21-150-18-2

High Power/Digitally Tuned VHF/UHF/L-Band Antenna

30 - 512 & 960-1220 MHz

FEATURES

- **Frequency Hopping - fast tune Capability and increased radiation efficiency**
- **43 Watts Power Handling**
- **Tuning Controlled by Separate Logic Control Units (LCU's) available for most modern digital radios**
- **Compatible with SINCGARS, HAVEQUICK and other secure waveforms plus LINK16, MIDS, IFF & TACAN**
- **Continuous VHF and UHF guard frequency response**
- **Designed to MIL-STD-810 Environmental conditions**
- **Suitable for helicopters and subsonic aircraft**
- **Footprint replacement for 437S-IH**
- **Direct and Indirect (LITS) Lightning Protection**

This antenna provides exceptional gain via a digitally tuned element in the 30-174 MHz band combined with passive UHF and L-Band elements, co-located within a single, high strength fiberglass radome. Unique radiating element design ensures excellent patterns over the complete frequency range and provides continuous and simultaneous reception of 121.5, 156.8, 243 and 406 MHz guard channels irrespective of antenna tuning between 118-512 MHz.

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 21-150-18-2 suitable for helicopters and subsonic aircraft. This antenna includes a lightning protection scheme whereby internal metal elements are high voltage insulated such that diverters on the outer radome surface attached to the isolated aluminum top plate cause local ionisation and lead the strike to airframe.

The separate logic converter unit combines FPGA embedded 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 which should be specified when ordering.

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
www.cooperantennas.com

Australian Representatives
ROJONE, PTY LTD.
Tel: 02 9829 1555
E: sales@rojone.com.au
www.rojone.com.au

Cooper Antennas Ltd is Accredited to: ISO9001, AS9100, ISO14001 and MAA Approved

SPECIFICATIONS

Cooper Antennas Model 21-150-18-2

High Power Digitally Tuned VHF/UHF/L-Band Antenna

ELECTRICAL

Frequency	**30-88 MHz** **108-174 MHz** **225-512 MHz** **960-1220 MHz**	
Gain (typical)	**≥ - 10 dBi (30 MHz)** **≥ - 3 dBi (88 MHz)** **0 dBi average (118 to 174 MHz)** **+1 dBi average (225-512 MHz)** **0 dBi average (960 to 1220 MHz)**	
Guard Channel Gain	**≥ -2 dBi (121.5 and 156.8 MHz)** **≥ 0 dBi (243 and 406 MHz)**	**} Irrespective of tuned frequency from 118 to 512 MHz**
VSWR	**≤ 2.5:1 VHF/UHF** **≤ 2:1 L-Band**	
Impedance (nominal)	**50 Ohms**	
Power	**43 Watts over full V/UHF band** **2 KW peak L-Band**	
Tuning Time	**Less than 60µ seconds**	
Polarization (nominal)	**Vertical (when vertically mounted)**	
Antenna RF Connector	**TNC Type Female - VHF/UHF** **N Type Female - L-Band**	
DC connector	**PTO2 12-10P**	

MECHANICAL

Height	**13 inches**
Mounting Holes	**Suitable for 8 x 10:32 UNF or similar**
Weight	**Antenna 5 lbs**

ENVIRONMENTAL

Temperature	**-54ºC to +80ºC**
Operating Speed	**Up to Mach 0.85**

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.

Issue A