

# **LI-IMX219-MIPI-FF-NANO SPECIFICATION**

Model:

LI-IMX219-MIPI-FF-NANO-H90  
LI-IMX219-MIPI-FF-NANO-H136  
LI-IMX219-MIPI-FF-NANO-H145

**Rev 1.5**  
**Leopard Imaging Inc.**

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# LI-IMX219-MIPI-FF-NANO SPECIFICATION

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## Version History

Version	Description	Release Date
1.0	First release.	16. Mar. 2019
1.1	Added H90 and H135 version	22. Mar. 2019
1.2	Updated the dimensions of H90 and H135 modules.	14. Apr. 2019
1.3	Removed H135 module.	26. Apr. 2019
1.4	Added H136 module.	18. Oct. 2019
1.5	Deleted info quoted from sensor spec.	25. May. 2022



# LI-IMX219-MIPI-FF-NANO SPECIFICATION

## Key Information

Module Part#		LI-IMX219-MIPI-FF-NANO
Compatible Platform		NVIDIA® Jetson Nano™ Developer Kit
Module Size	H90	150.0 (L) x 25.0 (W) x 15.27 (H) mm
	H136	150.0 (L) x 25.0 (W) x 15.3 (H) mm
	H145	150.0 (L) x 25.0 (W) x 14.1 (H) mm
Sensor Type		Sony IMX219 8.08MP Color sensor
Active Pixels		3280 (H) x 2464 (V)
Image Size		Diagonal 4.60 mm (Type 1/4.0)
F/No.		2.6 (H90) / 2.0 (H136) / 2.5 (H145)
Focal Length		2.3 mm (H90) / 1.58 mm (H136) / 1.55 mm (H145)
FOV		90°(H) / 136°(H) / 145°(H)
TV Distortion		< -10% (H90) / < -15%(H136) / < -15% (H145)
Focusing Range		30 cm ~ Infinity
Pixel size		1.12 x 1.12 μm
IR Cutter Filter		Yes
Temperature Range	Operating	-20°C to +60°C
	Storage	-30°C to +80°C
Data Output Interface		CSI-2 MIPI 2-lane
Maximum Image Transfer Rate		3280 x 2464 @ 21 fps
Mating Connector	Part#	1-1734248-5
	Number of Positions	15
	Pitch	0.039" (1.00mm)



# LI-IMX219-MIPI-FF-NANO SPECIFICATION

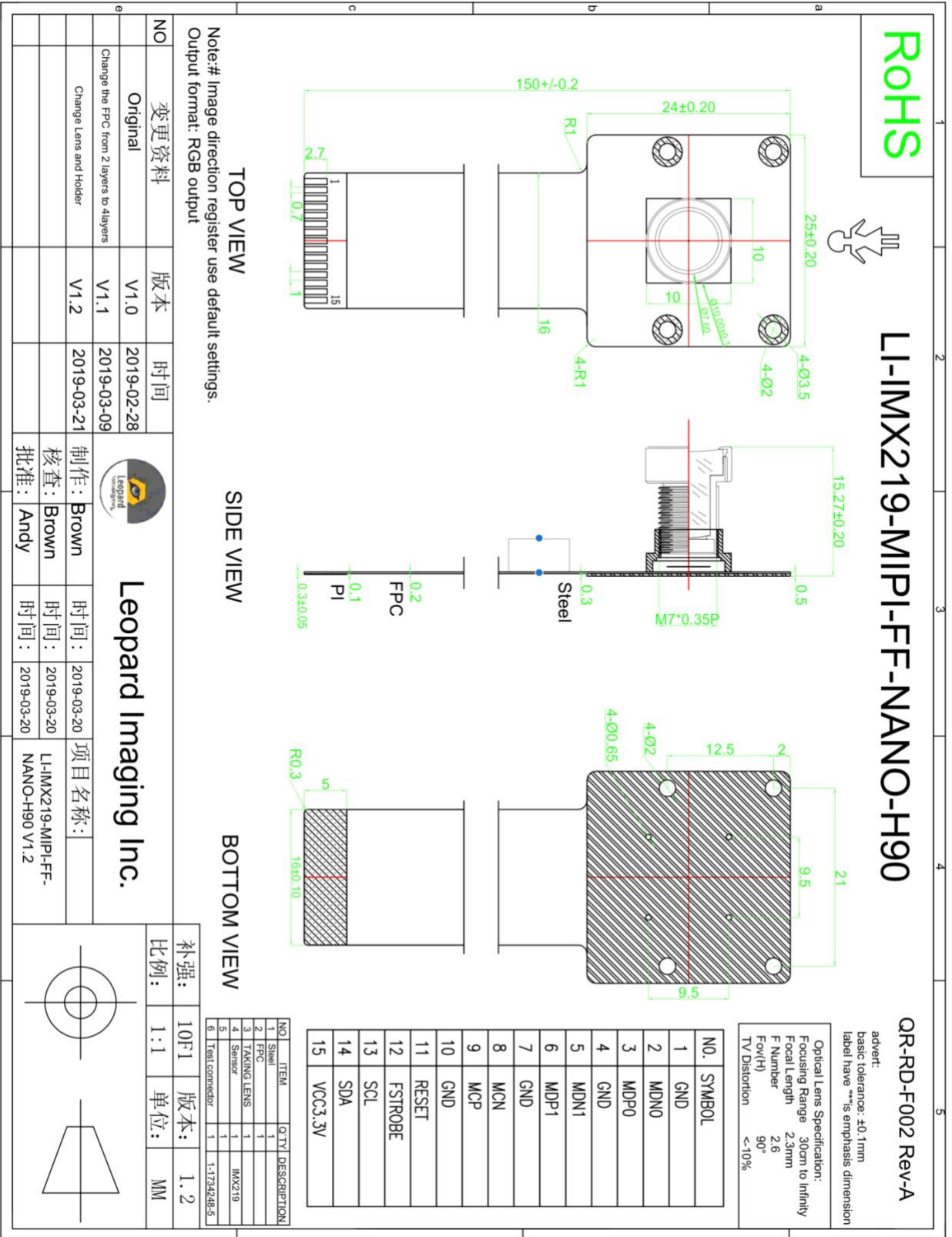
## Pin Assignment

No.	Name	Pin Type	Description
1	GND	Ground	
2	MDN0	O	MIPI data negative output
3	MDP0	O	MIPI data positive output
4	GND	Ground	
5	MDN1	O	MIPI data negative output
6	MDP1	O	MIPI data positive output
7	GND	Ground	
8	MCN	O	MIPI clock negative output
9	MCP	O	MIPI clock positive output
10	GND	Ground	
11	RESET	I	Reset
12	FSTROBE	O	Strobe output
13	SCL	I	
14	SDA	I/O	
15	VCC3.3V	Power	



# LI-IMX219-MIPI-FF-NANO SPECIFICATION

## Mechanical Diagram



NO	变更资料	版本	时间
	Original	V1.0	2019-02-28
	Change the FPC from 2 layers to 4layers	V1.1	2019-03-09
	Change Lens and Holder	V1.2	2019-03-21



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制作: Brown    时间: 2019-03-20

核查: Brown    时间: 2019-03-20

批准: Andy    时间: 2019-03-20

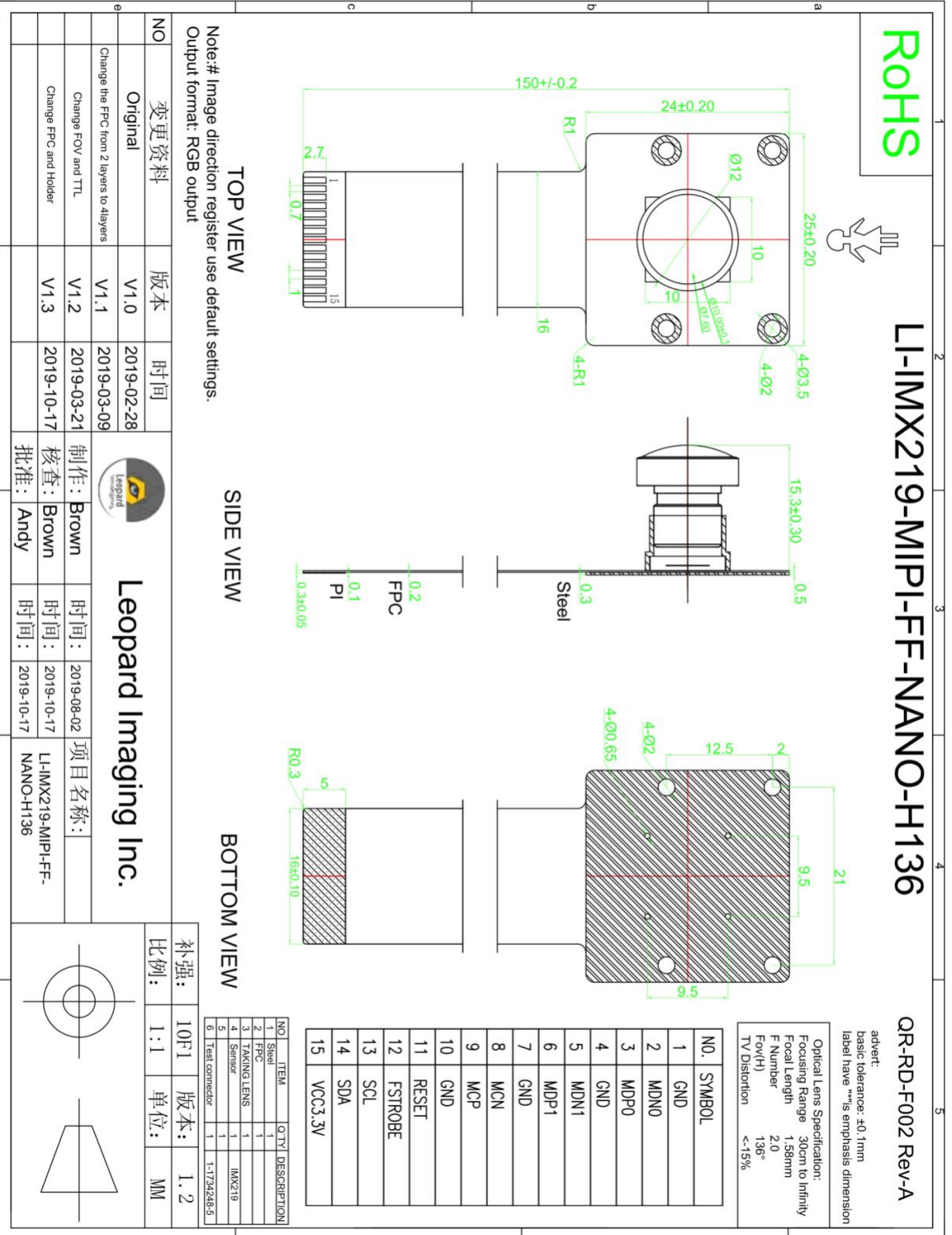
项目名称: LI-IMX219-MIPI-FF-NANO-H90 V1.2

补强: 10F1    版本: 1.2

比例: 1:1    单位: MM




# LI-IMX219-MIPI-FF-NANO SPECIFICATION



# LI-IMX219-MIPI-FF-NANO SPECIFICATION

ROHS

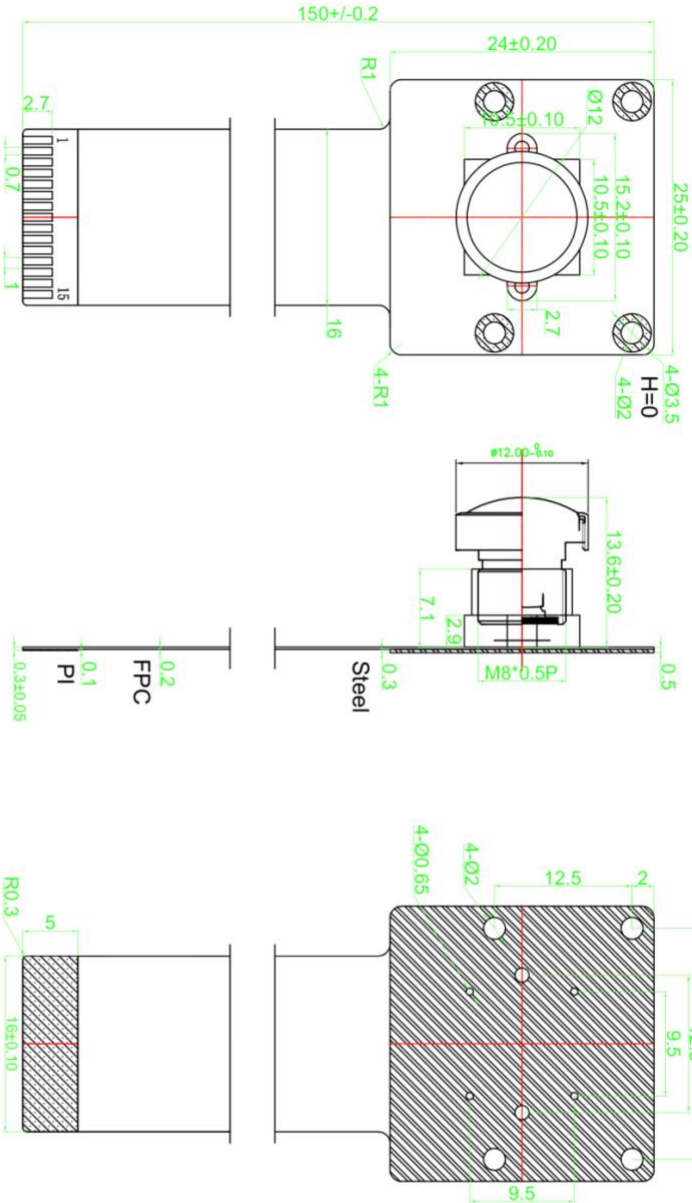


## LI-IMX219-MIPI-FF-NANO-H145

QR-RD-F002 Rev-A

advert: basic tolerance: ±0.1mm  
label have "" is emphasis dimension

Optical Lens Specification:  
Focusing Range 30cm to Infinity  
Focal Length 1.55mm  
F Number 2.5  
Fov(H) 145°  
TV Distortion <-15%



NO.	SYMBOL
1	GND
2	MDNO
3	MDPO
4	GND
5	MDN1
6	MDP1
7	GND
8	MCN
9	MCP
10	GND
11	RESET
12	FSTROBE
13	SCL
14	SDA
15	VCC3.3V

TOP VIEW

SIDE VIEW

BOTTOM VIEW

Note: # Image direction register use default settings.  
Output format: RGB output FPC 4 Layers

NO	变更资料	版本	时间
	Original	V1.0	2019-02-28
	Change the FPC from 2 layers to 4layers	V1.1	2019-03-09
	Change FOV and TTL	V1.2	2019-03-18



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制作:	Brown	时间:	2019-03-20	项目名称:	LI-IMX219-MIPI-FF-NANO-H145 V1.2
核查:	Brown	时间:	2019-03-20		
批准:	Andy	时间:	2019-03-20		

补强:	10F1	版本:	1.1
比例:	1:1	单位:	MM

