



LEOPARD IMAGING INC

Rev. 1.0

# LI-USB30-AR0144X

## Data Sheet

### Key Features

- USB 3.0 Super Speed support
- 12-bit RAW data output without compression
- UVC compliance
- Monochrome or Color sensor
- Global shutter
- Support register access function
- Provide customization services
- USB +5VDC powered device
- Compact Size: 26mmx26mm
- 2 Boards are stacked
- Part#:  
LI-USB30-AR0144C (Color)  
LI-USB30-AR0144M (Mono)
- Default AR0144 module Part#:  
LI-AR0144-MIPI-85H

### Applications

- Machine Vision
- Scientific Camera

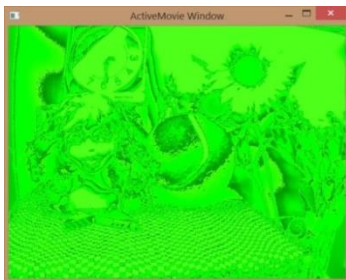


### Lens Specification

- Focusing Range: 20cm to Infinity
- Focal length: 2.3 mm
- F/#: 2.2
- FOV (H): 85°
- TV Distortion < -20%

### SDK Supported

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



RAW data streaming



Camera Tool view mode



Leopard Imaging Inc.

1130 Cadillac Ct., Milpitas, CA 95035, USA  
Phone: +1-408-263-0988  
Fax: +1-408-217-1960  
Email: sales@leopardimaging.com  
Website: www.leopardimaging.com

# Specification

General Behavior		
Video Resolution @ Frame rate	1280 x 724 @ 53 fps	
Responsivity	Monochrome	3.6 V/lux-sec
	Color	3.1 V/lux-sec
Raw data	12 bit	
Interface (Optical)		
IR cut filter (on lens)	No	
Sensor specification	ON SEMI 1.0 MP CMOS image sensor AR0144	
Shutter	Global shutter	
Format	1/4"	
Resolution	H:1280, V:800	
Pixel size	H: 3 um, V: 3 um	
Color filter array	RGB Bayer or Monochrome	
SNR <sub>MAX</sub>	38dB	
Dynamic range	63.9 dB	
Interface (Electrical)		
Interface	USB 3.0	
Supply voltage	USB 3.0 +5 VDC power source	
Current consumption	Approx. 200 mA at 5 VDC	
Interface (Mechanical)		
Dimensions	L: 26 mm, W: 26 mm, H: 20 mm	
Mass	10 g	
Adjustment (Manual)		
Shutter	Support	
Gain	Support	
Register access	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	
Operating System	Support Windows, Mac, Linux OS and other OS with full UVC driver included	



Leopard Imaging Inc.

1130 Cadillac Ct., Milpitas, CA 95035, USA  
Phone: +1-408-263-0988  
Fax: +1-408-217-1960  
Email: sales@leopardimaging.com  
Website: www.leopardimaging.com