



**LEOPARD**  
IMAGING

# LI-IMX477-MIPI-140H



**Address:**

910 Auburn Ct  
Fremont, CA 94538  
USA



**Phone:**

+1 (408)263-0988

**Fax:**

+1 (408)217-1960



**Sales:**

[sales@leopardimaging.com](mailto:sales@leopardimaging.com)

**Support:**

[support@leopardimaging.com](mailto:support@leopardimaging.com)

## INTRODUCTION

The LI-IMX477-MIPI-140H is a MIPI CSI-2 camera equipped with Sony diagonal 7.857 mm (Type 1/2.3) 12.3MP CMOS image sensor IMX477 which adopts Exmor RS™ technology to achieve high speed image capturing, high sensitivity and low noise image. This camera outputs 8-bit / 10-bit / 12-bit RAW data.

## SPECIFICATIONS

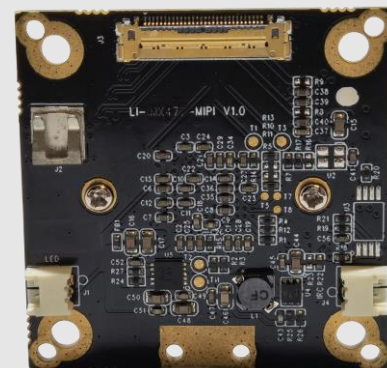
Sensor	Sony Diagonal 7.857 mm (Type 1/2.3) 12.3MP CMOS Image Sensor IMX477
Optical Format	1/2.3"
Resolution	4056 (H) x 3040 (V) (active pixels)
Pixel Size	1.55 x 1.55 $\mu\text{m}$
Output Format	8-bit / 10-bit / 12-bit RAW data
Maximum Frame Rate	60 fps @ 4056 x 3040
ISP	Not included
EEPROM	Included for calibration data
Color / Mono	Color sensor
Interface	4-lane MIPI CSI-2
Power Consumption	122 mA @ 3.3 VDC
Operating Temp	-20°C ~ +75°C
Storage Temp	-20°C ~ +75°C
Weight	~ 16 g
Part#	LI-IMX477-MIPI-140H

## APPLICATIONS

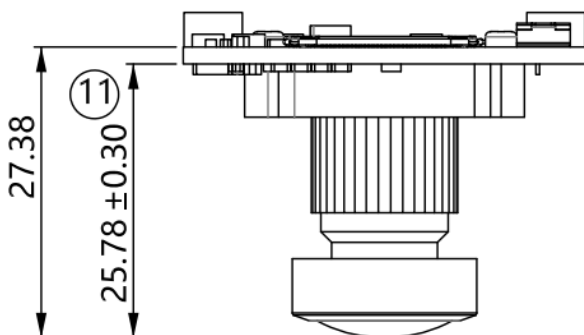
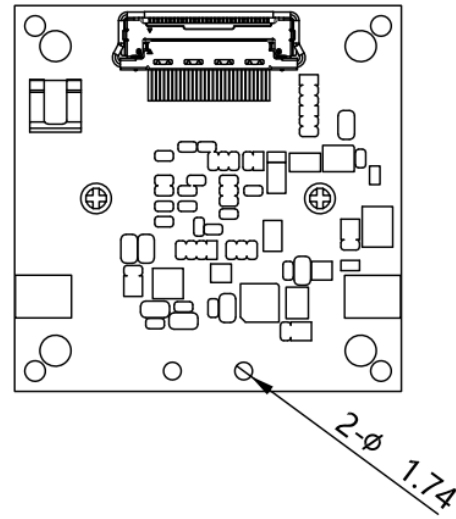
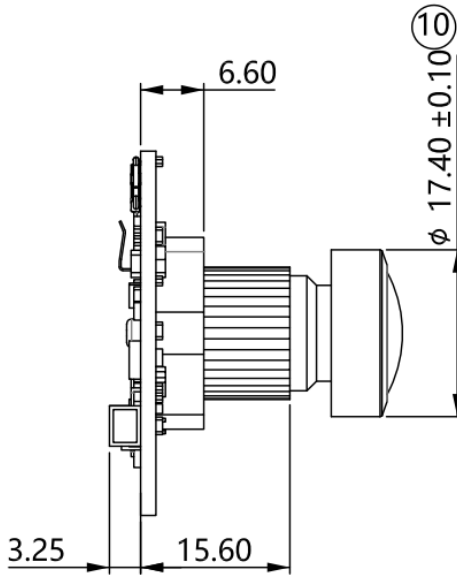
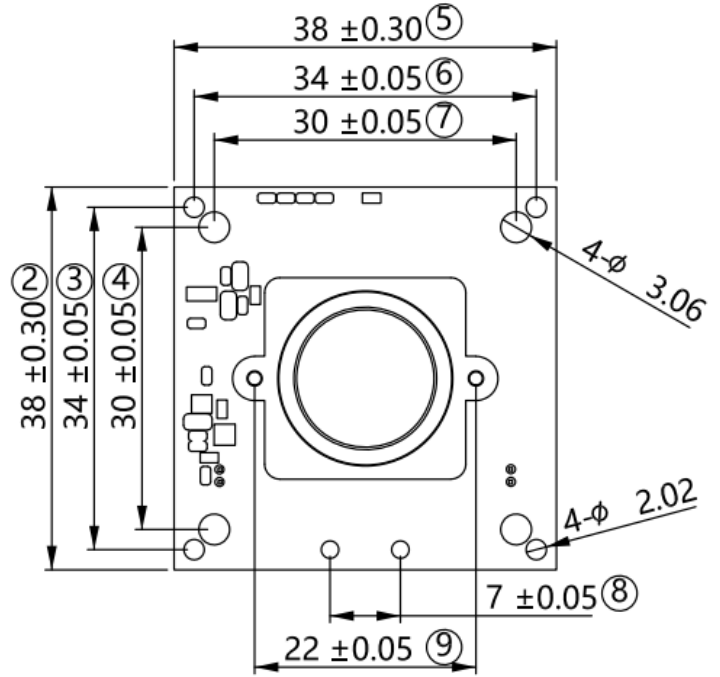
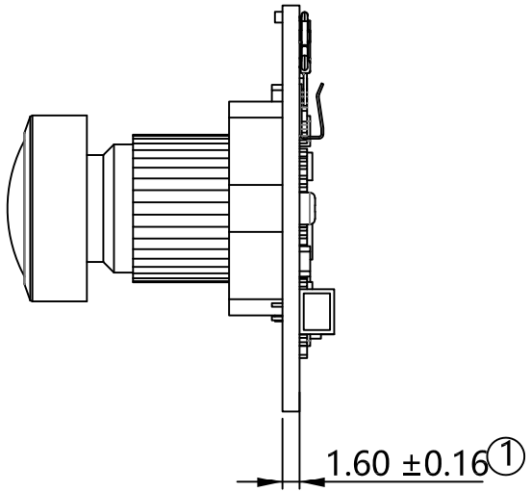
- IoT
- Drone
- Robots

## LENS SPECIFICATIONS

Focal Length	2.7 mm $\pm$ 5%
Focusing Distance	22.5 cm ~ 500 cm
Aperture, F/#	2.5 $\pm$ 5%
Field of View (FOV)	185° diagonal
	140° horizontal
	103° vertical
Optical Distortion	-75%
TV Distortion	-26%
Relative Illumination	63%
IR Filter	650 nm IR cut filter
Lens Mount	M12 x P0.5



# DIMENSIONS



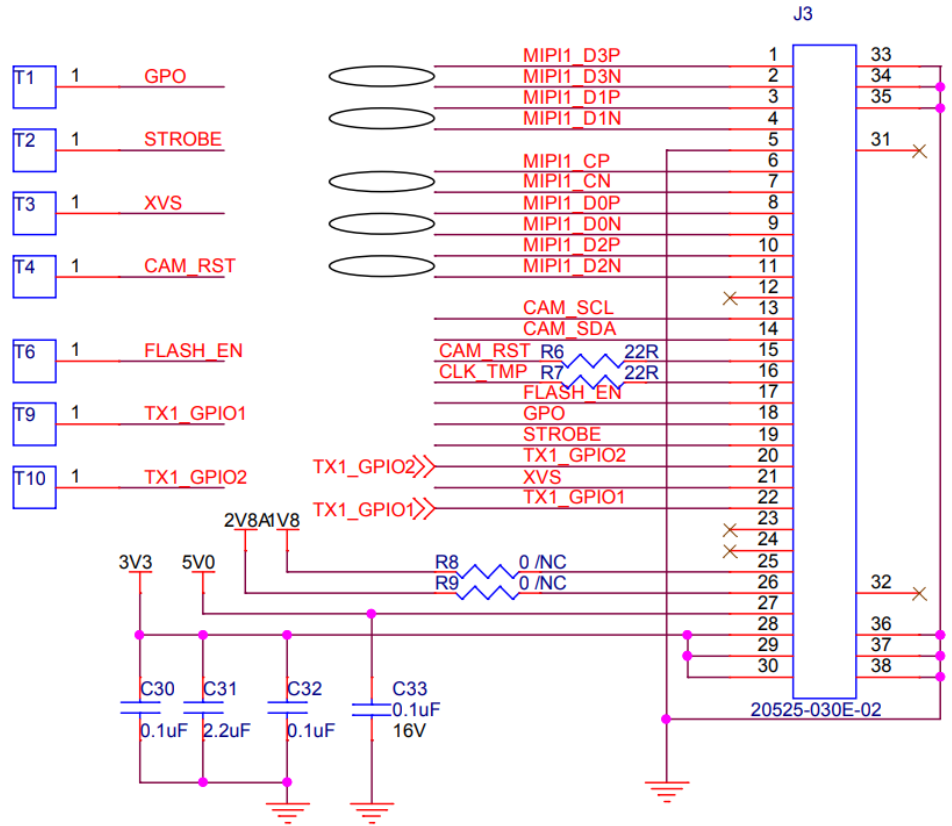
Note:

- ⊗ marked are important sizes.
- Tolerance for others unmarked is ± 0.3 mm.

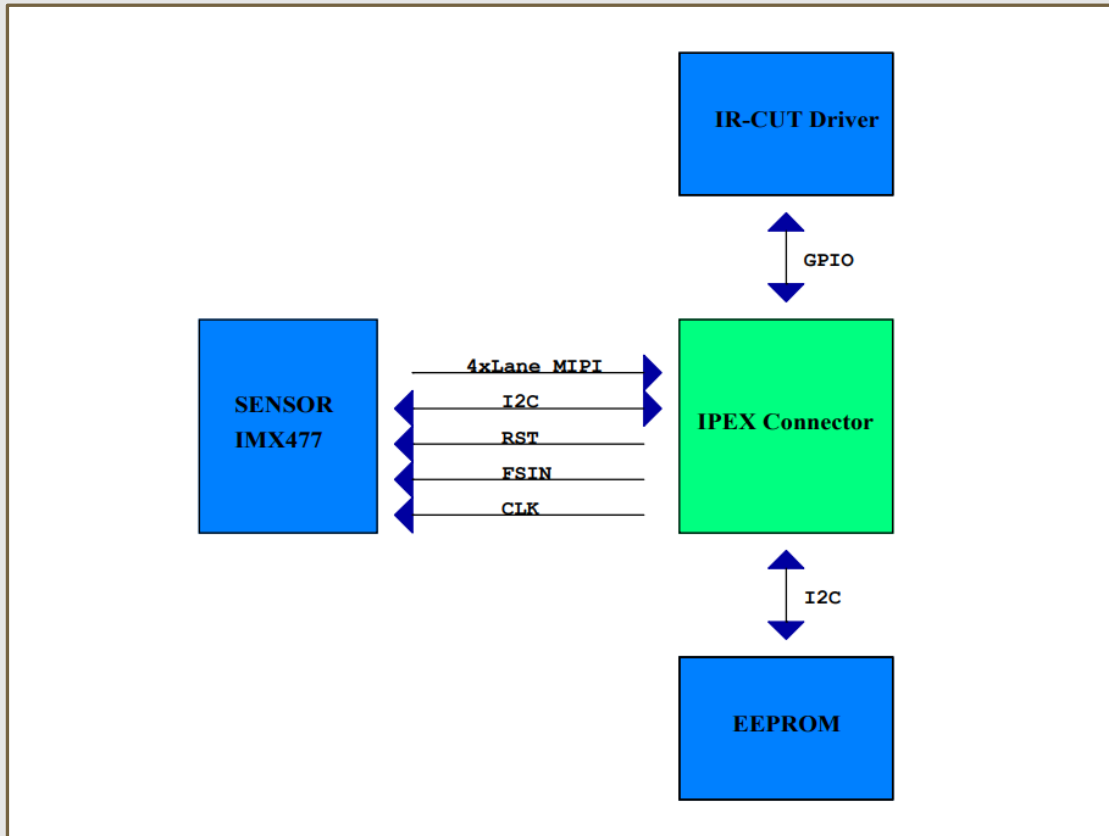
Unit: mm

# INTERFACE

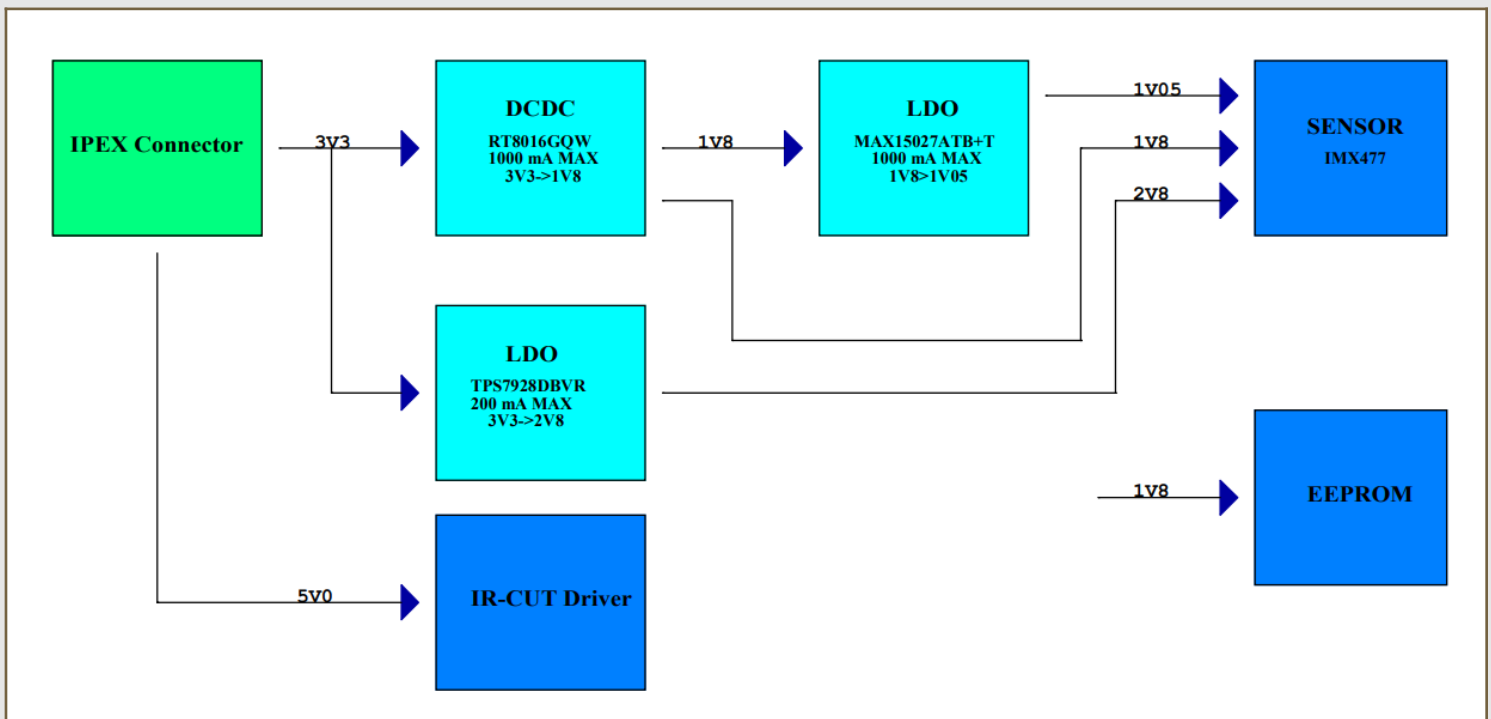
- Connector Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX Cable: FAW-1233
- Sensor I2C Address: 0x10 (7-bit)
- Sensor input clock needs to be supplied from pin 16.
- External Power Supply: 3.3V, 5.0V
- 2.8V, 1.8V, 1.05V are generated from board.
- 5.0V is not used since it's for IR cut switch function only.



## SYSTEM BLOCK DIAGRAM



## POWER BLOCK DIAGRAM



## ● REVISION HISTORY

Revision	Description	Release Date
1.0	First release.	14 Oct 2021
1.1	Updated temp information.	21 Oct 2021
1.2	Deleted info quoted from sensor spec.	27 May 2022

910 Auburn Ct, Fremont, CA 94538, USA

Phone: +1-408-263-0988

Fax: +1-408-217-1960

Email: [sales@leopardimagng.com](mailto:sales@leopardimagng.com)

Website: [www.leopardimaging.com](http://www.leopardimaging.com)

