

Unibrain Fire-i 702

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, High sensitivity



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

- 2/3 inch Wfine color CCD for Fire-i 702c
- 2/3 inch Wfine b/w CCD for Fire-i 702b

Max Frame Rate

- 20 fps at 1280 x 960, 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

- Excellent CCD sensitivity
- 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

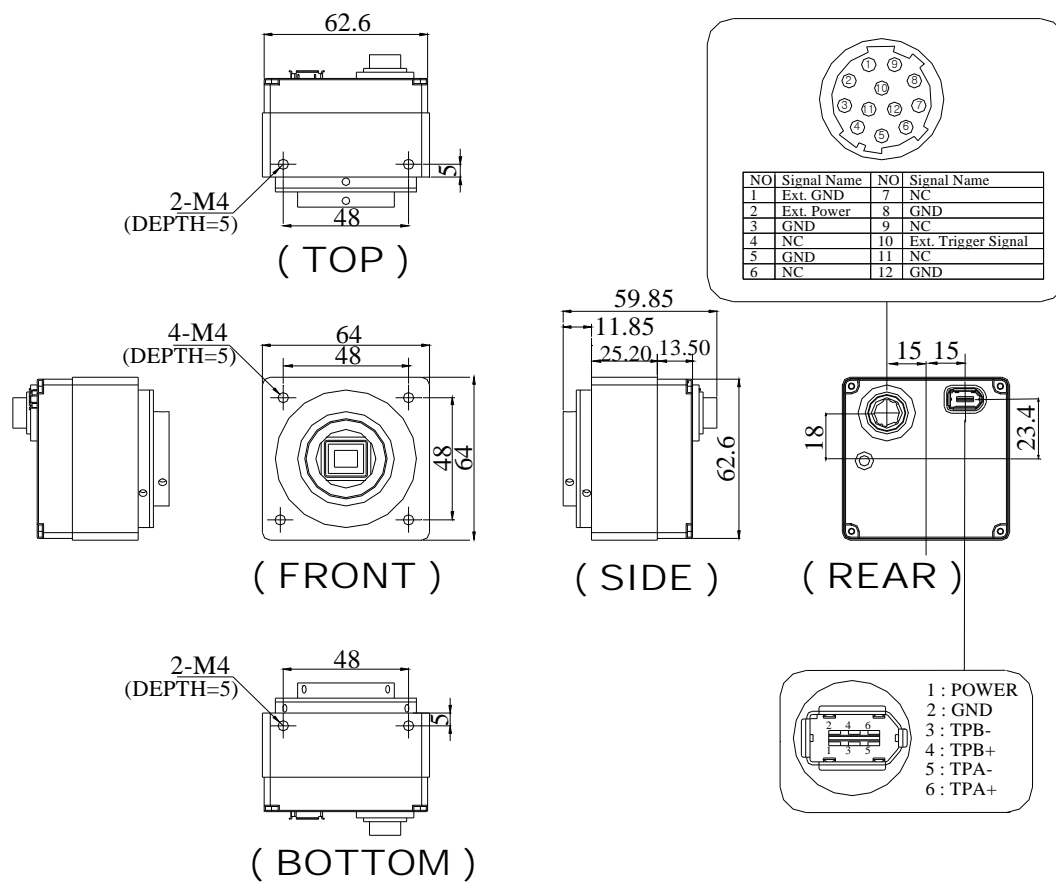


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Unibrain Fire-i 702

Mechanical Specifications (Dimensions in mm)



Specifications

Features	Fire-i 702c (Color): 4419	Fire-i 702b (Monochrome): 4420
Image Sensor	2/3" progressive scan CCD Sony ICX-285AQ	2/3" progressive scan CCD Sony ICX-285AL
Effective Pixels	1450000 pixels 1388(H) x 1036(V)	1450000 pixels 1392(H) x 1040(V)
Picture Size	1280 x 960, 1024 x 768, 800 x 600, 640 x 480, 320 x 240	
CELL size	6.45 um x 6.45 um	
Data Path	8 bit or 12 bit color Raw & YUV 4:2:2	8 bit or 12 bit b/w
Frame Rate	20 (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	265 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	

