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 fully digital open architecture. 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 3-5μm 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
- 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, AOAP-2110 Ed.1, ECSS-Q-20B and has been certified by the British Standard Institute under certificate No. FM 80768.

RANGE PERFORMANCE

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Thermal imager</th>
<th>Wave length: 3-5 μm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detector - type</td>
<td>InSb Stirling closed cycle</td>
</tr>
<tr>
<td>N° of elements</td>
<td>640 x 512</td>
</tr>
<tr>
<td>Fields-of-View</td>
<td>Continuous zoom between 0.6° x 0.6°</td>
</tr>
<tr>
<td>Narrowest FOV</td>
<td>24° x 18°</td>
</tr>
<tr>
<td>widest FOV</td>
<td>Advanced image processing</td>
</tr>
<tr>
<td>CCD Camera</td>
<td>High definition CCD camera: 1392 x 1040 elements</td>
</tr>
<tr>
<td>Fields-of-View</td>
<td>Continuous zoom between 1.18° x 0.88°</td>
</tr>
<tr>
<td>Narrowest FOV</td>
<td>21.26° x 16°</td>
</tr>
<tr>
<td>Widest FOV</td>
<td>Eysafe Laser Rangefinder</td>
</tr>
<tr>
<td>Wave length</td>
<td>1.54 μm</td>
</tr>
<tr>
<td>Range</td>
<td>up to 20 km</td>
</tr>
<tr>
<td>Range accuracy</td>
<td>± 5 m</td>
</tr>
<tr>
<td>Power supply</td>
<td>28 VDC from the platform power supply BUS</td>
</tr>
</tbody>
</table>

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:
  - Elevation: -18° to +18° (incl. Nadir fly over at hang down position)
  - Azimuth: N x 360° (continuous)
- 4 axes stabilized gimbal

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

Options
- Inertial Measurement Unit for geo targeting acquisitions

Data are for information only and can be subject to change without prior notice.