

21-174

CHELTON

TETRA Antenna

The 21-174 is a UHF whip antenna designed to operate over the frequency ranges 380 MHz to 400 MHz and 410 MHz to 430 MHz in general subsonic airborne applications.

The antenna comprises a composite, sleeved, monopole, mounted within a die cast aluminium housing, which contains the fixing holes and the RF connector. The assembly is foam filled for optimum environmental integrity.



ELECTRICAL

Frequency Range	380 MHz - 400 MHz 410 MHz - 430 MHz
Gain	≥ +3 dBi
VSWR	≤ 2.0:1
Polarisation	Predominantly vertical (when mounted vertically)
Radiation Pattern	Essentially omnidirectional in azimuth. Nominally as $\lambda/4$ monopole in elevation.
Power Rating	Predominantly vertical (when mounted vertically)
Impedance	10 W CW (maximum)
Connector	50 ohm (nominal)

ENVIRONMENTAL

Temperature and Altitude	RTCA DO-160C, Sec 4, Cat D2
Temperature Variation	RTCA DO-160C, Sec 4, Cat D2
Humidity	RTCA DO-160C, Sec 6, Cat C
Operational Shocks and Crash Safety	RTCA DO-160C, Sec 7, Paras 7.2 and 7.3
Vibration	RTCA DO-160C, Sec 6, Cat C
Explosion Proofness	RTCA DO-160C, Sec 9, Cat X
Waterproofness	RTCA DO-160C, Section 10, Category R
Fluids Susceptibility	RTCA DO-160C, Sec 11, Cat F
Sand and Dust	RTCA DO-160C, Sec 12, Cat X
Fungus Resistance	RTCA DO-160C, Section 13, Category X
Salt Spray	RTCA DO-160C, Section 14, Category X
Magnetic Effect	RTCA DO-160C, Section 15, Class Z
Lightning Induced Transient Susceptibility	RTCA DO-160C, Sec 22, Cat XXXX
Lightning Direct Effects	RTCA DO-160C, Sec 23, Cat X
Icing	RTCA DO-160C, Sec 24, Cat X

Mechanical Specification

Dimensions (mm)	206.5 x 91.5 x 53.3 (maximum)
Weight (kg)	0.19 (maximum)
Mounting	3 holes fixed location



21-174

CHELTON

UHF Whip Antenna

