ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Hamamatsu C4880-AMDIG-2* at our website: *Click HERE*

HAMAMATSU

DATA SHEET

Digital CCD Camera
C4880-91,-92
(Manufactured to order)



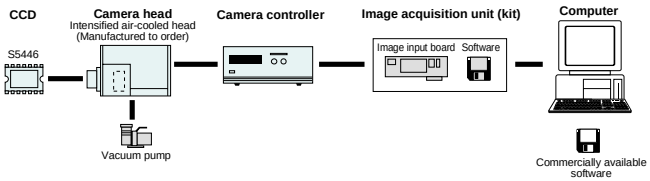
Intensified head: C4880-91, -92

This camera system has an image intensifier (ϕ18 mm dia.) coupled through a fiber optics to Hamamatsu's CCD S5466. This provides ultra-high sensitivity.
Under a low light level region that requires a long time exposure time, this camera can acquire equivalent S/N images within a shorter period of time. Furthermore, the ultra high speed gating function (shortest gate time: 5 ns) and gate repetition function (maximum rate: 10 kHz) have been implemented. Acquisition of images in synchronization with repetitive phenomenon enables image accumulation by the CCD. This provides images with a higher S/N ratio compared to accumulation using memory.

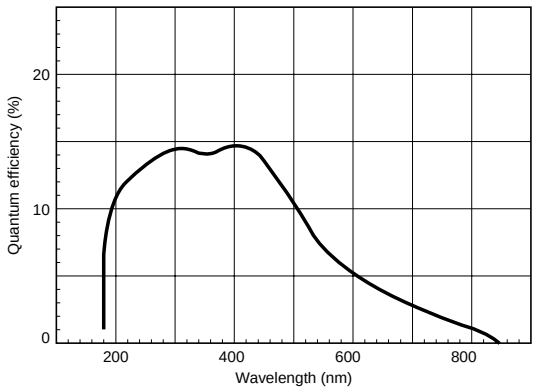
APPLICATIONS

- **Analysis of engine combustion**
- **Analysis of flames**
- **Ozone layer measurements**
- **All-sky camera**
- **Repetitive phenomenon in extremely faint light regions**

SYSTEM CONFIGURATION



SPECTRAL RESPONSE CHARACTERISTICS



* This is typical, not guaranteed.

FEATURES

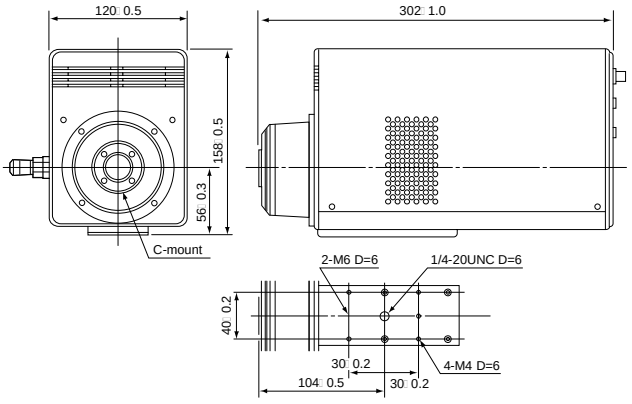
- **Ultra fast gate time 5 ns**
- **Ultra high sensitivity**
- **Wide dynamic range**
- **On-chip integration**
- **Computer-controlled**

SPECIFICATIONS

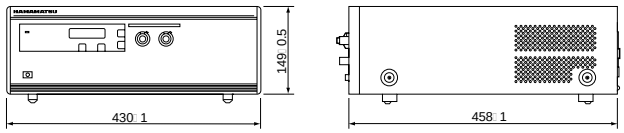
Model name		C4880-91 Manufactured to order	C4880-92 Manufactured to order
Camera head type		Intensified air-cooled head	
Circulating water cooler (sold separately)		–	
Vacuum pump (sold separately)		Required	
Image intensifier type		Proximity type image intensifier	
Photocathode		S-20	
Photocathode size		φ18mm	
MCP		1 stage	
Gate time		100 ns to DC	5 ns to DC
Gate repetition rate		Max. 10 kHz	
Imaging device		S5466 Model 1 full-frame transfer CCD	
Effective no. of pixels		512 (H) × 512 (V)	
Cell size		24 (H) × 24 (V) μm	
Effective area		12.29 (H) × 12.29 (V) mm	
Frame rate	High-precision scan mode	0.5 frames/sec (156 kHz/pixel)	
	Fast scan mode	7 frames/sec (2.5 MHz/pixel)	
Cooling method		Peltier cooling / forced-air cooling	
Cooling temperature		-30 °C	
CCD cooling control		Cooling ON/OFF control, cooling temperature setting function Front panel dial / software-controlled switching; Temperature displayed on front panel LCD	
A/D converter		12 bits	
Lens mount		C-mount	
Variable analog gain		Front panel dial / software-controlled switching, 1 - 6 times (high-speed scan)	
Variable offset		Front panel dial / software-controlled switching (fast scan)	
Amp gain		2 steps (fast scan), 3 steps (precision scan)	
Gate time control		Yes	
MCP gain control		Yes	
Trigger mode		INTERNAL TRIGGER MODE, EXTERNAL TRIGGER MODE, EXTERNAL TIME MODE	
Binning scan		Yes	
Sub-array scan		1/1, 1/2, 1/4, 1/8 (H) × any desired number (V)	
Super-pixel scan		2 × 2, 4 × 4, 8 × 8	
External trigger input		Yes	
Output signal (digital output)		Parallel digital output (conforms to RS-422)	
External control		RS-232C	
Ambient storage temperature		-10 to +50 °C	
Ambient operating temperature		0 °C to +40 °C	
Ambient operating/storage humidity		70% max. (with no condensation)	
Line voltage		100 / 117 / 220 / 240 VAC, 50/60 Hz	
Power consumption		Approx. 220 VA	

DIMENSIONAL OUTLINES (Unit: mm)

Intensified head (approx. 4 kg)



Camera controller (approx. 14 kg)



Product and software package names noted in this documentation are trademarks or registered trademarks of their respective manufacturers.

Subject to local technical requirements and regulations, availability of products included in this promotional material may vary. Please consult with our sales office.

Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions.
Specifications and external appearance are subject to change without notice.

© 2002 Hamamatsu Photonics K.K.

HAMAMATSU

Homepage Address http://www.hamamatsu.com

HAMAMATSU PHOTONICS K.K., Systems Division
812 Joko-cho, Hamamatsu City, 431-3196, Japan, Telephone: (81)53-431-0124, Fax: (81)53-435-1574, E-mail:export@sys.hpk.co.jp

U.S.A. and Canada: Hamamatsu Photonic Systems: 360 Foothill Road, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1)908-231-1116, Fax: (1)908-231-0852, E-mail: usa@hamamatsu.com
Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-2658, E-mail: info@hamamatsu.de
France: Hamamatsu Photonics France S.A.R.L.: 8, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: (33)1 69 53 71 00, Fax: (33)1 69 53 71 10, E-mail: infos@hamamatsu.fr
United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road Welwyn Garden City Hertfordshire AL7 1BW U.K., Telephone: (44) 1707-294888, Fax: (44)1701-325777, E-mail: info@hamamatsu.co.uk
North Europe: Hamamatsu Photonics Norden AB: Smidesvägen 12, SE-171-41 Solna, Sweden, Telephone: (46)8-509-031-00, Fax: (46)8-509-031-01, E-mail: info@hamamatsu.se
Italy: Hamamatsu Photonics Italia S.R.L.: Strada della Moia, 1/E 20020 Arese (Milano), Italy, Telephone: (39)02-935 81 733, Fax: (39)02-935 81 741, E-mail: info@hamamatsu.it

Cat. No. SICS1101E01
MAR/2002 HPK
Created in Japan (PDF)

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP