REV A

DST CONTROL

The OTUS-U135 gyro stabilised micro gimbal provides outstanding performance in the smallest form factors available.

Features

- One of the smallest gimbals on the market
- All electronics embedded inside the unit
- Outstanding stability thanks to high bandwidth direct drive torque motors
- Complete 3 dimensional IMU mounted on the optical bench
- Built-in laser range finder for geo-location and geo positioning
- Optional digital video interface
- Optional fully integrate video auto-tracker
- Computational capacity for optional vehicle navigation and control

Optional gimbal integrated features

- Uncooled infrared imager
- Geo-positioning
- Geo-location
- Video auto-tracker
- Digital video interface
- Extended range finder range
- Vehicle navigation and control

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The OTUS-U135 gyro stabilised micro gimbal

The two axis gimbal reach a new level of stabilisation performance thanks to purpose-built high-bandwidth torque motors implementing active vibration attenuation.

All electronics required for the advanced digital control fits within the unit shell. The user only have to connect an external power supply, a video monitor and a joystick, to have the system up and running.

A three dimensional micro-mechanical IMU and a laser range finder mounted directly on the optical bench, allows for advanced features like geo-location and geo-positioning, provided an external heading source is connected to the OTUS-U135. The powerful digital servo controller of the OTUS-U135 is even capable of providing enough computational power to drive optional features like vehicle control and navigation.

The OTUS-U135 is housing a 250 cc electro-optical payload. The standard version comes with a SONY block camera of type FCB-EX20DP. Alternatively the OTUS-U135 can be equipped with an uncooled thermal imager. All gimbals also fit a laser range finder, if required.

The gimbals in the OTUS family are available in the different sizes and configurations. The gimbals have single, dual and even triple sensors capability. The gimbals can be equipped with a wide flora of sensors like; daylight cameras, uncooled infrared imagers, laser range finders, and laser illuminators.

Technical Specification

Gimbal System
Two axis gyro stabilised fully integrated direct drive gimbal with embedded laser range finder

Stabilisation
Better than 100 urad (depending on payload)

Range Finder Performance
Up to 200 m range, ±2 mm typical accuracy

Pan/Tilt Range and Slew Rate
Infinite range if payload do not require extending snout (sliprings in both axes), 120°/sec maximum slew rate

Interfaces
1 x RS485 for user interaction and external heading/position source,
1 x composite and/or 1 x component video

Feedback Performance
0.036°/±0.1° typical encoder resolution/ accuracy, 200 Hz update rate

Power requirements
18 to 36 Vdc, 15 W (typical)

Temperature
-40 to +50°C operational, -40 to +85°C storage

Weight
From 0.9 kg (depending on payload)

Dimensions
135 mm diamater x 185.4 mm height

Payload options
SONY block camera FCB-EX20DP (SURVEYOR)
SONY block camera FCB-EX1010P (SPOTTER)
SONY block camera FCB-H11 (HD)
FLIR Tau 320/640, 14-60mm (DETECTOR)
Thermoteknix Miricle 110K/307K, 14-35 mm
or according to customer specification

Applications

- Unmanned Vehicles
- Law enforcement
- Surveillance
- Mapping

No export restrictions nor ITAR

Mechanical Dimensions