

# Type 21-4

VHF Whip Antenna  
118 MHz - 152 MHz

**COBHAM**

21-4-DS Issue 1

The most important thing we build is trust

The **21-4** antenna is a linearly polarised, monopole antenna with wide band frequency characteristics intended for general communication and homing applications.

Being of semi-rigid form, it is suitable for external fitting upon helicopters and fixed wing aircraft with a performance up to 350 kts EAS, and other similar applications.

Electrical design consists of a single broad band radiating element coupled via matching circuitry to a single coaxial connector.

The **21-4** consists of a tapered glass fibre sleeve supporting a light aluminium alloy radiating element. The element assembly is fitted to a metal body carrying the coaxial connector. This arrangement allows the antenna to be installed by single hole fixing and allows orientation of the coaxial connector through 360°. The antenna can be mounted true or raked using the angled spacers provided.



## Electrical Specification

Frequency Range	118 MHz - 152 MHz
Impedance	50 ohm (nominal)
VSWR	≤ 2.5:1
Radiation	Omnidirectional in azimuth (nominal) As monopole in elevation (nominal)
Gain	2 dBi (average)
Polarisation	Linear (vertical when mounted vertically)
Connector	BNC Type Female

## Mechanical Specification

Overall Length	562 mm (maximum)
Width of Body Base	23.37 mm (maximum) A/F
Diameter of Whip	13.2 mm (maximum)
Weight	140 g (maximum)
Mounting	Single hole self-fixing

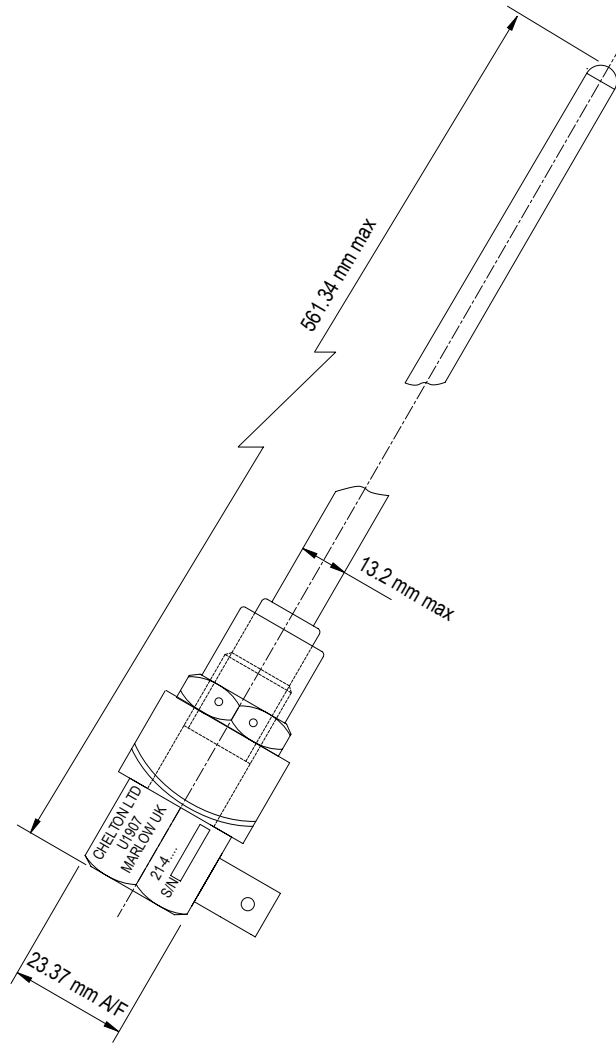
## Environmental Specification

Temperature and Altitude	RTCA DO-160C, Section 4, Category B2 Storage: -55°C to +85°C Operational: -40°C to +70°C Altitude: 7620 m
Temperature Variation	RTCA DO-160C, Section 5, Category A
Vibration	RTCA DO-160C, Section 8, Categories L, Y
Shock	RTCA DO-160C, Section 7 Operational: 6 g Crash Safety: 15 g
Humidity	RTCA DO-160C, Section 6, Category C Up to 95% RH up to 55%
Magnetic Influence	RTCA DO-160C, Section 15, Class Z 0.3 m
Waterproofness	RTCA DO-160C, Section 10, Category R
Fluid Contamination	RTCA DO-160C, Section 11, Category F

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