



LEOPARD IMAGING INC

Rev. 1.2

# LI-OV580-OV9782ST

## 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
- Global shutter
- Color sensor
- Provide customization services
- USB +5VDC powered device
- CMOS 1MP image sensor
- 3 Parts: 1 OV580 and 2 OV9782
- Weight: 6 g
- Part#: **LI-OV580-OV9782ST**

### 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



### OV9782 module Spec

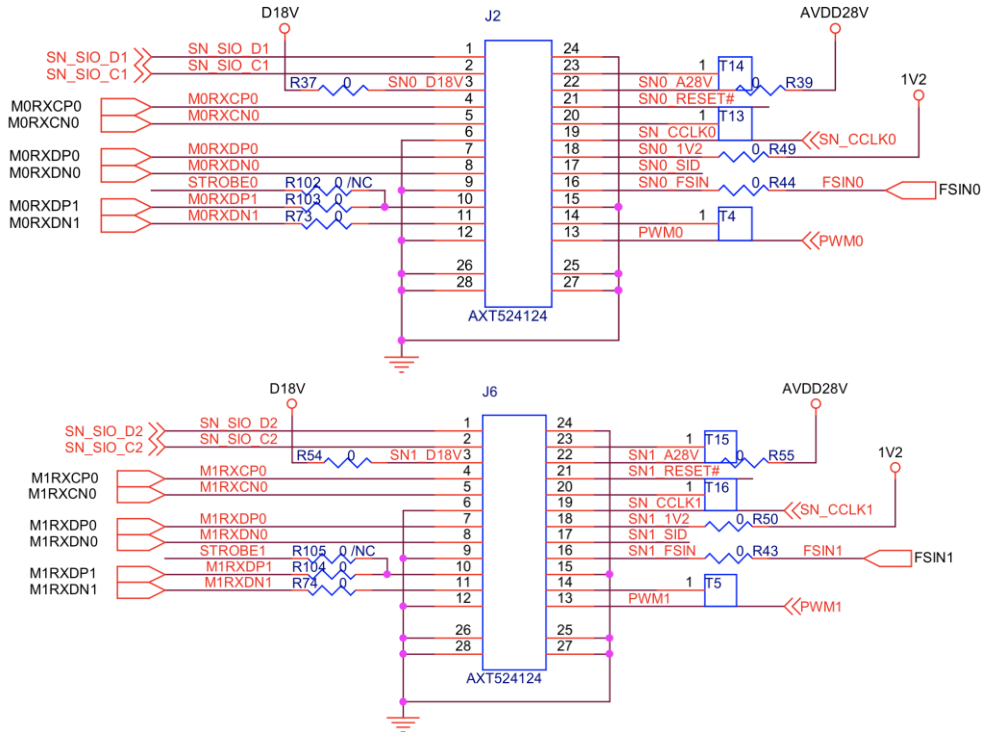
- Part#: LI-OV9782-MIPI-103H
- Resolution: 1296 x 816
- Sensor size: 1/4"
- Color sensor
- MIPI Interface
- Connector: AXT624124
- Focusing range: 30cm ~ Infinity
- Focal Length: 2.0 mm
- Aperture, F/#: 2.5+/-5%
- FOV (D/H): 170°/103°
- TV Distortion: < -88%



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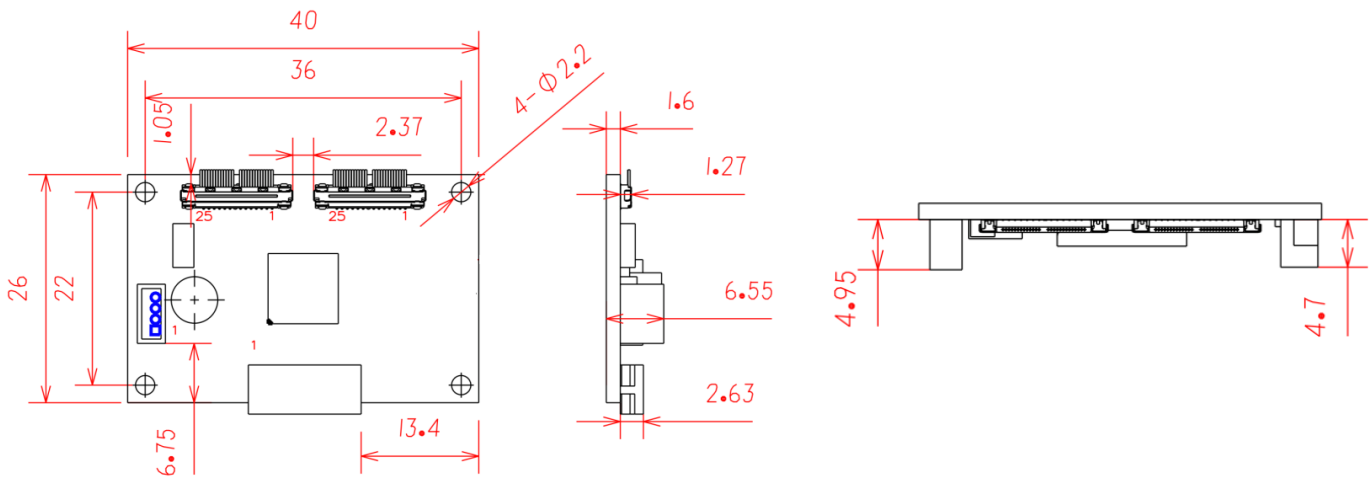
## Pin Assignment (OV580)



## Pin Assignment (OV9782)

No.	Name	No.	Name	No.	Name	No.	Name
1	SDA	7	MDP0	13	ILPWM	19	XCLK
2	SCL	8	MDN0	14	GPIO2	20	STROBE
3	DOVDD1.8V	9	GND	15	GND	21	RESET
4	MCP	10	MDP1	16	FSIN	22	AVDD2.8V
5	MCN	11	MDN1	17	SID	23	ULPM
6	GND	12	GND	18	DVDD1.2V	24	GND

## Dimensions (OV580)

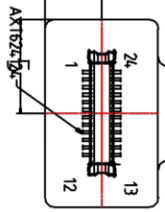
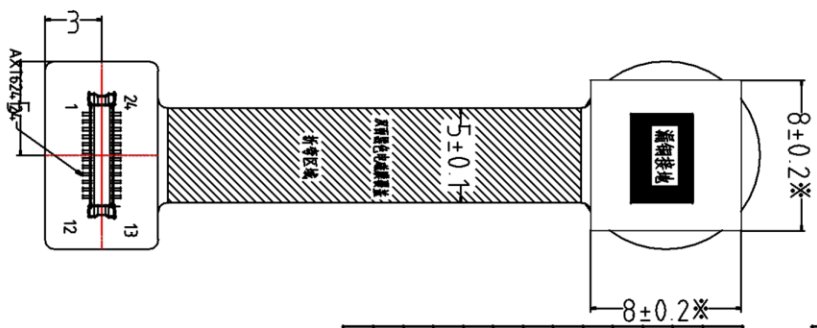
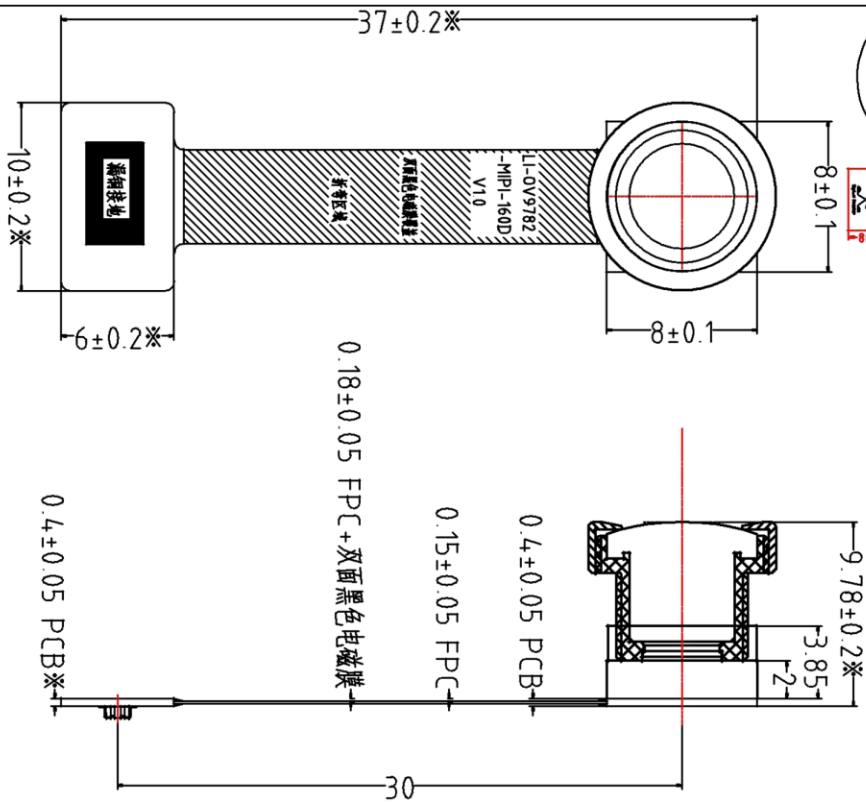


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General Behavior		
Video Resolution @ Frame rate	1280 x 800 @ 100 fps 1280 x 800 @ 50 fps 640 x 400 @ 200 fps 640 x 400 @ 50 fps 640 x 800 @ 100fps (single camera) 640 x 800 @ 50fps (single camera) 320 x 400 @ 200fps (single camera) 320 x 400 @ 50 fps (single camera)	
Sensitivity	TBD	
Interface (Optical)		
IR cut filter	No	
Sensor specification	OmniVision color 1MP image sensor OV9782	
Shutter	Global Shutter	
Format	1/4"	
Resolution	H:1296, V:816	
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. 250mA at 5 VDC	
Interface (Mechanical)		
Dimensions	OV580	L: 40 mm, W: 26 mm, H: 6.55 mm
	OV9782	L: 37 mm, W: 8 mm, H: 10 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	





注: 标有\*为重点尺寸

LI-OV9782-MIPI V1.0

REV	ECN NO / Description	Date	APPD
A0	First Released	2017 07 14	李伟林

NO	PIN NAME	NO	PIN NAME
1	SDA	13	LPWM
2	SCL	14	GPIO2
3	D0VDD 1.8V	15	AGND
4	MCP	16	FSIN
5	MCN	17	SID
6	DGND	18	DVDD 1.2V
7	MDP0	19	XCLK
8	MDN0	20	STROBE
9	DGND	21	RESET
10	MDP1	22	AVDD 2.8V
11	MDN1	23	ULPM
12	DGND	24	DGND

主要参数	镜头名称	镜头类型 (Lens Size)	镜头角度 (View Angle)	焦距 (F#)	光圈 (FNO)	畸变 (TV Distortion)	最大成像圆 (Max Image Circle)	相对照度 (Relative Illumination)	景深 (Focus Range)	调焦距离 (Focusing Distance)	IR滤波器 (IR Filter)	FPC供应商/材料	MIP阻容控制	底座名称 (holder)	感光芯片 (Chip Type)	像素 (Array Size)	IC地址	INTENDED USE	TITLE	DWG NO.	SCALE 1:1	PAGE 1/1	REV A0
	HK-9148AS-4.78-1-M7	1/4, 4E+IR	170°±3°	2.0±0.1	2.5±5%	<-88%	----	≥4.0%	30cm ~ ∞	35-4.0cm	IR滤波器	FPC供应商/材料	MIP阻容控制	M7-8X8	OV9782	1280×800	0X20	OV10-9782-F0	Leopard Imaging Inc.	OV109782F001			



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