

High-Resolution 1.3MP CMOS Monochrome
Machine Vision Camera with FireWire



Key Features

1.3 MEGAPIXEL CMOS sensor delivers 1240 x 1024 resolution at 22 FPS for high-speed imaging success

GLOBAL SHUTTER MODE assures clear images of fast moving subjects with little or no blurring

RANDOM TRIGGER SHUTTER MODE starts light exposure in sync with external trigger signal

IEEE1394 (FireWire) video output operates at transfer rates of 400Mbps. Eliminates need of a frame grabber

WINDOWS OF INTEREST enable higher frame rate speeds by narrowing in on user-selected areas within image

WIDE DYNAMIC RANGE with multi-slope integration mode makes it possible to capture both high and low intensity subjects at the same time despite difference in contrasts

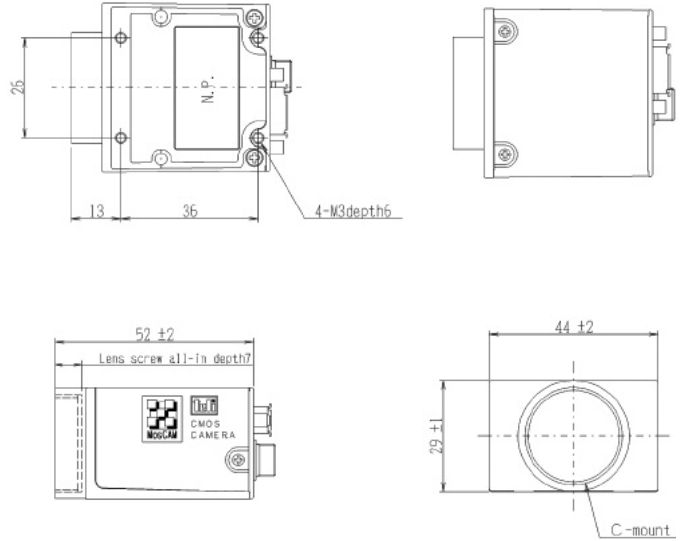
CSB1100F-10

SPECIFICATIONS

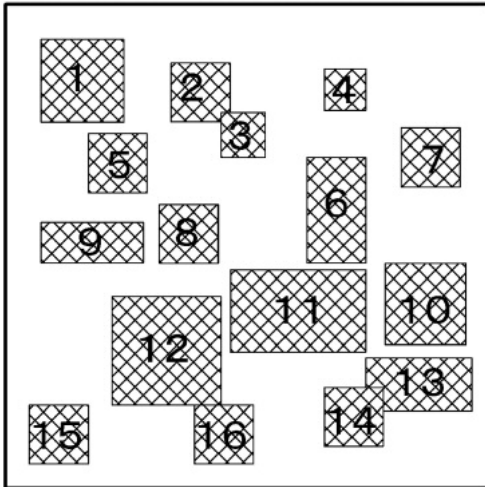
Image Sensor	2/3 Type CMOS Sensor
Scanning System	Progressive Scan
Total Pixels	1280(H) x 1024(V)
Active Pixels	1240(H) x 1024(V)
Pixel Size	6.7(H) x 6.7(V) micron m
Frame Rate	22 FPS
Sync System	Internal Synch
Aspect Ratio	5:4
Subject Illumination	2600 lux@F5.6, 3100K
Interface	FireWire IEEE 1394a-2000
Transfer Speed	400MbpsSetup
Video Mode	Format7/Special Format (in WOI) Mono 8bit
Protocol	1394-based Digital Camera Spec. 1.3
Input Signal	TRIG (Shutter Trigger) 3.3V CMOS level
Grabbing Timing	Falling edge detection
Pulse Width	Minimum: 1 micro sec, Max: no limit
Electronic Shutter	1 to 4000 Shutter Speed (preset)
Shutter Mode	Global Shutter
Random Trigger	RTS available by external trigger input.
Mode 0	Shutter speed preset mode
Mode 1	Shutter speed controlled via shutter trigger pulse width
Power Supply	DC +8V through DC +30V (IEEE 1394)
Lens Mount	C-Mount
Flange Back	17.526 mm
Dimensions	44mm(W) x 29mm(H) x 52mm(D)
Weight	120g
Operating Conditions	-5 to 45°C, 20 to 80% Humidity

Typical Applications

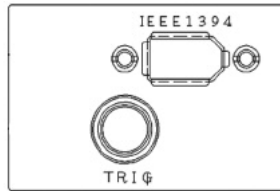
Video image capture applications for the CSB1100F-10 include high-speed machine vision, inspection, high contrast image, quality control, positioning and many others.



WINDOWS OF INTEREST



Up to 16 Windows of Interest (WOI) can be set by the user in one screen, resulting in increased frame rate suitable for high-speed image processing. Only arbitrary area can be read out by the designation of horizontal and vertical address.



IEEE 1394 Connection

Connector (Camera Side) 67430-001 MOLEX®

Plug (Cable Side) HSB-HCC DDK®

PIN NUMBER	SIGNAL NAME	I/O
1	POWER	1
2	POWER (GND)	1
3	TPB-	I/O
4	TPB+	I/O
5	TPA	I/O
6	TPA+	I/O

DATA IN/OUT Connection

PIN NUMBER	SIGNAL NAME	I/O	NOTES
1	TRIG	I	
2	TRIG (GND)	I	
3	N.C	-	BE SURE USE IN OPEN
4	S.G.	1	



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