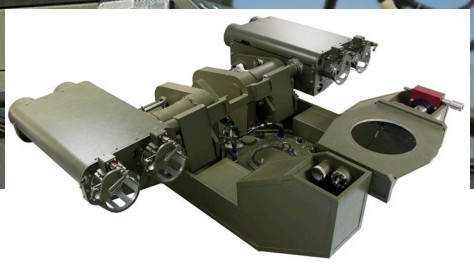
ULTRA

Lightweight Vehicle Mounted Turret (LVMT)



Key features

- Modular, Lightweight low-profile construction
- Highly accurate Servo and feedback control
- Accepts a wide range of weapon payload types (sensors, guns & missiles)
- High reliability - low maintenance
- Payloads up to 300Kg
- Continuous 360-degree rotation, ideal for engaging targets
- Digital control and status interface (Ethernet & Power)

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Overview

Ultra's Lightweight Vehicle Mounted Turret (LVMT), is a high performance, remotely operated modular turret system, that can carry an array of sensor, gun and missile systems.

LVMT is an in-service system designed for a wide range of mission profiles. Being lightweight, digital and Ethernet enabled, the system is easy to integrate with new or legacy mission systems and platform types.

The system can be supplied with Electro-Optical (EO) sights, Infrared Search and Track (IRST), weapon systems and communications, which can fold flat to minimise the platform profile and to enable air portability. Optionally, LVMT can also be configured with power management, battery monitoring, IRR lighting, smoke dischargers and many other systems.

LVMT is low cost and its designed-in versatility provides an agile platform for current and future mission requirements.

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Technical Specification

Ultra has extensive experience of designing and manufacturing stabilised high-performance servo-controlled platforms and directors for use in many defence applications. Ultra's servo solutions are in service in a wide range of land, naval and airborne applications throughout the world.

Ultra has supplied servo-controlled platforms for electro optical surveillance and tracking, radar antennas and missile launching systems. These multi-axis systems are used in static, mobile and vehicle-mounted applications. The versatile LVMT platform was developed and produced for the Thales RAPID Ranger Mobile Integrated Defence System.

Design expertise

Ultra's customers have access to:

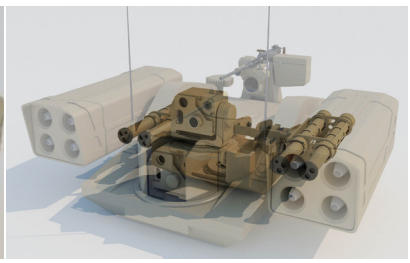
- design capability, from conception through to inception
- advanced modelling techniques
- the latest motor technology
- accurate and reliable position reporting sensors
- novel servo control technology
- cost effective, high level performance technology

Close relationships with user communities and prime contractors enables Ultra to deliver sophisticated platform solutions that support ease of integration and are resilient to the harshest of operational environments.

Ultra provides a full logistical support infrastructure for through life availability and capability enhancements for mid-life upgrade.

LVMT Characteristics*		
Performance	Azimuth	Elevation
Travel	Continuous	-10° to +60°
Maximum speed	57°/S	60°/S
Minimum speed	0.017°/S	0.017°/S
Stall Torque (net)	640Nm	800Nm
Stall Acceleration	100°/S^2	30°/S^2
Brake holding torque	4.22KNm	5.14KNm
Backlash	Zero	Zero
Accuracy		
Position angle sensor	Absolute encoder SSI	Absolute encoder SSI
Pointing accuracy	<0.2 mrad	<0.2 mrad
Position reporting accuracy	2.5 mrad	2.5 mrad
Physical Characteristics		
Payload mass	110kg per panier 220kg total	
Payload inertia	34kgm^2	
Platform mass	300kg	
Environmental Performance		
Operating temperature	-33°C to +50°C (Operational) -40°C to +70°C (Storage)	
Solar radiation	1120 W/m^2	
Shock	5g 11ms ½sine,10g 5ms ½sine	
Vibration	Def Stan 00-35 Part 3/4 Wheeled vehicle	
EMC	EN 61000-6-3: Conducted Emissions AECTP 500 Ed 2; Conducted Susceptibility, Radiated Emissions, Radiated Susceptibility. EN 61000-4-2: Electrostatic Discharge Immunity 8KV. STANAG 4235 Ed2: Electrostatic Charge /Discharge 25KV.	

(*Performance configurable)



Artist rendered images of product range capabilities

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