MFE
INSPECTION
SOLUTIONS

MFE
DETECT
LW

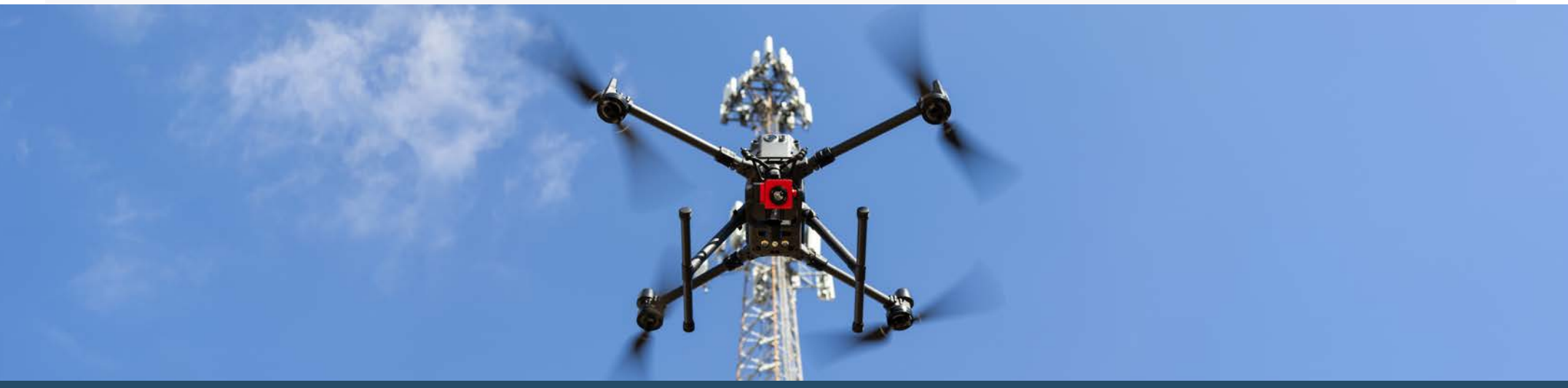
Introducing MFE's New High-Precision, OOOOa-Certified Optical Gas Imaging Camera

The MFE Detect LW is a groundbreaking long-wave infrared (LWIR) optical gas imaging (OGI) camera, designed for seamless integration with DJI M300 and M350 drones. Engineered to detect methane emissions with exceptional clarity, it visualizes leaks in real-time, making it an essential tool for large-scale inspections across diverse sites like oil and gas facilities and landfills. The MFE Detect LW meets rigorous QuadO and Appendix K regulatory standards, ensuring dependable compliance. Its lightweight, durable design offers an efficient solution for aerial methane detection, enabling rapid, accurate, and cost-effective leak monitoring in complex industrial and environmental settings.

MFE INSPECTION SOLUTIONS | TEL: 844-867-3686 | mfe-is.com | sales@mfe-is.com

MFE DETECT LW

SCAN TO LEARN MORE ON MFE-IS.COM



ADVANCED AERIAL METHANE DETECTION BUILT FOR COMPLIANCE

Precision Gas Detection Across Key Sectors

Ideal for oil and gas (upstream, midstream, and downstream), chemical manufacturing, and environmental monitoring, the MFE Detect LW is a versatile solution built for various industrial needs, including pipeline inspections, refinery monitoring, and landfill methane detection.

Effortless Aerial Inspections with DJI Integration

The MFE Detect LW, designed for seamless compatibility with DJI M300/M350 drones, provides high flexibility and operational ease for methane detection in expansive industrial sites. Its lightweight build allows for additional payloads, meaning operators can now capture vital inspection data across multiple sensors in a single flight, saving significant time and resources.

First Long-Wave, Uncooled OGI Camera Meeting OOOOa Standards

As the first long-wave infrared (LWIR), uncooled optical gas imaging (OGI) camera to meet Quad OOOa, b, c, and Appendix K compliance, the MFE Detect LW represents an affordable solution for precise methane detection without compromising quality. The uncooled sensor eliminates the need for costly cryo coolers, reducing maintenance costs and extending the camera's operational life.

Uncooled Sensor for Extended Lifespan

Equipped with an uncooled high-responsivity focal plane array detector, the MFE Detect LW is both a long-term, cost-effective solution and a powerful tool for large-scale gas inspections. Its maintenance-free sensor design means it lasts far longer than traditional cooled sensors, making it a practical choice for companies aiming to scale their methane detection efforts.

Performance Validations:

- Complies with OOOOa, b, c, and Appendix K for the minimum detection and visualization of 19 grams/hr for methane and 22 grams/hr for propane.
- OGMP 2.0 validated for a minimum detection and visualization of 17 grams/hr for methane.
- Half the price of a traditional MWIR OGI camera system, making it much easier to scale.

Real-Time Leak Detection at Exceptional Sensitivity Levels

The MFE Detect LW's LWIR technology delivers high sensitivity for detecting methane leaks, even at small emission rates. Capable of spotting leaks as low as one kilogram per hour from 120 feet, this system provides the reliability and accuracy needed for effective, compliant gas inspections in demanding environments.

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MFE DETECT LW

KEY FEATURES

High Responsivity (HR) Uncooled Focal Plane Array Detector Technology:

- Advanced detector technology for superior image quality.
- 640 x 480 VGA resolution, providing 4x more resolution compared to standard 320 x 256 FPAs.

Durability and Convenience:

- More than 10 years of continuous operation.
- Instant on and off capability for immediate usability.
- Onboard digital storage with Micro SD card support.
- Dual video interface for versatile connectivity.

OGI Optimized Lenses:

- 24mm lens with a 25° HFOV x 18° VFOV.

Compact and Efficient Design:

- Small size, lightweight, and low power consumption (SWaP) – every gram counts!

Advanced Electronics and Software:

- Integrated with similar electronics, firmware, and software as the Ventus OGI system.
- Features Gas Enhancement Mode (GEM), AGC, CLAHE, LAP, and other image processing modes.

Gas Enhancement Mode

640 x 480 VGA resolution

Optimized for the DJI M300/350 Series

Low Swap Integration

OOOOA Certified

10+ Years Continuous Operation

APPLICATIONS

Oil and Gas
- Refineries, pipelines, compressor stations, and storage tanks.

Landfills and Waste Management
- Methane monitoring and emissions control.

Chemical and Petrochemical Plants
- Leak detection for storage tanks, pipes, and valves.

Power Generation
- Natural gas power plants, biogas facilities, and methane monitoring at coal plants.

Environmental and Regulatory Monitoring
- Emission surveys for compliance at industrial and agricultural sites.

ADDITIONAL FEATURES

Integrated Calibration Shutter:
- Preset or manually controlled black body calibration shutter for enhanced accuracy.

Manual Focus and Image Adjustments:
- Manually focusable lens with a set screw.
- Fine adjustments to image processing modes, including Sharpen, DeNoise, Blend, and Sensitivity adjustments.

Digital Zoom and Region of Interest:
- 1x-4x digital zoom capabilities.
- Adjustable Region of Interest (ROI) for setting Automatic Gain Control (AGC).