

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 any maintenance and calibration in operation.

Thanks to its design and high-performance, the CamSight© LP fulfills any surveillance applications and night & day infantry missions, even in harsh and 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 < 30 mK @ F# 1/1.0) and CamSight LP (NETD < 50 mK @ F# 1/1.0)

SENSOR

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



CamSight LP OEM module

CamSight© LP(+)

PHYSICAL CHARACTERISTICS *(without lens)*

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

INTERFACES

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

ELECTRICAL CHARACTERISTICS

	OEM version	Casing version
Input voltage		4,5 – 5,1 VDC
Consumption		< 1W
Time to image		1,2 sec (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

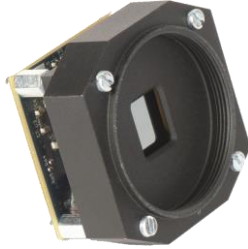
Calibration	Shutterless (single factory calibration / no periodic control needed)
Camera Control	Gamma correction Algorithm selection CLHE / CLAHE LUT Region of interest for CLHE Histogram equalization Sharpening algorithm Image polarity inversion Zoom moveable center Column Noise Correction Flatening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

ENVIRONMENTAL CHARACTERISTICS

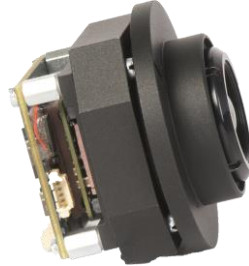
Operating temp	-40°C / +70°C
Storage temp	-40°C / +85°C
Shock	Pre-compliance to MILSTD 883 K
Humidity	5-95% noncondensing
Environment	CE, RoHS, REACH

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): 450/160/80

DRI (S): 190/60/30

Size: \varnothing 25 x 19 mm

Weight: 25g



11mm & F/1.05

FoV: 57°x43°

DRI (V): 770/260/130

DRI (S): 310/110/50

Size: \varnothing 41 x 31 mm

Weight: 87g



19mm & F/1.1

FoV: 32°x23°

DRI (V): 1270/440/220

DRI (S): 530/180/90

Size: \varnothing 29 x 18 mm

Weight: 20g



25mm & F/1.2

FoV: 25°x19°

DRI (V): 1520/540/280

DRI (S): 670/230/110

Size: \varnothing 35 x 29 mm

Weight: 57g



35mm & F/1.2

FoV: 18°x13°

DRI (V): 2060/750/380

DRI (S): 940/320/160

Size: \varnothing 45 x 35 mm

Weight: 108g



55mm & F/1.0

FoV: 11°x9°

DRI (V): 3540/1280/650

DRI (S): 1540/530/270

Size: \varnothing 68 x 66 mm

Weight: 177g



60mm & F/1.25

FoV: 10°x7°

DRI (V): 3260/1180/610

DRI (S): 1490/520/270

Size: \varnothing 61 x 59 mm

Weight : 212g



75mm & F/1.2

FoV: 8°x6°

DRI (V): 4150/1570/820

DRI (S): 1880/670/340

Size: \varnothing 68 x 82 mm

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.