

InGaAs camera C12741-03



FEATURES

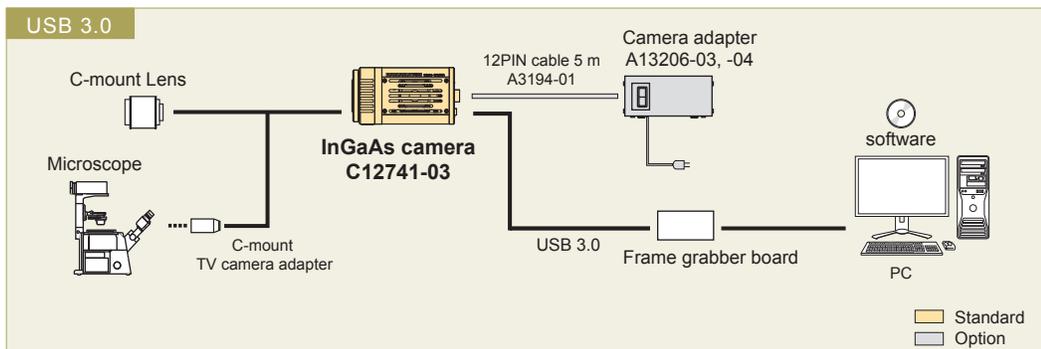
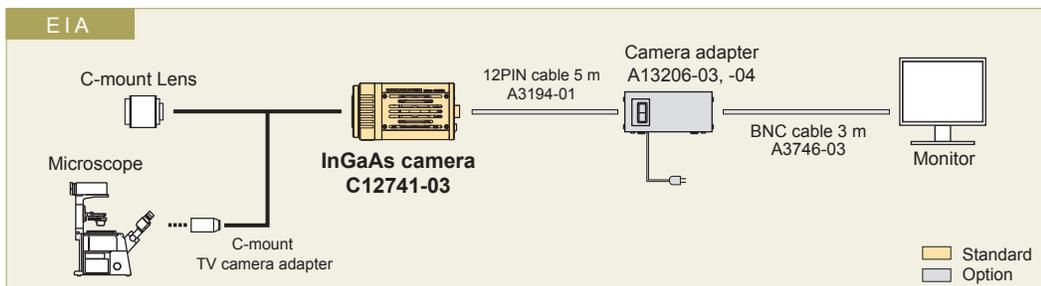
- High sensitivity in the near infrared region
- 640 × 512 pixels
- Low noise and high stability with cooling
- Simultaneous output from two interfaces: analog (EIA) port and USB 3.0 port
- Frame rate of 60 frames/s

APPLICATIONS

- Internal inspections of silicon wafers and devices
- Evaluation of solar cells
- Evaluation and analysis of optical communication devices
- EL/PL image acquisition

The C12741-03 is an InGaAs camera with sensitivity in the near infrared region from 950 nm to 1700 nm. It has an analog output (EIA) and a USB 3.0 interface port which supports 14 bit image acquisition and exposure time adjustment. This makes the C12741-03 ideal for use in a wide range of applications including internal inspection of silicon wafers and devices, laser beam alignment and evaluation of solar cells.

SYSTEM CONFIGURATION



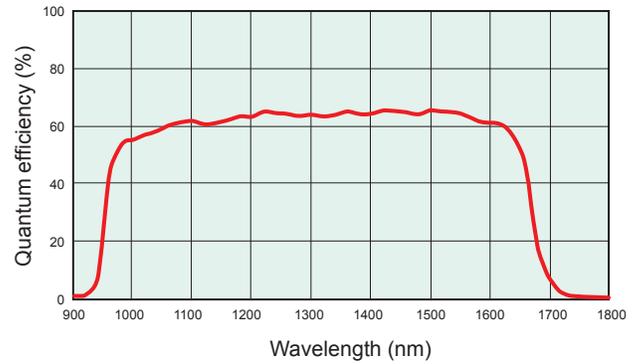
SPECIFICATIONS

| | |
|----------------------------------|--|
| Type number | C12741-03 |
| Imaging device | InGaAs sensor |
| Effective number of pixels | 640 (H) × 512 (V) |
| Pixel size | 20 μm (H) × 20 μm (V) |
| Effective area | 12.8 mm (H) × 10.24 mm (V) |
| Cooling method | Peltier cooling |
| Cooling temperature | Forced-air cooled (Ambient temperature: +25 °C) |
| | +10 °C |
| Frame rate | 59.774 frames/s |
| Digital output | 14 bit |
| Exposure time *1 | 16.7 ms to 1 s |
| External trigger input mode | Edge trigger, Level trigger, Start trigger |
| Trigger delay function | 0 s to 1 s in 10 μs steps |
| Trigger input connector | SMA |
| Interface | EIA, USB 3.0 *2 |
| Image processing functions | Background subtraction, Shading correction |
| Lens mount | C-mount |
| Connector | USB 3.0 microB type |
| Power supply | DC +12 V |
| Power consumption | Approx. 16 W |
| Ambient operating temperature *1 | 0 °C to +40 °C |
| Ambient operating humidity | 30 % to 80 % (with no condensation) |
| Ambient storage temperature | -10 °C to +50 °C |
| Ambient storage humidity | 90 % max. (with no condensation) |

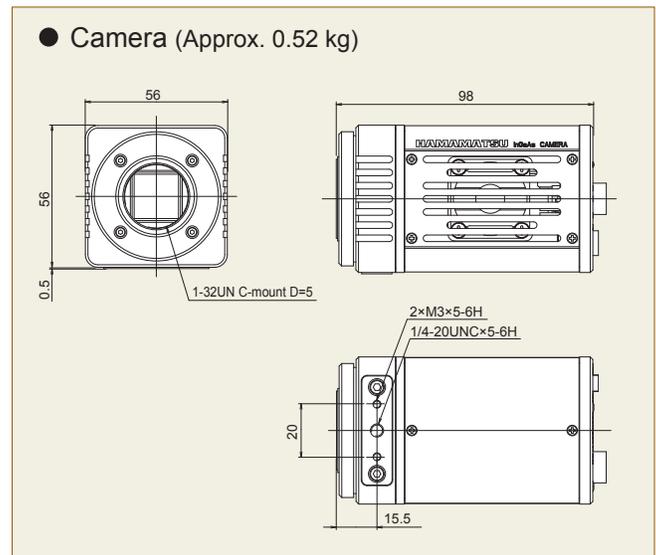
*1: Depend on the exposure time or ambient temperature, brighter or darker pixels than surrounding area or uneven pattern may appear in the image.
It comes from the characteristics of InGaAs sensor and not the defects or failure of the camera.

*2: Equivalent to USB 3.1 Gen 1

SPECTRAL RESPONSE



DIMENSIONAL OUTLINES (Unit : mm)



OPTIONS

- Camera adapter: A13206-03 (for US)
: A13206-04 (for EU)
- 12PIN cable 5 m: A3194-01
- BNC cable 3 m: A3746-03

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