

Fire-i OEM firewire board camera

IEEE-1394, IIDC 1.30 compliant camera

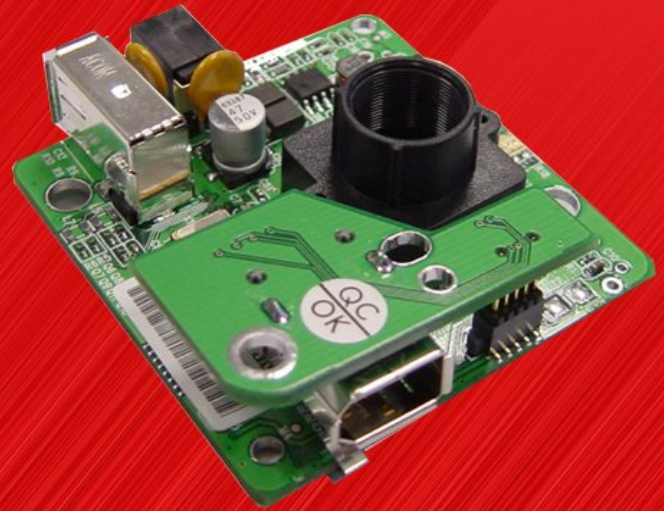
Sony Progressive Scan CCD

Two firewire ports

Built-in DC power input jack

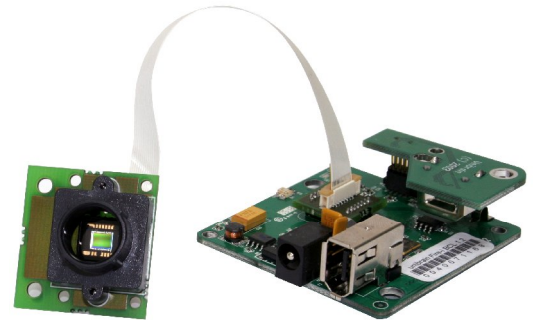
M12 x 0.5 compliant lens holder

Compact size and low power consumption



Overview

Fire-i™ Digital Board Camera is a board-level fully operational FireWire 400 Mbps camera, complying with IIDC specification for industrial uncompressed VGA picture acquisition. Built around Texas Instruments 1394 digital camera chipset and Sony® Wfine CCD sensors, it is a high quality subassembly for OEM use.



Fire-i™ Digital Board Camera Remote CCD

All models (Color, Black & White) of Unibrain's Fire-i™ Digital Board Camera can be produced with the unique feature of a Remote CCD connected to the main board via a high reliability and density 6-inch flat cable.

Available models (no lens included):

- **Fire-i™ color board camera**, Part no.: **2056**
- **Fire-i™ b/w board camera**, Part no.: **2057**
- **Fire-i™ RAW color board camera**, Part no.: **2060**
- **Fire-i™ color board camera remote CCD**, Part no.: **2061**
- **Fire-i™ b/w board camera remote CCD**, Part no.: **2062**

Features

- 400Mbps 1394a, IIDC v.1.30 DCAM compliant.
- Uncompressed VGA picture up to 30 fps.
- Square pixels, 1/4" progressive scan CCD.
- Full frame electronic shutter.
- On-board 6 pin 1394a port and power input jack 8-30V DC.
- Second 6 pin 1394a port on removable daughter board.
- Standard lens base M12x0.5 (lens available separately).
- Small size and very low power consumption.
- Embedded hardware license for Unibrain's Fire-i™ Software & Fire-i API™ development kit.

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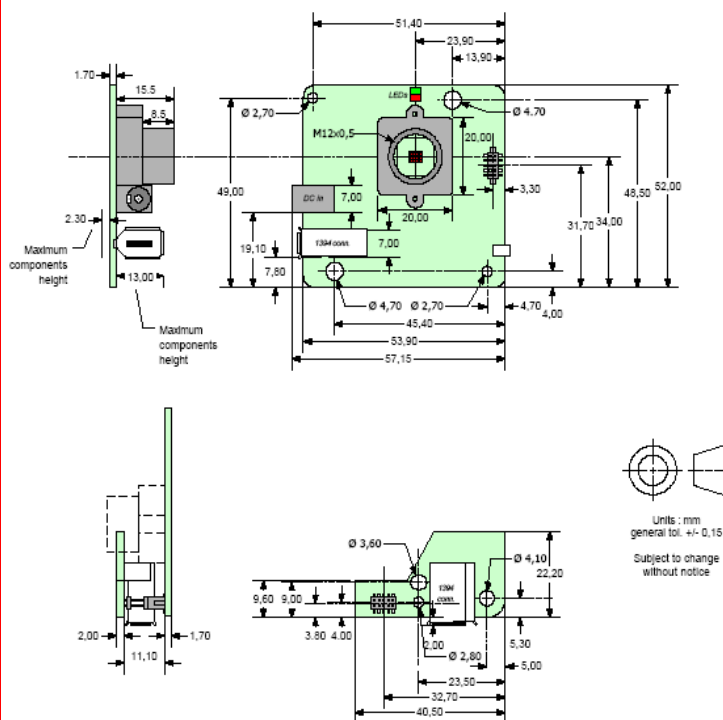
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Specifications

Image Sensor	1/4" progressive scan CCD, Sony ICX-098BQ (color), ICX-098BL (b/w)
Effective pixels	659(H) x 494(V)
Picture Size	640 x 480, 320 x 240 (color), 160 x 120(color)
Data Path	YUV (4:1:1, 4:2:2, 4:4:4), RGB-24bit, Y-mono-8bit
CELL size	5.6 μ m x 5.6 μ m
Frame rate	30, 15, 7.5, 3.75
Lens Mount	M12x0.5
Transfer Rate	400 Mbps/max
Gain Control	0 ~ 30 dB
Shutter Speed	1/3400s ~ 1/33s
Gamma	0.45 ~ 1
Power	0.9 W typical, 0.4 W sleep mode
Dimensions / Weight	57.3 (W) x 52.5 (H) x 25 (D) mm / 35 gr.
Operation Tem- perature	-10 $^{\circ}$ C to + 50 $^{\circ}$ C
Regulations	FCC, CE, MIC, RoHS
System Support	Windows 2000/XP/Vista, Linux, Mac OS 9.x / X



Lens options for the Fire-i board camera

Focal Length (mm)	HOV	Aperture	IR cut filter	B/W Use	Color Use	Dimen- sions (mm)	Weight (gr)	Part #	Photo
1.9	107 $^{\circ}$ wide	f2.0	no	visible light & close IR	avoid IR, halogen, sunlight	15.1 x 18.8	4.5	4382	
2.1	80.95 $^{\circ}$ wide	f2.0	yes	visible light only	all light conditions	17 x 18.5	7	2042	
4.3	42.25 $^{\circ}$ standard	f2.0	yes	visible light only	all light conditions	14.8 x 16	5.5	2043	
4.3	42.25 $^{\circ}$ standard	f2.0	no	visible light close IR	avoid IR, halogen, sunlight	14.8 x 16	5.5	2046	
8.0	25.25 $^{\circ}$ telephoto	f2.0	yes	visible light only	all light conditions	14 x 14	5	2044	
12.0	16.99 $^{\circ}$ telephoto	f2.2	no	visible light close IR	avoid IR, halogen, sunlight	14 x 11.3	3	2041	
C-Mount Lens Adapter for Fire-i™ board camera								2018	

