CamSight® LP(+)
Low power infrared imaging camera
(High sensitivity)

Key features

- ◗ Low Size, Weight And Power (SWAP)
- ◗ Fast time to image: 1,2 second
- ◗ Patented shutterless technology
- ◗ Low latency
- ◗ Designed and manufactured in France with French thermal sensors

Image taken with a F19mm CamSight® LP OEM

CamSight® LP is a low power Original Equipment Manufacturer (OEM) digital core camera produced by Bertin.

This camera can be integrated within complex optronic systems. CamSight® LP also exists in a Plug & Play version, dedicated to end-users.

Ultra-compact, CamSight® LP is very low-consuming (less than 1 Watt), to be implemented even in constrained environments.

The camera is equipped with the uncooled PICO LYNRED infrared sensor. Based on a shutterless technology, the camera does not require maintenance and calibration in operation.

Thanks to its design and high-performance, the CamSight® LP fulfills any surveillance applications and night and day infantry missions, even in harsh or constrained environments. It can also be integrated in autonomous vehicles (UAV, UGV, USV) or in sensors systems (UGS).

The camera is available in two different versions: CamSight® LP+ (NETD < 30mK @ F# 1/1.0) and CamSight® LP (NETD < 50mK @ F# 1/1.0).

◗ SENSOR

	CamSight® LP+	CamSight® LP
Model	Lynred Pico (S) Gen2	
Type	Uncooled shutterless microbolometer	
Pixel size	17µm	
Resolution	640 x 480 pixels	
Spectral band	8µm - 12µm	
NETD	< 30mK @ F# 1/1.0	< 50mK @ F# 1/1.0

CamSight® LP OEM module

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CamSight® LP(+)

PHYSICAL CHARACTERISTICS *(without lens)*

	OEM version	Casing version
Weight	60g	188g
Dimensions	46 x 46 x 29mm	60 x 60 x 65mm
IP Casing		IP67

INTERFACES

Video	Parallel 14bits / SD-SDI 640x480 / Progressive PAL 720x576 / GigE Vision
Frequency	Video stream : 25Hz *Option : 9Hz on demand,* (>9Hz requires a license delivered by the French government)
Communication	RS 232, 3.3VTTL

ELECTRICAL CHARACTERISTICS

	OEM version	Casing version
Input voltage	4,5 – 5.1VDC	
Consumption	< 1W	
Time to image	1.2sec (from off to on)	
Connectors	Samtec MMCX7-J-P-GF-ST-TH1 for video; Molex 53398-0271 for power; Molex 53398-0371 for RS com	Fischer SFPU 103 A053 139G for power, video and RS com

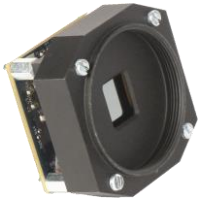## OPERATION & CONTROL

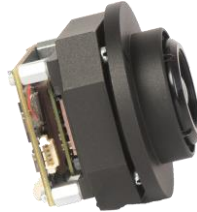|	
Calibration	Shutterless (single factory calibration / no periodic control needed)
Camera Control	Gamma correction Algorithm selection CLHE / CLAHE LUT Region of interest for CLHE Histogram equalization Sharpening algorithm Image polarity inversion Zoom moveable center Column Noise Correction Flattening Filter
Tools	SDK (MAVLINK) GUI (Companion)

ENVIRONMENTAL CHARACTERISTICS

Operating temp	-40°C / +70°C
Storage temp	-40°C / +85°C
Shock	Pre-compliance to MILSTD 883 K
Humidity	5-95% noncondensing
Environment	CE, RoHS, REACH

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CamSight® LP(+)

CAMSIGHT® LP PHOTOS

OEM version

OEM version with 19mm lens

Casing version with 19mm lens

QUALIFIED LENSES

7,5mm & F/1.2
FoV: 91°x68°
DRI (V) : 830/280/140
DRI (S) : 340/110/60
Size: ⌀ 25 x 19mm
Weight: 25g

11mm & F/1.05
FoV: 57°x43°
DRI (V) : 1270/430/210
DRI (S) : 520/170/90
Size: ⌀ 41 x 31mm
Weight: 87g

19mm & F/1.1
FoV: 32°x23°
DRI (V) : 2130/720/360
DRI (S) : 880/300/150
Size: ⌀ 29 x 18mm
Weight: 20g

25mm & F/1.2
FoV: 25°x19°
DRI (V) : 2460/920/460
DRI (S) : 1070/380/190
Size: ⌀ 35 x 29mm
Weight: 57g

35mm & F/1.2
FoV: 18°x13°
DRI (V) : 3410/1280/650
DRI (S) : 1540/530/260
Size: ⌀ 45 x 35mm
Weight: 108g

55mm & F/1.0
FoV: 11°x9°
DRI (V) : 5640/2120/1070
DRI (S) : 2580/880/440
Size: ⌀ 68 x 66mm
Weight: 177g

60mm & F/1.25
FoV: 10°x7°
DRI (V) : 5090/2080/1080
DRI (S) : 2460/880/440
Size: ⌀ 61 x 59mm
Weight : 212g

75mm & F/1.2
FoV: 8°x6°
DRI (V) : 6180/2490/1320
DRI (S) : 3140/1070/560
Size: ⌀ 68 x 82mm
Weight: 265g

This list does not represent all compatible lenses. It is therefore possible to add lenses according to your needs.

DRIs were calculate with TRM4.
DRI (V) = DRI vehicle. DRI (S) = DRI soldier with NATO standard. Unity : meter.
To calculate the overall weight of the CamSight LP with the lens, a mechanical interface (lens - core) must be added. Its weight depends on the lens and is about 20 grams.

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