



## **SWE-200 LE**



### **4-AXIS GYRO STABILIZED GIMBAL**

For stable, long range imaging, a fully digital 4-axis active gyro stabilization system compensates for platform maneuvering and eliminates external vibrations.

### **COMPACT AND LIGHTWEIGHT**

The small size and low weight of the gimbal ensures minimal impact on the center-of-gravity, power draw, and mission endurance of the platform.

### **FLEXIBLE INSTALLATIONS**

Trakka Systems works together with customers to provide flexible installation solutions to interface the gimbal to the aircraft, and fixed or mobile ground installations.

### **RELIABILITY – ENVIRONMENTAL DESIGN**

In order to ensure reliability, the gimbal is designed according to RTCA DO 160 standards.

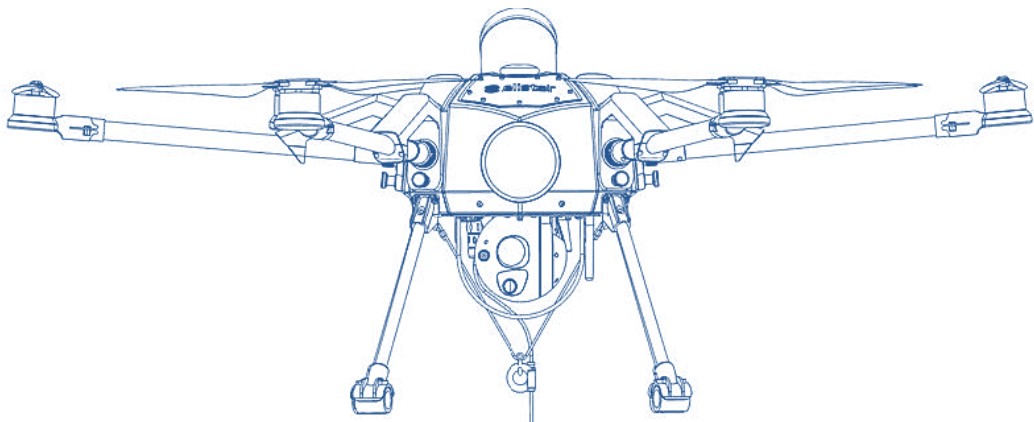
### **EXPORTABLE**

Trakka camera systems are fully exportable in accordance with EU regulations



## SWE-200 LE

- Compact and lightweight
- High Resolution Day and Night Capabilities
- Uncompromised 4-axis Stabilization
- Geo-location and tracking
- Digital interface to mission equipment
- Exportable
- Moving Target Detection (option)
- Object Tracking / Scene Tracking Modes (optional)
- Image Blending (optional)
- Picture in Picture / Split screen
- Graphical On-Screen Display for Intuitive Operation



## Technical Overview

The SWE-200 LE system is composed of a four (4) axes, all digital gyro-stabilized gimbal that contains all the sensors necessary to observe and identify targets during day and night missions. The compact external electronics unit contains all the conditioning components necessary to power the system off aircraft power as well as containing the video distribution to the various displays and recorders. The operator uses an ergonomic control unit to remotely control the gimbal and cameras.

## Key Features

The SWE-200 LE system offers users the following key features:

**NON-ITAR** - Fully exportable in accordance with EU regulations and U.S. Dept of Commerce classification of ECCN 6A003.b.4.b.

**GYRO-STABILIZED GIMBAL** - The 4 axes gyro-stabilized gimbal and is composed of aluminum and composite to ensure the lightest weight possible. The stabilization system uses fiber optical gyroscopes and an external mechanical isolation unit to provide superior image stability.

**UNCOOLED INFRARED CAMERA WITH CONTINUOUS ZOOM OPTIC** - The large format infrared camera provides high resolution target details with instant on operation.

**HD COLOR TV CAMERA** – The high definition camera provides visual features and distinguishing characteristics of targets during daytime missions.

**LASERS** – Point at and illuminate objects on the ground.

**IMU/INS/LASER RANGE FINDER** – Provides accurate geo-location and geo-lock of targets.

**MULTI-MODE VIDEO AUTO TRACKER** – Operator assist for automatic tracking of moving or stationary targets.

**MOVING TARGET DETECTION** – Detects and highlights moving target in the scene. Hands over tracking function of a highlighted target to the video auto tracker.

**KLV Metadata** – Metadata embedded within H.264 video over Ethernet (MISB 0601.7 Compliant).

**TM-100 MOVING MAP AND VIDEO MANAGEMENT** – Trakka's inhouse developed moving map software with augmented reality provides full situational awareness as a very cost-effective option. The map data, videos and audio commentary are recorded and can be replayed using Trakka's standalone viewer software for post-mission analysis.

**MISSION EQUIPMENT INTERFACES** – Flexible interfaces to connect to various mission support equipment such as external third party moving maps and searchlights.

**ENVIRONMENTAL DESIGN** - Designed for airborne operation, per RTCA DO160.

## PERFORMANCE SPECIFICATIONS

### GIMBAL SYSTEM

Type	Four Axis Active Gyro Stabilized Gimbal
Coverage Az	360° continuous
Coverage El	+90° to -120°
Diameter	Ø 200 mm (7.8")
Weight	8kg (17.6 lbs)
Power	22-30VDC, 150W

### DAYLIGHT SENSOR

Type	Full HD 720p
Image Sensor	1/4" CMOS
Number of Pixels	920K
Optical Zoom	12X (53.4° to 4.6°)
Digital Zoom	Yes

### THERMAL IMAGER

Detector	Uncooled Microbolometer , 8-12µm
Array Size	640 x 480 Pixels
Optical Zoom	29° to 5.9°
Digital zoom	Yes
Focus	Manual and Single Shot auto

### LASER RANGE FINDER

Wavelength	1550nm (Class 1, eyesafe)
Range	15 to 3,000 meters
Repetition Rate	2 Hz

### LASER POINTER (OPTIONAL)

Wavelength	830nm (Class 3B)
Output Power	80mW

### LASER ILLUMINATOR (OPTIONAL)

Wavelength	860nm (Class 3B)
Output Power	450mW

### OPTIONS

Interface Types	SMPTE HD video outputs and H.264 over Ethernet (MISB 0601.7 Compliant), RS422, RS232
Functional Interfaces & Features	Auto Tracking, Geo-Location with integrated IMU/INS, Interface to Aircraft INS/GPS, Metadata, Moving Maps & Augmented Reality, Remote Control, Searchlight Slaving, MTI, Image Blending, Radar Slaving, Data Links & Video Downlinks