



High Resolution CCD Monochrome Camera
with Firewire Interface

CS3950DIF



Key Features

1/3 PROGRESSIVE SCAN CCD captures 1024 x 768 resolution (XGA) images for outstanding performance in machine vision, factory automation and quality control applications

SQUARE GRID PIXEL ARRAY facilitates computation for faster image processing without blurring

FIREWIRE™ output via IEEE1394 interface for data transfer of 400Mbps, eliminates need for framegrabber, and communicates with host computer

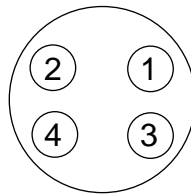
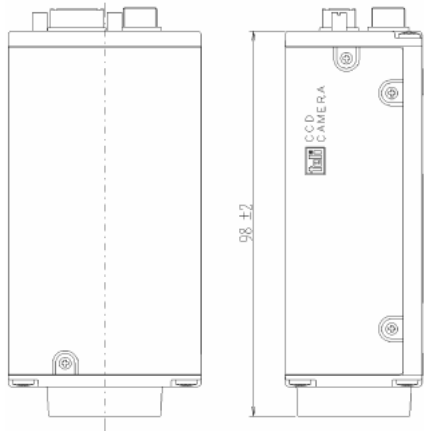
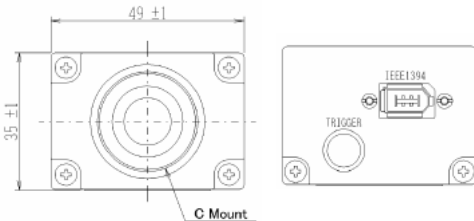
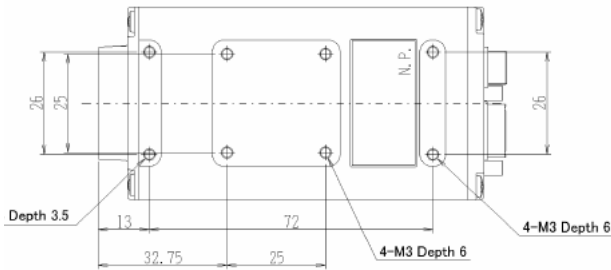
ALL PIXEL READOUT MODE permits all pixel signals in the effective area to be output at 30FPS at XGA resolution

SCALABLE MODE outputs only specified portions of the screen

RANDOM TRIGGER SHUTTER grabs the shot image at arbitrary timing

SPECIFICATIONS

Image Sensor	1/3-type Interline CCD
Scanning System	Progressive Scan
Total Pixels	1077(H) x 788(V)
Active Pixels	1024(H) x 768(V), XGA, 790,000 pixel
Pixel Size	4.65(H) x 4.65(V) μ m
Image Area	5.80(H) x 4.92(V) mm
Frame Rate	30 Frames Per Second (FPS)
Sensitivity	Standard 400lx, F5.6
Illumination	4lx, F1.4 (Gain: Max., Approximately 50% output)
Gamma	Fixed at 1.0
Power Supply	8 VDC to +30 VDC (supplied via Firewire Cable)
Power Consumption	Approx. 2.6W
Electronic Shutter	
Normal Electronic Setting	1/10,000 sec - OFF (8 positions)
Random Trigger Shutter	1/30 sec - 1/10,000 (9 positions)
Interface	Firewire (IEEE std. 1394a-2000)
Transfer Rate	400 Mbps
Gain Adjustment	\pm 6dB
Lens Mount	C-Mount
Operating Temperature	-5° C to 45° C, Humidity 30 to 90%
Dimensions	49(W) x 35(H) x 98(D) mm
Weight	170 g

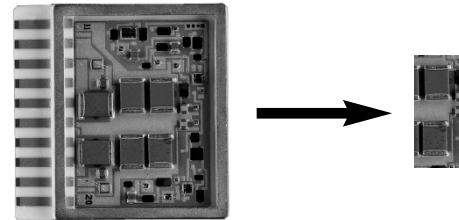
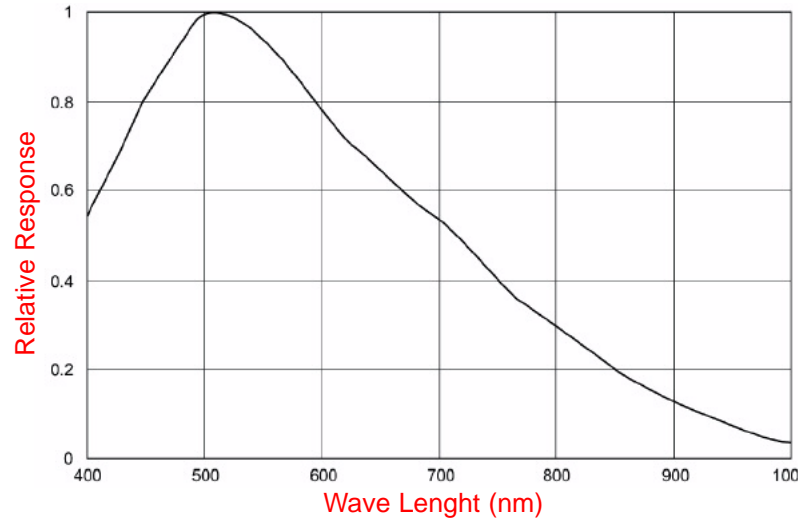


Typical Applications

Video image capture applications for the CS3950DiF include machine vision, factory automation, inspection, quality control and many others. Ideal for OEM and analog replacement.

Typical Spectral Response

(lens characteristics and light source is not reflected in table)



Scalable Mode

The CS3950DiF's scalable mode lets it read out a defined area of the screen that is read at the standard speed while the unnecessary portions of the screen are scanned through at high speed, so the trigger interval can be shorter.

IEEE 1394 CONNECTION

Connector HSB-ARD62-SN15A DDK®

Harness HSB-HC-A07 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.	-	Used in open
4	S.G.	-	Used in open



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