LEOPARD IMAGING

LI-IMX586-MIPI-AF-79D

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INTRODUCTION

The LI-IMX586-MIPI-AF-79D is a MIPI CSI-2 camera with Sony diagonal 8.000 mm (Type 1/2.0) 48 Mega-Pixel, back-illuminated and stacked CMOS color sensor IMX586 which has low power consumption and achieves high sensitivity. This camera outputs RAW data.

SPECIFICATIONS

Sensor	Sony Diagonal 8.000 mm CMOS Sensor IMX586
Optical Format	1/2.0"
Resolution	8000 (H) x 6000 (V) (active pixels)
Pixel Size	0.8 x 0.8 µm
Output Format	8-bit / 10-bit RAW data, COMP8
Maximum Frame Rate	30 fps @ Full resolution (QBC Re-mosaic) 30 fps @ QBC-HDR 120 fps @ 2x2 Adjacent Pixel Binning (16:9) 240 fps @ 2x2 Adjacent Pixel Binning V2H2(16:9)
HDR (High Dynamic Range)	Supported
VCM for Auto Focus	YES
Color / Mono	Color sensor
Interface	4-lane MIPI CSI-2
Power Consumption	TBD
Operating Temp	TBD
Storage Temp	TBD
Weight	~ 1 g
Part#	LI-IMX586-MIPI-AF-79D

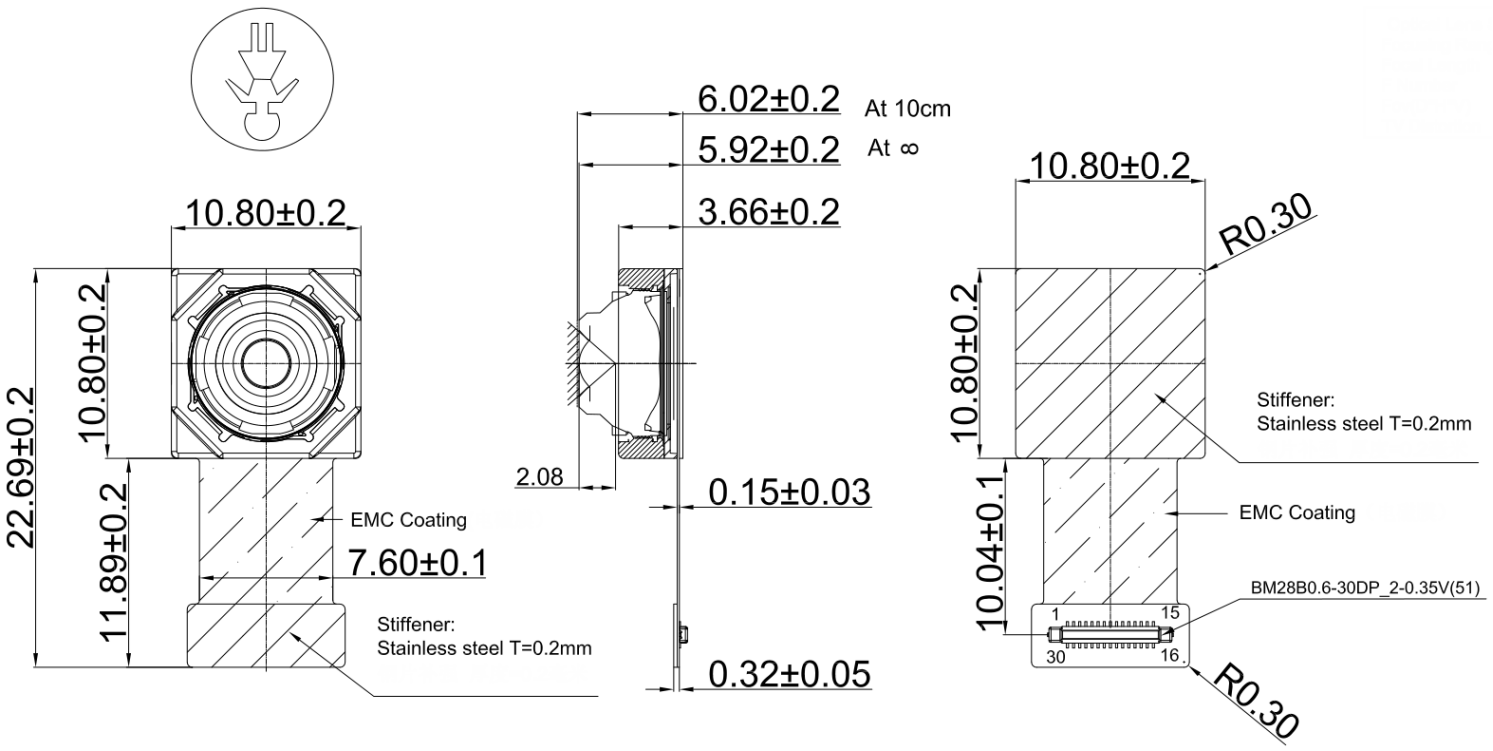
APPLICATIONS

- Cellular phone
- Tablet PC

LENS SPECIFICATIONS

Effective Focal Length	4.74 mm
Aperture, F/#	1.79 ±5%
Field of View (FOV)	79° diagonal
TV Distortion	<-1.5%
IR Filter	650 nm IR cut filter (On holder)
Lens Mount	M8.5 x P0.2

DIMENSIONS

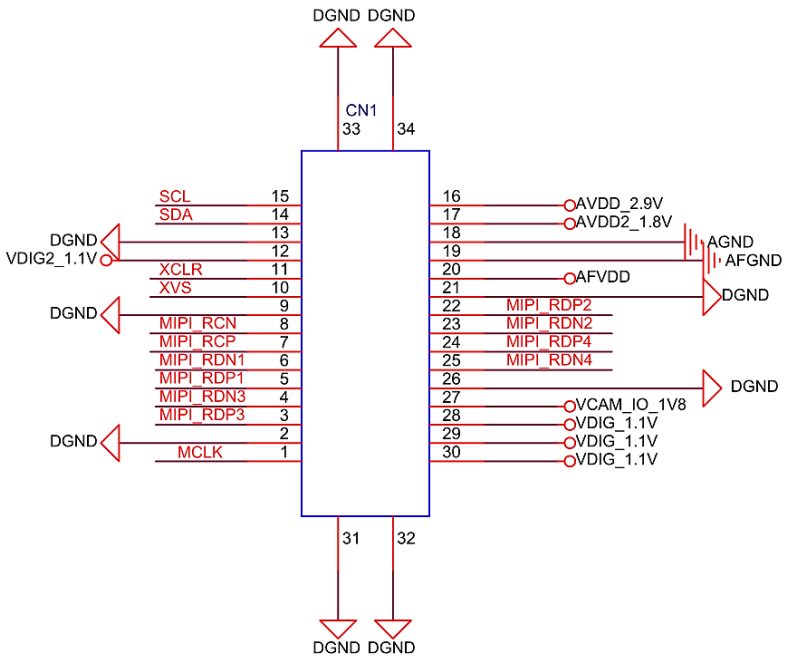


NOTE:

- All materials are compliant with RoHS requirements.
- Unit: mm

INTERFACE CN1

- Connector Part#:
  BM28B0.6-30DP_2-0.35V(51)
- Number of Positions: 30
- Pitch: 0.35 mm
- Sensor I2C Address: 0X34 (8-bit)



BM28B0.6-30DP_2-0.35V(51)

PINOUT DETAILS OF CN1

Pin No	Signal Name	Pin Type	Description	Voltage Level
1	MCLK	INPUT	Clock input	1.8V
2	DGND	POWER	Ground signal for digital	-
3	MIPI_RDP3	OUTPUT	MIPI Clock Data3 Differential Pair +	MIPI DPHY
4	MIPI_RDN3	OUTPUT	MIPI Clock Data3 Differential Pair -	MIPI DPHY
5	MIPI_RDP1	OUTPUT	MIPI Clock Data1 Differential Pair +	MIPI DPHY
6	MIPI_RDN1	OUTPUT	MIPI Clock Data1 Differential Pair -	MIPI DPHY
7	MIPI_RCP	OUTPUT	MIPI Clock Lane Differential Pair +	MIPI DPHY
8	MIPI_RCN	OUTPUT	MIPI Clock Lane Differential Pair -	MIPI DPHY
9	DGND	POWER	Ground signal for digital	-
10	XVS	I/O	Dual sync(pull-up internal)	1.8V
11	XCLR	INPUT	Chip clear(pull-down internal)	1.8V
12	VDIG2_1.1V	POWER	Power supply	1.1V
13	DGND	POWER	Ground signal for digital	-

Pin No	Signal Name	Pin Type	Description	Voltage Level
14	SDA	I/O	1.8V IO Camera I2C SDA signal	1.8V
15	SCL	INPUT	1.8V IO Camera I2C SCL signal	1.8V
16	AVDD_2.9V	POWER	Power supply	2.9V
17	AVDD2_1.8V	POWER	Power supply	1.8V
18	AGND	POWER	Ground signal for analog	-
19	AFGND	POWER	Ground signal for analog	-
20	AFVDD	POWER	Power supply	2.8V
21	DGND	POWER	Ground signal for digital	-
22	MIPI_RDP2	OUTPUT	MIPI Clock Data2 Differential Pair +	MIPI DPHY
23	MIPI_RDN2	OUTPUT	MIPI Clock Data2 Differential Pair -	MIPI DPHY
24	MIPI_RDP4	OUTPUT	MIPI Clock Data4 Differential Pair +	MIPI DPHY
25	MIPI_RDN4	OUTPUT	MIPI Clock Data4 Differential Pair -	MIPI DPHY
26	DGND	POWER	Ground signal for digital	–
27	VCAM_IO_1V8	POWER	1.8V Power supply for camera board	1.8V
28	VDIG_1.1V	POWER	1.1V Power supply for camera board	1.1V
29	VDIG_1.1V	POWER	1.1V Power supply for camera board	1.1V
30	VDIG_1.1V	POWER	1.1V Power supply for camera board	1.1V

REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	30 Sep 2024
0.2	Updated Lens Mount.	23 Oct 2024

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