

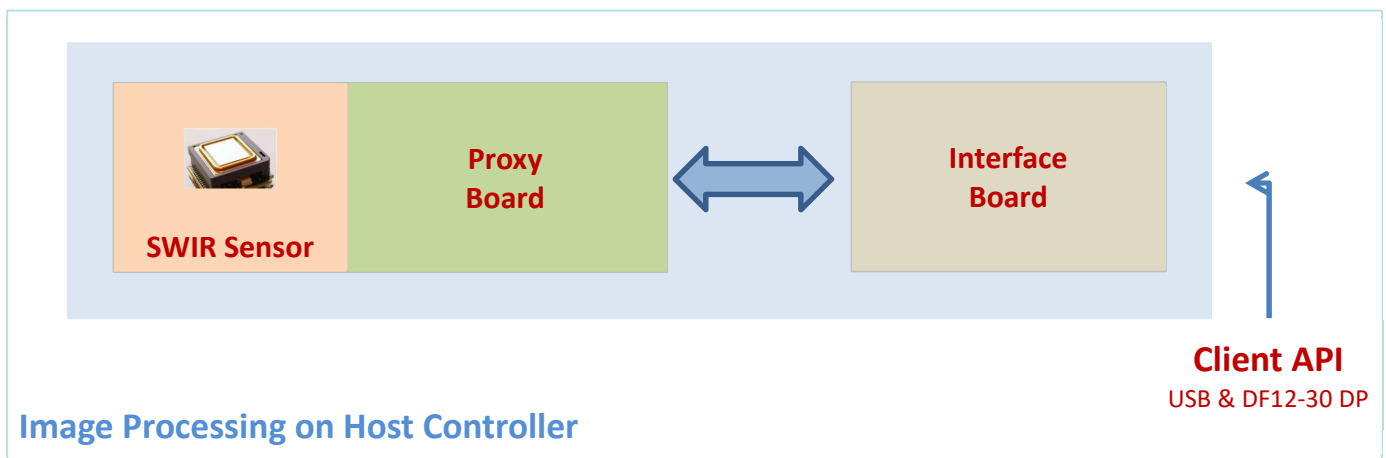
PRELIMINARY KEY TECHNICAL SPECIFICATIONS SWIR TECLESS SWaP CAMERA

PROXY CAMERA MODULE FEATURES	CHARACTERISTICS	DESCRIPTION
Camera resolution	640x512 pixels	Uncooled Sensor: Indium Gallium Arsenide PIN - Photodiode with 15 μm pixel pitch
Quantum efficiency Spectral response	>70% 0.9 to 1.7 μm	From spectral range 1.0 to 1.6 μm
Absolute sensitivity threshold Saturation capacity Dynamic range	<50 e- 1.44Me- >80dB	@ High gain, Tint 1μs @ Low gain
Sequencer mode	Freerun or controlled frame rate & integration time	
Integration mode	IWR, ITR Continuous integration	ITR for low noise mode, impacting frame rate Up to 255 frames
Power consumption	< 1.2W	@ 30 Fps
Standard Interface USB 3.0 (micro-USB type B female)	RAW 16 bits digital output Camera control	Plug & Play to any host controller system (PC or Computer Board) and @ Fps max. 178 Hz with full resolution
DF12-30 DP Interface	Frame rate & integration control	
	Adjustable Sensor setting point (Exposure time, Gain, Offset...)	
	Power consumption management: Standby power mode	
User Configuration Storage	Up to 8	On module
Storage Calibration Table	Up to 4	On module
Time to image	< 3 s	
Image Optimization	BPR, FFC, Gain (Global & Local)	Configuration depending
Full Frame Rates Max. Frame rates Standard Frame Rates	178Hz 30Hz	Adjustable frame rate: from 30Hz to 178Hz (USB 3.0 Super Speed host required)
Image Flip	yes	On module
Binning Mode	2x2 or 4x4 or 8x8 or 16x16	
Lens Mounting	C type	In option on demand
Qualification grade	Industrial (Standard grade)	
Operating temperature range	-20°C ; +60°C (Standard grade)	
Size : Length x Width x Height	30 x 30 x 26 mm ³	Excluding Optics
Weight	< 50g	Excluding Optics
Graphical User Interface SDK (only for USB)	Windows/Linux Windows/Linux	IrqLA Viewer adjusts all image parameters in GUI Calibration wizard (up to 8 maps: gain and/or offset tables) Easy and fast Import/Export of gain, offset & data to Matlab; ImageJ, Excel, ... BPR (Bad Pixel Replacement); NUC (Non Uniformity Correction); Gain management can be done by just clicking Free SDK (Software Design Kit): for easy integration into your applications, compatible with Windows 7, 8 & 10 or Linux_32 & Linux_64 or Linux Embedded on ARM plat-form

MODULARITY OF PROXY MODULE

IrqLA640™ is developed using a modular concept and architecture.

It is suitable for host-based processing systems, processing being on a PC or on any x84 or ARM-embedded platform.



TYPICAL APPLICATIONS

IrqLA640™ is of special interest for observation and monitoring in:

- Surveillance and security (ground based or mobile systems)
- Unmanned Vehicles (UAVs, UGVs)
- Yachting and recreational boating (EVS - Enhanced Vision Systems)
- Machine vision (online process quality control)

General Notices:

This OEM module is intended only for product evaluation, development or incorporation into other product or sub-system. It is not a finished end-product fit for general consumer use. As such, this module is without the scope of the European Union (EU) directives concerning electromagnetic compatibility (EMC).

The products described herein are subject to French Government Export Controls except the products of lower than or equal to 9 Hz frame rates.