



21-190-06
High Gain Digitally Tuned
VHF/UHF + L-band Antenna
30 - 520 & 960 - 1220 MHz

FEATURES

- **Frequency Hopping - fast tune**
- **Lightning protected**
- **9.5" height**
- **Tuning Controlled by Separate Logic Control Unit (LCU)**
- **LCU's compatible with latest generation multi-mode radios**
- **Design to MIL-STD-810 Environmental conditions**
- **Suitable for helicopters and fixed wing aircraft**



The 21-190-06 tuneable antenna provides exceptional gain in the 30 - 88 MHz SINGARS band compared to similarly sized passive antennas, and maintains optimum performance up to 520 MHz. It also provides frequency coverage from 960 to 1220 MHz and is compatible with IFF, Tacan, JTIDS and MIDS and other L-Band data link systems.

Many years of experience in designing solid-state tuned antennas has enabled our engineers to provide the ultimate in performance and reliability for a frequency agile airborne blade. Close attention to environmental, EMI and lightning protection design considerations combined with latest composites structural technology makes the 21-190-06 suitable for helicopters, subsonic and supersonic aircraft under demanding tactical conditions. The separate logic converter unit combines flash memory technology with MIL spec'd power supply in a MIL-STD-461 compliant package.

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SPECIFICATIONS

Cooper Antennas Model 21-190-06

High Gain Digitally Tuned VHF/UHF + L-band Antenna

ELECTRICAL

| | |
|------------------------|---|
| Frequency | 30-88 MHz, 108-174 MHz, 225-520 MHz, 960-1220 MHz |
| Gain (typical) | ≥ - 12.5 dBi (30 MHz) ≥ - 5 dBi (88 MHz) ≥ - 3 dBi (108 -174 MHz) ≥ 0 to 2 dBi (225-520 MHz) ≥ 0 dBi average (960-1220 MHz) |
| VSWR | ≤ 2.5:1 30-80 MHz ≤ 2.5:1 108-174 MHz ≤ 2.5:1 225-520 MHz ≤ 2.0:1 960-1000 MHz ≤ 1.8:1 1000-1100 MHz ≤ 2.0:1 1100-1220 MHz |
| Impedance (nominal) | 50 Ohms |
| Power | 30 Watts (35 Watts 2 minutes, 1:1 duty cycle) L-Band 2 kW peak 0.4 duty cycle |
| Tuning Time | Less than 50μ seconds |
| Polarization (nominal) | Vertical (when vertically mounted) |
| Antenna RF Connector | TNC Female (VHF/UHF) N-type (L-Band) |
| Antenna DC connector | Multi pin D38999 |
| Logic Converter Units | See separate datasheets |

MECHANICAL

| | |
|-----------------------|-----------------------------------|
| Antenna Height | 9.5 inches (241 mm) |
| Antenna Mounting Hole | 10 x Ø 10:32 UNF holes or similar |
| Antenna weight | 3.9 lbs (1.77kg) max |

ENVIRONMENTAL

| | |
|-------------|----------------|
| Temperature | -54°C to +71°C |
|-------------|----------------|

FINISH

| | |
|------------|--------------------------|
| Antenna | Urethane Lusterless Grey |
| 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.