OPTICAL GAS IMAGING PAYLOAD

ABOUT THE MFE OGI 640

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The MFE OGI 640 is a lightweight, drone-mounted optical gas imaging payload designed for aerial leak detection. Integrated with the DJI Matrice 300 Series, it delivers a turnkey solution for identifying hydrocarbon and other gas emissions in real-time. Built for precision and performance, the OGI 640 combines advanced MWIR detection with seamless data capture and mission planning for safe, efficient inspections in industrial environments.

KEY FEATURES



- High-Resolution MWIR Sensor: Equipped with a 640x512 HOT MWIR detector array with 15µm pixel pitch and 30Hz frame rate for clear visualization of gas leaks.
- Broad Gas Detection Spectrum: Detects 23 hydrocarbon gases including methane, propane, benzene, xylene, and more; includes Gas Enhancement Mode (GEM) for colorized leak imaging.
- **DJI Ecosystem Integration:** Fully compatible with DJI Matrice 300/350 Series and integrated into DJI Pilot 2 for streamlined flight operations and centimeter-level precision.
- Efficient Data Handling: Captures data in .TS format with GPS metadata; includes software to convert footage to MP4 while preserving location data.
- **Compact & Lightweight:** Weighs only 542g with a small 148 x 71 x 73 mm footprint—optimized for UAV use without compromising flight time.
- **Rugged Performance:** Operates in extreme temperatures (-35°C to +65°C); power efficient with typical consumption of 6W and 12W peak.



TARGET INDUSTRIES & OTHER USE CASES



Oil & Gas:

Aerial detection of hydrocarbon leaks at well pads, tank farms, refineries, pipelines, and gas processing sites.

- **Power & Utilities:** Detects SF6 and other gas leaks from electrical infrastructure such as switchgear and transformers.
- **Chemical & Pharmaceutical Plants:** Visualizes volatile organic compound (VOC) emissions and ensures regulatory compliance.
- **Environmental Monitoring:** Identifies gas emissions at landfills and ensures safety at natural gas power plants.
- Maritime Applications: Suitable for inspecting LNG carriers and ship fuel systems.

COMPLIANCE & INDUSTRY INSIGHTS



- **Certifications**: The OGI 640 is PA NSPS OOOOA certified and meets OOOOb, OOOOc, and Appendix K standards, demonstrating compliance with rigorous regulatory requirements.
- **Environmental Relevance:** As VOC emissions face growing scrutiny, the OGI 640 helps mitigate environmental impact—EPA data suggests refineries may emit 600–700 tons of VOCs annually from leaks.
- **Cost & Safety Benefits:** UAV-based gas inspections increase safety by keeping personnel at a distance and reduce recurring inspection costs, offering a more efficient solution for high-risk environments.



MFE PRODUCT PAGE:



https://mfe-is.com/product/ogi-640-optical-gas-imaging-payload/