



FEATURES

- **High Strength Broadband Blade Antenna**
- **Frequency Selective passive Matching Network**
- **Requires no external tuning**
- **Fully Foamed for High Environmental Integrity**
- **Suitable for wide band Multi-Mode Radios - optimized VHF/AM minimal VHF/Low band performance**
- **Designed to MIL-STD-810 environmental conditions**
- **Twin connectors for V/UHF and UHF Hi Band**

21-50-331

**Wide-band VHF/UHF Airborne
Blade Antennas
30 to 941 MHz**



The 21-50-331 is a vertically polarized, omni-directional antenna, compatible with all popular airborne radios operating within the 108 to 941 MHz frequency range and with limited capability from 30-108 MHz. This antenna can handle up to 25 Watts of power and requires no external tuning.

This wideband, multi-function antenna developed by Cooper Antennas Ltd is particularly suited to public service, para-military and tactical military communications. Rugged design ensures reliability in world wide conditions of service on helicopters and subsonic aircraft.

Use of proprietary matching techniques optimizes efficiency and provides omni-directional radiation throughout the operating frequency range. Unique element shaping preserves elevation pattern throughout frequency band.

Cooper Antennas Ltd for non-USA customers

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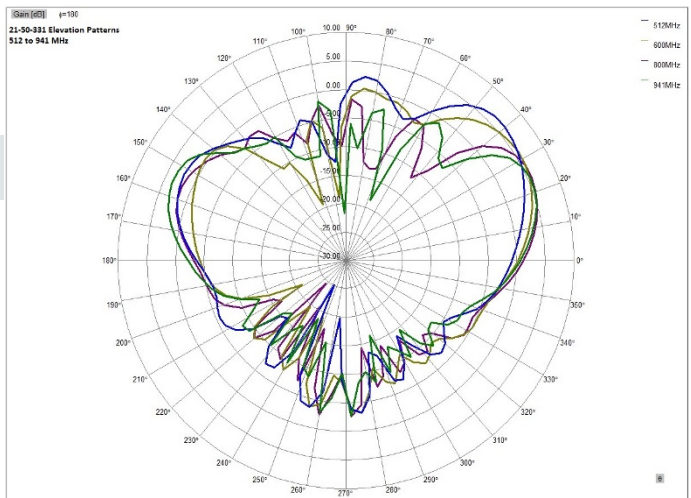
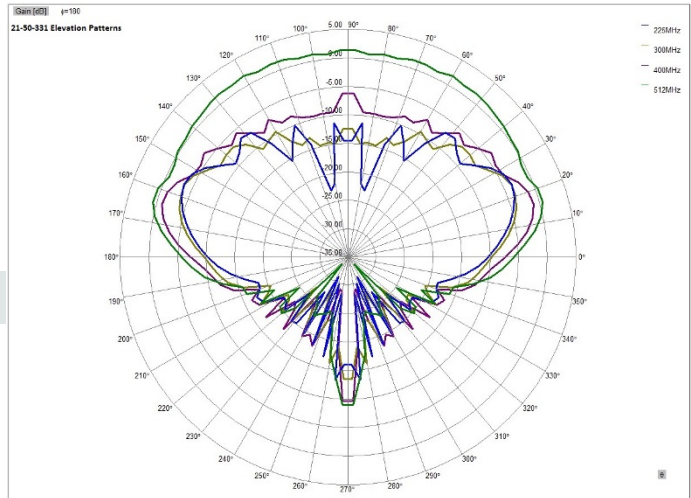
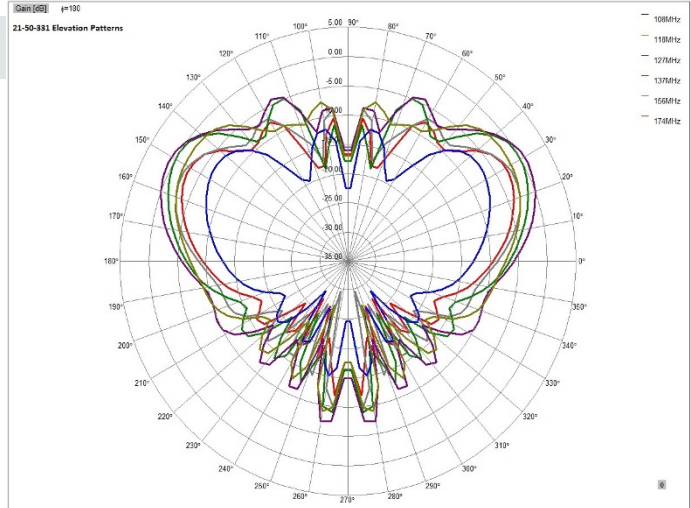
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SPECIFICATIONS

Cooper Antennas Model 21-50-331 Wide-band Airborne Blade Antenna

ELECTRICAL

Frequency	30 - 512 MHz 512 - 941 MHz
Gain (Typical)	108 - 174 MHz -3 dBi average (-2dBi minimum 118-137 MHz) 225 - 512 MHz + 1 dBi average 512 - 941 MHz 0 dBi average
VSWR	≤ 2.5:1
Impedance (nominal)	50 Ohms
Power	25 Watts CW
Polarization	Vertical (when vertically mounted)
Radiation Pattern	Azimuth : Nominally Omni-directional Elevation : See graphs
Antenna RF Connector	Type N Female (30 - 512 MHz) TNC Female (512 - 941 MHz)



MECHANICAL

Antenna Shell Type	High density foam filled epoxy/fiber glass shell set in aluminum alloy base.
Height	9.4 inches (239mm) max
Weight	3 lbs (1.36kg) max
Mounting Holes	10 x Ø 0.208 inch (5.3mm) holes

FINISH PART NUMBER COLOR DESCRIPTION

21-50-331	FED-STD 595 Code 17925 Gloss white Urethane
21-50-331F81	FED STD 595 Code 36118 Medium Gunship Gray
21-50-331F04	FED-STD 595 Code 37038 Lusterless black urethane

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.