DATASHEET

PeriSight Light

Low SWAP Situation Awareness System (SAS) for Land Vehicles

Key features

- Compact optronic modules for night and day vision enhancement, even in harsh conditions
- Modular & scalable solution
- Thermal sensor LYNRED ATTO: 640x480 @ 12µm
- Patented “shutterless” technology
- Ultra Low SWAP
- Low latency
- Designed and manufactured in France

Thermal image taken with the PeriSight Light thermal mode equipped with a 4,3mm lens

PeriSight Light is a 360° situation awareness system designed for land vehicles, based on very low SWAP optronic modules. Providing a panoramic view of the vehicle’s surroundings, this equipment assists drivers in executing complex maneuvers, avoiding obstacles on the road, and improving the safety of the crew.

With a compact design, this embedded system can easily be integrated into any armored vehicle. Based on a scalable architecture, this versatile solution comprises 4 to 6 optronic modules strategically placed throughout the vehicle. The number of modules varies depending on the vehicle type and specific application, such as driver vision enhancement, perimeter surveillance and threat detection (i.e military personnel, vehicles or unmanned systems).

PeriSight Light complies with military standards, operates in constrained environments, and provides multiple viewing modes such as panoramic, ROI and/or bird views.

Bertin Winlight offers full integration services. Videos are displayed on a screen, that also serves as the control interface for operating PeriSight Light.

*PeriSight **Light** camera module wide field of view (105°/75°)*

*PeriSight **Light** video server module 360° panorama display Full resolution ROI selection*

*PeriSight **Light** HMI System configuration Threat alert*

***PeriSight Light** can be supplemented by **PeriSight Top Attack** to prevent zenithal threats.*

BERTIN TECHNOLOGIES
10 Bis, Avenue Ampère
78180 Montigny le Bretonneux
France

www.bertin-technologies.com

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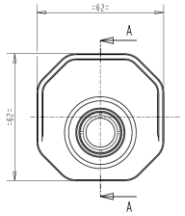
SENSORS

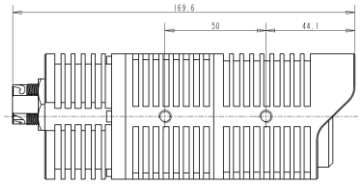
	Thermal channel
Model	LYNRED ATTO640D-02 (+)
Type	Uncooled microbolometer
Resolution, pixel size	640 x 480 Pixels (VGA), 12µm
Spectral band	8µm – 12µm (LWIR)

PHYSICAL CARACTERISTICS

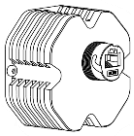
	Weight (kg)	Dimensions (h x L x l) mm	Military standards
Camera module	0,6	62 x 62 x 170	MIL-STD-810-G STANAG 4370 IP68
Video server module	2	81 x 150 x 190	



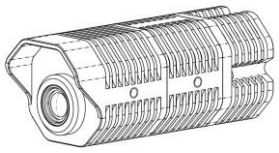
Front view



Side view



Rear view



Three-quarter view

INTERFACES

Video	GigE vision or HDMI (HMI)
Frequency	Up to 25Hz (Low latency) (>9Hz requires a dual-use license delivered by the French government)
Communication	Ethernet

ELECTRICAL CARACTERISTICS

	Camera module	Video Serveur module
Tension	PoE	7-28V DC
Consomption	5 W	84 W
Display time	few second (from power off to on)	1 min (from power off to on)
EMC	Standard AECTP 500 edition E V1	Standard AECTP 500 edition E V1

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OPERATION & CONTROL

Calibration Shutterless (factory calibration / no periodic maintenance required)

Camera control

Thermal
Gamma correction
Image polarity inversion
Contrast enhancement algorithm
LUT Regions of Interest for CLHE
Histogram equalization
Temporal histogram filter
Sharpening algorithm
Edge enhancement filter
Column filter
Flattening filter
Image state output

ENVIRONMENTAL CARACTERISTICS

Operating temperature - 40°C / + 60°C
Storage temperature - 40°C / + 85° C
Military standards MIL-STD-810-G / STANAG 4370
Shock resistance Pre-compliance with the standard STANAG 4370 AECTP400 Ed3
Humidity IP68
Environment CE, RoHS, REACH

QUALIFIED LENSES

	Thermal
Foc. @ F#	4,3mm@f/1.2
FoV Camera module	105° x 79°
FoV PeriSight	360° x 79°
DRI V	520/180/90
DRI I	240/60/20

	Thermal
Foc. @ F#	5,5mm@f/1.2
FoV Camera module	75° x 56°
FoV PeriSight	360° x 56°
DRI V	670 / 230 / 110
DRI I	300 / 80 / 30

The DRIs were calculated using TRM4
DRI (V) = DRI vehicle to NATO standard.
DRI (I) = DRI infantry.
Unit: meter

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