



LEOPARD
IMAGING

LI-OV9281-MIPI-RS-85H



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INTRODUCTION

The LI-OV9281-MIPI-RS-85H is equipped with OmniVision 1MP CMOS digital image mono sensor OV09281 which could programmable controls for frame rate, mirror and flip, cropping and windowing. This camera outputs RAW data.

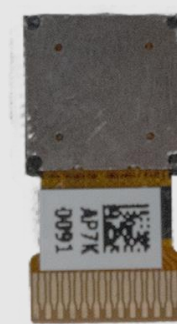
SPECIFICATIONS

Sensor	OmniVision 1MP CMOS digital image mono sensor OV09281
Optical Format	1/4"
Pixel Size	3.0 μm x 3.0 μm
Color / Mono	Mono sensor
Shutter Type	Global shutter
Output Format	8-bit / 10-bit RAW data
Resolution	1296 (H) x 816 (V) (active pixels)
Maximum Frame Rate	120 fps @ 1280 x 800
Glued	Yes
Focusing Range	22cm~Infinity
Interface	2-lane MIPI CSI-2
Power Consumption	TBD
Operating Temp	TBD
Storage Temp	TBD
Weight	~ 0.3 g

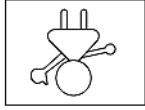
- Industrial bar code scanning

LENS SPECIFICATIONS

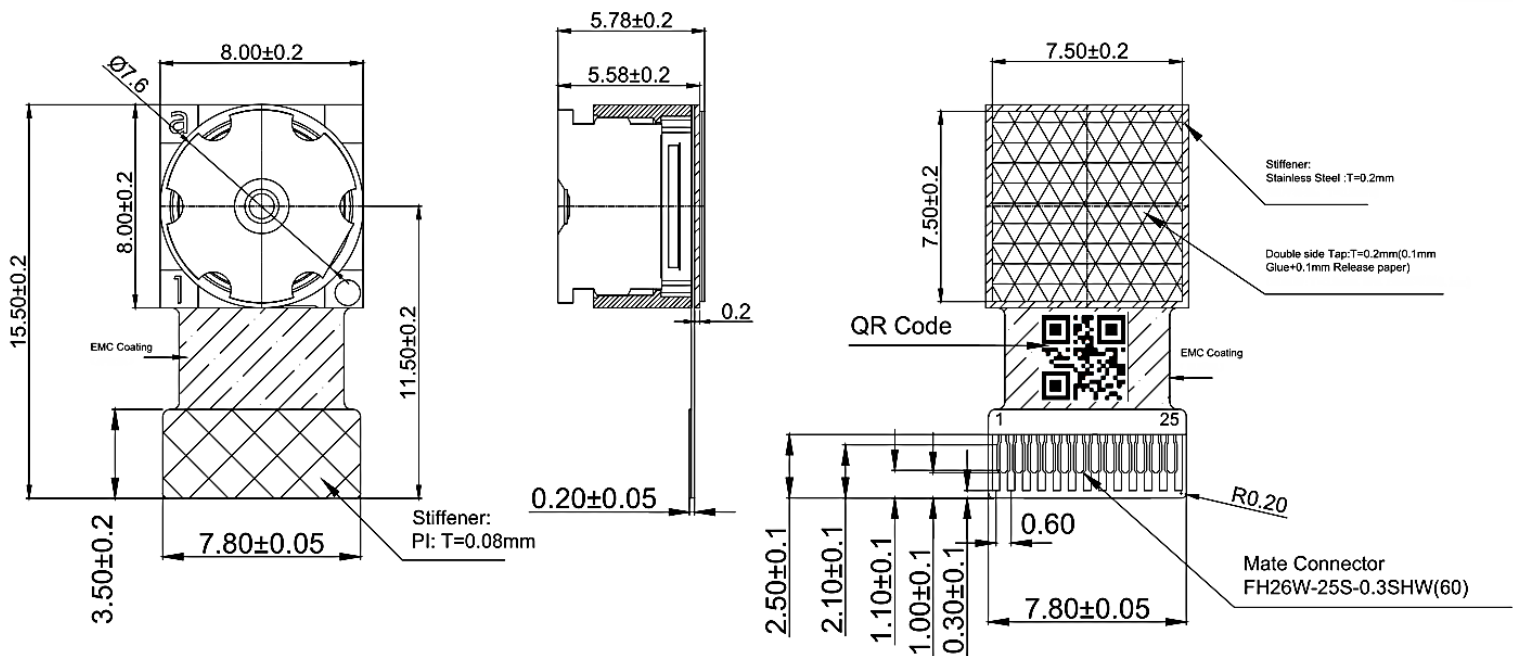
Focal Length	2.3 mm
Aperture, F/#	2.2
FOV	100° diagonal
	86.6° horizontal
	50.8° vertical
TV Distortion	<-20%
IR Cut Filter	850 nm bandpass filter



DIMENSIONS

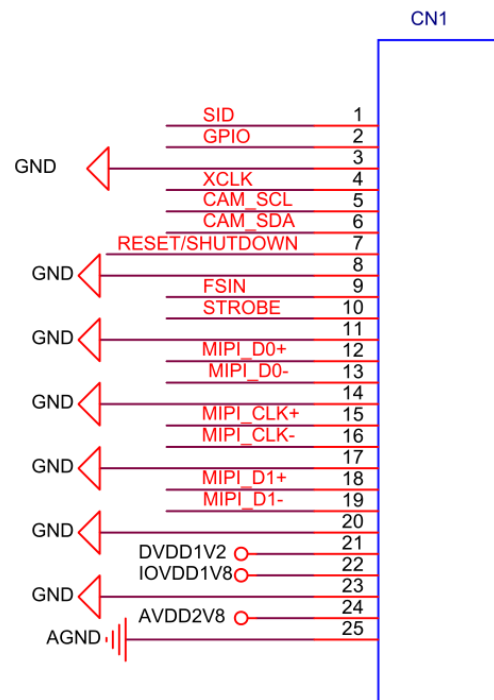


Capture Direction



GOLDEN FINGER INTERFACE

- Mating connector P/N: FH26W-25S-0.3SHW(60)
- Number of Positions: 25
- Pitch: 0.3 mm



Golden Finger Pinout Details

Pin No	Signal Name	Pin Type	Description	Voltage Level
1	SID	INPUT	SCCB ID SELECT INPUT	1.8V
2	GPIO	I/O	General purpose I/O	1.8V
3	GND	-	-	-
4	XCLK	INPUT	System input clock	1.8V
5	CAM_SCL	INPUT	1.8V IO Camera I2C SCL signal	1.8V
6	CAM_SDA	I/O	1.8V IO Camera I2C SDA signal	1.8V
7	RESET/SHUTDOWN	INPUT	Reset and power down (active low with pull down resistor)	1.8V
8	GND	POWER	Ground signal for digital	-
9	FSIN	I/O	Frame sync input	1.8V
10	STROBE	I/O	Frame exposure output indicator	1.8V
11	GND	POWER	Ground signal for digital	-
12	MIPI_D0+	OUTPUT	MIPI Clock Data0 Differential Pair +	MIPI DPHY
13	MIPI_D0-	OUTPUT	MIPI Clock Data0 Differential Pair -	MIPI DPHY

14	GND	-	-	
15	MIPI_CLK+	OUTPUT	MIPI Clock Lane Differential Pair +	MIPI DPHY
16	MIPI_CLK-	OUTPUT	MIPI Clock Lane Differential Pair -	MIPI DPHY
17	GND	-	-	-
18	MIPI_D1+	OUTPUT	MIPI Clock Data1 Differential Pair +	MIPI DPHY
19	MIPI_D1-	OUTPUT	MIPI Clock Data1 Differential Pair -	MIPI DPHY
20	GND	-	-	-
21	DVDD1V2	POWER	1.2V power supply	1.2V
22	IOVDD1V8	POWER	1.8V power supply	1.8V
23	GND	-	-	-
24	AVDD2V8	POWER	2.8V power supply	2.8V
25	AGND	-	-	-

• REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	15 Oct 2025
0.2	Added IR Cut Filter.	11 Aug 2026

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