1607-900

CHELTON

Band 1 Radio Relay Antenna

The 1607-900 Band 1 Radio Relay Antenna is suitable for tactical deployment operating over 225 MHz to 400 MHz frequency band (Band 1). In addition to its outstanding electrical performance, its main features are its lightweight rugged design, ease of use and low wind drag.

The design is based on a corner reflector, with a fully welded lightweight aluminium reflector and a dipole feed assembly. The antenna is linearly polarised, with two mounting spigots at the rear provided for either horizontal or vertical polarisation.

For ease of transportation and stowage, each reflector can be folded into a flat position, which also protects the feed.

ELECTRICAL

Frequency	225 MHz - 400 MHz
Gain	9.2 dBi (nominal)
Polarisation	Vertical or horizontal
Impedance	50 ohm (nominal)
VSWR	< 2.0:1
Azimuth Beamwidth	
Vertically Polarized	48° ± 8°
Horizontally Polarized	62° ± 5°(typical) (60°±5° at 400 MHz)
Co-polar Front to Back Ratio	> 20 dB (typical)
Power Rating	50 W (maximum)
Input Connector	Spinner 4-11 Socket

MECHANICAL

Dimensions	Deployed:	823 x 1452 x 577mm
	Stowed:	814 x 973 x 249mm
Weight	8 kg	
Mounting Configuration	2 x 40 mm sockets at 90°	

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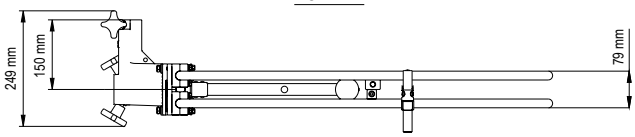
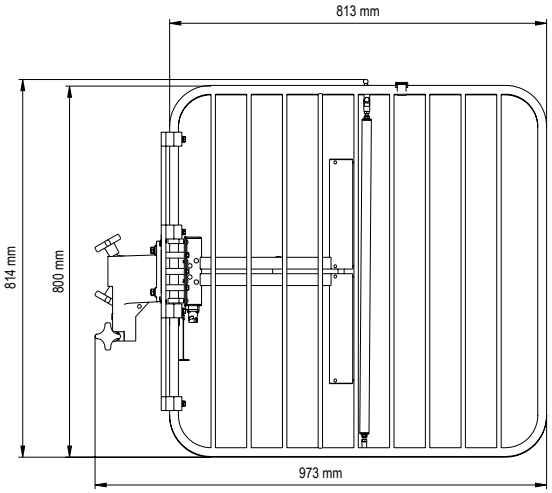
ENVIRONMENTAL

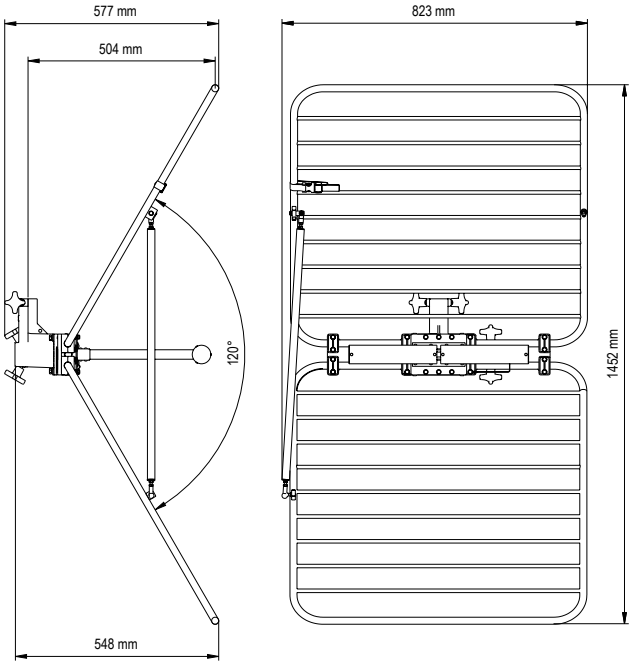
High Temperature	MIL-STD-810F, Method 501.2, Procedures I and II Operational: +85°C Storage: +85°C
Low Temperature	MIL-STD-810F, Method 502.4, Procedures I and II Operational: -40°C Storage: -40°C
Driving Rain	BS EN 60068-2-18 BS 2011 Part 2.1 Test R
Shock	MIL-STD-810F, Method 516.5, Procedure IV Drop height: 1.22 m To remain fully operational over 90% of frequency band
Vibration (Restrained Cargo)	MIL-STD-810F, Method 514.5, Procedure I, Fig. 514.5C-2 as 3 axis duration 6 hours/axis
Wind Loading (kgf/m²)	457.5 N at wind speed of 45 m/s
Drop Test	Special Spigot Assembly and 'D' Shackle

FOLDED





DEPLOYED



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