



LEOPARD IMAGING INC

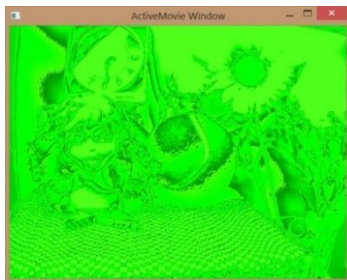
Rev. 1.0

LI-USB30-OV7251

Data Sheet

Key Features

- USB 3.0 Super Speed support
- 10-bit RAW data output without compression
- UVC compliance
- Monochrome sensor
- Global shutter
- Resolution: 640x480
- Frame rate: 100 fps
- Support register access function
- Support software and hardware trigger mode
- Provide customization services
- USB +5VDC powered device
- Compact Size: 26mmx26mm
- 2 Boards are stacked
- Part#: **LI-USB30-OV7251**
- Support multiple module options
- Default OV7251 module Part#: **LI-OV7251M-FF-80**



RAW data streaming



Camera Tool view mode



Lens Specification

- Focusing Range: 60cm to Infinity
- Focal length: 1.3 mm
- F/#: 2.8
- FOV (H): 80°
- TV Distortion < -25%

Applications

- Machine Vision
- Scientific Camera

SDK Supported

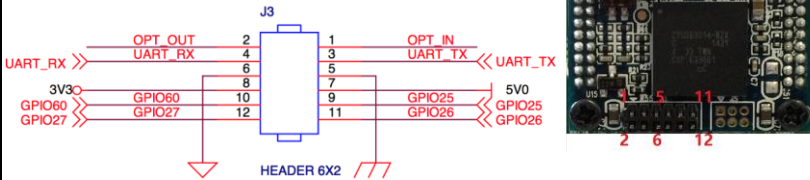
- Camera Tool Source Code in C#
- Capture & Display
- RAW to Grayscale Conversion
- Save file as BMP & RAW format
- Access registers



Leopard Imaging Inc.

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Specification

General Behavior	
Video Resolution @ Frame rate	640 x 480 @ 100 fps
Sensitivity	10,800mV/(uW.cm ⁻² .sec)@850nm
Dynamic range	10 bit
Interface (Optical)	
IR cut filter (on lens)	No
Sensor specification	OmniVision CMOS VGA image sensor OV7251
Shutter	Global shutter
Format	1/7.5"
Resolution	H:640, V:480
Pixel size	H: 3 um, V: 3 um
Interface (Electrical)	
Interface	USB 3.0
Supply voltage	USB 3.0 +5 VDC power source
Current consumption	Approx. 170 mA at 5 VDC
Software trigger	Support
Hardware trigger	Support Connect external trigger device to pin1 (OPT_IN) and pin5 (GND) of J3
 The diagram shows the pinout for the 6-pin J3 header. Pin 1 is OPT_IN, Pin 2 is OPT_OUT, Pin 3 is UART_TX, Pin 4 is UART_RX, Pin 5 is GND, and Pin 6 is GND. It also shows connections for 3V3, 5V0, and various GPIO pins (GPIO60, GPIO27, GPIO25, GPIO26) to the module's internal components. The photograph shows the physical module with the J3 header and the USB 3.0 connector.	
Interface (Mechanical)	
Dimensions	L: 26 mm, W: 26 mm, H: 20 mm
Mass	10 g
Adjustment (Manual)	
Shutter	Support
Gain	Support
Adjustment (Auto)	
Shutter	TBD
Gain	TBD
Environmental	
Max. temperature (operation)	0 °C ~ 50 °C (32 °F~ 122 °F)
Max. temperature (storage)	-20 °C ~ 80 °C (-4 °F~176 °F)
Max. humidity (operation)	20 % ~ 80 %, relative, non-condensing
Max. humidity (storage)	20 % ~ 80 %, relative, non-condensing



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