



LEOPARD IMAGING INC

Rev. 1.1

LI-OV580-OV7251ST

Data Sheet

Key Features

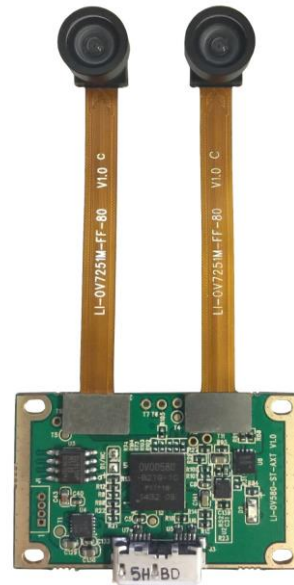
- USB 3.0 Super Speed support
- 8-bit RAW output without compression
- UVC compliance
- USB 2.0 backwards compatible
- Dual Camera
- Adjustable two cameras distance
- Provide customization services
- USB +5VDC powered device
- CMOS VGA image sensor
- 3 Parts: 1 OV580 and 2 OV7251
- Part#: **LI-OV580-OV7251ST**

Interface

- Part#: AXT524124 (on OV580)
- Number of Positions: 24
- Pitch: 0.016" (0.40mm)
- Number of Rows: 2

SDK Supported

- Camera Tool Source Code in C#
- Capture & Display



OV7251 module Spec

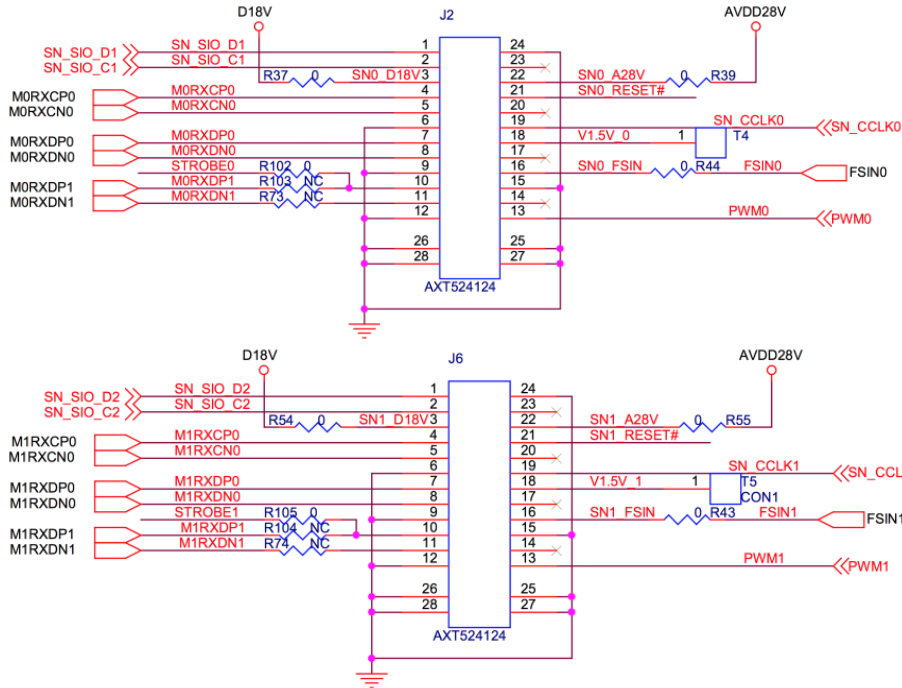
- Part#: LI-OV7251M-FF-80
- Resolution: 640 x 480
- Sensor size: 1/7.5"
- Mono sensor
- Global shutter
- MIPI Interface
- Connector: AXT624124
- Focusing range: 60cm ~ Infinity
- Focal Length: 1.3 mm
- Aperture, F/#: 2.8
- FOV (H): 80 °
- TV Distortion: < -25%



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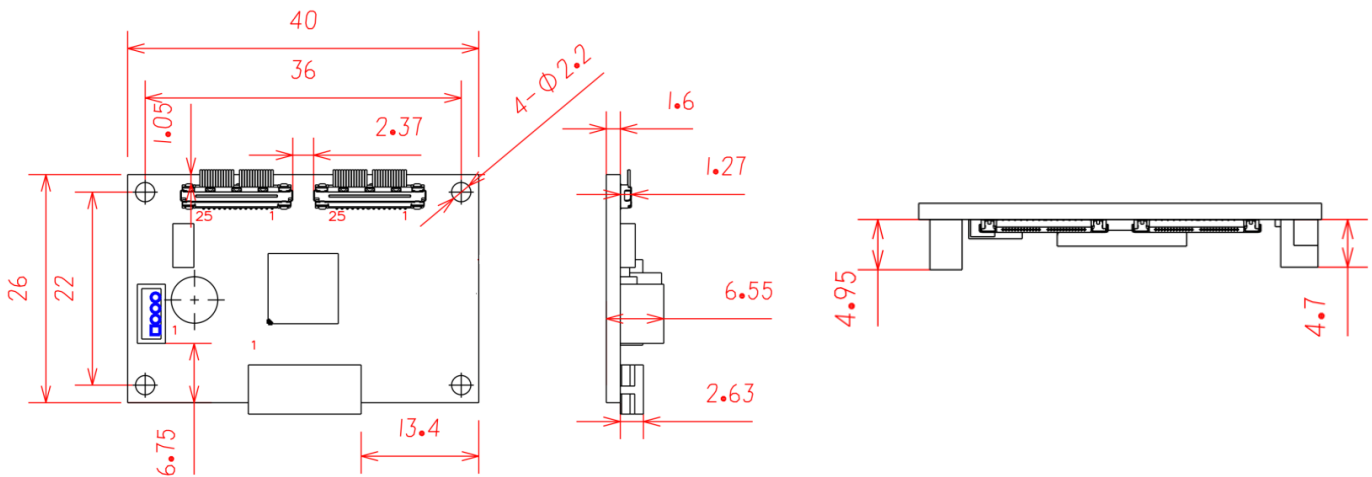
Pin Assignment (OV580)



Pin Assignment (OV7251)

No.	Name	No.	Name	No.	Name	No.	Name
1	SDA	7	MDP	13	PWM	19	XCLK
2	SCL	8	MDN	14	NC	20	NC
3	DOVDD1.8V	9	GND	15	GND	21	RESET
4	MCP	10	STROBE	16	FSIN	22	AVDD2.8V
5	MCN	11	ULPM	17	NC	23	NC
6	GND	12	GND	18	DVDD1.5V	24	GND

Dimensions (OV580)



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General Behavior		
Video Resolution @ Frame rate	640 x 480 @ 100 fps 640 x 480 @ 60 fps	
Sensitivity	7190 mV/ (uW.cm-2 .sec) @ 850nm 2800 mV/ Lux-sec @ 530nm	
Interface (Optical)		
IR cut filter	No	
Sensor specification	OmniVision mono VGA image sensor OV7251	
Shutter	Global	
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. 247mA at 5 VDC	
Interface (Mechanical)		
Dimensions	OV580	L: 40 mm, W: 26 mm, H: 6.55 mm
	OV7251	L: 61 mm, W: 8 mm, H: 10.9 mm
Weight (with lens)	6 g	
Environmental		
Max. temperature (operation)	-30 °C ~ 70 °C (-22 °F~ 158 °F)	
Max. temperature (storage)	0 °C ~ 50 °C (32 °F~ 122 °F)	
Max. humidity (operation)	20 % ~ 80 %, relative, non-condensing	
Max. humidity (storage)	20 % ~ 80 %, relative, non-condensing	



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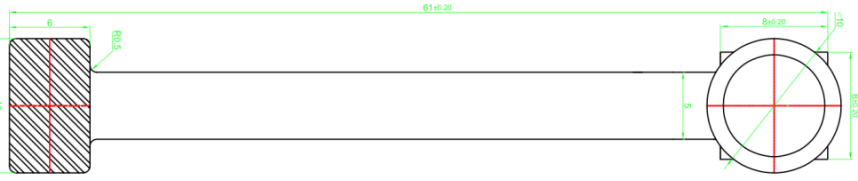
ROHS

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LI-OV7251M-FF-80

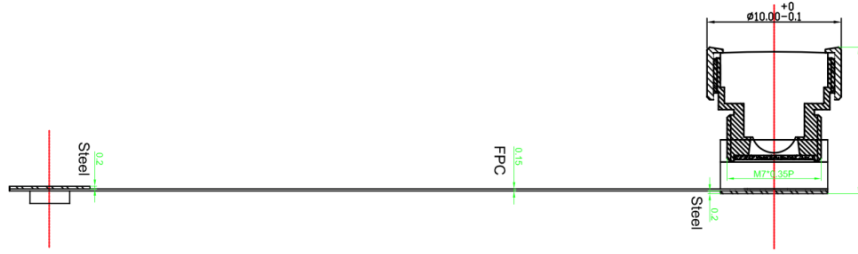
QR-RD-F002 Rev-A

advert:
 basic tolerance: ±0.1mm
 label have ""'s emphasis dimension

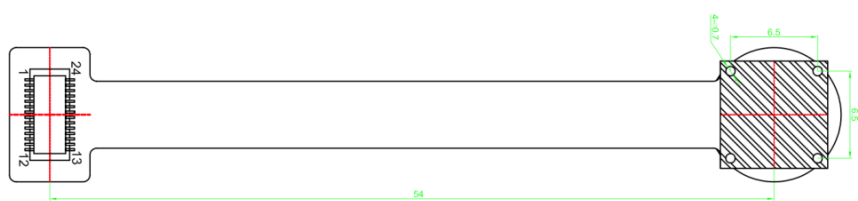
Optical Lens Specification:
 Focusing Range 60cm ~ Infinity
 Focal Length 1.3mm
 F Number 2.8
 Fov(H) 80°
 TV Distortion <-25%



TOP VIEW



SIDE VIEW



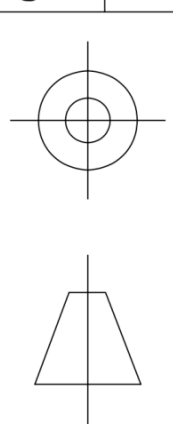
BOTTOM VIEW

NO.	SYMBOL	ITEM	QTY	DESCRIPTION
1	SDA	Steel	2	
2	SCL	FPC	1	
3	DOV001.8V	TAKING LENS	1	OV7251 CSP
4	MCP	Sensor	1	AXT624124
5	MCN	Connector	1	
6	GND			
7	MDP			
8	MDN			
9	GND			
10	STROBE			
11	ULPM			
12	GND			
13	PWM			
14	NC			
15	GND			
16	FSIN			
17	NC			
18	DVD01.5V			
19	XCLK			
20	NC			
21	RESET			
22	AND02.8V			
23	NC			
24	GND			

Reinforcement:

10F1 Version: 1.0

Proportion: 1:1 Unit: MM



Note:# Image direction register use default settings.
 Output format: Mono RAW No Filter

NO	Change item	Version	Date
	Original	V1.0	2015-11-17

Leopard Imaging Inc.

Project Name: LI-OV7251M-FF-80

Draft: _____ Date: _____

Check: _____ Date: _____

Approval: _____ Date: _____

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