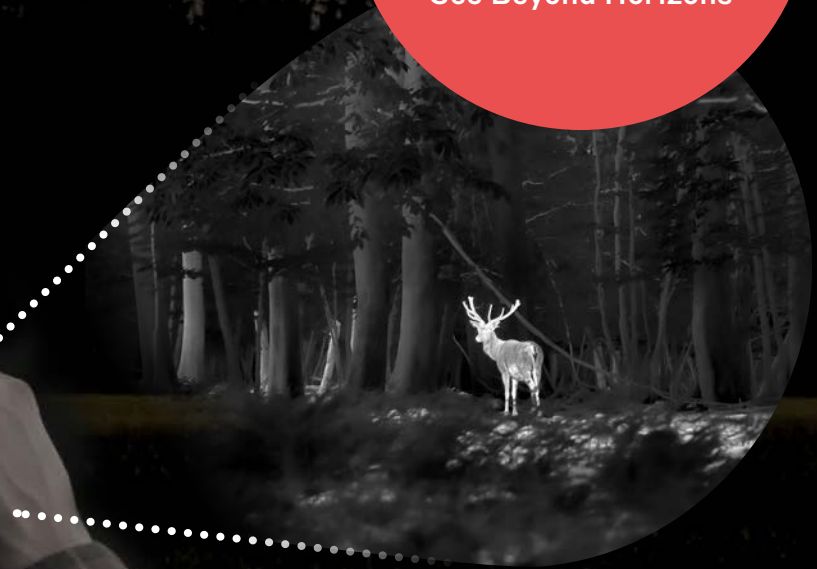




LYNRED®

See Beyond Horizons



**THERMAL
IMAGERS
FOR HUNTING
AND LEISURE**

LYNRED PRODUCT RANGE OF THERMAL IMAGING

Thermal imager for hunting brought users experience to a new level. It allows to track their game whatever the condition at day and night, more efficiently and effectively. As thermal imagers became more and more popular, expectations from users grows with a demand for more magnification, sharper image and smaller devices.

As a specialist, LYNRED is your partner in the development of your next thermal imager device. We provide state-of-the-art technologies to make sure you can design solutions matching your markets expectations.

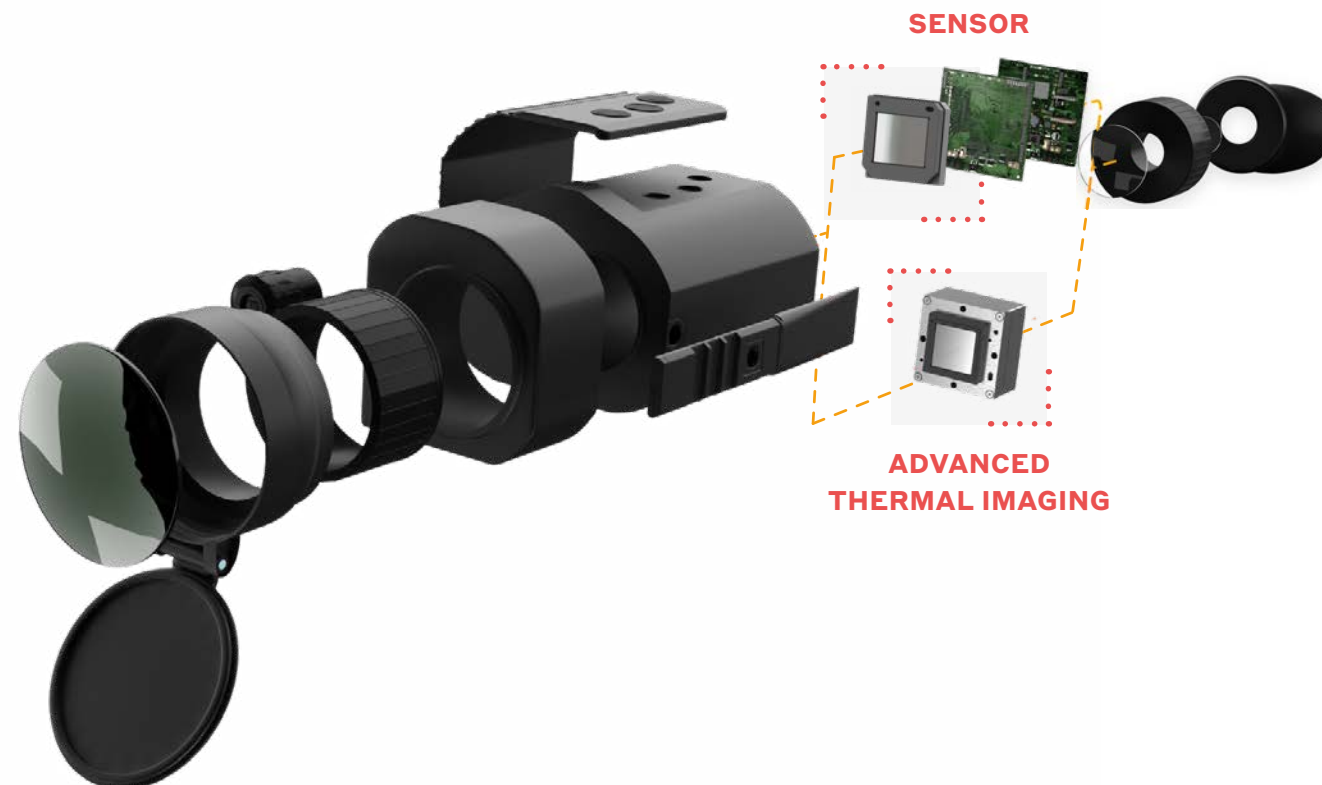
- Riflescopes
- Binoculars / monoculars
- Clip-on
- Drones



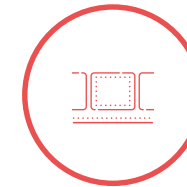
LYNRED: the partner you can rely on

- World leader provider of sensors for sport optics
- Manufactured in Europe
- Supplies thermal imaging only, no competition on the final product
- High-volume capacities thanks to new production facility

3 million detectors delivered since 2016



HIGH IMAGE
QUALITY



EASY TO
INTEGRATE



RELIABLE AND
RUGGEDIZED



LOW POWER
CONSUMPTION

Enhance the customer experience

LYNRED is laser-focused on providing the best image quality so that you can concentrate on delivering the ultimate user experience.

FULL SUPPORT TO ACHIEVE THE TARGET IMAGE QUALITY

- A dedicated field application engineer
- A training center specifically for customers
- System performance (high frame rate, no lagging, native sensor performance, etc.) geared towards your use cases

STATE-OF-THE-ART TECHNOLOGY

- Latest pixel pitches and highest performance
- Image correction pipeline to produce the best image quality
- High-volume deliveries
- Reliable products (design and production based on MIL-STD)



LYNRED SENSOR RANGE



YOCTO™

NEW

The 8µm Class microbolometer

Our last generation of microbolometer - 8.5µm pixel pitch and XGA format.

- Higher magnification: Up to +41% range compare to a 12µm sensor
- Compact design: same footprint as a VGA 12µm
- Better image quality: embeds 2,5x more pixels than a VGA 12µm sensor, for sharper images

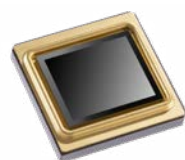
Magnification with same optic system



12µm pixel pitch



8.5µm pixel pitch



ATTO™

12µm microbolometers range offering 3 formats

Our legacy sensors range for all hunting thermal optics.

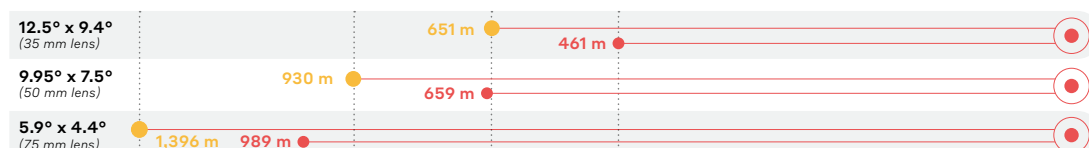
- ATTO640™: big runner sensor with an optimized footprint
- ATTO1024™: XGA 12µm sensor with a wider FOV
- ATTO1280™: higher performance for high end applications



MAGNIFICATION

● 12µm pixel pitch

● 8.5µm pixel pitch



Range for Johnson's criteria @ 50% probability, target delta T = 2 K, perfect atmosphere, real LYNRED pixel MTF, 12µm sensor NETD = 40 mK, 8.5µm sensor NETD = 65 mK



LYNRED MODULE RANGE

Powered by LYNRED's proven thermal sensor and state-of-the-art image algorithms, the ATI640™ module camera delivers unparalleled image quality and accuracy.

ATI MODULE SUITE



Advanced Thermal Imager
640 x 480 - 12µm
NETD 18mK

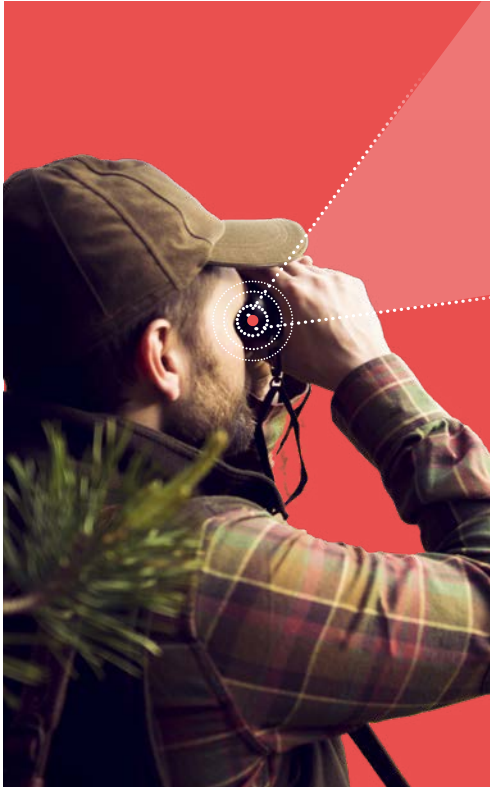
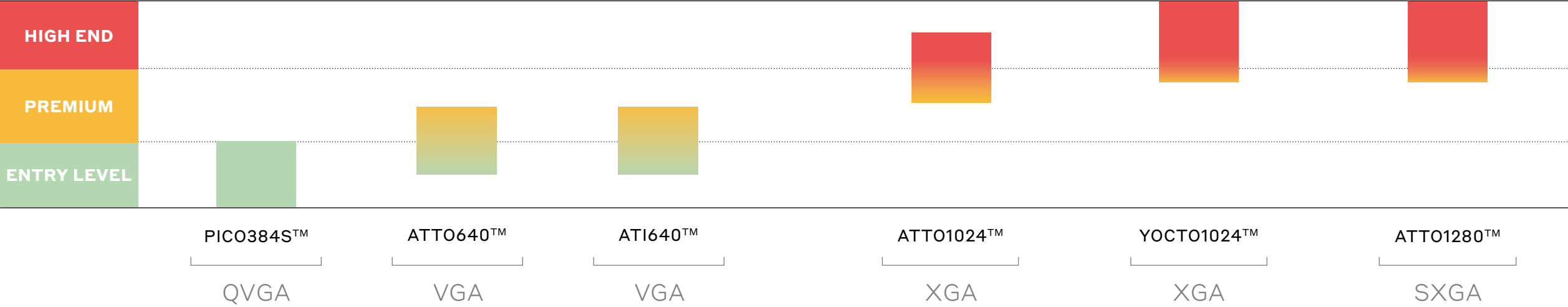
Accelerate your thermal imaging device with our **plug & play** module offering ready-to-use thermal imaging








- Embedded image treatment delivering high-quality images
- SWaP-C 24mm² ; 15g and <1W
- Easy to integrate with MIPI output
- Advanced Shutterless for uninterrupted imaging



LYNRED COMPLETE RANGE

Check out all
our leisure
products



PRODUCT	FORMAT	PIXEL PITCH	NETD	SYSTEM NETD Using adapted noise reduction algorithms	FRAME RATE
 PICO384S™	QVGA, 384 x 288	17µm	< 30mK (f/1, 300K, 50Hz)	15-20mK	up to 60Hz
 ATTO640D-04™	VGA, 640 x 480	12µm	< 35mK (f/1, 300K, 30Hz)	15-20mK	up to 60Hz
 ATTO640D-04W™	VGA, 640 x 480	12µm	< 45mK (f/1, 300K, 30Hz) including protective window	15-20mK	up to 60Hz
 ATI640™	VGA, 640 x 480	12µm	18 - 24mK (f/1, 300K, 60Hz, de-noising)	-	60Hz
 ATTO1024-02™	XGA, 1024 x 768	12µm	< 50mK (f/1, 300K, 30Hz)	15-20mK	up to 100Hz
 ATTO1280-02™	SXGA, 1280 x 1024	12µm	< 50mK (f/1, 300K, 30Hz)	15-20mK	up to 60Hz
 YOCTO1024™ NEW	XGA, 1024 x 768	8.5µm	< 55mK (f/1, 300K, 50Hz)	-	up to 50Hz



40^{years}

of experience

80%

exports

1,000
employees

15%

revenue
invested in R&D

**LYNRED,
a merger between Sofradir and
ULIS, designs infrared sensors
to meet the needs in a wide range
of markets.**

Our infrared sensor lineup covers the entire infrared spectrum from SWIR through to VLWIR. Our products are capable of satisfying the demanding requirements of a variety of industries.

They are reliable and rugged enough for defense applications, compact and powerful enough for surveillance applications, and stable and sensitive enough for thermography, industrial systems, firefighting and search & rescue applications.

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