



LEOPARD IMAGING INC

LI-ESP870-STEREO-M031

Data Sheet

Key Features

- USB 3.0 Super Speed support
- YUV output without compression
- UVC compliance
- USB 2.0 backwards compatible
- Dual Camera
- Support Depth stream
- Depth stream resolution: 640x480
- Support face tracking
- Global Shutter
- USB +5VDC powered device
- Color CMOS 1.2M image sensor
- Optical format: 1/3"
- Distance between two sensors: 120mm
- Weight: 36 g
- Dimension: 148mm x 19mm x 26mm
- Provide customization services
- Part#: **LI-ESP870-STEREO-M031**

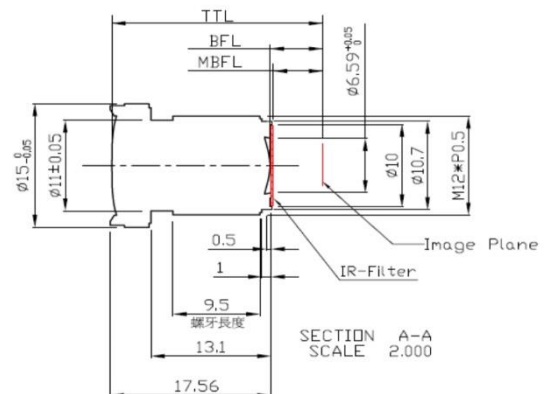
SDK Supported

- Windows and Linux SDK
- Display YUV stream
- Display Depth stream
- Camera features control



Lens Spec

- Part#: YC-155N
- Sensor size: 1/3"
- Focal Length: 2.8 mm
- Aperture, F/#: 2.0
- Built in 650 nm IR cut filter
- FOV (D/H/V): 109 °/88 °/72 °
- TV Distortion: < 12%
- TTL: 23.07 mm
- BFL/MBFL: 5.81 mm/ 5.61 mm
- Mount: M12



Leopard Imaging Inc.

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Specification

General Behavior		
Video Resolution @ Frame rate	640 x 480 YUV @ 20 fps (USB 3.0) 1280 x 480 YUV @ 20 fps (USB 3.0) 1760 x 660 YUV @ 20 fps (USB 3.0) 640 x 480 YUV @ 15 fps (USB 2.0) 1280 x 480 YUV @ 10 fps (USB 2.0) 1760 x 660 YUV @ 5 fps (USB 2.0) 640 x 480 MJPG @ 20 fps (USB 2.0) 640 x 480 depth stream	
Interface (Optical)		
Sensor specification	Aptina MT9M031 Global Shutter 1.2M HD Sensor	
Shutter	Global	
Format	1/3"	
Resolution	H:1280, V:960	
Pixel size	H: 3.75 um, V: 3.75 um	
Depth Stream	Support	
Face Tracking	Support	
Interface (Electrical)		
Supply voltage	USB 3.0 +5 VDC power source	
Current consumption	210 mA @ 5V	
Interface (Mechanical)		
Dimensions	L: 148 mm, W: 19 mm, H: 26 mm	
Weight	30 g	
Adjustment		
Manual	Brightness, Contrast, Hue, Saturation, Sharpness, White Balance (Default Auto), Exposure (Default Auto)	
Auto	White Balance, Exposure	
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	
3D Depth Accuracy		
BaseLine 120mm	5% accuracy	working range: 50 ~ 275 cm
	10% accuracy	working range: 50 ~ 500 cm
BaseLine 200mm	5% accuracy	working range: 100 ~ 400 cm
	10% accuracy	working range: 72 ~ 950 cm

Note: 1. BaseLine is the distance between two sensors.

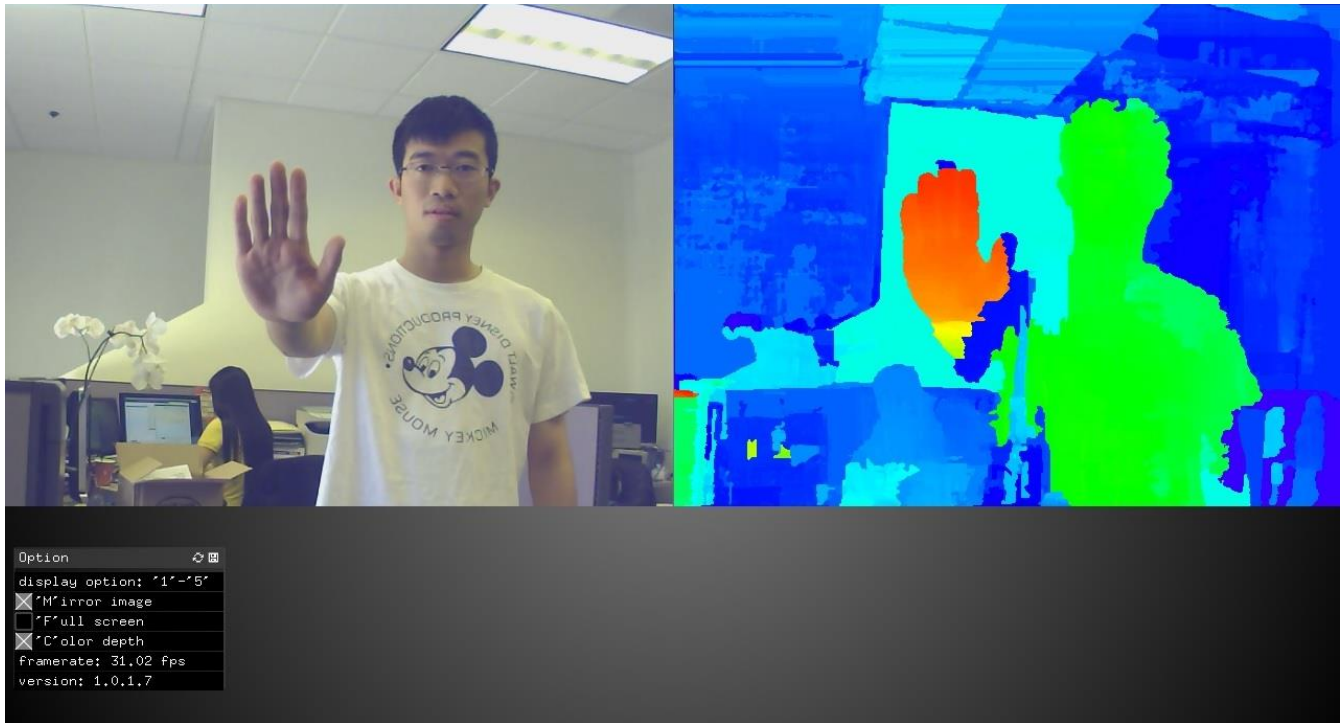
2. For BaseLine 200mm, we can provide the customization services.



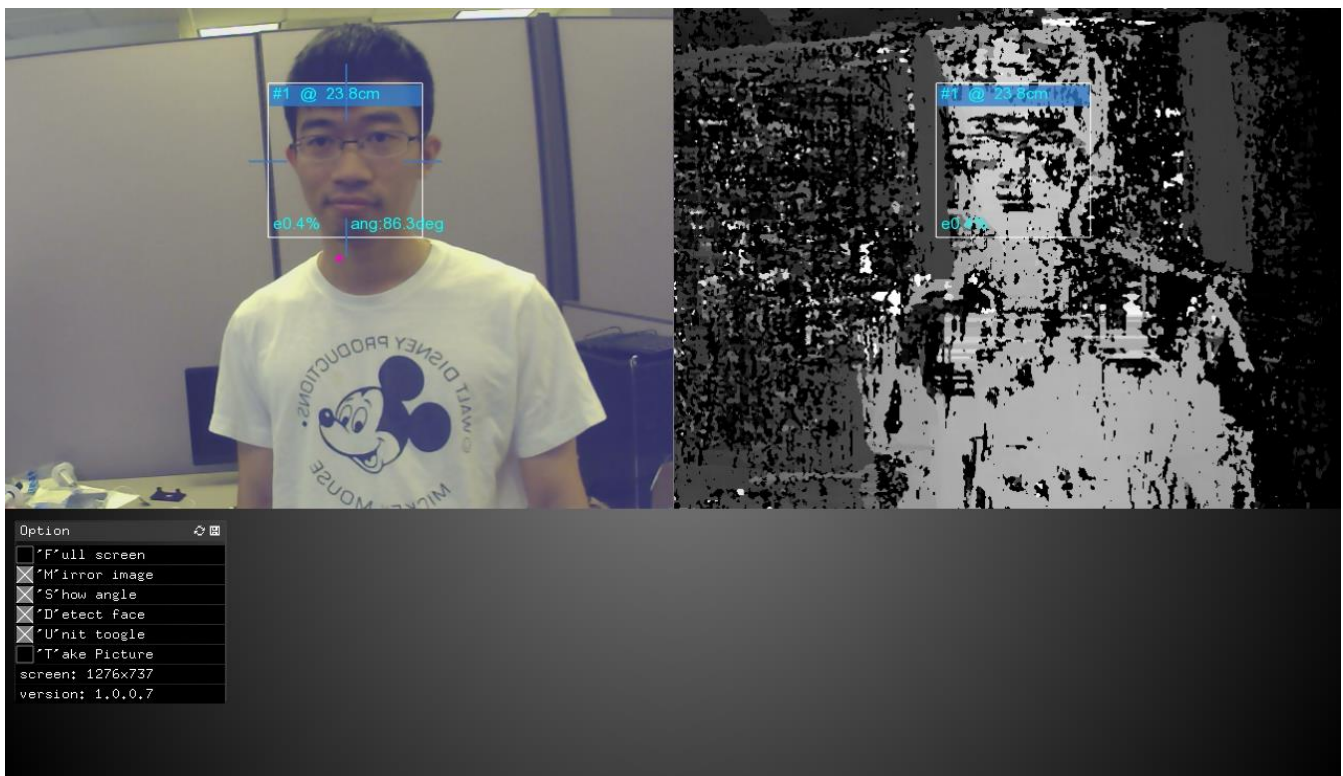
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Depth Stream



Face Tracking



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