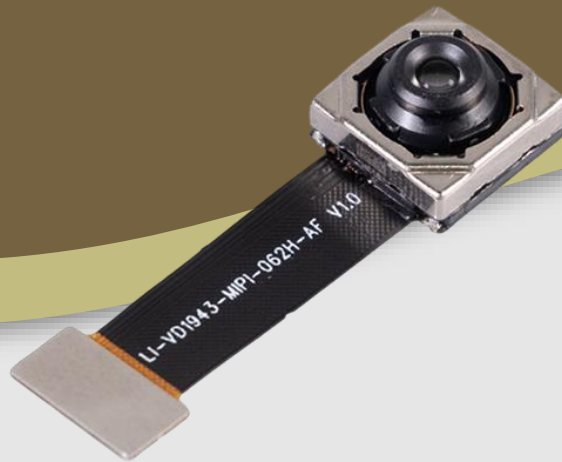




LEOPARD
IMAGING

LI-VD1943-MIPI-062H-AF



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INTRODUCTION

The LI-VD1943-MIPI-062H-AF is equipped with STMicroelectronics 5.1MP RGB-NIR Bayer image sensor VD1943, combining global and rolling shutter technology. It features auto focus and an integrated ISP reconstructs full-resolution color Bayer images with NIR depollution, making it ideal for computer vision.

SPECIFICATIONS

Maximum Frame Rate	100 fps @ full resolution (GS) 50 fps @ full resolution (RS)
Output Format	8-bit / 10-bit RGB RAW
Focusing Range	10 cm ~ Infinity
Auto Focus	Supported
Sensor	STMicroelectronics 5.1MP RGB-NIR Bayer image sensor VD1943
Color / Mono	RGB-NIR sensor
Optical Format	1/2.5"
Pixel Size	2.25 μm x 2.25 μm BSI
Shutter Type	Global shutter (GS) & Rolling shutter(RS)
Resolution	2560 (H) $\times$ 1984 (V)
Interface	4-lane MIPI D-PHY
Power Consumption	TBD
Operating Temp	TBD
Storage Temp	TBD
Weight	~ 1 g

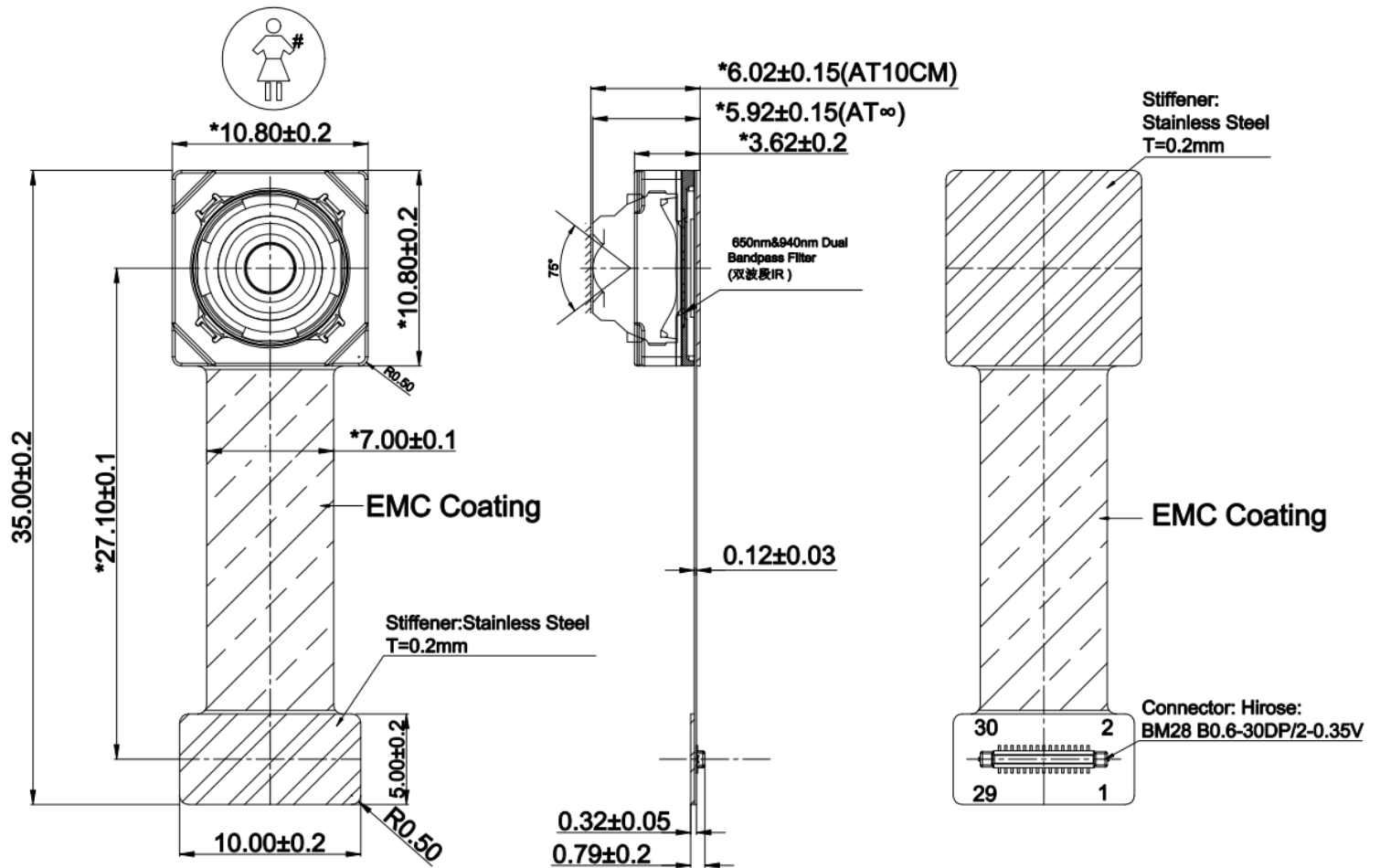
- Consumer
- Industrial

LENS SPECIFICATIONS

Focal Length	4.74 mm
Aperture, F/#	1.79
FOV	75° diagonal
	62° horizontal
	50° vertical
TV Distortion	<-1.5 %
Filter Type	Visible + 940nm dual bandpass filter



DIMENSIONS



Unit: mm

MODULE CONNECTOR

■ Connector Part#:

BM30B0.6-30DP/2-0.35V(51)

■ Number of Positions: 30

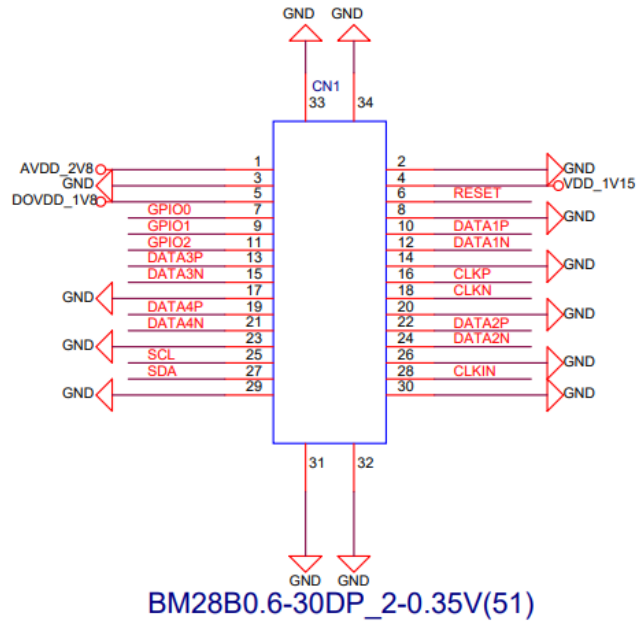
■ Pitch: 0.35 mm

■ Sensor I2C Address:

(W/R): 0X20 / 0X21 (8-bit);

■ External Power Supply: 1.15V, 1.8V, 2.8V

Note: External power supply can rise in any order.



PINOUT DETAILS

Pin No	Signal Name	Pin Type	Description	Voltage Level
1	AVDD2.8V	POWER	2.8V Analog Power Supply (Must be provided from the host side)	2.8 V
2	GND	POWER	Ground signal for digital	–
3	GND	POWER	Ground signal for digital	–
4	DVDD1.15V	POWER	1.15V Digital Power Supply (Must be provided from the host side)	1.15 V
5	DOVDD1.8V	POWER	1.8V I/O Power Supply (Must be provided from the host side)	1.8 V
6	RESET	INPUT	Reset (Active low)	1.8 V
7	GPIO0	I/O	General Purpose I/O	1.8 V
8	GND	POWER	Ground signal for digital	–
9	GPIO1	I/O	General Purpose I/O	1.8 V
10	DATA1P	OUTPUT	MIPI Data Lane 1 Differential Pair +	MIPI DPHY
11	GPIO2	I/O	General Purpose I/O	1.8 V
12	DATA1N	OUTPUT	MIPI Data Lane 1 Differential Pair -	MIPI DPHY
13	DATA3P	OUTPUT	MIPI Data Lane 3 Differential Pair +	MIPI DPHY

Pin No	Signal Name	Pin Type	Description	Voltage Level
14	GND	POWER	Ground signal for digital	–
15	DATA3N	OUTPUT	MIPI Data Lane 3 Differential Pair -	MIPI DPHY
16	CLKP	OUTPUT	MIPI Clock Lane Differential Pair +	MIPI DPHY
17	GND	POWER	Ground signal for digital	–
18	CLKN	OUTPUT	MIPI Clock Lane Differential Pair -	MIPI DPHY
19	DATA4P	OUTPUT	MIPI Data Lane 4 Differential Pair +	MIPI DPHY
20	GND	POWER	Ground signal for digital	–
21	DATA4N	OUTPUT	MIPI Data Lane 4 Differential Pair -	MIPI DPHY
22	DATA2P	OUTPUT	MIPI Data Lane 2 Differential Pair +	MIPI DPHY
23	GND	POWER	Ground signal for digital	–
24	DATA2N	OUTPUT	MIPI Data Lane 2 Differential Pair -	MIPI DPHY
25	SCL	INPUT	1.8V IO Camera I2C SCL signal (Require pull-up at the host)	1.8 V
26	GND	POWER	Ground signal for digital	–
27	SDA	I/O	1.8V IO Camera I2C SDA signal (Require pull-up at the host)	1.8 V
28	CLKN	INPUT	Sensor clock signal (Must be provided from the host side)	1.8 V
29	GND	POWER	Ground signal for digital	–
30	GND	POWER	Ground signal for digital	–

• REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	11 Sep 2026

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