



DST CONTROL

# GYRO STABILISED GIMBAL

## Features

- 4-axis multisensor
- Multiple choice of sensors
- Outstanding stability due to direct drive
- Maximum exportability

## Options

- Fully integrated video tracker
- Geo-location and geo-positioning
- Laser range finder



OTUS-U250

## Features

- Market leading price ratio
- All electronics embedded within the unit
- Outstanding stability due to 4-axis solution
- Complete 3 dimensional IMU mounted on the optical bench
- Worldwide delivery.

## Options

- Fully integrated video auto-tracker
- Geo-location and geo positioning
- Laser range finder
- Laser pointer and laser illuminator

**OTUS-U250** reaches an entirely new level of stabilisation due to the 4-axis combination of purpose-built high-bandwidth torque motors and geared motors.

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 micro-mechanical 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 gimbals in the OTUS range provide unmatched image quality over similar camera systems in its class.

The OTUS 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. Applications include unmanned and manned vehicles, law enforcement, surveillance and mapping.



Day and Night Imaging



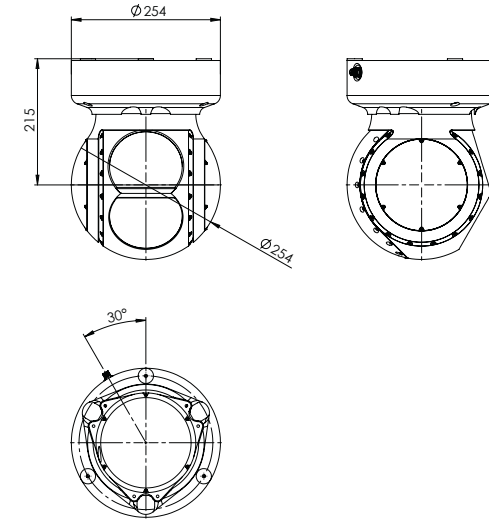
High Definition and Long Range Capability



## Technical Specification

Gimbal System	Four axis gyro stabilised fully integrated geared and direct drive gimbal solution
Pan/Tilt Range	Infinite range if payload does not require extending snout (sliprings in both axes)
Slew Rate	Up to 120 °/sec maximum slew rate
Control Interface	1 x RS485 for user interaction and external heading/position source
Video Interface	2 x composite (PAL or NTSC) and / or 1 x component video (Full HD)
Feedback Performance	0.036° / ± 0.1° typical encoder resolution/accuracy, 200 Hz update rate
Power Requirements	18 -36 Vdc, 70 W (typical)
Temperature	0 °C to +50°C operational, -20 °C to 85 °C storage, option: -40 °C to +50°C operational
Dimensions	254 mm diameter x 342 mm height
Accessories	Hand Control Unit, cable kits, heli-mounts, video recorder, video converters, etc.

## Technical Drawing



Spotter LW	High-Def LW	Spotter LW Fixed	High-Def LW Fixed	Spotter MW	High-Def MW	Detector Duo	Movie	Description
8 kg	8 kg	9 kg	9 kg	9 kg	9 kg	11 kg	7-12 kg	Weight
●	●	●	●	●	●	●	●	< 50 µrad de-stabilisation
●		●		●				EO: SONY FCB-EX1020P, HFOV: 1.7-57.8°
	●		●		●			EO: SONY FCB-EH6300, HFOV: 2.9-55.4°
							●	EO: Your movie camera
		●	●			●		LWIR: SAITIS-640 or FLIR TAU-640 or RAVEN-640, HFOV: 6.2° (option: 10.4° or 18°), 7.5-13.5 µm
●	●							LWIR: SAITIS-640 or FLIR TAU-640, HFOV: 4.3-25°, 7.5-13.5 µm
				●	●	●		MWIR: FLIR µCore-275Z, HFOV 2.0-25°, 3-5 µm
○	○	○	○	○	○	○	○	Laser Range Finder > 1300 m, +/- 1 m accuracy, eyesafe, wavelength 1550 µm, -LR1K
○	○	○	○	○	○	○	○	Laser Range Finder > 2000 m, +/- 1 m accuracy, eyesafe, wavelength 1550 µm, -LR2K
○	○	○	○	○	○	○	○	Laser Range Finder > 4000 m, +/- 1 m accuracy, eyesafe, wavelength 1550 µm, -LR4K
○	○	○	○	○	○	○	○	Laser Illuminator / Laser Pointer > 2000m, 0.3 mrad, eyesafe, wavelength 830-850 nm
○	○	○	○	○	○	○	○	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**

Åkerbogatan 10  
582 54 Linköping, Sweden  
info@dst.se | www.dst.se