



Embedded Artificial Intelligence OEM camera

- Embedded human and vehicle recognition by AI
- High image quality with low latency, freeze-free video output
- Ultra low SWaP (Size, Weight, and Power)
- Patented thermal shutterless technology
- Designed and manufactured in France using high-quality French components



CAMSIGHT® AI

ULTRA-LOW SWAP EMBEDDED ARTIFICIAL INTELLIGENCE CAMERA

CamSight®AI is an Original Equipment Manufacturer (OEM) digital core camera developed and produced by Bertin Technology. It embeds a frugal neural network that enables real-time recognition of humans and vehicles at over 3Hz. This camera can be seamlessly integrated into any complex optronic system and is also available in a plug-and-play version for end-users.

Designed for the most constrained environments, CamSight®AI is ultra-compact and highly energy-efficient, making it ideal for OEMs needing a ready-to-use solution for thermal detection. Equipped with an uncooled ATTO LYNRED infrared sensor, it ensures superior performance.

Thanks to its design and high performance, CamSight®AI is perfect for 360° vehicle surveillance while driving, allowing the crew to focus on other tasks while staying aware of

threats. It is also suitable for applications that require power savings and the transmission of only relevant images by radio, such as drone surveillance and unattended ground sensors.

Key Advantages

- **Fast Detection and Recognition:** Detects and recognizes human and vehicle threats at over 3Hz.
- **Overlay and Metadata:** Overlays boxes (vehicles) and crosses (humans) in the video feed and sends metadata (object type, confidence, position, size, frame number) via a serial link to command and control, alerting the crew.
- **Included Software:**
 - a companion software for factory settings
 - a demonstration software with camera and detection settings, along with various display examples.

APPLICATIONS

Vehicle recognition on CamSight AI overlay



Vehicle and human recognition on CamSight AI overlay



DEMONSTRATION SOFTWARE

Human recognition with serial metadata in monitoring application



Technical features

Resolution	1280 x 1024 @ 12µm (other to come)
Bandwith	LWIR (8-12µm)
Sensitivity	NETD < 40mK @ f/1.0
HFOV (°)	9° / 15° / 25° / 28° 46° / 56° / 74° / 95°
AI result frequency	> 3Hz
AI result presentation	Video flow overlay @ result frequency Real time metadata on serial link UART
Neuronal network	Yolo V5 (to be updated)
Trained dataset	Huge real thermal Bertin's database
Video output	Low latency HD-SDI @ 25Hz or AI result frequency overlaid HD-SDI
Consumption	< 4,5W
Time to image (s)	< 3
Dimensions (mm)	71 x 61 x 55 (OEM Core)
Weight (g)	83g (OEM Core)