

READY TO SENSE, READY TO IMAGE



LYNRED **Advanced Thermal Imager ATI640S™** is a flexible, robust and compact core that facilitates thermal camera development. With the flexibility to integrate your own shutter and optics, the ATI640S™ empowers you to customize your thermal imaging solution to perfectly fit your unique requirements.

Powered by LYNRED's proven thermal sensor and state-of-the-art image algorithms, the ATI640S™ delivers unparalleled **image quality** and accuracy, with a **NETD ≤18mK**.

Equipped with high-performance **image processing** capabilities, the ATI640S™ operates seamlessly in **Shutter** or **Less Shutter mode**, minimizing video interruptions and maximizing efficiency.



HIGH IMAGE QUALITY WITH EMBEDDED CORRECTION



SWAP



ACCELERATE YOUR SYSTEM DEVELOPMENT



LEISURE



SURVEILLANCE



DEFENSE

•• ATi640S™: READY TO SENSE, READY TO IMAGE ••



COMPACT

LOW POWER
CONSUMPTION

IMAGE
QUALITY

FLEXIBILITY

KEY FEATURES

Embeds high performance image processing	<ul style="list-style-type: none"> Powerful, real-time image processing algorithms built into the ATi640S™ deliver unprecedented image quality
Easy interface	<ul style="list-style-type: none"> Outputs: Parallel LVCMOS 14 bits or 24 bits with colorization (3*8 bits) Serial MIPI CSI2 D-PHY (single data lane, 4 wires, Raw8, Raw14, YUV422)
Flexible and versatile solution	<ul style="list-style-type: none"> ATi640S™ is compatible with various optics and provides the best versatility to match camera makers needs
Embedded advanced correction and features	<ul style="list-style-type: none"> NUC, BPR, Temporal and spatial denoising, Digital Detail Enhancement, Tone mapping, Colorization, Symbol and text Overlay

MAIN TECHNICAL ATTRIBUTES

Resolution; pixel pitch	<ul style="list-style-type: none"> 640 X 480; 12µm pixel pitch
Sensitivity NETD (60 Hz, F/1, 300 K, Denoising)	<ul style="list-style-type: none"> ≤ 18mK
NUC (Non Uniformity Correction) and BPR (Bad Pixel Replacement)	<ul style="list-style-type: none"> Factory tested and compensated
Operating temperature	<ul style="list-style-type: none"> [-40°C ; +65°C]
Image quality temperature range	<ul style="list-style-type: none"> [-20°C ; +65°C]
Frame rate	<ul style="list-style-type: none"> 60 Hz full frame
Power dissipation (ambient temperature)	<ul style="list-style-type: none"> < 1.0 W
Time to first image	<ul style="list-style-type: none"> 1 second
Frame Latency	<ul style="list-style-type: none"> ~ 1.25 ms
Packaging	<ul style="list-style-type: none"> Size: 24.6 x 24.6 x 19.9 mm Weight: 15g
Qualification	<ul style="list-style-type: none"> MIL-STD-883L, MIL-STD-810H
Regulatory	<ul style="list-style-type: none"> REACH; ROHS



LYNRED HEADQUARTERS

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