

6100 Series Megapixel FireWire Camera

COHU

Very high resolution for precision imaging

IIDC v1.3 compliant

One connector connectivity, including power, for simplified operation and integration

Partial readout for even faster frame rates

Separate control for external devices

Form and fit of existing Cohu Model 2600

Custom, flexible delivery schedule



APPLICATIONS

- *Biomedical inspection*
- *Metrology*
- *Materials Research*
- *Process inspection*

Megapixel Imager. The 6100 Series camera utilizes a state-of-the-art sensor with a 1360 x 1024 active pixel array. The pixel cell size is 4.65 μm .

12-bit depth. This feature provides greater gray scale values of the video image for more accurate image reproduction and adjustment.

ROI Scanning. The 1360 x 1024 pixel array can be digitally manipulated by most brands of visual analysis software to provide "region of interest" (ROI) scanning in the vertical plane. ROI selection allows the camera to process a single region of an image, leaving other regions unchanged, to focus processing and analysis on part of an image, which allows faster readouts.

Low light imaging. For low light resolution, the sensor can integrate for up to 5 seconds.

IEEE 1394 (FireWire) IIdc v1.3 DCAM compliant output. This format assures uniform, uncompressed video for scientific imaging.

One wire connectivity. Power and data out are both on the FireWire connection, making the mechanical interface easy and efficient. No separate power supply is required. A separate RJ45 connector enables triggered inputs and opto-isolated outputs, if required.

External device control. There are four discreet outputs on the RJ45 connector to trigger strobes, alarms, etc.

Cost, performance, convenience. The Cohu 6100 Series camera can cost up to 1/3 less than even cameras with lower performance. It is a reliable and affordable step up from analog to digital input devices. Its optical and mechanical interface is identical to the Cohu 2600 Series camera.

The Cohu Advantage. With all design, manufacturing, and management in our San Diego, California facility, Cohu offers a flexible delivery schedule that enables even low-volume customers great economy of scale while being assured of rigid conformity and configuration control. Application and customer services are always just a phone call away.



SPECIFICATIONS

ELECTRICAL

CCD Sensor

1/2" format; 4.65 (H) x 4.65 micron (V) C lens mount

Active pixels

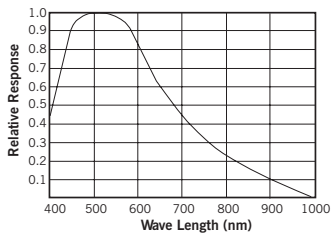
1360 x 1024

Resolution

1024 H x 1024 V lines

Sensitivity

3.0 lux (at faceplate full video with min. gain and 1/30 second exposure)



Frame rate

4 fr/sec at full resolution; 15 fr/sec for 256 lines/frame

Shutter

Programmable 1/15 to 1/20,000 sec. plus integration

Integration

Up to 5 seconds

Gain

Programmable manual 0 to 30 db

Signal-to-noise ratio

60 db max dynamic range

Image Processing

Gamma fixed at 1.0; mirror imaging and ROI

Video Output

IEEE-1394A IIDC [D-cam] compliant [16-bit format]

Sync

Internal with optional opto-isolated hardware or software trigger

Controls

Gain, Shutter, Offset, Frame Rate, ROI Window via D-cam registers

Power

12 VDC (8 to 30VDC IEEE-1394A compatible) <3W

MECHANICAL

Size

See illustration. This camera's optical and mechanical interface is identical to the Cohu 2600 Series camera

Weight

<454 g

Connectors

IEEE-1394A [6-wire] Video/Control/Power
RJ-45 [10-wire] Opto-isolated trigger in/ 4 control discretes out

Lens mount

C mount, integral to case

Color

black standard; other colors quoted

Connectors

12 pin Hirose

ENVIRONMENTAL

Operating Temperature

-5 to 60° C operating; -20 to 70° C storage

Humidity

<95% non-condensing

Shock

80g [IEC 68]

Vibration (less lens)

8g [IEC 68]

REGULATORY

FCC/CE CISPR11 Class B plus EN61000-4-3, -4-6, -4-8 interference immunity tests

ORDERING INFORMATION

6112 - 1 0 0 0 / XXXX

Megapixel FireWire camera

Power

2 - 12 VDC

Output

1 - Monochrome, IEEE 1394

Options

000 - None

Lenses

AL06 - 2/3" 6.5 mm, f1.8

AL07 - 2/3" 8 mm, f1.4

AL12 - 1" 12.5 mm, f1.4

AL15 - 2/3" 16 mm, f1.4

AL16 - 2/3" 16 mm, f1.4

AL25 - 1" 25 mm, f1.4

AL26 - 2/3" 25mm, f1.6

AL50 - 1" 50 mm, f1.4

AL51 - 2/3" 50 mm, f2.8

DIMENSIONS

