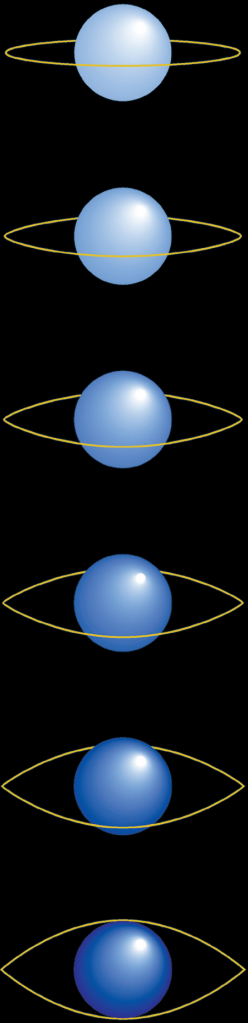




ORBIS

Stabilized Multi-Platform Payload





ORBIS

Stabilized Multi-Platform Payload

Description

ORBIS is a stabilized multi-platform integrated sensor payload for ground, airborne and naval applications, providing excellent long range day and night surveillance, observation, reconnaissance and target acquisition capability with superior picture stabilization in a full digital open architecture. Options like a laser target designator can also be provided. The flexible video and full digital data interfaces with the CMS (Combat Management System) of the platform is one of the important advantages of this system.

Configuration

ORBIS includes the following main components:

- Cooled 3-5 μ m Thermal Imager with high performance continuous zoom and option to switch between 3 Fields-Of-View
- A high resolution, Colour CCD camera with continuous optical zoom
- Highly accurate Laser Range Finder

The Sensors are mounted on a rigid structure optical bench on a gyro-stabilized gimbal mechanism.

The Stabilized Turret Assembly (STA) is a spherical sealed structure that enables the isolation of the system's sensors from the external environment. The STA gimbal contains the system sensors and uses gyro based stabilization on 4 axes. Using a 4 axes gimbal system gives an excellent level of stabilization for the full Field-Of-View range especially for high depression angles of the Line Of Sight.

Features

- Field proven
- Off the shelf Day/IR/Laser payload
- Day/night operation
- Compact & lightweight
- Long range observation, reconnaissance and target acquisition
- Fully digital advanced technology
- Gyro based 4 axes gimbal stabilization
- Continuous Zoom
- Built-in real time video recorder
- Low power consumption
- High reliability
- High MTBF

Applications

- Unmanned Air Vehicles (UAVs)
- Helicopters
- Fixed wing aircraft
- Maritime platforms
- Ground platforms
- Search & rescue

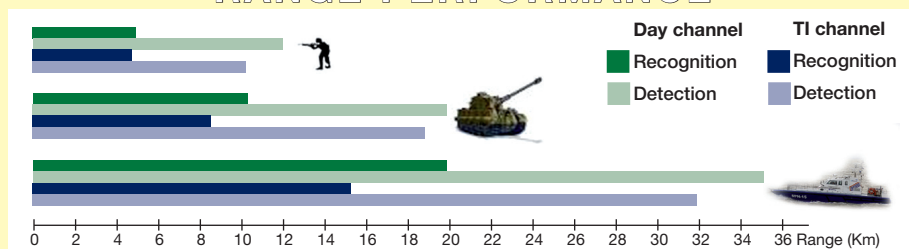
Options

- Laser Target Designator
- Inertial Navigation System

Quality

The quality management system applied by OIP Sensor Systems for design, development and manufacturing of opto-electronic systems, is compliant with and includes the requirements of ISO 9001:2008, AQAP-2110 Ed.1, ECSS-Q-20B and has been certified by the British Standard Institute under certificate N° FM 80768.

RANGE PERFORMANCE



TECHNICAL SPECIFICATIONS

Thermal imager

Wavelength	: 3-5 μ m
Detector - type	: InSb Stirling closed cycle
	: Cooled integrated with Dewar
- N° of elements	: 640 x 512
Fields-of-View	: Continuous zoom between
Narrowest FOV	: 0.8° x 0.6°
Widest FOV	: 24° x 18°
Advanced image processing	

CCD Camera

High definition CCD camera:	: 1392 x 1040 elements
Fields-of-View	: Continuous zoom between
Narrowest FOV	: 1.18° x 0.88°
Widest FOV	: 21.25° x 16°

Eyesafe Laser Rangefinder

Wavelength	: 1,54 μ m
Range	: up to 20 km
Range accuracy	: \pm 5 m

Power supply

28 VDC from the platform power supply BUS

System interfaces

MIL-STD-1553, RS 422 & Ethernet interface
2 digital or analogue video outputs

Tracker

Advanced, automatic, multi- mode video target tracking system

Dynamic performance

Continuous steering possibility :
 o Elevation : +35° to -120°
 (incl. Nadir fly over at hang down position)
 o Azimuth : N x 360° (continuous)
 4 axes stabilized gimbal

Environmentals

MIL-STD-810F
Fully qualified for aircraft & naval environments

Options

Laser Target Designator & Rangefinder : 1,06 μ m, 90 mJ
Inertial Measurement Unit for geo targeting acquisitions

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Sensor Systems

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