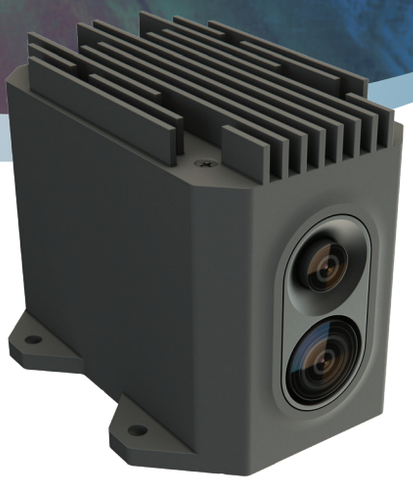




Peridot Night Micro

Day & Thermal Imaging with AI-Enhanced Situational Awareness

Peridot Night Micro is a night-vision solution that delivers unmatched situational awareness and terrain dominance across defense and homeland security domains.

Built on Maris' Jupiter-AI edge computing platform, the ruggedized system integrates thermal and day cameras with onboard AI processing. Integrated AI enables real-time object detection and classification, while Peridot Night Micro also supports transmission to the host observation system.

Compact and modular, Peridot Night Micro offers a 90° FOV (field of view) module, ideal for vehicle applications. Its versatility allows seamless deployment on ground and maritime platforms, as well as fixed installations.

Markets and Applications

Military
Armored vehicle driver assistance, situational awareness, terrain dominance, UGV payloads

Homeland Security
Border surveillance, fixed-site monitoring

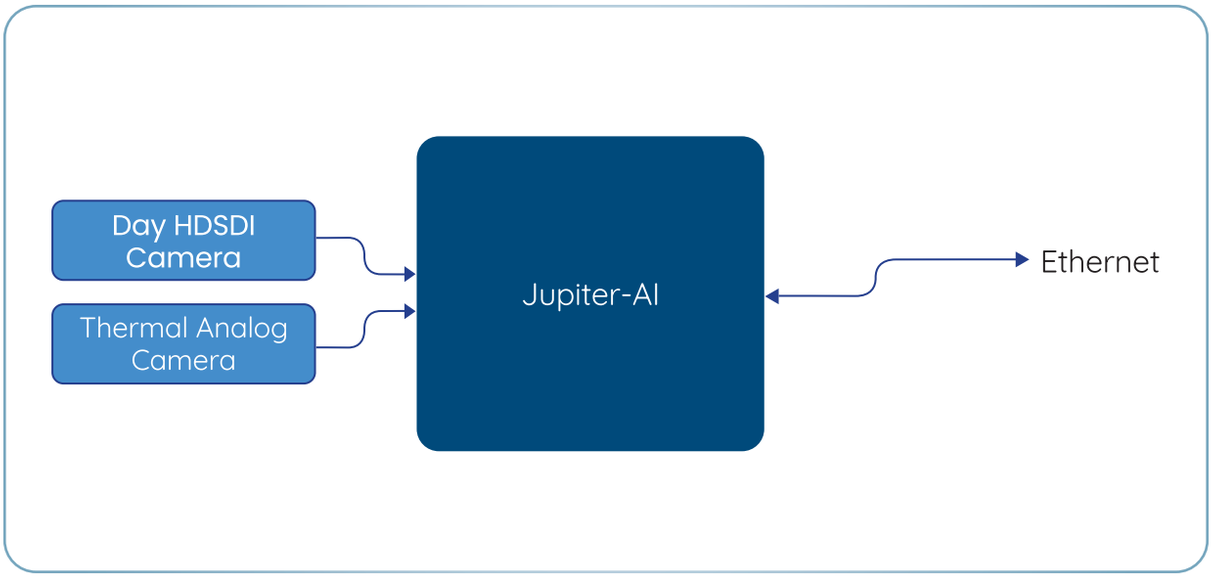
Key Benefits

- Situational awareness
- Clear day and night vision
- Real-time threat alerts
- Adapts to any platform
- Reliable in harsh conditions
- Fuses day and thermal views

Key Features

- Thermal camera with 90° VGA coverage
- One FHD day camera with 90° FOV, mounted above thermal array
- Integrated Jupiter-AI video board with YOLO software for object detection and classification
- Compact and ruggedized; optimized for land, sea, air, and fixed-site deployments

Block Diagram



Technical Specifications

Thermal Camera	Uncooled thermal detector, 8–14 µm, 640×512 resolution, 90° FOV
Day Camera	HDSDI, 1080p60 resolution, 90° FOV
Effective Coverage	90° per module (thermal + day fusion)
AI Processor	Jupiter-AI board with YOLO detection software
Outputs	Combined video stream with real-time AI functionality
Enclosure	Ruggedized, compact, for land/sea platforms

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