



DST CONTROL

# GYRO STABILISED MICRO GIMBAL

## Features

- Maximum exportability
- Improved environment performance
- Multiple choice of sensors incl. cooled IR
- Outstanding stability due to direct drive

## Options

- Cooled and/or uncooled IR camera
- Geo-location and geo-positioning
- Fully integrated video tracker
- Laser range finder



OTUS-U200

## Features

- Improved environment performance
- All electronics embedded within the unit
- Outstanding stability thanks to direct drive
- Complete 3 dimensional IMU mounted on the optical bench
- Worldwide delivery.

## Options

- Cooled and/or uncooled IR camera
- Fully integrated video auto-tracker
- Geo-location and geo positioning
- Laser range finder



**OTUS-U200** sets a new standard for miniature gyro-stabilised camera system. Besides the field proven high-bandwidth torque motors, the new OTUS-U200 gimbal offers an improved environment protection. The OTUS-U200 is the best choice for airborne, maritime and ground applications.

All electronics required for the advanced digital control fits within the unit shell. The user only has to connect external power, a video monitor and a joystick. A free-of-charge control program is always included together with the gimbal.

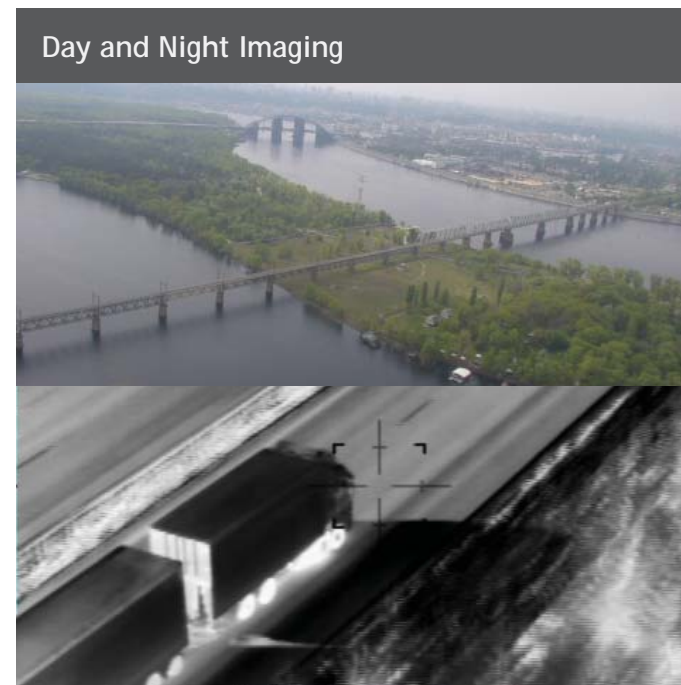
The three dimensional IMU and an optional laser range finder are mounted directly on the optical bench, allows for advanced features like geo-

location and geo-positioning, provided an external heading source is connected to the gimbal.

Also features like video tracker, video overlay and advanced video processing is fully integrated within the gimbal for optimal performance.

The OTUS-U200 gimbals are available in different sizes and configurations. The gimbals can be equipped with up to three sensors including daylight cameras, uncooled and cooled infrared imagers, laser pointers, laser range finders and laser illuminators.

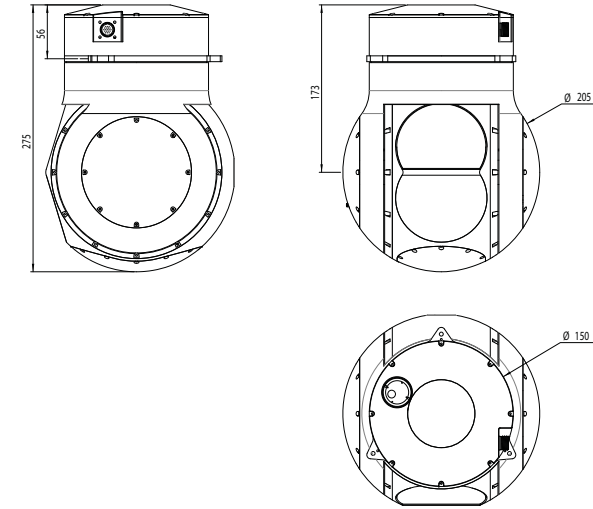
Also features like recording, video encoding, multi-target tracking and detection are available in the market leading new gimbal.



## Technical Specification

|                        |   |
|------------------------|---|
| Gimbal System          | Two axis gyro stabilised fully integrated direct drive gimbal                           |
| Pan/Tilt Range         | Infinite range if payload does not require extending snout (sliprings in both axes)     |
| Slew Rate              | Up to 180 °/sec maximum slew rate   |
| Control Interface      | 1 x RS485 for user interaction and external heading/position source                     |
| Video Interface        | 1 x composite (PAL or NTSC) and / or 1 x component video (Full HD) or Ethernet          |
| Power Requirements     | 18 -36 Vdc, 40 W (typical)  |
| Environment Protection | up to IP56  |
| Temperature            | 0 °C to +50°C operational, -20 °C to 85 °C storage, option: -40 °C to +50°C operational |
| Dimensions             | 205 mm diameter x 275 mm height   |
| Accessories            | Hand Control Unit, cable kits, heli-mounts, video recorder, video converters, etc.      |

## Technical Drawing



| Spotter LWIR | High-Def LWIR | Spotter MWIR | High-Def MWIR | Spotter SWIR | High-Def SWIR | Detector MWIR | Detector SWIR | Description   |
|--------------|---------------|--------------|---------------|--------------|---------------|---------------|---------------|---|
| 3.6 kg       | 3.6 kg        | 4.2 kg       | 4.2 kg        | 3.6 kg       | 3.6 kg        | 4.2 kg        | 3.7 kg        | Weight  |
| ○            |               | ○            |               | ○            |               | ○             | ○             | < 250 µrad de-stabilisation   |
| ●            | ●             | ●            | ●             | ●            | ●             | ●             | ●             | < 100 µrad de-stabilisation   |
| ●            |               | ●            |               | ●            |               |               |               | EO: SONY FCB-EX2700, HFOV: 1.6-60.0°  |
|              | ●             |              | ●             |              | ●             |               |               | EO: SONY FCB-EV7500, HFOV: 2.3-63.7°  |
| ●            | ●             |              |               |              |               | ●             | ●             | IR: SAITIS-2-640 or FLIR TAU-2-640, HFOV: 10.4° (option: 18°, 25°, 32° or 45°), 7.5-13.5 µm |
| ○            | ○             |              |               |              |               | ○             | ○             | IR: SAITIS-2-640 or FLIR TAU-2-640, zoom lens, HFOV: 5.9-25.3°, 7.5-13.5 µm                 |
|              |               | ●            | ●             |              |               | ●             |               | IR: DRS Zafiro 640 Micro, HFOV 1.5-22.5°, 3-5 µm, cooled                                    |
|              |               |              |               | ●            | ●             |               | ●             | IR: Xenics Rufus-640 or Raptor OWL SWIR 640, HFOV: 7.3°, 0.9-1.7 µm                         |
| ○            | ○             | ○            | ○             | ○            | ○             | ○             | ○             | Laser Range Finder 3300 m, +/- 0.75 m accuracy, eyesafe, wavelength 1550 nm, -LR3K3         |
| ○            | ○             | ○            | ○             | ○            | ○             | ○             | ○             | Laser Range Finder 8000 m, +/- 1 m accuracy, eyesafe, wavelength 1550 nm, -LR8K             |
| ○            | ○             | ○            | ○             | ○            | ○             | ○             | ○             | Laser Illuminator / Laser Pointer > 2000m, 0.3 mrad, eyesafe, 830-850 nm, -LI / -LP         |
| ○            | ○             | ○            | ○             | ○            | ○             | ○             | ○             | Automatic Video Tracker, -VT  |
| ○            | ○             | ○            | ○             | ○            | ○             | ○             | ○             | Geo-location / Geo-tracker, -GL / -GT   |

- Default Configuration
- Available as option

**DST CONTROL** is a supplier of lightweight, high performance gyro-stabilised electro-optical systems with both EO and IR capabilities. And also, small, light-weight long-wave thermal imagers.

DST CONTROL has released a number of advanced inhouse developed products. The OTUS gyro-stabilised electro-optical micro-gimbal is optimized for use in small & medium sized unmanned vehicles and small manned aircrafts. The SAITIS uncooled microbolometer LWIR camera (amorphous silicon, spectral band 8-14  $\mu\text{m}$ ) is one of the smallest LWIR available. Both the OTUS gimbals and the SAITIS thermal imagers have maximum exportability (non-ITAR).



**DST CONTROL**

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