

# Digital CCD Camera C8484-05 Series

For Machine Vision, Industrial Inspection and Biomedical Systems

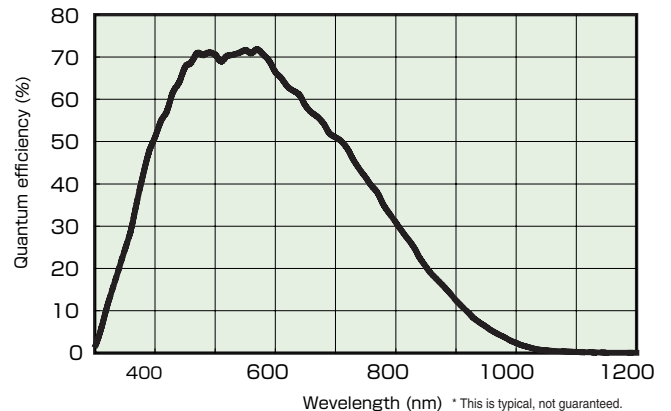


The C8484-05 is a high-resolution digital camera using a progressive scan interline CCD with no mechanical shutter. In addition to a high resolution of 1.37 million pixels, a wide dynamic range of 12 bit digital output and high sensitivity in the VIS-NIR region offers a wide application range down to low light level imaging.

## FEATURES

- High resolution of 1.37 million pixels
- High sensitivity in VIS-NIR region
- Progressive scan interline CCD with no mechanical shutter
- Anti-blooming function
- Wide dynamic range
- Small readout noise of 10 electrons
- High frame rate of 45 frame / s (8 × 8 binning)

## SPECTRAL RESPONSE




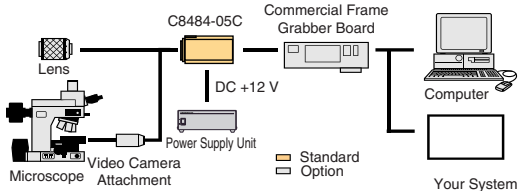

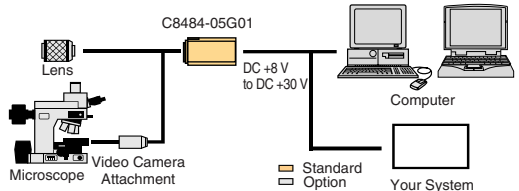
## APPLICATIONS

- Machine vision
- Metallurgical microscopy
- Semiconductor inspection
- X-ray scintillator readout
- DNA chip reader
- High throughput screening reader
- Dual image acquisition (PIV) < 200 ns (C8484-05C only)

## SOFTWARE

- Software Development Kit : DCAM-API

- Camera Link, and IEEE-1394 models are available.

Model (Type. No)	Digital output interface	System configuration
<b>Camera Link (C8484-05C)</b>	The C8484-05C camera outputs data is transmitted via a Camera Link interface. The camera transmits 12 bit digital output data.  	
<b>IEEE1394 (C8484-05G01)</b>	The C8484-05G01 camera outputs data is transmitted via an IEEE1394 interface.  	

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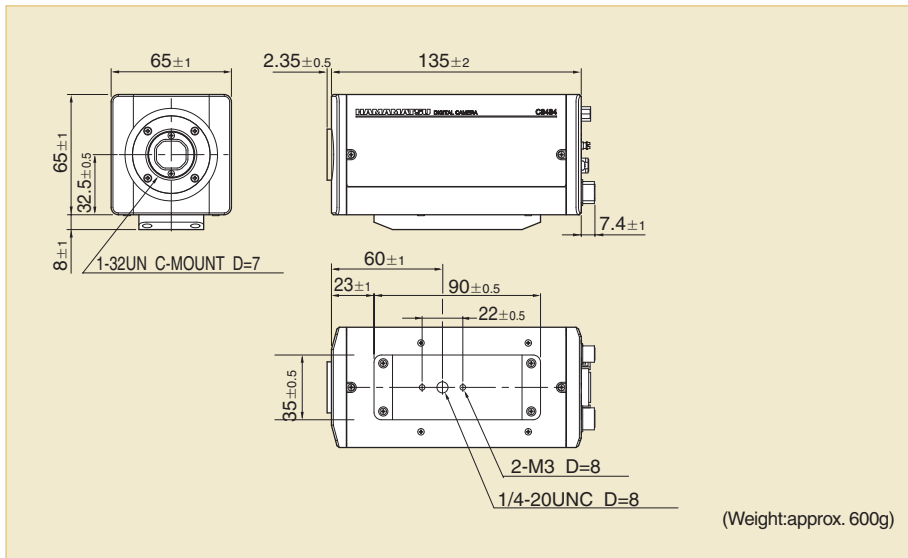
## SYSTEM SPECIFICATIONS

Type number	C8484-05C	C8484-05G01	
Imaging device	Progressive scan interline CCD with micro-lens		
Effective number of pixels	1344 (H) × 1024 (V)		
Cell size	6.45 μm (H) × 6.45 μm (V)		
Effective area	8.67 mm (H) × 6.60 mm (V)		
Pixel clock rate	20 MHz/pixel	14.7 MHz/pixel	
Frame rate	1 × 1	12.2 frame/s	
	binning	2 × 2	8.9 frame/s
		4 × 4	22.3 frame/s
		8 × 8	16.3 frame/s
	40.9 frame/s	27.8 frame/s	
	68 frame/s	43 frame/s	
Readout noise (r.m.s.) (typ.)	10 electrons		
Full well capacity (typ.)	17 000 electrons	15 000 electrons	
Dynamic range*	1700 : 1	1500 : 1	
Dark current	-		
A/D converter	12 bit		
Exposure time	20 μs to 1 s	10 μs to 1 s	
Sub-array	Yes		
Contrast enhancement	High gain/Low gain		
External trigger	Yes		
Lens mount	C-mount		
Digital output	Camera Link	IEEE 1394-1995	
External control	RS232C standard	IIDC 1394-Based Digital Camera Specification Ver.1.30	
Power requirements	DC+12 V	DC+8 V to DC+30 V	
Power consumption	Approx. 8 V·A		
Ambient storage temperature	-10 °C to + 50 °C		
Ambient operating temperature	0 °C to + 40 °C		
Ambient operating/storage humidity	70 % max. (with no condensation)		

\*Calculated from the ratio of the full well capacity and the readout noise

## DIMENSIONAL OUTLINES

(Unit : mm)



## OPTIONS

### ● Power supply unit : A3472-06

- Line voltage : AC 100 V to AC 240 V input
- Output voltage : DC +12 V
- Power cable : 12 pin connector cable
  - A3194-00 : 2 m
  - A3194-01 : 5 m
  - A3194-02 : 10 m
  - A3194-03 : 25 m

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