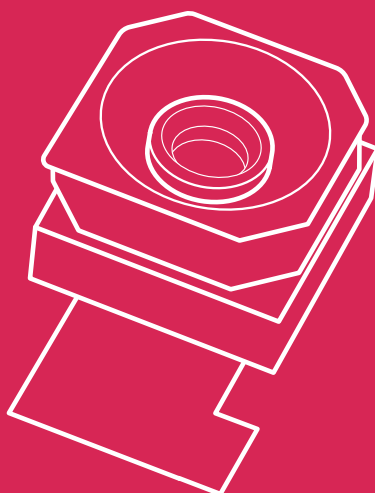




# Raspberry Pi Camera Module 3 Sensor Assembly

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## Overview



Raspberry Pi Camera Module 3 Sensor Assemblies offer the same IMX708 12-megapixel sensor with high-dynamic-range (HDR) support, and the same Phase Detection Autofocus (PDAF) capabilities as Camera Module 3, in a compact footprint suitable for integration into smaller-form-factor OEM products. Standard and wide-angle variants are available, with or without an infrared cut filter.

Camera Module 3 Sensor Assemblies can be used to take full HD video as well as stills photographs, and provide a natural path to scale for customers who have prototyped with Camera Module 3. Their operation is fully supported by the libcamera library.

Reference schematics and a bill of materials are provided to assist customers in integrating the required support components into their products.

## Specification

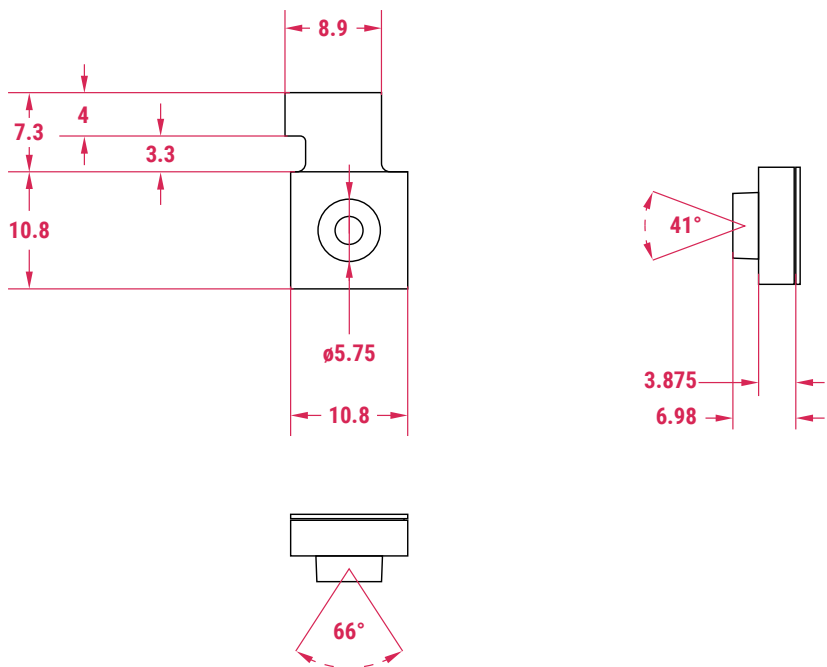
|                               |                                                                                                                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sensor:</b>                | Sony IMX708 featuring: <ul style="list-style-type: none"><li>• Dynamic Defect Pixel Correction (DPC)</li><li>• QBC re-mosaic function</li><li>• High dynamic range (HDR) support</li></ul> |
| <b>Resolution:</b>            | 11.9 megapixels                                                                                                                                                                            |
| <b>Sensor size:</b>           | 7.4 mm sensor diagonal                                                                                                                                                                     |
| <b>Common video modes:</b>    | 1080p50, 720p100, 480p120                                                                                                                                                                  |
| <b>Output:</b>                | RAW10                                                                                                                                                                                      |
| <b>Pixel size:</b>            | 1.4 $\mu\text{m}$ $\times$ 1.4 $\mu\text{m}$                                                                                                                                               |
| <b>Horizontal/vertical:</b>   | 4608 $\times$ 2592 pixels                                                                                                                                                                  |
| <b>IR cut filter:</b>         | Integrated in standard variants; not present in NoIR variants                                                                                                                              |
| <b>Autofocus system:</b>      | Phase Detection Autofocus                                                                                                                                                                  |
| <b>Operating temperature:</b> | 0°C to 50°C                                                                                                                                                                                |
| <b>Compliance:</b>            | For a full list of local and regional product approvals, please visit <a href="http://pip.raspberrypi.com">pip.raspberrypi.com</a>                                                         |
| <b>Production lifetime:</b>   | The Raspberry Pi Camera Module 3 Sensor Assembly will remain in production until at least January 2030                                                                                     |
| <b>List price:</b>            | <b>See variants table below</b>                                                                                                                                                            |

For a bill of materials visit [rpltd.co/sa-bom](http://rpltd.co/sa-bom)

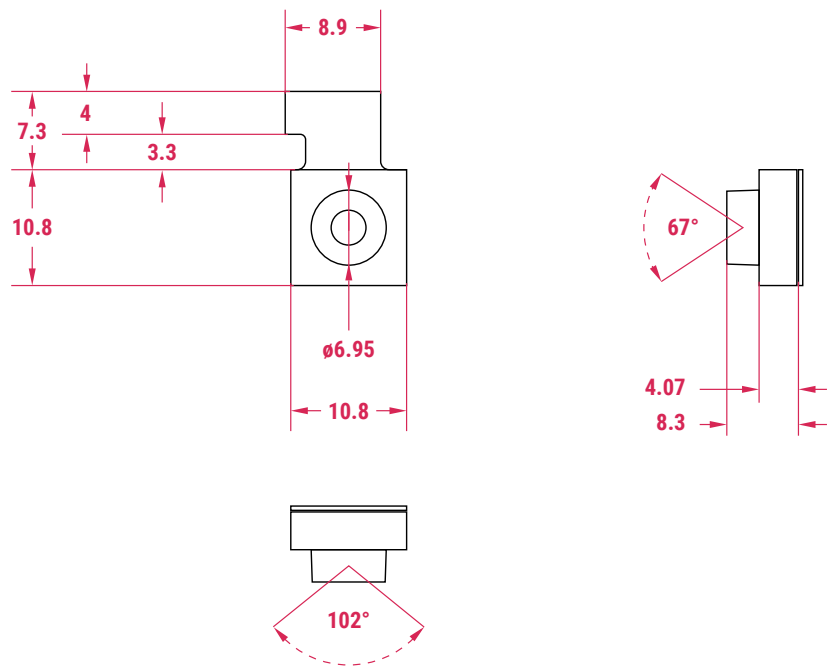
For the reference schematic visit [rpltd.co/sa-reference-schematic](http://rpltd.co/sa-reference-schematic)

# Physical specification

## Standard lens



## Wide lens



Note: all dimensions in mm

## Variants

|                          | Standard   | Standard NoIR | Wide        | Wide NoIR   |
|--------------------------|------------|---------------|-------------|-------------|
| Part number              | SA31VA30P  | SA31NA30P     | SA36VA30P   | SA36NA30P   |
| Focus range              | 10 cm–∞    | 10 cm–∞       | 5 cm–∞      | 5 cm–∞      |
| Focal length             | 4.74 mm    | 4.74 mm       | 2.75 mm     | 2.75 mm     |
| Diagonal field of view   | 75 degrees | 75 degrees    | 120 degrees | 120 degrees |
| Horizontal field of view | 66 degrees | 66 degrees    | 102 degrees | 102 degrees |
| Vertical field of view   | 41 degrees | 41 degrees    | 67 degrees  | 67 degrees  |
| Focal ratio (F-stop)     | F1.8       | F1.8          | F2.2        | F2.2        |
| Infrared-sensitive       | No         | Yes           | No          | Yes         |
| List price               | \$15       | \$15          | \$25        | \$25        |

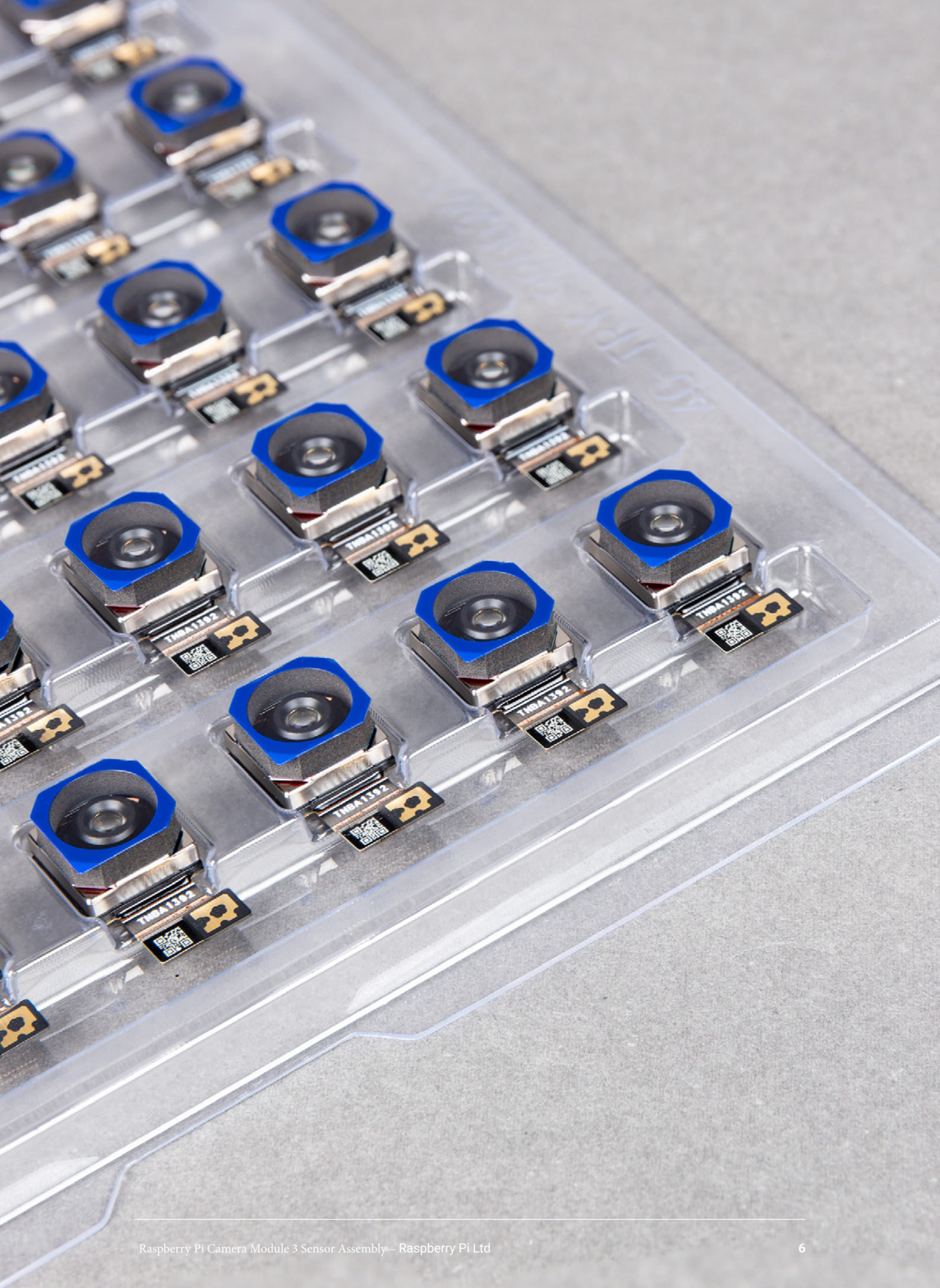
### WARNINGS

- This product should be operated in a well-ventilated environment; if used inside a case, the case should not be covered
- Whilst in use, this product should be firmly secured or placed on a stable, flat, non-conductive surface, and should not come into contact with conductive items
- All peripherals used with this product should comply with relevant standards for the country of use and be marked accordingly to ensure that safety and performance requirements are met

### SAFETY INSTRUCTIONS

**To avoid malfunction or damage to this product, please observe the following:**

- This device should be operated in a dry environment at 0–50°C
- Do not expose to water or moisture, or place on a conductive surface whilst in operation
- Do not expose to heat from any source; Raspberry Pi Camera Module 3 Sensor Assembly is designed for reliable operation at normal ambient temperatures
- Store in a cool, dry location
- Avoid rapid changes of temperature, which can cause moisture to build up in the device, affecting image quality
- Take care whilst handling to avoid mechanical or electrical damage to the printed circuit board and connectors





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