

Fire-i XGA firewire board camera

IEEE-1394, IIDC 1.31 compliant OEM camera

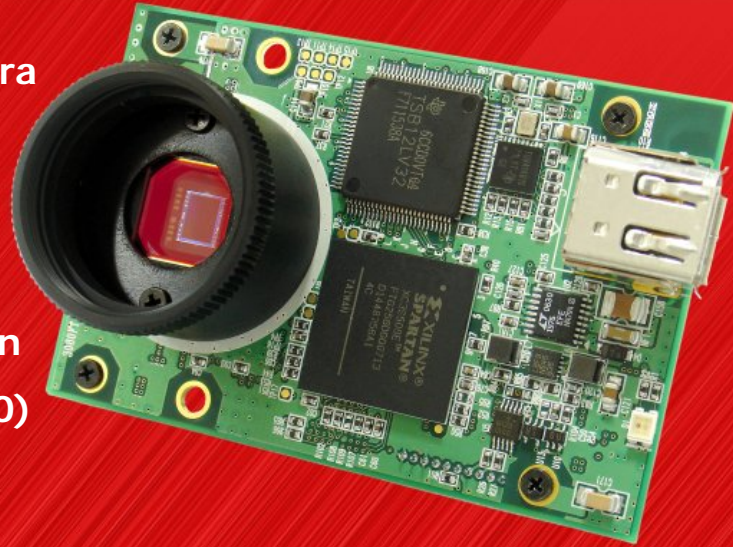
Progressive Scan CCD

C/CS-mount & miniature lens support

External trigger and partial scan support

Multi camera automatic bys synchronization

High frame rate (36 fps at Format-7 mode 0)



Overview

The new firewire OEM board camera series from Unibrain is a IEEE-1394 and IIDC 1.31 compliant progressive area scan CCD camera, designed for industrial OEM and machine vision applications. The compact size of the camera provides more versatility in space and weight considerations. , digital still image acquisition while maintaining high resolution in various applications.

The camera is equipped with a CS/C-Type Lens mount for flexible use of industrial CS and C-Mount lenses. A support is also provided for miniature lenses, M12 x 0.5 compliant.

Features

CCD sensor

- 1/3 inch Wfine XGA color CCD for Fire-i XGAc
- 1/3 inch Wfine XGA b/w CCD for Fire-i XGAb

Max Frame Rate

- 36 fps at 1024 x 768, 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

- High frame rate
- Low Smear and excellent anti-blooming
- External Trigger mode 0~5, 12, 13, 14, 15
- Hardware YUV color conversion & auto white balance (for color models)
- Auto Exposure, Auto Shutter, Brightness, Sharpness
- Multi camera auto synchronization
- Opto-Isolated I/O
- Low power consumption 3.1 W (8-30 VDC) approx.
- Embedded hardware license for Unibrain's Fire-i™ drivers & Fire-i API™ development kit.

Applications

Machine Vision

ITS

Robotic control

RFID

Microscopy & Inspection

Navigation & GPS mapping

Barcode, OCR, OCV



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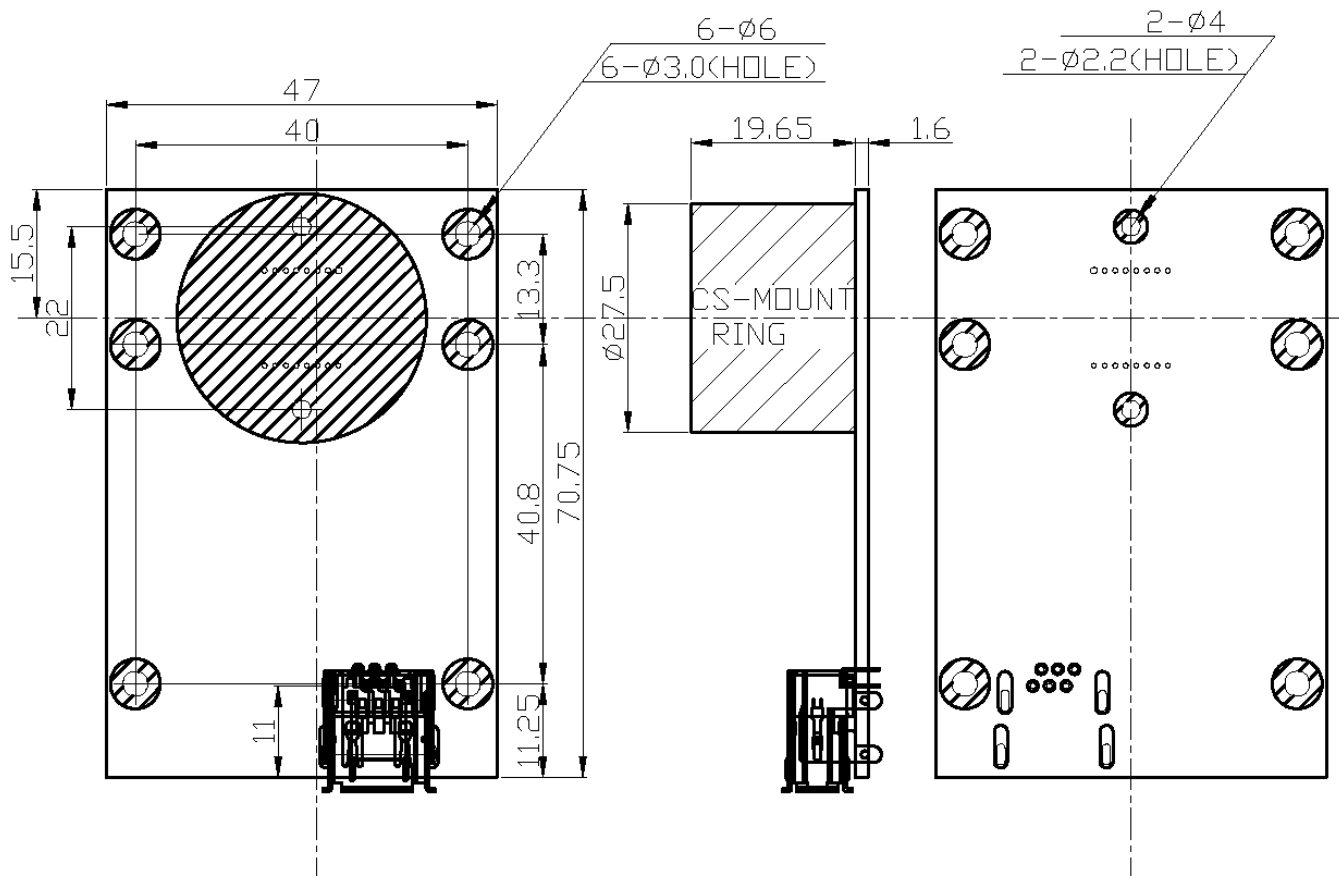
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Fire-i XGA firewire board camera

Mechanical Specifications (Dimensions in mm)



Specifications

Features	Fire-i XGAc (color): 4461	Fire-i XGAb (Monochrome): 4460
Image Sensor	1/3" progressive scan CCD Sony ICX-204AK	1/3" progressive scan CCD Sony ICX-204AL
Effective pixels	800,000 pixels 1034(H) x 779(V)	
Picture Size	1024 x 768, 800 x 600, 640 x 480, 320 x 240	
Data Path	8 bit or 16 bit color Raw & YUV 4:2:2	8 bit or 16 bit b/w
CELL size	4.65 um x 4.65 um	
Frame rate	36 fps (Format-7 mode 0), 30, 15, 7.5, 3.75	
Synchronization	External Trigger at falling edge or S/W Trigger	
Lens Mount	C/CS-mount & M12x05 (requires megapixel miniature lens)	
Digital Interface	1 x 1394a 6pin port / IIDC v1.31 – 8~30V DC from cable	
Transfer Rate	400 Mbps/max	
Gain Control	0 ~ 27 dB	
Shutter Speed	1 usec ~ 3600 sec	
Gamma	0.4 ~ 2.5	
Advanced Features	S-232 (SIO) pass through, Format-7, One shot & multi shot, Multi camera auto-sync	
External Trigger	Mode 0, 1, 2, 3, 4, 5, 14	
S/N ratio	56 dB or better	
Power Requirements	Less than 2 Watts @ 12V DC	
Dimensions / Weight	47(W) x 70(H) x 21(D) mm (With CS-mount) / Approx 34g	
Operation Temperature	-5 °C to + 45 °C	
Regulations	FCC, CE, MIC, RoHS	
Supplied Accessories	C/CS-mount lens adapter, Unibrain Fire-i drivers & Fire-i API SDK, 4.5m 1394a cable	