



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

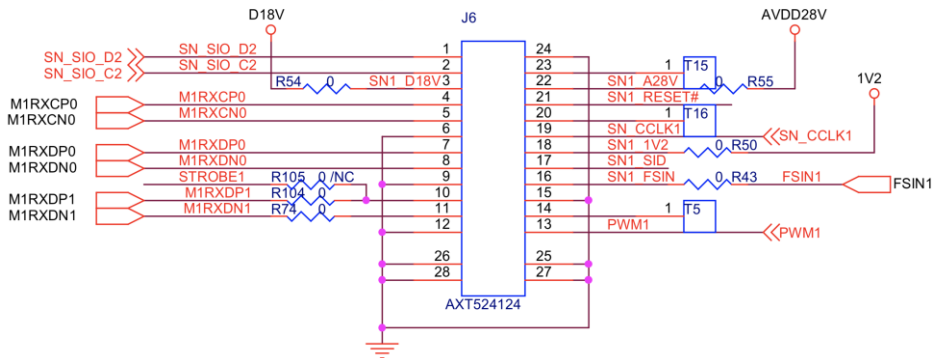
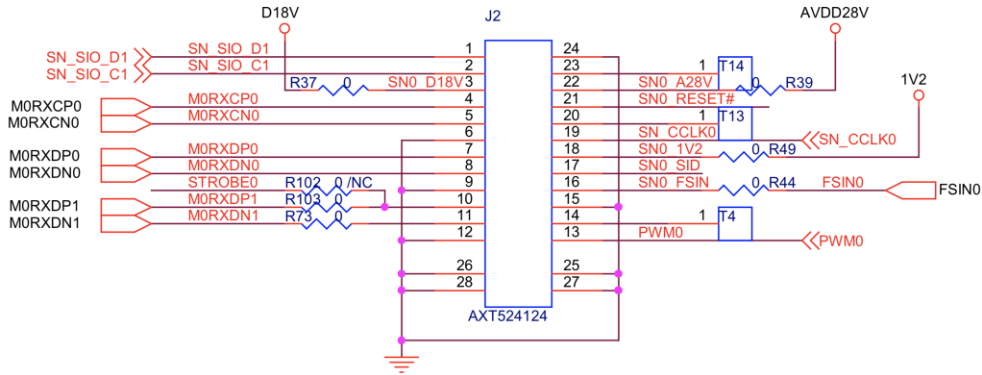
- Part#: LI-OV9782-MIPI-103H
- Resolution: 1296 x 816
- Sensor size: 1/4"
- Mono sensor
- MIPI Interface
- Connector: AXT624124
- Focusing range: 30cm ~ Infinity
- Focal Length: 2.0 mm
- Aperture, F/#: 2.5+/-5%
- FOV (D/H): 170°/103°
- TV Distortion: < -88%



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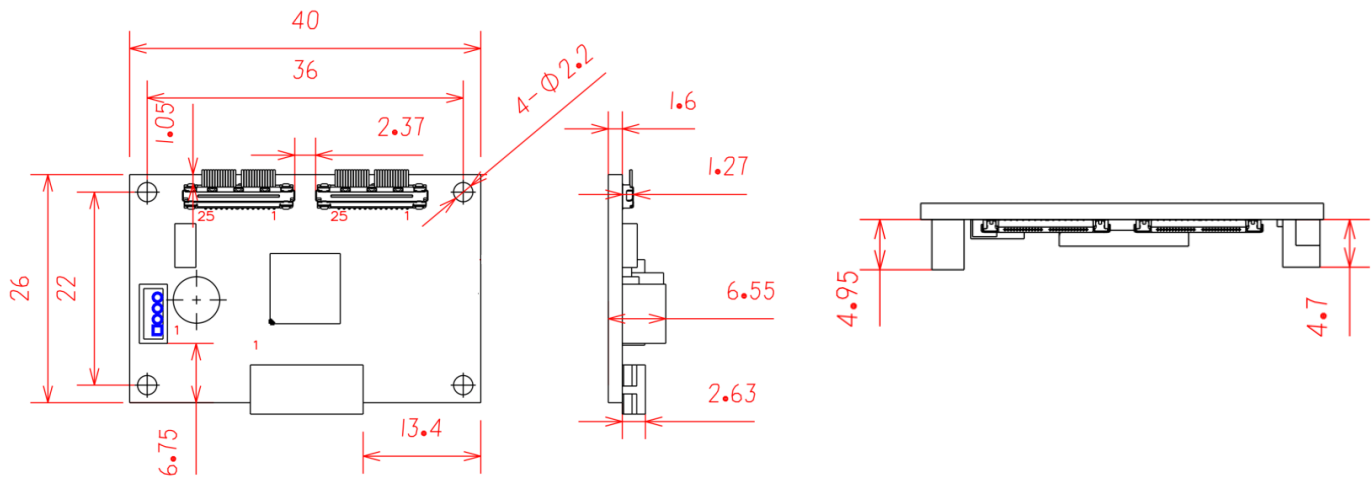
## Pin Assignment (OV580)



## 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)

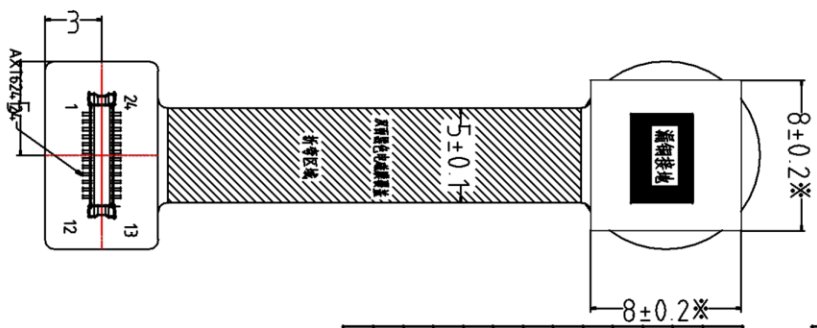
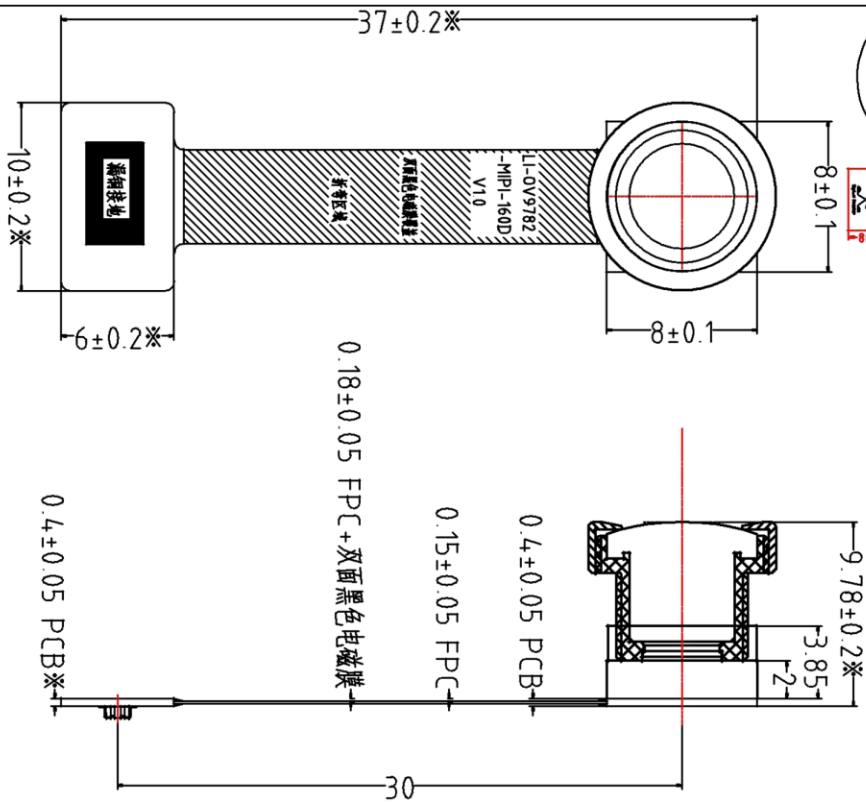


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General Behavior		
Video Resolution @ Frame rate	1280 x 800 @ 100 fps 1280 x 800 @ 50 fps 640 x 400 @ 200 fps 640 x 400 @ 50 fps 640 x 800 @ 100fps (single camera) 640 x 800 @ 50fps (single camera) 320 x 400 @ 200fps (single camera) 320 x 400 @ 50 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	





NO	PIN NAME	NO	PIN NAME
1	SDA	13	ILPWM
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

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

主要参数	镜头名称	镜头类型 (Lens Size)	镜头角度 (View Angle)	焦距 (FFI)	光圈 (FNO)	畸变 (TV Distortion)	最大成像圆 (Max Image Circle)	相对照度 (Relative Illumination)	景深 (Focusing Range)	调焦距离 (Focusing Distance)	IR滤波器 (IR Filter)	FPC焊盘间距	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	UNIT mm	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焊盘间距	MIP阻容控制	M7-8X8	OV9782	1280×800	0X20	OV10-9782-F0	Leopard Imaging Inc.	OV109782F001				



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