



21-150-175

**Frequency Agile Digitally Tuned
VHF/UHF/L-Band Antenna
30 - 600 & 960 - 1220 MHz**

FEATURES

- Radio silent tuning within less than 50µS
- 42 Watts VHF, 50 Watts UHF continuous Power Handling
- Latest FPGA logic converter unit technology
- Rugged design has no forward facing or top loading protrusions for ground handling and in-flight safety
- Designed for helicopters and subsonic fixed wing aircraft to MIL-STD-810 environmental conditions
- EMI/EMC design to MIL-STD-461
- -54° to +80°C operating (Antenna)
-40° to +80° operating (LCU)
- Footprint compatible with AS3191



The 21-150-175 is the latest in a series of high gain, digitally tuned antennas providing outstanding performance in a similar shape, size and footprint as AS-3191 passive blades. Latest p-i-n diode tuning technology for VHF band combined with passive, susceptance corrected elements for UHF and L-Band produces exceptional gain/height performance with excellent omnidirectivity throughout the frequency bands. A separate, lightweight logic converter unit (LCU) accepts data from the VHF/UHF radio, and using latest FPGA technology, provides tuning codes for the antenna. Tuning time, which is 100% radio silent, is typically less than 50µ second.

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SPECIFICATIONS

Cooper Antennas Model 21-150-175 Frequency Agile, Digitally Tuned VHF/UHF/L-Band Antenna

ELECTRICAL

Frequency	30-88 MHz 108-174 MHz 225-600 MHz 960-1220 MHz
Gain (typical)	≥ - 9 dBi (30 MHz) ≥ - 1 dBi (88 MHz) ≥ 0 dBi (118 MHz) ≥ 0 dBi (174 MHz) ≥ +2 dBi average (225-600 MHz) ≥ +2 dBi average (960-1220 MHz)
VSWR	≤ 2.5:1 VHF/UHF ≤ 2.0:1 L-Band
Impedance (nominal)	50 Ohms
Power	50 Watts UHF 42 Watts VHF continuous 20 Watts ave, 2 KW peak L-Band
Tuning Time	Less than 50μ seconds
Polarization (nominal)	Vertical (when vertically mounted)
Antenna RF Connectors	TNC Female V/UHF N-Type Female L-Band
DC connector	D38999/49WB35PN

MECHANICAL

Height	14.7 inches max
Mounting Hole	6 x Ø 0.234 inch holes
Weight	Antenna 4 lbs Logic Unit 1.7 lbs

ENVIRONMENTAL

Temperature	-54°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.