

# InGaAs camera C14041-10U



## FEATURES

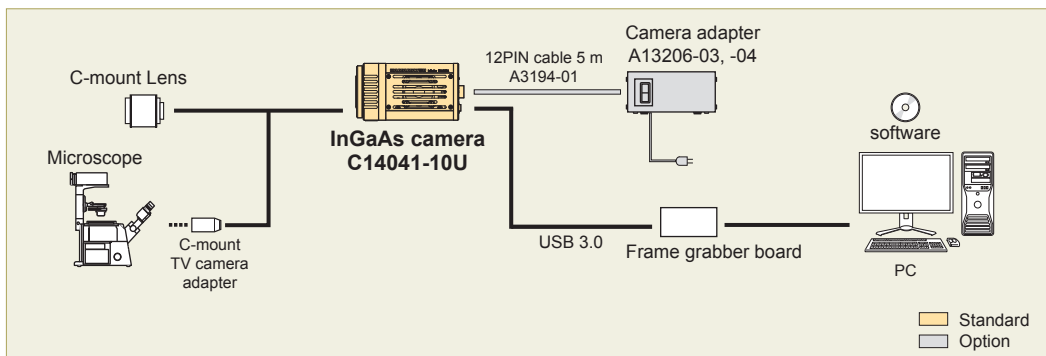
- High sensitivity in the near infrared region
- 320 × 256 pixels
- Low noise and high stability with cooling
- High-image quality rolling shutter mode and the global shutter mode capable of simultaneous exposure to the entire screen mounted
- Frame rate of approx. 216 frames/s (rolling shutter mode)

## APPLICATIONS

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

The C14041-10U is an InGaAs camera with sensitivity in the near infrared region from 950 nm to 1700 nm. It has a USB 3.0 interface port which supports 14 bit image acquisition and exposure time adjustment. This makes the C14041-10U 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



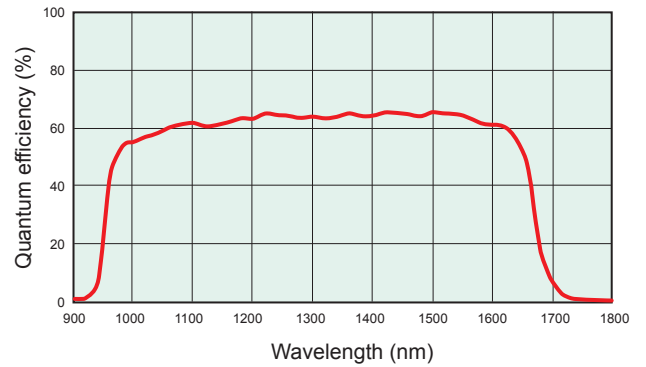
## SPECIFICATIONS

Type number	C14041-10U	
Imaging device	InGaAs sensor	
Effective number of pixels	320 (H) × 256 (V)	
Pixel size	20 μm (H) × 20 μm (V)	
Effective area	6.4 mm (H) × 5.12 mm (V)	
Cooling method	Peltier cooling	
Cooling temperature	Forced-air cooled (Ambient temperature: +25 °C)	+10 °C
Frame rate	Rolling shutter	216.6 frames/s
	Global shutter	214.3 frames/s
Digital output	14 bit	
Exposure time *1	Rolling shutter	4.6 ms to 1 s
	Global shutter	100 μs 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	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)	

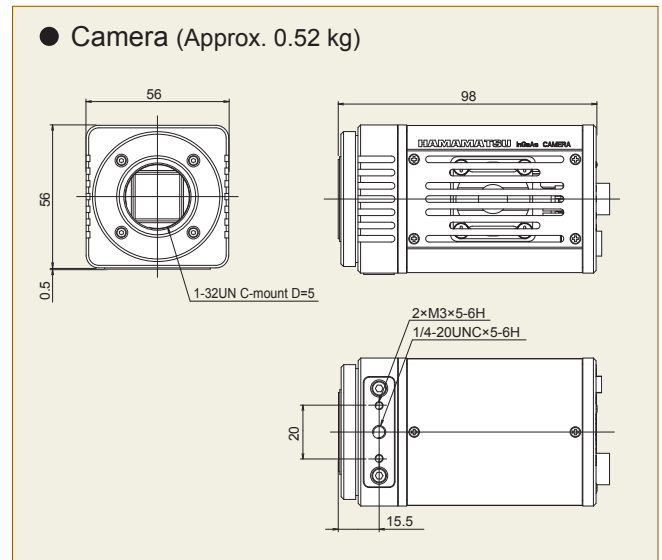
\*1: Depend on the exposure time or ambient temperature, brighter or darker pixels than surrounding area or uneven pattern may appear in the image.  
It comes from the characteristics of InGaAs sensor and not the defects or failure of the camera.

\*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

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