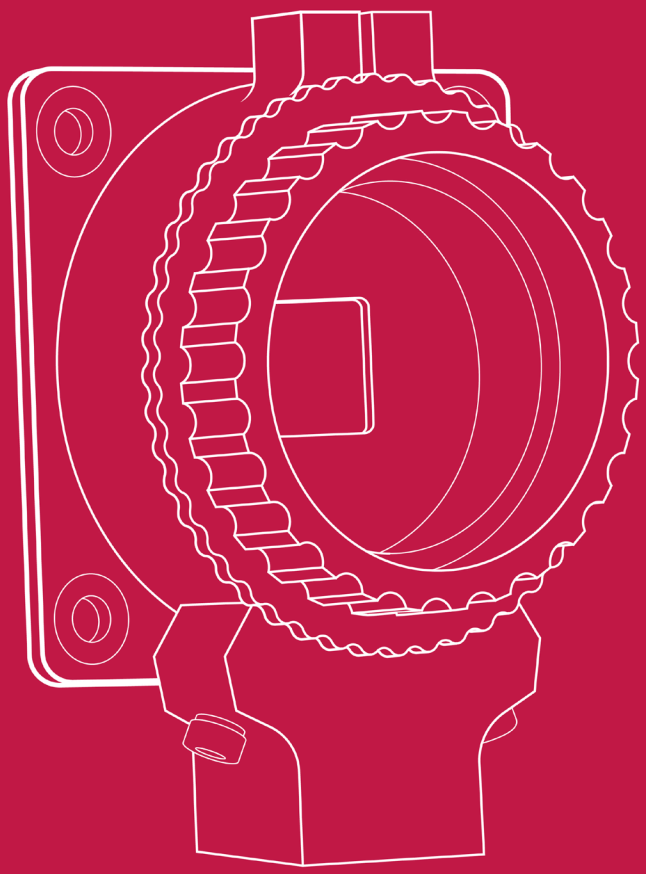
Raspberry Pi
High Quality Camera



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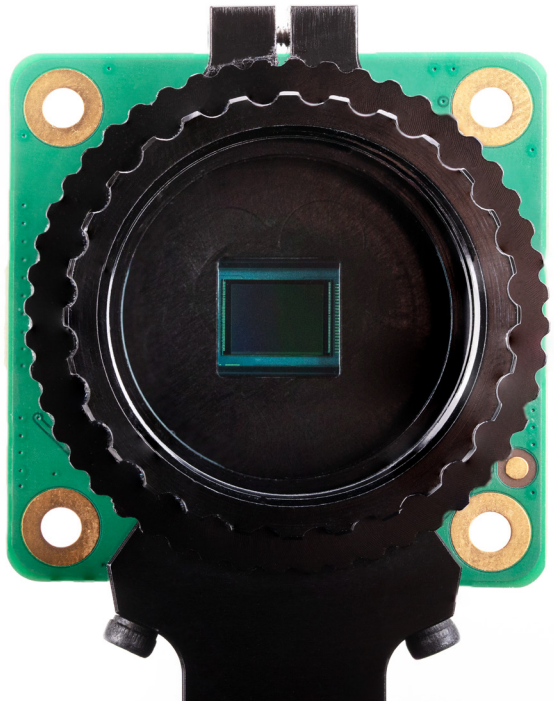
www.raspberrypi.org

Raspberry Pi

Overview



The Raspberry Pi High Quality Camera is the latest camera accessory from Raspberry Pi. It offers higher resolution (12 megapixels, compared to 8 megapixels), and sensitivity (approximately 50% greater area per pixel for improved low-light performance) than the existing Camera Module v2, and is designed to work with interchangeable lenses in both C- and CS-mount form factors. Other lens form factors can be accommodated using third-party lens adapters.

The High Quality Camera provides an alternative to the Camera Module v2 for industrial and consumer applications, including security cameras, which require the highest levels of visual fidelity and/or integration with specialist optics. It is compatible with all models of Raspberry Pi computer from Raspberry Pi 1 Model B onwards, using the latest software release from www.raspberrypi.org.[1]

The package comprises a circuit board carrying a Sony IMX477 sensor, an FPC cable for connection to a Raspberry Pi computer, a milled aluminium lens mount with integrated tripod mount and focus adjustment ring, and a C- to CS-mount adapter.

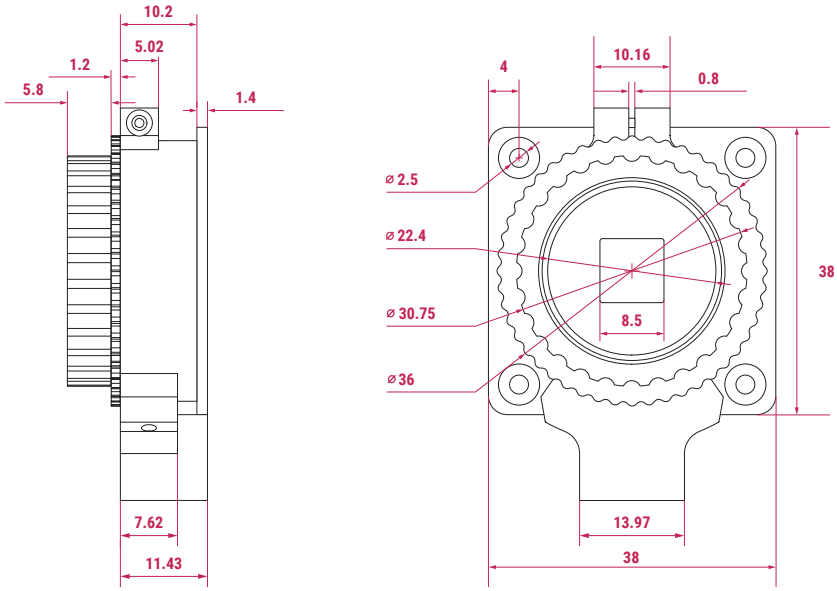
[1] Excluding early Raspberry Pi Zero models, which lack the necessary FPC connector. Later Raspberry Pi Zero models require an adapter FPC, sold separately.

Specification

Sensor:	Sony IMX477R stacked, back-illuminated sensor 12.3 megapixels 7.9 mm sensor diagonal 1.55 µm × 1.55 µm pixel size
Output:	RAW12/10/8, COMP8
Back focus:	Adjustable (12.5 mm–22.4 mm)
Lens standards:	C-mount CS-mount (C-CS adapter included)
IR cut filter:	Integrated[2]
Ribbon cable length:	200 mm
Tripod mount:	1/4”-20
Compliance:	FCC 47 CFR Part 15, Subpart B, Class B Digital Device Electromagnetic Compatibility Directive (EMC) 2014/30/EU Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU
Production lifetime:	The Raspberry Pi High Quality Camera will remain in production until at least January 2026

[2] Can be removed to enable IR sensitivity. Modification is irreversible.

Physical specifications

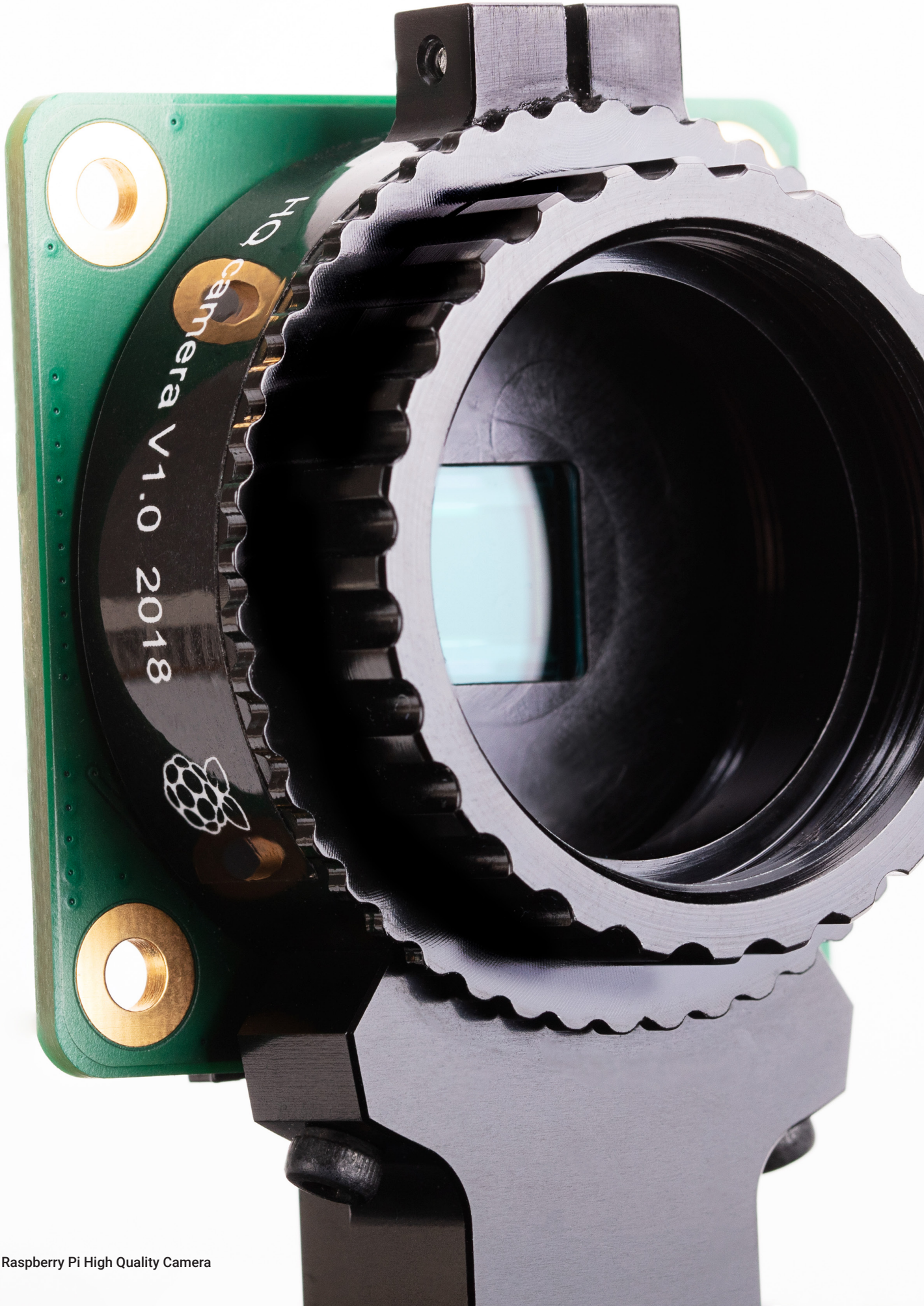


Note: all dimensions in mm

SAFETY INSTRUCTIONS

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

- **Before connecting the device, shut down your Raspberry Pi computer and disconnect it from external power.**
- If the cable becomes detached, pull the locking mechanism forward on the connector, insert the ribbon cable ensuring the metal contacts face towards the circuit board, then push the locking mechanism back into place.
- This device should be operated in a dry environment at 0–50°C.
- Do not expose it to water or moisture, or place on a conductive surface whilst in operation.
- Do not expose it to excessive heat from any source.
- Care should be taken not to fold or strain the ribbon cable.
- Care should be taken when screwing in parts or fitting a tripod. A cross-thread can cause irreparable damage and void the warranty.
- Take care whilst handling to avoid mechanical or electrical damage to the printed circuit board and connectors.
- Avoid handling the printed circuit board whilst it is powered and only handle by the edges to minimise the risk of electrostatic discharge damage.
- Store in a cool, dry location.
- Avoid rapid changes of temperature, which can cause moisture build up in the device, affecting image quality.


HQ camera V1.0 2018

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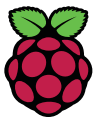

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