

LI-AR0144-MIPI-85H SPECIFICATION

**Rev 1.1
Leopard Imaging Inc.**

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Version History

Version	Description	Release Date
1.0	First Release.	13. Jul. 2017
1.1	Deleted info quoted from sensor spec.	19. May. 2022

LI-AR0144-MIPI-85H SPECIFICATION

Key Information

Module Part#		LI-AR0144-MIPI-85H
Module Size		37 (L) x 8 (W) x 5.6 (H) mm
Sensor Type		AR0144
Array Size		1280 (H) x 800 (V)
Supply Voltage	Digital	1.2V
	Analog	2.8V
	I/O	1.8 or 2.8V
Optical Format		1/4" (4.5 mm)
Focus (F.NO)		2.2
FOV (H)		85°
Focal Length		2.3 mm
Focusing Range		20 cm to Infinity
TV Distortion		< -20 %
Pixel Size		3.0 x 3.0 μm
Color Filter Array		Monochrome
Output Format		RAW data
Operating Temperature		-40°C to +85°C (ambient) -40°C to +105°C (junction)
Max. Frame Rate		Full resolution @ 60 fps 720P @ 66 fps
Dynamic Range		63.9 dB
SNR _{MAX}		38 dB
Responsivity		3.6 V/lux-sec (Monochrome)
Shutter Type		Global shutter
Power Consumption		< 250 mW
Input Clock Range		6 ~ 64 MHz
Output Pixel Clock Maximum		74.25 MHz



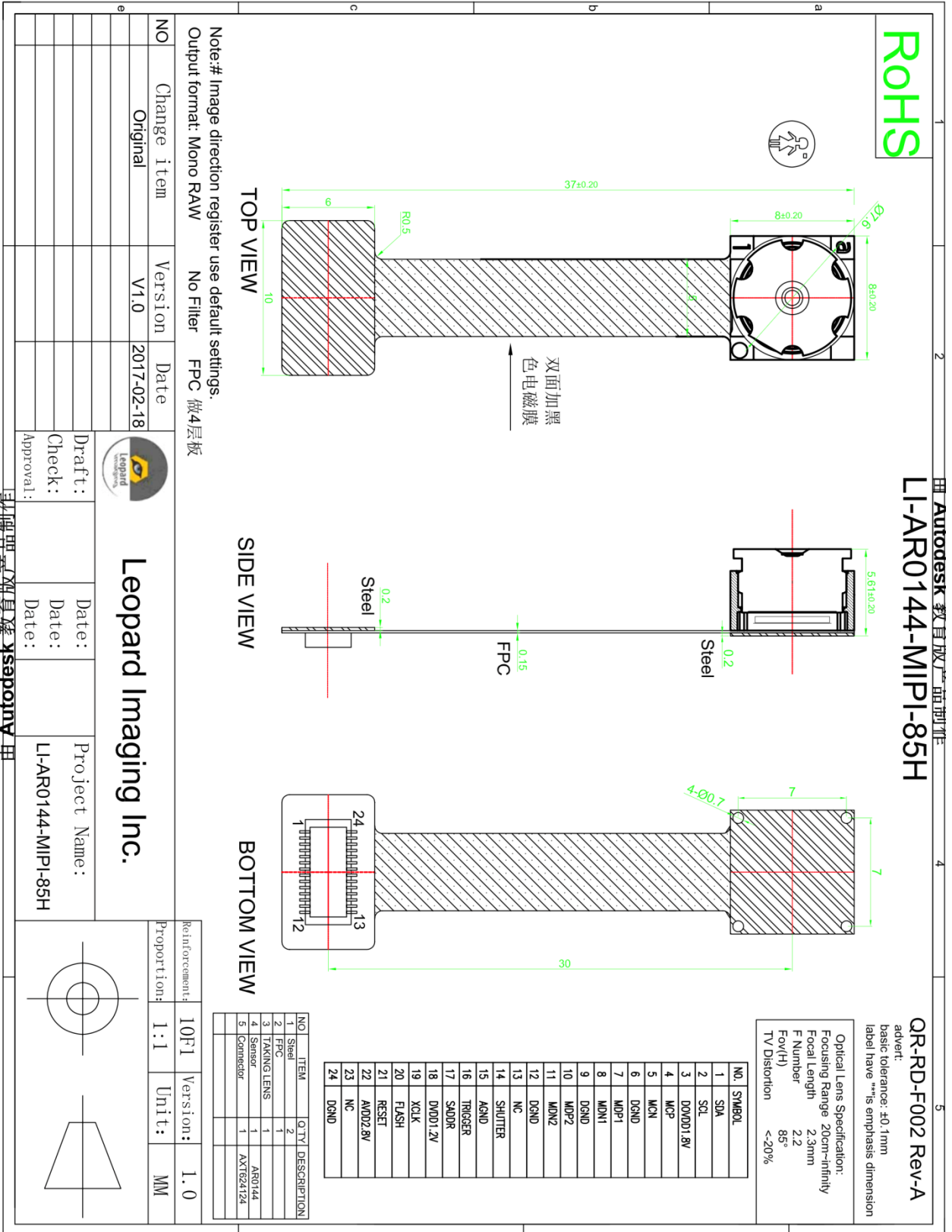
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Pin Assignment

No.	Name	Pin type	Description
1	SDA	I/O	Two-Wire Serial data I/O
2	SCL	Input	Two-Wire Serial clock input
3	DOVDD 1.8V	Power	I/O supply power
4	MCP	Output	MIPI serial clock differential P
5	MCN	Output	MIPI serial clock differential N
6	DGND	Power	Digital GND
7	MDP1	Output	MIPI serial data, lane 1, differential P
8	MDN1	Output	MIPI serial data, lane 1, differential N
9	DGND	Power	Digital GND
10	MDP2	Output	MIPI serial data, lane 2, differential P
11	MDN2	Output	MIPI serial data, lane 2, differential N
12	DGND	Power	Digital GND
13	NC	NC	
14	SHUTTER	Output	Control signal to drive external light sources
15	AGND	Power	Analog GND
16	TRIGGER	Input	Exposure synchronization input
17	SADDR	Input	Two-Wire Serial address select
18	DVDD 1.2V	Power	Digital power
19	XCLK	Input	External input clock
20	FLASH	Output	Control signal to drive external light sources
21	RESET	Input	Asynchronous reset (active LOW). All settings are restored to factory default.
22	AVDD 2.8V	Power	Analog power
23	NC	NC	
24	DGND	Power	Digital GND

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Mechanical Diagram



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