Logic Control Unit (LCU)**
- **LCU's compatible with latest generation multi-mode radios**
- **Designed to MIL-STD-810 Environmental conditions**
- **Suitable for helicopter and subsonic aircraft**
- **Footprint drilling compatible with 437S-1H relay tuned antenna**



This tuneable antenna provides exceptional gain in the 30-174MHz SINCGARS and VHF band compared to similarly sized passive antennas whilst maintaining optimum performance right up to 512MHz in wide-band mode. In addition, a separate high UHF passive element provides frequency coverage up to 960MHz. Many years of experience in designing solid-state tuned antennas has enabled CAL's team to provide the ultimate in performance and reliability for a frequency agile airborne blade. Close attention to environmental and EMI design considerations combined with latest composites structural technology makes the 21-150-10 suitable for helicopters and subsonic aircraft. The separate logic converter unit combines flash memory technology with MIL spec'd power supply in a MIL-STD-461 compliant package. LCU's can be provided for most current generation digital transceivers.

**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 21-150-10 Combined Passive/Digitally Tuned VHF/UHF Antenna

### ELECTRICAL

|                        |   |
|------------------------|---|
| Frequency              | 30-88 MHz<br>108-174 MHz<br>225-512 MHz<br>550-960 MHz  |
| Gain (typical)         | ≥ - 7.5 dBi (30 MHz)<br>≥ - 3 dBi (88 MHz)<br>≥ - 1 dBi (118 MHz)<br>≥ 0 dBi (174 MHz)<br>+2 dBi average (225-512 MHz)<br>0 dBi average (550-960 MHz) |
| VSWR                   | ≤ 2.5:1   |
| Impedance (nominal)    | 50 Ohms   |
| Power                  | 50 Watts VHF<br>100 Watts UHF (Lo)<br>100 Watts UHF (Hi)  |
| Tuning Time            | Less than 60μ seconds   |
| Polarization (nominal) | Vertical (when vertically mounted)  |
| Antenna RF Connector   | TNC Male VHF<br>N Type Female UHF (Lo)<br>TNC Female UHF (Hi)   |
| DC connector           | PTO2 12-10P   |
| LCU (for ARC210 Gen V) | 21-151-10   |

### MECHANICAL

|               |   |
|---------------|---|
| Height        | 13 inches max (330 mm max)                            |
| Mounting Hole | 8 x Ø 10:32 UNF holes or similar                      |
| Weight        | Antenna 6.5 lbs (2.9kg)<br>Logic Unit 1.7 lbs (0.8kg) |

### ENVIRONMENTAL

|                 |                 |
|-----------------|-----------------|
| Temperature     | -65°C to +80°C  |
| Operating Speed | Up to Mach 0.95 |

### FINISH

|            |                           |
|------------|---------------------------|
| Antenna    | Urethane Lusterless Black |
| Base Plate | 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.