

4810 Series

Wide Spectral Response 2/3" CCD Camera

COHU

- *Wide spectral response: 193nm UV to near-IR*
- *High blue response including DUV*
- *Dynamic range >48 dB*
- *2/3" format sensor for wide selection of optics*
- *Internal or external H&V drive options*
- *Light weight with rugged construction for long-term reliability*
- *Made in USA*

APPLICATIONS

- *Machine Vision*
- *Medical Imaging*
- *EMI Environments*
- *Robotics*
- *ROV (land, air or submersible)*
- *Security/Surveillance*



The Model 4810 camera is designed for applications that require wide spectral response and high sensitivity. The high gain of the camera enables the user to detect images in real-time (30 frames/sec.) even when energy levels are low. The 2/3" format CCD image sensor characteristics, combined with Cohu's proven design and rugged construction make the Model 4810 ideal for:

- Fluorescence Imaging
- UV Imaging
- Near IR
- Semiconductor Inspection/Test/Measurement
- Process Quality Control

This camera is identical in form, fit, and function to previous models in the 4810 Series. It looks like the original 4800 Series, and performs better.

Automatic gain control (AGC) is incorporated in Cohu's Model 4810 to provide high sensitivity for use in low light areas. The 4810 utilizes the frame transfer method and more than 388,000 pixels. Low power consumption allows flexible system integration and easy operation.

Cohu 4810 Series

SPECIFICATIONS

Wide Spectral Response 2/3" CCD Camera

ELECTRICAL

CCD

2/3" format

Active Pixels

754 x 484; 11.5 (H) x 13.5 (V)

Resolution

565 (H) x 350 (V) lines (RS-170A)

Lens

C-mount manual or auto iris drive

Sensitivity

Full video, AGC off: 0.20 lux (at faceplate with nominal gain)

Video Output

1.0 V p-p @ 75 ohms, unbalanced

Gamma

.45 or 1.0, jumper selectable

Gray Scale

Renders all shades of gray on EIA TV resolution chart, 1956

Shutter

1/60 sec

Spectral Response

See illustration. Note: Response below 420 nm requires sensor option "3."

Gain

AGC/MGC 0 to 20 db (nominal gain = 6 db)

SNR

48 db max (nominal gain)

Image Processing

Gamma fixed at 1.0 (or 0.45); no auto-black, bright light limiter, windowed automatics, sharpness circuit

Sync

External H, V or revert to internal crystal

Power

12 VDC; < 2.5 W (+/-10%)

MECHANICAL

Dimensions

See illustration

Weight

15 oz/440 g

Camera Mount

1/4-20 mount

Connectors

Video: BNC

Lens Drive: Switchcraft TB4M

Power In: TB3M

Auxiliary: Hirose SR30-10R-6S

ENVIRONMENTAL

Temperature

Operating: -10° to 50° C

Storage: -30° to 70° C

Humidity

<95% non condensing

Shock

40g [IEC68]

Vibration

12g [IEC68]

REGULATORY

FCC/CE CISPR11 Class A

plus EN61000-4-3, -4-6, -4-8 interference immunity

SHIPPING INFORMATION

Weight 2 lbs (907 g)

Volume 10" x 4" x 4" (254mm x 101mm x 101mm)

ORDERING INFORMATION

481X-XX00/XXXX

Wide spectral response
2/3" CCD camera

POWER
6 - 12 VDC
7 - 115 VAC

SYNC
7 - H&V external, revert to crystal

SENSOR
2 - 2/3" mono CCD
3 - 2/3" mono CCD, UV sensitive (Remove sensor glass to achieve spectral response <420nm)

LENSES

0000 - None

Manual Iris

AL12 - 12.5mm, f1.4, 1"

AL25 - 25mm, f1.4, 1"

Auto Iris*

ES08 - 8mm, f1.4, 2/3"

ES12 - 12.5, f1.4, 1"

ES16 - 16mm, f1.4, 2/3"

ES25 - 25mm, f1.4, 1"

ES50 - 50mm, f1.8, 1"

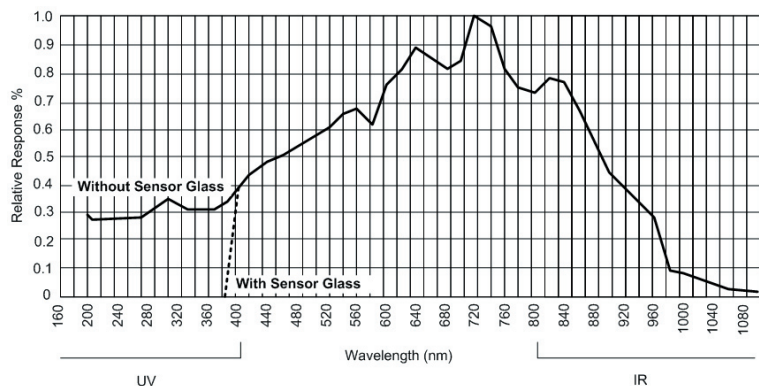
EH75 - 75mm, f1.8, 1"

*Auto iris lens requires lens connector 1310356-104, which must be ordered separately when customer provides own auto iris lens.

ACCESSORIES

8368-4 - 120 VAC to 12 VDC power supply

1310356-104 - Connector for auto iris lens



DIMENSIONS

