

Unibrain Fire-i 810

IEEE-1394, IIDC 1.31 compliant camera

Progressive Scan CCD

C-mount lens - focus adjustment ring

External trigger and partial scan support

Multi camera auto synchronization

High resolution (2 Mpixels)



Overview

The new Fire-i industrial camera series from Unibrain, are IEEE-1394 and IIDC 1.3x compliant progressive area scan Color CCD cameras, designed for industrial imaging applications.

The cameras use IEEE-1394a digital bus protocol and external trigger to streamline the capture, digitization and processing of color video signal. The cameras are designed to simplify real-time uncompressed color video streaming, digital still image acquisition while maintaining high resolution in various applications.

The cameras are equipped with a C- Type Lens Mount for flexible use of Industrial C-Mount Lenses.

Features

CCD sensor

- 1/1.8" inch Wfine color CCD for Fire-i 810c
- 1/1.8" inch Wfine b/w CCD for Fire-i 810b

Max Frame Rate

- 16 fps at 1600 x 1200, Format-7 mode 0

Software support

- Unibrain Fire-i software & drivers
- Embedded camera license for Unibrain drivers/SDK
- Unibrain Fire-i API™ Vision/Imaging development kit

Other Features

- Low Smear and excellent anti-blooming
- External Trigger mode 0~5, 14
- Hardware YUV color conversion & auto white balance (for color models)
- Auto Exposure, Auto Shutter, Brightness, Sharpness
- Low power consumption 3.4W max (8-30 VDC)
- Rugged black metallic housing
- C-mount lens attachment ring
- Tripod adapter support on both bottom and top sides

Applications

Machine Vision

ITS

Robotic control

RFID

Microscopy & Inspection

Navigation & GPS mapping

Barcode, OCR, OCV



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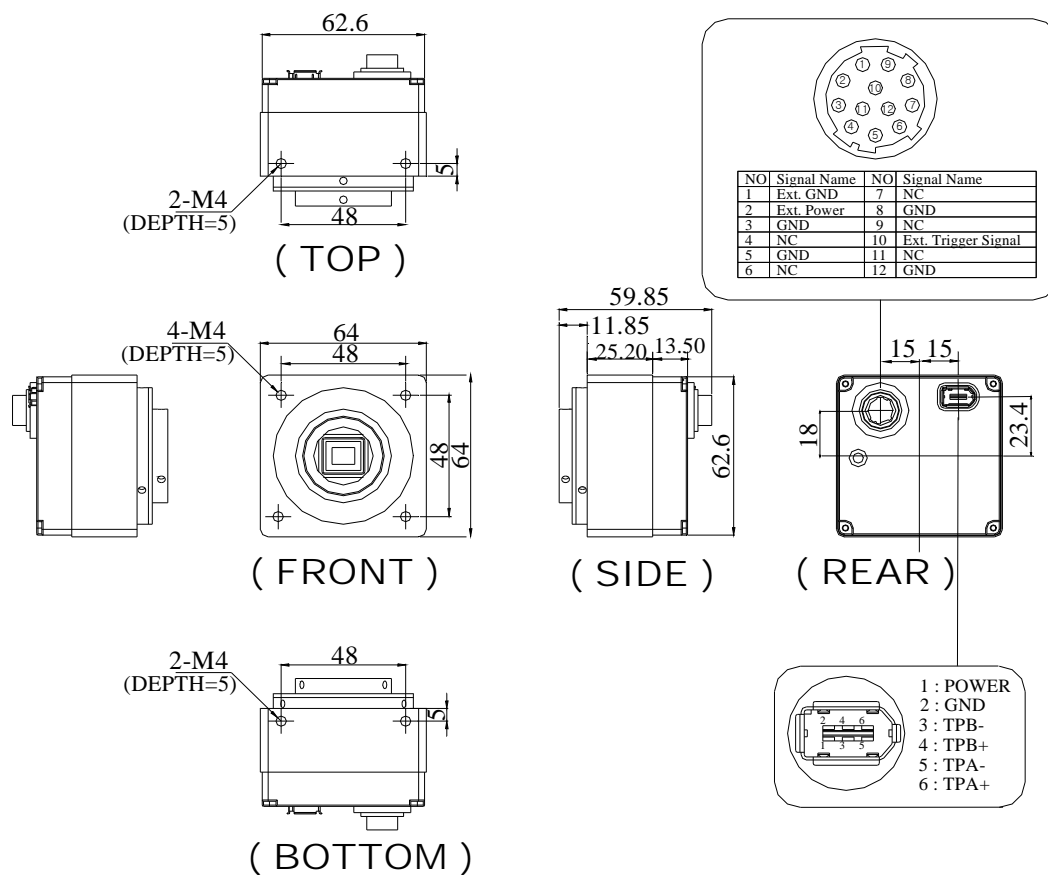
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Unibrain Fire-i 810

Mechanical Specifications (Dimensions in mm)



Specifications

| Features | Fire-i 810c (Color): 4417 | Fire-i 810b (Monochrome): 4418 |
|-----------------------|--|---|
| Image Sensor | 1/1.8" progressive scan CCD Sony ICX-274AQ | 1/1.8" progressive scan CCD Sony ICX-274AL |
| Effective Pixels | 2,010,000 pixels | |
| Picture Size | 1600 x 1200, 1280 x 960, 1024 x 768, 800 x 600, 640 x 480, 320 x 240 | |
| CELL size | 4.60 um x 4.60 um | |
| Data Path | 8 bit or 12 bit color Raw & YUV 4:2:2 | 8 bit or 12 bit b/w |
| Frame Rate | 16 (Format-7 mode 0), 15, 7.5, 3.75, 1.875 | |
| Synchronization | External Trigger at falling edge or S/W Trigger | |
| Lens Mount | C-mount | |
| Digital Interface | 1 x 1394a 6pin port / IIDC v1.31 - 8-30V DC from cable | |
| Gain Control | 0 ~ 25 dB | 0 ~ 27 dB |
| Shutter Speed | 1 usec ~ 65 sec | |
| Gamma | 0.4 ~ 2.5 | |
| Advanced Features | Pixel Binning via Format-7 (2x2, 1x2), Strobe RS-232 (SIO) pass through, One shot & multi shot, Multi camera auto-sync (-144 us ~ +144 us at 15,7.5 frame rate) | |
| Strobe Output Signal | Active High, normal or trigger mode | |
| External Trigger | Mode 0, 1, 2, 3, 4, 5, 14 | |
| S/N ratio | 56 dB or better | |
| Power Requirements | 245 mA max, @ +12V DC | |
| Dimensions / Weight | 64 (W) x 64 (H) x 60 (D) mm / 300 gr. approx. | |
| Operation Temperature | -5 °C to + 45 °C | |
| Regulations | FCC, CE, MIC, RoHS | |
| Supplied Accessories | Lens cover, Unibrain Fire-i drivers & Fire-i API SDK, 4.5m 1394a cable | |

