



21-40-45-3
P25 Airborne Blade Antenna
760 to 870 MHz

FEATURES

- **Suitable for P25 communication links**
- **Low profile, diamond shaped blade**
- **Designed to meet MIL-STD-810**
- **Fully environmentally sealed**
- **Grounded element for lightning protection**
- **Lossless matching - high RF efficiency**
- **Omnidirectional radiation pattern**



The 21-40-45-3 is a UHF airborne blade antenna designed for high performance aircraft and intended for P25 applications. It is a direct footprint replacement for AT256 UHF Blade antennas.

Electrical design is based on a 2-dimensional, shunt-grounded disccone which is of high efficiency and provides an omnidirectional azimuthal radiation.

Mechanical design uses an advanced, glass-loaded thermoplastic radome with an integral radiating element, all foamed-in-place for structural and environmental integrity.

The blade has an aluminum alloy baseplate with a centrally mounted, N-type female coaxial connector.

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SPECIFICATIONS

Cooper Antennas Model 21-40-45-3 P25 Airborne Blade Antenna

ELECTRICAL

Frequency	760 - 870 MHz
Gain (average)	≥3 dBi
VSWR	≤ 1.75:1
Impedance (nominal)	50 Ohms
Power	50 Watts CW
Polarization	Vertical
Radiation Pattern	Omni-directional in azimuth, similar To stub in elevation
Antenna RF Connector	N-type Female

MECHANICAL

Antenna Shell Type	Glass loaded thermoplastic blade
Element Height	6 inches (152.5mm) max
Weight	0.9 lbs (0.4 Kg) max
Side Loading	≥6 psi ultimate
Base Plate Shape	Diamond shape
Fixing Holes	6 x Ø 0.203 inch (5.2mm) holes, counter bored Ø 0.43 inches (10.9mm)

FINISH

Antenna	Lustreless Black Urethane
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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.