



LEOPARD
IMAGING

LI-USB30-OX05B1S-MIPI-137H



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Key Features

- USB 3.0 Super Speed support
- RAW RGB-IR data output
- UVC compliant
- Color camera
- Supports M12 lens
- Allows customization
- USB + 5 VDC powered device
- Part#: **LI-USB30-OX05B1S-MIPI-137H**

Default Lens Specifications

Focal Length	2.666 mm
Aperture, F/#	2.4
Field of View (FOV)	137° horizontal
Optical Distortion	-87.08% (F-tanθ)
Relative Illumination	43.99%
IR Filter	Visible + 940 nm IR filter
Lens Mount	M12 x P0.5

Applications

- Automotive
 - Autonomous Driving
 - Driver Monitoring System
 - Occupant Monitoring System
 - In-Cabin Monitoring System

SDK Supported

- Camera Tool Source Code in C#
- Capture & Display
- RAW to RGB Conversion
- Save file as BMP & RAW format
- Color Matrix
- Register access function

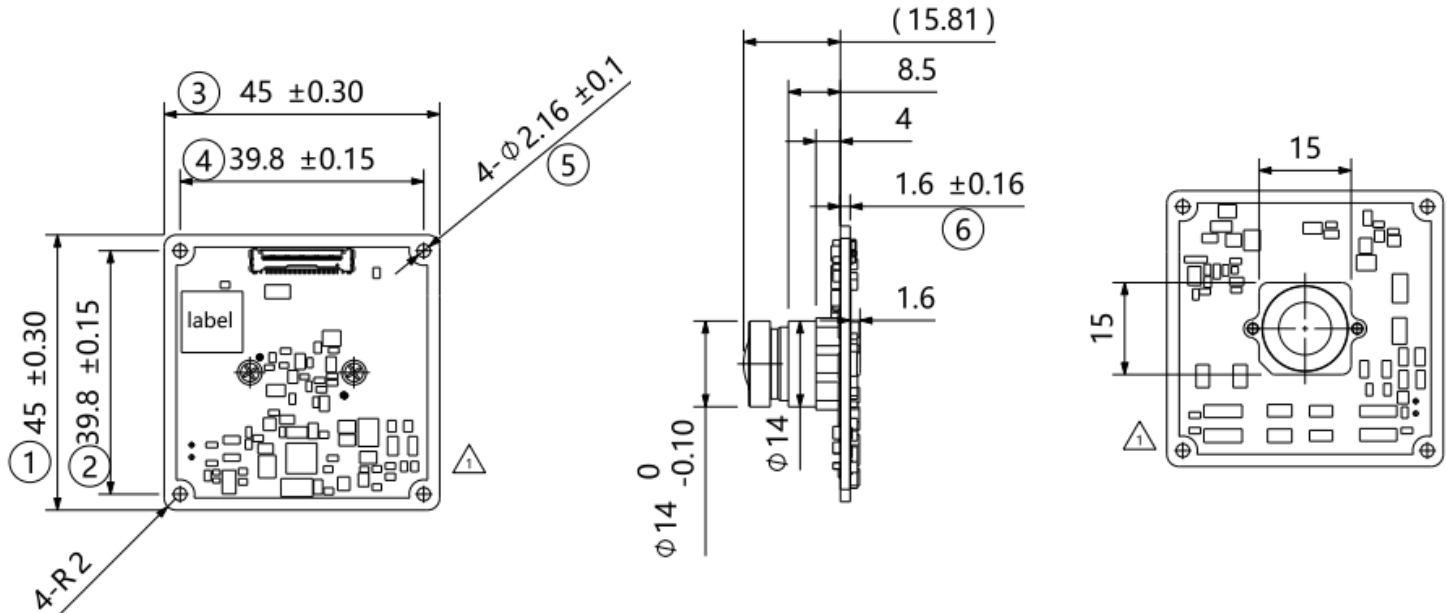
BOM

#	Items	QTY
1	LI-OX05B1S-MIPI-137H	1
2	LI-USB30 Main board	1
3	LI-CSLINK-IPX-TESTER	1
4	FAW-1233-02 (200 mm)	1

SEPCIFICATIONS

General Behavior	
Video Resolution @ Frame Rate	2592 x 1944 @ 30 fps
Bit Depth	10-bit
Interface (Optical)	
IR Cut Filter (on lens)	Visible + 940 nm IR filter
Sensor	OmniVision 1/2.5" RGB-IR CMOS 5MP Image Sensor OX05B1S
Shutter	Global shutter
Color / Mono	RGB-IR
Format	1/2.5"
Active Pixels	2592 (H) x 1944 (V)
Pixel Size	2.2 x 2.2 μm
Lens Mount	M12
Interface (Electrical)	
Interface	USB 3.0
Supply Voltage	USB 3.0 +5 VDC power source
Current Consumption	175 mA @ 5 VDC (2592 x 1944 @ 30 fps)
Weight	
LI-OX05B1S-MIPI-137H + LI-USB30 Main board + LI-CSLINK-IPX-TESTER (Without cable)	~ 26 g
Adjustment (Manual)	
Shutter	TBD
Gain	TBD
Register Access	Yes
Temp Info (LI-OX05B1S-MIPI-137H)	
Operating Temp	-20°C ~ +60°C
Storage Temp	-20°C ~ +60°C
Supported OS	
Windows OS, Standard Linux OS and other OS with full UVC drivers	

DIMENSIONS: LI-OX05B1S-MIPI-137H

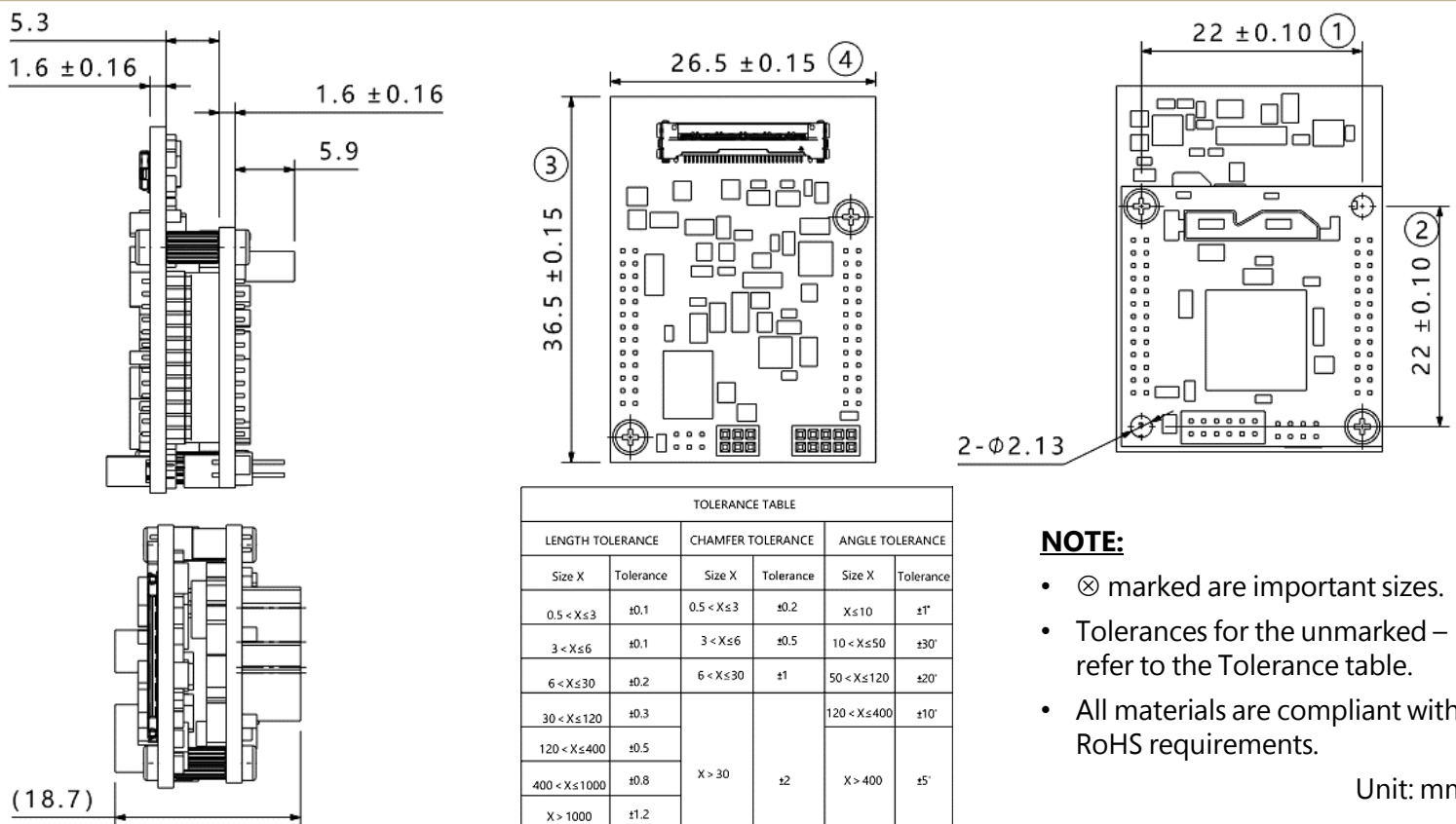


NOTE:

- ⊗ marked are important sizes.
- Tolerances for the unmarked are ±0.3 mm.
- All materials are compliant with RoHS and REACH requirements.

Unit: mm

DIMENSIONS: LI-USB30 Main Board + LI-CSLINK-IPX-TESTER



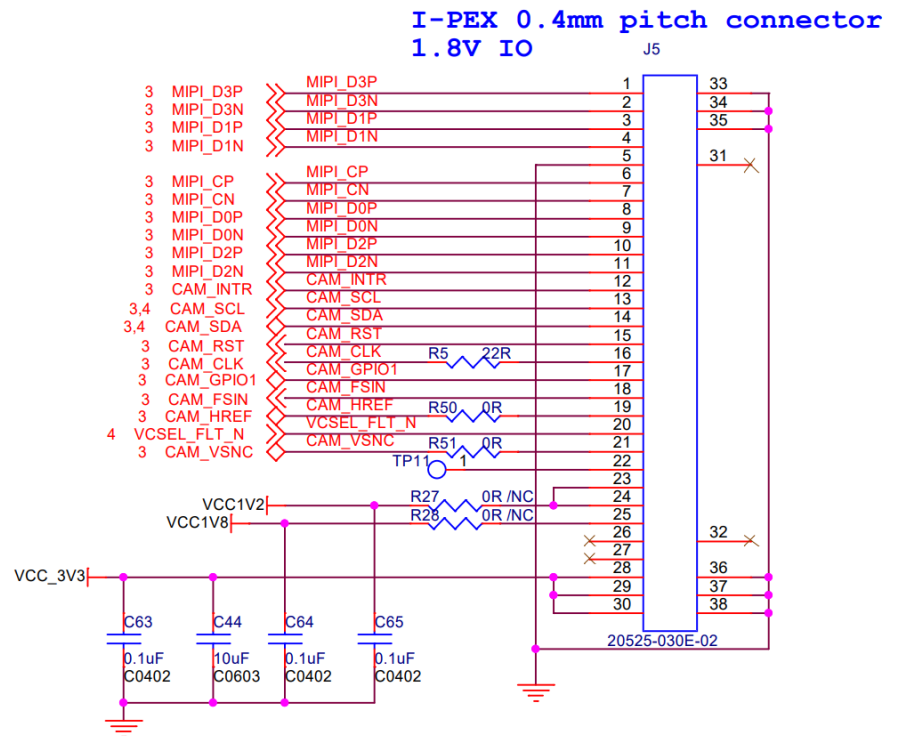
NOTE:

- ⊗ marked are important sizes.
- Tolerances for the unmarked – refer to the Tolerance table.
- All materials are compliant with RoHS requirements.

Unit: mm

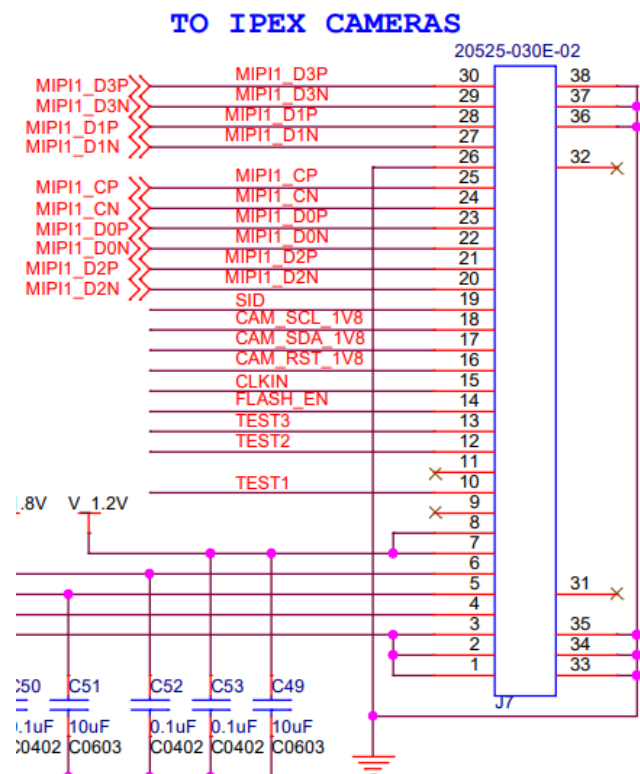
LI-OX05B1S-MIPI-137H INTERFACE (MIPI Connector)

- Connector Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable: LI-FAW-1233
- Sensor I2C Address: 0x6C (8-bit)
- External Power Supply: 3.3V
- 2.8V (analog), 1.8V and 1.2V are generated from board



LI-CSLINK-IPX-TESTER INTERFACE (To Cam)

- Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX Cable: FAW-1233-xx



- REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	24 Jan 2024

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