

# **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.**

## Contents

|                                |          |
|--------------------------------|----------|
| <b>Version History.....</b>    | <b>3</b> |
| <b>Key Information.....</b>    | <b>4</b> |
| <b>Pin Assignment.....</b>     | <b>5</b> |
| <b>Mechanical Diagram.....</b> | <b>6</b> |



## 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)                                |

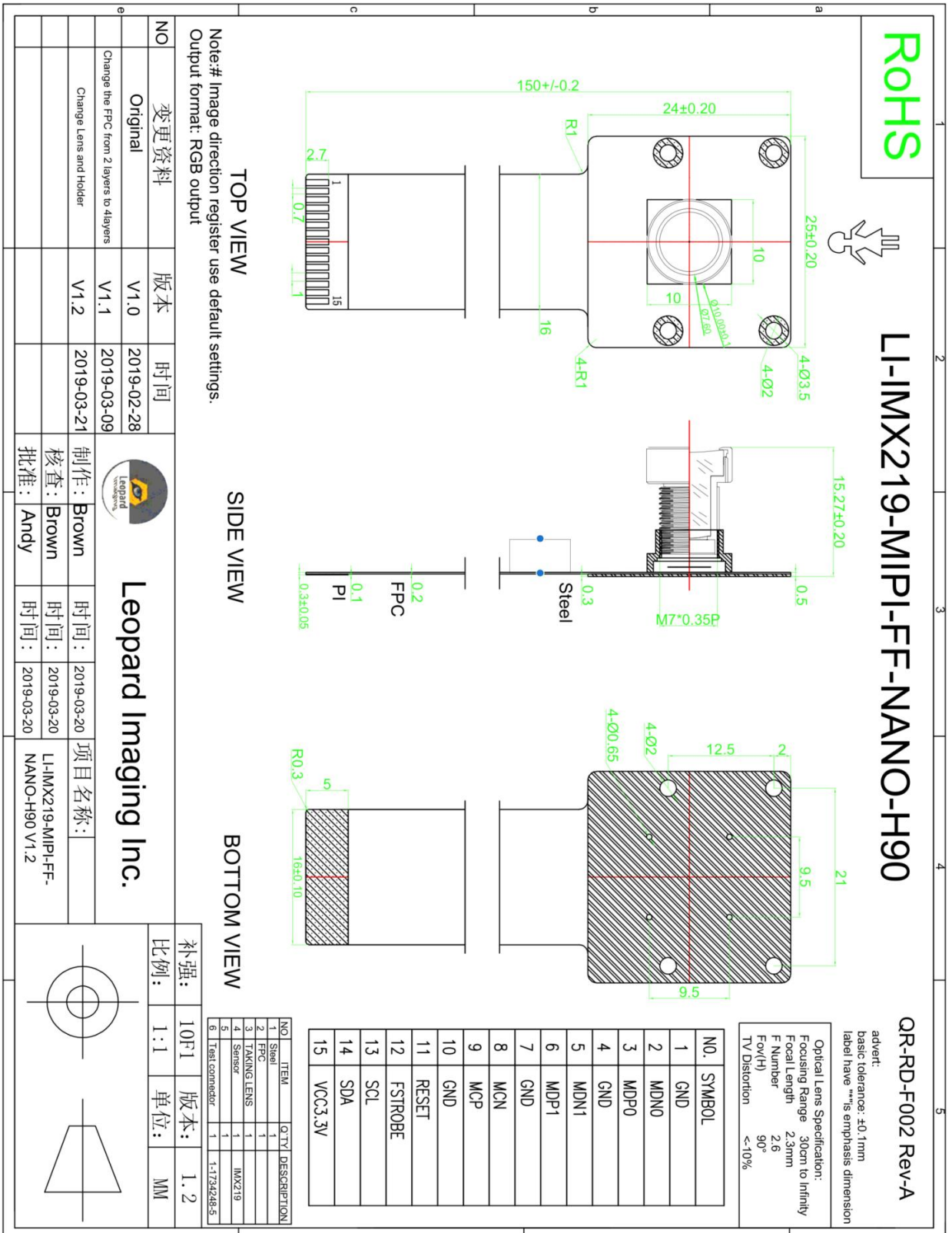


## Pin Assignment

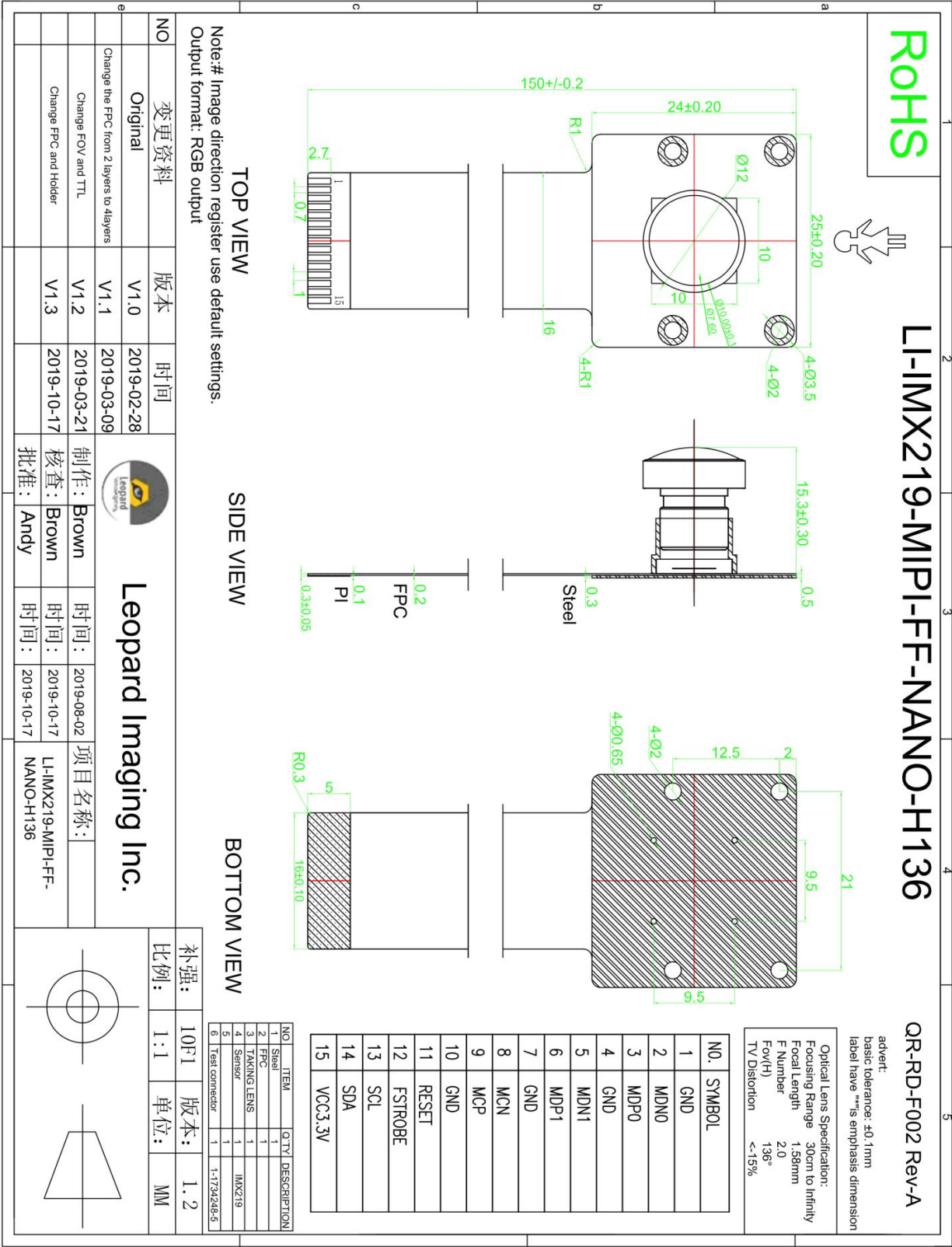
| No. | Name    | Pin Type | Description                |
|-----|---------|----------|----------------------------|
| 1   | GND     | Ground   |                            |
| 2   | MDN0    | O        | MIPI data positive output  |
| 3   | MDP0    | O        | MIPI data negative output  |
| 4   | GND     | Ground   |                            |
| 5   | MDN1    | O        | MIPI data positive output  |
| 6   | MDP1    | O        | MIPI data negative 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



LI-IMX219-MIPI-FF-NANO SPECIFICATION



| NO. | ITEM           | QTY | DESCRIPTION |
|-----|----------------|-----|-------------|
| 1   | Steel          | 1   |             |
| 2   | FPC            | 1   |             |
| 3   | TAKING LENS    | 1   |             |
| 4   | Sensor         | 1   | IMX219      |
| 5   |                | 1   |             |
| 6   | Test connector | 1   | 1-1734248-5 |

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

2019-03-21

Change FPC and Holder

V1.3

2019-10-17

制作: Brown

时间: 2019-08-02

项目名称: Leopard Imaging Inc.

核查: Brown

时间: 2019-10-17

LI-IMX219-MIPI-FF-NANO-H136

批准: Andy

时间: 2019-10-17

补强: 10F1

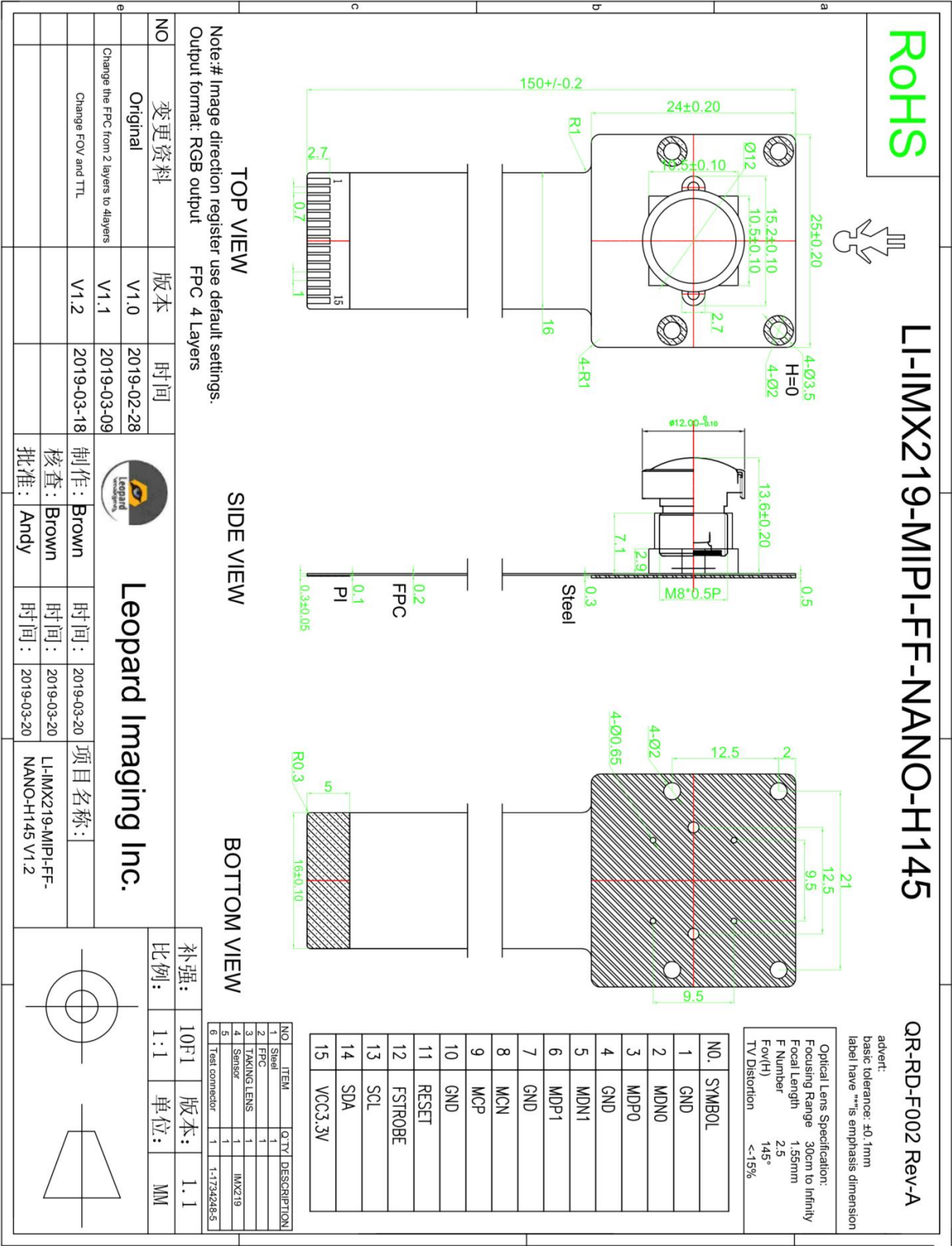
版本: 1.2

比例: 1:1

单位: MM



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