

CM102-MR

Low SWaP EO/IR Gimbal for land and sea.



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For more information about our expertise and technology, visit: caci.com

Long-range ISR performance in a compact, mission-ready system

The CM102-MR delivers superior intelligence, surveillance, and reconnaissance (ISR) capabilities for marine and ground-based systems. Combining full high-definition electro-optical (EO) and high-definition long-wave infrared (LWIR) in a compact, gyro-stabilized imaging system, it provides high-quality imaging across a wide variety of applications. With two-axis active stabilization, the CM102-MR supports long-range surveillance even in the most challenging operating environments.

Built to meet demanding environment standards, the CM102-MR delivers proven protection during the harshest missions. Designed for low-maintenance deployments, the CM102-MR allows for extended operations without damage or reduced performance from environmental factors—making it ideal for uncrewed surface vessel (USV), uncrewed ground vehicle (UGV), and fixed site surveillance applications.

Rugged, stabilized, and mission-ready, the CM102-MR empowers mission success and operator confidence with exceptional imaging performance and proven durability.

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FEATURES

- IP67 rating.
- Designed to meet MIL-STD-810H Salt Fog.
- FHD low-light capable EO and HD LWIR.
- Advanced AI/ML object detection, tracking, and recognition.
- H.265 and H.264 encoding.
- Compatible with MAVLink.
- Digital e-stabilization and roll stabilization.
- User-friendly command and control.
- 83x zoom EO.
- Optional onboard INS.

The CM102-MR is built to support the next generation of land and maritime robotics platforms. Weighing under 5 pounds and tested to MIL-STD-810H Salt Fog, it is tailored for SWaP-sensitive, uncrewed platforms that are fielded for the most demanding missions. The CM102-MR comes equipped with advanced processing electronics on board that provide operators with state-of-the-art AI/ML and target classification functionality. The onboard video encoding and processing eliminates the need for additional hardware, keeping the total payload weight low. The CM102-MR is ITAR free and accessible for international distribution and use, allowing greater deployment flexibility.

Daylight (EO)

Type	Color CMOS
Resolution	1920x1080p
HFoV	61.5° to 0.8°
Zoom	83x zoom
Frame Rate	30 Hz at 1080p

Infrared (IR)

Type	Uncooled LWIR
Resolution	1280x720p
HFoV	17.6°
Focal Length	50 mm
Frame Rate	30 Hz at 720p* *configurable for 9 Hz output

Gimbal

Weight	2.2 kg (4.85 lb)
Ball Diameter	195 mm (7.67 in)
Height	222 mm (8.74 in)
Elevation	-90° / +90° from horizontal
Azimuth	360° continuous