



INSIGHT4EO

On-board solution for
intelligent Earth Observation
missions

FLIGHT SEGMENT



INTELLIGENT SATELLITES FOR THE FUTURE OF EARTH OBSERVATION

Insight4EO is a qualified on-board processing solution that enables autonomous data capture, processing, and prioritization for Earth Observation satellites. It is directly integrable within a wide range of satellite physical architectures, **from low-cost to high-performance platforms.**

Developed by DEIMOS and qualified with ESA, **Insight4EO** is available as both a **software-only and complete hardware unit** product that provides a set of **pre-qualified on-board services** while allowing users to embed and exploit their own applications directly into the flight segment.



AFFORDABLE PERFORMANCE FOR INCREASED FINANCIAL RETURNS

CAPABILITIES	
Directly integrable into single satellite and constellations	✓
SWaP tailorable to all mission classes from nano to smallsats	✓
Supports Optical and Radar payloads	✓
Autonomous on-board processing to L1/L2	✓ (L2 available 2024)
Autonomous data prioritization and selective download	✓
Autonomous, real-time on-board re-tasking and planning	✓
Integrated flight-ground processing chain, together with DEIMOS' GS4EO product suite	✓
Real-time product generation and delivery, using compatible communications units	Available 2024** <small>(requires global, persistent comms links)</small>
User-furnished embedded apps for additional capabilities	Available 2024

ON-BOARD PRODUCT GENERATION

On-board processing of **SAR and Optical payloads to L1/L2**, including on-board cloud and land-sea masks. Higher level products encompassing object detection, classification and data prioritization, and general AI-apps.

SMART, AUTO-TASKING SATELLITES

Autonomous re-planning of the satellite's tasking for payload acquisitions and general operations, based on **autonomous evaluation** of the status and success of planned tasks and real-time reception of priority tasks. Re-configurable data handling generates and transfers products through the processing chain based on real-time user-defined priorities, **expediting delivery** to the end user.

SEAMLESS INTEGRATION

Software-only and complete-hardware-product options suitable for **any mission type** from cubesats through 7+ year LEO missions. Directly integrable within a wide range of satellite physical architectures, based on a **pre-defined set of hardware options and interfaces**, fully missionizable and tailorable to customer needs.

INTEGRATED FLIGHT-GROUND SEGMENTS

Insight4EO is fully compatible with DEIMOS' GS4EO product suite. It can be deployed as part of a complete and integrated, continuous **Flight-Ground Segment data and processing solution** for satellite missions.



Enter the next era of Earth Observation with DEIMOS Insight4EO

Let's talk!

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